

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE TIMBER SALE CONTRACT (Applicable to Sales to be Measured before Felling)		Name of Purchaser	
National Forest Hiawatha	Ranger District Sault Ste Marie	Region Eastern	Contract Number
Sale Name Red Doors		Award Date	Termination Date 09/30/2019

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

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

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

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

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

UNITED STATES OF AMERICA
SAMPLE

Two Witnesses: ^{1/}

 (Name)

 (Address)

 (Name)

 (Address)

By: _____
 Contracting Officer

 (Title)

By: _____^{2/}

 (Purchaser)

 (Title)

 (Business Address)

I, ^{3/} _____, certify that I am the _____ Secretary of the corporation named as Purchaser herein; that _____ who signed this contract on behalf of Purchaser, was then _____ of the corporation; that the contract was duly signed for and in behalf of the corporation by authority of its governing body, and is within the scope of its corporate powers.

CORPORATE
SEAL ^{4/}

INSTRUCTIONS:

- 1/ The signatures and addresses of two witnesses are required if Purchaser is other than a corporation.
- 2/ If Purchaser is a co-partnership, the signatures should be: XYZ Company, by John Doe, a member of the firm. If Purchaser is a corporation, form of signature should be: XYZ Company, by John Doe, President (or other officer or agent) and the seal of the corporation must be impressed or indicated.
- 3/ The certificate must be completed if Purchaser is a corporation.
- 4/ If the corporation has no corporate seal that fact shall be stated, in which case a scroll or adhesive seal shall follow the corporate name.

EXAMPLE 1/	
<u>Subcontractor Certification</u> <u>Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion</u>	
Timber Sale Name: _____ National Forest: _____	
The prospective subcontractor (participants in lower tier covered transactions) certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this timber sale by any Federal department or agency.	
Where the prospective subcontractor is unable to certify to any of the statements in this certification, such prospective subcontractor shall attach an explanation to this proposal.	
Name of Subcontractor: _____ Business Address: _____ _____	
Date	Signature
1/ It is the Purchaser's responsibility to have subcontractors complete this certification and to maintain a file of completed certifications. This certification does not need to be returned to the Forest Service, except at the written request of the Contracting Officer.	

Sale Name: Red Doors

Contract No:

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

AT1 - Location and Area, applicable to BT1.1

This Sale Area of 1122 acres more or less is located in:

T44N-R4W, Sec. 30 and 31; T44N-R5W, Sec. 25 and 36

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

Species	Product	Estimated Quantity *	Unit of Measure	Minimum Specifications				
				Merchantable Tree		Piece Required to be Removed		
				Diameter Breast High (d.b.h.) (Inches)	Number of Minimum Pieces per Tree	Length (feet)	Diameter Inside Bark at Small End (Inches)	Net Scale in % of Gross Scale
Aspen	Sawtimber	26.00	CCF	11.0	1	8	9.6	70
Jack Pine	Sawtimber	18.00	CCF	9.0	1	8	7.6	50
Mixed Conifer	Sawtimber	36.00	CCF	9.0	1	8	7.6	50
Mixed Hardwood	Sawtimber	28.00	CCF	11.0	1	8	9.6	50
Red Pine	Sawtimber	1,964.00	CCF	9.0	1	8	7.6	50
Aspen	Pulpwood	135.00	CCF	5.0	1	8	4.0	70
Jack Pine	Pulpwood	23.00	CCF	5.0	1	8	4.0	70
Mixed Conifer	Pulpwood	67.00	CCF	5.0	1	8	4.0	70
Mixed Hardwood	Pulpwood	76.00	CCF	5.0	1	8	4.0	70
Red Pine	Pulpwood	544.00	CCF	5.0	1	8	4.0	70
Total Quantity		2,917.00	CCF					

* Quantities not included here are described in BT2.4

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

Clearcutting Units (BT2.31)

Specified Road Clearing (BT2.32)

Overstory Removal Units (BT2.33)

Understory Removal Units (BT2.34)

Individual Trees (BT2.35)

Incompletely Measured Payment Units (BT2.36)

SAMPLE

Number	Acres
_____	_____
_____	_____
_____	_____
_____	213.7
_____	_____

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

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

Not Applicable

AT4b- 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) \$	
Aspen	Sawtimber	CCF	1.00	12.29			.00
Jack Pine	Sawtimber	CCF	3.00	36.61			.00
Mixed Conifer	Sawtimber	CCF	1.05	15.09			.00
Mixed Hardwood	Sawtimber	CCF	1.00	40.57			.00
Red Pine	Sawtimber	CCF	3.00	62.43			.00
Aspen	Pulpwood	CCF	1.00	12.32			.00
Jack Pine	Pulpwood	CCF	3.00	38.46			.00
Mixed Conifer	Pulpwood	CCF	1.02	16.80			.00
Mixed Hardwood	Pulpwood	CCF	1.00	17.05			.00
Red Pine	Pulpwood	CCF	3.00	47.64			.00

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

SAMPLE

AT4c - Schedule of Payment Units

Payment Unit No.	App rox. Acres	Quantity of Species and Products to be Escalated under AT4a	Total Tentative Payment \$	Quantity of Species and Products to be Paid for at Flat Rates under AT4b	Total Flat Rate Payment \$	Total Required Deposits for Slash Disposal \$
12	10.1			Aspen Sawtimber 12.00 CCF		.00
				Mixed Conifer Sawtimber 34.00 CCF		
				Mixed Hardwood Sawtimber 27.00 CCF		
				Aspen Pulpwood 48.00 CCF		
				Mixed Conifer Pulpwood 43.00 CCF		
				Mixed Hardwood Pulpwood 67.00 CCF		
				Total PU Quantity And Value 231.00 CCF		
14	38.6			Red Pine Sawtimber 352.00 CCF		.00
				Aspen Pulpwood 3.00 CCF		
				Mixed Conifer Pulpwood 0.00 CCF		
				Mixed Hardwood Pulpwood 1.00 CCF		
				Red Pine Pulpwood 74.00 CCF		
		Total PU Quantity And Value 430.00 CCF				
15	14.5			Aspen Sawtimber 10.00 CCF		.00
				Jack Pine Sawtimber 0.00 CCF		
				Mixed Conifer Sawtimber 0.00 CCF		
				Red Pine Sawtimber 0.00 CCF		
				Aspen Pulpwood 52.00 CCF		
				Jack Pine Pulpwood 1.00 CCF		
				Mixed Conifer Pulpwood 9.00 CCF		
				Mixed Hardwood Pulpwood 1.00 CCF		
				Red Pine Pulpwood 1.00 CCF		
				Total PU Quantity And Value 74.00 CCF		
16	10.1			Aspen Sawtimber 2.00 CCF		.00
				Jack Pine Sawtimber 0.00 CCF		
				Mixed Conifer Sawtimber 0.00 CCF		
				Red Pine Sawtimber 0.00 CCF		
				Aspen Pulpwood 16.00 CCF		
				Jack Pine Pulpwood 0.00 CCF		
				Mixed Conifer Pulpwood 5.00 CCF		
				Mixed Hardwood Pulpwood 0.00 CCF		
				Red Pine Pulpwood 0.00 CCF		
				Total PU Quantity And Value 23.00 CCF		
		17	37.2			
				Jack Pine Sawtimber 0.00 CCF		
				Red Pine Sawtimber 281.00 CCF		
				Aspen Pulpwood 6.00 CCF		
				Jack Pine Pulpwood 2.00 CCF		
				Mixed Conifer Pulpwood 5.00 CCF		
				Mixed Hardwood Pulpwood 1.00 CCF		
				Red Pine Pulpwood 101.00 CCF		
				Total PU Quantity And Value 396.00 CCF		
18	22.6			Aspen Sawtimber 1.00 CCF		.00
				Jack Pine Sawtimber 6.00 CCF		
				Red Pine Sawtimber 387.00 CCF		
				Aspen Pulpwood 2.00 CCF		
				Jack Pine Pulpwood 6.00 CCF		
				Mixed Conifer Pulpwood 0.00 CCF		
				Mixed Hardwood Pulpwood 0.00 CCF		
				Red Pine Pulpwood 158.00 CCF		
		Total PU Quantity And Value 560.00 CCF				

Sale Name: Red Doors

Contract No:

Payment Unit No.	Approx. Acres	Quantity of Species and Products to be Escalated under AT4a	Total Tentative Payment \$	Quantity of Species and Products to be Paid for at Flat Rates under AT4b	Total Flat Rate Payment \$	Total Required Deposits for Slash Disposal \$		
19	22.2			Aspen Sawtimber 1.00 CCF		.00		
				Jack Pine Sawtimber 12.00 CCF				
				Red Pine Sawtimber 147.00 CCF				
				Aspen Pulpwood 1.00 CCF				
				Jack Pine Pulpwood 14.00 CCF				
				Mixed Conifer Pulpwood 0.00 CCF				
				Mixed Hardwood Pulpwood 0.00 CCF				
				Red Pine Pulpwood 68.00 CCF				
							Total PU Quantity And Value 243.00 CCF	
		23	57.4					Red Pine Sawtimber 775.00 CCF
				Aspen Pulpwood 3.00 CCF				
				Mixed Conifer Pulpwood 1.00 CCF				
				Mixed Hardwood Pulpwood 1.00 CCF				
				Red Pine Pulpwood 139.00 CCF				
			Total PU Quantity And Value 919.00 CCF					
50	1			Jack Pine Sawtimber 0.00 CCF		.00		
				Mixed Conifer Sawtimber 2.00 CCF				
				Mixed Hardwood Sawtimber 1.00 CCF				
				Red Pine Sawtimber 22.00 CCF				
				Aspen Pulpwood 4.00 CCF				
				Jack Pine Pulpwood 0.00 CCF				
				Mixed Conifer Pulpwood 4.00 CCF				
				Mixed Hardwood Pulpwood 5.00 CCF				
		Red Pine Pulpwood 3.00 CCF						
			Total PU Quantity And Value 41.00 CCF					

SAMPLE

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

Base Rates are the lowest rates of payment for timber that are authorized by this contract. Base Rates remain constant throughout the life of this contract and are not subject to change by rate redetermination, except for reduction under BT3.31, BT3.32, or BT3.33.

Advertised Rates are the minimum acceptable Bid Rates for timber, exclusive of Required Deposits. These rates are those indicated by appraisal, with a cost allowance made for construction of Specified Roads listed in AT7, but are never less than Base Rates.

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

Bid Rates are the rates bid by Purchaser (exclusive of Required Deposits for slash disposal and road maintenance) and are the sum of Advertised Rates and Bid Premium Rates. Until a rate redetermination becomes effective, the Bid Rate for species and products in AT4a is the Tentative Rate that is subject to quarterly adjustment under BT3.2; for species and products in AT4b, the Bid Rate is the Flat Rate.

Required Deposits are deposits that Purchaser may be required to pay for slash disposal (16 USC 490) and road maintenance (16 USC 537). Required Deposits may be adjusted as part of a rate redetermination or a Contract Term Extension. The table shows only Required Deposits for slash disposal; road maintenance deposits, if any, are given in CT5.32#.

Base Index is the specified average of the lumber or other product selling value index used as the basis for computing adjustment in rates for variance in product selling value, as provided in BT3.2.

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

Not Applicable

AT6 - High Stumps, applicable to BT6.412

Species	Product	Maximum Stump Height (inches)
All	Sawtimber	12
All	Pulpwood	10

AT7 - Specified Roads, applicable to BT5.2

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

Project		Design Class	Approx. Length (mi./km.)	Sheet Numbers and Approval Date	Performance Responsibility		
Road No.	Name				Survey	Design	Construction Staking ^{1/}
TL-3	Temp Landing PU-15 (C) (segment 0 to .03)	Single Lane - 5 mph	.03 / .05	11 01/05/2016	FS	FS	FS BC
TI-2	Temp Landing PU-17 (C) (segment 0 to .03)	Single Lane - 5 mph	.03 / .05	10 01/05/2016	FS	FS	FS BC
TL-1	Temp Landing PU-19 (C) (segment 0 to .02)	Single Lane - 5 mph	.02 / .03	9 01/05/2016	FS	FS	FS BC
3123A	Quarry (R) (segment 0 to .41)	Single Lane - 10 mph	.41 / .68	8 01/05/2016	FS	FS	FS BC

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

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

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

AT9 - Fire Precautionary Period, applicable to BT7.2

April 01 to December 01, inclusive

AT10 - Purchaser Responsibility to Furnish Crews and Equipment for: Initial Fire Suppression, applicable to BT7.3

Within 5 road miles

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

Within 10 road miles

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

Maximum Amount: \$ \$1,500

AT12 - Termination Date, applicable to BT8.2

September 30, 2019

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

First Period: June 01 to March 31, inclusive

Second Period: _____ to _____, inclusive

AT14 - Performance Bond, applicable to BT9.1

Performance Bond Amount: _____

SAMPLE

AT15 - Downpayment, applicable to BT4.211

Downpayment Amount: _____

AT16 - Periodic Payment Amount, applicable to BT4.213

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

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

Index Name: Softwood Lumber Index Number: 0811

AT18 - Inapplicable Standard Provisions

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

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

SAMPLE

AT19 - List of Special Provisions

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

- CT2.302# BOUNDARY TREES (06/2009)
- CT2.352# DESIGNATION BY SPECIES AND DIAMETER (04/2004)
- CT2.355# INDIVIDUAL TREES, CUT TREE MARKING (06/2009)
- CT4.211 DOWNPAYMENT (06/2007)
- CT4.212 TEMPORARY REDUCTION OF DOWNPAYMENT (08/2009)
- CT4.4 PAYMENTS NOT RECEIVED (08/2012)
- CT5.12# USE OF ROADS BY PURCHASER (06/1999)
- CT5.213# DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES (04/2004)
- CT5.31# ROAD MAINTENANCE REQUIREMENTS (07/2001)
- CT5.32# ROAD MAINTENANCE DEPOSIT SCHEDULE (07/2001)
- CT5.33# SNOW REMOVAL (06/2009)
- CT6.313# CUTTING SCHEDULE (06/2009)
- CT6.314# OPERATING REQUIREMENTS (06/2009)
- CT6.331 SAFETY (09/2004)
- CT6.412 STUMP MARKS (02/2009)
- CT6.42# SKIDDING AND YARDING REQUIREMENTS (06/2009)
- CT6.7# SLASH DISPOSAL MEASURES (06/2009)
- CT7.2 FIRE PRECAUTIONS (06/2009)
- CT8.212 MARKET-RELATED CONTRACT TERM ADDITION (11/2008)

Sale Name: Red Doors

CT2.302# - BOUNDARY TREES (06/2009)

Boundary trees for all harvest units have been designated with ORANGE paint marks above and below stump height. Boundary trees shall not be cut.

CT2.352# - DESIGNATION BY SPECIES AND DIAMETER (04/2004)

Trees that meet Utilization Standards are designated for cutting, as shown on the Tree Designation Table and Sale Area Map, except trees Marked with ORANGE paint or described to be left uncut.

See Tree Designation Table.

Additional trees to be cut, if any, are Marked with N/A paint.

All N/A shall be left as leave trees, unless Marked with N/A paint. Leave N/A trees of the designated cut species, N/A inches stump diameter or greater, to avoid leave tree spacing greater than N/A feet. Cutting unit boundaries and other trees that shall be left uncut are Marked with ORANGE paint.

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

Purchaser and Forest Service shall agree to skid trail location under BT6 422. Skid trails shall be no greater than N/A feet wide with a N/A foot spacing. Quantities of trees located in skid trails ARE NOT Included Timber under AT2.

Sale Name: Red Doors

CT2.352#, Designation by Species & Diameter (DxSPP)

Tree Designation Table

Payment Unit(s)	Designated Species *	More Than Stump Diameter (inches)	Less Than Stump Diameter (inches)
12	All Species EXCEPT Cedar	6.0	No Maximum

*All trees are live or recently killed.

- Exterior boundaries for Payment Units are designated with three vertical spots facing into the unit, a vertical line on each side of the bole facing the direction of the boundary and a stump mark with ORANGE paint.
- Where Payment Unit boundaries are coincidental with the road only the corners where the boundary meets the road are painted.
- No-Cut area boundaries are designated with three vertical spots facing out of the area, a vertical line on each side of the bole facing the direction of the boundary and a stump mark with ORANGE paint.

Sale Name: Red Doors

CT2.355# - 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 Unit(s). Areas of cut tree marking are shown on the Sale Area Map with the symbol "CIM."

PAYMENT UNIT(S)

PAINT COLOR

SAMPLE

Sale Name: Red Doors

CT2.355#, Individual Trees, Cut Tree Marking (CTM)

Paint Color Table

Payment Unit(s)	Paint Color
14, 15, 16, 17, 18, 19 and 23	Blue
50	Yellow

- Exterior boundaries for Payment Units are designated with three vertical spots facing into the unit, a vertical line on each side of the bole facing the direction of the boundary and a stump mark with ORANGE paint.
- Where Payment Unit boundaries are coincidental with the road only the corners where the boundary meets the road are painted.
- Payment Unit-50 (Road Right of Way) boundary is the extent of YELLOW paint.

Sale Name: Red Doors

CT4.211 - DOWNPAYMENT (06/2007)

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

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

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

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

- (1) Forest Service requests or orders Purchaser to delay or interrupt scheduled operations for reasons other than breach;
- (2) Purchaser interrupts or delays scheduled operations to work on a sale designated by the Forest Service as in urgent need of harvesting; or
- (3) An adjustment of the contract term authorized upon a determination of substantial overriding public interest, including a market-related contract term addition, or an urgent removal contract term extension under 36 CFR 223.53.

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

Sale Name: Red Doors

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

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

- (i) Slash disposal and road maintenance deposits;
- (ii) Cooperative work at rates established by specific agreement under BT4.218;
- (iii) Damages pursuant to BT9.4;
- (iv) Road use fees;
- (v) Restoration of downpayment pursuant to BT4.22;
- (vi) Periodic payments pursuant to BT4.213;
- (vii) Extension Deposits pursuant to BT4.217; and
- (viii) Other mandatory deposits.

(b) Failure to pay amounts due by the date specified in the bill for collection shall be considered a breach under BT9.3. The 30-day notice period prescribed therein shall begin to run as of the end of business on the date specified for receipt of payments. If the performance or payment is guaranteed by surety bond, the surety will receive a copy of the written notification of breach. Demand will be made on the surety or other institution providing the guarantee or bond instrument for immediate payment 10 days after issuance of written notification of the breach.

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

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

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

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

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

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

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

Sale Name: Red Doors

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

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

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

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

See Restricted Road List Table.

SAMPLE

Sale Name: Red Doors

CT5.12#. Use of Roads by Purchaser

Restricted Road Use Table

Road #	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
FR3515	FR3515	East boundary PU-14	End	P	All Use Prohibited

SAMPLE

Sale Name: Red Doors

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

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

The total amount to be deposited by Purchaser for reconstruction related engineering services to be completed by Forest Service personnel or by public works contract is \$535.00. Purchaser shall make this deposit at the end of the first full Normal Operating Season or 12 months from contract award, whichever occurs first. In the event a different deposit schedule is agreed to, such deposit shall be due within 15 days after the date of issue indicated on the initial bill for collection, pursuant to BT4.4.

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

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

Road or Facility No.	Termini From To	Engineering Services Completion Date
----------------------	--------------------	---

N/A

SAMPLE

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

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

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

See Contract Road Maintenance Requirements Summary Table.

CT5.31#, Road Maintenance Requirements

SECTION 3. ROAD MAINTENANCE REQUIREMENTS SCHEDULE

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable <u>Pre-Haul</u> Road Maintenance Specification			
	From	To		T-8360			
3513	H-40	SE corner PU-18	0.2	P			
3513	N. Boundary PU-14	SE boundary PU-14	0.1	P			
3515	3123	East boundary PU-14	0.5	P			
3172	3123	3172B	0.2	P			
3172B	3172	Turn around	0.3	P			

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

Road	Termini		Miles	Applicable <u>During-Haul</u> Road Maintenance Specification			
	From	To		T-8360			
3513	H-40	SE corner PU-18	0.2	P			
3513	N. Boundary PU-14	SE boundary PU-14	0.1	P			
3515	3123	East boundary PU-14	0.5	P			
3172	3123	3172B	0.2	P			
3172B	3172	Turn around	0.3	P			
3123A	3123	End	0.6	P			

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

Road	Termini		Miles	Applicable <u>Post-Haul</u> Road Maintenance Specification			
	From	To		T-8360			
3513	H-40	SE corner PU-18	0.2	P			
3513	N. Boundary PU-14	SE boundary PU-14	0.1	P			
3515	3123	East boundary PU-14	0.5	P			
3172	3123	3172B	0.2	P			
3172B	3172	Turn around	0.3	P			
3123A	3123	End	0.6	P			

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

CT5.31#, Road Maintenance Requirements

SECTION 1. GENERAL

Purchaser's main Road Maintenance responsibility begins: (1) after Purchaser performs Pre-haul 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 BT6.31.

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 BT8.31.

CT5.31#, Road Maintenance Requirements

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.

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 Activity. 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.

SECTION 2. ROAD MAINTENANCE DEFINITIONS (Continued)

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.

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.

CT5.31#, Road Maintenance Requirements

SECTION 4. ROAD MAINTENANCE SPECIFICATIONS

INCLUDED SPECIFICATIONS

<u>Specification No.</u>	<u>Specification Title</u>
T-8360	Composite High Clearance Road Maintenance

SAMPLE

CT5.31#, Road Maintenance Requirements

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.

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.

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 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.

T-8360 Composite High Clearance Road Maintenance (Continued)

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.

SAMPLE

Sale Name: Red Doors

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

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

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

The Required Deposits for Forest Service work in lieu of Purchaser performance and for deferred maintenance is: \$.26 per CCF.

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

Deposit Made To	Rate	Unit of Measure
N/A		

SAMPLE

CTS.33# - SNOW REMOVAL (06/2009)

Snow removal shall be done in a manner that will preserve and protect roads, provide for safe and efficient transport of timber, and prevent erosion damage to streams and adjacent lands. In performing snow removal, Purchaser shall adhere to the following performance standards, unless otherwise agreed:

1. Blade will be equipped with skid shoes to prevent loss of surfacing and damage to the road bed. On gravel and native surface roads, a minimum ONE -inch depth compacted snow mat will be maintained on the roadbed during blading.
2. Snow shall be removed from the entire road width, including turnouts.
3. Snow berms will be reduced at road intersections where plowed road segments join unplowed road segments. Reduce the piled snow in the roadway to create a smooth transition from plowed road to normal snow depth.
4. Openings will be created in snow berms as needed for proper drainage. Remove snow, ice, and debris from culverts and other drainage structures as needed to ensure efficient flow of water.
5. Tracked or cleted vehicles will not be used for snow removal without prior written approval of Forest Service Representative.

Sale Name: Red Doors

CT6.313# - CUTTING SCHEDULE (06/2009)

Unless changed by written agreement, only THREE (in addition to PU-50, Road Right of Way) Payment Units may be released at one time, and the sequence of cutting Payment Units shall be: N/A.

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.

CT6.314# - OPERATING REQUIREMENTS (06/2009)

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

Restricted operations/activities:

Within all Payment Units operations may need to be halted during spring thaw and rainy periods to prevent excessive rutting and compaction.

Within Payment Units, 12, 15 and 16 this is normally judged to be 6 inches of frozen soil and/or 12 inches of compacted snow or when the water table is at least 15 inches below the ground surface.

Prohibited operations/activities:

All slash resulting from Purchaser's operations must lie within four feet of the ground. Windrowing of slash is to be avoided.

Decking is not allowed within 70 feet of FR3123 or R-40.

CT6.331 - SAFETY (09/2004),

When Purchaser's Operations are in progress adjacent to or within recreation zones as shown on Sale Area Map, Purchaser shall, unless relieved in writing by Forest Service, post warning signs in the zone and maintain a watchman to warn and advise the public of any hazards caused by Purchaser's Operations.

CT6.412 - STUMP MARKS (02/2009)

Trees designated for cutting under BT2.35 have been marked with paint at breast height and below stump height. Trees shall be felled so as to leave paint on stump. When necessary to leave paint on stump, stumps of individually Marked trees may exceed maximum heights set forth in AT6.

Sale Name: Red Doors

CT6.42# - SKIDDING AND YARDING REQUIREMENTS (06/2009)

As used in this provision, skidding equipment includes rubber-tire and track-mounted skidders, forwarders, fell bunchers, processors and any other mechanized equipment that is used off of landings and roads.

Within Payment Unit(s)

14, 15, 16, 17, 18, 19 and 23,

unless agreed upon by written agreement, the overall width of the equipment shall not exceed 9.5 feet.

Within portions of Payment Unit(s)

N/A, as shown on Sale Area Map with symbol "SYR," N/A.

CT6.7# - SLASH DISPOSAL MEASURES (06/2009)

Slash resulting from Purchaser'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 Special Provision CT6.6#.

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

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

Other specific slash disposal requirements are as follows:

Within a 25-foot strip, measured from the cleared edge (or tree-line) of FR3123, all slash resulting from Purchaser's operations shall be removed.

Sale Name: Red Doors

CT7.2 - FIRE PRECAUTIONS (06/2009)

Unless other methods are agreed to in writing between the Purchaser and the Contracting Officer, the following specific precautionary measures are applicable during Purchaser's Operations in Fire Precautionary Period indicated in AT9.

1. Purchaser shall maintain Forest Service-approved spark arresting device 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 a one-pound multipurpose fire extinguisher readily available.
2. Purchaser shall require that smoking and the building of lunch or warming fires by Purchaser's employees, contractors, or employees of contractors be confined to designated safe places where flammable debris has been cleared away and where, at the option of the Purchaser, 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. Purchaser shall furnish serviceable firefighting tools. Location, numbers, and types of tools shall be specified in the Fire Prevention and Control Plan in accordance with BT7.1.

SAMPLE

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

The term of this contract may be adjusted when a drastic reduction in wood product prices has occurred in accordance with 36 CFR 223.52. The Producer Price Index used to determine when a drastic reduction in price has occurred is stated in AT17. Purchaser will be notified whenever the Chief determines that a drastic reduction in wood product prices has occurred. If the drastic reduction criteria specified in 36 CFR 223.52 are met for 2 consecutive calendar quarters, after contract award date, Contracting Officer will add 1 year to the contract term, upon Purchaser's written request. For each additional consecutive quarter such a drastic reduction occurs, Contracting Officer will, upon written request, add an additional 3 months to the term during Normal Operating Season, except that no single 3-month addition shall extend the term of the contract by more than one year. Contracting Officer must receive Purchaser's written request for a market-related contract term addition before the expiration of this contract.

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

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

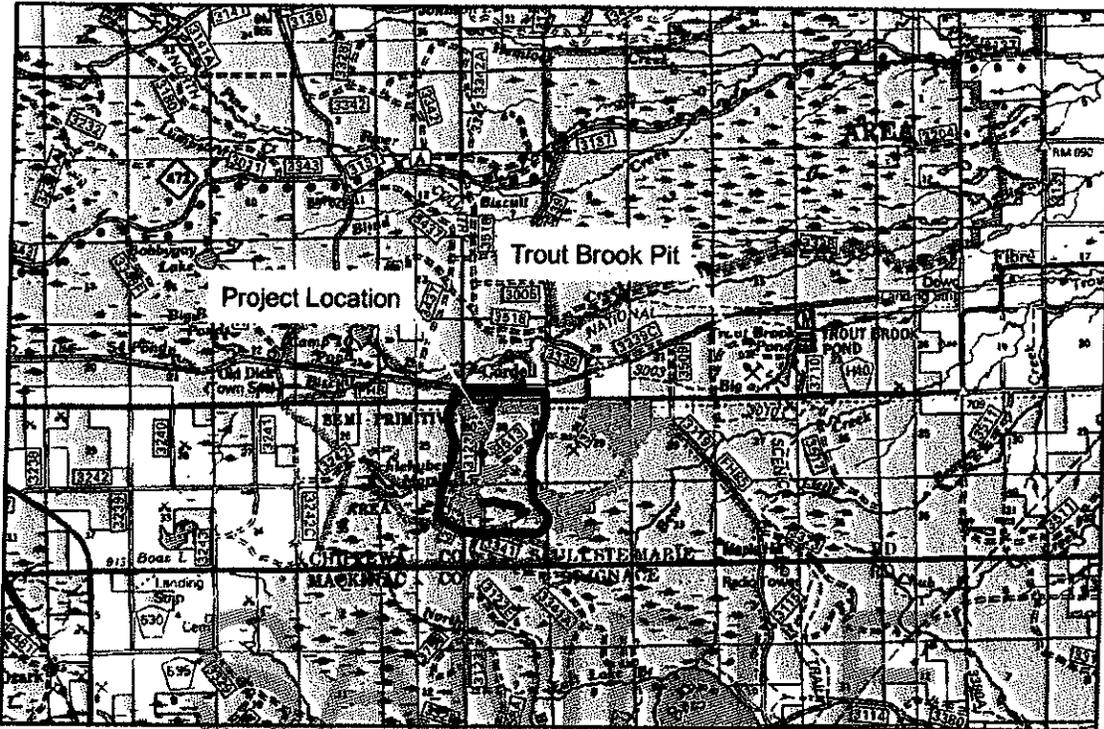
(ii) A drastic reduction in wood product prices occurred in at least ten of twelve consecutive quarters during the contract term, but not including the quarter in which the contract was awarded.

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

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

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

HIAWATHA NATIONAL FOREST
SPECIFIED ROAD DRAWINGS
RED DOORS TIMBER SALE
SOO DISTRICT



LOCATION MAP

1 in = 2 miles

INDEX OF SHEETS

- 1.....Cover Sheet
- 2.....Estimate of Quantities
- 3.....Construction Notes
- 4-7.....Typicals
- 8-11.....Description of Work Sheets
- 12.....Planview



Plans, Specifications, and Estimates Reviewed and Certified as to Content and Correctness

DESIGNED:

Jennifer A. Piggott 12/8/15
 Civil Engineering Technician date

REVIEWED:

John M. [Signature] 12/8/15
 Title: East Zone Engineer date

APPROVED:

Greg Gardner 1/5/16
 Forest Engineer date

Robert West 01/12/2016
 District Ranger date

Road No.	RoadName	C/R	Length (mi)
3123A	Quarry	R/C	.41.26
TL-1	Temp Landing 1	C	.02
TL-2	Temp Landing 2	C	.03
TL-3	Temp Landing 3	C	.03

RED DOORS SALE ROADS

SHEET TITLE
COVER SHEET

SCALE
AS SHOWN

FILE NO.
HI-511

SHEET
1 OF 12

SCHEDULE OF ITEMS - ESTIMATE - RED DOORS SALE SPECIFIED ROADS

Item No.	Description	Unit	Estimated Quantities					Unit Price	Total
			3123A	TL-1	TL-2	TL-3	Total		
10101	Mobilization	LS	0.25	0.25	0.25	0.25	1.00	\$1,000.00	\$1,000.00
10102	Temporary Traffic Control	LS	0	0.33	0.33	0.34	1.00	\$150.00	\$150.00
20101	Clearing and grubbing	LS	0.83	0.05	0.06	0.06	1.00	\$2,045.00	\$2,045.00
20301	Excavation	STA	3.0	1.5	1.5	1.5	7.10	\$56.00	\$397.60
20302	Install road closure, type stump/term	Each	0	0	0	0	1.00	\$150.00	\$150.00
20303	Road closure, type slash/gravel dispersal	Each	0	1	1	1	3.00	\$100.00	\$300.00
30401A	Aggregate Base, MDOT 23A Processing	CY	90	0	0	0	90	\$7.50	\$675.00
30401B	Aggregate Base, MDOT 23A Haul & Place, Compaction A	CY	90	0	0	0	90	\$7.00	\$630.00
30402A	Aggregate Base, Breaker Run	CY	0	50	50	60	160	\$7.00	\$1,120.00
30402B	Aggregate Base, Breaker Run Haul & Place, Compaction A	CY	0	50	50	60	160	\$7.00	\$1,120.00
60301	Temporary Culvert, diameter and length as specified	Each	0	0	0	1	1	\$915.00	\$915.00
62401	Salvage topsoil and place on slopes	CY	10	0	0	0	10	\$8.00	\$80.00
62501	Seed, fertilize, & mulch	LS	1	0	0	0	1.00	\$200.00	\$200.00
							Total		\$8,782.60

All items are contract quantities.
 LS = Lump Sum
 STA = Station of 100'
 CY = Cubic Yard

Note: Aggregate Quantities shown are loose volume hauled. This quantity is estimated by calculating compacted in place volume and adding 25%.

CONSTRUCTION NOTES

151 - CONTROL OF WORK

Construction Staking: The Forest Service will initially set all construction stakes. Clearing limits will be designated with pink flagging and/or lath with pink flagging. It is the responsibility of the contractor to maintain the construction stakes, lath, and flagging for the duration of the project.

Inspection of Construction: Furnish written records documenting aggregate hauled and placed. Records must show, at a minimum, date, pit location, road number, quantity, and be signed by the construction representative. Submit records to the Engineering Representative as the work progresses.

Construction Signs: Furnish and install 4' x 4' road construction signs when working on the intersections with FR3123. Place signs 500' each way of the work. Signs must meet requirements of MUTCD. This work is estimated and included under item 10102, Temporary Traffic Control.

201 - CLEARING AND GRUBBING

Slash Disposal: Remove all slash from within 25' of the edge of clearing of FR3123.

Brushing: The use of tractor mounted mowing or brushing equipment, capable of cutting and masticating stems up to 4" in diameter, instead of the use of a dozer, is highly recommended for removing brush from the clearing limits of the existing portion of 3123A. More native material would be allowed to remain to help hold the road together, and there would be a lot less slash, stumps, root wads, and sod to move around, in order to meet specs.

203 - EXCAVATION

Construction Tolerances:

Roadbed width +1.0'
Alignment 2.0'
Slopes +/- 1/2:1

Grade Tolerance: Profile grade closely follows existing ground, cuts and fills of up to 1' are expected. One exception is FR3123A, which has a hill that will have a cut greater than 1'.

203 - ROAD CLOSURES

The closures for Temporary Landings 1-3 (TL-1, TL-2, & TL-3) shall be made by pushing the gravel, used to construct the intersections, back into the roadbed. Disperse excess gravel so that it does not interfere with any ditching or natural water runoff. Scatter slash, from the surrounding payment unit, over the entire roadbed to complete the closure.

304 - AGGREGATE

Contractor shall be responsible for obtaining a source for item 30401. Material shall be gradation MDOT 23A crushed aggregate. An approved source for this material is the Government Stockpile located in T44N, R4W, Section 21, in the Trout Brook Pit. If the Contractor requests (using Form 2400-16), and the Forest Service agrees, the contractor would be allowed to use this source of material. The contractor would be required to pay the Forest Service a fee of \$7.50 per cubic yard to cover the cost of processing this material; this is covered under item 30401B in the schedule of items. Prior to the loading and hauling of any crushed aggregate, the engineer would designate the exact location of the material for this project. Other aggregate sources must be approved in writing before use.

The above also applies to item 30402 (Breaker Run), except that the processing fee for the Breaker Run would be \$7.00 per cubic yard.

Prior to the placement of the aggregate base, the proposed portion of the roadbed shall be approved in writing by the engineer.

624 - TOPSOIL

Topsoil shall be obtained from the roadway after grubbing. Spread topsoil to a depth of 3".

625 - SEEDING AND MULCHING

Fertilizer meeting the chemical analysis requirements for any one of the four alternatives listed below shall be applied as follows:

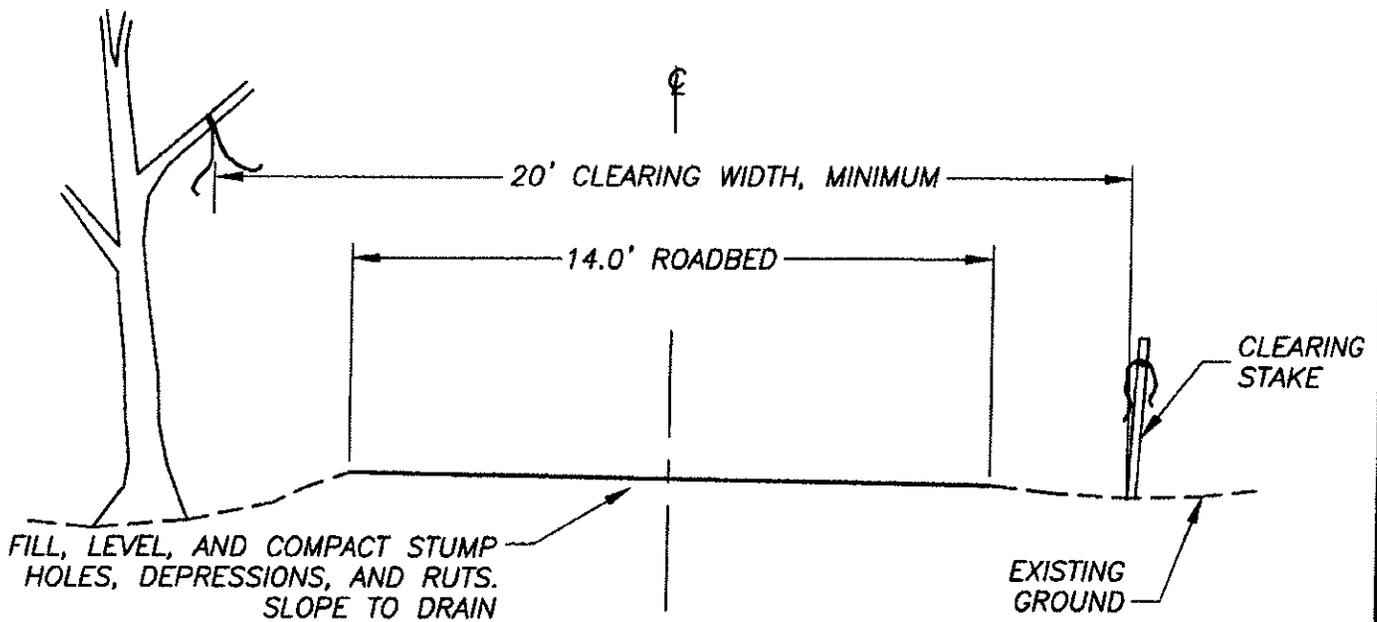
Lbs./Acre	% Nitrogen	% Phosphorus	% Potassium
500	12	24	24
600	17	17	17
1000	10	10	10
1200	6	12	12

Weed free seed, meeting the following mixture requirements shall be applied at the rate of 50 pounds per acre:

Species	% Mixture
Annual Rye	100

Mulch shall be applied at the rate of 5000 pounds per acre.

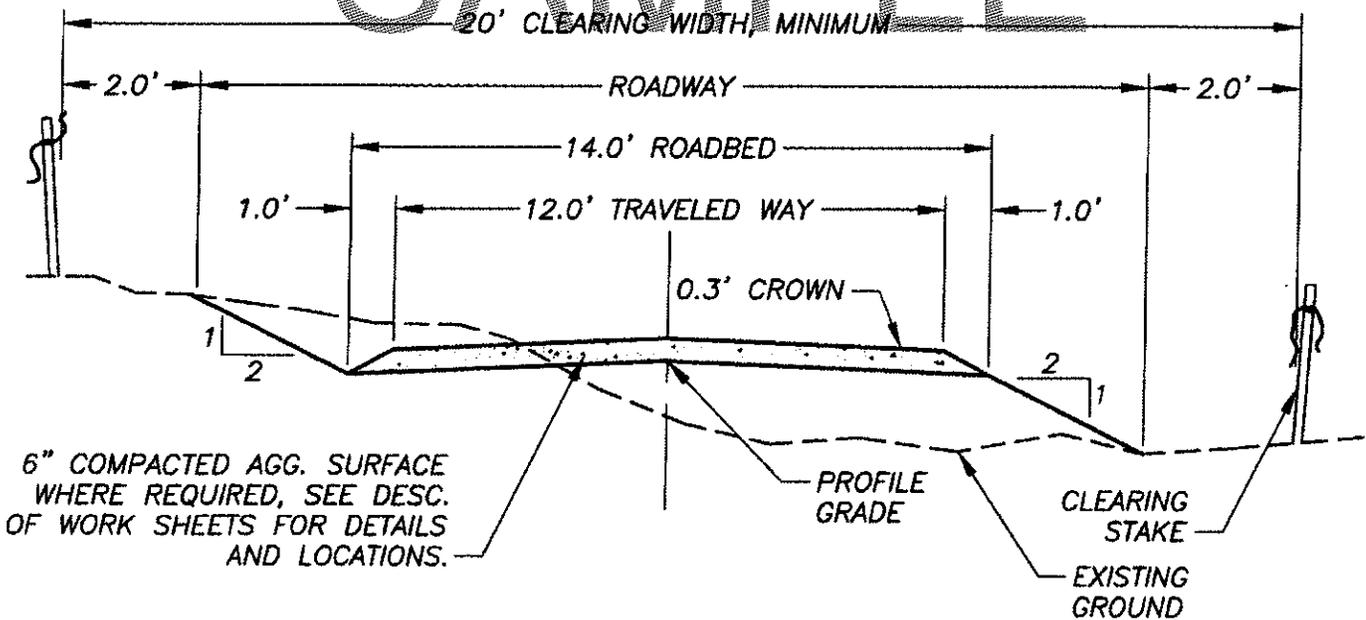
RED DOORS SALE ROADS	SHEET TITLE CONSTRUCTION NOTES	SCALE NO SCALE	FILE NO. HI-511	SHEET 3 OF 12
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TYPICAL CROSS SECTION A

SEE DESCRIPTION OF WORK SHEETS FOR LOCATIONS.

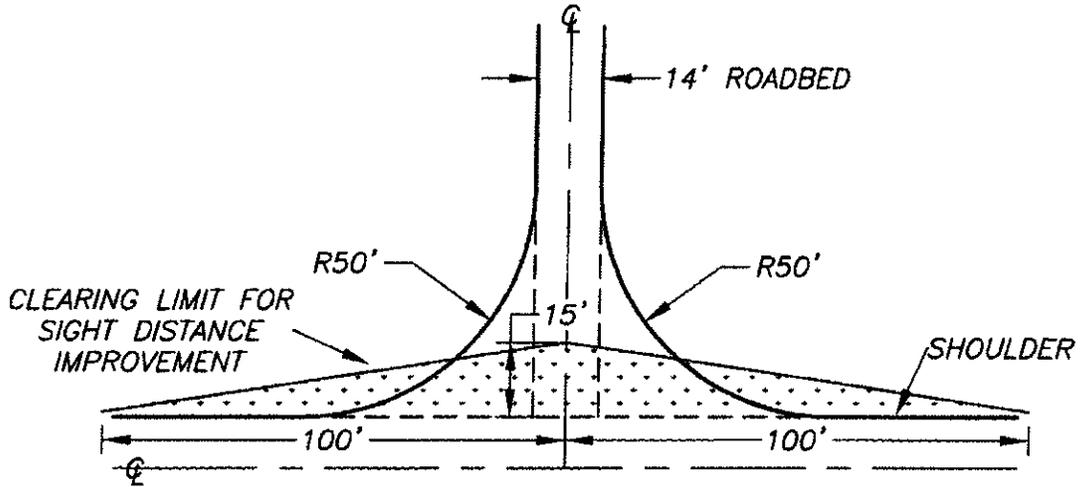
CUT SECTION **SAMPLE** FILL SECTION



TYPICAL CROSS SECTION B

SEE DESCRIPTION OF WORK SHEETS FOR LOCATIONS.

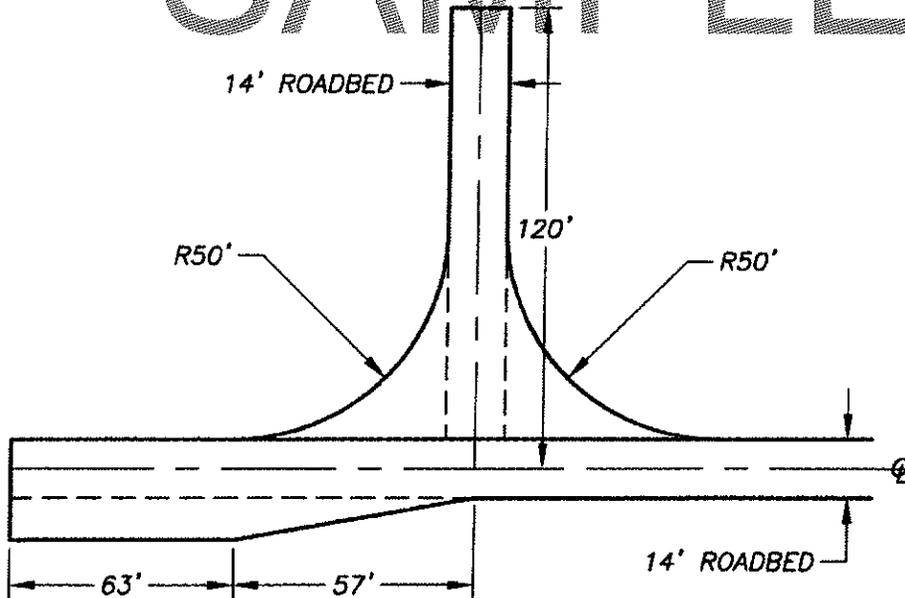
RED DOORS SALE ROADS	SHEET TITLE TYPICAL CROSS SECTIONS	SCALE NO SCALE	FILE NO. HI-511	SHEET 4 OF 12
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TYPICAL FOREST ROAD INTERSECTION

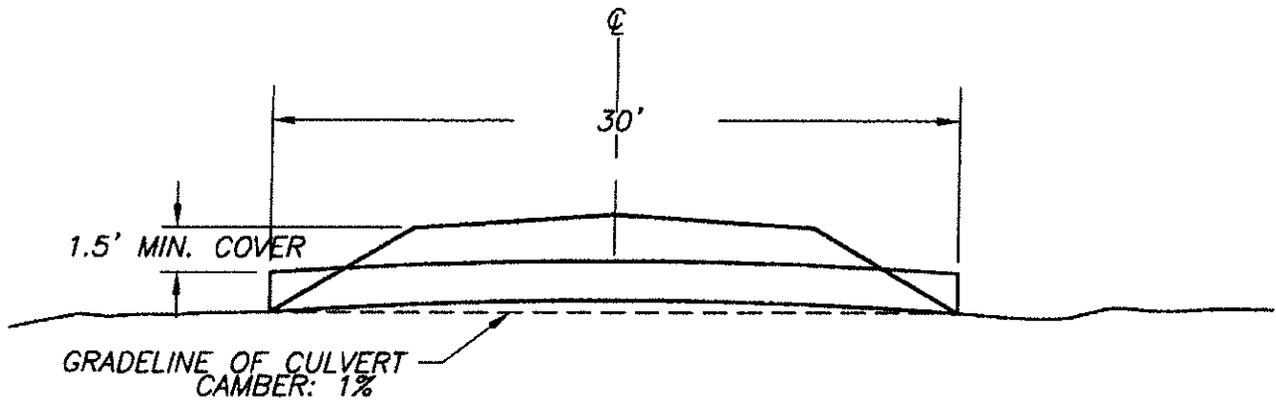
CONSTRUCT ALL INTERSECTIONS TO THIS TYPICAL.

SAMPLE



TYPICAL L-TURNAROUND

CONSTRUCT TURNAROUND AT END OF 3123A TO THIS TYPICAL.



CULVERT INSTALLATION DETAIL

INSTALL 18" X 30' C.M.P. IN DITCH AT TL-3 INTERSECTION WITH 3123. PLACE CULVERT AS FAR BACK IN DITCH AS POSSIBLE. WHEN HAULING IS COMPLETED, RESTORE DITCH LINE BY REMOVING CULVERT AND DISPERSING GRAVEL INTO TEMPORARY ROADBED.

SAMPLE

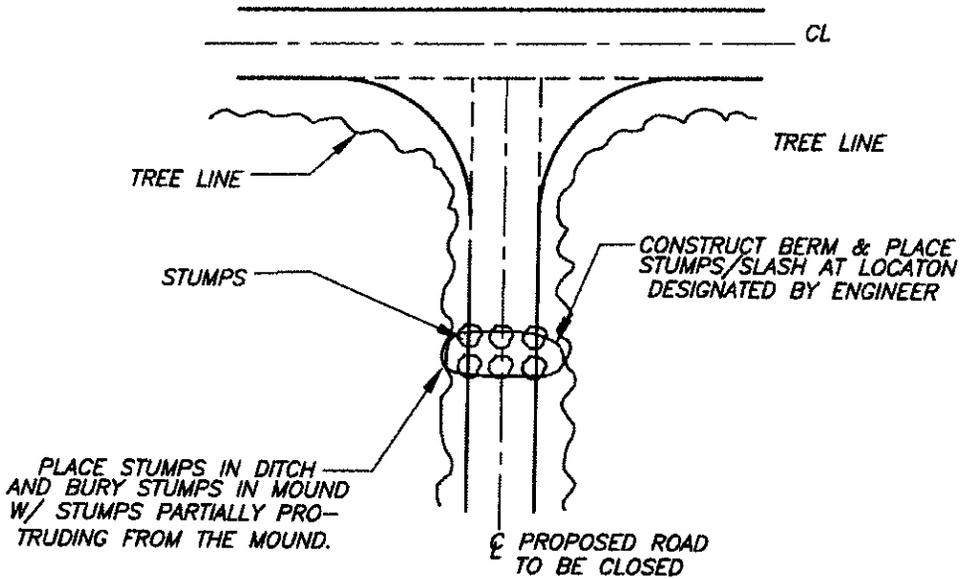
RED DOORS SALE ROADS

SHEET TITLE
TEMP CULVERT TYPICAL

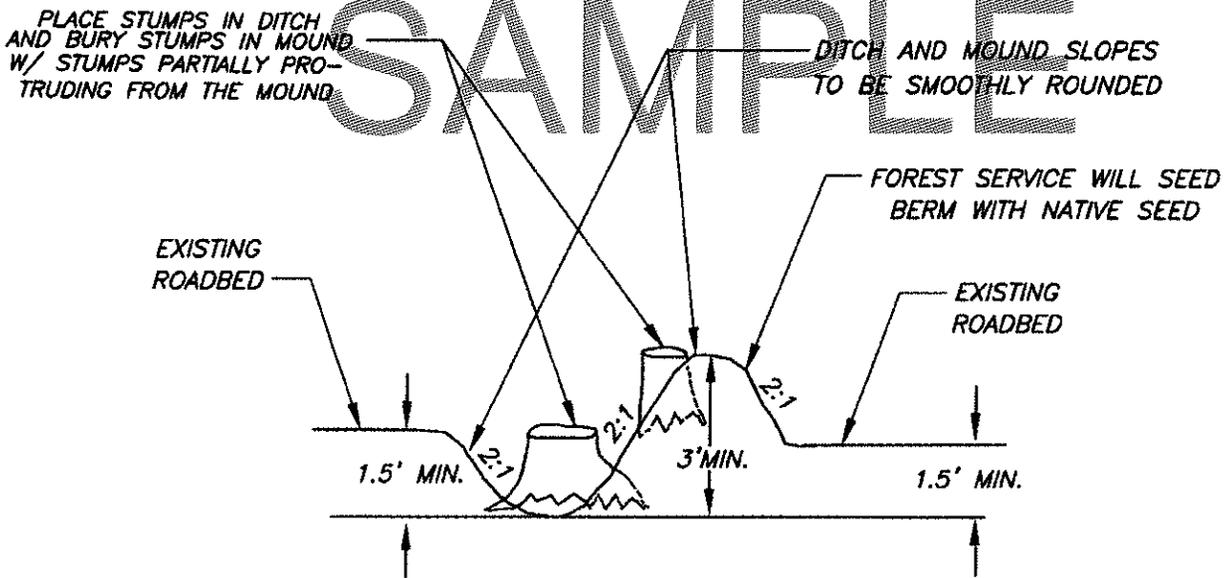
SCALE
NO SCALE

FILE NO.
HI-511

SHEET
6 OF 12



PLAN VIEW



PROFILE VIEW

TYPICAL BERMED EARTH ROAD CLOSURE DETAILS

CONSTRUCT CLOSURE ON 3123A TO THIS TYPICAL.

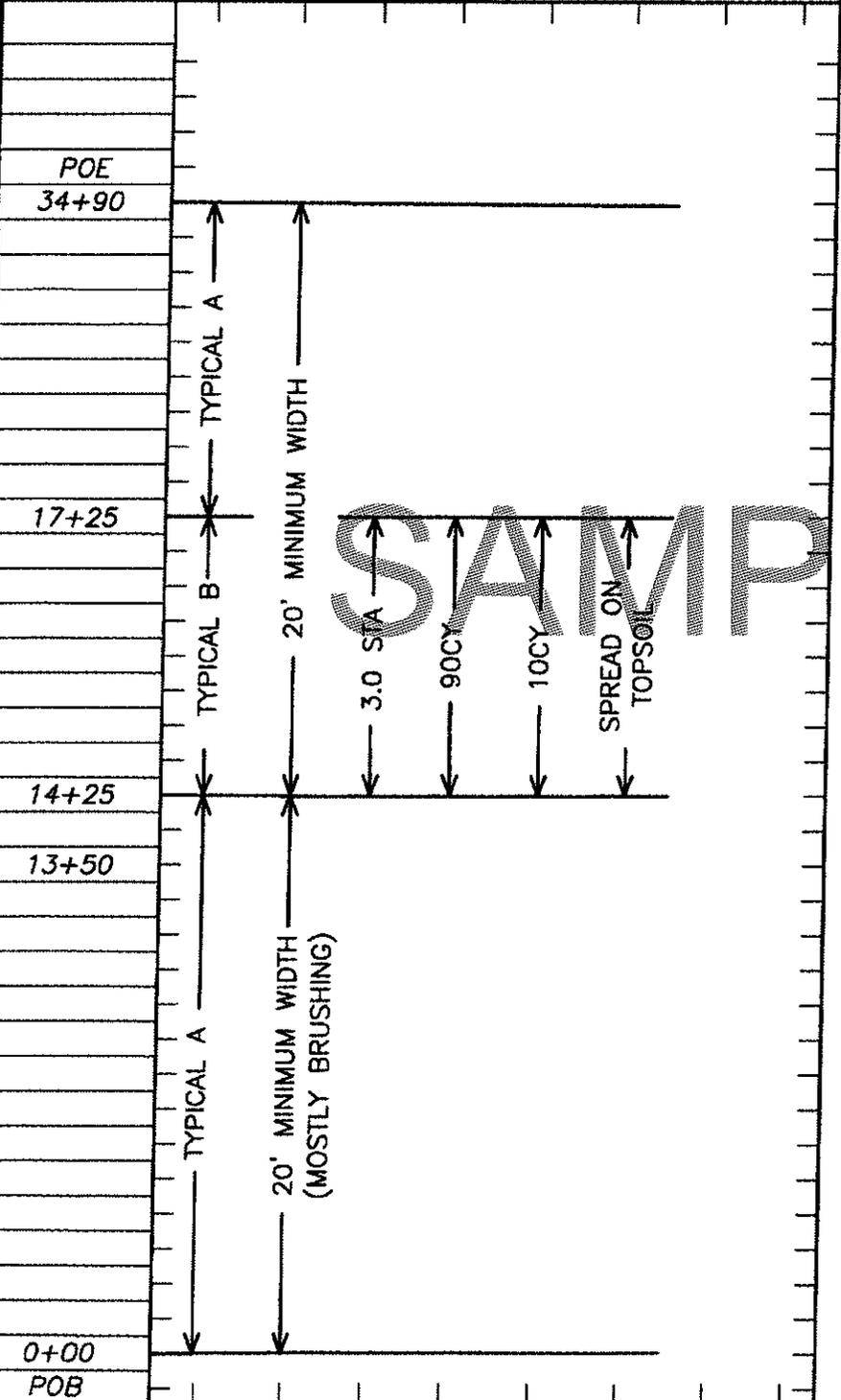
RED DOORS SALE ROADS	SHEET TITLE TYPICAL ROAD CLOSURE	SCALE NO SCALE	FILE NO. HI-511	SHEET 7 OF 12
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DESCRIPTION OF WORK

ROAD NO.
3123A

LOCATION (STATION)	TYPICAL CROSS SECTION	CLEARING AND GRUBBING	EXCAVATION	AGGREGATE 23A	TOPSOIL	SEED FERTILIZE MULCH
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DETAILS



CONSTRUCT 'L'-TURNAROUND.

CUT TOP OF HILL 2' AND
SPREAD TOWARDS 4+00.
(MAXIMUM SLOPES WILL BE 10%)

SPREAD TOPSOIL ON SLOPES
OVER 2' IN LENGTH.

CONSTRUCT ROAD CLOSURE
AS STAKED.

BOTTOM OF HILL

INTERSECTION WITH/ 3123

RED DOORS SALE ROADS

SHEET TITLE
DESCRIPTION OF WORK

SCALE
NO SCALE

FILE NO.
HI-511

SHEET
8 OF 12

DESCRIPTION OF WORK

ROAD NO.
TL-1

LOCATION
(STATION)

TYPICAL CROSS
SECTION

CLEARING AND
GRUBBING

EXCAVATION

BREAKER
RUN

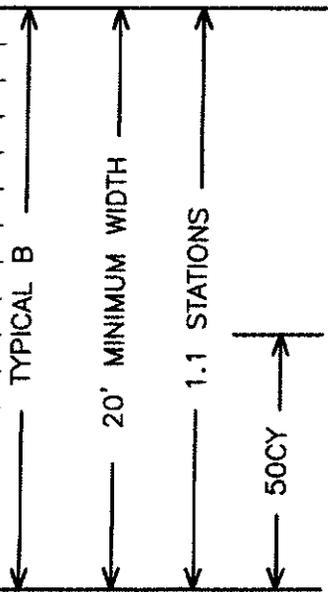
DETAILS

SAMPLE

POE
1+10

0+50

0+00
POB



CLOSE ROAD AS DESCRIBED
IN CONSTRUCTION NOTES.

CONSTRUCT TYPICAL INTERSECTION.

INTERSECTION W/ 3123

RED DOORS SALE ROADS

SHEET TITLE
DESCRIPTION OF WORK

SCALE
NO SCALE

FILE NO.
HI-511

SHEET
9 OF 12

DESCRIPTION OF WORK

ROAD NO.
TL-2

LOCATION
(STATION)

TYPICAL CROSS
SECTION

CLEARING AND
GRUBBING

EXCAVATION

BREAKER
RUN

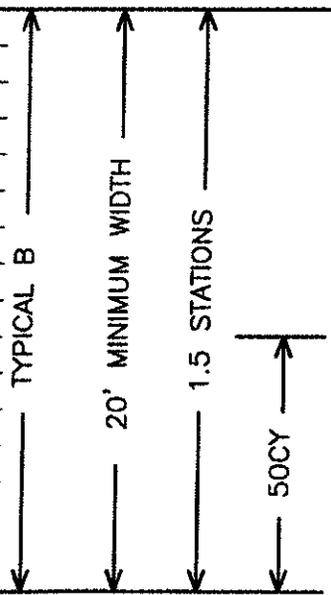
DETAILS

SAMPLE

POE
1+50

0+50

0+00
POB



CLOSE ROAD AS DESCRIBED
IN CONSTRUCTION NOTES.

CONSTRUCT TYPICAL INTERSECTION.

INTERSECTION W/ 3123

RED DOORS SALE ROADS

SHEET TITLE
DESCRIPTION OF WORK

SCALE
NO SCALE

FILE NO.
HI-511

SHEET
10 OF 12

DESCRIPTION OF WORK

ROAD NO.
TL-3

LOCATION
(STATION)

TYPICAL CROSS
SECTION

CLEARING AND
GRUBBING

EXCAVATION

BREAKER
RUN

DETAILS

SAMPLE

CLOSE ROAD AS DESCRIBED
IN CONSTRUCTION NOTES.

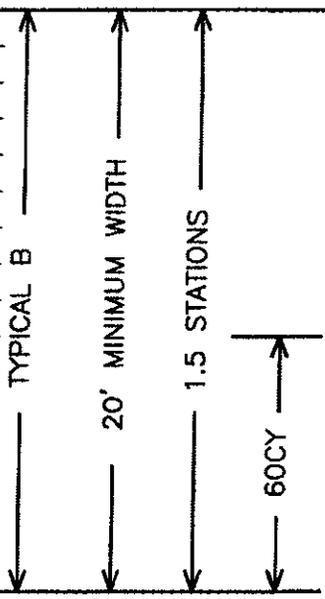
CONSTRUCT TYPICAL INTERSECTION.
INSTALL TEMP CULVERT AS SHOWN
AND AS DESCRIBED IN TYPICAL.

INTERSECTION W/ 3123

POE
1+50

0+50

0+00
POB



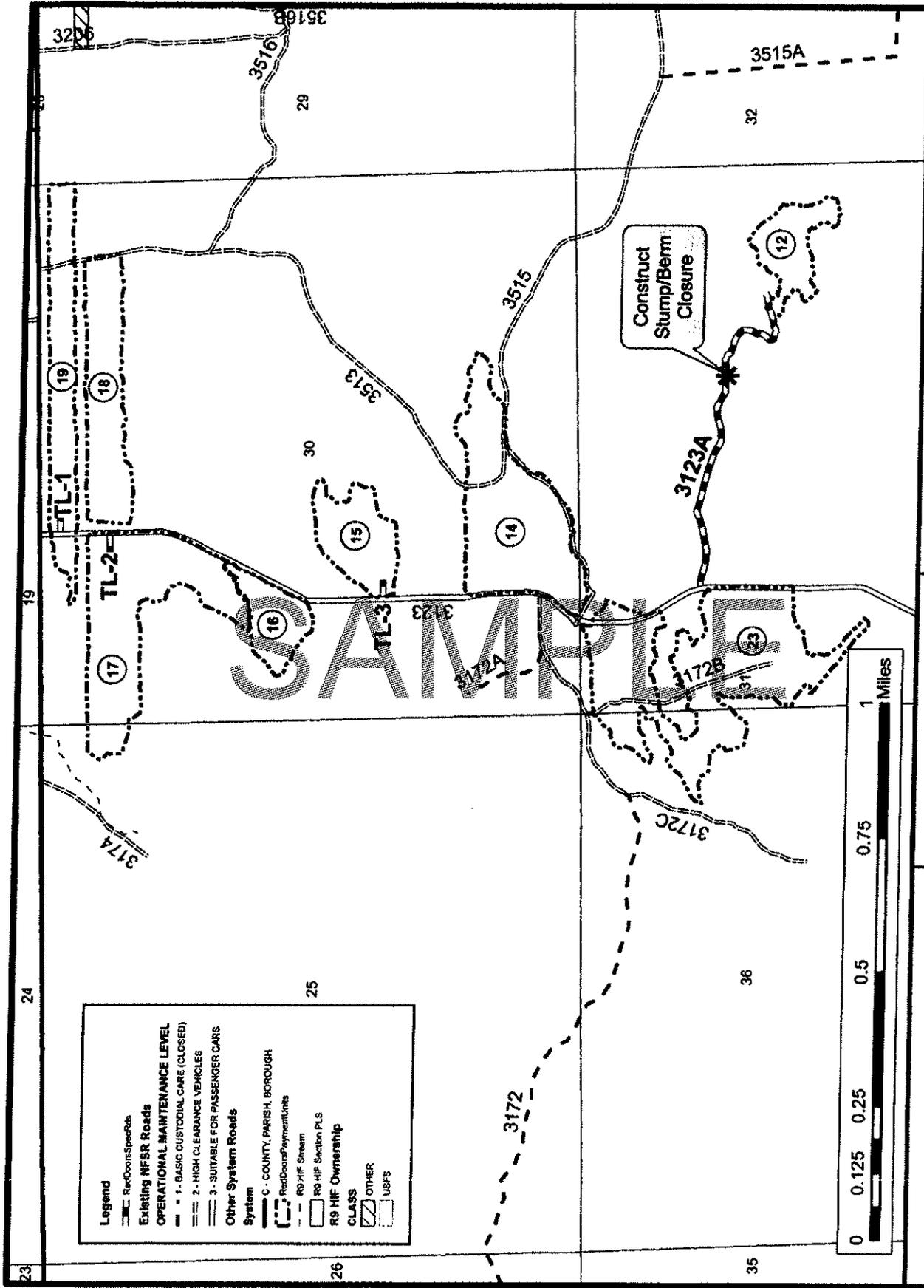
RED DOORS SALE ROADS

SHEET TITLE
DESCRIPTION OF WORK

SCALE
NO SCALE

FILE NO.
HI-511

SHEET
11 OF 12



Legend

Red Doors Speed Rts
 Existing NFSR Roads
OPERATIONAL MAINTENANCE LEVEL
 1 - BASIC CUSTODIAL CARE (CLOSED)
 2 - HIGH CLEARANCE VEHICLES
 3 - SUITABLE FOR PASSENGER CARS
Other System Roads
System
 C - COUNTY, PARISH, BOROUGH
 Red Doors Payment Units
 RB HIF Stream
 RB HIF Section PLS
RB HIF Ownership
CLASS
 OTHER
 USFS



SHEET
12 OF 12

FILE NO.
HI-511

SCALE
1:15,840

SHEET TITLE
PLAN VIEW

Red Doors Sale Roads

HIAWATHA NATIONAL FOREST

SPECIFICATIONS FOR TIMBER SALE ROADWORK

Red Doors Timber Sale

Index of included specifications:

Section 101 – Control of Work

Section 201 – Clearing and Grubbing

Section 203 – Excavation

Section 304 – Aggregate

Section 603 – Culvert

Section 624 – Topsoil

Section 625 – Seeding & Mulching

SAMPLE

SECTION 101 – CONTROL OF WORK

101.01 Use of Roads by Contractor

The Contractor is authorized to use roads under the jurisdiction of the Forest Service for all activities necessary to complete this contract, subject to the limitations and authorizations designated in the Road Order(s) or described in the contract, when such use will not damage the roads or national forest resources, and when traffic can be accommodated safely.

101.02 Inspection of Construction.

Maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. Record the work and perform calculations to determine quantities for each work item. Maintain complete inspection records and make them available to the Government. Use an acceptable format for measurement records and include, at a minimum: project name, work item, date the work was performed, location of the work, measured quantity, calculations made to arrive at the quantity, and name of person(s) measuring the work.

The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

Perform all work to the lines, grades, cross-sections, dimensions, and processes or material requirements shown on the plans or specified in the contract.

Remove and replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted, at no cost to the Government.

101.03 Public Traffic.

Description

This work consists of controlling and protecting public traffic adjacent to and with the project. All signing shall conform to the Michigan Manual on Uniform Traffic Control Devices (MMUTCD)

General

Unless otherwise provided for, keep existing roads open to all traffic during road improvement work, and maintain them in a condition that will adequately accommodate traffic. Delays may not exceed 30 minutes at any one time followed by an open period of no less than 5 minutes.

Perform no work that interferes or conflicts with traffic or existing access to the roadway surface until a traffic control plan has been approved. Post construction signs and traffic control devices in conformance with MUTCD. All required signs will be in place and approved prior to beginning work on project.

If the Contractor agrees in writing to allow public traffic to use a new road being constructed prior to completion, it will be considered an existing road for traffic control purposes.

Temporary Traffic Control

Install and maintain temporary traffic control devices adjacent to and within the project as required by the approved traffic control plan and the MUTCD. Install and maintain traffic control devices as follows:

- (a) Furnish and install traffic control devices before the start of construction operations.
- (b) All detours outside of clearing limits will be approved in writing by the Contracting Officer as part of the traffic control plan.
- (c) Install only those traffic control devices needed for each stage or phase.
- (d) Relocate temporary traffic control devices as necessary.
- (e) Remove devices that no longer apply to the existing conditions.
- (f) Immediately replace any device that is lost, stolen, destroyed, or inoperative.
- (g) Keep temporary traffic control devices clean.
- (h) Remove all temporary traffic control devices upon contract completion or when approved.
- (i) When required, use flaggers certified by the American Traffic Safety Services Association, the National Safety Council, the International Municipal Signal Association, a state agency, or other acceptable organization. Perform the work described under MUTCD Part 6. Use type III, VII, VIII, or IX retroreflective sheeting on flagger paddles. Do not use flags. Flaggers must wear high visibility safety apparel as required by MUTCD 6E.02.

Temporary Closures

Road segments may be closed as agreed to by the CO. The maximum consecutive days of closure shall be followed by a minimum number of consecutive days open to traffic. Maintain traffic control devices during closure period(s). Appropriate barricades and signs will be erected and maintained as shown in the traffic control plan or as otherwise designated.

Prior to closing roads during construction, give written notice to the Contracting Officer at least 10 days in advance.

SECTION 201 – CLEARING AND GRUBBING

DESCRIPTION

201.01 This work shall consist of clearing, grubbing, and disposing of or treatment of timber, construction slash, and debris.

CONSTRUCTION

201.02 **CLEARING & GRUBBING.** All debris, trees, stumps, roots, and other protruding vegetative material within the clearing limits shall be cleared, grubbed, removed, and disposed of, except that undisturbed stumps in locations **SHOWN ON THE DRAWINGS** may remain.

Cut stumps to be grubbed to 12” maximum height before or immediately after grubbing.

Roadway must be grubbed. Stump holes caused by grubbing shall be leveled. Areas outside the roadway but within the clearing limits need not be grubbed. Height of stumps left shall not exceed 12” above ground.

Branches on remaining trees or shrubs shall be trimmed to give a clear height of 14 feet above the roadbed.

Trim tree limbs as near flush with the trunk as practicable.

Clearing shall be done in such a manner to prevent damage to remaining trees and other property.

Grubbing shall include removal of stumps and exposed roots over 3” in diameter.

201.03 **PIONEERING.** Pioneering operations shall be conducted to minimize mixing of slash and excavated material. Final back slopes shall not be undercut, material shall not be deposited outside the fill and excavation limits, nor shall drainage be restricted.

201.04 **DISPOSAL.** Treatment of construction slash shall be accomplished by scattering slash outside the clearing limits without damaging trees. All logs shall be limbed. Logs and stumps shall be placed away from trees, positioned so they will not roll, and not be placed on top of one another. Scattered slash shall be lopped and scattered to reduce concentrations and made to lie within four feet of the ground concurrent with the clearing and grubbing operations unless other requirements are **SHOWN ON THE DRAWINGS**. Grubbed and scattered stumps shall be turned upright with roots down.

Dispose of merchantable timber designated for removal according to the B(BT) provisions of the timber sale contract. Deck merchantable timber adjacent to the roadway in areas approved by the Engineer.

MEASUREMENT

201.05 When Clearing & Grubbing is shown in the Schedule of Items, the work will be either on a lump sum basis where no measurement will be made, or on an area basis. For the area basis the original design quantity as shown on the Schedule of Items will be the final quantity, unless adjustments are made as specified in the changes provision. The design quantity is the number of acres calculated to be cleared and/or grubbed within the limits SHOWN ON THE DRAWINGS.

SAMPLE

SECTION 203 – EXCAVATION

DESCRIPTION

203.01 This work shall consist of all excavation regardless of its nature, borrow excavation, embankment construction, and shaping of roadway including such items as drainage dips, ditches, turnarounds, and other subsidiary work.

CONSTRUCTION

203.02 All suitable excavated material shall be used to construct a roadway conforming to the typical section(s) and tolerances **SHOWN ON THE DRAWINGS**.

Side casting and end dumping will be permitted for embankment construction; however, excavation and embankment shall be confined within the roadway limits. Compaction shall be accomplished by operating equipment over the full width of the traveled way. Rocks too large for incorporation shall be placed to the side of the embankment so they will not roll, obstruct drainage, or hinder use and maintenance of the road. Excess excavation and unsuitable material shall be disposed of as **SHOWN ON THE DRAWINGS** or in locations approved by the Engineer.

Location and requirements for borrow excavation are **SHOWN ON THE DRAWINGS**.

The finished slopes shall be left in a roughened condition to facilitate vegetative growth.

Rocks in the roadbed that protrude less than 2" above the finished road surface will be allowed to remain in place.

When specified, topsoil shall be salvaged in sufficient quantity to meet the quantity requirements **SHOWN IN THE SCHEDULE OF ITEMS**. Topsoil shall consist of loose, friable, sandy loam, free of admixture of subsoil, refuse, stumps, roots, rocks, brush, weeds, of other material that would be detrimental to the development of vegetative growth. Topsoil, as used herein, shall mean that portion of the soil profile defined technically as the "A" horizon by the Soil Science Society of America.

MEASUREMENT

203.03 The method of measurement will be on a linear basis or cubic yard basis. In both cases the original design quantity as shown on the Schedule of Items will be the final quantity, unless adjustments are made as specified in the changes provision. For linear measurements the design quantity is the length of road measured along quantity is computed using the average end area method.

SECTION 304 – AGGREGATE

DESCRIPTION

304.01 This work shall consist of furnishing, hauling, and placing one or more courses of aggregate surface course on the approved subgrade. Aggregate shall be pit-run, screened, crushed, or furnished by the Government as SHOWN IN THE SCHEDULE OF ITEMS.

MATERIALS

304.02 Materials shall be obtained from sources SHOWN ON THE DRAWINGS or other approved sources. Aggregate quality, production, and gradation requirements are SHOWN ON THE DRAWINGS.

When a gradation is specified, the Contractor shall submit test results and a Certificate of Compliance that states that the gradation of the aggregate meets the contract requirements. Aggregates shall be stockpiled, removed, transported, and placed in a manner that will preserve specified gradation and avoid contamination. Samples may be required at any time to validate gradation.

CONSTRUCTION

304.03 Prior to aggregate placement, the proposed portion of the roadbed shall (1) be completed in accordance with the specifications; (2) have hauling and spreading equipment operated uniformly over the full width; and (3) be approved in writing by the Engineering Representative.

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. The maximum compacted thickness of any one layer shall not exceed six inches.

The aggregate shall be compacted by one of the following methods as specified on the Schedule of Items:

Compaction A. Aggregate shall be compacted by operating spreading and hauling equipment over the full width of each layer of the aggregate.

Compaction B. Each layer of aggregate shall be compacted to a density of at least 95 percent of the maximum density, as determined by AASHTO T 99, Method C or D.

The final compacted surface shall be smooth and the thickness shall not vary more than the tolerance SHOWN ON THE DRAWINGS. The compacted thickness shall not be consistently above or below the specified thickness.

MEASUREMENT

304.04 The method of measurement will be on a volume basis or a weight basis as shown in the Schedule of Items. The volume basis will be the computed number of cubic yards adjusted for compaction, that is loose volume. The original design quantity shown in the Schedule of Items will be the final quantity unless adjustments are made as specified in the changes provision.

SECTION 603 – CULVERT

DESCRIPTION

603.01 This work shall consist of furnishing and installing, or installing only, steel, aluminum, or polyethylene culvert and appurtenances, including all excavation, bedding and backfilling required to complete the work.

MATERIALS

603.02 Culvert and coupling bands shall meet the following requirements: (1) metal coated corrugated steel culverts (CSC) shall comply with AASHTO M36, (2) corrugated aluminum alloy culverts (CAC) shall comply with AASHTO M196, and (3) corrugated polyethylene culvert (CPC) shall comply with AASHTO M294.

The materials used in each culvert installation shall be compatible with each other to prevent electrolysis or physical failure.

The lengths and locations of individual culverts SHOWN ON THE DRAWINGS are approximate. Culverts should not be ordered until locations are DESIGNATED on the ground and a written list of correct lengths is issued by the Engineer.

Riprap shall be obtained from sources SHOWN ON THE DRAWINGS or other approved sources. Riprap quality and size requirements are also SHOWN ON THE DRAWINGS.

CONSTRUCTION

603.03 EXCAVATION. Excavation for culverts shall be to the lines and grades DESIGNATED on the ground. The width of trenches shall permit satisfactory joining and thorough tamping of the bedding material under and around the culvert.

Unsuitable foundation material shall be excavated below the invert of the culvert to an approximate depth of 2 feet and a width of at least the culvert diameter plus 4 feet. Unsuitable material shall be replaced with selected granular foundation material and compacted in accordance with Subsection 603.05.

All suitable excavated material shall be utilized as backfill or embankment. No excavated material shall be placed in live streams. All surplus material shall be disposed of as SHOWN ON THE DRAWINGS.

603.04 BEDDING. The bedding for culverts shall consist of selected mineral soil meeting the requirement for backfill in Subsection 603.05. The bedding shall be uniformly compacted in accordance with Subsection 603.05. The cross section of the culvert bed shall be flat or shaped to fit the culvert.

603.04 LAYING CULVERT. Culverts shall be unloaded and handled with reasonable care. Culverts shall be placed on the bed starting at downstream end with any inside circumferential laps pointing downstream. Longitudinal laps on riveted or spot-welded culvert shall be positioned at any location between 45 degrees above or below horizontal. Lock-seam culvert shall be installed with the seam at the inlet end placed below the horizontal centerline.

Culvert shall be firmly joined by form-fitting coupling bands. Dimpled bands shall not be used when the slope of the pipe is greater than 25 percent.

The centerline of the culvert shall not vary horizontally from a straight line drawn from inlet to outlet by more than 2% of the culvert length. The invert of the culvert shall not vary from the grade line by more than 2% of the culvert length. No reverse grades shall exist.

603.05 BACKFILLING. Backfill material shall be readily compactable material free of frozen lumps, chunks of highly plastic clay or other objectionable material. Rocks larger than 1 inch in diameter for CPC and 3 inches for metal culvert shall not be used within 1 foot of the culvert. After the bedding is prepared and the culvert is placed, selected material shall also be placed equally on both sides of the culvert in layers with a loose average depth of 6 inches, maximum depth 8 inches, thoroughly compacting each layer to the density SHOWN ON THE DRAWINGS. Such compacted layers shall extend for at least one diameter on each side of the culvert. Backfill shall be compacted without damaging or displacing the culvert. Backfilling and compacting shall be continued until the backfill is 12 inches above the top of the culvert. After being bedded and backfilled culvert shall be protected by an adequate cover of embankment before heavy equipment is permitted to cross during roadway construction.

Pipe distorted more than 5 percent of nominal dimensions, ruptured, or broken shall be displaced.

603.06 RIPRAP. Riprap shall be placed as SHOWN ON THE DRAWINGS.

MEASUREMENT

603.07 Culverts will be measured along the invert by the linear foot in place. Excavation, bedding and backfill will not be measured but will be considered a subsidiary obligation of the culvert item(s).

Riprap is measured by computing the number of cubic yards designed in place. The original design quantity shown in the Schedule of Items will be the final quantity unless adjustments are made as specified in the changes provision.

SECTION 624 – TOPSOIL

624.01 Furnish, excavate, or remove topsoil from stockpiles; then haul, deposit, and spread it.

MATERIALS

624.02 Source. Obtain topsoil from sources SHOWN ON THE DRAWINGS.

624.03 Quality. Topsoil shall consist of loam or humus-bearing soils found in that portion of the soil profile defined as the “A Horizon” by the Soil Science Society of America. The mixture shall be free of refuse, stumps, roots, rocks, brush, or other materials detrimental to the development of vegetative growth.

CONSTRUCTION

624.04 Spreading. Spread the topsoil to the depth and at the locations SHOWN ON THE DRAWINGS.

Do not spread topsoil when the ground or topsoil is frozen, excessively wet, or in a condition detrimental to the work.

Remove and dispose of large clods, rocks larger than 3 inches in any dimension, roots, stumps, and other litter by scattering outside the clearing limits.

624.05 Hauling. Keep the roadbed surfacing clean during hauling operations. Remove topsoil or other soil from the surfacing before traffic compacts it.

SAMPLE

SECTION 625 – SEEDING & MULCHING

DESCRIPTION

625.01 This work shall consist of furnishing and placing required seed, fertilizer, and mulch.

MATERIALS

625.02 Materials shall meet the following requirements:

- (a) Seed shall meet the requirements of Federal Specification JJJ-S-181 and shall have been tested within the past six months.
- (b) Mulch shall be grain straw in an air dry condition or wood cellulose fiber. Mulch shall be free of noxious weeds, mold or other materials injurious to plant growth.
- (c) Fertilizer shall be a standard commercial grade furnished in sealed containers with name, weight and contents clearly marked.
- (d) Limestone shall be a ground calcic or dolomitic limestone containing not less than 85 percent of total (calcium and magnesium) carbonates.

CONSTRUCTION

625.03 Areas to be seeded shall be completed as specified. Areas which are damaged by erosion or other causes shall be restored.

Seeding shall be performed between May 1 and November 1. The seeding shall not be accomplished during windy weather or when the ground is excessively wet or frozen. Work shall be performed during each specified seeding season on all completed and previously untreated surfaces.

The methods, rates of application, and types of seed, fertilizer, limestone, and mulch shall be as SHOWN ON THE DRAWINGS. Materials shall be applied uniformly to the areas being treated.

MEASUREMENT

625.04 When Seeding & Mulching is shown in the Schedule of Items the work will be calculated on an area basis with the area computed along the slope lines. The original design quantity as shown on the Schedule of Items will be the final quantity unless adjustments are made as specified in the changes provision.

SAMPLE

