U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE **INTEGRATED RESOURCE CONTRACT** (Applicable to Contracts with Measurement before Harvest)		**Name of Contractor**	
National Forest Plumas	**Ranger District** Mt. Hough	**Region** Pacific S-West	**Contract Number**
Contract Name Bucks Stewardship		**Award Date**	**Termination Date** 12/31/2017

The parties to this contract are The United States of America, acting through the Forest Service, United States Department of Agriculture, hereinafter called Forest Service, and _____ hereinafter called Contractor.

Unless provided otherwise herein, Forest Service agrees to sell and permit Contractor to cut and remove Included Timber and Contractor agrees to purchase, cut, and remove Included Timber and complete required stewardship projects.

IN WITNESS WHEREOF, the parties hereto have executed this contract as of the award date.

UNITED STATES OF AMERICA

By: _____
Contracting Officer

_____
(Title)

Two Witnesses:[2/]

_____
(Name)

_____
(Address)

_____
(Name)

_____
(Address)

By: _____
(Contractor) [3/]

_____
(Title)

_____
(Business Address)

I, [4/]_____, certify that I am the _____ Secretary of the corporation named as Contractor herein; that _____ who signed this contract on behalf of Contractor, was then _____ of the corporation; that the contract was duly signed for and in behalf of the corporation by authority of its governing body, and is within the scope of its corporate powers.

_____

CORPORATE SEAL [5/]

SAMPLE

INSTRUCTIONS:

1/ If Contractor is a corporation, state a "corporation organized and existing under the laws of the State of _____" and specify the State; if Contractor is a partnership, state a "partnership consisting of _____" and specify the names of each partner; and if Contractor is a sole proprietor doing business under an assumed name, state "(n) individual doing business under the name of _____ City of _____, State of _____."

2/ The signatures and addresses of two witnesses are required if Contractor is other than a corporation.

3/ If Contractor is a co-partnership, the signatures should be: XYZ Company, by John Doe, a member of the firm. If Contractor is a corporation, form of signature should be: XYZ Company, by John Doe, President (or other officer or agent) and the seal of the corporation must be impressed or indicated.

4/ The certificate must be completed if Contractor is a corporation.

5/ For companies incorporated in States that require a corporate seal, if the corporation has no corporate seal that fact shall be stated, in which case a scroll or adhesive seal shall follow the corporate name.

EXAMPLE 1/

Subcontractor Certification
Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion

Contract Name: _____
National Forest: _____

The prospective subcontractor (participants in lower tier covered transactions) certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this contract by any Federal department or agency.

Where the prospective subcontractor is unable to certify to any of the statements in this certification, such prospective subcontractor shall attach an explanation to this proposal.

Name of Subcontractor: _____
Business Address: _____
_____

_____ _____
Date Signature

1/ It is Contractor's responsibility to have subcontractors complete this certification and to maintain a file of completed certifications. This certification does not need to be returned to the Forest Service, except at the written request of the Contracting Officer.

SAMPLE

UNITED STATES DEPARTMENT OF AGRICULTURE
Forest Service

INTEGRATED RESOURCE CONTRACT

September 2004
(Date of Issue)

PROVISIONS FOR MEASUREMENT OF PRODUCTS BEFORE HARVEST

This contract is organized into Parts, Sections, Subsections, and Items. These are numbered in accordance with the following scheme: Part BT, Section BT.1, Subsection BT.1.1, and Item BT.1.1.1. References to a Part include all Sections, Subsections, and Items within that Part; references to a Section include all Subsections and Items within that Section; and references to a Subsection include all Items within that Subsection. Cross-references within this contract cite the reference number of the applicable Part, Section, Subsection, and Item. Descriptive headings used are not to be considered in determining the rights and obligations of the parties.

Parts BT through JT are subject to Specific Conditions in Part AT. Wherever appropriate, Specific Conditions established in Part AT are cited by reference number. The listing of Sections, Subsections, or Items in provision AT.18 has the effect of striking or deleting them from Part BT through JT. Provision AT.19 lists provisions that comprise Part KT. Where appropriate, references to Special Provisions are made by citing the applicable reference numbers.

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AT.0 - SPECIFIC CONDITIONS. The following conditions apply to the indicated portions of Division BT - Standard Provisions issued September 2004.

AT.1 - Location and Area, applicable to BT.1

This Contract Area of 2493 acres more or less is located in:

T. 23 N., R. 7 E., sections 1, 2, 3, 4, 9, 11 and 12; T. 23 N., R. 8 E., sections 5, 6, 7 and 18; T. 24 N., R. 7 E., sections 27, 28, 33 and 36; T. 24 N., R. 8 E., sections 31 and 32; MDBM.

AT.2 - Volume Estimate and Utilization Standards, applicable to CT.1, CT.2, CT.4, and GT.4

Species	Product	Estimated Quantity *	Unit of Measure	Minimum Specifications				
				Merchantable Tree		Piece Required to be Removed		
				Diameter Breast High (d.b.h.) (inches)	Number of Minimum Pieces per Tree	Length (feet)	Diameter Inside Bark at Small End (inches)	Net Merch. Factor
Incense Cedar	Sawtimber	0.70	CCF	10.0	1	10	6.0	12
Lodgepole Pine	Sawtimber	58.00	CCF	10.0	1	10	6.0	12
Ponderosa Pine	Sawtimber	2,323.30	CCF	10.0	1	10	6.0	12
Sugar Pine	Sawtimber	45.00	CCF	10.0	1	10	6.0	12
White Fir	Sawtimber	4,244.50	CCF	10.0	1	10	6.0	12
Combined Softwood	Grn Bio Cv	2,102.40	CCF	3.0	1	6	1.0	16
Timber Subject to Agreement under KT - CT.1.1#								
Douglas Fir	Sawtimber	unestimated	CCF	10.0	1	10	6.0	12
Western White Pine	Sawtimber	unestimated	CCF	10.0	1	10	6.0	12
Total Quantity		8,773.90	CCF					

* Quantities not included here are described in CT.4.

SAMPLE

AT.3- Timber Designations, applicable to CT.3; acres are approximate:

	Number	Acres
Clearcutting Units (CT.3.1)		
Specified Road Clearing (CT.3.2)		
Overstory Removal Units (CT.3.3)		
Understory Removal Units (CT.3.4)		
Individual Trees (CT.3.5)		470.8
Incompletely Measured Payment Units (CT.3.6)		

SAMPLE

AT.4 - Timber Payment Rates, applicable to DT.1 and ET.0

AT.4.1 - Escalated Rates, applicable for Species and Products to be Paid for at Rates Escalated under DT.2

Species	Product	Unit of Measure	Rates per Unit of Measure					Base Index
			Base $	Advertised $	Bid Premium $	Bid (Tentative) $	Required Deposits Slash Disposal $	
Lodgepole Pine	Sawtimber	CCF	1.12	3.40			1.38	185.99
Ponderosa Pine	Sawtimber	CCF	5.11	7.13			1.38	270.06
Sugar Pine	Sawtimber	CCF	5.60	16.52			1.38	355.37
White Fir	Sawtimber	CCF	4.48	31.65			1.38	216.97

AT.4.2- Flat Rates, applicable for Species and Products to be Paid for at Flat Rates

Species	Product	Unit of Measure	Rates per Unit of Measure				
			Base $	Advertised $	Bid Premium $	Bid (Flat) $	Required Deposits Slash Disposal $
Incense Cedar	Sawtimber	CCF	2.03	20.98			1.38
Combined Softwood	Grn Bio Cv	CCF	.25	.25			1.38
Timber Subject to Agreement under KT - CT.1.1#							
Douglas Fir	Sawtimber	CCF	3.00	3.00			1.38
Western White Pine	Sawtimber	CCF	5.36	11.91			1.38

For purposes of convenience in collection and bookkeeping, Bid Rates stated in AT.4 include payment of deposits for contract area betterment required pursuant to 16 USC 576b. Such deposits are not included as Required Deposits defined hereunder.

SAMPLE

AT.4.3 - Schedule of Payment Units

Payment Unit No.	Approx. Acres	To be Escalated under AT.4.1				Total Tentative Payment $	To be Paid for at Flat Rates under AT.4.2				Total Flat Rate Payment $	Total Required Deposits for Slash Disposal $
		Species	Product	Qty	UOM		Species	Product	Qty	UOM		
104	.9	Lodgepole Pine	*Sawtimber*	0.40	CCF							28.98
		White Fir	*Sawtimber*	15.80	CCF		Combined Softwood	Grn Bio Cv	4.80	CCF		
		Total PU Quantity And Value		16.20	CCF		**Total PU Quantity And Value**		4.80	CCF		
105	1.6	White Fir	*Sawtimber*	98.60	CCF		Combined Softwood	Grn Bio Cv	8.50	CCF		147.80
		Total PU Quantity And Value		98.60	CCF		**Total PU Quantity And Value**		8.50	CCF		
106	4.5	White Fir	*Sawtimber*	27.00	CCF							37.26
		Total PU Quantity And Value		27.00	CCF							
114	30.1	Ponderosa Pine	*Sawtimber*	0.50	CCF							1,211.64
		Sugar Pine	*Sawtimber*	0.70	CCF							
		White Fir	*Sawtimber*	716.40	CCF		Combined Softwood	Grn Bio Cv	160.40	CCF		
		Total PU Quantity And Value		717.60	CCF		**Total PU Quantity And Value**		160.40	CCF		
115	30.1	Lodgepole Pine	*Sawtimber*	2.10	CCF							607.61
		Ponderosa Pine	*Sawtimber*	0.20	CCF							
		Sugar Pine	*Sawtimber*	1.20	CCF							
		White Fir	*Sawtimber*	276.40	CCF		Combined Softwood	Grn Bio Cv	160.40	CCF		
		Total PU Quantity And Value		279.90	CCF		**Total PU Quantity And Value**		160.40	CCF		
117	22.2	Sugar Pine	*Sawtimber*	11.10	CCF							348.31
		White Fir	*Sawtimber*	123.20	CCF		Combined Softwood	Grn Bio Cv	118.10	CCF		
		Total PU Quantity And Value		134.30	CCF		**Total PU Quantity And Value**		118.10	CCF		
2	7	Ponderosa Pine	*Sawtimber*	20.10	CCF							97.01
		White Fir	*Sawtimber*	12.90	CCF		Combined Softwood	Grn Bio Cv	37.30	CCF		
		Total PU Quantity And Value		33.00	CCF		**Total PU Quantity And Value**		37.30	CCF		
59	9.6	Sugar Pine	*Sawtimber*	2.70	CCF							190.03
		White Fir	*Sawtimber*	83.80	CCF		Combined Softwood	Grn Bio Cv	51.20	CCF		
		Total PU Quantity And Value		86.50	CCF		**Total PU Quantity And Value**		51.20	CCF		
62	2.1	White Fir	*Sawtimber*	41.40	CCF		Combined Softwood	Grn Bio Cv	11.70	CCF		73.28
		Total PU Quantity And Value		41.40	CCF		**Total PU Quantity And Value**		11.70	CCF		
63	6.8	White Fir	*Sawtimber*	68.50	CCF		Combined Softwood	Grn Bio Cv	36.20	CCF		144.49
		Total PU Quantity And Value		68.50	CCF		**Total PU Quantity And Value**		36.20	CCF		
64	30.5	Ponderosa Pine	*Sawtimber*	0.10	CCF							627.76
		Sugar Pine	*Sawtimber*	0.20	CCF							
		White Fir	*Sawtimber*	292.10	CCF		Combined Softwood	Grn Bio Cv	162.50	CCF		
		Total PU Quantity And Value		292.40	CCF		**Total PU Quantity And Value**		162.50	CCF		

SAMPLE

Contract Name: Bucks Stewardship **Contract No:**

Payment Unit No.	Approx. Acres	To be Escalated under AT.4.1	Total Tentative Payment $	To be Paid for at Flat Rates under AT.4.2	Total Flat Rate Payment $	Total Required Deposits for Slash Disposal $
75	16.3	Ponderosa Pine *Sawtimber* 1.00 CCF White Fir *Sawtimber* 238.90 CCF		Combined Softwood Grn Bio Cv 86.90 CCF		450.98
		Total PU Quantity And Value 239.90 CCF		**Total PU Quantity And Value** 86.90 CCF		
78	14.5	Sugar Pine *Sawtimber* 1.10 CCF White Fir *Sawtimber* 91.20 CCF		Combined Softwood Grn Bio Cv 77.30 CCF		234.05
		Total PU Quantity And Value 92.30 CCF		**Total PU Quantity And Value** 77.30 CCF		
79	20.5	Lodgepole Pine *Sawtimber* 0.70 CCF Sugar Pine *Sawtimber* 4.00 CCF White Fir *Sawtimber* 140.80 CCF		Combined Softwood Grn Bio Cv 109.20 CCF		351.49
		Total PU Quantity And Value 145.50 CCF		**Total PU Quantity And Value** 109.20 CCF		
83	19.5	Lodgepole Pine *Sawtimber* 8.30 CCF Ponderosa Pine *Sawtimber* 306.60 CCF Sugar Pine *Sawtimber* 0.30 CCF White Fir *Sawtimber* 18.10 CCF		Combined Softwood Grn Bio Cv 103.90 CCF		603.34
		Total PU Quantity And Value 333.30 CCF		**Total PU Quantity And Value** 103.90 CCF		
87	62.9	Lodgepole Pine *Sawtimber* 1.80 CCF Ponderosa Pine *Sawtimber* 1,645.50 CCF White Fir *Sawtimber* 33.70 CCF		Combined Softwood Grn Bio Cv 335.20 CCF		2,782.36
		Total PU Quantity And Value 1,681.00 CCF		**Total PU Quantity And Value** 335.20 CCF		
88	29.7	Lodgepole Pine *Sawtimber* 2.80 CCF Ponderosa Pine *Sawtimber* 342.60 CCF White Fir *Sawtimber* 93.40 CCF		Combined Softwood Grn Bio Cv 158.30 CCF		824.00
		Total PU Quantity And Value 438.80 CCF		**Total PU Quantity And Value** 158.30 CCF		
95	20.1	Lodgepole Pine *Sawtimber* 6.00 CCF Sugar Pine *Sawtimber* 0.80 CCF White Fir *Sawtimber* 242.50 CCF		Incense Cedar Sawtimber 0.40 CCF Combined Softwood Grn Bio Cv 106.60 CCF		491.69
		Total PU Quantity And Value 249.30 CCF		**Total PU Quantity And Value** 107.00 CCF		
951	58.3	Ponderosa Pine *Sawtimber* 3.20 CCF Sugar Pine *Sawtimber* 14.30 CCF White Fir *Sawtimber* 849.00 CCF		Combined Softwood Grn Bio Cv 28.30 CCF		1,234.82
		Total PU Quantity And Value 866.50 CCF		**Total PU Quantity And Value** 28.30 CCF		
954	8.7	Sugar Pine *Sawtimber* 0.60 CCF White Fir *Sawtimber* 83.10 CCF		Combined Softwood Grn Bio Cv 46.40 CCF		179.54
		Total PU Quantity And Value 83.70 CCF		**Total PU Quantity And Value** 46.40 CCF		

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Contract Name: Bucks Stewardship **Contract No:**

Payment Unit No.	Approx. Acres	To be Escalated under AT.4.1	Total Tentative Payment $	To be Paid for at Flat Rates under AT.4.2	Total Flat Rate Payment $	Total Required Deposits for Slash Disposal $
956	14	Lodgepole Pine *Sawtimber* 4.80 CCF Sugar Pine *Sawtimber* 1.90 CCF White Fir *Sawtimber* 118.70 CCF		Combined Softwood Grn Bio Cv 74.60 CCF		276.00
		Total PU Quantity And Value 125.40 CCF		**Total PU Quantity And Value** 74.60 CCF		
96	7.4	Lodgepole Pine *Sawtimber* 27.80 CCF White Fir *Sawtimber* 47.30 CCF		Incense Cedar Sawtimber 0.10 CCF Combined Softwood Grn Bio Cv 39.60 CCF		158.42
		Total PU Quantity And Value 75.10 CCF		**Total PU Quantity And Value** 39.70 CCF		
97	20.9	Ponderosa Pine *Sawtimber* 0.40 CCF Sugar Pine *Sawtimber* 4.30 CCF White Fir *Sawtimber* 226.00 CCF		Combined Softwood Grn Bio Cv 111.40 CCF		472.10
		Total PU Quantity And Value 230.70 CCF		**Total PU Quantity And Value** 111.40 CCF		
98	13.8	Ponderosa Pine *Sawtimber* 0.10 CCF Sugar Pine *Sawtimber* 1.10 CCF White Fir *Sawtimber* 184.70 CCF		Incense Cedar Sawtimber 0.20 CCF Combined Softwood Grn Bio Cv 73.60 CCF		358.39
		Total PU Quantity And Value 185.90 CCF		**Total PU Quantity And Value** 73.80 CCF		
99	18.8	Lodgepole Pine *Sawtimber* 3.30 CCF Ponderosa Pine *Sawtimber* 3.00 CCF Sugar Pine *Sawtimber* 0.70 CCF White Fir *Sawtimber* 121.00 CCF				176.64
		Total PU Quantity And Value 128.00 CCF				

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AT.4.4 - Stewardship Credits, applicable to ET.2.2 and KT-GT.9#

Mandatory Stewardship Projects					
Project Number	**Project Description**	**Units of Measure**	**Quantity**	**Bid Rate $**	**Total Credits**
1	PCT Corridor: Hand thin and pile live trees 2' tall to 8" DBH.	Acres	.40		
1.1	PCT Corridor: Hand thin and pile live trees 2' tall to 8" DBH	Acres	6.00		
2	Replace Timberline Lodge driveway surface with gravel to restore road.	Cubic Yards	74.00		
2.1	Replace 24N33A driveway surface with gravel to restore road.	Cubic Yards	60.00		
2.2	Repair of underground leach line, if required for restoration..	Ln Ft	100.00		
3	Construction of a temporary road to bypass established leach field.	Miles	.10		

Optional Stewardship Projects						
Priority	**Project Number**	**Project Description**	**Units of Measure**	**Quantity**	**Bid Rate $**	**Total Credits**
		Not Applicable				

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The following definitions are established for the terms used in AT.4:

Base Rates are the lowest rates of payment for timber that are authorized by this contract. Base Rates remain constant throughout the life of this contract and are not subject to change by rate redetermination, except for reduction under DT.3.1, DT.3.2, or DT.3.3.

Advertised Rates are the minimum acceptable Bid Rates for timber, exclusive of Required Deposits. These rates are those indicated by appraisal, with a cost allowance made for construction of Specified Roads listed in AT.7, but are never less than Base Rates.

Bid Premium Rates are the amounts by which Contractor's bid is in excess of Advertised Rates. The Bid Premium Rates are constant during this contract, except as provided in DT.3.1, DT.3.2, and DT.3.3.

Bid Rates are the rates bid by Contractor (exclusive of Required Deposits for slash disposal and road maintenance) and are the sum of Advertised Rates and Bid Premium Rates. Until a rate redetermination becomes effective, the Bid Rate for species and products in AT.4.1 is the Tentative Rate that is subject to quarterly adjustment under DT.2; for species and products in AT.4.2, the Bid Rate is the Flat Rate.

Required Deposits are deposits that Contractor may be required to pay for slash disposal (16 USC 490) and road maintenance (16 USC 537). Required Deposits may be adjusted as part of a rate redetermination or a Contract Term Extension. The table shows only Required Deposits for slash disposal; road maintenance deposits, if any, are given in KT-FT.3.2#.

Base Index is the specified average of the lumber or other product selling value index used as the basis for computing adjustment in rates for variance in product selling value, as provided in DT.2.

AT.5 - Indices Used in Quarterly Adjustment, applicable to DT.2

Species	Index Name and Date
Lodgepole Pine	WWPA, Inland White Woods (07-08 Basis), (WWPAB)
Ponderosa Pine	WWPA, Inland Coast - Inland North Ponderosa Pine (07-08 Basis), (WWPAB)
Sugar Pine	WWPA, Inland Sugar Pine (07-08 Basis), (WWPAC)
White Fir	WWPA, Inland White Fir (Hem-Fir) (07-08 Basis), (WWPAC)

AT.6 - High Stumps, applicable to GT.4.1.2

Species	Product	Maximum Stump Height (inches)
All	Sawtimber	12
All	Grn Bio Cv	6

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AT.7 - Specified Roads, applicable to FT.2

Name and Date of Governing Road Specifications:

Project		Design Class	Approx. Length (mi./km.)	Sheet Numbers and Approval Date	Performance Responsibility		
Road No.	Name				Survey	Design	Construction Staking 1/
	Not Applicable						

1/ Indicate timing, i.e., before clearing (BC) or after clearing (AC). Applicable to FT.2.1.2

AT.8 - Forest Service Engineering Completion Schedule, applicable to FT.2.1

Road No.	Road Name	Type of Work	Completion Date
	Not Applicable		

AT.9 - Fire Precautionary Period, applicable to HT.2

May 01 to December 01, inclusive

AT.10 - Contractor Responsibility to Furnish Crews and Equipment for:

Initial Fire Supression, applicable to HT.3

Within 25 road miles

Fire Suppression Reinforcement, applicable to HT.3.1.2 and HT.3.1.3

Within 100 road miles

AT.11 - Contractor's Obligation per Operations Fire, applicable to HT.4.1

Maximum Amount: $ $31,600

AT.12 - Termination Date, applicable to IT.2

December 31, 2017

AT.13 - Normal Operating Season, applicable to GT.3.1, GT.6.6, IT.2.1, and JT.3

First Period: June 01 to October 31, inclusive

Second Period: _____ to _____, inclusive

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AT.14 - Performance Bond, applicable to JT.1

Performance Bond Amount: _____

AT.15 - Downpayment, applicable to E.T.2.1.1

Downpayment Amount: Not Applicable

AT.16 - Periodic Payment Amount, applicable to ET.2.1.3

	Periodic Payment Determination Date	Amount
Initial Payment:	N/A	N/A
Additional Payment:	N/A	N/A

AT.17 - Market-Related Contract Term Addition Producer Price Index, applicable to IT.2.1.2

Index Name: Softwood Lumber **Index Number:** 0811

AT.18 - Inapplicable Provisions

The following listed provisions are hereby made inapplicable. (Instructions: List by reference number and title.)

ET.4	PAYMENTS NOT RECEIVED
IT.2.1.2	MARKET-RELATED CONTRACT TERM ADDITION

AT.19 - List of Special Provisions in Part KT

The following listed special provisions are attached to and made a part of this contract. Provisions with reference numbers followed by # contain blanks into which data have been entered for this contract. (Instructions: List by reference number, title, and date.)

KT-CT.1.1#	TIMBER SUBJECT TO AGREEMENT (09/2004)
KT-CT.3.5#	DESIGNATION OF TIMBER, CUTTING UNIT BOUNDARIES, AND SUBDIVISION/PAYMENT UNIT BOUNDARIES (06/2012)
KT-CT.3.5.1#	DESIGNATION BY SPACING (09/2004)
KT-ET.4	PAYMENTS NOT RECEIVED (08/2012)
KT-FT.3.1#	ROAD MAINTENANCE REQUIREMENTS (09/2004)
KT-FT.3.5#	ROAD AND WATER SUPPLY USE (05/2008)
KT-GT.2.2#	PROTECTION OF IMPROVEMENTS (05/2008)
KT-GT.2.4#	SITE SPECIFIC SPECIAL PROTECTION MEASURES (09/2004)
KT-GT.3.1.4	RELEASE OF PAYMENT UNITS (02/2005)
KT-GT.3.1.5#	PROJECT OPERATIONS SCHEDULE (12/2006)
KT-GT.3.3.1	LOG TRUCKING (02/2005)
KT-GT.3.7	SUBSTITUTE METHODS (02/2005)
KT-GT.4.1#	FELLING, BUCKING, AND LIMBING (08/2007)
KT-GT.4.2#	GROUND BASED SKIDDING (12/2006)
KT-GT.5	STREAMCOURSE PROTECTION (12/2005)
KT-GT.6#	EROSION PREVENTION AND CONTROL (05/2008)
KT-GT.7#	SLASH TREATMENT (12/2006)
KT-GT.8-2#	MEASURING - OPT 2 (02/2005)
KT-GT.8.3	ACCOUNTABILITY (02/2005)
KT-GT.9#	STEWARDSHIP PROJECTS (09/2004)
KT-HT.2#	SPECIFIED FIRE PRECAUTIONS (06/2012)
KT-HT.2.2#	EMERGENCY PRECAUTIONS (06/2012)
KT-IT.2.1.2	MARKET-RELATED CONTRACT TERM ADDITION (11/2008)

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KT-IT.6.8#(Option 1) USE OF TIMBER (09/2004)

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BT.0—CONTRACT AREA

BT.1 Contract Area Map. The boundaries of "Contract Area" and any Payment Unit thereof, are as shown on the attached "Contract Area Map" that is made a part hereof, and were, before contract advertisement, designated on the ground by Forest Service to meet the anticipated needs of the parties. The location of Contract Area and its approximate acreage are stated in AT.1. Payment Units may be revised and additional ones may be established only by written agreement. Upon Contractor's request, Forest Service shall subdivide Payment Units to reduce them to a size that can be logged within 60 days at Contractor's normal rate of logging. However, the rate of logging used in such adjustment of Payment Unit size shall not be less than a rate necessary for removal of all Included Timber during Normal Operating Seasons prior to Termination Date. Payment Units and stewardship project areas may be eliminated from Contract Area under conditions described in GT.3.6. Catastrophically Damaged areas may be removed from Contract Area under IT.3.2.

Where applicable, the following are also identified on Contract Area Map:

(a) Identified claims limiting Contractor's rights under BT.2;

(b) Payment Units where timber is to be Measured or Marked after date of contract advertisement and approximate location of sample Marked timber under CT.3.6 and CT.4;

(c) Boundaries of Clearcutting Units, Overstory Removal Units, and Understory Removal Units under CT.3;

(d) Diameter limits for Overstory Removal Units and Understory Removal Units under CT.3.3 and CT.3.4;

(e) Areas where leave trees are Marked to be left uncut under CT.3.5;

(f) Specified Roads listed in AT.7;

(g) Sources of base course, surface rock, and rock riprap listed in the Schedule of Items;

(h) Roads where log hauling or use is prohibited or restricted under FT.1.2;

(i) Roads and trails to be kept open under GT.2.2;

(j) Improvements to be protected under GT.2.2;

(k) Locations of known wildlife or plant habitat and cave resources to be protected under GT.2.4;

(l) Locations of areas known to be infested with specific invasive species of concern under GT.3.5;

(m) Maximum stump heights when more than one height is listed by areas in AT.6 under GT.4.1.2;

(n) Skidding or yarding methods specified under GT.4.2;

(o) Streamcourses to be protected under GT.5;

(p) Locations of meadows requiring protection under GT.6.1;

(q) Locations of wetlands requiring protection under GT.6.2;

(r) Locations of temporary roads to be kept open under GT.6.3.1; and

(s) Other features required by Parts A through K.

BT.2 Claims. Valid claims are excluded from Contract Area, except those on which timber cutting is authorized in writing by the claimant and except mining claims on which cutting is authorized by the Act of July 23, 1955 (30 USC 614). Claims that limit Contractor's rights to operate under this contract and that Forest Service has been able to identify are shown on Contract Area Map. Contractor is not obligated to operate contrary to existing claim limitations. Forest Service shall designate boundaries of claims on the ground to the extent necessary to identify Included Timber.

CT.0—TIMBER SPECIFICATIONS

CT.1 Included Timber. "Included Timber" consists of:

CT.1.1 Standard Timber. Live and dead trees and portions thereof that meet Utilization Standards under CT.2 and are designated for cutting under CT.3.

CT.1.2 Substandard Timber. Live and dead trees that:

(a) Do not meet Utilization Standards and

(b) Are located in Clearcutting Units or construction clearings or are otherwise designated for cutting.

CT.1.3 Damaged Timber.

CT.1.3.1 Damaged by Contractor. Undesignated live trees meeting Utilization Standards:

(a) Within 200 feet slope distance from centerline of roads constructed hereunder that are damaged by Contractor's construction to the extent that considerable deterioration or mortality is imminent and are designated by Forest Service for felling before the nearest road segment is Substantially Completed or

(b) That are damaged by Contractor in logging or stewardship project operations and are subsequently Marked before Contractor has completed work in the immediate area.

By agreement, such trees may be left without charge if their removal would cause undue damage or be grossly uneconomic.

CT.1.3.2 Negligent or Willful Damage. Undesignated timber meeting Utilization Standards and unnecessarily damaged or negligently or willfully cut by Contractor, if included by Contracting Officer.

CT.1.3.3 Damage by Catastrophe. As provided under IT.3.2, undesignated live and dead timber within Contract Area, meeting Utilization Standards, and affected by Catastrophic Damage. "Catastrophic Damage" as used

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hereunder is major change or damage to Included Timber on Contract Area, to Contract Area, to access to Contract Area, or a combination thereof:

(a) Caused by forces, or a combination of forces, beyond control of Contractor, occurring within a 12-month period, including, but not limited to, wind, flood, earthquake, landslide, fire, forest pest epidemic, or other major natural phenomenon and

(b) Affecting the value of any trees or products meeting Utilization Standards, within Contract Area and estimated to total either:

(i) More than half of the estimated timber quantity stated in AT.2 or

(ii) More than two hundred thousand cubic feet (2,000 CCF) or equivalent.

Catastrophic Damage does not include changes caused by forest pest epidemics or foreseeable deterioration if Included Timber was sold for salvage or pest control.

CT.1.3.4 Minor Damage by Natural Causes. Undesignated trees within Contract Area and meeting Utilization Standards, in amounts less than specified in CT.1.3.3, that become insect infested, windthrown, suffer serious damage, or die, as designated by agreement.

CT.1.4 Unintentionally Cut Timber. Trees, within or immediately adjacent to Contract Area or to road construction or other authorized clearing outside Contract Area, not designated for cutting under CT.3 but that are cut through mistake by Contractor, when included by Contracting Officer.

CT.1.5 Construction Timber. Trees to be used for construction under FT.1.

CT.1.6 Other Material. Species or products not listed in AT.2, upon written approval of Contracting Officer under DT.4.1.

CT.2 Utilization and Removal of Included Timber. "Utilization Standards" for trees and minimum pieces are stated in AT.2. To meet minimum tree specifications, trees must equal or exceed tree diameters listed in AT.2 and contain at least one minimum piece. Except for timber required or authorized to be left, Contractor shall fell and buck such trees and shall remove from Contract Area all pieces that:

(a) Meet minimum piece standards in AT.2 or

(b) Do not meet such standards, but would have qualified as part of minimum pieces if bucking lengths were varied to include such material.

CT.3 Timber Designations. Timber designated for cutting shall be confined to Contract Area, except as provided in CT.1.3.1, CT.1.4, CT.1.5, CT.3.2, and FT.1. Contract Area Map indicates Payment Units, if any, where Marking under CT.3.5 is to be done after contract advertisement, except for construction clearing under CT.3.2, designation changes under CT.37, and damaged timber.

The boundaries of Clearcutting Units, Overstory Removal Units, and Understory Removal Units were plainly Marked on ground before contract advertisement and are shown on Contract Area Map. Boundary trees shall not be cut. Such units where Measuring is to be completed after date of contract advertisement are also shown. The number of units and approximate acreage of timber designations are stated in AT.3.

CT.3.1 Clearcutting Units. All trees that meet Utilization Standards within "Clearcutting Units" are designated for cutting.

CT.3.2 Construction Clearing. All timber is designated for cutting that is within the clearing limits of roads constructed hereunder or is in other authorized clearings. All dead or unstable live trees are designated for cutting that are sufficiently tall to reach Contractor's landings, work areas, or the roadbed of Specified and Temporary Roads when Marked in advance of work in the immediate area. Pieces meeting Utilization Standards from such dead or unstable live trees shall be removed, unless there is agreement that to do so could damage the road. Such designation may be revised as part of agreed changes in road location under FT.2.

CT.3.2.1 Specified Road Clearings. Timber within the clearing limits of Specified Roads is within separate Payment Units, as shown on Contract Area Map, and the quantities are in AT.2. These Payment Units are subject to revision, as specified in CT.37. The quantities of dead or unstable trees designated outside the clearing limits are not included in AT.2.

CT.3.2.2 Other Authorized Clearings. Timber within authorized clearings for Temporary Roads, landings, or other construction clearings is designated for cutting. Quantities of such timber are not included in AT.2.

CT.3.3 Overstory Removal Units. All trees within "Overstory Removal Units" are designated for cutting when they meet Utilization Standards and equal or exceed the diameter limits shown on Contract Area Map.

CT.3.4 Understory Removal Units. All trees within "Understory Removal Units" are designated for cutting when they meet Utilization Standards and are smaller than the diameter limits shown on Contract Area Map.

CT.3.5 Individual Trees. All trees to be cut, other than in the units described in CT.3.1, CT.3.2, CT.3.3, and CT.3.4, are Marked or designated by description. Trees are "Marked" when individually designated by Forest Service with paint marks above and below stump height.

Contract Area Map indicates areas plainly identified on the ground where leave trees are Marked to be left uncut.

CT.3.6 Incompletely Measured Payment Units. Live trees within incompletely Measured Payment Units shown on Contract Area Map at time of contract advertisement shall be designated in accordance with KT-CT.3.6. A

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representative sample of the timber to be designated has been Marked prior to contract advertisement in accordance with such rules. The approximate locations of the representative sample areas are shown on Contract Area Map.

CT.37 Designation Changes. Within Contract Area, minor adjustments may be made in boundaries of cutting units or in the timber individually Marked for cutting when acceptable to Contractor and Forest Service.

In event Contracting Officer accepts alternate facilities under FT.2.6, Contracting Officer shall revise the affected Payment Units and adjust estimated quantities.

In the event Contractor does not construct portions of Specified Roads, Payment Units involved shall be revised to eliminate the road portions not to be constructed. Parts of such areas within non-road-related Payment Units shall be added to such Payment Units and the timber thereon shall be designated by the methods provided for in the Payment Units. Estimated quantities for Payment Units so revised shall be adjusted as necessary.

CT.4 Quantity Estimate. The estimated quantities of timber by species designated for cutting under CT.3 and expected to be cut under Utilization Standards are listed in AT.2. Estimated quantity in AT.2 does not include the following:

(a) Damaged timber under CT.1.3;

(b) Unintentionally cut timber under CT.1.4;

(c) Construction timber under CT.1.5 cut outside of Payment Units and removed from construction use for utilization by Contractor;

(d) Timber within clearing limits of Temporary Roads or other authorized clearings and that is not designated under CT.3.1, CT.3.3, CT.3.4, or CT.3.5; or

(e) Dead or unstable live trees that are sufficiently tall to reach Contractor's landings, work areas, or the roadbed of Specified Roads under CT.3.2.

Estimated quantities for such timber not included in AT.2 shall be determined as stated in KT-GT.8.

If Contract Area Map shows Payment Units where Marking or Measuring is to be completed after date of contract advertisement, the objective of Forest Service shall be to designate for cutting in such Payment Units sufficient timber so that Contract Area shall yield the approximate estimated quantities by species or species groups stated in AT.2. However, the estimated quantities stated in AT.2 are not to be construed as guarantees or limitations of the timber quantities to be designated for cutting under the terms of this contract.

Quantity adjustments shall not be made under this Section after there is modification for Catastrophic Damage under IT.3.2.

CT.4.1 Adjustment for Quantity Deficit. If Contract Area Map shows Payment Units where Marking or Measuring is to be completed after the date of contract advertisement and if Contracting Officer determines that a deficit in the estimated quantity will cause the quantity designated to be less than 90 percent of the total estimate shown in AT.2, Forest Service, upon request by Contractor, shall designate additional timber within Contract Area. Such additional timber shall be limited to that estimated to be necessary to reach approximately the estimated quantities by species listed in AT.2. Any such additional designation shall be consistent with land and resource management plans.

CT.4.2 Adjustment for Excess Quantity. If Contract Area Map shows Payment Units where Marking or Measuring is to be completed after date of contract advertisement and if Contracting Officer determines that the quantity designated will be more than 120 percent of the total estimated quantity listed in AT.2, Forest Service, upon request by Contractor, shall make an adjustment in Marking or cutting unit boundaries with the objective of designating for cutting the approximate estimated quantities by species listed in AT.2. Such adjustments in quantities shall be confined to (a) Marking adjustments on Contract Area and (b) reduction in area to be cut over. Such adjustments or reductions shall not conflict with the silvicultural treatment being applied on Contract Area and shall not materially change the average value by species of the timber designated for cutting. Such adjustments may be made notwithstanding the provisions of BT.1 and CT.3.

If the timber designated for cutting is not reduced by such adjustments to less than 120 percent of the total estimated quantity listed in AT.2, Contractor, after cutting 120 percent of the total estimated quantity listed in AT.2, may elect to have Contract Area reduced to eliminate Payment Units where felling has not begun.

CT.4.3 Adjustment for Quantity Errors. An estimated quantity shown in AT.2 shall be revised by correcting identified errors made in determining estimated quantity that result in a change in total contract quantity of at least 10 percent or $1,000 in value, whichever is less, when an incorrect estimated quantity is caused by computer malfunction or an error in calculations, area determination, or computer input.

No adjustments in quantity shall be made for variations in accuracy resulting from planned sampling and Measuring methods or judgments of timber quality or defect.

For payment purposes, corresponding revisions in quantity and total payment shall be shown in AT.4.3 for each Payment Unit involved. Adjustment in rates will not be made. Adjustment in quantities shall not obligate Forest Service to designate additional quantities when the original quantity estimate is overstated.

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DT.0—RATES OF PAYMENT

DT.1 Current Contract Rates. Included Timber that is Released for Cutting shall be paid for at Current Contract Rates determined under this Section. “Current Contract Rates” shall be (a) Flat Rates and (b) Tentative Rates adjusted by the escalation procedures in DT.2. Flat Rates and Tentative Rates shall be those listed in AT.4, unless superseded by rates redetermined under DT.3 or established for Contract Term Extension.

Current Contract Rates, based on rates redetermined under DT.3 or established under IT.2.3, shall apply to all Payment Units from which removal of timber from Contract Area has not been completed on the effective date of the revised rates, except Current Contract Rates in effect at the time of Release for Cutting shall be applicable:

(a) On Payment Units for Specified Roads Released for Cutting on which clearing has begun and

(b) For not more than two other Payment Units from which removal from Contract Area has begun.

Notwithstanding the exceptions provided in this Section, rates redetermined under BT3.31, BT3.32, and BT3.33 shall apply to all Included Timber removed subsequent to the rate redetermination.

In event there are more than two Payment Units from which timber removal has not been completed on the effective date, the rates in effect at the time of Release for Cutting shall apply to the two units from which the greatest estimated proportions of Payment Unit quantities have been removed. Otherwise, in released Payment Units, redetermined rates or rates established for Contract Term Extension shall apply to the entire quantity shown in AT.4.3 for those units. In addition, Required Deposits shall be made as listed in AT.4 and KT-FT.3.2, or established under DT.3 or IT.2.3.

In the event Termination Date is adjusted under IT.2.1 or IT.2.1.2, Current Contract Rates shall be continued in the same manner as immediately prior to the adjustment period.

“Current Contract Value” is the sum of the products of Current Contract Rates and estimated remaining quantities by species of Included Timber meeting Utilization Standards, less the bid rate for mandatory stewardship projects that have not been completed.

DT.2 Escalation Procedure. Tentative Rates for those species and products listed in AT.4.1 are subject to quarterly escalation in accordance with the following procedures: The calendar quarter index average for each price index described in AT.5 is the arithmetic average of the three such monthly price indices preceding January 1, April 1, July 1, and October 1. The difference between calendar quarter index average and Base Index listed in AT.4.1 shall be the basis for quarterly escalation. To arrive at Current Contract Rates for Payment Units Released for Cutting during the preceding calendar quarter, Tentative Rates for each species shall be reduced or increased by such difference, except when the calendar quarter index average is:

(a) Less than the Base Index, the reduction shall not result in a rate below Base Rate or

(b) Greater than the Base Index, the increase shall not exceed the difference between Tentative Rate and Base Rate.

In the event of Contract Term Extension, the escalation procedure will be used during the extension period, except that adjusted payment rates for any calendar quarter cannot be less than Tentative Rates, for each species and product group, established under IT.2.3 for the extension period.

DT.2.1 Unavailable Index. If an index described in AT.5 is no longer available, Contracting Officer may replace that index. If Contracting Officer determines that a replacement index does not exist, Current Contract Rates for the remainder of the contract shall be a Flat Rate. Flat Rates will be Tentative Rates adjusted by the arithmetic average of the index described in AT.5 for a 12-month period prior to its becoming unavailable using the quarterly adjustment procedure outlined in DT.2. Contracting Officer will determine availability and a beginning point to average the index for Flat Rates. Such Flat Rates are subject to rate redetermination as provided elsewhere under this contract.

DT.3 Rate Redetermination. Rates may be redetermined as set forth in this Section. Bid Premium Rates shall be added to all redetermined rates, except as provided in DT.3.1, DT.3.2, and DT.3.3.

Rate redeterminations shall be made in accordance with the standard Forest Service methods in effect 45 days prior to rate redetermination. Such methods shall take into consideration factors that may affect timber value at rate redetermination date.

Redetermined rates shall not be less than Base Rates listed in AT.4, except for reduction under DT.3.1, DT.3.2, or DT.3.3. Required Deposits shall be redetermined. Redetermined Specified Road construction cost is subject to the limitations of FT.2.6.

DT.3.1 Rate Redetermination for Environmental Modification. In the event of a contract modification under IT.3.3 or partial termination under IT.3.4, Contracting Officer shall make an appraisal to determine for each species the difference between the appraised unit value of Included Timber remaining immediately prior to the revision and the appraised unit value of Included Timber to be cut under the modification. The appraisal shall consider the estimated cost of any construction work listed in the Schedule of Items that was performed and abandoned.

Tentative Rates and Flat Rates in effect at the time of the revision will be adjusted by said differences to become Current Contract Rates. Accordingly, Base Rates shall be adjusted to correspond to the redetermined rates if redetermined rates are less than the original Base Rates, subject to a new Base Rate limitation of the cost of essential

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reforestation or 25 cents per hundred cubic feet or equivalent, whichever is larger. However, existing Base Indices shall not be changed under this Subsection.

Redetermined rates, or differences for rates subject to DT.2, and Required Deposits shall be considered established under DT.1 for Included Timber removed subsequent to the contract revision.

DT.3.2 Rate Redetermination after Catastrophic Damage. In event of Catastrophic Damage and adjustment, if any, of Included Timber, Contracting Officer shall make an appraisal to determine for each species the catastrophe-caused difference between the appraised unit value of Included Timber remaining immediately prior to the catastrophe and the appraised unit value of existing and potential Included Timber immediately after the catastrophe. Included Timber is any that would not be eliminated under IT.3.2. Potential Included Timber is any that would be added under IT.3.2.

Tentative Rates and Flat Rates in effect at the time of catastrophe shall be adjusted by said differences to become the redetermined rates for the purpose of a contract modification under IT.3.2. Accordingly, Base Rates shall be adjusted to correspond to the redetermined rates if redetermined rates are less than the original Base Rates, subject to new Base Rate limitations of 25 cents per hundred cubic feet or equivalent. However, existing Base Indices shall not be changed under this Subsection.

Upon agreement under IT.3.2, redetermined rates and Required Deposits shall be considered established under DT.1 for Included Timber removed subsequent to Catastrophic Damage.

At time of such appraisal, Specified Road construction cost shall include the estimated cost of any construction work listed in the Schedule of Items performed and abandoned.

DT.3.3 Rate Redetermination for Market Change. In the event of delay or interruption, exceeding 90 days, under IT.3.3, Contracting Officer shall make an appraisal to determine for each species the difference between the appraised unit value of Included Timber immediately prior to the delay or interruption and the appraised unit value of Included Timber immediately after the delay or interruption. The appraisal shall be done after any rate redetermination done pursuant to DT.3.1, using remaining volumes.

Tentative Rates and Flat Rates in effect at the time of delay or interruption or established pursuant to DT.3.1 will be reduced, if appraised rates declined during the delay or interruption, to become Current Contract Rates. Increases in rates will not be considered. Accordingly, Base Rates shall be adjusted to correspond to the redetermined rates if redetermined rates are less than the original Base Rates, subject to a new Base Rate limitation of the cost of essential reforestation or 25 cents per hundred cubic feet or equivalent, whichever is larger. However, existing Base Indices shall not be changed under this Subsection.

Redetermined rates shall be considered established under DT.1 Included Timber removed subsequent to the delay or interruption.

DT.3.4 Emergency Rate Redetermination. Forest Service shall redetermine rates if, upon Contractor's application, Forest Service determies that, because of changes in the timber market since the award date or the last rate redetermination under this provision, the Producer Price Index identified in AT.17 has declined by 25 percent. Rates shall be redetermined under DT.3 and shall be considered established under DT.1 for timber Scaled subsequent to Contractor’s application. This Subsection shall not apply during Contract Term Extension.

DT.4 Other Payment Rates.

DT.4.1 Material and Quantities Not in AT.2. Incidental amounts of products or portions of trees of species listed on AT.2 that do not meet Utilization Standards may be removed without charge. Such material may be purposely removed in more than incidental amounts without charge upon written approval of Contracting Officer, and subject to agreement on deposits if needed for road maintenance and use.

Other species or products not listed in AT.2 may be cut and removed upon written approval of Contracting Officer and subject to agreement on rates of payment and deposits if needed for road maintenance and use.

When any material suitable for use in a product form included in AT.2 is removed in another product form, the rates of payment shall be not less than but approximately equivalent to Current Contract Rates and Required Deposits.

DT.4.2 Timber Cut Through Mistake. Undesignated timber meeting Utilization Standards, cut by Contractor through mistake and included by Contracting Officer under CT.1.4, shall be removed and paid for at Current Contract Rates and Required Deposits, unless such material is not listed in AT.2. In such event, Contracting Officer, in accord with standard Forest Service methods, shall establish rates to be paid.

DT.4.3 Undesignated Timber Damaged Without Negligence. Undesignated timber meeting Utilization Standards, damaged without negligence by Contractor and designated by Forest Service under CT.1.3.1, shall be cut, removed, and paid for at Current Contract Rates and Required Deposits.

DT.4.4 Undesignated Timber Unnecessarily Damaged or Negligently or Willfully Cut. Undesignated timber meeting Utilization Standards and unnecessarily damaged or negligently or willfully cut by Contractor, if included by Contracting Officer under CT.1.3.2, shall be cut, removed, and paid for at Current Contract Rates and Required Deposits that are in addition to liquidated damages under DT.4.5.

SAMPLE

If such timber is of a species or size not listed in AT.2 or is of a quality different from designated timber, Contracting Officer shall establish payment rates in accord with standard Forest Service methods.

DT.4.5 Liquidated Damages. Unnecessary damage to or negligent or willful cutting of undesignated timber, as described in DT.4.4, on portions of Contract Area cut over under this contract is likely to cause 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 an amount equivalent to the amount payable at Current Contract Rates. If designated by Contracting Officer, Contractor shall remove such damaged or cut timber and pay for it at Current Contract Rates.

ET.0—PAYMENTS

ET.1 Amount Payable for Timber. Except as provided in DT.1, Current Contract Rates and Required Deposits in effect when a Payment Unit is Released for Cutting shall be applied to the timber quantities to determine the amount Contractor shall pay. A "Payment Unit" is a portion of Contract Area established for payment purposes.

ET.2 Integrated Resource Account. "Integrated Resource Account" is an account maintained by Forest Service of all Contractor's deposits, credits, payment guarantees, and the charges for:

(a) Timber at Current Contract Rates;
(b) Slash disposal and road maintenance at Required Deposit rates;
(c) Cooperative work at rates established by specific agreement under ET.2.1.8;
(d) Stewardship Credits established; and
(e) Other charges provided in this contract.

Cash deposits shall be recorded currently in such account.

Charges for Payment Units Released for Cutting shall be made when Forest Service prepares and furnishes to Contractor periodic statements of quantity and value of such timber. Charges subject to escalation under DT.2 shall be made initially on the basis stated in ET.2.1.4 and shall be adjusted at the end of each calendar quarter, as provided in DT.2.

Charges shall be made according to DT.4 when trees are subsequently Marked or designated for cutting.

ET.2.1 Cash Deposits. Within the limitations of this Subsection, Contractor shall make cash deposits to meet Contractor's obligations within 15 days of billing by Forest Service. Deposits shall be made to Forest Service, U.S.D.A., by mail or delivery to the address to be furnished by Forest Service. Forest Service shall explain the bill at the time it requests each deposit.

ET.2.1.1 Downpayment. The downpayment amount shown in AT.15 may not be applied toward any other payment required under the provisions of this contract, except damages determined pursuant to JT.4, transferred to other contracts, or refunded until stumpage value representing 25 percent of the total bid value of the contract is shown on Integrated Resource Account to have been cut, removed, and paid for or the estimated value remaining to be cut and removed, as shown on Integrated Resource Account, is equal to or less than the amount of the downpayment. For lump sum contracts, the downpayment may be applied to payment for release of the single payment unit.

ET.2.1.2 Advance Deposits. Contractor agrees to make cash deposits in advance of cutting to meet charges under ET.2.

Forest Service billings for advance cash deposits shall be in such amounts that Integrated Resource Account will maintain an unobligated balance that covers the applicable charges for Payment Units Released for Cutting and designated material not included in AT.2 expected to be cut within the next 60 days. This advance cash deposit may be reduced to a smaller amount by the terms of ET.2.1.1, ET.2.1.3, ET.2.1.5, and/or ET.2.1.7. Except for amounts required pursuant to ET.2.1.1, ET.2.1.3, and ET.2.1.7, Contractor shall not be required to make advance deposits above those required under this Item.

When the credit balance in Integrated Resource Account is exceeded by the charges for timber within Payment Units Released for Cutting and for the estimated quantity to be cut in 10 days of cutting designated material not included in AT.2, Contracting Officer will suspend all or any part of Contractor's Operations until payment or acceptable payment guarantee is received.

ET.2.1.3 Periodic Payment Schedule. Contractor shall make periodic payments for stumpage value, as shown in AT.16.

In the event Contractor has not paid the amount(s) stated in AT.16 as stumpage for quantity removed by the periodic payment determination date(s), Forest Service shall issue a bill for collection for the difference between the required amount and payments made by Contractor. If payment(s) fall due on a date other than a normal billing date, the payment date shall be extended to coincide with the next Integrated Resource Account billing date.

The amount of the periodic payment(s) will be reduced if the payment(s) would result in Contractor's credit balance for timber charges exceeding the Current Contract Value.

Only cash may be used for this purpose. No other form of payment is acceptable. Forest Service will apply the payments to subsequent charges on this contract under the terms of ET.2.1.2.

SAMPLE

Except for Contract Term Extensions under I.2.3, periodic payment determination date(s) that have not been reached shall be adjusted one day for each additional day of contract time granted.

ET.2.1.4 Deposits for Charges Subject to Escalation. Deposits requested to cover estimated charges for timber subject to escalation under DT.2 shall be based upon Current Contract Rates and related deposits in effect during previous calendar quarter.

ET.2.1.5 Deposits When Payment Guaranteed. To the extent payment guarantee is provided under ET.3, requirements for advance cash deposits under ET.2.1.2 shall be waived for the value of timber on Contract Area that has been Released for Cutting, but not removed, and for the estimated value of products removed from Contract Area for not more than a monthly billing period, subject to the provisions of ET.4.

ET.2.1.6 Blanket Cash Deposits. Contractor may make cash deposits under a written agreement to cover charges made under this and other contracts within the same National Forest. Forest Service shall allocate such deposits to such contracts. When there is to be no timber cutting hereunder for 30 days or more and payment of current charges has been made, the allocation to this contract shall be reallocated to other contracts within the same National Forest at Contractor's request. Contractor shall not start cutting until allocation has again been made to this contract.

ET.2.1.7 Extension Deposits. In the event of Contract Term Extension, Forest Service shall divide the difference between Current Contract Value as of the start of any Contract Term Extension and the credit balance of any deposit made pursuant to ET.2.1.3 by the number of whole months remaining in Normal Operating Season(s) within the extension period to determine the amount of each "Extension Deposit."

Contractor shall make the initial Extension Deposit prior to Forest Service executing the contract modification. In response to Forest Service billing under ET.2.1, Contractor shall make advance cash deposits. Such deposits shall at least equal each Extension Deposit required for each whole month remaining in Normal Operating Season(s) during the extension period. Extension Deposits shall be due by the last day of each month during Normal Operating Season whether or not any Payment Unit is to be released.

Due dates for Extension Deposits during the extension period may be delayed when Contractor earns Contract Term Adjustment if Termination Date, as adjusted, results in one or more additional complete months within Normal Operating Season(s).

ET.2.1.8 Cooperative Deposits. On a basis of cooperation or assistance (16 USC 572) and by a written agreement, Forest Service shall perform all or portions of the work that Contractor is obligated to perform under this contract, as well as furnish other Services in connection with activities under this contract. When Forest Service is to perform such work, Contractor shall make one or more deposits to cover the estimated cost of the work. On request of Contractor, Forest Service shall render monthly accounts, as may be specified in such agreement.

ET.2.2 Stewardship Credits. "Stewardship Credits" are credits that are earned and established when work described in KT-GT.9 has been performed and accepted. Stewardship Credits shall be earned at the rate as shown in AT.4.4. Earned Stewardship Credits may be used to pay for Included Timber value in excess of Base Rates and Required Deposits. Base Rates and Required Deposits must be paid in cash.

ET.2.2.1 Progress Estimates. Forest Service shall make timely estimates of Contractor's progress on stewardship projects. On the basis of such progress estimates, Forest Service shall credit Integrated Resource Account each month as such work proceeds.

ET.2.2.2 Excess Stewardship Credits. In the event there are unused established Stewardship Credits when all of the Included Timber has been cut and removed, Forest Service, at its option, shall either add more timber or make cash payment for the unused Stewardship Credits.

ET.2.2.3 Excess Timber Value. In the event the value of Included Timber exceeds the total value of all of the mandatory projects shown in AT.4.4, plus the optional projects shown in AT.4.4 that Contractor has been authorized to perform:

(a) Contracting Officer shall authorize additional optional projects shown in AT.4.4 if the excess timber value exceeds 10 percent of the total timber value, or

(b) Contracting Officer shall authorize additional optional projects shown in AT.4.4 or require cash payment if the excess timber value is less than 10 percent of the total timber value, or

(c) Contractor shall make cash payment for the excess timber value if there are no remaining optional projects shown in AT.4.3.

ET.2.2.4 Cash Payment for Stewardship Projects. In lieu of providing timber for established Stewardship Credits, Forest Service may elect to provide a cash payment to Contractor.

ET.2.3 Temporary Reduction of Downpayment. When, under IT.3.3, Contracting Officer requests Contractor to delay or interrupt Contractor's Operations for more than 90 days, the downpayment amount being held on deposit may be temporarily reduced upon the written request of Contractor or at the discretion of Contracting Officer. For the period of the delay or interruption, the downpayment on deposit may be reduced to $1,000 or two (2) percent of the downpayment amount listed in AT.15, whichever is larger.

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Any downpayment amount temporarily reduced pursuant to this Subsection may be refunded or transferred at the request of Contractor. However, if Contractor has outstanding debt owing the United States, Contracting Officer must apply the amount of downpayment that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended (31 USC 3701, *et seq*.).

Upon Contractor's receipt of bill for collection and written notice from Contracting Officer that the basis for the delay or interruption no longer exists, Contractor shall restore the downpayment to the full amount shown in AT.15 within 15 days after the date the bill for collection is issued, subject to the provisions of ET.4. Contractor shall not resume contract operations until the downpayment amount is fully restored.

ET.2.4 Refund of Excess Cash. If at any time the credit balance of Integrated Resource Account exceeds the charges for timber within Payment Units Released for Cutting and for designated material not included in AT.2 that Forest Service estimates will be cut within the next 60 days, any portion of such excess that is due to cash in the account shall be refunded, if requested by Contractor, unless deposited under ET.2.1.1, ET.2.1.3, or ET.2.1.7. If Contractor plans no cutting within the next 60 days, Forest Service may refund the entire unencumbered cash balance, except as provided in this Subsection. However, Forest Service shall not reduce the credit balance below the total value of partially cut Payment Units and designated material not included in AT.2 that is cut before operations cease. After a refund for a shutdown, deposits shall be made to meet the requirements of ET.2.1.2 before additional timber may be cut.

ET.2.5 Refund after Final Charges for Released Timber. Any cash deposit, in excess of that required to meet charges under ET.2, shall be refunded or transferred within 15 days of Contractor's request after final charges for Included Timber have been made, except for amounts estimated to be required under JT.5.

ET.3 Payment Guaranteed by Bond or Deposited Securities. To guarantee payment, Contractor may furnish and maintain an acceptable surety bond or deposit in a Federal Depository negotiable securities of the United States. The securities shall be deposited through the Regional Fiscal Agent accompanied by a power of attorney and agreement authorizing the bond-approving officer to sell or collect such securities if payment is not made within 15 days of billing by Forest Service. The penal sum of such surety bond or the market value at time of deposit of such negotiable securities shall be the maximum amount of the payment guaranteed.

For payment purposes, penal sum of the surety bond or market value at time of deposit of negotiable securities shall be in lieu of the performance bond furnished under JT.1.

ET.3.1 Blanket Bond. If Contractor furnishes an acceptable bond, or deposits securities, in accordance with ET.3, to guarantee payment for timber from this and other contracts within the same National Forest, the amount of such bond or deposited securities shall be allocated to such contracts by Forest Service. When there is to be no timber cutting hereunder for 30 days or more and payment of current charges has been made, the allocation to this contract shall be reallocated to other contracts at Contractor's request. Contractor shall not start cutting hereunder until this contract receives an allocation that will meet the obligation for payment guarantee.

ET.3.2 Letters of Credit for Payment Bond. Notwithstanding the provisions of ET.3, Contractor may use letters of credit in lieu of a surety bond for payment bond purposes when approved by Contracting Officer.

ET.4 Payments Not Received. (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 allowed in the bill for collection for receipt of payment, 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 and road maintenance deposits;
(ii) Cooperative work at rates established by specific agreement under ET.2.1.8;
(iii) Damages pursuant to JT.4;
(iv) Road use fees;
(v) Restoration of downpayment pursuant to ET.2.2;
(vi) Periodic payments pursuant to ET.2.1.3;
(vii) Extension Deposits pursuant to ET.2.1.7; and
(viii) Other mandatory deposits.

(b) Failure to pay amounts due by the date allowed in the bill for collection for receipt of payment shall be considered a breach under JT.3. The 30-day notice period prescribed therein shall begin to run as of the end of business on the date allowed 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 higher of the Current Value of Funds Rate or the Prompt Payment 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.

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(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.

FT.0—TRANSPORTATION FACILITIES

FT.1 Authorization. Contractor is authorized to construct and maintain roads, bridges, and other transportation facilities, as needed for harvesting Included Timber and completing stewardship projects on National Forest and other lands where Forest Service has such authority. As used in this contract "construct" includes "reconstruct."

Location and construction of Specified Roads shall be in accordance with FT.2. Unless otherwise provided herein, construction may be progressive during this contract. Maintenance shall be governed by FT.3. The location and clearing widths of all Temporary Roads or facilities shall be agreed to in writing before construction is started. "Temporary Roads" are roads other than Specified Roads that are constructed by Contractor for the purpose of harvesting Included Timber or completing stewardship projects.

Contractor is authorized to cut and use for construction without charge construction timber designated by agreement.

FT.1.1 Requirements of Rights-of-Way. Contractor's road construction and use of rights-of-way identified in attached list or KT-FT.1.1 shall be confined to rights-of-way and limited by the related easements and stipulations, if any, unless Contractor makes other arrangements that will not infringe upon or adversely affect the grantee's rights. Easements or right-of-way documents are available in the offices of the Forest Supervisor and District Ranger.

FT.1.2 Use of Roads by Contractor. Except as provided herein, Contractor is authorized to use existing National Forest system roads and Specified Roads listed in AT.7, when Forest Service determines that such use will not cause damage to the roads or National Forest resources.

If Contractor's use of an existing temporary or National Forest system road, not listed in AT.7, cannot be satisfactorily accommodated without reconstruction, Contractor shall be authorized to use such road upon agreement as to the minimum reconstruction work that Contractor shall perform before hauling. When appropriate, such road shall be included in AT.7 as an alternate facility under FT.2.6.

KT-FT.1.2 lists existing roads shown on Contract Area Map that for such reasons as limitations in structural capacity, safety, and protection of soil, water, and roads:

(a) Cannot be used for log hauling or

(b) May be used only under the restrictive limitations stated therein.

FT.2 Specified Roads. "Specified Roads" are roads, including related transportation facilities and appurtenances, shown on Contract Area Map and listed in AT.7. Contractor shall construct Specified Roads used under this contract. Construction initiated by Contractor on any such Specified Road shall be completed to an agreed terminus that meets Contractor's needs and prevents unnecessary impact on National Forest resources. Construction to such terminus shall be in full accordance with Plans and specifications identified in AT.7 or specifications and the Schedule of Items attached hereto, except for agreed adjustments needed to accommodate such terminus. For each pay unit, the "Schedule of Items" itemizes quantity of work and materials and cost, with method of measurement and basis for payment. Forest Service shall revise the Schedule of Items to show the estimated cost for the portion constructed to the revised terminus as a separate segment.

A Temporary Road shall not be constructed substantially on the location for a Specified Road, except by agreement.

In event of agreed substitution or revision of construction design, specifications, or performance responsibility under FT.2.1.2, FT.2.5, FT.2.6, or KT-FT.2.1.5, AT.7 shall be modified. If Contractor does not need a Specified Road or a portion of a Specified Road for harvesting Included Timber or completing stewardship projects and the Specified Road is not constructed, the deletion of the road or road segment will be a mutually agreed Design Change and Integrated Resource Account will be adjusted for the reduction in cost, as provided in FT.2.5.

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References in the contract to specifications, standards, or test methods adopted by the American Association of State Highway and Transportation Officials (AASHTO), American Society for Testing and Materials (ASTM), General Services Administration (GSA), or other recognized national technical associations shall mean specifications, standards, or test methods, including interim or tentative issues, that are in effect on the date of contract advertisement.

FT.2.1 Engineering. Forest Service completed survey and design for Specified Roads prior to contract advertisement, unless otherwise shown in AT.8 or Contractor survey and design are specified in AT.7. On those roads for which Forest Service completes the design during the contract, the design quantities shall be used as the basis for revising estimated costs stated in the Schedule of Items and adjusting Integrated Resource Account.

Forest Service engineering shall be completed according to the schedule in AT.8. Should Forest Service be unable to perform the designated survey and design by the completion date or other agreed to time, upon written agreement, Contractor shall assume responsibility for such work. In such event, Contracting Officer shall revise:

(a) AT.7 to show Contractor's performance responsibility.

(b) The Schedule of Items to include costs of survey and design, as provided under FT.2.4, and adjust Integrated Resource Account, as provided in FT.2.5. Forest Service shall calculate such costs, using unit rates comparable with those used in the Schedule of Items.

Contractor shall furnish a schedule to Forest Service of specific dates for the start of construction. The schedule of construction shall be submitted to Forest Service for approval within 60 days after contract award and prior to beginning work. Contractor's construction schedule shall reflect Forest Service survey and design completion dates. Forest Service may agree to Contractor's request for an alternate date for starting construction.

Contractor shall perform survey, design, and construction staking of Specified Roads to be engineered by Contractor in accordance with specifications attached hereto. Based upon the quantities developed by such design, as approved by Forest Service, Contracting Officer shall revise the estimated costs stated in the Schedule of Items and adjust Integrated Resource Account. The methods of computing such revised costs shall be consistent with the methods that would have been used had the engineering been performed prior to contract advertisement.

FT.2.1.1 Contract Plans. "Plans" are documents that show location, details, and dimensions of the work to be performed. On any of the contract Plans where a portion of the work is drawn out and the remainder is shown in outline, the parts drawn out shall apply to all other like portions of the work.

"Shop Drawings" include drawings, diagrams, layouts, schematics, descriptive literature, illustrations, lists or tables, performance and test data, and similar materials furnished by Contractor to explain in detail specific portions of the work required by the contract. Contractor shall submit a minimum of five (5) sets of required Shop Drawings to Forest Service, three (3) sets of which will be retained by Forest Service. Shop Drawings shall not exceed 24 inches by 36 inches in size. Approval or rejection and date will be noted or stamped on each set. Unless agreed otherwise, Forest Service shall approve or reject the Shop Drawings within 10 days of submission. Such approval of the Shop Drawings shall not be construed as a complete check, but will indicate only that the general method of construction and detailing is satisfactory. If the Shop Drawings are rejected, Contractor must make the noted revisions and resubmit the Shop Drawings.

A change in the amount of construction work that exceeds construction tolerances specified in the specifications identified in AT.7 caused by a Forest Service error in construction staking shall be treated as a Design Change. When incompatible situations arise between Plans, specifications, and actual conditions on the ground, Contractor shall make corrections pursuant to FT.2.5.3.

FT.2.1.2 Construction Staking. Contractor shall avoid careless or negligent damage to construction stakes, flags, or marks. If such damage occurs, Contractor shall be required to replace stakes necessary to construction. Contractor's replacement staking shall be approved by Forest Service. Alternatively, upon Contractor's request, Contracting Officer may agree to perform such work under ET.2.1.8.

When AT.7 shows that construction stakes are to be set by Forest Service after clearing, Contractor shall submit to Forest Service a written schedule for clearing, construction staking, and construction that will provide Forest Service a reasonable period for setting construction stakes. Time for setting construction stakes may be modified by written agreement.

If Forest Service performs construction staking for Specified Roads, timing of such staking shall permit Contractor's clearing and other construction activity to proceed without hindrance or delay, provided Contractor's construction activity is reasonably consistent with needs identified in Contractor's Operating Schedule or amendments thereto.

Should Forest Service be unable to perform construction staking in such reasonable period, upon written agreement, Contractor shall assume the responsibility for construction staking for agreed upon portions of Specified Roads. In such event, Contracting Officer shall revise:

(a) AT.7 to show Contractor's performance responsibility.

(b) The Schedule of Items to include costs of construction staking, as provided under FT.2.4, and adjust Integrated Resource Account, as provided in FT.2.5. Forest Service shall calculate such costs, using unit rates comparable with those used in the Schedule of Items.

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FT.2.2 Material Delivery. Within 60 days after award date, Contractor shall provide Forest Service a written schedule showing the desired delivery dates of any material to be supplied by Forest Service. With reasonable notice, schedule may be amended by agreement. Forest Service agrees to make delivery within 15 days after the scheduled delivery dates that are at least 60 days after the schedule is submitted, unless prevented by causes beyond control of Forest Service.

If Contractor does not provide Forest Service the written schedule within the period provided in this Subsection, Forest Service agrees to make delivery within 90 days after a late schedule is submitted, unless prevented by causes beyond control of Forest Service. After delivery to and written receipt by Contractor, Contractor is responsible for installation of needed material and for any loss of or damage to such material due to Contractor's negligence prior to installation or return of unused material to Forest Service.

At Contractor's option, Forest Service deliveries shall be to Contractor's storage area, as agreed, or to the nearest practicable point to the job site along existing roads. Unused material shall be returned to Forest Service at location of delivery, unless agreed otherwise.

FT.2.3 Use of Partially Constructed Roads. Unless Contracting Officer determines that there is justification under existing conditions and ground conditions permit hauling without undue damage, portions of Specified Roads shall be Substantially Completed prior to their use for hauling timber. When necessary to facilitate construction and protect bridges and roads from damage, timber felled in construction and timber logged directly to the road from areas immediately adjacent thereto may be hauled before road construction is Substantially Completed. Such hauling shall be confined to periods when abnormal soil erosion and damage to National Forest lands will not result.

"Substantially Completed" means:

(a) Completion of grading and installation of drainage structures so they will function effectively and

(b) Laying the specified depth of base course, if any, unless Contracting Officer determines that physical conditions make it impractical or ground conditions permit hauling without undue damage.

No more than half of Included Timber to be hauled over such portions of road shall be hauled until the base course has been applied.

Unless agreed otherwise, specified reconstruction shall be completed on any portion of road prior to hauling on that portion.

FT.2.4 Estimated Cost. Estimated costs by construction phases for Specified Roads listed in AT.7 are stated by segments in the Schedule of Items. Such estimated costs are subject to adjustment under DT.3, FT.2, FT.2.1, FT.2.1.2, FT.2.5, and FT.2.6. Appropriately adjusted costs shall be made a part of a revised Schedule of Items and shown as adjustments to Integrated Resource Account. The revised Schedule of Items shall supersede any prior Schedule of Items when it is dated and signed by Contracting Officer and a copy is furnished to Contractor.

FT.2.5 Construction Cost Adjustment. Contracting Officer, as provided in FT.2.1, FT.2.1.2, FT.2.5.1, FT.2.5.2, and FT.2.5.3, shall adjust Specified Road construction cost estimates in the Schedule of Items and show the adjustments as credits or debits to Integrated Resource Account in the month when the road segment is accepted.

FT.2.5.1 Variation in Quantities. (a) This Item applies only to differences between quantities shown in the Schedule of Items and measured quantities actually constructed and accepted that are not covered under FT.2.5.2 or FT.2.5.3. Only changes in quantities where other than contract quantities or lump sum is specified in the Schedule of Items are subject to this Item.

(b) Adjustments to the Specified Road construction cost for variation in quantities shall be computed at unit rates established in the Schedule of Items for units of work actually constructed and measured in accordance with specified method of measurement shown in the Schedule of Items and described in the specifications identified in AT.7, except that:

(i) When quantity of authorized work performed or material furnished by Contractor, under any item shown in the Schedule of Items and covered by this Item, is more than 115 percent of original quantity, use Current Unit Rates to calculate the adjustment for that portion of work above 115 percent of original quantity.

(ii) When quantity of authorized work performed or material furnished by Contractor, under any item shown in the Schedule of Items and covered by this Item, is less than 85 percent of original quantity, Forest Service shall make a revised estimate of cost for such work. Any revised estimate shall use the same procedures as those used in original estimates using rates comparable to those used in computing the most recent cost estimate for the contract. The revised cost estimate shall take into account any increase or decrease in unit rates that results from a reduction in quantity of work.

(c) "Current Unit Rates" are Forest Service estimates of the unit rates for doing the work at the time the adjustment is approved.

FT.2.5.2 Physical Change. (a) Forest Service shall adjust the Specified Road construction cost if, prior to acceptance under GT.3.6, a physical change, caused by a single event and not due to negligence of Contractor, results in an increase or decrease in work and/or materials furnished by Contractor involving additional estimated cost of:

(i) More than $10,000 or

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(ii) More than 10 percent of total Specified Road construction cost, whichever is less.

(b) Increases to the Specified Road construction cost shall include cumulative estimated costs of repairing damage from things such as slides, washouts, landslips, and fire. Plans and specifications shall be revised when necessary to meet new conditions. Quantities of work and/or materials determined from such revised Plans and specifications, together with estimated quantities of work and/or materials abandoned, shall be the basis for the revised Specified Road construction cost.

(c) Forest Service shall determine difference in quantities for portions of Specified Road affected by physical change by comparing most recent previous quantities with total of:

(i) Estimated quantities actually constructed prior to physical change, including work abandoned, and

(ii) Estimated quantities to be constructed following physical change.

(d) Forest Service shall calculate the amount of increase to the Specified Road construction cost by applying:

(i) Current Unit Rates to differences when quantities increase and

(ii) Unit rates comparable to those used in computing most recent cost estimate for the contract when quantities decrease.

(e) When quantity of authorized work to be performed or material furnished by Contractor, under any item shown in the Schedule of Items, is reduced to less than 85 percent of original quantity, Forest Service shall make a revised estimate of cost for such work and adjust the Specified Road construction cost. Any revised estimate shall use the same procedures as those used in the original estimates using rates comparable to those used in the most recent cost estimate for the contract. The revised estimate shall take into account any increase or decrease in unit rates that results from a reduction in quantity of work.

FT.2.5.3 Design Change. (a) "Design Change" is a change in work and/or materials shown in the Schedule of Items and described in Plans or specifications that has been mutually agreed to in writing or ordered by Contracting Officer. Changes of a minor nature (such as adjustment in horizontal and vertical alignment, that do not exceed specified tolerance, necessary to maintain or balance earthwork quantities substantially as designed) and variation in quantities, as described in FT.2.5.1, shall not be considered Design Changes.

(b) Additions, deletions, or changes in types or diameter of culverts shown in Plans and changes in designated water sources shown on Plans shall be considered Design Changes.

(c) Forest Service may, by written notice from Contracting Officer, order changes in work to be performed and/or materials to be furnished by Contractor within general scope of the contract. Such work shall:

(i) Be due to differences between anticipated and actual field conditions,

(ii) Be necessary to construct Specified Roads to design standards, or

(iii) Be necessary to assure stability of Specified Roads.

(d) In addition, Contracting Officer may include work to protect resource values in ordered Design Changes. Such work must be related to construction of Specified Roads and be necessary to prevent damage to soil and water values immediately tributary to Specified Roads. Other Design Changes may be made by mutual written agreement.

(e) Forest Service shall revise Plans and specifications as necessary to meet new conditions. Quantities of work and/or materials determined from such revised Plans and specifications, together with quantities of work and/or materials abandoned, shall be the basis for adjusting the Specified Road construction cost.

(f) Forest Service shall determine the difference in quantities for the portion of Specified Road affected by Design Change by comparing the most recent previous quantities with the total of:

(i) Estimated quantities actually constructed prior to Design Change and

(ii) Estimated quantities to be constructed following Design Change.

(g) Calculate the amount of adjustment to the Specified Road construction cost by applying:

(i) Current Unit Rates to difference when quantities increase and

(ii) Unit rates comparable to those used in computing most recent cost estimates of the contract when quantities decrease.

(h) When quantity of authorized work to be performed or material furnished by Contractor, under any item shown in the Schedule of Items, is reduced to less than 85 percent of original quantity, Forest Service shall make a revised estimate of cost of such work and adjust the Specified Road construction cost. Any revised estimate shall use the same procedures as those used in original estimates using rates comparable to those used in the most recent cost estimate for the contract. The revised estimate shall take into account any increase or decrease in unit rates that results from a reduction in quantity of work.

FT.2.6 Alternate Facilities. If under Contractor's Operating Schedule, roads needed for the removal of Included Timber differ substantially from Specified Roads, other roads may be added to AT.7. Contracting Officer shall assure that road routing, location, design, and needed easements will make such other roads acceptable as parts of the National Forest transportation facilities. Contractor shall provide survey, design, and construction staking for such other roads.

Based on design quantities from such engineering, Forest Service shall estimate Specified Road construction costs of alternate facilities, using methods consistent with those used in the original computation of the Schedule of

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Items. If Specified Road construction costs for acceptable alternate facilities are less than the estimated costs of facilities listed in the original Schedule of Items that Contractor does not construct, Integrated Resource Account shall be adjusted by Forest Service to reflect the reduction in costs. In event of rate redetermination under DT.3, such allowed costs shall be the redetermined estimated costs of facilities listed in the original Schedule of Items that Contractor does not construct.

FT.2.7 Temporary Credit for Unamortized Specified Road Construction Cost. When, under IT.3.3, Contracting Officer requests Contractor to delay or interrupt Contractor's Operations for more than 90 days, the unamortized cost of Specified Roads shall be credited to Contractor's Integrated Resource Account upon the written request of Contractor or at the discretion of Contracting Officer. The amount credited to Contractor shall be limited to stumpage paid above Base Rates.

Any Specified Road construction cost credited to Contractor pursuant to this Subsection may be refunded or transferred at the request of Contractor. However, if Contractor has outstanding debt owing the United States, Contracting Officer must apply the amount of credit that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended.

Upon written notice from Contracting Officer that the basis for the delay or interruption no longer exists, Contractor shall pay for timber a per unit amount, in addition to Current Contract Rates, that is equal to the amount credited to Contractor's Integrated Resource Account divided by 80 percent of the estimated remaining volume of the contract, until the full amount credited to Contractor has been returned.

FT.3 Road Maintenance. Contractor shall maintain roads, commensurate with Contractor's use, in accordance with Road Maintenance Requirements in KT-FT.3.1 and the Road Maintenance Specifications. Performance of road maintenance work by Contractor may be required prior to, during, or after each period of use. The timing of work accomplishment shall be based on Contractor's Operating Schedule under GT.3.1.

When two or more commercial users are simultaneously using the same road where Forest Service is not requiring maintenance deposits, the commercial users will develop maintenance responsibilities and arrangements for accomplishing the work. Forest Service must agree to this plan. If the commercial users cannot agree on maintenance responsibilities, Forest Service shall resolve the differences.

If Contractor elects to use different roads than those listed in KT-FT.3.1, Forest Service shall determine Contractor's commensurate share of road maintenance and revise road maintenance deposits in KT-FT.3.2.

If Forest Service cannot perform its full commensurate share of road maintenance, Forest Service shall make a cash payment to Contractor for performance of such work.

Unless agreed in writing, prehaul maintenance shall be completed on any portion of road prior to hauling on that portion. Maintenance, as used in this contract, does not include road reconstruction or repairs of an extraordinary nature.

FT.4 Use by Others. Forest Service shall have the right to use any road constructed by Contractor under this contract for any and all purposes in connection with the protection and administration of the National Forest. Other parties, in connection with the logging of tributary National Forest timber, may use roads constructed by Contractor hereunder when Contracting Officer determines that such use will not materially interfere with Contractor's Operations. Third party use shall be contingent upon Contracting Officer determining, and third party agreeing to pay, a fair share of maintenance cost commensurate with such commercial use.

Unless otherwise provided in KT-FT.4, Forest Service shall authorize other uses of roads constructed by Contractor hereunder only if:

(a) Contracting Officer makes appropriate arrangements to relieve Contractor of related maintenance costs commensurate with such other uses and

(b) Such other uses will not materially interfere with Contractor's Operations.

Where Contractor reconstructs a road having established use, Contractor's use during reconstruction and thereafter shall be such as to reasonably accommodate such established use. Contracting Officer shall ensure that other users do not materially interfere with Contractor's right to use such reconstructed road.

GT.0—OPERATIONS

GT.1 Representatives. Unless otherwise agreed, Contractor shall designate, in writing, a representative who is authorized to receive notices in regard to performance under this contract and take related action. In no case shall Contractor designate any representative to this contract who is currently debarred, proposed for debarment, or suspended by the Federal Government. Contractor's representative shall provide a copy of the contract to Contractor's field supervisor and persons authorized to assume responsibilities in the field supervisor's absence. Prior to initial operations and after shutdowns of 10 days or more, Contractor's representative shall notify Forest Service 2 days, excluding weekends and Federal holidays, before any operations begin on Contract Area.

Contractor's representative shall designate, in writing, a field supervisor, one of whose responsibilities shall be on-the-ground direction and supervision of Contractor's Operations. The field supervisor shall be readily available to the area of operations when operations are in progress and shall be authorized to receive notices in regard to perform-

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ance under this contract and take related action. The responsibilities of the field supervisor shall include the safeguarding of National Forest resources and performance within the terms of the contract. Contractor representative will furnish Forest Service with names of persons authorized to assume responsibilities in field supervisor's absence. Such delegations may be made a part of Contractor's annual Operating Schedule under GT.3.1.

Unless Contracting Officer designates another Forest Service representative and notifies Contractor in writing, the District Ranger is the representative of Forest Service. Forest Service representative shall:

(a) Receive notice in regard to performance under this contract,
(b) Take action in relation to this contract, and
(c) Be readily available to the area of construction, stewardship project work, and logging operations.

Contracting Officer or Forest Service representative shall designate other on-the-ground representatives in writing along with their specific contractual responsibilities and authority. Representatives with authority delegated in writing are the only Forest Service personnel authorized to provide notice or take related actions under the contract. Such delegation shall be made within 60 days of contract award.

GT.1.1 Notices. Notices by either party as to action taken or to be taken by the other respecting this contract shall be made in writing to the other party's designated representative.

GT.2 Improvements. Contractor is authorized to construct on National Forest land, buildings, facilities, and other improvements needed to log Included Timber and complete stewardship projects. Such construction shall be located where approved in writing by Forest Service and shall be constructed and used in a manner that will protect National Forest values.

Contractor shall comply with the rules and regulations governing the operation of premises that are occupied and shall perform the contract in a manner that will not interrupt or interfere with the conduct of Forest Service business.

Forest Service shall grant written permission before any camp, quarry, borrow pit, storage, or service area, other than as shown on Plans, is opened or operated on National Forest land or administered lands. A camp is interpreted to include the campsite or trailer parking area of any employee, agent, Subcontractor or their employees or agents working on the stewardship project for Contractor. Such permission, if granted, shall be without charge to Contractor.

GT.2.1 Removal. Unless Forest Service authorizes continued use, Contractor shall remove or dispose of all improvements when no longer needed. Should Contractor fail to remove or dispose of improvements within 6 months after Termination Date, Forest Service may dispose of improvements at Contractor's expense under JT.5 or may, upon written notice to Contractor, assume title to improvements in the name of the United States. In the latter event, Contractor shall not be required to remove such improvements.

GT.2.2 Protection of Improvements. So far as practicable, Contractor shall protect Specified Roads and other improvements (such as roads, trails, telephone lines, ditches, and fences):

(a) Existing in the operating area,
(b) Determined to have a continuing need or use, and
(c) Designated on Contract Area Map.

Contractor shall keep roads and trails needed for fire protection or other purposes and designated on Contract Area Map reasonably free of equipment and products, slash, and debris resulting from Contractor's Operations. Contractor shall make timely restoration of any such improvements damaged by Contractor's Operations and, when necessary because of such operations, shall move such improvements, as specified in KT-GT.2.2.

GT.2.2.1 Protection of Improvements Not Owned by Forest Service. Forest Service will notify all utility companies, or other parties affected, and make arrangements for all necessary adjustments of the public utility fixtures, pipelines, and other appurtenances likely to be affected by Contractor's Operations.

When Contractor's Operations are adjacent to properties of railway, telephone, or power companies, or other property, work shall not begin until Contractor has identified actions necessary to prevent damage.

Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal and/or rearrangement operations in order that these operations may progress in a reasonable manner, utility duplication or rearrangement work may be reduced to a minimum, and services shall not be unnecessarily interrupted.

In the event of interruption to utility services because of accidental breakage or as a result of lines being exposed or unsupported, Contractor shall promptly notify the proper authority and shall cooperate with that authority in the restoration of service until the service is restored.

When materials are to be hauled across the tracks of any railway, Forest Service will make arrangements with the railroad for the use of any existing crossing or for any new crossing required. Contractor shall make arrangements for use of alternate crossings. All construction work to be performed by Contractor on the railroad right-of-way shall not damage railroad company's property.

GT.2.2.2 Protection of Property. In construction and reconstruction of Specified Roads, Contractor shall not unnecessarily remove, deface, injure, or destroy trees, shrubs, or other natural features, unless specifically authorized. To the extent practicable, Contractor shall confine operations to within the clearing limit or other areas designated in the contract and prevent the depositing of rocks, excavated materials, stumps, or other debris outside these limits.

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Material that falls outside these limits shall be retrieved, disposed of, or incorporated in the work to the extent practicable and necessary to protect adjacent resource values, unless otherwise agreed.

GT.2.3 Protection of Land Survey Monuments. Forest Service shall appropriately designate on the ground all known survey monuments, section corners, and other corner accessories. Forest Service shall post identifying signs on two sides of each known bearing tree.

Forest Service shall arrange protective or perpetuative action that does not cause unnecessary delay to Contractor in authorized clearings, such as Clearcutting Units and road construction, and in other instances where damage to monuments, section corners, and other corner accessories is unavoidable.

Contractor shall protect all known survey monuments, witness corners, reference monuments, and bearing trees against avoidable destruction, obliteration, or damage during Contractor's Operations. If any known monuments, corners, or accessories are destroyed, obliterated, or damaged by Contractor's Operations, Contractor shall hire the appropriate county surveyor or a registered land surveyor to reestablish or restore at the same location the monuments, corners, or accessories. Such surveyors shall use procedures in accordance with the Bureau of Land Management "Manual of Instructions for the Survey of the Public Lands of the United States" for General Land Office surveys and in accordance with State law for others. Contractor shall record such survey in appropriate county records.

GT.2.4 Protection Measures Needed for Plants, Animals, Cultural Resources, and Cave Resources. Locations of known areas needing special measures for the protection of plants, animals, cultural resources, and/or cave resources are shown on Contract Area Map and/or identified on the ground. Special protection measures needed to protect such known areas are identified in KT-GT.2.4.

In addition to any special protection measures noted, Contractor has a general duty to protect all known and identified resources referenced in this Subsection from damage or removal during Contractor's Operations. Discovery of additional areas, resources, or members of species needing special protection shall be promptly reported to the other party, and operations shall be delayed or interrupted at that location, under IT.3.3, if Contracting Officer determines there is risk of damage to such areas, resources, or species from continued operations.

Wheeled or track-laying equipment shall not be operated in areas identified as needing special measures for the protection of cultural resources, except on roads, landings, tractor roads, or skid trails approved under FT.1 or GT.4.2.2. Unless agreed otherwise, trees will not be felled into such areas. Contractor may be required to backblade skid trails and other ground disturbed by Contractor's Operations within such areas in lieu of cross ditching required under GT.6.

Contractor shall immediately notify Forest Service if disturbance occurs to any area identified as needing special protection measures and shall immediately halt operations in the vicinity of the disturbance until Forest Service authorizes Contractor to proceed. Contractor shall bear costs of resource evaluation and restoration to identified sites. Such payment shall not relieve Contractor from civil or criminal liability otherwise provided by law.

Nothing in this Subsection shall be interpreted as creating any warranty that all locations and special measures for the protection of plants, animals, cultural resources, and cave resources have been described herein, elsewhere in the contract, or designated on the ground.

GT.3 Control of Operations. Under this contract, "Contractor's Operations" shall include activities of or use of equipment of Contractor, Contractor's employees, agents, Subcontractors, or their employees or agents, acting in the course of their employment in operations hereunder on National Forest lands or within Forest Service protection boundary (unless acting under the immediate supervision of Forest Service).

Contractor's Operations shall be conducted in a workmanlike and orderly manner. The timing of required Forest Service designation of work on the ground and the performance of other Forest Service work shall not be such as to cause unnecessary delay to Contractor.

"Release for Cutting" is written authorization to Contractor to begin cutting in a Payment Unit. Upon Contractor's request for release of a Payment Unit, Forest Service shall either:

(a) Give tentative approval and bill Contractor as necessary under ET.2.1 or

(b) Reject the request, stating reasons for rejection.

When payment or payment guarantee has been confirmed, Forest Service shall issue Release for Cutting within 10 days. Contractor shall not cut timber in any Payment Unit until it is Released for Cutting.

GT.3.1 Operating Schedule. Contractor shall, before commencing operations, provide in writing an annual Operating Schedule of anticipated major activities and needs for logging Included Timber and completing stewardship projects, such as logging, road maintenance, and construction, including construction staking under FT.2.1.2 and material delivery under FT.2.2. Upon reasonable notice to Forest Service, such schedule shall be subject to modifications necessitated by weather, markets, or other unpredictable circumstances.

Subject to GT.6 and when the requirements of GT.6.6 are met, Contractor's Operations may be conducted outside Normal Operating Season. "Normal Operating Season" is the period(s) beginning and ending on the dates stated in AT.13 of any year.

GT.3.1.1 Inclusion of Technical Proposal. Upon execution of the contract, all elements of the Technical Proposal accepted by Forest Service become binding parts of the contract, including, but not limited to, planned peri-

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ods for and methods of road construction, timber harvesting, performance of stewardship projects, slash disposal, erosion control measures, and other contractual requirements. In addition, Contractor may not substitute a Subcontractor that has been accepted in the Technical Proposal with an alternate Subcontractor, unless Contracting Officer agrees to substitution.

Contractor may revise this Technical Proposal when necessitated by weather, markets, or other unforseen circumstances beyond the Contractor's control, subject to approval of Contracting Officer. In the event of delays beyond the control of Contractor that qualify for Contract Term Adjustment, the Technical Proposal shall be adjusted by mutual agreement to accommodate the adjusted contract period.

GT.3.1.2 Plan of Operations for Road Construction. Annually, prior to start of construction, Contractor shall submit a supplement to the Technical Proposal that shall include a schedule of proposed progress and a description of planned measures to be taken to provide erosion control for work in progress, including special measures to be taken on any segments of construction not Substantially Completed prior to periods of seasonal precipitation or runoff. Contractor shall submit a revised schedule when Contractor proposes a significant deviation from the progress schedule.

Prior to beginning construction on any portion of Specified Roads identified as sensitive on Plans, Contractor and Forest Service shall agree on proposed method of construction.

GT.3.2 Protection of Residual Trees. Contractor's Operations shall not unnecessarily damage young growth or other trees to be reserved.

GT.3.3 Safety. Contractor's Operations shall facilitate Forest Service's safe and practical inspection of Contractor's Operations and conduct of other official duties on Contract Area. Contractor has all responsibility for compliance with safety requirements for Contractor's employees.

In the event that Contracting Officer identifies a conflict between the requirements of this contract or agreed upon methods of proceeding hereunder and State or Federal safety requirements, the contract shall be modified and Contractor may request an adjustment in Current Contract Rates to compensate for the changed conditions.

Unless otherwise agreed in writing, when Contractor's Operations are in progress adjacent to or on Forest Service controlled roads and trails open to public travel, Contractor shall furnish, install, and maintain all temporary traffic controls that provide the user with adequate warning of hazardous or potentially hazardous conditions associated with Contractor's Operations. Contractor and Forest Service shall agree to a specific Traffic Control Plan for each individual project prior to commencing operations. Devices shall be appropriate to current conditions and shall be covered or removed when not needed. Except as otherwise agreed, flagmen and devices shall be as specified in the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) and as shown on Plans, Contract Area Map, Traffic Control Plan, or in specifications attached hereto.

GT.3.4 Sanitation and Servicing. Contractor shall take all reasonable precautions to prevent pollution of air, soil, and water by Contractor's Operations. If facilities for employees are established on Contract Area, they shall be operated in a sanitary manner. In the event that Contractor's Operations or servicing of equipment result in pollution to soil or water, Contractor shall conduct cleanup and restoration of the polluted site to the satisfaction of Forest Service.

Contractor shall maintain all equipment operating on Contract Area in good repair and free of abnormal leakage of lubricants, fuel, coolants, and hydraulic fluid. Contractor shall not service tractors, trucks, or other equipment on National Forest lands where servicing is likely to result in pollution to soil or water. Contractor shall furnish oil-absorbing mats for use under all stationary equipment or equipment being serviced to prevent leaking or spilled petroleum-based products from contaminating soil and water resources. Contractor shall remove from National Forest lands all contaminated soil, vegetation, debris, vehicle oil filters (drained of free-flowing oil), batteries, oily rags, and waste oil resulting from use, servicing, repair, or abandonment of equipment.

GT.3.4.1 Prevention of Oil Spills. If Contractor maintains storage facilities for oil or oil products on Contract Area, Contractor shall take appropriate preventive measures to ensure that any spill of such oil or oil products does not enter any stream or other waters of the United States or any of the individual States.

If the total oil or oil products storage exceeds 1,320 gallons in containers of 55 gallons or greater, Contractor shall prepare a Spill Prevention Control and Countermeasures Plan. Such plan shall meet applicable EPA requirements (40 CFR 112), including certification by a registered professional engineer.

Contractor shall notify Contracting Officer and appropriate agencies of all reportable (40 CFR 110) spills of oil or oil products on or in the vicinity of Contract Area that are caused by Contractor's employees, agents, Subcontractors, or their employees or agents, directly or indirectly, as a result of Contractor's Operations. Contractor will take whatever initial action may be safely accomplished to contain all spills.

GT.3.4.2 Hazardous Substances. Contractor shall notify the National Response Center and Contracting Officer of all releases of reportable quantities of hazardous substances on or in the vicinity of Contract Area that are caused by Contractor's employees, agents, Subcontractors or their employees or agents, directly or indirectly, as a result of Contractor's Operations, in accordance with 40 CFR 302.

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GT.3.5 Equipment Cleaning. (a) Areas, known by Forest Service prior to contract advertisement, that are infested with invasive species of concern are shown on Contract Area Map. A current list of invasive species of concern and a map showing the extent of known infestations is available at the Forest Supervisor's Office.

(b) Contractor shall not move any Off-Road Equipment, which last operated in an area that is infested with one or more invasive species of concern onto Contract Area without having first taken reasonable measures to make each such piece of equipment free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds. Contractor shall identify the location of the equipment's most recent operations. If the prior location of the Off-Road Equipment cannot be identified, Forest Service will assume that it is infested with seeds of invasive species of concern. In addition, prior to moving Off-Road Equipment from an area on this contract that is shown on Contract Area Map to be infested with invasive species of concern to any other area that is indicated on Contract Area Map as being free of invasive species of concern, Contractor shall again take reasonable measures to make each such piece of equipment free of soil, seeds, vegetative matter, or other debris that could contain or hold seeds.

(c) Contractor must advise Forest Service of measures taken to clean Off-Road Equipment and arrange for Forest Service inspection prior to such equipment being placed in service or moved from areas infested with invasive species of concern to areas that are free of such invasive species. Forest Service shall have 2 days, excluding weekends and Federal holidays, to inspect equipment after it has been made available for inspection. After inspection or after 2 days, Contractor may proceed with operations. Reasonable measures shall not require the disassembly of equipment components or use of any specialized inspection tools. Equipment shall be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material.

(d) "Off-Road Equipment" includes all logging and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles.

(e) If Contractor desires to clean Off-Road Equipment on National Forest land, such as at the end of a project or prior to moving to a new area that is free of invasive species of concern, Contractor and Forest Service shall agree on locations for the cleaning and control of off-site impacts, if any.

(f) New infestations of invasive species of concern to Forest Service, identified by either Contractor or Forest Service on Contract Area, shall be promptly reported to the other party and operations shall be delayed or interrupted at that location, under IT.3.3, until Contractor and Forest Service agree on treatment methods.

(g) Nothing in this Subsection shall be interpreted as creating any warranty that all locations of invasive species of concern have been described herein, elsewhere in the contract, or designated on the ground.

GT.3.6 Acceptance of Work. Upon Contractor's written request and assurance that work has been completed, Forest Service shall perform an inspection within 5 days, excluding weekends and Federal holidays, so as not to delay unnecessarily the progress of Contractor's Operations. Such a request may be for acceptance of:

(a) Any reasonable portion of Specified Road listed in the Schedule of Items;

(b) Specific requirements on a Payment Unit (such as logging, stewardship project operations, slash disposal, erosion control, or snag felling); or

(c) All contract requirements on a Payment Unit.

Forest Service may perform such inspections without request from Contractor.

Within 2 days of inspection, excluding weekends and Federal holidays, Forest Service shall furnish Contractor with written notice either of acceptance or of work remaining to be done.

In the event that Forest Service is unable to make such inspection within 5 days of Contractor's request, Contractor shall be notified in writing of necessity for postponement and time when inspection can be made. The same final approval procedure shall be used at the end of Contractor's construction period on any completed portion of road.

When all contractual work of Contractor has been accepted for any Payment Unit or stewardship project area, it shall be eliminated from Contract Area on written notice of either party to this contract.

GT.3.6.1 Acceptance of Specified Roads. Specified Road work may be accepted subject to completion of clearing work that does not affect the road structure when completion is delayed for reasons beyond control of Contractor, such as adverse weather.

Specified Road work may be accepted subject to completion of planting and seeding for soil stabilization when completion is delayed for reasons beyond control of Contractor, such as seasonal limitations. Contractor shall complete planting or seeding on such road during the next suitable planting season.

Specified Road work may be conditionally accepted prior to the application of dust palliatives when application is not necessary to prevent dusting of the road surface due to climatic conditions. Contractor shall apply dust palliative on such roads prior to use during periods when dusting may occur.

Prior to request for final inspection, Specified Road work, roadways, borrow pits, and quarries, occupied and no longer needed by Contractor in connection with Contractor's Operations, shall be cleared of all rubbish, excess materials, and temporary structures.

GT.4 Conduct of Logging. Unless otherwise specifically provided herein, Contractor shall fell trees designated for cutting and shall remove the portions that meet Utilization Standards, as provided in CT.2, prior to acceptance of Payment Unit for completion of logging and stewardship projects under GT.3.6. Forest Service may make exceptions

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for occasional trees inadvertently not cut or trees or pieces not removed for good reason, including possible damage to forest resources or gross economic impracticability at the time of removal of other timber. Logging shall be conducted in accordance with the following, unless KT-GT.4 provisions set forth requirements to meet special or unusual logging conditions:

GT.4.1 Felling and Bucking. Felling shall be done to minimize breakage of Included Timber and damage to residual timber. Unless agreed otherwise, felling shall be done by saws or shears. Bucking shall be done to permit removal of all minimum pieces set forth in AT.2. Contractor may buck out cull material when necessary to produce pieces meeting Utilization Standards. Such bucked out material shall contain a minimum amount of sound wood, not in excess of the net Measure in percentage of gross Measure, or based on the merchantability factor, whichever is stated in AT.2. If necessary to assess extent of defect, Contractor shall make sample saw cuts or wedges.

GT.4.1.1 Felling in Clearings. Insofar as ground conditions, tree lean, and shape of clearings permit, trees shall be felled so that their tops do not extend outside Clearcutting Units, construction clearings, and areas of regeneration cutting.

GT.4.1.2 Stump Heights. Stumps shall not exceed, on the side adjacent to the highest ground, the maximum heights set forth in AT.6, except that occasional stumps of greater heights are acceptable when Contractor determines that they are necessary for safe and efficient conduct of logging. Unless otherwise agreed, Contractor shall re-cut high stumps so they will not exceed heights specified in AT.6 and shall dispose of severed portions in the same manner as other logging debris. The stump heights shown in AT.6 were selected with the objective of maximum reasonable utilization of the timber, unless Contract Area Map shows special areas where stump heights are lower for aesthetic, land treatment, or silvicultural reasons.

GT.4.1.3 Limbing. When Forest Service determines it is necessary to minimize damage to the residual stand during skidding, Contractor shall cut exposed limbs from products prior to skidding. Contractor may leave uncut those limbs that cannot be cut with reasonable safety.

GT.4.2 Skidding and Yarding. Methods of skidding or yarding specified for particular areas, if any, are indicated on Contract Area Map. Outside Clearcutting Units and construction clearings, insofar as ground conditions permit, products shall not be skidded against reserve trees or groups of reproduction and tractors shall be equipped with a winch to facilitate skidding.

GT.4.2.1 Rigging. Insofar as practicable, needed rigging shall be slung on stumps or trees designated for cutting.

GT.4.2.2 Landings and Skid Trails. Location of all landings, tractor roads, and skid trails shall be agreed upon prior to their construction. The cleared or excavated size of landings shall not exceed that needed for efficient skidding and loading operations.

GT.4.2.3 Skidding on Roads. Products may be skidded on permanent roads authorized for hauling under FT.1.2 only by prior written agreement.

GT.4.2.4 Arches and Dozer Blades. Unless otherwise specified in KT-GT.4.2.4, skidding tractors equipped with pull-type arches or dozer blades wider than tractor width or C-frame width, whichever is greater, shall not be used in residual timber outside Clearcutting Units and other authorized clearings, except on constructed tractor roads or landings, unless there is written agreement that residual timber will not be damaged materially by such use.

GT.5 Streamcourse Protection. “Streamcourses” that are subject to provisions of this Section are shown on Contract Area Map. Unless otherwise agreed, the following measures shall be observed to protect Streamcourses:

(a) Contractor’s Operations shall be conducted to prevent debris from entering Streamcourses, except as may be authorized under paragraph (d). In event Contractor causes debris to enter Streamcourses in amounts that may adversely affect the natural flow of the stream, water quality, or fishery resource, Contractor shall remove such debris as soon as practicable, but not to exceed 2 days, and in an agreed manner that will cause the least disturbance to Streamcourses.

(b) Culverts or bridges shall be required on Temporary Roads at all points where it is necessary to cross Streamcourses. Such facilities shall be of sufficient size and design and installed in a manner to provide unobstructed flow of water and to minimize damage to Streamcourses. Trees or products shall not be otherwise hauled or yarded across Streamcourses unless fully suspended.

(c) Wheeled or track-laying equipment shall not be operated in Streamcourses, except at crossings designated by Forest Service or as essential to construction or removal of culverts and bridges.

(d) Flow in Streamcourses may be temporarily diverted only if such diversion is necessary for Contractor’s planned construction and Forest Service gives written authorization. Such flow shall be restored to the natural course as soon as practicable and, in any event, prior to a major storm runoff period or runoff season.

GT.6 Erosion Prevention and Control. Contractor’s Operations shall be conducted reasonably to minimize soil erosion. Equipment shall not be operated when ground conditions are such that excessive damage will result. Contractor shall adjust the kinds and intensity of erosion control work done to ground and weather conditions and the need for controlling runoff. Erosion control work shall be kept current immediately preceding expected seasonal periods of precipitation or runoff.

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If Contractor fails to do seasonal erosion control work prior to any seasonal period of precipitation or runoff, Forest Service may temporarily assume responsibility for the work and any unencumbered deposits hereunder may be used by Forest Service to do the work. If needed for such work, Contractor shall make additional deposits on request by Forest Service. Any money deposited or used for this purpose shall be treated as cooperative deposits under ET.2.1.8.

GT.6.1 Meadow Protection. Reasonable care shall be taken to avoid damage to the cover, soil, and water in meadows shown on Contract Area Map. Vehicular or skidding equipment shall not be used on meadows, except where roads, landings, and tractor roads are approved under FT.1 or GT.4.2.2. Unless otherwise agreed, trees felled into meadows shall be removed by endlining. Resulting logging slash shall be removed where necessary to protect cover, soil, and water.

GT.6.2 Wetlands Protection. Wetlands requiring protection under Executive Order 11990 are shown on Contract Area Map. Vehicular or skidding equipment shall not be used in such wetlands, except where roads, landings, and tractor roads are approved under FT.1 or GT.4.2.2. Additional measures needed to protect such areas are provided in KT-GT.6.2.

GT.6.3 Temporary Roads. As necessary to attain stabilization of roadbed and fill slopes of Temporary Roads, Contractor shall employ such measures as outsloping, drainage dips, and water-spreading ditches.

After a Temporary Road has served Contractor's purpose, Contractor shall give notice to Forest Service and shall remove bridges and culverts, eliminate ditches, outslope roadbed, remove ruts and berms, effectively block the road to normal vehicular traffic where feasible under existing terrain conditions, and build cross ditches and water bars, as staked or otherwise marked on the ground by Forest Service. When bridges and culverts are removed, associated fills shall also be removed to the extent necessary to permit normal maximum flow of water.

GT.6.3.1 Temporary Roads to Remain Open. To maintain short term access to portions of Contract Area for post-contract treatments and other purposes after a Temporary Road has served Contractor's purpose, pursuant to GT.6.3, Contractor agrees, that on Temporary Roads designated on Contract Area Map as "Remain Open," to construct cross ditches and water bars, as designated, staked, or otherwise directed by Forest Service, that can be traversed by a normal two-wheel drive pickup truck. On "Remain Open" Temporary Roads, all bridges and culverts shall remain in place and ditches shall not be eliminated. All drainage structures shall be left in functional condition.

GT.6.4 Landings. After landings have served Contractor's purpose, Contractor shall ditch and slope them to permit water to drain or spread. Unless agreed otherwise, cut and fill banks around landings shall be sloped to remove overhangs and otherwise minimize erosion.

GT.6.5 Skid Trails and Fire Lines. Contractor shall construct cross ditches and water-spreading ditches on tractor roads and skid trails, where staked or otherwise marked on the ground by Forest Service. Forest Service shall designate cross ditching on Contractor-built fire lines prior to or during construction. By agreement, Contractor may use other comparable erosion control measures, such as backblading skid trails, in lieu of cross ditching.

GT.6.6 Current Operating Areas. Where logging, road construction, or other stewardship project work is in progress but not completed, unless agreed otherwise, Contractor shall, before operations cease annually, remove all temporary log culverts and construct temporary cross drains, drainage ditches, dips, berms, culverts, or other facilities needed to control erosion.

Such protection shall be provided, prior to end of a Normal Operating Season, for all disturbed, unprotected ground that is not to be disturbed further prior to end of operations each year, including roads and associated fills, tractor roads, skid trails, and fire lines. When weather permits operations after Normal Operating Season, Contractor shall keep such work on any additional disturbed areas as up to date as practicable.

GT.6.7 Erosion Control Structure Maintenance. During the period of this contract, Contractor shall provide maintenance of soil erosion control structures constructed by Contractor until they become stabilized, but not for more than 1 year after their construction. Contracting Officer may agree to perform such structure maintenance under ET.2.1.8, if requested by Contractor, subject to agreement on rates. Contractor shall not be responsible for repair of such structures damaged by other National Forest users whose activities are not a part of Contractor's Operations.

GT.7 Slash Disposal. Contractor's timing of product removal and preparatory work shall not unnecessarily delay slash disposal. Specific slash disposal measures to be employed by Contractor are stated in KT-GT.7 and are in addition to Required Deposits for slash disposal.

GT.8 Measuring. "Measuring" is the estimation of timber quantities using certain dimensions and applicable volume tables or formulae to determine the contents of trees or stands in a standard manner. Sampling may be on an individual tree or area basis. Examples of standard procedures are tree measurement, sample tree measurement, and area estimate. The quantity of timber designated or to be designated for cutting has been or shall be Measured, as specified in KT-GT.8.

GT.8.1 Product Identification. For contracts west of the 100th meridian, before removal from Contract Area, unless Contracting Officer determines that circumstances warrant a written waiver or adjustment, Contractor shall:

(a) Hammer brand all products that are eight (8) feet or more in length and one-third (1/3) or more sound, on each end that is seven (7) inches or more in diameter.

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(b) West of the 100th meridian, paint with a spot of highway-yellow paint all domestic processing products that are eight (8) feet or more in length and one-third (1/3) or more sound, on each end that is seven (7) inches or more in diameter. Each paint spot must be not less than three (3) square inches in size.

Contracting Officer shall assign brands and, if Contract Area is within a State that maintains a log brand register, brands shall be registered with the State. Contractor shall use assigned brand exclusively on logs from this contract until Contracting Officer releases brand. Contractor will furnish and apply highway-yellow paint of a lasting quality (oil-base or equivalent).

All hammer brands and/or highway-yellow paint must remain on logs until they are domestically processed. Contractor shall replace identifying marks if they are lost, removed, or become unreadable. Contractor may remanufacture products into different log lengths. Except for logs remanufactured as part of the mill in-feed process immediately before processing, remanufactured products must be rebranded with the assigned contract brand and repainted with highway-yellow paint, unless otherwise agreed to in writing by Contracting Officer. For such remanufactured products, Contracting Officer may approve use of a brand to be used exclusively as a catch brand, in lieu of the assigned contract brand.

GT.9 Stewardship Projects. Performance of stewardship projects shall be in accordance with the specifications in KT-GT.9.

All of the mandatory stewardship projects, as shown in AT.4.4, shall be performed. Optional stewardship projects, as shown in AT.4.4, shall be performed when authorized in writing by Contracting Officer. Such authorization may be for all or a portion of the quantity shown. Optional stewardship projects may be selected and authorized in any order by the Contracting Officer. Upon written request of Contractor, additional optional stewardship projects shall be authorized; however, Contracting Officer shall not be obligated to authorize additional stewardship projects if three or more authorized optional stewardship projects or any of the mandatory stewardship projects remain uncompleted. Contracting Officer shall not be obligated to authorize additional optional stewardship projects at any time if Contracting Officer determines that there is insufficient value of remaining designated timber to cover the value of additional stewardship projects.

GT.9.1 Refund of Unused Stewardship Credits. When, under IT.3.3, Contracting Officer requests Contractor to delay or interrupt Contractor's Operations for more than 60 days, unused Stewardship Credits may be refunded upon the written request of Contractor or at the discretion of Contracting Officer.

Contractor agrees that when unused Stewardship Credits are refunded that Contractor shall remit, release, and forever discharge the United States from any and all Claims arising from any delay in using Stewardship Credits under this contract, including, but not limited to, any Claims of interest or other costs.

If Contractor has outstanding debt owing the United States, Contracting Officer must apply the amount of Stewardship Credit that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended.

HT.0—FIRE PRECAUTIONS AND CONTROL

HT.1 Plans. Prior to initiating Contractor's Operations during Fire Precautionary Period, Contractor shall file with Forest Service a Fire Prevention and Control Plan providing for the prevention and control of fires on Contract Area and other areas of Contractor's Operations. Such plan shall include a detailed list of personnel and equipment at Contractor's disposal for implementing the plan. This requirement may be met by preparing a single plan for more than one contract.

HT.2 Fire Precautions. Specific fire precautionary measures listed in KT-HT.2 shall be applicable during Contractor's Operations in "Fire Precautionary Period" described in AT.9. Contracting Officer may change the dates of Fire Precautionary Period by advance written notice, if justified by unusual weather or other conditions. Required tools and equipment shall be kept in serviceable condition and immediately available for fire fighting at all times during Contractor's Operations in Fire Precautionary Period.

HT.2.1 Substitute Precautions. Forest Service may authorize substitute measures or equipment, or waive specific requirements by written notice, if substitute measures or equipment will afford equal protection or some of the required measures and equipment are unnecessary.

HT.2.2 Emergency Precautions. Forest Service may require the necessary shutting down of equipment on portions of Contractor's Operations, as specified by the emergency fire precautions schedule of KT-HT.2.2. Under such conditions, after Contractor ceases active operations, Contractor shall release for hire by Forest Service, if needed, Contractor's shutdown equipment for fire standby on Contract Area or other areas of Contractor's Operations and personnel for fire standby or fire patrol, when such personnel and equipment are not needed by Contractor for other fire fighting or protection from fire. Equipment shall be paid for at fire fighting equipment rates common in the area or at prior agreed rates and, if Contractor requests, shall be operated only by personnel approved by Contractor. Personnel so hired shall be subject to direction and control by Forest Service and shall be paid by Forest Service at fire fighting rates common in the area or at prior agreed rates.

HT.3 Fire Control. Contractor shall, both independently and in cooperation with Forest Service, take all reasonable and practicable action to prevent and suppress fires resulting from Contractor's Operations and to suppress any

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forest fire on Contract Area. Contractor's independent initial fire suppression action on such fires shall be immediate and shall include the use of all necessary personnel and equipment at Contractor's disposal on Contract Area or within the distance of Contract Area stated in AT.10.

HT.3.1 Contractor's Reinforcement Obligations. Whenever an Operations Fire or Negligent Fire, whether on or off Contract Area, or any other forest fire on Contract Area, has not been suppressed by initial action and appreciable reinforcement strength is required, Forest Service may require further actions by Contractor until such fire is controlled and mopped up to a point of safety. Such actions may include any or all of the following as necessary to fight such fire:

HT.3.1.1 Suspend Operations. To suspend any or all of Contractor's Operations.

HT.3.1.2 Personnel. To release for employment by Forest Service any or all of Contractor's personnel engaged in Contractor's Operations or timber processing within the distance of Contract Area stated in AT.10. Any organized crew so hired shall include Contractor's supervisor, if any. Personnel so employed shall be paid at Forest Service standard emergency fire fighting rates.

HT.3.1.3 Equipment. To make available for Forest Service rental at fire fighting equipment rates common in the area or at prior agreed rates any or all of Contractor's equipment suitable for fire fighting and currently engaged in Contractor's Operations within the distance of Contract Area stated in AT.10. Equipment shall be operated only by personnel approved by Contractor, if so requested by Contractor.

HT.4 Fire Suppression Costs. Contractor's obligations for cost of fire suppression vary according to three classifications of fires as follows:

HT.4.1 Operations Fire. An "Operations Fire" is a fire caused by Contractor's Operations other than a Negligent Fire.

Forest Service, except as provided in HT.3, shall use cooperative deposits under ET.2.1.8 to perform fire suppression activities on Operations Fires. Contractor agrees to reimburse Forest Service for such cost for each Operations Fire, subject to a maximum of the dollar amount stated in AT.11. The cost of Contractor's actions, supplies, and equipment on any such fire provided pursuant to HT.3, or otherwise at the request of Forest Service, shall be credited toward such maximum. If Contractor's actual cost exceeds Contractor's obligation stated in AT.11, Forest Service shall reimburse Contractor for the excess.

HT.4.2 Negligent Fire. A "Negligent Fire" is a fire caused by negligence or fault of Contractor's Operations, including, but not limited to, one caused by smoking by persons engaged in Contractor's Operations during the course of their employment, or during rest or lunch periods; or if Contractor's failure to comply with the requirements of HT.2 and HT.3 results in a fire starting or permits a fire to spread. Damages and the cost of suppressing Negligent Fires shall be borne by Contractor.

HT.4.3 Other Fires on Contract Area. Forest Service shall pay Contractor, at fire fighting rates common in the area or at prior agreed rates, for equipment or personnel furnished by Contractor pursuant to HT.3, or otherwise at the request of Forest Service, on any fire on Contract Area other than an Operations Fire or a Negligent Fire.

HT.5 State Law. Contractor shall not be relieved by the terms of this contract of any liability to the United States for fire suppression costs recoverable in an action based on State law, except for such costs resulting from Operations Fires. Amounts due Contractor for fire fighting expenditures in accordance with HT.4.1 shall not be withheld pending settlement of any such claim or action based on State law.

HT.6 Performance by Contractor. Where Contractor's employees, agents, contractors, Subcontractors, or their employees or agents perform Contractor's Operations in connection with fire responsibilities, Contractor's obligations shall be the same as if performance was by Contractor.

IT.0—OTHER CONDITIONS

IT.1 Title and Liability.

IT.1.1 Title Passage. All right, title, and interest in and to any Included Timber shall remain in Forest Service until it has been Measured, removed from Contract Area or other authorized cutting area, and paid for, at which time title shall vest in Contractor. For purposes of this Subsection, timber in Payment Units Released for Cutting covered by cash deposit or payment guarantee under ET.3 shall be considered to have been paid for. Title to any Included Timber that has been Measured and paid for, but not removed from Contract Area or other authorized cutting area by Contractor on or prior to Termination Date, shall remain in Forest Service.

IT.1.2 Liability for Loss. If Included Timber is destroyed or damaged by an unexpected event that significantly changes the nature of Included Timber, such as fire, wind, flood, insects, disease, or similar cause, the party holding title shall bear the timber value loss resulting from such destruction or damage; except that such losses caused by insect or disease after felling of timber shall be borne by Contractor, unless Contractor is prevented from removing such timber for reasons that would qualify for Contract Term Adjustment. Deterioration or loss of value of salvage timber is not an unexpected event, except for deterioration due to delay or interruption that qualifies for Contract Term Adjustment or under IT.3.3.

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In the event Included Timber to which Forest Service holds title is destroyed, Contractor will not be obligated to remove and pay for such timber. In the event Included Timber to which Forest Service holds title is damaged, Contracting Officer shall make an appraisal to determine for each species the difference between the appraised unit value of Included Timber immediately prior to the value loss and the appraised unit value of timber after the loss. Current Contract Rates in effect at the time of the value loss shall be adjusted by differences to become the redetermined rates.

There shall be no obligation for Forest Service to supply, or for Contractor to accept and pay for, other timber in lieu of that destroyed or damaged. This Subsection shall not be construed to relieve either party of liability for negligence.

IT.2 Period of Contract. All obligations of Contractor shall be discharged not later than "Termination Date" stated in AT.12, unless it is adjusted pursuant to IT.2.1 or IT.2.1.2 or extended pursuant to IT.2.3 or IT.3.2, excepting only those obligations for which Forest Service has given written permission to delay performance. Such written permission shall be considered a Contract Term Adjustment for the purpose of Contractor completing performance of obligations covered by such permission.

IT.2.1 Contract Term Adjustment. "Contract Term Adjustment" means adjustment only as provided for in the three circumstances described in this Subsection. Under these circumstances, the contract term shall be adjusted in writing to include additional calendar days in one or more Normal Operating Seasons equal to the actual time lost, except as limited by paragraph (b) in this Subsection.

To qualify for such adjustment, Contractor shall give written notice of the lost time not later than 30 days after end of Normal Operating Season in which time was lost and at least 10 days before Termination Date. Contracting Officer shall make prompt written acknowledgment of such notice, indicating concurrence with the number of days in the notice or the number of days Forest Service considers as qualifying for the adjustment. Lost portions of days shall be disregarded in computing time lost. The three circumstances qualifying for a Contract Term Adjustment are:

(a) Contractor experiences delay in starting scheduled operations or interruptions in active operations, either of which stops removal of Included Timber from Contract Area through curtailment in felling and bucking, yarding, skidding and loading, hauling, or road construction, as scheduled under GT.3.1, for 10 or more consecutive days during a Normal Operating Season due to causes beyond Contractor's control, including, but not limited to, acts of God, acts of the public enemy, acts of the Government, labor disputes, fires, insurrections, or floods.

(b) Causes described in paragraph (a) substantially affect the disposition or processing of Included Timber during Normal Operating Season through their effects on primary timber processing facilities, with a resulting delay of 60 days or more in use of such facilities. In such event, Contract Term Adjustment shall not extend for more than 12 consecutive months.

(c) (i) Contracting Officer requests Contractor, in writing, to delay or interrupt operations during the normal operating season for any purpose other than suspension under ET.4 or JT.3 or

(ii) Contractor suffers a delay or interruption of Contractor's Operations affecting skidding, yarding, and loading because of fire emergency closure ordered by Forest Service (or another agency in its behalf), and the total of such lost time is 10 or more days during any Normal Operating Season.

If Termination Date is adjusted, as described in this Subsection, and later extended under IT.2.3, the appraisal for the extension shall be made as of the unadjusted Termination Date, but the date on which the new rates become effective, if higher than Current Contract Rates immediately prior to Termination Date, shall be the adjusted Termination Date.

IT.2.1.1 Delay in Reconstruction of Processing Facilities. Notwithstanding the 12-month limitation in IT.2.1, if Contractor demonstrates a diligent effort has been made to replace primary timber processing facilities and that delays in doing so have been beyond Contractor's control, Contracting Officer may authorize Contract Term Adjustment up to a total of 24 months.

IT.2.1.2 Market-Related Contract Term Addition. 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 AT.17. 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. Contracting Officer must receive Contractor's written request for a market-related contract term addition before the expiration of this contract.

The total amount of contract term addition is limited to the lesser of twice the length of the original contract or 3 years. The revised contract term may not 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 will result from delay.

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IT.2.2 Termination for Catastrophe. In event of Catastrophic Damage, this contract may be modified under IT.3.2, following rate redetermination under DT.3.2, or terminated under this Subsection. Such termination shall not be considered a termination under IT.3.4.

IT.2.2.1 Termination by Contractor. This contract shall be terminated, upon election and written notice by Contractor, if Catastrophic Damage rate redetermination under DT.3.2 shows that the appraised weighted average Indicated Advertised Rate of all Included Timber remaining immediately prior to the catastrophe has been reduced through Catastrophic Damage by an amount equal to or more than the weighted average Current Contract Rate.

"Indicated Advertised Rates" are Forest Service estimates of fair market value of the timber.

IT.2.2.2 Termination by Forest Service. This contract may be terminated by written notice from Contracting Officer, if there is Catastrophic Damage and Contractor does not agree, under IT.3.2, within 30 days of receipt from Contracting Officer of contract modifications proposed to permit the harvest of the catastrophe-affected timber.

IT.2.3 Contract Term Extension. "Contract Term Extension" means an extension of the term of this contract, at the request of Contractor, under this Subsection. This Subsection does not obligate Contracting Officer to grant Contract Term Extension.

An extension can only be granted when Contracting Officer has determined that Contractor has diligently performed under the terms of this contract and when such extension is determined to be in the best interest of Forest Service.

IT.2.3 Contract Term Extension. "Contract Term Extension" means an extension of the term of this contract, at the request of Contractor, under this Subsection. This Subsection does not obligate Contracting Officer to grant Contract Term Extension. An extension can only be granted when Contracting Officer has determined that Contractor has diligently performed under the terms of this contract and when such extension is determined to be in the best interest of Forest Service.

Contracting Officer may not grant Contractor's written request for Contract Term Extension, unless Contractor's Operations to date have been in reasonable compliance with contract terms and the approved Technical Proposal under GT.3.1.1 and all contractual requirements have been met by Contractor and accepted by Forest Service in active stewardship project areas and on areas cut over at time of Contractor's request, except for areas where work is in progress at time of Contractor's request. Contractor's burning of current slash or seeding or planting for erosion control may be temporarily waived, if weather or other considerations make such work impractical.

Contract Term Extension shall not become effective unless the initial Extension Deposit required by ET.2.1.7 has been made by the effective date of any extension.

When such extension is made, Forest Service shall make an appraisal using standard Forest Service methods and appraisal data in effect 45 days prior to the original Termination Date. Bid Premium Rates shall be added to such appraised rates to establish Flat Rates or Tentative Rates for the extension period. In event rates so established would develop Current Contract Value immediately prior to such an extension that is less than Current Contract Value at that time, Flat Rates and Tentative Rates in effect immediately prior to extension shall be retained for the extension period.

IT.3.1 Changed Conditions. When it is agreed that the completion of certain work or other requirements hereunder would no longer serve the purpose intended because of substantial change in the physical conditions of Contract Area or Included Timber since the date of this contract, the requirements shall be waived in writing. The estimated cost of such waived work or other requirement shall be charged to Integrated Resource Account.

IT.3.2 Modification for Catastrophe. In event of Catastrophic Damage, Forest Service, in consultation with Contractor, shall outline on Contract Area Map:

(a) Any areas of catastrophe-affected live and dead timber meeting Utilization Standards and having undesignated timber so situated that it should be logged with the designated timber;

(b) If needed, any such areas where the damaged undesignated timber can reasonably be logged separately; and

(c) Areas of affected or unaffected timber that are to be eliminated from Contract Area.

Forest Service shall locate and post the boundaries of all such areas, as needed.

After Contract Area Map has been outlined under this Subsection, Forest Service may propose contract modification to permit the harvest of catastrophe-affected timber. If Contractor accepts Forest Service proposed modifications, this contract shall be modified to include rates redetermined under DT.3.2 and other related revisions as necessary, such as revision of Operating Schedule to ensure prompt removal of affected timber when necessary to avoid further loss and provision for additional contract time, if needed.

IT.3.3 Contract Suspension and Modification. (a) Contracting Officer may, by written order, delay or interrupt authorized operations under this contract or modify this contract, in whole or in part:

(i) To prevent environmental degradation or resource damage, including, but not limited to, harm to habitat, plants, animals, cultural resources, or cave resources;

(ii) To ensure consistency with land and resource management plans or other documents prepared pursuant to the National Environmental Policy Act of 1969, 42 USC 4321-4347;

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(iii) To conduct environmental analysis, including, but not limited to, engaging in consultation pursuant to the Endangered Species Act of 1973, 16 USC 1531, *et seq.*; or

(iv) Upon agreement of the Regional Forester, due to administrative appeal or litigation, regardless of whether Contracting Officer's request is required by a court order or this contract is named in such a proceeding.

(v) Upon a change in law if performance of the contract, as determined by the Forest Service, would not be in compliance, in whole or in part, with such law.

(b) In the event of a request delaying or interrupting Contractor's Operations under this Subsection, Contractor's remedy shall be: (i) Contract Term Adjustment pursuant, (ii) reimbursement for Out-of-Pocket Expenses, (iii) rate redetermination to measure any decline in the market pursuant to DT.3.3, (iv) temporary reduction of downpayment pursuant to ET.2.3, (v) temporary credit for unamortized Specified Road construction cost pursuant to FT.2.7, and (vi) temporary bond reduction pursuant to JT.1.3.

(c) In addition to the compensation scheme set forth in subparagraph (b), Contractor may seek termination pursuant to IT.3.6 or, at any time prior to authorization to resume work suspended under this Subsection, demand termination under IT.3.4. If Contractor elects termination under IT.3.4 or IT.3.6, Contractor is nonetheless required, prior to contract termination, to fulfill all contract obligations for areas not affected by the delay or interruption under this Subsection and all compliance obligations for areas affected by the delay or interruption, including, but not limited to, erosion control, brush disposal, and road maintenance. To the extent Contractor is unable to fulfill such obligations, any compensation due to Contractor will be reduced by the cost of completing the unfulfilled obligations, as determined by Contracting Officer. If Contractor seeks damages pursuant to subparagraph (b) and termination pursuant to this subparagraph, Contractor is not entitled to duplicative recovery of any damages.

(d) In cases of modification under this Subsection, Contractor shall receive a rate redetermination pursuant to DT.3.1.

(e) Contractor will only be eligible for the remedies listed in this Subsection if the delay or interruption occurs when operations were in progress or would have been proceeding, had there been no delay or interruption under this Subsection

(f) The applicability of this Subsection shall be unaffected by a finding during administrative appeal or litigation that this sale or a similarly situated sale was awarded or operated without properly complying with any statute, regulation, or policy.

IT.3.4 Contract Termination. (a) The Chief or the Chief's designee may unilaterally terminate this contract, in whole or in part, for any of the reasons set forth in paragraph (a) of IT.3.3.

(b) Contractor agrees that compensation for termination of this contract, in whole or in part, under this Subsection shall be: (i) refund or release of advanced deposits under ET.2.1.2 for timber cut but not removed, (ii) reimbursement for Out-of-Pocket Expenses, and (iii) one of the following except when termination, pursuant t I.3.3(v), is based upon a change of law which is public and general in nature: replacement volume under subparagraph (c) or liquidated damages under subparagraph (d).

(c) Forest Service and Contractor shall make good faith efforts to identify within Contract Area replacement timber of similar volume, quality, access, and topography. Stumpage price shall be adjusted under DT.3.1 to account for differences between replacement timber and timber deleted. If Forest Service and Contractor cannot reach agreement on satisfactory replacement volume or the proper stumpage of such timber, either party may opt to end the search and Contractor shall be compensated under paragraph (d) of this Subsection.

(d) Forest Service shall pay as fixed, agreed, and liquidated damages an amount equivalent to 15 percent of the estimated delivered log value of the volume of timber not harvested due to the termination or partial termination. Estimated delivered log value and volume of timber not harvested shall be determined by Contracting Officer as of Termination Date, using Forest Service methods in use as of Termination Date.

(e) When Contractor elects termination under this Subsection as a remedy for a delay or interruption pursuant to IT.3.3, Contractor shall only be entitled to damages pursuant to subparagraph (d) if the IT.3.3 delay or interruption is greater than one year, and the delay or interruption was not initially caused by wind, flood, earthquake, landslide, fire, forest pest epidemic, or other major natural phenomenon.

(f) In cases of partial termination under this Subsection, Contractor's sole and exclusive remedy for the remaining volume shall be a rate redetermination pursuant to DT.3.1.

(g) The applicability of this Subsection shall be unaffected by a finding during administrative appeal or litigation that this sale, or a similarly situated sale, was awarded or operated without properly complying with any statute, regulation, or policy.

(h) Contractor is required to fulfill all contract obligations not affected by a termination or partial termination under this Subsection. To the extent Contractor is unable to fulfill such obligations, any compensation due to Contractor will be reduced by the cost of completing the unfulfilled obligations, as determined by Contracting Officer.

IT.3.5 Out-of-Pocket Expenses. "Out-of-Pocket Expenses" are unrecovered expenditures arising directly from performing the contract that were rendered unrecovered due to delay, interruption, or termination pursuant to IT.3.3 or IT.3.4. An expenditure is unrecovered within the meaning of this Subsection where Contractor was precluded

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from gaining the benefit of the expenditure during a given period because operations were not permitted. Forest Service will reimburse Contractor only for the following Out-of-Pocket Expenses:

(a) Out-of-Pocket Expenses for maintenance of the contract performance and payment bonds during the period when operations were delayed or interrupted or, if terminated, from the date operations were halted until the expiration of the bonds;

(b) Out-of-Pocket Expenses for maintenance of the downpayment or other cash deposits during the period when operations were delayed or interrupted or, if terminated, from the date operations were halted until the cash is returned to Contractor;

(c) Out-of-Pocket Expenses for move-in and move-out;

(d) Out-of-Pocket Expenses for felling, bucking, lopping, skidding, yarding, and decking any products so processed, but not removed from Contract Area because: (i) the contract was terminated or (ii) the products no longer meet Utilization Standards because of delay or interruption;

(e) If terminated in whole or in part, Out-of-Pocket Expenses for unused Temporary Roads;

(f) Out-of-Pocket Expenses for the investment in Specified Roads during the period when operations were delayed or interrupted or, if terminated, in whole or in part, Out-of-Pocket Expenses for unamortized Specified Road construction and reconstruction; and

(g) If the contract is terminated, in whole or in part, Out-of-Pocket Expenses for bid preparation, including review of contract offering.

Contractor shall submit documentation of claimed expenditures and supporting analysis to Contracting Officer to assist in Contracting Officer's calculation of reimbursement. Expenses related to paragraphs (a), (b), and (g) may be based on interest at the Prompt Payment Rate established by the Secretary of the Treasury. Contracting Officer shall determine the amount of reimbursement under this Subsection using information from Contractor and/or Forest Service methods in use on the date that operations were delayed, interrupted, or terminated at Contracting Officer's sole discretion.

Contractor shall make all reasonable efforts to minimize Out-of-Pocket Expenses.

IT.3.6 Termination for Market Change. In the event of delay or interruption under IT.3.3, exceeding 90 days, this contract may be:

(a) Modified to include rates redetermined under DT.3.3 or

(b) Terminated upon election and written notice by Contractor, if a rate redetermination for market change under DT.3.3 shows that the appraised weighted average Indicated Advertised Rate of all Included Timber remaining immediately prior to the delay or interruption has been reduced through a market change by an amount equal to or more than the weighted average Current Contract Rate.

Contractor agrees that damages caused by termination of contract by either party will be limited to Out-of-Pocket Expenses.

IT.4 Performance by Other than Contractor. The acquisition or assumption by another party, under an agreement with Contractor, of any right or obligation of Contractor under this contract shall be ineffective as to Forest Service, until Forest Service has been notified of such agreement and Contracting Officer has given written approval. In no case shall such recognition or approval:

(a) Operate to relieve Contractor of the responsibilities or liabilities Contractor has assumed hereunder or

(b) Be given unless such other party:

(i) Is acceptable to Forest Service as a contractor of timber and assumes in writing all of the obligations to Forest Service under the terms of this contract as to the uncompleted portion thereof or

(ii) Acquires the rights in trust as security and subject to such conditions as may be necessary for the protection of the public interests.

IT.5 Sale of Other Materials. Forest Service reserves the right to sell from Contract Area during the period of this contract any materials or products not subject to its terms, but shall not permit removal, possession, or use thereof that will materially interfere with Contractor's Operations. Contractor shall not be obligated to do any work made necessary by the action of others.

IT.6 Provisions Required by Statute.

IT.6.1 Covenant against Contingent Fees. Contractor warrants that no person or agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial agencies maintained by Contractor for the purpose of securing business. For breach or violation of this warranty, Forest Service shall have the right to annul this contract without liability or to require Contractor to pay, in addition to the contract price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

IT.6.2 Officials Not to Benefit. No member of Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom, unless it is made with a corporation for its general benefit (18 USC 431, 433).

SAMPLE

IT.6.3 Nondiscrimination in Employment. If the total value of this contract is in excess of $10,000, Contractor agrees during its performance as follows:

(a) Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by Forest Service setting forth the provisions of this Subsection.

(b) Contractor will, in all solicitations or advertisements for employees placed by or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(c) Contractor will send to each labor union or representative of workers with which Contractor has a collective bargaining agreement or other contract or understanding, a notice to be provided by Forest Service, advising the labor union or worker's representative of Contractor's commitments under this Subsection, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) Contractor shall comply with all provisions of Executive Order No. 11246, as amended by Executive Order No. 11375 and Executive Order No. 12086, and the rules, regulations, and relevant orders of the Secretary of Labor.

(e) Contractor will furnish all information and reports required by Executive Order No. 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to books, records, and accounts by Forest Service and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In event of Contractor's noncompliance with this Subsection or with any of such rules, regulations, or orders, this contract may be terminated or suspended, in whole or in part, and Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246, as amended, and such other sanctions may be imposed and remedies invoked, as provided in Executive Order or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) Contractor will include the provisions of paragraphs (a) through (f) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246, as amended, so that such provisions will be binding upon each Subcontractor or vendor. Contractor will take such action with respect to any subcontract or purchase order as Forest Service may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction by Forest Service, Contractor may request the United States to enter into such litigation to protect the interests of the United States.

IT.6.4 Debarment and Suspension Certification. Pursuant to 7 CFR Part 3017, Contractor shall obtain certifications from its Subcontractors regarding debarment, suspension, ineligibility, and voluntary exclusion, including additional Subcontractors obtained after award of this contract. "Subcontractors" are participants in lower tier covered transactions.

Contractor may rely upon a certification of a prospective Subcontractor that it is not proposed for debarment under 48 CFR 9.4, debarred, suspended, ineligible, or voluntarily excluded from participating in covered transactions or contracts, unless Contractor knows that the certification is erroneous.

Contractor shall keep the certifications of its Subcontractors on file until contract Termination Date and any extensions thereof, and will provide a copy at the written request of Contracting Officer. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this Subsection. The knowledge and information of Contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

If Contractor knowingly enters into a contract transaction with a person who is proposed for debarment under 48 CFR 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in covered transactions or contracts, in addition to other remedies available to the Government, Forest Service may pursue available remedies, including suspension and/or debarment.

The Subcontractor for a contract shall complete a "Subcontractor Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion." An example of this certification is shown following the instructions for page 2 of this contract.

IT.6.5 Contract Consistency With Other Laws. The contract shall govern if State and local environmental quality laws conflict with or preclude performance of contractual requirements.

JT.0—PERFORMANCE AND SETTLEMENT

JT.1 Performance Bond. As a further guarantee of the faithful performance of the provisions of this contract, Contractor delivers herewith and agrees to maintain a surety bond in the dollar amount stated in AT.14, unless the

SAMPLE

amount is adjusted as provided in JT.1.1. In lieu of surety bond, Contractor may deposit into a Federal Depository, as directed by Forest Service under ET.2.1, and maintain therein, cash in the dollar amount stated in AT.14 or negotiable securities of the United States having market value at time of deposit of not less than the dollar amount stated in AT.14.

Any adjustment or extension of time for completion of this contract beyond 1 year may be granted only with the consent of surety on bond or delivery of a new bond. Should the sureties on the bond delivered herewith, or any bond delivered hereafter in connection with this contract, become unsatisfactory to Forest Service, Contractor shall, within 30 days of receipt of demand, furnish a new bond with surety satisfactory to Forest Service.

JT.1.1 Bond Reduction. Upon Contractor's written request, Contracting Officer shall redetermine the amount of Contractor's performance bond to an amount not less than Contractor's remaining obligations, including the value of Included Timber remaining on Contract Area, plus the estimated cost of uncompleted work required of Contractor and any unpaid billings due on the contract. Contracting Officer shall provide written notice of the redetermined amount to Contractor and to Contractor's surety. Similarly, Contracting Officer shall report to Contractor in writing the amount of deposited cash or deposited securities required thereafter, if such deposits exist in lieu of a surety bond.

As soon as security for the performance of this contract or the settlement of Claims incident thereto is no longer necessary, appropriate notice shall be given to surety or deposits that may have been made in lieu of surety bond shall be returned to Contractor, subject to the conditions in JT.5.

JT.1.2 Letters of Credit. Notwithstanding the provisions of JT.1, approved letters of credit may be used in lieu of a surety bond for performance bond purposes. Such letters of credit shall be subject to approval by Contracting Officer.

JT.1.3 Temporary Bond Reduction. When, under IT.3.3, Contracting Officer requests Contractor to delay or interrupt Contractor's Operations for more than 90 days, the performance bond amount required may be temporarily reduced upon the written request of Contractor or at the discretion of Contracting Officer. For the period of the delay or interruption, the performance bond may be reduced to an amount not less than the estimated cost of uncompleted work required of Contractor and any unpaid billings due on the contract.

Upon Contractor's receipt of written notice from Contracting Officer that the basis for the delay or interruption no longer exists, Contractor shall restore the performance bond to the full amount shown in AT.14 within 15 days. Contractor shall not resume contract operations until the performance bond amount is fully restored.

JT.2 Disputes. This contract is subject to the Contract Disputes Act of 1978 (41 USC 601, *et seq.*). Except as provided in the Contract Disputes Act of 1978, all disputes arising under or relating to this contract shall be resolved in accordance with this Section.

As used herein, "Claim" means a written demand or assertion by one of the parties seeking, as a legal right, the payment of money, adjustment or interpretation of contract terms, or other relief, arising under or relating to this contract. A voucher, invoice, or request for payment that is not in dispute when submitted is not a Claim. However, where such submission is subsequently not acted upon in a reasonable time, or disputed either as to liability or amount, it may be converted to a Claim. A Claim by Contractor shall be made in writing and submitted to Contracting Officer for decision. A Claim by the Government against Contractor shall be subject to a decision by Contracting Officer.

For Contractor Claims of more than $100,000, Contractor shall submit with the Claim a certification that the Claim is made in good faith; the supporting data are accurate and complete to the best of Contractor's knowledge and belief; and the amount requested accurately reflects the contract adjustment for which Contractor believes the Government is liable. Contractor, if an individual, shall execute the certification. When Contractor is not an individual, the certification shall be executed by a senior company official in charge at Contractor's plant or location involved or by an officer or general partner of Contractor having overall responsibility for the conduct of Contractor's affairs.

For Contractor Claims of $100,000 or less, Contracting Officer must render a decision within 60 days. For Contractor Claims in excess of $100,000, Contracting Officer must decide the Claim within 60 days or notify Contractor of the date when the decision will be made.

Contracting Officer's decision shall be final unless Contractor appeals or files a suit.

The authority of Contracting Officer does not extend to Claims or disputes that by statute or regulation other agencies are expressly authorized to decide.

Interest, at the Prompt Payment Rate established by the Secretary of the Treasury, on the amount found due on Contractor's Claim shall be paid from the date the Claim is received by Contracting Officer until the date of the payment.

Except as the parties may otherwise agree, pending final resolution of a Claim of Contractor arising under the contract, Contractor shall proceed diligently with the performance of the contract in accordance with Contracting Officer's decision.

JT.2.1 Time Limits for Submission of Claim. Failure by Contractor to submit a Claim within established time limits shall relinquish the United States from any and all obligations whatsoever arising under the contract or portions thereof. Contractor shall file such Claim within the following time limits:

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(a) When Contractor constructs Specified Road, Contractor must file any Claim not later than 60 days after receipt of Forest Service written notification of acceptance;

(b) When Forest Service constructs Specified Road, Contractor must file any Claim not later than 60 days after receipt of Forest Service written notification authorizing use of road;

(c) For Payment Units, cutting units and stewardship project areas, Contractor must file any Claim not later than 60 days after receipt of Forest Service written notification that such area has been accepted; and

(d) In all other cases, Contractor must file any Claim not later than 60 days after receipt of Contracting Officer written notification that contract is closed.

JT.2.2 Contract Documents. All contract documents are intended to be consistent with each other. In case of discrepancy, the following is the order of precedence:

(a) Special Provisions in Part KT
(b) Contract Area Map
(c) Specific Conditions in Part AT and Schedule of Items
(d) Standard Provisions in Parts BT through JT
(e) Special project specifications
(f) Plans, such as slash, erosion control, and dust abatement
(g) Agreements between Contractor and Forest Service, as authorized under the contract
(h) Plans:
  (i) Figured dimensions over scaled dimensions
  (ii) Large scale Plans over small scale Plans
(i) Standard specifications
(j) Lists and/or tables in Plans over any conflicting notations on Plans
(k) Shop Drawings

JT.3 Breach. In event Contractor breaches any of the material provisions of this contract, Forest Service shall give Contractor notice of such breach and, allowing reasonable time for remedy of such breach and of Forest Service's election to suspend, may give notice to suspend all or any part of Contractor's Operations. Such notice of breach and notice to suspend Contractor's Operations shall be written, except oral notices may be given if such breach constitutes an immediate threat to human life or a threat of immediate and irreparable damage to National Forest resources. Notwithstanding Section GT.1, such oral suspension notice may be given to Contractor's work supervisor or, in work supervisor's absence, to those performing the operation. An oral suspension notice shall be promptly followed by telephone notice and a written explanation from Forest Service to Contractor.

Suspension under this section shall not entitle Contractor to any remedies arising under I.3.3.

Immediately upon oral or written suspension, Forest Service representative shall notify Contracting Officer of the suspension and related circumstances. Contracting Officer shall promptly review the suspension to determine if the suspension should be continued or lifted. Such suspension shall be lifted as early as conditions permit.

Upon receipt of oral or written notice of such breach, Contractor shall remedy the breach as follows:

(a) If remedying such breach requires on-the-ground action by Contractor, Contractor shall have 30 practicable operating days during Normal Operating Season to remedy the breach, except under emergency conditions when action should not be delayed to prevent major damage or

(b) If such breach does not require on-the-ground action by Contractor, such breach shall be remedied within 30 days.

JT.3.1 Termination for Breach. Contracting Officer, with the concurrence of the Regional Forester, may terminate this contract for breach in the event Contractor:

(a) Is convicted for violation of criminal statutes, civil standards, or any other offense indicating a lack of business integrity or honesty that seriously and directly affects the responsibility of Contractor; including, but not limited to:

(i) Theft, forgery, bribery, embezzlement, falsification or destruction of records, making false statements, or receiving stolen property, any of which occurred in connection with obtaining, attempting to obtain, selling, trading, or processing public timber;

(ii) Fraud, criminal offenses, or violation of Federal or State antitrust laws, any of which occurred in connection with obtaining, attempting to obtain, or performing a public contract or subcontract; or

(iii) Threatening, resisting, intimidating, or interfering with Forest Officers engaged in, or on account of, the performance of their official duties involving the protection, improvement, or administration of National Forest lands;

(b) Is convicted for violation of criminal statutes or civil standards, orders, permits, or other regulations for environmental protection issued by a Federal agency, State agency, or political subdivision thereof in the conduct of operations hereunder on National Forest lands, pursuant to GT.0.1;

(c) Has engaged in a pattern of activity that demonstrates flagrant disregard for the terms of this contract, such as, but not limited to, repeated suspensions for breach pursuant to JT.3, causing undesignated timber meeting Utiliza-

SAMPLE

tion Standards to be unnecessarily damaged or negligently or willfully cut, or causing other serious environmental degradation or resource damage;

(d) Fails to comply with contract provisions related to nondiscrimination in employment; or

(e) Fails to remedy a breach of contract within time limits stated in JT.3.

Damages due the United States for termination under this Subsection shall be determined pursuant to JT.4.

JT.4 – Damages for Failure to Complete Contract or Termination for Breach. (a) In event of Contractor's failure to cut designated timber on portions of Contract Area by Termination Date; Contractor's failure to complete required stewardship projects by Termination Date; or termination for breach under JT.3.1; Forest Service shall appraise remaining Included Timber and stewardship projects, unless termination is under IT.2.2 or IT.3.4. Such appraisal shall be made with the standard Forest Service method in use at time of termination.

(b) If the contract is reoffered and awarded, damages due shall be the amount by which Current Contract Value decreases at new Bid Rates, plus costs described in paragraph (d) of this Section, less any unused established Stewardship Credits.

(c) If the contract is not reoffered or there are no responsive bids on the reoffered contract, damages due shall be the amount by which Current Contract Value decreases, based on the value determined by appraisal, plus costs described in paragraph (d) of this Section, less any unused established Stewardship Credits.

(d) If applicable, the following costs shall be included in damages:

(i) The cost of reoffering, including, but not limited to, salary costs, document preparation and duplication costs, mailing costs, and contract advertisement costs.

(ii) If Contractor has failed to cut individual trees in the portions of Contract Area cut over and there is no resale of such individual trees, Contractor shall pay Forest Service for cost of felling and removal or otherwise eliminating such uncut trees, except for occasional trees not cut for reasons stated in GT.4.

(iii) The Government's loss caused by the delay in receipt of stumpage payments. Such loss will be measured by interest at the Current Value of Funds Rate established by the Secretary of the Treasury, on the unpaid contract value at Termination Date. Interest will be charged for the total number of months, or portions thereof, from Termination Date until midpoint of the contract resale period, less any time in excess of 1 year needed to make the resale.

(iv) Any increase in reforestation costs, including site preparation, seeding, and planting caused by Contractor's failure to harvest Included Timber by Termination Date.

JT.5 Settlement. If obligations of Contractor have not been fully discharged by Termination Date, any money advanced or deposited hereunder shall be retained and applied toward unfulfilled obligations of Contractor without prejudice to any other rights or remedies of Forest Service. Such funds may be treated as cooperative deposits under ET.2.1.8 for uncompleted work 30 days after receipt of written notice from Contracting Officer to Contractor of work to be done and Contractor's failure to deny the obligation or to do the work.

JT.6 Contract Closure. Contracting Officer shall give appropriate written notice to Contractor when Contractor has complied with the terms of this contract. Contractor shall be paid refunds due from Integrated Resource Account under ET.2.4 and excess cooperative deposits under ET.2.1.8.

KT.0—SPECIAL PROVISIONS

In accordance with AT.19, the Sections, Subsections, and Items therein listed are attached and made a part hereof. The identifier after the K indicates the Part, Section, Subsection, or Item that is being supplemented or modified by each particular provision included in this Part.

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KT-CT.1.1# - TIMBER SUBJECT TO AGREEMENT. (9/04) In addition, there is within Contract Area an unestimated quantity of:

Species	Product
Western White Pine	**Sawlog**
Douglas Fir	**Sawlog**

that shall be Included Timber upon written agreement.

KT-CT.3.5# - DESIGNATION OF TIMBER, CUTTING UNIT BOUNDARIES, AND SUBDIVISION BOUNDARIES (6/2012) Trees are designated for cutting under BT.3.5# only if designated as shown in the Timber Designation table below. The boundaries of Subdivisions are designated as shown in the Boundary Designation table below. Trees used for boundary designation are not to be cut.

SPECIFICATIONS PURSUANT TO KT-CT.3.5# - DESIGNATION OF TIMBER AND UNIT BOUNDARIES
Timber Designation Table

Payment Unit	Tree Paint Color	Designation or Specification
SALE AREA	**GREEN**	Hazard Tree. Notwithstanding B.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.
2, 59, 62, 63, 64, 75, 78, 79, 83, 87, 88, 95, 96, 97, 98, 99, 104, 105,106, 114, 115, 117, 951, 954 and 956. Include Group Selections 64A, 83A/B, 87A/B/C, 114A/B/C and 951A/B/C.	**GREEN**	Individual Tree Mark. Individual trees are designated for cutting only if Marked above and below stump height with the specified paint color.

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N/A	**N/A**	Leave Tree Mark. All live **N/A** 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.
N/A	**N/A**	Wildlife Trees. Notwithstanding the designation for cutting under BT.3.1, BT.3.3, BT.3.4,or BT.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.
2, 59, 62, 63, 64, 75, 78, 79, 83, 87, 88, 95, 96, 97, 98, 99, 104, 105, 106, 114, 115, 117, 951, 954 and 956 Include Group Selections 64A, 83A/B, 87A/B/C, 114A/B/C and 951A/B/C.	**BLACK**	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.
2, 59, 62, 63, 64, 75, 78, 79, 83, 87, 88, 95, 96, 97, 98, 104, 114, 115, 117, 954 and 956		Designation by Spacing KT-CT.3.5.1#
N/A		Designation by Species and Diameter, KT-CT.3.5.2#
N/A		Designation by Damage Class, KT-CT.3.5.3#
N/A		Designation by Row Spacing, KT-CT.3.5.4#

Subdivision/Cutting Unit Boundary Designation Table

Payment Unit	Boundary Paint Color	Boundary Designation
2, 59, 62, 63, 64, 75, 78, 79, 83, 87, 88, 95, 96, 97, 98, 99, 104, 105, 106, 114, 115, 117, 951, 954 and 956.	**ORANGE**	Boundary line trees are Marked at eye level with three (3) horizontal slash marks facing into the interior of the Payment Unit and vertical marks on each side of the tree facing the boundary line. -Yellow boundary posters with sale name and Subdivision numbers intermittently stapled to boundary trees.

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Group Selections	Boundary Paint Color	Boundary Designation
64A, 83A/B, 87A/B/C, 114A/B/C, 951A/B/C	**WHITE**	Boundary line trees are Marked at eye level with three (3) horizontal slash marks facing into the interior of the Payment Unit and vertical marks on each side of the tree facing the boundary line.

KT-CT.3.5.1# – DESIGNATION BY SPACING.(9/04) Within Payment Units **2, 59, 62, 63, 64, 75, 78, 79, 83, 87, 88, 95, 96, 97, 98, 104, 114, 115, 117, 954 and 956**, as shown on Contract Area Map, all **live biomass size (3″ dbh to 9.9″ dbh) with species preference for cutting being lodgepile pine, white fir, red fir, incense-cedar, Douglas-fir, ponderosa/Jeffrey pine, and sugar/western white pine** trees, except trees Marked with **N/A** paint or described to be left uncut, that meet Utilization Standards and one or more of the following criteria are designated for cutting.

(a) The required spacing is a maximum average of **25** feet. The tree is within **15** feet of a **live biomass size conifer or hardwood** tree that has a larger stump diameter than it; and the larger tree is not designated for cutting.

(b) The tree is within **N/A** feet of a **N/A** tree greater than or equal to **N/A** inches stump diameter; and this tree is not designated for cutting.

(c) The tree is Marked with **GREEN** paint.

Distances are measured horizontal distance, outside bark stump height to outside bark stump height. Stump diameter is measured outside bark at stump height in a horizontal plane and is the average of a measurement across the short axis through the true center of the stump and a second measurement at right angles to the short axis.

All **biomass size trees shall be cut in Group Selection Units 64A, 83A/B, 87A/B/C, 105, 114A/B/C and 951A/B/C and all hardwood trees** shall be left as leave trees, unless Marked with **N/A** paint. No tree greater than or equal to **15** inches stump diameter shall be cut, unless Marked with **GREEN** paint. Cutting unit boundaries and other trees that shall be left uncut are Marked with **ORANGE and/or WHITE** paint.

Contractor and Forest Service shall agree to skid trail location under GT.4.2.2. Skid trails shall be no greater than **12** feet wide with a **100** foot spacing. Quantities of trees located in skid trails **are not** Included Timber under AT.2.

SAMPLE

KT-ET.4 - PAYMENTS NOT RECEIVED. (08/01/2012)

(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 ET.2.1.8;
(iii) Damages pursuant to J.4;
(iv) Road use fees;
(v) Restoration of downpayment pursuant to ET.2.2;
(vi) Periodic payments pursuant to ET.2.1.3;
(vii) Extension Deposits pursuant to ET.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.

SAMPLE

KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (9/04)
Contractor shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications									
	From	To		801	802	803	804	805	806	807	808	809	810
24N33	PC414	24N69X	4.2										
24N33A	24N33	MP 0.6	0.6										
24N29Y	PC423	PC414	3.9										
24N36	PC423	MP 1.3	1.3										

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

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications									
	From	To		801	802	803	804	805	806	807	808	809	810
24N33	PC414	24N69X	4.2				P						
24N33A	24N33	MP 0.6	0.6			P	P		P				
24N29Y	PC423	PC414	3.9			P	P		P				
24N36	PC423	MP 1.3	1.3			P	P		P				

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

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications									
	From	To		801	802	803	804	805	806	807	808	809	810
24N33	PC414	24N69X	4.2				P						
24N33A	24N33	MP 0.6	0.6			P	P						
24N29Y	PC423	PC414	3.9			P	P						
24N36	PC423	MP 1.3	1.3			P	P						

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

The Contractor's share of the estimated quantity of surface repair material for native and aggregate surface roads is 0.5 C.Y. / CCF /Mile

The Contractor's share of the estimated quantity of bituminous surface repair material for bituminous surface roads is 0.1 Ton / CCF /Mile

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KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (7/01)

Table B - Dust Abatement Plan

MATERIAL TYPE	WATER	MAGNESIUM CHLORIDE
ROAD SEGMENTS	All	Same as water
INITIAL APPLICATION RATE	During Contractor's operations other than hauling, complete dust abatement after 40 accumulated T.U. During hauling operations, complete dust abatement once a day before hauling.	Same as water During hauling operations, complete dust abatement before hauling at 0.5 Gal./S.Y.
SUBSEQUENT APPLICATION RATE AND FREQUENCY	During Contractor's operations other than hauling, complete dust abatement after 40 accumulated T.U. During hauling operations, complete dust abatement every 82 CCF hauled or as required to maintain complete dust abatement.	Same as water During hauling operations, complete dust abatement with water as required. Every 8,200 CCF hauled complete dust abatement at 0.5 Gal./S.Y.
PREPARATION METHOD	N/A	Method 1
WEIGHT VOLUME CONVERSION FACTOR	N/A	182 Gal./Ton

Notes: T.U. = Traffic Units (T.U.) as referenced in commensurate share calculations.

Pickup or automobile (1 way) = 1 T.U.
Semi Truck (2 way) = 15 T.U.

Complete Dust Abatement = Surface is firm, compacted and free of dust. Other dust palliatives may be used when agreed to by the Forest Service.

SAMPLE

KT-FT.3.5# - ROAD AND WATER SUPPLY USE. (5/2008) 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.

SPECIFICATIONS PURSUANT TO KT-FT.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.

SAMPLE

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.
Water Supply Deposits	**N/A**
Surface Replacement Deposits	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

Road No.	From	To	Miles	Rate
24N33	PC414	24N69X	4.2	$0.91/CCF
24N33A	24N33	MP 0.6	0.6	$0.91/CCF
24N29Y	PC423	PC414	3.9	$0.91/CCF
24N36	PC423	MP 1.3	1.3	$0.91/CCF

Contract Area Average Rate: **$0.91**/CCF **(**$0.17/Ton)

SAMPLE

KT-GT.2.2# - PROTECTION OF IMPROVEMENTS. (5/2008) Contractor shall notify Forest Service at least **10** days prior to any operations in the vicinity of improvements identified on Contract Area Map. Contractor shall protect such improvements from damage and shall be responsible for their timely restoration if damaged by Contractor's Operations. If relocation or removal of said improvements is necessary to avoid foreseeable damage by Contractor's Operations, work and cost shall be borne by the party listed in the table below. If Contractor is required to move or relocate the improvements, they 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 table below for improvements to be protected.

SPECIFICATIONS PURSUANT TO KT-GT.2.2# - PROTECTION OF IMPROVEMENTS.

Improvement	Owner's or Permittee's Name	Timing	Specifications	Work and Cost of Removal or Relocation Borne by
Payment Unit 78 **Two Surface Waterlines,** indicated on the ground by blue and blue/white striped flagging in combination	Contact: Jeff Robinson at 530-865-9873	When operations require log skidding across these lines, or damage to these lines.	Repair any portion of lines damaged by operations. When a crossing is necessary, cut and move each waterline end for the skid. Cap each end during the use of the skid, then splice one hour after the use of the skid.	Contractor
Payment Units 75, 95, 96 and 104 Gravel driveway (FS 24N33A) from east bdry of Units 75 & 104 to PC 423 (Oroville/ Quincy Hwy)	Bucks Lake Camp and RV: Contact: Roger Grubbs at 530-518-3604	When any portion of road is used for operations, ie: crossing with log skids, placement of landings, etc.	Repair/Replace gravel surface to original condition where damaged or altered immediately after use. See Stewardship Work Item #2.1	Contractor
Payment Unit 63. Gravel	Timberline Lodge: Contact:	When road is used for log and chip haul.	Repair/Replace gravel surface to original	

SAMPLE

Driveway	Louis Gutierrez at 530-283-2262		condition where damaged or altered immediately after use. See Stewardship Work Item 2.	Contractor
West segment Payment Unit 115 Leach field in existing temporary road footprint, as shown in CAM insert.	Bucks Lake Lodge: Contact: Louis Gutierrez at 530-283-2262	Construct temorary road prior to use by log and chip trucks	Construct temporary haul road (about 400 feet long by 15 feet wide)to bypass the leach field, as indicated on the ground with orange flagging and white flagging and as shown in the insert to the CAM. See Stewardship Work Item #3	Contractor
'Bone yard' segment of existing temporary road – buried leach line that connects to leachfield along with a buried waterline.	Bucks Lake Lodge: Contact: Louis Gutierrez at 530-283-2262	Log and chip trucks exiting 'boneyard' segment of haul road onto Bucks Lake Road during logging operations.	Follow wire stakes with orange flagging and white flagging. See Stewardship Item #2.2: specifications for repair/ replace up to 100 feet of leach line and waterline, if damaged.	Contractor
Payment Unit 88 Telephone Line – underground (see CAM – PCT insert)	AT&T: Contact: Gail Welch at 530-891-2273 or gw1716@att.com	Notify AT&T when crossings are to take place and immediately upon any damage to the line.	Provide protective cover, ie: cull logs covered with dirt at selected crossing. Line is about 2 feet below ground and is flagged with yellow flagging and orange flagging.	Contractor
Payment Unit 88 Pacific	US Forest Service, Mt Hough RD:	Only one skid crossing is permitted for	Restoration of PCT and PCT Corridor to	

SAMPLE

Crest Trail (PCT) and Bucks Loop Trail(BLT),	Contact: Stephen Windward, 530-283-7605	the PCT, as indicated on the CAM. Skid location is established on the ground with pink flagging and white flagging. Skid crossings by agreement for the BLT. PCT has a LOP until August 15. Both trails are to be avoided and closed to the public during operations.	previous condition is specified in Stewardship Work Items #1 and 1.1 within 24 hours after use. For BLT crossings repair trail tread to original condition. No skidding allowed on PCT and BLT.	Contractor
Payment Units 75, 95, 96, 104. Landing Site on Pacific Gas & Electric (PG&E) Property.	PG&E: Contact: Dan McCall, Company Forester at cell 530-227-0964	Submit PG&E Temporary Use Permit.	Restore Landing pursuant to KT-GT.6# and KT-GT.7# of the Contract. See Stewardship Work Item #2.1 for gravel replacement on driveway (FS 24N33A)if so warranted.	Contractor
Payment Units 62 and 115 Overhead Powerline	AT&T: Contact: Gail Welch at 530-891-2273 or gw1716@att.com	Repair/replace if damaged by operations.	Repair or replace only if damaged.	Contractor
Payment Unit 96 Information Kiosk site	US Forest Service, Mt Hough RD: Contact: Stephen Windward, 530-283-7605	Site includes the information kiosk, restrooms, paved parking, parking barriers.	Repair any part of the facility only if damaged by operations.	Contractor

SAMPLE

KT-GT.2.4# – SITE SPECIFIC SPECIAL PROTECTION MEASURES (9/04)
Special protection measures needed to protect known areas identified on Contract Area Map or on the ground include:

Cultural Resource Protection Measures:
After Timber Sale award, Contract Area Map (CAM) 3 of 3 will be available to the Purchaser, indicating known locations of Cultural Resources that are to be avoided and protected. Known sites are indicated on the ground by red/black 'candy striped'flagging and red plastic **Control Area** (CA) tags stapled to trees.

Wildlife and Botanical Protection Measures:
The CAM indicates NO known **noxious weed** site(s). Any discovered site is to be avoided and the Ranger District Botanist notified. Site(s) will be identified on the ground with orange flagging with 'NOXIOUS WEEDS' printed in black. Also, there are known sensitive plants located on the CAM which are identified on the ground with black and blue striped flagging.

Limited Operational Periods (LOP):
Three Goshawk Nest Sites: No operations shall take place within the confines of the Limited Operating Period (LOP) areas from Feb 15 to Sept 15, inclusive. This affects Payment Units **99, 117, 954** and **956.** Hauling is allowed on roads that intersect the LOP.
One Osprey Nest Site: No operations shall take place within the confines of the LOP area from Mar 15 to Aug 15, inclusive. This affects the west segment of Payment Unit **115.** Hauling is allowed on roads that intersect the LOP.
One Spotted Owl Nest Site: No operations shall take place within the confines of the LOP area from Mar 1 to Aug 15. This affects the east segment of Payment Unit **64.** Hauling is allowed on roads that intersect the LOP.

WILDLIFE CONTROL AREA – The CAM has aspen tree WCA sites identified in and adjacent to Payment Unit 87. There is also a WCA site not identified on the CAM in Payment Unit 96. These sites are not identified on the ground with flagging. Operations are allowed when the soil within these areas is dry, ie: if a sudden rain storm occurs, then wait for the soil to dry out before resuming operations.

For protection of the Sierra Nevada Yellow-Legged Frog and habitat the following plan will be followed:
Water Drafting Plan
1. New or existing water draft sites would be evaluated with the Mt. Hough district biologist prior to changes or use. Drafting sites shall be visually surveyed for amphibians and their eggs before drafting begins.
2. "Mucked out" debris, bedload sediment, etc. shall be transported to an appropriate disposal site (to be designated) if no apparent site is feasible.
3. Maximum draw-down volumes would be estimated prior to use of the draft site. Minimum pool sites would be maintained during drafting using measurements such as staff gauges, stadia rods, tape measures, etc.

SAMPLE

4. Back down ramps would be constructed and or maintained to ensure the streambank stability is maintained and sedimentation is minimized. Rocking, chipping, mulching, or other effective methods are acceptable in achieving this objective. As necessary, earthen or log berm, straw waffle, certified hay or rice straw bale berms, or other containment structures would be constructed at the bank full water line to protect the stream bank.
5. Forest personnel and Contractor shall use the Forest Service approved suction strainer (FGM 5161) or other foot vales with screens having openings less than 2mm in size at the end of drafting hoses. The suction strainer shall be inserted close to the substrate in the deepest water available; the suction strainer shall be placed on a shovel, over plastic sheeting, or in a canvas bucket to avoid substrate and amphibian

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

Recreation Limited Operational Periods – No Logging Operations

1. Bucks Lake Road (PC414) and Oroville-Quincy Hwy (PC423) – on weekends for Payment Units **2, 75, 78, 79, 95, 96, 97, 98, 99, 104, 106,** and **117** from Memorial Day to Labor Day to accommodate recreation traffic.
2. Pacific Crest Trail - from January 1 to August 15 in north segment of Payment Unit **88** or designated skid crossing though Project Work Unit **88.1** and in the east segment of Payment Unit **87** to accommodate for peak foot and horse traffic.
3. Bucks Lake Lodge, Timberline Lodge and Bucks Lake Camp and RV - from Memorial Day to Labor Day, inclusive for Payment Units **62, 63, 75, 95, 96, 99, 104 and 115** to reduce traffic conflict.

KT-GT.3.1.4 - RELEASE OF PAYMENT UNITS. (2/2005) Except for Specified Road Payment Units, Forest Service shall not Release for Cutting more Payment Units than can be logged within 60 calendar days at Contractor's normal rate of logging. Unless otherwise agreed in writing, upon completion of all contract requirements in a Payment Unit, additional Payment Units may be Released for Cutting.

KT-GT.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:

SAMPLE

SCHEDULE PURSUANT TO KT-GT.3.1.5# - PROJECT OPERATIONS SCHEDULE (12/2006)

Area Payment Units	**Conditions of Operation**	**Purpose**
SALE AREA	Operations may occur when soil is dry; that is, in the spring when soil moisture in the upper 8 inches is not sufficient to allow a soil sample to be squeezed and hold its shape, or will crumble when the hand is tapped. In the summer and early fall after storm event(s) when soil moisture between 2-8 inches in depth is not sufficient to allow a soil sample to be squeezed and hold its shape, or will crumble when the hand is tapped. Winter operations may occur only when the ground is frozen to a depth of 5 inches or over 8 inches of well packed snow.	Protection of Soil
SALE AREA	Within a given Payment Unit, the Contractor has up to 30 days to complete the cutting, skidding and decking of biomass, after sawlogs are removed. Biomass chipping and hauling must be completed at or prior to termination date.	Control of Operations
SALE AREA	Tillage of landings, temporary roads and skid trail approaches to 200 feet from the landings at slopes less than 25% will be required prior to close of Payment Unit. To achieve the best results and prevent additional soil damage, a winged subsoiler should be used. See KT-GT.6# EROSION PREVENTION AND CONTROL.	Restoration of Disturbed Soil Areas

SAMPLE

Payment Unit 88 (see CAM insert)	One skid is allowed across the Pacific Crest Trail (PCT) located on the ground with pink flagging and white flagging. PCT crossing will be restored, pursuant to specifications in Work Item #1, within 24 hours after use. Skids are allowed to cross the Bucks Loop Trail (BLT) by agreement, otherwise, the trail is to be avoided. BLT, where crossed, will be restored to original trail tread. No skidding is allowed on these trails.	Protection of a National Scenic Trail
Payment Unit 63 (see Bucks Lake Lodge Operations insert in the CAM)	Before haul within the RHCA: emplace brow logs at edge of road between the watercourse and the road; cover any exposed soil between road and stream below brow logs with weed free straw; NO side casting of any material during road improvement actions. Immediately after operations, remove brow logs and cover whole area of road within the RHCA with slash, as part of rehabilitation.	Protect watercourse RHCA occupied by existing road prism.
Payment Units 2, 78, 79, 83, 87, 88, 95, 96, 97, 98, 99 and 115 (see CAM)	No landings are to be visible from Bucks Lake Road and all other paved roads around Bucks Lake. Any exceptions will be on a case-by-case basis pursuant to Visual Quality guidelines.	Visual Quality
Payment Unit 62 and northeast segment of Payment Unit 115 (see Bucks Lake Lodge Operations insert in the CAM)	Single constructed skid trail above Timberline Lodge leading from existing landing. Skid trail is indicated on the CAM and established on the ground with pink flagging and white flagging. Skid no faster than 5 mph to reduce dust.	Reduce negative impacts on lodge building.
West segment of Payment Unit 115 (see CAM)	100% dust abatement in the 'boneyard' segment of the haul road to Bucks Lake Road.	Reduce negative impacts on the main lodge building.
SALE AREA	The table below shall apply to	Watercourse and Wet

SAMPLE

	any wetland discovered during harvest operations and shall be followed accordingly. The CAM indicates where wetland features are located, primarily adjacent to Payment Unit boundaries and Stewardship Work Item boundaries.	Area Protection

Stream Type	Equipment Exclusion Zone by Slope Class			Overall RHCA Width, subtract Exclusion Zone to get "Restriction Zone"
	0–15%	15–25%	>25%	
Perennial, fish bearing	100 ft	150 ft	No mechanical treatment	300 ft
Perennial, no fish	50 ft	100 ft	No mechanical treatment	150 ft
Intermittent	25 ft	50 ft	No mechanical treatment	100 ft
Ephemeral	25 ft	25 ft	No mechanical treatment	100 ft
Reservoirs/wetlands greater than 1 acre	50 ft	75 ft	No mechanical treatment	

KT-GT.3.3.1 - LOG TRUCKING. (2/2005) 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.

KT-GT.3.7 - SUBSTITUTE METHODS. (2/2005) 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.

KT-GT.4.1# - FELLING, BUCKING, AND LIMBING. (8/2007) Unless otherwise agreed in writing, Contractor's felling, bucking, and limbing operations shall be conducted as specified in the table below.

SPECIFICATIONS AND TREATMENTS PURSUANT TO KT-GT.4.1# - FELLING, BUCKING AND LIMBING

Treatment Method	Felling, Bucking and Limbing Specifications

SAMPLE

Limbing	Outside of construction clearings, Clearcutting Units and regeneration units, unless otherwise provided by GT.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 **N/A** inches, at which point the top shall be cut from the remainder of the stem.
No Lop "No Lop"	Within units or subdivisions designated NO LOP on Contract Area Map, trees shall be skidded/yarded to agreed landing locations prior to lopping.
Whole Tree Yarding "Whole"	Notwithstanding the requirements above, within units or subdivisions designated "Whole" on Contract Area Map, trees smaller than **22** inches DBH shall be skidded/yarded to agreed landing locations prior to limbing, bucking, and lopping. Trees larger than or equal to **22** inches DBH shall be bucked into two or more pieces with the butt portion being no longer than **41** feet prior to skidding/yarding. The butt log **shall** be limbed prior to skidding/yarding.
Directional Felling	Within areas designated DF on Contract Area Map, Included Timber shall be directionally felled away from **improvements, structures, non-federal lands, overhead lines, roads, streamcourses, wetlands and control 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	**Treatment of stumps 14 inches in diameter (inside bark and greater) for all live species will be required within 8 hours after cutting, unless otherwise agreed in writing. Treatment shall be with a borate compound registered with the State of California for the prevention of *Heterobasidion* root disease, ie: Sporax.** Treatment shall consist of removal of sawdust and other loose debris from the cut surface of the stump and application of a thin layer of the borate compound uniformly over the entire cut surface, including exposed wood surfaces on the stump sides, at the rate specified on the product label. Any surface irregularities on the stump preventing application of a uniform layer of borate compound shall be cut level prior to treatment. Unless waived in writing, Contractor shall also apply an approved colorant mixed with the borax to insure complete coverage. Treatment should be done as soon as possible but shall be completed no later than **8**

SAMPLE

	hours after felling, otherwise stumps shall be re-cut and treated. Contractor shall not apply borate compound during heavy rain fall or when such precipiation rate is predicted within **4** hours of application to cause borate compound to be flushed off the stump and become ineffective, in that case treatment shall be reapplied. Application shall be completed within 24 hours of the precipitation having ceased. Borate compound also shall not be applied to stumps located within **25** feet of live streamcourses and meadows/wetlands shown on Contract Area Map and/or **N/A** feet of sensitive plant location boundaries as flagged on the ground. Contractor shall provide the borate compound and colorant and apply it in compliance with the State of California laws and regulations pertaining to pesticides and pest control operations. Borate compound storage shall be located such that any spillage will not contaminate water. All spills shall be promptly cleaned up and spilled material disposed of according to the product label. All spills occuring in water or over **25** pounds shall be reported to Forest Service within **24** hours. Contractor shall submit at the end of each month a "Monthly Summary of Pesticide Use Reports" to the appropriate County Agricultural Commissioner with a copy to the District Ranger.
Maximum Log Length	**N/A**
Minimum Stump Height	Payment Unit: **ALL**; Minimum Stump Height (inches): **3**; Purpose or Reason: **Timber Accountability**

KT-GT.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:

Ground-Based Skidding Table - KT-GT.4.2#

Map Symbol	Requirements

SAMPLE

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 **75** feet uphill, and **100** 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 **20** 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 GT.4.1 - Felling and Bucking, KT-GT.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-

SAMPLE

	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, GT.4.1 - Felling and Bucking, KT-GT.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 **N/A** feet for bunching trees, capable of severing, lowering and placing trees up to **N/A** inches diameter at stump height on the ground prior to yarding. Such equipment must be capable of operating on slopes up to **N/A** %. Bundles shall not exceed yarder capablity 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 **N/A** %. 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

KT-GT.5 - STREAMCOURSE PROTECTION. (2/2005) 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

SAMPLE

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.

KT-GT.6 - EROSION PREVENTION AND CONTROL. (5/2008) 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.

SPECIFICATIONS PURSUANT TO KT-GT.6# - EROSION PREVENTION AND CONTROL.

Vegetative Soil Stabilization **N/A**

Special Erosion Preventive 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 **N/A**

Tillage In addition to meeting the requirements of GT.6.4, unless otherwise agreed in writing, tillage shall be required on the areas listed in the following table.

Areas to Till	Tillage depth (inches)	Maximum Acres to Treat
Landings	**18**	**30**
Main Skid Roads and Tractor Roads (minimum of 200 feet up to a 25%	**18**	**30**

SAMPLE

slope) designated by Forest Service		
Temporary Roads(new Construction and reopen)	**18**	**12**

Tillage shall be accomplished by equipment that will lift and fracture the soil by vertical and lateral shattering, leaving soil loosened though the full width and depth of the compacted layer with the topsoil remaining substantially in place rather than being inverted. A drawing of a winged sub-soiler, with design specifications, is included as Exhibit 'A', next page.

Tillage depth is shown in the following table. Agreement in writing may be made to a lesser depth if rocks or other limited site conditions are encountered.

Tillage shall be limited to periods when soil dryness will result in crumbled soil, avoiding the formation of large clods. Contractor and Forest Service shall agree in whiting on the timing of completion of such work to coordinate with desirable soil moisture conditions.

SAMPLE

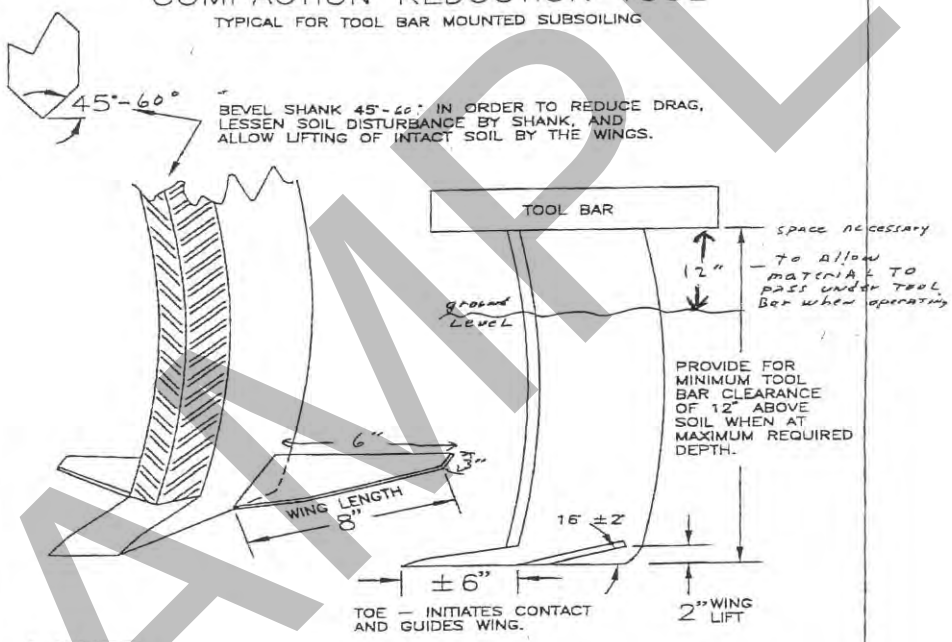
Exhibits Pursuant to KT-GT.3.1.5#

PROJECT OPERATIONS SCHEDULE (12/20016)

EXHIBIT A

COMPACTION REDUCTION TOOL

TYPICAL FOR TOOL BAR MOUNTED SUBSOILING



NOTES:

SHANK should be STRAIGHT.
INTENDED FOR USE WHEN OPERATING 3 SHANKS OVER AN 8' WIDTH.
WINGS WITH TOO GREAT AN ANGLE OF LIFT CAN RESULT IN PLOWING EFFECT.
Best results when soil moist, better fracturing & lower power required.
Recommend hard facing wings & doubling thickness of wings for strength & durability

SAMPLE

GT.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.

SPECIFICATIONS PURSUANT TO KT-GT.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 **N/A** inches diameter outside bark (d.o.b.), not to be otherwise treated, shall be bucked into lengths not to exceed **N/A** feet, unless agreed otherwise.
Buck-P	"Bucking and Piling"	Logging Slash smaller than **N/A** inches and larger than **N/A** inches in large end d.o.b. shall be bucked into lengths not to exceed **N/A** feet and left in place. Logging Slash **N/A** 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 **N/A** feet of rock

SAMPLE

		and soil so that the final surface is sloped to drain and relatively smooth.
Chip	"Chipping"	Chippable Logging Slash up to **N/A** inches in d.o.b. shall be processed through a chipping machine. Chips shall be scattered to a loose depth not exceeding **N/A** inches.
Deck	"Decking" large material	Logging Slash **12** inches or larger in large end d.o.b. and **6** 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 **N/A** inches in large end d.o.b. and **N/A** 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 **N/A** inches or smaller in large end d.o.b. and **N/A** 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 **N/A** with distance limitations for visible slash treatment. Within such units and the area of visible Logging Slash

SAMPLE

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)
N/A	**N/A**	**N/A**

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)
N/A	**N/A**	**N/A**

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)
N/A	**N/A**	**N/A**

SAMPLE

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)
N/A	**N/A**	**N/A**

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 Trees"

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 **N/A** chains of fireline by hand and not more than **N/A** 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 **N/A** feet, except across the top of cutting units where the width shall be at least **N/A** feet. At least **N/A** 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.

SAMPLE

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 **N/A** feet, with at least **N/A** 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 Payment Units **N/A** and shown on Contractor Area Map, Logging Slash shall be scattered within **N/A** 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 **144** inches. Machine Piling is not required on areas where use of tractors would cause undue damage to residual timber or where slopes exceed **25** 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 **15** 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.

SAMPLE

UNIT AND SUBDIVISION.SLASH TREATMENT SPECIFICATIONS.

	SLASH TREATMENT	
Payment Unit No	Specified Method	Prohibited Method
ALL	**Fell, Scat 18″**	**N/A**

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	**ALL**	**Mach, Cover**	**15′**
Landings	**ALL**	**Deck**	**15′**
Disposal Site	**NA**	**NA**	**NA**

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.

SAMPLE

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

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 **20** 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.

SAMPLE

KT-GT.8-2# - MEASURING - Option 2 (2/2005)
Timber quantity estimates in AT.2 were made as described in the Forest Service Handbook FSH 2409.12, Timber Cruising Handbook, available for inspection in the offices of the Forest Supervisor and District Ranger. When Trees are marked after date of project advertisement, or when volume is added pursuant to CT.1.3, CT.1.3.1, CT.1.3.2, CT.1.3.3, CT.1.3.4, CT.1.4, CT.3.7, CT.4, or other authorization hereunder, each tree that is less than 25 inches in diameter breast height (DBH) and has less than 25% visible defect shall have its volume determined from the following table.

Trees greater than or equal to 25 inches DBH; trees with more than 25% defect; or trees from species or diameter groups shown as "N/A" in the following table shall be measured using procedures in FSH 2409.12 and shall use the "R5 Cubic Foot Volume Tables to a Utilization Top", 9/97.

Bucks Stewardship Timber Sale
Tree Volume (based on original cruise tree data)
(Volume in 100 Cubic Feet - CCF)

PP		WF, RF		IC		LP		SP	
DBH	VOLUME	DBH	VOLUME	DBH	VOLUME	DBH	VOLUME	DBH	VOLUME
10 in.	0.07	10 in.	0.09	10 in.	0.03	10 in.	0.07	10 in.	0.04
11 in.	0.10	11 in.	0.11	11 in.	0.04	11 in.	0.09	11 in.	0.07
12 in.	0.13	12 in.	0.13	12 in.	0.06	12 in.	0.11	12 in.	0.10
13 in.	0.17	13 in.	0.17	13 in.	0.08	13 in.	0.14	13 in.	0.13
14 in.	0.21	14 in.	0.21	14 in.	0.11	14 in.	0.17	14 in.	0.17
15 in.	0.25	15 in.	0.26	15 in.	0.14	15 in.	0.21	15 in.	0.21
16 in.	0.29	16 in.	0.31	16 in.	0.17	16 in.	0.26	16 in.	0.25
17 in.	0.34	17 in.	0.38	17 in.	0.22	17 in.	0.31	17 in.	0.30
18 in.	0.39	18 in.	0.45	18 in.	0.27	18 in.	0.37	18 in.	0.35
19 in.	0.44	19 in.	0.53	19 in.	0.32	19 in.	0.43	19 in.	0.41
20 in.	0.50	20 in.	0.62	20 in.	0.39	20 in.	0.50	20 in.	0.46
21 in.	0.55	21 in.	0.71	21 in.	0.47	21 in.	0.57	21 in.	0.53
22 in.	0.61	22 in.	0.82	22 in.	0.55	22 in.	0.65	22 in.	0.59
23 in.	0.67	23 in.	0.93	23 in.	0.65	23 in.	0.74	23 in.	0.66
24 in.	0.74	24 in.	1.05	24 in.	0.76	24 in.	0.83	24 in.	0.74

SAMPLE

KT-GT.8.3 - ACCOUNTABILITY. (2/2005) Forest Service and Contractor shall agree upon the haul route(s) prior to use. All products removed from Contract Area shall be transported over the designated route of haul.

Contractor shall:

(a) Require truck drivers to sign form R5-2400-242, product removal permit, assure permit is attached to the load prior to removal from the Contract Area and while in transit to load destination.

(b) Assign a competent individual at the landing to record the following information for each load on the product removal permit provided by Forest Service:

1. Date and time load is punched out with a paper punch or equivalent
2. Truck ID or license number
3. Load destination

Used books of product removal permits (stub portion) shall be returned to the Forest Service at least weekly, unless otherwise agreed.

(c) Require truck drivers to stop for transportation inspections, if requested by Forest Service, when products are in transit from Contract Area to Contractor's processing facility(s).

(d) Inform truck drivers of the designated route(s) of haul, the agreed upon location(s) for transportation inspections, the method of alerting drivers of an impending stop, and the fact that loads may be inspected at other locations where it is safe and possible to do so.

(e) Require truck drivers to assure the product removal permit is secured to each load of product (including chip vans, dump trucks or other container used for removing material) on the front lower corner of the drivers side of the load. Staple product removal permits to a log or attached piece of wood or other suitable material. Product removal permit shall remain attached to log until manufactured into products or if chips, until load has been unloaded. After logs are processed or load of chips unloaded the product removal permit shall be either destroyed or otherwise rendered unusable, unless otherwise agreed.

SAMPLE

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

PROJECT WORK ITEM #1 **Mandatory** Unit 87.1 (0.4 acres) and PROJECT WORK ITEM #1.1 **Mandatory** (Unit 88.1 (6.0 acres): Hand thin, Buck and Pile Pacific Crest Trail (PCT) Corridor to 70 feet from each side of the trail for Forest Service burning:
Pre-Existing Down Wood: Hand Buck all down woody material no larger than 12 inches diameter (large end) into lengths no more than 6 feet.
Standing Dead (Snag) Trees: Hand cut all standing dead trees from greater than 2 feet in height to a maximum of 12 inches DBH, irrespective of height. Buck all cuttings into lengths no more than 6 feet.
Live Standing Trees: Hand thin live standing trees greater than 2 feet in height to a maximum of 8 inches DBH (irrespective of height) to a desired average spacing of 25 feet between trees selected to be retained (minimum spacing of 20 feet to a maximum spacing of 30 feet). Best phenotype trees to be retained by the following preference: sugar pine, ponderosa/Jeffrey pine, Douglas fir,red fir/white fir, incense cedar and lodgepole pine. Hand buck all cuttings into lengths no more than 6 feet.
Pile: Collect and pile all hand thinned and cut material 2 feet in length and greater; and all bucked and felled dead material up to 6 feet in length. Locate piles no closer than 10 feet from the trail Piles will be no larger than 6 feet wide to no less than 4 feet tall, and no closer than the drip-line of a retained tree. Cover 1/2 of the top of each pile with waterproof material. ie: 4 mil plastic.
Protection of the Beckwourth Historic Trail and underground AT&T cable when using the single skid trail required for harvest operations in the north segment of Payment Unit 88: Skid trail is located at approximately 660 feet from the Bucks Lake Road and is identified by pink flagging and white flagging. It is approximately 180 feet long from PCT Corridor boundary-to-boundary and will average 20 feet wide. That portion crossing the PCT, the historic location of the Beckwourth Trail and the buried AT&T cable is approximately 10 - 12 feet long. This portion will require the same protection as for the underground cable, ie: cover with logs, then dirt over the logs for skidding operations.
Restoring the PCT tread and that part of the Corridor occupied by skid trail after harvest operations in the north segment of Payment Unit 88. Within 24 hours after use of skid trail, remove the protective log and dirt cover, then clean out Beckwourth Trail footprint until as presented before operations. Trail tread is to be restored to its original condition, as presented before disturbance. For remainder of the skid trail hand level and fill in the disturbed area with forest woody debris.
Unit Boundary Description is the boundaries of Unit 87 and Unit 88, painted in ORANGE facing away from the PCT corridor. The PCT forms the northeast boundary of Unit 87.1 and the east boundary of Unit 88.1 (see the CAM). Unpainted boundary segments will be flagged in yellow flagging and white flagging.

PROJECT WORK ITEM 2 Gravel-surfaced Driveway Repair - Timberline Lodge: Application of ½ - ¾ inch minus rock, if required, to restore the driveway to the following specifications: 4 inches deep, spread to the width of the driveway up to full length of the driveway (approximately 500 feet from the diversion ditch crossing to Bucks Lake Road to a maximum of 74 cubic yards of material.

SAMPLE

PROJECT 2.1 Gravel-surfaced Driveway Repair – Bucks Lake Camp and RV: Application of ½ - ¾ inch minus rock, if required, to restore the driveway to the following specifications: 4 inches deep, spread to the width of the driveway up to 200 linear feet along any portion of the driveway damaged or otherwise altered by Contractor operations to a maximum of 60 cubic yards of material.

PROJECT 2.2 Repair of Broken Leach Line/Waterline buried beneath the 'boneyard' – Bucks Lake Lodge: Up to 100 feet of leach line and 100 feet of water line where there is loaded truck traffic, when and where there is evidence of an occurance of failure, ie: wet spot and/or slumping of haul road in the 'bone yard'.

PROJECT WORK ITEM #3 **Mandatory** Construction of a Temporary Road to bypass a leach field – Bucks Lake Lodge: Approximately 400 linear feet (0.1 mile) of temporary road from 12 – 15 feet wide to bypass a leach field established on the original temporary road footprint. This road is to connect the existing temporary road to the 'boneyard' haul route to Bucks Lake Road, as described in KT-GT.2.2# - PROTECTION OF IMPROVEMENTS. Constructed segment and bone yard segment of haul road is established on the ground with Orange flagging and White flagging and is indicated on the CAM.

KT-HT.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.

SAMPLE

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

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

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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.

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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 (KT-HT.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:

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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 KT-HT.2.2#.

SAMPLE

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 KT-HT.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.

SAMPLE

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.

KT-HT.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

SAMPLE

notified, the revised Project Activity Levels will supersede the levels in the Project Activity Level Table below.

PROJECT ACTIVITY LEVEL (PAL) – KT-HT.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

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	• 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.

SAMPLE

SPECIFICATIONS PURSUANT TO KT-HT.2.2# – EMERGENCY PRECAUTIONS. (10/2010)

Region 5 Project Activity Level (PAL) Ev Variance Application/Agreement

Project Name: _____
Contract Number: _____
Purchaser/Contractor Name: _____
Request #__, for period: _____
Units/Subdivisions Affected: _____

Location of operation:	
Slope	
Aspect	
Elevation	
Fuels on site	
Fuels in surrounding area	
7 Day PAL Outlook	
Short range predictions (Red Flags)	
Fuel Moistures	
Response time of suppression resources	
Potential for ignition	
RAWS location	
Current Fire Situation:	
Draw down information	
National Readiness Level	
Contractual considerations:	
Normal Operating Season	
Frequency of recent contract fires in area	
Type of operation	
Purchaser/Contractors past/current performance & equipment readiness	
Other site specific mitigation or precaution (i.e. Purchaser/Contractors proposals)	
Social & Community Considerations:	
Proximity of high value resources	
Sensitivity of location	

SAMPLE

Remarks:

Ev Proposed Actions

- [ ] **Rubber Tired Skidding**
- [ ] **Chipping on Landings**
- [ ] **Helicopter Yarding**
- [ ] **Fire Salvage**

Description of Mitigation Measures

Fire Management Officer Concurrence Date

Line Officer Approval Date

I have considered the above request and determined the specified mitigation measures or actions must be implemented to continue operations in Project Activity Level Ev. Unless extended, the approval remains in effect for ten (10) calendar days unless cancelled sooner or extended by the Forest Service for an additional ten (10) days. At the sole discretion of the Forest Service, this variance can be modified and/or cancelled at no cost to the government.

Contracting Officer Date

Purchaser/Contractor Rep. Date

SAMPLE

KT-IT.2.1.2 - MARKET-RELATED CONTRACT TERM ADDITION. (11/08)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.

KT-IT.6.8# – USE OF TIMBER (Option 1). (9/04) (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 1/ **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.

SAMPLE

(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 Subsection, 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 Subsection, Forest Service will not be liable for any Claim submitted by Contractor relating to the termination.

SAMPLE

PROJECT 2.1 Gravel-surfaced Driveway Repair – Bucks Lake Camp and RV: Application of ½ - ¾ inch minus rock, if required, to restore the driveway to the following specifications: 4 inches deep, spread to the width of the driveway up to 200 linear feet along any portion of the driveway damaged or otherwise altered by Contractor operations to a maximum of 60 cubic yards of material.

PROJECT 2.2 Repair of Broken Leach Line/Waterline buried beneath the 'boneyard' – Bucks Lake Lodge: Up to 100 feet of leach line and 100 feet of water line where there is loaded truck traffic, when and where there is evidence of an occurance of failure, ie: wet spot and/or slumping of haul road in the 'bone yard'.

PROJECT WORK ITEM #3 **Mandatory** Construction of a Temporary Road to bypass a leach field – Bucks Lake Lodge: Approximately 400 linear feet (0.1 mile) of temporary road from 12 – 15 feet wide to bypass a leach field established on the original temporary road footprint. This road is to connect the existing temporary road to the 'boneyard' haul route to Bucks Lake Road, as described in KT-GT.2.2# - PROTECTION OF IMPROVEMENTS. Constructed segment and bone yard segment of haul road is established on the ground with Orange flagging and White flagging and is indicated on the CAM.

KT-IT.2.1.2 - MARKET-RELATED CONTRACT TERM ADDITION. (11/08)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.

SAMPLE

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(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.

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(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.

SAMPLE

(i) For breach of this Subsection, 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 Subsection, Forest Service will not be liable for any Claim submitted by Contractor relating to the termination.

SAMPLE

KT-HT.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 KT-HT.2.2#:

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.

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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

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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 (KT-HT.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

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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

SAMPLE

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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.
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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 KT-HT.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.

SAMPLE

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.

SAMPLE

KT-HT.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) – KT-HT.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

SAMPLE

	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.

SAMPLE

SPECIFICATIONS PURSUANT TO KT-HT.2.2# - EMERGENCY PRECAUTIONS. (10/2010)

Region 5 Project Activity Level (PAL) Ev Variance Application/Agreement

Project Name: _____
Contract Number: _____
Purchaser/Contractor Name: _____
Request #__, for period: _____
Units/Subdivisions Affected: _____

Location of operation:	
Slope	
Aspect	
Elevation	
Fuels on site	
Fuels in surrounding area	
7 Day PAL Outlook	
Short range predictions (Red Flags)	
Fuel Moistures	
Response time of suppression resources	
Potential for ignition	
RAWS location	
Current Fire Situation:	
Draw down information	
National Readiness Level	
Contractual considerations:	
Normal Operating Season	
Frequency of recent contract fires in area	
Type of operation	
Purchaser/Contractors past/current performance & equipment readiness	
Other site specific mitigation or precaution (i.e. Purchaser/Contractors proposals)	
Social & Community Considerations:	
Proximity of high value resources	
Sensitivity of location	
Remarks:	

SAMPLE

Ev Proposed Actions

- [ ] **Rubber Tired Skidding**
- [ ] **Chipping on Landings**
- [ ] **Helicopter Yarding**
- [ ] **Fire Salvage**

Description of Mitigation Measures

Fire Management Officer Concurrence _____ Date _____

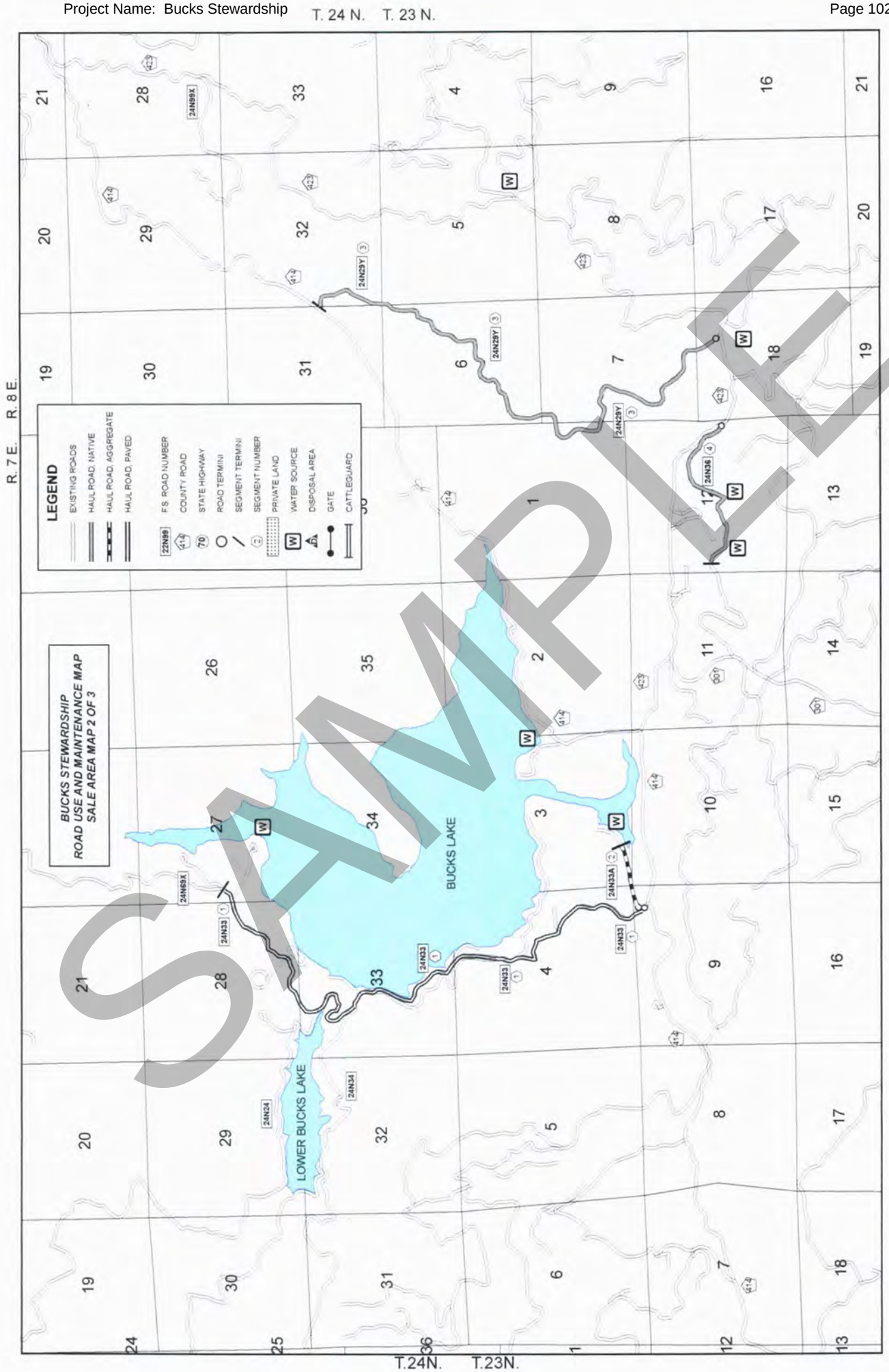
Line Officer Approval _____ Date _____

I have considered the above request and determined the specified mitigation measures or actions must be implemented to continue operations in Project Activity Level Ev. Unless extended, the approval remains in effect for ten (10) calendar days unless cancelled sooner or extended by the Forest Service for an additional ten (10) days. At the sole discretion of the Forest Service, this variance can be modified and/or cancelled at no cost to the government.

Contracting Officer _____ Date _____

Purchaser/Contractor Rep. _____ Date _____

SAMPLE


T. 24 N. T. 23 N.
R. 7 E. R. 8 E.
BUCKS STEWARDSHIP
ROAD USE AND MAINTENANCE MAP
SALE AREA MAP 2 OF 3
LEGEND
EXISTING ROADS
HAUL ROAD, NATIVE
HAUL ROAD, AGGREGATE
HAUL ROAD, PAVED
F.S. ROAD NUMBER
COUNTY ROAD
STATE HIGHWAY
ROAD TERMINI
SEGMENT TERMINI
SEGMENT NUMBER
PRIVATE LAND
WATER SOURCE
DISPOSAL AREA
GATE
CATTLEGUARD
BUCKS LAKE
LOWER BUCKS LAKE
24N69X
24N33
24N33A
24N24
24N34
24N29Y
24N36
T.24N. T.23N.

SAMPLE

K-F(T)3.1# ROAD MAINTENANCE REQUIREMENTS

TABLE C – MAINTENANCE T-800 SPECIFICATIONS

Specification No.	Specification Title
T-800	Definitions
T-801	Slide and Slump Repair
T-802	Ditch Cleaning
T-803	Surface Blading
T-804	Surfacing Repair
T-805	Drainage Structures
T-806	Dust Abatement
T-807	Roadway Vegetation
T-808	Miscellaneous Structures
T-809	Waterbars
T-810	Barriers
T-811	Surface Treatment

SAMPLE

Wherever the following terms or pronouns are used in Specifications T-801 through T-809, the intent and meaning shall be interpreted as follows:

800-1.1 - Agreement. Maintenance projects require a mutually acceptable method to resolve the problems which arise when incompatible situations arise between drawings and specifications and actual conditions on the ground to allow orderly and satisfactory progress of the maintenance.

These specifications have been developed in anticipation of those problem areas and have provided that such changes will be by agreement.

It is intended that drawings and specifications will govern unless "on-the-ground" conditions warrant otherwise, when specifications call for "agreement", "agreed", or "approval" such agreement or approval shall be promptly confirmed in writing.

800-1.2 - Annual Road Maintenance Plan. A plan prepared by various users of one or several roads. The plan is an agreement on maintenance responsibilities to be performed for the coming year.

800-1.3 - Base Course. Material used to reinforce subgrade or, as shown on drawings, placed on subgrade to distribute wheel loads.

800-1.4 - Berm. Curb or dike constructed to prevent roadway run-off water from discharging onto embankment slope.

800-1.5 - Borrow. Select material taken from designated borrow sites.

800-1.6 - Crown, Inslope and Outslope. The cross slope of the traveled way to aid in drainage and traffic maneuverability.

800-1.7 - Culverts. A conduit or passageway under a road, trail or other obstruction. A culvert differs from a bridge in that it is usually entirely below the elevation of the traveled way.

800-1.8 - Drainage Dip. A dip in the traveled way which intercepts surface runoff and diverts the water off the traveled way. A drainage dip does not block the movement of traffic.

800-1.9 - Drainage Structures. Manufactured structures which control the runoff of water from the roadway including culverts, overside drains, aprons, flumes, downdrains, downpipes, and the like.

800-1.10 - Dust Abatement Plan. A table which lists the road, dust palliative, application rates and estimated number of subsequent applications

800-1.11 - Lead-off Ditches. A ditch used to transmit water from a drainage structure or drainage dip outlet to the natural drainage area.

800-1.12 - Material. Any substances specified for use in the performance of the work.

SAMPLE

800-1.13 - Prehaul Maintenance. Road maintenance work which the Contractor determines must be accomplished to maintain the roads to a satisfactory condition commensurate with the Contractor's use, provided Contractor's Operations do not damage improvements under 24.2 or National Forest resources and hauling can be done safely. This work will be shown in the Annual Road Maintenance Plan as provided in 24.3.

Prehaul maintenance work the Contractor elects to perform will be in compliance with the Road Maintenance T-Specifications.

800-1.14 - Roadbed. The portion of a road between the intersection of subgrade and sideslopes, excluding that portion of the ditch below subgrade.

800-1.15 – Road Maintenance Requirements. A table which shows applicable road maintenance specifications to be performed by Contractor on specific roads.

800-1.16 - Roadside. A general term denoting the area adjoining the outer edge of the roadway.

800-1.17 - Roadway. The portion of a road within the limits of excavation and embankment.

800-1.18 - Shoulder. That portion of roadway contiguous with traveled way for accommodation of stopped vehicles, for emergency use, and lateral support of base and surface course, if any.

800-1.19 - Slide. A concentrated deposit of materials from above or on backslope extending onto the traveled way or shoulders, whether caused by mass land movements or accumulated ravelling.

800-1.20 - Slough. Material eroded from the backslope which partially or completely blocks the ditch, but does not encroach on the traveled way so as to block passage of traffic.

800-1.21 - Slump. A localized portion of the roadbed which has slipped or otherwise become lower than that of the adjacent roadbed and constitutes a hazard to traffic.

800-1.22 - Special Project Specifications. Specifications which detail conditions and requirements peculiar to the individual project.

800-1.23 - Subgrade. Top surface of roadbed upon which base course or surface course is constructed. For roads without base course or surface course, that portion of roadbed prepared as the finished wearing surface.

800-1.24 - Surface Course. The material placed on base course or subgrade primarily to resist abrasion and the effects of climate. Surface course may be referred to as surfacing.

800-1.25 - Surface Treatment Plan. A table which lists the roads and surface treatments to be applied.

800-1.26 - Traveled Way. That portion of roadway, excluding shoulders, used for the movement of vehicles.

800-1.27 - Turnouts. That portion of the traveled way constructed as additional width on single lane roads to allow for safe passing of vehicles.

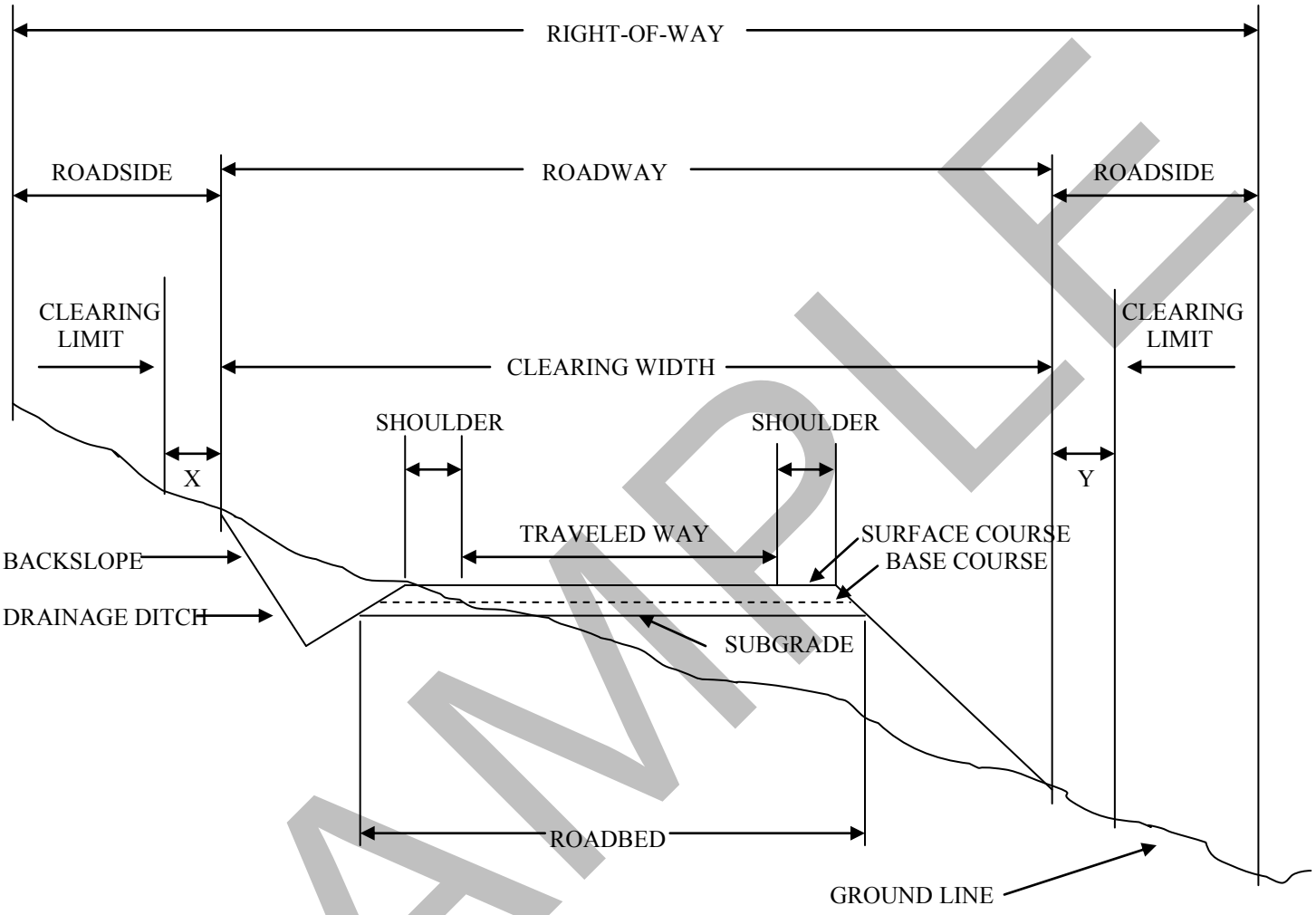
800-1.28 - Water Source. A place designated on the Road Maintenance Map for acquiring water for road maintenance purposes.

800-1.29 - Waterbar. A dip in the roadbed which intercepts surface runoff and diverts the water off the roadway. A waterbar is not designed to be traversable by logging trucks.

SAMPLE

SPECIFICATION T-800 DEFINITIONS

FIGURE 800-2 ILLUSTRATION OF ROAD STRUCTURE TERMS



NOTE: X & Y Denote Clearing Limits
Outside of Roadway

SAMPLE

DESCRIPTION

1.1 Slide removal is the removal from Roadway and disposal of any material, such as soil, rock, and vegetation that cannot be routinely handled by a motor grader during Ditch Cleaning, T-802, and Surface Blading, T-803 Operations.

Slump repair is the filling of depressions or washouts in Roadway which cannot be routinely filled by a motor grader during Surface Blading, T-803 Operations.

Slide removal and slump repair includes excavation, loading, hauling, placing, and compacting of waste or replacement material and the development of disposal or borrow areas.

REQUIREMENTS

3.1 Slide material, including soil, rock and vegetative matter which encroaches into the Roadway, shall be removed. The slope which generated the slide material shall be reshaped during the removal of the slide material with the excavation and loading equipment. Slide material deposited on the fill slope and below the Traveled Way will not be removed unless needed for slope stability or to protect adjacent resources.

Surface and Base Courses shall not be excavated during slide removal operations.

Slide material which cannot be used for other beneficial purposes shall be disposed of at disposal sites SHOWN ON THE CONTRACT AREA MAP. Material placed in disposal sites will not require compaction unless compaction is SHOWN ON THE ROAD MAINTENANCE REQUIREMENTS.

3.2 When filling slumps or washouts, material shall be moved from agreed locations or borrow sites SHOWN ON CONTRACT AREA MAP, placed in layers, and compacted by operating the hauling and spreading equipment uniformly over the full width of each layer.

Existing aggregate surfacing shall be salvaged when practical and relaid after depressions have been filled.

Damaged aggregate base, aggregate surfacing, and bituminous pavement shall be repaired under Specification T-804 Surfacing Repair.

The repaired areas of the slump shall conform to the cross section which existed prior to the slump and shall blend with the adjacent undisturbed Traveled Way.

3.3 The maximum volume of Contractor responsibility for slide and slump repair is SHOWN ON ROAD MAINTENANCE REQUIREMENTS. Greater volumes of slide and slump repair not qualifying as Catastrophic Damage are Forest Service responsibility.

SAMPLE

DESCRIPTION

1.1 Ditch cleaning is removing and disposing of all slough material from roadway ditches to provide a free-draining waterway.

REQUIREMENTS

3.1 Ditch cleaning shall be repeated during the year as often as necessary to facilitate proper drainage.

3.2 All slough material or other debris which might obstruct water flow in the roadway ditch shall be removed. Material removed from the ditch, if suitable, may be blended into existing native road surface or Shoulder or placed in designated Berms in conjunction with Surface Blading T-803 operations.

Material removed from ditches that is not by agreement blended into existing roads or placed in Berms shall be loaded and hauled to the disposal site SHOWN ON THE CONTRACT AREA MAP.

3.3 Roadway backslope or Berm shall not be undercut.

SAMPLE

SPECIFICATION T-803 SURFACE BLADING

DESCRIPTION

1.1 Surface blading is keeping a native or aggregate Roadbed in a condition to facilitate traffic and provide proper drainage. It includes maintaining the crown, inslope or outslope of the Traveled Way, Turnouts, and Shoulder; repairing Berms; blending approach road intersections; and cleaning bridge decks, Drainage Dips, and Lead-off Ditches.

REQUIREMENTS

3.1 Surface blading shall be performed before, during, and after Contractor's use as often as necessary to facilitate traffic and proper drainage.

3.2 The surface blading shall preserve the existing cross section. Surface irregularities shall be eliminated and the surface left in a free draining state and to a smoothness needed to facilitate traffic. Surface material which has been displaced to the Shoulders or Turnouts shall be returned to the Traveled Way. The blading operation shall be conducted to prevent the loss of surface material and to provide for a thorough mixing of the material being worked.

3.3 Water, taken from Water Sources DESIGNATED ON THE CONTRACT AREA MAP, shall be applied during blading if sufficient moisture is not present to cut, mix, or compact the surface material.

3.4 On native surfaced roads, Material generated from backslope sloughing and ditch cleaning may be blended with the surface material being worked. On aggregate surfaced roads this Material shall not be blended with Surface or Base Course material unless agreed otherwise.

3.5 Roadway backslopes or Berms shall not be undercut nor shall new Berms be established unless agreed otherwise. Berms shall be repaired by placing Material as needed to restore the Berm to reasonably blend with existing line, grade, and cross section.

3.6 Drainage Dips and Lead-off Ditches shall be cleaned and maintained to reasonably blend with existing line, grade, and cross section.

3.7 Intersecting roads shall be bladed for a distance of 50 feet to assure proper blending of the two riding surfaces.

3.8 Rocks or other material remaining on the Traveled Way after the final pass that are larger than 4 inches in diameter or are larger than the maximum size of imported surfacing shall be removed from the Traveled Way. The oversized material shall be disposed of by sidecasting unless SHOWN OTHERWISE ON THE CONTRACT AREA MAP. Sidecasting into streams, lakes or water courses will not be permitted.

3.9 Material resulting from work under this specification shall not remain on or in structures, such as Culverts, overside drains, cattleguards, ditches, Drainage Dips, and the like.

3.10 Material resulting from work under this specification plus any accumulated debris shall be removed from bridge decks and the deck drains opened.

SAMPLE

DESCRIPTION

1.1 Surfacing repair is repairing potholes or small, soft areas in the Traveled Way. It includes area preparation and furnishing and placing all necessary materials, and other work necessary to repair the surface.

MATERIAL

2.1 Material used in the repair of soft areas on aggregate or native surfaced roads may be acquired from approved commercial sources, Forest Service borrow areas SHOWN ON CONTRACT AREA MAP or borrow sources agreed to. The quality and quantity of the imported Material used in the repair will be limited to that needed to provide a stable Traveled Way for hauling and to minimize damage to the road and adjacent resources. The quantity of imported surface repair material used in the appraisal estimate will be SHOWN ON THE ROAD MAINTENANCE REQUIREMENTS. However, the magnitude of the work may vary depending on Contractor's
hauling schedule and ground conditions.

2.2 Material used in the repair of bituminous pavements may be acquired from local commercial sources. If a mixing table is required, the location shall be approved by the Forest Service. The bituminous mixture to be used by the Contractor shall be approved by the Forest Service. The Contractor's share of the quantity of bituminous mixture used in the appraisal estimate will be SHOWN ON THE ROAD MAINTENANCE REQUIREMENTS. However, Contractor's share of the work may vary depending on Contractor's hauling schedule, ground conditions, other traffic, etc.

REQUIREMENTS

3.1 Work under this specification shall be performed in a timely manner to reduce further deterioration of the Traveled Way.

3.2 Soft spots on aggregate or native surfaces shall be repaired by placing the imported surface course on top of the soft spot. Layers of imported material shall be placed until a firm surface is produced.

3.3 Bituminous Pavement Repairs

The areas to receive bituminous pavement repairs will be marked on the road surface by the Forest Service just prior to Contractor performing the work.

3.4 Potholes (deep patch)

Surface course and base course materials shall be excavated to a depth necessary to reach firm, suitable material. The minimum depth of excavation shall be two inches and the maximum depth of excavation shall be to the top of the Subgrade.

The edges of the prepared hole shall be extended to form a vertical face in unfractured asphalt surfacing. The prepared hole shall generally be circular or rectangular in shape, dry, and cleaned of all loose material.

Prepared potholes shall be patched or barricaded immediately.

The faces of the prepared hole shall be tacked with a slow-setting emulsified asphalt.

The bituminous mixture shall be placed in layers not exceeding a compacted depth of two inches. Each layer shall be compacted thoroughly with hand or mechanical tampers or rollers. Compaction shall not be done with equipment wheels.

Upon completion, the compacted patch in the pothole shall be flush, with a tolerance or approximately one-fourth inch to one-half inch above the level of the adjacent pavement.

3.5 Skin Patches

Prior to skin patching, potholes shall be patched, and the surface shall be cleaned of loose and deleterious material. Apply a tack coat with a slow-setting emulsified asphalt at the rate of 0.1 gallons per square yard.

SAMPLE

Bituminous mixture shall be distributed uniformly with feathered edges in layers not to exceed two inches compacted depth. When multiple layers are ordered, joints shall be offset at least six inches between layers.

Each layer shall be compacted by two passes with a 7-10 ton steel roller or comparable vibratory roller.

3.6 Asphalt Berm

Damaged segments of Berm shall be removed and the exposed ends beveled at approximately forty-five degrees from vertical. The Berm foundation shall be cleaned and patched as necessary. The foundation and joining surfaces shall be coated with a slow-setting emulsified asphalt. Asphalt mix shall be placed and compacted to conform with the shape and alignment of the undamaged segment.

3.7 Disposal

All materials removed from potholes, patches, and Berms shall be disposed of at disposal sites SHOWN ON THE CONTRACT AREA MAP.

SAMPLE

DESCRIPTION

1.1 This work consists of maintaining Drainage Structures and related items such as inlet and outlet channels, existing riprap, trash racks and drop inlets.

MATERIALS

2.1 All materials used in the maintenance of Drainage Structures shall conform by type and specification to the material in the structure being maintained.

REQUIREMENTS

3.1 Drainage Structures and related items shall be cleared of all foreign material which has been deposited above the bottom of the structure and all vegetative growth which interferes with the flow pattern. Material removed that cannot be incorporated into maintenance work shall be hauled to a disposal site SHOWN ON THE CONTRACT AREA MAP.

3.2 If outlet or inlet riprap was installed by Contractor as a construction item or existed prior to Contractor's haul, it shall be maintained in good condition including the replacement of riprap if necessary to previous line, grade, and cross section.

3.3 Perform maintenance to insure the proper functioning of the head walls, aprons, inlet assemblies, overside drains, riprap, trash racks, and other facilities related to the Drainage Structure.

SAMPLE

DESCRIPTION

1.1 This work shall consist of preparing Traveled Way and furnishing and applying materials to abate dust.

MATERIALS

2.1 The roads requiring dust abatement, type of dust abatement material to be used, the rates of application, and frequency of applications will be SHOWN ON THE DUST ABATEMENT PLAN. The Dust Abatement Plan may be changed by written agreement.

2.2 Water

Water sources: approved locations are SHOWN ON CONTRACT AREA MAP.

2.3 Dust abatement materials shall meet the requirements of the following Subsections of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects or ATTACHED SPECIAL PROJECT SPECIFICATIONS.

Bituminous Materials

Liquid Asphalts.	702.02
Bituminous Dust Palliatives.	725.02
Application Temperatures	702.04
Blotter Material.	703.13
Lignin Sulfonate.	725.20
Application Temperature.	306.04(b)
Water, for diluting.	306.04(b)
Magnesium Chloride.	725.02
Application Temperature.	725.01

2.4 Testing of Materials

Certification and sampling of bituminous materials lignin sulfonate, and magnesium chloride shall be in accordance with Subsection 105.04, 5-725.03, and 5-730.03, respectively, of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects.

REQUIREMENTS

3.1 General

Dust abatement materials shall be applied to the road surface as necessary to control road surface loss, provide for road user safety, and minimize damage to adjacent resources.

3.2 Compaction

When the methods listed below specify compaction, Traveled Way shall be compacted by an 8 to 10 ton pneumatic, steel-wheeled or equivalent vibrating roller making 2 passes over the full Traveled Way and Shoulder width, unless compaction is not required on the DUST ABATEMENT PLAN.

SAMPLE

3.3 Preparation to Dust Abatement Materials Other Than Water.

The following applies to all methods of preparation:

Bituminous residue shall be scarified and pulverized to produce loosened material not exceeding 4 inches in greatest dimension.

Traveled Way shall be bladed in accordance with T-803.

Prior to applying DO-6BA, DO-6PA, or DO-8 the top 2 inches of Traveled Way shall contain not less than 80 percent nor more than 120 percent of optimum moisture as determined by AASHTO T-99, Method C. Prior to applying other bituminous material Traveled Way shall have a moisture content between 1 and 3 percent. If surface dusting prevents the bituminous material from penetrating, a light application of water shall be applied just prior to applying the bituminous material.

Lignin Sulfonate and magnesium chloride shall be applied when the top 1 inch of Traveled Way contains not less than 3 percent moisture nor more than 120 percent of optimum moisture as determined by AASHTO T-99, Method C.

Moisture content will be determined in accordance with AASHTO T-217 OR T-239.

One or more of the following methods shall be used as specified in the DUST ABATEMENT PLAN.

Method 1. Compact Traveled Way and apply the dust abatement material.

Method 2. Develop a layer of loose material approximately one inch in depth for the full width of Traveled Way. Apply the dust abatement material to this loose material and compact after penetration. If traffic makes maintenance of the loose material difficult, one inch of the material may be bladed into a windrow along the shoulder. The specified moisture content shall be maintained in the windrow and the top one inch of Traveled Way. The windrow shall be bladed to a uniform depth across Traveled Way just prior to applying the dust abatement material. When the dust abatement material has penetrated, Traveled Way shall be compacted.

Method 3. Blade one inch of material from Traveled Way into a windrow along the Shoulder. Maintain the specified moisture content in the windrow and the top inch of Traveled Way. Apply half the dust abatement material. When the dust abatement material has penetrated, the windrow shall be bladed to a uniform depth across dust abatement Traveled Way, and the remaining dust abatement material shall be applied. Traveled Way shall be compacted.

Method 4. Develop a layer of loose material approximately 2 inches in depth for the full width of Traveled Way. Apply half the dust abatement material to the loose material. Blade the top 2 inches into a windrow along the Shoulder. Apply the remaining dust abatement material to Traveled Way and the Berm. Spread the Berm evenly across Traveled Way and compact.

3.4 Preparation for Dust Abatement with Water

Traveled Way shall be prepared in accordance with Specification T-803 Surface Blading when required.

3.5 Application Tolerance

Dust abatement materials other than water shall be applied within 0.05 gallons per square yard of the rate specified.

3.6 Mixing Requirements

DO-6BA, DO-6PA, and DO-8 shall be thoroughly circulated in the distributor within one hour of application.

SAMPLE

3.7 Weather Limitations

Dust abatement materials shall not be applied when it is raining.

Bituminous material shall be applied when the surface temperature of Traveled Way is 50 degrees Fahrenheit or higher.

Lignin sulfonate and magnesium chloride shall be applied when the atmospheric temperature is 40 degrees Fahrenheit or higher.

3.8 Blotter Material

Blotter material shall be spread in a sufficient quantity to prevent tire pickup.

SAMPLE

SPECIFICATION T-807 ROADWAY VEGETATION

DESCRIPTION

1.1 This work includes removal of brush and trees from within the Roadway limits.

REQUIREMENTS

3.1 Vegetative matter within the Roadway which impedes vehicular travel or interferes with road maintenance operations, such as surface blading, ditch and culvert cleaning, shall be removed. Downed timber meeting utilization standards shall be cut in appropriate lengths and decked along the Roadside in locations where the Traveled Way or sight distances will not be impaired.

3.2 Vegetative matter removed from the Roadway shall be treated by the specified method SHOWN ON THE CONTRACT AREA MAP and as required by contract provisions.

SAMPLE

DESCRIPTION

1.1 Maintenance of miscellaneous structures includes cattleguards, gates, and other similar structures that have been previously installed to insure safe and efficient operation of the road.

MATERIALS

2.1 Any materials needed in the maintenance of miscellaneous structures shall be similar in type and quality to the material in the structure being maintained.

REQUIREMENTS

3.1 Cattleguards. Loose rails shall be welded or bolted back in place.

Excess material carried into the cattleguard shall be removed when drainage is blocked or when it reaches 6 inches from the bottom of the cattleguard frame. Drainage into and from the cattleguard shall be kept open.

3.2 Gates. Gates shall be kept in good repair and made to swing easily. Hinges or latches shall be repaired if not operating properly.

Brush and debris shall be removed from within the swinging radius.

SAMPLE

DESCRIPTION

1.1 This work consists of installing or removing Waterbars in the Roadbed.

REQUIREMENTS

3.1 Waterbars shall be installed on roads SHOWN ON THE ROAD MAINTENANCE REQUIREMENTS in accordance with the ATTACHED DRAWING AND AT LOCATIONS DESIGNATED or STAKED ON THE GROUND.

All material excavated shall be used in the installation of the Waterbar. Bermed material shall be compacted by operating heavy equipment over the length and width of the Berm.

3.2 Waterbars shall be removed on roads SHOWN ON ROAD MAINTENANCE REQUIREMENTS by blading the Berm into the adjacent depression to form a smooth transition along the Traveled Way. The length and width of the fill material shall be compacted by the equipment performing the work.

3.3 Waterbars may be required to be installed between seasons of use and then removed when haul is resumed. Waterbar installation may also be required when use of a road has been completed.

SAMPLE

DESCRIPTION

1.1 This work shall consist of furnishing, installing, or removing barriers. Gates are not included.

MATERIALS

2.1 Materials for Barriers shall meet the requirements AS SHOWN ON THE ATTACHED DRAWINGS.

REQUIREMENTS

3.1 Barriers shall be installed in accordance with the ATTACHED DRAWINGS.

The location of Barriers to be removed or installed is SHOWN ON THE CONTRACT AREA MAP. Installation or removal may occur as often as road use is terminated and resumed.

SAMPLE

SPECIFICATION T-811 SURFACE TREATMENT

DESCRIPTION

1.1 This work shall consist of applying a chip seal, sand seal, or fog seal to the Traveled Way.

Chip seals may consist of single or double applications of bituminous material and cover aggregate.

MATERIALS

2.1 The roads requiring Surface Treatment, the type of seal coat to be applied, he rate of application, and type and grade of bituminous material, and the rate of application and grading of cover aggregate will be SHOWN ON THE SURFACE TREATMENT PLAN (C5.4).

2.2 Emulsions used for fog seals shall be diluted with an equal amount of water and shall be applied at the diluted application rate SHOWN ON THE SURFACE TREATMENT PLAN (C5.4).

2.3 Seal coat materials shall meet the requirements of the following Sub-sections of Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects or ATTACHED SPECIAL PROJECT SPECIFICATIONS:

Bituminous Materials

Asphalt Cement.....	702.01
Liquid Asphalts.....	702.02
Emulisfied Asphalt.....	702.03
Application Temperatures.....	702.05
Cover Aggregate.....	703.12
Blotter Material.....	703.13
Water for Diluting.....	712.01

2.4 The cover aggregate shall be surface damp at the time of application when using emulisfied asphalt and dry when using an asphalt cement or liquid asphalt. Excess water on the aggregate surface will not be permitted.

3.1 Traffic
Traffic shall be maintained in accordance with C6.33.

3.2 Weather Limitations
Fog seal and chip seal shall not be applied when the weather is foggy or rainy.

Seal coats requiring cover aggregate shall not be applied when the temperature of the surface being treated is below 70 degrees Fahrenheit in the shade.

Fog seal coats shall not be applied when the surface temperature is below 40 degrees Fahrenheit in the shade.

3.3 Equipment
The following equipment or its equivalent shall be used:

A distributor truck equipped to spread the material uniformly at the designated rate, within the temperature range specified and within 0.04 gallons per square yard of the rate specified. The distributor shall be equipped with a thermometer and a hand hose with spray

A rotary power broom and/or blower.

When cover aggregates are applied: a pneumatic tire roller, 8 ton minimum weight with all tires equally inflated to a pressure of at least 90 pounds per square inch. Rollers shall be equipped with devices for applying water to the tires.

SAMPLE

Self-propelled aggregate spreader supported by at least four wheels equipped with pneumatic tires on two axles, situated so that at no time will the tires contact the uncovered bituminous materials. The aggregate spreader shall be equipped with positive controls so that the required amount of materials will be deposited uniformly over the full width.

Trucks with spreading attachments shall not be used.

3.4 Preparation of surface
Immediately before applying the bituminous material, the surface to be sealed shall be cleaned of all forgien and loose material.

3.5 Application of bituminous material
Bituminous material shall be applied in an uniform, continous spread. The distributor shall be moving forward at proper application speed, at the time the spray bar is opened. Skipped areas or deficiences shall be corrected prior to the application of cover aggregate.

The spread of bituminous material shall not be more than 6 inches wider than the width to be covered by the cover aggregate. Operations shall not proceed if the bituminous material is allowed to cool, set up, dry, or otherwise impair retention of cover aggregate.

Fog seal shall be allowed to penetrate and dry before traffic is permitted on the sealed portion.

The surfaces of structures and trees adjacent to the area being treated shall be protected to prevent their being spattered or marred.

3.6 Application of Cover Aggregate and Blotter
Immediately following the application of the bituminous material, cover aggregate shall be spread at the specified rate. Joints between adjacent applications of cover aggregate shall be approximately in the center of
two-lane roads.

The aggregate spreader shall not be operated at speeds which cause the aggregate to roll over after striking the bituminous material. The cut-off of aggregate shall be complete, and any excess aggregate shall be removed from the surface prior to resuming operations. Immediately after the cover aggregate has
been spread, any piles, ridges, and uneven distribution shall be corrected.

Cover aggregates may be applied by hand in areas inaccessible to spreading equipment.

Rolling shall begin immediately after spreading the cover aggregate and shall consist of a minimum of two complete coverages.

The second treatment of a double chip seal shall not be applied until at least 24 hours after completion of a first treatment, when an emulsion or asphalt cement is used. If a medium cure liquid asphalt is used, 48 hours shall be allowed between applications. Prior to the second treatment, any loose cover aggregate remaining on the surface after the first treatment shall be removed in such a manner that the cover aggregate set in the bituminous material will not be displaced.

After rolling, traffic shall be controled to a maximum speed of 15 miles per hour for a period of 4 hours.

The day following the final application of cover aggregate, any concentrations of loose cover aggregate shall be redistributed without disturbing the embedded aggregate. Four days after the final application of cover aggregate, all excess cover aggregate shall be removed. During this period, any bituminous material that comes to the surface shall be covered with additional cover aggregate or approved blotter material.

3.7 Blotter material for fog seals shall be spread in sufficient quantity to prevent tire pickup.

SAMPLE

SECTION 725 LIGNIN SULFONATE

725.01 LIGNIN SULFONATE. Lignin Sulfonate shall be the residue produced by the acid-sulfite pulping of wood. The base cation shall be ammonium, calcium or sodium. The lignin sulfonate shall be supplied as a water solution.

The lignin sulfonate shall be miscible with an equal volume of water. The undiluted material shall meet the following requirements:

pH (AASHTO T 200)	4.5 minimum
Viscosity at 77 degrees F (AASHTO T 202)	20.0 poise maximum
Total Solids (TAPPI T 629-M53)	48 percent minimum

The solids shall meet the following requirements:

Lignin Sulfonate	50 percent minimum
Reducing Sugars	25 percent maximum

725.02 TEMPERATURE. The temperature of the material from the time it is loaded until it is applied on the road shall not exceed 140 degrees Fahrenheit. The temperature of the material at application shall be between 40 and 140 degrees Fahrenheit.

725.03 CERTIFICATION. When each load of Lignin Sulfonate is delivered, the Contractor shall furnish the Engineer with a completed Certificate of Compliance conforming to the format below (see Figure 725-1). A separate Certificate of Compliance will not be required if the Bill of Lading contains the required information.

FIGURE 725-1 (sample)

CERTIFICATE OF COMPLIANCE

Consignee _____ Destination _____

Date _____ Net Weight _____

Identification (Truck No., Car No., Etc.) _____

Based Cation _____ Brand Name _____

This shipment of Lignin Sulfonate identifed above and covered by this Certificate of Compliance, complies with Forest Service Standard Specifications as modified by Special Project Specifications applicable to this project.

Producer _____

Signed _____
Producers Representative

SAMPLE

SECTION 730 MAGNESIUM CHLORIDE

730.01 MAGNESIUM CHLORIDE. Magnesium Chloride shall be a brine consisting of water and Magnesium Chloride. The chemical analysis* shall meet the following requirements:

Chemical	Percent by Weight of Brine
Magnesium	7.0 Minimum
Chloride	20.0 Minimum
Sulfate	4.3 Maximum
Nitrate	5.0 Maximum

The pH shall be between 4.5 and 10.0. The solids shall be at least 30 percent by weight of the brine.

730.02 TEMPERATURE. The temperature of the material shall be 40 degrees Fahrenheit or above when it is applied.

730.03 CERTIFICATION. When each load of Magnesium Chloride is delivered, the Contractor shall furnish the Engineer with a completed Certificate of Compliance conforming to the format as shown in Figure 730-1. a separate copy of test procedures* are available upon request from USDA Forest Service, Pleasant Hill Engineering Center, 2245 Morello Avenue, Pleasant Hill, CA 94523.

FIGURE 30-1 (sample)

CERTIFICATE OF COMPLIANCE

Consignee _____ Destination _____

Date _____ Net Weight _____

Identification (Truck No., Car No., Etc.) _____

Based Cation _____ Brand Name _____

This shipment of Magnesium Chloride identified above and covered by this Certificate of Compliance, complies with Forest Service Standard Specifications as modified by Special Project Specifications applicable to this project.

Producer _____

Signed _____
Producers Representative

SAMPLE