U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE **TIMBER SALE CONTRACT** (Applicable to Sales to be Measured before Felling)		**Name of Purchaser**	
National Forest Gifford Pinchot	**Ranger District** Mt Adams	**Region** Pacific N-West	**Contract Number**
Sale Name Mann Thin		**Award Date**	**Termination Date** 12/31/2021

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 Purchaser.

Forest Service having advertised a sale at which either (1) Purchaser, whose required bid deposit is now held by Forest Service as an initial deposit, was the successful bidder, or (2) no bids were received and Purchaser having subsequently offered at least the minimum advertised price and made an initial deposit in the same amount as the bid deposit specified in the sale advertisement; and the parties hereto desiring to record their agreement; now therefore,

Unless provided otherwise herein, Forest Service agrees to sell and permit Purchaser to cut and remove Included Timber and Purchaser agrees to purchase, cut, and remove Included Timber.

This contract consists of three Divisions: AT - Specific Conditions, BT - Standard Provisions, and CT - Special Provisions, together with Sale Area Map, Plans and specifications for developments (if any), and such attachments as may be provided for in Division CT. Specific Conditions are numbered and apply to the Part, Section, Subsection, or Item of the Standard Provisions, as indicated hereunder. Other conditions of this contract are stated in Division CT - Special Provisions.

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

UNITED STATES OF AMERICA

Two Witnesses:[1/]

By: _____
Contracting Officer

_____
(Name)

_____
(Title)

By: _____
(Purchaser) [2/]

_____
(Address)

_____

_____
(Name)

_____
(Title)

_____
(Address)

_____
(Business Address)

I, [3/] _____, certify that I am the _____ Secretary of the corporation named as Purchaser herein; that _____ who signed this contract on behalf of Purchaser, 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 [4/]

INSTRUCTIONS:

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

2/ If Purchaser is a co-partnership, the signatures should be: XYZ Company, by John Doe, a member of the firm. If Purchaser 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.

3/ The certificate must be completed if Purchaser is a corporation.

4/ 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

Timber Sale 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 timber sale 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 the Purchaser'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.

The following conditions apply to the indicated portions of Division BT - Standard Provisions issued June 2006.

AT1 - Location and Area, applicable to BT1.1

This Sale Area of 3200 acres more or less is located in:

T. 5 N., R. 9 E., Sections 1, 2, 3, 9, 10, 11, and 12; T. 6 N., R. 9 E., Sections 34 and 35, W.M., Unsurveyed, Skamania County; T. 5 N., R. 10 E., Sections 6 and 7, W.M., Surveyed, Klickitat County, Washington

AT2 - Volume Estimate and Utilization Standards, applicable to BT2.1, BT2.2, BT2.4, and BT6.4

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 Scale in % of Gross Scale
Douglas-fir and Other Coniferous Species	Sawtimber	6,963.00	CCF	7.0	1	8	5.0	40
All Species	Grn Bio Cv	250.00	CCF	5.0	1	8	4.0	N/A
Total Quantity		7,213.00	CCF					

* Quantities not included here are described in BT2.4.

AT3- Timber Designations, applicable to BT2.3; acres are approximate:

	Number	Acres
Clearcutting Units (BT2.31)		
Specified Road Clearing (BT2.32)		
Overstory Removal Units (BT2.33)		
Understory Removal Units (BT2.34)		
Individual Trees (BT2.35)		278
Incompletely Measured Payment Units (BT2.36)		

AT4 - Timber Payment Rates, applicable to BT3.1 and BT4.0

AT4a - For Species and Products to be Paid for at Rates Escalated under BT3.2

Species	Product	Unit of Measure	Rates per Unit of Measure					Base Index
			Base $	Advertised $	Bid Premium $	Bid (Tentative) $	Required Deposits Slash Disposal $	
Douglas-fir and Other Coniferous Species	Sawtimber	CCF	3.00	28.27			1.07	192.36

AT4b- 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 $
All Species	Grn Bio Cv	CCF	.25	.25			1.07

For purposes of convenience in collection and bookkeeping, Bid Rates stated in AT4 include payment of deposits for sale area betterment required pursuant to 16 USC 576b. Such deposits are not included as Required Deposits defined hereunder.

AT4c - Schedule of Payment Units

Pay-ment Unit No.	App rox. Acres	Quantity of Species and Products to be Escalated under AT4a	Total Tentative Payment $	Quantity of Species and Products to be Paid for at Flat Rates under AT4b	Total Flat Rate Payment $	Total Required Deposits for Slash Disposal $
1	38	Douglas-fir and Other Coniferous Species *Sawtimber* 952.00 CCF		All Species Grn Bio Cv 34.00 CCF		1,055.02
		Total PU Quantity And Value 952.00 CCF		**Total PU Quantity And Value** 34.00 CCF		
2	82	Douglas-fir and Other Coniferous Species *Sawtimber* 2,054.00 CCF		All Species Grn Bio Cv 74.00 CCF		2,276.96
		Total PU Quantity And Value 2,054.00 CCF		**Total PU Quantity And Value** 74.00 CCF		
3	29	Douglas-fir and Other Coniferous Species *Sawtimber* 726.00 CCF		All Species Grn Bio Cv 26.00 CCF		804.64
		Total PU Quantity And Value 726.00 CCF		**Total PU Quantity And Value** 26.00 CCF		
4	37	Douglas-fir and Other Coniferous Species *Sawtimber* 926.00 CCF		All Species Grn Bio Cv 33.00 CCF		1,026.13
		Total PU Quantity And Value 926.00 CCF		**Total PU Quantity And Value** 33.00 CCF		
5	40	Douglas-fir and Other Coniferous Species *Sawtimber* 1,002.00 CCF		All Species Grn Bio Cv 36.00 CCF		1,110.66
		Total PU Quantity And Value 1,002.00 CCF		**Total PU Quantity And Value** 36.00 CCF		
6	11	Douglas-fir and Other Coniferous Species *Sawtimber* 276.00 CCF		All Species Grn Bio Cv 10.00 CCF		306.02
		Total PU Quantity And Value 276.00 CCF		**Total PU Quantity And Value** 10.00 CCF		
7	7	Douglas-fir and Other Coniferous Species *Sawtimber* 175.00 CCF		All Species Grn Bio Cv 6.00 CCF		193.67
		Total PU Quantity And Value 175.00 CCF		**Total PU Quantity And Value** 6.00 CCF		
8	34	Douglas-fir and Other Coniferous Species *Sawtimber* 852.00 CCF		All Species Grn Bio Cv 31.00 CCF		944.81
		Total PU Quantity And Value 852.00 CCF		**Total PU Quantity And Value** 31.00 CCF		

The following definitions are established for the terms used in AT4:

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 BT3.31, BT3.32, or BT3.33.

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 AT7, but are never less than Base Rates.

Bid Premium Rates are the amounts by which Purchaser's bid is in excess of Advertised Rates. The Bid Premium Rates are constant during this contract, except as provided in BT3.31, BT3.32, and BT3.33.

Bid Rates are the rates bid by Purchaser (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 AT4a is the Tentative Rate that is subject to quarterly adjustment under BT3.2; for species and products in AT4b, the Bid Rate is the Flat Rate.

Required Deposits are deposits that Purchaser 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 CT5.32#.

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 BT3.2.

AT5 - Indices Used in Quarterly Adjustment, applicable to BT3.2

Species	Index Name and Date
Douglas-fir and Other Coniferous Species	WWPA, PNW Douglas Fir (12-13 Basis), (PNWCC)

AT6 - High Stumps, applicable to BT6.412

Species	Product	Maximum Stump Height (inches)
All	All	12

AT7 - Specified Roads, applicable to BT5.2

Name and Date of Governing Road Specifications: Federal Highway Administration Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects(2003)-english

Project		Design Class	Approx. Length (mi./km.)	Sheet Numbers and Approval Date	Performance Responsibility		
Road No.	Name				Survey	Design	Construction Staking 1/
8620751	ED-10 (R) (segment .11 to .26)	Single Lane - 15 mph	.15 / .24	1-5 12/28/2015	FS	FS	FS BC
8620000	MANN BUTTE (R) (segment 2.4 to 3.35)	Single Lane - 20 mph	.95 / 1.53	1-5 12/28/2015	FS	FS	FS BC
8620061	N509B UPPER PIT (R) (segment .14 to .27)	Single Lane - 20 mph	.13 / .21	1-5 12/28/2015	FS	FS	FS BC
8620051_1	N509D ROCK (R) (segment .18 to .55)	Single Lane - 15 mph	.37 / .6	1-5 12/28/2015	FS	FS	FS BC
8600000	N61 CAVE CR (R) (segment .1 to .85)	Single Lane - 25 mph	.75 / 1.21	1-5 12/28/2015	FS	FS	FS BC

1/ Indicate timing, i.e., before clearing (BC) or after clearing (AC). Applicable to BT5.212.

AT8 - Forest Service Engineering Completion Schedule, applicable to BT5.21

Road No.	Road Name	Type of Work	Completion Date
	NOT APPLICABLE		

AT9 - Fire Precautionary Period, applicable to BT7.2

April 01 to October 31 , inclusive

AT10 - Purchaser Responsibility to Furnish Crews and Equipment for:

Initial Fire Supression, applicable to BT7.3

Within 5 road miles

Fire Suppression Reinforcement, applicable to BT7.312 and BT7.313

Within 100 road miles

AT11 - Purchaser's Obligation per Operations Fire, applicable to BT7.41

Maximum Amount: $ $300,000

AT12 - Termination Date, applicable to BT8.2

December 31, 2021

AT13 - Normal Operating Season, applicable to BT6.31, BT6.66, BT8.21 and BT9.3

First Period: July 16 to September 30 , inclusive

Second Period: _____ to _____ , inclusive

AT14 - Performance Bond, applicable to BT9.1

Performance Bond Amount: _____

AT15 - Downpayment, applicable to BT4.211

Downpayment Amount: _____

AT16 - Periodic Payment Amount, applicable to BT4.213

	Periodic Payment Determination Date	Amount
Initial Payment:	November 16, 2019	_____
Additional Payment:	November 16, 2020	_____

AT17 - Market-Related Contract Term Addition Producer Price Index, applicable to BT8.212

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

AT18 - Inapplicable Standard Provisions

The following listed Sections, Subsections, or Items of Division BT - Standard Provisions - are hereby made inapplicable. (Instructions: List by reference number and title.)

BT4.211	DOWNPAYMENT
BT4.4	PAYMENTS NOT RECEIVED
BT8.212	MARKET-RELATED CONTRACT TERM ADDITION

AT19 - List of Special Provisions

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

CT2.35# (OPTION 1)	INDIVIDUAL TREE DESIGNATION (06/2010)
CT4.211	DOWNPAYMENT (06/2007)
CT4.212	TEMPORARY REDUCTION OF DOWNPAYMENT (08/2009)
CT4.4	PAYMENTS NOT RECEIVED (08/2012)
CT5.1# (OPTION 1)	TEMPORARY ROAD AND LANDING CONSTRUCTION (06/2008)
CT5.12#	USE OF ROADS BY PURCHASER (06/1999)
CT5.13#	ROAD COMPLETION DATE (04/2004)
CT5.213#	DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES (04/2004)
CT5.221#	MATERIAL SOURCES (04/2004)
CT5.31#	ROAD MAINTENANCE REQUIREMENTS (07/2001)
CT5.32#	ROAD MAINTENANCE DEPOSIT SCHEDULE (07/2001)
CT6.24#	SITE SPECIFIC SPECIAL PROTECTION MEASURES (04/2004)
CT6.315#	SALE OPERATION SCHEDULE (06/1994)
CT6.405	ALTERNATE REMOVAL OF INCLUDED TIMBER (05/2005)
CT6.41#	SPECIFIC REQUIREMENTS (01/2000)
CT6.42#	YARDING/SKIDDING REQUIREMENTS (06/2010)
CT6.6#	EROSION CONTROL AND SOIL TREATMENT BY PURCHASER (04/2014)
CT6.7	SLASH DISPOSAL (06/2008)
CT6.74#	SLASH TREATMENT REQUIREMENTS (02/2002)
CT6.8	MEASURING (08/2000)
CT6.84	ACCOUNTABILITY (06/2006)

CT6.84 (OPTION 1)	USE OF PAINT BY PURCHASER (05/2005)
CT7.1	PLANS (09/2004)
CT7.2	SPECIFIC FIRE PRECAUTIONS (09/2002)
CT7.201	BURNING BY PURCHASER (01/1993)
CT7.22	EMERGENCY FIRE PRECAUTIONS (09/2004)
CT8.13	DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTY (09/2004)
CT8.212	MARKET-RELATED CONTRACT TERM ADDITION (11/2008)
CT8.66# (Option 1)	USE OF TIMBER (04/2004)

UNITED STATES DEPARTMENT OF AGRICULTURE
Forest Service

TIMBER SALE CONTRACT
DIVISION BT

June 2006
(Date of Issue)

STANDARD PROVISIONS FOR TIMBER SALES TO BE MEASURED BEFORE FELLING

This Division is organized into Parts, Sections, Subsections, and Items. These are numbered in accordance with the following scheme: Part BT1.0, Section BT1.1, Subsection BT1.11, and Item BT1.111. 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 Division, Part, Section, Subsection, and Item. Descriptive headings used are not to be considered in determining the rights and obligations of the parties.

The Standard Provisions in this Division are subject to Specific Conditions of the contract stated in Division AT. Wherever appropriate, Specific Conditions established in Division AT are cited by reference number. The listing of Sections, Subsections, or Items of this Division in AT18 has the effect of striking or deleting them from Division BT. AT19 lists Special Provisions that comprise Division CT. Where appropriate, references to Special Provisions are made by citing the applicable reference numbers.

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BT1.0—SALE AREA

BT1.1 Sale Area Map. The boundaries of "Sale Area" and any Payment Unit thereof, are as shown on the attached "Sale Area Map" that is made a part hereof, and were, before timber sale advertisement, designated on the ground by Forest Service to meet the anticipated needs of the parties. The location of Sale Area and its approximate acreage are stated in AT1. Payment Units may be revised and additional ones may be established only by written agreement. Upon Purchaser's request, Forest Service shall subdivide Payment Units to reduce them to a size that can be logged within 60 days at Purchaser'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 or cutting units may be eliminated from Sale Area under conditions described in BT6.36. Catastrophically Damaged areas may be removed from Sale Area under BT8.32.

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

(a) Identified claims limiting Purchaser's rights under BT1.2;

(b) Payment Units where timber is to be Measured or Marked after date of timber sale advertisement and approximate location of sample Marked timber under BT2.36 and BT2.4;

(c) Boundaries of Clearcutting Units, Overstory Removal Units, and Understory Removal Units under BT2.3;

(d) Diameter limits for Overstory Removal Units and Understory Removal Units under BT2.33 and BT2.34;

(e) Areas where leave trees are Marked to be left uncut under BT2.35;

(f) Specified Roads listed in AT7;

(g) Sources of base course, surface rock, and rock riprap listed in the Schedule of Items under CT5.221;

(h) Roads where log hauling or use is prohibited or restricted under BT5.12;

(i) Roads and trails to be kept open under BT6.22;

(j) Improvements to be protected under BT6.22;

(k) Locations of known wildlife or plant habitat and cave resources to be protected under BT6.24;

(l) Locations of areas known to be infested with specific invasive species of concern under BT6.35;

(m) Maximum stump heights when more than one height is listed by areas in AT6 under BT6.412;

(n) Skidding or yarding methods specified under BT6.42;

(o) Streamcourses to be protected under BT6.5;

(p) Locations of meadows requiring protection under BT6.61;

(q) Locations of wetlands requiring protection under BT6.62;

(r) Locations of temporary roads to be kept open under BT6.631; and

(s) Other features required by Division BT or CT.

BT1.2 Claims. Valid claims are excluded from Sale 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 Purchaser's rights to operate under this contract and that Forest Service has been able to identify are shown on Sale Area Map. Purchaser 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.

BT2.0—TIMBER SPECIFICATIONS

BT2.1 Included Timber. "Included Timber" consists of:

BT2.11 Standard Timber. Live and dead trees and portions thereof that meet Utilization Standards under BT2.2 and are designated for cutting under BT2.3.

BT2.12 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.

BT2.13 Damaged Timber.

BT2.131 Damaged by Purchaser. Undesignated live trees meeting Utilization Standards:

(a) Within 200 feet slope distance from centerline of roads constructed hereunder that are damaged by Purchaser'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 Purchaser in logging and are subsequently Marked before Purchaser has completed skidding or yarding operations in the immediate area.

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

BT2.132 Negligent or Willful Damage. Undesignated timber meeting Utilization Standards and unnecessarily damaged or negligently or willfully cut by Purchaser, if included by Contracting Officer.

BT2.133 Damage by Catastrophe. As provided under BT8.32, undesignated live and dead timber within Sale Area, meeting Utilization Standards, and affected by Catastrophic Damage. "Catastrophic Damage" as used hereunder is major change or damage to Included Timber on Sale Area, to Sale Area, to access to Sale Area, or a combination thereof:

(a) Caused by forces, or a combination of forces, beyond control of Purchaser, 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 Sale Area and estimated to total either:

(i) More than half of the estimated timber quantity stated in AT2 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.

BT2.134 Minor Damage by Natural Causes. Undesignated trees within Sale Area and meeting Utilization Standards, in amounts less than specified in BT2.133, that become insect infested, windthrown, suffer serious damage, or die, as designated by agreement.

BT2.14 Unintentionally Cut Timber. Trees, within or immediately adjacent to Sale Area or to road construction or other authorized clearing outside Sale Area, not designated for cutting under BT2.3 but that are cut through mistake by Purchaser, when included by Contracting Officer.

BT2.15 Construction Timber. Trees to be used for construction under BT5.1.

BT2.16 Other Material. Species or products not listed in AT2, upon written approval of Contracting Officer under BT3.41.

BT2.2 Utilization and Removal of Included Timber. "Utilization Standards" for trees and minimum pieces are stated in AT2. To meet minimum tree specifications, trees must equal or exceed tree diameters listed in AT2 and contain at least one minimum piece. Except for timber required or authorized to be left, Purchaser shall fell and buck such trees and shall remove from Sale Area all pieces that:

(a) Meet minimum piece standards in AT2 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.

BT2.3 Timber Designations. Timber designated for cutting shall be confined to Sale Area, except as provided in BT2.131, BT2.14, BT2.15, BT2.32, and BT5.1. Sale Area Map indicates Payment Units, if any, where Marking under BT2.35 is to be done after timber sale advertisement, except for construction clearing under BT2.32, designation changes under BT2.37, and damaged timber.

The boundaries of Clearcutting Units, Overstory Removal Units, and Understory Removal Units were plainly Marked on ground before timber sale advertisement and are shown on Sale Area Map. Boundary trees shall not be cut. Such units where Measuring is to be completed after date of timber sale advertisement are also shown. The number of units and approximate acreage of timber designations are stated in AT3.

BT2.31 Clearcutting Units. All trees that meet Utilization Standards within "Clearcutting Units" are designated for cutting.

BT2.32 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 Purchaser's landings or the roadbed of Specified and Temporary Roads when Marked in advance of felling of timber in the immediate vicinity. 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 BT5.2.

BT2.321 Specified Road Clearings. Timber within the clearing limits of Specified Roads is within separate Payment Units, as shown on Sale Area Map, and the quantities are in AT2. These Payment Units are subject to revision, as specified in BT2.37. The quantities of dead or unstable trees designated outside the clearing limits are not included in AT2.

BT2.322 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 AT2.

BT2.33 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 Sale Area Map.

BT2.34 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 Sale Area Map.

BT2.35 Individual Trees. All trees to be cut, other than in the units described in BT2.31, BT2.32, BT2.33, and BT2.34, are Marked or designated by description. Trees are "Marked" when individually designated by Forest Service with paint marks above and below stump height.

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

BT2.36 Incompletely Measured Payment Units. Trees within incompletely Measured Payment Units shown on Sale Area Map at time of timber sale advertisement shall be designated in accordance with CT2.36. A representative sample of the timber to be designated has been Marked prior to timber sale advertisement in accordance with such rules. The approximate locations of the representative sample areas are shown on Sale Area Map.

BT2.37 Designation Changes. Within Sale Area, minor adjustments may be made in boundaries of cutting units or in the timber individually Marked for cutting when acceptable to Purchaser and Forest Service.

In event Contracting Officer accepts alternate facilities under BT5.26, Contracting Officer shall revise the affected Payment Units and adjust estimated quantities.

In the event Purchaser 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.

BT2.4 Quantity Estimate. The estimated quantities of timber by species designated for cutting under BT2.3 and expected to be cut under Utilization Standards are listed in AT2. Estimated quantity in AT2 does not include the following:

(a) Damaged timber under BT2.13;

(b) Unintentionally cut timber under BT2.14;

(c) Construction timber under BT2.15 cut outside of Payment Units and removed from construction use for utilization by Purchaser;

(d) Timber within clearing limits of Temporary Roads or other authorized clearings and that is not designated under BT2.31, BT2.33, BT2.34, or BT2.35; or

(e) Dead or unstable live trees that are sufficiently tall to reach Purchaser's landings or the roadbed of Specified Roads under BT2.32.

Estimated quantities for such timber not included in AT2 shall be determined as stated in CT6.8.

If Sale Area Map shows Payment Units where Marking or Measuring is to be completed after date of timber sale advertisement, the objective of Forest Service shall be to designate for cutting in such Payment Units sufficient timber so that Sale Area shall yield the approximate estimated quantities by species or species groups stated in AT2. However, the estimated quantities stated in AT2 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 BT8.32.

BT2.41 Adjustment for Quantity Deficit. If Sale Area Map shows Payment Units where Marking or Measuring is to be completed after the date of timber sale 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 AT2, Forest Service, upon request by Purchaser, shall designate additional timber within Sale Area. Such additional timber shall be limited to that estimated to be necessary to reach approximately the estimated quantities by species listed in AT2. Any such additional designation shall be consistent with land and resource management plans.

BT2.42 Adjustment for Excess Quantity. If Sale Area Map shows Payment Units where Marking or Measuring is to be completed after date of timber sale advertisement and if Contracting Officer determines that the quantity designated will be more than 120 percent of the total estimated quantity listed in AT2, Forest Service, upon request by Purchaser, 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 AT2. Such adjustments in quantities shall be confined to (a) Marking adjustments on Sale Area and (b) reduction in area to be cut over. Such adjustments or reductions shall not conflict with the silvicultural treatment being applied on Sale 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 BT1.1 and BT2.3.

If the timber designated for cutting is not reduced by such adjustments to less than 120 percent of the total estimated quantity listed in AT2, Purchaser, after cutting 120 percent of the total estimated quantity listed in AT2, may elect to have Sale Area reduced to eliminate Payment Units where felling has not begun.

BT2.43 Adjustment for Quantity Errors. An estimated quantity shown in AT2 shall be revised by correcting identified errors made in determining estimated quantity that result in a change in total timber sale 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 AT4c 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.

BT3.0—RATES OF PAYMENT

BT3.1 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 BT3.2. Flat Rates and Tentative Rates shall be those listed in AT4, unless superseded by rates redetermined under BT3.3 or established for Contract Term Extension.

Current Contract Rates, based on rates redetermined under BT3.3 or established under BT8.23, shall apply to all Payment Units from which removal of timber from Sale 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 Sale 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 AT4c for those units. In addition, Required Deposits shall be made as listed in AT4 and CT5.32, or established under BT3.3 or BT8.23.

In the event Termination Date is adjusted under BT8.21 or BT8.212, 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.

BT3.2 Escalation Procedure. Tentative Rates for those species and products listed in AT4a are subject to quarterly escalation in accordance with the following procedures: The calendar quarter index average for each price index described in AT5 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 AT4a 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 BT8.23 for the extension period.

BT3.21 Unavailable Index. If an index described in AT5 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 timber sale shall be a Flat Rate. Flat Rates will be Tentative Rates adjusted by the arithmetic average of the index described in AT5 for a 12-month period prior to its becoming unavailable using the quarterly adjustment procedure outlined in BT3.2. 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.

BT3.3 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 BT3.31, BT3.32, and BT3.33.

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 AT4, except for reduction under BT3.31, BT3.32, or BT3.33. Required Deposits shall be redetermined. Redetermined Specified Road construction cost is subject to the limitations of BT5.26.

BT3.31 Rate Redetermination for Environmental Modification. In the event of a contract modification under BT8.33 or partial termination under BT8.34, 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 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 BT3.2, and Required Deposits shall be considered established under BT3.1 for Included Timber removed subsequent to the contract revision.

BT3.32 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 BT8.32. Potential Included Timber is any that would be added under BT8.32.

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 BT8.32. 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 BT8.32, redetermined rates and Required Deposits shall be considered established under BT3.1 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.

BT3.33 Rate Redetermination for Market Change. In the event of delay or interruption, exceeding 90 days, under BT8.33, 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 BT3.31, using remaining volumes.

Tentative Rates and Flat Rates in effect at the time of delay or interruption or established pursuant to BT3.31 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 BT3.1 for Included Timber removed subsequent to the delay or interruption.

BT3.34 Emergency Rate Redetermination. Forest Service shall redetermine rates if, upon Purchaser'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 AT17 has declined by 25 percent. Rates shall be redetermined under BT3.3 and shall be considered established under BT3.1 for Payment Units described therein at the time of Purchaser's application. This Subsection shall not apply during Contract Term Extension.

BT3.4 Other Payment Rates.

BT3.41 Material and Quantities Not in AT2. Incidental amounts of products or portions of trees of species listed in AT2 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 AT2 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.

Timber for which the quantity is not included in the estimate listed in AT2, as described in BT2.4, shall be paid for at Current Contract Rates and Required Deposits.

BT3.42 Timber Cut Through Mistake. Undesignated timber meeting Utilization Standards, cut by Purchaser through mistake and included by Contracting Officer under BT2.14, shall be removed and paid for at Current Contract Rates and Required Deposits, unless such material is not listed in AT2. In such event, Contracting Officer, in accord with standard Forest Service methods, shall establish rates to be paid.

BT3.43 Undesignated Timber Damaged Without Negligence. Undesignated timber meeting Utilization Standards, damaged without negligence by Purchaser and designated by Forest Service under BT2.131, shall be cut, removed, and paid for at Current Contract Rates and Required Deposits.

BT3.44 Undesignated Timber Unnecessarily Damaged or Negligently or Willfully Cut. Undesignated timber meeting Utilization Standards and unnecessarily damaged or negligently or willfully cut by Purchaser, if included by Contracting Officer under BT2.132, shall be cut, removed, and paid for at Current Contract Rates and Required Deposits that are in addition to liquidated damages under BT3.45.

If such timber is of a species or size not listed in AT2 or is of a quality different from designated timber, Contracting Officer shall establish payment rates in accord with standard Forest Service methods.

BT3.45 Liquidated Damages. Unnecessary damage to or negligent or willful cutting of undesignated timber, as described in BT3.44, on portions of Sale 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, Purchaser shall pay as fixed, agreed, and liquidated damages an amount equivalent to the amount payable at Current Contract Rates. If designated by Contracting Officer, Purchaser shall remove such damaged or cut timber and pay for it at Current Contract Rates.

BT4.0—PAYMENTS

BT4.1 Amount Payable for Timber. Except as provided in BT3.1, 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 Purchaser shall pay. A “Payment Unit” is a portion of Sale Area established for payment purposes.

BT4.2 Timber Sale Account. “Timber Sale Account” is an account maintained by Forest Service of all Purchaser’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 BT4.218; and

(d) 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 Purchaser periodic statements of quantity and value of such timber. Charges subject to escalation under BT3.2 shall be made initially on the basis stated in BT4.214 and shall be adjusted at the end of each calendar quarter, as provided in BT3.2.

Charges shall be made according to BT3.4 when trees are subsequently Marked or designated for cutting.

BT4.21 Cash Deposits. Within the limitations of this Subsection, Purchaser shall make cash deposits to meet Purchaser’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.

BT4.211 Downpayment. The downpayment amount shown in AT15 may not be applied toward any other payment required under the provisions of this contract, except damages determined pursuant to BT9.4, transferred to other timber sales, or refunded until stumpage value representing 25 percent of the total bid value of

the timber sale is shown on Timber Sale Account to have been cut, removed, and paid for, or if 36 CFR 223.49(e) is applicable, the estimated value remaining to be cut and removed, as shown on Timber Sale Account, is equal to or less than the amount of the downpayment. For lump sum timber sales, the downpayment may be applied to payment for release of the single payment unit.

If Forest Service makes a determination that this contract should not have been included under increased downpayment requirements (36 CFR 223.49(e)), the downpayment shall be revised and applied in accordance with 36 CFR 223.49(f).

BT4.212 Advance Deposits. Purchaser agrees to make cash deposits in advance of cutting to meet charges under BT4.2.

Forest Service billings for advance cash deposits shall be in such amounts that Timber Sale Account will maintain an unobligated balance that covers the applicable charges for Payment Units Released for Cutting and designated material not included in AT2 expected to be cut within the next 60 days. This advance cash deposit may be reduced to a smaller amount by the terms of BT4.211, BT4.213, BT4.215, and/or BT4.217. Except for amounts required pursuant to BT4.211, BT4.213, and BT4.217, Purchaser shall not be required to make advance deposits above those required under this Item.

When the credit balance in Timber Sale 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 AT2, Contracting Officer will suspend all or any part of Purchaser's Operations until payment or acceptable payment guarantee is received.

BT4.213 Periodic Payment Schedule. Purchaser shall make periodic payments for stumpage value, as shown in AT16.

In the event Purchaser has not paid the amount(s) stated in AT16 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 Purchaser. 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 Timber Sale Account billing date.

The amount of the periodic payment(s) will be reduced if the payment(s) would result in Purchaser'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 BT4.212.

Except for Contract Term Extensions under BT8.23, periodic payment determination date(s) that have not been reached shall be adjusted one day for each additional day of contract time granted.

BT4.214 Deposits for Charges Subject to Escalation. Deposits requested to cover estimated charges for timber subject to escalation under BT3.2 shall be based upon Current Contract Rates and related deposits in effect during previous calendar quarter.

BT4.215 Deposits When Payment Guaranteed. To the extent payment guarantee is provided under BT4.3, requirements for advance cash deposits under BT4.212 shall be waived for the value of timber on Sale Area that has been Released for Cutting, but not removed, and for the estimated value of products removed from Sale Area for not more than a monthly billing period, subject to the provisions of BT4.4.

BT4.216 Blanket Cash Deposits. Purchaser may make cash deposits under a written agreement to cover charges made under this and other timber sale contracts within the same National Forest. Forest Service shall allocate such deposits to such timber sales. 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 timber sale shall be reallocated to other timber sales within the same National Forest at Purchaser's request. Purchaser shall not start cutting until allocation has again been made to this timber sale.

BT4.217 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 BT4.213 by the number of whole months remaining in Normal Operating Season(s) within the extension period to determine the amount of each "Extension Deposit."

Purchaser shall make the initial Extension Deposit prior to Forest Service executing the contract modification. In response to Forest Service billing under BT4.21, Purchaser 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 Purchaser earns Contract Term Adjustment if Termination Date, as adjusted, results in one or more additional complete months within Normal Operating Season(s).

BT4.218 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 Purchaser 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, Purchaser shall make one or more deposits to cover the estimated cost of the work. On request of Purchaser, Forest Service shall render monthly accounts, as may be specified in such agreement.

BT4.22 Temporary Reduction of Downpayment. When, under BT8.33, Contracting Officer orders a delay or interruption of Purchaser's Operations for more than 30 days when scheduled operations would be occurring but for the order, the downpayment amount

required shall be temporarily reduced upon the written request of Purchaser or at the discretion of the 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 AT15, whichever is larger.

Any downpayment amount temporarily reduced pursuant to this Subsection may be refunded or transferred at the request of Purchaser. However, if Purchaser has outstanding debt owed to 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 Purchaser's receipt of bill for collection and written notice from Contracting Officer that the basis for the delay or interruption no longer exists, Purchaser shall restore the downpayment to the full amount shown in AT15 within 15 days after the date the bill for collection is issued, subject to the provisions of BT4.4. Purchaser shall not resume contract operations until the downpayment amount is fully restored.

BT4.23 Refund of Excess Cash. If at any time the credit balance of Timber Sale Account exceeds the charges for timber within Payment Units Released for Cutting and for designated material not included in AT2 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 Purchaser, unless deposited under BT4.211, BT4.213, or BT4.217. If Purchaser 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 AT2 that is cut before operations cease. After a refund for a shutdown, deposits shall be made to meet the requirements of BT4.212 before additional timber may be cut.

BT4.24 Refund after Final Charges for Released Timber. Any cash deposit, in excess of that required to meet charges under BT4.2, shall be refunded or transferred within 15 days of Purchaser's request after final charges for Included Timber have been made, except for amounts estimated to be required under BT9.5.

BT4.3 Payment Guaranteed by Bond or Deposited Securities. To guarantee payment, Purchaser 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 BT9.1.

BT4.31 Blanket Bond. If Purchaser furnishes an acceptable bond, or deposits securities, in accordance with BT4.3, to guarantee payment for timber from this and other timber sales within the same National Forest, the amount of such bond or deposited securities shall be allocated to such timber sales 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 timber sale shall be reallocated to other timber sales at Purchaser's request. Purchaser shall not start cutting hereunder until this timber sale receives an allocation that will meet the obligation for payment guarantee.

BT4.32 Letters of Credit for Payment Bond. Notwithstanding the provisions of BT4.3, Purchaser may use letters of credit in lieu of a surety bond for payment bond purposes when approved by Contracting Officer.

BT4.4 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 Purchaser'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 BT4.218;

(iii) Damages pursuant to BT9.4;

(iv) Road use fees;

(v) Restoration of downpayment pursuant to BT4.22;

(vi) Periodic payments pursuant to BT4.213;

(vii)Extension Deposits pursuant to BT4.217; 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 BT9.3. 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.

(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 Purchaser'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 Purchaser's Operations, and administrative offset, shall be stayed for so long as:

(i) A bona fide dispute exists as to Purchaser's obligation to make such payment and

(ii) Purchaser files and prosecutes a timely Claim.

BT5.0—TRANSPORTATION FACILITIES

BT5.1 Authorization. Purchaser is authorized to construct and maintain roads, bridges, and other transportation facilities, as needed for harvesting Included Timber 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 BT5.2. Unless otherwise provided herein, construction may be progressive during this contract. Maintenance shall be governed by BT5.3. 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 Purchaser for the purpose of harvesting Included Timber.

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

BT5.11 Requirements of Rights-of-Way. Purchaser's road construction and use of rights-of-way identified in attached list or CT5.11 shall be confined to rights-of-way and limited by the related easements and stipulations, if any, unless Purchaser 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.

BT5.12 Use of Roads by Purchaser. Except as provided herein, Purchaser is authorized to use existing National Forest system roads and Specified Roads listed in AT7, when Forest Service determines that such use will not cause damage to the roads or National Forest resources.

If Purchaser's use of an existing temporary or National Forest system road, not listed in AT7, cannot be satisfactorily accommodated without reconstruction, Purchaser shall be authorized to use such road upon agreement as to the minimum reconstruction work that Purchaser shall perform before hauling. When appropriate, such road shall be included in AT7 as an alternate facility under BT5.26.

CT5.12 lists existing roads shown on Sale 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.

BT5.2 Specified Roads. "Specified Roads" are roads, including related transportation facilities and appurtenances, shown on Sale Area Map and listed in AT7. Purchaser shall construct Specified Roads used under this contract. Construction initiated by Purchaser on any such Specified Road shall be completed to an agreed terminus that meets Purchaser's needs and prevents unnecessary impact on National Forest resources. Construction to such terminus shall be in full accordance with Plans and specifications and the Schedule of Items identified in AT7 or specifications attached hereto, except for agreed adjustments needed to accommodate such terminus. The "Schedule of Items" is a list and description of construction items, quantities, units of measure, methods of measurement, unit price, and total amount. 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 BT5.212, BT5.25, BT5.26, or CT5.215, AT7 shall be modified. If Purchaser does not need a Specified Road or a portion of a Specified Road for harvesting Included Timber and the Specified Road is not constructed, the deletion of the road or road segment will be a mutually agreed Design Change and Timber Sale Account will be adjusted for the reduction in cost, as provided in BT5.25.

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 timber sale advertisement.

BT5.21 Engineering. Forest Service completed survey and design for Specified Roads prior to timber sale advertisement, unless otherwise shown in AT8 or

Purchaser survey and design are specified in AT7. 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 Timber Sale Account.

Forest Service engineering shall be completed according to the schedule in AT8. Should Forest Service be unable to perform the designated survey and design by the completion date or other agreed to time, upon written agreement, Purchaser shall assume responsibility for such work. In such event, Contracting Officer shall revise:

(a) AT7 to show Purchaser's performance responsibility.

(b) The Schedule of Items to include costs of survey and design, as provided under BT5.24, and adjust Timber Sale Account, as provided in BT5.25. Forest Service shall calculate such costs, using unit rates comparable with those used in the Schedule of Items.

Purchaser 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. Purchaser's construction schedule shall reflect Forest Service survey and design completion dates. Forest Service may agree to Purchaser's request for an alternate date for starting construction.

Purchaser shall perform survey, design, and construction staking of Specified Roads to be engineered by Purchaser 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 Timber Sale 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 timber sale advertisement.

BT5.211 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 Purchaser to explain in detail specific portions of the work required by the contract. Purchaser 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, Purchaser 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 AT7 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, Purchaser shall make corrections pursuant to BT5.253.

BT5.212 Construction Staking. Purchaser shall avoid careless or negligent damage to construction stakes, flags, or marks. If such damage occurs, Purchaser shall be required to replace stakes necessary to construction. Purchaser's replacement staking shall be approved by Forest Service. Alternatively, upon Purchaser's request, Contracting Officer may agree to perform such work under BT4.218.

When AT7 shows that construction stakes are to be set by Forest Service after clearing, Purchaser 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 Purchaser's clearing and other construction activity to proceed without hindrance or delay, provided Purchaser's construction activity is reasonably consistent with needs identified in Purchaser's Operating Schedule or amendments thereto.

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

(a) AT7 to show Purchaser's performance responsibility.

(b) The Schedule of Items to include costs of construction staking, as provided under BT5.24, and adjust Timber Sale Account, as provided in BT5.25. Forest Service shall calculate such costs, using unit rates comparable with those used in the Schedule of Items.

BT5.22 Material Delivery. Within 60 days after award date, Purchaser 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 Purchaser 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 Purchaser, Purchaser is responsible for installation of needed material and for any loss of or damage to such material due to Purchaser's negligence prior to installation or return of unused material to Forest Service.

At Purchaser's option, Forest Service deliveries shall be to Purchaser'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.

BT5.23 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.

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.

BT5.24 Estimated Cost. Estimated costs by construction phases for Specified Roads listed in AT7 are stated by segments in the Schedule of Items. Such estimated costs are subject to adjustment under BT3.3, BT5.2, BT5.21, BT5.212, BT5.25, and BT5.26. Appropriately adjusted costs shall be made a part of a revised Schedule of Items and shown as adjustments to Timber Sale 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 Purchaser.

BT5.25 Construction Cost Adjustment. Contracting Officer, as provided in BT5.21, BT5.212, BT5.251, BT5.252, and BT5.253, shall adjust Specified Road construction cost estimates in the Schedule of Items and show the adjustments as credits or debits to Timber Sale Account in the month when the road segment is accepted.

BT5.251 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 BT5.252 or BT5.253. Only changes in quantities where other than contract quantity 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 AT7, except that:

(i) When quantity of authorized work performed or material furnished by Purchaser, 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 Purchaser, 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 timber sale. 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.

BT5.252 Physical Change. (a) Forest Service shall adjust the Specified Road construction cost if, prior to acceptance under BT6.36, a physical change, caused by a single event and not due to negligence of Purchaser, results in an increase or decrease in work and/or materials furnished by Purchaser involving additional estimated cost of:

(i) More than $10,000 or

(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 timber sale when quantities decrease.

(e) When quantity of authorized work to be performed or material furnished by Purchaser, 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 timber sale. The revised estimate shall take into account any increase or decrease in unit rates that results from a reduction in quantity of work.

BT5.253 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 BT5.251, 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 Purchaser 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 timber sale when quantities decrease.

(h) When quantity of authorized work to be performed or material furnished by Purchaser, 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 timber sale. The revised estimate shall take into account any increase or decrease in unit rates that results from a reduction in quantity of work.

BT5.26 Alternate Facilities. If under Purchaser's Operating Schedule, roads needed for the removal of Included Timber differ substantially from Specified Roads, other roads may be added to AT7. 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. Purchaser 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 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 Purchaser does not construct, Timber Sale Account shall be adjusted by Forest Service to reflect the reduction in costs. In event of rate redetermination under BT3.3, such allowed costs shall be the redetermined estimated costs of facilities listed in the original Schedule of Items that Purchaser does not construct.

BT5.27 Temporary Credit for Unamortized Specified Road Construction Cost. When, under BT8.33, Contracting Officer orders a delay or interruption of Purchaser's Operations for more than 30 days when scheduled operations would be occurring but for the order, the Contracting Officer shall credit the unamortized cost of Specified Roads to Purchaser's Timber Sale Account, upon the written request of Purchaser or at the discretion of Contracting Officer. The amount credited to Purchaser shall be limited to stumpage paid above Base Rates.

Any Specified Road construction cost credited to Purchaser pursuant to this Subsection may be refunded or transferred at the request of Purchaser. However, if Purchaser has outstanding debt owed 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 of 1996, as amended.

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

BT5.3 Road Maintenance. Purchaser shall maintain roads, commensurate with Purchaser's use, in accordance with Road Maintenance Requirements in CT5.31 and the Road Maintenance Specifications. Performance of road maintenance work by Purchaser may be required prior to, during, or after each period of use. The timing of work accomplishment shall be based on Purchaser's Operating Schedule under BT6.31.

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 Purchaser elects to use different roads than those listed in CT5.31, Forest Service shall determine Purchaser's commensurate share of road maintenance and revise road maintenance deposits in CT5.32.

If Forest Service cannot perform its full commensurate share of road maintenance, Forest Service shall make a cash payment to Purchaser 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.

BT5.4 Use by Others. Forest Service shall have the right to use any road constructed by Purchaser 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 Purchaser hereunder when Contracting Officer determines that such use will not materially interfere with Purchaser'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 CT5.4, Forest Service shall authorize other uses of roads constructed by Purchaser hereunder only if:

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

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

Where Purchaser reconstructs a road having established use, Purchaser'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 Purchaser's right to use such reconstructed road.

BT6.0—OPERATIONS

BT6.1 Representatives. Unless otherwise agreed, Purchaser 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 Purchaser designate any representative to this contract who is currently debarred, proposed for debarment, or suspended by the Federal Government. Purchaser's representative shall provide a copy of the contract to Purchaser'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, Purchaser's representative shall notify Forest Service 2 days, excluding weekends and Federal holidays before any operations begin on Sale Area.

Purchaser's representative shall designate, in writing, a field supervisor, one of whose responsibilities shall be on-the-ground direction and supervision of Purchaser'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 performance 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. Purchaser 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 Purchaser's annual Operating Schedule under BT6.31.

Unless Contracting Officer designates another Forest Service representative and notifies Purchaser 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 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 30 days of receipt of Purchaser's Plan of Operations.

BT6.11 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.

BT6.2 Improvements. Purchaser is authorized to construct on National Forest land, buildings, facilities, and other improvements needed to log Included Timber. 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.

Purchaser 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 contractor, Subcontractor or their employees or agents working on the project for Purchaser. Such permission, if granted, shall be without charge to Purchaser.

BT6.21 Removal. Unless Forest Service authorizes continued use, Purchaser shall remove or dispose of all improvements when no longer needed. Should Purchaser fail to remove or dispose of improvements within 6 months after Termination Date, Forest Service may dispose of improvements at Purchaser's expense under BT9.5 or may, upon written notice to Purchaser, assume title to improvements in the name of the United States. In the latter event, Purchaser shall not be required to remove such improvements.

BT6.22 Protection of Improvements. So far as practicable, Purchaser 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 Sale Area Map.

Purchaser shall keep roads and trails needed for fire protection or other purposes and designated on Sale Area Map reasonably free of equipment and products, slash, and debris resulting from Purchaser's Operations. Purchaser shall make timely restoration of any such improvements damaged by Purchaser's Operations and, when necessary because of such operations, shall move such improvements, as specified in CT6.22.

BT6.221 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 Purchaser's Operations.

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

Purchaser 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, Purchaser 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. Purchaser shall make arrangements for use of alternate crossings. All construction work to be performed by Purchaser on the railroad right-of-way shall not damage railroad company's property.

BT6.222 Protection of Property. In construction and reconstruction of Specified Roads, Purchaser shall not unnecessarily remove, deface, injure, or destroy trees, shrubs, or other natural features, unless specifically authorized. To the extent practicable, Purchaser 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.

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.

BT6.23 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 perpetuate action that does not cause unnecessary delay to Purchaser 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.

Purchaser shall protect all known survey monuments, witness corners, reference monuments, and bearing trees against avoidable destruction, obliteration, or damage during Purchaser's Operations. If any known monuments, corners, or accessories are destroyed, obliterated, or damaged by Purchaser's Operations, Purchaser 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. Purchaser shall record such survey in appropriate county records.

BT6.24 Protection Measures Needed for Plants, Animals, Cultural Resources, and Cave Resources. (a) Areas, known by Forest Service prior to timber sale advertisement, needing special measures for the protection of plants, animals, cultural resources, and/or cave resources are shown on Sale Area Map

and/or identified on the ground, and shall be treated as follows:

(i) Unless agreed otherwise, wheeled or track laying equipment shall not be operated in areas identified as needing special measures except on roads, landings, tractor roads, or skid trails approved under BT5.1 or BT6.422. Purchaser may be required to backblade skid trails and other ground disturbed by Purchaser's Operations within such areas in lieu of cross ditching required under BT6.6. Additional special protection measures needed to protect such known areas are identified in CT6.24.

(ii) Unless agreed otherwise, trees will not be felled into areas identified as needing special measures.

(iii) Purchaser shall conduct operations in a manner that does not damage or disturb identified areas. In the event that protective measures identified by the Forest Service are for any reason inadequate, Contracting Officer may delay or interrupt Purchaser's operations, under this Contract, and/or modify this Contract pursuant to BT8.33.

(iv) Purchaser shall immediately notify the Forest Service if its operations disturb or damage any area identified as needing special protection, and shall immediately halt its operations in the vicinity of such area until the Forest Service authorizes continued operations. In the event that Purchaser's operations disturb or damage an area identified as needing special protection, then Purchaser shall reimburse the Forest Service for the full cost and expense of any evaluative and remedial measures undertaken by the Forest Service in connection with such disturbance or damage. Such payment shall not relieve Purchaser from civil or criminal liability under applicable law.

(b) Nothing contained in this Subsection shall establish, or be deemed to establish any express or implied warranty on the part of the Forest Service (i) that the Forest Service has identified all areas within the Sale Area requiring special protection, or (ii) that measures prescribed by the Forest Service for protection of such areas are adequate.

(c) Following sale advertisement, additional areas needing special measures for protection may be discovered or identified; protective measures may be revised or newly prescribed; and, additional species of plants and/or animals may be added to federal lists of protected species. In such event, Contracting Officer may delay or interrupt Purchaser's operations, under this Contract, and/or modify this Contract pursuant to BT8.33.

(d) Discovery, by either the Purchaser or the Forest Service, of additional areas, resources, species, or members of species needing special protection shall be promptly reported to the other party.

BT6.3 Control of Operations. Under this contract, "Purchaser's Operations" shall include activities of or use of equipment of Purchaser, Purchaser's employees, agents, contractors, 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).

Purchaser'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 Purchaser.

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

(a) Give tentative approval and bill Purchaser as necessary under BT4.21 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. Purchaser shall not cut timber in any Payment Unit until it is Released for Cutting.

BT6.31 Operating Schedule. Purchaser shall, before commencing operations, provide in writing an annual Operating Schedule of anticipated major activities and needs for logging Included Timber, such as logging, road maintenance, and construction, including construction staking under BT5.212 and material delivery under BT5.22. Upon reasonable notice to Forest Service, such schedule shall be subject to modifications necessitated by weather, markets, or other unpredictable circumstances.

Subject to BT6.6 and when the requirements of BT6.66 are met, Purchaser's Operations may be conducted outside Normal Operating Season. "Normal Operating Season" is the period(s) beginning and ending on the dates stated in AT13 of any year.

BT6.311 Plan of Operations. For timber sales with 2 or more years between award date and Termination Date, within 60 days of final award of contract, Purchaser shall furnish Forest Service a written general Plan of Operations that shall be in addition to the annual Operating Schedule required under BT6.31. The Plan of Operations shall set forth planned periods for and methods of road construction, timber harvesting, and completion of slash disposal, erosion control measures, and other contractual requirements. Forest Service written approval of the Plan of Operations is prerequisite to commencement of Purchaser's Operations. Purchaser may revise this Plan of Operations when necessitated by weather, markets, or other unpredictable circumstances, subject to approval of Contracting Officer. In the event of delays beyond the control of Purchaser that qualify for Contract Term Adjustment, the Plan of Operations shall be adjusted by mutual agreement to accommodate the adjusted contract period.

BT6.312 Plan of Operations for Road Construction. Annually, prior to start of construction, Purchaser shall submit a supplement to the Plan of Operations 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. Purchaser shall submit a

revised schedule when Purchaser proposes a significant deviation from the progress schedule.

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

BT6.32 Protection of Residual Trees. Purchaser's Operations shall not unnecessarily damage young growth or other trees to be reserved.

BT6.33 Safety. Purchaser's Operations shall facilitate Forest Service's safe and practical inspection of Purchaser's Operations and conduct of other official duties on Sale Area. Purchaser has all responsibility for compliance with safety requirements for Purchaser'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 Purchaser may request an adjustment in Current Contract Rates to compensate for the changed conditions.

Unless otherwise agreed in writing, when Purchaser's Operations are in progress adjacent to or on Forest Service controlled roads and trails open to public travel, Purchaser shall furnish, install, and maintain all temporary traffic controls that provide the user with adequate warning of hazardous or potentially hazardous conditions associated with Purchaser's Operations. Purchaser 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, Sale Area Map, Traffic Control Plan, or in specifications attached hereto.

BT6.34 Sanitation and Servicing. Purchaser shall take all reasonable precautions to prevent pollution of air, soil, and water by Purchaser's Operations. If facilities for employees are established on Sale Area, they shall be operated in a sanitary manner. In the event that Purchaser's Operations or servicing of equipment result in pollution to soil or water, Purchaser shall conduct cleanup and restoration of the polluted site to the satisfaction of Forest Service.

Purchaser shall maintain all equipment operating on Sale Area in good repair and free of abnormal leakage of lubricants, fuel, coolants, and hydraulic fluid. Purchaser shall not service tractors, trucks, or other equipment on National Forest lands where servicing is likely to result in pollution to soil or water. Purchaser 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. Purchaser 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.

BT6.341 Prevention of Oil Spills. If Purchaser maintains storage facilities for oil or oil products on Sale Area, Purchaser 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, Purchaser 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.

Purchaser 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 Sale Area that are caused by Purchaser's employees agents, contractors, Subcontractors, or their employees or agents directly or indirectly, as a result of Purchaser's Operations. Purchaser will take whatever initial action may be safely accomplished to contain all spills.

BT6.342 Hazardous Substances. Purchaser shall notify the National Response Center and Contracting Officer of all releases of reportable quantities of hazardous substances on or in the vicinity of Sale Area that are caused by Purchaser's employees, agents, contractors, Subcontractors, or their employees or agents, directly or indirectly, as a result of Purchaser's Operations, in accordance with 40 CFR 302.

BT6.35 Equipment Cleaning. (a) Areas, known by Forest Service prior to timber sale advertisement, that are infested with invasive species of concern are shown on Sale 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. For purposes of this provision, "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.

(b) Purchaser shall adhere to the following requirements with regard to cleaning "Off-Road Equipment":

(i) Prior to moving Off-Road Equipment onto the Sale Area, Purchaser shall identify the location of the equipment's most recent operation. Purchaser shall not move any Off-Road Equipment that last operated in an area infested with one or more invasive species of concern onto Sale Area without having cleaned such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds, and having notified Forest Service, as provided in (iii). If the location of prior operation cannot be identified, then Purchaser shall assume that the location is infested with invasive species of concern.

(ii) Prior to moving Off-Road Equipment from a cutting unit that is shown on Sale Area Map to be infested with invasive species of concern to, or through any other area that is shown as being free of invasive species of

concern, or infested with a different invasive species, Purchaser shall clean such equipment of seeds, soil, vegetative matter, and other debris that could contain or hold seeds, and shall notify the Forest Service, as provided in (iii).

(iii) Prior to moving any Off-Road Equipment subject to the cleaning requirements set forth above, Purchaser shall advise Forest Service of its cleaning measures and make the equipment available for inspection. Forest Service shall have 2 days, excluding weekends and Federal holidays, to inspect equipment after it has been made available. After satisfactory inspection or after such 2 day period, Purchaser may move the equipment as planned. Equipment shall be considered clean when a visual inspection does not disclose seeds, soil, vegetative matter, and other debris that could contain or hold seeds. Purchaser shall not be required to disassemble equipment unless so directed by the Forest Service after inspection.

(iv) If Purchaser desires to clean Off-Road Equipment on National Forest land, such as at the end of a project or prior to moving to, or through an area that is free of invasive species of concern, Purchaser shall obtain prior approval from Contracting Officer as to the location for such cleaning and measures, if any, for controlling impacts.

(v) Contracting Officer may order delay, interruption, or modification of this Contract pursuant to BT8.33.

(c) Nothing contained in this Subsection shall be interpreted as creating any warranty on the part of the Forest Service that all locations of invasive species of concern have been described herein, elsewhere in this Contract, or designated on the ground. Following sale advertisement, additional locations may be described or designated, and other species may be added to the list of invasive species of concern. In such event, Contracting Officer may order delay, interruption, or modification of this Contract pursuant to BT8.33.

(d) The parties shall promptly communicate with one another with respect to description or designation of additional locations; discovery of locations of new species or new infestation; and, addition of species to the list of invasive species of concern.

BT6.36 Acceptance of Work. Upon Purchaser'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 Purchaser'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, 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 Purchaser.

Within 2 days of inspection, excluding weekends and Federal holidays, Forest Service shall furnish Purchaser 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 Purchaser's request, Purchaser 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 Purchaser's construction period on any completed portion of road.

When all contractual work of Purchaser has been accepted for any Payment Unit or cutting unit identified on Sale Area Map, Payment Unit or cutting unit shall be eliminated from Sale Area on written notice of either party to this contract.

BT6.361 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 Purchaser, 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 Purchaser, such as seasonal limitations. Purchaser 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. Purchaser 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 Purchaser in connection with Purchaser's Operations, shall be cleared of all rubbish, excess materials, and temporary structures.

BT6.4 Conduct of Logging. Unless otherwise specifically provided herein, Purchaser shall fell trees designated for cutting and shall remove the portions that meet Utilization Standards, as provided in BT2.2, prior to acceptance of Payment Unit for completion of logging under BT6.36. Forest Service may make exceptions 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 CT6.4 provisions set forth requirements to meet special or unusual logging conditions:

BT6.41 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 AT2. Purchaser 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 AT2. If necessary to assess

extent of defect, Purchaser shall make sample saw cuts or wedges.

BT6.411 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.

BT6.412 Stump Heights. Stumps shall not exceed, on the side adjacent to the highest ground, the maximum heights set forth in AT6, except that occasional stumps of greater heights are acceptable when Purchaser determines that they are necessary for safe and efficient conduct of logging. Unless otherwise agreed, Purchaser shall re-cut high stumps so they will not exceed heights specified in AT6 and shall dispose of severed portions in the same manner as other logging debris. The stump heights shown in AT6 were selected with the objective of maximum reasonable utilization of the timber, unless Sale Area Map shows special areas where stump heights are lower for aesthetic, land treatment, or silvicultural reasons.

BT6.413 Limbing. When Forest Service determines it is necessary to minimize damage to the residual stand during skidding, Purchaser shall cut exposed limbs from products prior to skidding. Purchaser may leave uncut those limbs that cannot be cut with reasonable safety.

BT6.42 Skidding and Yarding. Methods of skidding or yarding specified for particular areas, if any, are indicated on Sale 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.

BT6.421 Rigging. Insofar as practicable, needed rigging shall be slung on stumps or trees designated for cutting.

BT6.422 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.

BT6.423 Skidding on Roads. Products may be skidded on permanent roads authorized for hauling under BT5.12 only by prior written agreement.

BT6.424 Arches and Dozer Blades. Unless otherwise specified in CT6.424, 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.

BT6.5 Streamcourse Protection. "Streamcourses" that are subject to provisions of this Section are shown on Sale Area Map. Unless otherwise agreed, the following measures shall be observed to protect Streamcourses:

(a) Purchaser's Operations shall be conducted to prevent debris from entering Streamcourses, except as may be authorized under paragraph (d). In event Purchaser causes debris to enter Streamcourses in amounts that may adversely affect the natural flow of the stream, water quality, or fishery resource, Purchaser 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 Purchaser'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.

BT6.6 Erosion Prevention and Control. Purchaser'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. Purchaser 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.

If Purchaser 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, Purchaser shall make additional deposits on request by Forest Service. Any money deposited or used for this purpose shall be treated as cooperative deposits under BT4.218.

BT6.61 Meadow Protection. Reasonable care shall be taken to avoid damage to the cover, soil, and water in meadows shown on Sale Area Map. Vehicular or skidding equipment shall not be used on meadows, except where roads, landings, and tractor roads are approved under BT5.1 or BT6.422. 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.

BT6.62 Wetlands Protection. Wetlands requiring protection under Executive Order 11990 are shown on Sale Area Map. Vehicular or skidding equipment shall not be used in such wetlands, except where roads, landings, and tractor roads are approved under BT5.1 or BT6.422. Additional measures needed to protect such areas are provided in CT6.62.

BT6.63 Temporary Roads. As necessary to attain stabilization of roadbed and fill slopes of Temporary Roads, Purchaser shall employ such measures as outsloping, drainage dips, and water-spreading ditches.

After a Temporary Road has served Purchaser's purpose, Purchaser 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.

BT6.631 Temporary Roads to Remain Open. To maintain short term access to portions of Sale Area for post-sale treatments and other purposes after a Temporary Road has served Purchaser's purpose, pursuant to BT6.63, Purchaser agrees, that on Temporary Roads designated on Sale 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.

BT6.64 Landings. After landings have served Purchaser's purpose, Purchaser 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.

BT6.65 Skid Trails and Fire Lines. Purchaser 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 Purchaser-built fire lines prior to or during construction. By agreement, Purchaser may use other comparable erosion control measures, such as backblading skid trails, in lieu of cross ditching.

BT6.66 Current Operating Areas. Where logging or road construction is in progress but not completed, unless agreed otherwise, Purchaser 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, Purchaser shall keep such work on any additional disturbed areas as up to date as practicable.

BT6.67 Erosion Control Structure Maintenance. During the period of this contract, Purchaser shall provide maintenance of soil erosion control structures constructed by Purchaser until they become stabilized, but not for more than 1 year after their construction. Contracting Officer may agree to perform such structure maintenance under BT4.218, if requested by Purchaser, subject to agreement on rates. Purchaser shall not be responsible for repair of such structures damaged by other National Forest users whose activities are not a part of Purchaser's Operations.

BT6.7 Slash Disposal. Purchaser's timing of product removal and preparatory work shall not unnecessarily delay slash disposal. Specific slash disposal measures to be employed by Purchaser are stated in CT6.7 and are in addition to Required Deposits for slash disposal.

BT6.8 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 CT6.8.

BT6.81 Product Identification. Before removal from Sale Area, unless Contracting Officer determines that circumstances warrant a written waiver or adjustment, Purchaser 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.

(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 Sale Area is within a State that maintains a log brand register, brands shall be registered with the State. Purchaser shall use assigned brand exclusively on logs from this sale until Contracting Officer releases brand. Purchaser 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. Purchaser shall replace identifying marks if they are lost, removed, or become unreadable. Purchaser 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 timber sale 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 timber sale brand.

BT6.9 Records. Upon request, Purchaser shall provide access to appropriate annual records in Purchaser's books and accounts to enable Forest Service to obtain and analyze accurate operating costs and selling price data for appropriate use in appraising Federal timber. Operating cost and selling price data shall include that

applicable for appraising timber obtained from Federal sources in or processed in the Region. Purchaser shall provide access to such data on behalf of subsidiary entities owned or controlled by Purchaser to the extent they participate in harvesting, manufacturing, or marketing timber into products recognized in National Forest timber appraisals in the area. To a like extent, Purchaser shall request in writing Purchaser's contractors and Subcontractors to make such data available to Forest Service.

Information so obtained shall be treated as confidential, as provided in regulations issued by the Secretary of Agriculture (7 CFR 1.12), and shall be available for review by parties from whom such data are obtained.

BT7.0—FIRE PRECAUTIONS AND CONTROL

BT7.1 Plans. Prior to initiating Purchaser's Operations during Fire Precautionary Period, Purchaser shall file with Forest Service a Fire Prevention and Control Plan providing for the prevention and control of fires on Sale Area and other areas of Purchaser's Operations. Such plan shall include a detailed list of personnel and equipment at Purchaser's disposal for implementing the plan. This requirement may be met by preparing a single plan for more than one timber sale.

BT7.2 Fire Precautions. Specific fire precautionary measures listed in CT7.2 shall be applicable during Purchaser's Operations in "Fire Precautionary Period" described in AT9. 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 Purchaser's Operations in Fire Precautionary Period.

BT7.21 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.

BT7.22 Emergency Precautions. Forest Service may require the necessary shutting down of equipment on portions of Purchaser's Operations, as specified by the emergency fire precautions schedule of CT7.22. Under such conditions, after Purchaser ceases active operations, Purchaser shall release for hire by Forest Service, if needed, Purchaser's shutdown equipment for fire standby on Sale Area or other areas of Purchaser's Operations and personnel for fire standby or fire patrol, when such personnel and equipment are not needed by Purchaser 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 Purchaser requests, shall be operated only by personnel approved by Purchaser. 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.

BT7.3 Fire Control. Purchaser shall, both independently and in cooperation with Forest Service, take all reasonable and practicable action to prevent and suppress fires resulting from Purchaser's Operations and to suppress any forest fire on Sale Area. Purchaser's independent initial fire suppression action on such fires shall be immediate and shall include the use of all necessary personnel and equipment at Purchaser's disposal on Sale Area or within the distance of Sale Area stated in AT10.

BT7.31 Purchaser's Reinforcement Obligations. Whenever an Operations Fire or Negligent Fire, whether on or off Sale Area, or any other forest fire on Sale Area, has not been suppressed by initial action and appreciable reinforcement strength is required, Forest Service may require further actions by Purchaser 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:

BT7.311 Suspend Operations. To suspend any or all of Purchaser's Operations.

BT7.312 Personnel. To release for employment by Forest Service any or all of Purchaser's personnel engaged in Purchaser's Operations or timber processing within the distance of Sale Area stated in AT10. Any organized crew so hired shall include Purchaser's supervisor, if any. Personnel so employed shall be paid at Forest Service standard emergency fire fighting rates.

BT7.313 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 Purchaser's equipment suitable for fire fighting and currently engaged in Purchaser's Operations within the distance of Sale Area stated in AT10. Equipment shall be operated only by personnel approved by Purchaser, if so requested by Purchaser.

BT7.4 Fire Suppression Costs. Purchaser's obligations for cost of fire suppression vary according to three classifications of fires as follows:

BT7.41 Operations Fire. An "Operations Fire" is a fire caused by Purchaser's Operations other than a Negligent Fire.

Forest Service, except as provided in BT7.3, shall use cooperative deposits under BT4.218 to perform fire suppression activities on Operations Fires. Purchaser agrees to reimburse Forest Service for such cost for each Operations Fire, subject to a maximum of the dollar amount stated in AT11. The cost of Purchaser's actions, supplies, and equipment on any such fire provided pursuant to BT7.3, or otherwise at the request of Forest Service, shall be credited toward such maximum. If Purchaser's actual cost exceeds Purchaser's obligation stated in AT11, Forest Service shall reimburse Purchaser for the excess.

BT7.42 Negligent Fire. A "Negligent Fire" is a fire caused by negligence or fault of Purchaser's Operations, including, but not limited to, one caused by smoking by persons engaged in Purchaser's Operations during the course of their employment, or during rest or lunch periods; or if Purchaser's failure to comply with the requirements of BT7.2 and BT7.3 results in a fire starting or permits a fire to spread. Damages and the cost of suppressing Negligent Fires shall be borne by Purchaser.

BT7.43 Other Fires on Sale Area. Forest Service shall pay Purchaser, at fire fighting rates common in the area or at prior agreed rates, for equipment or personnel furnished by Purchaser pursuant to BT7.3, or otherwise at the request of Forest Service, on any fire on Sale Area other than an Operations Fire or a Negligent Fire.

BT7.5 State Law. Purchaser 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 Purchaser for fire fighting expenditures in accordance with BT7.41 shall not be withheld pending settlement of any such claim or action based on State law.

BT7.6 Performance by Contractor. Where Purchaser's employees, agents, contractors, Subcontractors, or their employees or agents perform Purchaser's Operations in connection with fire responsibilities, Purchaser's obligations shall be the same as if performance was by Purchaser.

BT8.0—OTHER CONDITIONS

BT8.1 Title and Liability.

BT8.11 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 Sale Area or other authorized cutting area, and paid for, at which time title shall vest in Purchaser. For purposes of this Subsection, timber in Payment Units Released for Cutting covered by cash deposit or payment guarantee under BT4.3 shall be considered to have been paid for. Title to any Included Timber that has been Measured and paid for, but not removed from Sale Area or other authorized cutting area by Purchaser on or prior to Termination Date, shall remain in Forest Service.

BT8.12 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 Purchaser, unless Purchaser 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 BT8.33.

In the event Included Timber to which Forest Service holds title is destroyed, Purchaser 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 Purchaser 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.

BT8.2 Period of Contract. All obligations of Purchaser shall be discharged not later than "Termination Date" stated in AT12, unless it is adjusted pursuant to BT8.21 or BT8.212 or extended pursuant to BT8.23 or BT8.32, 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 Purchaser completing performance of obligations covered by such permission.

BT8.21 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, Purchaser 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) Purchaser experiences delay in starting scheduled operations or interruptions in active operations, either of which stops removal of Included Timber from Sale Area through curtailment in felling and bucking, yarding, skidding and loading, hauling, or road construction, as scheduled under BT6.31, for 10 or more consecutive days during a Normal Operating Season due to causes beyond Purchaser'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 Purchaser, in writing, to delay or interrupt operations during the Normal Operating Season for any purpose other than suspension under BT4.4 or BT9.3 or

(ii) Purchaser suffers a delay or interruption of Purchaser'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 BT8.23, 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.

BT8.211 Delay in Reconstruction of Processing Facilities. Notwithstanding the 12-month limitation in BT8.21, if Purchaser demonstrates a diligent effort has been made to replace primary timber processing facilities and that delays in doing so have been beyond Purchaser's control, Contracting Officer may authorize Contract Term Adjustment up to a total of 24 months.

BT8.212 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 AT17. Purchaser 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 Purchaser'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 Purchaser'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.

When a contract is lengthened as a result of market-related contract term addition, any subsequent periodic payment date shall be delayed 1 month for each month added to the contract's term.

BT8.22 Termination for Catastrophe. In event of Catastrophic Damage, this contract may be modified under BT8.32, following rate redetermination under BT3.32, or terminated under this Subsection. Such termination shall not be considered a termination under BT8.34.

BT8.221 Termination by Purchaser. This contract shall be terminated, upon election and written notice by Purchaser, if Catastrophic Damage rate redetermination under BT3.32 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.

BT8.222 Termination by Forest Service. This contract may be terminated by written notice from Contracting Officer, if there is Catastrophic Damage and Purchaser does not agree, under BT8.32, within 30 days of receipt from Contracting Officer of contract modifications proposed to permit the harvest of the catastrophe-affected timber.

BT8.23 Contract Term Extension. "Contract Term Extension" means an extension of the term of this contract, at the request of Purchaser, under this Subsection. This Subsection does not obligate Contracting Officer to grant Contract Term 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.

In consideration for granting an extension, Purchaser shall pay the Government for Purchaser's failure to cut and remove timber meeting Utilization Standards prior to Contract Term Extension, an amount that shall be the total of the costs to the Government resulting from the delay in harvest of Included Timber. Such costs will be determined by Forest Service and shall include, but not be limited to, the following:

(a) Interest at the Current Value of Funds Rate established by the Secretary of the Treasury, on Current Contract Value of timber remaining on Sale Area, less the credit balance of any deposit made pursuant to BT4.213, as of the original Termination Date, or as adjusted pursuant to BT8.21 or BT8.212, until the midpoint of the extension period;

(b) Increased costs of regeneration, including nursery stock loss, carryover, or replacement costs; and

(c) Costs of remarking timber on Sale Area, reestablishing cutting unit boundaries, and/or remarking areas requiring protection on Sale Area.

BT8.231 Conditions for Contract Term Extension. Contracting Officer may grant Purchaser's written request for Contract Term Extension, if Purchaser has met all of the following conditions at time of Purchaser's request:

(a) At least 75 percent of estimated quantity in AT2 has been cut and removed from Sale Area.

(b) Specified Roads needed by Purchaser for removal of all Included Timber, in accordance with the approved Plan of Operations submitted pursuant to

BT6.311, were constructed and accepted by Forest Service prior to the applicable road completion date shown in CT5.13.

(c) Purchaser's Operations to date have been in reasonable compliance with contract terms and the approved Plan of Operations under BT6.311.

(d) All contractual requirements have been met by Purchaser and accepted by Forest Service on area cut over at time of Purchaser's request, except for areas where logging is in progress at time of Purchaser's request. Purchaser'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.

(e) Any payment required under BT4.213 has been made.

Contract Term Extension shall not become effective, unless payments required by BT8.23 have been paid and the initial Extension Deposit required by BT4.217 has been made by the effective date of any extension.

BT8.3 Contract Modification. The conditions of this timber sale are completely set forth in this contract. Except as provided in BT8.32 and BT8.33, this contract can be modified only by written agreement between the parties. Only Contracting Officer may make contract modifications, with compensating adjustments to Current Contract Rates where appropriate, on behalf of Forest Service.

BT8.31 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 Sale 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 Timber Sale Account.

BT8.32 Modification for Catastrophe. In event of Catastrophic Damage, Forest Service, in consultation with Purchaser, shall outline on Sale 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 Sale Area.

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

After Sale Area Map has been outlined under this Subsection, Forest Service may propose contract modification to permit the harvest of catastrophe-affected timber. If Purchaser accepts Forest Service proposed modifications, this contract shall be modified to include rates redetermined under BT3.32 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.

BT8.33 Contract Suspension and Modification. (a) Contracting Officer may, by written order, delay or interrupt authorized operations under this contract or, notwithstanding BT8.3, 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;

(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 order is required by a court order or this contract is named in such a proceeding.

(b) In the event of an order delaying or interrupting Purchaser's Operations under this Subsection, Purchaser's remedy shall be:

(i) Contract Term Adjustment,

(ii) reimbursement for Out-of-Pocket Expenses,

(iii) rate redetermination to measure any decline in the market,

(iv) temporary reduction of downpayment,

(v) temporary credit for unamortized Specified Road construction cost, and

(vi) temporary bond reduction.

However, the foregoing remedies shall be available only to the extent that the Contracting Officer's order was the sole and exclusive cause of the delay or interruption of Purchaser's operations.

(c) In cases of modification under this Subsection, Purchaser shall only receive a rate redetermination pursuant to BT3.31. However, if there is an order delaying or suspending operations in addition to a modification, then Purchaser shall also be entitled to the remedies provided under BT8.33(b) for such delay or suspension.

(d) Remedies awarded to the Purchaser shall not be duplicative, and Contracting Officer shall have the right to structure remedies provided herein to avoid duplicative compensation.

(e) Purchaser agrees that this Subsection, and the remedies provided herein shall apply regardless of any finding by any court or administrative body that the Forest Service failed to comply with any statute, regulation and/or policy in connection with awarding, advertising, or authorizing this sale, or a similar sale. However, nothing in this Subsection precludes Purchaser from exercising rights under the Contract Disputes Act.

BT8.34 Contract Termination. This contract may be terminated, in whole or in part, by Forest Service or Purchaser, as provided in Items BT8.341 and BT8.342, respectively. In the event of any such termination, Purchaser shall be entitled to the applicable remedies, subject to the limitation upon duplicative compensation

set forth in BT8.33(d). Purchaser agrees that this Subsection, and the remedies contained in the following Items shall apply regardless of any finding by any court or administrative body that the Forest Service failed to comply with any statute, regulation and/or policy in connection with awarding, advertising, or authorizing this sale, or a similar sale. However, nothing in this Subsection precludes Purchaser from exercising rights under the Contract Disputes Act.

BT8.341 Termination by Forest Service. (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 BT8.33.

(b) Purchaser's compensation for termination of this contract under this Item shall be:

(i) refund or release of advanced deposits for timber cut but not removed,

(ii) reimbursement for Out-of-Pocket Expenses, and

(iii) replacement timber under subparagraph (c), and/or liquidated damages under subparagraph (d); provided that liquidated damages shall be available if, and only if, after good faith efforts, the Parties (1) cannot locate replacement timber or agree upon the applicable stumpage price, or (2) the volume of deleted timber exceeds the volume of any replacement timber.

(c) Subject to applicable laws, regulations and policies, Forest Service and Purchaser shall make good faith efforts to identify replacement timber of similar volume, quality, access, and topography within Sale Area. If suitable replacement timber cannot be located within Sale Area, the parties shall expand the search to the National Forest in which the Sale Area is located. Stumpage price shall be adjusted under BT3.31 to account for differences between replacement timber and deleted timber. If Forest Service and Purchaser agree upon suitable replacement timber and the applicable stumpage price, then this contract shall not terminate and instead shall be modified pursuant to 36 CFR 223.85(c) and shall remain in force with respect to such replacement timber and, in the case of partial termination, any remaining Included Timber. If the parties cannot agree on suitable replacement timber or the applicable stumpage price of such timber, either party may end the search and Purchaser shall be compensated under subparagraph (d).

(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 the Contracting Officer as of Termination Date, using Forest Service methods in use as of the Termination Date.

(e) In any instance of partial termination, in which the Forest Service deletes one or more cutting units from the Sale Area, Purchaser's sole and exclusive remedy with regard to remaining units shall be a rate redetermination pursuant to BT3.31. Purchaser shall be required to complete Contract Operations with regard to remaining units and any obligations pertaining to cessation of operations on deleted units, including without limit erosion control, brush disposal, and road maintenance. If Purchaser fails to fulfill any such duty or obligation, then Contracting Officer may make deductions from compensation due Purchaser, including without limit costs and expenses of completing such work.

BT8.342 Termination by Purchaser. (a) Purchaser may, by written notice, terminate this Contract, in whole or in part, as described herein,

(i) in the event of an order delaying or interrupting its operations pursuant to BT8.33, or

(ii) in the event of an order modifying this Contract pursuant to BT8.33, if Purchaser decides to reject the terms of the modification prior to its acceptance. Purchaser shall have the right to terminate this Contract in whole only when the Contracting Officer's order under BT8.33 applies to all cutting units within the Sale Area. When the order affects only a portion of the cutting units, Purchaser shall have the right to terminate this Contract in part, by deleting one or more of the units covered by the Contracting Officer's order. The foregoing right of termination, in whole or in part, shall not exist when the delay, interruption, or modification arises from wind, flood, landslide, fire, forest pest epidemic, or other major natural phenomenon.

(b) Purchaser's compensation for termination of this Contract, in whole or in part, under this Item shall be:

(i) refund or release of advanced deposits for timber cut but not removed,

(ii) reimbursement for Out-of-Pocket Expenses, and

(iii) if the duration of the delay or interruption exceeds either six months of Normal Operating Season time, or one calendar year from the date of the order, then: replacement timber as provided under (c) and/or liquidated damages under (d); provided that liquidated damages shall be available if, and only if, after good faith efforts, the Parties (1) cannot locate replacement timber or agree upon the applicable stumpage price, or (2) the volume of deleted timber exceeds the volume of any replacement timber.

(c) Subject to applicable laws, regulations and policies, Forest Service and Purchaser shall make good faith efforts to identify replacement timber of similar volume, quality, access, and topography within Sale Area. If suitable replacement timber cannot be located within Sale Area, the parties shall expand the search to the National Forest in which the Sale Area is located. Stumpage price shall be adjusted under BT3.31 to account for differences between replacement timber and deleted timber. If Forest Service and Purchaser agree upon suitable replacement timber and the applicable stumpage price, then this contract shall not terminate and instead shall be modified pursuant to 36 CFR 223.85(c) and shall remain in force with respect to such replacement timber and, in the case of partial termination, any remaining Included Timber. If the parties cannot agree on suitable replacement timber or the applicable stumpage price of such timber, either party may end the

search and Purchaser shall be compensated under subparagraph (d).

(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 the Contracting Officer as of Termination Date, using Forest Service methods in use as of the Termination Date.

(e) In any instance of partial termination, in which Purchaser deletes one or more cutting units from Sale Area, Purchaser's sole and exclusive remedy with regard to remaining units shall be a rate redetermination pursuant to BT3.31. Purchaser shall be required to complete Contract Operations with regard to remaining units and any obligations pertaining to cessation of operations on deleted units, including without limit, erosion control, brush disposal, and road maintenance. If Purchaser fails to fulfill any such duty or obligation, then Contracting Officer may make deductions from compensation due Purchaser, including without limit costs and expenses of completing such work.

BT8.35 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 BT8.33 or BT8.34. An expenditure is "Unrecovered" within the meaning of this Subsection when Purchaser did not gain the benefit of its expenditure because Contract operations were not permitted. In determining whether an expenditure is "Unrecovered," Contracting Officer shall not conclude that an award of liquidated damages constitutes the benefit of that expenditure.

(a) Out-of-Pocket Expenses shall not include, in particular and without limitation, any of the following:

(i) attorneys fees;

(ii) costs and expenses of operating a saw mill or other processing facility;

(iii) expectancy damages; and,

(iv) anticipatory profits.

(b) Forest Service shall reimburse Purchaser for only the following Out-of-Pocket Expenses:

(i) Out-of-Pocket Expenses for maintenance of the timber sale 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;

(ii) 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 Purchaser;

(iii) Out-of-Pocket Expenses for the lesser of move-out and move-in or leaving equipment and/or logging camps on site, if the Purchaser and Contracting Officer have agreed to leave equipment and/or logging camps on site in lieu of move-out and move-in;

(iv) Out-of-Pocket Expenses for felling, bucking, lopping, skidding, yarding, and decking any products so processed, but not removed from Sale Area because: (1) the sale was terminated, or (2) the products no longer meet Utilization Standards because of delay or interruption;

(v) If terminated, in whole or in part, Out-of-Pocket Expenses for unamortized Temporary Roads, road maintenance, dust abatement and improvements authorized under B6.2;

(vi) 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

(vii) If terminated, in whole or in part, Out-of-Pocket Expenses for bid preparation, including review of sale offering.

(c) Purchaser shall submit documentation of claimed expenditures, including those actually paid and those for which the Purchaser has a legal obligation to pay but has not yet paid, and supporting analysis to Contracting Officer to assist in Contracting Officer's calculation of reimbursement. Contracting Officer shall determine the amount of reimbursement under this Subsection using information from Purchaser and/or Forest Service methods in use on the date that operations were delayed, interrupted, or terminated. Purchaser's failure to substantiate any claimed Out-of-Pocket Expense may constitute grounds for Contracting Officer's denial of reimbursement.

(d) Purchaser shall make reasonable efforts to minimize its Out-of-Pocket Expenses.

BT8.36 Termination for Market Change. a) In the event of delay or interruption under BT8.33, exceeding 90 days, and Contract has not been modified to include replacement timber, this contract may be terminated upon election and written notice by Purchaser, if (i) a rate redetermination for market change under BT3.33 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 the weighted average Current Contract Rate, or (ii) the appraised value of the remaining timber is insufficient to cover the adjusted base rates as determined under BT3.33.

(b) Prior to termination under this Subsection, Purchaser shall complete all obligations on areas not affected by the delay or interruption.

(c) Damages caused by termination of contract under this Subsection will be limited to Out-of-Pocket Expenses.

BT8.4 Performance by Other than Purchaser. The acquisition or assumption by another party, under an agreement with Purchaser, of any right or obligation of Purchaser 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 Purchaser of the responsibilities or liabilities Purchaser has assumed hereunder or

(b) Be given unless such other party:

(i) Is acceptable to Forest Service as a Purchaser 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.

BT8.5 Sale of Other Materials. Forest Service reserves the right to sell from Sale 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 Purchaser's Operations. Purchaser shall not be obligated to do any work made necessary by the action of others.

BT8.6 Provisions Required by Statute.

BT8.61 Covenant against Contingent Fees. Purchaser 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 Purchaser 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 Purchaser to pay, in addition to the contract price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

BT8.62 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).

BT8.63 Nondiscrimination in Employment. If the total value of this contract is in excess of $10,000, Purchaser agrees during its performance as follows:

(a) Purchaser will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. Purchaser 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. Purchaser 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) Purchaser will, in all solicitations or advertisements for employees placed by or on behalf of Purchaser, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(c) Purchaser will send to each labor union or representative of workers with which Purchaser 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 Purchaser's commitments under this Subsection, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) Purchaser 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) Purchaser 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 Purchaser'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 Purchaser 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) Purchaser 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. Purchaser 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 Purchaser becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction by Forest Service, Purchaser may request the United States to enter into such litigation to protect the interests of the United States.

BT8.64 Debarment and Suspension Certification. Pursuant to 7 CFR Part 3017, Purchaser 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.

Purchaser 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 timber sales, unless Purchaser knows that the certification is erroneous.

Purchaser shall keep the certifications of its Subcontractors on file until timber sale 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 Purchaser is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

If Purchaser knowingly enters into a timber sale 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 timber sales, in addition to other remedies available to the Government, Forest Service may pursue available remedies, including suspension and/or debarment.

The Subcontractor for a timber sale shall complete a "Subcontractor Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion." An example of this certification is shown following the instructions for page 101 of this contract.

BT8.65 Contract Consistency With Other Laws. The contract shall govern if State and local environmental quality laws conflict with or preclude performance of contractual requirements.

BT9.0—PERFORMANCE AND SETTLEMENT

BT9.1 Performance Bond. As a further guarantee of the faithful performance of the provisions of this contract, Purchaser delivers herewith and agrees to maintain a surety bond in the dollar amount stated in AT14, unless the amount is adjusted as provided in BT9.11 or BT9.13. In lieu of surety bond, Purchaser may deposit into a Federal Depository, as directed by Forest Service under BT4.21, and maintain therein, cash in the dollar amount stated in AT14 or negotiable securities of the United States having market value at time of deposit of not less than the dollar amount stated in AT14.

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, Purchaser shall, within 30 days of receipt of demand, furnish a new bond with surety satisfactory to Forest Service.

BT9.11 Bond Reduction. Upon Purchaser's written request, Contracting Officer shall redetermine the amount of Purchaser's performance bond to an amount not less than Purchaser's remaining obligations, including the value of Included Timber remaining on Sale Area, plus the estimated cost of uncompleted work required of Purchaser and any unpaid billings due on the timber sale. Contracting Officer shall provide written notice of the redetermined amount to Purchaser and to Purchaser's surety. Similarly, Contracting Officer shall report to Purchaser 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 Purchaser, subject to the conditions in BT9.5.

BT9.12 Letters of Credit. Notwithstanding the provisions of BT9.1, 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.

BT9.13 Temporary Bond Reduction. When, under BT8.33, Contracting Officer orders a delay or interruption of Purchaser's Operations for more than 30 days when scheduled operations would be occurring but for the order, the performance bond amount required shall be temporarily reduced upon the written request of Purchaser 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 Purchaser and any unpaid billings due on the timber sale.

Upon Purchaser's receipt of written notice from Contracting Officer that the basis for the delay or interruption no longer exists, Purchaser shall restore the performance bond to the full amount shown in AT14 within 15 days. Purchaser shall not resume contract operations until the performance bond amount is fully restored.

BT9.2 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 Purchaser shall be made in writing and submitted to Contracting Officer for decision. A Claim by the Government against Purchaser shall be subject to a decision by Contracting Officer.

For Purchaser Claims of more than $100,000, Purchaser 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 Purchaser's knowledge and belief; and the amount requested accurately reflects the contract adjustment for which Purchaser believes the Government is liable. Purchaser, if an individual, shall execute the certification. When Purchaser is not an individual, the certification shall be executed by a senior company official in charge at Purchaser's plant or location involved or by an officer or general partner of Purchaser having overall responsibility for the conduct of Purchaser's affairs.

For Purchaser Claims of $100,000 or less, Contracting Officer must render a decision within 60 days. For Purchaser Claims in excess of $100,000, Contracting Of-

ficer must decide the Claim within 60 days or notify Purchaser of the date when the decision will be made.

Contracting Officer's decision shall be final unless Purchaser 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 Purchaser'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 Purchaser arising under the contract, Purchaser shall proceed diligently with the performance of the contract in accordance with Contracting Officer's decision.

BT9.21 Time Limits for Submission of Claim. Failure by Purchaser 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. Purchaser shall file such Claim within the following time limits:

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

(c) For Payment Units and cutting units, Purchaser must file any Claim not later than 60 days after receipt of Forest Service written notification that Payment Unit has been accepted; and

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

BT9.22 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 (CT)

(b) Sale Area Map

(c) Specific Conditions (AT) and Schedule of Items

(d) Standard Provisions (BT)

(e) Special project specifications

(f) Plans, such as slash, erosion control, and dust abatement

(g) Agreements between Purchaser 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

BT9.3 Breach. In event Purchaser breaches any of the material provisions of this contract, Forest Service shall give Purchaser 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 Purchaser's Operations. Such notice of breach and notice to suspend Purchaser'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 BT6.1, such oral suspension notice may be given to Purchaser'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 Purchaser.

Suspension under this Section shall not entitle Purchaser to any remedies arising under BT8.33.

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, Purchaser shall remedy the breach as follows:

(a) If remedying such breach requires on-the-ground action by Purchaser, Purchaser 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 Purchaser, such breach shall be remedied within 30 days.

BT9.31 Termination for Breach. Contracting Officer, with the concurrence of the Regional Forester, may terminate this contract for breach in the event Purchaser:

(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 Purchaser; 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 BT6.01;

(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 BT9.3, causing undesignated timber meeting Utilization 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 BT9.3.

Damages due the United States for termination under this Subsection shall be determined pursuant to BT9.4.

BT9.4 Damages for Failure to Cut or Termination for Breach. (a) In event of Purchaser's failure to cut designated timber on portions of Sale Area by Termination Date or termination for breach under BT9.31, Forest Service shall appraise remaining Included Timber, unless termination is under BT8.22 or BT8.34. Such appraisal shall be made with the standard Forest Service method in use at time of termination.

(b) If the sale is resold, damages due shall be the amount by which Current Contract Value, plus costs described in paragraph (d) of this Section, exceeds the resale value at new Bid Rates.

(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 exceeds the value determined by appraisal, plus costs described in paragraph (d) of this Section.

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

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

(ii) If Purchaser has failed to cut individual trees in the portions of Sale Area cut over and there is no resale of such individual trees, Purchaser 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 BT6.4.

(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 Purchaser's failure to harvest Included Timber by Termination Date.

BT9.5 Settlement. If obligations of Purchaser have not been fully discharged by Termination Date, any money advanced or deposited hereunder shall be retained and applied toward unfulfilled obligations of Purchaser without prejudice to any other rights or remedies of Forest Service. Such funds may be treated as cooperative deposits under BT4.218 for uncompleted work 30 days after receipt of written notice from Contracting Officer to Purchaser of work to be done and Purchaser's failure to deny the obligation or to do the work.

BT9.6 Contract Closure. Contracting Officer shall give appropriate written notice to Purchaser when Purchaser has complied with the terms of this contract. Purchaser shall be paid refunds due from Timber Sale Account under BT4.24 and excess cooperative deposits under BT4.218.

DIVISION CT

Special Provisions

In accordance with AT19, the Sections, Subsections, and Items therein listed are attached and made a part hereof. The material is indexed by the numbering system used in Division BT. The numbers after the CT (that identifies material in this Division) indicates the Part, Section, Subsection, or Item of Division BT that is being supplemented or modified by each particular provision included in this Division.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS PURSUANT TO G.3.3 SAFETY

Unless otherwise agreed, the following measures are required to provide adequate warning of hazards for users of roads and trails adjacent to Purchaser's Operations.

Part I. Signing and Other Warning Methods:

(a) Signs. The following signs are required when Purchaser's Operations are in progress adjacent to or on Forest Service controlled roads and trails:

MINIMUM LETTER SIZE AND LEGEND	MINIMUM SIZE AND SHAPE	***WHEN AND WHERE REQUIRED***
1. LOGGING OPERATIONS NEXT <> MILES (4" letters)	24" (rectangle) 36"	Min. 100 ft. outside of any continuous work areas, on roads listed in K-F.3.1# and trails listed in Part II.
2. LOGGING OPERATIONS (3" letters)	24" (diamond) 24"	To be used in conjunction with "Logging Operations Next <> Miles" and where work area is not continuous.
3. FOR LOGGING USE ONLY (3" letters)	24" (diamond) 24"	Required where roads listed in K-F.3.1# and temporary roads intersect with K-F.3.1# roads. Install a cross ditch to discourage use when sign is covered or removed for extended periods.
4. TRUCKS (4" letters)	24" (diamond) 24"	At critical intersections on roads listed in K-F.3.1# when traffic is heavy or otherwise exceeds volumes stated in Part II below. Remove or cover when the sign is not applicable.
5. END LOGGING OPERATIONS (4" letters)	24" (rectangle) 36"	Use in conjunction with "Logging Operations Next <> Miles" and "Logging Operations."
6. TREE FELLING AHEAD (3" letters)	24" (diamond) 24"	Required 200 feet in advance of danger area where timber is being felled adjacent to all roads, including temporary roads, and trails.
7. ROAD MACHINERY AHEAD (3" letters)	24" (diamond) 24"	Required at least 200 feet in advance of Purchaser road maintenance operations on roads listed in Schedule K-F.3.1#.

All signs shall meet requirements as specified in Parts I and VI of the Manual of Uniform Traffic Control Devices (MUTCD).

Sign borders and lettering shall be black. Borders are 1/2 inch wide, inset 1/2 inch from outside edge of sign. All sign backgrounds shall be orange, except signs #1 and 5 which shall be reflectorized orange.

Signs shall be installed on posts, with a 5 foot minimum ground clearance, or on temporary supports complying with MUTCD standards.

All signs are to be removed or covered when operations are interrupted for seasonal nonuse or other extended periods.

Purchaser shall furnish flag personnel and advance warning signs when cable or helicopter logging above roads or trails, felling adjacent to roads or trails, where logs being bucked may roll into roads or trails, and in areas where fallout from blasting may occur. On roads listed in CT5.31# and temporary roads, Purchaser may temporarily block the road in lieu of furnishing flag personnel.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS PURSUANT TO BT6.33 SAFETY (CONTINUED)

(b) Barricades. On roads listed in K-F.3.1#, if Purchaser's Operations cause the traveled way or road shoulders to be constricted overnight, or longer, by such obstructions as decked logs, parked equipment, or piled slash, Purchaser shall place barricades on both sides of the encroaching obstruction to safely channel traffic around such obstructions. Barricades shall remain in place until the obstruction is removed.

Barricades shall be Type II and meet specifications in MUTCD, Part VI. Barricades must be at least 3 feet high. Rails must be at least 2 feet long. Striping shall be alternating orange and white, sloping at a 45 degree angle, and reflectorized. For rails 2 feet to 3 feet long, striping shall be 4 inches wide. For rails longer than 3 feet, striping shall be 6 inches wide. Two rails, 8-12 inches in width, must face each direction.

Barricades shall be equipped with warning lights which shall be Type A low intensity flashing and shall be maintained so as to be capable of being visible on a clear night from a distance of 3,000 feet.

(c) Other Traffic Control Methods. The posting of CB channel signs may be authorized.

On roads listed in K-F.3.1#, Purchaser may be authorized to install temporary gates, barricades (except cables), or natural barriers. The devices must be installed with the necessary hazard markers, be reasonably passable by Forest Service, and be removed prior to acceptance of the subdivision being served by the road.

Part II. Specific Requirements:

Signs in Part I will be installed and maintained by Purchaser at locations indicated by the Forest Service prior to the start of the operations.

Purchaser and Forest Service agree to the above stated requirements of the Traffic Control Plan:

Name	Name
Title	Title
Date	Date

CT2.35# (OPTION 1) - INDIVIDUAL TREE DESIGNATION *(06/2010)*

All **live trees meeting the attached designation description** which meet the minimum tree diameter stated in AT2 are designated for cutting. Additional timber to be cut, if any, will be designated for cutting in accordance with BT2.37.

Leave trees, Marked with **orange or pink tracer paint** , or identified by **the description in the attached table** are not to be cut, unless designated by the Forest Service.

CT4.211 - DOWNPAYMENT *(06/2007)*

The downpayment amount shown in AT15 may not be applied toward any other payment required under the provisions of this contract, except damages determined pursuant to BT9.4, transferred to other timber sales, or refunded until (a) stumpage value representing 25 percent of the total bid value of the timber sale is shown on Timber Sale Account to have been cut, removed, and paid for, or (b) the estimated value remaining to be cut and removed, as shown on Timber Sale Account, is equal to or less than the amount of the downpayment, or (c) if 36 CFR 223.49(e) is applicable, the estimated value remaining to be cut and removed, as shown on Timber Sale Account, is equal to or less than the amount of the downpay-ment. For lump sum timber sales, the downpayment may be applied to payment for release of the single payment unit.

If Forest Service makes a determination that this contract should not have been included under in-creased downpayment requirements (36 CFR 223.49(e)), the downpayment shall be revised and applied in accordance with 36 CFR 223.49(f).

CT4.212 - TEMPORARY REDUCTION OF DOWNPAYMENT *(08/2009)*

Notwithstanding BT4.211 or CT4.211, upon the Purchaser's written request Forest Service may temporarily reduce the downpayment when Purchaser's scheduled operations are delayed or interrupted for 30 or more consecutive days, or the contract term is extended for 30 or more consecutive days for any of the following reasons:

(1) Forest Service requests or orders Purchaser to delay or interrupt scheduled operations for reasons other than breach;

(2) Purchaser interrupts or delays scheduled operations to work on a sale designated by the Forest Service as in urgent need of harvesting; or

(3) An adjustment of the contract term authorized upon a determination of substantial overriding public interest, including a market-related contract term addition, or an urgent removal contract term extension under 36 CFR 223.53.

When Purchaser is not cutting or removing timber under contract during a qualifying period of delay, interruption, or extension listed above the downpayment may be reduced to $1000 or 2 percent of the downpayment amount stated in the contract, whichever is greater. The Purchaser must restore the downpayment to the full amount stated in the contract within 15 days from receipt of the bill for collection and written notice from the Contracting Officer that the basis for temporarily reducing the downpayment no longer exists. Purchaser shall not cut or remove timber on a contract where the downpayment has been temporarily reduced until the downpayment amount stated in the contract is fully restored.

DESCRIPTION PURSUANT TO CT2.35# (Option 1) – INDIVIDUAL TREE DESIGNATION (06/2010)

DESIGNATION DESCRIPTION

All Payment Units

External boundaries are designated with orange paint. Corners are designated with blue boundary tags and orange paint.

Leave Tree Mark (LTM) boundaries are designated with red "Special Treatment" tags, and orange paint. Boundary trees are not Included Timber and shall not be cut. These trees shall be considered in spacing.

Payment Unit	**Designated Species (Live)*	*Designated Tree **DSH Limit (min – max inches)*	*DxD Spacing (feet)*	*Number of Skips*	*Number of Gaps*	*Number of LTM Areas*
1	DF, GF, PS, AF, NF, PP, LP	8.0 – 25.0	16	4	8	-
2	DF, GF, PS, AF, NF, PP, LP	8.0 – 25.0	18	8	16	-
3	DF, GF, PS, AF, NF, PP, LP	8.0 – 37.0	15	3	6	-
4	DF, GF, PS, AF, NF, PP, LP	8.0 – 25.0	18	4	7	-
5	DF, GF, PS, AF, NF, PP, LP	8.0 – 25.0	17	4	8	1
6	DF, GF, PS, AF, NF, PP, LP	8.0 – 37.0	15	-	2	-
7	DF, GF, PS, AF, NF, PP, LP	8.0 – 37.0	17	1	-	-
8	DF, GF, PS, AF, NF, PP, LP	8.0 – 37.0	17	3	7	-

*Designated Species (Live): DF = Douglas-fir, GF = grand fir, PS = Pacific silver fir, AF = alpine fir, NF = noble fir, PP = ponderosa pine, LP = lodgepole pine
**DSH: Diameter at Stump Height

- Cut all Designated Species trees, if the tree is within the DxD spacing of a Designated Species tree that has a larger stump diameter. Leave the tree with the larger diameter. Any tree less than the minimum stump diameter or greater than the maximum stump diameter shall not considered in the spacing; they are ghost trees and shall not be cut. Non-designated species regardless of diameter shall not be considered in spacing; they are also ghost trees and shall not be cut. Tight tree clumps (stems less than 2 feet apart at stump height) are considered a single entity for spacing purposes; cut or leave all. Designated Species within 2 feet at stump height of a ghost tree that is greater than 8" DSH is also considered a ghost tree and shall not be cut. Any tree with a boundary tag shall not be cut. These trees shall be considered in spacing if it is a designated species and within the DSH limit.
- Skips: Center tree designated with a single band of orange paint. Do NOT cut any tree within 59 feet of the center tree.
- Gaps: Center tree designated with a single band of pink paint. Cut all Designated Species trees within the diameter limits, within 59 feet of the center tree.
- Leave Tree Mark(LTM) Area: Cut all Designated Species trees within the diameter limits except for those designated with two, slanted, vertical stripes of pink tracer paint.
- Stump height is measured at 6.0 inches on high side of tree.
- Distances are measured slope distance, outside bark stump height to outside bark stump height (face of tree).

CT4.4 - PAYMENTS NOT RECEIVED *(08/2012)*

(a) Payments are due and payable on the date of issue indicated on the bill for collection. When a payment for timber cut and other charges is not received at the location designated by Forest Service by the date specified in the bill for collection, Contracting Officer will suspend all or any part of Purchaser'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 BT4.218;

(iii) Damages pursuant to BT9.4;

(iv) Road use fees;

(v) Restoration of downpayment pursuant to BT4.22;

(vi) Periodic payments pursuant to BT4.213;

(vii) Extension Deposits pursuant to BT4.217; 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 BT9.3. 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 Purchaser'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 Purchaser's Operations, and administrative offset, shall be stayed for so long as:

(i) A bona fide dispute exists as to Purchaser's obligation to make such payment and

(ii) Purchaser files and prosecutes a timely Claim.

CT5.1# (OPTION 1) - TEMPORARY ROAD AND LANDING CONSTRUCTION *(06/2008)*

In addition to the requirements of BT5.1 and BT6.63, Purchaser and Forest Service will agree to the design, construction, maintenance, closure, and obliteration of all Temporary Roads.

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

Unless otherwise agreed, if Purchaser's Operations require more than **NA** cubic **NA** of rock for Temporary Roads, landings, or other temporary uses, such rock shall be obtained from commercial sources.

PLANS AND/OR CRITERIA PURSUANT TO CT5.1# (OPTION 1) - TEMPORARY ROAD AND LANDING CONSTRUCTION (06/2008)

Construction: A light-on-the-land approach will be utilized. Apply rock only when necessary to reduce erosion, puddling and compaction. Use rock that is determined to be weed free by Forest Service weed specialists. Whenever possible, reestablish at previous locations rather than constructing new unless a new location would cause less resource damage. Set topsoil aside where directed by Forest Service. Locate landings outside of no harvest areas. All temporary road drainage structures (e.g. culverts) that will be left in place into the wet season (October 1-June 30), will be designed to accommodate 100-year flow events. Temporary drainage structures will be designed to meet the base flow condition if utilized only during the dry season (July 1-Sept 30) and removed prior to the fall wet season. Purchaser is to construct, use, and close/decompact in the same operating season unless otherwise agreed to by the Forest Service.

Closure: Remove applied rock and/or incorporate into the roadbed by ripping or scarification. Roadbed and/or landing will be decompacted as required in CT6.6#. Topsoil will be moved back to the natural contour of the slope. Special attention shall be given road entrances to prevent any further use of road. Construct an approved closure device (e.g. construction of a 4-foot high berm at the entrance to the road or landing). Following decompation, all areas of exposed soil shall be covered with logging slash/debris as required in CT6.6#.

CT5.12# - USE OF ROADS BY PURCHASER *(06/1999)*

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

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

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

See Restricted Road List Table.

TABLE PURSUANT TO CT5.12# - USE OF ROADS BY PURCHASER (06/1999)

Restricted Road List

Road Number	*Road Name*	*Termini*		*Map Legend*	*Description of Restrictions*
		From	*To*		
2400	---	Hwy 141	2400041	R	1/
2400043	--	2400041	End	R	1/
2400050	---	2400041	Unit 1	R	1/
6610	---	8631	6610719	R	2/
6610719	---	6610	End	R	2/
8620	---	8600	6600	R	2/
8620	---	MP 2.40	MP 3.35	U	
8620070	---	8620	8631	R	2/
2400041	---	8620	Unit 1	R	1/
8600	---	Hwy 141	8620	R	2/
8600	---	MP 0.10	MP 0.85	U	
8620042	---	8620	End	R	2/
8620046	---	8620	End	R	2/
8620051	---	8620	End	R	2/
8620051	---	MP 0.18	MP 0.43	U	
8620061	---	8620070	8620743	R	2/
8620061	---	MP 0.14	MP 0.27	U	
8620743	---	8620061	End	R	2/
8620751	---	8620	End	R	2/
8620751	---	MP 0.11	MP 0.26	U	
8631	---	8620070	6610	R	2/
8631050	---	8631	8631127	R	2/

1/ Winter Haul Prohibited from December 1 to April 1.

2/ Winter Haul Restricted. Commercial haul shall cease when snow does not provide protection – for example, if it rains heavily and the soil and snow become saturated. As an indicator, overnight temperatures should be less than 25 degrees F; afternoon daytime temperatures should not exceed 35 degrees F.

Title and Date of Governing Road Rules Document:

Gifford Pinchot National Forest	4/2001
Commercial Road Rules	Effective Date

CT5.13# - ROAD COMPLETION DATE *(04/2004)*

Construction of Specified Roads shall be completed no later than **09/30/2017** ; except for earlier construction completion dates for roads listed below:

Road Number	Road Name	Station From	Station To	Completion Date
N/A				

Completion date is binding on the party that constructs road, whether Purchaser or Forest Service. Contracting Officer shall modify the completion date in writing to conform to the approved Plan of Operations under BT6.311 at the request of Purchaser.

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

If Forest Service is responsible for road construction and the actual date of road completion is 1 year or more after the completion date stated above, Purchaser may request a rate redetermination under BT3.3 for remaining volume. Such request must be made within 30 days of notification that road construction has been completed. Upon receipt of such request, Forest Service shall redetermine rates using standard methods in effect on the completion date of road construction. Rates to be established shall apply to all timber removed from Sale Area after the effective date of the rate redetermination.

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

When Purchaser constructs Specified Roads and requests Contract Term Adjustment, completion dates shall be adjusted by number of days that qualify for such adjustment, provided such qualifying days occur before specified construction completion date. When Purchaser desires to construct an alternate facility under BT5.26, Forest Service and Purchaser shall agree, in writing, on a construction completion date for alternate facility. Contract Term Adjustment as noted above will apply. Completion date shall be adjusted where a Design Change or physical changes necessitate a modification of Specified Road construction work that increases the scope or magnitude of the required work.

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

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

(a) Purchaser constructs Specified Roads and Forest Service furnishes Purchaser with written no-tice of acceptance under BT6.36 or

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

Notwithstanding BT5.1, Purchaser shall not use a road that Purchaser has elected for Forest Service to construct, until construction is completed and Forest Service furnishes Purchaser with written notice authorizing use of road.

CT5.213# - DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES *(04/2004)*

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

The total amount to be deposited by Purchaser for reconstruction related engineering services to be completed by Forest Service personnel or by public works contract is **$3,135.10** . Purchaser shall make this deposit at the end of the first full Normal Operating Season or 12 months from contract award, whichever occurs first. In the event a different deposit schedule is agreed to, such deposit shall be due within 15 days after the date of issue indicated on the initial bill for collection, pursuant to BT4.4.

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

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

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

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

CT5.221# - MATERIAL SOURCES *(04/2004)*

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

Should the designated source, due to causes beyond the control of Purchaser, contain insufficient acceptable material, Forest Service will provide another source with adjustment in accordance with BT5.253.

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

When Purchaser elects not to use designated sources and the Schedule of Items lists pit development separately, cost allowance will be reduced under BT5.253 when Forest Service determines the work will not be required.

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

Source I **NA**, Source II **NA**, and Source III **NA**.

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

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

See Material Source Table.

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

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

Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored mate-rials shall be located to facilitate their prompt inspection. Sites on Forest Service administered land, ap-proved by Forest Service, may be used for storage purposes and for the placing of Purchaser's plant equipment. All storage sites provided by Forest Service shall be restored at Purchaser's expense. Pur-chaser shall be responsible for making arrangements for storage on other than Forest Service adminis-

tered lands.

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

Sale Name: Mann Thin

TABLE PURSUANT TO CT5.221# - MATERIAL SOURCES (04/2004)

Material Source Table

Material	*Type of Purchase*	*Owner(s)*	*Unit of Measure*	*Unit Price*	*Estimated Quantity*	*Total*
None						

CT5.31# - ROAD MAINTENANCE REQUIREMENTS *(07/2001)*

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

See Contract Road Maintenance Requirements Summary Table.

Sale Name: Mann Thin

CONTRACT ROAD MAINTENACE REQUIREMENTS SUMMARY TABLE PURSUANT TO
CT5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY

Road	Termini From	Termini To	Miles	Travel Way	T-803	T-811	T-831	T-834	T-836	T-838	T-839	T-842	T-854
				Applicable Prehaul Road Maintenance Specifications									
2400	2400041	Hwy 141	1.7	D					D				
2400041	8620	mp 0.2	0.2						P				
2400043	2400041	mp 0.1	0.1							P			
2400045	2400041	mp 0.1	0.1							P			
2400050	2400041	mp 0.3	0.3						P				
6610719	6610	mp 0.3	0.3		P					P			
8600	Hwy 141	8620	1.8		P	P	P	P				P	
8620	8600	8620751	4.7		P	P	P	P				P	
8620051	8620	mp 0.55	0.55		P					P			
8620061	8620	mp 1.9	1.9		P				P				
8620070	8620061	8631	0.5		P				P				
8620042	8620	mp 0.6	0.6		P						P		
8620046	8620	mp 0.4	0.4		P						P		
8620751	8620	mp 0.4	0.4		P					P			
8631	8620070	mp 0.5	0.5		P	P	P	P				P	
8631050	8631	mp 0.2	0.2		P					P			

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

Road	Termini From	Termini To	Miles	Travel Way	T-803	T-811	T-831	T-834	T-836	T-838	T-839	T-842	T-854
				Applicable During Haul Road Maintenance Specifications									
2400	2400041	Hwy 141	1.7	D					D				P
2400041	8620	mp 0.2	0.2						P				P
2400043	2400041	mp 0.1	0.1							P			P
2400045	2400041	mp 0.1	0.1							P			P
2400050	2400041	mp 0.3	0.3						P				P
6610719	6610	mp 0.3	0.3		P					P			P
8600	Hwy 141	8620	1.8		P	P						P	P
8620	8600	8620751	4.7		P	P	P	P				P	P
8620051	8620	mp 0.55	0.55		P					P			P
8620061	8620	mp 1.9	1.9		P				P				P
8620070	8620061	8631	0.5		P				P				P
8620042	8620	mp 0.6	0.6		P						P		P
8620046	8620	mp 0.4	0.4		P						P		P
8620751	8620	mp 0.4	0.4		P					P			P
8631	8620070	mp 0.5	0.5		P	P	P	P				P	P
8631050	8631	mp 0.2	0.2		P					P			P

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

Road	Termini From	Termini To	Miles	Travel Way	T-811	T-831	T-834	T-835	T-836	T-838	T-842	T-854
				Applicable Post Haul Road Maintenance Specifications								
2400	2400041	Hwy 141	1.7	D					D			
2400041	8620	mp 0.2	0.2						P			
2400043	2400041	mp 0.1	0.1							P		
2400045	2400041	mp 0.1	0.1							P		
2400050	2400041	mp 0.3	0.3						P			
6610719	6610	mp 0.3	0.3							P		
8600	Hwy 141	8620	1.8		P				P			
8620	8600	8620751	4.7		P				P			
8620051	8620	mp 0.55	0.55							P		
8620061	8620	mp 1.9	1.9						P			
8620070	8620061	8631	0.5						P			
8620042	8620	mp 0.6	0.6					P				
8620046	8620	mp 0.4	0.4					P				
8620751	8620	mp 0.4	0.4							P		
8631	8620070	mp 0.5	0.5		P				P			
8631050	8631	mp 0.2	0.2							P		

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

Description of work required by the above listed T-specs is shown in the following ROAD MAINTENANCE REQUIREMENTS SPECIFICATION table, and included in the timber sale contract.

Sale Name: Mann Thin

CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY TABLE PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENT (07/2001)(CONTINUED)

CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY

1	2	3			4	5	6			7	8	9	
Road No. and Termini	Special Project Specifi-cation	Travel Way			1/ Brushing And Log Out	Surfacing	Dust Abatement			Seasonal Mainte-nance	Snow Removal	Post Haul	
		Width	X Slope	Comp			Product	Applic Rate	Width			Block	Treat
2400 2400041-Hwy 141	854	MAND. DEPOSIT				D							
2400041 8620-mp 0.2	836, 854	EX	AI		OPT								PR
2400043 2400041-mp 0.2	838, 854	EX	AI		OPT						TS		PR
2400045 2400041-mp 0.1	838, 854	EX	AI		OPT						TS		PR
2400050 2400041-mp 0.3	836, 854	EX	AI		OPT								PR
6610719 6610-mp 0.3	803, 838 854	EX	AI		OPT						TS		PR
8600 Hwy 141-8620	803, 811 831, 834 842, 854	EX	AI	B	OPT						JU		PR
8620 8600-8631	803, 811 831, 834 842, 854	EX	AI	B	OPT						JU		PR
8620 8631-8620751	803, 811 831, 834 842, 854	EX	AI	B	OPT						TS		PR
8620051 8620-mp 0.55	803, 838 854	EX	AI	B	OPT						TS		PR
8620061 8620-mp 1.9	803, 836 854	EX	AI	B	OPT						TS		PR
8620070 8620061-8631	803, 836 854	EX	AI		OPT						TS		PR
8620042 8620-mp 0.6	803, 839 854	EX	AI		OPT						TS	PR	
8620046 8620-mp 0.4	803, 839 854	EX	AI		OPT						TS	PR	

Sale Name: Mann Thin

CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY TABLE PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENT (07/2001)(CONTINUED)

CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY

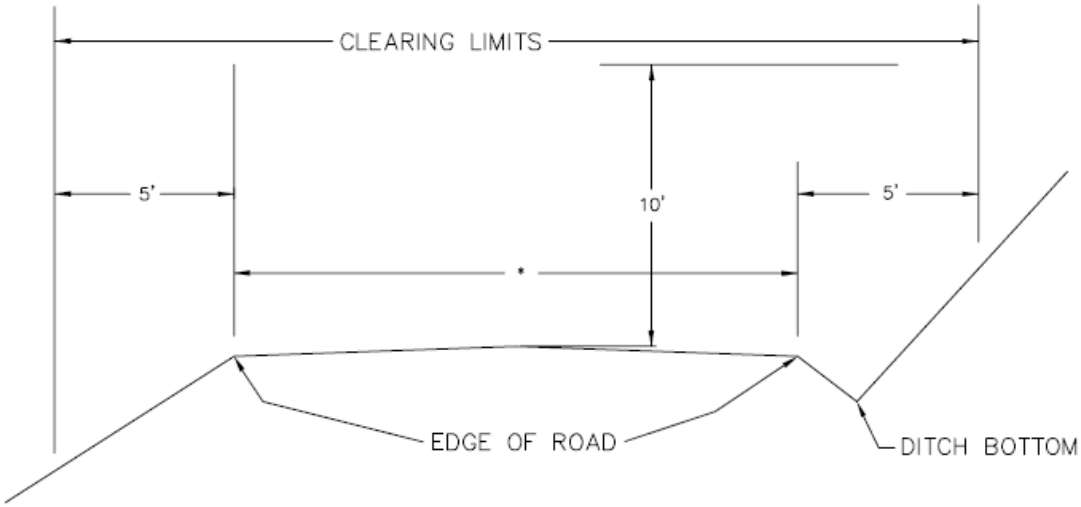
1	2	3			4	5	6			7	8	9	
Road No. and Termini	Special Project Specifi-cation	Travel Way			1/ Brushing And Log Out	Surfacing	Dust Abatement			Seasonal Mainte-nance	Snow Removal	Post Haul	
		Width	X Slope	Comp			Product	Applic Rate	Width			Block	Treat
8620751 8620-mp 0.4	803, 838 854	EX	AI	B	OPT						TS		PR
8631 8620070-mp 0.5	803, 811 831, 834 842, 854	EX	AI		OPT						TS		PR
8631050 8631-mp 0.2	803, 838 854	EX	AI		OPT						TS		PR

1/ Brushing width is specified as 5 feet, brush shall be removed to a distance 5 feet beyond the shoulder of the road, edge of the traveled way, or 2 feet beyond the bottom of the ditch whatever is greater.

All Roads: Minimize road maintenance clearing zones, as much as safety regulations will allow, maintaining shady conditions.

Sale Name: Mann Thin

ONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY TABLE PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENT (07/2001)(CONTINUED)



* – ADDITIONAL MATERIAL WITHIN CLEARING LIMITS SHALL BE CUT TO SPECIFICATIONS

NOTE – PORTIONS OF ROADS DITCHED ON BOTH SIDES ARE TO BE CLEARED TO THE DIMENSION SHOWN ON THE DITCHED SIDE

Brushing Details	DEPARTMENT OF AGRICULTURE FOREST SERVICE GIFFORD PINCHOT NATIONAL FOREST	SHEET 1 OF 1

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO
CT5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Column No.	**Heading**	**Entry**	**Explanation**
	Any	Blank	Except as otherwise described, no entry indicates Purchaser is not authorized or required to perform the work item(s).
	Any	RC	This work requirement applies only when haul of Contract related construction materials occurs.
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.
3	Travel Way	EX	Purchaser shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.
		Numbers	Purchaser shall maintain the traveled way to the standard width indicated by the entry, plus curve widening, in accordance with Section T-811. If required, the road template shall be shaped to this width and to the designated cross slope before haul and during recurring maintenance.
		IS, C, OS, F, or AI	Cross slopes are designated as: IS (Inslope), C (Crown), OS (Outslope), F (Flat), AI (As Is).
		A or B	If compaction is required.
4	Brush and Log Out	Numeric & R and or L	Purchaser shall remove brush for specified width on either or both the right (R) side or left (L) side of road.
		As Staked	Limits of brushing are as staked or marked in the field.
		OPT	Purchaser may use hand or mechanical means of brushing.
		H	Only hand brushing may be used.
5	Surfacing	Aggregate Grading	Purchaser shall place surfacing on roads listed according to the grading indicated.
		D	Purchaser is to make deposits for listed road maintenance, including surface rock replacement.
6	Dust Abatement	OPT	Product selection is Purchaser's choice from those listed in Section T-812.
		Product Abbr.	Unless otherwise agreed, Purchaser is restricted to product listed corresponding to the abbreviation shown in Section T-812; (i.e., LigS = Lignon Sulfonate) Application rates are estimated amounts.
		EX	Purchaser shall abate dust on the existing width
		Numbers	Purchaser shall abate dust to the width indicated by entry.
7	Seasonal Maintenance	W	Waterbars and/or crossditching shall be required prior to expected seasonal precipitation.
		B	Entrance barriers shall be installed by Purchaser prior to nonuse periods.
8	Snow Removal	TS	Snowplowing authorized for Purchaser's Operations without recreation access being provided per Section T-803 requirements.
		JU	Snowplowing authorized, but must provide for recreation joint use per Section T-803 requirements.
		Blank	Snowplowing is not authorized. Forest Service may authorize plowing by permit when not in conflict with other uses.
9	Post Haul	P	P denotes that work is Purchaser's Responsibility to perform.

CT5.32# - ROAD MAINTENANCE DEPOSIT SCHEDULE *(07/2001)*

Other provisions herein notwithstanding, when Forest Service requests payment in lieu of Purchaser's performance of road maintenance, Purchaser shall make Required Deposits (16 USC 537) for current and/or deferred road maintenance. Such deposits are based on the estimated volume and distance hauled and Purchaser's commensurate use of each road listed in the Road Maintenance Plan in CT5.31#.

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

The Required Deposits for Forest Service work in lieu of Purchaser performance and for deferred maintenance is: **$.24** per **CCF** .

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

Deposit Made To	Rate	Unit of Measure
N/A		

CT6.24# - SITE SPECIFIC SPECIAL PROTECTION MEASURES *(04/2004)*

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

Cultural Resource Protection Measures: **NA**
Wildlife and Botanical Protection Measures: **Measures identified in the attached table.**
Cave Resource Protection Measures: **Do not stockpile soil near the cave entrance(s) and ensure that runoff and sedimentation from road surfaces and ditches do not enter the cave(s).**

CT6.315# - SALE OPERATION SCHEDULE *(06/1994)*

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

See attached schedule.

SCHEDULE PURSUANT TO CT6.315# - SALE OPERATION SCHEDULE (06/1994)

Payment Unit	*Operation Conditions*	*Purpose*
All	All harvest activites, Specified road reconstruction, haul, and road maintenance (with the exception of brushing and blading) shall take place from July 16 through September 30, unless Payment Unit meets the winter harvest operation conditions below.	Spotted Owl 07/16-02/28 Soils/Hydrology 07/01-09/30
2, 3, 4, 5, 6, 7, 8	Unless otherwise agreed, conditions required for winter operations are a minimum of 24 inches of snow depth, or a combination of 3 to 4 inches of compacted snow and soil frozen to at least 6 inches in depth. Operations should cease when snow does not provide protection.	Winter Harvest Operations 07/16-02/28
Road Brushing	Road brushing shall take place from May 1 through June 30.	To prevent formation and release of viable weed seeds.

CT6.405 - ALTERNATE REMOVAL OF INCLUDED TIMBER *(05/2005)*

Purchaser and Forest Service may agree to alternate removal requirements of Included Timber contained in AT2. Alternate removal requirements are to be set forth in an agreement signed by both Purchaser and Contracting Officer. The terms of the agreement binds both parties and becomes part of the timber sale contract.

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

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

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

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

Charges will be debited to the Purchaser's timber sale account.

Upon acceptance of the alternate removal requirements, the Payment Unit will be removed from the Sale Area under BT6.36.

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

CT6.41# - SPECIFIC REQUIREMENTS *(01/2000)*

Notwithstanding BT6.41, BT6.411, BT6.5, and BT6.61, felling objectives shall be accomplished by the type of felling methods and equipment listed herein. Methods or equipment other than those specified may be approved. For Payment Units shown in the following table, Purchaser shall submit a cutting plan for Forest Service acceptance, prior to the start of felling operations.

See attached table.

MEASURES PURSUANT TO CT6.24# - SITE SPECIFIC SPECIAL PROTECTION MEASURES (04/2004)

Wildlife and Botanical Protection Measures

There is one water source - Forest Road 6000000 crossing of Lost Creek. Protection measures include:

1. The location, pumping rate, and duration of water withdrawals will be designed to minimize aquatic impacts:
   a. A stable, preferably paved, location must be used for truck access to the stream.
   b. Pumping will not reduce total instream flows by more than 50% in order to protect fish and fish habitat at and/or downstream of the water withdrawal site.

2. Minimize disturbance of riparian vegetation to the greatest extent practicable.

3. Erosion control measures, such as placing WA State-certified weed-free straw bales/wattles or sediment fences to intercept mobilized sediment prior to its entering the stream, must be in place and maintained/cleaned for the duration of water withdrawal activities.

4. If a pump set-up is required, ensure that appropriate spill mitigations are in place:
   a. Do all refueling at least 150 ft. away from any waterbody (wetted or dry).
   b. Pump set-up will include containment tray and absorbent pads.
   c. Entire containment system needs to be level. If necessary, move soil to level the pump set-up area and restore it to its original appearance when water withdrawal is completed.
   d. The edges of the containment tray will, if necessary, be held upright with sticks and/or rocks so gasoline does not leak out.
   e. Gas absorbent pads will be folded lengthwise and placed under the fuel tank. The absorbent pads will be checked and replaced at least daily. If there is a rain event expected or precipitation has begun, the absorbent pads will immediately be checked and, if necessary, replaced and additional absorbent pads will be placed around the inside edges of the containment tray.
   f. If water with a gas sheen on the surface accumulates within the containment tray, place the absorbent pad on the surface of the water and allow the pad to absorb the gas (10-15 min). Discard the pad in a plastic bag, pour residual water into a bucket or carefully carry the containment tray at least 300 ft. away from any waterbody (wetted or dry), and pour water on the ground.
   g. Used absorbent pads must be discarded in plastic bags and at an appropriate facility off-Forest.

5. If temporary dams are required, they will be constructed of sandbags or bags filled with gravel.

6. No dirt from outside the bankfull channel will be used to seal the dam and no logs or woody material within the bankfull channel will be utilized for construction of the temporary dam.

7. Temporary sandbag/gravel bag dams will be completely dismantled and the streambed restored to its original condition following completion of water withdrawal.

8. Unless they're new/unused, all screens, pump intakes, and hoses that will be in contact with the stream must be disinfected prior to entering the Forest in order to avoid introducing aquatic invasive species. Disinfection will be accomplished by thoroughly pressure washing screens, pump intakes, and the portions of hoses that will come into contact with the stream. Pressure washing should be done with hot water that is 140°F (60°C) or higher for a minimum of five minutes on each component/surface **or** with water that is 120°F or higher for a minimum of 15 minutes on each component/surface. If pressure washing with hot water is not feasible, an alternative method of disinfection is to spray and scrub the screens, pump intakes, and portions of hoses that will come into contact with the stream with bleach or Sparquat and then thoroughly rinsing them with water.

Additional measures to be implemented when drafting from fish-bearing streams:

9. All pump intakes must be screened with material that has openings no larger than 5/64 inch for square openings (measured side to side) or 3/32 inch diameter for round openings, and the screen must have at least one square inch of functional screen area for every gallon per minute (gpm) of water drawn through it. For example, a 100 gpm-rated pump would require at least a 100 square inch screen.

10. Screens will be maintained and cleaned at least once a day in order to prevent injury or entrapment of juvenile fish. The screens will remain in place whenever water is withdrawn through the pump intake.

CT6.42# - YARDING/SKIDDING REQUIREMENTS *(06/2010)*

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

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

See attached table for requirements.

TABLE PURSUANT TO CT6.41# - SPECIFIC REQUIREMENTS (01/2000)

FELLING METHODS	*PAYMENT UNIT*
Mechanical harvester/feller-bunchers shall be allowed on slopes up to 35%, and approved on a unit-by-unit basis on slopes up to 45%. Conditions required to pre-bunch on steep slopes include: ➢ Equipment shall avoid unstable soils (landslides), high erosion, and riparian no-cut buffers. Equipment traveling on forest soils greater than 35% should avoid uphill travel. Slope maximum limit for ground equipment is 45%. All activity shall protect topsoil from linear ruts and soil displacement, whether it results from wheels, tracks, or log skidding. ➢ Equipment traveling on forest soils greater than 30% (steepness) shall avoid carrying logs (skidding). ➢ Equipment shall operate on slash mats that are as thick and continuous as possible and be limited to as few trips as possible.	All
Trees shall be directionally felled away from Payment Unit boundaries, no harvest areas, roads, protected streamcourses, or as directed by Forest Service. Exceptions include trees leaning towards these features or when conditions would not allow safe felling. Any tree that falls into a no harvest buffer shall be left in place.	All

TABLE PURSUANT TO CT6.42# - YARDING/SKIDDING REQUIREMENTS (06/2010)

YARDING/SKIDDING REQUIREMENTS	*PAYMENT UNIT*
Within those areas designated on the Sale Area Map as (GB) or Ground-Based, the yarding system is expected to maintain one-end suspension of logs during in-haul. Lining operations will be accomplished by yarding to lead, or at a 30-45 degree angle towards skid trails wherever possible. Site-specific terrain features may require pulling line at least 100 feet from designated skid trails. Skid trails shall not be permitted on slopes greater than 30%. They shall be spaced a minimum of 150 feet apart and located outside of no harvest buffers. When feasible, use existing skid trails except where existing skid trails from previous entry are causing detrimental soil or hydrologic conditions that could be further avoided with alternative skid trail location.	All
Within those areas designated on the Sale Area Map as (S) or Skyline, the skyline yarding system is expected to have the capacity to keep logs one-end suspended above the ground during in-haul. Suspension is not required during lateral yarding. The skyline system will have the capacity to yard logs at least 1200 feet uphill and downhill. The system will be able to operate a carriage capable of lateral yarding at least 75 feet while holding a fixed position on the skyline. Lateral yarding will be accomplished by yarding material to lead, or at a 30-45 degree angle towards skyline corridors wherever possible. Skyline yarding corridors shall be allowed across intermittent streams where full suspension can be obtained across the entire bankfull channel including 20 feet on either side of the channel edge, and where skyline corridors shall be a maximum of 12 feet wide and cumulatively not occupy more than 15% of the stream length in the unit. Any trees needing to be cut for skyline corridors shall be left on the ground where they were felled.	3, 4, 5, 8
Where feasible, using existing temporary roads and skid trails.	All
Ground-based machinery shall not operate where soil water content is high enough to cause rutting that exceeds 6 inches in depth for a length of 10 feet or more.	All
Any portion of a felled tree that lands in a no harvest buffer shall be left on the ground.	All
Equipment shall operate on slash mats that are as thick and continuous as possible and limited to as few trips as possible.	All
Ground based equipment will not operate on portions of roads and landings after decompaction is completed.	All
Protect existing down wood to the extent possible.	All

CT6.6# - EROSION CONTROL AND SOIL TREATMENT BY PURCHASER *(04/2014)*

Erosion prevention and control work required by BT6.6, shall be completed within 15 calendar days after yarding/skidding operations related to each landing are substantially completed or after Forest Service designation on the ground of work where such designation is required hereunder. Said time limit shall be exclusive of full days lost in Purchaser's Operations due to causes beyond Purchaser'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 Purchaser's Operations due to failure to perform required work shall be repaired by Purchaser.

On slopes greater than **30** percent, erosion control measures will be done with methods other than mechanized equipment, unless otherwise agreed.

Where soil has been disturbed or displaced on Sale Area by Purchaser's Operations and where measures described in BT6.6 will not result in satisfactory erosion control or where subsoiling is shown on Sale Area Map, the following shall be performed. If applicable, timing of the work shall be coordinated with required scarification or subsoiling.

(a) Where staked or otherwise marked on the ground by Forest Service, seed, fertilizer, and mulch will be applied as indicated in the attached seeding, fertilizing, and mulching schedule. All applications shall be current and done during the period from **September 1** to **September 30**, unless otherwise agreed to. Applications shall be done only during favorable conditions. If Purchaser and Forest Service agree, seed can be applied and covered within 10 days of ground disturbance, and may be done outside the required periods.

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

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

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

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

germination, (6) percentage of purity, (7) percentage of weed seed content, and (8) certification that no noxious weed seeds in excess of established state limitations are present in any kind of seed.

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

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

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

See attached application schedule.

Sale Name: Mann Thin

APPLICATION SCHEDULE PURSUANT TO CT6.6# - EROSION CONTROL AND SOIL TREATMENT BY PURCHASER (04/2014)

	Areas	*Seed*		*Fertilizer*		*Mulch*	
PAYMENT UNIT	*A) Skid Trails* *B) Skyline Corridors* *C) Temp. Roads* *D) Landings* *E) Other*	*Application*		*Application*		*Application*	
		Species Mixtures	*LBS/AC*	*Type*	*LBS/AC*	*Type*	*LBS/AC*
All	A, C, D 4/					Slash	Scattered
All	D 5/					Certified Weed Free Straw/Waddles	NA
All	A, B, E 6/	Gifford Pinchot Seed	40			Slash	Scattered

The Purchaser will be required to pay a co-op deposit of $.04/CCF for the cultivation and harvest of replacement seed of native species for use on future contracts.

1/ For sales in Oregon, the seed shall meet the State certification specifications. Seed must be packaged in containers carrying official certification labels sewn in, glued to, or printed upon the container, with the following information:
1. Variety (if certified as to variety) and kind.
2. Quantity of seed (pounds or bushels).
3. Class of certified seed (blue tags for certified seed).
4. Inspection or lot number traceable to the certifying agency's records.

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

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

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

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

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

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

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

4/ Available logging debris and slash shall be scattered across decompacted surface.

5/ Locate certified weed free straw/waddles to intercept runoff from the landing prior to reaching any road ditch or stream. Sediment shall be cleaned out and deposited on the forest floor prior to the wet season (October 1 – June 30). Remove following one wet season.

6/ Areas of gouging or soil displacement: Treatment may include, but is not limited to, repositioning displaced soil to re-contour disturbed sites, creating small ditches or diversions to redirect surface water movement, and scattering slash material.

CT6.7 - SLASH DISPOSAL *(06/2008)*

As used in the following Subsections, the term "slash" is vegetative debris including, but not limited to, cull logs, blasted or pushed-out stumps, chunks, broken tops, limbs, branches, rotten wood, damaged brush, damaged or destroyed reproduction, saplings or poles, resulting from Purchaser's Operations.

Any burning of slash or refuse by Purchaser is subject to CT7.201.

Forest Service may agree to substitute methods of slash disposal if such substitute methods will give equally satisfactory results.

Forest Service may waive specific slash treatment requirements. Purchaser's Timber Sale Account will be charged for any slash treatment requirements waived or for work taken over by Forest Service. The amount of such charges will be determined by Forest Service if Purchaser has not begun felling operations. If felling operations have begun, charges will be determined by mutual agreement.

Forest Service may enter into a written agreement with the Purchaser for the Purchaser to complete slash disposal work originally scheduled to be done by the Forest Service. The agreement will describe the work to be completed by the Purchaser, and the value of such work. Value of the work to be done will be based upon the slash disposal plan in which the cooperative deposits were calculated, and will include Forest Service overhead. Any deposits paid by the Purchaser for this work will be credited to the Purchaser¿s timber sale account. This work is in addition to that required by CT6.74#.

Forest Service may also enter into a written agreement with Purchaser for the Purchaser to remove slash from landings, subject to BT3.41. Brush disposal deposits paid by the Purchaser for the Forest Service to burn landing piles will be credited to the Purchaser's timber sale account in the amount shown in the brush disposal plan, less the amount needed by the Forest Service for final cleanup of the landings following removal of the landing slash piles by the Purchaser. The credit will be made following the final removal by the Purchaser of all Included Timber, and slash piles, from the Sale Area.

CT6.74# - SLASH TREATMENT REQUIREMENTS *(02/2002)*

Purchaser shall pile, burn, yard, construct firelines or otherwise treat slash defined in CT6.7, within designated areas. Work required of Purchaser shall be in accordance with the following slash plan and specifications, and the Sale Area Map.

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

See following specifications.

SPECIFICATIONS PURSUANT TO CT6.74# - SLASH TREATMENT REQUIREMENTS (02/2002)

SPECIFICATION 6701 - TIME OF PREPARATION OF SLASH FOR DISPOSAL

In accordance with Special Provision CT6.74#, and Standard Provision BT6.7, Purchaser shall accomplish slash disposal obligations in a sequence of work and/or timing of work that is in accordance with the items listed below:

1. Time of year when hand, machine piling and/or covering must be approved by Sale Administrator before work starts.

2. As stated in BT6.7, Purchaser shall not unnecessarily delay slash disposal by the Forest Service. Purchaser's delay of such slash disposal work is hereby defined as the failure to fully complete and have accepted slash disposal work on a Payment Unit beyond 30 days after the majority of included timber on that unit has been removed. Unless otherwise agreed in writing.

SPECIFICATION 6709# - PILING OF SLASH, MACHINE

This Specification applies to Payment Unit: 1 (2 acres)

In accordance with Special Provision CT6.74#, Purchaser shall pile slash by machine. Purchaser shall pile slash in areas designated by Sale Administrator. The method of designation shall been in a manner agreed to with the Purchaser Representative.

Unless otherwise agreed in writing between Purchaser and Forest Service, the machine piling of slash shall be accomplished as listed below:

1. Equipment requirements – As approved by Forest Service.

2. Slash to be piled - Purchaser shall pile all slash less than 4 inches diameter within 30 feet of Forest Road 2400041 and Forest Road 2400050 where slash less than 4 inches diameter exceeds 8 tons per acre. A maximum of 8 tons per acre of slash less than 4 inches is permitted to remain after treatment.

3. Location of Piles - Piles will be located so that burning will not cause damage to standing trees. This is construed to be at least 15 feet from the base or crown of any live tree. Piles shall be located at least 15 feet from any adjacent pile. All piles in payment units will be a minimum of 25 feet from the unit boundary. Remnant logs shall not be incorporated into slash piles.

4. Construction and Size of Piles - Prior to commencement of piling operations, down trees and logs to be piled will be bucked into lengths not exceeding 20 feet. Piles shall be compact as possible and shall be free of dirt. Wind rowing of slash is not permitted. Height shall be not less than 4 feet nor greater than 15 feet; diameter shall be not less than 6 feet nor greater than 15 feet.

SPECIFICATION 6711# - PILING OF SLASH AT LANDINGS

This Specification applies to Payment Unit(s): All

In accordance with Special Provision CT6.74#, Purchaser shall pile slash by loader on landings and other loading areas. Unless otherwise agreed in writing between Purchaser and Forest Service, the machine piling of landings shall be accomplished as listed below:

1. Equipment Requirements - A loader that normally is used in removal of Included Timber.

   A tractor may be used to pile landings <u>only by prior written agreement</u>. The tractor used to pile landings shall be equipped with a brush blade having teeth spaced approximately 18 inches apart, and project at least 12 inches below the lower edge of the blade. Maximum width of the blade will be 10 feet.

2. Slash to be Piled - Purchaser shall pile all slash and unutilized material which is located on and within 30 feet of landings or loading areas. This includes slash resulting from landing construction and any unutilized material yarded to landings, and that which is cleared away.

3. Location of Piles - Piles will be located on flat surface at landing site and such that burning will not cause damage to standing trees. This is construed to be at least 25 feet from the base or crown of any live tree.

4. Construction and Size of Piles - Prior to commencement of piling operations, down trees and logs will be bucked into lengths not exceeding 20 feet. All logs will be placed in piles parallel to each other. Piles shall be as compact as possible and shall be free of dirt.

SPECIFICATIONS PURSUANT TO CT6.74# - SLASH TREATMENT REQUIREMENTS (02/2002)

SPECIFICATION 6714# - COVERING OF PILES

This Specification applies to Payment Units(s): All

In accordance with Special Provision CT6.74#, Purchaser shall cover treated slash with plastic to maintain dryness of slash to facilitate later disposal of the slash by burning by Forest Service. On areas designated for piling of slash pursuant to the Slash Specifications, Purchaser covering of the piles and/or decks shall be accomplished as listed below:

1. Piles to be Covered – All piles will be covered.

2. Material Requirements - Material used to cover piles will be supplied by Purchaser.

   Black Polyethylene Plastic Film, .006 (6 mil) minimum thickness by 16 feet minimum width.

3. Trimming of Piles - Protruding slash within area to be covered will be trimmed flush with the pile.

4. Location of Material on Pile - The covering material will extend over not less than 1/4 of the pile area. The covering material shall extend to the ground on two sides; one side toward the prevailing wind. On all piles, the covering material will be secured sufficiently around the perimeter to prevent wind from uncovering the piles. In addition, the covering will be held down by chunks or limbs at least 3 inches in diameter to prevent wind from blowing the covering material off the piles.

CT6.8 - MEASURING *(08/2000)*

The estimated quantity of timber in AT2 was determined in advance of advertisement. Any timber subsequently added or deleted under BT2.13, BT2.14, BT2.15, BT2.31, BT2.32, BT2.33, BT2.34, BT2.35, or BT2.37 will be measured by the Forest Service and formulated using Forest Service Handbook 2409.12, Timber Cruising Handbook Standards, unless otherwise agreed to in writing.

CT6.84 - ACCOUNTABILITY *(06/2006)*

The following requirements are applicable to product removal permits:

1. Forest Service will issue to Purchaser or designated representative(s) serially numbered Product Removal Permit Books for use only on this sale. Product Removal Permit Books, whether used or unused, shall be returned to issuing Forest Service Office in accordance with instructions contained on cover of each book.

2. All permits shall be completed and attached to load by an individual named in writing, other than the truck driver in accordance with the instructions on the inside cover of the Product Removal Permit Book. Product Removal Permit will be attached prior to removal from the immediate vicinity where loading is done. The permit will remain attached until the load is decked at the delivery point.

When products are manufactured on site and removed as chips, the permit shall be attached to a 12" x 18" vertically mounted board on the front panel on the driver's side of the conveyance unit. The previously validated Product Removal Permit shall be removed from the board before attaching a new permit. The board's texture, density, and thickness shall be such as to accommodate construction type staples and be of durable material for securing the attached permits.

3. Purchaser shall require truck drivers to stop when requested by Forest Service for purposes of monitoring accountability when products are in transit. Methods to be used to alert drivers of an impending stop shall be agreed to in advance of hauling products.

CT6.84 (OPTION 1) - USE OF PAINT BY PURCHASER *(05/2005)*

Notwithstanding BT6.81, use of paint by the Purchaser within the Sale Area in the color(s) used by the Forest Service in the preparation of the sale and administration of the contract will be by written approval of the Forest Service.

CT7.1 - PLANS *(09/2004)*

The plan shall state how Purchaser's representative or alternates will be contacted in a fire emergency, both during periods of operation and at other times such as evenings or weekends. Purchaser shall certify compliance with specific fire precautionary measures included as Subsections under CT7.2 - Specific Fire Precautions, before beginning operations during Fire Precautionary Period (closed season) and shall update such certification when operations change.

If helicopter yarding is required, the plan shall include a schedule of rates mutually agreed to for computing Purchaser costs incurred toward meeting Purchaser's obligations under AT11, or for paying for helicopters controlled by Purchaser and used under Forest Service direction for suppressing Operations Fires or other fires on Sale Area, excluding Negligent Fires.

CT7.2 - SPECIFIC FIRE PRECAUTIONS *(09/2002)*

When the industrial fire precautions level is I or higher, unless waiver is granted under CT7.22, specific required fire precautionary measures are as follows:

A. Fire Security.

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

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

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

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

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

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

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

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

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

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

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

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

C. Spark Arresters and Mufflers.

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

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

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

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

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

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

D. Fire Tools.

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

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

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

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

E. Tank Truck.

Purchaser shall provide a tank truck or trailer, containing not less than 300 gallons of water, during yarding, skidding, loading, land clearing, right-of-way clearing, mechanical falling, and mechanical treatment of slash. Such tank truck or trailer shall be maintained in a serviceable condition and located within 10 minutes, round trip, from each operating side during Fire Precautionary Period (closed season), except as provided under BT7.21.

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

agreement.

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

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

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

F. Communications.

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

G. Smoking and Open Fire Restrictions. Smoking and fires shall be permitted only at the option of Purchaser. Purchaser shall not permit open fires on Sale Area without advance permission in writing from Forest Service.

H. Blasting.

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

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

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

I. Compliance with State Fire Laws.

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

J. Aircraft Communications.

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

Upon discovery or notification of a fire on Sale Area, all aircraft pilots controlled by Purchaser shall monitor VHF frequency 122.85 MHz when within 5 miles of a fire and broadcast their intentions.

K. Logging Block Equipment.

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

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

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

CT7.201 - BURNING BY PURCHASER *(01/1993)*

Notwithstanding the Fire Precautionary Period limitation of BT7.2, the Purchaser is required to obtain written permission from the Forest Service prior to any burning on the National Forest Lands.

CT7.22 - EMERGENCY FIRE PRECAUTIONS *(09/2004)*

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

INDUSTRIAL FIRE PRECAUTIONS SCHEDULE

LEVEL	INDUSTRIAL FIRE PRECAUTION
I.	Closed Season - Fire precaution requirements are in effect. A Fire Watch/Fire Security is required at this and all higher levels unless otherwise waived.
II.	Partial Hootowl - The following may operate only between the hours of 8 p.m. and 1 p.m. local time: power saws, except at loading sites; cable yarding; blasting; welding or cutting of metal.
III.	Partial shutdown - The following are prohibited: cable yarding - except that gravity operated logging systems employing non-motorized carriages may be operated between the hours of 8 p.m. and 1 p.m. local time when all blocks and moving lines are 10 feet or more above the ground, excluding the line between the carriage and the choker. power saws - except at loading sites and on tractor/skidder operations between the hours of 8 p.m. and 1 p.m. local time. In addition, the following are permitted between the hours of 8 p.m. and 1 p.m. local time: tractor, skidder, feller-buncher, forwarder, or shovel logging operations where tractors, skidders or other equipment with a blade capable of constructing fireline are immediately available to quickly reach and effectively attack a fire start; mechanized loading and hauling; blasting; welding or cutting of metal; any other spark-emitting operation not specifically mentioned.
IV.	General shutdown - All operations are prohibited.

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

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

Closed Season (Fire Precautionary Period): That time period each year when a fire hazard exists as described in AT9.

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

Loading sites/woods site: A place where any product or material (including but not limited to logs, firewood, slash, soil, rock, poles, posts, etc.) is placed in or upon a truck or other vehicle.

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

Such waiver, or substitute precautions under BT7.21, shall prescribe measures to be taken by Purchaser to reduce the risk of ignition, and/or the spread of fire. The Contracting Officer or Forest Service Representative shall consider site specific weather factors, fuel conditions, and specific operations that result in less risk of fire ignition and/or spread than contemplated when precaution level was predicted. Consideration shall also be given to measures that reduce the precaution levels above. Purchaser shall assure that all conditions of such waivers or substitute precautions are met.

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

CT8.13 - DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTY *(09/2004)*

Purchaser and Forest Service hereby agree, acknowledge, and accept that there is no expressed or implied warranty provided by the Forest Service that guarantees the Purchaser will be allowed to complete the removal of products sold under the terms of the contract. Upon execution of the contract, Purchaser hereby acknowledges the acceptance of the risk that this contract is subject to interruption or termination as a result of litigation associated with the environmental analysis process used by the Forest Service in the planning of this timber sale. If such interruption or termination occurs due to litigation, Purchaser agrees to accept as full compensation for such interruption remedies pursuant to BT8.33, or for termination remedies pursuant to BT8.34.

CT8.212 - MARKET-RELATED CONTRACT TERM ADDITION *(11/2008)*

The term of this contract may be adjusted when a drastic reduction in wood product prices has occurred in accordance with 36 CFR 223.52. The Producer Price Index used to determine when a drastic reduction in price has occurred is stated in AT17. Purchaser 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 Purchaser'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 Purchaser'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 sale 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 Purchaser'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.

CT8.66# (Option 1) - USE OF TIMBER *(04/2004)*

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

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

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

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

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

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

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

(e) Prior to award, during the life of this contract, and for a period of 3 years from Termination Date, Purchaser 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 Purchaser or affiliates.

(f) Prior to delivering unprocessed Included Timber to another party, Purchaser 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 Purchaser and another party, Purchaser shall furnish to Forest Service a copy of each such agreement. Purchaser 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 Purchaser relating to the termination.

Sale Name: Mann Thin
Attachment A

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-803 - SNOW REMOVAL

803.01 Description

This Section provides for removal of snow from roads to facilitate logging operations and safe use.

803.02 Maintenance Requirements

1. Erect signs required by the Sign Plan in the SUPPLEMENTAL SPECIFICATIONS.

2. Perform work in a manner to preserve and protect roads and appurtenances, and prevent erosion damage to roads, streams, and other Forest values.

3. Do not undercut banks. Do not blade gravel or other surfacing material off the road.

4. Keep roadbed drainage ditches, drain dips, and culverts functional when needed during operations and upon completion of operations.

5. Control snow removal to identify the usable traveled way having roadbed support. Reshape over-width plowing as necessary to define the usable width.

6. Space, construct, and maintain drainage holes in the dike of snow or berm caused by snow removal operations. Place drain holes to obtain surface drainage without discharging on erodible fills.

7. Close roads to wheeled vehicles at times and in the manner specified in C(T)5.12 or the Road Rules document.

8. Upon seasonal completion of Purchaser's Operations, effectively block the road by a snow barricade, unless otherwise approved by the Contracting Officer.

9. Remove snow for either public access or project use as established in the SUPPLEMENTAL SPECIFICATIONS and meet the following requirements:

   a. Removal for Public Access (Method JU) - Remove snow from all of the traveled way, including turnouts, for safe and efficient use for both timber transportation and the public. Remove intruding windfalls, debris, or slough and slide material for the full width of the traveled way and deposit out of drainage’s at locations designated by the Contracting Officer.

   b. Removal for Project Use (Method TS) - Remove snow from all or part of the traveled way, including sufficient turnouts for safe and efficient use for timber transportation and to protect the road. Remove intruding windfalls, debris or slough and slide material and dispose of only as necessary to provide passage for timber transportation. Removed materials may be deposited off the traveled way or outside the traveled way at locations designated by the Contracting Officer.

10. When directed by the Contracting Officer, replace in kind, within sixty (60) days after the start of Normal Operating Season, any surfacing material which has been bladed off the road, unless otherwise agreed. Contracting Officer will notify Purchaser in writing as to the cubic yard equivalent of bladed off material by the start of the normal operating season.

803.03 Equipment

Purchaser may use any type of equipment to remove snow, providing:

a. Type or use of equipment is not restricted in C(T)5.12 or Road Rules document.

b. Equipment is of the size and type commonly used to remove snow and will not cause damage to the road.

c. The use of plows or dozers to remove snow requires written approval by the Contracting Officer. Equip plows or dozers with shoes or runners to keep the dozer blade a minimum of 2 inches above the road surface unless otherwise approved by the Contracting Officer.

803.04 Ice Control

Ice control may be performed by Purchaser when approved by the Contracting Officer in writing. Such approval will include ice control materials, application rates, and any specific requirements of use.

Sale Name: Mann Thin
Attachment A

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-811 BLADING

811.01 Description

This work consists of surface blading the traveled way to a condition that facilitates traffic and provides proper drainage. Blading includes shaping the crown or slope of travel way, berms, and drainage dips in accordance with this specification. Compaction is required when shown on the ROAD LISTING.

811.02 Maintenance Requirements

A. Timing - Perform surface blading during the contract period as often as needed to provide conditions stated for the maintenance level of the road.

B. General

1. Blade and shape the existing traveled way and shoulders, including turnouts, to produce a surface which is uniform, consistent to grade, and crowned or cross-sloped as indicated by the character of the existing surface, unless otherwise shown in the ROAD LISTING, to at least ½ inch per 1 foot of width, but not more than ¾ inch per 1 foot of width. Thoroughly loosen surfacing material to no less than 2 inches depth or the depth of potholes or corrugations. Scarification to facilitate cutting to the full depth of potholes or corrugations may be elected, but will be considered incidental to blading. Do not scarify to a depth that will cause contamination of the surfacing.

1. Apply water during blading when sufficient moisture is not present to prevent segregation. Supply, haul, and apply water in accordance with Section T-891.

3. Shape existing native rock or aggregate surfaced drainage dips to divert surface runoff to existing outlet devices, ditches, or discharge locations.

4. Establish a blading pattern which provides a uniform driving surface, retains the surfacing on the roadbed, and provides a thorough mixing of the materials within the completed surface width. Upon final blading, no disturbed rock shall protrude more than 2 inches above the adjacent surface unless otherwise provided in the contract. Remove and place outside the roadbed, material not meeting this dimension so as not to obstruct drainage ways or structures. This material may be scattered off the roadbed if there is free drainage.

5. Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

Invasive Species of Concern Prevention Practices
NA

C. Routine Blading

1. Conform to the dimensions SHOWN ON THE DRAWINGS or designated in the SUPPLEMENTAL SPECIFICATIONS upon completion of blading.

2. Shape roadbed width in excess of the dimensions shown only as needed to provide drainage away from the traveled way. Do not remove established grasses and other vegetation from the excess width except as incidental to providing drainage or unless otherwise provided in the contract.

D. Compaction

Roads requiring compaction will be included in the ROAD LISTING. Unless Compaction Method B is designated in the ROAD LISTING, all traveled ways requiring compaction may be compacted by Method A. Compaction shall commence immediately following blading.

Compaction methods are:

Compaction Method A: Breaking track while operating equipment on the traveled way.

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-811 BLADING (CONTINUED)

Compaction Method B: 7-10 ton pneumatic, steel, or equivalent vibratory roller, operated to cover the full width two (2) times.

E. Undercutting - Undercutting roadway back slope is not permitted.

F. Intersections

1. At intersections, blade the roadbeds of side roads which are not closed or restricted from vehicular use to ensure smooth transitions.

2. Signing, cross ditching in the road surface (traveled way), earth berms, or other devices placed to discourage or eliminate use by passenger cars, are field evidence of road closure or restriction. Roads listed for work under Sections T-835, T-836, T-838, or T-839 are considered restricted.

3. Side roads listed for work under this Section are not restricted.

G. Cleaning of Structures - Do not allow materials resulting from work under this Section to remain on or in structures, such as bridges, culverts, cattle guards, or drainage dips.

H. Berms - Maintain existing berms to the condition of adjacent segments. Do not create new berms.

I. Smooth Blading - Smooth blading may be used as an interim measure to remove loose surfacing material from the wheel paths, and store removed materials in a recoverable windrow, until blade processing as described in this section is feasible. Watering will not be required for smooth blading. Accomplish smooth blading without distorting the existing cross-slope or crown of the traveled way.

Move and store loose surfacing materials on the high side of super-elevated curves and sections with uniform inslope or outslope. In crowned sections, store the material on either or both sides as elected. Windrow and place stored materials to provide not less than 12 feet of smooth traveled way on one-lane segments, or 20 feet of smooth traveled way on two-lane segments, or segments with turnouts. Cut holes through windrows, which may collect water on the road, for drainage at least every 500 feet.

T-831 DITCH MAINTENANCE

831.01 Description

This Section provides for routine maintenance of various types of ditches to provide a waterway which is unobstructed, as shown on the ROAD LISTING or DESIGNATED ON THE GROUND.

831.02 Maintenance Requirements

A. Maintain ditches by removing rock, soil, wood, and other materials. Maintained ditches shall function to meet the intent of the original design.

B. Undercutting backslopes during removal operations is not permitted.

C. Suitable material up to 4 inches in greatest dimension removed from the ditches may be blended into existing native road surface and shoulder or placed in designated berm.

D. Do not blend material from ditch cleaning operations into aggregate surfaced roads. Do not blade material across aggregate or bituminous surfaced roads, unless approved in writing by the Contracting Officer.

E. Haul material in excess of 831.02 D or subject to 831.02 E to a designated waste area under Section T-832. Remove excess materials temporarily stored on the ditch slope or edge of the shoulder daily.

F. Remove limbs and wood chunks in excess of 12 inches in length or 3 inches in diameter from ditches and place outside the roadway.

G. Clean paved surfaces of all materials resulting from ditch maintenance work.

I. Shape lead-off ditches to drain away from the traveled way.

J. Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-831 DITCH MAINTENANCE (CONTINUED)

Invasive Species of Concern Prevention Practices
NA

T-832 REMOVE AND END HAUL MATERIALS

832.01 Description

Work consists of loading, hauling, and placing of slide, slough, or excess materials such as rock, soil, vegetation, and other materials to designated disposal sites.

832.02 Maintenance Requirements

A. Remove, end haul, and dispose of excess materials generated by work under other Sections of this contract.

B. Remove the slide and slough materials in the area extending approximately 6 feet vertically above the road surface and not more than 3 feet down slope from the roadbed. Dispose of material at designated sites as SHOWN ON THE DRAWINGS, identified in SUPPLEMENTAL SPECIFICATIONS, or as ordered by the Contracting Officer.

   Reshape the slope which generated the slide material as nearly as practical to its original condition by equipment operating from road surface. Reshaping of roadside ditches in slide area shall be in accordance with Section T-831.

C. When approved by the Contracting Officer, fill slumps by compacting selected materials into roadway depressions. Compaction is by Method 2.

D. Place all materials in disposal sites as specified in the SUPPLEMENTAL SPECIFICATIONS, as SHOWN ON THE DRAWINGS, or as ordered by the Contracting Officer.

   1. Method 1 - Side Casting and End Dumping. Material may be placed by side casting and end dumping. Where materials include large rocks, provide a solid fill by working smaller pieces and fines into voids. Shape the finished surfaces to drain.

   2. Method 2 Layer Placement - Step or roughen surfaces on which materials are to be placed prior to placing any material. Place materials in approximately horizontal layers no more than 12 inches thick. Compact each layer by operating hauling and spreading equipment over the full width of each layer.

E. Repair any damage to existing aggregate or pavement surfaces.

T-834 DRAINAGE STRUCTURE MAINTENANCE

834.01 Description

This work consists of cleaning and reconditioning culverts and other drainage structures.

834.02 Maintenance Requirements

A. Clean drainage structures, inlet structures, culverts, catch basins, and outlet channels specified in the SUPPLEMENTAL SPECIFICATIONS. Clean catch basins by removing the material within the area SHOWN ON THE DRAWINGS.

B. Clean the transition from the ditch line to the catch basin a distance of 10 feet from the catch basin. Clean outlet channels and lead-off ditches a distance of 6 feet. Remove and place debris and vegetation so as to not enter the channel or ditch, or obstruct traffic. Haul debris and vegetation to a designated disposal area in accordance with Section T-832.

C. Hydraulic flushing of drainage structures is not allowed unless provided for in the SUPPLEMENTAL SPECIFICATIONS.

D. Cleaning and reconditioning are limited to the first 3 feet of inlet and outlet, determined along the top of the structure. Recondition culvert inlet and outlet by field methods such as jacking out or cutting away damaged metal which obstructs flow. Treat cut edges with a zinc rich coating, in accordance with AASHTO M 36M and ASTM A 849.

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-834 DRAINAGE STRUCTURE MAINTENANCE (CONTINUED)

E. Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

Invasive Species of Concern Prevention Practices
NA

T-835 ROADWAY DRAINAGE MAINTENANCE

835.01 Description

This work consists of providing post haul drainage on roads.

835.02 Maintenance Requirements

A. Drainage

1. Upon completion of work, shape the roadway to provide for the removal of surface water. The roadway need not be passable to vehicles. Repair and reinstall water bars, barriers or berms existing prior to the Purchaser's operation. Areas where water is ponded by existing centerline profile sags in through cuts may be left untreated.

2. Continuous blade shaping of the roadbed is not required under this specification.

3. Work to be done at staked locations shall be as indicated on the stake and/or stated in SUPPLEMENTAL SPECIFICATIONS:

4. Any of the following methods are acceptable for use at eroded or rutted locations:

   Method A: Outsloping the roadbed at not less than ½ inch per yard of width.

   Method B: Insloping the roadbed at not less than ½ inch per yard of width.

   Method C: Water bar roadbed at locations staked on the ground and construct as SHOWN ON THE DRAWINGS or as included in SUPPLEMENTAL SPECIFICATIONS.

5. Drainage structures located in through fills and natural watercourses shall be fully functional without obstructions, including inlet and outlet channel within 20 feet of the structure.

6. Either clean culverts and other fabricated structures to provide drainage from road ditches and make the ditch functional or provide water bar(s) across the roadbed. Removed structures shall become Purchaser's property to be removed from National Forest System land. Remove and replace any purchaser-installed temporary drainage structures with a water bar.

B. Slides, Slumps and Slough

1. Slides and slough may be left in place, provided they do not potentially impound water or divertwater from watercourses. As necessary, reshape the various surfaces to provide drainage.

2. Provide drainage to effectively decrease or eliminate the entry of surface water into slides, slumps, and roadbed surface cracks. Place berms, waterbars or ditches as needed to intercept and remove runoff water from the roadbed. Surface seal cracks by covering over with native soil materials to prevent additional water entry and compact with equipment tires.

C. Entrance Devices

Upon completion of work, replace entrance devices to effectively eliminate access by motorized vehicles having four (4) wheels and a width in excess of 50 inches.

D. Seeding

Seed and fertilize all disturbed areas in accordance with requirements set forth in Section T-841.

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-836 MAINTENANCE FOR LIMITED USE

836.01 Description

This work consists of making limited use roads passable for joint use by Purchaser and high clearance vehicles, and providing drainage from the traveled way and roadbed.

836.02 Maintenance Requirements

A. Traveled Way

Purchaser may smooth or fill existing cross ditches and water bars and by agreement modify existing road junctions to enable vehicle access. Prior to beginning haul and resumption of haul after an extended stoppage:

1. Remove brush, fallen trees, rocks, and other debris from traveled way, including turnouts, turnarounds, and other locations that interfere with needed maintenance as follows:

   a. No object extending over 4 inches above the road surface shall remain within the 12 feet usable traveled way and 10 feet turnout widths. Center the usable width on the roadbed or position away from the fill slope.

   b. Cut and remove standing or down trees, logs, brush, and limbs from within the area described in 1 a. above. Remove encroaching limbs to a height of 14 feet above the traveled way surface. Scatter material not meeting utilization standards outside and below the roadbed on the fill side. Limb and remove timber which meets utilization standards or deck at agreed locations.

   c. Place all removed materials away from drainages.

   d. During use, maintain drainage structures, including dips, ditches and culverts in a useable condition.

2. Clean and recondition drainage facilities in accordance with: Section T-831 and T-834.

B. Slough and Slides

1. Slough and slides may be left in place, provided surface drainage is provided and at least 12 feet of width is available for vehicle passage.

2. Purchaser may reposition or ramp over slides and slough when the traveled way width is less than 12 feet providing the material is capable of supporting vehicles. Limit out slope to no more than six percent.

3. Reposition slough or slide materials on the roadbed which are not capable of supporting a vehicle to provide the 12 foot width. When directed by the Contracting Officer, slough or slide material will be removed under Section T-832.

C. Slumps and Washouts

1. Drain the roadbed immediately upgrade of slumps and longitudinal cracks to prevent water from entering slump area.

2. Slumps and longitudinal cracks at the edge of the roadbed shall not be considered a part of the usable width. Usable width may be reduced to 10 feet in the area of the slump.

3. Unless the Contracting Officer agrees to material being placed on slumps, ramp the slumps on both ends into undisturbed roadbed to provide at least 10 feet usable width. Use removed materials to guide vehicles to the ramp location or to aid in draining the area.

4. Washouts may be filled with suitable material.

D. Post haul

At the end of hauling or prior to entering into seasonal shutdowns or a period of extended inactivity:

1. Shape the traveled way and disturbed roadbed to provide functional drainage.

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-836 MAINTENANCE FOR LIMITED USE (CONTINUED)

2. Reinstall removed cross ditches and water bars and provide any additional drainage structures necessary to offset changes caused through use and maintenance.

3. Leave roads useable for high clearance vehicles. Remove or reshape purchaser modifications at road junctions to leave the entrance as it was before use, or as agreed at the time of improvement.

T-838 MAINTENANCE FOR HIGH CLEARANCE VEHICLE USE

838.01 Description

This work consists of making limited use roads passable for project use by Purchaser and providing drainage from the traveled way and roadbed.

838.02 Maintenance Requirements

A. Traveled Way

Purchaser may smooth or fill existing cross ditches and water bars and as approved by the Contracting Officer modify existing road junctions to enable vehicle access. The Purchaser may perform the following work prior to beginning haul and resumption of haul after an extended stoppage:

1. Remove brush, fallen trees, rocks, and other debris from traveled way, including turnouts, turnarounds, and other locations that interfere with needed maintenance as follows:

   a. No object extending over 4 inches above the road surface shall remain within the 12 feet usable traveled way. Center the usable width on the roadbed or position away from the fill slope.

   b. Cut and remove standing or down trees, logs, brush, and limbs from within the area described in 1(a). Remove encroaching limbs to a height of 14 feet above the traveled way surface. Scatter material not meeting utilization standards outside and below the roadbed on the fill side. Limb and remove timber that meets utilization standards or deck at locations approved by the Contracting Officer.

   c. Place all removed materials away from drainages.

   d. During use, maintain drainage structures including dips, ditches and culverts in a usable condition.

2. Clean and recondition drainage facilities in accordance with Section T-831 and T-834.

B. Slough and Slides

1. Slough and slides may be left in place, provided surface drainage is provided and at least 12 feet of width is available for vehicle passage.

2. Purchaser may reposition or ramp over slides and slough when the traveled way width is less than 12 feet providing the material is capable of supporting vehicles. Limit out slope to no more than six percent.

3. Reposition slough or slide materials, which are not capable of supporting a vehicle, on the roadbed to provide the 12 feet width. When directed by the Contracting Officer, slough or slide material will be removed under Section T-832.

C. Slumps and Washouts

1. Drain the roadbed immediately upgrade of slumps and longitudinal cracks to prevent water from entering slump area.

2. Slumps and longitudinal cracks at the edge of the roadbed shall not be considered a part of the usable width. Usable width may be reduced to 10 feet in the area of the slump.

3. Unless the Contracting Officer approves material being placed on slumps, ramp the slumps on both ends into undisturbed roadbed to provide at least 10 feet usable width. Use removed materials to guide vehicles to the ramp location or to aid in draining the area.

4. Washouts may be filled with suitable material.

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-838 MAINTENANCE FOR HIGH CLEARANCE VEHICLE USE (CONTINUED)

D. Post haul

At the end of hauling or prior to entering into seasonal shutdowns or a period of extended inactivity:

1. Shape the traveled way and disturbed roadbed to provide functional drainage.

2. Reinstall removed cross ditches and water bars and provide any additional drainage structures necessary to offset changes caused through use and maintenance.

3. Leave roads useable for high clearance vehicles. Remove or reshape purchaser modifications at road junctions to leave the entrance as it was before use, or as agreed at the time of improvement.

T-839 MAINTENANCE FOR PROJECT USE

839.01 Description

Work consists of providing minimum access required for Purchaser's Operations and associated Forest Service contract administration and preventing unacceptable resource or road damage.

839.02 Maintenance Requirements

A. Purchaser is authorized to perform the following maintenance to provide vehicle passage and drainage:

1. Removing log, earth, and rock barriers and/or improving existing road junctions to enable vehicle access as mutually agreed.

2. Smoothing or filling existing cross ditches and water bars.

3. Installing Purchaser-furnished culverts or other temporary drainage structures for shallow stream crossings as approved by the Contracting Officer.

4. Removing brush, fallen trees, rocks, and other materials from the traveled way and other locations that interfere with needed maintenance:

   a. Place all removed materials away from drainages.

   b. Limb and remove timber which meets utilization standards or deck at locations approved by the Contracting Officer. Scatter other woodymaterials, including limbs, off of and below the roadbed without creating concentrations.

5. Clean and recondition drainage structures in accordance with Section T-831 and Section T-834.

6. Reposition or ramp over slough and slides to provide adequate width of traveled way material.

7. Provide traveled way drainage above slumps and seal cracks in slump area. Ramp the slumps on both ends into undisturbed roadbed to provide usable width unless otherwise ordered by the Contracting Officer.

B. During use, the traveled way shall not channel water along the road. Prior to seasonal periods of anticipated rains and runoff, perform the following work:

1. Shape the traveled way and roadbed to drain.

2. Reinstall removed cross ditches and water bars and provide any additional drainage structures necessary to offset changes through use and maintenance.

3. Perform work outlined in 839.02 A (5), (6), and (7).

4. During periods of non-use, replace original barrier or provide and maintain standard MUTCD, Type 3, barricades unless alternate type barriers are approved by the Contracting Officer.

839.03 Post Haul Requirements

A. Upon completion of project use perform such work as needed to reasonably conform to the character of the existing road prior to Purchaser's maintenance for project use, unless otherwise provided in the SUPPLEMENTAL SPECIFICATIONS or the Road Listing. Work shall be in addition to requirements of 839.02 B and in accordance with 839.03 B and C.

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-839 MAINTENANCE FOR PROJECT USE (CONTINUED)

B. Roads designated in the Road Listing to be blocked shall conform to the requirements of Section T-835. Unless otherwise approved by the Contracting Officer, remove Purchaser-installed temporary structures from National Forest System land. Associated commercially-obtained materials shall remain the property of the Purchaser.

C. Remove or reshape Purchaser improvements at road junctions, as approved by the Contracting Officer at the time of improvement.

T-842 CUTTING ROADWAY VEGETATION

842.01 Description

This work consists of cutting all vegetative growth, including trees and other vegetation less than 8 inches in diameter measured 6 inches above the ground, on roadway surfaces and roadsides.

842.02 Maintenance Requirements

A. General

1. Cut brush, trees, and other vegetation within each area treated to a maximum height of 6 inches above the ground surface or obstruction such as rocks or existing stumps. When work is performed under this Section, remove all limbs which extend into the treated area, or over the roadbed, to a height of 14 feet above the traveled way surface elevation.

2. Items to remain will be DESIGNATED ON THE GROUND.

3. Work may be performed either by hand or mechanically unless specifically shown in the Road Listing. Self-propelled equipment is not allowed on cut and fill slopes or in ditches.

4. Correct damage to trunks of standing trees caused by Purchaser's operation either by treatment with a commercial nursery sealer or by removing the tree as directed by the Contracting Officer.

5. Limb trees within the cutting limits which are over 8 inches -measured at 6 inches above the ground in lieu of cutting.

6. When trees are limbed, cut limbs within 4 inches of the trunk.

B. Cutting Side Vegetation

1. Show the width of vegetation to be removed in the Road Listing.

2. Unless otherwise included in the SUPPLEMENTAL SPECIFICATIONS or DESIGNATED ON THE GROUND:

   a. Commence work at the edge of the traveled way and proceed away from the road centerline.

   b. Roads without a defined traveled way: The starting point for cutting will be marked on the ground or defined in the SUPPLEMENTAL SPECIFICATIONS.

3. The points for establishing cutting limits are as follows:

   a. Fill and daylighted (wide roadbed) section cutting commences at the edge of the traveled way and proceeds away from the road center line.

   b. Drainage ditched section cutting commences at the bottom of the existing ditch and proceeds away from the road center line. Cutting on ditch foreslopes is not required.

   c. Unditched cut section cutting commences at the intersection of the cutbank and the roadbed and proceeds away from center line.

4. Provide transitions between differing increments of cutting width. Accomplish transitions in a taper length of not less than 50 feet nor more than 70 feet.

C. Debris

1. Materials resulting from the cutting operation in excess of 12 inches in length or 3 inches in diameter is not allowed to remain on roadway slopes within the treated area, in ditches, or within water courses.

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-842 CUTTING ROADWAY VEGETATION (CONTINUED)

2. Remove limbs and chunks in excess of 3 inches in any dimension from the traveled way and shoulders.

3. Materials may be scattered down slope from the roadbed, outside of the work area and drainages unless otherwise listed in D. Invasive Species of Concern.

D. Invasive Species of Concern

Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

Invasive Species of Concern Prevention Practices
NA

T-854 TREATMENT AND DISPOSAL OF DANGER TREES

854.01 Description

This work consists of felling and disposal of designated live or dead danger trees sufficiently tall to reach roads used by the Purchaser. Any removal of logs is subject to prior agreement between the Contracting Officer and the Purchaser.

854.02 Requirements

A. Designation of danger trees.

Danger trees to be felled will be designated in advance by the Contracting Officer. Trees to be removed will be Marked.

B. Falling, bucking and treatment for disposal.

Use controlled felling to ensure the direction of fall and prevent damage to property, structures, roadway, residual trees, and traffic. Stump heights, measured on the side adjacent to the highest ground, must not exceed 12 inches or 1/3 of the stump diameter, whichever is greater. Higher stump heights are permitted when necessary for safety.

Felled snags and trees, which are not Marked for removal, will be left in a stable condition such that they will not roll or slide. Position logs away from standing trees so they will not roll, are not on top of one another, and are located out of roadway and drainage structures.

Fell, limb and, remove trees, which are Marked for removal, that equal or exceed the utilization standards as listed in the Timber Sale contract or SUPPLEMENTATAL SPECIFICATIONS. Dispose of merchantable timber designated for removal in accordance with B/BT2.32

Construction Clearing, of the Timber Sale Contract, or as described in SUPPLEMENTAL SPECIFICATIONS.

C. Slash treatment.

Within the roadway, remove limbs, chunks, and debris in excess of 12 inches in length and 3 inches in diameter, and concentrations that may plug ditches or culverts, and water courses.

Dispose of slash by scattering outside the roadway limits without damaging trees, or improvements.

Large accumulations of slash may be ordered hauled under T-832.

T-891 WATER SUPPLY AND WATERING

891.01 Description

This work consists of providing facilities to furnish an adequate water supply, hauling and applying water.

891.02 Materials

T-SPECIFICATIONS PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS

T-891 WATER SUPPLY AND WATERING *(CONTINUED)*

If the Purchaser elects to provide water from other than designated sources, the Purchaser is responsible to obtain the right to use the water, including any cost for royalties involved.

Suitable and adequate water sources available for Purchaser's use under this contract are designated as follows: Forest Road 6000000 crossing of Lost Creek.

891.03 Equipment

A. Positive control of water application is required. Equipment shall provide uniform application of water without ponding or washing.

B. An air gap or positive anti-siphon device shall be provided between the water source and the vehicle being loaded if the vehicle has been used for other than water haul, if the source is a domestic potable water supply, or the water is used for tank mixing with any other materials.

C. The designated water sources may require some work prior to their use. Such work may include cleaning ponded areas, installing temporary weirs or sandbags, pipe repair, pump installation or other items appropriate to the Purchaser's operations. Flowing streams may be temporarily sandbagged or a weir placed to pond water, provided a minimum flow is maintained. Obtain approval from the Contracting Officer on improvements for sandbags or weirs prior to placement.

MANN THIN TIMBER SALE

Road Reconstruction

Mt Adams Ranger District

Gifford Pinchot National Forest

B.1- Schedule of Items: pages 1-2

B.2- Project Drawings: Sheets 1-5

B.3- Forest Service Supplemental Specifications: pages 1-58

Schedule of Items
Mann Thin Timber Sale
Mt. Adams Ranger District
Gifford Pinchot National Forest

BASE ITEMS:

Item No.	Description	Quantity	Pay Unit	Method of Measurement	Unit Cost	Total Cost	Remarks
15101	Mobilization	1	LS	LSQ	$5,000.00	$5,000.00	Includes all work needed to access sites. Cleaning of equipment is required under mobilization and section H.6 of the Contract.
	86 Road						
32211A	Minor aggregate, Grading A, Commercial Source, Compaction B MP 0.10-0.85	810	CY	AQ	$67.80	$54,918.00	
	8620 Road						
32211B	Minor aggregate, Grading A, Commercial Source, Compaction B MP 2.40-2.85	425	CY	AQ	$67.80	$28,815.00	
32211C	Minor aggregate, 2" minus, Mann Butte Pit, Compaction B MP 2.85-3.35	500	CY	AQ	$27.00	$13,500.00	
	8620051 Road						
30304A	Road Recondition, Ditchline MP 0.18	25	LF	AQ	$1.80	$45.00	
30304B	Road Recondition, Ditchline MP 0.18-0.24	317	LF	AQ	$1.80	$570.24	
30304C	Road Recondition, Ditchline MP 0.20	25	LF	AQ	$1.80	$45.00	
20402	Excavation, Cutslope, Compaction B, Finishing A MP 0.32-0.55	150	LF	AQ	$7.20	$1,080.00	
20412	Embankment Construction, Compaction B, Finishing A MP 0.36 & 0.43	40	CY	AQ	$29.70	$1,188.00	
	8620061 Road						
20418	Construct Ditch MP 0.14-0.18	211	LF	AQ	$1.80	$380.16	
32222A	Minor aggregate, 2-3" rock, Mann Butte Pit, Compaction B MP 0.16	30	CY	AQ	$27.00	$810.00	

Schedule of Items
Mann Thin Timber Sale
Mt. Adams Ranger District
Gifford Pinchot National Forest

BASE ITEMS:

Item No.	Description	Quantity	Pay Unit	Method of Measurement	Unit Cost	Total Cost	Remarks
30304D	Road Recondition, Ditchline MP 0.20-0.27	370	LF	AQ	$1.80	$665.28	
	8620751 Road						
32211D	Minor aggregate, 2" minus, Mann Butte Pit, Compaction B MP 0.11-0.13	30	CY	AQ	$27.00	$810.00	
32222B	Minor aggregate, 2-3" rock, Mann Butte Pit, Compaction B MP 0.26	20	CY	AQ	$27.00	$540.00	
					Total Cost	$108,366.68	

Sale Name: Mann Thin
Attachment B.2

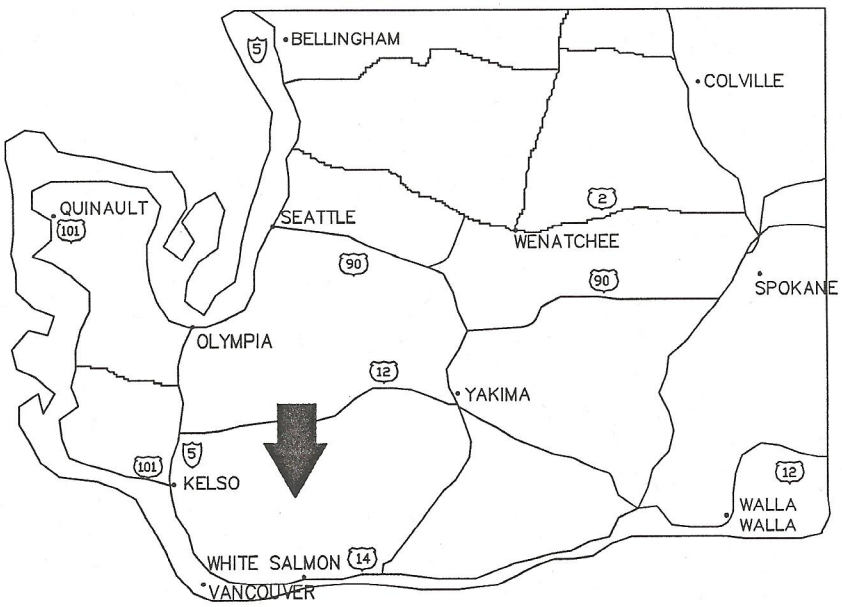
UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE – REGION SIX

GIFFORD PINCHOT NATIONAL FOREST

MT ADAMS RANGER DISTRICT

Mann Thin – 86, 8620, 8620051, 8620061 & 8620751 Road Reconstruction



KEY MAP OF WASHINGTON
SHOWING PROJECT LOCATION

INDEX TO SHEETS

1 – TITLE SHEET
2 – VICINITY MAP
3 – GENERAL NOTES
4 – WORKLIST
5 – ROAD STRUCTURE

DESIGNER – SUBMITTED BY:
KRISHNA LEPP
Digitally signed by KRISHNA LEPP
DN: c=US, o=U.S. Government, ou=Department of Agriculture, cn=KRISHNA LEPP, 0.9.2342.19200300.100.1.1=12001001164063
Date: 2015.12.18 15:25:56 -08'00'
NAME DATE

DISTRICT ENGINEER – RECOMMENDED BY:
MICHELLE ARNOULT
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ASST. FOREST ENGINEER – RECOMMENDED BY:
ELWOOD STARR
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DN: c=US, o=U.S. Government, ou=Department of Agriculture, cn=ELWOOD STARR, 0.9.2342.19200300.100.1.1=12001000081956
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FOREST ENGINEER – APPROVED BY:
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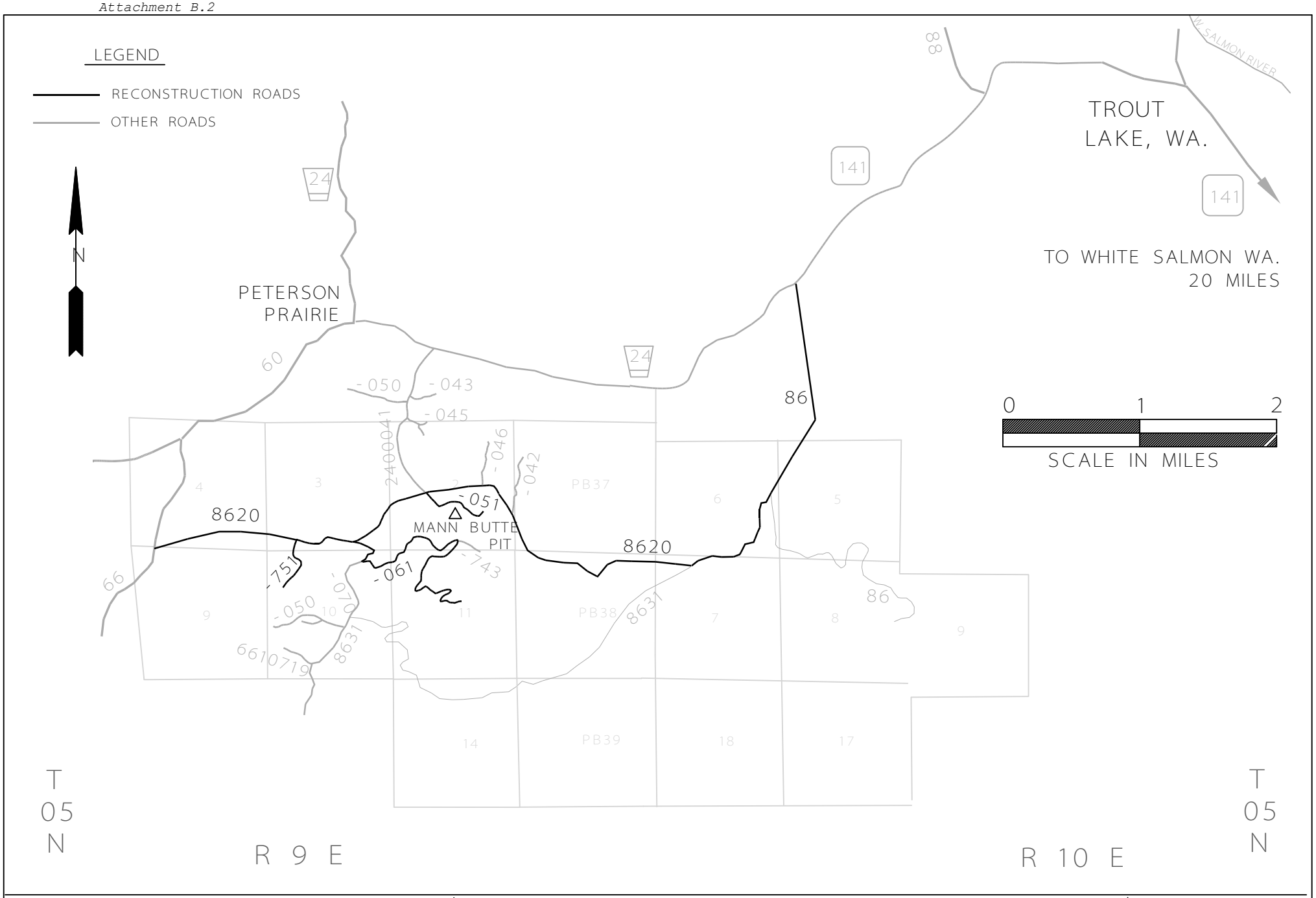


Mann Thin Vicinity Map	DEPARTMENT OF AGRICULTURE FOREST SERVICE GIFFORD PINCHOT NATIONAL FOREST	SHEET 2 OF 5

GENERAL NOTES

- THE MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN THE FOREST SERVICE AND THE WASHINGTON DEPT OF FISHERIES IS PART OF THIS CONTRACT. A COPY MUST BE ON THE PROJECT SITE DURING ALL CONSTRUCTION ACTIVITIES.
- ALL WORK IN OR NEAR WATER SOURCES SHALL COMPLY WITH THE REQUIREMENTS OF THE MOU.
- THE CONTRACTOR IS REQUIRED TO STAKE AND MARK ALL LIMITS OF WORK. THE ENGINEERING REPRESENTATIVE (E.R.) NEEDS TO APPROVE THE STAKING BEFORE CONSTRUCTION CAN PROCEED.
- MOBILIZATION INCLUDES ALL MOVEMENT OF EQUIPMENT AND MATERIAL TO THE PROJECT SITE.
- CLEANING EQUIPMENT AND OIL SPILL PREVENTION ARE REQUIREMENTS OF THE TIMBER SALE CONTRACT.
- CLEARING AND GRUBBING:
  - ALL TREES, LIMBS AND STUMPS WILL BE DISPOSED OF BY METHOD E.
- EXCAVATION:
  - EXCESS AND UNSUITABLE EXCAVATION MATERIAL SHALL BE DISPOSED OF AT MANN BUTTE PIT, IN A SPECIFIC LOCATION MARKED BY E.R. THE DISPOSAL SITE SHALL BE CLEARED AND GRUBBED BEFORE ANY MATERIAL IS PLACED. STOCKPILES SHALL BE LOCATED TO ENSURE EASY ACCESS BY TRUCKS AND LOADING EQUIPMENT. STOCKPILE SHALL BE CONSTRUCTED TO MINIMIZE HYDROLOGIC IMPACTS, BE STRUCTURALLY SOUND, CONTROL EROSION ON THE PILE SURFACE, AND ENHANCE THE SURVIVAL AND PROPAGATION OF VEGETATION.
  - LEVEL OFF HEAPS AS NECESSARY TO ALLOW FUTURE ACCESS FOR VEHICLES TO DUMP ON TOP OF PREVIOUSLY PLACED MATERIAL AND TO PRESENT A FINISHED APPEARANCE UPON COMPLETION.
- SEEDING AND MULCHING:
  - ALL DISTURBED AREAS NOT PART OF THE ROADWAY SHALL BE SEEDED AND MULCHED INCLUDING BORROW AND EXCESS DISPOSAL SITES, TEMPORARY STORAGE SITES AND STAGING AREAS.
    - THE GOVERNMENT WILL FURNISH SEED TO THE PURCHASER.
    - SEED AND MULCH SHALL ONLY BE APPLIED DURING FAVORABLE CONDITIONS.
    - MULCH SHALL BE APPLIED AT THE RATE OF APPROXIMATELY 2 TONS PER ACRE.

Mann Thin - Work List

Perform work listed below:

86 Rd.

mp 0.10 – 0.79 Haul aggregate, Grading A, from Commercial Source – Place, Shape & Compact 6" deep aggregate surfacing x 12' wide (810 CY)

8620 Rd.

mp 2.40 – 2.85 Haul aggregate, Grading A, from Commercial Source – Place, Shape & Compact 6" deep aggregate surfacing x 10' wide (425 CY)

mp 2.85 – 3.35 Haul 2" minus aggregate from Mann Butte Pit– Place, Shape & Compact 6" deep aggregate surfacing x 10' wide (500 CY)

8620051

mp 0.18 Recondition ditch leadout to properly direct water in ditch off the road

0.18 – 0.24 Recondition ditch

0.20 Recondition ditch leadout, *same as above*

0.32 – 0.55 Repair small slumps in the road as flagged by Forest Service (F.S.) at specific locations. Widen road by cutting up to 3' horizontally into the existing cutslope, and laying back the newly disturbed slope as much as surrounding undisturbed slope allows (to avoid future erosion). No ditch at base of cutslope on this section of road

0.36 Construct embankment where the road has slumped/sagged. Haul, place, shape and compact 20 CY of predominantly 2" – 3" rock from Mann Butte Pit (embankment foundation may contain up to 12" size rocks, as long as they are few in number, and are spaced far apart)

0.43 Construct embankment, same as above. Haul, place, shape & compact (20 CY)

8620061

mp 0.14 – 0.18 Construct ditch on right side of road, in accordance with typical ditch cross-section on Sheet 5

0.16 Repair slump, as staked by F.S. Haul 2" – 3" rock from Mann Butte Pit – Place, Shape & Compact (30 CY)

0.20 clean inlet/ inlet basin & outlet of 18" steel culvert

0.20 – 0.27 Recondition ditch on left side of road above culvert

8620751

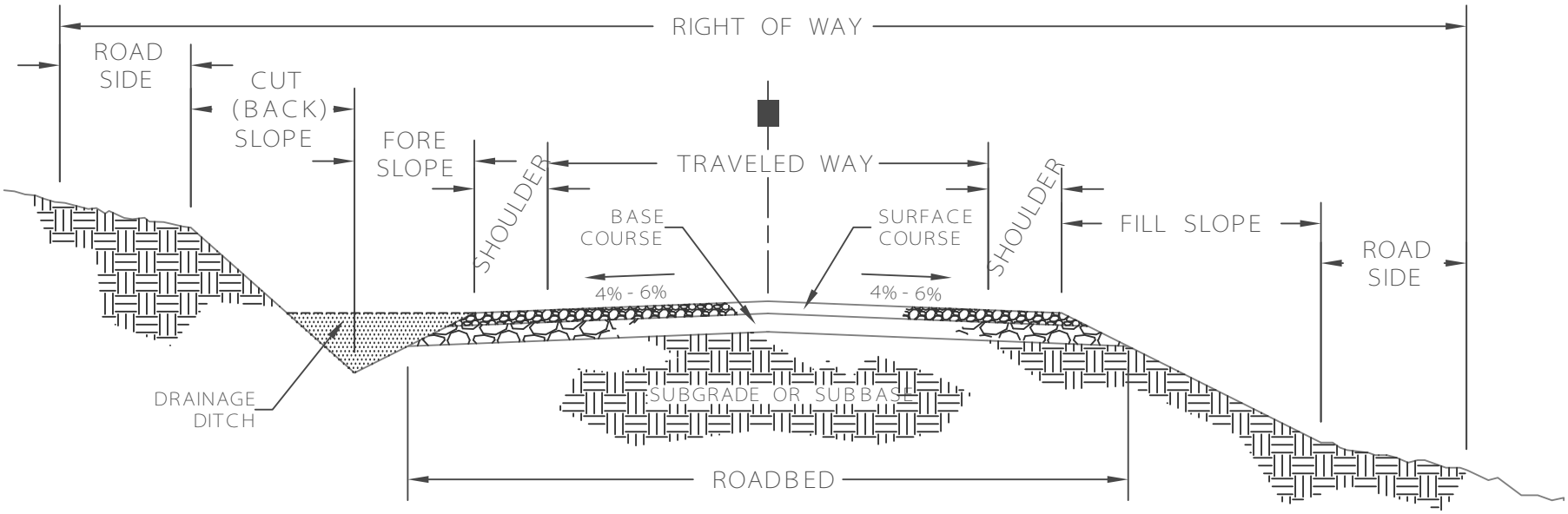
mp 0.11 – 0.13 Haul 2" minus aggregate from Mann Butte– Place, Shape & Compact 6" deep aggregate surfacing x 10 wide (30 CY)

0.26 Haul 2" – 3" rock from Mann Butte Pit – Place, Shape & Compact (20 CY)

Notes-

1. Aggregate quantity is measured compacted in-place on road.
2. Provide traffic control plan for approval by F.S.- see Specification 156.
3. See road maintenance provisions for other road related work.

881-1 ROAD STRUCTURE TERMS



NOTE:

1. TURNOUTS ARE INCLUDED IN THE TRAVELED WAY.
2. DITCH INCLUDES FORE SLOPE, BACK SLOPE TO DITCH DEPTH, AND BOTTOM WHEN PRESENT.
3. FORE SLOPE OF DITCH TO BE 1V:3H AND MAY BE STEEPER WITH ER APPROVAL.
4. DITCH DEPTH 1' MIN. AS MEASURED FROM THE SURFACE OF THE SHOULDER EDGE.
5. INSLOPE OR OUTSLOPE IN THROUGH CUT CONDITION.

Mann Thin	DEPARTMENT OF AGRICULTURE FOREST SERVICE GIFFORD PINCHOT NATIONAL FOREST	SHEET 5 OF 5

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Preface

Preface_wo_03_15_2004_m

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-03 for construction of National Forest System Roads.

101 - Terms, Format, and Definitions

101.00_nat_us_07_25_2005

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the TAR (Transportation Acquisition Regulations) in the specifications.

101.03_nat_us_06_16_2006

101.03 Abbreviations.

Add the following to (a) Acronyms:

AFPA	American Forest and Paper Association
MSHA	Mine Safety and Health Administration
NIST	National Institute of Standards and Technology
NESC	National Electrical Safety Code
WCLIB	West Coast Lumber Inspection Bureau

.

Add the following to (b) SI symbols:

mp	Milepost
ppm	Part Per Million

101.04_nat_us_03_29_2007

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

Contractor--The individual or legal entity contracting with the Government for performance of prescribed work. In a timber sale contract, the contractor is the “purchaser”.

Culvert--No definition.

Right-of-Way--A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse public or private lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Add the following:

Adjustment in Contract Price--"Equitable adjustment," as used in the Federal Acquisition Regulations, or "construction cost adjustment," as used in the Timber Sale Contract, as applicable.

Change--"Change" means "change order" as used in the Federal Acquisition Regulations, or "design change" as used in the Timber Sale Contract.

Design Quantity--"Design quantity" is a Forest Service method of measurement from the FS-96 *Forest Service Specifications for the Construction of Roads and Bridges.* Under these FP specifications this term is replaced by the term "Contract Quantities".

Forest Service--The United States of America, acting through the Forest Service, U.S. Department of Agriculture.

Neat Line--A line defining the proposed or specified limits of an excavation or structure.

Pioneer Road--Temporary construction access built along the route of the project.

Purchaser--The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through agents, employees, or subcontractors.

Protected Streamcourse--A drainage shown on the plans or timber sale area map that requires designated mitigation measures.

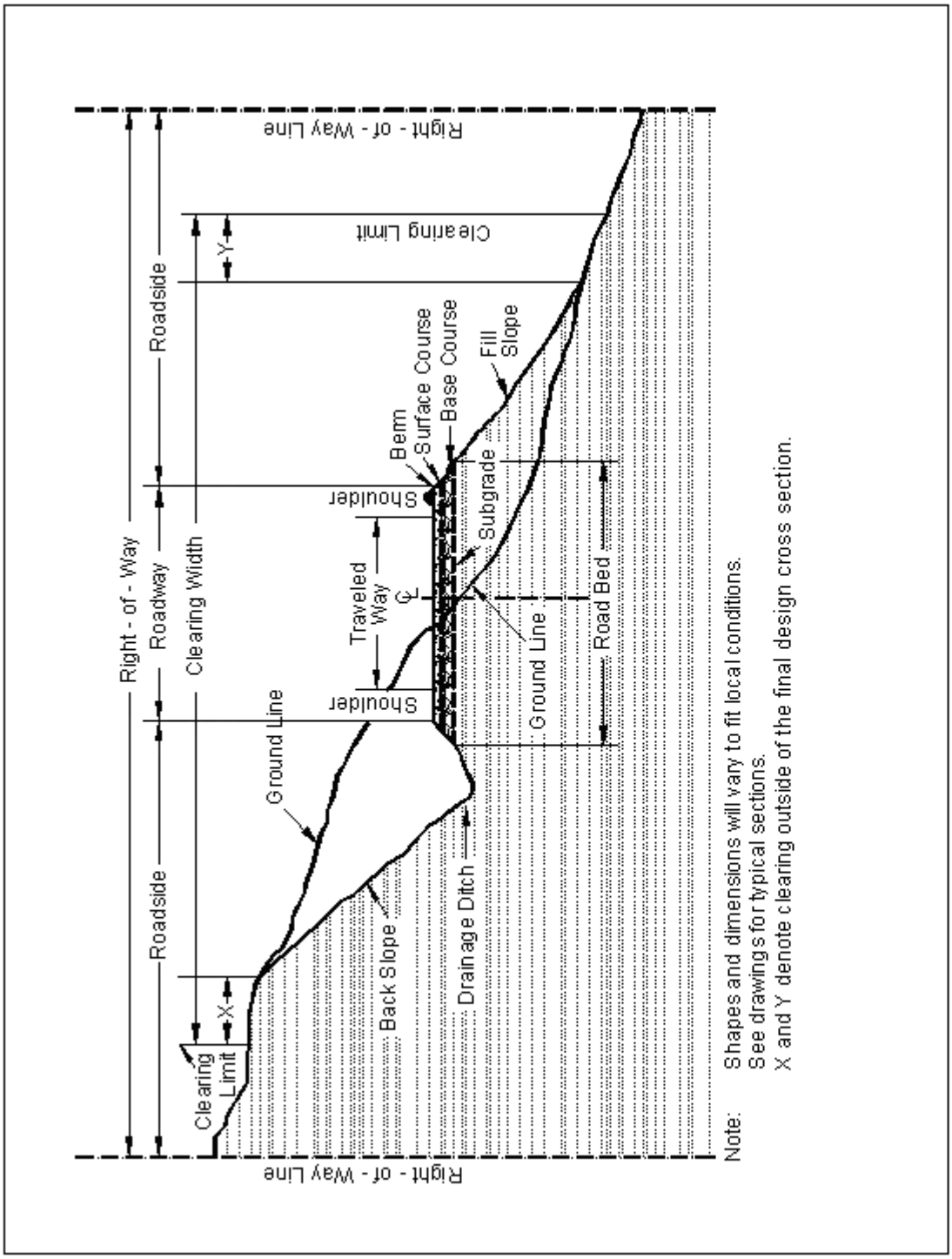
Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

Schedule of Items--A schedule in the contract that contains a listing and description of construction items, quantities, units of measure, unit price, and amount.

Utilization Standards--The minimum size and percent soundness of trees described in the specifications to determine merchantable timber.

Add Figure 101-1—Illustration of road structure terms:

Figure 101-1—Illustration of road structure terms.



102 - Bid, Award, and Execution of Contract

102.00_nat_us_02_16_2005

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

103 - Scope of Work

103.00_nat_us_02_16_2005

Deletions

Delete all but subsection 103.01 Intent of Contract.

104 - Control of Work

104.00_nat_us_06_16_2006

Deletions

Delete Sections 104.01, 104.02, and 104.04.

104.06_nat_us_02_17_2005

Add the following subsection:

104.06 Use of Roads by Contractor

The Contractor is authorized to use roads under the jurisdiction of the Forest Service for all activities necessary to complete this contract, subject to the limitations and authorizations designated in the Road Order(s) or described in the contract, when such use will not damage the roads or national forest resources, and when traffic can be accommodated safely.

105 - Control of Material

105.02_nat_us_01_18_2007

105.02 Material Sources.

105.02(a) Government-provided sources.

Add the following:

Comply with the requirements of 30 CFR 56, subparts B and H. Use all suitable material for aggregate regardless of size unless otherwise designated. When required, re-establish vegetation in disturbed areas according to section 625.

105.05_nat_us_05_12_2004

105.05 Use of Material Found in the Work.

Delete 105.05 (a) and (b) and the last sentence of the second paragraph and substitute the following:

Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

106 - Acceptance of Work

106.07_nat_us_05_11_2004

106.07 Delete

Delete subsection 106.07.

107 - Legal Relations and Responsibility to the Public

107.05_nat_us_05_11_2004

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06_nat_us_06_16_2006

107.06 Contractor's Responsibility for Work.

Delete the following from the first paragraph.

"except as provided in Subsection 106.07".

107.09_nat_us_06_16_2006

107.09 Legal Relationship of the Parties.

Delete the entire subsection.

107.10_nat_us_06_16_2006

107.10 Environmental Protection.

Add the following:

Design and locate equipment repair shops, stationary refueling sites, or other facilities to minimize the potential and impacts of hazardous material spills on Government land.

Before beginning any work, submit a Hazardous Spill Plan. List actions to be taken in the event of a spill. Incorporate preventive measures to be taken, such as the location of mobile refueling facilities, storage and handling of hazardous materials, and similar information. Immediately notify the CO of all hazardous material spills. Provide a written narrative report form no later than 24 hours after the initial report and include the following:

- Description of the item spilled (including identity, quantity, manifest number, and other identifying information).
- Whether amount spilled is EPA or state reportable, and if so whether it was reported, and to whom.
- Exact time and location of spill including a description of the area involved.
- Containment procedures.
- Summary of any communications the Contractor had with news media, Federal, state and local regulatory agencies and officials, or Forest Service officials.
- Description of clean-up procedures employed or to be employed at the site including final disposition and disposal location of spill residue.

When available provide copies of all spill related clean up and closure documentation and correspondence from regulatory agencies.

The Contractor is solely responsible for all spills or leaks that occur during the performance of this contract. Clean up spills or leaks to the satisfaction of the CO and in a manner that complies with Federal, state, and local laws and regulations.

108 - Prosecution and Progress

108.00_nat_us_02_16_2005

108 Delete.

Delete Section 108 in its entirety.

109 - Measurement and Payment

109.00_nat_us_02_17_2005

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.

109.07 Eliminated Work.

109.08 Progress Payments.

109.09 Final Payment.

109.02_nat_us_06_16_2006

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

Contract quantities will be adjusted only when there are errors in the original design of 15% or more.

Change the following:

"(b) Cubic yard" to "(c) Cubic yard".

Add the following definition:

(p) Thousand Board Feet (Mbf). 1,000 board feet based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminated timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.

152 - Construction Survey and Staking

152.00_nat_us_08_05_2005

Description

152.01(c) Material.

Add the following:

Use required stake dimensions and materials. Pre-paint the top 2 inches of all stakes and lath, or mark them with plastic flagging. Use designated colors for paint or flagging. Mark all stakes with a stake pencil that leaves a legible imprint, or with waterproof ink.

Do not use aerosol spray paints.

Use moisture-resistant paper for survey notes. Keep notes in books with covers that will protect the contents and retain the pages in numerical sequence.

Construction Requirements

152.02 General.

Delete the first two sentences.

Add the following:

When indicated on the plans, a preliminary survey line has been established on the ground. The project location line is established by offsets from this preliminary line.

Delete second sentence in second paragraph and replace with the following:

Reestablish missing reference, control lines, or stakes as necessary to control subsequent construction staking operations

152.03 Survey and Staking Requirements.

(b) Roadway cross-sections.

Replace the first two sentences with the following:

Take roadway cross-sections normal to centerline. When the centerline curve radius is less than or equal to 200 feet, take cross-sections at a maximum centerline spacing of 25 feet. When the centerline curve radius is greater than 200 feet take cross-sections at a maximum centerline spacing of 80 feet.

c) Slope Stakes & References:

Replace section with the following:

Slope stakes and references. When required, locate slope stakes on designated portions of the road. Locate the slope stake catch points and use them to establish clearing limits and slope stake references.

Mark slope stakes with the station, the amount of cut or fill, the horizontal distance to centerline, and the slope ratios.

Place slope reference stakes at least 10 feet outside the clearing limit and mark with the offset distance to the slope stake. Place sight stakes when required.

Prior to clearing and grubbing operations, move the slope stake outside the clearing limit to the slope reference stake. After clearing and grubbing and before excavation, reset the slope stakes in their original position.

Use the designated method to establish the slope stake catchpoint.

- **Method I**—Computed Method. Use the template information shown in the plans or other Government-provided data to calculate the actual location of the catchpoint. The slope stake "catchpoint distance" provided may be used as a trial location to initiate slope staking. Recatch slope stakes on any section that does not match the staking report within the tolerances established in Table 152-2.
- **Method II**—Catchpoint Measurement Method. Determine the location of slope stake catchpoints by measuring the catchpoint distances shown in the plans or other Government-provided data.

(d) Clearing and grubbing limits.

Add the following:

Establish clearing limits on each side of the location line by measuring the required horizontal or slope distances shown in the stake notes. Mark the clearing limits with flagging or tags on trees to be left standing, or on lath. Make markings intervisible, and no more than 90 feet apart.

After establishing clearing limits, move the location line stake outside the clearing limits for station identification purposes, and mark it with horizontal distance to location line

(e) Centerline reestablishment.

Replace with the following:

Reestablish centerline from instrument control points. The maximum spacing between centerline points is 25 feet when the centerline curve radius is less than or equal to 200 feet. When the centerline curve radius is greater than 200 feet, the maximum distance between centerline points is 80 feet.

(g) Culverts.

Replace subsection with the following:

Set culvert reference stakes at all culvert locations. Set a culvert reference stake on the centerline of the culvert 10 feet from each end or beyond the clearing limit, whichever is greater. Record the following on culvert reference stakes:

(1) Diameter, actual field measured length, and type of culvert.

(2) The vertical and horizontal distance from the reference stake to the invert at the ends of the culvert.

(3) Station of actual point where culvert intersects centerline.

When required, stake headwall for culverts by setting a hub with a guard stake on each side of the culvert on line with the face of the headwall. Perform this work after clearing is completed.

152.03 (l) Miscellaneous Survey and Staking.

Add the following:

(11) Cattleguards

(12) Drain Dips

(13) Erosion Control Measures

Replace Table 152-1 with the following two tables:

Table 152-1 Tolerances for reestablishing P-line, traverse, and elevations.

Precision Class	Minimum Position Closure	Angular Accuracy (±)	L-Line Tangent Control Points[a] (±)	Vertical Closure[b] (±)
A (Bridges)	1/10,000	2 sets, direct/reverse 10 second rejection limit	N/A	0.02 ft or 0.02ft/1000ft[c]
B	1/5,000	2 sets, direct/reverse 20 second rejection limit	0.1 ft	0.02 ft or 0.02ft/1000ft[c]
C	1/1,000	1 set, direct/reverse 1 minute rejection limit	0.2 ft	0.5ft/1000ft[c]
D	1/300	Foresight and backsight; 15 minute rejection limit[c]	0.4 ft	1.0ft/1000ft[c]
E	1/100	Foresight and backsight; 30 minute rejection limit[c]	0.8 ft	1.0ft/1000ft[c]

a. Accuracy of offset measurement.

b. Determine vertical closures at intervals not to exceed 2000 ft as measured along centerline.

c. Use greater value.

Table 152-2 Cross section and slope stake tolerances.

Item	Tolerances				
	A	B	C	D	E
Allowable deviation of cross-section line projection from a true perpendicular to tangents, a true bisector of angle points, or a true radius of curves	(±)2°	(±)3°	(±)3°	(±)5°	(±)5°
Take cross-sections topography measurements so that variations in ground from a straight line connecting the cross-section points will not exceed	0.5 ft	1.0 ft	2.0 ft	2.0 ft	3.0 ft
Horizontal and vertical accuracy for cross-sections, in feet or percentage of horizontal distance measured from traverse line, whichever is greater.	0.1 ft or 0.4%	0.15 ft or 0.6%	0.2 ft or 1.0%	0.2 ft or 1.0%	0.3 ft or 1.0%
Horizontal and vertical accuracy for slope stake, slope stake references, and clearing limits. In feet or percentage of horizontal distance measured from centerline or reference stake, whichever is greater.					
Slope reference stakes and slope stakes.	0.1 ft or 0.4%	0.15 ft or 0.6%	0.2 ft or 1.0%	0.2 ft or 1.0%	0.3 ft or 1.0%
Clearing limits	1.0 ft	1.0 ft	1.0 ft	1.5 ft	2.5 ft

153 - Contractor Quality Control

153.02_nat_us_02_17_2005

153.02 Contractor Quality Control Plan.

Add the following:

Submit written proposals for approval of alternate AASHTO or State approved test methods. Alternate methods may be allowed based on documented equivalence to the specified method.

153.04_nat_us_10_24_2007

153.04 Records.

Delete all but the first sentence

155 - Schedules for Construction Contracts

155.00_nat_us_05_11_2004

155 Delete.

Delete Section 155 in its entirety.

156 - Public Traffic

156.03_nat_us_02_24_2005

156.03 Accommodating Traffic During Work.

Delete the following from the last paragraph:

according to Subsection 106.07(b)

156.04_nat_us_02_24_2005

156.04 Maintaining Roadways During Work.

(a) Add the following:

Do not construct detours outside of the clearing limits or use alternate route detours without the approval of the CO.

156.08_nat_us_02_24_2005

156.08 Traffic and Safety Supervisor.

Delete this subsection in its entirety.

157 - Soil Erosion Control

157.03_nat_us_02_24_2005

157.03 General

Delete the entire subsection and replace with the following:

Prior to the start of construction, submit a written plan that provides permanent and temporary erosion control measures to minimize erosion and sedimentation during and after construction. Do not begin work until the necessary controls for that particular phase of work have been implemented. Do not modify the type, size, or location of any control. An alternate erosion control plan with all necessary permits may be submitted 30 days before intended use.

Incorporate all permanent erosion control features into the project at the earliest practicable time, as outlined in the approved plan.

When erosion control measures are not functioning as intended, immediately take corrective action.

171 - Weed and Disease Prevention

171.00_nat_us_03_30_2005

Description

171.01 This work consists of washing and treating construction equipment to remove seeds, plants, and plant fragments from the equipment before the equipment is used on National Forest System lands.

Material

171.02 Conform to the following Subsection:

Water	725.01

Construction Requirements

171.03 General . Notify the CO in writing at least 15 days before moving any construction equipment onto National Forest System lands. Construction equipment does not include cars, pickup trucks, and other vehicles that regularly travel between the construction site and areas outside of National Forest System lands.

Perform all work at a location designated on the plans or other locations approved in writing. Provide the CO with an opportunity to monitor the washing and inspection.

171.04 Equipment. Use a high pressure washing system.

For work on National Forest System lands, use a washing system that traps all wash water and either stores it for removal from National Forest System lands or recycles the water for continued

use. If the equipment recycles the water, provide adequate filters for seed removal. Dispose of the filter material and removed seeds in an approved manner. Do not mix soaps, detergents, or other chemicals with the wash water.

For work at a commercial washing facility, use an approved facility.

171.05 Washing. Wash the sides, tops, and undercarriages of all construction equipment. Remove all seeds, plants, plant fragments, dirt, and debris from the construction equipment.

171.06 Inspection. Inspect the washed construction equipment, including the undercarriage, to ensure that the washing removed the dirt, debris, and seeds from the construction equipment. Rewash the construction equipment as necessary or as directed.

171.07 Acceptance. Weed prevention will be evaluated under Subsection 106.02.

Measurement

171.08 Do not measure weed prevention for payment.

Payment

171.09 Include all costs associated with the Section 171-Weed Prevention in the unit price for Section 151-Mobilization.

201 - Clearing and Grubbing

201.01_nat_us_02_18_2005

201.01 Description

Replace with the following

This work consists of clearing and grubbing within clearing limits and other designated areas.

201.04_nat_us_02_22_2005

201.04 Clearing. (c)

Delete paragraph (c) and replace with the following:

(c) In areas outside the excavation, embankment, and slope rounding limits, cut stumps to within 12 inches or one-third of the stump diameter of the ground, whichever is higher, measured on the side adjacent to the highest ground. For timber sales, stump heights will meet the requirements of the Timber Sale contract.

201.04 Clearing.

Delete subsection (d) and replace with the following:

(d) Do not cut vegetation less than 3 feet tall and less than 3 inches in diameter, that is within the clearing limits but beyond the roadway and not in a decking area, and that does not interfere with sight distance along the road.

Add the following:

(e) Trim branches of remaining trees or shrubs to give a clear height of 14 feet above the roadbed unless otherwise indicated. Trim tree limbs as near flush with the trunk as practicable.

(f) Remove brush from log decks. Deck logs so that logs are piled parallel to one another; can be removed by standard log loading equipment; will not damage standing trees; will not interfere with drainage, and will not roll. Keep logs in log decks free of brush and soil.

203 - Removal of Structures and Obstructions

203.01_nat_us_02_25_2005

203.01 Description.

Delete and replace with the following:

This work consists of disposing of construction slash and debris, salvaging, removing, and disposing of buildings, fences, structures, pavements, culverts, utilities, curbs, sidewalks, and other obstructions.

203.04_nat_us_02_18_2005

203.04 Removing Material.

Replace the fourth and fifth paragraphs with the following:

Where part of an existing culvert is removed, remove the entire culvert upstream from the removal. The remaining downstream culvert may be left in place if no portion of the culvert is within 12 inches of the subgrade, embankment slope, or new culvert or structure; and the culvert ends are sealed with concrete.

Remove structures and obstructions in the roadbed to 12 inches below subgrade elevation. Remove structures and obstructions outside the roadbed to 12 inches below finished ground or to the natural stream bottom.

203.05_nat_us_02_24_2005

203.05 Disposing of Material.

Add the following:

(e): Scattering. Scatter pieces of wood less than 3 inches in diameter and 3 feet in length within the clearing limits. Do not place construction slash in lakes, meadows, streams, or streambeds. Immediately remove construction slash that interferes with drainage structures.

203.08_nat_us_02_24_2005

203.08 Payment

Add the following:

Disposal of construction slash will be compensated under the designated pay item in Section 201.

204 - Excavation and Embankment

204.00_nat_us_03_26_2009

Replace Section 204 in its entirety with the following:

Description

204.01 This work consists of excavating material and constructing embankments. This includes furnishing, hauling, stockpiling, placing, disposing, sloping, shaping, compacting, and finishing earthen and rocky material.

204.02 Definitions.

(a) Excavation. Excavation consists of the following:

(1) Roadway excavation. All material excavated from within the right-of-way or easement areas, except subexcavation covered in (2) below and structure excavation covered in Sections 208 and 209. Roadway excavation includes all material encountered regardless of its nature or characteristics.

(2) Subexcavation. Material excavated from below subgrade elevation in cut sections or from below the original groundline in embankment sections. Subexcavation does not include the work required by Subsections 204.05, 204.06(b), and 204.06(c).

(3) Borrow excavation. Material used for embankment construction that is obtained from outside the roadway prism. Borrow excavation includes unclassified borrow, select borrow, and select topping.

(b) Embankment construction. Embankment construction consists of placing and compacting roadway or borrow excavation. This work includes:

(1) Preparing foundation for embankment;
(2) Constructing roadway embankments;
(3) Benching for side-hill embankments;
(4) Constructing dikes, ramps, mounds, and berms; and
(5) Backfilling subexcavated areas, holes, pits, and other depressions.

(c) Conserved topsoil. Excavated material conserved from the roadway excavation and embankment foundation areas that is suitable for growth of grass, cover crops, or native vegetation.

(d) Waste. Excess and unsuitable roadway excavation and subexcavation that cannot be used.

Material

204.03 Conform to the following Subsections:

Backfill material	704.03
Select borrow	704.07
Select topping	704.08
Topping	704.05
Unclassified borrow	704.06
Water	725.01

Construction Requirements

204.04 Preparation for Roadway Excavation and Embankment Construction. Clear the area of vegetation and obstructions according to Sections 201 and 203.

204.05 Reserved.

204.06 Roadway Excavation. Excavate as follows:

(a) General. Do not disturb material and vegetation outside the construction limits. Incorporate only suitable material into embankments. Replace any shortage of suitable material caused by premature disposal of roadway excavation. Dispose of unsuitable or excess excavation material according to Subsection 204.14.

At the end of each day's operations, shape to drain and compact the work area to a uniform cross-section. Eliminate all ruts and low spots that could hold water.

Retrieve material deposited outside of the clearing limits as directed by the CO. Place unsuitable material in designated areas.

(b) Rock cuts. Blast rock according to Section 205. Excavate rock cuts to 6 inches below subgrade within the roadbed limits. Backfill to subgrade with topping or with other suitable material. Compact the material according to Subsection 204.11

(c) Earth cuts. Scarify earth cuts to 6 inches below subgrade within the roadbed limits. Compact the scarified material according to Subsection 204.11.

(d) Pioneer Roads. Road pioneering, slash disposal, and grubbing of stumps may proceed concurrently with excavation. Conduct excavation and placement operations so material to be treated under Section 201 will not be incorporated into the roadway unless specified in the slash treatment method. Maintain drainage during pioneering operations.

Remove snow and ice in advance of the work and deposit beyond the roadway limits in a manner that will not waste material or generate sediment. Do not incorporate snow and ice into embankments. Place snow or ice in a manner to prevent resource damage.

204.07 Subexcavation. Excavate material to the limits designated by the CO. Take cross-sections according to Section 152. Prevent unsuitable material from becoming mixed with the backfill. Dispose of unsuitable material according to Subsection 204.14. Backfill the subexcavation with topping, or other suitable material. Compact the material according to Subsection 204.11.

204.08 Borrow Excavation. Use all suitable roadway excavation in embankment construction. Do not use borrow excavation when it results in excess roadway excavation. Deduct excess borrow excavation from the appropriate borrow excavation quantity.

Obtain borrow source acceptance according to Subsection 105.02. Develop and restore borrow sources according to Subsection 105.03. Do not excavate beyond the established limits. When applicable, shape the borrow source to permit accurate measurements when excavation is complete.

204.09 Preparing Foundation for Embankment Construction. Prepare foundation for embankment construction as follows:

(a) Embankment less than 4 feet high over natural ground. When designated, remove topsoil and break up the ground surface to a minimum depth of 6 inches by plowing or scarifying. Compact the ground surface according to Subsection 204.11.

(b) Embankments over an existing asphalt, concrete, or gravel road surface. Scarify gravel roads to a minimum depth of 6 inches. Scarify or pulverize asphalt and concrete roads to 6 inches below the pavement. Reduce all particles to a maximum size of 6 inches and produce a uniform material. Compact the surface according to Subsection 204.11.

(c) Embankment across ground not capable of supporting equipment. Dump successive loads of embankment material in a uniformly distributed layer to construct the lower portion of the embankment. Limit the layer thickness to the minimum depth necessary to support the equipment.

(d) Embankment on an existing slope steeper than 1V:3H. Cut horizontal benches in the existing slope to a sufficient width to accommodate placement and compaction operations and equipment. Bench the slope as the embankment is placed and compacted in layers. Begin each bench at the intersection of the original ground and the vertical cut of the previous bench.

204.10 Embankment Construction. Incorporate only suitable roadway excavation material into the embankment. When the supply of suitable roadway excavation is exhausted, furnish unclassified borrow to complete the embankment. Obtain written approval before beginning construction of embankments over 6 feet high at subgrade centerline. Construct embankments as follows:

(a) General. At the end of each day's operations, shape to drain and compact the embankment surface to a uniform cross-section. Eliminate all ruts and low spots that could hold water.

During all stages of construction, route and distribute hauling and leveling equipment over the width and length of each layer of material.

Compact embankment side slopes flatter than 1V:1.75H with a tamping type roller or by walking with a dozer. For slopes 1V:1.75H or steeper, compact the slopes as construction of the embankment progresses.

Where placing embankment on one side of abutments, wing walls, piers, or culvert headwalls, compact the material using methods that prevent excessive pressure against the structure.

Where placing embankment material on both sides of a concrete wall or box structure, conduct operations so compacted embankment material is at the same elevation on both sides of the structure.

Where structural pilings are placed in embankment locations, limit the maximum particle size to 4 inches.

(b) Embankment within the roadway prism. Place embankment material in horizontal layers not exceeding 12 inches in compacted thickness. Incorporate oversize boulders or rock fragments into the 12-inch layers by reducing them in size or placing them individually as required by (c) below. Compact each layer according to Subsection 204.11 before placing the next layer.

Material composed predominately of boulders or rock fragments too large for 12-inch layers may be placed in layers up to 24 inches thick. Incorporate oversize boulders or rock fragments into the 24-inch layer by reducing them in size or placing them individually according to (c) below. Place sufficient earth and smaller rocks to fill the voids. Compact each layer according to Subsection 204.11 before placing the next layer.

(c) Individual rock fragments and boulders. Place individual rock fragments and boulders greater than 24 inches in diameter as follows:

(1) Reduce rock to less than 48 inches in the largest dimension.
(2) Distribute rock within the embankment to prevent nesting.
(3) Place layers of embankment material around each rock to a depth not greater than that permitted by (b) above. Fill all the voids between rocks.
(4) Compact each layer according to Subsection 204.11 before placing the next layer.

(d) Embankment outside of roadway prism. Where placing embankment outside the staked roadway prism, place material in horizontal layers not exceeding 24 inches in compacted thickness. Compact each layer according to Subsection 204.11.

204.11 Compaction. Compact the embankment using one of the following methods as specified:

(a) <u>Compaction A.</u> Use AASHTO T 27 to determine the amount of material retained on a Number 4 sieve. If there is more than 80 percent retained on the No. 4 sieve use procedure (1). If there is 50 to 80 percent retained on the No. 4 sieve use procedure (2). If there is less than 50 percent retained on the No. 4 sieve use procedure (3).

(1) Adjust the moisture content to a level suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Use compression-type rollers at speeds

less than 6feet per second and vibratory rollers at speeds less than 3 feet per second. Compact each layer of material full width with one of the following and until there is no visible evidence of further consolidation.

(a) Four roller passes of a vibratory roller having a minimum dynamic force of 40,000 pounds impact per vibration and a minimum frequency of 1000 vibrations per minute.
(b) Eight roller passes of a 20-ton compression-type roller.
(c) Eight roller passes of a vibratory roller having a minimum dynamic force of 30,000 pounds impact per vibration and a minimum frequency of 1000 vibrations per minute.

Increase the compactive effort for layers deeper than 12 inches as follows:

- For each additional 6 inches or fraction thereof, increase the number of roller passes in (a) above by four passes.
- For each additional 6 inches or fraction thereof, increase the number of roller passes in (b) and (c) above, by eight passes.

(2) Use AASHTO T 99 to determine the optimum moisture content of the portion of the material passing a No. 4 sieve. Multiply this number by the percentage of material passing a No. 4 sieve, and add 2 percent to determine the optimum moisture content of the material. Adjust the moisture content of material classified A-1 through A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content.

Use compression-type rollers at speeds less than 6 feet per second and vibratory rollers at speeds less than 3 feet per second. Compact each layer of material full width according to (1) above.

(3) Classify the material according to AASHTO M 145. For material classified A-1 or A-2-4, determine the maximum density according to AASHTO T 180, method D. For other material classifications, determine the optimum moisture content and maximum density according to AASHTO T 99, method C.

Adjust the moisture content of material classified A-1 through A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content.

Use compression-type or vibratory rollers. Compact each layer of material full width to at least 95 percent of the maximum density. Determine the in-place density and moisture content according to AASHTO T 310 or other approved test procedures. When required, use AASHTO T 224 to correct for coarse particles.

(b) **<u>Compaction B.</u>** Place material by end dumping to the minimum depth needed for operation of spreading equipment. Adjust the moisture content of the material to obtain a mass that will not visibly deflect under the load of the hauling and spreading equipment. Operate compaction equipment over the full width of each layer until there is no visible evidence of further

consolidation or, if when a sheepsfoot roller is used, the roller "walks out" of the layer. Make at least three complete passes.

(c) Compaction C. Place material by end dumping to the minimum depth needed for operation of spreading equipment. Level and smooth each embankment layer before placing the next layers. Operate hauling and spreading equipment uniformly over the full width of each layer. Construct a solid embankment with adequate compaction by working smaller rock and fines in with the larger rocks to fill the voids, and by operating hauling and spreading equipment uniformly over the full width of each layer as the embankment is constructed.

204.12 Ditches. Slope, grade, and shape ditches. Remove all projecting roots, stumps, rock, or similar matter. Maintain all ditches in an open condition and free from leaves, sticks, and other debris.

Form furrow ditches by plowing or using other acceptable methods to produce a continuous furrow. Place all excavated material on the downhill side so the bottom of the ditch is approximately 18 inches below the crest of the loose material. Clean the ditch using a hand shovel, ditcher, or other suitable method. Shape to provide drainage without overflow.

204.13 Sloping, Shaping, and Finishing. Complete slopes, ditches, culverts, riprap, and other underground minor structures before placing aggregate courses. Slope, shape, and finish as follows:

(a) Sloping. Leave all earth slopes with uniform roughened surfaces, except as described in (b) below, with no noticeable break as viewed from the road. Except in solid rock, round tops and bottoms of all slopes including the slopes of drainage ditches. Round material overlaying solid rock to the extent practical. Scale all rock slopes. Slope rounding is not required on tolerance class D though M roads.

If a slide or slipout occurs on a cut or embankment slope, remove or replace the material, and repair or restore all damage to the work. Bench or key the slope to stabilize the slide. Reshape the cut or embankment slope to an acceptable condition.

(b) Stepped slopes. Where required by the contract, construct steps on slopes of 1⅓V:1H to 1V:2H. Construct the steps approximately 18 inches high. Blend the steps into natural ground at the end of the cut. If the slope contains nonrippable rock outcrops, blend steps into the rock. Remove loose material found in transitional area. Except for removing large rocks that may fall, scaling stepped slopes is not required.

(c) Shaping. Shape the subgrade to a smooth surface and to the cross-section required. Shape slopes to gradually transition into slope adjustments without noticeable breaks. At the ends of cuts and at intersections of cuts and embankments, adjust slopes in the horizontal and vertical planes to blend into each other or into the natural ground.

(d) Finishing. Finish the roadbed to be smooth and uniform, and shaped to conform to the typical sections. Remove unsuitable material from the roadbed and replace it with suitable material. Finish roadbeds to the tolerance class shown in table 204-2.Ensure that the subgrade is visibly

moist during shaping and dressing. Scarify to 6 inches below the bottom of low sections, holes, cracks, or depressions and bring back to grade with suitable material. Maintain proper ditch drainage.

For surfaced roads, remove all material larger than 6 inches from the top 6 inches of the roadbed.

For unsurfaced roads, use one of the following methods to finish the roadbed:

(1) **Method A**. Remove all material larger than 6 inches from the top 6 inches of the roadbed and replace with suitable material.
(2) **Method B**. Use a vibratory grid roller or approved equal with a minimum weight of 10 tons. Roll at least 5 full-width passes or until there is no visible evidence of further consolidation.
(3) **Method C**. For roads designated as Construction Tolerance Class K, L, or M, finish the roadbed by spreading the excavation. Eliminate rock berms.

204.14 Disposal of Unsuitable or Excess Material. Dispose of unsuitable or excess material at designated sites or legally off of the project.

When there is a pay item for waste, shape and compact the waste material in its final location. Do not mix clearing or other material not subject to payment with the waste material.

204.15 Acceptance. See Table 204-1 for sampling and testing requirements.

Material for embankment and conserved topsoil will be evaluated under Subsections 106.02 and 106.04.

Excavation and embankment construction will be evaluated under Subsections 106.02 and 106.04.

Clearing and removal of obstructions will be evaluated under Sections 201 and 203.

Measurement

204.16 Measure the Section 204 items listed in the bid schedule according to Subsection 109.02 and the following as applicable.

(a) Roadway excavation. Measure roadway excavation in its original position as follows:

(1) Include the following volumes in roadway excavation:
(a) Roadway prism excavation;
(b) Rock material excavated and removed from below subgrade in cut sections;
(c) Unsuitable material below subgrade and unsuitable material beneath embankment areas when a pay item for subexcavation is not shown in the bid schedule;
(d) Ditches, except furrow ditches measured under a separate bid item;
*(e*Topsoil;
(f) Borrow material used in the work when a pay item for borrow is not shown in the

bid schedule;
(g) Loose scattered rocks removed and placed as required within the roadway;
(h) Conserved material taken from stockpiles and used in Section 204 work; and
(i) Slide and slipout material not attributable to the Contractor's method of operation.

(2) Do not include the following in roadway excavation:
(a) Overburden and other spoil material from borrow sources;
(b) Overbreakage from the backslope in rock excavation;
(c) Water or other liquid material;
(d) Material used for purposes other than required;
(e) Roadbed material scarified in place and not removed;
(f) Material excavated when stepping cut slopes;
(g) Material excavated when rounding cut slopes;
(h) Preparing foundations for embankment construction;
(i) Material excavated when benching for embankments;
(j) Slide or slipout material attributable to the Contractor's method of operation;
(k) Conserved material taken from stockpiles constructed at the option of the Contractor; and
(l) Material excavated outside the established slope limits.

(3) When both roadway excavation and embankment construction pay items are shown in the bid schedule, measure the following as roadway excavation only:
(a) Unsuitable material below subgrade in cuts and unsuitable material beneath embankment areas when a pay item for subexcavation is not shown in the bid schedule;
(b) Slide and slipout material not attributable to the Contractor’s method of operations; and
(c) Drainage ditches, channel changes, and diversion ditches.

(b) Unclassified borrow, select borrow, and select topping. When measuring by the cubic yard measure in its original position. If borrow excavation is measured by the cubic yard in place, take initial cross-sections of the ground surface after stripping overburden. Upon completion of excavation and after the borrow source waste material is returned to the source, retake cross-sections before replacing the overburden.
Do not measure borrow excavation used in place of excess roadway excavation.

(c) Embankment construction. Measure embankment construction in its final position. Do not make deductions from the embankment construction quantity for the volume of minor structures.

(1) Include the following volumes in embankment construction:
(a) Roadway embankments;
(b) Material used to backfill subexcavated areas, holes, pits, and other depressions;
(c) Material used to restore obliterated roadbeds to original contours; and
(d) Material used for dikes, ramps, mounds, and berms.

(2) Do not include the following in embankment construction:

(a) Preparing foundations for embankment construction;
(b) Adjustments for subsidence or settlement of the embankment or of the foundation on which the embankment is placed; and
(c) Material used to round fill slopes.

(d) Rounding cut slopes. Measure rounding cut slopes horizontally along the centerline of the roadway if a pay item for slope rounding is included in the bid schedule. If a pay item for slope rounding is not included in the bid schedule slope rounding will be considered subsidiary to excavation.

(e) Waste. Measure waste by the cubic yard in its final position. Take initial cross-sections of the ground surface after stripping over burden. Upon completion of the waste placement, retake cross-sections before replacing overburden.

(f) Slope scaling. Measure slope scaling by the cubic yard in the hauling vehicle.

Payment

204.17 The accepted quantities will be paid at the contract price per unit of measurement for the Section 204 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Table 204-1
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Topping (704.05) & unclassified borrow (704.06)	Measured and tested for conformance (106.04)	Classification	—	AASHTO M 145	1 per soil type	Processed material before incorporating in work	Yes, when requested	Before using in work
		Moisture-density	—	AASHTO T 180, method D(1) or T 99, method C(1)	1 per soil type but not less than 1 per 13,000 yd^3	"	"	"
		Compaction	—	AASHTO T 310 or other approved procedures	1 per 6000 yd^2 but not less than 1 per layer	In-place	—	Before placing next layer
Select borrow (704.07 & Select topping (704.08)	Measured and tested for conformance (106.04)	Classification	—	AASHTO M 145	1 per soil type but not less than 1 for each day of production	Processed material before incorporating	Yes, when requested	Before using in work
		Gradation	—	AASHTO T 27	"	"	"	"
		Liquid limit	—	AASHTO T 89	"	"	"	"
		Moisture-density	—	AASHTO T 180, method D(1) or T 99, method C(1)	1 per soil type but not less than 1 per 13,000 yd^3	"	"	"
		Compaction	—	AASHTO T 310 or other approved procedures	1 per 6000 yd^2 but not less than 1 per layer	In-place	—	Before placing next layer

(1) Minimum of 5 points per proctor

Table 204-1 (continued)
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Earth embankment (204.11, Compaction A)	Measured and tested for conformance (106.04)	Classification	—	AASHTO M 145	1 per soil type	Source of Material	Yes, when requested	Before using in work
		Moisture-density	—	AASHTO T 180, method D(1) or T 99, method C(1)	1 per soil type but not less than 1 per 13,000 yd^3	"	"	"
		Compaction	—	AASHTO T 310 or other approved procedures	1 per 3500 yd^2 but not less than 1 per layer	In-place	—	Before placing next layer
Top of subgrade (204.11 Compaction A)	Measured and tested for conformance (106.04)	Compaction	—	AASHTO T 310 or other approved procedures	1 per 2500 yd^2	In-place	—	Before placing next layer

(1) Minimum of 5 points per proctor.

Table 204-2
Construction Tolerances

	Tolerance Class [a]												
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**
Roadbed width (ft)	+0.5	+0.5	+1.0	+1.0	+1.0	+1.0	+1.5	+1.0	+2.0	+2.0	+2.0	+2.0	+2.0
Subgrade elevation (ft)	±0.1	±0.2	±0.2	±0.5	±0.5	±1.0	±1.0	±1.5	±2.0	±3.0	±2.0	±3.0	(c)
Centerline alignment (ft)	±0.2	±0.2	±0.5	±0.5	±1.0	±1.0	±1.5	±1.5	±2.0	±3.0	±3.0	±5.0	(c)
Slopes, excavation, and embankment (% slope[b])	±3	±5	±5	±5	±5	±5	±10	±10	±10	±10	±20	±20	±20

(a) Maximum allowable deviation from construction stakes and drawings.
(b) Maximum allowable deviation from staked slope measured from slope stakes or hinge points.
(c) Unless otherwise shown the centerline alignment and subgrade elevation, as built, have no horizontal curves with a radius of less than 80 feet, and no vertical curves with a curve length of less than 80 feet when the algebraic difference in the grade change is less than 10 percent, or a curve length of less than 100 feet when the algebraic difference of the grade change is greater than or equal to 10 percent. The centerline grade is not to exceed 20 percent in 100 feet of length.

303 - Road Reconditioning

303.01_nat_us_03_02_2005

303.01 Work.

Delete and add the following:

This work consists of reconditioning ditches, shoulders, roadbeds, cattleguards, asphalt surfaces, and aggregate surfaces.

303.06_nat_us_08_05_2008

303.06 Aggregate Surface Reconditioning.

Delete and replace with the following:

303.06 Asphalt and Aggregate Surface Reconditioning.

Repair soft and unstable areas to the full depth of the aggregate surface and according to Subsection 204.07. Scarify to the depth of the aggregate surface or to a depth of 6 inches, whichever is less, and remove surface irregularities. Reshape, finish, and compact the entire aggregate surface according to Subsection 301.05, Subsection 321.05, or Subsection 322.05 as applicable.

For asphalt surfaces, clean the existing surface of all loose material, dirt, or other deleterious substances by approved methods. Remove and dispose of unsuitable material that shows evidence of distress, excess asphalt material, or settlement in the roadbed. Patch the areas with approved material that conforms to and is compatible with the adjacent pavement structure. Perform the patch work according to Section 301, 404, 430, or other sections as applicable for the layer or courses being repaired. Clean and seal cracks in the existing asphalt surface according to Subsection 414.05. Correct surface irregularities exceeding 6 inches in depth with a specified aggregate. Place and compact the aggregate according to Subsections 301.04 and 301.05. Prelevel other dips, depressions, sags, excessive or nonexistent crown, or other surface irregularities with asphalt concrete according to Section 404. Spread and compact the asphalt concrete in layers parallel to the grade line not to exceed 2 inches in compacted depth.

Delete Table 303-1 and replace with the following:

Table 303-1
Sampling and Testing Requirements

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Existing Roadway	Measured and tested for conformance (106.04)	Moisture-density Method D	—	AASHTO T 99 (1)	1 per each mixture or change in material	Processed material before incorporating in work	Yes, when requested	Before using in work
		Moisture-density Method E	—	R-1 Marshall	"	"	"	"
		Moisture-density Method F	—	AASHTO T 180(1)	"	"	"	"
		Moisture-density Method G	—	R-1 Marshall	"	"	"	"
		In-place density & moisture content	—	AASHTO T 310 or other approved procedures	1 per 3000 yd^2	In-place	—	Before placing next layer

(1) Minimum of 5 points per proctor.

303.07 Roadway Reconditioning.

Add the following:

Remove cattleguard decks. Clean the deck and the area beneath the cattleguard of soil and other material to the bottom of the original foundation over the entire width of the installation. Reinstall the cattleguard deck.

322 - Minor Aggregate Courses

322.00_nat_us_10_24_2007

Description

322.01 This work consists of constructing one or more courses of aggregate on a prepared surface. Work includes producing aggregate by grid rolling, screening, or crushing methods, or placing pit-run or Government-furnished aggregate.

Surface aggregate grading is designated as shown in Table 703-3.

Subbase and base aggregate grading is designated as shown in Table 703-2.

Screened aggregate grading is designated as shown in Table 703-16.

Material

322.02 Conform to the following Subsections:

Aggregate	703.05
Water	725.01

Construction Requirements

322.03 General. Prepare the surface on which the aggregate course is placed according to Section 204 or 303 as applicable.

Request approval of the roadbed in writing before placing aggregate.

Develop, haul, and apply water in accordance to Section 170.

Submit target values within the gradation ranges shown in Table 703-2 or 703-3 for the required grading. After reviewing the proposed target values the CO will determine the final values for the gradation and notify the Contractor in writing.

No quality requirements or gradation other than maximum size will be required for pit run and grid-rolled material. For grid rolling, use all suitable material that can be reduced to maximum size.

After processing on the road, remove all oversize material from the road and dispose of it as directed by the CO.

If the aggregate is produced and stockpiled before placement, handle and stockpiled according to Section 320. Establish stockpile sites at approved locations.

322.04 Mixing and Spreading. Mix the aggregate and adjust the moisture content to obtain a uniform mixture with a moisture content suitable for the specified compaction method. Spread and shape the mixture on the prepared surface in a uniform layer with no segregation of size, and to a loose depth that will provide the required compacted thickness.

Do not place in layers exceeding 6 inches in compacted thickness for aggregate base and surface courses or twice the maximum particle size for screened aggregate. When more than one layer is necessary, compact each layer according to Subsection 322.05 before placing the next layer. Route hauling and leveling equipment uniformly over the full width.

When placing aggregate over geotextile, place aggregate in a single lift to the full depth specified.

322.05 Compacting. Compact each layer full width. Roll from the sides to the center, parallel to the centerline of the road. Along curbs, headers, walls, and all places not accessible to the roller, compact the material with approved tampers or compactors.

Compact the aggregate using one of the following methods as specified:

Compaction A. Operating spreading and hauling equipment over the full width of the travelway.

Compaction B. Operate rollers and compact as specified in Subsection 204.11(a)(1).

Compaction C. Moisten or dry the aggregate to a uniform moisture content between 5 and 7 percent based on total dry weight of the mixture. Operate rollers and compact as specified in Subsection 204.11(a)(1).

Compaction D. Compact to a density of at least 95 percent of the maximum density, as determined by AASHTO T 99, method C or D.

Compaction E. Compact to a density of at least 96 percent of the maximum density, as determined by the Modified Marshall Hammer Compaction Method (available upon request from USDA Forest Service, Regional Materials Engineering Center, P.O. Box 7669, Missoula, MT 59807).

Compaction F. Compact to a density of at least 95 per-cent of the maximum density, as determined by AASHTO T 180, method C or D.

Compaction G. Compact to a density of at least 100 percent of the maximum density as determined by the Modified Marshall Hammer Compaction Method (available upon request from USDA Forest Service, Regional Materials Engineering Center, P.O. Box 7669, Missoula, MT 59807).

For all compaction methods, blade the surface of each layer during the compaction operations to remove irregularities and produce a smooth, even surface. When a density requirement is specified, determine the in place density and moisture content according to AASHTO T 310 or other approved test procedures.

322.06 Construction Tolerance. If grade finishing stakes are required, finish the surface to within ±0.10 feet from staked line and grade elevation.

If grade finishing stakes are not required, shape the surface to the required template and check the surface with a 10-foot straightedge. Defective areas are surface deviations in excess of 1/2 inch in 10 feet between any two contacts of the straightedge with the surface.

Correct all defective areas by loosening the material, adding or removing material, reshaping, and compacting.

Ensure that the compacted thickness is not consistently above or below the specified thickness. The maximum variation from the compacted specified thickness is ½ inch.

Ensure that the compacted width is not consistently above the specified width. The maximum variation from the specified width will not exceed +12 inches at any point.

322.07 Maintenance. Maintain the aggregate course to the correct line, grade, and cross-section by blading, watering, rolling, or any combination thereof until placement of the next course. Correct all defects according to Subsection 322.06.

322.08 Acceptance. See Table 322-1 or Table 322-2 as applicable, for sampling and testing requirements.

Aggregate gradation and surface course plasticity index will be evaluated under Subsection 106.04. If the aggregate is obtained from a Government stockpile then the above characteristics will be evaluated under Subsection 106.02. Other aggregate quality properties will be evaluated under Subsections 106.02 and 106.04. Placement of aggregate courses will be evaluated under Subsections 106.02 and 106.04.

The allowable upper and lower aggregate gradation limits are the Target Value plus or minus the allowable deviations shown in Tables 703-2 and 703-3.

The allowable upper and lower Plasticity index limits for surface courses are stated in 703.05(b).

Preparation of the surface on which the aggregate course is placed will be evaluated under Section 204 or 303 as applicable.

Measurement

322.09 Measure the Section 322 items listed in the bid schedule according to Subsection 109.02 and the following as applicable.

Measure square yard width horizontally to include the top of aggregate width including designed widening. Measure the square yard length horizontally along the centerline of the roadway.

If the measurement for aggregate is by cubic yard using contract quantities then measure aggregate by the cubic yard in-place once compacted, otherwise measurement for aggregate by the cubic yard is measured by the cubic yard in the hauling vehicle.

Measure thickness perpendicular to the grade of the travelway.

Measure width perpendicular to the centerline.

Payment

322.10 The accepted quantities will be paid at the contract price per unit of measurement for the Section 322 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

635 - Temporary Traffic Control

635.03_nat_us_05_13_2004

635.03 General.

Add the following:

Install temporary traffic control signs to temporary posts or approved temporary sign mounts.

703 - Aggregate

703.05_nat_us_08_14_2009

Delete 703.05 and replace with the following:

703.05 Subbase, Base, Surface Course, and Screened Aggregate.

(a) Subbase or base aggregate. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming the following:

(1) Gradation	Table 703-2
(2) Liquid limit, AASHTO T 89	25 max.
(3) Plastic limit, AASHTO T 90	Nonplastic
(4) Los Angeles abrasion, AASHTO T 96	40% max.
(5) Sodium sulfate soundness loss (5 cycles), AASHTO T 104	12% max.
(6) Durability index (coarse), AASHTO T 210	35 min.
(7) Durability index (fine), AASHTO T 210	35 min.
(8) Fractured faces, ASTM D 5821	50% min.
(9) Free from organic matter and lumps or balls of clay	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

(b) Surface course aggregate. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming the following:

(1) Gradation	Table 703-3
(2) Liquid limit, AASHTO T 89	35 max.
(3) Plastic Index, AASHTO T 90	
a) If the percent passing the No. 200 sieve is less than 12%	2 to 9
b) If the percent passing the No. 200 sieve is greater than 12%	Less than 2
(4) Los Angeles abrasion, AASHTO T 96	40% max.
(5) Sodium sulfate soundness loss (5 cycles), AASHTO T 104	12% max.
(6) Durability index (coarse), AASHTO T 210	35 min.
(7) Durability index (fine), AASHTO T 210	35 min.
(8) Fractured faces, ASTM D 5821	75% min.
(9) Free from organic matter and lumps or balls of clay	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Do not furnish material that contains asbestos fibers.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

(c) Screened aggregate – Furnish hard, durable particles or fragments of stone, slag, or gravel conforming the following:

(1) Gradation	Table 703-16
(2) Plastic Index, AASHTO T 90	Less than 9
(3) Los Angeles abrasion, AASHTO T 96	55% max.
(4) Free from organic matter and lumps or balls of clay.	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary.

Delete Table 703-2 and replace with the following:

Table 703-2
Target Value Ranges for Subbase and Base Gradation

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)				
	Grading Designation				
	A (Subbase)	B (Subbase)	C (Base)	D (Base)	E (Base)
2½ inch	100				
2 inch	97 – 100	100	100		
1½ inch		97 – 100			
1 inch	65 – 79 (6)		80 – 100 (6)	100	
3/4 inch			64 – 94 (6)	86 – 100 (6)	100
1/2 inch	45 – 59 (7)				
3/8 inch			40 – 69 (6)	51 – 82 (6)	62 – 90 (6)
No. 4	28 – 42 (6)	40 – 60 (8)	31 – 54 (6)	36 – 64 (6)	36 – 74 (6)
No. 40	9 – 17 (4)			12 – 26 (4)	12 – 26 (4)
No. 200	4.0 – 8.0 (3)	4.0 – 12.0 (4)	4.0 –7.0 (3)	4.0 – 7.0 (3)	4.0 – 7.0 (3)

( ) The value in the parentheses is the allowable deviation (±) from the target values..

Delete Table 703-3 and replace with the following:

Table 703-3
Target Value Ranges for Surface Gradation

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)					
	Grading Designation					
	F	G	H	S	T	U
1 1/2 inch	100			100		
1 inch	97-100	100		72 – 92 (6)	100	
3/4 inch	76-89 (6)	97 - 100	97 - 100			100
1/2 inch					71 – 91 (6)	
3/8 inch	56-68 (6)	70 – 80 (6)	80 – 92 (6)	51 – 71 (6)		71 – 90 (6)
No. 4	43-53 (7)	51 – 63 (7)	58 – 70 (7)	36 – 53 (7)	43 – 60 (7)	50 – 68 (7)
No. 8				26 – 40 (6)	30 – 46 (6)	34 – 51 (6)
No. 16	23-32 (6)	28 – 39 (6)	28 – 40 (6)			
No. 40	15-23 (5)	19 – 27 (5)	16 – 26 (5)	14 – 25 (5)	16 – 28 (5)	19 – 30 (5)
No. 200	10.0-16.0 (4)	10.0 – 16.0 (4)	9.0 – 14.0 (4)	8.0 – 15.0 (4)	8.0 – 15.0 (4)	8.0 – 15.0 (4)

( ) The value in the parentheses is the allowable deviation (±) from the target values.
If the plasticity index (PI) is greater than 0, the TV range for the No. 200 sieve size is 8-12 (4).

Add Table 703-16:

Table 703-16

Gradation Requirements for Screened Aggregate

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)						
	Grading Designation						
	L	M	N	O	P	Q	R
6 inch	100	100					
4 inch			100	100			
3 inch					100	100	
2 inch							100
No. 4		15-45		15-45		15-45	

703.07_nat_us_03_02_2005

Table 703-2 Correction

Include the following substitution

In Table 703-2, delete the “436 – 74 (6)” percent by mass passing for grading E (base) No. 4 sieve size and substitute “36 – 74 (6).”

Table 703-2 Correction

Include the following substitution

In Table 703-2, delete the “436 – 74 (6)” percent by mass passing for grading E (base) No. 4 sieve size and substitute “36 – 74 (6).”

703.10_nat_us_04_11_2011

703.10(e) Flakiness Index.

Delete and replace with the following:

Flakiness Index, FLH T 508 30% max.

703.10(i) Adherent Coating.

Add the following:

Adherent coating on the aggregate, FLH T 512 0.5% max.

703.10_nat_us_03_02_2005

Delete Table 703-7 and substitute the following:

Table 703-7 Target Value Ranges

Table 703-7
Target Value Ranges for
Single and Multiple Course Surface Treatment Aggregate Gradation

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 & T 11)					
	Grading Designation					
	A	B	C	D	E	F
1½ inch	100(1)					
1 inch	90-100(3)	100(1)				
¾ inch	0-35(5)	90-100(3)	100(1)			
½ inch	0-8(3)	0-35(5)	90-100(3)	100(1)		
⅜ inch	—	0-12(3)	0-35(5)	85-100(3)	100(1)	100(1)
No. 4	—	—	0-12(3)	0-35(5)	85-100(3)	85-100(1)
No. 8	—	—	—	0-8(3)	0-23(4)	—
No. 200	0-1(1)	0-1(1)	0-1(1)	0-1(1)	0-1(1)	0-10(1)

(1) Statistical procedures do not apply.
( ) The value in the parentheses is the allowable deviation (±) from the target values.

704 - Soil

704.02_nat_us_05_01_2013

704.02 Bedding Material.

Delete Subsection 704.02 and substitute the following:

Furnish a well graded, free draining material free of excess moisture, muck, frozen lumps, roots, sod, or other deleterious material conforming to the following:

(a) Maximum particle size	1/2 inch or half the corrugation depth, whichever is smaller
(b) Material passing No. 200 sieve, AASHTO T 27 and T 11	10% max.

718 - Traffic Signing and Marking Material

718.05_nat_us_08_05_2009

718.05 Aluminum Panels

Delete the third paragraph and replace with the following:

Clean, degrease and properly prepare the panels according to methods recommended by the sheeting manufacturer. Conversion coatings will conform to ASTM B-921 or ASTM B-449.