NOTICE OF TIMBER SALE

(Recovery – Scaled Sale)

SALE NAME/NO.:	Cole Turkey	341-13-51
AUCTION DATE/TIME:	March 19, 2013, starting at 2:00 pm.	
AUCTION LOCATION:	Oregon Department of Forestry Astoria District Headquarters 92219 Highway 202 Astoria, Oregon 97103 (503) 325-5451 FAX (503) 325-2756 (4 miles SE of Astoria on Highway 202)	
DISTRICT/UNIT OFFICE (MAILING ADDRESS FOR BIDS):	Oregon Department of Forestry Astoria District Headquarters 92219 Highway 202 Astoria, Oregon 97103 (503) 325-5451 FAX (503) 325-2756	
HARVEST TYPE:	Areas 1, 2 and 3: Approximately 134 acres of modified clearcut, removing approximately 40 MBF/acre of 60- to 70-year-old Douglas-fir, Western hemlock, Red alder and other conifers. Area 4 R/W: Approximately 1 acre of right-of-way removing approximately 39 MBF/acre.	
SALE LOCATION:	Timber Sale Areas are located in portions of Sections 7 and 18, T4N, R8W, and portions of Sections 13 and 14, T4N, R9W, W.M., Clatsop County, Oregon.	
DIRECTIONS TO TIMBER SALE AREA:	Timber Sale Areas can be accessed via Highway 202 near Milepost 9 to the North Fork Nehalem Road, and then stay left on Cole Mountain Road. Travel approximately 1¼ miles to the large 4-way intersection, turn left on Cole Mountain Ridge Road to Areas 1 and 2; stay on Cole Mountain Road to Areas 2 and 3.	

APPRAISED VOLUMES AND QUALITY:

SPECIES	AVG DBH	TOTAL MBF	GRADES BY MBF													
			1P	3P	P	SM	1S	2S	3S	4S	5S	6S	SEL	SC	UT	CR
Douglas-fir	21"	3,848						3,123	559	166						
W Hem. / fir	19"	767						515	229	23						
Sitka Spruce	20"	559						347	189	26						
Red alder and other hardwoods	14"	299														299
Sale Total		**5,473**														

MINIMUM BID:

BID SPECIES	Douglas-fir	$370.58 per MBF
	Western hemlock/fir	$274.79 per MBF
NO-BID SPECIES	Sitka spruce and other conifers	$207.33 per MBF
	Western redcedar and other cedars	$797.14 per MBF
	Red alder and other hardwoods	$346.42 per MBF

In order to compensate PURCHASER for Project Work, ODF will credit PURCHASER's timber account in the amount of $449,110 after the project work is completed and accepted, as described in Section 2630, "Credit for Project Work."

The Timber Sale Areas contain negligible volumes of other logs to be paid for at the prices in Section 1740.

PERFORMANCE SECURITY: 20% of bid value (unknown) **or** the total value of the project work ($450,000) whichever is greater. Actual bond amount will be rounded up to an even $1,000 unit.

EXPIRATION DATE: October 31, 2015 BID METHOD: Sealed Bids

BID DEPOSIT:	$140,700	SALE TYPE:	Recovery/BOF - 97% CSL - 3%

INSURANCE: $2,000,000 Commercial General Liability; $2,000,000 Automobile Liability; $2,000,000 Logger's Broad Form.

HARVEST METHOD:

Area 1: 88% ground-based yarding and 12% cable yarding.

Area 2: 30% ground-based yarding and 70% cable yarding.

Area 3: 82% ground-based yarding and 18% cable yarding.

Area 4 R/W: 100% ground-based yarding.

PROJECTS:

Project No. 1: Approximately 0.7 mile of sale access road construction.

Project No. 2: Approximately 7.0 miles of road improvement.

Project No. 3: Soapstone Quarry development and rock crushing of 16,132 cubic yards of rock.

Project No. 4 Vacate approximately 0.02 mile of road.

FEES: None.

ENDANGERED SPECIES ACT COMPLIANCE STATEMENT: The Oregon Department of Forestry (ODF) is engaged in an active threatened and endangered (T&E) species survey program. Surveys, determinations, and management measures are developed and implemented in good faith compliance with federal and state Endangered Species Act (ESA) requirements. Restrictions on operations due to T&E species considerations are included in the prospectus. Purchasers are required to comply with all federal and state laws, including the Endangered Species Act. Purchaser should take steps to be certain that no ESA violations occur. Prospective purchasers of timber sales are reminded that ODF surveying efforts may take place any time during the term of a timber sale contract. In some cases, ODF may require that initiation of operations be delayed to allow for completion of spot check surveys, as recommended by the USFWS survey protocol and required by ODF policy. As part of the survey program, ODF surveys its lands on a continuing basis for land management, species protection, research, and other reasons. During the contract term, T&E survey work and/or the discovery of a threatened or endangered species within or in the vicinity of a timber sale may affect operations contemplated under the contract. In the event a threatened or endangered species is found within or near this sale, ODF may take steps necessary to protect the interests of the State, including contract alteration, suspension, or termination.

Prospective purchasers are encouraged to contact the Astoria District Headquarters at (503) 325-5451 for further information or questions relative to threatened or endangered species surveys, future planned survey information, or other threatened or endangered species information.

SPECIAL REMARKS:

NO PERSONAL OR COMPANY CHECKS ACCEPTED FOR THE BID DEPOSIT.

SEASONAL RESTRICTIONS APPLY - SEE SECTION 2455.

All felling must be completed by March 15, 2015 (Sections 2310, 2350, and 2355).

Project No. 3 must be completed October 31, 2013 (Section 2620).

Project Nos. 1, 2, and 4 must be completed by October 31, 2014 (Section 2620).

Pulp removal is required if yarded to landing (Section 2310).

The information shown on the Exhibit A map(s) are approximate locations. Exact locations of features represented by map symbols shall be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.

See inside front cover of Timber Sale Schedule handbook for disclaimer regarding all governmental regulatory actions.

SALE NAME:	**Cole Turkey**
COUNTY:	**Clatsop**
CONTRACT NO.:	**341-13-51**

TIMBER SALE NAME: **Cole Turkey**

TIMBER SALE NO.: **341-13-51**

OPENING DATE: **April 16, 2013**

FORM OF PROPOSAL

The undersigned agrees to accept and perform all of the above terms and conditions as stated in the form of contract for the above-cited timber sale, and bids, and will pay:

Bid Species:

Douglas-fir, sawmill grade or better, _____

_____ Dollars **$**_____ per MBF.

Western hemlock/fir, sawmill grade or better, _____

_____ Dollars **$**_____ per MBF.

Minimum grades and volumes for bid species are stated in the timber sale prospectus.

No-bid species will remain as shown:

Sitka spruce and other conifers.....**$207.33** per MBF.
Red alder and other hardwoods.....**$346.42** per MBF.
Western redcedar and other cedars .....**$797.14** per MBF.

Enclosed is a bid deposit as required, consisting of a _____ in the amount of **$140,700**, payable to the Oregon Department of Forestry.

The undersigned agrees to execute and deliver the contract, initial payment, required certificates of insurance, and performance bond, within thirty (30) days of the date of the written notice of intent to award; and that any cash bid deposit may be applied to the first required timber sale payment.

The undersigned understands that the bid is irrevocable and further agrees that if they fail to qualify under the terms of the contract within the thirty-day period, the bid deposit shall become the property of the Oregon Department of Forestry as liquidated damages. **If the undersigned fails to qualify within the thirty-day period, STATE may disqualify the undersigned from submitting another bid on this timber sale.**

BIDDER _____
(Name of Individual or Company and Authorized Official)

TAX ID NO. _____

ADDRESS _____

_____

PHONE _____

BY _____
(Signature of Authorized Official & Title)

COMPLETE PURCHASER'S STATUS ON PAGE 2

PURCHASER'S STATUS

Purchaser is a corporation — Check ( ) — Incorporated in the State of _____

President's Name _____

Secretary's Name _____

Purchaser is: ( ) a partnership ( ) an individual ( ) an assumed (business) name ( ) company

List names of all persons doing business under the partnership or assumed name:

_____ _____

_____ _____

_____ _____

If assumed name is subsidiary to a corporation, fill in data requested of corporation also and write in corporation name here:

_____

CERTIFICATION OF ELIGIBILITY TO BID ON STATE TIMBER

_____ hereby certifies that they:

EXPORT

(a) Will not directly or indirectly export the unprocessed State timber as defined in OAR 629-031-0020 which is the subject of this transaction.

(b) Shall not engage in export of unprocessed timber originating from private lands in Oregon until such time as all interests in contracts for State timber held by the above have terminated, per OAR 629-031-0010(1)(d).

(c) Will not sell, transfer, exchange, or otherwise convey the unprocessed timber as defined above which is the subject of this transaction to any other person without first obtaining a certification from that person which meets the requirements of OAR 629-031-0030.

(d) Are not prohibited by OAR's 629-031-0005 through 0045 from bidding for unprocessed State timber as defined above directly from the State Forester.

(e) Understand that falsely entering into this certification is a violation of the Forest Resources Conservation Amendments Act of 1993 and OAR Chapter 629, Division 31, and is subject to any and all penalties contained therein.

(f) Have not directly or indirectly exported unprocessed timber originating from private lands in Oregon in the last 24 months, **or if bidding only on STATE hardwood timber or logs, HAVE** exported unprocessed timber originating from private lands in Oregon in the last 24 months, but **HAVE NOT** exported unprocessed **hardwood** timber originating from private lands in Oregon in the last 24 months **and** meet the requirements of OAR 629-031-0010(2).

DEFAULT, TERMINATION, AND OTHER RELATED MATTERS

(a) Are not currently in default status under any timber sale contract sold by the State Forester.

(b) Has not, within a 3-year period preceding this bid, had one or more Federal, State, or local timber sales terminated for cause or default.

(c) If (b) above is Yes, has submitted an explanation, in writing, with this bid for consideration by STATE. Any such explanation shall be submitted at the time of bid on a separate piece of paper.

_____
Signed

_____
Title

_____
Dated

[NOTE: For the purpose of this form, the definition of unprocessed timber is the same as in OAR 629-031-0005.]

Oregon
John A. Kitzhaber, MD, Governor

Department of Forestry
State Forester's Office
2600 State Street
Salem, OR 97310
503-945-7200
FAX 503-945-7212
TTY 503-945-7213 / 800-437-4490
http:/ /www.odf.state.or.us

"STEWARDSHIP IN FORESTRY"

Biological Survey Report

Project: Cole Turkey

Date: February 6, 2013

To: John Tillotson

CC: Tom Savage, District Sale File

From: Matt Gostin

Habitat Suitability

This sale contains potentially suitable habitat for northern spotted owls in all sale areas and marbled murrelets in sale area 2 only.

Survey Results

This sale was surveyed for northern spotted owls in 2011 and 2012, using a protocol endorsed by the U.S. Fish and Wildlife Service[1,2]. An unknown *Strix* species owl was observed on one occasion in 2011. However, northern spotted owls were not observed during these surveys.

Surveys for marbled murrelets were conducted 2009 and 2010 using a protocol developed by the Pacific Seabird Group[3]. Murrelets were not detected during these surveys.

[1] USDI Fish and Wildlife Service. 2011. Protocol for surveying proposed management activities that may impact northern spotted owls. 38pp.

[2] Oregon Department of Forestry, June 1, 2010. Policy bulletin SFB – 10-03, Northern Spotted Owl Policy Update - Northern Spotted Owl Survey Protocol.

[3] Evans, D. M., W. P. Ritchie, S. K. Nelson, E. Kuo-Harrison, Peter Harrison, T. E. Hamer, eds. 2003. Methods for surveying marbled murrelets in forests: a revised protocol for land management and research. Unpublished report for the Pacific Seabird Group Marbled Murrelet Technical Committee. 76 pp.

Known T&E Resources

There are no northern spotted owl activity centers or Marbled Murrelet Management Areas affecting this sale.

Operational Considerations

Felling restrictions for spotted owl spot check surveys are not required for this sale at this time.

Current northern spotted owl survey results are valid until March 15, 2015. Marbled murrelet survey results are valid until April 1, 2016.

All timber should be felled by March 15, 2015.

Future Survey Plans

Spotted owl spot check surveys for this timber sale will be required in 2013 and 2014. In addition, ODF has an active survey program and northern spotted owl surveys will be conducted within 3 miles of this sale during the life of the contract.

Survey Results Summary

Table 1. Northern Spotted Owl Surveys of Cole Turkey

Survey Area Year	Visit #1 Date	Visit #2 Date	Visit #3 Date	Visit #4 Date	Visit #5 Date	Visit #6 Date
Cole Turkey 2011	3/28-29 3/31-4/1 4/2-3 4/3-4 NR	4/25-26 4/26-27 4/29-30 NR	5/22-23 5/23-24 5/24-25 NR	6/17-18 6/20-21 NR	7/12-13 7/13-14 NR	8/4-5 8/5-6 8/6-7 Unk Strix (8/5-6)
Cole Turkey 2011 continued	8/12-13 NR Area around Unk Strix surveyed	8/19-20 NR Area around Unk Strix surveyed				
Cole Turkey 2012	4/3 4/3-4 4/5-6 NR	4/30-5/1 5/3 5/3-4 5/4-5 NR	5/24-25 5/25-26 5/27-28 5/29-30 NR	6/20-21 6/21-22 6/23-24 NR	7/15-16 7/16-17 NR	8/1-2 8/3-4 NR

NR - no response
V - visual response
bb - new bird banded
j - juvenile
jj - 2 juveniles
▒ - last visit to site
M_0 - mouse refused
M_1 - 1mice taken
M_2 - 2 mice taken
M_3 - 3 mice taken
M_4 - 4 mice taken
M_5 - 5 mice taken
M_6 - 6 mice taken

♂♀ ⊗♂♀ ©♂♀ - Pair (day, night, early morning)
♂ ⊗♂ ©♂ - Male (day, night, early morning)
♀ ⊗♀ ©♀ - Female (day, night, early morning)
○ ⊗ © - Sex Unk (day, night, early morning)

Table 2. Marbled Murrelet Surveys of Cole Turkey

Survey Area	Site	Station	Date	# Detections
COLE TURKEY A2	1	1	05/13/2009	0
COLE TURKEY A2	1	2	06/11/2009	0
COLE TURKEY A2	1	3	06/30/2009	0
COLE TURKEY A2	1	4	07/10/2009	0
COLE TURKEY A2	1	1	07/17/2009	0
COLE TURKEY A2	1	1	05/12/2010	0
COLE TURKEY A2	1	2	05/24/2010	0
COLE TURKEY A2	1	3	06/07/2010	0
COLE TURKEY A2	1	4	07/02/2010	0
COLE TURKEY A2	1	1	07/09/2010	0

Cole Turkey Timber Sale Contract No. 341-13-51
Table of Contents

STATE OF OREGON

DEPARTMENT OF FORESTRY

Oregon Department of Forestry
State Forests Division
2600 State Street, Building D
Salem, Oregon 97310

TIMBER SALE CONTRACT

SALE NAME: Cole Turkey
CONTRACT NO 341-13-51
ODF DISTRICT: Astoria

Section 1000. Signatures of Contract Parties.

This Contract (the "Contract") is by and between the STATE OF OREGON, acting by and through the State Forester on behalf of the DEPARTMENT OF FORESTRY ("STATE") and _____ ("PURCHASER"). The Contract shall be effective as of the latest date signed below. The parties do hereby agree as follows:

(1) Signature of STATE means he/she is a duly Authorized Representative of the STATE and is authorized by STATE to make all representations, attestations, and certifications contained in this Contract and all addenda, if any, issued, and to execute this Contract document on behalf of STATE;

(2) Signature of PURCHASER means he/she is a duly Authorized Representative of the PURCHASER, has been authorized by PURCHASER to make all representations, attestations, and certifications contained in this bid/proposal document and all addenda, if any, issued, and to execute this bid/proposal document on behalf of PURCHASER;

(3) PURCHASER, acting through its Authorized Representative, has read, understands, and agrees to all Contract instructions, specifications, and terms and conditions contained in this Contract document (including all listed attachments and addenda, if any, issued);

(4) PURCHASER is bound by and shall comply with all requirements, specifications, and terms and conditions contained in this Contract document (including all listed attachments and addenda, if any, issued);

(5) PURCHASER shall furnish the designated item(s) and/or service(s) in accordance with the bid/proposal specifications and requirements, and shall comply in all respects with the terms of the resulting agreement upon award.

IN WITNESS WHEREOF, the State of Oregon hereby awards the Contract to the above Purchaser for the item(s) and/or service(s) contained in the Contract, including all terms, conditions, and specifications. The Parties have affixed their signatures as of the latest date indicated below.

STATE:
State of Oregon, acting by and through the DEPARTMENT OF FORESTRY

_____
Chief, State Forests Division

Date: _____

PURCHASER:
(Purchaser Name) (SEAL)

By: _____
(Signature of Purchaser Authorized Representative)

Printed Name: _____

As its: _____

Date: _____

PART I: SALE OF TIMBER

GENERAL

Section 1010. Definitions of Terms.

Anchor Stump - a stump used to tie off or wrap a cable or line to firmly secure it.

Archaeological or Historical Resource - those sites, buildings, structures, and artifacts, which possess material evidence of human life and culture of prehistoric and historic past.

Areas of Operations - the locations where PURCHASER performs the Operations described in the Contract. Each Area of Operation usually has specific operating requirements.

At Price Above – material will be charged at the highest rate for that species.

Authorized Representative - a representative of the PURCHASER authorized to receive any notice or instructions from STATE on behalf of PURCHASER and to take any action required in regard to performance of PURCHASER under this Contract.

Basal Area - a measure of the cross-sectional area of a Tree Bole, in square feet, measured 4½ feet above the ground on the uphill side of the tree.

Bidder – is a person, business, corporation, or other entity recognized by the STATE that submits a bid to enter into a contract with the STATE to purchase forest products, and that certifies that the timber will be harvested.

Bunk – a bed for logs with a pair of stakes at each end.

Contract - the entire written agreement between the parties, including but not limited to the Notice of Timber Sale, Invitation to Bid or Request for Proposal, Instructions to Bidders, specifications, terms, and conditions, Exhibits, Operations Plan, change notices, if any, and the accepted bid.

Cultural Resource - an Archaeological or Historical Resource. They may include objects, structures, or sites used by people in the past.

DBH (Diameter at Breast Height) - the diameter of a standing tree inclusive of the bark measured 4½ feet above the ground on the uphill side of the tree.

Down Timber - timber that is down as of the date of this Contract, as determined by STATE.

Down Wood - trees and logs on the ground.

Fire Season - when the State Forester has declared that conditions of fire hazard exist in a forest protection district or any part thereof. The State Forester designates for each district or any part thereof the date of the beginning of a Fire Season for that year. The Fire Season continues for each district or part thereof until ended by order of the State Forester when conditions of fire hazard no longer exist in that district or part thereof.

Green Tree Retention - the practice of leaving live, growing trees on a site during timber harvest as a future source of Snags, old growth trees, large diameter wood, and native seed.

Group Selection Area (GSA) – an area within the Timber Sale Area that has a unique prescription as described in this Contract. Group Selection Areas are less than five acres in most circumstances and are usually marked on the ground with boundary signs. Prescription trees are marked with paint within the Group Selection Area.

Guy Stump - a stump used to tie off or wrap a cable or line to firmly secure it.

Guyline - a cable or rope attached to something to brace, steady, or guide it.

Hazardous Substances - any substance or material that is hazardous or toxic to health or otherwise regulated or controlled under any applicable federal, state or local statute, regulation, ordinance or law.

Improvements - a permanent addition or change to real property, such as a road, structure, or utility, which increases the value of the property.

Landing - a collecting point for logs; the place to which logs are yarded for loading and transportation from the woods.

Live Crown Ratio - the length of a Tree Bole supporting the growth of live branches compared to total tree height, expressed as a percentage.

"Live" Stream - a stream with water flowing through it.

Log Load Receipt Book - a book issued by the STATE used for log load accountability. In each book there are sequentially numbered multipart pages (tickets). Each page is a four-part form. Each of the four parts, on each page, has the same identifying number. The four parts are:

Woods Receipt
Turned in to the ODF District Office that the timber sale is in.

Trucker Receipt
Retained by the log truck driver.

Load Receipt
Stapled to the log load on the truck before the truck leaves the Timber Sale Area Landing. Stays with the log load until the load is dispersed and processed at the mill.

Scaler Receipt
Stapled to the log load on the truck before the truck leaves the Timber Sale Area Landing. When the load is scaled (measured) the Scaler Receipt is transferred to the Scaling Bureau's printout of the log breakdown of the load. This log breakdown (which shows number of logs, species of logs, grades of logs, and board foot volume), along with the Scaler Receipt is sent to ODF headquarters in Salem.

Low Relative Density – an area of heavy thinning where the Relative Density of the residual stand is less than 15.

Major Catastrophes - windstorms, floods, fire, landslides, or other acts of God, which are beyond the control of PURCHASER and in no way connected with negligent acts or omissions of PURCHASER, its officers, employees, agents, or subcontractors.

MBF - thousand board feet.

Operations - all the activities conducted by PURCHASER under this Contract, including Project Work, logging, or post-harvest activities; or the furnishing of all materials, equipment, labor, and incidentals necessary to successfully complete any individual item or the entire Contract.

Operations Plan - the document by which PURCHASER notifies STATE of the plans and schedule for completing the Operations described in the Contract. It also contains the names of the subcontractors, PURCHASER's Authorized Representatives, and STATE's Authorized Representatives.

Patchcut – a small clearcut area; 0.5 to 2 acres in size.

Permit - any Permit required by a federal, STATE, or local government agency before Operations under this Contract may lawfully begin or continue. Permit includes an incidental take Permit under the federal Endangered Species Act.

Pre-Operations Meeting – the initial meeting between the Authorized Representatives of PURCHASER and STATE to discuss operational issues and requirements of the Contract, and to identify the elements to be addressed in the Operations Plan.

Project Location - the points or areas designated as such on Exhibit A and located on the ground by reference to points, stations, natural land features, Improvements, or area boundary signs. The location(s) where project activities occur.

Project Work - work required of the PURCHASER in addition to normal log removal and hauling activities. The PURCHASER is usually compensated for Project Work with Project Work Credits. Project Work can include, but is not limited to, road building, road improvement, rock quarry development, stream enhancement, site preparation, soil stabilization, and water runoff control measures.

Protected Genetic Parent Tree - a seed tree selected for its desirable characteristics that is designated not to be cut or harmed.

Pulp – any log (tops only) that does not meet the minimum requirements for removal in Section 2040 or 2045, Log Removal.

Purchase Price - for each species sold on a recovery basis, "Purchase Price" is defined as the price per MBF listed in Section 1740, "Log Prices." If species is not listed in Section 1740, "Log Prices," the highest price listed in Section 1740, "Log Prices," shall apply.

For bid species sold on a lump sum basis, the Purchase Price for each species shall be determined by using STATE's unamortized timber appraisal value, multiplied by the bid-up factor. Bid-up factor shall be calculated by STATE using the following calculation: Bid value all species/appraised value all species = bid-up factor.

For no-bid species sold on a lump sum basis, the Purchase Price for each species shall be determined by using STATE's unamortized timber appraisal value.

PURCHASER's Authorized Representatives - the representatives authorized by PURCHASER to receive any notice or instructions from STATE on behalf of PURCHASER and to take any action required in regard to performance of PURCHASER under the Contract. PURCHASER's Authorized Representatives are identified in the Operations Plan.

PURCHASER's Deposit Account - an account where PURCHASER timber sale payments are deposited. This is an account set up by the State of Oregon to accept regular and advance timber sale payments from the PURCHASER. Advance payments are defined in the Payment Schedule section of the Contract.

Relative Density - a measure of the degree of closeness of trees growing side by side in a stand, in relationship with their size. The measure is expressed as a ratio of actual stand density to the maximum stand density attainable in a stand with the same mean tree volume. Relative Density is calculated by dividing the residual Basal Area by the square root of the average residual stand DBH.

Residual Tree - green tree left standing on an Area of Operation or Timber Sale Unit.

Right-of-Way Timber - trees harvested from a strip of land to enable a road to be constructed.

Setting - the area of a logging operation from which logs are yarded to a single Landing.

Slash - all woody debris resulting from logging Operations, construction of roads, or other Improvements.

Snag - a standing dead tree, or portion of a tree, from which most of the foliage and limbs have fallen.

Stand Density Index – a measure of the degree of closeness of trees growing side by side in a stand, in relationship with their size. Stand Density Index (SDI) is calculated by dividing the average stand diameter by 10 taken to the 1.605 power, multiplied by the average trees per acre (TPA), and divided by the maximum SDI of that species. $SDI = TPA \times (Diameter/10)^{1.605}$

STATE - the Oregon Department of Forestry, State Forester, or a duly Authorized Representative of the State Forester.

Stream Buffer - designated areas adjacent to a stream where timber is left uncut, or there are other special management or operational requirements. Stream Buffer may be marked in the field.

SUB - Submerchantable materials. SUB, as used by STATE, references that material containing at least 10 board feet (net) but less than the lower merchantable net volume limit or grade requirements for other merchantable material, as defined in Section 2045, "Log Removal."

Subcontract - assign responsibility for work required under the Contract to a party other than the PURCHASER.

SUM - lump sum material.

Tailblock - a pulley that is attached to an Anchor Stump, Guy Stump, Tailhold Stump, tree, or other sturdy object, through which a cable is passed and used to return the mainline and chokers to the cutting area from the Landing.

Tailhold - a stump, tree, or other sturdy object to which a Tailblock, cable, or line is attached.

Tailhold Stump - a stump used to tie off or wrap a cable or line to firmly secure it.

Timber Harvesting Operations - activities conducted by the PURCHASER on a timber sale to remove logs from the woods. These activities can include, but are not limited to, felling, bucking, Yarding, loading, and hauling.

Timber Sale Area - the area or areas designated as such on Exhibit A and located on the ground by reference to legal subdivisions, monuments, natural land features, Improvements, or sale boundary signs. It is the entire area encompassing the material that is required to be harvested.

Timber Sale Unit - a sub-area within an Area of Operation. A Timber Sale Unit usually has more operational requirements, in addition to the operational requirements of the Area of Operation.

Total Purchase Price - For sales with species sold on a recovery basis or a combination recovery basis and lump sum, Total Purchase Price is the sum of each recovery basis species' volume multiplied by the price per MBF listed in Section 1740, "Log Prices," and each lump sum basis species' lump sum price.

For sales with all species sold on a lump sum basis, Total Purchase Price is the total bid price.

TPSO (Third-Party Scaling Organization) - a scaling organization not affiliated with either the PURCHASER or STATE.

Tree Bole - the trunk of a tree.

Unsurfaced Road - A road in which the running surface consists of the same materials as the surrounding native soils. Unsurfaced roads may also include those roads that have had some minimal surfacing added but are inadequate for use during wet weather as determined by ODF.

Utilization Scale - scaling of logs to account for merchantable material that has been lost due to logs not removed from the harvest area, or from improper logging practices that resulted in breakage or wastage to otherwise merchantable logs.

Written Plan - a plan that describes how an operation will be conducted, including the means to protect resource sites described in ORS 527.710(3)(a) (relating to the collection and analysis of resource site inventories), if applicable.

Yarding - the process of conveying logs from the cutting area to the Landing.

YUM (Yarding Unmerchantable Material) - to yard logging residue to a Landing or other specified location.

Section 1020. Sale of Timber. Under the terms and conditions of this Contract, STATE sells to PURCHASER, and PURCHASER buys from STATE, that Board of Forestry, and Common School Land timber designated and described in Section 2210, "Designated Timber," which for all purposes of this Contract is hereinafter referred to as "timber." The location of Designated Timber is shown on Exhibit A. PURCHASER shall pay STATE the Total Purchase Price for timber set forth in Section 1710, "Purchase Price," or 1740, "Log Prices." The Total Purchase Price shall be paid to STATE in accordance with the payment schedule in Section 1720, 1751, 1752, or 1753, "Payment Schedule."

This is a sale of "State Timber" as defined in OAR 629-031-0005 and timber harvested or sold under this Contract must not be exported from the United States. PURCHASER must comply with the provisions of the Forest Resources Conservation and Shortage Relief Amendments Act of 1993, which authorizes Oregon and other western states to prohibit the export of unprocessed timber from public lands, and with ORS 526.801 through 526.831 and OAR 629-031-0005 through 629-031-0045, in disposing of timber from this timber sale.

Section 1030. Title to Timber. During the period of this Contract, and any extension, PURCHASER shall have the right to cut and remove the timber. Such right shall be conditioned upon PURCHASER complying with the provisions of this Contract.

The ownership of and title to the timber shall pass to PURCHASER as the timber is paid for following removal from the Timber Sale Area. Any right of PURCHASER to cut and remove the timber shall expire and end at the time this Contract, or any extension, terminates. All rights and interests of PURCHASER in and to timber and logs remaining on the Timber Sale Area shall, at that time, automatically revert to and revest in STATE, without compensation to PURCHASER.

Section 1040. Quality and Quantity of Timber. STATE makes no guarantee or warranty to PURCHASER as to the quality or quantity of the Designated Timber. PURCHASER shall be liable to STATE for the Total Purchase Price set forth in Section 1710, "Purchase Price," or 1740, "Log Prices," even if the quantity or quality of Designated Timber actually cut, removed, or designated for taking is more or less than that estimated by STATE to be available for harvesting on the Timber Sale Area.

Further, STATE makes no representation, warranty, or guarantee of the accuracy of any information either provided by STATE or made available by STATE under the Public Records Law with respect to this Contract. PURCHASER agrees to bear exclusive responsibility for, and to accept all risks associated with, the actual conditions on the Areas of Operations and PURCHASER's computation of its bid for this Contract.

Section 1050. Examination of Plans, Exhibits, and Areas of Operations. PURCHASER acknowledges and agrees that, before submitting a bid, PURCHASER: (i) has made a careful examination of the terms and conditions of the Contract; (ii) has become fully informed as to the quality and quantity of materials and the character of the Operations required; and (iii) has made a careful examination of the Areas of Operations and the location and conditions of the Operations, including the sources of supply for materials. STATE will in no case be responsible for any loss or for any unanticipated costs that may be suffered by PURCHASER as a result of PURCHASER's failure to acquire full information in advance in regard to all conditions pertaining to the Operations.

COMMENCEMENT AND COMPLETION OF CONTRACT

Section 1110. Commencement of Work. PURCHASER shall not commence work under the Contract until STATE provides written notification to PURCHASER that STATE has received and accepted the following:

(a) The performance bond required under Section 1210, "Performance Bond";

(b) The payment bond required under Section 1230, "Payment Bond";

(c) The certificate of insurance required under Section 1240, "Insurance," subpart (i);

(d) The first payment on the Contract specified in Section 1751, 1752, or 1753, "Payment Schedule"; and

(e) A fully executed original of the Contract.

Further, PURCHASER shall not commence work under the Contract until PURCHASER has attended the Pre-Operations Meeting and STATE has approved the Operations Plan as specified in Section 1140, “Operations Plan.”

Section 1120. Completion Date of Contract. Time is of the essence in this Contract. PURCHASER shall complete and fully perform all Operations under this Contract no later than **October 31, 2015**, unless the term of the Contract is extended in accordance with Section 1530, "Extension of Time." PURCHASER may be required to perform uncompleted Contractual obligations at a time later than stated above or in Section 1530, "Extension of Time." STATE shall notify PURCHASER in writing of these obligations and their required completion date. Upon completion of final Operations, PURCHASER shall notify STATE as required under Section 1315, "Inspection and Acceptance." The Contract will not be complete until STATE has inspected and accepted PURCHASER's performance as specified in Section 1315, "Inspection and Acceptance."

Section 1130. Pre-Operations Meeting. PURCHASER shall meet with STATE prior to STATE approval of the initial Operations Plan required by Section 1140, “Operations Plan,” and prior to commencement of operations, to discuss Contract matters, including Threatened and Endangered Species protection efforts, protection of Timber Sale Area resources, and to identify key issues to be addressed in the Operations Plan.

Section 1140. Operations Plan. PURCHASER shall prepare an Operations Plan for all Operations to be conducted under this Contract and shall submit the plan to STATE at least fifteen (15) calendar days prior to commencement of any Operations. This plan shall be prepared on a form provided by STATE, and shall be used for all types of Operations, including road maintenance, Project Work, logging, and post-harvest requirements. In addition to the Pre-Operations Meeting required by Section 1130, “Pre-Operations Meeting, “ STATE may require an on-site meeting prior to approval of the Plan, to be attended by PURCHASER, subcontractor, and STATE representatives. STATE's approval of the Plan must be obtained prior to commencement of any Operations. Upon approval by STATE, the Operations Plan(s) shall automatically be incorporated into, and made part of, this Contract as Exhibit B. Each Operations Plan shall be dated.

PURCHASER shall notify STATE prior to any period of inactivity of Operations for more than three (3) days, and again prior to resumption of Operations.

STATE has prepared the Forest Practices Act (FPA) "Written Plan" for Operations within 100 feet of Type F streams.

Any changes to the Written Plan must have STATE approval. PURCHASER shall comply with all provisions of the Written Plan. PURCHASER's Operations Plan must comply with STATE's Written Plan.

BONDING AND INSURANCE

Section 1210. Performance Bond. PURCHASER shall furnish STATE with a performance bond, in an amount of not less than the greater of (a) the value of all Project Work to be completed under the Contract, as specified in Section 2630, “Credit for Project Work,” or (b) twenty percent (20%) of the Total Purchase Price, which bond shall guarantee complete compliance by PURCHASER with the terms and conditions of this Contract and the faithful performance of all required obligations, including payments to all suppliers, materialmen, Contractors, and subcontractors of PURCHASER. PURCHASER’s bond may be in the form of one or more of the following: surety bonds, cash, cashier's or certified check, money order, assignment of surety, irrevocable letters of credit, or other securities determined acceptable by the State Forester. Surety bonds must be written by a surety company authorized to do business in the State of Oregon, on a form provided by STATE.

Performance Bond Release

PURCHASER shall keep the performance bond in effect during the term of the Contract, until released by STATE. STATE shall release PURCHASER's bond upon the later of: (a) 180 days after final acceptance of completed Timber harvesting Operations or (b) 180 days after STATE's acceptance of all Project Work required under Section 2610, "Project Work." "Acceptance" under (a) or (b) shall not be provided until STATE has inspected and approved the work and PURCHASER has provided satisfactory evidence of PURCHASER's compliance with all other terms and conditions of the Contract.

Performance Bond Reduction

STATE shall permit PURCHASER to reduce its performance bond under the following circumstances:

180 days after final acceptance of completed Timber harvesting Operations, upon PURCHASER's request and provided no claims are then pending, STATE may permit PURCHASER to reduce the amount of their bond to an amount equal to the value of all Project Work remaining to be performed or accepted.

180 days after STATE has accepted all Project Work required under Section 2610, "Project Work," upon PURCHASER's request and provided no claims are then pending, STATE may permit PURCHASER to reduce the amount of their bond to an amount equal to twenty percent (20%) of the Total Purchase Price.

Section 1220. Claims Against PURCHASER's Performance Bond.

(a) Claims against PURCHASER's performance bond for failure to make payments when due to suppliers, materialmen, Contractors, and subcontractors of PURCHASER shall be processed in the following manner:

(1) Upon receiving notice from a supplier, materialman, Contractor, or subcontractor of an unpaid obligation of PURCHASER, STATE shall notify PURCHASER and PURCHASER's surety in writing, describing the claim and specifying a date not later than fifteen (15) days from the date of the notice within which PURCHASER shall be expected to respond to the claim.

(2) PURCHASER shall provide, within the time requested by STATE, verification reasonably satisfactory to STATE that the claim has been satisfied or is being addressed in a manner reasonably satisfactory to STATE. If PURCHASER fails to provide such evidence within the time requested, PURCHASER shall be deemed to be in default of the Contract, and STATE shall be entitled to make a claim against PURCHASER's performance bond on behalf of the claimant.

(b) Claims against PURCHASER's performance bond for failure to comply with or perform other obligations under the Contract shall be processed in the following manner:

(1) STATE shall provide notice in writing to PURCHASER and PURCHASER's surety of the nature of the failure to comply or the unperformed obligation, and shall specify a date by which the failure must be remedied.

(2) If PURCHASER fails to remedy the failure or to respond in writing with reasons adequate in STATE's judgment to waive the failure within the time specified in STATE's notice, PURCHASER shall be deemed to be in default and STATE shall be entitled to make a claim against PURCHASER's performance bond on behalf of STATE for an amount deemed reasonably sufficient to cure the failure.

(c) STATE reserves the right to invoke any remedy available to it under the Contract or at law or in equity in the event STATE is required to seek redress from PURCHASER's surety for a Contract violation or default by PURCHASER including, without limitation, termination of the Contract.

Section 1230. Payment Bond. PURCHASER shall furnish a payment bond (or blanket payment bond for multiple Contracts) acceptable to STATE guaranteeing payment for all monies due STATE through this Contract, including all timber harvested.. PURCHASER shall keep the payment bond in effect during the term of the

Contract, until released by STATE. Payment bonds may be in the form of one or more of the following: surety bonds, cash, cashier's or certified check, money order, assignment of surety, irrevocable letters of credit, or other securities determined acceptable by the State Forester. Surety bonds (including riders) must be written by a surety company authorized to do business in the State of Oregon, on a form provided by STATE. PURCHASER's bond shall be in an amount at least equal to the value of timber estimated to be removed during a one-month plus 15-day billing period, as determined by STATE. In any event, the amount shall not be less than one installment payment as specified in Section 1751, 1752, or 1753, "Payment Schedule." Provision of a satisfactory payment bond will permit PURCHASER to remove timber for a 30-day period, after which time, payment for all such removed timber shall be due and owing. PURCHASER shall make cash payment within fifteen (15) days following the end of the monthly period. Upon payment for timber removed in the monthly period, the payment guarantee may be applied as a guarantee for a subsequent period.

A blanket payment bond shall be in an amount at least equal to the value of the timber estimated to be removed from all Contracts covered by the blanket payment bond during a one-month plus 15-day billing period as determined by STATE. PURCHASER shall obtain and furnish STATE with a written consent of surety on forms provided by STATE for coverage of any Contracts to which the blanket payment bond may apply. In no event shall PURCHASER remove timber with a value greater than the amount of the payment guarantee.

Section 1240. Insurance. PURCHASER shall secure, at PURCHASER's expense, and keep in effect during the term of this Contract, the following insurance coverages, in a policy or policies issued by an insurance company or companies authorized to do business in the State of Oregon. The issuing company or companies shall indicate on the insurance certificates required below that STATE shall be given not less than thirty (30) days' notice of any cancellation, material change, or intent not to renew such policy. Any failure to comply with the reporting provisions of this insurance, except for the potential exhaustion of aggregate limits, shall not affect the coverage(s) provided to the State of Oregon, STATE, and their divisions, officers, and employees. PURCHASER shall be financially responsible for all deductibles included hereunder.

The coverage shall be as follows:

(a) Commercial General Liability insurance covering personal injury**,** death, and property damage or destruction in an amount not less than $2,000,000 combined single limit per occurrence and an amount not less than $4,000,000 per aggregate, with Contractual liability coverage to include all Contracts involving the work to be performed under this Contract, Premises Operations, Products and Completed Operations, and Independent Contractors. Required coverage shall be for explosion, collapse, and underground damage if blasting or excavation is required or performed under the Contract. **Excess or Umbrella Liability policies may be used in combination with the Commercial General Liability insurance to cover the required liability limits.**

(b) Automobile Liability insurance in an amount not less than $2,000,000 combined single limit per accident. This required insurance coverage shall include Business Automobile, an endorsement for auto pollution, and shall cover pollutants such as fuel tanks carried in vehicles. **Excess or Umbrella Liability policies may be used in combination with the Automobile Liability insurance to cover the required liability limits.**

(c) Loggers Broad Form coverage in an amount not less than $2,000,000 for costs of fire control, losses or damage from fire, and other causes arising or resulting from activities of PURCHASER, employees, Contractors, subcontractors, and others working or acting for PURCHASER.

(d) Worker's Compensation insurance as statutorily required for persons performing work under the Contract.

(e) Primary Coverage. Insurance carried by PURCHASER under this Contract shall be the primary coverage, and the STATE's insurance is excess and solely for damages or losses for which the STATE is responsible.

(f) "Tail" or "Basis of Occurrence" Coverage. If any of the aforementioned liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of this Contract for a duration of 24 months, or the maximum time period reasonably available in the marketplace if less than 24 months. PURCHASER shall furnish certification of "tail" coverage as described or continuous "claims made"

liability coverage for 24 months following Contract completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of this Contract. If Continuous “claims made” coverage is used, Contractor shall be required to keep the coverage in effect for a duration of not less than 24 months from the end of the Contract.

(g) The Commercial General Liability insurance and the Automobile Liability insurance required under this Contract shall include the State of Oregon, the Oregon Board of Forestry, the Department of Forestry, the State Forester, the State Land Board, the Department of State Lands, their officers, agents, employees, and members as additional insureds. **The following language shall be used for naming additional insureds:**

ADDITIONAL INSURED: The State of Oregon, **the Oregon Board of Forestry, the Department of Forestry, the State Forester, the State Land Board, the Department of State Lands, their officers, employees and agents as Additional Insureds but only with respect to PURCHASER’s activities to be performed under this Contract. Coverage shall be primary and non-contributory with any other insurance and self-insurance.**

(h) As evidence of the insurance coverage required by this Contract, PURCHASER shall furnish a certificate or certificates of insurance including all of the foregoing coverages to STATE. PURCHASER must provide this proof of insurance to STATE before the Contract period begins and prior to the commencement of work.

(i) All insurance shall be provided by a company with an A or better rating, as determined by A.M. Best Company, unless otherwise approved in writing by STATE.

GENERAL TERMS AND CONDITIONS

Section 1310. Authorized Representatives. During any period of Operations, PURCHASER shall have a designated representative(s) available to STATE on the Timber Sale Area or Project Location, or both, where such activity is separated. The representative(s) shall be authorized to receive any notice or instructions from STATE on behalf of PURCHASER and to take any action required in regard to performance of PURCHASER under this Contract. STATE shall designate a field representative(s) who shall be authorized to receive notices, inspect progress of the Operations, and issue instructions in regard to performance under the terms of this Contract. Authorized representatives of STATE and PURCHASER shall be designated in the Operations Plan required by Section 1140, "Operations Plan."

Section 1315. Inspection and Acceptance. STATE and its authorized and designated representative shall at all times be allowed access to all parts of the Operations and Areas of Operations of PURCHASER, as STATE may determine to be necessary or desirable to make a complete and detailed inspection of the Operations and PURCHASER’s compliance with all terms and conditions of this Contract. STATE shall be furnished operation progress status or other information and assistance by PURCHASER, or the Authorized Representative(s), as STATE may determine necessary to permit STATE to verify PURCHASER's compliance with all terms and conditions of this Contract.

PURCHASER shall notify STATE in writing upon completion of final Operations. STATE will inspect the Operations completed by PURCHASER within twenty (20) business days after receipt of written notification that final Operations are complete. Following inspection, STATE shall notify PURCHASER in writing of STATE’s acceptance of PURCHASER's performance of the Contract or, if PURCHASER’s Operations are not acceptable to STATE, shall advise PURCHASER in writing of the particular defects to be remedied before final acceptance by STATE can be granted.

Section 1320. Assignment of Contract. PURCHASER shall not assign, sell, or transfer rights, or delegate responsibilities under this Contract, in whole or in part, without the prior consent of the STATE. STATE will consent only when assignment is consistent with STATE's fiduciary duties. No such written approval shall relieve

PURCHASER of any obligations under this Contract, and any transferee shall be considered the agent of the PURCHASER and bound to perform in accordance with the Contract. PURCHASER shall remain liable as between the original parties to the Contract as if no assignment had occurred. PURCHASER agrees to pay STATE a $250 administrative fee for processing each assignment.

Section 1325. Subcontracting. PURCHASER acknowledges and agrees that if PURCHASER subcontracts all or any part of the Operations, such subcontracting shall in no way relieve PURCHASER of any responsibility under this Contract. PURCHASER shall notify STATE in writing of the names and addresses of each subcontractor prior to the commencement of any Contract work by the subcontractor.

Section 1330. Conditions of Areas of Operations.

Use of Areas of Operations. PURCHASER shall follow the STATE's Authorized Representative's instructions, if any, regarding use of the Areas of Operations. STATE reserves the right to issue written authorization to others to use the Areas of Operations when, in the determination of STATE, such use will not materially interfere with the Operations of PURCHASER. During the term of this Contract, STATE reserves the right to sell any products or materials from the Areas of Operations, provided that the products or materials are not timber included in this Contract and that removal will not materially interfere with the Operations of PURCHASER. PURCHASER shall not interfere with the use of roads by other authorized users. PURCHASER shall not be held liable for any acts, omissions, or neglect of authorized simultaneous users.

In an emergency affecting the safety of life or of the Operations or of adjoining property, PURCHASER, without special instruction or authorization from STATE's Authorized Representative, shall act reasonably to prevent threatened loss or injury, and shall so act, without appeal, if instructed by STATE's Authorized Representative. Any compensation claimed by PURCHASER on account of emergency work shall be equitably determined by STATE.

Section 1335. Hazardous Substances Discovered by PURCHASER. Unless disposition of Hazardous Substances is specifically made a part of PURCHASER's Operations under this Contract, PURCHASER shall immediately notify STATE of any Hazardous Substances which PURCHASER discovers or encounters during performance of Operations. PURCHASER shall immediately cease operating in any part of the Area of Operations where Hazardous Substances have been discovered or encountered, if continued Operations in such area would present a bona fide risk or danger to the environment or to the health or well being of PURCHASER's or any subcontractor's work force.

Unless disposition of Hazardous Substances is specifically made a part of PURCHASER's Operations under this Contract, upon being notified by PURCHASER of the presence of Hazardous Substances in the Area of Operations, STATE shall arrange for the proper disposition of such Hazardous Substances.

Section 1340. Hazardous Substances Generated/Aggravated by PURCHASER. PURCHASER shall be held responsible for any and all releases of Hazardous Substances during performance of the Contract which occur as a result of, or are aggravated by, actions of its agents, personnel, or subcontractors. PURCHASER shall immediately notify STATE of any release of Hazardous Substances and, as directed by STATE, shall promptly dispose of or otherwise remediate such spills or leaks to the satisfaction of STATE and proper regulatory agencies in a manner that complies with applicable federal, state, and local laws and regulations. Remediation shall be at no cost to STATE.

PURCHASER, at all times, shall:

(a) Properly handle, use, and dispose of all Hazardous Substances brought onto the Areas of Operations, in accordance with all applicable federal, state, or local statutes, rules, or ordinances;

(b) Be responsible for any spills, releases, discharges, or leaks of (or from) Hazardous Substances which PURCHASER has brought onto the Areas of Operations; and

(c) Promptly remediate, without cost to STATE, such spills, releases, discharges, or leaks to the STATE's satisfaction and in compliance with all applicable federal, state, or local statutes, rules or ordinances.

PURCHASER shall report all reportable quantity releases of Hazardous Substances and petroleum products to applicable federal, state, and local regulatory and emergency response agencies. Reportable quantities are found in 40 CFR, Part 302, Table 302.4 for Hazardous Substances and in OAR 340-108 for petroleum products.

Section 1350. Environmental Indemnification. PURCHASER shall indemnify and hold harmless the STATE from any claims resulting from the use, release or disposal of Hazardous Substances including their removal, encapsulation, transportation, handling, and other disposal, during the performance of this Contract, whether or not such use, release or disposal occurs within or outside the Timber Sale Area.

Section 1355. General Indemnification. PURCHASER shall indemnify, defend and hold harmless the State of Oregon, the Oregon Board of Forestry, the State Forester, the State Land Board, the Department of State Lands, their officers, agents, employees, and members ("Indemnified Parties"), from all claims, suits, actions, or liens of any nature resulting from or arising out of the activities of PURCHASER or its subcontractors, agents, or employees under this Contract, including any claim based upon an alleged failure to obtain any necessary Permit, license, or approval, or any claim of liability for premiums, contributions, or taxes payable under any Workers' Compensation, Disability Benefits, Old Age Benefits, including FICA, or tax withholding laws; provided, however, the Oregon Attorney General must give written authorization to any legal counsel purporting to act in the name of, or represent the interests of, any of the Indemnified Parties prior to such action or representation. Further, STATE, acting by and through its Department of Justice, may assume its own defense, including that of its officers, employees and agents, at any time when in STATE's sole discretion it determines that (i) proposed counsel is prohibited from the particular representation contemplated; (ii) counsel is not adequately defending the interests of STATE; (iii) important governmental interests are at stake; or (iv) the best interests of STATE are served thereby. PURCHASER's obligation to pay for all costs and expenses shall include those incurred by STATE in assuming its own defense. All provisions of this Section shall survive the termination of this Agreement.

Section 1360. Severability. If any provision of this Contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular provision held to be invalid.

Section 1365. Waiver. Failure of STATE to enforce any provision of this Contract shall not constitute a waiver or relinquishment by STATE of the right to such performance in the future, nor of the right to enforce any other provision of this Contract.

Section 1370. Choice of Law and Venue. This Contract shall be governed by and construed in accordance with the laws of the State of Oregon, as interpreted by the Oregon courts. Any litigation arising out of this Contract shall be conducted in Marion County, Oregon.

Section 1375. Notices. Any written notice to PURCHASER which may be required under this Contract to be served on PURCHASER by STATE may be served by personal delivery to PURCHASER or designated representative(s) by mailing the notice to the address of PURCHASER as is given in this Contract, or by leaving the notice at said address. Should PURCHASER be required to notify STATE concerning the progress of the Operations, or concerning any matter or complaint which PURCHASER may have regarding the Contract subject matter, or for any other reason, that notification is to be made in writing and delivered or mailed to the designated representative of STATE.

Section 1380. Entire Agreement; No Modification. This Contract consists of the entire written agreement between the parties, including but not limited to the Notice of Timber Sale, Invitation to Bid or Request for Proposal, Instructions to Bidders, specifications, terms, and conditions, Exhibits, Operations Plan, change notices, if any, and the accepted bid. No waiver, consent, modification, or change of terms of this Contract shall bind either party, unless in writing and signed by both parties. Such waiver, consent, modification, or change, if made, shall be effective only for the specific purpose given. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this Contract. PURCHASER, by the signature of its Authorized Representative in Section 1000, "Signatures of Contract Parties," hereby acknowledges that she/he has read this Contract, understands it, and agrees to be bound by its terms and conditions.

OWNERSHIP OF MATERIALS AND IMPROVEMENTS

Section 1410. Materials from State Property. PURCHASER shall not take, sell, use, remove, or otherwise dispose of any sand, gravel, rock, earth, or other material obtained or produced from within the limits of rights-of-way, gravel pits, rock quarries, or other property owned by or held by any agency of the State of Oregon, unless authorized by this Contract or separate written consent of STATE.

Section 1420. Materials and Improvements. Title to materials, Improvements, and other property the Contract requires PURCHASER to provide shall vest in and become the property of STATE at the time such are furnished by PURCHASER and accepted by STATE. All materials, Improvements, and property furnished by PURCHASER shall be free and clear of liens, claims, and encumbrances.

PURCHASER shall keep in good repair all Improvements located on State land and existing at the time of execution of the Contract and any Improvements placed on State land by PURCHASER which become the property of STATE under this Contract. PURCHASER shall promptly repair or replace, without cost to STATE, any Improvement injured, damaged, or removed from the Areas of Operations by PURCHASER or by Contractors of PURCHASER.

Section 1430. Removal of Equipment and Materials. Within thirty (30) days after completion, and as a condition of final acceptance of PURCHASER's Operations, PURCHASER shall remove from the Areas of Operations and other property owned or controlled by STATE, all equipment, materials, and other property PURCHASER has placed or caused to be placed thereon that is not to become the property of STATE. PURCHASER acknowledges and agrees that any such equipment, materials, and other property that is not removed within thirty (30) days shall become the property of STATE and may be used or otherwise disposed of by STATE without notice or obligation to PURCHASER or to any party to whom PURCHASER may transfer title. Nothing in this section shall be construed as relieving PURCHASER from an obligation to clean up and to burn, remove, or dispose of debris, waste materials, and such, in accordance with the provisions of this Contract and applicable law. PURCHASER shall indemnify STATE for any cost or expense incurred by STATE as a result of PURCHASER's failure to satisfy this obligation.

CONTRACT CHANGES: EXTENSIONS, MODIFICATIONS, SUSPENSIONS, CANCELLATIONS, DELAYS, AND DEFAULT

Section 1510. Causes Beyond Control. Neither party of this Contract shall be held responsible for delay or default caused by fire, riot, acts of God, sovereign, public enemy, and/or war which is beyond that party's control. STATE may terminate this Contract upon written notice after determining such delay or default will reasonably prevent successful performance of the Contract.

In the event a cause or causes beyond the control of PURCHASER impact PURCHASER's ability to continue to perform under this Contract, STATE may grant a reasonable extension of time but shall not additionally compensate PURCHASER.

Section 1520. Cooperation With Species Protection Efforts. STATE is engaged in an active threatened and endangered species (T&E) survey program. As part of the survey program, ODF surveys its lands on a continuing basis for land management, species protection, research and other reasons. Surveying efforts may take place in the Timber Sale Area any time during the term of the Contract. PURCHASER acknowledges that T&E survey work and/or the discovery of a threatened or endangered species within or in the vicinity of the Timber Sale Area may affect PURCHASER's Operations under the Contract, and PURCHASER agrees to cooperate with STATE's survey work and other activities designed to identify and protect threatened and endangered species. In the event a threatened or endangered species is found within or near the Area(s) of Operations, PURCHASER agrees that STATE may take steps necessary to protect the interests of the State, including restrictions on Operations due to T&E species considerations, Contract modification, suspension or termination. PURCHASER's agreement under this Section is in addition to and shall not relieve PURCHASER of its obligation to comply with all federal and state laws, including the Endangered Species Act, governing threatened and endangered species.

Section 1530. Extension of Time. STATE may extend the time for performance of this Contract upon written request from PURCHASER or at STATE's discretion. A request for extension:

- shall be accompanied by the written consent to an extension of the security by PURCHASER's surety;
- shall state the date to which the extension is desired, the Area of Operations to be affected, and the reason(s) for the extension; and
- must be received by STATE no later than thirty (30) days prior to the expiration date of this Contract unless the need for extension occurred within the thirty (30) days prior to the expiration date, in which case the request must be received prior to the expiration date.

Requests for extension will not be granted solely due to changes in timber market conditions. STATE shall grant a request for an extension only when it determines that extension would be in the best interests of STATE, and consistent with STATE's fiduciary responsibility to the Common School Fund. In no event shall an extension exceed one year.

When STATE grants a request for extension, it may condition that grant upon any condition it determines is necessary to protect the interests of the STATE. Such conditions may include, but may not be limited to, the following:

(a) Payment at time of extension of the full amount of the unpaid balance of the Total Purchase Price. In the case of scale or weight sales, such payment shall be an advance deposit, based on remaining volume, as estimated by STATE.

(b) If PURCHASER is not otherwise in arrears in required payments, STATE may grant additional time for payment of the unpaid balance on the condition that PURCHASER make installment payments based on removal of Designated Timber as required by Section 1751, 1752, or 1753 "Payment Schedule," of this Contract, plus interest on all payments received after the original expiration date.

(c) Completion of designated requirements of this Contract, such as fire trail construction, Snag felling, Slash preparation Operations on logged portions of the Timber Sale Area, and road construction or maintenance.

(d) Payment of an extension fee in an amount determined by STATE (not less than $50). Such fee shall be based upon the loss of production, extra reforestation costs, brush control costs, Slash disposal costs, or other costs which may be caused by the extension.

(e) Waiver of full payment or payment of interest on the unpaid balance of the Total Purchase Price, if STATE determines that extenuating circumstances warrant waiver or waiver is otherwise in the best interests of STATE.

(f) PURCHASER-funded T&E species surveys by STATE-approved surveyors. STATE may require that Operations on the Timber Sale Area be suspended during the survey season until the completion of surveys, in order to ensure a valid survey. The survey season begins March 15 and ends August 31, or upon completion of survey visits, annually.

Section 1540. Contract Modifications. PURCHASER and STATE acknowledge that changes are inherent in Operations of the type covered by this Contract. The number of changes, the scope of those changes, and the impact they have on the progress of the original Operations cannot be defined at the outset of the Contract. These changes may include, but are not limited to, changes in project specifications, project completion dates, Exhibit specifications, rock sources, excavator time requirements, seasonal restrictions, Timber Sale Area resource protection requirements, harvest methods, harvest completion dates, thinning prescriptions, tree harvest size limits, removal specifications, Reserved Timber specifications, haul route requirements, scaling requirements, and Timber Sale Area boundaries. PURCHASER acknowledges and agrees that PURCHASER is not entitled to any reduction in the Purchase Price or Total Purchase Price solely due to the number of changes required to be made in the Contract. Each change will be evaluated on its own merit to determine if an extension of the time for performance under the Contract or an increase or decrease in the Purchase Price or Total Purchase Price is warranted.

STATE reserves the right to make, at any time during the Contract, such modifications as is necessary or desirable; provided such modifications shall not change the character of the Operations to be done nor increase the cost to the PURCHASER of performing the Project Work, unless such change in the Operations or cost increase is approved in writing by PURCHASER. Any modifications so made shall not invalidate this Contract nor release PURCHASER from its obligations under the performance bond and payment bond. PURCHASER agrees to complete the modified Operations as if they had been included in the original Contract.

If any change under this section causes an increase or decrease in PURCHASER's cost of performance or the time required for the performance of any part of the Operations for which PURCHASER wishes to claim a reduction in the Purchase Price or Total Purchase Price, PURCHASER must submit a written statement Setting forth the nature and specific extent of the claim. Such claim shall include all time and cost impacts against the Contract and must be submitted as soon as possible following the change, but in any event no later than thirty (30) days after receipt of any written notice of modification of the Contract.

If PURCHASER discovers site conditions which differ materially from what was represented in the Contract or from conditions that would normally be expected to exist and be inherent to the activities defined in the Contract, PURCHASER shall notify STATE's Authorized Representative immediately and before the area has been disturbed. STATE's Authorized Representative will investigate the area and make a determination as to whether or not the conditions differ materially from either the conditions stated in the Contract or those which could reasonably be expected in execution of this Contract. If it is determined that a differing site condition exists, any compensation or credit will be determined based on an analysis by STATE's Authorized Representative. If PURCHASER does not concur with the decision of STATE's Authorized Representative and/or believes that it is entitled to additional compensation, PURCHASER may proceed to file a claim.

Claims Review Process. All PURCHASER claims shall be referred to STATE's Authorized Representative for review. All claims shall be made in writing to STATE's Authorized Representative not more than ten (10) days from the date of the occurrence of the event which gives rise to the claim or not more than ten (10) days from the date that the PURCHASER knew or should have known of the problem. Any claim not submitted in accordance with these time requirements shall be waived.

All claims shall be submitted in writing and shall include a detailed, factual statement of the basis of the claim, pertinent dates, Contract provisions which support or allow the claim, reference to or copies of any documents which support the claim, the exact dollar value of the claim, and any specific time extension requested for the claim. If the claim involves Operations to be completed by subcontractors, PURCHASER shall analyze and evaluate the merits of the subcontractor's claim. PURCHASER shall forward the subcontractor's claim and PURCHASER's evaluation of such claim to STATE's Authorized Representative. STATE's Authorized Representative will not consider direct claims from subcontractors, suppliers, manufacturers, or others not a party to this Contract.

The decision of STATE shall be final and binding unless PURCHASER requests mediation within ten (10) days following notice of STATE’s decision.

Section 1550. Adjustment of Contract. Notwithstanding any other provisions of this Contract, STATE may, pursuant to Oregon law, make adjustments in the Contract when Major Catastrophes or significant changes in state or federal law after the date of this Contract materially affect the volume and value of timber, or Project Work to be done, as specified in Section 2610, "Project Work," under the Contract. Major Catastrophes are defined as windstorms, floods, fire, landslides, or other acts of God, which are beyond the control of PURCHASER and in no way connected with negligent acts or omissions of PURCHASER, its officers, employees, agents, or subcontractors. Market conditions shall not be considered a reason for Contract adjustments. Adjustments made under this Section, if any, shall be for the sole purpose of placing the parties in their original status under the Contract insofar as possible; provided, however, that no adjustment shall be made in response to any loss or cost to PURCHASER that is recoverable from third parties by PURCHASER. PURCHASER shall make written application to STATE within 30 days after discovery of the damage done by the Major Catastrophe.

If, prior to completion of the Contract, a Major Catastrophe (as defined above) caused by a single event or significant changes in state or federal law results in additional Project Work for PURCHASER involving an additional estimated cost of more than: (1) $500 for sales less than one-half million board feet; (2) $1,000 for sales of one-half million to three million board feet; or (3) $3,000 for sales over three million board feet, STATE may adjust the Contract Project Work Credits by the amount listed, in which event STATE will assume responsibility for any additional cost to complete the Project Work which exceeds the above amount. Adjustments by STATE shall be based on advertised volumes and may be accomplished by adjusting stumpage prices or payment of such additional costs to PURCHASER or by STATE assuming responsibility for performing that portion of the Project Work in excess of the amount listed above. The estimated cost of additional work shall be calculated by STATE.

If, prior to completion of the Contract, a change in state or federal law, or a Major Catastrophe (as defined above), materially affects the volume and value of timber, STATE may adjust the volume and value accordingly. STATE shall determine the adjustment volume by either an individual tree sample cruise, or a point sample cruise to a 5 percent sampling error of the volume. For purposes of this Contract, "materially affect" shall mean more than $5,000.

Value adjustment shall be calculated by multiplying the volume adjustment times the Purchase Price.

For each species sold on a recovery basis, the Purchase Price is defined as the price per MBF listed in Section 1740, "Log Prices." If species is not listed in Section 1740, "Log Prices," the highest price listed in Section 1740, "Log Prices," shall apply.

For species sold on a lump sum basis, the Purchase Price for each species shall be determined by using STATE's unamortized timber appraisal value, multiplied by the bid-up factor. Bid-up factor shall be calculated by STATE using the following calculation: Bid value of all species/appraised value of all species = bid-up factor.

Section 1560. Violations; Default; Remedies. Any failure by PURCHASER to comply with the terms and conditions of this Contract is a violation. If PURCHASER commits a violation, STATE may, after giving written notice, suspend any further Operations of PURCHASER under this Contract, except those Operations necessary to remedy any violations.
If PURCHASER fails to remedy a violation within the time allowed and as instructed by STATE, or if PURCHASER fails to complete work as required under any interim Contract completion date or the Contract expiration date, or if PURCHASER injures or severs any timber other than Designated Timber, STATE may declare PURCHASER to be in default by providing notice of the default as required under OAR 629-032-0030. If the default is due to failure of PURCHASER to correct a violation as previously instructed, STATE may terminate the Contract as of the date specified in the earlier instruction. If the default is due to failure by PURCHASER to complete work prior to the expiration date or any interim completion date required under the Contract, or if PURCHASER injures or severs timber that is not Designated Timber, STATE may terminate the Contract without providing PURCHASER an opportunity to cure the default.

As provided in OAR 629-032-0050, within fifteen (15) days following receipt of a notice of default, PURCHASER may request a hearing before the State Forester to determine whether a default has in fact occurred. Hearings shall be governed by ORS 183-413 to ORS 183.497.

The provisions of OAR 629-032-0000 through -0070, and any future amendments, are incorporated into this Contract and made a permanent part hereof by reference as though fully set forth herein. THE PROVISIONS OF

OAR 629-032-0000 THROUGH -0070 ARE IN ADDITION TO, AND NOT IN LIEU OF, ANY OTHER REMEDIES STATE MAY HAVE FOR THE PURCHASER'S BREACH OF CONTRACT. In the event of a default STATE may pursue any and all remedies available to STATE. Such remedies include, but are not limited to: (1) making a claim on each bond provided by PURCHASER; (2) suing PURCHASER for all damages STATE incurs as a result of PURCHASER's breach; (3) suing PURCHASER for specific performance of the Contract; or (4) terminating the Contract and reselling the timber.

Section 1570. STATE's Right to Suspend Operations. STATE and/or STATE's Authorized Representative may suspend portions or all of the Operations due to causes including, but not limited to:

(a) Failure of the PURCHASER to correct unsafe conditions;

(b) Failure of the PURCHASER to carry out any provision of the Contract;

(c) Failure of the PURCHASER to carry out written instructions from STATE's Authorized Representative;

(d) Conditions which, in the opinion of STATE's Authorized Representative, are unsuitable for performing the Operations;

(e) Time required by STATE to investigate differing site conditions;

(f) STATE-ordered identification or protection of a state or federally listed threatened or endangered species; or

(g) Any reason considered by STATE to be in the public interest.

In the event a suspension of Operations under (d), (e), (f) or (g) above imposes additional costs on PURCHASER, PURCHASER may submit a request for a modification of the Contract under Section 1540, "Contract Modifications"; provided, however, that no claim for a reduction in the Purchase Price or Total Purchase Price will be allowed due to changes in market conditions or lost market opportunities occurring following any suspension of Operations. In addition, in no event shall STATE be liable for any costs incurred by PURCHASER by reason of delay or suspension under this section, including but not limited to costs of additional move-in/move-out of equipment and personnel, extra fire and equipment security, and insurance or bonding expenses.

Extension After Suspension. When a suspension occurs under (d), (e), (f) or (g) above, PURCHASER may request an extension of time for performance of this Contract, for a period not to exceed the period of time during which Operations were suspended. The request for extension must be in writing and:

(1) Shall be accompanied by the written consent to an extension of the security by PURCHASER's surety;

(2) Shall state the date to which the extension is desired and the Area(s) of Operations affected; and

(3) Shall be received by STATE no later than ten (10) days following notice to PURCHASER that Operations may recommence.

STATE normally will not withhold approval of reasonable extension requests made under this section.

PURCHASER's Responsibilities. For the duration of the suspension, PURCHASER is responsible to continue maintenance at the Area(s) of Operations just as if Operations were in progress. This includes, but is not limited to, protection of completed Operations, maintenance of access, protection of stored materials, temporary facilities, and clean-up.

When Operations re-commence after the suspension, PURCHASER shall replace or renew any Operations damaged during the suspension, remove any materials or facilities used as part of temporary maintenance, and complete Operations in every respect as though prosecution had been continuous and without suspension.

PURCHASER shall not cut or remove any timber under this Contract during any period of suspension. Any such cutting or removing shall be considered a willful trespass and shall render PURCHASER liable for triple damages in accordance with Section 1580, "Trespass."

Section 1580. Trespass. PURCHASER shall be exclusively responsible for any damage or removal of other than Designated Timber, and for damage to or removal of timber or other property beyond the boundaries of the Areas of Operations resulting from any activities of PURCHASER. Any such activity resulting from the activities of PURCHASER shall constitute a trespass, and a violation of the Contract. In addition to, and without limiting in any way any other remedies that may be available to STATE, PURCHASER shall pay to STATE damages for any trespass as follows:

(a) For each species involved in the trespass, triple the Purchase Price if PURCHASER's action is willful or intentional; or

(b) For each species involved in the trespass, double the Purchase Price if PURCHASER's action is not willful or intentional.

As used in this section, the term "willful" or "intentional" includes, but is not limited to: any voluntary or deliberate activity by PURCHASER, its employees, Contractors, subcontractors, or agents which results in the removal or damage to any timber not described under Section 2210, "Designated Timber," including removal or damage arising from a mistake of law or fact concerning the Designated Timber.

COMPLIANCE WITH LAWS AND REGULATIONS

Section 1610. Permits; Licenses; Safety. PURCHASER shall procure all Permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the Operations, and shall maintain and keep such Permits and licenses current throughout the term of the Contract.

STATE may at any time require PURCHASER to satisfy STATE that Operations under this Contract comply with state, federal, and local laws, codes, regulations, and ordinances. STATE may require PURCHASER to obtain a Permit, license, or approval from the governmental body or agency responsible for administering applicable laws before PURCHASER may begin or continue Operations under this Contract.

In the performance of the Operations, PURCHASER shall use every reasonable and practicable means to avoid damage to property and injury to persons. The responsibility of PURCHASER stated herein shall cease upon the Operations being accepted as complete by STATE.

PURCHASER shall take all necessary precautions for the safety of all personnel in the Areas of Operations, and shall comply with the Contract and all applicable provisions of federal, state, and municipal safety laws or regulations designed to prevent accidents or injury to persons on, about, or adjacent to the Areas of Operations. PURCHASER shall erect and properly maintain at all times, as required by the conditions and progress of PURCHASER's Operations, all necessary safeguards for protection of workers and the public against any hazards created by the Operations. The STATE's Authorized Representative has no responsibility for safety in the Areas of Operations. Safety in the Areas of Operations is the sole responsibility of PURCHASER.

Section 1620. Workers' Compensation Insurance (ORS 279.320). PURCHASER shall perform the Operations in accordance with the requirements of the Workers' Compensation Law of the State of Oregon during the term of this Contract. In addition, PURCHASER, its subcontractors, if any, and all employers providing work, labor, or materials under this Contract are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017 and 656.029, which requires them to provide workers' compensation coverage that satisfies Oregon law for all their subject workers, unless such employers are exempt under ORS 656.126.

Section 1630. Threatened and Endangered Species. PURCHASER shall at all times observe and comply with all federal and state laws, including the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1536, 1538-1540), ORS 496.172 to 496.192 (Threatened and Endangered Wildlife Species), and ORS 564.100 to 564.135 (Threatened and Endangered Plants), and lawful regulations issued thereunder, and local bylaws, ordinances, and regulations, which relate to threatened or endangered plant or animal species while performing Operations under this Contract.

Section 1640. Identification and Protection of Cultural Resources. PURCHASER acknowledges that Archeological or Historical Resources may exist within the Timber Sale Area, including within an Area of Operations, and that the existence and location of such Resources may be unknown at the time this Contract is executed. PURCHASER shall exercise due care in its Operations to ensure that in the event any such Resources are discovered in the course of or as a result of PURCHASER's Operations such Resources may be preserved in accordance with the requirements of ORS Chapter 358. Upon discovery of any material suspected to be of Archeological or Historical significance within an Area of Operations, PURCHASER shall immediately halt Operations and shall notify STATE of the potential existence of such material. PURCHASER shall not remove or disturb the material, or resume Operations in the vicinity of the material, until instructed by STATE to do so.

Section 1650. Protection of Soil, Air, and Water Resources. PURCHASER shall comply with Oregon law, including the Oregon Forest Practices Act and rules promulgated thereunder, and with rules and regulations of the, Oregon State Board of Health, the Environmental Quality Commission and other agencies relating to the protection of soil, air, and water resources.

Section 1660. Tax Liability. STATE makes no representations concerning tax liability or consequences arising from this sale of State timber. It is PURCHASER's sole responsibility to determine what tax liability may be incurred as a result of purchasing State timber, regardless of whether the State timber is growing or located on State-owned land or elsewhere. PURCHASER shall be responsible for paying all applicable timber harvest or severance taxes and shall indemnify and hold harmless the STATE against any tax claims arising from the purchase of State timber.

Section 1670. Compliance with Tax Laws. By execution of this Contract, the person signing this Contract on behalf of PURCHASER certifies, under penalty of perjury, that to the best of his or her knowledge, PURCHASER is not in violation of any Oregon tax laws. For purposes of this section, “Oregon tax laws” means those programs listed in ORS 305.380(4). Examples include the state inheritance tax, personal income tax, withholding tax, corporation income and excise taxes, amusement device tax, timber taxes, cigarette tax, other tobacco tax, 9-1-1 emergency communications tax, the elderly rental assistance program and local taxes administered by the Department of Revenue (Lane Transit District Self-Employment Tax, Lane District Employer Payroll Tax, Tri-Metropolitan Transit District Employer Payroll Tax, and Tri-Metropolitan Transit District Self-Employment Tax).

PAYMENTS

Section 1740. Log Prices. The following price schedule shall be designated as the “Purchase Price” and shall apply to all logs removed from Designated Timber. Payment shall be for net log scale, unless noted.

Log prices shall be:

Conifer Logs	Price per MBF
Douglas-fir	$
Western hemlock/fir	$
Sitka spruce and other conifers	$207.33
Western redcedar and other cedars	$797.14
Utility logs, adjusted gross scale	At price above

Peelable cull logs, adjusted gross scale ..... At price above
Pulp logs ..... $ 35.00

At Price Above means material will be charged at the highest rate for that species.

Hardwood Logs	Price per MBF
Red alder and other hardwoods	$346.42
Utility logs, adjusted gross scale	At price above
Pulp logs	$ 35.00

At Price Above means material will be charged at the highest rate for that species.

Contingent Price Adjustment. As provided in Section 1020, “Sale of Timber,” it is the policy of the State of Oregon, in accordance with the terms of current federal law and the Constitution and the laws of the State of Oregon, that unprocessed timber shall not be exported from lands owned or managed by the State or any of its political subdivisions or agencies. PURCHASER specifically agrees that Section 1020, "Sale of Timber," is a material term of this Contract and is part of the consideration offered to STATE in return for STATE's performance. In the event that any federal law or state constitutional provision or law or any provision of this Contract concerning export of unprocessed timber is declared invalid by any court or administrative tribunal, PURCHASER agrees to pay to STATE, in addition to the Purchase Price, an incremental amount equal to the difference between the Purchase Price set forth in this section and any higher price obtained by PURCHASER for the exported unprocessed timber.

The default provisions of OAR 629-032-0000 through 629-032-0070 and OAR 141-015-0005 through 141-015-0050 shall not apply to exported unprocessed timber. In the event that timber made available under this Contract is exported in violation of this Contract, PURCHASER shall be in material breach of the Contract. In such event, STATE shall be entitled to cease performance of the Contract and bar PURCHASER from the Timber Sale Area, and shall recover, in addition to the Purchase Price and additional increment set out above, a further sum estimated by STATE to compensate for administrative expense and the economic impact of the violation upon the State and its citizens. In no case shall this additional amount be less than $10,000 per incident.

Section 1751. Payment Schedule. The Total Purchase Price for timber sold under this Contract shall be paid in advance as follows:

The first payment shall be paid within 30 days of the notice of intent to award or before beginning Operations, whichever occurs first. The first payment shall be 10 percent of the total estimated bid value. The total estimated bid value shall be the sum obtained by multiplying the estimated timber volumes by the Purchase Prices given in Section 1740, "Log Prices," less the value of the Project Work. Cash bid deposits shall be applied to the initial payment.

Subsequent payments shall be made in advance of timber removal when log hauling begins. Each payment shall be made before the value of timber removed equals one-half of an advance payment or within the time period stated on the billing if PURCHASER is more than one-half of a payment in advance. The amount of each advance payment shall be calculated by dividing the total estimated bid value less the initial payment by 15; with the total estimated bid value being the sum obtained by multiplying the estimated timber volumes by the Purchase Prices given in Section 1740, "Log Prices," less the value of the Project Work.

STATE may accept partial payment, upon written request, if logging is inactive. However, the full amount of advance payment must be paid before Operations resume. Partial payment must be sufficient to maintain a payment deposit equal to one-half of a regular advance payment.

The Total Purchase Price shall be calculated after all log scale is reported by multiplying prices in Section 1740, "Log Prices," by the scaled volume. STATE shall refund any advance payment in excess of the Total Purchase Price, or PURCHASER shall pay any deficit within thirty (30) days of notice. PURCHASER's Deposit Account shall not accrue interest payable to PURCHASER.

Section 1760. Payments and Interest. Payments required of PURCHASER by this Contract or modifications of this Contract must be received by STATE within the time period stated on the instrument requesting payment from PURCHASER.

Payments received after the due date stated on the billing instrument may be subject to an interest charge. The interest rate shall not be less than the established minimum state rate on delinquent accounts. The interest rate applied to overdue payments shall be in accordance with ORS 82.010. ORS 82.010 mandates the collection of interest at the annualized rate of 9 percent. Interest shall be calculated from the date of the original billing to the date payment is received by the State Forester.

PART II: SPECIFICATIONS

ACCOUNTABILITY

Section 2015. Log Accountability and Log Load Receipts - Sawlogs.

Load Receipt Books. STATE shall issue to PURCHASER sufficient books of serially numbered **pink** Log Load Receipts to cover up to 30 days of operation, as determined by STATE. PURCHASER shall sign a receipt for each book of receipts and be fully accountable for all serially numbered Woods Receipt and Scaler Receipt tickets. PURCHASER shall retain all Woods Receipts in each book and return the book to STATE as soon as all receipts in each book have been used. Unused books or portions of books shall be returned to STATE during periods of inactivity lasting over 30 days, and at the completion of timber removal from the Timber Sale Area.

Completion of Load Receipts. PURCHASER shall completely and accurately fill out all portions of the Log Load Receipt before each truck leaves the Landing area. PURCHASER shall require the truck driver of each load of logs to sign the Woods Receipt. PURCHASER shall staple the Load Receipt and Scaler Receipt parts to the load as instructed on the Log Load Receipt directions and as directed by STATE before each truck leaves the Landing area.

PURCHASER shall require the scaler to record the Log Load Receipt number on the scale ticket that is signed by the scaler, attach the Scaler Receipt part to a copy of the scale ticket, and mail the scale ticket with the attached receipt to STATE on the date scaled.

PURCHASER shall account for each and every serially numbered Log Load Receipt and shall pay damages to STATE for all Log Load Receipts not accounted for by proof of scaling. Damages may consist of full stumpage rate for each missing receipt, on the basis of average volume of the 10 largest loads of logs scaled from the Timber Sale Area, charged at the highest species rate, or a species rate in the Contract as determined by STATE.

PURCHASER shall not intermingle STATE timber or logs designated by this Contract with any other timber or logs before log scaling occurs, unless otherwise approved by STATE.

Notification of Delivery Destination. Prior to and as a condition of STATE's final acceptance of PURCHASER's performance of all Contract requirements, PURCHASER shall notify STATE, in a form and manner prescribed by STATE, of the delivery destination of all timber purchased under this Contract. STATE may hold PURCHASER's performance bond until satisfactory delivery destination information has been received.

Notice of Transfer of State Timber. Prior to selling, trading, exchanging, or otherwise conveying unprocessed timber sold under this Contract to any other person, PURCHASER must first obtain a certification of the buyer's eligibility to purchase unprocessed State timber and their intent to comply with the terms and conditions contained in OAR 629-031-0005 through 629-031-0045. The certification shall be made in a form and manner prescribed by STATE and shall be forwarded to STATE upon completion of the transaction. Obtaining the certification shall not relieve PURCHASER of the responsibility to provide STATE with an accounting of the delivery destination of all timber purchased under the Contract.

Section 2016. Log Accountability and Log Load Receipts – Pulp Logs.

Load Receipt Books. STATE shall issue to PURCHASER sufficient books of serially numbered **yellow** Log Load Receipts to cover up to 30 days of operation, as determined by STATE. PURCHASER shall sign a receipt for each book of receipts and be fully accountable for all serially numbered Woods Receipt and Scaler Receipt tickets. PURCHASER shall retain all Woods Receipts in each book and return the book to STATE as soon as all receipts in each book have been used. Unused books or portions of books shall be returned to STATE during periods of inactivity lasting over 30 days, and at the completion of timber removal from the Timber Sale Area.

Completion of Load Receipts. PURCHASER shall completely and accurately fill out all portions of the Log Load Receipt before each truck leaves the Landing area. PURCHASER shall require the truck driver of each load of

logs to sign the Woods Receipt. PURCHASER shall staple the Load Receipt and Scaler Receipt parts to the load as instructed on the Log Load Receipt directions and as directed by STATE before each truck leaves the Landing area.

PURCHASER shall require the weigher to sign the machine-printed weight receipt and record the Log Load Receipt number on the weight receipt. The weigher shall mark the delivery location identification on the Scaler Receipt part, attach the weight receipt to it and mail it to the designated Third-Party Scaling Organization (TSPO) weekly.

PURCHASER shall account for each and every serially numbered Log Load Receipt and shall pay damages to STATE for all Log Load Receipts not accounted for by proof of scaling. Damages may consist of full stumpage rate for each missing receipt, on the basis of average volume of the 10 largest loads of logs scaled from the Timber Sale Area, charged at the highest species rate, or a species rate in the Contract as determined by STATE.

PURCHASER shall not intermingle STATE timber or logs designated by this Contract with any other timber or logs before log weighing occurs, unless otherwise approved by STATE.

Notification of Delivery Destination. Prior to and as a condition of STATE's final acceptance of PURCHASER's performance of all Contract requirements, PURCHASER shall notify STATE, in a form and manner prescribed by STATE, of the delivery destination of all timber purchased under this Contract. STATE may hold PURCHASER's performance bond until satisfactory delivery destination information has been received.

Notice of Transfer of State Timber. Prior to selling, trading, exchanging, or otherwise conveying unprocessed timber sold under this Contract to any other person, PURCHASER must first obtain a certification of the buyer's eligibility to purchase unprocessed State timber and their intent to comply with the terms and conditions contained in OAR 629-031-0005 through 629-031-0045. The certification shall be made in a form and manner prescribed by STATE and shall be forwarded to STATE upon completion of the transaction. Obtaining the certification shall not relieve PURCHASER of the responsibility to provide STATE with an accounting of the delivery destination of all timber purchased under the Contract.

Section 2020. Log Measurement - Sawlogs.

Scaling Locations, Rules, and Organizations: All saw logs from timber sold under this Contract shall be: (1) scaled at a location approved in writing by STATE; (2) scaled by a third-party scaling organization that is a party to a current agreement with STATE; and (3) scaled using the Official Log Scaling and Grading Rules (as adopted by the Northwest Log Rules Advisory Group) and STATE special service scaling instructions in effect at the time the logs are scaled. Utilization scale shall be handled in accordance with Section 2055, "Utilization Scale."

Upon loading at the Timber Sale Area, a log load shall be directly hauled to an approved scaling location, if required to be scaled. Log loads shall not be stored for late delivery without written approval from STATE.

PURCHASER shall enter into a written agreement with a third-party scaling organization for the scaling of saw logs removed from the Timber Sale Area (the "Scaling Agreement"). PURCHASER shall furnish STATE with a copy of the Scaling Agreement upon request. If logs are delivered when a TPSO scaler is not present, PURCHASER must provide STATE with a method to assure protection and accountability.

Unless other arrangements have been made through a Log Yard Agreement between PURCHASER and STATE, PURCHASER shall provide STATE with remote check scaling opportunities for logs scaled under this Contract. The last two loads at each delivery point shall be continuously available for checking. They shall remain available for a minimum of 48 hours unless replaced by other STATE loads. They shall be available as originally presented for scaling; i.e., if truck scaled they shall be presented in bunks.

In the event scaling is suspended for any reason, hauling Operations shall be immediately suspended until approved alternate scaling services are provided, or service by the scaling organization is resumed.

Accountability Violations - Scaling Ramp Requirement. If PURCHASER violates any of the log accountability requirements of this Contract, STATE may require all logs from timber sold under this Contract to be scaled at a

ramp provided by PURCHASER, in a location designated by STATE. All costs associated with this additional scaling requirement shall be paid by PURCHASER.

Cost of Scaling. All costs of scaling and all costs in connection with reports furnished to STATE shall be paid by PURCHASER.

The Scaling Agreement shall provide, and PURCHASER shall require, that the scaling organization furnish copies each week to STATE, of all scaled certificates showing gross and net volumes, by species and grade, of all logs scaled during the week. Upon request by STATE, PURCHASER shall also require the scaling organization to furnish and attach a log detail listing to each weekly scale certificate showing all STATE logs included on the certificate.

Scaling Instructions. The Scaling Agreement shall authorize STATE to provide instructions to the approved third-party scaling organization for the scaling practices to be used for timber removed from the Timber Sale Area. Instructions shall conform to the terms of this Contract, including special scales as necessary. PURCHASER shall acknowledge and sign such instructions and shall be provided a copy.

Minimum Products Specifications and Special Scale information are shown on Exhibit C.

Logs Damaged During Handling. Mechanical damage to logs shall be prevented during log handling. Deductions for handling damage shall not be allowed.

Add-Back Volume. Scaling deduction for deterioration due to delay in removal of logs from the Timber Sale Area shall not be allowed in determining net volume. Volume of material deteriorated due to delay in removal shall be reported to STATE and paid for at the Purchase Price. Any cost for separate reports shall be paid by PURCHASER.

Special Scaling Instructions. Segment scaling or grading of logs in excess of 40 feet in gross scaling length shall use actual taper. Procedures are set forth in "Segment Scaling and Grading of Long Logs - All Species - State Forestry Department Scaling Instructions" (Westside).

The Scaling Agreement shall include a provision, and PURCHASER shall require, that the third-party scaling organization that is a party to the Scaling Agreement furnish copies of all weight receipts to STATE, on a weekly basis, with summaries for all truck loads delivered during said week.

Section 2021. Log Measurement – Pulp Logs.

All pulp logs shall be weighed at a location approved in writing by STATE. PURCHASER shall require the gross weight and the truck tare weight for each load to be machine printed on the weight receipt. PURCHASER shall also require the weigher to sign the weight receipt and record the Log Load Receipt number on the weight receipt. A conversion factor of 10 short tons per MBF shall be used for determining the number of board feet. PURCHASER shall require that the Pulp facility furnish copies of all weight receipts to STATE on a weekly basis, with summaries for all truck loads delivered.

Upon loading at the Timber Sale Area, a log load shall be directly hauled to an approved Pulp facility. Log loads shall not be stored for late delivery without written approval from STATE.

Accountability Violations: If PURCHASER violates the STATE definition of approved Pulp sort in Exhibit C, STATE may require a TPSO to inspect each Pulp load prior to weighing.

PURCHASER shall enter into an agreement with a third-party scaling organization for the processing of the weight receipts.

Unless other arrangements have been made through an agreement between PURCHASER and STATE, PURCHASER shall provide STATE with remote check scaling opportunities for logs weighed under this Contract. The last two loads at each delivery point shall be continuously available for checking. They shall remain available for a minimum of 48 hours unless replaced by other STATE loads. They shall be available as originally presented; i.e., if the load was weighed, they shall be presented in bunks.

Weighing Instructions. STATE will provide instructions to the approved Pulp facility for the practices to be used for Pulp logs removed from the Timber Sale Area. Instructions will conform to the terms of this Contract, PURCHASER shall acknowledge and sign such instructions and shall be provided a copy.

Minimum Products Specifications and Weight information are shown on Exhibit C.

Section 2030. Log Branding and Painting – Sawlogs.
Unless approved in writing in advance by STATE, at least one end of every saw log removed from the Timber Sale Area shall be both clearly hammer branded and painted with a minimum 2-inch diameter spot of orange paint. PURCHASER shall use only those brands issued by STATE for use on timber sold under this Contract. Only those brands issued by STATE for use on timber sold under this Contract shall be allowed on the Areas of Operations at any time.

In addition, PURCHASER shall brand and paint all logs left singly or in decks along rights-of-way, and shall brand and paint one end of all logs yarded and left on Landings after termination of Operations each day. PURCHASER shall make every effort to remove logs from roads or Landings within a reasonable period of time, and agrees to notify STATE in advance if it intends to leave logs decked along roads or on Landings for more than 96 hours. STATE may scale such decked logs, and PURCHASER shall be responsible for the costs of such scaling and for any loss due to theft or deterioration.

STATE may issue PURCHASER one or more branding hammers registered to STATE. PURCHASER shall sign a receipt for all branding hammers registered to STATE and issued to PURCHASER, and will return them in good condition within 14 calendar days following completion of log hauling. PURCHASER shall pay a fee of $100 to STATE for each branding hammer returned to STATE in damaged and unusable condition, or $200 for each branding hammer not returned within the time specified by STATE. PURCHASER may replace damaged branding hammer handles, but only with 24” wooden handles, or with handles approved by STATE.

If properly marked timber is subdivided into smaller pieces for any other purpose than immediate processing, each piece shall be branded with a STATE brand specifically used for this purpose, signifying the logs are State timber and ineligible for export. Additional branding hammers registered to STATE, to be used for this purpose, may be obtained from STATE upon request, at cost.

Section 2031. Log Branding – Pulp Logs.
At least 4 logs on each Pulp load removed from the Timber Sale Area shall be clearly hammer branded. PURCHASER shall use only those brands issued by STATE for use on timber sold under this Contract. Only those brands issued by STATE for use on timber sold under this Contract shall be allowed on the Areas of Operations at any time.

Logs that do not meet the Contract definition for Pulp and do not meet the definition of a saw log in the Official Log Scaling and Grading Rules published by the Northwest Log Rules Advisory Group shall be decked separately from all other logs for inspection by STATE. Utility logs approved for removal as Pulp will be marked by STATE with blue paint. **PURCHASER shall not possess any blue paint on the Timber Sale Area.**

STATE may issue PURCHASER one or more branding hammers registered to STATE. PURCHASER shall sign a receipt for all branding hammers registered to STATE and issued to PURCHASER, and will return them in good condition within 14 calendar days following completion of log hauling. PURCHASER shall pay a fee of $100 to STATE for each branding hammer returned to STATE in damaged and unusable condition, or $200 for each branding hammer not returned within the time specified by STATE. PURCHASER may replace damaged branding hammer handles, but only with 24” wooden handles, or with handles approved by STATE.

Section 2035. Hauling and Operating Time Restrictions. PURCHASER shall not haul logs from the Timber Sale Area on weekends, the following State-observed holidays: New Year’s Day, Independence Day, Thanksgiving Day, and Christmas Day, or outside the hours of 3:00 a.m. to 6:00 p.m. daily without notification to and prior approval by STATE.

Section 2045. Log Removal. All logs defined below, except those specified in Sections 2220 through 2250, "Reserved Timber," shall be removed as Designated Timber under this Contract, at prices given in Section 1740, "Log Prices":

(a) Any conifer log that conforms with grading rules for peeler or sawmill grades and meets or exceeds both of the following minimum requirements: 6 inches in gross scaling diameter, containing 20 board feet (net).

(b) Any hardwood log that conforms with grading rules for No. 4 Alder log grade or better and meets or exceeds both of the following minimum requirements: 6 inches in gross scaling diameter, containing 20 board feet (net).

(c) Any Pulp log that is yarded to the Landing.

For purposes of log removal requirements, minimum net log volume shall be determined by the net volume of the full log length rather than the volume of individual segments.

Other logs may be removed from Designated Timber under this Contract at prices given in Section 1740, "Log Prices."

Log grades are defined in the Official Log Scaling and Grading Rules published by the Northwest Log Rules Advisory Group in effect at the time logs are scaled.

PURCHASER shall not deliberately buck logs to reduce log sizes to less than minimum requirements for log removal, and shall take reasonable precautions to prevent breakage losses in felling and Yarding.

Section 2050. Route of Haul. PURCHASER shall furnish to STATE, at the time of making request for scaling approval, a map showing the scaling location and the precise route which shall be used to haul logs from the Timber Sale Area to the scaling location. Such route shall be the most direct haul route between the two points, unless another route is approved by STATE. The route of haul may be changed only with advance written notice to, and prior approval by, STATE.

Section 2055. Utilization Scale. STATE shall scale logs or portions of logs that are broken, wasted, or not removed by PURCHASER due to: (1) improper felling or bucking of the logs; (2) failure to remove the logs prior to deterioration; and (3) logs remaining on the Timber Sale Area after completion of logging, provided the logs were merchantable prior to breakage or wastage. Material used to meet down material requirements in Sections 2220 through 2250, "Reserved Timber," shall not be considered for Utilization Scale. PURCHASER shall pay for the logs at the Purchase Price designated in Section 1740, "Log Prices." STATE shall notify PURCHASER of the volume of logs so scaled. Payment shall be considered due on such volume as if the logs were removed on the date of said notification.

In the event PURCHASER disagrees with the findings made by STATE under this section, PURCHASER may furnish scaling by a third-party scaling organization acceptable to STATE. Costs and expenses of such third party shall be paid for by PURCHASER, and the findings of the third party shall be final.

Section 2060. Special Products. "Special products" are any products not in log form manufactured from material having a price, or listed as "No Charge," under the Contract. PURCHASER shall not sell special products from the Timber Sale Area, or allow firewood, shake, or post cutting, or any other special product manufacturing on the Timber Sale Area without prior written approval of STATE.

ACCESS AND ROAD MAINTENANCE

Section 2120. Access. PURCHASER shall use the roads shown on Exhibit A for access to the Timber Sale Area and Project Locations. If gate keys are required to access the Timber Sale Area, they can be obtained at the ODF District Office by a designated PURCHASER's Authorized Representative. Any keys not returned at the

completion of all operations under this contract shall be subject to a fee of $100 per key not returned. If PURCHASER desires to use an alternative route, it shall be PURCHASER's responsibility to secure that access and obtain STATE approval for the route. The use of access roads shall be limited to that necessary to carry out the terms and provisions of this Contract. Except as otherwise provided for in this Contract, PURCHASER shall have the right of access over, in, and through the Timber Sale Area for the purpose of cutting and removing timber or performing other Operations. PURCHASER, in so using, improving, or constructing roads, shall at no time have an interest in the land, other than the temporary right of access during the term of the Contract.

PURCHASER shall comply with all applicable terms and conditions, including payment of any fees, of any access documents set forth in the provisions of this Contract, which are by this reference made a part of this Contract. The following access documents pertain to this Contract.

Access Easement. PURCHASER's use of any road listed below is subject to an easement by and between the parties named below; which may include requirements to furnish evidence of insurance coverage, performance bond, entering into a third-party agreement, maintenance, or other actions. STATE shall provide copies of easements or agreements when this Contract is executed.

North Fork Road. Easement (#311.04143) dated September 29, 1976, by and between the State of Oregon, Board of Forestry and Waterhouse Trust, requiring insurance and road maintenance. Current landowner: John McCracken/McCracken Woodlands, LLC.

Cole Mountain Road, Fall Creek Road, and Hill Road. Easement (#311.04228) dated June 19, 2012, by and between the State of Oregon, Board of Forestry and Donald Hill /Hill Family Ranch, LLC requiring insurance and road maintenance. Current landowner: Donald Hill /Hill Family Ranch, LLC.

Cole Mountain Ridge Road. Easement (#311.04285) dated July 22, 1974, by and between the State of Oregon, Board of Forestry and Boise Cascade Corp., requiring insurance and road maintenance. Current landowner: Longview Fibre Co.

Section 2130. Road Maintenance. PURCHASER is responsible for normal road maintenance on roads used for any activity under this Contract. Normal road maintenance shall provide for safe forest driving conditions, continuous access and road use, protection of roads from damage, water quality, and compliance with all applicable laws.

PURCHASER's responsibility for normal road maintenance commences with PURCHASER's first use of a road for any activity under the Contract period and shall continue until final acceptance of the maintenance is made by STATE. In addition, PURCHASER is responsible for normal road maintenance needs that are caused by public use of the roads.

If other parties are authorized under Section 1330, "Conditions of Areas of Operations," to use roads in the Timber Sale Area, PURCHASER and each party so authorized shall be responsible for a proportionate share of normal maintenance, based upon the ratio of each party's use to total road use, as determined by STATE.

STATE will determine when maintenance is needed and will issue instructions to PURCHASER specifying work to be done and the date by which it must be completed.

"Normal road maintenance" shall include any action needed to prevent and protect the road from soil contamination, seasonal weather damage, protect water quality, repair damage caused by road use, and restore the road to at least the road condition at commencement of use, including, but not limited to:

(a) Cut Banks and Fill Slopes.

(1) Remove Slash created by Operations.

(2) Remove obstructions and fallen timber.

(3) Restore stability impacted by Operations.

(4) All cut bank and fill slope maintenance work shall be performed in such a manner that soil and vegetative material does not contaminate the road surface.

(b) Ditches.

(1) Remove bank slough, minor slides, and obstructions.

(2) Remove Slash created by Operations.

(3) Restore to functional drainage.

(4) Minimize erosion and/or sediment delivery by placement and maintenance of filtering systems.

(5) Soil and vegetative material shall not be pulled across the road surface.

(c) Drainage Systems.

(1) Clear all culverts, including inlets, outlets, half rounds, and sediment catching basins.

(2) Maintain waterbars, drainage dips, and other water diversion measures.

(3) During active use, patrol and maintain functional drainage.

(4) Repair damaged culvert ends.

(d) Road Surfaces.

(1) Grade, shape, crown, and/or outslope surface and shoulders at such time that the moisture content will bind the rock surfacing. Rip potholes prior to grading, then compact in accordance with Exhibit D, "Compaction and Processing Requirements".

(2) Provide leveling, patching, and/or reinforcement rock for restoring purposes.

(3) Prevent contamination of road surface materials with soil and vegetative material.

(4) Prevent road surface materials from being bladed off the road.

(5) Temporarily cease road use to prevent and/or protect the road during adverse weather conditions. Examples of adverse weather conditions are freezing and thawing cycles, high soil moisture caused by rainfall events, and accumulation of snow that requires removal to continue hauling activity.

At the conclusion of Project Work as well as log hauling Operations, PURCHASER shall process and/or compact crushed rock surfacing on all roads used for hauling under this Contract.

Processing and compaction shall be done in accordance with Exhibit D, "Compaction and Processing Requirements." Application of water may be required to achieve optimum conditions for rock processing and compaction.

For maintenance on state roads, PURCHASER may use rock obtained from Cole Mountain Stockpile, Hamlet Stockpile, Fall Creek Stockpile, and Sweethome Stockpile. Or at other locations as determined by STATE. Prior to any rock spreading, PURCHASER shall obtain approval from STATE.

The following road segments shall be closed prior to October 1, annually: 1A to 1B, and Non-Project roads. These roads shall be closed by constructing a barrier which makes the road impassable to vehicular traffic. All road closures shall be approved by STATE. Closed roads shall be waterbarred when erosion potential exists, or where directed by STATE. PURCHASER shall construct waterbars as directed by STATE and specified in Exhibit H. The above listed road segments may be reopened after April 30 upon written approval by STATE.

Log hauling on unsurfaced roads and Cole Mountain road from Highway 53 to mile post 1¼ shall not be allowed from October 1 through April 30, unless otherwise approved in writing by STATE.

“Extraordinary maintenance” is defined as major repair work and/or damage caused by acts of God or causes beyond the control of PURCHASER, as defined in Section 1550, "Adjustment of Contract." STATE may require PURCHASER to perform extraordinary maintenance in addition to normal road maintenance. STATE shall describe the amount and specifications of work to be done in writing, and make adjustments in the Contract in accordance with Section 1550, "Adjustment of Contract."

TIMBER SALE AREA

Section 2210. Designated Timber. The timber is located on the Timber Sale Area designated on Exhibit A. In accordance with Section 1020, "Sale of Timber," the following is Designated Timber, except as excluded by Sections 2220 through 2250, “Reserved Timber,” and may be removed by PURCHASER in accordance with the terms and conditions of this Contract:

(a) All timber cut in accordance with the specifications in Section 2310, "Felling within Areas 1, 2, 3, and 4 R/W and for Project Work in Section 2610.

(b) All timber within Areas 1, 2, and 3.

(c) All timber within Area 4 R/W.

(d) All timber felled in accordance with the requirements of Project Nos. 1, 2, 3, and 4 in Section 2610, “Project Work.”

Boundary markings are as follows:

(1) The Timber Sale Areas are posted with "Timber Sale Boundary" signs, and pink flagging.

(2) Area 4 R/W is posted with "Right-of-Way Boundary" signs.

(3) The Green Tree Retention Area is posted with "Wildlife Tree Area" signs, pink flagging.

(4) The Stream Buffers are posted with “Buffer Zone” signs, pink flagging.

PURCHASER shall not use or possess any blue paint on the Timber Sale Area.

Section 2220. Reserved Timber. Reserved Timber is that timber, including trees, Snags, and logs, on the Timber Sale Area which is not sold to PURCHASER. Reserved Timber shall not be damaged, cut, or removed by PURCHASER, unless otherwise approved in writing by STATE. Failure to leave the required Reserved Timber shall be handled as described in Section 2260, “Reserved Timber - Damages.”

Section 2230. Reserved Timber - Down Material.

(a) Down trees and logs, except those meeting the removal requirements in Section 2045, “Log Removal.”

(b) In Areas 1, 2, and 3, an average of 600 cubic feet of conifer logs per acre. Logs shall contain a minimum of 10 cubic feet of volume, and be no shorter than 6 feet in length, to be selected by PURCHASER. Two logs per acre shall be at least 24 inches in diameter, at the large end where available. Conifer logs must be in Decay Class 1 or 2 condition as indicated by intact bark and original wood color. Trees and/or logs shall be well distributed across the Timber Sale Area(s).

Section 2240. Reserved Timber - Trees and Snags.

(a) All Snags unless determined to be a safety hazard. Felled Snags shall not be yarded or removed.

(b) Trees less than 8 inches DBH and not containing a merchantable log segment within Areas 1, 2, and 3.

(c) Unmarked trees within Stream Buffers. Trees may be felled in cable corridors but not removed In Type F stream buffers.

(d) Trees and Snags within the Green Tree Retention Areas shown on Exhibit A.

(e) Bearing (witness) trees.

(f) Trees marked "W" with blue paint.

(g) All Cedar shall be reserved from cutting unless determined to be a safety hazard by STATE, except those within rights-of-way, skid trails and roads, skyline cable corridors, and Landings.

(h) As directed by STATE, PURCHASER shall leave acceptable substitute trees or Snags for trees or Snags which must be cut. Substitution of trees or Snags without approval by STATE is prohibited.

Section 2250. Reserved Timber - Boundary Trees.

(a) Trees posted with "Timber Sale Boundary" signs are reserved from cutting.

(b) Trees posted with "Right-of-Way Boundary" signs within the Timber Sale Area shall not be cut until road subgrade construction is accepted by STATE. All other trees posted with boundary signs are reserved from cutting.

Section 2260. Reserved Timber - Damages.

PURCHASER shall be exclusively responsible for any damage to, or removal of, Reserved Timber. If damage to Reserved Timber occurs and is determined unavoidable by STATE, no charge will be made for damage.

If PURCHASER's activities result in avoidable damage to Reserved Timber as determined by STATE, PURCHASER shall pay for such damage at the following rates:

(a) The Purchase Price shall be paid when:

(1) "Minor damage" to Reserved Timber occurs during the course of normal logging. Minor damage is defined as bark removed down to the cambium layer of a tree, such removal affecting at least 24 square inches, but less than damage defined as "major damage."

(2) Trees must be cut in order to facilitate Operations, or for safety around Landings, as approved in writing by STATE.

(b) Double the Purchase Price or $50, whichever is greater, shall be paid when:

(1) "Major damage" to Reserved Timber is caused by Operations of PURCHASER. Major damage is defined as follows:

(a) Bark removed down to the cambium layer over an area of the bole which has one dimension greater than the diameter of the tree, or any visible bark removal on the tree roots.

(2) More than 50 percent of live crown is removed.

(3) Tree is knocked down, or leaning more than 10 degrees from vertical.

(c) Triple the Purchase Price or $100, whichever is greater, shall be paid when:

(1) Reserved Timber is intentionally cut or removed.

(2) Reserved Timber is intentionally damaged.

(3) Repeated major damage occurs to Reserved Timber.

(4) Any intentional "notching" or undercutting of Reserved Timber with an axe or saw occurs.

STATE may direct damaged timber to be left. In that case, payment for damage shall be reduced by the Purchase Price of such timber.

Payment for damage to or removal of Reserved Timber shall not release PURCHASER from liability for other damage to property of STATE.

HARVESTING OPERATIONS

Section 2310. Felling. PURCHASER shall comply with the following requirements for felling:

COMPLETION OF FELLING OPERATIONS: All felling operations in the timber sale area described in the sections titled, “Felling”, “Cable Yarding Specifications,” and “Ground-Based Operations,” must be completed by **March 15, 2015.**

(a) Cedar shall not be felled without prior approval from STATE except in rights-of-way, skid trails and roads, cable corridors, and landings.

(b) Snags shall not be felled without prior approval from STATE unless it is determined to be a safety hazard, or is in rights-of-way, skid trails and roads, cable corridors, and landings.

(c) A lateral reaching boom is required for all mechanical felling.

(d) All tail trees and lift trees which sustain “major damage” shall be topped or girdled at least 40 feet high for Snag creation.

(e) Bearing witness trees in Areas 1, 2, and 3 shall be cut above any scribing or as marked.

(f) Prior to felling in the Timber Sale Area, PURCHASER shall arrange to have all the fallers who will work in the Timber Sale Area meet with STATE to review the requirements specified in Section 2310, "Felling," and Sections 2220 through 2250, "Reserved Timber." PURCHASER shall give STATE 48 hours’ advance notice before starting a new faller on the Timber Sale Area to allow STATE the opportunity to brief the fallers on these sections.

(g) Fell all trees on Areas 1, 2, and 3 greater than 8 inches in DBH that contain a log segment that meets or exceeds the minimum removal specifications in Section 2045, “Log Removal,” except those designated as "Reserved Timber" in the Sections 2220 through 2250, “Reserved Timber.”

(h) Portions of conifers with crooks, breaks, rot, or other severe defect shall be bucked prior to yarding.

(i) Fell all trees and Snags within "Right-of-Way Boundary" signs in Area 4 R/W.

STATE may require certain trees or Snags, described by the preceding specifications, to be left standing if they are needed for wildlife habitat, or if the Snags do not constitute a safety hazard. STATE shall designate such trees or Snags at the time of timber felling.

Trees shall not be felled across Timber Sale Area boundaries, unless authorized in writing by STATE. Any trees that fall across Timber Sale Area boundaries shall be yarded back into the Timber Sale Area prior to limbing or topping.

PURCHASER shall employ the following timber cutting practices on the Timber Sale Area(s), unless otherwise approved by STATE:

(1) Trees shall be felled to the longest lay, using the necessary means (wedging, jacking, etc.), favoring a quartering uphill lead.

(2) Trees shall not be felled across draws, over ridges, or across previously felled trees.

(3) Trees that cannot be controlled into desired felling patterns (Snags, rotten-butted trees, heavy leaners, etc.) shall be felled first, and the direction of subsequently felled timber corrected accordingly.

(4) Maximum stump height shall be 12 inches or 60 percent of stump diameter, whichever is greater. Heights shall be measured on the uphill side.

Section 2345. Substitution of Trees. PURCHASER shall leave acceptable substitute trees as approved by STATE for any conifer Reserved Timber which must be cut to facilitate logging (i.e., cable corridors, Landings, or skid trails) or to resolve safety problems pursuant to Section 1610, "Permits; Licenses; Safety" (i.e., danger trees, Guyline trees, hang-ups).

An acceptable substitute tree is defined as any sound, live-topped conifer tree that is the nearest tree to a Reserved tree that must be cut that is of similar in size and species.

STATE reserves the right to require PURCHASER to:

(a) Leave substitute trees of a different species; and

(b) Leave substitute trees for reserved Snags that must be cut.

Substitution of trees without approval of STATE is prohibited. Any Reserved Timber cut without approval by STATE shall be paid for in accordance with Sections 2220 through 2260, "Reserved Timber."

Section 2350. Cable Yarding Specifications. Yarding systems shall be designed to minimize soil disturbance and damage to Reserved Timber. PURCHASER shall use cable Yarding, except as approved by STATE in the Operations Plan. PURCHASER shall comply with the following when Yarding the Timber Sale Area, except as approved by STATE in the Operations Plan:

(a) Logs shall have at least one end suspended when Yarding.

(b) Logs shall be fully suspended when Yarding over all streams and stream side areas.

(c) When cables pass through or over streams shown on Exhibit A, all necessary precautions shall be taken to protect all Stream Buffer components and Reserved Timber.

Necessary measures include, but are not limited to, the following:

(1) Pull cables out of the Reserved Timber prior to rigging the next Yarding road.

(2) Yarding roads shall be at least 100 feet apart where they extend over or through the buffer.

(d) Soil gouging shall be limited to a depth of one foot.

(e) If Tailhold or Guyline trees outside of the Timber Sale Area are necessary to facilitate Yarding Operations, PURCHASER shall acquire written approval from STATE prior to their use. Upon approval, PURCHASER shall clearly mark each tree and take precautions to prevent damage to said trees including, but not limited to:

(1) Using trees near the timber sale boundary that can be felled and yarded without causing damage to Reserved Timber.

(2) Using tree plates, tires, or other suitable materials between cable straps and the tree to prevent scarring the tree.

(3) Limiting notching of the tree - to prevent strap slippage - to less than 25 percent of the circumference of the tree, unless the tree has been approved to be cut and removed.

If the above precautions are followed, payment for such tree shall not be required, except for trees removed per Item (1) above, which shall be paid for at single the Purchase Price, as specified in Sections 2220 through 2250, "Reserved Timber."

If the above precautions are not followed and activities result in damaging 50 percent or more of the circumference of such trees, damage shall be considered avoidable. Payment shall be at the rate of triple the Purchase Price, as specified in Sections 2220 through 2250, "Reserved Timber."

(f) In Areas 1, 2 and 3 PURCHASER shall place debris from Yarding (tops, limbs, cull logs, etc.) in a stable location approved by STATE, and be managed so it does not slip over the edge of the Landings. All Landing Slash shall be piled in the center of the Landing, as directed by STATE, prior to moving to another Landing area. Debris shall be piled in a manner suitable for burning. The lower one third (or three to four feet from the base) of piles shall be covered to prevent water from reaching Slash. PURCHASER shall supply the materials used for covering the SLASH. Additional Slash shall be piled on top of the covered piles to complete the piling as directed by STATE. Debris shall not be left lodged against standing trees. Material suitable for firewood cutting shall be piled separately from other Slash as directed by STATE, except on dirt roads that are scheduled to be blocked and closed.

In addition, if Operations of PURCHASER threaten or cause excessive damage to the soil or Reserved Timber, STATE may require PURCHASER to comply with one or more of the following:

(A) Reduce the length of logs.

(B) Reduce the number of logs in each Yarding turn.

Section 2355. Ground-Based Operations. Timber Sale Areas, or portions thereof, where ground Yarding has been approved in the Operations Plan are subject to the following restrictions, unless otherwise approved in writing by STATE:

(a) PURCHASER has the option of (1) or (2):

(1) Using any type of ground-based equipment. However, PURCHASER must limit skid roads and trails used to 10 percent of the ground yarded area and restrict equipment Operations to these skid roads and trails, except during slash disposal operations.

(2) Using ground-based equipment of 6 pounds per square inch or less of ground pressure. However, PURCHASER must limit soil disturbance (removal or displacement of litter and topsoil) to no more than 10 percent of the ground yarded area.

(b) Pre-existing skid roads and trails shall be used whenever possible, and soil disturbance or construction of new skid roads and trails shall be limited to that necessary to log the area.

(c) Operations shall not be conducted under conditions where soils are rutted or excavated to a depth of 12 inches or more.

(d) Equipment shall not operate on slopes greater than 30 percent. Written approval may be granted for short distances on slopes exceeding 30 percent when, in the opinion of STATE, it would be unreasonable to yard by pulling line.

(e) Yarding shall not be permitted on haul roads.

(f) Ground-based Operations shall not be allowed from November 1 through April 30.

(g) Ground Yarding equipment shall not be operated within 50 feet of streams.

(h) PURCHASER shall suspend ground Yarding during periods of high soil moisture as determined by STATE.

(i) Operations shall be designed to minimize soil disturbance and damage to Reserved Timber.

If the above conditions are not met by PURCHASER, STATE at its option, may require PURCHASER to suspend Yarding activities until corrective measures have been agreed upon by STATE and PURCHASER.

Time lost while STATE exercises any of the above options shall not constitute grounds for Contract extension.

Section 2360. Non-Project Roads and Landings.

Improvement or construction of roads or Landings not required in Section 2610, "Project Work," but approved in the Operations Plan, shall be subject to the following requirements, unless otherwise approved in writing by STATE:

(a) Prior to felling, PURCHASER shall mark Right-of-Way clearing limits and obtain STATE approval.

(b) Subgrade shall not exceed 14 feet in width, and shall be outsloped for drainage.

(c) Landings shall be constructed no more than 70 feet wide. The surface shall be crowned for drainage.

(d) Approaches to surfaced roads shown on Exhibit A, for a distance of at least 50 feet, and Landings adjacent to surfaced roads shall be surfaced with at least a 9-inch depth of pit-run rock prior to log hauling to prevent contamination to the existing rock surface.

(e) Operations shall not be allowed from October 1 through April 30, annually.

(f) Roads shall be waterbarred, and ripped according to the specifications in Exhibit H and blocked to vehicular traffic as directed by STATE by October 1 or upon completion of use, whichever occurs first.

(g) Seed and mulch all areas of disturbed soil near stream crossings according to the specifications in Exhibit K.

Section 2365. Progressive Operations. PURCHASER shall complete the following requirements on each Setting prior to moving to a new Setting, unless otherwise approved in writing by STATE:

(a) Remove all logs as described under Section 2045, "Log Removal."

(d) Logs shall be removed from each Landing before moving to the next Landing. This may require "bumping" logs forward to the next Landing on a truck or with the log loader, unless otherwise approved by STATE.

(b) Construct cross-drainage ditches or waterbars as specified in Exhibit H and as directed by STATE.

(c) In Areas 1, 2 and 3 PURCHASER shall place debris from Yarding (tops, limbs, cull logs, etc.) in a stable location approved by STATE, and be managed so it does not slip over the edge of the Landings. All Landing Slash shall be piled in the center of the Landing, as directed by STATE, prior to moving to another Landing area. Debris shall be piled in a manner suitable for burning. The lower one third (or three to four feet from the base) of piles shall be covered to prevent water from reaching Slash. PURCHASER shall supply the materials used for covering the SLASH. Additional Slash shall be piled on top of the covered piles to complete the piling as directed by STATE. Debris shall not be left lodged against standing trees. Material suitable for firewood cutting shall be piled separately from other Slash as directed by STATE, except on dirt roads that are scheduled to be blocked and closed.

In addition, PURCHASER shall complete the following requirements within the following time frames, on an Area basis, unless otherwise approved in writing by STATE:

(1) Complete all felling requirements as required by Section 2310, "Felling," within 14 calendar days after completion of Yarding activities.

(2) Remove all trash from the Timber Sale Area within 14 calendar days after completion of log hauling activities.

(3) Remove all equipment and materials from the Timber Sale Area, as required by Section 1430, "Removal of Equipment and Materials," within 30 calendar days after completion of log hauling activities.

(4) Begin Slash piling within 14 calendar days after completion of Yarding Operations on a Timber Sale Area.

(5) Close all unsurfaced roads within 14 calendar days after completion of log hauling activities on these roads.

(6) Complete road maintenance requirements of Section 2120, "Access," and Section 2130, "Road Maintenance," within 30 calendar days after completion of log hauling activities.

(7) Remove Right-of-Way logs from a road segment prior to requesting subgrade approval by STATE.

PROTECTION DURING OPERATIONS

Section 2410. Damage to Reforested Areas. PURCHASER shall take all necessary precautions to avoid damage to reforested areas adjacent to, within, or near the Timber Sale Area. If PURCHASER's Operations damage reforestation areas shown on Exhibit A, STATE shall determine the extent of the damage and PURCHASER shall reimburse STATE at double the calculated value of the damaged reforestation as determined by STATE.

Section 2415. Protection of Watershed. PURCHASER shall take all necessary precautions to prevent damage to stream banks, any stream course, lake, reservoir, or forested wetland within or adjacent to the Timber Sale Area. Definitions of Type F, Type D, and Type N streams contained in the Forest Practices Act apply to this Contract.

STATE has on file at the Astoria District, Oregon Department of Forestry Office, the required Road Water Registration permit (RW-86342) for water use at designated diversion points as shown on Exhibit A, for the purpose of road maintenance, construction, and reconstruction associated with this timber sale. In order for PURCHASER to meet work requirements of Section 2130, “Road Maintenance,” and Section 2610, “Project Work,” that require the diversion and use of water, while still meeting the requirements of Section 1610, “Permits; Licenses; Safety,” and Section 1650, “Protection of Soil, Air, and Water Resources,” the following conditions must be adhered to:

(a) The Watermaster shall be notified by fax (503-842-3680) 10 days prior to use of any point of diversion, and also by phone message/contact (503-842-2413, ext. 119) on the day diversion (pod) will take place. The fax should include the anticipated amount of water to be diverted and an Oregon Department of Fish and Wildlife Small Pump Screen Self Certification form.

(b) If multiple projects will be going at the same time, the Watermaster notification can include those projects in one notification.

(c) The Watermaster may restrict the pods that can be used as stream flow falls during the season.

(d) Use shall not exceed 30,000 gallons from a single source during any 24-hour period.

(e) No dam, reservoir, or other impoundment facility may be constructed within a designated scenic waterway.

(f) Under no circumstances may the water course be dewatered to a degree that the live continuous flow is obstructed.

(g) A pump screen that complies with Oregon Department of Fish and Wildlife Small Pump Screen Self Certification form, which is on file at the Astoria District, Oregon Department of Forestry Office, shall be used at all times during water diversion.

(h) Only registered diversion points on ODF managed lands as shown on Exhibit A or other Registered Water Use Sites as approved by STATE shall be used.

Activity in "Live" Streams shall not be allowed from September 16 through June 30, unless otherwise approved in writing by STATE.

In addition, PURCHASER shall perform all measures necessary to protect the stream banks, streambed, and vegetation within the Stream Buffers shown on Exhibit A.

- No ground-yarding equipment is allowed to operate within 50 feet of type N streams and Type F streams within the Sale Area.

- The Stream Buffers are posted with “Buffer Zone” signs and pink flagging.

Necessary measures include, but are not limited to, the following, unless otherwise approved in writing by STATE:

(a) Fell adjacent trees and Snags away from or parallel to the buffer to prevent them from entering the buffer.

(b) Do not operate ground-based equipment within the buffer.

(c) Do not fell trees within the buffer except in cable corridors.

(d) Cable Yarding over or within the buffer shall be done in accordance with the requirements of Section 2350, "Cable Yarding Specifications."

(e) Trees that fall or slide into the Type F streams shall not be removed without prior approval from STATE.

PURCHASER shall comply with the following instructions for removal of debris that enters streams as a result of PURCHASER's Operations:

Logs and debris entering Type F or D streams shall be removed by the end of Operations each day, unless a plan for an alternate practice is approved in advance by STATE.

Debris shall be cleared up to the high water mark on all streams. All removed debris shall be placed in a stable location above the high water mark.

(a) Debris entering Type N streams shall be removed at the end of each day, unless an alternate practice is approved in advance by STATE.

(b) STATE may direct certain debris to be left in stream areas for habitat structure purposes.

In addition to other protective measures required, PURCHASER shall discontinue all or part of its Operations under this Contract upon notice from STATE that Operations will cause excessive damage to the watershed.

Section 2416. Protection from Invasive Plants and Noxious Weeds. PURCHASER shall ensure all ground-based yarding, earth disturbing, road constructing, and road maintenance equipment moved onto State Forest Land or between State Forest Land sites is free of soil, seeds, vegetative matter, or other debris that could contain, or hold, seeds. PURCHASER shall employ cleaning methods necessary to ensure compliance with the terms of this section. PURCHASER shall notify STATE's Authorized Representative at least 24 hours prior to moving each piece of equipment onto State Forest Land or between State Forest Land sites unless otherwise agreed in writing. Notification shall include identification of the equipment's most recent operation.

Equipment shall be inspected by STATE at the Highway 26 and Highway 53 Junction (Hamlet gas station), as shown on Exhibit A, or a site approved by STATE, to verify that the equipment has been reasonably cleaned prior to operation on lands managed by ODF.

This section does not apply to log trucks, service trucks, water trucks, pickup trucks, cars, and other passenger vehicles, used in the daily transport of personnel.

Section 2420. Protection of Utility Lines. In accordance with OAR 952-001-0020: "*ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in OAR 952-001-0010 through OAR 952-001-0090. You may obtain copies of the rules by calling the center." (Note: The telephone number for the Oregon Utility Notification Center is (503) 232-1987/1-800-332-2344.)*

Section 2430. Protection of Markings and Monuments. PURCHASER shall not remove, alter, damage, or destroy any signs, posters, markings, land survey markers and corners, witness trees, seed trees, or corner reference tags pertaining to the timber sale or land survey. Should such damage or disturbance occur, PURCHASER shall report it to STATE within 24 hours of the incident, and shall prevent any further damage or disturbance from occurring. PURCHASER shall, in a manner or method as directed by STATE, re-establish legal subdivision markers or monuments damaged by PURCHASER's activities. STATE may re-establish such markers or monuments and bill PURCHASER for the expense incurred.

In the event it is necessary to disturb any legal land survey corner in order to conduct any activity under this Contract, PURCHASER shall notify STATE. PURCHASER shall not disturb any corner until STATE has referenced or otherwise preserved the corner.

Section 2435. Protection of Cultural Resources. PURCHASER shall not remove any historic artifact, including old logging equipment or camp refuse, or other Cultural Resources from the Timber Sale Areas. If any such items are discovered PURCHASER shall notify the STATE's Authorized Representative. PURCHASER shall take all necessary precautions to prevent damage to the Cultural Resource found.

Section 2440. Warning Signs. PURCHASER shall post and maintain signs adequately warning forest users of active felling, Yarding, and hauling Operations. PURCHASER shall post signs at locations designated by STATE and at other locations determined by PURCHASER.

Section 2455. Seasonal Restrictions. PURCHASER shall adhere to the following restrictions, unless otherwise approved in writing by STATE:

(a) Completion of Felling Operations: All felling as described in Sections 2310. "Felling", Section 2350, "Cable Yarding Specifications", and Section 2355, "Ground-Based Operations", in Areas 1, 2, and 3 must be completed by March 15, 2015.

(b) Soil Protection Seasonal Restriction: Ground-Based Operations shall not be allowed from November 1 through April 30 (Section 2355).

(c) The following road segments shall be closed prior to October 1: Point 1A to 1B. This road segment may be reopened after April 30 upon written approval by STATE) (Section 2130).

(d) Log hauling on unsurfaced roads shall not be allowed from October 1 through April 30, annually (Section 2130).

(e) Log hauling on Cole Mountain Road from the Highway 53 to mile post 1.25 shall not be allowed from October 1 through April 30 (Section 2120).

(f) All Non-Project roads shall be waterbarred, and ripped according to the specifications in Exhibit H and blocked to vehicular traffic as directed by STATE by October 1 or upon completion of use, whichever occurs first (Section 2360).

(g) Slash piling shall not be allowed from November 1 through April 30 (Section 2560).

(h) Activity in "Live" Streams shall not be allowed from September 16 through June 30 (Sections 2415 and 2610).

(i) Road improvement and construction shall not be allowed from November 1 through April 30 (Section 2610).

(j) Non-Project road construction and use shall not be allowed from October 1 through April 30 (Section 2360)

(k) Seeding shall be performed only from March 1 through June 15 and August 15 through October 31 (Exhibit K).

Section 2460. Repair of Injury or Damage. Prior to the completion and as a condition of final acceptance by STATE of PURCHASER's Operations, PURCHASER shall repair or correct any injury or damage to the Areas of Operations or any part of the Timber Sale Area arising from PURCHASER's Operations, unless adjustment is made pursuant to Section 1550, "Adjustment of Contract."

PROTECTION FROM FIRE

Section 2510. Precautions Against Fire. PURCHASER acknowledges that their Operations under this Contract may cause extraordinary fire risk in the Areas of Operations. PURCHASER covenants and agrees that it will use the highest degree of care to prevent forest fires from starting on or from spreading to or from the Areas of Operations. PURCHASER shall require its employees and Contractors and the employees of such Contractors to employ a similar degree of care. STATE may, at any time during the term of the Contract, require

PURCHASER to prepare and submit to STATE for approval a Fire Plan for the Areas of Operations. The plan shall set forth the resources and required actions to be taken by PURCHASER and Contractors of PURCHASER for the prevention and suppression of fire in the Areas of Operations. The plan must meet with the approval of STATE and STATE reserves the right to require revisions to the plan as STATE, in its sole discretion, may determine to be necessary.

Section 2520. Efforts on Fire. If a fire occurs in any part of the Areas of Operations, notwithstanding the origin, PURCHASER shall require its employees and Contractors and the employees of such Contractors to immediately proceed to extinguish the fire. PURCHASER acknowledges and agrees that the provisions of this section may impose obligations on PURCHASER that are separate from or in addition to any duty or responsibility required by law. However, in no event shall the requirements of this section be construed as relieving PURCHASER of the duty and responsibility under Oregon law to fight, control, and suppress fire on forestland.

Section 2530. Indemnification. In addition to the general indemnification contained in Section 1355, "General Indemnification," PURCHASER shall indemnify, defend and hold STATE harmless from any and all loss, costs, damage, and expense that STATE may incur as a result of any fire caused by the Operations of PURCHASER, employees and Contractors of PURCHASER, and employees of such Contractors.

Section 2555. STATE to Assume Additional Fire Hazard Obligations. If, following completion of harvesting operations on any area of the timber sale, a determination is made under ORS 477.580, that an additional fire hazard has been created, then, upon completion of all provisions of this Contract, STATE shall assume all obligations for the disposal or reduction of any additional fire hazard determined to exist, and issue a release pursuant to ORS 477.580 (6) relieving PURCHASER of such obligations.

Section 2560. Slash Disposal. PURCHASER shall comply with the following requirements for slash piling in Areas 1, 2 and 3 or portions thereof, where ground Yarding has been approved in the Operations Plan, unless otherwise approved in writing by STATE:

(a) Slash piling shall not be allowed from November 1 through April 30, unless otherwise approved in writing by STATE.

(b) Brush, logging slash, and other debris shall be cleared from planting sites and piled in windrows or piled so that 80 percent or more of the soil organic layer is exposed. All woody vegetation (other than conifer trees) is defined as brush.

(c) All slash near openings and Landings shall be piled no closer than 75 feet to any Residual Trees.

(d) Piles shall be located at least 75 feet apart and shall be no more than 75 feet long. Piles shall have exposed mineral soil around the circumference of the pile to prevent spread of fire. Piles shall be located inside the project area designated for piling. Piles shall be built to a height of 3 to 4 feet and then covered a minimum of a 12 foot square area to prevent water from reaching the slash. For piles greater than 12 feet in diameter, PURCHASER shall cover enough area to ensure adequate dry materials to allow for proper ignition. Additional woody debris shall be piled on top of the covered piles to complete the piling, as directed by STATE.

(e) PURCHASER shall supply covering for Slash piling as specified 4MIL Clear Polyethylene Plastic.

(f) Firewood logs and chunks which are suitable for firewood shall be piled separately from slash, near roads and landings and alongside the road in locations designated by STATE.

(g) Leave down material scattered throughout sale areas as specified in Section 2230. Reserved Timber – Down Material.

(h) Trees and Snags as specified in Section 2240. Reserved Timber – Trees and Snags shall be protected during slash disposal operations.

(i) Skid trails shall be ripped to a depth of 12 inches.

(j) Work Scheduling - work shall be accomplished only during dry weather conditions, and started within 14 calendar days after completion of yarding activities on Areas 1, 2, and 3. Operations shall provide for continual operation until contract work is completed.

PROJECTS

Section 2610. Project Work. PURCHASER shall complete the following Projects in accordance with the specifications provided in Exhibits D, E, F, G, H, I, J, and K written instructions from STATE. Project locations are shown on Exhibit A unless otherwise described. PURCHASER shall furnish all material unless otherwise specified.

Project Period. Project work shall not be allowed during the following periods, unless otherwise approved in writing by STATE.

(a) Work on Project Nos. 1, 2, 3, and 4 shall not be allowed from November 1 through April 30, unless otherwise approved in writing by STATE.

(b) Activity in "Live" Streams on Project Nos. 2 and 4 shall not be allowed from September 16 through June 30, unless otherwise approved in writing by STATE.

Rock Source. The road rock may be obtained from the following locations shown as "Rock Quarry" and "Stockpile Site" on Exhibit A, or from other locations acceptable to STATE, as follows:

Project Nos. 1 and 2:

The required ¾"-0" and 1½"-0", crushed rock shall be obtained at the Hamlet Stockpile Site, located in the NE1/4, and NW 1/4, NE1/4, Section 2, T4N, R9W, W.M.

The required 4"-0" crushed rock may be obtained from the Cole Mountain Quarry Stockpile Site, located in the NW1/4, NE1/4, Section 23, T4N, R9W, W.M.

The required 6"-0" pit-run rock and 24"-6" riprap rock may be obtained at the Cole Mountain Stockpile and Quarry Site. All the required pit-run and riprap rock shall be developed and meet specifications in Exhibit F.

The required 4"-0" crushed rock for road segment Pt. A to B may be obtained from the Fall Creek Quarry and Stockpile Site, located in the NE1/4, NW1/4, Section 20, T4N, R8W, W.M.

The required 6"-0" pit-run rock and 24"-6" riprap rock for road segment Pt. A to B may be obtained at the Fall Creek Quarry and Stockpile Site. All the required pit-run and riprap rock shall be developed and meet specifications in Exhibit F.

Development and use of the rock quarry shall be in accordance with Exhibit F.

Project No. 3:

The required 6"-0" pit-run rock for the Soapstone Stockpile site may be obtained from the Soapstone Quarry, located in the NW 1/4, NW 1/4, Section 15, T4N, R9W, W.M.

Right-of-Way Hauling. Prior to approval to rock constructed roads, PURCHASER shall haul all right-of-way logs on those portions of road to be rocked, unless otherwise approved in writing by STATE.

Project No. 1. Sale Access Road Construction and Landing Construction. Construct roads and Landings at or between the following road points according to the specifications in Exhibits D, E, and G:

Construct: 1A to 1B, A to B, and C to D.

Landings: 1B.

Project No. 2. Sale Access Road Improvement: Improve roads at or between the following road points according to the specifications in Exhibits D, E, and G:

Improve: I1 to I2, I3 to I4, I5 to I6, I7 to I8, I9 to I10, I11 to I12, I13 to I14, I15 to I16, I17 to I18, I19 to I20, and I21 to I22.

Project No. 3. Soapstone Quarry Development, Rock Crushing and Stockpile Site Construction. Develop and crush the following quantities of rock according to the specifications in Exhibits D and F:

(a) 12,000 cubic yards of 1½"-0" crushed rock, stockpile measure, and stockpile at the Sweethome Stockpile Site.

(b) 1,000 cubic yards of 1 ½"-0" crushed rock, truck measure, and stockpile at the Soapstone Quarry Site.

Stockpile Areas. Rock shall be stockpiled at the Sweethome Stockpile Site, as shown on Exhibit A, as directed by STATE. Existing rock piles shall be leveled or moved, as directed by STATE and the floors shall be uniformly graded prior to rock stockpiling.

Stockpile Site Construction and Measurement. The stockpiles shall be constructed and measured according to dimensions consisting of the length and width of the base, length and width of the top, and the height of all corners. The stockpile dimensions shall be determined by STATE and included with the Quarry Development Plan required by Exhibit F. The finished stockpile surfaces shall be smooth, uniform, and all corners shall be filled in. All stakes and reference points shall be protected until measurements are accepted by STATE.

Stockpile Site Construction. Construct the Soapstone Stockpile Site according to specifications in Exhibit D and F.

Project No. 4. Road Vacating and Fill Removal. Vacate road and fill between the following points, shown on Exhibit A, in accordance with specifications in Exhibits I, J, and K.

Vacate: V1.

STATE has prepared the required FPA "Written Plans" and are on file at the Astoria District Office of the Oregon Department of Forestry.

Section 2620. Completion of Projects. PURCHASER shall complete the Project Work in the preceding section as follows:

Project No. 3 – Prior to October 31, 2013.

Project Nos. 1, 2, and 4 – Prior to October 31, 2014.

Complete all Projects on a road section prior to log hauling on that section.

If the logging operation will cause damage to a project, STATE may waive the completion date requirement until logging in that area is completed. Right-of-Way logs shall be removed from the road section before completion of the Project.

Section 2630. Credit for Project Work. In order to compensate PURCHASER for Project Work that PURCHASER agrees to complete under Section 2610, "Project Work," of this Contract, STATE agrees to credit PURCHASER's timber account in the sum of $449,110 upon completion of and STATE's acceptance of all work, unless otherwise approved in writing by STATE.

PURCHASER may request partial credit for the Project Work when PURCHASER has completed and STATE has accepted the Project Work, in accordance with the following credit schedule:

Partial credit amount of $89,822 (20% Project Work completion)
Partial credit amount of $89,822 (40% Project Work completion)
Partial credit amount of $89,822 (60% Project Work completion)
Partial credit amount of $89,822 (80% Project Work completion)
Partial credit amount of $89,822 (100% Project Work completion)

Requests for partial credit shall be made by PURCHASER in writing and submitted to the Astoria District Office of the Department of Forestry at 92219 Highway 202, Astoria, Oregon, 97103.

EXHIBIT "A"
VICINITY MAP
OF TIMBER SALE CONTACT NO. 341-13-51
COLE TURKEY

PORTIONS OF SECTIONS 7, & 18, T4N, R8W, AND PORTIONS OF SECTIONS 13, & 14, T4N, R9W, W.M., CLATSOP COUNTY, OREGON

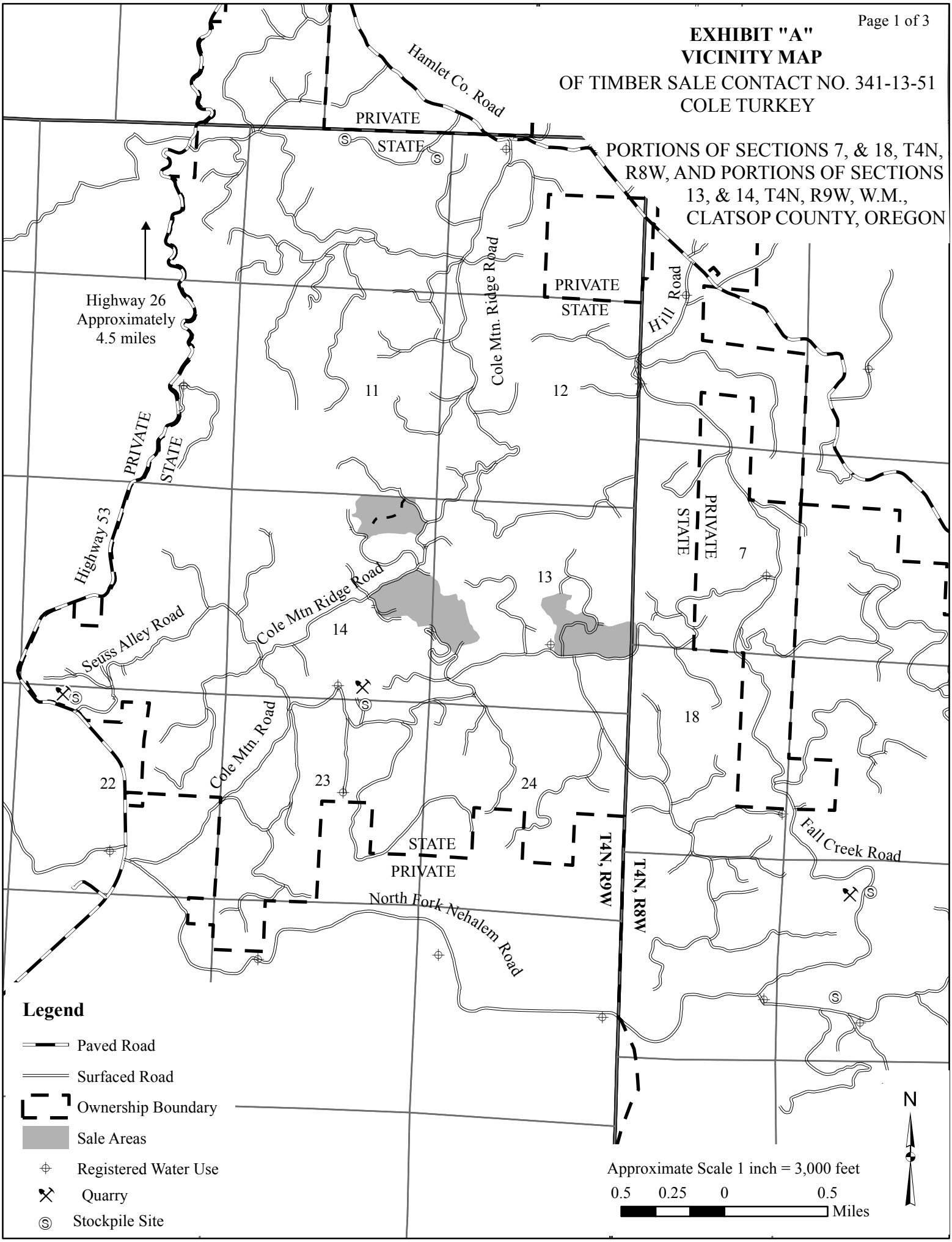
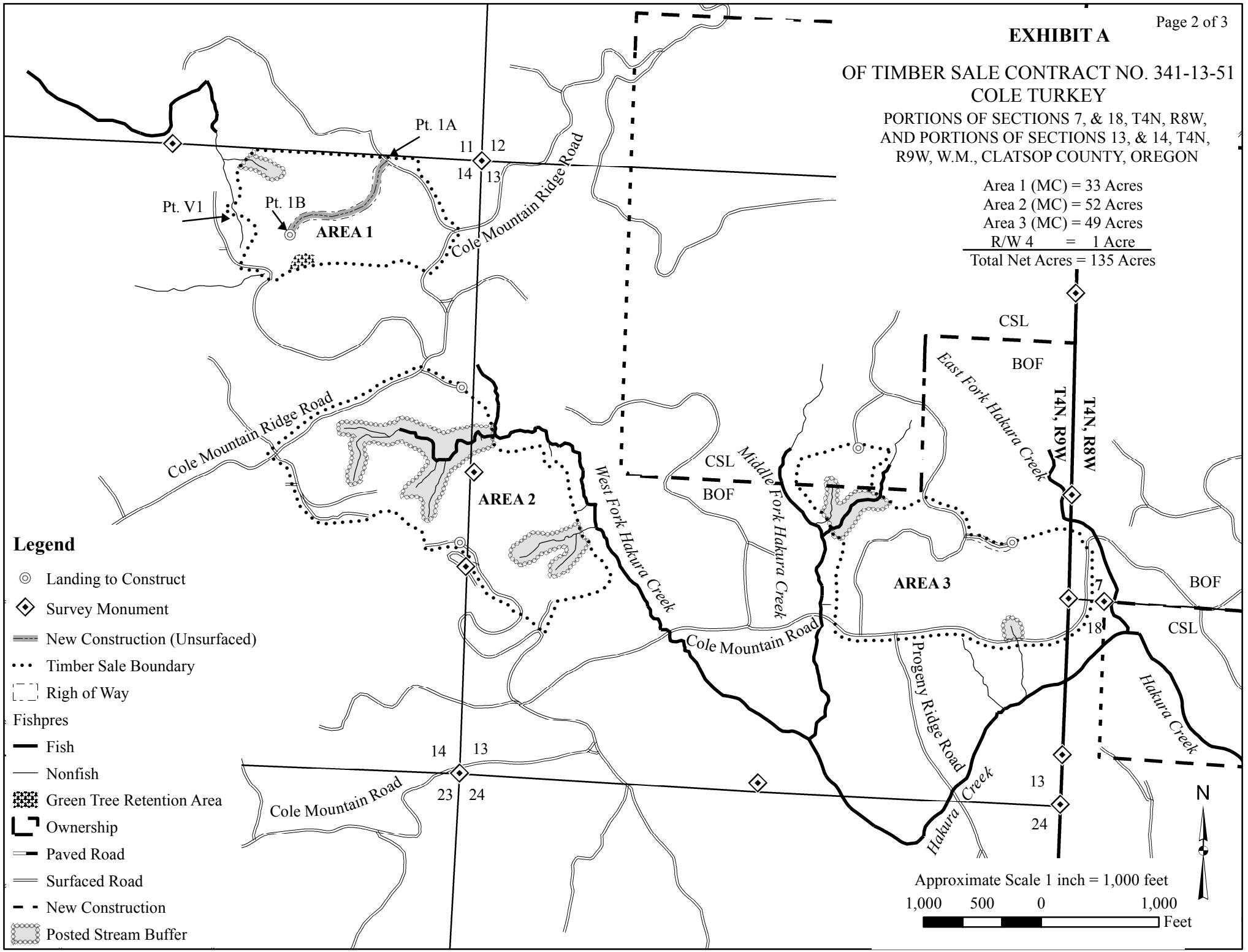


EXHIBIT A

OF TIMBER SALE CONTRACT NO. 341-13-51
COLE TURKEY

PORTIONS OF SECTIONS 7, & 18, T4N, R8W,
AND PORTIONS OF SECTIONS 13, & 14, T4N,
R9W, W.M., CLATSOP COUNTY, OREGON

Area 1 (MC) = 33 Acres
Area 2 (MC) = 52 Acres
Area 3 (MC) = 49 Acres
R/W 4 = 1 Acre
Total Net Acres = 135 Acres



Legend

- Landing to Construct
- Survey Monument
- New Construction (Unsurfaced)
- Timber Sale Boundary
- Righ of Way

Fishpres

- Fish
- Nonfish
- Green Tree Retention Area
- Ownership
- Paved Road
- Surfaced Road
- New Construction
- Posted Stream Buffer

EXHIBIT A

PROJECT MAP
OF TIMBER SALE CONTRACT NO. 341-13-51
COLE TURKEY

N

Legend

- Pt."A" Point for Project Work
- New Road Construction
- Posted Right-of-Way
- Landing to Construction
- Quarry Site
- Stockpile Site
- Ownership
- Paved Road
- Surfaced Road
- Timber Sale Area
- Section

Hamlet Stockpile Sites
Pt. I1
Hamlet Road
Cole Mountain Ridge Road
Hill Road
T4N, R8W
T4N, R9W
PRIVATE
STATE
Fall Creek Road
Cole Mountain Road
Section 8 Road
Cole Mountain Ridge Road
Cole Mountain Quarry
and Stockpile Site
Sally Ridge Road
Progeny Ridge Road
Pt. I2
Pt. I4
Pt. 1A
Pt.V1
Pt. 1B
Pt. I3
Pt. I5
Pt. I6
Pt. I7
Pt. I8
Pt. I9
Pt. I10
Pt. I11
Pt. I12
Pt. I13
Pt. I14
Pt. I15
Pt. I16
Pt. I17
Pt. I18
Pt. I19
Pt. I20
Pt. I21
Pt. I22
Pt. A
Pt. B
1
2
8
11
12
13
14
17
18
20
23
Map Insert for Project No.1 and 3
Soapstone Quarry
Development Site
53
Road
Pt.D
Seuss Alley
Pt. C
STATE
PRIVATE
PORTIONS OF SECTION
22, T4N, R9W, W.M.,
CLATSOP COUNTY, OREGON.
MP 7
Fall Creek Quarry
and Stockpile Site

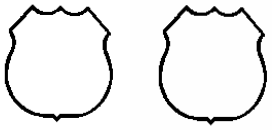
PART III: EXHIBITS

OREGON DEPARTMENT OF FORESTRY

TIMBER SALE OPERATIONS PLAN
(See Page 2 for instructions)

Date Received by STATE: _____

(5) State Brand Information (complete):



(1) Contract No.: 341-13-51

(2) Sale Name: Cole Turkey

(3) Contract Expiration Date: October 31, 2015

Project Completion Dates: Project No. 3 – October 31, 2013;
Project Nos. 1, 2, and 4 – October 31, 2014

(4) Purchaser: _____

(6) Purchaser Representatives:

Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____

(7) State Representatives:

Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____

(8) Name of Subcontractors & Starting Dates:

Projects: No(s) _____-_____	Date: _____	Phone: _____	
No(s) _____-_____	Date: _____	Phone: _____	
No(s) _____-_____	Date: _____	Phone: _____	
Logging: Felling _____	Date: _____	Phone: _____	
Yarding: _____	Date: _____	Phone: _____	

(9) Comments: _____

(10) Operations Map: Attach a copy of timber sale Exhibit A or other suitable map which plainly shows the items listed on the instruction sheet.

EXHIBIT B

INSTRUCTION SHEET FOR OPERATIONS PLAN

SUBMIT ONE COPY OF PLAN TO STATE

Operations shall be limited to the work shown in the plan until a revised plan or supplemental plan is submitted covering additional work. Compliance with this plan is not in lieu of compliance with any federal requirements related to the federal Endangered Species Act. If STATE has prepared a required Forest Practices Act (FPA) "Written Plan" for operations, PURCHASER shall comply with all provisions of the Written Plan.

Explanation of Item No. (from Page 1)

(5) All sales require you to use a brand furnished by STATE. If the State brand has not been assigned when the plan is submitted, it will be furnished and assigned later. Complete drawing. If more than one brand is assigned to the sale, complete both drawings.

(6) The contract requires you to have a designated representative available on the sale area or work location who is authorized to receive in your behalf any notice or instruction given by STATE and to take action in regard to performance under the contract. If logging and project work is widely separated, a representative is required for each.

(7) The STATE representative will be designated when your plan is approved and is the person who will inspect and issue instructions regarding performance.

(8) Show names of subcontractors to be used for any or all phases of the operations. If subcontractors are not known, or are changed later, give notification to the STATE representative prior to commencement of work by subcontractor.

Show projected dates for commencement of both projects and logging. If projected dates need to be changed at a later date, notification must be given to the STATE representative by supplemental plan or otherwise, prior to commencement of such operations.

(10) The STATE representative will furnish extra copies of Exhibit A of the contract for your use in preparing the operations map. The map shall use the following legend and show:

1. Landing locations, approximate setting boundaries, and probable sequence of logging the settings. Number the settings in sequence.
2. Locations of spur roads planned for construction, other than those required by the timber sale contract. Provide spur road specifications.
3. Location of proposed tractor yarding roads. Show if and how marked on the ground.
4. Location of temporary stream crossings.
5. List the sequence of performing project work.
6. Location of rock sources - attach pit development plans.

Cable Landing, with numbers for sequence.

Tractor Landing with alphabetical sequence.

_ _ _ _ _ Approximate setting boundary.

- - - - - - - - Spur truck roads.

Tractor yarding roads.

X Temporary stream crossings.

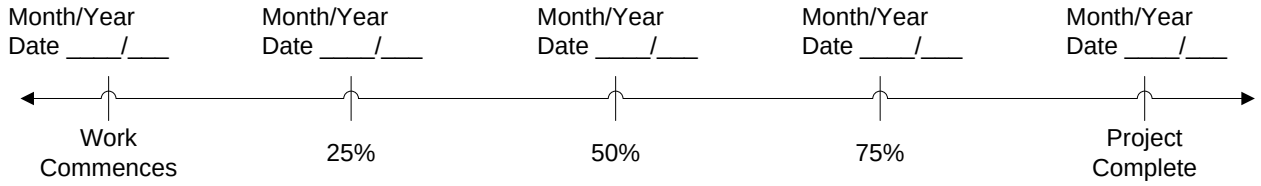
EXHIBIT B

OPERATIONS PLAN

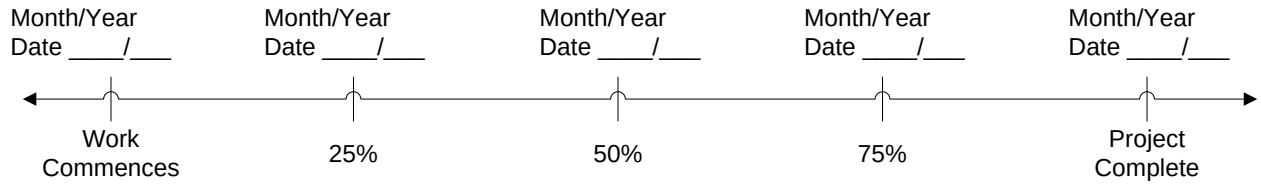
Completion Timeline

Indicate on the appropriate timeline below, the dates by which you plan to complete the work as required under this contract. The purpose of this section is to develop a plan that will ensure you complete the work as required, and meet the interim completion date(s) and contract expiration date. This plan is incorporated and made a part of the contract. When, in the opinion of STATE, operations are not commencing in a manner that meets the intent of this plan, you may be placed in violation of contract and your operations suspended until an amended plan is submitted and approved by STATE.

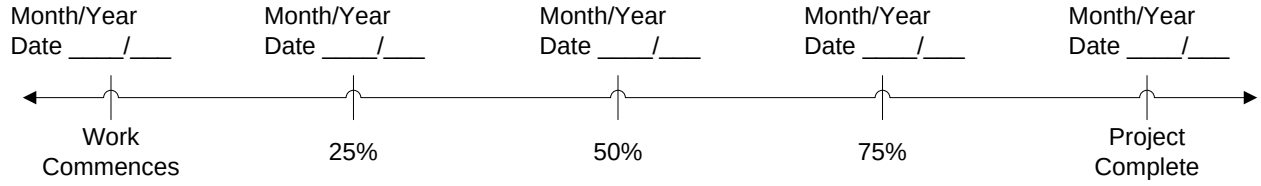
Project No. 1 Sale Access Road and Landing Construction



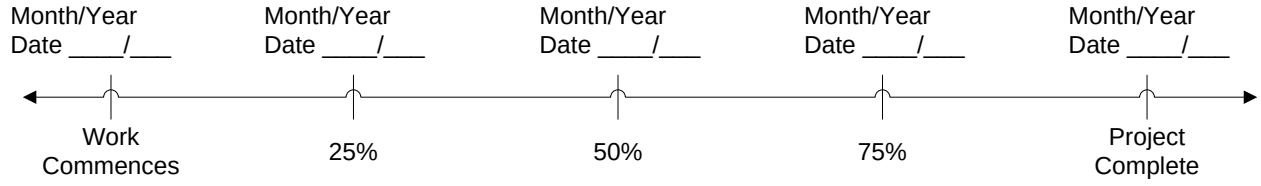
Project No. 2 Sale Access Road Improvement



Project No. 3 Soapstone Quarry Development, Rock Crushing, and Stockpile Site Construction



Project No. 4 Road Vacating and Fill Removal



Harvest & Other Requirements

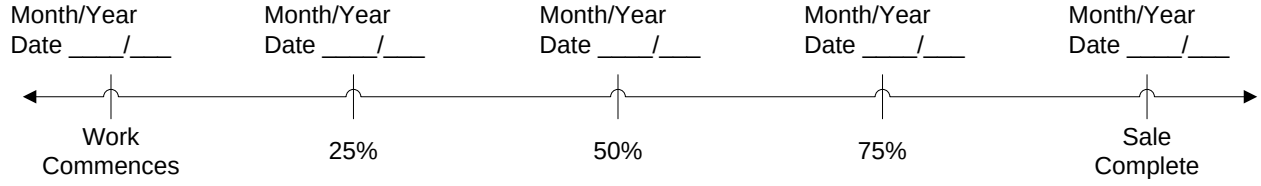


EXHIBIT B

OPERATIONS PLAN

The Federal Endangered Species Act (ESA) prohibits a person from taking any federally listed threatened or endangered species. Taking under the federal ESA may include alteration of habitat. STATE's approval of this plan does not certify that PURCHASER's operation under the plan is lawful under the federal ESA. As provided in the timber sale contract, PURCHASERS must comply with all applicable state, federal, and local laws.

PURCHASER's compliance with this plan is not in lieu of compliance with any federal requirements related to the federal Endangered Species Act.

APPROVED: Date: _____

STATE OF OREGON - DEPARTMENT OF FORESTRY

_____

Title _____

SUBMITTED BY:
PURCHASER

_____

Title _____

Original: Salem
cc: District File
Purchaser

Operations Plan.doc/Jaz B (TS)

EXHIBIT C – SAWMILL GRADE (WESTSIDE SCALE)

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

(1) ORIGINAL REGISTRATION ☐ Date _____
REVISION NUMBER _____ ☐ Date _____
CANCELLATION ☐ Date _____

(2) TO: _____
(Third Party Scaling Organization)

(3) FROM: Astoria (04) Phone (503) 325-5451
(State Forestry District)
Address 92219 Hwy 202
Astoria, Oregon 97103

(4) PURCHASER: _____
Mailing Address: _____
Phone Number: _____

(5) **MINIMUM SCALING SPECIFICATIONS**	
SPECIES	MINIMUM NET VOLUME
Conifers	10
Hardwoods	10

* Apply minimum volume test to whole logs over 40' Westside

	YES	NO
(6) WESTSIDE SCALE: Use Region 6 actual taper rule. Logs over 40'.	☒	☐
(7) Weight Scale Sample	☐	☒

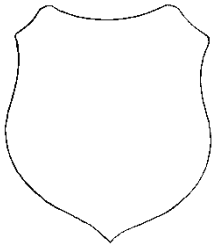
(8) **APPROVED SCALING LOCATIONS** (as shown on the ODF Approved Locations web-site)	Species	Yard	Truck	Weight

(9) SALE NAME: Cole Turkey
COUNTY: Clatsop

(10) STATE CONTRACT NUMBER: 341-13-51

(11) STATE BRAND REGISTRATION NUMBER:
_____

(12) STATE BRAND INFORMATION (COMPLETE):



(13) PAINT REQUIRED: YES ☒
COLOR: Orange

(14) **SPECIAL REQUESTS** (Check applicable)	
PEELABLE CULL (all species)	☐
NO DEDUCTIONS ALLOWED FOR MECHANICAL DAMAGE	☒
ADD-BACK VOLUME - Deductions due to delay	☒
OTHER:	

(15) **REMARKS** _____

Operator's Name (Optional inclusion by District): _____

(16) SIGNATURES:

_____
Purchaser or Authorized Representative Date

_____
State Forester Representative Date

_____
State Forester Representative PRINT NAME

Notify the District within one hour when branding or painting is inadequate for quick identification, the receipts are missing, not correctly or completely filled out, and/or when logs presented for scaling are impossible to scale accurately.

Distribution (See specific instructions on pg. 2): ORIGINAL: Salem / COPIES: TPSO, Approved Scaling Location, Purchaser, District, Mgmt. Unit

EXHIBIT C – SAWMILL GRADE
INSTRUCTIONS FOR FORM 343-307a (rev. 11/11)

(1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires logging and hauling to be complete, recall branding hammers, date and sign where indicated, write diagonally across page "CANCEL", and send to TPSO.

(2) Designate Third Party Scaling Organization (TPSO).

Columbia River Log Scaling & Grading Bureau
P.O. Box 7002, Eugene, OR 97401
Phone: (541) 342-6007 Fax: (541) 342-2631
Email: services@crls.com

Pacific Rim Log Scaling Bureau, Inc.
8288 28th Court North East, Lacey, WA 98516
Phone: (360) 528-8710 Fax: (360) 528-8718
Email: office@prlsb.com

Southern Oregon Log Scaling & Grading Bureau
P.O. Box 580, Roseburg, OR 97470
Phone: (541) 673-5571 Fax: (541) 672-6381
Email: info@southernoregonlogscaling.com

Yamhill Log Scaling & Grading Bureau
P.O. Box 709, Forest Grove, OR 97116
Phone: (503) 359-4474 Fax: (503) 359-4476
Email: yamhill@attglobal.net

Northwest Log Scalers, Inc .
5526 NE 122nd Ave, Portland, OR 97230
Phone: (503) 254-0600 Fax: (503) 408-0919
Email: info@nwlogscalers.com

Pacific Log Scaling & Grading Bureau, Inc.
P.O. Box 23939, Portland, OR 97281
Phone: (503) 684-5599 Fax: (503) 639-4880
Email: PacLogScale@aol.com

(3) State District office, address and phone.

(4) Enter Purchaser's business name, address, and phone number as it appears on the Contract.

(5) Minimum Scaling Specifications.

(6) Westside – Region 6 actual taper segment scale. Check Yes or No. Special Service Rules on file with TPSO. See: Segment Scaling and Grading of Long Logs -- All Species -- State Forestry Department Scaling Practices (Westside).

(7) Weight Scale Sample – Check box if sale is to be a Weight Scale Sample. All specifics for handling, scaling and processing will be attached or explained in the Remarks section Item (15).

(8) Show scaling locations only applicable to TPSO. Location name should appear as it does on the ODF Approved Scaling Location web site: http://www.odf.state.or.us/DIVISIONS/management/asset_management/ScalingLocation.asp Locations with scaling and processing directions specific to their location should be on a separate form. Species should be identified if not capable of receiving "all" species. Check appropriate box for either: yard, truck scale, or weight. Refer to the web site listed above for the locations approval status.

(9) Enter sale name and county.

(10) Enter sale Contract number.

(11) Enter Oregon's State Brand Registry Number **(REQUIRED)**.

(12) Show brand assigned to timber sale. One brand only. If more than one brand is assigned to the sale: (1) make a separate form for each brand and (2) on each form, explain and show other brand(s) in the Remarks section Item (15).

(13) Check yes for Paint Required and designate "Orange" for color. Non required removal volumes may sometimes require blue paint.

(14) Special Requests. These are requests that will be applied to ODF timber sales. All boxes applicable to the timber sales designated in the Exhibit C form must be "marked". If "Other" is indicated, it must contain a description and any necessary comments.

(15) Use this space to designate any weight conversion factors, per load volumes, weight scale sample instructions or any other explanations to clarify scaling, processing and/or mailing requirements. If additional scaling locations are approved, revise original or current form showing all (old and new) locations. Check REVISION box at top of form and explain under remarks. Route as indicated.

(16) Require purchaser to sign and date completed form in addition to State Forester Representative, sign and print name on the form.

Salem Distribution Instructions: Original will be mailed to Salem after it is electronically scanned and placed in the Salem transfer drive \\WPODFFILL01\Transfer\ScalingInstructions or e-mailed directly to scaling@odf.state.or.us. Scaling instructions for each brand should be scanned separately, for each approved TPSO.

EXHIBIT C – PULP SORT

PROCESSING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

(1) ORIGINAL REGISTRATION ☐ Date _____
REVISION NUMBER _____ ☐ Date _____
CANCELLATION ☐ Date _____

(2) TO: _____
(Approved Pulp Processing Facility)

(3) FROM: Astoria (04) Phone (503) 325-5451
(State Forestry District)
Address 92219 Hwy 202
Astoria, Oregon 97103

(4) PURCHASER: _____

(5) Scaling Bureau (TPSO) Processing Weight receipts:
_____
Mailing Address: _____
Phone Number: _____

(6) **STATE Definition of Approved Pulp Sort:**
- Top portion of the tree (tops).
- All logs with a diameter (Big End) greater than **8** inches marked with blue paint.

(7) PULP FACILITY PROCESSING INSTRUCTIONS:
- Pulp loads shall be weighed in lieu of scaling.
- One Ton = 2000 lbs (Short Ton).
- Pulp loads shall have a yellow Log Load Receipt attached.
- Gross weight and truck tare weight for each load shall be machine printed on the weight receipt.
- Weigher shall sign the weight receipt.
- Weigher shall record the Log Load Receipt number on the weight receipt.
- Weigher shall attach the Weight receipt to the Log Load Receipt and mail them weekly to the TPSO processing the Weight receipt.

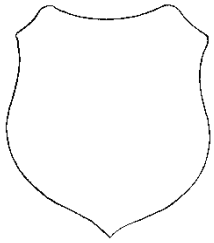
(8) TPSO PROCESSING INSTRUCTIONS
- Mail to ODF weekly.
- Convert to mbf using 10 tons per mbf.

(9) SALE NAME: Cole Turkey
COUNTY: Clatsop

(10) STATE CONTRACT NUMBER: 341-13-51

(11) STATE BRAND REGISTRATION NUMBER _____

(12) STATE BRAND INFORMATION: (COMPLETE BELOW)



(13) REMARKS: _____

Operator's Name (Optional inclusion by District):
_____

(14) SIGNATURES:

_____
Purchaser or Authorized Representative Date

_____
State Forester Representative Date

_____
State Forester Representative PRINT NAME

Notify the District within one hour when branding is inadequate for quick identification, the logs are marked with orange paint, the receipts are missing, not correctly or completely filled out, and/or logs do not meet the specifications of the STATE definition of Approved Pulp Sort.

Distribution: ORIGINAL: Salem / COPIES: TPSO, Approved Pulp Processing Location, Purchaser, District, Mgmt. Unit

EXHIBIT C – PULP SORT

INSTRUCTIONS FOR FORM 343-307b (rev. 11/11)

(1) **Must Complete.** Check appropriate box. REVISION NUMBER requires comments in the Remarks Section (13). CANCELLATION requires logging and hauling to be complete, recall branding hammers, date and sign where indicated, write diagonally across page "CANCEL", and send to TPSO.

(2) **Must Complete**. Approved Pulp Processing Facility. Write in as written in the Approved Log Delivery Location http://www.odf.state.or.us/DIVISIONS/management/asset_management/ScalingLocation.asp

(3) **Must Complete.** State Forestry District and District Phone Number.

(4) **Must Complete**. Purchaser's business name as it appears on the Contract.

(5) **Must Complete.** Third Party Scaling Organization that will be processing the weight tickets, mailing address, and phone number.

Columbia River Log Scaling & Grading Bureau
P.O. Box 7002, Eugene, OR 97401
Phone: (541) 342-6007 Fax: (541) 342-2631
Email: services@crls.com

Pacific Rim Log Scaling Bureau, Inc.
8288 28th Court North East, Lacey, WA 98516
Phone: (360) 528-8710 Fax: (360) 528-8718
Email: office@prlsb.com

Southern Oregon Log Scaling & Grading Bureau
P.O. Box 580, Roseburg, OR 97470
Phone: (541) 673-5571 Fax: (541) 672-6381
Email: info@southernoregonlogscaling.com

Yamhill Log Scaling & Grading Bureau
P.O. Box 709, Forest Grove, OR 97116
Phone: (503) 359-4474 Fax: (503) 359-4476
Email: yamhill@attglobal.net

Northwest Log Scalers, Inc .
5526 NE 122nd Ave, Portland, OR 97230
Phone: (503) 254-0600 Fax: (503) 408-0919
Email: info@nwlogscalers.com

Pacific Log Scaling & Grading Bureau, Inc.
P.O. Box 23939, Portland, OR 97281
Phone: (503) 684-5599 Fax: (503) 639-4880
Email: PacLogScale@aol.com

(6) **Must Complete.** Big end log not to exceed **8** inches. Big end of log is not to exceed 2 inches greater than the minimum removal specifications in the contract. Example: Minimum removal specifications 6 inches and 20 board feet, then the Big end of log not to exceed 8 inches. When conifer and hardwood removal specifications are different, use the smaller removal diameter to determine this specification.

(9) **Must Complete**. Enter sale name and county. If more than one county write in all the counties that the sale is located in.

(10) **Must Complete**. Enter sale Contract number.

(11) **Must Complete**. Enter Oregon's State Brand Registry Number **(REQUIRED)**.

(12) **Must Complete**. Show brand assigned to timber sale. One brand only. If more than one brand is assigned to the sale: (1) make a separate form for each brand and (2) on each form, explain and show other brand(s) in the Remarks section Item (13).

(13) Use this section to list any special instructions or the reason for any revisions in section item (1).

(14) **Must Complete.** Purchaser required to sign and date completed form in addition to State Forester Representative, sign and print name on the form.

Salem Distribution Instructions: Original will be mailed to Salem after it is electronically scanned and placed in the Salem transfer drive \\WPODFFILL01\Transfer\ScalingInstructions or e-mailed directly to scaling@odf.state.or.us . Scaling instructions for each brand should be scanned separately, for each approved TPSO.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	STATION TO STATION	DRAINAGE
16 feet	12 feet	A to B	0+00 to 14+75	Crowned/Ditch
16 feet	12 feet	C to D	0+00 to 10+35	Crowned/Ditch
14 feet	N/A	1A to 1B	0+00 to 12+50	Outslope
16 feet	12 feet	I1 to I2	0+00 to 214+55	Crowned/Ditch
16 feet	12 feet	I3 to I4	0+00 to 33+95	Crowned/Ditch
16 feet	12 feet	I5 to I6	0+00 to 11+10	Crowned/Ditch
16 feet	12 feet	I7 to I8	0+00 to 1+00	Crowned/Ditch
16 feet	12 feet	I9 to I10	0+00 to 8+80	Crowned/Ditch
16 feet	12 feet	I11 to I12	0+00 to 37+00	Crowned/Ditch
16 feet	12 feet	I13 to I14	0+00 to 2+85	Crowned/Ditch
16 feet	12 feet	I15 to I16	0+00 to 43+00	Crowned/Ditch
16 feet	12 feet	I17 to I18	0+00 to 8+35	Crowned/Ditch
16 feet	12 feet	I19 to I20	0+00 to 3+75	Crowned/Ditch
16 feet	12 feet	I21 to I22	0+00 to 3+85	Crowned/Ditch

CLEARING. This work shall consist of clearing, removing, and disposing of all trees, Snags, Down Timber, brush, surface objects, and protruding obstructions within the clearing limits.

Where clearing limits have not been marked, the clearing limits shall extend 5 feet back of the top of the cutslope and 5 feet out from the toe of the fill slope, or as directed by STATE. Clearing debris shall not be placed or permitted to remain in or under any road embankment sections. Clearing debris shall not be left lodged against standing trees.

All danger trees, leaners, and Snags outside the clearing limits which could fall and hit the road shall be felled.

GRUBBING. This work shall consist of the removal or digging out of stumps and protruding objects.

All stumps shall be completely removed within the limits of required grubbing. Stumps overhanging cutslopes shall be removed. Grubbing debris shall not be placed or permitted to remain in or under any road embankment sections. Grubbing debris shall not be left lodged against standing trees.

GRUBBING CLASSIFICATION.

New construction - from the top of the cutslope to the toe of the fill.

Improvements and reconstructions - 4 feet back from the shoulder of the subgrade or ditch, whichever is widest, or as marked in the field.

CLEARING AND GRUBBING DISPOSAL. Scatter in stable locations through openings in the timber outside of the cleared right-of-way, except areas where end-haul is required. In areas where end-haul is required, clearing and grubbing debris shall be fully contained and hauled to a designated waste area. Clearing and grubbing debris shall be left in a stable location, and not left lodged against standing trees.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

EXCAVATION. Excavation and grading shall not be done when weather and/or ground conditions are such that damage will result to existing subgrade or cause excessive erosion.

Excavation shall conform to STATE-specified lines, grades, dimensions, and plans when provided.

Unless road plans show otherwise, all roads shall be on a balanced cross section, except when the slope is over 50 percent, the road shall be on full bench for the width specified.

Suitable excavated material shall be used for the formation of fills, shoulders, and drainage structure backfills. Embankment materials shall be free of woody debris, brush, muck, sod, frozen material, and other deleterious materials.

Sidecast includes any road generated excess excavation material which is not essential as part of the road prism, is not compacted, and is below the roadway. Sidecast shall not be placed where it will enter a stream course or where material will accumulate in areas deemed a high-risk site by STATE.

All fills shall be machine compacted according to the “Compaction and Processing Requirements” in this Exhibit.

ROAD WIDTH LIMITATIONS. PURCHASER shall obtain advance written approval from STATE to construct the road to a greater width than specified. Extra subgrade width shall be required for:

Fill Widening. Add to each fill shoulder 1 foot for fills 3 feet to 6 feet high; 2 feet for fills over 6 feet high.

Curve Widening. Widen the inside shoulder of all curves as specified in the plans or as follows: 400 divided by the radius of the curve equals the amount of extra width.

DRAINAGE

Subgrade. Subgrade shall be crowned/outsloped at 4 to 6 percent as shown on the “Forest Road Specifications” table in this Exhibit.

Ditch. Construct "V" shaped ditch 3 feet wide and to a depth of 1 foot below subgrade.

Ditchouts. Construct ditchouts to drain away from subgrade at locations marked in the field or as directed by STATE.

TURNOUTS. Increase roadbed width an additional 8 feet for both subgrade and surfacing. Length shall be at least 50 feet, or as staked on the ground, plus 25-foot approaches at each end.

Location: Intervisible but not greater than 750 feet apart and as marked in the field.

SLOPES	Back Slopes	Fill Slopes
Solid Rock	Vertical to ¼ :1	
Fractured Rock	½ :1	
Soil - side slopes 50% and over	¾ :1	1½:1
Soil - side slopes less than 50%	1 :1	1½:1

Top of cutslope shall be rounded.

LANDINGS. Landings shall be constructed as posted in the field, no less than 50 feet wide and no more than 70 feet wide unless otherwise approved by STATE. Surface is to be crowned for drainage with general grade no more than 3 percent. Surface as shown in the “Road Surfacing” table in this Exhibit.

TURNAROUNDS. Increase subgrade width an additional 20 feet for a length of 20 feet at locations marked in the field.

SEASONAL WINTERIZATION. All unsurfaced roads or unfinished subgrades shall be waterbarred in accordance with the specifications in Exhibit H, and blocked from vehicular traffic prior to October 1, annually and as directed by STATE.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

GENERAL ROAD CONSTRUCTION INSTRUCTIONS:

1. Timber Removal. Remove all trees within posted right-of-way boundary or individually marked with an orange "X", as specified in Section 2210, "Designated Timber".

2. Excavated Materials. Excavated materials shall be utilized for road construction. Surplus excavation materials shall be hauled to the waste areas as marked in the field and/or designated on Exhibit A. Surplus excavated materials and waste materials shall be sloped and compacted for drainage. Fills shall be thoroughly compacted in accordance with this Exhibit. Excess excavated material not used for embankment shall be sidecast on slopes up to 50 percent or end hauled to waste areas as shown on Exhibit A and marked in the field.

3. Drainage Ditches. Construct ditchlines, including ditchouts, as directed by STATE. Cut slopes of ditchelines and ditchouts shall not exceed a 1:1 slope. Construct culvert sediment basins. Waste materials from drainage ditches and sediment basins shall be placed in nearby waste areas and uniformly sloped and compacted for drainage, as directed by STATE.

4. Fill Armor and Energy Dissipator Construction. Where rock is specified for fill armor, rock shall be machine placed and tamped at a 1½:1 slope, beginning at the toe of the fill. Where rock is used for an energy dissipator, rock shall be placed below the culvert outlet and embedded for a minimum of 3 feet, in accordance with Exhibit G.

5. Equipment. All excavation and riprap placement shall be performed using a minimum 1½ cubic-yard, track-mounted excavator.

6. Subgrade Preparation and Application of Surfacing Rock.

   (a) Complete culvert installations, drainage ditches, ditchouts, fill construction, and other specified work prior to the application of surfacing rock.

   (b) Subgrade shall be crowned at 4 to 6 percent.

   (c) Upon completion of above required work, apply, process, and compact surfacing rock in accordance with specifications in the "Compaction and Processing Requirements" in this Exhibit. Final road surface shall be crowned at 4 to 6 percent.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD CONSTRUCTION INSTRUCTIONS

Segment	Station	Work Description:
A to B	8+00	Begin sidecast pullback on old road grade and establish bench for fill material. Begin full containment.
	9+15	End sidecast pullback. Begin full containment.
C to D	0+00	Install French drain at junction. Utilize 66 cubic yards of 24”-6” riprap rock for French drain. Begin end-haul excavation of junction.
	1+30	End of end-haul excavation of junction.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

1. Timber Removal. Remove all trees within posted Right-of-Way Boundary or individually marked with an orange "X", as specified in Section 2210, Designated Timber.

2. Excavated Materials. Excavated materials shall be utilized for road construction. Surplus excavation materials shall be hauled to the waste areas as marked in the field and/or designated on Exhibit A. Surplus excavated materials and waste materials shall be sloped and compacted for drainage. Fills shall be thoroughly compacted in accordance with this Exhibit. Excess excavated material not used for embankment shall be sidecast on slopes up to 50 percent or end hauled to waste areas as shown on Exhibit A and marked in the field.

3. Bank Slough Removal. Dig out all bank slough. Bank slough material shall not be pulled across existing surfacing rock, but shall be placed in nearby waste areas and uniformly sloped and compacted for drainage, as directed by STATE.

4. Culvert Replacement, Culvert Installation, Fill Reconstruction, and Fill Removal. Existing culvert geometry shall be modified to provide for optimum drainage and culvert performance. Modifications may include, skewing the culvert and/or installing the culvert at gradients equal to or exceeding the drainage (or ditch) gradient. Where fill reconstruction or culvert replacement is specified, fills shall be excavated to natural stream course levels. All woody debris encountered during fill excavation shall be removed. All waste materials shall be hauled to nearby waste areas and shall be uniformly sloped and compacted for drainage. Fill reconstruction backfill shall consist of select materials and may be obtained from borrow pits, as directed by STATE. Backfill materials shall be hauled in where necessary and thoroughly compacted in accordance with this Exhibit. Crushed rock shall be used for backfilling excavation trenches less than 3 feet deep. STATE may require the use of crushed rock for culvert bedding. Removed culverts shall be hauled off of STATE land.

5. Drainage Ditches. Restore or construct ditchlines, including ditchouts, as directed by STATE. Cut slopes of ditchlines and ditchouts shall not exceed a 1:1 slope. Clean out all culvert inlets and outlets for a 10-foot radius. Re-establish or construct culvert sediment basins. Waste materials from drainage ditches and sediment basins shall not be pulled across existing surfacing rock, but shall be placed in nearby waste areas and uniformly sloped and compacted for drainage, as directed by STATE. Damaged culvert inlets and/or outlets shall be repaired by opening them with a hydraulic jack, or cutting off the culvert end to allow for free passage of water at peak flow levels. Install a culvert marker at each newly installed culvert and at each existing culvert that is missing a marker that could be reached by a grader blade.

6. Fill Armor and Energy Dissipator Construction. Where rock is specified for fill armor, rock shall be machine placed and tamped at a 1½:1 slope, beginning at the toe of the fill. Where rock is used for an energy dissipator, rock shall be placed below the culvert outlet and embedded for a minimum of 3 feet, in accordance with Exhibit G.

7. Equipment. All excavation and riprap placement shall be performed using a minimum 1½ cubic yard, track-mounted excavator.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

8. Subgrade Preparation and Application of Surfacing Rock.

(a) Complete culvert installations, drainage ditches, fill reconstruction, ditchouts, and other specified work prior to the application of new surfacing rock.

(b) Cut out all potholes and/or washboard sections from the existing surfacing.

(c) Apply required patching and leveling rock, as directed by STATE.

(d) Process (grade and mix) the existing surface and added base rock. Provide for a crown of 4 to 6 percent, and compact in accordance to the "Compaction and Processing Requirements" in this Exhibit.

(e) Upon completion of above required work, apply, process, and compact surfacing rock in accordance to this Exhibit.

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

Segment	Station	Work Description:
I1 to I2	36+10	Begin ditch reestablishment.
	40+10	Begin road widening left. Widen road 4 feet left to establish ditches on both sides of road and a 16 foot subgrade.
	41+60	End road widening.
	51+30	Replace culvert. Utilize 33 cubic yards of ¾"-0" crushed rock for culvert bedding and backfill.
	53+10	Begin road widening right. Widen road 4 feet right to establish ditches on both sides of road and a 16 foot subgrade.
	54+85	End road widening.
	56+50	Install culvert. Utilize 33 cubic yards of ¾"-0" crushed rock for culvert bedding and backfill. Begin 12 inch lift of 4"-0" subgrade reinforcement rock.
	57+45	Replace existing culvert at junction right. Utilize 33 cubic yards of ¾"-0" crushed rock for culvert bedding and backfill.
	57+60	Replace existing culvert. Utilize 44 cubic yards of ¾"-0" crushed rock for culvert bedding and backfill.
	58+40	End 12 inch lift of 4"-0" subgrade reinforcement rock.
	61+60	Replace existing culvert. Utilize 55 cubic yards of ¾"-0" crushed rock for culvert bedding and backfill.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

Segment	Station	Work Description:
I1 to I2	65+45	Replace existing culvert. Utilize 33 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	68+10	Replace existing culvert. Utilize 33 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	70+55	Replace existing culvert. Utilize 44 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	76+30	Replace existing culvert. Utilize 55 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	102+90	Utilize 11 cubic yards of 24”-6” riprap to construct an energy dissipator.
	111+60	Install culvert. Utilize 22 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill and 11 cubic yards of 24”-6” to construct an energy dissipator.
	112+95	Remove existing culvert. Utilize 22 cubic yards of ¾”-0” for backfill.
	113+40	Install culvert. Utilize 22 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill and 11 cubic yards of 24”-6” to construct an energy dissipator.
	117+30	Install culvert. Utilize 22 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	124+95	Replace existing culvert. Utilize 22 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill and 11 cubic yards of 24”-6” to construct an energy dissipator.
	144+90	Begin road realignment.
	148+15	End road realignment.
	163+40	End ditch reestablishment.
	168+70	Replace existing culvert. Utilize 33 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	185+30	Replace existing culvert. Utilize 33 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	193+15	Replace existing culvert. Utilize 55 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	197+65	Install culvert. Utilize 33 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	197+90	Remove existing culvert. Utilize 22 cubic yards of ¾”-0” for backfill.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

Segment	Station	Work Description:
I3 to I4	10+90	Replace existing culvert. Utilize 22 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	18+65	Install culvert. Utilize 33 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
I5 to I6	0+00 to 11+10	Utilize a Grader and an excavator, to clear, grub, and brush the existing road prism. All clearing debris can be either scatter outside of road prism, decked and or piled to be later incorporated into the slash piling after the harvest operation.
I7 to I8	0+00 to 1+00	Utilize a Grader and an excavator, to clear, grub, and brush the existing road prism. All clearing debris can be either scatter outside of road prism, decked and or piled to be later incorporated into the slash piling after the harvest operation.
I9 to I10	0+00 to 8+80	Utilize a Grader and an excavator, to clear, grub, and brush the existing road prism. All clearing debris can be either scatter outside of road prism, decked and or piled to be later incorporated into the slash piling after the harvest operation.
I9 to I10	5+50	Install culvert. Utilize 22 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
I11 to I12	4+35	Replace existing culvert. Utilize 22 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	34+80	Replace existing culvert. Utilize 33 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	37+00	Clear and grub existing landing. Utilize 55 cubic yards of 6”-0” pit-run rock for landing.
I15 to I16	0+00	Replace existing culvert. Utilize 44 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	5+85	Install culvert. Utilize 33 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	14+00	Install culvert. Utilize 33 cubic yards of ¾”-0” crushed rock for culvert bedding and backfill.
	43+00	Clear and grub existing landing. Utilize 55 cubic yards of 6”-0” pit-run rock for landing.
I19 to I20	0+00 to 3+75	Utilize a Grader and an excavator, to clear, grub, and brush the existing road prism. All clearing debris can be either scatter outside of road prism, decked and or piled to be later incorporated into the slash piling after the harvest operation.
I21 to I22	0+00 to 3+85	Utilize a Grader and an excavator, to clear, grub, and brush the existing road prism. All clearing debris can be either scatter outside of road prism, decked and or piled to be later incorporated into the slash piling after the harvest operation.

EXHIBIT D

FULL BENCH AND END-HAUL REQUIREMENTS

POINT TO POINT	STA. TO STA.	CONTAINMENT - SIDECAST
A to B	8+00 to 9+15	1

Full Bench and End-Haul Areas General Requirements

Sidecast includes any road generated excess excavation material which is not essential as part of the road prism, is not compacted, and is below the roadway. Material shall not be sidecast unless specified above.

Clearing and grubbing debris shall be end-hauled.

When controlled blasting is required, it shall be accomplished using timing devices, delayed charges, low intensity shots, or other suitable means to contain material within the road prism.

Containment/Sidecast

(1) Full: No excavated material remains below the road.

(2) Normal/Incidental: The amount of excavated material lost over the outside edge of the road shall not exceed 1 foot in depth.

(3) Sidecast: Material shall be spread evenly below the road so that it does not build up behind trees, snags or other debris, and shall not exceed 3 feet in depth. Sidecast shall not be placed where it will enter a stream course or where material will accumulate in areas deemed a high-risk site by STATE.

Any amount of material exceeding the containment requirements shall be removed by whatever means necessary and end-hauled to a designated waste area.

Waste Area Location

- As shown on Exhibit A and as marked in the field.
- Setback from slope break shall be a minimum of 20 feet horizontal measurement.
- Use suitable material for fill construction between station 0+80 and 2+25, and between 12+70 and 14+30 on A to B.

Waste Area Treatment

- Deposit at waste area, spread evenly, compact, and provide adequate drainage.
- Pile woody debris separate from other waste material.
- Mulch and seed all waste areas in accordance with Exhibit K.

EXHIBIT D

ROAD SURFACING

ROAD SEGMENT Application	A to B Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT A to B Volume (CY) per		Sta. to Sta. 0+00 to 14+75 Number of		TOTAL VOLUME (CY)
Subgrade Reinforcement	6"-0" Pit-run			station		stations		275
Base Rock	4"-0" Crushed	0+00-14+75	8	station	50	stations	14.75	738
Junctions	4"-0" Crushed	0+00, 14+75	8	junction	22	junctions	2	44
Turnouts	4"-0" Crushed	5+25, 7+50, 12+05	8	TO	22	TO's	3	66
Fill Armor	24"-6" Riprap	1+20-2+25, 8+00-9+00, 12+90-13+90	N/A	fill	N/A	fill	N/A	572
Surface Rock	3/4"-0" Crushed	0+00-14+75	4	station	25	stations	14.75	374
Turnouts	3/4"-0" Crushed	5+25, 7+50, 12+05	4	TO	22	TO's	3	66
Junctions	3/4"-0" Crushed	0+00, 14+75	4	junction	22	junctions	2	44
Total Rock for Road Segment:			A to B					2,179

ROAD SEGMENT Application	C to D Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT C to D Volume (CY) per		Sta. to Sta. 0+00 to 10+35 Number of		TOTAL VOLUME (CY)
Subgrade Reinforcement	6"-0" Pit-run			station		stations		209
French Drain	24"-6" Riprap	0+00						66
Base Rock	4"-0" Crushed	0+00-10+35	8	station	50	stations	10.35	518
Turnouts	4"-0" Crushed		8	TO	22	TO's	1	22
Culvert Bedding/Backfill	3/4"-0" Crushed	0+00	N/A	culvert		culverts	1	33
Junctions	4"-0" Crushed	0+00	8	junction	66	junctions	1	66
Junctions	3/4"-0" Crushed	0+00	4	junction	33	junctions	1	33
Total Rock for Road Segment:			C to D					947

ROAD SEGMENT Application	1A to 1B Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT 1A to 1B Volume (CY) per		Sta. to Sta. Number of		TOTAL VOLUME (CY)
Junctions	4"-0" Crushed	0+00	8	junction	55	junctions	1.00	55
Total Rock for Road Segment:			1A to 1B					55

EXHIBIT D

ROAD SURFACING

ROAD SEGMENT Application	I1 to I2 Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT I1 to I2 Volume (CY) per		Sta. to Sta. 0+00 to 214+55 Number of		TOTAL VOLUME (CY)
Base Rock Replacement	4"-0" Crushed	40+10-41+60, 53+10-54+85, 144+90-148+15	8	station	50	stations	6.50	325
Subgrade Leveling/Reinforcement	4"-0" Crushed	56+50-58+40	12	station	75	stations	1.90	143
Curve Widening Base	4"-0" Crushed	56+50-58+40	12	curve	n/a	curves	1	44
Junctions	4"-0" Crushed	57+45	12	junction		junctions		55
Culvert Bedding/Backfill	3/4"-0" Crushed		N/A	culvert		culverts	17.00	649
Subgrade Leveling	3/4"-0" Crushed		N/A					613
Surfacing Rock	3/4"-0" Crushed	0+00-214+55	4	station	25	stations	215	5,364
Curve Widening Surfacing	3/4"-0" Crushed		4	station	n/a	stations	n/a	209
Turnouts	3/4"-0" Crushed	15+40, 21+10, 25+80, 50+35, 59+90, 63+85, 70+55, 79+85, 83+50, 92+50, 96+10, 101+35, 104+00, 109+95, 120+60, 126+10, 131+75, 140+50, 154+85, 166+25, 180+20, 191+30, 194+80, 200+20, 204+20, 208+70, 211+80	4	TO	11	TO's	27	297
Junctions	3/4"-0" Crushed		N/A	junction	11	junctions	15	165
Dissipator	24"-6" Riprap	102+90, 111+60, 113+40, 124+95		dissipator	11	dissipator	4	44
Total Rock for Road Segment:			I1 to I2					7,907

ROAD SEGMENT Application	I3 to I4 Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT I3 to I4 Volume (CY) per		Sta. to Sta. 0+00 to 33+95 Number of		TOTAL VOLUME (CY)
Subgrade Leveling/Reinforcement	4"-0" Crushed		N/A					99
Subgrade Leveling	1 1/2"-0" Crushed		N/A					99
Culvert Bedding/Backfill	3/4"-0" Crushed	10+90, 18+65	N/A	culvert		culverts	2.00	55
Total Rock for Road Segment:			I3 to I4					253

ROAD SEGMENT Application	I5 to I6 Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT I5 to I6 Volume (CY) per		Sta. to Sta. 0+00 to 11+10 Number of		TOTAL VOLUME (CY)
Subgrade Leveling/Reinforcement	4"-0" Crushed		N/A					55
Total Rock for Road Segment:			I5 to I6					55

EXHIBIT D

ROAD SURFACING

ROAD SEGMENT Application	I9 to I10 Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT I9 to I10 Volume (CY) per		Sta. to Sta. 0+00 to 8+80 Number of		TOTAL VOLUME (CY)
Subgrade Leveling/Reinforcement	4"-0" Crushed	0+00-8+80	6	station	38	stations	8.80	334
Turnouts	4"-0" Crushed	5+50	6	TO	22	TO's	1	22
Turnaround	4"-0" Crushed	5+50	6	TA	11	TA's	1.00	11
Culvert Bedding/Backfill	3/4"-0" Crushed	5+50	N/A	culvert		culverts	1.00	22
Landing Rock	6"-0" Pit-run	8+80	N/A	landing	66	landing	1.00	66
Total Rock for Road Segment:			I9 to I10					455

ROAD SEGMENT Application	I11 to I12 Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT I11 to I12 Volume (CY) per		Sta. to Sta. 0+00 to 37+00 Number of		TOTAL VOLUME (CY)
Subgrade Leveling	1 1/2"-0" Crushed		N/A					222
Turnouts	4"-0" crushed	14+35, 24+85, 26+75, 33+15	6	TO	22	TO's	4	88
Turnaround	4"-0" crushed	33+15	6	TA	11	TA's	1.00	11
Culvert Bedding/Backfill	3/4"-0" Crushed	4+35, 34+80	N/A	culvert		culverts	2.00	55
Landing Rock	6"-0" Pit-run	37+00	N/A	landing	55	landing	1.00	55
Total Rock for Road Segment:			I11 to I12					431

ROAD SEGMENT	I13 to I14			POINT TO POINT		Sta. to Sta.		
			Depth of	I13 to I14		0+00 to 2+85		TOTAL
Application	Rock Size		Rock	Volume (CY)		Number		VOLUME
	and Type	Location	(inches)	per		of		(CY)
Subgrade Leveling/Reinforcement	4"-0" Crushed	0+00-2+85	6	station	38	stations	2.85	108
Landing Rock	6"-0" Pit-run	2+85	N/A	landing	55	landing	1.00	55
Total Rock for Road Segment:			I13 to I14					163

ROAD SEGMENT Application	I15 to I16 Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT I15 to I16 Volume (CY) per		Sta. to Sta. 0+00 to 43+00 Number of		TOTAL VOLUME (CY)
Subgrade Leveling	1 1/2"-0" Crushed		N/A					297
Subgrade Leveling/Reinforcement	4"-0" Crushed	27+80-28+80, 37+15-43+00	6	station	38	stations	6.85	260
Turnouts	4"-0" Crushed	4+65, 8+25, 10+25, 21+25, 28+30,	6	TO	22	TO's	5	110
Culvert Bedding/Backfill	3/4"-0" Crushed	0+00, 5+85, 14+00,	N/A	culvert		culverts	3.00	110
Landing Rock	6"-0" Pit-run	37+00	N/A	landing	55	landing	1.00	55
Total Rock for Road Segment:			I15 to I16					832

EXHIBIT D

ROAD SURFACING

ROAD SEGMENT Application	I17 to I18 Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT I17 to I18 Volume (CY) per		Sta. to Sta. 0+00 to 8+35 Number of		TOTAL VOLUME (CY)
Subgrade Leveling	1 1/2"-0" Crushed		N/A					110
Total Rock for Road Segment:			I17 to I18					110
ROAD SEGMENT **Application**	**I19 to I20** **Rock Size and Type**	**Location**	**Depth of Rock (inches)**	**POINT TO POINT** I19 to I20 **Volume (CY) per**		**Sta. to Sta.** 0+00 to 3+75 **Number of**		**TOTAL VOLUME (CY)**
Subgrade Leveling/Reinforcement	4"-0" Crushed		6	station	22	stations	3.75	152
Landing Rock	6"-0" Pit-run	3+75	N/A	landing	55	landing	1.00	55
Total Rock for Road Segment:			I19 to I20					207
ROAD SEGMENT **Application**	**I21 to I22** **Rock Size and Type**	**Location**	**Depth of Rock (inches)**	**POINT TO POINT** I21 to I22 **Volume (CY) per**		**Sta. to Sta.** 0+00 to 3+85 **Number of**		**TOTAL VOLUME (CY)**
Subgrade Leveling/Reinforcement	4"-0" Crushed		6	station	38	stations	3.85	152
Landing Rock	6"-0" Pit-run	3+85	N/A	landing	55	landing	1.00	55
Total Rock for Road Segment:			I21 to I22					207
ROAD SEGMENT **Application**	**Soapstone Stockpile** **Rock Size and Type**	**Location**	**Depth of Rock (inches)**	**POINT TO POINT** Soapstone Stockpile **Volume (CY) per**		**Sta. to Sta.** **Number of**		**TOTAL VOLUME (CY)**
Base Rock	6"-0" Pit-run		8	station		stations		1,045
Total Rock for Road Segment:			Soapstone Stockpile					1,045

ROCK TOTALS (CY)	24"-6" (Riprap)	6"-0" (Pit-run)	4"-0"	1½"-0"	3/4"-0"
14,847	682	1,870	3,478	728	8,089

Roads shall be uniformly graded, shaped and approved by STATE prior to rocking.

EXHIBIT D

ROCK ACCOUNTABILITY

PURCHASER shall obtain subgrade approval from STATE prior to rocking. Rocking shall be limited to periods when weather conditions are acceptable to STATE and when sediment will not enter streams. Additional surfacing needed because of construction season or construction practice is not included in the preceding ROAD SURFACING table, and shall be furnished at PURCHASER expense.

Rock accountability shall be determined by the following methods, as directed by STATE. STATE shall be given 24 hours' notice prior to rocking.

Rock Checking. All rock spreading shall be done only when a STATE representative is present. STATE shall issue a receipt for each load delivered, and rock shall be measured without allowance for shrinkage or shakedown during hauling. Total truck measure volume for each road segment shall be as shown on Exhibit D. Deliver at least 500 cubic yards per 8-hour shift, unless otherwise approved by STATE. A penalty of $10 for each 10 cubic yards which are not delivered during a single shift shall be billed, and payment shall be required prior to final acceptance of the project by STATE.

Depth Measurement. Rock shall be spread and compacted according to the depths specified in Exhibit D. Truck measure volumes are given, but shall not limit the amount of rock spread.

Depth shall be determined in the most compacted area of the surface cross section. The depth of compacted aggregates shall not vary more than 1 inch from the depth specified in the “Road Surfacing” table in Exhibit D. The average depth for each road segment shall be the specified depth or greater. If additional rock is required because of insufficient depth, the locations and volumes to be added shall be determined by STATE.

Load Records. Notify STATE before spreading the rock and maintain a record of all rock delivered for spreading. Make the record available for STATE inspection. A report listing the amount of rock delivered the prior month must be submitted no later than the 15th of each month.

EXHIBIT D

COMPACTION AND PROCESSING REQUIREMENTS

Moisture Content: Compaction must take place when moisture content of the materials being compacted is favorable for effective compaction as determined by STATE.

Compaction Pass: A pass is defined as traveling a road section forward and then backward over that same section.

Subgrade. Subgrade surfaces of the road segments listed below shall be graded and compacted prior to rocking. Compaction shall be accomplished by traveling all surfaces from shoulder to shoulder until the surface is smooth and hard and visible deformation ceases. At least 3 passes shall be made over the entire width and length of the road. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

Subgrade shall be crowned at 4 to 6 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments that require rock surfacing	1

Fills. Embankments and fills shall be placed in (approximately) horizontal layers not more than 8 inches in depth. Each layer shall be separately, and thoroughly, compacted. Compaction equipment shall be operated over the entire width of each layer until visible deformation of the layers ceases. At least 3 passes shall be made over the entire width and length of each layer.

Placing individual rocks or boulders with more depth than the allowed layer thickness shall be permitted, provided the embankment will accommodate them. Such rocks and boulders shall be at least 6 inches below the subgrade. They shall be carefully distributed and the voids filled with finer material, forming a dense and compacted mass. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments.	1, 2, 3, and 4

Crushed Rock. The rock shall be uniformly mixed and spread in layers on the approved roadbed. Each layer of crushed rock shall be moistened or dried to uniform moisture content suitable for maximum compaction and compacted in layers not to exceed 6 inches in depth. When more than 1 layer is required, each shall be shaped and compacted before the succeeding layer is placed. Any irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and adding or removing material until the surface is smooth and uniform. Each layer shall be compacted with a minimum of 3 passes over the entire width and length of the road until the surface is smooth and hard and visible deformation ceases. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

Rock shall be compacted and processed during the same project period it is spread, unless otherwise approved in writing by STATE.

Rock shall be crowned at 4 to 6 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments requiring crushed rock.	1

EXHIBIT D

COMPACTION AND PROCESSING REQUIREMENTS

Pit-Run Rock. The rock shall be uniformly mixed and spread in layers on the approved roadbed. Each layer of pit-run rock shall be moistened or dried to uniform moisture content suitable for maximum compaction and compacted in layers not to exceed 8 inches in depth. When more than 1 layer is required, each shall be shaped and compacted before the succeeding layer is placed. Any irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and adding or removing material until the surface is smooth and uniform. Each layer shall be compacted with a minimum of 3 passes over the entire width and length of the road. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

Rock shall be crowned at 4 to 6 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments requiring pit-run rock.	5

(1) Vibratory Rollers. The drum shall have a smooth surface, a diameter not less than 48 inches, a width not less than 58 inches, and a turning radius of 15 feet or less. Vibration frequency shall be regulated in steps to 1400, 1500, and 1600 VPM, corresponding to engine speeds of 1575, 1690, and 1800 RPM. The centrifugal force developed shall be 7 tons at 1600 VPM. It shall be activated by a power unit of not less than 25 horsepower. The vibratory roller shall be self-propelled and operated at speeds ranging from 0.9 miles to 1.8 miles per hour, as directed by STATE.

(2) Rubber-Tired Skidders. A rubber-tired skidder weighing a minimum of 20,000 pounds shall be operated over the fill layers so that the entire layered surface comes in contact with the tires. Skidders with oversized tires (high flotation) are not acceptable for compaction.

(3) Tampingfoot Compactors. Tampingfoot compactors shall exert a minimum pressure of 250 pounds per square inch on the ground area in contact with the tamping feet. The compactor shall cover a minimum width of 60 inches per pass and weigh a minimum of 16,000 pounds.

(4) Vibratory Hand-Operated or Backhoe-Mounted Tamper. Vibratory hand-held or hydraulic tampers shall be used for compaction of backfill materials around culverts (and/or bridge approach embankment materials around abutments). The tamper shoe dimensions shall be a minimum of 10" X 13" and capable of a centrifugal force of 2,250 pounds.

(5) Dozer. A dozer/track-type tractor weighing a minimum of 82,000 pounds shall be operated over the pit-run rock so that the entire surface comes in contact with the tracks.

EXHIBIT E

CULVERT SPECIFICATIONS

All culvert materials shall be furnished and installed by PURCHASER, unless otherwise specified in the Contract.

Culverts shall be constructed of corrugated double-walled polyethylene or corrugated aluminized (Type 2) steel.

Polyethylene culverts shall be double-walled and meet the requirements of AASHTO M-294-06, Type S Culvert.

Aluminized (Type 2) steel culverts shall meet the requirements of AASHTO M-36-03[1].

Polyethylene culverts shall not be used where required culvert diameter is over 24 inches.

Polyethylene joints shall be made with split couplings, corrugated to engage the culvert corrugations, and shall engage a minimum of 4 corrugations, 2 on each side of the culvert joint.

Culverts shall be located according to the alignment and grade as shown on the Plan and Profile, and/or as staked in the field, or as specified in special instructions.

The STATE Representative shall determine final culvert locations and stake the locations in the field prior to installation.

Cross drain culverts shall be installed at a slope steeper than the incoming ditch grade, but not less than 3 percent or greater than 10 percent.

The foundation and trench walls for all culverts shall be free from logs, stumps, limbs, stones, and other objects which would dent or damage the culvert. The culvert trench shall be excavated 3 culvert diameters wide to permit compaction and working on each side of the culvert. Tamping shall be done in 6-inch lifts, 1 culvert diameter each side of the culvert. Bedrock shall be excavated as required to provide a uniform foundation for the full length of the culvert.

A bedding of crushed rock as specified shall be placed to provide a wide band of support and to transmit the load from above evenly over the entire length of the culvert for all culverts.

Backfill shall consist of, crushed rock, rock crusher reject, free of stumps, limbs, rocks, or other objects which would damage the culvert.

Transporting of the culvert shall be done carefully. Dragging or allowing free fall from trucks or into trenches shall not be permitted.

EXHIBIT E

CULVERT SPECIFICATIONS

Minimum height of cover over top of culvert to subgrade when road is to be rocked shall be as follows: 12" for culverts 18” to 36” add 6" for roads which will not be rocked. Minimum vertical cover for other designs shall be as specified by STATE.

Lengths of individual culvert sections shall be not less than 10 feet, unless otherwise provided for in special instructions.

The ends of each culvert shall be free of logs and debris which would restrict the free flow of water.

The intake end of relief culverts shall be provided with a sediment catching basin 3 feet in diameter at the bottom. The outlet end of any culvert which would allow water to erode embankment soil shall be provided with an energy dissipator, half round, or other approved slope protection device. Construct lead-off ditches away from culvert outlets where the slope gradients restrict the free flow of water.

Compaction by tamping utilizing a Vibratory Hand-Operated or Backhoe-Mounted Tamper is required for all culverts.

All culverts scheduled for replacement shall be removed from STATE land and hauled to an approved refuse site in the same project period in which replacement occurred.

The intake ends of culverts in fills less than 3 feet to the top of the culvert shall be marked by driving white fiberglass posts within 6 inches of the downgrade side. Posts shall be a minimum of 6 feet long and 2½ inches wide, with the spade driven 2 feet into the ground.

A manufacturer's certification that the product was manufactured, tested, and supplied in accordance with this specification shall be furnished to STATE upon request.

Following are the minimum standard gauges for steel culvert and coupling bands. Some culverts may require different gauges and may be found in the culvert listing.

	Steel Culvert	Thickness			Band Widths (")	
Dia.	Gauge	Uncoated	Coated	Band Gauges	Annular	Helical
12-15	16	(0.0598")	(0.064”)	16	7	12
18-24	16	(0.0598")	(0.064”)	16	12	12

EXHIBIT E

CULVERT LIST

CULVERT NO.	DIAMETER (Inches)	LENGTH (Feet)	MATERIAL TYPE	ROAD SEGMENT POINT TO POINT	STATION
1	18	35	CPP	I1 to I2	51+30
2	18	35	CPP	I1 to I2	56+50
3	18	35	CPP	I1 to I2	57+45
4	18	40	CPP	I1 to I2	57+60
5	18	40	CPP	I1 to I2	61+60
6	18	35	CPP	I1 to I2	65+45
7	18	35	CPP	I1 to I2	68+10
8	18	40	CPP	I1 to I2	70+55
9	24	45	CPP	I1 to I2	76+30
10	18	30	CPP	I1 to I2	111+60
11	18	30	CPP	I1 to I2	113+40
12	18	30	CPP	I1 to I2	117+30
13	18	30	CPP	I1 to I2	124+95
14	18	45	CPP	I1 to I2	168+70
15	18	30	CPP	I1 to I2	185+30
16	18	40	CPP	I1 to I2	193+15
17	18	35	CPP	I1 to I2	197+65
18	18	30	CPP	I3 to I4	10+90
19	18	35	CPP	I3 to I4	18+65
20	18	30	CPP	I9 to I10	5+50
21	18	30	CPP	I11 to I12	4+35
22	18	35	CPP	I11 to I12	34+80
23	18	40	CPP	I15 to I16	0+00
24	18	35	CPP	I15 to I16	5+85
25	18	35	CPP	I15 to I16	14+00
26	18	30	CPP	A to B	2+30
27	18	30	CPP	A to B	4+85

EXHIBIT E

CULVERT LIST

CULVERT NO.	DIAMETER (Inches)	LENGTH (Feet)	MATERIAL TYPE	ROAD SEGMENT POINT TO POINT	STATION
28	18	30	CPP	A to B	9+40
29	18	30	CPP	C to D	5+00

ACSP = Aluminized, CPP = Polyethylene

EXHIBIT F

ROCK QUARRY DEVELOPMENT AND USE

1. PURCHASER shall prepare a written development plan for the quarry area. The plan shall be submitted to STATE for approval prior to conducting any operation in quarry area. The plan shall include, but not be limited to:

   (a) Location of benches and roads to benches.
   (b) Disposal site for woody debris, overburden and reject material.
   (c) Time lines for rock quarry use.
   (d) Erosion Control measures.

2. PURCHASER shall schedule and coordinate quarry and stockpile usage with other existing or planned activity requiring quarry or stockpile usage. PURCHASER shall notify STATE 5 days prior to the start of quarry development activities.

3. The quarry site shall be left in a condition free from overburden and debris. Access roads to the quarry, and the quarry floor, shall be cleared at the termination of use. Overburden shall be removed for a distance of 20 feet beyond the developed rock source.

4. All overburden and reject material shall be hauled to the designated waste area as directed by STATE.

5. PURCHASER shall conduct the operations relative to the disposal of waste material in such manner that sediment, rock, or debris shall not be washed, conveyed, or otherwise deposited in any stream.

6. At the Soapstone Quarry, fall all timber within the posted right-of-way boundary and remove all merchantable timber. All woody debris, including stumps and Slash shall be hauled to the designated disposal areas, piled and disposed of by burning as directed by STATE.

7. PURCHASER shall obtain a FPA Burn Permit prior to debris disposal for the Soapstone Quarry.

8. Controlled blasting techniques shall be utilized for any blasting operations, and shall be accomplished using timing devices, delayed charges, low intensity shots, or other suitable means to contain as much material as possible within the quarry development area. PURCHASER shall maintain a comprehensive blasting log that contains all pertinent data for all blasting operations. The blasting log shall be submitted to the STATE after the completion of all blasting activity. The blasting log is intended for STATE record keeping purposes only.

9. Benches shall be maintained/constructed at intervals of 40 feet or less in height and shall be a minimum of 20 feet in width. Any gravel or talus slopes shall be left with a working face at an angle of 60 percent or less. There shall be a minimum of one bench with an access road to it. Said bench shall be easily accessible with tractors.

10. Quarry face shall be developed in a uniform manner. All quarry backslopes shall be left in a stable condition.

11. Oversized material that is produced or encountered during development shall be broken down and utilized for crushing.

12. The quarry floor shall be developed to provide for drainage away from the quarry. All quarry and stockpile site drainage ditches shall be maintained. Quarry access roads shall be cleared and blocked upon completion of quarry use as directed by STATE.

13. Proper winterization and storm-water control measures such as waterbarring, drainage, utilization of filter bales, mulching and/or blocking access shall be constructed and maintained to protect the watershed and Project Work, as directed by STATE.

EXHIBIT F

ROCK QUARRY DEVELOPMENT AND USE

Soapstone Stockpile Site Construction Specifications

14. Site dimensions are 150 feet long and 290 feet wide as shown on page 3 of this Exhibit. The site perimeter is posted with orange right-of-way boundary signs.

15. Site Construction Specifications are as follows:

    a. Clear and Grub the stockpile site to Exhibit D clearing and grubbing specifications. Cleared and grubbed material shall be scattered outside of the site perimeter as directed by STATE.

    b. Site shall be leveled as directed by STATE. Excavation cut slopes, fill slopes, fill compaction, leveled site surface, and approach road compaction shall be done in accordance with Exhibit D specifications.

    c. Approach road location and grade leading to the Stockpile site shall be as directed by STATE.

    d. Apply 6”-0” pit-run rock in an 8 inch lift over the entire site and approach road as directed by STATE, and compact as specified in Exhibit D.

EXHIBIT F

ROCK QUARRY DEVELOPMENT AND USE

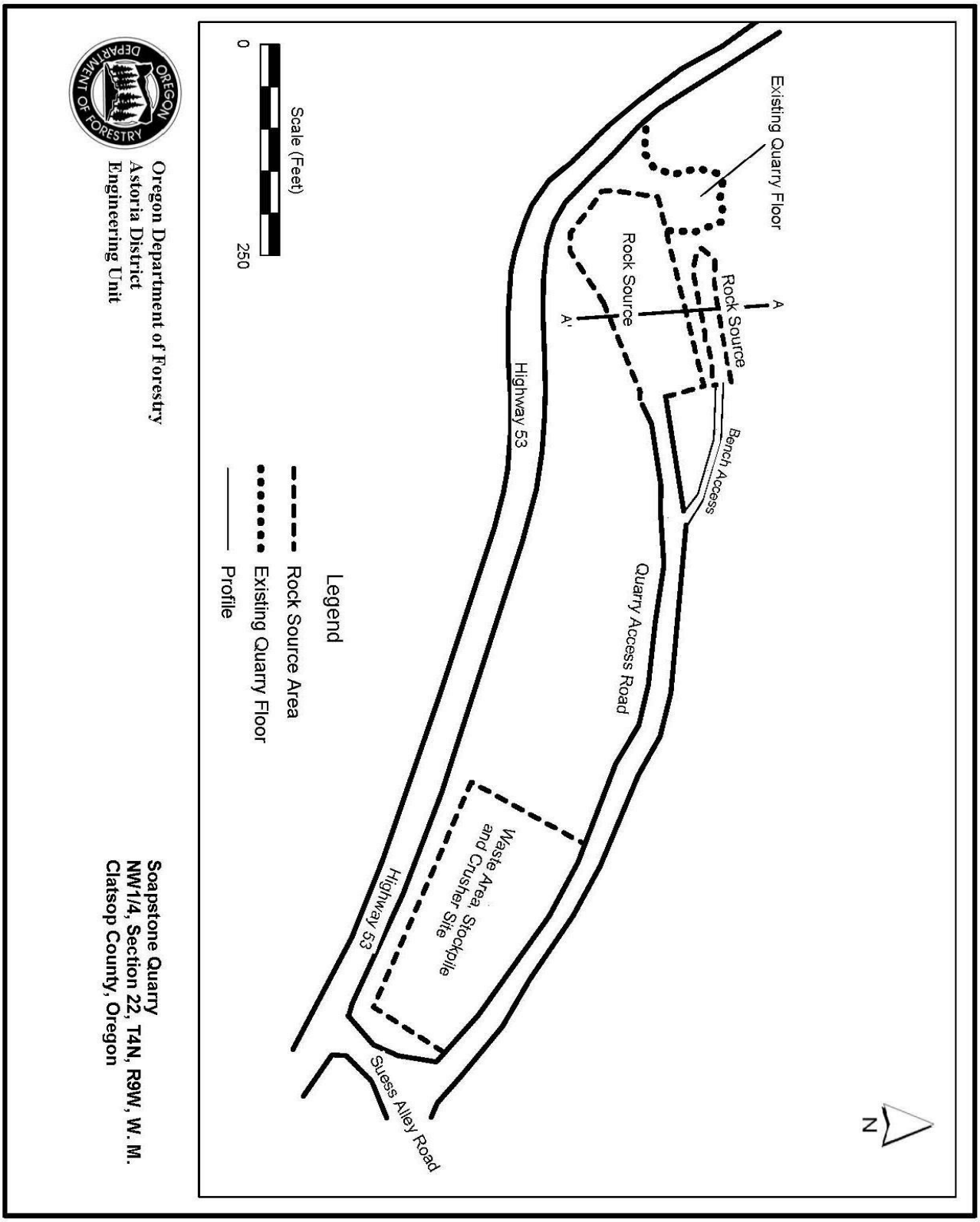


EXHIBIT F

ROCK QUARRY DEVELOPMENT AND USE

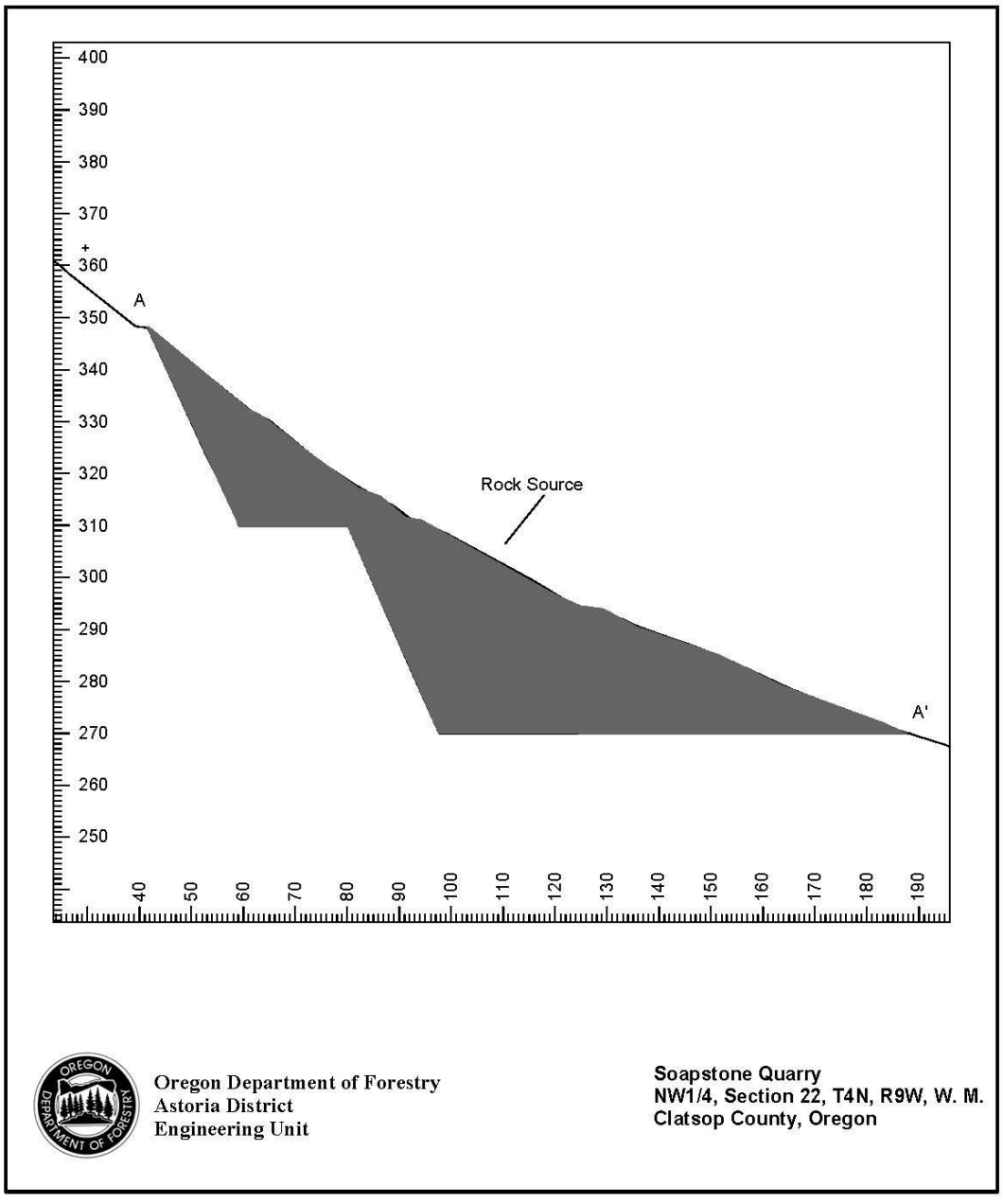


EXHIBIT F

CRUSHED ROCK SPECIFICATIONS

Materials. The material shall be fragments of rock crushed to the required size. The material shall be free from vegetation and lumps of clay. STATE may require screening and/or rejecting of materials utilized for production of crushed rock for the purpose of removing excess fine material. Excess fines are present, when greater than 5 percent of a total rock sample weight, passes a #200 sieve. Rock crushing shall be limited to periods when weather conditions are acceptable to STATE.

Quality and Grading Requirements. The base material shall be rock. River gravel shall not be used. Crushed rock shall meet the grading requirements that follow.

Rock strength: for rock not produced from STATE quarries, the material from which base material is produced or manufactured shall meet the following test requirement for Aggregate Hardness - Test Method AASHTO T 96, 35 percent Maximum.

For the purpose of crushing rock specified under the projects in Section 2610, “Project Work,” PURCHASER shall utilize a three-stage rock crusher, or equivalent, unless otherwise approved by STATE.

The rock crusher shall be calibrated to produce rock as specified in this exhibit. Prior to the commencement of production crushing, PURCHASER shall sample, test, and provide rock test results meeting STATE specifications. STATE may then sample and test crushed rock for approval to proceed. PURCHASER shall take one sample of each 2,000 cubic yards of crushed rock material produced thereafter, using approved AASHTO sampling procedures. PURCHASER shall submit samples to a certified laboratory or shall perform testing for gradation requirements using AASHTO T 11 and AASHTO T 27 testing procedures. Prior to testing, each sample shall be split, making one-half of the sample, with proper identification, available for testing by STATE. Each sample and the results of PURCHASER testing shall be made available to STATE within 24 hours of sampling. Any rock crushed prior to STATE approval to proceed shall not be credited to the required rock quantity. Any subsequent rock tests not meeting STATE specifications shall be reason for rejection of that portion of crushed rock produced after that test and shall not be credited to the required rock quantity. STATE may sample the crushed rock at any time during the operation. Results of STATE’s tests shall prevail over all other test results.

MARGINAL SOURCE CRUSHED ROCK SPECIFICATIONS

Grading Requirements

For 1½" minus	Passing	2" sieve	100%
	Passing	1½" sieve	90-100%
	Passing	3/4" sieve	50-75%
	Passing	1/4" sieve	25-55%
	Passing	No. 10 sieve	10-25%
	Passing	No. 40 sieve	5-15%

The referenced sieve shall have square openings as set forth in AASHTO M 92, Woven Cloth Series. The determinations of size and gradation shall be as set forth in AASHTO T 27.

PIT-RUN and RIPRAP ROCK SPECIFICATIONS

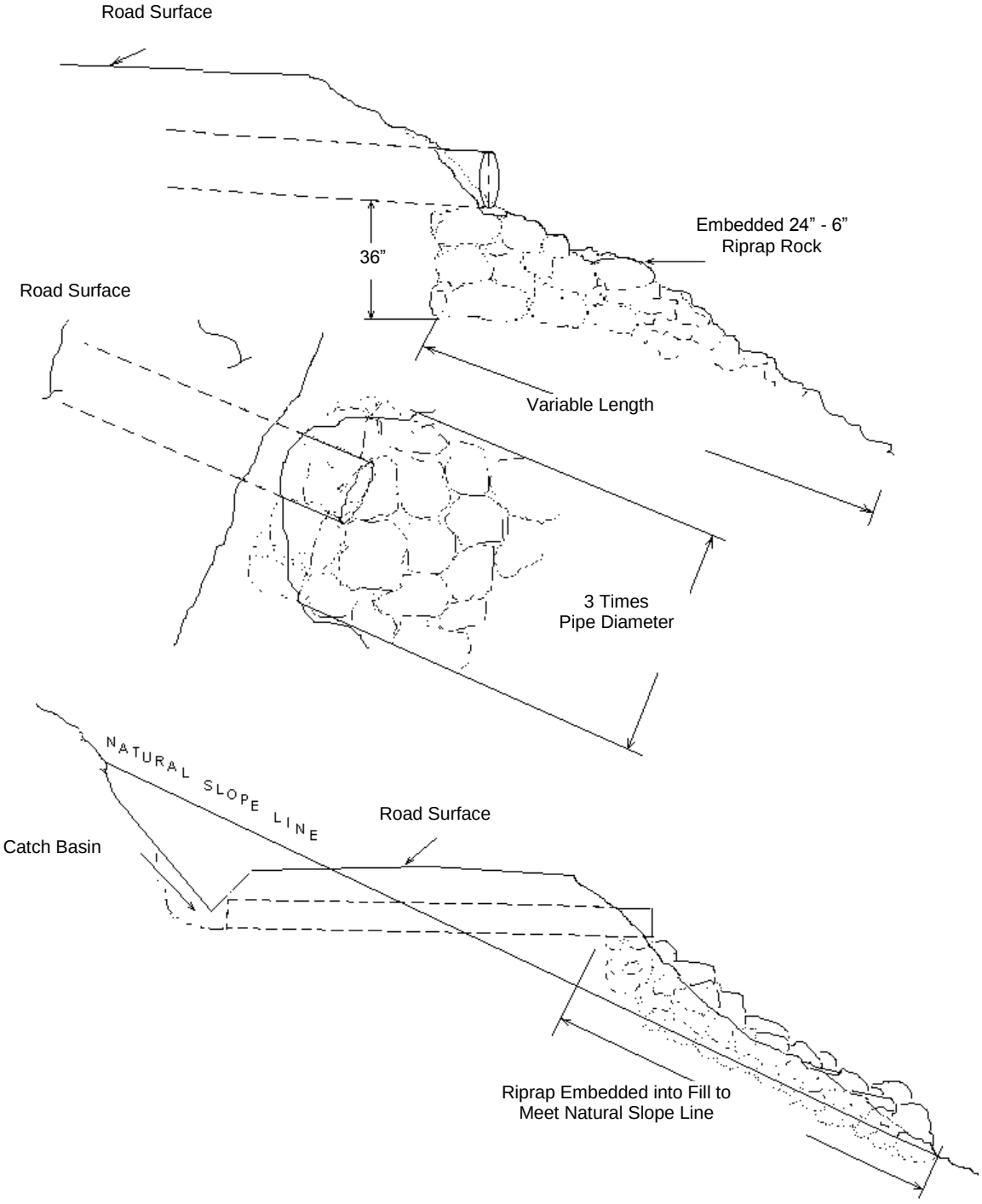
For 6"-0” Pit-Run	Passing	10" sieve	100%
	Passing	6" sieve	60-85%
	Passing	3" sieve	30-50%
	Passing	1/4" sieve	0-20%

For 24"-6" Riprap A minimum of 50 percent of the material shall measure a minimum of 24 inches, measured in one dimension. Material shall be clean, well graded, and free of 2"-0" fines. Control of gradation shall be by visual inspection by STATE.

State Timber Sale Contract
No. 341-13-51
Cole Turkey

EXHIBIT G

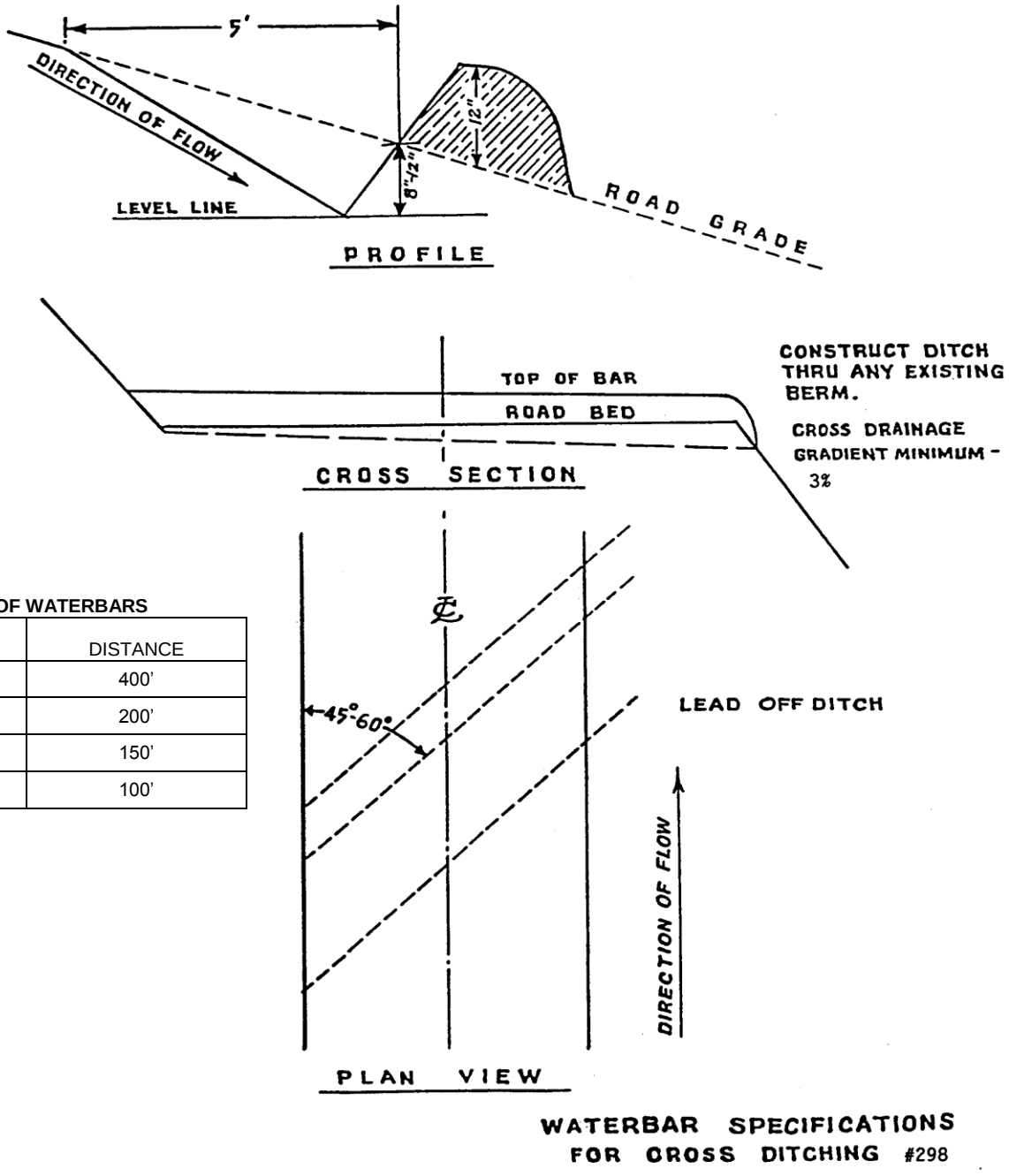
TYPICAL EMBEDDED ENERGY DISSIPATOR



State Timber Sale Contract
No. 341-13-51
Cole Turkey

EXHIBIT H

WATERBAR SPECIFICATIONS



SPACING OF WATERBARS

ROAD GRADE	DISTANCE
≤ 5%	400'
6-10%	200'
11-15%	150'
16-20% or greater	100'

EXHIBIT I

ROAD VACATING SPECIFICATIONS

PURCHASER shall vacate at the following points: (V1). Specific objectives for this project include:

(a) Fill removal and stream channel development.
(b) Culvert removal.
(c) Restoration of natural contours by outsloping of the road prism.
(d) Sidecast pullback.
(e) Minimize disturbance of existing vegetation.

(1) Tree Removal. Cut or remove all trees necessary to access the project area and to facilitate vacating operations, as directed by STATE. Timber shall NOT be removed as designated timber, unless located within posted timber sale boundaries or right-of-way boundaries.

(2) Fill Removal and Stream Channel Development. Remove fills to the natural stream course level(s). Stream channel(s) shall be excavated/developed to specified widths. Developed stream banks shall be sloped at natural contours or no steeper than 1 ½:1, as directed by STATE.

(3) Culvert Removal. Remove drainage structures and culverts. Removed culverts shall be hauled to an approved refuse site off of STATE land.

(4) Outslope Road. Outslope road to restore natural contours or establish a minimum of 10 percent slope for drainage at designated locations. If the road grade exceeds 10 percent, outslope of the road shall be 2 percent greater than the road grade.

(5) Sidecast Pullback. Excavate/pullback previously sidecast materials below the road at designated locations. Developed slopes shall be pulled back to a 1½:1 slope or to natural ground contours. The beginning position for sidecast pullback shall be no greater than 20 feet vertical distance from the existing road surface, in accordance with Exhibit J. Sidecast material remaining greater than 20 feet below the road shall be tapered and sloped for drainage.

(6) Use of Excavated Materials.

(A) Fill Excavation and Sidecast Pullback. Excavated materials shall be placed on the interior (cut) side of the road, and utilized to restore the cutslope to natural contours, or to a minimum 10 percent outsloped surface for drainage. Any excess material will be hauled to a designated waste area, as directed by STATE.

(B) Woody Debris Shall be placed on the surface of pullback/fill material.

(C) Block Roads. Use excavated material from fill removals to block roads from vehicle access, as directed by STATE.

(7) Erosion Control. Erosion control shall be completed in a progressive manner. Grass seed and straw mulch shall be applied for every 500 feet of road vacated, prior to continuing work.

All excavated material and bare soil shall utilize grass seed and straw mulch approved by STATE and in accordance with the specifications in Exhibit K. Applied mulch shall be a minimum of 2 inches deep and provide a uniform cover.

(8) Construct Waterbars as directed by STATE. Construct waterbars according to the specifications in Exhibit H.

EXHIBIT I

ROAD VACATING SPECIFICATIONS

(9) Equipment. A minimum 1½ cubic-yard, track mounted excavator shall be used for all excavation, culvert removal, streambed preparation, road blocking, and waterbarring, unless otherwise approved in writing by STATE.

(10) Dry Conditions. All work shall be performed during dry conditions acceptable to STATE.

(11) Support, including transport, other equipment, replacements, supplies, maintenance, and repairs, shall be furnished as required to complete the project and shall be furnished without cost to STATE, other than as agreed under the contract terms.

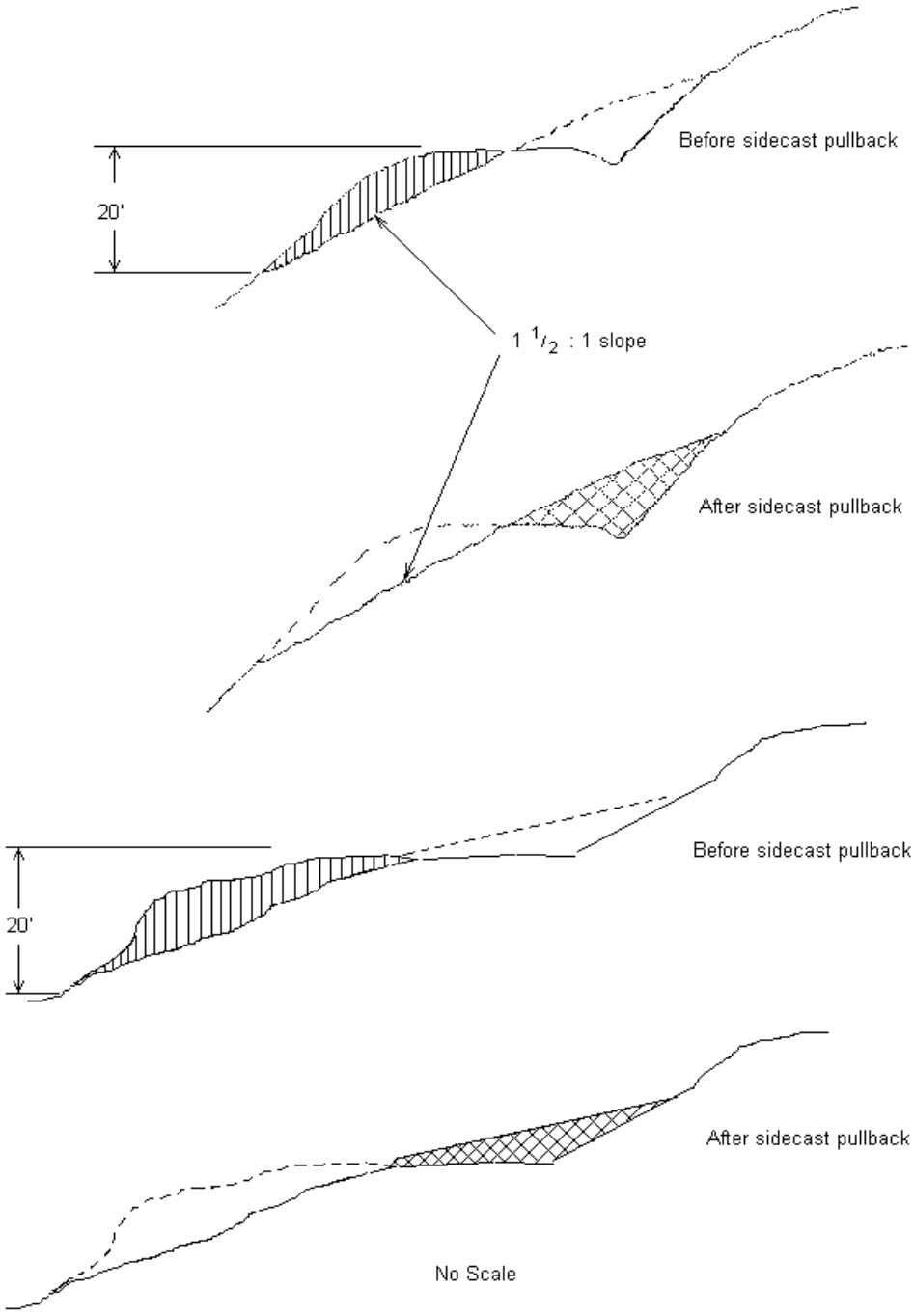
SPECIFIC INSTRUCTIONS/SPECIFICATIONS :

Segment	Station	Work Description
V1	N/A	Remove fill and develop 4 foot stream channel.

State Timber Sale Contract
No. 341-13-51
Cole Turkey

EXHIBIT J

TYPICAL CROSS SECTION VIEW OF ROAD VACATING SIDECAST PULLBACK



State Timber Sale Contract
No. 341-13-51
Cole Turkey

EXHIBIT K

SEEDING AND MULCHING

This work shall consist of preparing seedbeds and furnishing and placing required seed and straw mulch. Straw mulch shall consist of straw that is free of noxious weeds. Apply seed and straw mulch to all waste areas, and bare soils resulting from Project No. 4 and any skid trails within posted stream buffers.

Seeding Seasons. Seeding shall be performed only from March 1 through June 15 and August 15 through October 31. Seeding materials shall not be applied during windy weather or when the ground is excessively wet or frozen. Areas of disturbed soil shall be seeded by the end of the project period in which work was started.

APPLICATION METHODS FOR SEED

Dry Method. Mechanical seeders, seed drills, landscape seeders, cultipacker seeders, or other approved mechanical seeding equipment shall be used to apply the seed in the amounts and mixtures specified. Hand-operated seeding devices may be used when seed is applied in dry form.

APPLICATION RATES FOR SEED

The seed mixture listed below shall be applied at 100 lbs. per acre. The seed mixture shall be comprised of the following:

SPECIES	MIXTURE	PURE LIVE SEED	GERMINATION
Annual Rye	33%	95%	>90%
Orchard Grass	33%	95%	>90%
Perennial Rye	34%	95%	>90%

Mulching Period. Straw mulch shall be applied within 24 hours of spreading grass seed and fertilizer.

APPLICATION RATES FOR MULCH

Place straw mulch to a reasonably uniform thickness of 1½ to 2½ inches. This rate requires between 2 and 3 tons of dry mulch per acre.

Application Locations:

Vacating Segment

V1

PART IV: OTHER INFORMATION

FOREST PRACTICES ACT "WRITTEN PLAN"

Cole Turkey Timber Sale Harvest Operations within 100 feet of Type F Streams

Portions of Section 7, T4N, R8W, and portions of Sections 13 and 14, T4N, R9W, W.M., Clatsop County, Oregon.

Landowner: Oregon Department of Forestry
92219 Hwy 202
Astoria, OR 97103
(503) 325-5451

Protected Resources:

1. West Fork Hakura Creek
2. Middle Fork Hakura Creek
3. Unnamed Tributary to the Middle Fork Hakura Creek
4. East Fork Hakura Creek

Specific Site Characteristics:

1. West Fork Hakura Creek (Small, Type F) – This stream flows through the middle of Area 2 for approximately 1,200 feet and along the east boundary for approximately 2,175 feet of Area 2.

2. Middle Fork Hakura Creek (Small, Type F) – This stream flows along the west boundary of Area 3 for approximately 1,650 feet.

3. Unnamed Tributary to the Middle Fork Hakura Creek (Small, Type F) – This stream flows through the middle of Area 3 for approximately 545 feet, and then along the east boundary for an additional 280 feet.

4. East Fork Hakura Creek (Small, Type F) – This stream flows along the east boundary of Area 3 for approximately 330 feet.

Tree and Vegetation Retention:
Vegetation within the buffers consists of a combination of conifers, hardwoods, and shrubs.

All posted Type F buffers along or within all sale areas are approximately 100 feet or greater. If trees need to be felled within FPA defined stream buffers (RMA's) to allow for cable corridors, they will not be removed. Cable lines may extend over and/or through these buffers.

Resource Protection Practices:
Along all of the above mentioned streams, as well as any other streams, the following practices are required under the timber sale contract, to protect the streams and streamside areas:

- No trees will be felled within stream buffers (RMA's), except in cable corridors.
- Trees that fall or slide into Type F RMA's shall not be removed without prior approval from STATE.
- Trees adjacent to the stream buffers (RMA's) will be felled away from or parallel to the streams to prevent trees from entering the aquatic areas.
- When cable logging is conducted nearby the RMA's, logging lines may cross, but will not be lowered into the RMA's during yarding, except during rigging. During rigging the lines must be pulled out of the RMA's when changing corridors.
- Logs shall be fully suspended when yarding across all stream buffers (RMA's).
- Cable corridors must be at least 100 feet apart where they cross the RMA's.

I, the undersigned, submit this written plan in compliance with the requirements in the Forest Practices Act regarding the operations conducted within 100 feet of Type F and D streams. I agree to the protection measures listed on this plan:

Submitted: _____ Date: _____

Purchaser/Operator Contract Representative

Attachments: Exhibit A

Original: Salem
CC: Operator, Purchaser, District file, Sunset Unit

State Timber Sale Contract
No. 341-13-51
Cole Turkey

OREGON DEPARTMENT of FISH and WILDLIFE

FISH SCREENING PROGRAM

SMALL PUMP SCREEN SELF CERTIFICATION

The Oregon Water Resources Department in coordination and cooperation with the Oregon Department of Fish and Wildlife includes screen requirements on pumps to protect fish as a condition of many surface water and/or reservoir water right permits. This is done in accordance with ORS 537.153.

The Oregon Department of Fish and Wildlife does not usually inspect small pump screens at pumped diversions less than 225 GPM (Gallons per Minute), but furnishes the following fish screening criteria information to the water right permit tee:

Screen material open area must be at least 27% of the total wetted screen area.

Perforated plate: Openings shall not exceed 3/32 or 0.0938 inches (2.38 mm).
Mesh/Woven wire screen: Square openings shall not exceed 3/32 or 0.0938 inches (2.38mm) in the narrow direction, e.g., 3/32 inch x 3/32 inch open mesh.
Profile bar screen/Wedge wire: Openings shall not exceed 0.0689 inches (1.75 mm) in the narrow direction.

Screen area must be large enough to cause fish impact. Wetted screen area depends on the water flow rate and the water approach velocity. **Approach velocity** is the water velocity perpendicular to and approximately three inches in front of any part of the screen face.

An Active pump screen is a self cleaning screen that has a proven cleaning system. The **screen approach velocity for active pump screens** shall not exceed 0.4 fps (feet per second) or 0.12 mps (meters per second). The wetted screen area in square feet is calculated by dividing the maximum water flow rate in cubic feet per second (1 cfs = 449 gpm) by 0.4 fps.

A Passive pump screen is a screen that has no cleaning system other than periodic manual cleaning. **Screen approach velocity for passive pump screens** shall not exceed 0.2 fps or 0.06 mps. The wetted screen area in square feet is calculated by dividing the maximum water flow rate by 0.2 fps.

For further information on fish screening please contact:

Bernie Kepshire, Oregon Department of Fish and Wildlife,
7118 NE Vandenberg Avenue, Corvallis, OR 97330-9446 (541) 757-4186 x 255

As evidence of having met fish screen installation requirements, please sign the certification and send to: Oregon Water Resources Department, Water Rights Section, 725 Summer St. NE, Suite A, Salem, OR 97301-1271

Certification: I certify that my small pumped diversion of less than 225 gpm meets fish screening criteria, and that I will maintain it to comply with regulatory criteria. I also understand that should fish screening standards change, I may be required to modify my installation to meet applicable standards.

Applicant Signature:_____ Date:___/___/___WRD File #

Printed Name and Address: _____

Phone: (_____) _____ Fax: (_____) _____

bmk
3/11/99
PUMPCERT.doc

NB: ODFW logo is 129% of logo on HQ mail label

State Timber Sale Contract
No. 341-13-51
Cole Turkey

NOTICE OF TRANSFER OF STATE TIMBER

Instructions **629:-Form-301-010**

Complete Section 1. Mark the box which applies to you/your company in Section 2. Complete Section 3 and obtain signatures.

SECTION 1

On _____, state timber sale purchaser (Transferor)

_____, sold, exchanged or otherwise transferred to

_____, (Transferee) state timber originating from State

Timber Sale Contract No. _____.

Transferee hereby certifies that they:

(a) Will not export the unprocessed state timber which is the subject of this transaction;

(b) Will not sell, transfer, exchange or otherwise convey the unprocessed timber which is the subject of this transaction to any other person without first obtaining a like certification from that person; and

(c) Are not prohibited by OAR's 629-31-005 through 045 from purchasing state timber or logs directly from the State Forester, or this is a sale of Western Red Cedar for domestic processing.

SECTION 2

☐ Have not exported unprocessed timber originating from private lands in Oregon in the last 24 months.

☐ This is a sale of hardwood logs for domestic processing.

☐ This is a sale of Western Red Cedar for domestic processing.

☐ This is a sale of pulp logs or cull logs processed at domestic pulp mills, domestic chip plants or other domestic operations for the purpose of conversion of the logs into chips.

SECTION 3

The parties understand that falsely entering into this certification, or failure to comply with the terms of this certification is a violation of the Forest Conservation and Shortage Relief Act of 1990 and OAR Chapter 629, Division 31, and is subject to any and all penalties contained therein.

Transferor:	Transferee:
_____	_____
Signed	Signed
_____	_____
Title	Title
_____	_____
Dated	Dated

[Note: For the purpose of this form, the definition of unprocessed timber is the same as in OAR 629-31-005]

Mail To: State Forester
2600 State Street
Salem, OR 97310

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Cole Turkey
Sale 341-13-51

District: **Astoria** **Date:** **February 04, 2013**

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$1,752,653.24	$103,579.58	$1,856,232.82
		Project Work:	$(449,110.00)
		Advertised Value:	$1,407,122.82

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Cole Turkey
Sale 341-13-51

District: **Astoria** **Date:** **February 04, 2013**

timber description

Location: Portions of Sections 7 and 18, T4N, R8W, and portions of Sections 13 and 14, T4N, R9W, W.M., Clatsop County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	96
Western Hemlock / Fir	19	0	94
Sitka Spruce	20	0	95
Alder (Red)	14	0	96

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	3,123	559	166	0	3,848
Western Hemlock / Fir	515	229	23	0	767
Sitka Spruce	347	189	23	0	559
Alder (Red)	0	0	0	299	299
Total	3,985	977	212	299	5,473

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Cole Turkey
Sale 341-13-51

District: **Astoria** **Date:** **February 04, 2013**

comments:

Pond Values Used: 4th Quarter Calendar Year 2012.

Expected Log Markets: Warrenton, OR; Tillamook, OR.; Garibaldi, OR; Claskanine, OR; Mist, OR; Longview, WA.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
$797.14/MBF = $985/MBF - $187.86/MBF

SCALING COST ALLOWANCE = $5.00/MBF

FUEL COST ALLOWANCE = $4.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to $780 daily truck cost.

Other Costs (with Profit & Risk to be added):
ADDITIONAL LOGGING COSTS:
Branding and Painting: $1/MBF x 5,473 MBF = $5,473
Line Pull in Area 1: $15/MBF x 1.3 acres X 40.54 MBF/acre = $791
In Area slash piling (see attached appraisal spreadsheet) = $14,702.25
TOTAL Other Costs (with Profit & Risk to be added) = $20,966.25

Other Costs (No Profit & Risk added):
Closure of Dirt Spur in Area 1: Hours with Cat 315 size excavator @ $101/hr. x 3 hours = $303
Machine Washing Invasive Species: Shovel, Skidder, Excavator (3 x $1,000) = $3,000
TOTAL Other Costs (No Profit & Risk added) = $3,303

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Cole Turkey
Sale 341-13-51

District: **Astoria** **Date:** **February 04, 2013**

logging conditions

combination#: **1**

Douglas - Fir	64.00%
Western Hemlock / Fir	64.00%
Sitka Spruce	64.00%
Alder (Red)	64.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Shovel **Process**: Manual Delimbing
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 12.0 **bd. ft / load:** 3,500
cost / mbf: $59.63

machines: Shovel Logger

combination#: **2**

Douglas - Fir	36.00%
Western Hemlock / Fir	36.00%
Sitka Spruce	36.00%
Alder (Red)	36.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Medium Tower >40 - <70 **Process**: Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 11.0 **bd. ft / load:** 3,500
cost / mbf: $86.86

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Cole Turkey
Sale 341-13-51

District: **Astoria** **Date:** **February 04, 2013**

logging costs

Operating Seasons:	3.00	**Profit Risk:**	10.00%
Project Costs:	$449,110.00	**Other Costs (P/R):**	$20,966.25
Slash Disposal:	$0.00	**Other Costs:**	$3,303.00

Miles of Road

Road Maintenance: $7.75

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	$0.00	3.0	3.2
Western Hemlock / Fir	$0.00	3.0	4.0
Sitka Spruce	$0.00	2.0	3.1
Alder (Red)	$0.00	2.0	3.5

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Cole Turkey
Sale 341-13-51

District: **Astoria** **Date:** **February 04, 2013**

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$69.43	$8.06	$2.40	$76.81	$3.83	$16.05	$0.00	$5.00	$0.60	$182.18
Western Hemlock / Fir									
$69.43	$8.22	$2.40	$62.64	$3.83	$14.65	$0.00	$5.00	$0.60	$166.77
Sitka Spruce									
$69.43	$8.14	$2.40	$120.09	$3.83	$20.39	$0.00	$5.00	$0.60	$229.88
Alder (Red)									
$69.43	$8.06	$2.40	$105.35	$3.83	$18.91	$0.00	$5.00	$0.60	$213.58

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$552.76	$370.58	$0.00
Western Hemlock / Fir	$0.00	$441.56	$274.79	$0.00
Sitka Spruce	$0.00	$437.21	$207.33	$0.00
Alder (Red)	$0.00	$560.00	$346.42	$0.00

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Cole Turkey
Sale 341-13-51

District: **Astoria** **Date:** **February 04, 2013**

summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	$0.00	$0.00
Western Hemlock / Fir	0	$0.00	$0.00
Sitka Spruce	0	$0.00	$0.00
Alder (Red)	0	$0.00	$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	3,848	$370.58	$1,425,991.84
Western Hemlock / Fir	767	$274.79	$210,763.93
Sitka Spruce	559	$207.33	$115,897.47
Alder (Red)	299	$346.42	$103,579.58

Gross Timber Sale Value

Recovery: $1,856,232.82

Prepared by: Edward Holloran **Phone:** 503-325-5451

Site Prep Appraisal

Sale Number: 341-13-51
Sale Name: Cole Turkey
Date: 10/31/2012

Vegetation Type/Zone	Vegetation Type/Zone Code	Production Rate (hr/ac)*	Estimated Piles/Acre
Doug-fir	A	1.0	3.0
Hemlock/Fir	B	1.5	4.5
Hemlock/Spruce	C	2.0	6.0
Hemlock	D	2.0	6.0
Conifer/Hardwood	E	1.5	4.5
Whole Tree Yarding	F	0.5	0.5

Sale Area	Harvest Type	Veg Type/Zone	Ground Based Yarding Acres	Estimated Piling Hours/Area	Cost/Hour	Total Cost/Area
1	MC	F	29.1	15	$110.00	$1,600.50
2	MC	B	15.6	23	$110.00	$2,574.00
3	MC	A	40.2	40	$110.00	$4,422.00

In-unit Piling **Sub Total =** $8,596.50

Sale Area	Number of Landings to be Piled	Cost/Landing Pile	Total Cost/Area	Number of In-Unit Piles	Material Cost/Pile	Total Cost/Area
1	6	$220.00	$1,320.00	14.55	$5.00	$72.75
2	4	$220.00	$880.00	70.2	$5.00	$351.00
3	8	$220.00	$1,760.00	120.6	$5.00	$603.00

*Cost includes separating firewood

Materials **Sub Total =** $1,026.75

Landing Piling **Sub Total =** $3,960.00

Move-In Allowance	Number of Move-In's	Total Move-In Allowance
$1,119.00	1	$1,119.00

Move-In **Sub Total =** $1,119.00

Grand Total = **$14,702.25**

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Cole Turkey
Date: November 30, 2012
By: Ed Holloran

MBF: 5,473
$$/MBF: $7.75

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost	
Interim Operations Entries - 2	Grader 14G	$778	2	48	$100	$6,356	
	Dump Truck 12CY	$163	2	16	$79	$1,590	
	FE Loader C966	$778	2	16	$83	$2,884	
Final Road Maintenance	Grader 14G	$778	1	98	$100	$10,578	
	Dump Truck 12CY	$163	2	48	$79	$4,118	
	FE Loader C966	$778	1	24	$83	$2,770	
	Vibratory Roller	$778	1	72	$108	$8,554	
	Water Truck 2,500 gallon	$190	1	36	$89	$3,394	
	Backhoe-small	$321	1	16	$77	$1,553	
	Labor			16	$40	$640	
Total							**$42,437**

Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	3.5	17.0	4.9	49

Final Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Process - Grader	1.5	14.6	9.7	97
Vibratory Roller	2.0	14.6	7.3	73

Process and Compact: Cole Mountain Road (via Loop - 4.0 miles); Cole Mtn Ridge Rd. (1.5 miles)
Spurs within sale areas (3.5 miles) and Seuss Alley (1.5 miles)

TOTAL MILES = 14.6

X:\DOCUMENT\Sunset Unit\2013 FY Sales\Cole Turkey\Sale Prep\Log Haul Road Maintenance-Cole Turkey.xls

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Cole Turkey

PROJECT NO 1: ROAD CONSTRUCTION:

	Road segment	Length/Sta	Cost	
Surfaced	A to B, C to D	25.10	$40,043	
Unsurfaced	1A-1B	12.50	$3,690	
	TOTALS	37.60		$43,733
	0.71 miles			

PROJECT NO. 2: ROAD IMPROVEMENT:

Road segment	Length/Sta	Cost	
I1-I2, I3-I4, I5-I6, I7-I8, I9-I10, I11-I12, I13-I14, I15-I16, I17-I18 I19-I20, I21-I22	368.2	$121,560	
TOTALS	368.2		$121,560
6.97 miles			

SPECIAL PROJECTS:

Description	Cost	
PROJECT NO. 3: Soapstone Quarry (Development and Crushing)	$245,667	
Stockpile Development (Crusher Site)	$12,632.00	
PROJECT NO. 4: Road Vacating	$2,214.00	
PROJECT ROAD MAINTENANCE	$14,736.00	
TOTAL		$275,249

MOVE IN:

Equipment	Cost	
Dozer (D8)	$778.00	
Dump Trucks (12 cy x 6)	$1,956.00	
Dump Trucks (20 cy x 2)	$382.00	
F E Loader (C966)	$778.00	
Grader (14G)	$778.00	
Rubber Tire Skidder (C518)	$717.00	
Vibratory Roller	$778.00	
Water Truck (2,500 gallon)	$190.00	
Excavator (C315)	$805.00	
Excavator (C330)	$1,406.00	
TOTAL		$8,568.00

GRAND TOTAL **$449,110.00**

Compiled By: Kraig Kirkpatrick Date: 10/17/2012

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Cole Turkey — **NEW CONSTRUCTION:** 37.60 **STATIONS** 0.71 **MILES**
ROAD: A-B (14.75) and C-D (10.35), 1A-1B (12.50) — **IMPROVEMENT:** **STATIONS** **MILES**
POINTS:

CLEARING & GRUBBING

	Method	Acres/amount	x	Rate	=	Cost
	Scatter outside of Right of way ($/ac)	2	x	$1,337	=	$2,674
	Endhaul Clearing Debris A to B (Sta. 8+00-9+15)	0.1	x		=	
	(330 X 5hr, 24cy off hwy dump X 5hr)		x	$1,410	=	$1,410
			x		=	

SUB TOTAL FOR CLEARING & GRUBBING $4,084

EXCAVATION

	Material	Cy/amount	x	Rate	=	Cost
A to B						
	Common Drift	1,810	x	$1.80	=	$3,258.00
8+00-9+15	End-haul excavation ($/CY)	1,250	x	$4.00	=	$5,000.00
8+00-9+15	Sidecast Pullback ($/sta.)	1		$557.00		$557.00
	Cut Slope Rounding ($/sta.)	7	x	$43.00	=	$301.00
	Embankment Compaction ($/CY)	2,285	x	$0.70	=	$1,599.50
	Waste material compaction ($/CY)	775	x	$0.40	=	$310.00
C to D						
0+00-1+30	End-haul excavation ($/CY)	700.00	x	$4.00	=	$2,800.00
	Common Drift up to 200' ($/sta.)	9.35	x	$190.00	=	$1,776.50
	Waste material compaction ($/CY)	700.00	x	$0.40	=	$280.00
			x		=	
1A to 1B	Balanced Construction ($/sta)	12.50	x	$122.00	=	$1,525.00
	Landing Construction ($/ldg)	1	x	$389.00	=	$389.00

SUB TOTAL FOR EXCAVATION $17,796

CULVERT MATERIALS AND INSTALLATION

Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
A to B									
2+30	18" CPP	30	$19.53	$585.90					
4+85	18" CPP	30	$19.53	$585.90					
9+40	18" CPP	30	$19.53	$585.90					
C to D									
5+00	18" CPP	30	$19.53	$585.90					

	Description	Quantity	Rate	Cost
Other/miscellaneous:				
Culvert stakes & markers:	Install 6' fiberglass markers	5	$20.00	$100.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION $2,444

Subtotal of Clearing, Exc., Culv. ***$24,324***

SURFACING

Subgrade prep: Description	Stations/ amount	x	Rate/ sta/amt	Cost
Grade, Shape and Ditch 16'	25.10	x	$24.83	$623.23
Subgrade Compaction	25.10	x	$20.19	$506.77
1A-1B Grade, Shape 14' outslope	12.50	x	$18.35	$229.38

ROAD SEGMENT	A to B			POINT TO POINT		Sta. to Sta.					
				A to B		0+00 to 14+75					
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Subgrade Reinforcement	6"-0" Pit-run			station		stations		275	$4.23	$1,163	
Base Rock	4"-0' Crushed	0+00-14+75	8	station	50	stations	14.75	738	$3.80	$2,803	
Junctions	4"-0' Crushed	0+00, 14+75	8	junction	22	junctions	2	44	$3.80	$167	
Turnouts	4"-0' Crushed	5+25, 7+50, 12+05	8	TO	22	TO's	3	66	$3.80	$251	
Fill Armor	24"-6" Riprap	1+20-2+25, 8+00-9+00, 12+90-13+90	N/A	fill	N/A	fill	N/A	572	$7.44	$4,256	
Surface Rock	3/4"-0" Crushed	0+00-14+75	4	station	25	stations	14.75	374	$5.53	$2,068	
Turnouts	3/4"-0" Crushed	5+25, 7+50, 12+05	4	TO	22	TO's	3	66	$5.53	$365	
Junctions	3/4"-0" Crushed	0+00, 14+75	4	junction	22	junctions	2	44	$5.53	$243	
Total Rock for Road Segment:			A to B					2,179			$11,316

ROAD SEGMENT	C to D			POINT TO POINT		Sta. to Sta.					
				C to D		0+00 to 10+35					
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Subgrade Reinforcement	6"-0" Pi-trun			station		stations		209	$4.23	$884	
French Drain Rock Jnct	24"-6" Riprap	0+00						66	$7.44	$491	
Base Rock	4"-0' Crushed	0+00-10+35	8	station	50	stations	10.35	518	$3.81	$1,972	
Turnouts	4"-0' Crushed		8	TO	22	TO's	1	22	$3.81	$84	
Junctions	4"-0' Crushed	0+00	8	junction	66	junctions	1	66	$3.81	$251	
Culvert Bedding/Backfill	3/4"-0" Crushed	0+00	N/A	culvert		culverts	1.00	33	$5.23	$173	
Junctions	3/4"-0" Crushed	0+00	4	junction	33	junctions	1	33	$5.53	$182	
Total Rock for Road Segment:			C to D					947			$4,037

ROAD SEGMENT	1A to 1B			POINT TO POINT		Sta. to Sta.					
				1A to 1B							
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Junctions	4"-0" Crushed	0+00	8	junction	55	junctions	1.00	55	$3.81	$210	
Total Rock for Road Segment:			1A to 1B					55			$210

Processing:

Description	No.sta	Rate/sta	Cost
Water, Process & Compact:	25.10	$24.28	$609

	24"-6"	6"-0" pr	4"-0"	1 1/2"-0"	3"/4"-0"	Total		
SUB TOTAL FOR SURFACING	638	484	1,508		550	3,180	3,180	**$17,531**

SPECIAL PROJECTS

Description	Cost
Pit run development $/CY (484CY X $2.60)	$ 1,258
French Drain Construction w/330 $/hr	$620.00

SUB TOTAL FOR SPECIAL PROJECTS $1,878

Subtotal of Surfacing & Spec. Proj. *$19,409*
Subtotal of Clearing, Exc.,Culv. *$24,324*

GRAND TOTAL **$43,733**

Compiled By: Kraig Kirkpatrick Date: 10/03/2012

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Cole Turkey
ROAD: I1-I2 (214.55), I3-I4 (33.95), I5-I6 (11.1), I7-I8 (1.0), I9-I10 (8.8), I11-I12 (37.0), I13-I14 (2.85), I15-I16 (43.0), I17-I18 (8.35), I19-I20 (3.75), I21-I22 (3.85)
POINTS:

NEW CONSTRUCTION: _____ **STATIONS** _____ **MILES**
IMPROVEMENT: 368.20 **STATIONS** 6.97 **MILES**

CLEARING & GRUBBING

Method	Acres/amount	x	Rate	=	Cost
		x		=	
		x		=	
		x		=	
		x		=	

SUB TOTAL FOR CLEARING & GRUBBING

EXCAVATION

	Material	Cy/amount	x	Rate	=	Cost
I1-I2	Scatter ditch waste material ($/sta.)	63.65	x	$12.41	=	$789.90
	Excavate, load, and haul ditch waste material ($/sta.)	63.65	x	$22.92	=	$1,458.86
	End-haul excavation - road widening & realignment segments ($/sta.)	600.00	x	$4.00	=	$2,400.00
	Waste material compaction ($/sta.)	600	x	$0.40	=	$240.00
	Dissipator placement w/315 excavator ($/hr)	4	x	$101.00	=	$404.00
I5-I6	Additional grader time to brush segment ($/hr)	4.00	x	$100.00	=	$400.00
	Additional excavator (315) time to brush segment ($/hr)	4.00	x	$101.00	=	$404.00
I7-I8	Additional grader time to brush segment ($/hr)	4.00	x	$100.00	=	$400.00
	Additional excavator (315) time to brush segment ($/hr)	4.00	x	$101.00	=	$404.00
I9-I10	Additional grader time to brush segment ($/hr)	4.00	x	$100.00	=	$400.00
	Additional excavator (315) time to brush segment ($/hr)	4.00	x	$101.00	=	$404.00
	Establish turnount/turnaround w/315 excavator ($/hr)	1.00	x	$101.00	=	$101.00
I11 - I12	Establish turnount w/315 excavator ($/hr)	1.00	x	$101.00	=	$101.00
	Clear/grub landing w/315 excavator ($/hr)	1.00	x	$101.00	=	$101.00
I15 - I16	Establish turnount w/315 excavator ($/hr)	1.00	x	$101.00	=	$101.00
	Clear/grub landing w/315 excavator ($/hr)	1.00	x	$101.00	=	$101.00
I19-I20	Additional grader time to brush segment ($/hr)	4.00	x	$100.00	=	$400.00
	Additional excavator (315) time to brush segment ($/hr)	4.00	x	$101.00	=	$404.00
	Clear/grub landing w/315 excavator ($/hr)	1.00	x	$101.00	=	$101.00
I21-I22	Additional grader time to brush segment ($/hr)	4.00	x	$100.00	=	$400.00
	Additional excavator (315) time to brush segment ($/hr)	4.00	x	$101.00	=	$404.00
	Clear/grub landing w/315 excavator ($/hr)	1.00	x	$101.00	=	$101.00

SUB TOTAL FOR EXCAVATION $10,020

CULVERT MATERIALS AND INSTALLATION

Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
I1-I2					**I3-I4**				
51+30	18" CPP	35	$19.53	$683.55	10+90	18" CPP	30	$19.53	$585.90
56+50	18" CPP	35	$19.53	$683.55	18+65	18" CPP	35	$19.53	$683.55
57+45	18" CPP	35	$19.53	$683.55	**I9-I10**				
57+60	18" CPP	40	$19.53	$781.20	5+50	18" CPP	30	$19.53	$585.90
61+60	18" CPP	40	$19.53	$781.20	**I11-I12**				
65+45	18" CPP	35	$19.53	$683.55	4+35	18" CPP	30	$19.53	$585.90
68+10	18" CPP	35	$19.53	$683.55	34+80	18" CPP	35	$19.53	$683.55
70+55	18" CPP	40	$19.53	$781.20	**I15-I16**				
76+30	24" CPP	45	$27.04	$1,216.80	0+00	18" CPP	40	$19.53	$781.20
111+60	18" CPP	30	$19.53	$585.90	5+85	18" CPP	35	$19.53	$683.55
113+40	18" CPP	30	$19.53	$585.90	14+00	18" CPP	35	$19.53	$683.55
117+30	18" CPP	30	$19.53	$585.90					
124+95	18" CPP	30	$19.53	$585.90					
168+70	18" CPP	45	$19.53	$878.85					
185+30	18" CPP	30	$19.53	$585.90					
193+15	18" CPP	40	$19.53	$781.20					
197+65	18" CPP	35	$19.53	$683.55					

	Description	Quantity	Rate	Cost
Other/miscellaneous:				
Culvert stakes & markers:	Install @ new culverts	24	$20.00	$480.00
	Install @ existing culverts	16	$20.00	$320.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION $18,324

Subtotal of Clearing, Exc.,Culv. ***$28,344***

SURFACING			Stations/		Rate/	
Subgrade prep:	Description		amount	x	sta/amt	Cost
	Grade, Shape and Ditch 16'		368.20	x	$24.83	$9,142
	Subgrade Compaction		368.20	x	$20.19	$7,434

ROAD SEGMENT	I1 to I2			POINT TO POINT		Sta. to Sta.				
Application	Rock Size and Type	Location	Depth of Rock (inches)	I1 to I2 Volume (CY) per		0+00 to 214+55 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Base Rock Replacement	4"-0" crushed	40+10-41+60, 53+10-54+85, 144+90-148+15	8	station	50	stations	6.50	325	$3.81	$1,238
Subgrade Leveling/Reinforcement	4"-0" Crushed	56+50-58+40	12	station	75	stations	1.90	143	$3.81	$543
Curve Widening Base	4"-0" Crushed	56+50-58+40	12	curve	n/a	curves	1	44	$3.81	$168
Junctions	4"-0" Crushed	57+45	12	junction		junctions		55	$3.81	$210
Culvert Bedding/Backfill	3/4"-0" Crushed		N/A	culvert		culverts	17.00	649	$5.54	$3,595
Subgrade Leveling	3/4"-0" Crushed		N/A					613	$5.54	$3,396
Surfacing Rock	3/4"-0" Crushed	0+00-214+55	4	station	25	stations	215	5,364	$5.54	$29,715
Curve Widening Surfacing	3/4"-0" Crushed		4	station	n/a	stations	n/a	209	$5.54	$1,158
Turnouts	3/4"-0" Crushed	15+40, 21+10, 25+80, 50+35, 59+90, 63+85, 70+55, 79+85, 83+50, 92+50, 96+10, 101+35, 104+00, 109+95, 120+60, 126+10, 131+75, 140+50, 154+85, 166+25, 180+20, 191+30, 194+80, 200+20, 204+20, 208+70, 211+80	4	TO	11	TO's	27	297	$5.54	$1,645
Junctions	3/4"-0" Crushed		N/A	junction	11	junctions	15	165	$5.54	$914
Dissipator	24"-6" Rip Rap	102+90, 111+60, 113+40, 124+95		dissipator	11	dissipator	4	44	$10.27	$452
Total Rock for Road Segment:			I1 to I2					7,907		$43,034

ROAD SEGMENT	I3 to I4			POINT TO POINT		Sta. to Sta.				
Application	Rock Size and Type	Location	Depth of Rock (inches)	I3 to I4 Volume (CY) per		0+00 to 33+95 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Subgrade Leveling/Reinforcement	4"-0" Crushed		N/A					99	$3.81	$377
Subgrade Leveling	1 1/2"-0" Crushed		N/A					99	$5.54	$548
Culvert Bedding/Backfill	3/4"-0" Crushed	10+90, 18+65	N/A	culvert		culverts	2.00	55	$5.54	$305
Total Rock for Road Segment:			I3 to I4					253		$1,230

ROAD SEGMENT	I5 to I6			POINT TO POINT		Sta. to Sta.				
Application	Rock Size and Type	Location	Depth of Rock (inches)	I5 to I6 Volume (CY) per		0+00 to 11+10 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Subgrade Leveling/Reinforcement	4"-0" Crushed		N/A					55	$3.81	$210
Total Rock for Road Segment:			I5 to I6					55		$210

ROAD SEGMENT	I9 to I10			POINT TO POINT		Sta. to Sta.				
Application	Rock Size and Type	Location	Depth of Rock (inches)	I9 to I10 Volume (CY) per		0+00 to 8+80 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Subgrade Leveling/Reinforcement	4"-0" Crushed	0+00-8+80	6	station	38	stations	8.80	334	$3.81	$1,274
Turnouts	4"-0" Crushed	5+50	6	TO	22	TO's	1	22	$3.81	$84
Turnaround	4"-0" Crushed	5+50	6	TA	11	TA's	1.00	11	$3.81	$42
Culvert Bedding/Backfill	3/4"-0" Crushed	5+50	N/A	culvert		culverts	1.00	22	$5.54	$122
Landing Rock	6"-0" Pit-run	8+80	N/A	landing	66	landing	1.00	66	$4.21	$278
Total Rock for Road Segment:			I9 to I10					455		$1,800

ROAD SEGMENT	I11 to I12			POINT TO POINT		Sta. to Sta.				
Application	Rock Size and Type	Location	Depth of Rock (inches)	I11 to I12 Volume (CY) per		0+00 to 37+00 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Subgrade Leveling	1 1/2"-0" Crushed		N/A					222	$5.54	$1,230
Turnouts	4"-0" Crushed	14+35, 24+85, 26+75, 33+15	6	TO	22	TO's	4	88	$3.81	$335
Turnaround	4"-0" Crushed	33+15	6	TA	11	TA's	1.00	11	$3.81	$42
Culvert Bedding/Backfill	3/4"-0" Crushed	4+35, 34+80	N/A	culvert		culverts	2.00	55	$5.54	$305
Landing Rock	6"-0" Pit-run	37+00	N/A	landing	55	landing	1.00	55	$4.21	$232
Total Rock for Road Segment:			I11 to I12					431		$2,143

ROAD SEGMENT	I13 to I14			POINT TO POINT		Sta. to Sta.				
Application	Rock Size and Type	Location	Depth of Rock (inches)	I13 to I14 Volume (CY) per		0+00 to 2+85 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Subgrade Leveling/Reinforcement	4"-0" Crushed	0+00-2+85	6	station	38	stations	2.85	108	$3.81	$413
Landing Rock	6"-0" Pit-run	2+85	N/A	landing	55	landing	1.00	55	$4.21	$232
Total Rock for Road Segment:			I13 to I14					163		$644

ROAD SEGMENT	I15 to I16			POINT TO POINT		Sta. to Sta.				
Application	Rock Size and Type	Location	Depth of Rock (inches)	I15 to I16 Volume (CY) per		0+00 to 43+00 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Subgrade Leveling	1 1/2"-0" Crushed		N/A					297	$5.54	$1,645
Subgrade Leveling/Reinforcement	4"-0" Crushed	27+80-28+80, 37+15-43+00	6	station	38	stations	6.85	260	$3.81	$992
Turnouts	4"-0" Crushed	4+65, 8+25, 10+25, 21+25, 28+30,	6	TO	22	TO's	5	110	$3.81	$419
Culvert Bedding/Backfill	3/4"-0" Crushed	0+00, 5+85, 14+00,	N/A	culvert		culverts	3.00	110	$5.54	$609
Landing Rock	6"-0" Pit-run	37+00	N/A	landing	55	landing	1.00	55	$4.21	$232
Total Rock for Road Segment:			I15 to I16					832		$3,897

ROAD SEGMENT	I17 to I18			POINT TO POINT		Sta. to Sta.				
Application	Rock Size and Type	Location	Depth of Rock (inches)	I17 to I18 Volume (CY) per		0+00 to 8+35 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Subgrade Leveling	1 1/2"-0" Crushed		N/A					110	$5.54	$609
Total Rock for Road Segment:			I17 to I18					110		$609

ROAD SEGMENT	I19 to I20			POINT TO POINT		Sta. to Sta.				
Application	Rock Size and Type	Location	Depth of Rock (inches)	I19 to I20 Volume (CY) per		0+00 to 3+75 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Subgrade Leveling/Reinforcement	4"-0" Crushed		6	station	22	stations	3.75	152	$3.81	$579
Landing Rock	6"-0" Pit-run	3+75	N/A	landing	55	landing	1.00	55	$4.21	$232
Total Rock for Road Segment:			I19 to I20					207		$579

ROAD SEGMENT	I21 to I22			POINT TO POINT		Sta. to Sta.				

Application	Rock Size and Type	Location	Depth of Rock (inches)	I21 to I22 Volume (CY) per		0+00 to 3+85 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Subgrade Leveling/Reinforcement	4"-0" Crushed		6	station	38	stations	3.85	152	$3.81	$579	
Landing Rock	6"-0" Pit-run	3+85	N/A	landing	55	landing	1.00	55	$4.21	$232	
Total Rock for Road Segment:			I21 to I22					207			$811

Processing:

Description	No.sta	Rate/sta	Cost
Water, Process & Compact:	368.20	$56.48	$20,796

	24"-6"rr	6"-0"pr	4"-0"	1 1/2"-0"	3/4"-0"	Total		
SUB TOTAL FOR SURFACING	44	341	1,970	728	7,539	10,621	10,621	**$92,330**

SPECIAL PROJECTS

Description	Cost
Pit run development $/CY (341CY X $2.60)	$ 886.00

SUB TOTAL FOR SPECIAL PROJECTS $886

Subtotal of Surfacing & Spec. Proj. *$93,216*
Subtotal of Clearing, Exc.,Culv. *$28,344*

GRAND TOTAL **$121,560**

Compiled By: Kraig Kirkpatrick Date: 09/26/2012

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Cole Turkey **NEW CONSTRUCTION:** _____ **STATIONS** _____ **MILES**
ROAD: Soapstone Stockpile Site **IMPROVEMENT:** _____ **STATIONS** _____ **MILES**
POINTS:

CLEARING & GRUBBING

Method	Acres/amount	x	Rate	=	Cost
Scatter ouside of Site perimeter	1337	x	1	=	$1,337.00
		x		=	
		x		=	
		x		=	

SUB TOTAL FOR CLEARING & GRUBBING $1,337

EXCAVATION

Material	Cy/amount	x	Rate	=	Cost
Balance Construction	26.00	x	$122.00	=	$3,172.00
Embankment compaction	5,000.00	x	$0.70	=	$3,500.00
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	
		x		=	

SUB TOTAL FOR EXCAVATION $6,672

CULVERT MATERIALS AND INSTALLATION

Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost

	Description	Quantity	Rate	Cost
Other/miscellaneous:				
Culvert stakes & markers:				

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION

Subtotal of Clearing, Exc., Culv. ***$8,009***

SURFACING

Subgrade prep:

Description	Stations/ amount	x	Rate/ sta/amt	Cost
Grade and shape	26.00	x	$18.35	$477.10
Compaction	26.00	x	$20.19	$524.94

ROAD SEGMENT	Soapstone Stockpile			POINT TO POINT Soapstone Stockpile Volume (CY) per		Sta. to Sta. Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Application	Rock Size and Type	Location	Depth of Rock (inches)								
Base Rock	6"-0"pit-run		8	station		stations		1,045	$2.60	$2,717	
Total Rock for Road Segment:		Soapstone Stockpile						1,045			$2,717

Processing:

Description	No.sta	Rate/sta	Cost
Spread and Compact D6 $/hr:	8.00	$113.00	$904

	6"-0"pr			Total		
SUB TOTAL FOR SURFACING	1,045			1,045	1,045	**$4,623**

SPECIAL PROJECTS

Description	Cost

SUB TOTAL FOR SPECIAL PROJECTS $0

Subtotal of Surfacing & Spec. Proj. *$4,623*

Subtotal of Clearing, Exc.,Culv. *$8,009*

GRAND TOTAL **$12,632**

Compiled By: Kraig Kirkpatrick Date: 10/15/2012

CRUSHED ROCK COST

SALE NAME: Cole Turkey
PROJECT: 1 and 2
QUARRY: Cole Mountain Quarry 4"-0"

MATERIAL: Crushed

DATE: 10/08/2012
BY: Kirkpatrick

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES 50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	Total Haul
C to D	10+35	606				1.00	1.00	0.40	0.10	2.50
1A-1B	12.50	55				0.50	1.00	0.60	0.10	2.20
I1 to I2	214+55	567				1.00	1.00	0.90	0.10	3.00
I3 to I4	33+95	99				1.00	1.00	0.40	0.10	2.50
I5 to I6	11+10	55				0.75	0.50	0.40	0.10	1.75
I9 to I10	8+80	367				0.75	0.50	0.45	0.10	1.80
I11 to I12	37+00	77					0.50	0.70	0.10	1.30
I13 to I14	2+85	108					0.50	0.55	0.10	1.15
I15 to I16	43+00	370				1.00	0.50	0.35	0.10	1.95
I19 to I20	3+75	152				1.00	0.50	0.35	0.10	1.95
I21 to I22	3+85	152				1.00	0.50	0.35	0.10	1.95
TOTAL	12.50	2,608								AVERAGE HAUL
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL						**0.88**	**0.75**	**0.52**	**0.10**	**2.25**
								Average Round Trip Distance (miles)	4.51	

ROCK HAUL:

Truck type: D20 No. trucks: 2
Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks: 6
Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
Delay min.: 5 Efficiency: 85%

Ave haul: $3.03 /cy
Load: $0.30 /cy
Spread: $0.48 /cy

Production: cy/day = 1,781

CRUSHED ROCK HAUL COSTS 2,608 cy @ **$3.81 /cy**

PIT RUN ROCK COST

SALE NAME: Cole Turkey
PROJECT: 1 and 2
QUARRY: Cole Mountain Quarry

MATERIAL: Pit Run

DATE: 10/08/2012
BY: Kirkpatrick

Road Segment	Stations	Cubic Yards	50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	Total Haul
			ONE WAY HAUL IN MILES							
C to D	10+35	209				1.00	1.00	0.40	0.10	2.50
I9 to I10	8+80	66				0.75	0.50	0.45	0.10	1.80
I11 to I12	37+00	55					0.50	0.70	0.10	1.30
I13 to I14	2+85	55					0.50	0.55	0.10	1.15
I15 to I16	43+00	55				1.00	0.50	0.35	0.10	1.95
I19 to I20	3+75	55				1.00	0.50	0.35	0.10	1.95
I21 to I22	3+85	55				1.00	0.50	0.35	0.10	1.95
TOTAL		550								
	STA./NO.	CU. YD.								AVERAGE HAUL
CUBIC YARD WEIGHTED HAUL						0.77	0.69	0.44	0.10	2.00

Average Round Trip Distance (miles) 3.99

ROCK HAUL:

Truck type: D20 No. trucks:
Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks: 6
Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
Delay min.: 5 Efficiency: 85%

Ave haul: $2.95 /cy
Load: $0.48 /cy
Spread: $0.78 /cy

Production: cy/day = 1,284

PIT RUN ROCK HAUL COSTS 550 cy @ **$4.21 /cy**

RIP RAP ROCK COST

SALE NAME: Cole Turkey
PROJECT: 1 and 2
QUARRY: Cole Mountain Quarry

MATERIAL: Rip Rap

DATE: 10/08/2012
BY: Kirkpatrick

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES 50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	Total Haul
I1 to I2	214+55	44				1.00	1.00	0.90	0.10	3.00
TOTAL		44								
STA./NO.		CU. YD.								AVERAGE HAUL
CUBIC YARD WEIGHTED HAUL						**1.00**	**1.00**	**0.90**	**0.10**	**3.00**
						Average Round Trip Distance (miles)			6.00	

ROCK HAUL:

Truck type: D12 No. trucks: 2
Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
Delay min.: 5 Efficiency: 85%

Ave haul: $4.17 /cy
Load: $1.80 /cy
Develop: $4.30 /cy

Production: cy/day = 303

RIP RAP ROCK HAUL COSTS 44 cy @ **$10.27 /cy**

CRUSHED ROCK COST

SALE NAME: Cole Turkey
PROJECT: 1
QUARRY: Fall Creek Quarry & Stockpile

MATERIAL: Crushed 4"-0"

DATE: 10/08/2012
BY: Kirkpatrick

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
A to B	14+75	848					1.00	0.35	0.10	1.45
TOTAL		848								AVERAGE HAUL
STA./NO.		CU. YD.								
CUBIC YARD WEIGHTED HAUL							**1.00**	**0.35**	**0.10**	**1.45**
							Average Round Trip Distance (miles)		2.90	

ROCK HAUL:

Truck type: D20 No. trucks:
Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks: 5
Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
Delay min.: 5 Efficiency: 85%

Ave haul: $2.54 /cy
Load: $0.48 /cy
Spread: $0.78 /cy

Production: cy/day = 1,242

CRUSHED ROCK HAUL COSTS 848 cy @ **$3.80 /cy**

PIT RUN ROCK COST

SALE NAME: Cole Turkey
PROJECT: 1
QUARRY: Fall Creek Quarry & Stockpile

MATERIAL: Pit Run

DATE: 10/08/2012
BY: Kirkpatrick

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
A to B	14+75	275					1.00	0.35	0.10	1.45
TOTAL		275								AVERAGE HAUL
STA./NO.		CU. YD.								
CUBIC YARD WEIGHTED HAUL							**1.00**	**0.35**	**0.10**	**1.45**
								Average Round Trip Distance (miles)		2.90

ROCK HAUL:

Truck type: D20 No. trucks:
Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks: 3
Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
Delay min.: 5 Efficiency: 85%

Ave haul: $2.54 /cy
Load: $0.60 /cy
Spread: $1.08 /cy

Production: cy/day = 745

PIT RUN ROCK HAUL COSTS 275 cy @ **$4.23 /cy**

RIP RAP ROCK COST

SALE NAME: Cole Turkey
PROJECT: 1
QUARRY: Fall Creek Quarry & Stockpile

MATERIAL: Rip Rap

DATE: 10/08/2012
BY: Kirkpatrick

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES 50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	Total Haul
A to B	14+75	572					1.00	0.35	0.10	1.45
TOTAL	STA./NO.	572 CU. YD.								AVERAGE HAUL
CUBIC YARD WEIGHTED HAUL							**1.00**	**0.35**	**0.10**	**1.45**

Average Round Trip Distance (miles) 2.90

ROCK HAUL:

Truck type: D12 No. trucks: 4
Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
Delay min.: 5 Efficiency: 85%

Ave haul: $2.54 /cy
Load: $0.60 /cy
Develop: $4.30 /cy

Production: cy/day = 994

RIP RAP ROCK HAUL COSTS 572 cy @ **$7.44 /cy**

CRUSHED ROCK COST

SALE NAME: Cole Turkey
PROJECT: 1 and 2
QUARRY: Hamlet Stockpile 3/4"-0 and 11/2"-0

MATERIAL: Crushed

DATE: 10/08/2012
BY: Kirkpatrick

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES 50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	Total Haul
A to B	14+75	484			1	1.00	1.30	1.20	0.10	4.60
C to D	10+35	66			1	1.00	2.00	1.80	0.10	5.90
I1 to I2	214+55	7,297			1	0.50	0.80	0.70	0.10	2.60
I3 to I4	33+95	154			1	0.50	1.00	0.80	0.10	3.40
I9 to I10	8+80	22			1	0.70	1.10	0.85	0.10	3.75
I11 to I12	37+00	277			1	1.25	2.00	2.00	0.10	6.35
I15 to I16	43+00	407			1	1.30	2.00	2.60	0.10	7.00
I17 to I18	8+35	110			1	1.30	2.40	2.60	0.10	7.40
TOTAL		8,817								AVERAGE HAUL
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL					**0.59**	**0.60**	**0.95**	**0.89**	**0.10**	**3.13**
								Average Round Trip Distance (miles)	6.26	

ROCK HAUL:

Truck type: D20 No. trucks: 2
Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks:
Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks: 6
Delay min.: 5 Efficiency: 85%

Ave haul: $4.28 /cy
Load: $0.48 /cy
Spread: $0.78 /cy

Production: cy/day = 1,260

CRUSHED ROCK HAUL COSTS 8,817 cy @ **$5.54 /cy**

SUMMARY OF ROCK DEVELOPMENT AND CRUSHING COSTS

PROJECT NO. Cole Turkey **Timber Sale Name: 341-13-51**

Quarry: Soapstone Quarry Swell:

Location: NW 1/4, NW 1/4, See. 22, T4N, R9W Shrink: 16%

County: Clatsop

By: Kraig Kirkpatrick Loading Hopper: Yes

Date: 10/12/2012

ROCK SIZE	REJECT	GRADATION	STOCKPILE CU. YDS.	TRUCK MEAS CU. YDS.	TOTAL CU. YDS.
3/4"-0"		CR			
1-1/2"-0"	10%	CR	12,000	1,000	14,920
4"-0"		CR			
6"-0"		PR	1,045		1,212
24"-6"		RR			
36"		RR			
TOTAL CUBIC YARDS OF ROCK:			13,045	1,000	**16,132**

1) MOBILIZATION & SET UP:

EQUIPMENT	QUANTITY	RATE	COST	EQUIPMENT	QUANTITY	RATE	COST
				Off Highway Dump Truck	2	$553	$1,105
				Screening Plant	1	$553	$553
				Loading Hopper	1	$553	$553
D6 Cat	1	$778	$778	Loader	1	$805	$805
Drill & Compressor	1	$1,406	$1,406				
Powder	1	$351	$351	3 Stage Crusher	1	$2,891	$2,891
Excavator	1	$1,406	$1,406				

SUB TOTAL FOR MOBILIZATION $9,848

EQUIPMENT SET UP	TIMES	RATE	COST
3 Stage Crusher	1	$3,439	$3,439
Screening Plants	1	$293	$293
Loading Hopper	1	$293	$293
Original Calibration	1	$544	$544

SUB TOTAL FOR SET UP COSTS $4,569

TOTAL MOBILIZATION & SET UP COSTS $14,417

2) CLEARING & GRUBBING

DESCRIPTION	QUANTITY	UNIT	RATE	COST
		hr		
Pile & Burn Slash and Stumps(1 exc)	2.1	acre	$2,702	$5,674
Move-in Fire Truck for the burning of	1.0	ea	$83	$83
the Clearing Debris				

TOTAL CLEARING & GRUBBING COSTS $5,757

3) EXCAVATION

MATERIAL DESCRIPTION	QUANTITY	UNIT	RATE	COST
Overburden Removal (excavate, load	5,000	bcy	$2.60	$13,000
haul, spread at crusher site)				

TOTAL EXCAVATION COSTS $13,000

4) DEVELOP ROCK

ROCK SUMMARY

Type	Cu. yd. Vol.	Weight
crushed	14,920	93%
pit run	1,045	5%
rip rap	0	0
Total	15,965	
reject	1,492	9.3%

METHOD	%	QUANTITY	RATE	COST
Ripping			$2.20	
Drill & shoot	93%	16,235	$2.70	$43,835
Oversize red	7%	1,118	$5.80	$6,482
Other				

TOTAL ROCK DEVELOPMENT COSTS $50,316

5) CALIBRATION & TESTING

DESCRIPTION	NO.	$/TEST	COST
Calibrate	1	$507.00	$507
Calibrate			
Test	6	$57.30	$344
Test			

TOTAL CALIBRATION & TESTING COSTS $851

6) FEEDING & LOADING

DESCRIPTION	CU. YD. QUANTITY		COST CU. YD.		TOTAL COST
Dig & Feed Rock	16,412		$0.87		$14,311

TOTAL FEEDING & LOADING COSTS $14,311

7) ROCK CRUSHING

ROCK SIZE	ROCK TYPE	CU. YD. QUANTITY	CRUSHER TYPE	HOURLY PRODUCTION	RATE CU. YD.	TOTAL COST
3/4"-0"	crushed		3 stage w/s			
1-1/2"-0"	crushed	14,920	3 stage w/s	125	$3.11	$46,431
4"-0"	crushed		2 stage w/s			

TOTAL ROCK CRUSHING COSTS $46,431

8) STOCKPILING

STOCKPILE SITE PREPARATION

Equipment	Hours	Rate	Total
Dozer		$120.00	
Compactor		$72.00	
Grader		$90.00	
Excavator		$138.00	

SUB TOTAL

Rock for Floor (CY)	$/CY Haul	Total

HAUL & STOCKPILE STOCKPILE LOCATION	SIZE	# of TRUCKS	CU. YDS.	RATE	COST
1.					
2. Sweethome	1-1/2"-0"	6	13,920	$6.74	$93,851
3.					
4. Soapstone	6"-0"	2	1,212	$2.44	$2,956
5.					
6.					
SUB TOTAL					$96,807

TOTAL STOCKPILING COSTS $96,807

9) MISCELLANEOUS COSTS

DESCRIPTION	COST
Load, Haul, and Spread the reject material at the waste area.	$2,536
$1.70 /CY 1,492 CY	
Final Quarry Dev., Access Road Const., Waterbarring, Drainage,	$1,240
Block Quarry Access	

TOTAL MISCELLANEOUS COSTS $3,776

10) GRAND TOTAL: **$245,667**

$/Cubic Yard $16.47

Footnotes:

HAUL and STOCKPILE COST

SALE NAME: 341-13-51
QUARRY: Soapstone ROCK TYPE: Crushed

Location 1.

ONE WAY HAUL IN MILES						
50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH
						0.10

Truck type: D12 No. trucks:
Delay min.: 15 Efficiency: 75%

Truck type: D12 No. trucks:
Delay min.: 12 Efficiency: 75%

Truck type: No. trucks:
Delay min.: 10 Efficiency: 75%

Ave haul: #DIV/0! /cy
Load: $0.00 /cy
Stockpile: #N/A /cy

Production: cy/day = 0

Location 1. 0 **Haul and Stockpile Cost** **#DIV/0! /cy**

Location 2. Sweethom
1-1/2"-0"

ONE WAY HAUL IN MILES						
50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH
	0.50	1.50	1.00	1.00	1.00	0.40

Truck type: D20 No. trucks: 3
Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks: 3
Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
Delay min.: 10 Efficiency: 75%

Ave haul: $5.59 /cy
Load: $0.00 /cy
Stockpile: $1.15 /cy

Production: cy/day = 768

Location 2. Sweethome **Haul and Stockpile Cost** **$6.74 /cy**

Location 3. Soapstone

ONE WAY HAUL IN MILES						
50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH

Truck type: D20 No. trucks:
Delay min.: 15 Efficiency: 75%

Truck type: D12 No. trucks:
Delay min.: 12 Efficiency: 75%

Truck type: D10 No. trucks:
Delay min.: 10 Efficiency: 75%

Ave haul: #DIV/0! /cy
Load: $0.00 /cy
Stockpile: #N/A /cy

Production: cy/day = 0

Location 3. 0 **Haul and Stockpile Cost** **#DIV/0! /cy**

HAUL and STOCKPILE COST

Location 4. Soapstone

ONE WAY HAUL IN MILES						
50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH
						0.10

Truck type:	OHT	No. trucks:	2	Ave haul:	$1.61	/cy
Delay min.:	15	Efficiency:	75%	Load:	$0.00	/cy
Truck type:	D12	No. trucks:		Stockpile:	$0.83	/cy
Delay min.:	12	Efficiency:	75%			
Truck type:	D10	No. trucks:		Production: cy/day =	1,265	
Delay min.:	10	Efficiency:	75%			

Location 4. Soapstone **Haul & Stockpile Cost** **$2.44 /cy**

Location 5. 0

ONE WAY HAUL IN MILES						
50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH

Truck type:	D20	No. trucks:		Ave haul:	#DIV/0!	/cy
Delay min.:	15	Efficiency:	75%	Load:	$0.00	/cy
Truck type:	D12	No. trucks:		Stockpile:	#N/A	/cy
Delay min.:	12	Efficiency:	75%			
Truck type:	D10	No. trucks:		Production: cy/day =	0	
Delay min.:	10	Efficiency:	75%			

Location 5. **0** **Haul & Stockpile Cost** **#DIV/0! /cy**

Location 6. 0

ONE WAY HAUL IN MILES						
50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH
			1.00	1.00		

Truck type:	D20	No. trucks:		Ave haul:	#DIV/0!	/cy
Delay min.:	15	Efficiency:	75%	Load:	$0.00	/cy
Truck type:	D12	No. trucks:		Stockpile:	#N/A	/cy
Delay min.:	12	Efficiency:	75%			
Truck type:	D10	No. trucks:		Production: cy/day =	0	
Delay min.:	10	Efficiency:	75%			

Location 6. **0** **Haul & Stockpile Cost** **#DIV/0! /cy**

Cole Turkey

Project No. 4 Road Vacating

Location/Description	C330 Excavator	C330 Excavator	C330 Excavator	Truck	Labor	Seeding	Straw Mulch	Total
V1 Fill Removal Sidecast Pullback Waterbar	10 hrs	1 sta.						
Total	10 hrs	1 sta.	0	0 hr	0.1 ac	20 lb	20 Bales	
Rate	$155 /hr	$362 /hr	ea	/hr	$628 /ac	$1.60 /lb	$10.37 /Bale	
Cost	$1,550	$362	$0	$0	$63	$32	$207.40	**$2,214**

Prepared by: Kraig Kirkpatrick Date: 10/17/2012

Road Maintenance after completion of Projects

Sale: Cole Turkey
Date: 17-Oct-12
By: Kraig Kirkpatrick

Type	Equipment/Rationale			Hours	Rate	Cost	
	Grader 14G			60	$100	$6,000	
Final Haul	Dump Truck 12CY x 2			12	$79	$948	
Road	FE Loader C966			6	$83	$498	
Maintenance	Vibratory Roller			60	$77	$4,620	
Haul Route	Water Truck 2,500 gallon			30	$89	$2,670	
Total							$14,736

Production Rates

Miles/day	Distance(miles)	Days
Grader	1.5	9.5	6.3
Vibratory Roller	1.5	9.5	6.3

*Project work road maintenance
Cole Mnt Quarry to Pt. I2
Cole Mnt Quarry to Pt. I15
Hamlet Stockpile Rd
Hill Rd (1.5 mile to Pt. A)
Fall Crk Quarry to Pt.B
Northfork Rd to Sweethome Stockpile

Cole Turkey
FY 2013
TIMBER CRUISE REPORT

1. **Sale Area Location:** Areas 1, 2, and 3 are located in portions of Sections 7, 18, T4N, R8W, and portions of Sections 13, and 14, T4N, R9W, W.M., Clatsop County, Oregon.

   All timber sale areas are posted with ODF "Timber Sale Boundary" signs and pink ribbon. Area 4 R/W is posted with ODF "Right-of-Way Boundary" signs.

2. **Fund Distribution:** **Fund:** BOF 97% CSL 3%
   Tax Code: 10-02 98% 10-04 2%

3. **Sale Acreage by Area:**

Area	Harvest Type	Gross Acres	Stream Buffer Acres	New R/W Acres	Existing R/W Acres	GTR Area	Net Acreage
1	MC	36	1	1		1	33
2	MC	66	13		1		52
3	MC	54	4		1		49
4	RW	1					1
TOTALS		**156**	**18**	**1**	**2**	**1**	**135**

4. **Cruisers and Cruise Dates:** Area 1 was cruised by John Tillotson, and Will Lawrence. Area 2 was cruised by Bryce Rodgers, and Will Lawrence. Area 3 was cruised by Jon Long, and Will Lawrence. The cruise was performed in mid October, 2012

5. **Cruise Method and Computation:** Areas 1, 2, and 3, are modified clearcut units and were variable plot cruised using a 33.61 BAF for hardwoods and a 40 BAF for conifers. These plots were located on a 4 chain by 7 chain grid, with a count/cruise plot ratio of 2 count to 1 grade. A total of 48 plots were sampled, with 21 measured and grade plots and 27 count plots. Cedar was a reserved species in Areas 1, 2, and 3.

   Area 4 R/W. was calculated applying road R/W acreage using cruise per acre volumes from Area 1 cruise plots and expanding them as clearcuts for the R/W. There is approximately 1 acre of R/W located in Area 1 of the timber sale.

   Cruisers used Corvallis Micro Technology (CMT) data collectors, and were downloaded to the Atterbury Super A.C.E. program at the Astoria District for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Astoria District office.

AREAS	PROJECT	TRACT	CRUISE TYPE
1, 2, & 3	COLTUR	123	OOCC, TAKE, STAY
4 R\W	COLTUR	A1	R/W

6. **Timber Description:** Area 1, 2, and 3 are modified clearcut units, approximately 60 to 70 year-old timber, consisting of a Douglas-fir dominant stand, with some western hemlock, red alder, and cedar. The average Douglas-fir tree size to be harvested is approximately 21 inches DBH, with an average height of 70 feet to a merchantable top (6 inch d.i.b./40% fp.). The average hemlock tree size is approximately 19 inches DBH and 71 feet to a merchantable top (6 inch d.i.b./40%fp). The average alder tree size is approximately 14 inches DBH and 41 feet to a merchantable top (6 inch d.i.b.). The average volume per acre to be harvested (net) is 40 MBF.

Area 4 R/W – The R/W is the same type timber as Area 1. The volume to remove from Area 4 R/W is approximately 39 MBF per acre, with an average trees size of approximately 15 inches DBH and a merchantable tree height of approximately 53 feet (6" D.I.B. or 40% of the diameter at 16 feet).

7. **Statistical Analysis: (See also "Statistics Reports," attached.)**

Area	Target CV	Target SE%	Actual CV	Actual SE%
1, 2, 3	50	9	45.6	6.6

The statistics are for all areas and Take and Leave trees combined.

8. **Take Volumes by Species and Log Grades for All Sale Areas by MBF:** (See "Species, Sort Grade-Board Feet Volumes (Project)" and the "Stand Table Summary" attached). Volumes do not include "in-growth." The majority of defect and breakage was taken out during the cruise.

Species	DBH	Net Vol.	2 Saw	3Saw	4 Saw	Camp Run	% D & B	% Sale
Douglas-fir	21	3,848	3,123	559	166		5.0	70
Western Hemlock	19	767	515	229	23		8.0	14
Sitka Spruce	20	559	347	189	23		6.0	11
Red Alder & other Hardwoods	14	299				299	4.0	5
TOTAL	**19**	**5,473**	**3,985**	**977**	**212**	**299**	**6.0**	**100**

9. **Quarry Volume:** There will be some miscellaneous volume generated during Project No. 3: Soapstone Quarry Development. This volume is to be removed if there is a full load of logs.

10. **Prepared by:** Edward M. Holloran **Date:** October 18, 2012

10. **Approved by:** [signature] **Date:** 11/30/12

11. **Attachments:**
Cruise Plans & Maps (3 pages)
Species, Sort, Grade Reports (3 pages)
Statistics Reports (3 pages)
Log Stock Table Report (5 pages)

X:\Sunset Unit\2013 FY Sales\Cole Turkey/Sale Prep\Cruise\Cruise Report Cole Turkey.docx

Revised August, 2002

CRUISE DESIGN
ASTORIA DISTRICT

Sale Name: Cole Turkey **Area(s)** 1, 2, and 3

Harvest Type: **CC** PC CT "Automark Thinning" (circle one)

Approx. Cruise Acres: _156_____ **Estimated CV%** (Net BF or) _50__BA/Acre **SE% Objective** (Net BF or) _9___ BA/Acre

Planned Sale Volume: 6,000 MMBF **Estimated Sale Area Value/Acre:** $11,000

A. Cruise Goals: (a) Grade minimum __100____ conifer and __50___ hardwood trees: (b) Sample ____ cruise plots; (c) Other goals (____ Determine "automark" thinning standards; __X__ Determine log grades for sale value; __X__ Determine snag and leave tree species and sizes; ____ Determine LWD (down wood) cubic feet and decay classes; ____ Determine "diameter limit" harvest parameters;)
Basal Area leave target _____ sq. ft. Cruiser needs to select __ or __ leave trees per plot.

B. Cruise Design:

1. **Plot Cruises:** BAF 40 (Full point) for Conifers
   BAF 33.61 (Full point) for Hardwoods
   Fixed Plot Size ____ Plot Radius _____ feet
   Cruise Line Direction(s) AREA 1 (E⇔W), AREA 2 (NE⇔SW), AREA 3 (N⇔S)
   Cruise Line Spacing ____7____ (chains) (feet)
   Cruise Plot Spacing ____4____ (chains) (feet)
   Grade/Count Ratio ___1:3_____
2. **ITS (Sample Tree) Cruises:** Measure-grade ratios: D-fir _____ Hemlock _____
   Spruce _____ True Fir _____Cedar _____ Hardwood ____

C. Tree Measurements:

1. **Diameter:** Minimum DBH to cruise is __8__" for conifers and __8__" for hardwoods. Record dbh to nearest ½" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

2. **Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.

3. **Top Cruise Diameter (TCD):** Minimum top outside bark for conifer is __7__", __7__" for hardwoods or __40__% of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.

4. **Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major

conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.

5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

6. **Species, Sort, and Grade Codes:** A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)
   B. Sort: Use code "1" (Domestic).
   C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camp Run; 0 = Cull ; 9 = Utility
   Hardwoods: #2 Sawmill = 12" + scaling diameter; #3 Sawmill = 10 and 11"; #4 Sawmill = 8 and 9"

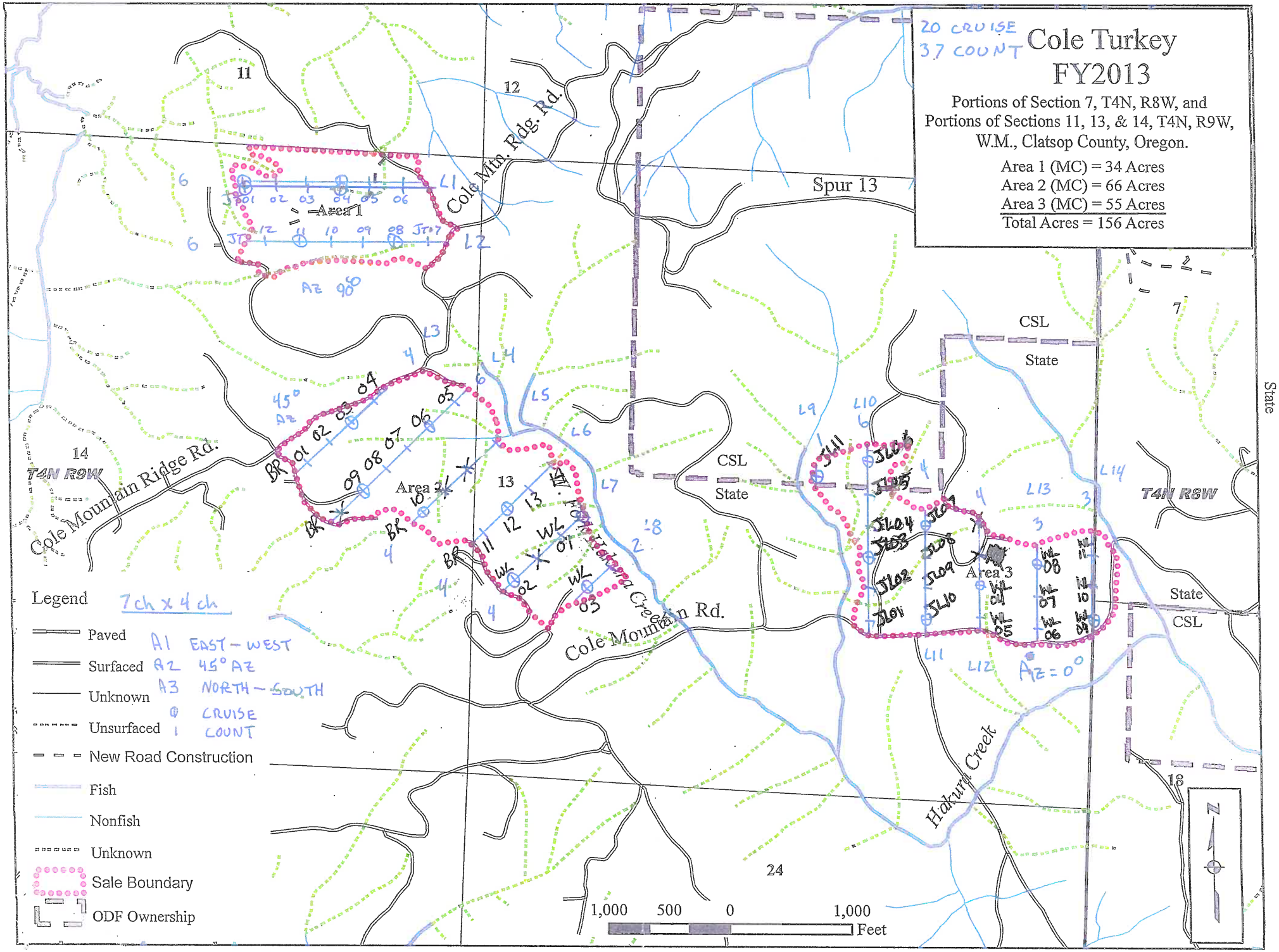
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.

8. **Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at intervisible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.
   ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.

9. **Cruising Equipment:** Relaskop Rangefinder Logger's Tape (with dbh on back) Biltmore Stick, Compass, Cruise Cards in Tatum OR Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.

10. **Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: John Tillotson
Approved by: [signature] Tillotson
Date: 10/5/12


20 CRUISE
37 COUNT
Cole Turkey
FY2013
Portions of Section 7, T4N, R8W, and
Portions of Sections 11, 13, & 14, T4N, R9W,
W.M., Clatsop County, Oregon.
Area 1 (MC) = 34 Acres
Area 2 (MC) = 66 Acres
Area 3 (MC) = 55 Acres
Total Acres = 156 Acres
Cole Mtn. Ridge Rd.
Spur 13
Area 1
Area 2
Area 3
Cole Mountain Ridge Rd.
Cole Mountain Rd.
Hamm Creek
Hakurd Creek
CSL
State
T4N R8W
T4N R9W
11
12
13
14
24
7
18
Legend
7ch x 4ch
Paved
Surfaced
Unknown
Unsurfaced
New Road Construction
Fish
Nonfish
Unknown
Sale Boundary
ODF Ownership
A1 EAST-WEST
A2 45° AZ
A3 NORTH-SOUTH
@ CRUISE
1 COUNT
AZ = 0°
AZ 90°
45° AZ
1,000 500 0 1,000
Feet
N
DROPPED PLOT DUE TO BUFFER OR ROAD = X

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T04N R09W S14 TyRW	1.00
T04N R09W S14 Ty00CC	134.00

Project: COLTUR
Acres 135.00

Page 1
Date 10/16/2012
Time 3:15:48PM

Spp	S T	So Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Bd Ft	CF/ Lf	Logs Per /Acre
H		DOCU		100.0	18											2		0.00	.9
H		DO2S	67	1.3	3,866	3,815	515			80	20	6		20	74	34	276	1.88	13.8
H		DO3S	30		1,696	1,696	229		100					32	68	36	97	0.80	17.4
H		DO4S	3		168	168	23		100			69	31			20	22	0.47	7.6
H	**Totals**		14	1.2	5,748	5,679	767		33	54	13	6	1	23	70	32	143	1.17	39.7
A		DOCU		100.0	67											19		0.00	4.8
A		DOCR	100	.4	2,228	2,218	299	3	76	21		14	7	34	45	30	74	0.78	29.9
A	**Totals**		5	3.4	2,295	2,218	299	3	76	21		14	7	34	45	28	64	0.70	34.7
D		DOCU		100.0	526											6		0.00	7.5
D		DO2S	81	1.7	23,535	23,137	3,123			38	62	1	4	10	85	37	401	2.42	57.7
D		DO3S	14	1.1	4,183	4,138	559		91	5	4	7	16	43	34	33	97	0.87	42.8
D		DO4S	5		1,233	1,233	166		100			64	22	15		20	30	0.48	41.6
D	**Totals**		70	3.3	29,477	28,507	3,848		17	32	51	5	7	15	74	30	191	1.54	149.6
S		DOCU		100.0	192											15		0.00	2.3
S		DO2S	61	1.0	2,591	2,566	347			46	54		5	20	75	37	375	2.38	6.8
S		DO3S	34	1.3	1,421	1,402	189		63	37				15	85	38	110	0.97	12.8
S		DO4S	5	6.9	186	173	23		100			38	31	30		24	38	0.61	4.6
S	**Totals**		10	5.7	4,390	4,141	559		26	41	33	2	5	19	75	33	156	1.29	26.5
Totals				3.3	41,910	40,545	5,473	0	24	35	41	5	6	17	72	30	162	1.34	250.5

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: COLTUR

Page 1
Date 10/16/2012
Time 3:15:48PM

T04N R09W S14 TRW

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
04N	09W	14	A1	RW	1.00	12	31	1	W

T04N R09W S14 TRW

Spp	ST	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Bd Ft	CF/ Lf	Logs Per /Acre
H		DO	2S	65	1.5	14,345	14,131	14			77	23			16	84	37	314	1.94	45.0
H		DO	3S	31		6,821	6,821	7		100					29	71	37	101	0.82	67.4
H		DO	4S	4		704	704	1		100			69	31			20	22	0.47	31.6
H	**Totals**			55	1.0	21,870	21,655	22		35	51	15	2	1	20	77	33	150	1.17	144.0
D		DO	2S	21		1,871	1,871	2			100				100		32	231	1.67	8.1
D		DO	3S	48		4,110	4,110	4		100				4	38	58	37	88	0.74	46.9
D		DO	4S	31		2,574	2,574	3		100			48	21	31		21	28	0.38	91.2
D	**Totals**			22		8,555	8,555	9		78	22		14	8	50	28	27	58	0.62	146.2
S		DO	CU		100.0	567											7		0.00	5.0
S		DO	2S	53		4,636	4,636	5			51	49			24	76	38	412	2.18	11.3
S		DO	3S	41		3,548	3,548	4		47	53				5	95	39	138	1.02	25.6
S		DO	4S	6	9.0	510	465	0		100				51	49		31	44	0.51	10.5
S	**Totals**			22	6.6	9,261	8,648	9		24	49	26		3	17	80	34	165	1.18	52.4
A		DO	CR	100		372	372	0		100				100			29	40	0.45	9.3
A	**Totals**			1		372	372	0		100				100			29	40	0.45	9.3
Type Totals					2.1	40,057	39,230	39		43	43	14	4	4	26	66	31	111	0.95	351.9

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: COLTUR

Page 1
Date 10/16/2012
Time 3:15:48PM

T04N R09W S14 T00CC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
04N	09W	14	TAKE	00CC	134.00	48	132	1	W

T04N R09W S14 T00CC

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Bd Ft	CF/ Lf	Logs Per /Acre
D		DO	CU		100.0	530											6		0.00	7.6
D		DO	2S	81	1.7	23,697	23,295	3,122			38	62	1	4	9	86	37	401	2.42	58.1
D		DO	3S	14	1.1	4,184	4,138	555		91	5	4	7	17	43	33	33	97	0.87	42.8
D		DO	4S	5		1,223	1,223	164		100			64	22	14		20	30	0.48	41.2
D	**Totals**			71	3.3	29,633	28,656	3,840		17	32	51	5	7	14	74	30	192	1.54	149.6
H		DO	CU		100.0	18											2		0.00	.9
H		DO	2S	67	1.3	3,788	3,738	501			80	20	6		20	74	34	275	1.88	13.6
H		DO	3S	30		1,658	1,658	222		100					32	68	36	97	0.80	17.0
H		DO	4S	3		164	164	22		100			69	31			20	22	0.47	7.4
H	**Totals**			14	1.2	5,628	5,560	745		33	54	13	6	1	23	70	32	143	1.17	38.9
S		DO	CU		100.0	189											15		0.00	2.3
S		DO	2S	62	1.0	2,576	2,550	342			46	54		5	20	75	37	375	2.39	6.8
S		DO	3S	33	1.4	1,405	1,386	186		64	36				16	84	38	109	0.97	12.7
S		DO	4S	5	6.9	183	171	23		100			39	31	30		24	38	0.61	4.5
S	**Totals**			10	5.7	4,354	4,107	550		26	41	34	2	5	19	75	33	156	1.29	26.3
A		DO	CU		100.0	68											19		0.00	4.9
A		DO	CR	100	.4	2,241	2,232	299	3	76	21		14	7	34	45	30	74	0.78	30.0
A	**Totals**			6	3.4	2,309	2,232	299	3	76	21		14	7	34	45	28	64	0.70	34.9
Type Totals					3.3	41,923	40,555	5,434	0	24	35	41	5	6	17	72	30	162	1.34	249.7

TC TSTATS

STATISTICS

PROJECT COLTUR

DATE 10/16/2012

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	09W	14	123	00CC	135.00	48	331	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	48	331	6.9		
CRUISE	21	141	6.7	17,265	.8
DBH COUNT					
REFOREST					
COUNT	27	179	6.6		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	84	66.7	21.0	70		160.8	29,633	28,656	6,958	6,865
WHEMLOCK	15	17.9	18.9	71		35.0	5,628	5,560	1,449	1,445
S SPRUCE	18	13.6	19.9	67		29.2	4,354	4,107	1,165	1,123
R ALDER	15	25.1	13.8	41		26.0	2,309	2,232	721	695
SNAG	4	3.4	24.2	58		10.8	441		97	
SPRUCELV	2	.4	43.7	85		4.2	945	945	206	206
DOUGLEAV	2	.4	42.4	115		4.2	1,207	1,148	223	215
HEMLEAV	1	.4	20.0	82		.8	126	103	38	38
TOTAL	*141*	*127.9*	*19.7*	*64*		*271.0*	*44,643*	*42,752*	*10,856*	*10,587*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - BF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	77.5	8.4	692	756	820			
WHEMLOCK	77.4	20.7	324	409	493			
S SPRUCE	79.4	19.3	342	424	505			
R ALDER	74.5	19.9	102	127	153			
SNAG								
SPRUCELV	97.7	91.5	297	3,495	6,693			
DOUGLEAV	53.5	50.1	1,525	3,055	4,585			
HEMLEAV								
TOTAL	*117.1*	*9.9*	*592*	*656*	*721*	*547*	*137*	*61*

CL: 68.1 % SD: 1.0	COEFF VAR.%	S.E.%	TREES/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	102.8	14.8	57	67	77			
WHEMLOCK	202.5	29.2	13	18	23			
S SPRUCE	178.8	25.8	10	14	17			
R ALDER	144.5	20.8	20	25	30			
SNAG	221.6	32.0	2	3	4			
SPRUCELV	310.7	44.8	0	0	1			
DOUGLEAV	302.7	43.6	0	0	1			
HEMLEAV	692.8	99.9	0	0	1			
TOTAL	*55.5*	*8.0*	*118*	*128*	*138*	*123*	*31*	*14*

CL: 68.1 % SD: 1.0	COEFF VAR.%	S.E.%	BASAL AREA/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	79.9	11.5	142	161	179			
WHEMLOCK	196.7	28.4	25	35	45			
S SPRUCE	171.5	24.7	22	29	36			
R ALDER	139.1	20.1	21	26	31			
SNAG	211.9	30.6	8	11	14			
SPRUCELV	296.4	42.7	2	4	6			
DOUGLEAV	296.4	42.7	2	4	6			
HEMLEAV	692.8	99.9	0	1	2			

STATISTICS

PROJECT COLTUR

DATE 10/16/2012

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	09W	14	123	00CC	135.00	48	331	1	W

CL: 68.1%	COEFF		BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL	*39.8*	*5.7*	*255*	*271*	*287*	*63*	*16*	*7*

CL: 68.1 %	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	78.4	11.3	25,416	28,656	31,897			
WHEMLOCK	200.1	28.9	3,956	5,560	7,164			
S SPRUCE	205.2	29.6	2,892	4,107	5,322			
R ALDER	148.7	21.4	1,753	2,232	2,710			
SNAG								
SPRUCELV	303.3	43.7	532	945	1,359			
DOUGLEAV	296.8	42.8	657	1,148	1,640			
HEMLEAV	692.8	99.9	0	103	206			
TOTAL	*45.6*	*6.6*	*39,939*	*42,752*	*45,565*	*83*	*21*	*9*

TC PSTATS

PROJECT STATISTICS

PROJECT COLTUR

DATE 10/16/2012

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	09	14	A1	RW	135.00	60	390	1	W
04N	09W	14	TAKE	00CC					

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	60	390	6.5		
CRUISE	23	163	7.1	16,735	1.0
DBH COUNT					
REFOREST					
COUNT	37	227	6.1		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	95	67.0	20.9	70		160.4	29,477	28,507	6,925	6,832
WHEMLOCK	28	18.3	18.9	71		35.7	5,748	5,679	1,479	1,476
S SPRUCE	24	13.6	19.9	67		29.3	4,390	4,141	1,172	1,131
R ALDER	16	25.0	13.8	41		25.9	2,295	2,218	716	691
TOTAL	*163*	*124.0*	*19.3*	*64*		*251.2*	*41,910*	*40,545*	*10,293*	*10,130*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - BF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	86.3	8.8	622	682	742			
WHEMLOCK	75.6	14.5	360	421	482			
S SPRUCE	75.1	15.6	375	445	515			
R ALDER	77.3	19.9	98	122	146			
TOTAL	*94.5*	*7.4*	*507*	*547*	*588*	*356*	*89*	*40*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	TREES/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	122.7	15.8	56	67	78			
WHEMLOCK	224.0	28.9	13	18	24			
S SPRUCE	202.8	26.2	10	14	17			
R ALDER	168.3	21.7	20	25	30			
TOTAL	*80.1*	*10.3*	*111*	*124*	*137*	*256*	*64*	*28*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	BASAL AREA/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	101.5	13.1	139	160	181			
WHEMLOCK	218.0	28.1	26	36	46			
S SPRUCE	195.2	25.2	22	29	37			
R ALDER	162.8	21.0	20	26	31			
TOTAL	*69.2*	*8.9*	*229*	*251*	*274*	*191*	*48*	*21*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	NET BF/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	100.5	13.0	24,811	28,507	32,204			
WHEMLOCK	221.2	28.5	4,059	5,679	7,300			
S SPRUCE	230.2	29.7	2,911	4,141	5,370			
R ALDER	173.1	22.3	1,723	2,218	2,713			
TOTAL	*72.9*	*9.4*	*36,734*	*40,545*	*44,356*	*212*	*53*	*24*

TC PLOGSTVB

Log Stock Table - MBF

T04N R09W S14 TyRW 1.00
T04N R09W S14 Ty00CC 134.00

Project: COLTUR
Acres 135.00

Date 10/16/2012
Time 3:15:47PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
H		DO	CU	2	2	100.0														
H		DO	2S	16	9		9	1.2						9						
H		DO	2S	18	21		21	2.8								21				
H		DO	2S	32	102		102	13.3						102						
H		DO	2S	40	389	1.8	382	49.8							204	75	103			
H		DO	3S	32	57		57	7.4			20		37							
H		DO	3S	34	8		8	1.1			8									
H		DO	3S	35	8		8	1.0				8								
H		DO	3S	36	21		21	2.8			21									
H		DO	3S	40	135		135	17.6			18	36	81							
H		DO	4S	12	2		2	.3			2									
H		DO	4S	18	6		6	.8			6									
H		DO	4S	20	7		7	1.0			7									
H		DO	4S	28	7		7	.9			7									
H		Totals			776	1.2	767	14.0			90	44	118	112	204	96	103			
A		DO	CU	4	4	100.0														
A		DO	CU	23	5	100.0														
A		DO	CR	12	14		14	4.8							14					
A		DO	CR	20	27		27	9.1			24	3								
A		DO	CR	28	6	20.0	5	1.7			5									
A		DO	CR	29	17		17	5.7			17									
A		DO	CR	32	73		73	24.4		9		19	45							
A		DO	CR	34	29		29	9.8			29									
A		DO	CR	40	133		133	44.6			10	26	50	23	25					
A		Totals			310	3.4	299	5.5		9	85	49	95	23	40					
D		DO	CU	2	3	100.0														
D		DO	CU	3	1	100.0														
D		DO	CU	6	45	100.0														
D		DO	CU	8	11	100.0														
D		DO	CU	10	11	100.0														
D		DO	2S	16	17	6.3	16	.4								16				
D		DO	2S	18	16	2.1	15	.4						9		7				
D		DO	2S	24	32	8.0	29	.8										29		
D		DO	2S	26	28		28	.7							6	23				
D		DO	2S	28	27	10.7	24	.6								24				

TC PLOGSTVB

Log Stock Table - MBF

T04N R09W S14 TyRW 1.00
T04N R09W S14 Ty00CC 134.00

Project: COLTUR
Acres 135.00

Page 2
Date 10/16/2012
Time 3:15:47PM

Spp	S T	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
D		DO	2S	30	44		44	1.1							16		28			
D		DO	2S	32	298	2.3	292	7.6						158	31	74	28			
D		DO	2S	34	5		5	.1						5						
D		DO	2S	36	66		66	1.7							28		38			
D		DO	2S	40	2,644	1.5	2,604	67.7						273	427	989	618	253	45	
D		DO	3S	16	3		3	.1			3									
D		DO	3S	18	3		3	.1					3							
D		DO	3S	20	36	1.2	36	.9					11			10	15			
D		DO	3S	21	3		3	.1					3							
D		DO	3S	24	19		19	.5				6	12							
D		DO	3S	26	19		19	.5				15	4							
D		DO	3S	27	4		4	.1					4							
D		DO	3S	28	25		25	.7				16	9							
D		DO	3S	30	22	3.7	22	.6			5		5	11						
D		DO	3S	32	221	1.8	217	5.6				20	181			16				
D		DO	3S	34	21		21	.5			9		12							
D		DO	3S	40	188		187	4.9			87	45	55							
D		DO	4S	12	4		4	.1			4									
D		DO	4S	14	14		14	.4			14									
D		DO	4S	16	42		42	1.1			23	19								
D		DO	4S	18	13		13	.3			10	3								
D		DO	4S	20	34		34	.9			17	17								
D		DO	4S	22	6		6	.1				6								
D		DO	4S	24	3		3	.1				3								
D		DO	4S	25	3		3	.1			3									
D		DO	4S	28	8		8	.2			8									
D		DO	4S	30	16		16	.4			16									
D		DO	4S	32	24		24	.6			24									
D		Totals			3,979	3.3	3,848	70.3			225	148	300	457	507	1157	727	282	45	
S		DO	CU	6	6	100.0														
S		DO	CU	8	15	100.0														
S		DO	CU	27	5	100.0														
S		DO	2S	26	20	6.2	18	3.3						18						
S		DO	2S	32	70	1.1	69	12.3						9		34	25			
S		DO	2S	40	260		259	46.3						16	90	89	64			
S		DO	3S	32	26	7.8	24	4.3			19		5							

TC PLOGSTVB

Log Stock Table - MBF

T04N R09W S14 TyRW 1.00
T04N R09W S14 Ty00CC 134.00

Project: COLTUR
Acres 135.00

Date 10/16/2012
Time 3:15:47PM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
S		DO	3S	34	5		5	.9				5								
S		DO	3S	36	5		5	.9				5								
S		DO	3S	40	156		155	27.8			32		54	69						
S		DO	4S	14	2		2	.3			2									
S		DO	4S	16	5	5.9	5	.9				5								
S		DO	4S	18	2		2	.4				2								
S		DO	4S	30	7		7	1.3			7									
S		DO	4S	32	9	16.7	7	1.3			7									
S		Totals			593	5.7	559	10.2			68	17	59	113	90	123	89			
Total		All Species			5,658	3.3	5,474	100.0		9	467	258	571	704	841	1377	919	282	45	

TC PSTNDSUM

Stand Table Summary

Page 1
Date: 10/16/2012

T04N R09W S14 TyRW 1.00
T04N R09W S14 Ty00CC 134.00

Project COLTUR
Acres 135.00

Time: 3:15:49PM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
D		9	4	90	30	8.898	3.93	8.90	6.0	20.0		53	178		72	24
D		10	2	85	64	3.604	1.97	3.60	12.0	50.0		43	180		58	24
D		11	2	90	48	2.978	1.97	2.98	13.0	40.0		39	119		52	16
D		12	2	89	61	2.503	1.97	2.50	19.0	60.0		48	150		64	20
D		14	4	88	80	3.677	3.93	7.35	17.0	55.0		125	405		169	55
D		15	2	87	66	3.097	3.80	4.65	22.0	66.7		102	310		138	42
D		16	1	86	96	1.361	1.90	2.72	25.5	95.0		69	259		94	35
D		17	4	88	65	2.494	3.93	3.74	27.3	100.0		102	374		138	51
D		18	1	85	77	1.075	1.90	2.15	27.0	85.0		58	183		78	25
D		19	4	86	97	2.929	5.77	5.86	37.3	126.5		218	741		295	100
D		20	2	85	103	1.742	3.80	4.36	34.2	114.0		149	497		201	67
D		21	8	86	102	5.558	13.37	12.70	40.5	145.7		514	1,850		693	250
D		22	4	87	115	2.880	7.60	8.64	37.6	153.3		325	1,325		438	179
D		23	4	85	114	2.635	7.60	7.90	42.5	170.0		336	1,344		454	181
D		24	4	87	120	2.420	7.60	7.26	47.6	197.5		345	1,434		466	194
D		25	4	83	110	2.230	7.60	6.13	47.2	187.3		289	1,148		391	155
D		26	9	86	129	4.639	17.10	13.92	59.9	251.5		833	3,500		1,125	472
D		27	5	86	125	2.390	9.50	7.17	62.9	262.0		451	1,878		608	254
D		28	4	86	136	1.778	7.60	5.33	70.9	308.3		378	1,644		511	222
D		29	4	86	135	1.657	7.60	4.97	77.5	345.8		385	1,719		520	232
D		30	3	87	141	1.162	5.70	3.48	86.9	407.8		303	1,421		409	192
D		31	3	85	136	1.088	5.70	3.26	86.6	401.1		282	1,309		381	177
D		32	4	82	133	1.361	7.60	4.08	89.1	385.0		364	1,572		491	212
D		33	2	85	127	.640	3.80	1.92	88.7	421.7		170	810		230	109
D		35	1	82	137	.284	1.90	.85	108.7	500.0		93	427		125	58
D		36	5	84	164	1.344	9.50	4.03	120.8	600.7		487	2,422		658	327
D		38	1	82	89	.241	1.90	.48	133.5	570.0		64	275		87	37
D		43	1	82	150	.188	1.90	.57	177.7	856.7		100	484		136	65
D		44	1	92	140	.180	1.90	.54	193.7	1016.7		105	549		141	74
D		Totals	95	87	91	67.035	160.36	142.06	48.1	200.7		6,832	28,507		9,223	3,848
H		14	2	88	82	2.236	2.39	4.47	19.0	70.0		85	313		115	42
H		15	2	92	81	1.948	2.39	3.90	22.5	85.0		88	331		118	45
H		16	6	91	88	5.135	7.17	10.27	28.0	106.7		288	1,096		388	148
H		18	1	85	82	1.311	2.32	2.62	31.0	105.0		81	275		110	37
H		19	4	93	95	2.428	4.78	4.86	44.0	172.5		214	838		288	113
H		22	3	83	80	1.783	4.71	3.57	42.9	147.8		153	527		207	71
H		23	6	83	107	2.485	7.17	6.63	49.4	181.2		327	1,201		442	162
H		28	2	88	145	.559	2.39	1.68	87.0	420.0		146	704		197	95
H		33	2	86	91	.402	2.39	.80	117.5	490.0		95	394		128	53
H		Totals	28	88	91	18.287	35.70	38.79	38.0	146.4		1,476	5,679		1,992	767
S		14	1	82	45	1.505	1.61	1.50	23.0	50.0		35	75		47	10
S		15	3	84	107	2.665	3.27	5.33	28.0	99.9		149	533		201	72
S		16	1	89	41	1.152	1.61	1.15	26.0	60.0		30	69		40	9
S		17	2	88	95	1.054	1.66	2.11	35.5	125.0		75	264		101	36
S		18	4	84	75	2.761	4.88	3.70	41.5	130.4		154	483		207	65
S		22	3	84	86	1.239	3.27	2.48	47.3	158.4		117	392		158	53
S		24	2	89	141	.529	1.66	1.59	59.7	280.0		95	444		128	60
S		25	1	90	69	.472	1.61	.94	59.0	220.0		56	208		75	28
S		26	4	86	128	1.323	4.88	3.97	68.6	302.7		272	1,202		368	162
S		27	1	85	53	.405	1.61	.40	95.0	190.0		38	77		52	10
S		32	1	82	79	.288	1.61	.58	98.5	385.0		57	222		77	30
S		36	1	79	74	.228	1.61	.46	117.5	380.0		53	173		72	23

TC PSTNDSUM

Stand Table Summary

Page 2
Date: 10/16/2012

T04N R09W S14 TyRW 1.00
T04N R09W S14 Ty00CC 134.00

Project COLTUR
Acres 135.00

Time: 3:15:49PM
Grown Year:

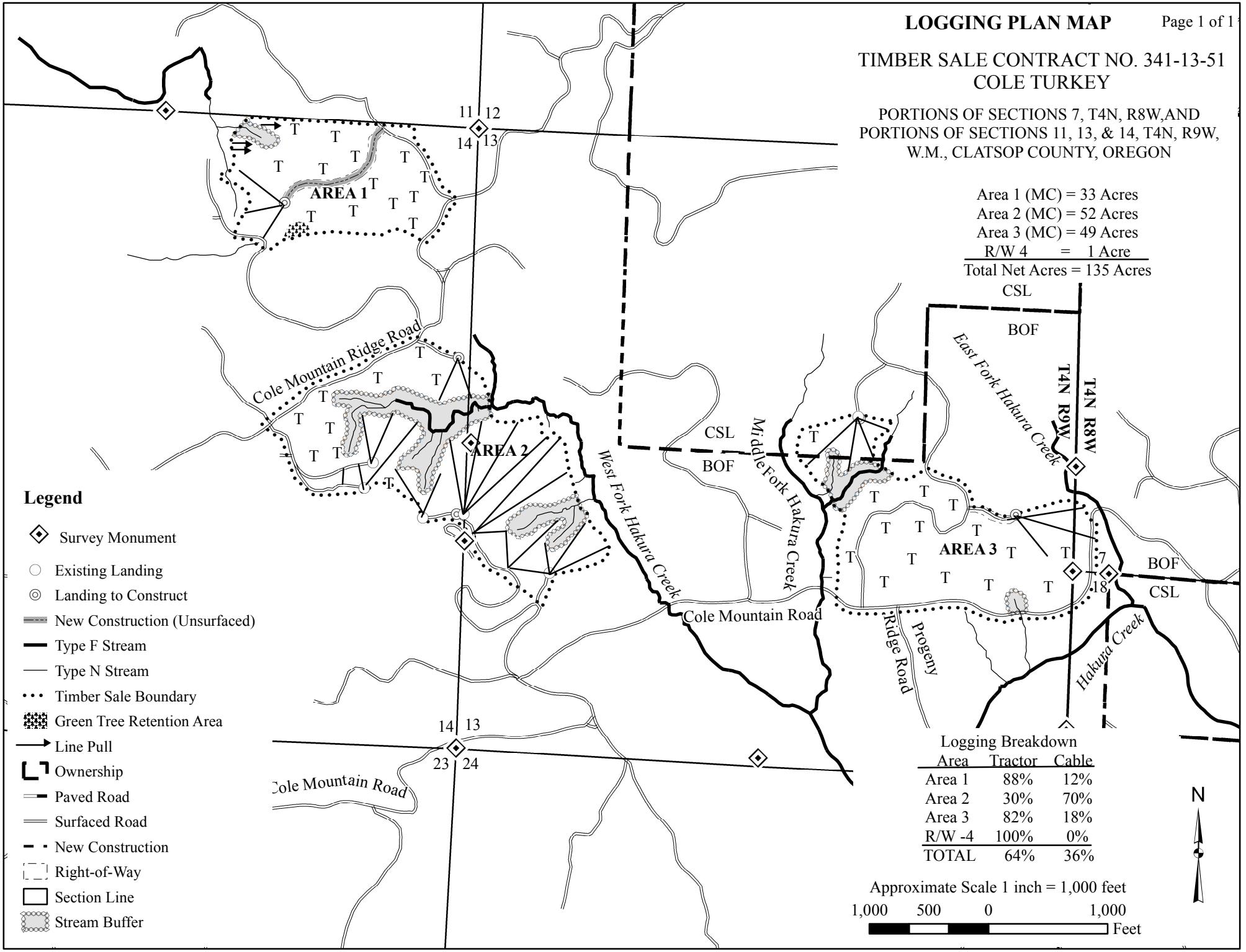
Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
S		Totals	24	85	85	13.619	29.27	24.21	46.7	171.0		1,131	4,141		1,527	559
A		9	1	86	26	3.852	1.70									
A		11	2	87	45	3.137	2.07	3.14	13.0	40.0		41	125		55	17
A		12	3	87	47	6.500	5.10	6.50	16.0	43.3		104	282		140	38
A		14	2	86	77	3.184	3.40	4.78	23.3	80.0		111	382		150	52
A		15	2	87	71	2.773	3.40	5.55	20.5	70.0		114	388		153	52
A		16	1	86	51	1.219	1.70	1.22	30.0	60.0		37	73		49	10
A		17	1	87	81	1.080	1.70	2.16	30.0	105.0		65	227		87	31
A		18	2	86	66	1.926	3.40	3.85	25.7	87.5		99	337		134	45
A		21	1	87	74	.707	1.70	1.41	42.0	135.0		59	191		80	26
A		22	1	86	77	.645	1.70	1.29	47.5	165.0		61	213		83	29
A		Totals	16	87	55	25.022	25.89	29.89	23.1	74.2		691	2,218		933	299
Totals			163	87	83	123.963	251.23	234.95	43.1	172.6		10,130	40,545		13,675	5,474

LOGGING PLAN MAP

TIMBER SALE CONTRACT NO. 341-13-51
COLE TURKEY

PORTIONS OF SECTIONS 7, T4N, R8W,AND
PORTIONS OF SECTIONS 11, 13, & 14, T4N, R9W,
W.M., CLATSOP COUNTY, OREGON

Area 1 (MC) = 33 Acres
Area 2 (MC) = 52 Acres
Area 3 (MC) = 49 Acres
R/W 4 = 1 Acre
Total Net Acres = 135 Acres



Legend

- Survey Monument
- Existing Landing
- Landing to Construct
- New Construction (Unsurfaced)
- Type F Stream
- Type N Stream
- Timber Sale Boundary
- Green Tree Retention Area
- Line Pull
- Ownership
- Paved Road
- Surfaced Road
- New Construction
- Right-of-Way
- Section Line
- Stream Buffer

Logging Breakdown

Area	Tractor	Cable
Area 1	88%	12%
Area 2	30%	70%
Area 3	82%	18%
R/W -4	100%	0%
TOTAL	64%	36%

Approximate Scale 1 inch = 1,000 feet

1,000 500 0 1,000 Feet

N