**Oregon Department of Forestry**
2600 State St Salem OR 97310
PART III: EXHIBITS

# EXHIBIT B
# TIMBER SALE OPERATIONS PLAN

(See page 2 for instructions)

Date Received by State: _____

(1) Contract Number: FG-341-2025-W01021-01

(2) Sale Name: Scatter Shield

(3) Contract Expiration Date: 10/31/2027

(4) Purchaser Name: _____

(5) State Brand Information ( Complete)

(6) State Representatives:

| Name | Circle One | Phone No. | Cell No. | Alt Phone |
|---|---|---|---|---|
| | Logging Projects All | | | |
| | Logging Projects All | | | |
| | Logging Projects All | | | |
| | Logging Projects All | | | |

(7) Purchaser Representatives:

| Name | Circle One | Phone No. | Cell No. | Alt Phone |
|---|---|---|---|---|
| | Logging Projects All | | | |
| | Logging Projects All | | | |
| | Logging Projects All | | | |
| | Logging Projects All | | | |
| | Logging Projects All | | | |
| | Logging Projects All | | | |
| | Logging Projects All | | | |

(8) Name of Subcontractors and Start Dates:

| Project No. | Subcontractor Name. | Start Date | Completion Date | Cell No. | Alt Phone |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | Subcontractor Name. | Start Date | Cell No. | Alt Phone |
|---|---|---|---|---|
| FELLING | | | | |
| YARDING | | | | |

(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.

**Oregon Department of Forestry**
2600 State St Salem OR 97310

PART III: EXHIBITS

# EXHIBIT B
# INSTRUCTION SHEET FOR OPERATIONS PLAN

**SUBMIT ONE COPY OF PLAN 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 including without limitation PURCHASER'S independent obligation to avoid take of a T&E species and PURCHASER'S obligation to comply with terms and conditions of any incidental take Permit(s) that include required minimization and mitigation measures in any applicable Habitat Conservation Plan. 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.

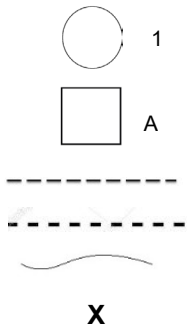
(7) The STATE representative will be designated when your plan is approved and is the person who will inspect and issue instructions regarding performance.

(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.

(9) 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 required by the timber sale contract. Provide spur road specifications
3. Locations of proposed tractor yarding roads. Show if and how marked on the ground.
4. Locations 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.

Temporary stream crossings.

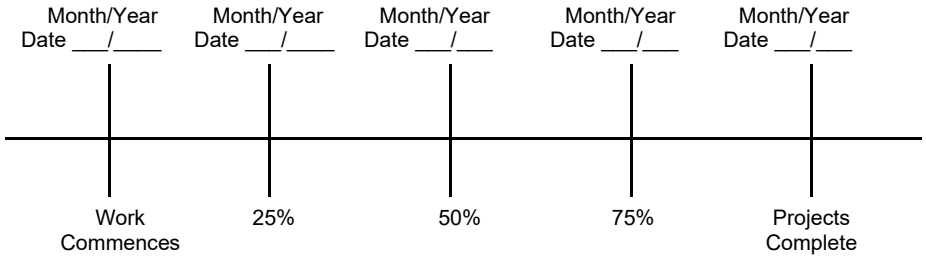
**Oregon Department of Forestry**
2600 State St Salem OR 97310
PART III: EXHIBITS

# EXHIBIT B
# OPERATIONS PLAN

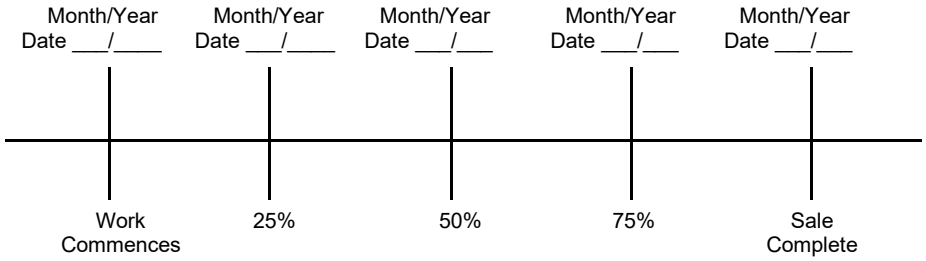
**Completion Timeline**

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.

Projects




Harvest & Other Requirements




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 or that the plan is consistent with the terms and conditions of any applicable incidental take Permit(s) including any required minimization and mitigation measures proposed in the applicable Habitat Conservation Plan. As provided in the timber sale contract, PURCHASER's must comply with all applicable state, federal, and local laws, including without limitation any Permit(s) issued thereunder.

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 _____

# Oregon Department of Forestry

**EXHIBIT C - SAWMILL GRADE (WESTSIDE SCALE)**
**SCALING INSTRUCTIONS - LOCATION APPROVAL - BRAND INFORMATION**
**Forest Grove - NWOA**

(1) ORIGINAL REGISTRATION ☐ Date _____
REVISION NUMBER 000 ☐ Date _____
CANCELLATION ☐ Date _____

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

(3) FROM: Forest Grove Phone (503) 357-2191
(State Forestry District)
Address: 801 GALES CRK RD
FOREST GROVE,OR 97116-1199

(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

(6) WESTSIDE SCALE:
Use Region 6 actual taper rule. Logs over 40'.

| | YES | NO |
|---|---|---|
| (7) Weight Scale Sample | ☐ | ☑ |

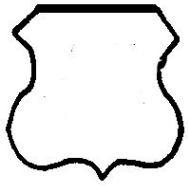
| (8) **APPROVED SCALING LOCATIONS** (as shown on the ODF Approved Locations web-site ) | **Species** | **Yard** | **Truck** | **Weight** |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

(9) **SALE NAME:** Scatter Shield
COUNTY: Tillamook

(10) **STATE CONTRACT NUMBER:**
FG-341-2025-W01021-01

(11) STATE BRAND REGISTRATION NUMBER:

(12) **STATE BRAND INFORMATION:**



(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:**

"Mule Trains"
1. Loads are required to have load tickets for each set of bunks.
2. If truck and pup are to be weighed, weigh and process separately for gross and tare weights.

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.**
**General Distribution: TPSO, Approved Scaling Locations and Purchaser.**

# Oregon Department of Forestry
## EXHIBIT C - SAWMILL GRADE
## INSTRUCTIONS FOR EXHIBIT C
## Forest Grove - NWOA

(1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires logging and hauling to be complete, recall branding hammers.

(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

Mountain Western Log Scaling & Grading Bureau
2560 NW Medical Park Drive, OR 97471
Phone: (541) 673-5571 Fax: (541) 672-6381
Email: info@mwlsgb.com

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

Northwest Log Scalers Inc.
6137 NE 63rd St, Vancouver, WA, 98661
Phone: (360) 553-7212 ext. 4 Fax:(360) 553-7213
Email: info@nwlogscalers.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 specifies 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: https://apps.odf.oregon.gov/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 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. Signatures not required on revisions.

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

| SUBGRADE WIDTH | SURFACED WIDTH | POINT TO POINT | STATION TO STATION | DRAINAGE |
|---|---|---|---|---|
| Match existing | Match existing | A to B | 0+00 to 130+00 | Ditch |
| Match existing | Match existing | C to D | 0+00 to 41+00 | Ditch |
| Match existing | Match existing | E to F | 0+00 to 88+00 | Ditch |
| Match existing | Match existing | G to H | 0+00 to 17+00 | Ditch |
| Match existing | Match existing | I to J | 0+00 to 3+50 | Ditch |
| Match existing | Match existing | K to L | 0+00 to 31+00 | Ditch |
| 14 feet | --- | M to N | 0+00 to 11+90<br>11+90 to 22+25<br>22+25 to 26+00 | Outslope<br>Ditch<br>Outslope |
| 14 feet | --- | O to P | 0+00 to 16+50 | Ditch |
| 14 feet | --- | Q to R | 0+00 to 8+00 | Ditch |
| 14 feet | --- | S to T | 0+00 to 5+00 | Ditch |
| 14 feet | --- | U to V | 0+00 to 5+50 | Ditch |
| 14 feet | --- | W to X | 0+00 to 6+00 | Ditch |
| 14 feet | --- | Y to Z | 0+00 to 5+00 | 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. All danger trees, leaners, and Snags outside the clearing limits which could fall and hit the road shall be felled.

CLEARING CLASSIFICATION.

New Construction - 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.

Improvement - Where clearing limits have not been marked, the clearing limits shall extend 5 feet back of the top of the cutslope and 10 feet out from the toe of the fill slope, or as directed by STATE.

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 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.

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

CLEARING AND GRUBBING DISPOSAL. Clearing and grubbing debris shall not be placed or permitted to remain in or under any road embankment sections. Clearing and grubbing debris shall be left in a stable location, and not left lodged against standing trees. Clearing and grubbing debris may be scattered through openings in the timber outside of the cleared right-of-way, except for the following areas where debris shall be fully contained and hauled to a designated waste area:

- Where end-haul is required
- On side slopes exceeding 55 percent
- On unstable areas
- In any stream channel (Type F, N or D) or where material may enter the stream channel.

Clearing, grubbing, and associated disposal shall be completed prior to subgrade approval.

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.

Excavated materials shall not be placed within an RCA.

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. Leaving sidecast below the road is only permissible if specifically allowed in “Full Bench and End Haul 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. Drainage features shall be in place as soon as possible during construction and prior to October 15 annually. Drainage features shall include:

SUBGRADE. Subgrade shall be crowned, outsloped, or insloped 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 25 feet, plus 25-foot approaches at each end. Location: Intervisible but not greater than 750 feet apart.

| SLOPES. Top of cutslope shall be rounded. | Cutslopes | Fill Slopes |
|---|---|---|
| Solid Rock | Vertical to ¼ :1 | |
| Fractured Rock | ¼:1 | |
| Soil - side slopes 50% and over | ½:1 | 1½:1 |
| Soil - side slopes less than 50% | ¾:1 | 1½:1 |

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

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 stated or approved by STATE. Surface is to be outsloped or crowned for drainage with general grade no more than 3 percent. Surface as shown in the “Road Surfacing” table in this Exhibit, with 2 feet of subgrade extending out from base of the surfacing.

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 blocked from vehicular traffic and waterbarred in accordance to the Waterbar and Tank Trap specifications in this contract. Areas of bare soil that have the potential to deliver sediment shall have grass seed and mulch placed in accordance to the Seeding and Mulch specification in this contract. All seasonal winterization shall be completed prior to October 15, annually and as directed by STATE.

EROSION CONTROL. Install erosion control measures in all areas which have the potential, as determined by STATE, to deliver sediment to Waters of the State. Install bio bags, silt fence, or straw bales for erosion control in project areas and ditch lines where sedimentation or erosion is possible, as directed by STATE. Each Bio-bag shall be installed with a minimum of two wooden stakes.

MATERIAL STORING AND STAGING. No materials shall be stored or staged within the boundaries of any Stream Buffer or Equipment Restriction Zone. To include dirt, soil, aggregate and fuel stored in fuel cans, transfer tanks, vehicles or equipment. Staging areas must be constructed in a manner that to be hydrologically disconnected from the stream. Materials with no potential to deliver contaminants, such as culverts, logs for stream enhancement and erosion control supplies may be stored within the boundaries.

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

GENERAL ROAD IMPROVEMENT, ROCK REPLACEMENT AND MAINTENANCE INSTRUCTIONS:

1. Excavated Materials. Excavated materials shall be utilized for road and fill construction and hauled in where required. 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.

2. Bank Slough Removal. Excavate all bank slough. Bank slough material shall not be pulled across existing surfacing rock. Excavated material shall be hauled to the designated waste areas as marked in the field and/or designated on Exhibit A.

3. Drainage Ditches. Restore or construct ditchlines, including ditchouts, as directed by STATE. Clean out all culvert inlets and outlets for a 10-foot radius. (Ditch debris including woody debris shall be loaded and hauled to designated waste areas and shall be accomplished with the use of an excavator and dump truck.) 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.

4. Settling Ponds. Construct up to 3 settling ponds for erosion control in project areas and ditchlines where sedimentation or erosion is possible as directed by STATE. Excavated material shall be hauled to the designated waste areas as marked in the field and/or designated on Exhibit A. Waste materials shall be sloped and compacted for drainage. Settling pond dimensions shall be a finished length of 3 feet, width of 3 feet, and 3 feet in depth, or as directed by STATE. Backslopes shall be ¾:1.

5. Sod Removal. Remove/ separate sod from crushed rock surfacing as directed by STATE. Sod material shall be scattered in stable locations through openings in the timber outside of the cleared right-of-way. In areas where sod cannot be scattered in a stable location, material shall be end hauled to designated waste areas as shown in Exhibit A, or other stable locations as directed by STATE.

6. Subgrade Preparation and Application of Surfacing Rock.
   (a) Complete drainage ditches, ditchouts, settling ponds, 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, outslope, or inslope 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.

5. Right-of-Way timber. Fall all timber within the Right-of-Way tags. All merchantable timber shall be hauled during the project period.

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT, ROCK REPLACEMENT AND MAINTENANCE INSTRUCTIONS:

| Segment | Station | Work Description |
|---|---|---|
| **A to B** | 0+00 | Point A. North Fork Salmonberry Road. Begin road improvement; crown road, clean or construct ditch. |
| | 3+25 | Existing culvert, clean inlet and outlet. |
| | 16+60 | Existing culvert, clean inlet and outlet, install marker. |
| | 23+80 | Existing culvert, clean inlet and outlet, install marker. |
| | 28+40 | Existing culvert, clean inlet and outlet. |
| | 32+90 | Existing culvert, install marker. |
| | 39+35 | Existing culvert, clean inlet and outlet. |
| | 39+65 | Junction on right. |
| | 54+35 | Junction on right. |
| | 61+80 | Existing culvert, clean inlet and outlet, install marker. |
| | 68+35 | Existing culvert, clean inlet and outlet. |
| | 69+60 | Junction on right. |
| | 76+60 | Existing culvert, install marker. |
| | 82+05 | Junction on left. |
| | 95+35 | Existing culvert, clean inlet and outlet. |
| | 96+85 | Construct three settling ponds in ditchline on left. End-haul all material to Waste Area No. 3. |
| | 96+95 | Live stream. Existing culvert. |
| | 97+05 | Construct three settling ponds in ditchline on left. End-haul all material to Waste Area No. 3. |
| | 100+65 | Existing culvert, clean inlet and outlet, install marker. |
| | 125+15 | Point Y. Junction with Y to Z on left. |
| **End** | 130+00 | Point B. End road improvement. Improve turnaround on right. Develop Waste Area No. 3 on right. |

| Segment | Station | Work Description |
|---|---|---|
| **C to D** | 0+00 | Point C. Section 10 Road. Begin road improvement; crown road, clean or construct ditch. |
| | 0+35 | Exiting culvert, clean inlet and outlet. |
| | 0+15 | Junction on left. |
| | 8+00 | Construct three settling ponds in ditchline on right. End-haul all material to Waste Area No. 1. |
| | 8+15 | Live stream. Existing culvert. |
| | 8+30 | Construct three settling ponds in ditchline on right. End-haul all material to Waste Area No. 1. |
| | 8+50 | Begin subgrade reinforcement. |
| **Cont.** | 9+50 | End subgrade reinforcement. |

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT, ROCK REPLACEMENT AND MAINTENANCE INSTRUCTIONS:

| | | |
|---|---|---|
| **C to D Cont.** | 21+50 | Begin subgrade reinforcement. |
| | 22+50 | End subgrade reinforcement. |
| | 24+15 | Point O. Junction with O to P on right. |
| | 25+70 | Develop Waste Area No. 1 on right. |
| | 26+70 | Junction on left. |
| **End** | 41+00 | Point D. End road improvement. Improve turnaround on right. |

| Segment | Station | Work Description |
|---|---|---|
| **E to F** | 0+00 | Point E. Rock Creek Ridge Road. Begin road improvement; crown road, clean or construct ditch. |
| | 3+35 | Existing culvert, install marker. |
| | 12+50 | Existing culvert, install marker. |
| | 16+90 | Existing culvert, install marker. |
| | 25+55 | Rock Creek Ridge Stockpile on right. |
| | 33+05 | Junction on left. Existing culvert, install marker. |
| | 37+75 | Existing culvert, install marker. |
| | 40+00 | Surge pile on left. |
| | 43+10 | Rock Creek Ridge Quarry on left. |
| | 45+50 | Junction with quarry access road on left. |
| | 46+90 | Existing culvert, install marker. |
| | 50+70 | Point G. Junction with G to H on left. |
| | 58+85 | Junction on right. |
| | 64+90 | Existing culvert, install marker. |
| | 67+45 | Improve turnaround on right. |
| | 74+75 | Existing culvert, install marker. |
| | 78+00 | Point Q. Junction with Q to R on right. |
| **End** | 88+00 | Point F. End road improvement. |

| Segment | Station | Work Description |
|---|---|---|
| **G to H** | 0+00 | Point G. Begin road improvement; crown road, clean or construct ditch. |
| | 3+65 | Point I. Junction with I to J on left. |
| | 3+75 | Existing culvert, install marker. |
| | 10+25 | Junction on right. |
| | 16+50 | Construct turnaround on left. |
| **End** | 17+00 | Point H. End road improvement. Improve landing. |

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT, ROCK REPLACEMENT AND MAINTENANCE INSTRUCTIONS:

| Segment | Station | Work Description |
|---|---|---|
| **I to J** | 0+00 | Point I. Begin road improvement; crown road, clean or construct ditch. |
| | 2+30 | Construct turnaround on right. |
| **End** | 3+50 | Point J. End road improvement. Improve landing. |

| Segment | Station | Work Description |
|---|---|---|
| **K to L** | 0+00 | Point K. Shields Road. Begin road improvement; crown road, clean or construct ditch. Construct turnaround. |
| | 1+50 | Existing culvert, install marker. |
| | 5+10 | Construct 200 foot spur with landing on left. |
| | 7+05 | Existing culvert, install marker. |
| | 11+70 | Point M. Junction with M to N on right. |
| | 12+05 | Point F. Junction with E to F on left. |
| | 12+40 | Point V1. Junction with V1 to V2 on right. |
| | 17+35 | Point S. Junction with S to T on right. |
| | 18+65 | Existing culvert, install marker. |
| | 27+70 | Construct three settling ponds in ditchline on left. End-haul all material to Waste Area No. 1. |
| | 27+80 | Live stream. Existing culvert. |
| | 27+90 | Construct three settling ponds in ditchline on left. End-haul all material to Waste Area No. 1. |
| | 29+90 | Construct three settling ponds in ditchline on left. End-haul all material to Waste Area No. 1. |
| | 30+00 | Live stream. Existing culvert. |
| | 30+10 | Construct three settling ponds in ditchline on left. End-haul all material to Waste Area No. 1. |
| **End** | 31+00 | Point L. End road improvement. Improve turnaround on right. |

| Segment | Station | Work Description |
|---|---|---|
| **M to N** | 0+00 | Point M. Begin road improvement; outslope road, construct ditchline as needed. |
| | 1+45 | Junction on right. |
| | 6+00 | Develop Waste Area No. 2 on right. |
| | 7+85 | Point U. Junction with U to V on left. |
| | 11+90 | End outslope, begin crowned road, clean or construct ditch. |
| **Cont.** | 14+25 | Point W. Junction with W to X on left. |

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT, ROCK REPLACEMENT AND MAINTENANCE INSTRUCTIONS:

| | | |
|---|---|---|
| **M to N Cont.** | 22+25 | End crowned road, begin outslope, construct ditchline as needed. Construct tank trap on right to block vehicle access to landing. |
| | 23+50 | Construct turnaround on right. Construct tank trap on right to block vehicle access to landing. |
| **End** | 26+00 | Point N. End road improvement. Improve landing. Rock showing. |

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

GENERAL ROAD CONSTRUCTION INSTRUCTIONS:

1. Excavated Materials. Excavated materials shall be utilized for road construction and hauled in where required. 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.

2. Drainage Ditches. Construct ditchlines, including ditchouts, as directed by STATE. Cutslopes of ditchlines 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.

3. Right-of-Way timber. Fall all timber within the Right-of-Way tags. All merchantable timber shall be hauled during the project period.

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD CONSTRUCTION INSTRUCTIONS:

| Segment | Station | Work Description |
|---|---|---|
| **O to P** | 0+00 | Point O. Begin road construction; crown road, construct ditch. Begin drift to maintain grade of ≤ 15%. |
| | 1+00 | Construct roadside landing on left. |
| | 1+70 | End drift. Road follows old grade. |
| | 5+50 | Road stops following old grade and continues left. |
| | 16+00 | Construct turnaround on right. |
| **End** | 16+50 | Point P. End road construction, construct landing. |

| Segment | Station | Work Description |
|---|---|---|
| **Q to R** | 0+00 | Point Q. Begin road construction; crown road, construct ditch. |
| | 2+00 | Road follows old grade. |
| | 3+20 | Begin cutslope layback and road widening, re-align road prism to the right. End haul surplus material and all woody debris, including slash and stumps to Waste Area No. 2. |
| | 4+70 | End cutslope layback. |
| | 7+50 | Construct turnaround on right. |
| **End** | 8+00 | Point R. End road construction, construct landing. |

| Segment | Station | Work Description |
|---|---|---|
| **S to T** | 0+00 | Point S. Begin road construction; crown road, construct ditch. |
| **End** | 5+00 | Point T. End road construction, construct landing. |

| Segment | Station | Work Description |
|---|---|---|
| **U to V** | 0+00 | Point U. Begin road construction; crown road, construct ditch. |
| | 4+50 | Begin drift to maintain grade of ≤ 15%. |
| | 5+15 | Construct turnaround on left. |
| **End** | 5+50 | Point V. End road construction, construct landing. End drift. |

# EXHIBIT D

## FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD CONSTRUCTION INSTRUCTIONS:

| Segment | Station | Work Description |
|---|---|---|
| **W to X** | 0+00 | Point W. Begin road construction; crown road, construct ditch. |
| | 5+50 | Construct turnaround on right. |
| **End** | 6+00 | Point X. End new construction, construct landing. |

| Segment | Station | Work Description |
|---|---|---|
| **Y to Z** | 0+00 | Point Y. Begin road construction; crown road, construct ditch. |
| | 4+55 | Construct turnaround on right. |
| **End** | 5+00 | Point Z. End new construction, construct landing. |

# EXHIBIT D

## FULL BENCH AND END-HAUL REQUIREMENTS

| POINT TO POINT | STA. TO STA. |
|---|---|
| A to B | 96+85 |
| A to B | 97+05 |
| C to D | 8+00 |
| C to D | 8+30 |
| K to L | 27+70 |
| K to L | 27+90 |
| K to L | 29+90 |
| K to L | 30+10 |
| Q to R | 3+20 to 4+70 |

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.

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

- Full: No excavated material remains below the road.

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.

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 H.

EXHIBIT D

ROCK TABLE

| ROAD SEGMENT: A to B | | | | Sta. to Sta. | | | | TOTAL VOLUME (CY) |
|---|---|---|---|---|---|---|---|---|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | 0+00 to 130+00 | | | | |
| | | | | Volume (CY) Per | | Number of | | |
| Spot Rock | 3”-0 | 26+00, 71+90 and 90+40 | Varies | Station | Varies | Stations | Varies | 200 |
| Total Rock for Road Segment: | | | | | | | | 200 |

| ROAD SEGMENT: C to D | | | | Sta. to Sta. | | | | TOTAL VOLUME (CY) |
|---|---|---|---|---|---|---|---|---|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | 0+00 to 41+00 | | | | |
| | | | | Volume (CY) Per | | Number of | | |
| Subgrade Reinforcement | 3”-0 | 8+50 to 9+50 & 21+50 to 22+50 | 8 | Station | 42 | Stations | 2 | 84 |
| Surfacing rock | 1 ½”-0 Crushed | C to D | 3 | Station | 15 | Stations | 41 | 615 |
| Total Rock for Road Segment: | | | | | | | | 699 |

| ROAD SEGMENT: K to L | | | | Sta. to Sta. | | | | TOTAL VOLUME (CY) |
|---|---|---|---|---|---|---|---|---|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | 0+00 to 31+00 | | | | |
| | | | | Volume (CY) Per | | Number of | | |
| Spot Rock | 1 ½”-0 Crushed | 27+80 and 30+00 | Varies | Culvert | 24 | Culverts | 2 | 48 |
| Total Rock for Road Segment: | | | | | | | | 48 |

| TOTAL ROCK | 1 ½”-0 Crushed | 3”-0 Crushed |
|---|---|---|
| | 663 CY | 284 CY |

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.

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.

# 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, outsloped, or insloped at 4 to 6 percent as specified in the “Forest Roads Specifications” table in Exhibit D.

| ROAD SEGMENT | SUBGRADE COMPACTION OPTIONS |
|---|---|
| All road segments that require rock surfacing | Vibratory Roller |

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 | FILL COMPACTION OPTIONS |
|---|---|
| All road segments | Vibratory Roller, Vibratory Hand-Operated, Backhoe-Mounted Tamper, or Dozer |

# EXHIBIT D

## COMPACTION AND PROCESSING REQUIREMENTS

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, compacted, and approved by STATE 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, outsloped, or insloped at 4 to 6 percent as specified in the “Forest Roads Specifications” table in Exhibit D.

| ROAD SEGMENT | CRUSHED ROCK COMPACTION OPTIONS |
|---|---|
| All road segments requiring crushed rock | Vibratory Roller |

# EXHIBIT D

## COMPACTION EQUIPMENT OPTIONS

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.

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

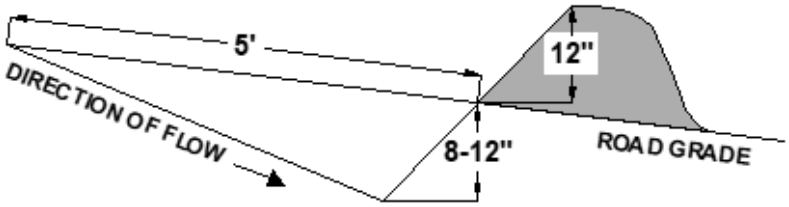
Dozer. A dozer/track-type tractor weighing a minimum of 45,000 pounds as directed by STATE shall be operated so that the entire surface comes in contact with the tracks.

EXHIBIT E

WATERBAR SPECIFICATIONS

## PROFILE

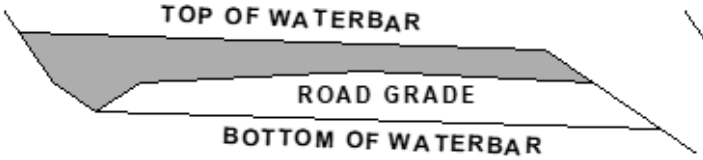
### DITCHED AND OUTSLOPED



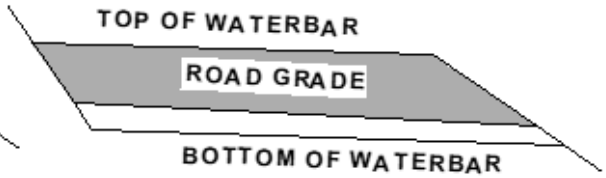

| SPACING OF WATERBARS | |
|---|---|
| ROAD GRADE | DISTANCE |
| < 6 % | 400' |
| 6 - 10 % | 200' |
| 11 - 15 % | 150' |
| > 15 % | 100' |

## CROSS SECTION

### DITCHED



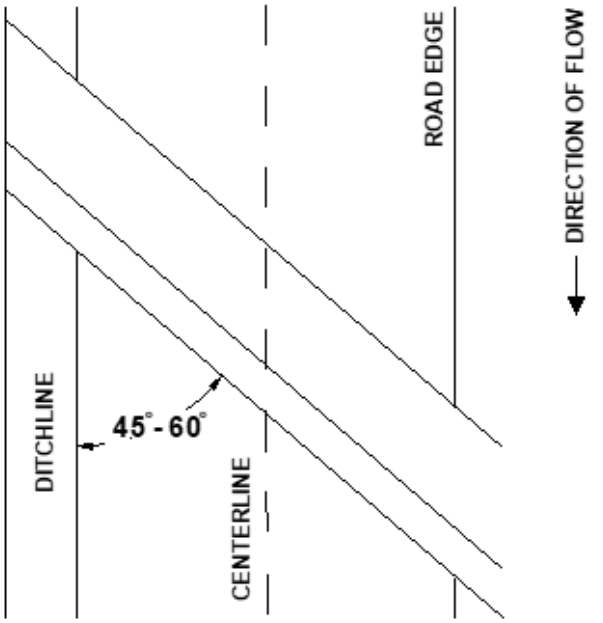

### OUTSLOPED




CONSTRUCT DITCHOUT THRU ANY EXISTING BERM.
CROSS DRAINAGE GRADIENT MINIMUM 3%.

## PLAN VIEW

### DITCHED




### OUTSLOPED

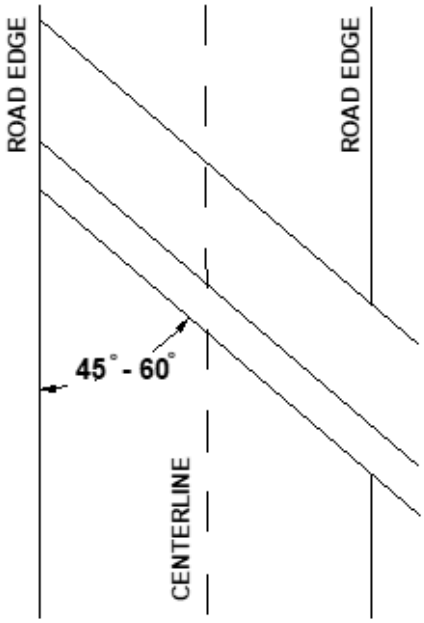
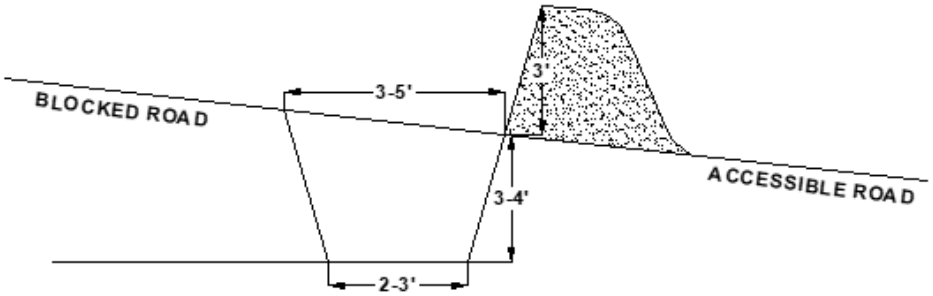


EXHIBIT E

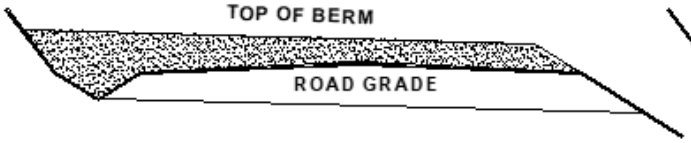
TANK TRAP SPECIFICATIONS

**PROFILE**
**DITCHED AND OUTSLOPED**

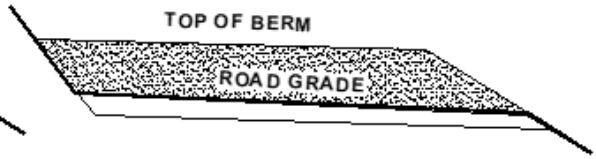



**CROSS SECTION**

**DITCHED**




**OUTSLOPED**

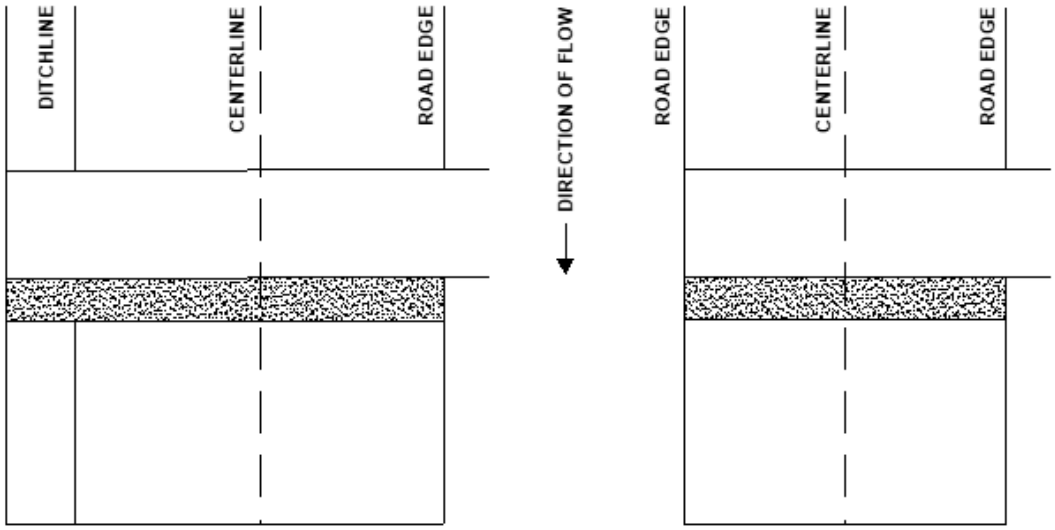



CONSTRUCT DITCHOUT THRU ANY EXISTING BERM.
CROSS DRAINAGE GRADIENT MINIMUM 3%

**PLAN VIEW**

**DITCHED**

**OUTSLOPED**




It should be sloped to drain with a relief ditch through the down slope edge of the road. The trench shall be behind the berm for approaching traffic.

# EXHIBIT F

## ROAD BLOCKING AND VACATING SPECIFICATIONS

PURCHASER shall block or vacate road between the following points: K to L, M to N, O to P, Q to R, S to T, T to V3, U to V, V1 to V2, W to X and Y to Z.

Specific objectives for this project include:

Tree Removal. Cut and remove all trees and stumps marked with blue a “C” or any others necessary to access the project area and to facilitate vacating operations. All merchantable timber shall be hauled during the project period.

Surface removal. Rip road surface to a depth of 12”

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 this Exhibit F. Sidecast material remaining greater than 20 feet below the road shall be tapered and sloped for drainage.

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.

Woody Debris. Woody debris shall be placed on the surface of pullback/fill material.

Block Roads. Use excavated material from fill removals, boulders to block roads from vehicle access, as directed by STATE.

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.

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.

Dry Conditions. All work shall be performed during dry conditions acceptable to STATE.

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 2:1, as directed by STATE. Do not place excavated material within a riparian management area. If a riparian management area is not required, do not place excavated material within 75 ft. of stream channel.

Culvert Removal. Remove drainage structures and culverts. Removed culverts shall be hauled to an approved refuse site off of STATE land.

Waterbars. Construct waterbars according to the specifications in Exhibit E.

# EXHIBIT F

## ROAD BLOCKING AND VACATING SPECIFICATIONS

SPECIFIC INSTRUCTIONS/SPECIFICATIONS:

| **Segment** | Station | Work Description |
|---|---|---|
| **K to L** | 5+10 | Construct tank trap at approach to landing. |

| **Segment** | Station | Work Description |
|---|---|---|
| **M to N** | 0+00 | Point M. Block road. Construct tank trap. Begin waterbar construction. |
| **End** | 26+00 | Point N. End road blocking. |

| **Segment** | Station | Work Description |
|---|---|---|
| **O to P** | 0+00 | Point O. Block road. Construct tank trap. Begin waterbar construction. |
| **End** | 16+50 | Point P. End road blocking. |

| **Segment** | Station | Work Description |
|---|---|---|
| **Q to R** | 0+00 | Point Q. Block road. Construct tank trap. Begin waterbar construction. |
| **End** | 8+00 | Point R. End waterbar construction. |

| **Segment** | Station | Work Description |
|---|---|---|
| **S to T** | 0+00 | Point S. Block road. Construct tank trap. Begin waterbar construction. |
| **End** | 5+00 | Point T. End waterbar construction. |

| **Segment** | Station | Work Description |
|---|---|---|
| **T to V3** | 0+00 | Point T. Begin road vacating. Remove marked timber and stumps. Rip and outslope road surface and begin sidecast pullback. |
| | 1+90 | Rip roadside landing. |
| | 10+80 | Existing culvert, remove culvert, and reestablish stream channel. |
| | 15+40 | Existing culvert, remove culvert, and reestablish stream channel. |
| **End** | 17+50 | Point V3. End road vacating and sidecast pullback. Rip landing. |

# EXHIBIT F

## ROAD VACATING SPECIFICATIONS

SPECIFIC INSTRUCTIONS/SPECIFICATIONS:

| **Segment** | Station | Work Description |
|---|---|---|
| **U to V** | 0+00 | Point U. Begin waterbar construction. |
| **End** | 5+50 | Point V. End waterbar construction. |

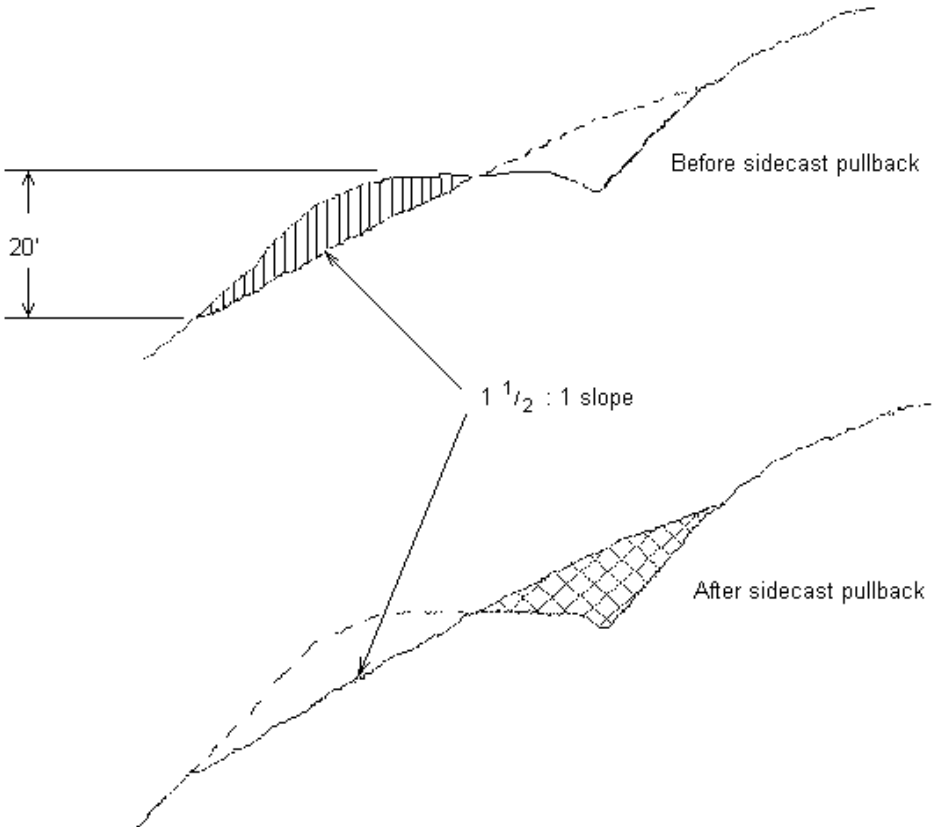
| **Segment** | Station | Work Description |
|---|---|---|
| **V1 to V2** | 0+00 | Point V1. Begin road vacating. Remove marked timber and stumps. Rip and outslope road surface and begin sidecast pullback. Construct tank trap. |
| | 2+15 | Road drops about 15 feet. |
| | 11+20 | Rip roadside landing. |
| | 11+40 | Point T. Junction with S to T on right. |
| | 24+20 | Existing puncheon, remove puncheon, and reestablish stream channel. |
| **End** | 26+00 | Point V2. End road vacating and sidecast pullback. Rip landing. |

| **Segment** | Station | Work Description |
|---|---|---|
| **W to X** | 0+00 | Point W. Begin waterbar construction. |
| **End** | 6+00 | Point X. End waterbar construction. |

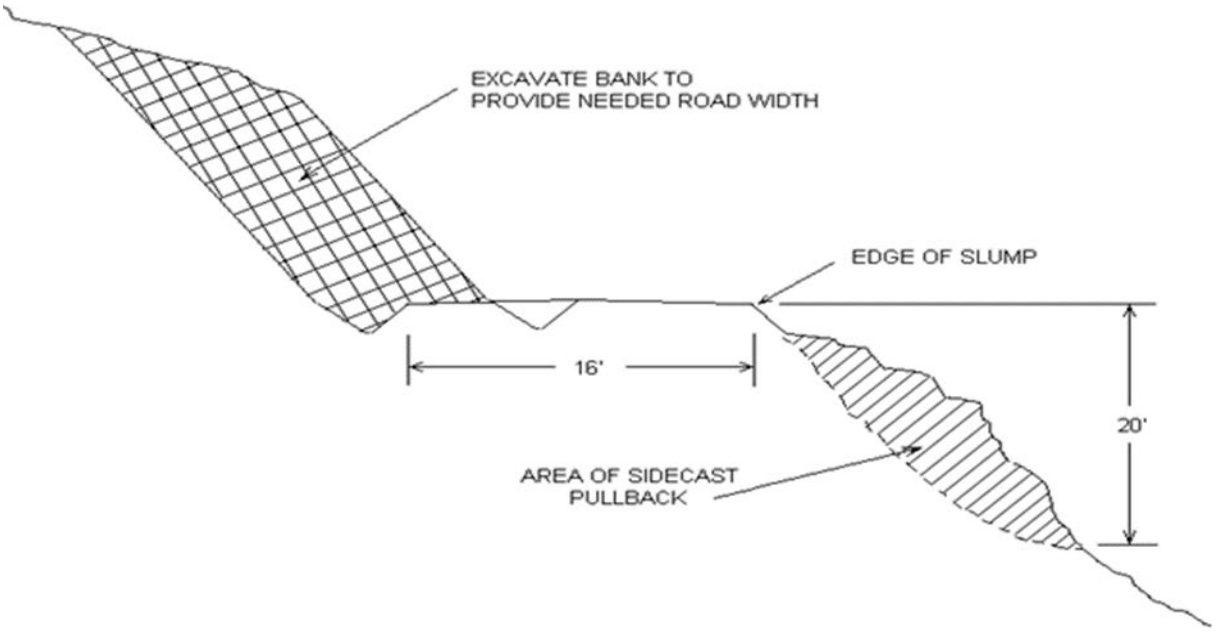
| **Segment** | Station | Work Description |
|---|---|---|
| **Y to Z** | 0+00 | Point Y. Block road. Construct tank trap. Begin waterbar construction. |
| **End** | 5+00 | Point Z. End waterbar construction. |

# EXHIBIT F

TYPICAL CROSS SECTION VIEW OF ROAD VACATING SIDECAST PULLBACK




TYPICAL CROSS SECTION VIEW OF SIDECAST PULLBACK AND ROAD REALIGNMENT




(No Scale)

# EXHIBIT G

## SEEDING AND MULCHING

This work shall consist of preparing seedbeds and furnishing and placing required native seed, fertilizer, and straw mulch. Straw mulch shall consist of straw that is free of noxious weeds. Apply seed and fertilizer to all waste areas, and bare soils resulting from Project Nos. 1 and 3. Apply straw mulch to all bare soils within 100' of streams resulting from Project Nos. 1 and 3 and to all waste areas.

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. PURCHASER shall notify STATE within 24 hours of seeding and fertilizer application.

### APPLICATION METHODS FOR SEED AND FERTILIZER

Dry Method. Mechanical seeders, seed drills, landscape seeders, cultipacker seeders, fertilizer spreaders, or other approved mechanical seeding equipment shall be used to apply the seed and fertilizer in the amounts and mixtures specified. Hand-operated seeding devices may be used when seed and fertilizer are applied in dry form.

### APPLICATION RATES FOR SEED AND FERTILIZER

The native seed mixture listed below shall be applied at 100 lbs. per acre. The seed mixture shall be approved by STATE or comprised of the following:

| SPECIES | MIXTURE | PURE LIVE SEED | GERMINATION |
|---|---|---|---|
| Blue Wildrye – Elymus glaucus | 95.92% | 95% | >90% |
| Yarrow – Achillea millefolium | 2.99% | 95% | >90% |

Fertilizer: Chemical analysis shall be 16-20-0 and shall be applied at the rate of 200 pounds per acre. Fertilizer shall not be applied within 100 feet of streams.

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:

| Road Segment | Location | Road Segment | Location |
|---|---|---|---|
| C to D | Waste Area No.1 | S to T | 0+00 to 5+00 |
| K to L | 5+10 | U to V | 0+00 to 5+50 |
| M to N | Waste Area No.2 | W to X | 0+00 to 6+00 |
| A to B | Waste Area No.3 | Y to Z | 0+00 to 5+00 |
| O to P | 0+00 to 16+50 | V1 to V2 | 0+00 to 26+00 |
| Q to R | 0+00 to 8+00 | T to V3 | 0+00 to 22+50 |