

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE  <b>INTEGRATED RESOURCE CONTRACT</b> (Applicable to Contracts with Measurement before Harvest)		Name of Contractor	
National Forest Ottawa	Ranger District Ontonagon	Region Eastern	Contract Number
Contract Name Sourdough Stewardship		Award Date	Termination Date 10/15/2017

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

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

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

**UNITED STATES OF AMERICA**

Two Witnesses:<sup>2/</sup>

By: \_\_\_\_\_  
 Contracting Officer

\_\_\_\_\_  
 (Name)

\_\_\_\_\_  
 (Title)

\_\_\_\_\_  
 (Address)

By: \_\_\_\_\_  
 (Contractor) <sup>3/</sup>

\_\_\_\_\_  
 (Name)

\_\_\_\_\_

\_\_\_\_\_  
 (Title)

\_\_\_\_\_  
 (Address)

\_\_\_\_\_  
 (Business Address)

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

CORPORATE  
 SEAL <sup>5/</sup>

Contract Name: Sourdough Stewardship

Contract No:

**INSTRUCTIONS:**

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

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

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

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

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

**EXAMPLE 1/**

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

Contract Name: \_\_\_\_\_  
National Forest: \_\_\_\_\_

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

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

Name of Subcontractor: \_\_\_\_\_  
Business Address: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ Date \_\_\_\_\_ Signature

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

Contract Name: Sourdough Stewardship

Contract No:

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

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

This Contract Area of 548 acres more or less is located in:  
T49N-R35W, S. 2,3,10, 11,12,15

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

Species	Product	Estimated Quantity *	Unit of Measure	Minimum Specifications				
				Merchantable Tree		Piece Required to be Removed		
				Diameter Breast High (d.b.h.) (inches)	Number of Minimum Pieces per Tree	Length (feet)	Diameter Inside Bark at Small End (inches)	Net Scale in % of Gross Scale
Mixed Hardwood	Sawtimber	7.00	CCF	11.0	1	8	9.6	50
Red & White Pine	Sawtimber	734.00	CCF	9.0	1	8	7.6	40
Aspen	Pulpwood	1,663.00	CCF	5.0	1	8	4.0	70
Jack Pine	Pulpwood	450.00	CCF	5.0	1	8	4.0	70
Mixed Conifer	Pulpwood	123.00	CCF	5.0	1	8	4.0	70
Mixed Hardwood	Pulpwood	645.00	CCF	5.0	1	8	4.0	70
Pine	Pulpwood	351.00	CCF	5.0	1	8	4.0	70
<b>Total Quantity</b>		3,973.00	CCF					

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

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

	Number	Acres
Clearcutting Units (CT.3.1)	_____	_____
Specified Road Clearing (CT.3.2)	_____	_____
Overstory Removal Units (CT.3.3)	_____	_____
Understory Removal Units (CT.3.4)	_____	_____
Individual Trees (CT.3.5)	_____	290
Incompletely Measured Payment Units (CT.3.6)	_____	_____

Contract Name: Sourdough Stewardship

Contract No:

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

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

Species	Product	Unit of Measure	Rates per Unit of Measure				Required Deposits Slash Disposal \$	Base Index
			Base \$	Advertised \$	Bid Premium \$	Bid (Tentative) \$		
Not Applicable								

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

Species	Product	Unit of Measure	Rates per Unit of Measure				Required Deposits Slash Disposal \$
			Base \$	Advertised \$	Bid Premium \$	Bid (Flat) \$	
Mixed Hardwood	Sawtimber	CCF	1.24	84.46			.00
Red & White Pine	Sawtimber	CCF	1.17	59.64			.00
Aspen	Pulpwood	CCF	1.06	19.56			.00
Jack Pine	Pulpwood	CCF	1.14	46.63			.00
Mixed Conifer	Pulpwood	CCF	1.03	10.25			.00
Mixed Hardwood	Pulpwood	CCF	1.05	18.29			.00
Pine	Pulpwood	CCF	1.14	46.63			.00

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

Contract Name: Sourdough Stewardship

Contract No:

AT.4.3 - Schedule of Payment Units

Payment Unit No.	App rox. Acres	To be Escalated under AT.4.1				Total Tentative Payment \$	To be Paid for at Flat Rates under AT.4.2				Total Flat Rate Payment \$	Total Required Deposits for Slash Disposal \$
		Species	Product	Qty	UOM		Species	Product	Qty	UOM		
001	30						Mixed Hardwood	Sawtimber	0.00	CCF		.00
							Red & White Pine	Sawtimber	1.00	CCF		
							Aspen	Pulpwood	174.00	CCF		
							Jack Pine	Pulpwood	4.00	CCF		
							Mixed Conifer	Pulpwood	9.00	CCF		
							Mixed Hardwood	Pulpwood	89.00	CCF		
							Pine	Pulpwood	1.00	CCF		
		<b>Total PU Quantity And Value</b>								278.00		
002	12						Mixed Hardwood	Sawtimber	0.00	CCF		.00
							Red & White Pine	Sawtimber	38.00	CCF		
							Aspen	Pulpwood	71.00	CCF		
							Jack Pine	Pulpwood	1.00	CCF		
							Mixed Conifer	Pulpwood	0.00	CCF		
							Mixed Hardwood	Pulpwood	24.00	CCF		
							Pine	Pulpwood	8.00	CCF		
		<b>Total PU Quantity And Value</b>								142.00		
003	24						Mixed Hardwood	Sawtimber	0.00	CCF		.00
							Red & White Pine	Sawtimber	119.00	CCF		
							Aspen	Pulpwood	172.00	CCF		
							Jack Pine	Pulpwood	1.00	CCF		
							Mixed Conifer	Pulpwood	1.00	CCF		
							Mixed Hardwood	Pulpwood	63.00	CCF		
							Pine	Pulpwood	26.00	CCF		
		<b>Total PU Quantity And Value</b>								382.00		
004	38						Mixed Hardwood	Sawtimber	0.00	CCF		.00
							Red & White Pine	Sawtimber	13.00	CCF		
							Aspen	Pulpwood	4.00	CCF		
							Jack Pine	Pulpwood	2.00	CCF		
							Mixed Conifer	Pulpwood	10.00	CCF		
							Mixed Hardwood	Pulpwood	39.00	CCF		
							Pine	Pulpwood	121.00	CCF		
		<b>Total PU Quantity And Value</b>								189.00		
005	33						Mixed Hardwood	Sawtimber	0.00	CCF		.00
							Red & White Pine	Sawtimber	125.00	CCF		
							Aspen	Pulpwood	208.00	CCF		
							Jack Pine	Pulpwood	5.00	CCF		
							Mixed Conifer	Pulpwood	19.00	CCF		
							Mixed Hardwood	Pulpwood	123.00	CCF		
							Pine	Pulpwood	30.00	CCF		
		<b>Total PU Quantity And Value</b>								510.00		
006	28						Mixed Hardwood	Sawtimber	0.00	CCF		.00
							Red & White Pine	Sawtimber	131.00	CCF		
							Aspen	Pulpwood	169.00	CCF		
							Jack Pine	Pulpwood	27.00	CCF		
							Mixed Conifer	Pulpwood	1.00	CCF		
							Mixed Hardwood	Pulpwood	16.00	CCF		
							Pine	Pulpwood	69.00	CCF		
		<b>Total PU Quantity And Value</b>								413.00		

Contract Name: Sourdough Stewardship

Contract No:

Payment Unit No.	App rox. Acres	To be Escalated under AT.4.1		Total Tentative Payment \$	To be Paid for at Flat Rates under AT.4.2			Total Flat Rate Payment \$	Total Required Deposits for Slash Disposal \$	
007	44				Mixed Hardwood	Sawtimber	0.00	CCF		.00
					Red & White Pine	Sawtimber	101.00	CCF		
					Aspen	Pulpwood	131.00	CCF		
					Jack Pine	Pulpwood	376.00	CCF		
					Mixed Conifer	Pulpwood	1.00	CCF		
					Mixed Hardwood	Pulpwood	13.00	CCF		
					Pine	Pulpwood	37.00	CCF		
					<b>Total PU Quantity And Value</b>		659.00	CCF		
008	4				Mixed Hardwood	Sawtimber	0.00	CCF		.00
					Red & White Pine	Sawtimber	12.00	CCF		
					Aspen	Pulpwood	31.00	CCF		
					Jack Pine	Pulpwood	1.00	CCF		
					Mixed Conifer	Pulpwood	0.00	CCF		
					Mixed Hardwood	Pulpwood	0.00	CCF		
					Pine	Pulpwood	7.00	CCF		
					<b>Total PU Quantity And Value</b>		51.00	CCF		
009	27				Mixed Hardwood	Sawtimber	0.00	CCF		.00
					Red & White Pine	Sawtimber	60.00	CCF		
					Aspen	Pulpwood	369.00	CCF		
					Jack Pine	Pulpwood	15.00	CCF		
					Mixed Conifer	Pulpwood	24.00	CCF		
					Mixed Hardwood	Pulpwood	34.00	CCF		
					Pine	Pulpwood	14.00	CCF		
					<b>Total PU Quantity And Value</b>		516.00	CCF		
010	16				Mixed Hardwood	Sawtimber	0.00	CCF		.00
					Red & White Pine	Sawtimber	0.00	CCF		
					Aspen	Pulpwood	133.00	CCF		
					Jack Pine	Pulpwood	0.00	CCF		
					Mixed Conifer	Pulpwood	15.00	CCF		
					Mixed Hardwood	Pulpwood	54.00	CCF		
					Pine	Pulpwood	0.00	CCF		
					<b>Total PU Quantity And Value</b>		202.00	CCF		
011	33				Mixed Hardwood	Sawtimber	0.00	CCF		.00
					Red & White Pine	Sawtimber	0.00	CCF		
					Aspen	Pulpwood	133.00	CCF		
					Jack Pine	Pulpwood	0.00	CCF		
					Mixed Conifer	Pulpwood	20.00	CCF		
					Mixed Hardwood	Pulpwood	140.00	CCF		
					Pine	Pulpwood	0.00	CCF		
					<b>Total PU Quantity And Value</b>		293.00	CCF		
012	1				Mixed Hardwood	Sawtimber	7.00	CCF		.00
					Red & White Pine	Sawtimber	134.00	CCF		
					Aspen	Pulpwood	68.00	CCF		
					Jack Pine	Pulpwood	18.00	CCF		
					Mixed Conifer	Pulpwood	23.00	CCF		
					Mixed Hardwood	Pulpwood	50.00	CCF		
					Pine	Pulpwood	38.00	CCF		
					<b>Total PU Quantity And Value</b>		338.00	CCF		

Contract Name: Sourdough Stewardship

Contract No:

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

Mandatory Stewardship Projects					
Project Number	Project Description	Units of Measure	Quantity	Bid Rate \$	Total Credits
BC-00M	Road Decommissioning (Berm Closure)	Each	1.00		
BC-011	Road Decommissioning (Berm Closure)	Each	1.00		
BC-013	Road Decommissioning (Berm Closure)	Each	1.00		
BC-015	Road Decommissioning (Berm Closure)	Each	1.00		
BC-020	Road Decommissioning (Berm Closure)	Each	1.00		
BC-021	Road Decommissioning (Berm Closure)	Each	2.00		
BC-022	Road Decommissioning (Berm Closure)	Each	1.00		
SC-00M	Road Decommissioning (Slash Closure)	Each	1.00		
SC-011	Road Decommissioning (Slash Closure)	Each	1.00		
SC-013	Road Decommissioning (Slash Closure)	Each	1.00		
SC-015	Road Decommissioning (Slash Closure)	Each	1.00		
SC-020	Road Decommissioning (Slash Closure)	Each	1.00		
SC-021	Road Decommissioning (Slash Closure)	Each	2.00		
SC-022	Road Decommissioning (Slash Closure)	Each	1.00		

Optional Stewardship Projects						
Priority	Project Number	Project Description	Units of Measure	Quantity	Bid Rate \$	Total Credits
2	SB-010	Site Preparation for Birch Regeneration	Acres	16.00		
2	SB-011	Site Preparation for Birch Regeneration	Acres	33.00		
2	SJ-007	Site Preparation for Natural Jack Pine Regeneration	Acres	44.00		

**Contract Name:** Sourdough Stewardship

**Contract No:**

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

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

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

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

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

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

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

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

Species	Index Name and Date
<b>Not Applicable</b>	

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

Species	Product	Maximum Stump Height (inches)
All	Sawtimber	14
All	Pulpwood	10

Contract Name: Sourdough Stewardship

Contract No:

**AT.7 - Specified Roads, applicable to FT.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 <sup>1/</sup>
2200	FDR2200 (C) (segment .37 to .39)	Single Lane - 15 mph	.02 / .03	SR-1 to SR-23 07/15/2013	FS	FS	FS AC
2200	FDR2200 (C) (segment .66 to .68)	Single Lane - 15 mph	.02 / .03	SR-1 to SR-23 07/15/2013	FS	FS	FS AC
2289-C1	FDR2289-C1 (C) (segment .38 to .86)	Single Lane - 15 mph	.48 / .77	SR-1 to SR-23 07/15/2013	FS	FS	FS AC
2289-C1	FDR2289-C1 (R) (segment 0 to .38)	Single Lane - 15 mph	.38 / .61	SR-1 to SR-23 07/15/2013	FS	FS	FS AC

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

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

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

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

April 01 to November 15, inclusive

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

**Initial Fire Suppression, applicable to HT.3**

Within 5.0 road miles

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

Within 20.0 road miles

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

**Maximum Amount: \$ \$1,000**

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

October 15, 2017

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

**First Period:** May 16 to November 30, inclusive

**Second Period:** \_\_\_\_\_ to \_\_\_\_\_, inclusive

Contract Name: Sourdough Stewardship

Contract No:

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

Performance Bond Amount: \_\_\_\_\_

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

Downpayment Amount: Not Applicable

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

	<u>Periodic Payment Determination Date</u>	<u>Amount</u>
Initial Payment:	<u>N/A</u>	<u>N/A</u>
Additional Payment:	<u>N/A</u>	<u>N/A</u>

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

Index Name: Wood Chips      Index Number: 3211135

**AT.18 - Inapplicable Provisions**

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

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

**AT.19 - List of Special Provisions in Part KT**

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

KT-CT.3.5.5#	INDIVIDUAL TREES, CUT TREE MARKING (06/2009)
KT-ET.4	PAYMENTS NOT RECEIVED (08/2012)
KT-FT.1.2#	USE OF ROADS BY CONTRACTOR (09/2004)
KT-FT.3.1#	ROAD MAINTENANCE REQUIREMENTS (09/2004)
KT-FT.3.2#	ROAD MAINTENANCE DEPOSIT SCHEDULE (09/2004)
KT-GT.3.1.3#	CUTTING SCHEDULE (06/2009)
KT-GT.3.1.4#	OPERATING RESTRICTIONS (06/2009)
KT-GT.4.1.2	STUMP MARKS (06/2009)
KT-GT.6.3#	TEMPORARY ROAD CLOSURE (06/2009)
KT-GT.7#	SLASH DISPOSAL MEASURES (06/2009)
KT-GT.9#	STEWARDSHIP PROJECTS (09/2004)
KT-HT.2	FIRE PRECAUTIONS (06/2009)
KT-IT.2.1.2	MARKET-RELATED CONTRACT TERM ADDITION (11/2008)

There are no pages 10 & 11.

Contract Name: Sourdough Stewardship

KT-CT.3.5.5# - INDIVIDUAL TREES, CUT TREE MARKING (06/2009)

Individual trees to be cut are Marked with indicated color above and below stump height in all or parts of the following Payment Units. Areas of Cut Tree Marking are shown on the Contract Area Map with the symbol "CTM."

PAYMENT UNIT(S)

PAINT COLOR

Contract Name: Sourdough Stewardship

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R9-KT-CT.3.5.5# - INDIVIDUAL TREES. (11/2007)

Cut Tree Marking Table

Payment Units	Paint Color
001-011	Blue
012 (ROW)	Yellow

Payment Unit boundaries: Exterior boundaries are marked with 3 ORANGE paint slashes above stump height; interior boundaries are marked with 2 ORANGE paint slashes above stump height on both sides of the tree. Boundary trees are also marked below stump height. Paint marks face to the inside of the Payment Unit. These boundary trees are NOT to be cut, unless designated by the Forest Service.

Contract Name: Sourdough Stewardship

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

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

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

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

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

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

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

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

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

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

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

Contract Name: Sourdough Stewardship

KT-FT.1.2# - USE OF ROADS BY CONTRACTOR (09/2004)

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

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

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

**See Restricted Road List Table.**

Sale Name: Sourdough Stewardship

KT-FT.1.2# - USE OF ROADS BY PURCHASER. (09/2004)

Restricted Road List

Road Number	Road Name	Termini (miles)		Map Legend	Description of Restrictions
		From	To		
FR 2200	FR 2200	POB	12.4 Int. w/ FR 2270	R	Use Restricted for the period of December 1 through March 15, unless changed by written agreement (due to designated Snowmobile Trail).
FR 2200	FR 2200	Int. w/ FR 2240	POE going South	X	Hauling Prohibited.
FR 2200	FR 2200	Int. w/ FR 2200-M	POE going North	X	Hauling Prohibited.
FR 2200-L	FR 2200-L	POB	POE	P	Use Prohibited.
FR 2200-A	FR 2200-A	POB	POE	P	Use Prohibited.
FR 2287	FR 2287	POB	POE	X	Hauling Prohibited.
FR 2200-P	FR 2200-P	POB	POE	X	Hauling Prohibited; use as a skid trail must be approved by the Forest Service.
FR 2270	FR 2270	POB	POE	X	Hauling Prohibited.
FR 2270	FR 2270	POB	POE	R	Use Restricted for the period of December 1 through March 15, unless changed by written agreement (due to designated Snowmobile Trail).
FR 2285	FR 2285	1.50 Int. w/ FR2289-C	POE	X	Hauling Prohibited.
FR 2285-B	FR 2285-B	POB	POE	X	Hauling Prohibited.
FR 2285-C	FR 2285-C	POB	POE	P	Use Prohibited.
FR 2285-E	FR 2285-E	POB	POE	X	Hauling Prohibited.
FR 2289-C	FR 2289-C	0.25 Int. w/ FR2289-C1	POE	X	Hauling Prohibited.
All un-numbered roads				X	Hauling Prohibited; use as a skid trail must be approved by the Forest Service.
All un-numbered roads				P	Use Prohibited.

POB = Point of Beginning  
 POE = Point of Ending

Note: Hauling includes empty or loaded log trucks.

Contract Name: Sourdough Stewardship

KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

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

See Contract Road Maintenance Requirements Summary Table.

FS-2400-13T (9/04)

WO-KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS. (09/04)

**Contract Road Maintenance Requirements Summary**

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications							
	From	To		T-8110	T-8130	T-8310	T-8340	T-8350	T-8360	T-8420	T-8620
2200-M	MP 0.00	MP 0.19	0.19		P	P	P		P		
2285	MP 0.00	MP 1.50	1.50		P	P	P		P		
2289-C	MP 0.00	MP 0.25	0.25			P	P		P		

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

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications							
	From	To		T-8110	T-8130	T-8310	T-8340	T-8350	T-8360	T-8420	T-8620
2200-M	MP 0.00	MP 0.19	0.19			P	P		P		
2285	MP 0.00	MP 1.50	1.50			P	P		P		
2289-C	MP 0.00	MP 0.25	0.25			P	P		P		
2289-C1	MP 0.00	MP 0.86	0.86			P	P		P		
2200	MP 10.01 Int. W/ FR 2240	MP 14.04 Int. W/ FR 2200-M	4.03	D		D	D			D	
2240	MP 0.00	MP 1.05	1.05	D		D	D			D	
2245	MP 0.00	MP 0.60	0.60	D		D	D			D	

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

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications							
	From	To		T-8110	T-8130	T-8310	T-8340	T-8350	T-8360	T-8420	T-8620
2200-M	MP 0.00	MP 0.19	0.19			P	P	P	P		P
2285	MP 0.00	MP 1.50	1.50			P	P	P	P		
2289-C	MP 0.00	MP 0.25	0.25			P	P	P	P		
2289-C1	MP 0.00	MP 0.86	0.86			P	P	P	P		P
2200	MP 10.01 Int. W/ FR 2240	MP 14.04 Int. W/ FR 2200-M	4.03	D		D	D	D		D	
2240	MP 0.00	MP 1.05	1.05	D		D	D	D		D	
2245	MP 0.00	MP 0.60	0.60	D		D	D	D		D	

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

Contract Name: Sourdough Stewardship

KT-FT.3.2# - ROAD MAINTENANCE DEPOSIT SCHEDULE (09/2004)

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

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

The Required Deposits for Forest Service work in lieu of Contractor performance and for deferred maintenance is: \$4.70 per CCF.

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

Deposit Made To	Rate	Unit of Measure
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N/A

KT-GT.3.1.1.3# - CUTTING SCHEDULE (06/2009)

Unless changed by written agreement, only 3 Payment Units may be released for operations at one time, and the sequence of cutting Payment Units shall be : option of Purchaser .

Unless there is agreement in writing to postpone specific requirements, all contractual requirements on a Payment Unit shall be accepted by Forest Service prior to the release of an additional Payment Unit.

Contract Name: Sourdough Stewardship

KT-GT.3.1.4# - OPERATING RESTRICTIONS (06/2009)

Within Contract Area, unless changed by written agreement, the following operating requirements apply:

Restricted operations/activities:

Payment Units 001, 003, 007, 009 and 010: Harvest operations are restricted during the period of 3/16 through 5/15 (due to spring breakup).

Payment Units 002, 004, 005, 006 and 008: Harvest operations are restricted during the period of 3/16 through 7/14 (due to spring breakup and protection of residual stems).

Payment Unit 011: Harvest operations are restricted during the period of 3/16 through 5/15 (due to soils and spring breakup).

Within the Contract Area, decked pine and other conifer material must be removed from the Contract Area within 30 days of cutting to minimize the potential breeding areas for pine beetles during the period of May 1 through September 30.

Prohibited operations/activities:

Payment Unit 001, 002, 003, 004, 005, 006, 008, 009, 010, and 011: Whole-tree harvesting is prohibited (due to soil productivity requirements).

KT-GT.4.1.2 - STUMP MARKS (06/2009)

Trees designated for cutting under CT.3.5 have been marked with paint at breast height and below stump height. Trees shall be felled so as to leave paint on stump.

KT-GT.6.3# - TEMPORARY ROAD CLOSURE (06/2009)

In addition to GT.6.3, measures to effectively block temporary roads to normal vehicular traffic shall consist of the following:

Berm will be placed at an angle of 30 to 45 degrees, relative to the road. Dig a trench, 12 to 18 inches below the surface of the road or trail, and extend it to both sides of the road to prevent runoff from bypassing the berm/waterbar. The uphill end should extend beyond the side ditch of the road and into the earth berm to intercept any ditch flows. The outflow end is to be fully open and extended far enough beyond the edge of the road or trail to safely disperse runoff onto the undisturbed forest floor. When placement of the closure device does not require the berm to also function as a waterbar for drainage, the trench will not be required. Height of the berm will be approx 4 feet. Rocks/boulders, logging slash, cull logs, and stumps may be incorporated into the ridge of earth during construction as long as proper drainage is maintained and the road is completely blocked, unless otherwise agreed in writing.

Contract Name: Sourdough Stewardship

KT-GT.7# - SLASH DISPOSAL MEASURES (06/2009)

Slash resulting from Contractor's operations shall be removed from lakes, ponds, private land, right-of-way clearings for telephone lines, power lines, pipelines and other authorized facilities, and landings to be seeded under KT-GT.6#.

The tops of trees shall not be left hanging in standing trees. All trees cut for landing and other construction clearings shall be completely severed and not left leaning. Slash resulting from construction clearing shall be treated concurrent with harvest operations.

Other specific slash disposal requirements are as follows:

SDZ - shown on the Contract Area Map in Payment Units 001-012: Slash resulting from construction clearing (such as from landings, temporary roads, ROW clearing associated with pre-haul road maintenance requirements listed in KT-FT.3.1#), including Specified Road construction, shall be lopped and scattered to lie within 3 feet of the ground. All root wads will be severed from the stem and righted on the ground or otherwise disposed of as directed by the Forest Service, concurrent with operations.

SDZ(2) - shown on the Contract Area Map in Payment Units 001-011: All slash resulting from Purchaser's operations shall either be 1) left at the stump when severed from the merchantable portion of the stem, 2) delimited in place when bunched with processor-type equipment prior to skidding/forwarding to a central processing point, or 3) spread back evenly across the payment unit, concurrent with operations.

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Slash Disposal treatment zones are shown on the Contract Area Map with symbol "SDZ."

KT-GT.9# - STEWARDSHIP PROJECTS (09/2004)

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

Stewardship Projects

Contract Name: Sourdough Stewardship

KT-GT.9# - STEWARDSHIP PROJECTS. (09/2004)

**Stewardship Projects**

Mandatory Stewardship Projects		
Project Number	Project Description	Specification Pages
BC-00M	Road Decommissioning (Berm)	RD-1 through RD-4
BC-011	Road Decommissioning (Berm)	RD-1 through RD-4
BC-013	Road Decommissioning (Berm)	RD-1 through RD-4
BC-015	Road Decommissioning (Berm)	RD-1 through RD-4
BC-020	Road Decommissioning (Berm)	RD-1 through RD-4
BC-021	Road Decommissioning (Berm)	RD-1 through RD-4
BC-022	Road Decommissioning (Berm)	RD-1 through RD-4
SC-00M	Road Decommissioning (Slash Closure)	RD-1 through RD-4
SC-011	Road Decommissioning (Slash Closure)	RD-1 through RD-4
SC-013	Road Decommissioning (Slash Closure)	RD-1 through RD-4
SC-015	Road Decommissioning (Slash Closure)	RD-1 through RD-4
SC-020	Road Decommissioning (Slash Closure)	RD-1 through RD-4
SC-021	Road Decommissioning (Slash Closure)	RD-1 through RD-4
SC-022	Road Decommissioning (Slash Closure)	RD-1 through RD-4

Optional Stewardship Projects			
Priority	Project Number	Project Description	Specification Pages
2	SB-010	Site Preparation for Birch Regeneration	SP-1 through SP-4
2	SB-011	Site Preparation for Birch Regeneration	SP-1 through SP-4
2	SJ-007	Site Preparation for Natural Jack Pine Regeneration	SP-1 through SP-4

Contract Name: Sourdough Stewardship

KT-HT.2 - FIRE PRECAUTIONS (06/2009)

Unless otherwise agreed in writing between the Contractor and the Contracting Officer, the following are specific precautionary measures applicable during Contractor's Operations in Fire Precautionary Period as indicated in AT.9:

1. Contractor shall maintain Forest Service-approved spark arresting devices on any piece of equipment operated by an internal combustion motor. In addition, each piece of motorized equipment shall be equipped with a serviceable round-pointed shovel and an operational fire extinguisher of at least five-pound rating suitable for the equipment being used. All chainsaw operators will have a serviceable round-pointed shovel and one-pound multipurpose fire extinguisher readily available.
2. Contractor shall require that smoking and the building of lunch or warming fires by Contractor's employees, contractors, or subcontractors be confined to designated safe places where flammable debris has been cleared away and where, at the option of the Contractor, smoking or the building of lunch or warming fires may be permitted.
3. Adequate spark arresters shall be maintained on chimneys or stovepipes where wood or coal is being burned in an enclosed device.
4. Contractor shall furnish serviceable firefighting tools. Location, numbers, and types of tools shall be specified in the Fire Prevention and Control Plan in accordance with HT.1.

KT-IT.2.1.2 - MARKET-RELATED CONTRACT TERM ADDITION (11/2008)

The term of this contract may be adjusted when a drastic reduction in wood product prices has occurred in accordance with 36 CFR 223.52. The Producer Price Index used to determine when a drastic reduction in price has occurred is stated in AT.17. Contractor will be notified whenever the Chief determines that a drastic reduction in wood product prices has occurred. If the drastic reduction criteria specified in 36 CFR 223.52 are met for 2 consecutive calendar quarters, after contract award date, Contracting Officer will add 1 year to the contract term, upon Contractor's written request. For each additional consecutive quarter such a drastic reduction occurs, Contracting Officer will, upon written request, add an additional 3 months to the term during Normal Operating Season, except that no single 3-month addition shall extend the term of the contract by more than one year. Contracting Officer must receive Contractor's written request for a market-related contract term addition before the expiration of this contract.

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

- (i) The contract was awarded after December 31, 2006; and
- (ii) A drastic reduction in wood product prices occurred in at least ten of twelve consecutive quarters during the contract term, but not including the quarter in which the contract was awarded.

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

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

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

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS**  
**FS-2400-13T Contracts (09/04)**  
**WO-KT-FT.3.1# Special Provisions**

**SECTION 1. GENERAL**

Purchaser's main Road Maintenance responsibility begins: (1) after Purchaser performs Prehaul Maintenance on a road listed in the Road Maintenance Requirements Schedule; or (2) for all other roads, when Purchaser begins to use the road. Occasional travel by Purchaser's light vehicles, prior to beginning of construction clearing or logging operations in the area accessed by the road, does not constitute beginning of use. Purchaser is not required to perform routine maintenance during periods of inactivity. During periods of inactivity, Forest Service will perform maintenance only as required to meet its needs.

The Purchaser shall maintain roads, commensurate with the Purchaser's use, in accordance with the Road Maintenance Requirements Summary and Road Maintenance Specifications. Performance of road maintenance work by the Purchaser may be required prior to, during, or after each period of use. The timing of work accomplishment shall be based on the Purchaser's operating schedule under Standard Provision **GT.3.1**.

If the Purchaser elects to use different roads than those listed in the Road Maintenance Requirements Summary, the Contracting Officer (CO) or designee shall determine the Purchaser's commensurate share of road maintenance and/or revise road maintenance deposits.

Unless the CO or designee agrees in writing, all Prehaul Maintenance requirements shall be completed on any portion of road prior to hauling on that portion.

The Forest Service shall prepare a revised Road Maintenance Requirements Schedule to reflect changes in the original haul routes when needed.

Any work or materials that are determined to no longer be needed and are waived shall have the estimated cost charged to the Timber Sale Account as described in **IT.3.3**.

**SECTION 2. ROAD MAINTENANCE DEFINITIONS**

Wherever the following terms are used in the Road Maintenance Specifications, the meaning shall be:

Base Course. Material placed on the Subgrade to distribute concentrated wheel loads.

Borrow. Select Material taken from designated borrow sites.

Crown, Inslope, and Outslope. The cross slope of the Traveled Way to aid in drainage and traffic maneuverability.

Culverts. A conduit or passageway under a road, trail, or other obstruction. A culvert differs from a bridge in that it is usually entirely below the elevation of the Traveled Way.

Drainage Dip. A dip in the Traveled Way which intercepts surface runoff and diverts the water off the Traveled Way. A Drainage Dip does not block the movement of traffic.

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS**  
**FS-2400-13T Contracts (09/04)**  
**WO-KT-FT.3.1# Special Provisions**

Drainage Structures. Manufactured structures which control the runoff of water from the Roadway including Inslope, overside drains, aprons, flumes, downdrains and downpipes.

During Haul Maintenance. Road maintenance work to be accomplished during the period of timber removal.

Geotextile. A group of construction fabrics with varying attributes designed for different purposes.

Lead-off Ditches. A ditch used to transmit water from a Culvert, Drainage Structure or Drainage Dip outlet to the natural drainage area.

Maintenance Activitiy. Items of work leading to the restoration and upkeep of a road and necessary to sustain the road's anticipated traffic.

Material. Any substance specified for use in the performance of the work.

Post Haul Maintenance. Road maintenance work to be accomplished after timber removal is completed.

Prehaul Maintenance. Road maintenance work to be accomplished prior to the roads use. Roads receiving prehaul maintenance shall be shown on the Sale Area Map.

Road Maintenance Cost. An estimate of the cost to perform road maintenance activities; as determined by the Forest Service. Estimates may include any or all of the work activities listed in Section 4, Road Maintenance Activity Specifications.

Roadbed. The portion of a road between the intersection of Subgrade and sideslopes, excluding that portion of the ditch below Subgrade.

Roadside. A general term denoting the area adjoining the outer edge of the Roadway.

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

Sand Hole. A hole that develops in the running surface of the road which is quite soft and dangerous in nature. Usually found in very sandy soils.

Shoulder. That portion of Roadway contiguous with Traveled Way for accommodation of stopped vehicles, for emergency use, and lateral support of Base and Surface Course, if any.

Slide. A concentrated deposit of materials from above or on backslope extending onto the Traveled Way or Shoulders, whether caused by mass land movements or accumulated ravelling.

Slough. Material eroded from the backslope which partially or completely blocks the ditch, but does not encroach on the Traveled Way so as to block passage of traffic.

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

Subgrade. Top surface of Roadbed upon which Base Course or Surface Course is constructed. For roads without Base Course or Surface Course, that portion of Roadbed prepared as the finished wearing surface.

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS  
FS-2400-13T Contracts (09/04)  
WO-KT-FT.3.1# Special Provisions**

Surface Course. The Material placed on the Base Course or Subgrade to enhance traction, distribute concentrated wheel loads and resist abrasion and the effects of climate. Surface Course may be referred to as surfacing.

Traveled Way. That portion of Roadway, excluding Shoulders, used for the movement of vehicles.

Turnouts. That portion of the Traveled Way constructed as additional width on single lane roads to allow for safe passing of vehicles.

**SECTION 3. ROAD MAINTENANCE REQUIREMENTS SCHEDULE**

See **WO-KT-FT.3.1#** Summary Table

**SECTION 4. ROAD MAINTENANCE SPECIFICATIONS**

**INCLUDED SPECIFICATIONS**

<u>Specification No.</u>	<u>Specification Title</u>
T-8110	Maintenance Blading/Grading
T-8130	Spot Surface Course Placement/Replenishment
T-8310	Ditch Cleaning
T-8340	Drainage Structure Maintenance
T-8350	Roadway Drainage Maintenance
T-8360	Composite High Clearance Road Maintenance
T-8420	Cutting Roadway Vegetation
T-8620	Miscellaneous Maintenance

**T-8110 Maintenance Blading/Grading**

**DESCRIPTION**

- 1.1 Maintenance Blading/Grading is keeping an aggregate surfaced Roadbed in a condition to facilitate traffic and provide proper drainage. It includes maintaining the Crown, Inslope or Outslope of the Traveled Way, Turnouts, and Shoulder; repairing Berms; blending approach road intersections; and cleaning Drainage Dips and Lead-off Ditches.

**EQUIPMENT**

- 2.1 The equipment required to shape, spread, and compact surfacing is listed below.

<b>Road Number</b>	<b>Road Termini - From</b>	<b>Road Termini - To</b>	<b>Equipment Description</b>
2200	Int. w/ 2240	Int. w/ 2200-M	Motor Grader or Equivalent
2240	Int. w/ 2200	Int. w/ 2245	Motor Grader or Equivalent
2245	Forest boundary	Int. w/ 2240	Motor Grader or Equivalent

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS**  
**FS-2400-13T Contracts (09/04)**  
**WO-KT-FT.3.1# Special Provisions**

REQUIREMENTS

- 3.1 Maintenance Blading/Grading shall be performed to facilitate traffic and proper drainage before, during, or after Purchaser's use as required by Section 3. Road Maintenance Requirements Schedule.
- 3.2 The surface blading shall preserve the existing cross-section. Surface irregularities shall be eliminated and the surface left in a smooth, free-draining state needed to facilitate traffic. Surface Course Material which has been displaced to the Shoulders or Turnouts shall be returned to the Traveled Way. The blading operation shall be conducted to conserve Surface Material and to provide for a thorough mixing of the Material being worked.
- 3.3 On aggregate surfaced roads Material generated from back slope Sloughing and ditch cleaning shall not be blended with Surface or Base Course Material unless agreed otherwise
- 3.4 Roadway back slopes shall not be undercut.
- 3.5 Drainage Dips and Lead-off Ditches shall be cleaned and maintained to retain the existing line, grade, and cross-section.
- 3.6 Intersecting roads shall be bladed for a distance of 50 feet to assure blending of the surfaces.

**T-8130 Spot Surface Course Placement/Replenishment**

DESCRIPTION

- 1.1 Spot Surface Course Placement/Replenishment includes Subgrade preparation, furnishing, hauling, spreading and shaping materials in accordance with the requirements.

MATERIALS

- 2.1 Surface Course Material will be in accordance with the subsection 3.2 of these specifications. Only commercial sources of aggregate will be accepted, except surfacing material may also be purchased from the government, where available, by filling out a form 2600, paying the required fees, and obtaining a permit.

REQUIREMENTS

- 3.1 Subgrade Preparation. Prepare Subgrade to receive Surface Course Material at locations as designated on-the-ground by the Forest Service on roads listed below. Prepare the Subgrade by shaping the Roadbed to approximately the original cross-section and consistent with adjacent sections.
- 3.2 Furnish, haul and spread Material at locations designated on the ground by the Forest Service (FS). Compact the aggregate by operating spreading and hauling equipment over the full width of each layer of the aggregate, or by other methods as specified below.

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS  
 FS-2400-13T Contracts (09/04)  
 WO-KT-FT.3.1# Special Provisions**

<b>Road Number</b>	<b>Type Material</b>	<b>Finished Compacted Thickness Specified</b>	<b>Total Quantity (Tons or cu.yds.)</b>	<b>Compaction Method</b>
2200-M	Crushed Aggregate <sup>1/</sup>	MP 0.00 (radii, 4'D) <sup>2/</sup>	15 CY (19.5 CY) <sup>3/</sup>	See 3.2 Above
2285	Crushed Aggregate <sup>1/</sup>	MP 0.26 (radii, 4'D) <sup>2/</sup>	15 CY (19.5 CY) <sup>3/</sup>	See 3.2 Above
2285	Local Borrow	MP 1.46 – 1.50 Minor curve alignment Left.	200 lineal feet <sup>2/</sup>	See 3.2 Above

<sup>1/</sup> Furnish, haul, and place. Must meet M-DOT Designation 22A.

<sup>2/</sup> As directed by the Forest Service.

<sup>3/</sup> Quantity of material in ( ) is the approximate loose volume.

**3.3** Variations. The Purchaser will be required to furnish weight tickets to the FS for each load of commercially obtained crushed aggregate prior to the final inspection. For aggregate purchased from the government, a count of truck loads will be required in addition to finished depth checks for the placed and compacted aggregate. Widths and lengths as staked or from schedule. When it is mutually agreed that all or part of the Surface Material is not needed, the estimated cost of surfacing not placed shall be charged to the Timber Sale Account in accordance with **IT.3.3**.

**T-8310 Ditch Cleaning**

DESCRIPTION

**1.1** Ditch cleaning is the removal and disposal of all accumulated organic and Slough Material from Roadway ditches to provide a positive draining waterway of uniform width, depth, and grade.

REQUIREMENTS

**3.1** Ditch cleaning shall be repeated during sale operations as often as necessary to facilitate proper drainage.

**3.2** All Slough Material or other debris which might obstruct water flow in the Roadway ditch shall be removed. Material removed from ditches that are not suitable for blending into the existing surface course shall be disposed of in places agreed to in writing by the FSR.

**3.3** Roadway back slopes shall not be undercut.

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS**  
**FS-2400-13T Contracts (09/04)**  
**WO-KT-FT.3.1# Special Provisions**

**T-8340 Drainage Structure Maintenance**

DESCRIPTION

- 1.1 This work consists of maintaining and/or installation/removal of Drainage Structures and related items such as: inlet and outlet channels, existing riprap, trash racks, necessary geotextiles, pipes, and drop-inlets.

MATERIALS

- 2.1 All Materials used in the maintenance and/or installation/removal of Drainage Structures shall conform by type and specification to the Material in the structure being maintained or as indicated in the subsection 3.3 below.

REQUIREMENTS

- 3.1 Drainage Structures and related items shall be cleared of all foreign Material deposited above the bottom of the structure and all vegetative growth which interferes with the water flow. Material removed that cannot be incorporated into maintenance work shall be uniformly placed on fill slopes unless agreed otherwise.
- 3.2 Perform maintenance to insure the proper functioning of the head walls, aprons, inlet assemblies, riprap, trash racks and other facilities related to the Drainage Structure.
- 3.3 Install/remove ditches, drainage dips, rock crossings and/or culverts as shown below, and as marked on the ground. Installation of structures shall not begin without the presence of a FSR unless agreed to in writing by the FSR.
- 3.4 Installation shall be in accordance with construction industry standards and practices.
- 3.5 Culverts designated for removal/disposal shall become the property of the Purchaser and shall be disposed of properly.
- 3.6 Temporary culverts provided by the USFS shall remain the property of the government.
- 3.7 Bridges. Any miscellaneous parts needing repair or replacement during normal use of any bridge during haul shall be considered maintenance. This includes minor items such as object markers, running planks that have loosened or cracked deck boards, or drainage structures which may become plugged. Bridge decks that are dirt and dust covered shall be cleaned to allow for proper drainage and for safety of the user.

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS**  
**FS-2400-13T Contracts (09/04)**  
**WO-KT-FT.3.1# Special Provisions**

**T-8350 Roadway Drainage Maintenance**

DESCRIPTION

1.1 This work consists of providing Post Haul drainage on roads.

MATERIALS

2.1 All Materials used in the maintenance and/or installation/removal of Drainage Structures shall conform by type and specification to the Material in the structure being maintained, or as indicated in subsection 3.3.

REQUIREMENTS

3.1 Upon completion of work, shape the roadway to provide for the removal of surface water. The roadway need not be passable to vehicles (ML-1 roads). Repair and reinstall waterbars, 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.

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

- (a) Method A: Outsloping the roadbed at not less than ½ inch per yard of width.
- (b) Method B: Insloping the roadbed at not less than ½ inch per yard of width.
- (c) Method C: Water bar roadbed at locations staked on the ground and construct as shown on the enclosed detail.
- (d) Method D: Crown the roadbed as shown in the attached detail as the typical section for that length of road.

3.3 Drainage structures located in roadbed through fills and natural watercourses shall be fully functional without obstructions, including inlet and outlet channel within 20 feet of the structure. **(All structures within termini indicated in WO-KT-FT.3.1# Summary Table).**

3.4 Entrance Devices. Upon completion of work, replace entrance devices to effectively eliminate access by motorized vehicles (ML-1).

3.5 Seed and fertilize all disturbed areas in accordance with requirements set forth in T- 8410 Vegetation Establishment.

**T-8360 Composite High Clearance Road Maintenance**

DESCRIPTION

1.1 This work consists of making limited use roads passable for project use by Purchaser and providing drainage from the traveled way and roadbed.

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS**  
**FS-2400-13T Contracts (09/04)**  
**WO-KT-FT.3.1# Special Provisions**

MATERIALS

2.1 Required materials are listed in subsection 3.2.

REQUIREMENTS

3.1 Traveled Way

A. Purchaser may smooth or fill existing cross ditches and waterbars and, by agreement, modify existing road junction 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. No object extending over 4 inches above the road surface shall remain within the 12 feet usable traveled way.
2. Center the usable width of the roadbed or position away from the fill slope.
3. Cut and remove standing or down trees, logs, brush, and limbs from within the 12 feet usable traveled way. 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 designated timber which meets utilization standards or deck at agreed locations.
4. Place all removed material away from drainages and in locations previously agreed to in writing by the FSR.
5. During use, maintain drainage structures including dips, ditches and culverts in a usable condition and surface in a flat, Insloped or Outsloped, or Crowned usable condition, **per Typical Drawing.**

3.2 Drainage Facilities. Clean and recondition drainage facilities in accordance with T-8310 Ditch Cleaning and T-8340 Drainage Structure Maintenance. **See Table in T-8340 for new structures; maintain all other structures per 3.1, Item 5 above within termini indicated in WO-KT-FT.3.1# Summary Table.**

3.3 Slough and Slides

1. Slough and Slides may be left in place provided surface drainage is adequately 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 is less than 12 feet providing the material is capable of supporting vehicles. Limit Outslope 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 Forest Service, Slough or Slide material will be removed under Section T-8320 Slide, Slump, and Erosion Repair.

3.4 Slumps, Eroded areas, and Washouts

1. Drain the roadbed immediately upgrade of Slumps and longitudinal cracks to prevent

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS**  
**FS-2400-13T Contracts (09/04)**  
**WO-KT-FT.3.1# Special Provisions**

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 ten feet in the area of the Slump.
3. Unless Forest Service agrees to material being placed on Slumps, ramp the Slumps on both ends into undisturbed roadbed to provide at least ten feet usable width. Use removed materials to guide vehicles to the ramp location or to aid in draining the area.
4. Eroded areas/washouts may be filled with suitable material and compacted by operating equipment over the fill area.

**3.5 Posthaul**

A. 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 waterbars 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.
4. Close all roads which were closed previously, using prior existing methodology.

**T-8420 Cutting Roadway Vegetation**

**DESCRIPTION**

- 1.1** This work includes removal of brush, trees and other vegetative growth from within the clearing limits. This may include brush mowing of shoulders to prevent larger growth which would inhibit travel in the future.

**EQUIPMENT**

- 2.2** Equipment use may include farm tractor mounted mowing or brushing equipment. If brushing equipment is required it must be of a size and power to cut off and masticate stems up to four inches in diameter. Larger growth may require hand clearing with a chainsaw or mechanized equipment able to handle larger trees.

**REQUIREMENTS**

- 3.1** Vegetative matter within the Roadway which impedes vehicular travel, and/or interferes with road maintenance operations, such as surface blading and ditch and culvert cleaning shall be removed. Downed timber meeting utilization standards shall be cut in appropriate lengths and decked in locations where agreed upon and the Traveled Way or sight distances will not be impaired.

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS**  
**FS-2400-13T Contracts (09/04)**  
**WO-KT-FT.3.1# Special Provisions**

- 3.2 Vegetative matter removed from the clearing limits shall be scattered outside the clearing limits at least **3 (and lopped to within 3' of the ground)** feet perpendicular to the road surface.
- 3.3 Trim tree branches that extend over the road surface and shoulders to attain a clear height of 14 feet. Trim branches flush with the tree or as close as possible without causing damage or scarring to the bole. Area shall be left neatly trimmed.
- 3.4 Any stump removed shall be placed in an upright position out of the clearing limits.
- 3.5 Area shall not be left in an unsightly condition. The FSR shall have the final say over how the area is left.

**T-8620      Miscellaneous Maintenance**

DESCRIPTION

- 1.1 Maintenance of miscellaneous structures includes cattle guards, gates (this includes all types of closure devices such as logs, rocks, dirt berms, dirt and slash berms, metal gates, etc), signs, and other similar structures that have been previously installed to insure safe and efficient operation of the road.

MATERIALS

- 2.1 Any Materials needed in the maintenance of miscellaneous structures shall be similar in type and quality to the Material in the structure being maintained.

REQUIREMENTS

- 3.1 Cattle guards. Loose rails shall be welded or bolted back in place. Excess Material carried into the cattle guard shall be removed when drainage is blocked or when it reaches six inches from the bottom of the cattle guard frame. Drainage into and from the cattle guard shall be kept open.
- 3.2 Gates (and other closure devices). Gates shall be kept in good repair and made to swing easily. Hinges or latches shall be repaired if not operating properly. Brush and debris shall be removed from within the swinging radius. Weathered berms or wood piles shall be reconstructed to a height which discourages use and blocks the road.
- 3.3 Signs. Any signs needing repair or replacement shall be installed per sign placement detail or MUTCD direction. All roads shall have legible sign numbers. ML 3-5 roads shall have horizontal numbering and ML 1-2 roads shall have vertical numbers. The material used shall be as directed by the Forest Service Representative. All new signs must meet retroreflectivity requirements.

**SOURDOUGH STEWARDSHIP ROAD MAINTENANCE REQUIREMENTS  
 FS-2400-13T Contracts (09/04)  
 WO-KT-FT.3.1# Special Provisions**

<b>Road Number</b>	<b>Road Name</b>	<b>Location</b>	<b>Remove/Install</b>	<b>Type of Item</b>	<b>Size</b>	<b>Quantity</b>
2200-M	2200-M	MP 0.01	Install <sup>2/</sup>	Earthen Berm <sup>3/</sup>	1'	1
2289-C1	2289-C1	MP 0.01	Install <sup>2/</sup>	Earthen Berm <sup>3/</sup>	1'	1

<sup>1/</sup> Per Typical Drawing – Earthen Berms/Road Closure Devices

<sup>2/</sup> At Location Designated by Forest Service

<sup>3/</sup> OHV passable berm

**Supplemental Specifications to Special Provision KT-GT.9# - Stewardship Projects****Berm Closure - Road Decommissioning**

Project Number	Road #	Location of Slash Closure Work	Unit of Measure	Estimated Quantity
BC-00M	2200-M	East end	Each	1
BC-011	0511011	South end	Each	1
BC-013	0511013	West end (off end of FR2285-E)	Each	1
BC-015	0511015	East end	Each	1
BC-020	0511020	North end	Each	1
BC-021	0511021	North end and South end	Each	2
BC-022	0511022	East end	Each	1

**Material and Placement Requirements**

- Earth, stumps, boulders and debris may be used for the construction of berms on the seven (7) road sections designated by Forest Service for decommissioning, as listed in the above table. This material may have to be hauled or moved from locations agreed to with Forest Service and placed on designated road segments.

**Slash Closure - Road Decommissioning**

Project Number	Road #	Location of Slash Closure Work	Unit of Measure	Estimated Quantity
SC-00M	2200-M	East end	Each	1
SC-011	0511011	South end	Each	1
SC-013	0511013	West end (off end of FR2285-E)	Each	1
SC-015	0511015	East end	Each	1
SC-020	0511020	North end	Each	1
SC-021	0511021	North end and South end	Each	2
SC-022	0511022	East end	Each	1

**Material and Placement Requirements**

- Debris material including stumps, trees, logging slash, rocks, and brush should be used to obstruct the travel way on the seven (7) road sections designated by Forest Service for decommissioning, as listed in the above table. This material may have to be hauled or moved from locations agreed to with Forest Service and placed on designated road segments.
- Material must be scattered across travel way with 100% of the road surface covered with material for a distance of 150 feet and an average depth of 36 inches on each road section.
- Material shall be placed parallel, diagonal, and perpendicular to motorized travel direction.

**SUPPLEMENTAL SPECIFICATIONS (KT-GT.9#)****Statement of Work**

The Contractor shall provide any and all equipment, labor, supplies, tools, supervision, transportation, materials including safety and other incidentals necessary to perform all work activities located within the boundaries of the Contract Area, in accordance with the specifications, exhibits and clauses contained or referenced herein.

**Schedule of Work – Mandatory**<sup>1</sup> Method of Measure

7/10/2013

<b>Project No.</b>	<b>Spec. No.</b>	<b>Road #Location/ Milepost</b>	<b>Work Description</b>	<b>Unit of Measure &amp; M of M<sup>1</sup></b>	<b>Quantity</b>
<b>SC-00M</b>		<b>FR 2200-M</b>	<b>Slash Closure</b>		
	249	0.19-0.22	Haul and place stumps, slash, tops and debris in roadbed for the last 150'; approximately 100' into Payment Unit 04.	EA	1
<b>BC-00M</b>		<b>FR 2200-M</b>	<b>Berm Closure</b>		
	650	0.19	Construct berm using earth, stumps, boulders, and debris, as directed by the Forest Service. Construct in a manner as to restrict any motorized use.	EA	1
<b>SC-011</b>		<b>0511011</b>	<b>Slash Closure</b>		
	249	0.00-0.03	Haul and place stumps, slash, tops and debris in roadbed for 150' from FR 2285 intersection to the northwest.	EA	1
<b>BC-011</b>		<b>0511011</b>	<b>Berm Closure</b>		
	650	0.00	Construct berm using earth, stumps, boulders, and debris, as directed by the Forest Service. Construct in a manner as to restrict any motorized use.	EA	1
<b>SC-013</b>		<b>0511013</b>	<b>Slash Closure</b>		
	249	0.00-0.03	Haul and place stumps, slash, tops and debris in roadbed for 150' from the east end of FR 2285-E to the east.	EA	1
<b>BC-013</b>		<b>0511013</b>	<b>Berm Closure</b>		
	650	0.00	Construct berm using earth, stumps, boulders, and debris, as directed by the Forest Service. Construct in a manner as to restrict any motorized use.	EA	1

Project No.	Spec. No.	Road #Location/ Milepost	Work Description	Unit of Measure & M of M'	Quantity
<b>SC-015</b>		<b>0511015</b>	<b>Slash Closure</b>		
	249	0.00-0.03	Haul and place stumps, slash, tops and debris in roadbed for 150' from FR 2285 intersection to the west.	EA	1
<b>BC-015</b>		<b>0511015</b>	<b>Berm Closure</b>		
	650	0.00	Construct berm using earth, stumps, boulders, and debris, as directed by the Forest Service. Construct in a manner as to restrict any motorized use.	EA	1
<b>SC-020</b>		<b>0511020</b>	<b>Slash Closure</b>		
	249	0.00-0.03	Haul and place stumps, slash, tops and debris in roadbed for 150' from FR 2200-P intersection to the southeast.	EA	1
<b>BC-020</b>		<b>0511020</b>	<b>Berm Closure</b>		
	650	0.00	Construct berm using earth, stumps, boulders, and debris, as directed by the Forest Service. Construct in a manner as to restrict any motorized use.	EA	1
<b>SC-021</b>		<b>0511021</b>	<b>Slash Closure</b>		
	249	0.00-0.03	Haul and place stumps, slash, tops and debris in roadbed for 150' from FR 2200-P intersection to the east	EA	1
	249	0.21-0.24	Haul and place stumps, slash, tops and debris in roadbed for 150' from FR 2289-C1 intersection to the north.	EA	1
<b>BC-021</b>		<b>0511021</b>	<b>Berm Closure</b>		
	650	0.00	Construct berm using earth, stumps, boulders, and debris, as directed by the Forest Service. Construct in a manner as to restrict any motorized use.	EA	1
	650	0.24	Construct berm using earth, stumps, boulders, and debris, as directed by the Forest Service. Construct in a manner as to restrict any motorized use.	EA	1

Project No.	Spec. No.	Road #Location/ Milepost	Work Description	Unit of Measure & M of M'	Quantity
<b>SC-022</b>		<b>0511022</b>	<b>Slash Closure</b>		
	249	0.00-0.03	Haul and place stumps, slash, tops and debris in roadbed for 150' from FR 2289-C1 intersection to the northwest.	EA	1
<b>BC-022</b>		<b>0511022</b>	<b>Berm Closure</b>		
	650	0.00	Construct berm using earth, stumps, boulders, and debris, as directed by the Forest Service. Construct in a manner as to restrict any motorized use.	EA	1

### Sourdough Stewardship

#### Road Decommission Stewardship Notes

**Note:** Logging slash, stumps, rocks and debris placed on road surface on the designated sections by the Forest Service with materials placed on an average of 36 inches in depth and 150 feet in length. Material must be scattered across travel way with 100% of the road surface covered with material. Material shall be placed parallel, diagonal and perpendicular to motorized travel direction.

**Note:** The decommissioning material may have to be hauled and placed on certain road segments.

**Note:** Additional debris materials will be generated for use during the clearing and grubbing of roads throughout project. This material may also be used for slash closure of decommissioned roads.

**Note:** Earth, stumps, boulders and debris may be used for the construction of berms as directed by the Forest Service. Berms shall be constructed in such a manner as to restrict any motorized use.

**Supplemental Specifications to Special Provision KT-GT.9# - Stewardship Projects****Optional Stewardship Project: Site Preparation for Birch Regeneration**

**Objective:** The overall objective is to lightly scarify soil to promote natural regeneration of Birch and Aspen, as well as some oak, hemlock, and red/white pine. A similar piece of equipment capable of performing the task is acceptable (i.e. brush rake, roller chopper, subsoiler, etc).

**Stewardship Credits Earned:** Will be based on the acres of the Payment Unit(s) listed below

<b>Project Number</b>	<b>Payment Unit(s)</b>	<b>Compartment/Stand</b>	<b>Unit of Measure</b>	<b>Quantity</b>
<b>SB-010</b>	10	110-33	Acres	16
<b>SB-011</b>	11	110-28	Acres	33

**Definitions:**

- 1.1 Scarification – Shallow loosening of the soil surface to encourage seed germination.
- 1.2 Seed Tree – A mature tree left uncut to provide seed for regeneration of a harvested stand.
- 1.3 Slash – Branches and other woody material left on a site after harvest.
- 1.4 Advanced Regeneration – Regeneration that is established before the existing forested stand is harvested.

**Technical Specifications for the Treatment:**

- 2.1 Lightly scarify to mix the humus and upper mineral soil on a minimum of 20% of the area. Scarification should occur to a depth of approximately 2 inches, within an acceptable range of 1-4 inches. Work may be done concurrent with logging operations.
- 2.2 There may be areas left untreated due to heavy accumulations of slash. Light layers of slash should be removed to scarify beneath, but it is not the intent to move or create large piles of slash in order to scarify.
- 2.3 Concentrate scarification around birch, hemlock, oak, white and red pine seed trees. The distance scarified should extend from the tree bole out to at least on tree length.
- 2.4 Protect all seed trees from physical injury from mechanical equipment.
- 2.5 Do not treat areas where advanced regeneration of birch, hemlock, oak, or white pine is already present. Damage to this advanced regeneration should be minimized.

2.6 Any Reserve Trees, other trees identified for protection, or Protected Areas, shall also be protected during the scarifying activities.

2.7 Forest Service will work with the Contractor at the beginning of this Stewardship Project Item to assist in identifying Potential Seed trees.

2.8 Soils must be snow free and free of frost (unfrozen) before work can begin. In addition, operations may be delayed during periods of heavy rainfall which would result in soil damage (excessive compaction or rutting) from operation of equipment. Additional time would be granted for completion date if rain delays exceed 10 days. The Government will make the soil acceptability determination.

2.9 Contractor shall adhere to the following requirements with regard to cleaning the prime mover vehicle of anchor chains:

(i) Prior to moving prime mover vehicle onto the Contract Area, Contractor shall identify the location of the equipment's most recent operation. Contractor shall not move any prime mover vehicle that last operated in an area infested with one or more invasive species of concern onto Contract 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 (ii). If the location of prior operation cannot be identified, then Contractor shall assume that the location is infested with invasive species of concern.

(ii) Prior to moving any prime mover vehicle subject to the cleaning requirements set forth above, Contractor 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, Contractor 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.

**Supplemental Specifications to Special Provision KT-GT.9# - Stewardship Projects**

**Optional Stewardship Project: Site Preparation for Natural Jack Pine Regeneration**

**Objective:** The project objective is to break up sod and expose mineral soil to create a seed bed for natural regeneration of jack pine. Cone-bearing logging slash serves as the seed source for jack pine. In the past this work has been performed by dragging anchor chains (provided by the Ottawa National Forest) with welded spikes across all of the cutting unit areas. A similar piece of equipment capable of performing the task is acceptable (i.e. brush rake, roller chopper, subsoiler, etc).

**Stewardship Credits Earned:** Will be based on the acres of the Payment Unit(s) listed below

<b>Project Number</b>	<b>Payment Unit(s)</b>	<b>Compartment/Stand</b>	<b>Unit of Measure</b>	<b>Quantity</b>
SJ-007	07	110-22	Acres	44

**Definitions:**

- 1.1 Scarification – Shallow loosening of the soil surface to encourage seed germination.
- 1.2 Slash – Branches and other woody material left on a site after harvest.
- 1.3 Anchor Chaining – The dragging of anchor chains to provide a mineral soil seedbed for regeneration. Typically work has been performed by a skidder (~ 128 HP or higher) equipped with a rear cable winch/or grapple system, and a blade on the front to break up the concentrations of slash. Three sets of anchor chains are attached to a draw bar. Torpedo shaped weights are attached to the ends of the chains to assist in keeping chains in contact with the ground.

**Technical Specifications for the Treatment:**

- 2.1 Lightly scarify the entire unit to mix the humus and upper mineral soil. Scarification should occur to a depth of approximately 2 inches, within an acceptable range of 1-4 inches. The unit should receive complete coverage with the anchor chains (or other agreed upon piece of equipment) except where residual trees prohibit equipment from operating. All residual stems less than 5 inches DBH can be run over. Equipment should pass directly adjacent to previous pass to assure complete coverage.
- 2.2 If anchor chaining is the agreed upon method, then the anchor chain and accessories must be picked up at the Kenton Ranger District “Bone Yard” (north of Kenton, MI) storage facility and transported to the work sites. Approximate weight is estimated at 4000 pounds. Upon completion of the project chains must be returned to the “Bone Yard”.
- 2.3 A 30 day slash curing period is required before scarification work can begin. In addition, cutting units need to be closed under the Integrated Resource Contract by the Forest Service

Representative prior to work. Soils must be snow free and free of frost (unfrozen) before work can begin. The Government will make the soil acceptability determination.

2.4 If an additional pass through a section of the unit is required to achieve the proper soil scarification, the second pass should be perpendicular to the first pass if practical. The need for a second pass will be determined by the Contracting Officers Representative

2.5 Any residual trees over 5 inches DBH, other trees identified for protection, or Protected Areas, shall be protected during the scarifying activities.

2.6 Operations may be delayed during periods of heavy rainfall which would result in soil damage (excessive compaction or rutting) from operation of equipment.

2.7 Forest Service roads within the project area will not be dragged/scarified. If anchor chain is to be used, equipment must have the capability to lift chains over the woods roads.

2.8 All roads leading into the project area are to be kept open and free of debris that may occur as a result of the work. In addition, road restriction requirements in the spring when moving chains or equipment must be followed.

2.9 Contractor shall adhere to the following requirements with regard to cleaning the prime mover vehicle of anchor chains:

(i) Prior to moving prime mover vehicle onto the Contract Area, Contractor shall identify the location of the equipment's most recent operation. Contractor shall not move any prime mover vehicle that last operated in an area infested with one or more invasive species of concern onto Contract 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 (ii). If the location of prior operation cannot be identified, then Contractor shall assume that the location is infested with invasive species of concern.

(ii) Prior to moving any prime mover vehicle subject to the cleaning requirements set forth above, Contractor 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, Contractor 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.

Sourdough Stewardship  
 SPECIFIED ROAD WORK SCHEDULE OF ITEMS

Date: 7/15/2013

Page 1 of 2

Item No.	Road Number & Item Description	C or R <sup>1</sup>	Unit of Measure & M of M <sup>2</sup>	Quantity	Road Standard (W, D, S) <sup>3</sup>	Unit Allowance	Estimated Allowance
	<b>FR 2200</b>	<b>C</b>			<b>D</b>		
	<b>M.P. 0.37-0.39 from intersection w/ FR 2285</b>						
249 03	Construct roadside turn-out on right side of road. Clear, grub and shaping for 120'Lx14'W.		L.S. DQ	1		\$150.00	\$150.00
301 11	Haul and place 31 C.Y. (40 C.Y. loose) 22-A crushed gravel for roadside turn-out surfacing. (120'Lx14'Wx6"D includes approaches) Compaction Method-A, as directed by Forest Service.		C.Y. DQ	31		\$28.00	\$868.00
	<b>M.P. 0.66-0.68 from intersection w/ FR 2285</b>						
249 03	Construct roadside turn-out on right side of road. Clear, grub and shaping for 120'Lx14'W.		L.S. DQ	1		\$150.00	\$150.00
301 11	Haul and place 31 C.Y. (40 C.Y. loose) 22-A crushed gravel for roadside turn-out surfacing. (120'Lx14'Wx6"D includes approaches) Compaction Method-A, as directed by Forest Service.		C.Y. DQ	31		\$28.00	\$868.00
					<b>FR 2200 segment = \$ \$2,036.00</b>		

Page 2 of 2							
Item No.	Road Number & Item Description	C or R <sup>1</sup>	Unit of Measure & M of M <sup>2</sup>	Quantity	Road Standard (W, D, S) <sup>3</sup>	Unit Allowance	Estimated Allowance
	<b>FR 2289-C1</b>	<b>R</b>			<b>D</b>		
	<b>M.P. 0.00-0.38</b>						
249 02	Re-Construct road segment and ditches left and right side of road. Clear and grub with shaping to crown or out slope to match typical drawing, as directed by Forest Service.		MILE DQ	0.38		\$3,800.00	\$1,444.00
	<b>M.P. 0.38-0.86</b>	<b>C</b>			<b>D</b>		
249 02	Construct new road segment. Clear and grub with shaping to crown or out slope to match typical drawing, as directed by Forest Service.		MILE DQ	0.48		\$6,300.00	\$3,024.00
							<b>FR 2289-C segment = \$4,468.00</b>
<b>Total Specified Roadwork Appraisal = \$6,504.00</b>							

<sup>1</sup>C = Construction                      <sup>3</sup>D = Dry Summer  
<sup>1</sup>R = Reconstruction                <sup>3</sup>S = Summer  
<sup>2</sup>Method of Measure  
<sup>3</sup>W = Winter

Prepared by: Eric Cromell, Civil Engineering Technician

## SOURDOUGH STEWARDSHIP SPECIFIED ROAD APPRAISAL NOTES

- NOTE:** The construction requirements for composite road construction slash disposal shall be Method A as described in the supplemental specification Item 249.
- NOTE:** Construct the road bed to conform to the typical detail as noted in the narrative description.
- NOTE:** There may be underground utility lines in unknown locations on this project. Call **MISS DIG three full working days** before any work begins.  
**Phone: 1-800-482-7171.**
- NOTE:** During clear and grub operations **all slash** resulting from purchaser's operations shall be treated as per **KT-GT.7#**.
- NOTE:** Blading and shaping requires filling in ruts and placing a crown to conform to the typical detail for a crown with no ditches, crown with 1' ditches or out sloped roads.
- NOTE:** Additional outlet or lead out ditches may be required at road segment locations to allow for proper drainage needs and are included under typical blading and shaping requirements. Locations for placement shall be determined by the Forest Service and are included in appraised allowance for clearing and shaping.
- NOTE:** During crushed gravel hauling operations "Trucks Hauling" signs shall be placed on the north and south ends of FR 2200 and on FR 2285 at the FR 2200 intersection and on FR 2245 and FR 270. Gravel hauling shall not commence until all signs have been put in place as directed by the Forest Service.
- NOTE:** There is 62 C.Y. of 22-A crushed gravel is required for the construction of the 120'Lx14'W turn-outs on FR 2200. This volume plus the normal compaction factor of 130% for crushed gravel computes to a loose volume of 81 C.Y. **There is no government source available for this project.**

Standard Specifications for Construction of Roads & Bridges on Federal Highway Projects

Specification List

Project Name: Sourdough Stewardship Sale

Date Prepared: 7/15/2013

Road Numbers: <b>FR 2200</b> <b>FR 2289-C1</b>		<b>FR 2200</b>	<b>FR 2289-C1</b>	
Road Name:	Termini...	Miles		
	Construction Reconstruction	0.04	0.48 0.38	
<b>Spec. No.</b>	<b>Title</b>			<b>Latest Revised Edition</b>
101 thru 109	General Requirements	X	X	2003
301	Untreated Aggregate Courses	X		2003

Note: The Forest Service, U.S. Department of Agriculture has adopted FP-03 for construction of National Forest System Roads.

**SOURDOUGH STEWARDHSIP**

**SUPPLEMENTAL SPECIFICATIONS**

Section 101-109	General Requirements
Section 249	Composite Road Construction
Section 301	Untreated Aggregate Course
Section 650	Road Closure Devices

**SUPPLEMENTAL SPECIFICATION**

**PREFACE**

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.

**SUPPLEMENTAL SPECIFICATION**

**Section 101 – TERMS, FORMAT, AND DEFINITIONS**

**101.01 Meaning of Terms.**

Add the following:

Delete all references in FP-03 to Transportation Acquisition Regulations (TAR). For Timber Sales, delete all references in FP-03 to Federal Acquisition Regulations (FAR).

**101.03 Abbreviations.**

Add the following to (a) Acronyms:

AFPA	American Forest and Paper Association
MSHA	Mine Safety and Health Administration
NIST	<u>National Institute of Standards and Technology</u>
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 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.

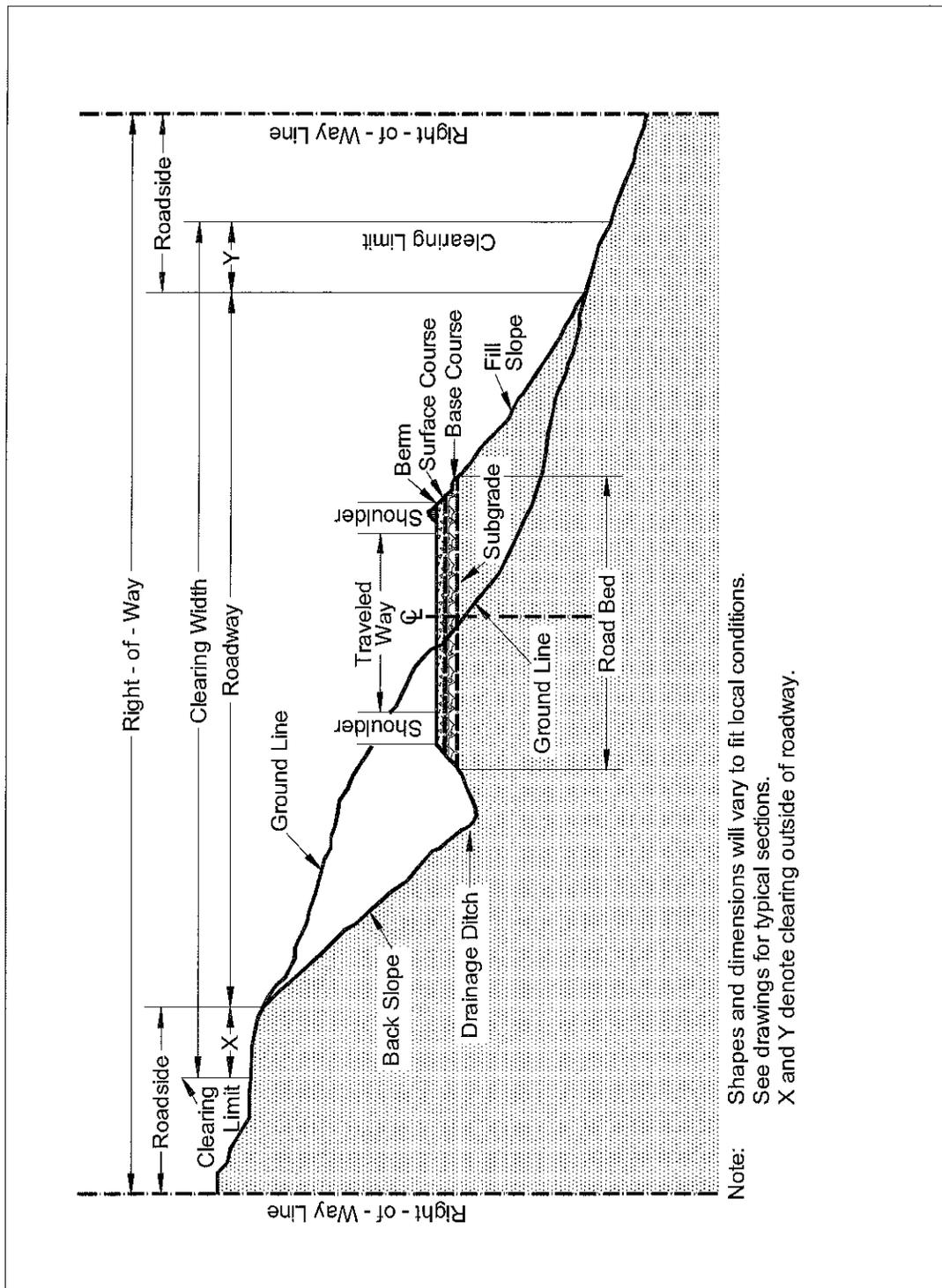
Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

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.



**SUPPLEMENTAL SPECIFICATION**

**Section 102 – BID, AWARD, AND EXECUTION OF CONTRACT**

**102 Delete**

Delete Section 102 in its entirety.

**SUPPLEMENTAL SPECIFICATION**

**Section 103 – SCOPE OF WORK**

**103 Delete**

Delete all but subsection 103.01 Intent of Contract.

**SUPPLEMENTAL SPECIFICATION**

**Section 105- CONTROL OF MATERIAL**

**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.

Government-provided optional sources for this project are identified as follows:

**Material is available for use as pit-run gravel as needed for the project from the Six Mile Pit, T.46N., R.37W., Section 1.** There is no charge for material taken from these pits for use on this project.

Aggregate Surface Course material from: **there is no government source available**

**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.

**SUPPLEMENTAL SPECIFICATION**

**Section 106- ACCEPTANCE OF WORK**

**106.05 Statistical Evaluation of Work and Determination of Pay Factor (Value of Work).**

Delete subsection 106.05 (Do not delete for paving projects)

**106.07 Partial and Final Acceptance.**

Delete subsection 106.07

**SUPPLEMENTAL SPECIFICATION**

**Section 107- LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**

**107.05 Responsibility for Damage Claims.**

Delete the entire subsection.

**107.09 Legal Relationship of the Parties.**

Delete the entire subsection.

**SUPPLEMENTAL SPECIFICATION**

**Section 108- PROSECUTION AND PROGRESS**

Delete Section 108 in its entirety.

## SUPPLEMENTAL SPECIFICATION

### Section 109- MEASUREMENT AND PAYMENT

#### 109.02 Measurement Terms and Definitions

Add: One of the following methods of measurement for determining final payment is DESIGNATED on the SCHEDULE OF ITEMS for each pay item:

- (a) Designated Quantities (DQ). These quantities denote the final number or units to be paid for under the terms of the contract. They are based upon the original design data available prior to advertising the project. Original design data include the preliminary survey information, design assumptions, calculations, drawings, and the presentation in the contract. Changes in the number of units SHOWN in the SCHEDULE OF ITEMS may be authorized under any of the following conditions:
- (1) As a result of changes in the work authorized by the Contracting Officer.
  - (2) As a result of the Contracting Officer determining that errors exist in the original design that cause a pay item quantity to change by 15 percent or more.
  - (3) As a result of the contractor submitting to the Contracting Officer a written request showing evidence of errors in the original design that cause a pay item quantity to change by 15 percent or more. The evidence must be verifiable and consist of calculations, drawings, or other data that show how the designated quantity is believed to be in error.
- (b) Staked Quantities (SQ). These quantities are determined from staked measurements prior to construction.
- (c) Actual Quantities (AQ). These quantities are determined from measurements of completed work.
- (d) Vehicle Quantities (VQ). These quantities are measured or weighed in hauling vehicles.
- (e) Lump Sum Quantities (LSQ). These quantities denote one complete unit of work as required by or described in the contract, including necessary materials, equipment, and labor to complete the job. They will not be measured.

## SUPPLEMENTAL SPECIFICATION

### Section 249. – COMPOSITE ROAD CONSTRUCTION

#### Description

**249.01** This work consists of clearing and grubbing, excavation and embankment, and removal of all construction slash including all trees designated for removal. Excavation and embankment includes on site borrow excavation; drainage excavation; placing all excavated material; and shaping the roadway; including approaches, turnarounds, ditches and drainage dips. Construct the roadway in conformance with the dimensions “shown on the plans” or as staked on the ground.

#### Construction Requirements

##### 249.02 Clearing & Disposal

Protect construction stakes and construction control markers. Remove or treat all trees, snags, downed timber, brush, and stumps within the clearing limits according to the following specifications.

(a) **Merchantable Timber.** Treat according to the Utilization Standards of the Timber Sale Contract.

(b) **Unmerchantable Timber.** Treat according to Subsection 249.02 Method A.

(c) **Large Construction Slash.** Treat construction slash larger than 3 inches in diameter and longer than 3 feet by one or more of the following methods.

(1) **Method A.** Construction slash shall be scattered outside the clearing limits without damaging trees outside the clearing area. Logs shall be placed away from trees, positioned so that they will not roll, not placed on top of one another or left leaning on other trees. Scattered stumps shall be placed in an upright position.

(2) **Method B.** Stumps, roots, rocks, topsoil and other grubbing debris shall be concentrated in stump dump areas. Stump dump areas shall be located by the Engineer, be a maximum of 300 feet apart along the road centerline, and generally be located in natural depressions or tucked away behind denser vegetation or ground rises. Stump dumps will vary in size depending on each site, but shall not be closer than 10 feet outside of the clearing limits. Stump dump material shall be matted down as much as possible and shall not obstruct natural drainages.

**(d) Small Construction Slash.** Construction slash less than 3 inches in diameter and less than 3 feet in length may be incorporated into embankments so long as the material is distributed so that it does not result in concentrations or matting.

Immediately remove slash deposited in stream courses.

**249.03 Pioneering.**

Do not undercut the final back slope during pioneer operations. Deposit material inside the roadway limits. Do not restrict drainages.

**249.04 Grubbing.**

Grub within the specified limits. Stumps outside the grubbing limits remain if cut no higher than 1 foot or one-third of the stump diameter, whichever is greater, above the original ground, measured on the uphill side, unless otherwise designated. Grub all stumps from the Roadway, or stumps that have less than 1 foot of cover, in the Fill slopes, providing they do not interfere with the placement or compaction of embankments.

**249.05 Excavation and Embankment.**

Construct the roadway to conform to the typical sections shown on the plans. Protect backslopes from being undercut. Embankment shall be placed in layers no more than 12 inches thick.

Locate and use borrow material, and remove and treat unsuitable excess material, as designated.

Place rocks that are too large to be incorporated in the embankment outside the traveled way on the downhill side such that they will not roll, obstruct drainage, or hinder roadbed use and maintenance.

Shape and finish the roadbed to the condition ordinarily accomplished by a crawler tractor with dozer blade to provide drainage of surface water. Do not permit individual rocks to protrude more than 4 inches above the subgrade of the roadbed. A motor grader finish is not required.

Observe a width tolerance of (+) 18 inches max. for the roadbed.

Where shown on the drawings or designated on the ground, offtake ditches shall be constructed to drain water away from the roadbed.

**249.06 Erosion Control.**

Perform erosion control measures, where shown on the drawings, or staked on the ground.

**Measurement**

**249.07 Method.**

Measure the section 249 items listed in the schedule of items according to subsection 109.02

**Payment**

**249.08 Basis.**

The accepted quantities will be paid at the contract price per unit of measurement for Section 249 pay items listed in the Bid Schedule. Payment will be full compensation for the work prescribed in this section. See Subsection 109.05

**SUPPLEMENTAL SPECIFICATION**

**Section 301- UNTREATED AGGREGATE COURSES**

**301 Title Change.**

Change the title to:

**Section 301- AGGREGATE COURSES**

**301.01 Work.**

Add the following:

Work includes producing aggregate by pit-run, grid rolling, screening, or crushing methods, or placing Government furnished aggregate. Work may include additive mineral filler, or binder.

### 301.03 General.

Add the following:

Request approval in writing of the roadbed before placing aggregate.

For pit run or grid-rolled material, furnish material smaller than the maximum size. No gradation other than maximum size will be required for pit-run or 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.

Provide additives or binder, if required, at the proportions specified.

Develop and use Government furnished sources according to Section 105.

If the aggregate is produced and stockpiled before placement, handle and stockpiled according to Section 320. Establish stockpile sites at locations approved. Clear and grub stockpile sites according to Section 201.

### 301.04 Mixing and Spreading.

Delete the first sentence of the first paragraph and add the following:

Ensure that aggregate and any required additives, water, mineral filler, and binder are mixed by the specified method except, if crushed aggregate products are being produced and mineral filler, binder, or additives are required, uniformly blend during crushing. Control additive proportions to 0.5 percent dry weight.

The aggregate shall be spread in a uniform layer, with no segregation of size, and to a loose depth that shall have the required thickness when compacted.

**Stationary Plant Method.** Mix the aggregate with other required materials in an approved mixer. Add water during the mixing operation in the amount necessary to provide the moisture content for compacting to the specified density. After mixing, transport the aggregate to the jobsite while it contains the proper moisture content, and place it on the roadbed or base course using an aggregate spreader.

**Travel Plant Method.** After placing the aggregate for each layer with an aggregate spreader or windrow-sizing device, uniformly mix it with other required materials using a traveling mixing plant. During mixing, add water to provide the necessary moisture content for compacting.

**Road Mix Method.** After placing the aggregate for each layer, mix it with other required materials at the required moisture content until the mixture is uniform throughout. Mix aggregate, water, and all other materials until a uniform distribution is obtained.

Spread the aggregate in a uniform layer, with no segregation of size, and to a loose depth that will provide the required compacted thickness.

When placing aggregate over geotextile, place aggregate in a single lift to the full depth specified.

Route and distribute hauling and leveling equipment over the width and length of each layer.

### 301.05 Compacting.

Delete the first and third paragraphs and add the following:

Compact the aggregate using one of the following methods as specified:

(a) Compaction A. Compact the aggregate by operating spreading and hauling equipment over

the full width of each layer of the aggregate.

(b) Compaction B. 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).

(c) Compaction C. Compact each layer of aggregate to a density of at least 95 per-cent of the maximum density, as determined by AASHTO T 99, method C or D.

(d) Compaction D. Compact each layer of aggregate to a density of at least 95 percent of the maximum density, as determined by AASHTO T 180, method C or D.

(e) Compaction E. Operate rollers and compact as specified in Subsection 204.11(a).

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.

### **301.06 Surface Tolerance.**

Add the following:

Thickness and Width requirements:

The thickness of the compacted nominal aggregate shall not vary more than ½ inch for aggregates with a maximum particle size of 1 inch or less, nor more than 1 inch for aggregates with a nominal maximum particle size greater than 1 inch from the thickness SHOWN ON THE DRAWINGS. The compacted thickness shall not be consistently above or below the specified thickness.

### **301.09 Measurement.**

Delete:

Measure aggregate by the cubic yard in the hauling vehicle and substitute with the following:

Measure aggregate by cubic yard compacted in place when payment is by contract quantities.

### **Payment**

When materials are produced and furnished by the Forest Service, the note "Government furnished materials" will be added to the description of the pay item.

## **SUPPLEMENTAL SPECIFICATION**

### **Section 650— ROAD CLOSURE DEVICES**

#### **Description**

**650.01 Work.** Furnish and install, or install only, road closure devices using fabricated gates and accessories, combination post and rail barriers, concrete barriers, earth mound barriers,

and other devices.

## **Materials**

### **650.02 Requirements.**

Furnish concrete that meets the requirements of Subsection 601.03, method B or C.

Construct earth mound barriers from excavated material adjacent to the barrier location, or from other designated locations.

## **Construction**

**650.03 Performance.** Place road closure devices at designated locations. Construct all devices to the required dimensions. In assembling gates, perform required welding in accordance with the best modern practice and the applicable requirements of AWS D1.1.

After assembly, clean non-galvanized steel pipe gates and paint them with one coat of zinc-rich primer and two coats of exterior enamel of the required type and color.

Set all posts vertically and embed them to the required depth. Place concrete for embedment against undisturbed earth within an excavation sized to achieve the embedment dimensions. Compact the backfill in 6 inch layers to finished grade.

Install all signs and/or reflective warning markers accessory to the road closure device as shown on DRAWINGS.

**650.04 Acceptance.** Construction of road closure devices will be evaluated under Subsections 106.02 and 106.04.

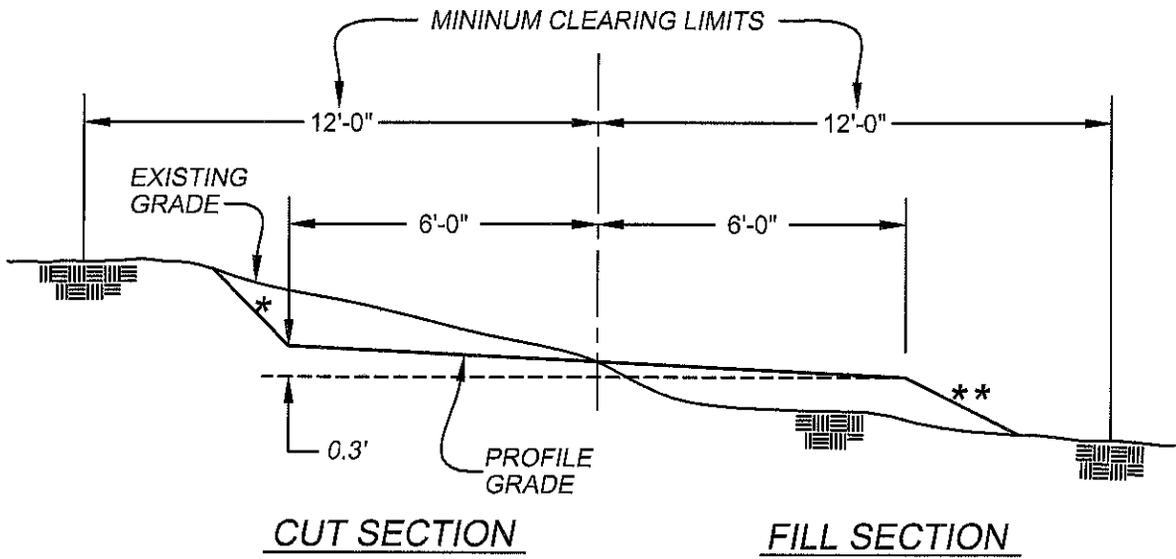
## **Measurement**

**650.05** Measure the items listed in the bid schedule according to Subsection 109.02.

## **Payment**

**650.06** The accepted quantities, measured as provided in Subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 650 pay item listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

When materials are produced and furnished by the Forest Service, the note "Government furnished materials" will be added to the description of the pay item.

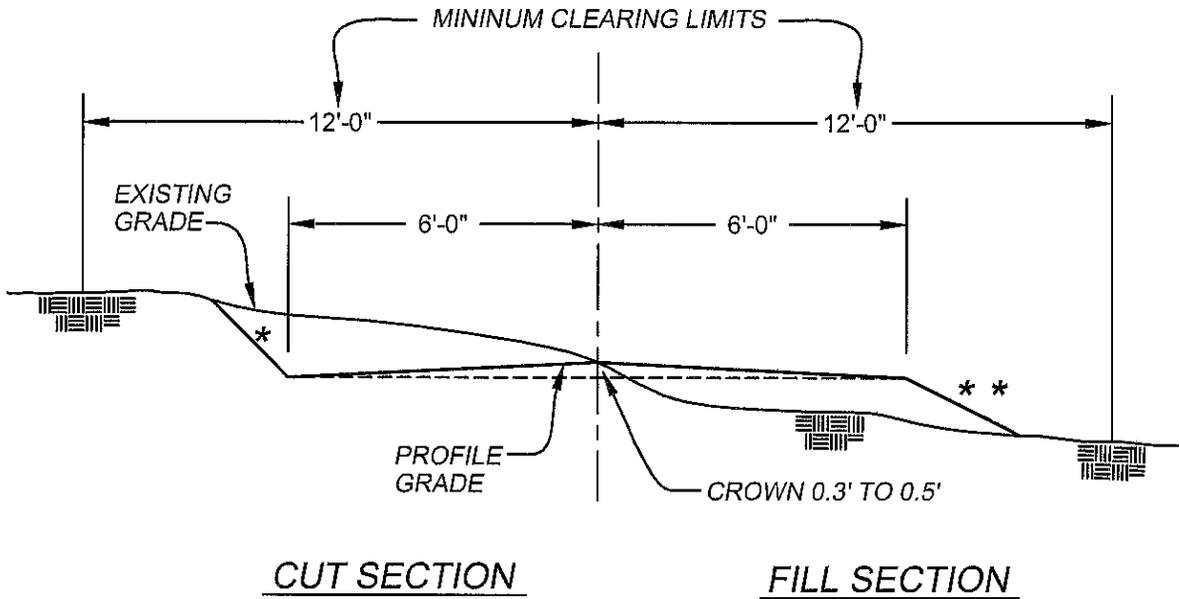


**TYPICAL OUTSLOPE DETAIL**

NOT TO SCALE

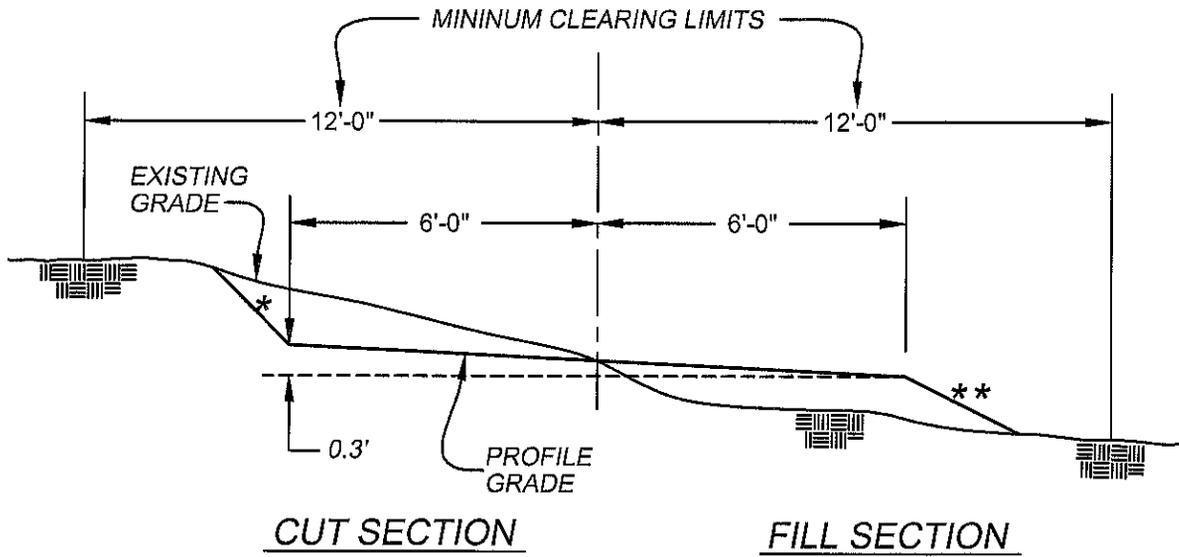
\*BACKSLOPE AND DITCH SLOPES MAY VARY FROM 1H:1V TO 2H:1V WHEN CUTS ARE UNDER 2 FT. CUTS OVER 2 FT. SHALL HAVE SLOPES OF 2H:1V

\*\*FILL SLOPES MAY VARY FROM 1-1/2H:1V TO 3H:1V



**TYPICAL CROSS SECTION CROWN NO DITCHES**

NOT TO SCALE

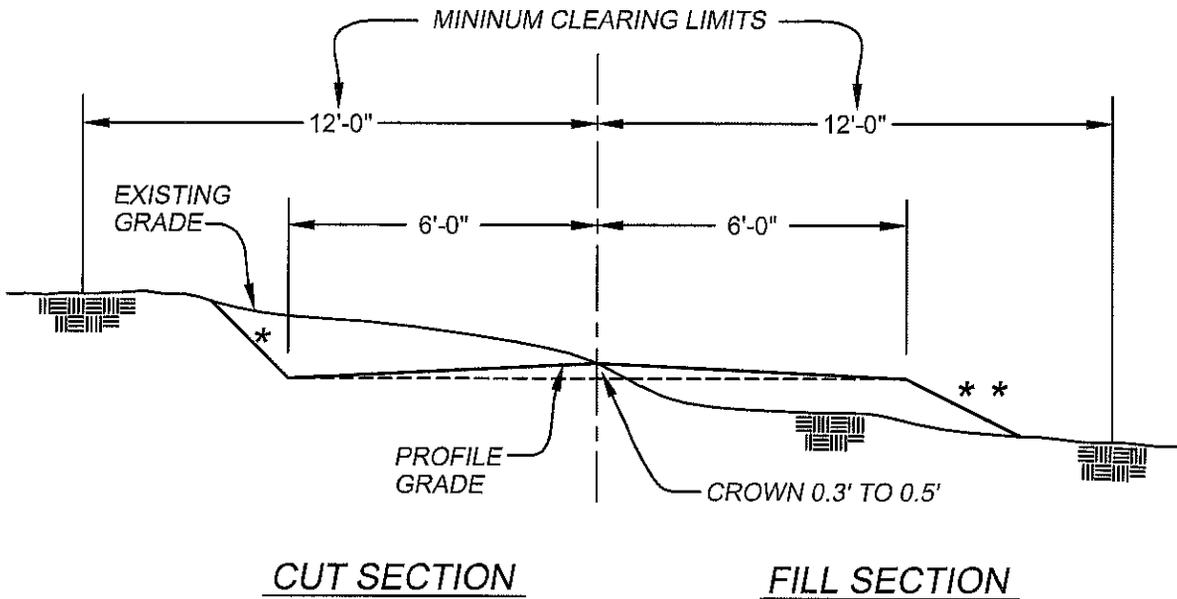


**TYPICAL OUTSLOPE DETAIL**

NOT TO SCALE

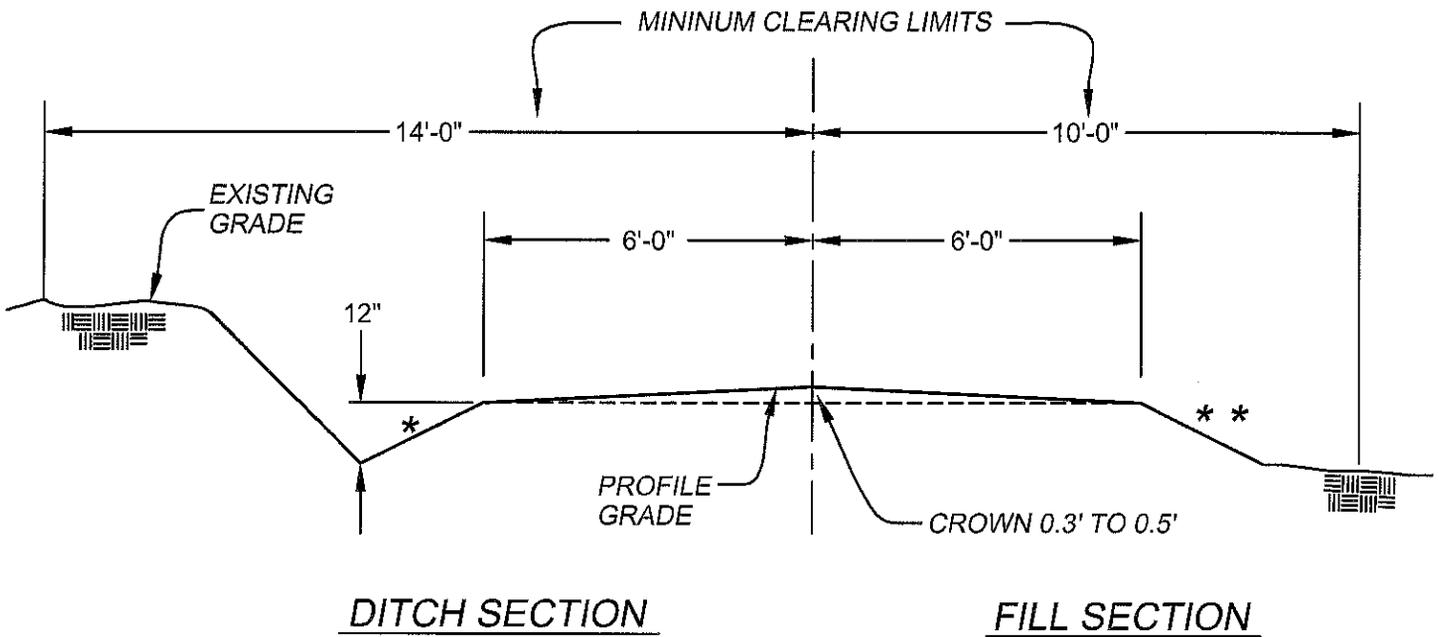
\*BACKSLOPE AND DITCH SLOPES MAY VARY FROM 1H:1V TO 2H:1V WHEN CUTS ARE UNDER 2 FT. CUTS OVER 2 FT. SHALL HAVE SLOPES OF 2H:1V

\*\*FILL SLOPES MAY VARY FROM 1-1/2H:1V TO 3H:1V



**TYPICAL CROSS SECTION CROWN NO DITCHES**

NOT TO SCALE



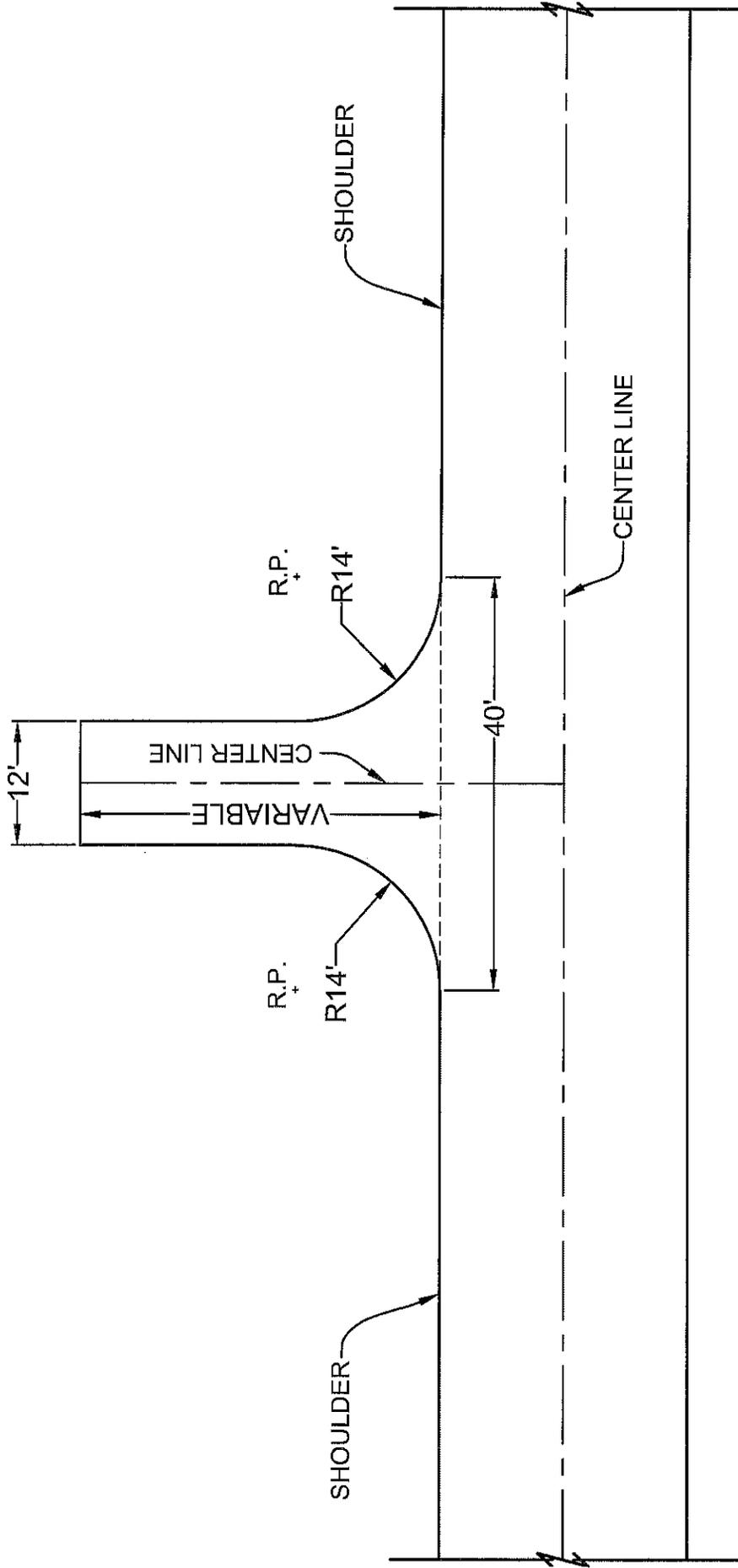
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\*\*FILL SLOPES MAY VARY FROM 1-1/2H:1V TO 3H:1V

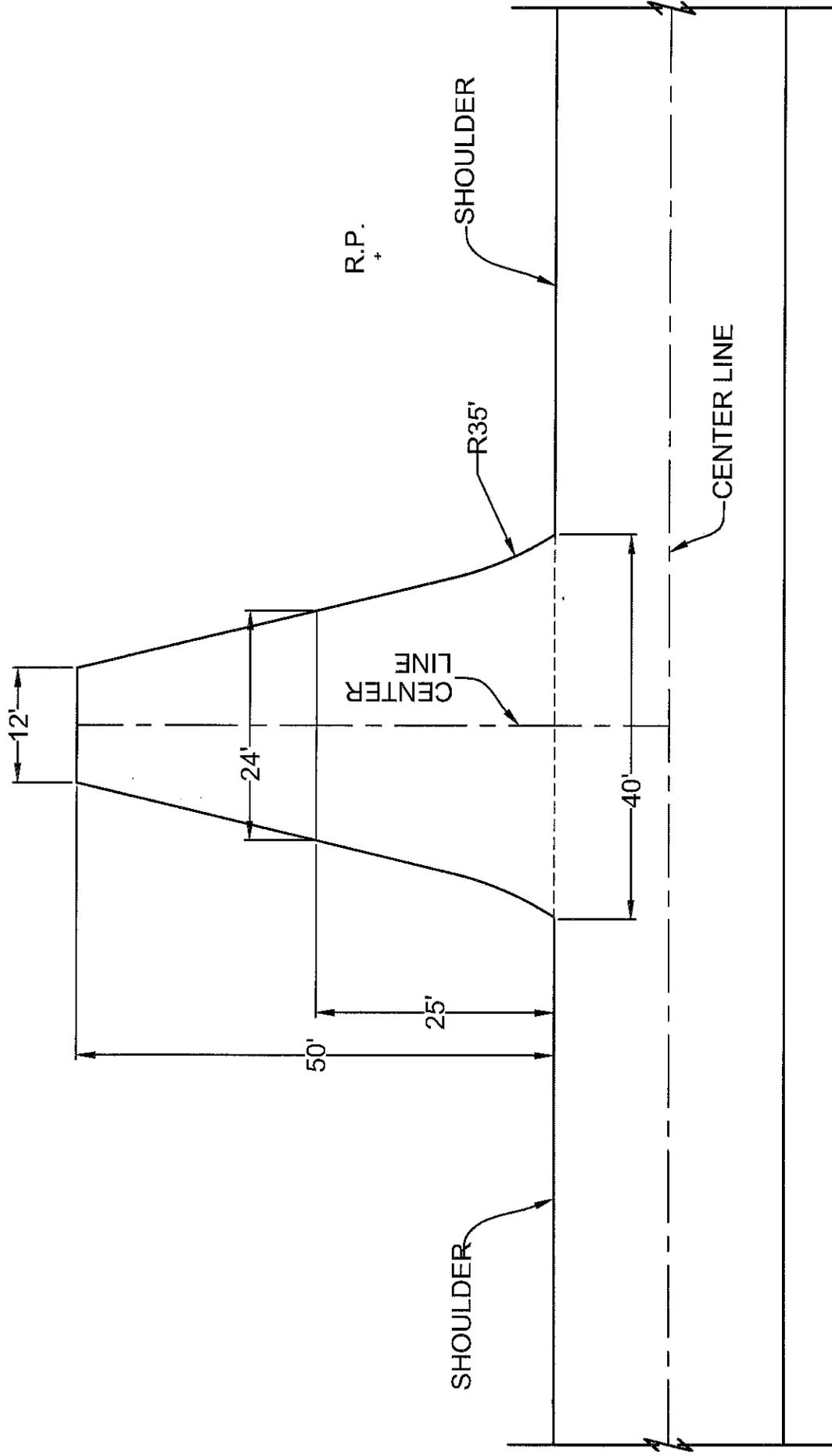
(SEE NARRATIVE FOR LOCATION)

**TYPICAL CROSS SECTION WITH 1 FOOT DITCH**

NOT TO SCALE

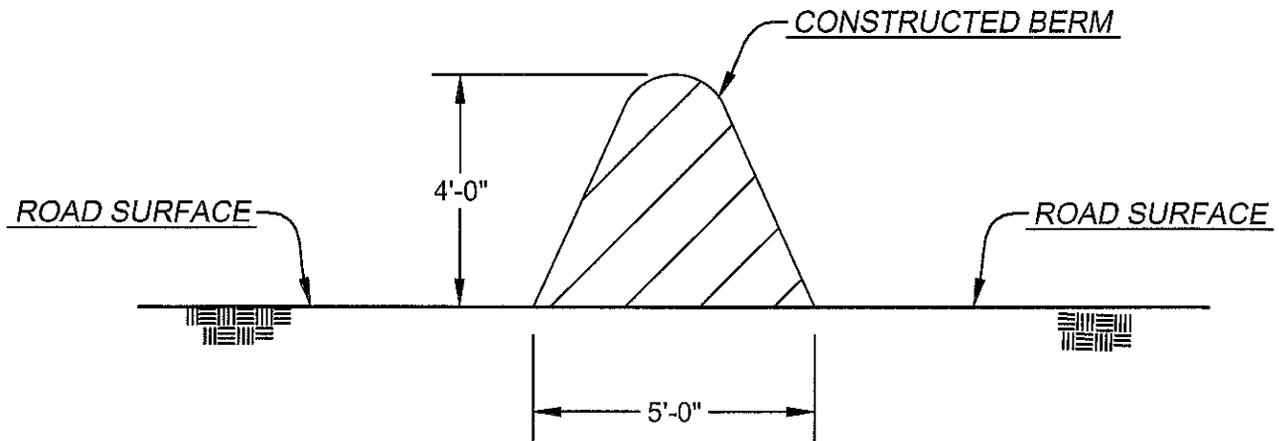


**TYPICAL CONSTRUCTED  
SIDEROAD ENTRANCE**  
NOT TO SCALE



WIDE SIDEROAD  
APPROACH

NOT TO SCALE



NOTE: BERM TO BE CONSTRUCTED WITH AVAILABLE BOULDERS FROM ROAD CONSTRUCTION AFTER SALE IS COMPLETED. IF ENOUGH BOULDERS ARE NOT AVAILABLE THE BER SHOWN ABOVE WILL BE CONSTRUCTED WITH EARTH. BERM IS TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEERING REPRESENTATIVE.

**TYPICAL BERM DETAIL**  
NOT TO SCALE