COOS BAY SALE NO. ORC03-TS-2027.0002
BIG IRON CT

COOS BAY DISTRICT OFFICE
UMPQUA FIELD OFFICE

SALE DATE: November 20, 2026
SALE TIME: 10:00 a.m.

SALE NO.: ORC03-TS-2027.0002, BIG IRON CT

DOUGLAS COUNTY: OREGON: O&C: ORAL AUCTION: Bid deposit required: $46,000.00

All timber designated for cutting on: T. 21 S., R. 08 W., Sec. 7. Lots 13, 14, 15, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, Will. Mer.

Approx. No. Merch. Trees	Est. Vol. MBF 32' Log	Species	Est. Vol. MBF 16' Log	Appraised Price Per MBF	Estimated Vol. Times Appraised Price
33,691	5,303.0	Douglas-fir	6,401.0	$71.60	$458,311.60
125	14.0	red alder	17.0	$45.70	$776.90
88	5.0	western hemlock	6.0	$43.60	$261.60
33,904	**5,322.0**	**Totals**	**6,424.0**		**$459,350.10**

Product	Unit of Measure	Estimated Number of Units	Appraised Price Per Green Ton	Estimated Volume Times Appraised Price
Biomass	Green Tons	1,930	$0.05	96.50

Total Appraised Value:	**$459,446.60**

THIS TIMBER SALE HAS BEEN CRUISED, APPRAISED, AND ADVERTISED BASED UPON SCRIBNER BOARD FOOT MEASURE (16 FOOT LOG). THE MINIMUM BID FIGURES SHOWN BY SPECIES ARE DOLLARS PER THOUSAND BOARD FEET (MBF). THE MINIMUM INCREMENT SHALL BE $0.50 PER MBF. SCRIBNER BOARD FOOT VOLUMES (32 FOOT LOG) BY SPECIES ARE DISPLAYED FOR INFORMATIONAL PURPOSES.

LOG EXPORT AND SUBSTITUTION: All timber sales, including timber from Federal rights-of-ways, shall be subject to the restrictions relating to the export and substitution of unprocessed timber from the United States in accordance with P.L. 94-165 and 43 CFR 5400 and 5424 as amended.

LOG EXPORT AND SUBSTITUTION RESTRICTIONS: Excepting Port-Orford cedar, all timber offered for sale hereunder is restricted from export from the United States in the form of unprocessed timber and is prohibited from being used as a substitute for exported private timber.

CRUISE INFORMATION: With respect to merchantable trees of all species in all cruise strata: the average DBHOB is 13.1 inches: the average gross merchantable log contains 50 bd. ft.; the total gross volume is approximately 6,798 thousand bd. ft.; and 95% recovery is expected. The average DBHOB for Douglas-fir is 13.1 inches; and the average gross merchantable log contains 50 bd. ft.; and 95% recovery is expected. None of the total sale volume is salvage material. The following cruise methods were used for volume determination:

VARIABLE PLOT: Timber volumes in all harvest units were based on a variable plot cruise. Using a 20 Basal Area Factor (BAF), 216 plots were measured, and 100 trees were randomly selected to be sampled. The sample trees have been cruised and their volumes computed using form class tables for estimating board foot volumes of trees in 16-foot logs. The volumes are then expanded to a total sale volume.

3P: The Douglas-fir in the right-of-way areas have been cruised using the 3P system to select 18 sample trees. The sample trees have been cruised and the volumes computed using form class tables for estimating board foot volumes of trees in 16-foot logs. The volumes are then expanded to a total sale volume. Maps showing the approximate locations of the sample trees are available at the Coos Bay District Office.

100% CRUISE: Timber volumes for tree species other Douglas-fir within the road right-of-way and group selection areas, were based on a 100% cruise using form class tables for estimating board foot volume of trees in 16-foot logs.

CUTTING AREA: Units 1 and 2 totaling 244 acres must be partial cut and one (8) acre of right-of-way to be cut for a total 252 acres. Acres shown on Exhibit A have been computed using the S1 Mobile Mapping application.

ACCESS: Access to the sale area is provided via: Oregon State highways, Douglas County roads, privately controlled roads, and Government controlled roads.

DIRECTIONS TO SALE AREA: From Coos Bay, travel north on Highway 101. Turn right on Hwy 38 on Umpqua Hwy heading east towards Elkton and travel 22.6 miles. Turn left onto road 22-9-14 Weatherly Big Creek Rd approximately 7.0 miles and turn left onto 21-9-24 approximately 1.0 miles. Turn right onto 21-9-13.6 refer to Exhibits A and A-1 for unit locations.

ROAD USE & MAINTENANCE: Refer to Exhibit E Summary attached. Operator maintenance required on 3.59 miles of road.

Rockwear and Maintenance Fees Payable to BLM: $55,359.02
Rockwear and Maintenance Fees Payable to Roseburg Resources Co.: $0.00
Road Use Fees Payable to Roseburg Resources Co.: $32,068.44

BUYOUT SECURITIES (OPTIONAL CONTRIBUTION): Purchaser shall have the option of performing pile burning or contributing $5,802.68 in lieu thereof. The option must be declared prior to contract execution. Piling and covering are not included in the Optional Contribution and shall remain the responsibility of the purchaser. Sec.44.d.(8)

COOS BAY SALE NO. ORC03-TS-2027.0002
BIG IRON CT

ROAD CONSTRUCTION: Refer to Exhibit C and D, road construction estimates include the following:

New Construction:

2.08 miles

Road Renovation:

1.52 miles

Aggregate:

Base/Landing Rock, 6" minus hardrock:	21 C.Y. (Truck Measure)
Base/Landing Rock, 3" minus hardrock:	1,540 C.Y. (Truck Measure)
Bedding/Surfacing Rock, 1 ½" minus hardrock:	1,074 C.Y. (Truck Measure)
Maintenance Rock, 1 ½" minus hardrock:	1,000 C.Y. (Truck Measure)

Drainage:

18" Corrugated Polyethylene Pipe:	210 Lineal Feet
18" Corrugated Polyethylene Pipe: Full Round Downspout	20 Lineal Feet

Soil Stabilization:

Dry Seed & Mulch:	6.13 acres (Pre-Haul)
Dry Seed & Mulch:	2.00 acres (Post-Haul)

Roadside Brushing:

2.74 acres

Road Decommissioning:

Earthen Barriers:	3 total
Water bars:	40 total

DURATION OF CONTRACT: Shall be forty-eight (48) months for cutting and removal of timber. The contract shall contain special stipulations regarding logging, road construction, road use and mainteance, fire prevention, hazard reduction and logging residue reduction, log branding and painting, optional scale check of lump sum sales, Buyout Securities, vehicle cleaning, and snag creation.

COOS BAY SALE NO. ORC03-TS-2027.0002
BIG IRON CT

PROVISIONS Unique to this sale: Please review the entire contract.

1. A license agreement is required with Roseberg Resources Co., a performance bond in the amount of $10,000.00 and comprehensive liability insurance will be required for this license agreement. Sec.44.c.(8)
2. All equipment shall be washed prior to entering and exiting the contract area to control the spread of noxious weeds and Port-Orford cedar root disease in accordance with Exhibit F.
3. No trees shall be felled into the Reserve Area, shown on the Exhibit A. Line pulling, jacking, or other mechanical devices shall be used, as necessary. Sec.44.a.(4)
4. Seasonal and/or daily timing restrictions shall apply in the Seasonal Timing Restriction Area as shown on Exhibit A (page 1). The following operations shall cease between April 1 and August 5 of the same calendar year, both days inclusive; new road construction, blasting, renovation, culvert installation, and haul operations, chainsaw and heavy equipment operation associated with yarding, tree climbing, mechanical harvest and/or slash piling operations as determined by the Authorized Officer to be above ambient noise levels. In addition, a daily timing restriction confines operations to the period from two (2) hours after sunrise to two (2) hours before sunset between August 6 and September 15 of the same calendar year, both days inclusive. Sec.44.a.(5), Sec.44.b.(2)
5. Within the designated Blasting Timing Restriction area, as shown on Exhibit A (page 2) to portions of the roads 21-8-7.0, 21-8-8.1, 21-8-18.1, 21-9-13.6, Spur 1, and Spur 3, blasting shall cease in the period between April 1 and August 5. In addition, a daily timing restriction confines operations to the period from two (2) hours after sunrise to two (2) hours before sunset between August 6 and September 15 of the same calendar year, both days inclusive. Sec.44.b.(3)
6. Tree damage shall be kept to a minimum. Sec.44.a.(13)
7. Lift trees and intermediate support trees may be necessary and shall be identified during corridor layout. Sec.44.a.(9), Sec.44.a.(10)
8. One-end suspension required in cable and ground-based yarding areas as shown on Exhibit A. Sec.44.a.(7,8)
9. Full suspension required over any stream channels. Trees cut for yarding corridors within the Reserve Area adjacent to stream channels shall be felled toward the channel and left on-site. Sec.44.a.(7).d, Sec.44.(8).d
10. Any required construction, improvement, or renovation of structures and roads shall occur during the dry season, June 1 through October 15, both days inclusive of the same calendar year unless dry conditions extend the construction season. Exhibit C
11. All Ground-based harvesting equipment must be approved in writing by the Authorized Officer prior to any operations. Ground-based yarding equipment must be capable of lifting the leading end of the turn clear of the ground. Sec.44.a.(8)
12. Ground-based operations shall be conducted when soil moisture content is below 25%, as determined by the Authorized Officer. Sec.44.a.(8)
13. Seed, fertilize, and mulch landings, road cuts and fills, and waste areas prior to the wet season. Sec.44.b.(4)

14. Soil stabilization, water bar construction, road decommissioning, and road barrier construction shall be conducted after the completion of harvest activities but no later than October 15th. Sec.44.b.(4)
15. BLM shall assume supervisory responsibility for disposal of logging slash. Sec.44.d.(1)
16. Machine piling of logging slash is required at all landing and Roadside Hazard Reduction Areas (RHRA). Sec.44.a.(12), Sec.44.d.(4)
17. Within one (1) year following the completion of yarding operations, create 1,220 snags as shown on the Exhibit I and as directed by the Authorized Officer. Sec.44.a.(23)
18. The Purchaser shall provide signage to control traffic when conducting operations adjacent to any road. Sec.44.a.(16)
19. To minimize the risk of attracting predators to activity areas, all garbage (especially food products) shall be contained or removed daily form the contract area pursuant to Section 27 of this contract. Sec.44.a.(20)
20. Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement C-339, between the United States and Roseburg Resources. Sec.44.c (8 or 9)

SCHEDULE I

Sec 43. WOOD PRODUCTS RESERVED FROM CUTTING. The following timber in the Contract Area, shown on Exhibit A, which is attached hereto and made a part thereof, is hereby reserved from cutting and removal under the terms of this contract and is retained as property of the Government:

a. All timber in the Reserve Area, shown on Exhibit A, and all blazed, orange painted and/or posted trees which are on or mark the boundaries of the Reserve Area;

b. All trees marked, by the Government, with orange paint including trees orange marked with an "S" or a "W" above and below stump height within the Partial Cut and Special Cutting Area, shown on Exhibit A and Exhibit I;

c. All existing standing dead trees, except those snags that must be felled to permit safe working operations provided that all snags felled must be retained on site;

d. All existing downed wood ≥ 6" in diameter at the large end and > 20 feet in length except for safety, operational, fuels reduction reasons, or the Authorized Officer determines the volume be included in the Exhibit B, which is attached hereto and made a part hereof;

e. All Bearing Trees with metal tags that mark property corners;

f. All Pacific yew trees.

Sec 44. SPECIAL PROVISIONS. Purchaser shall comply with the special provisions which are attached hereto and made part hereof unless otherwise authorized, in writing, by the Authorized Officer:

a. Logging

(1) Prior to commencement of operations, the Purchaser shall obtain from the Authorized Officer written approval of a written operations and logging plan commensurate with the terms and conditions of the contract which shall include measures needed to assure protection of the environment and watershed. A pre-work conference between the Purchaser's authorized representative and the Authorized Officer's representative must be held at a location designated by the Authorized Officer before the logging plan is approved.

(2) Before beginning operations in the contract area for the first time, or after a shutdown of ten or more days, the Purchaser shall notify the Authorized Officer in writing of the date they plan to begin operations. The Purchaser shall also notify the Authorized Officer in writing if they intend to cease operations for any period of ten or more days.

(3) Due to bark slippage, felling or yarding may be restricted by the Authorized Officer within the contract area between April 1 and June 30 of each calendar year, both days inclusive.

(4) No trees may be felled into the Reserve Area. Line pulling, jacking, or other mechanical devices shall be used as necessary to prevent trees from falling into these areas. Directional felling shall be used near roads, property lines, posted boundaries, and orange painted reserve trees.

(5) Seasonal and daily timing restrictions shall apply in the Seasonal Timing Restriction Area as shown on Exhibit A, to portions of road 21-8-7.0. The following operations shall cease between April 1 and August 5 of the same calendar year, both days inclusive; chainsaw and heavy equipment operation for yarding, tree climbing, log haul, mechanical harvest and/or slash piling operations as determined by the Authorized Officer to be above ambient noise levels. In addition, a daily timing restriction confines operations to the period from two (2) hours after sunrise to two (2) hours before sunset between August 6 and September 15 of the same calendar year, both days inclusive.

(6) All trees shall be felled, limbed, topped, and cut into lengths not to exceed forty-one (41') feet prior to yarding within the Partial Cut Units as shown on Exhibit A.

(7) In the Partial Cut Units, yarding (except for road right-of-way and ground-based yarding areas, shown on Exhibit A) shall be done with a skyline cable system according to the following:

(a) The skyline cable system shall be capable of being rigged in a multi-span configuration utilizing a carriage capable of yarding seventy-five (75') feet laterally from the skyline. Skyline roads shall not be spaced closer than one hundred fifty

(150') feet apart, unless approved by the Authorized Officer and be no wider than twelve (12') feet as measured between reserve trees.

(b) One-end suspension is required during yarding operations. Intermediate supports and/or lift trees may be required to obtain the required suspension. Full suspension is required when yarding over stream channels as shown on the Exhibit A.

(c) If placement of the yarding corridor requires the cutting of a tree in the Reserve Area adjacent to a stream channel, the tree shall remain on-site and felled toward the direction of the channel in a manner to protect the stream bank from disturbance during yarding. Yarding corridors shall cross stream channels perpendicular where possible to minimize cutting of trees within the Reserve Area. Yarding corridor location within the Reserve Area shall be approved by the Authorized Officer prior to cutting.

(d) Where cable yarding must occur over any stream channel with visible flow, logs shall be fully suspended to protect stream banks. Where full suspension is not feasible, operations shall occur only during the dry season, as designated by the Authorized Officer. Bare mineral soil within fifty (50') feet of a stream channel, which has been exposed by yarding, shall be covered with slash to trap sediment and prevent erosion.

(e) Where road locations allow, yarding shall be done so that corridors run parallel to each other rather than radiate from a central landing.

(f) In the Special Cutting and Dominant Tree Areas shown on the Exhibit A, all trees shall be whole-tree yarded.

(g) Complete re-spooling of lines is required in making cable yarding road changes.

(8) In the Ground-Based Yarding Areas, shown on Exhibit A and within road rights-of-way, cutting and yarding shall be done according to the following:

(a) In addition to the requirements set forth in Sec. 26 of this contract, ground-based operations shall be restricted to the dry season which is typically June through October. Unseasonably dry or wet weather may shorten or extend the operating season.

(b) Ground-based operations shall be conducted when soil moisture content is below twenty-five (25%), as determined by the Authorized Officer; unseasonably dry or wet weather may shorten or extend the operating season. The Purchaser shall be notified in writing when weather conditions extend the operating season. The Purchaser shall cease operations during periods of rain and be notified, after a soil-moisture assessment by the Authorized Officer, when operations may resume.

(c) Trees may be felled manually or by a mechanized harvester utilizing slash continually.

(d) The yarding machine must be approved by the Authorized Officer. It must be equipped with a grapple or an extendable and retractable arch and fairlead that is an integral part of the machine that is capable of lifting the leading end of the turn clear

of the ground. All logs in the Ground-Based Yarding Area shall be yarded with their leading end clear of the ground. A forwarder or tracked log loader may also be used to yard logs.

(e) Primary skid trails shall use existing trails wherever possible, be spaced one hundred (100') feet apart and be no wider than twelve (12') feet as measured between reserve trees.

(f) Primary skid trails shall be blocked with cull material after completion of harvest where the Authorized Officer determines vehicle access is possible.

(g) All ground-based equipment shall be restricted to operating on slopes less than thirty-five percent (35%), except when previously constructed trails or accessing isolated ground-based harvest areas requiring short trails over steeper pitches. Also, limit the use of this equipment when surface displacement creates trenches, depressions, excessive removal of organic horizons, or when disturbance would channel water and sediment as overland flow.

(h) Primary skid trails with a slope greater than fifteen percent (15%) and/or are left with more than one hundred (100') feet of continuous bare ground shall have water bars installed and/or be covered with slash for erosion control prior to October 31 as directed by the Authorized Officer.

(9) Sec. 44.a.(10) shall be the primary method for the identification, cutting, and removal of additional timber required for skyline corridors, yarding trails, and guy-line trees. Sec. 44.a. (11) may be used at the discretion of the Authorized Officer. The Purchaser shall be notified in writing when Sec. 44.a.(11) is authorized for use.

(10) Before cutting and removing any reserve tree necessary to facilitate logging in the Partial Cut Units the Purchaser shall identify the location of the cable yarding roads, tail hold, tieback, guyline, lift, intermediate support, and danger trees on the ground in a manner approved by the Authorized Officer at the pre-work conference and documented in the Logging Plan. Said Purchaser identification of trees to be cut and removed does not constitute authority to proceed with cutting and removal. In addition, before proceeding the following condition must be met:

(a) All cable yarding roads upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the removal of timber sold under this contract and shall be limited to the minimum width necessary for yarding of logs with a minimum of damage to reserve trees, however, unless otherwise approved in writing by the Authorized Officer, the width of each yarding road shall be limited to twelve (12') feet.

(b) The Purchaser may immediately cut and remove additional timber to provide tail hold, tieback, guyline, lift, and intermediate support trees; and clear danger trees when the trees have been marked with blue paint above and below stump height by the Authorized Officer and thereby approved for cutting and removal by the Authorized Officer. The volume of the timber shall be determined by the Authorized

Officer in accordance with Bureau of Land Management prescribed procedures. No timber may be cut or removed under this provision unless sufficient installment payments have been made in accordance with Sec.3.(b) of the contract or sufficient bonding has been provided in accordance with Sec. 3.(f) of the contract.

(c) The Purchaser agrees that sale of this additional timber shall be accomplished by a unilateral modification of the contract executed by the Contracting Officer and that such timber shall be sold at the unit prices shown in Exhibit B of this contract unless: the value of the timber must be reappraised subject to the terms for contract extension set forth in Sec. 9 of the contract; or, the Authorized Officer determines that any tree that exceeds twenty-four (24") inches diameter at breast height shall be appraised and sold by bilateral modification of the contract at current market value in accordance with Sec. 8 of the contract.

(d) This authorization for the Purchaser to cut and remove additional timber prior to the execution of a modification may be withdrawn by the Contracting Officer if the Authorized Officer determines that the Purchaser has cut and removed any tree not previously marked and approved for cutting by the Authorized Officer, which under Sec. 10 of the contract constitutes a violation of the contract and under Sec. 13 of the contract may constitute a trespass rendering the Purchaser liable for damages under applicable law.

(e) If authorization is withdrawn, the Contracting Officer shall issue a written notice to the Purchaser that the sale of additional timber under this provision is no longer approved. In this case, the Purchaser shall inform the Authorized Officer at least three (3) days working days prior to the need for cutting and removing any additional timber and execute a bilateral modification prior to cutting for such additional approved timber at the unit prices shown in Exhibit B of the contract or in accordance with Sec. 8 or 9 of the contract as determined by the Authorized Officer in accordance with this provision. The Contracting Officer may issue a written order to the Purchaser to suspend, delay, or interrupt any or all contract work for the period of time deemed necessary.

(f) The Government may reserve trees previously designated for cutting and removal by applying orange paint as replacements for additional trees cut and removed for skid roads and/or cable yarding roads when the Authorized Officer determines such reservation is necessary to maintain stand densities consistent with objectives set forth in the management prescription. This may include the replacement of trees damaged by storm events, or insects or disease. The volume of this timber to be reserved shall be determined by the Authorized Officer in accordance Bureau of Land Management prescribed procedures and the value shall be based on the unit prices shown in Exhibit B of the contract. The Purchaser agrees that the Total Purchase Price shall be reduced accordingly through a unilateral modification to the contract executed by the Contracting Officer.

(11) In accordance with the requirements of Sec. 8 of the contract it has been determined that it is in the best interest of the Government to sell additional timber located in the contract

area which, is obstructing needed cable yarding roads, hazardous to workers, needed for guyline, tailhold, and/or tieback trees to meet all applicable State safety laws, codes, or regulations. This timber must be cut and removed so that the Purchaser can continue active falling and yarding operations. The Purchaser is, therefore, authorized to cut and remove such additional timber in accordance with the provisions of Sec. 8 of the contract: provided, however, that:

(a) The Purchaser shall identify each tree sold and cut in accordance with this provision by marking the surface of the stump immediately after cutting with a large "X", cut with a chainsaw, and by painting the stump with fluorescent red paint so that the stump can be visually located from a distance of not less than one hundred (100) feet;

(b) Concurrently with falling, paint the end of the butt log of each tree with fluorescent red paint. When butt logs are yarded, deck separately for inspection by Authorized Officer;

(c) The Purchaser conforms to all requirements of Sec. 8 of this contract; provided that (1) the unit prices for additional timber within unit boundaries shall be unit prices shown in Exhibit B of this contract, or the reappraised unit prices arrived at in accordance with Sec. 9 of this contract, and (2) timber outside of unit boundaries shall be sold at fair market value;

(d) No timber may be cut or removed under the terms of this provision if all contract payments required by Sec. 3(b) or 3.(f) have not been made; and,

(e) Permission to cut and remove additional timber contained in this provision may be withdrawn by the Contracting Officer if the Authorized Officer determines that the Purchaser:

1. Fails to properly mark any stump with the "X" cut and fluorescent red paint.
2. Fails to properly mark any butt log with fluorescent red paint.
3. Cuts any tree that was reserved for tree improvement and/or wildlife habitat.
4. Cuts any tree in or adjacent to cable yarding corridors that was not necessary to facilitate cable yarding.
5. Cuts any reserve tree in or adjacent to tractor skid roads that was not necessary to facilitate ground-based yarding.
6. Fails to properly segregate any pulled over tree that was yarded to the landing.
7. Cuts any reserve tree that was not severely (as defined during the prework conference and documented in the approved logging plan) damaged from felling and yarding operations.
8. Cuts more than the minimum number of trees necessary to properly serve as guyline anchor stumps.
9. Cuts or topped more than the minimum number of trees necessary to properly serve as tail hold trees.

10. Cuts more than the minimum number of trees necessary to properly serve as tie-back for topped tail hold trees.

Failure to perform any of the conditions listed above may be considered a trespass.

(12) As directed by the Authorized Officer, for a distance of one hundred (100') feet from the perimeter of each landing and Roadside Hazard Reduction Area (RHRA), all logs more than eight (8") inches diameter at the large end and longer than eight (8') in length shall be decked or windrowed at the location designated by the Authorized Officer except logs removed from the Contract Area. If a log or a piece of a log meeting or exceeding the above specifications is bucked all portions of that log shall be yarded and decked at the above-described location.

(13) In the Partial Cut Area as shown on the Exhibit A, significant damage to residual reserve trees shall be kept to a minimum. Significant damage is defined as any tree having greater than twelve (12") square inches of the bark removed from the circumference of the tree, any tree with top diameter broken at three (3") inches in diameter or greater, or any tree being visually root sprung. If the Authorized Officer determines that damage has become commonplace due to a lack of caution or operator negligence, a written warning of non-compliance shall immediately be issued to the Purchaser. The Authorized Officer may suspend operations until safeguards are put in place to protect the reserve trees. If the damage continues, it shall result in a violation of Sec. 13 of the contract, Timber Trespass, and the Purchaser shall be held liable for damages. Any reserved trees significantly damaged or destroyed by the Purchaser shall be valued at current market value of the merchantable volume for purposes of determining damages.

(14) Prior to attaching any logging equipment to any tree in the Reserve Area the Purchaser shall obtain written approval from the Authorized Officer and shall take all precautions to protect the trees from damage, as directed by the Authorized Officer.

(15) The Purchaser shall provide signage to control traffic when conducting operations adjacent to any road or as directed by the Authorized Officer and in accordance with Sec. 29 of the timber sale contract.

(16) Hauling on native surface roads shall be permitted between June 1 and October 15 unless dry conditions extend the hauling season, as directed by the Authorized Officer.

(17) The Purchaser shall cease log hauling when the road surfaces that drain to wetlands and streams become rutted, developing a mud layer on running surfaces, developing areas of standing water, or turbid road runoff is entering wetlands or streams, or as determined by the Authorized Officer. The Purchaser shall apply water or approved road surface stabilizers/dust additives to reduce surfacing material loss and buildup of fine sediment that can enter wetlands, floodplains, and waters of the State during the dry season, or as determined by the Authorized Officer.

(18) To control the spread of noxious weeds and Port-Orford cedar root disease, the Purchaser shall conduct all operations involving the transportation and use of equipment and vehicles in strict accordance with the requirements shown on Exhibit F, which is attached hereto and made part hereof. All road building and logging equipment shall be washed prior to moving in and moving out of the Contract Area to control the spread of noxious weeds and Port-Orford cedar root disease.

(19) To minimize the risk of attracting predators to activity areas, all garbage (especially food products) shall be contained or removed daily from the contract area pursuant to Sec. 27 of this contract.

(20) Maintain and refuel heavy equipment a minimum of one hundred fifty (150') feet away from streams and other water bodies. Refuel small equipment at least one hundred (100') feet from waterbodies to prevent direct delivery of contaminants into a waterbody. Refuel small equipment from no more than five (5) gallon containers. A small spill kit is required to be on-site during operations. In the event of a spill or release, take all reasonable and safe actions to contain the material. Specific actions are dependent on the nature of the material spilled. If more than forty-two (42) gallons of fuel or combined quantity of petroleum product and chemical substances would be transported to a project site as project materials, a spill kit that can absorb and contain fifty-five (55) gallons of petroleum product and chemical substances shall be readily available. Purchaser shall be responsible for the clean-up, removal, and proper disposal of contaminated materials from the site in accordance with Section 28 of the contract.

(21) Log Branding and Painting:

Unless otherwise authorized in writing by the Contracting Officer, the Purchaser shall brand clearly and legibly one end of all logs with a scaling diameter (small end inside bark) of over ten (10) inches, prior to the removal of timber from the contract area. All loads of eleven (11) logs or more shall have a minimum of ten (10) logs clearly and legibly branded on one end regardless of the diameter of the logs. All logs shall be branded on loads of ten (10) logs or less. One end of all branded logs to be processed domestically shall be marked with a three (3") square inch spot of highway yellow paint. The purchaser shall stop trucks for accountability monitoring at mutually agreed upon locations when notified by the Authorized Officer. If multiple trailers (mule trains) are used, each bunked load shall be considered an individual load, and these guidelines shall apply to each bunked load. If a flatbed stake trailer is used, each bundle shall be treated as a separate load. At the discretion of the Contracting Officer, the Purchaser may be required to brand and paint all logs. Any increased costs for log branding and painting shall be the responsibility of the Purchaser.

(22) Snag Creation:

The Purchaser shall, within one (1) year following the completion of yarding operations, create one thousand two hundred and twenty (1,220) snags total as directed by the Authorized Officer and in accordance with Exhibit I the following stipulations:

(a) The Purchaser shall create (1,020) snags in the Partial Cut Area, locations and quantities indicated on the Exhibit I map, and as directed by the Authorized Officer.

(b) The Purchaser shall create (200) snags dispersed in the Snag Creation Area, locations and quantities indicated on the Exhibit I map.

(c) The Purchaser shall create a variety arrangement across the timber sale area of scattered single snags and groups of snags.

(d) The Purchaser may meet snag creation requirements with trees of any species, except western redcedar (Thuja plicata).

(e) Snags shall generally be created by girdling live, green trees between three (3') and four (4') feet above the ground and removing a four (4) inch wide band of bark. Make one (1) cut three-quarter (3/4) circumference around the tree and penetrate through the cambium layer into the wood at least one-half (1/2"), but not more than one and one-half (1 ½") inch. Specified within the Exhibit I.

(f) The Purchaser shall not girdle trees for snag creation within one hundred (100) feet (minimum slope distance) of any open or unblocked roads, unless approved by the Authorized Officer.

(g) Any tree with the following characteristics shall be avoided for snag creation treatment:
1. Existing broken tops (live or dead trees), multiple-top, or dead-top trees.
2. Trees exhibiting severe mechanical damage, fire scars, obvious disease, or decay (Example: root rot fungi at base or large mistletoe platforms).
3. Any tagged tree (bearing tree or designated genetic/research tree).
4. Any tree greater than thirty (30") inches diameter at breast height.

b. Road Construction

(1) The Purchaser shall construct, improve, and renovate road in strict accordance with the road plans and specifications, shown on Exhibit C, which is attached hereto and made a part hereof.

(2) Within the designated seasonal and daily timing restriction area, as shown on Exhibit A, to portions of roads 21-8-7.0, the following activities shall cease in the period between April 1 and August 5:

Road construction, blasting, chainsaw and heavy equipment operation associated with yarding, tree climbing, mechanical harvest, and/or slash piling operations as determined by the Authorized Officer to be above ambient noise levels. In addition, a daily timing restriction confines operations to the period from two (2) hours after sunrise to two (2) hours before sunset between August 6 and September 15 of the same calendar year, both days inclusive.

(3) Within the designated Blasting Timing Restriction area, as shown on Exhibit A (page 2) to portions of the roads 21-8-7.0, 21-8-8.1, 21-8-18.1, 21-9-13.6, Spur 1, and Spur 3, blasting shall cease in the period between April 1 and August 5. In addition, a daily timing restriction

confines operations to the period from two (2) hours after sunrise to two (2) hours before sunset between August 6 and September 15 of the same calendar year, both days inclusive.

(4) Any required construction, improvement, or renovation of structures and roads shall be completed and accepted prior to removal of any timber, except right-of-way timber, over that road.

(5) In addition to the requirements set forth in Sec. 26 of this contract, the Purchaser shall complete erosion control and soil stabilization measures on all cuts, fills, waste areas, and scarified areas, as designated by the Authorized Officer, along all sections of roadway disturbed during the year typically prior to October 15th of each year. The Authorized Officer may set time limits for the beginning and completion of erosion control and soil stabilization measures and modify seasonal dates to conform to existing weather conditions and changes in the construction schedule. Such work shall be accomplished in accordance with Erosion Control and Soil Stabilization, 1700 and 1800 Series, contained in Exhibit C, which is attached hereto and made part hereof.

(6) The Purchaser, prior to construction of landings, shall stake all landing locations in accordance with the requirements set forth in Exhibit C. Concurrently with, or at the termination of logging operations, the Purchaser shall pull back and shape onto the landings all overhanging materials to prevent erosion in accordance with the requirements set forth in Exhibit C.

c. Road Use and Maintenance

(1) The Purchaser shall be required to secure written approval to use or haul equipment over Government owned or controlled structures when that equipment exceeds the maximum allowable weights or dimensions established by the State for vehicles operating without a permit.

(2) Tracked type equipment shall not be allowed to cross over concrete bridge decks, other concrete surfaced structures or asphalt surfaced roads without the proper protection of that surface. Prior approval shall be obtained from the Authorized Officer when crossing with protective devices. Details of such equipment shall be furnished to the Authorized Officer for evaluation of load characteristics, at least thirty (30) days prior to proposed move in. Details shall include:

(a) Axle weights when fully loaded;
(b) Axle spacing;
(c) Transverse wheel spacing;
(d) Tire Size;
(e) Outside width of vehicle;
(f) Operating speed;
(g) Frequency of use; and,
(h) Special features (e.g., running tracks, overhang loads, etc.).

The Purchaser shall be responsible for repair of any damage to structures caused by the use of overweight or over-dimension vehicles: (1) without written approval, (2) in violation of the conditions of a written approval or (3) in a negligent manner. The amount of actual damage shall be determined by the Authorized Officer following a technical inspection and evaluation.

(3) The Purchaser is authorized to use the roads shown on Exhibit E, attached hereto and made a part hereof, for the removal of Government timber sold under the terms of this contract and for haul of mineral material required under the terms of this contract; provided, that the Purchaser shall pay the Government a maintenance and rockwear obligation totaling $55,359.02 shown on Exhibit E. Unless the total maintenance and rockwear fees due BLM are paid prior to commencement of operations on the contract area, payments shall be made in installments payable in the same manner as and together with payments required in Sec 3 of this contract. Timber volume added by modification shall be assessed at a rate of $8.62/MBF for removal of timber over Government controlled roads.

(4) The Purchaser shall perform maintenance and repair of such roads shown on Exhibit D in accordance with the maintenance specifications listed in Exhibit D, attached hereto, and made part hereof.

(5) At all times during the period of operations on the contract area, and upon completion of said operations, the Purchaser shall be liable for maintenance and repair of such roads shown on Exhibit D resulting from wear or damage in accordance with the maintenance specifications as shown on Exhibit D.

(6) With the prior approval of the Authorized Officer, the Purchaser may arrange for cooperative maintenance with other users of any BLM controlled road included in Sec. 44.c.(3) of this contract; provided that such a cooperative arrangement shall not relieve the Purchaser of his liability for the maintenance and repair of such roads resulting from wear or damage, in accordance with this contract. The Purchaser shall furnish the Authorized Officer a copy of any cooperative maintenance agreements entered into with users on these roads.

(7) The Authorized Officer may at any time, by written notice, terminate the Purchaser's operator road maintenance obligations and require instead payment of current Bureau of Land Management (BLM) road maintenance fees for the particular surface type of the road(s) involved. These fees shall be applied to the remaining contract volume on the sale area, as determined by the Authorized Officer, to be transported over the roads listed in Sec. 44.c.(3). If the total road maintenance fee does not exceed $500.00, the Purchaser shall pay such amount in full prior to use of such roads. If the total road maintenance fee exceeds $500.00, the Authorized Officer shall establish an installment schedule of payments of the maintenance obligation.

USE IF ROSEBURG RESOURCES CO. IS NOT THE PURCHASER

(8) In the use of required company roads shown on the Exhibit E, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreements between the United States

and Roseburg Resources Co. (RRC), RWA-C-339. A road use fee of $32,068.44 and a rockwear and maintenance fee of $0.00 payable to RRC pursuant to RWA-C-339. The agreements are available for inspection at the Bureau of Land Management, Coos Bay, Oregon. A performance bond in the amount of $10,000.00 and comprehensive liability insurance will be required by the Licensor.

Prior to commencement of operations, the Purchaser shall furnish to the Authorized Officer a copy of the executed License Agreement issued under the terms of the Right-of-Way Agreements. Default by the Purchaser of said Right-of-Way and Road Use Agreements, of any License Agreements executed pursuant thereto, for failure to pay appropriate road use fees or road maintenance fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision. Road maintenance fees may change during the course of the contract as determined by the Licensor. It is the responsibility of the Purchaser to pay fees current at time of haul.

USE ONLY IF ROSEBURG RESOURCES CO. IS THE PURCHASER

(9) In accordance with 43 CFR §2812.6, 2(a)(5) the following allowances have been made for amortization of capital investment of the roads covered by Road Agreement C-339, with the Purchaser: Road Use Fees totaling $32,068.44. It is understood that the Total Purchase Price stated in Sec. 2 of this contract is the net price and that no deduction will be made from the contract price because of such allowance.

d. Fire Prevention and Control, Hazard Reduction and Logging Residue Reduction

(1) BLM will assume supervisory responsibility for disposal of logging slash. The assumption by the Government of all obligations for the disposal or reduction of fire hazard under state law does not relieve the Purchaser of the obligations to perform the fire prevention, hazard reduction and logging residue reduction measures required by this contract.

(2) Fire Prevention and Hazard Reduction. Primarily for purposes of fire prevention and fire hazard reduction, the Purchaser shall comply with the following provisions:
   (a) Prior to the operation of power-driven equipment in construction or logging operations under this contract during the closed fire season or periods of fire danger, the Purchaser shall, on an annual basis during the term of this contract, prepare fire prevention and control plans to the satisfaction of the Authorized Officer.

   (b) Slash shall be disposed of in accordance with the written instructions of the Authorized Officer.

(3) Logging Residue Reduction. Primarily for hazardous fuel reduction, watershed protection and silvicultural purposes, the Purchaser shall comply with the following provisions:
   (a) In addition to the requirements of Section 15 of this contract, the Purchaser shall be responsible for logging residue reduction at all landing sites in the sale area.

Specifications for RHRA and Landing Piling

(b) Within the RHRA's, the Purchaser shall (1) remove logging residue for offsite utilization or (2) pile on site for burning. Within the RHRA, all logging residue one-half inch to four inches (small end diameter) which is greater than two feet in length and is within twenty feet slope distance of the outside edge of the road shoulder shall be removed or piled. Logging residue includes slash from the harvest operations and related road construction, renovation or improvement. Removal/piling shall be accomplished by hand or with mechanized equipment capable of reaching the required twenty feet without leaving the road surface.

(c) At all landing sites within the sale area, the Purchaser shall either (1) remove from the site for offsite utilization or (2) pile for burning, all logging residue that is presently on and around the immediate vicinity of the landing site.

(d) Any logs or useable residue identified in the contract as reserved shall remain the property of the Government and may not be shipped for offsite utilization.

(e) Prior to commencement of logging residue removal, the Purchaser shall provide advanced notification to the Authorized Officer in order to arrange for on-site inspections of the removal operations. Upon completion of residue removal, the Purchaser shall notify the Authorized Officer to arrange for a final inspection of the RHRA's and landing sites.

(f) Unless approved in advance by the Authorized Officer, landing piling shall be completed at each yarding location (setting) at the conclusion of yarding operations at that setting while logging equipment is on site. Machine piling of the RHRA concurrently with logging operations is recommended but shall be completed at the conclusion of harvest operations.

(g) Unless directed or approved by the Authorized Officer, no landing or RHRA piles shall be constructed within twenty feet of any reserved green trees, snags, marked wildlife trees, corrugated plastic pipes (CPP's) or other constructed feature or improvement that could be damaged by fire.

(h) Logging residue within the immediate vicinity of the landing and any residue that overhangs the landing sites that can be reached with the logging equipment on site shall be pulled completely back up onto the landing surface and either piled for burning or segregated for other uses.

(i) Logging residue meeting the criteria set forth in Sec. 44.a.(12), shall not be piled for burning but shall be segregated into separate piles that are no closer than twenty feet from residue piles that will be burned.

(j) If during the course of pile construction or during a final acceptance inspection, the Authorized Officer determines that landing or RHRA piles contain excessive amounts of logging residue that meets the specifications as described in Sec. 44.a.(12), the purchaser may be required to remove the specified residue from the burn piles.

(k) Root wads from road and landing construction activities shall not be included in the landing or RHRA piles. Piling of slash on top of root wad piles is not permitted. Any root wad piles found by the Authorized Officer to be capped by slash will require the removal and re-piling of the slash by the Purchaser.

(l) To promote efficient and complete burning, landing and RHRA piles shall be constructed as upright as possible and have a solid base to promote stability and prevent toppling. Construction of low-profile, flat topped piles is generally considered as unacceptable. The Purchaser is responsible for ensuring that properly shaped; contoured and stable landing piles are constructed.

(m) During or after pile construction, landing and RHRA piles shall be shaped and contoured in such a manner that will allow for polyethylene (PE) sheeting to lay in a smooth and uniform manner completely across the top and partially down the sides of the pile to promote shedding of water, prevent pooling of water and to reduce the possibility of PE sheeting being ripped or torn by underlying slash or from wind. Landing and RHRA piles found by the Authorized Officer not meeting this shaping requirement shall be reconstructed or reshaped by the Purchaser.

(n) The Purchaser shall request an inspection of landing and RHRA piles before equipment used in piling is moved off site. If piling equipment is moved off site before inspection and the piles are subsequently found to be noncompliant with the specifications and require a re-work, the Purchaser shall be responsible for costs associated with move-in of piling equipment to rework piles. Unless approved by the Authorized Officer, all requests for inspection of landing and RHRA piling shall be made in writing (email is acceptable) at least ten days in advance of planned equipment removal.

Specifications for RHRA and Landing Pile Covering

(o) Only landing and RHRA piles that have been inspected and approved by the Authorized Officer shall be covered. Pile covering shall be completed no later than September 15 of the current year at all RHRA segments and landing sites where yarding activities have been completed. This applies to each year that the timber sale is active.

(p) The Purchaser shall place polyethylene (PE) sheeting, minimum four MIL thickness and black in color over the pile so as to provide an adequate level of protection from fall/winter rains. PE sheeting shall lie uniformly and as smoothly as possible across the top of the pile and shall extend partially down the sides. For small properly constructed piles with base dimensions of approximately 10 ft. x 10 ft. or less, the

size of the PE sheeting should be a minimum of 100 square feet.

(q) To meet ignition and combustion needs, larger piles will require additional PE sheeting to adequately cover the pile and protect it from wetting fall/winter rains. The Purchaser shall contact the Authorized Officer before any pile covering begins to receive specific direction on which piles will require additional covering. At that time, the Authorized Officer will identify all piles that shall have additional PE sheeting. If piles are covered without the advice and consent of the Authorized Officer and are subsequently found to be inadequately covered, the Purchaser may be required to re-cover or add additional covering to the piles before acceptance is made.

(r) At landing sites with excessive logging residue that overhangs the landing which cannot be reached and pulled back up onto the landing with equipment on site, the Purchaser shall place additional PE sheeting over the residue concentrations below the landings.

(s) On roads that have been closed and/or decommissioned, decks of Purchaser owned logs that were not shipped by the Purchaser shall be covered with PE sheeting for burning. The Authorized Officer may waive this requirement if future utilization is determined to be feasible. Decks of reserved logs belonging to the Government are exempt from this requirement.

(t) All PE sheeting shall be weighted down with slash or logging debris in order to prevent blowing off or sliding. An adequate amount of anchoring material should be placed on top of the pile but no more than 20 percent of the material to be piled may be placed on top of the PE sheeting.

(u) Piles of root wads generated from road and landing construction activities and piles of residue identified by the Authorized Officer for other uses shall not be covered with PE sheeting. If root wad piles are found to be covered the Authorized Officer may require the removal and disposal of PE sheeting.

Specifications Applicable to Landing and RHRA Pile Burning

(v) In accordance with verbal or written instructions to be issued by the Authorized Officer at least ten days in advance of the earliest date of required performance, the Purchaser shall, under supervision of the Authorized Officer or his/her designated representative, assist in burning and fire control, at the Purchaser's expense, provide the services of personnel and equipment as follows:

1. The Purchaser shall begin pile burning within fourteen hours of notification by the Authorized Officer.

2. The Purchaser shall dispose of removed PE sheeting in accordance with any

applicable Federal, State, and municipal laws. Removed PE sheeting shall not be disposed of in burn piles

3. All personnel directly involved in burning operations must have a current qualification card for FFT2 or higher. All qualifications are defined according to National Wildfire Coordinating Group (NWCG) Wildland Fire Qualifications System guide, PMS 310-1. Qualifications and equipment levels are the minimum and may exceed those stated above. All listed personnel shall be physically fit, experienced and fully capable of functioning as required. All personnel shall arrive at the project area with the following personal safety equipment: lug-soled leather boots with minimum eight (8) inch uppers that provide ankle support; an approved hardhat; leather gloves; long pants and a long sleeve shirt made of approved aramid fabric (Nomex or equivalent); and an approved fire shelter.

4. For each entry, the Purchaser may provide more personnel, equipment and materials than indicated but no less than the minimum requirements below unless approved in advance by the Authorized Officer. Minimum personnel, equipment and materials requirements for burning landing and RHRA piles are:

    a. One English-speaking foreman for crew supervision.
    b. Five people to assist the foreman in pile burning.
    c. Six drip torches and sufficient mixed fuel to complete all pile burning.

5. A minimum of ninety percent consumption of each pile is required. Stoking of piled material around pile edges may be required to meet the 90% consumption requirement. Stoking can be accomplished by hand or the Purchaser will be allowed to use heavy equipment (if onsite) to facilitate stoking or re-piling of residue during pile burn operations. If used, the heavy equipment shall not be allowed to operate off of all-weather road surfaces.

6. No mop-up is required of the Purchaser.

7. Multiple entries over the life of the contract may be required to complete pile burning. Purchaser provided personnel; equipment and materials requirements will remain the same as No. 4 above for each entry. Any change in the requirements must be approved in advance by the Authorized Officer.

(w) Buyout Securities

1. The Purchaser shall assist in pile burning as described in Section 44.e.(3)(v). The Purchaser shall have the option of completing the work, or in lieu thereof, may make a buyout security deposit to the Bureau of Land

Management in the amount of five-thousand, eight hundred two and 68/100 dollars ($5,802.68) and upon making such contribution, the Purchaser shall be relieved of the obligations set out in this subsection. The Purchaser shall notify the Authorized Officer of their intention to make this deposit prior to the date of the execution of this contract, and the Purchaser shall pay such amount in full prior to the commencement of operations.

(x) Time is of the essence in complying with these provisions. In the event the Purchaser fails to provide the personnel, equipment and materials required herein, the Purchaser shall be responsible for all additional costs incurred by the Government in disposing of slash including but not limited to the wages and other costs of providing federal employees and others as substitute labor force, the cost of providing substitute equipment, materials and appropriate additional overhead expenses. If the Purchaser's failure results in deferral of treatments and conditions necessitate additional site preparation work and/or the use of additional personnel and equipment to accomplish the planned treatments, the Purchaser also shall be responsible for such additional costs.

e. Optional Scale Check Lump Sum Sales

The Government, at its option, may administratively check scale any portion of the timber removed from the contract area, and if necessary, conduct check scaling of independent scalers contracted to BLM for administrative check scaling purposes. The Purchaser hereby agrees to make such contract timber available for such scaling at a location or locations to be approved in writing by the Authorized Officer. At the approved location or locations, the Purchaser shall provide an area for logs to be safely rolled out for scaling, to unload logs from trucks, place logs in a manner so that both ends, and three faces of each log are visible for scaling, and to reload or remove logs after scaling has been completed.

In the event that BLM elects to administratively check scale and if such check scaling causes a delay in log transportation time, an adjustment shall be made to the purchase price as follows. If the entire sale is check scaled by yard scale, the purchase price of this contract shall be reduced by $4,818.00. In the event only a portion of the contract timber is scaled, the purchase price shall be reduced by that portion of $4,818.00 which is equal to the percentage of timber sold which was actually scaled by the Government. For purposes of computing this price reduction, the percentage of timber sold which has been scaled shall be determined by the Government. Any reduction in purchase price under the terms of this provision shall be full compensation to the Purchaser for any expense or loss incurred as a result of such scaling. Scaling shall be conducted in accordance with the Eastside Scribner Scaling Rules by BLM scalers, and/or independent scalers contracted to BLM. A copy of the scale report shall be made available to the Purchaser upon request

Exhibit F

Sheet 1 of 1

SPECIAL PROVISIONS TO CONTROL THE SPREAD OF NOXOIUS WEEDS AND PORT-ORFORD CEDAR ROOT DISEASE

Vehicle and Equipment Cleaning:

(1) Cleaning shall consist of the removal of soil and debris by washing with a high-pressure hose or steam cleaning. Cleaning and inspection sites shall be agreed to by Purchaser and BLM. All petroleum product residues shall be contained at wash sites and dealt with in accordance with DEQ standards. Purchaser shall provide an approved plan for the cleaning station that demonstrates that the station meets all DEQ and water quality regulations. All necessary permits shall be obtained by the Purchaser.

(2) All equipment parts shall be cleaned as designated by the Authorized Officer, including removal of tractor belly plates in accordance with Sec. 1 above.

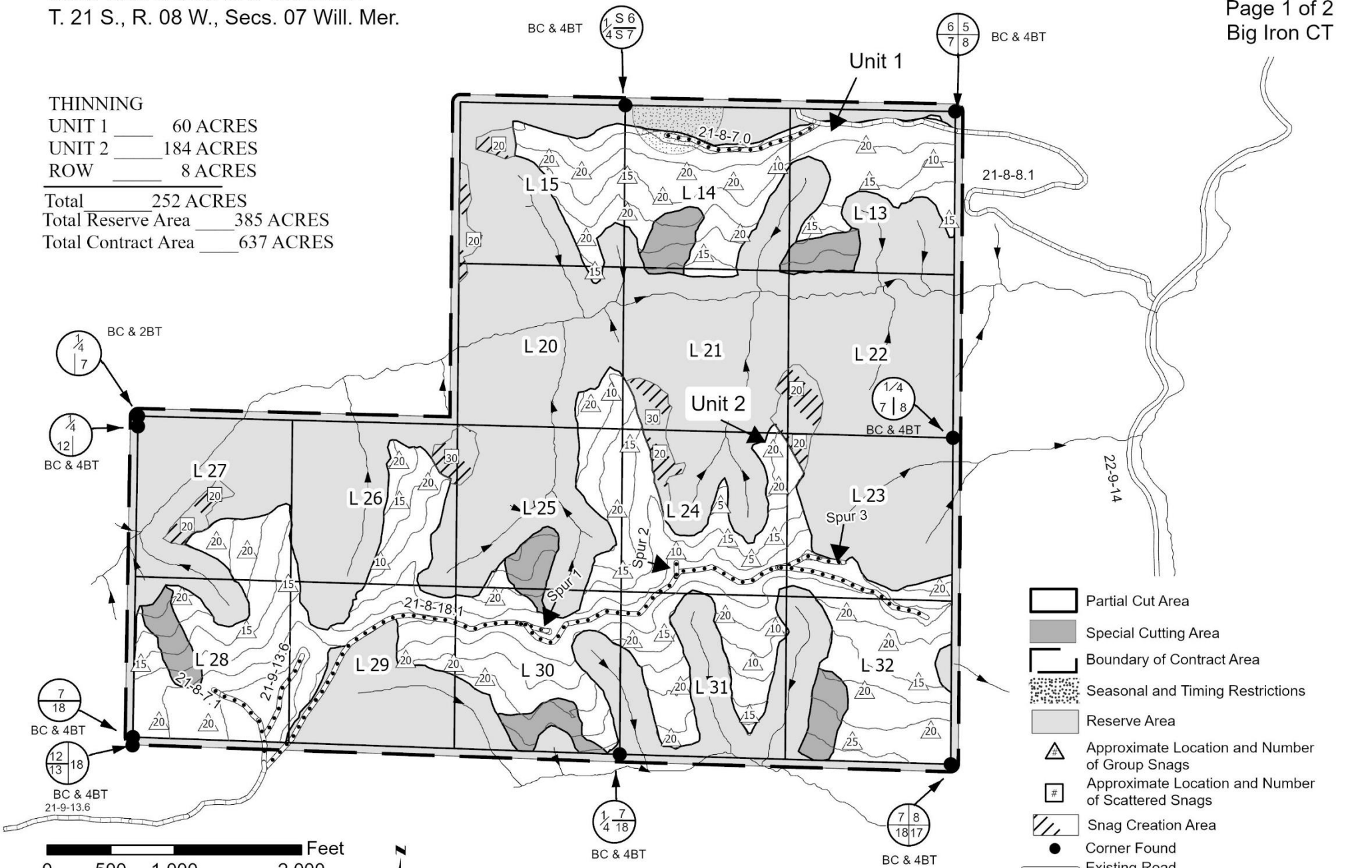
All construction, logging, and slash disposal equipment shall be cleaned prior to entering and exiting the contract area. The Authorized Officer will determine if log trucks and vehicles used for the transportation of personnel shall be cleaned, based upon the location of use immediately prior to the current timber sale. If the vehicles have been in a weed-infested area, they shall be washed before entering the Contract Area, as shown on the Exhibit A.

TIMBER SALE CONTRACT MAP
USDI-BLM COOS BAY DISTRICT
T. 21 S., R. 08 W., Secs. 07 Will. Mer.

SALE NO. ORC03-TS-2027.0002
EXHIBIT I
Page 1 of 2
Big Iron CT

THINNING
UNIT 1 ____ 60 ACRES
UNIT 2 _____184 ACRES
ROW _____ 8 ACRES

Total_____252 ACRES
Total Reserve Area ____385 ACRES
Total Contract Area ____637 ACRES



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

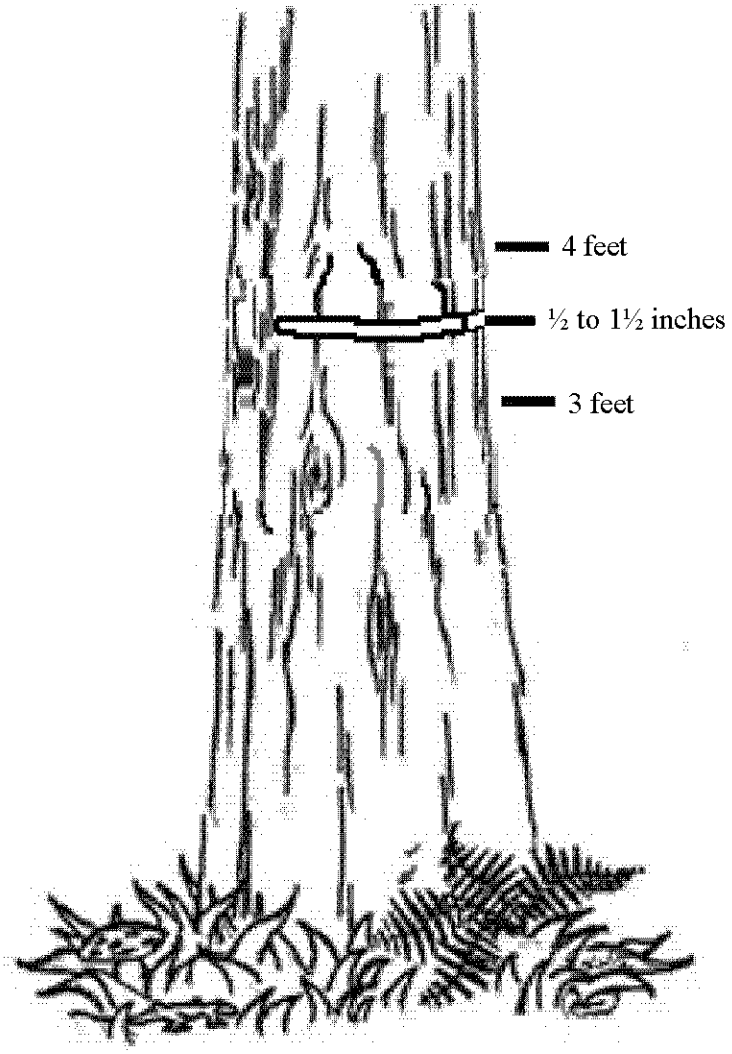
SPECIFICATIONS FOR BASAL GIRDLING

GENERAL:

(1) Cut around the tree. The cut must extend at least ¾ of the circumference, around the tree and penetrate through the cambium layer into the wood at least ½ inch, but not more than 1 ½ inches. Trees shall be girdled between three (3) and four (4) feet above ground level measured from the uphill side of the tree.

Illustration 1- Basal Girdling

Basal-Girdling example: make one (1) ¾ circumference girdle around the tree. The cut must penetrate at least ½ inch, but not more than 1 ½ inches into the wood of the tree. Trees shall be girdled between 3 and 4 feet from the ground.



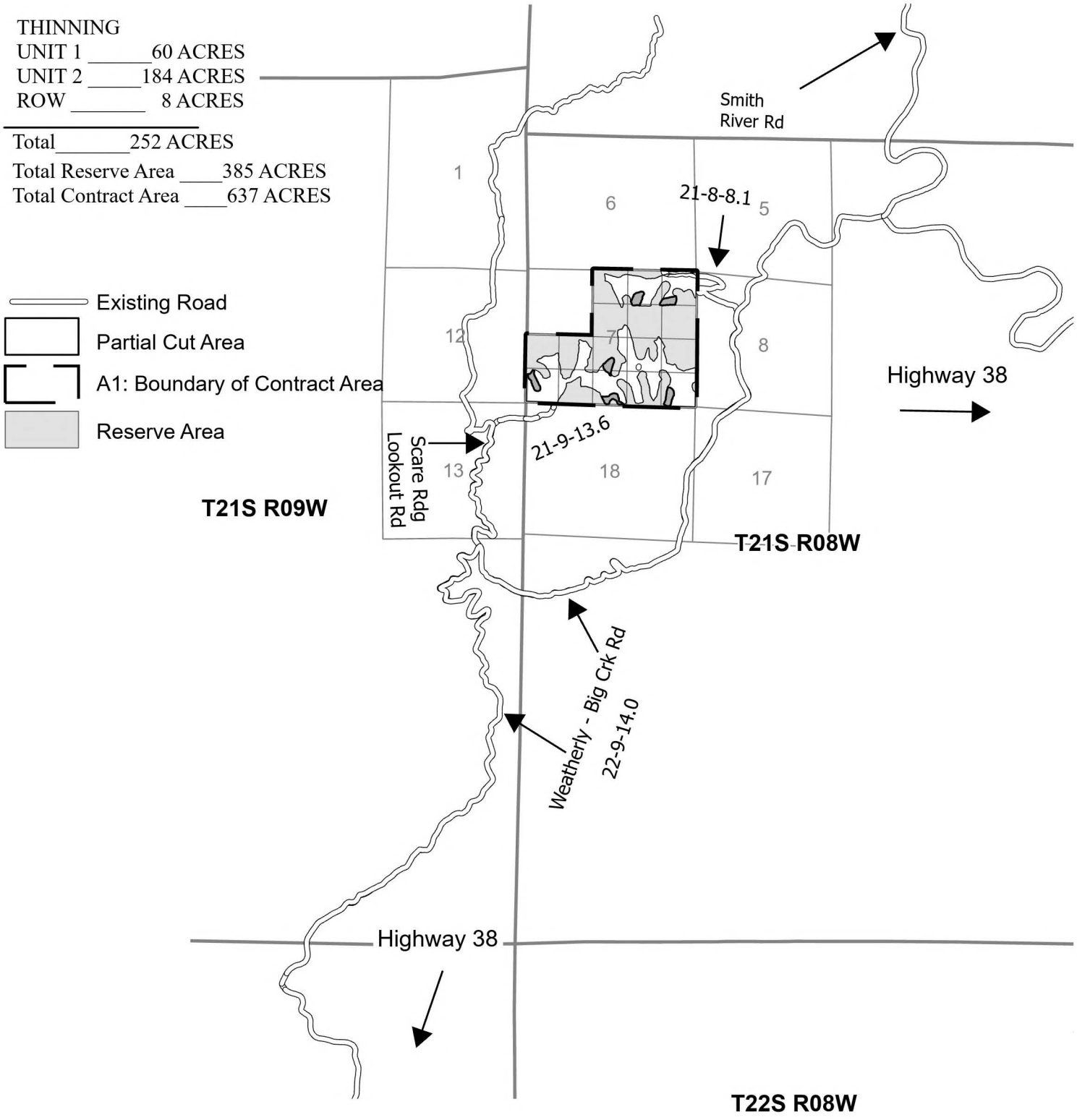
TIMBER SALE CONTRACT MAP
USDI-BLM COOS BAY DISTRICT
T. 21 S., R. 08 W., Sec. 07 Will. Mer.

SALE NO. ORC03-TS-2027.0002
EXHIBIT A-1

Big Iron CT

THINNING
UNIT 1 _____60 ACRES
UNIT 2 _____184 ACRES
ROW _____ 8 ACRES

Total_____252 ACRES
Total Reserve Area ____385 ACRES
Total Contract Area ____637 ACRES



Scale 1 inch = 1 mile

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

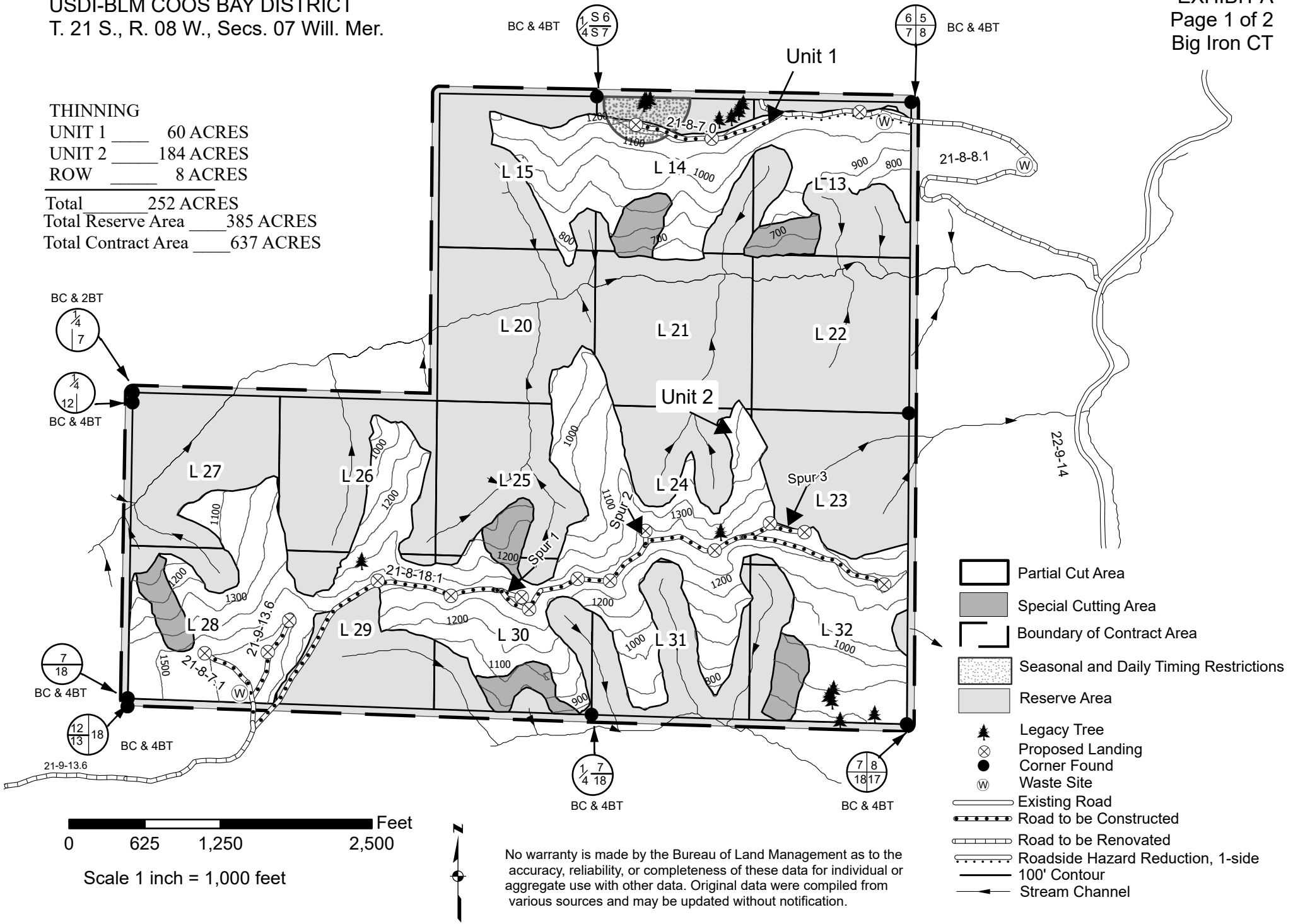
TIMBER SALE CONTRACT MAP
USDI-BLM COOS BAY DISTRICT
T. 21 S., R. 08 W., Secs. 07 Will. Mer.

SALE NO. ORC03-TS-2027.0002
EXHIBIT A

Big Iron CT

THINNING
UNIT 1 ____ 60 ACRES
UNIT 2 _____184 ACRES
ROW _____ 8 ACRES

Total_____252 ACRES
Total Reserve Area ____385 ACRES
Total Contract Area ____637 ACRES



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

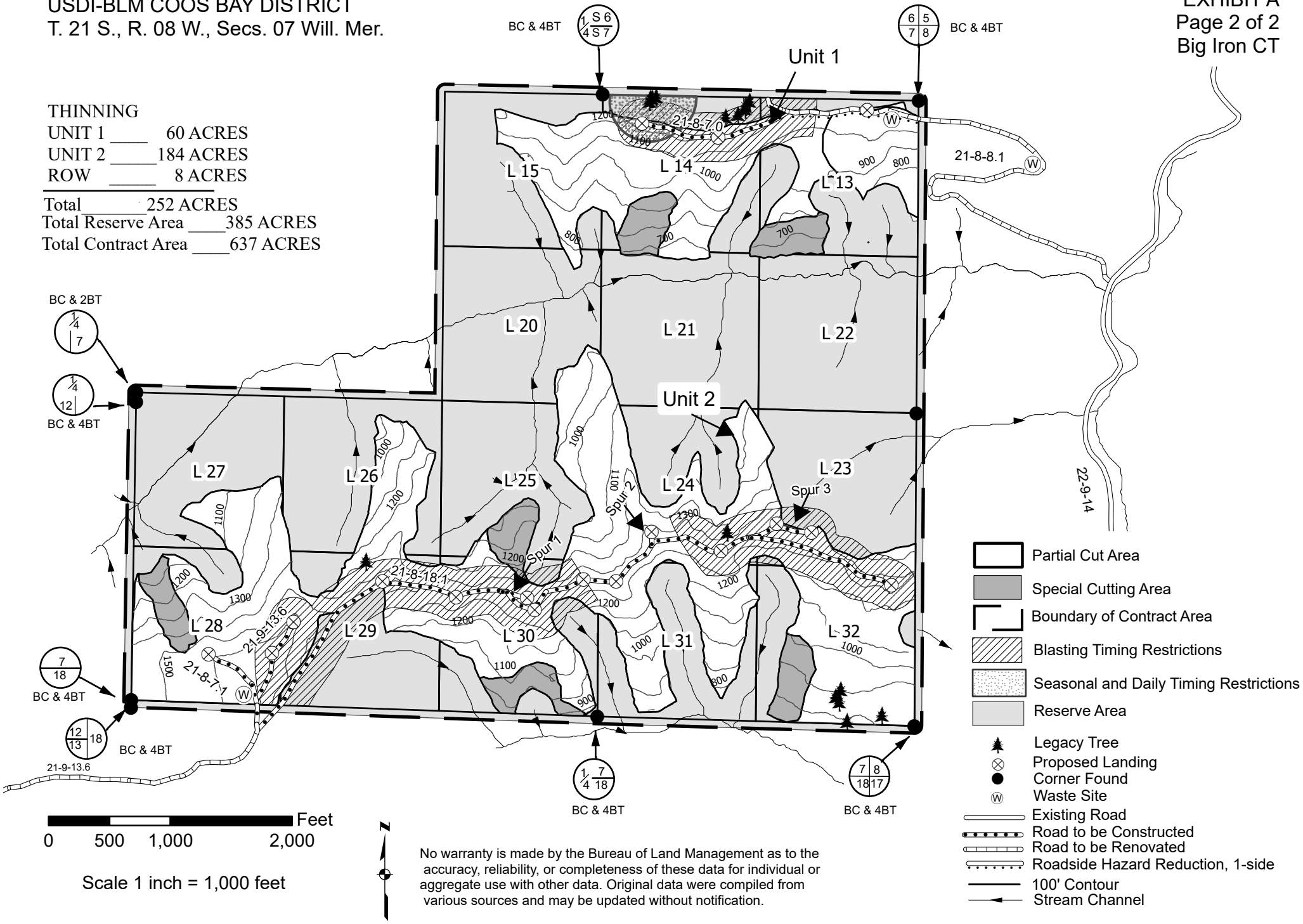
TIMBER SALE CONTRACT MAP
USDI-BLM COOS BAY DISTRICT
T. 21 S., R. 08 W., Secs. 07 Will. Mer.

SALE NO. ORC03-TS-2027.0002
EXHIBIT A

Big Iron CT

THINNING
UNIT 1 ____ 60 ACRES
UNIT 2 _____184 ACRES
ROW _____ 8 ACRES

Total _____252 ACRES
Total Reserve Area ____385 ACRES
Total Contract Area ____637 ACRES



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Contract No: ORC03-TS-2027.0002

SALE NAME Big Iron

EXHIBIT B
LUMP SUM SALE

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 6, 9, or 11, (2) when payments are due; and (3) value of timber subject to any special bonding provisions. Except as provided in Sec. 2, Purchaser shall be liable for total purchase price even though quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on Exhibit A.

SPECIES	ESTIMATED VOLUME	PRICE PER UNIT	AMOUNT OF ESTIMATED VOLUME OR QUANTITY x UNIT PRICE
Douglas-fir	6401 MBF	$ 71.40	$ 457,031.40
western hemlock	6 MBF	$ 43.60	$ 261.60
red alder	17 MBF	$ 45.70	$ 776.90
Biomass	1930 Ton	$ 0.05	$ 96.50
Totals	6424 MBF		$ 458,166.40

Approx. No. of Trees	UNIT NO. 1	EST. NET MBF VOL.			
7827	Douglas-fir	1548	71.4	110527.2	
0	western hemlock	0	43.6	0	
29	red alder	4	45.7	182.8	
0	Biomass	800	0.05	40	
7856	TOTALS	1552			
			Acres =	60	/Ac.
			Unit Total		110750

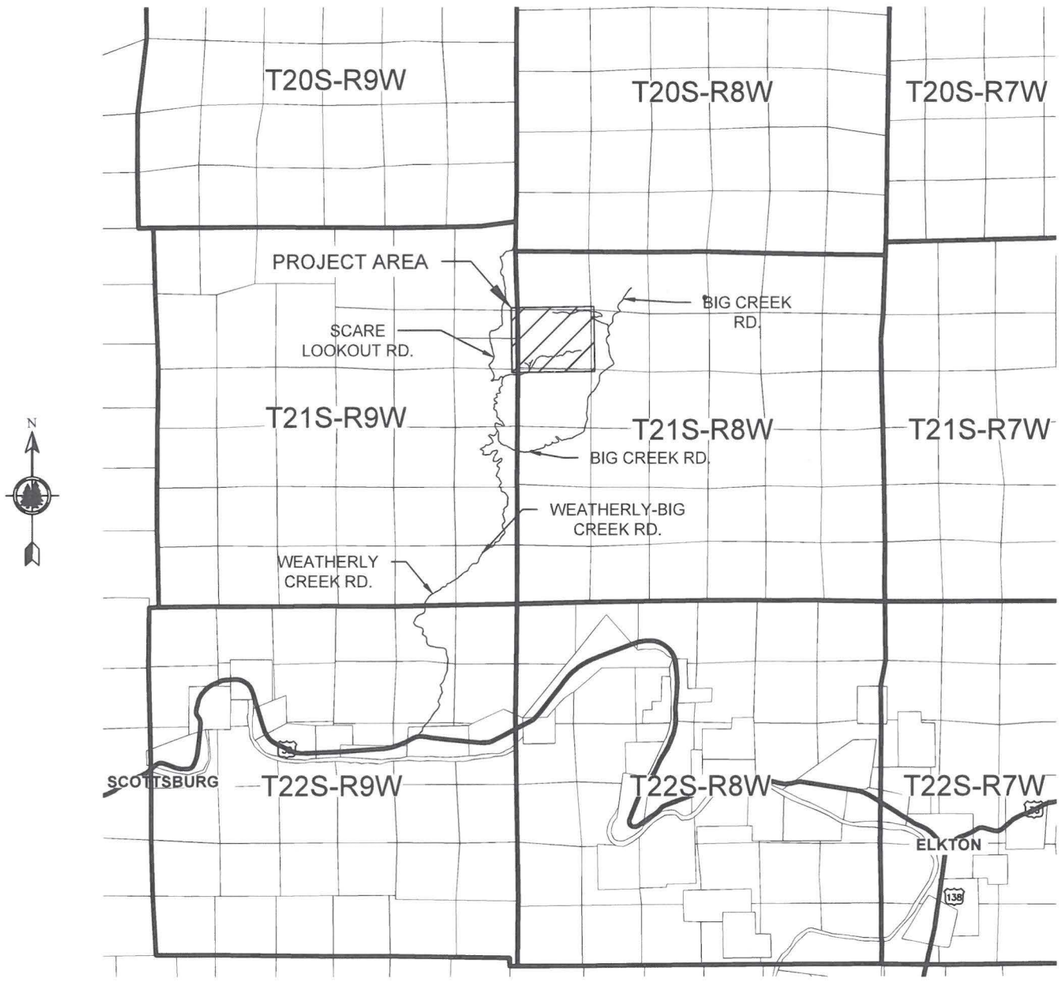
Approx. No. of Trees	UNIT NO. 2	EST. NET MBF VOL.			
23725	Douglas-fir	4459	71.4	318372.6	
0	western hemlock	0	43.6	0	
96	red alder	13	45.7	594.1	
0	Biomass	1130	0.05	56.5	
23821	TOTALS	4472			
			Acres =	184	/Ac.
			Unit Total		319023.2

Approx. No. of Trees	UNIT NO. RW	EST. NET MBF VOL.			
2139	Douglas-fir	394	71.4	28131.6	
88	western hemlock	6	43.6	261.6	
0	red alder	0	45.7	0	
0	Biomass	0	0.05	0	
2227	TOTALS	400			
			Acres =	8	/Ac.
			Unit Total		28393.2

EXHIBIT: C
TIMBER SALE NAME: BIG IRON CT
TIMBER SALE NUMBER: ORC03-TS-2027.0002

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

COOS BAY DISTRICT OFFICE
UMPQUA RESOURCE AREA



SHEET	CONTENTS
1	TITLE
2	WORK LOCATION MAP
3	TYPICAL SECTION DETAILS
4	CULVERT INSTALLATION DETAILS
5	CULVERT CONTINUED & ROADSIDE BRUSHING DETAIL
6-23	PLAN & PROFILE FULL DESIGN ROADS
24	ESTIMATE OF QUANTITIES

ABBREVIATIONS			
BC	BEGINNING OF CURVE	id	INSIDE DIAMETER
BVC	BEGINNING OF VERTICAL	MIN	MINIMUM
CMP	CORRUGATED METAL PIPE	MP	MILE POST
CPE	CORRUGATED POLYETHYLENE PIPE	od	OUTSIDE DIAMETER
CMP	CORRUGATED PLASTIC PIPE	P-LINE	PRELIMINARY ROAD CENTERLINE
CY	CUBIC YARDS	RD	ROAD
D	DIAMETER	STN/STA	STATION
EC	END OF CURVE	TS	TIMBER SALE
EVC	END OF VERTICAL CURVE	STL	STEEL
FT	FEET	VC	VERTICAL CURVE
Galv	GALVANIZED	W/	WITH

REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Stuntzner Engineering & Forestry, LLC
ENGINEERING * LAND SURVEYING * FORESTRY
LAND PLANNING * WATER RIGHTS

705 SOUTH 4TH STREET
P.O. BOX 118
COOS BAY, OR 97420
PHONE: (541) 267-2872
FAX: (541) 267-0588
www.stuntzner.com

Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	TITLE SHEET	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2.dwg	SHEET 1 OF 24

BLM ROAD NUMBER	DESIGN ROAD NUMBER
21-8-18.1	11-1.1
SPUR 1	11-1.2 NATIVE SURFACE NON-TRUCKABLE SPUR ROAD
SPUR 2	11-1.3 NATIVE SURFACE NON-TRUCKABLE SPUR ROAD
SPUR 3	11-1.4 NATIVE SURFACE NON-TRUCKABLE SPUR ROAD
21-9-13.6C,D	11-2.1 (STA. 0+00 TO STA. 6+00)
21-9-13.6E	11-2.1 NATIVE SURFACE TRUCK ASSIST ROAD (STA. 6+00 TO STA. 9+77.5)
21-8-7.1	11-2.2
21-8-7.0	12-1

NOTES:
1. UPON COMPLETION OF THE TIMBER SALE ACTIVITIES THE NEW ROAD SYSTEMS SHALL BE CLOSED AND BARRICADED AT THE PROPERTY LINES WITH THE INSTALLATION OF A PERMANENT EARTHEN BARRIER.

LEGEND
- EXISTING BLM ROAD
- NEW CONSTRUCTION
- PROPERTY LINE (APPX)
- PROPOSED LANDING.
- (W) WASTE AREA

REGISTERED PROFESSIONAL ENGINEER 96974PE OREGON MAR 09, 2021 JAMES KIRKPATRICK

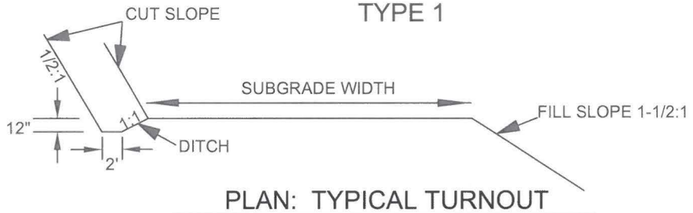
Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

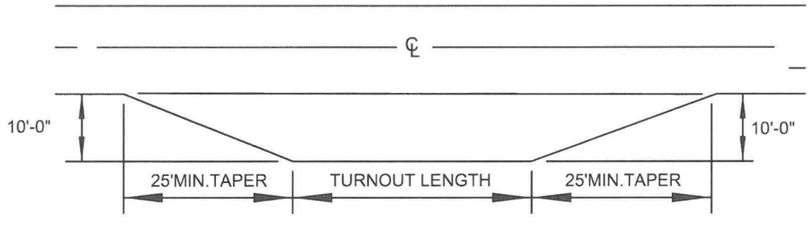
JOB #: 126-049	TIMBER SALE: BIG IRON CT
DATE: SEPT. 2026	WORK LOCATION MAP
DRAWN BY: ABM	
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2.dwg — SHEET 2 OF 24

ROAD NUMBER	FROM STATION	TO STATION	LENGTH MILES	TYPICAL SECTION TYPE	ROAD WIDTH		CLEARING WIDTH		BRUSHING WIDTH		SURFACING								REMARKS
							BEYOND		EXISTING ROADS		BASE COURSE				SURFACE COURSE				
					SUBGRADE	DITCH	TOP CUT	TOE FILL	L	R	MIN TOP WIDTH	COMP. DEPTH	TYPE*	GRADING	MIN TOP WIDTH	COMP. DEPTH	TYPE*	GRADING	
11-1.1	0+00	2+00	0.04	TYPE 4	15'	2'	10	5			13'	5"	"D"	3-0"	12'	3"	"D"	1.5-0"	2% CROWNED W/ DITCH
11-1.1	2+00	62+99.5	1.16	TYPE 1	15'	2'	10	5			NATIVE SURFACE								2% CROWNED W/ DITCH
11-1.2	0+00	4+34.2	0.08	TYPE 1	15'	2'	10	5			NATIVE SURFACE								2% CROWNED W/ DITCH
11-1.3	0+00	1+23.8	0.02	TYPE 1	15'	2'	10	5			NATIVE SURFACE								2% CROWNED W/ DITCH
11-1.4	0+00	5+96.1	0.11	TYPE 1	15'	2'	10	5			NATIVE SURFACE								2% CROWNED W/ DITCH
11-2.1	0+00	6+00	0.11	TYPE 4	15'	2'	10	5			13'	5"	"D"	3-0"	12'	3"	"D"	1.5-0"	2% CROWNED W/ DITCH
11-2.1	6+00	9+77.5	0.07	TYPE 1	15'	2'	10	5			NATIVE SURFACE								2% CROWNED W/ DITCH
11-2.2	0+00	5+80	0.11	TYPE 4	15'	2'	10	5			13'	5"	"D"	3-0"	12'	3"	"D"	1.5-0"	2% CROWNED W/ DITCH
12-1	0+00	19+86.5	0.38	TYPE 4	15'	2'	10	5			13'	5"	"D"	3-0"	12'	3"	"D"	1.5-0"	2% CROWNED W/ DITCH
21-8-8.1	0+00	54+91.2	1.000								SPOT ROCK		"D"	3-0"	SPOT ROCK		"D"	1.5-0"	RESURFACING
21-9-13.6 A&B	0+00	25+34.4	0.48												SPOT ROCK		"D"	1.5-0"	RESURFACING

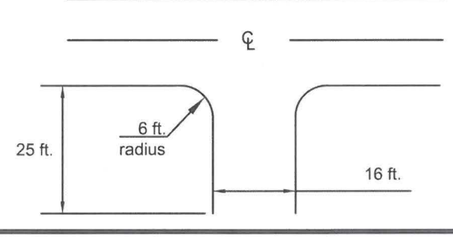
TYPICAL DIRT SECTION
TYPE 1



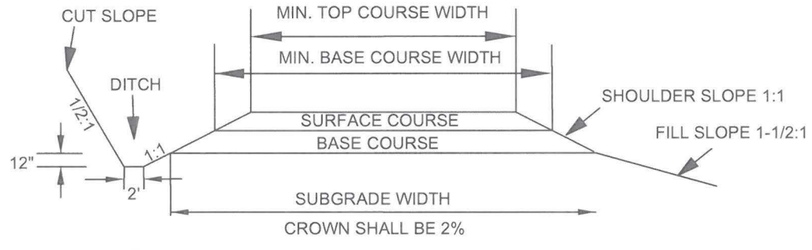
PLAN: TYPICAL TURNOUT



PLAN: TYPICAL TURNAROUND

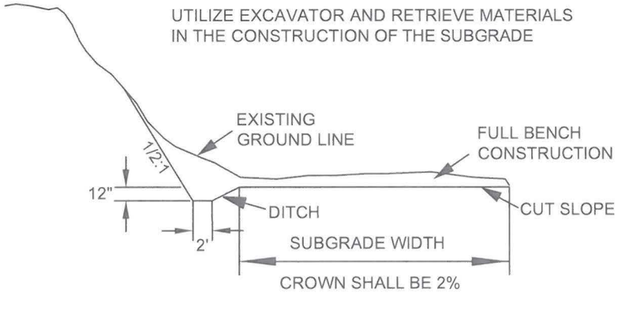


TYPICAL SURFACING SECTION
TYPE 4



TYPICAL GRADING SECTION

UTILIZE EXCAVATOR AND RETRIEVE MATERIALS
IN THE CONSTRUCTION OF THE SUBGRADE



NOTES

1. EXTRA SUBGRADE WIDTHS

   FILL WIDENING:
   - 1 FT TO SHOULDER WIDTH FOR FILLS 1-6 FT IN HEIGHT
   - 2 FT OF SHOULDER WIDTH FOR FILLS 6-10 FT IN HEIGHT
   - 3 FT OF SHOULDER WIDTH FOR FILLS » 10 FT IN HEIGHT

   CURVE WIDENING: MAY OCCUR ON INSIDE AND/OR OUTSIDE OF CURVE. ADD ADDITIONAL SURFACING WIDTH TO CURVE FOR WIDENING AS FOLLOWS:
   - ADD 4 FT FOR CURVES 90'-120' RADIUS
   - ADD 5 FT FOR CURVES 60'-90' RADIUS

2. CUT AND FILL SLOPES

   SECTIONS SHOW TYPICAL MATERIAL TO BE ENCOUNTERED. CUT AND FILL SLOPES WILL BE AS FOLLOWS BY MATERIAL TYPE AND ALSO AS SHOWN ON THE PLANS & SPECIFICATIONS:

MATERIALS	CUT SLOPES	FILL SLOPES
COMMON	1:1	1 1/2:1
SOFT ROCK & SHALE	1/2:1	1:1
SOLID ROCK	1/4:1	REPOSE

3. FULL BENCH

   FULL BENCH CONSTRUCTION IS REQUIRED ON ALL SLOPES EXCEEDING 55% UNLESS OTHERWISE SHOWN ON THE PLANS.

4. SURFACING TYPE

   "A." PIT RUN ROCK MATERIAL
   "B." GRID ROLLED ROCK MATERIAL CUT SLOPE
   "C." SCREENED ROCK MATERIAL
   "D." CRUSHED ROCK MATERIAL

5. SURFACING

   TURNOUTS, CURVE WIDENING AND ROAD APPROACH APRONS SHALL BE SURFACED.

6. DITCHES

   1:1 IN SLOPE FROM ROAD SUBGRADE.

   DITCHOUT REFERS TO AN INTENTIONAL CHANNEL TO DIVERT WATER AWAY FROM THE ROAD AND DISCHARGE TO A STABLE FOREST AREA.

7. TURNOUTS

   A. WIDTH 10 FT. IN ADDITION TO SUBGRADE WIDTH, OR AS SHOWN ON THE PLANS
   B. LOCATED APPROXIMATELY AS SHOWN ON PLANS

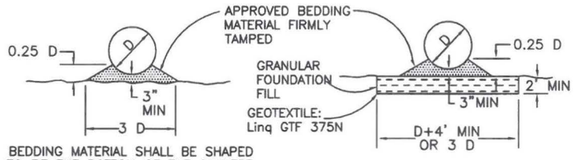
REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	TYPICAL SECTION DETAILS	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2.dwg	SHEET 3 OF 24

BEDDING OF CULVERTS

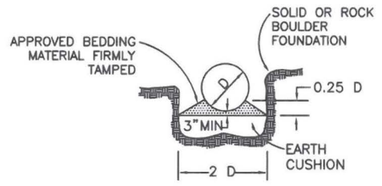


BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT.

BEDDING OF CULVERTS ON STABLE NATURAL GROUND FOUNDATION OR COMPACTED EMBANKMENT

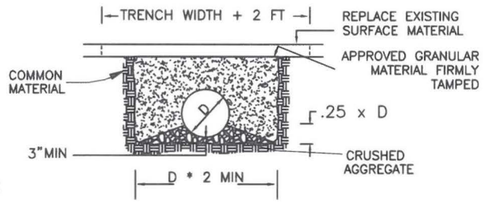
BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT.

BEDDING OF CULVERTS ON SOFT SPONGY OR UNSTABLE SOIL FOUNDATION



BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT. EARTH CUSHIONING OF SILTY CLAY LOAM OR SAND MAY BE USED IF MATERIAL CAN BE PLACED IN THE DRY CONDITION. iF THE EXCAVATION IS WET, USE GRANULAR FOUNDATION FILL MATERIAL. MAIN-TAIN 8" MIN. DEPTH BETWEEN HIGH POINTS OF ROCKS AND/OR BOULDERS AND THE BOTTOM OF THE CULVERT.

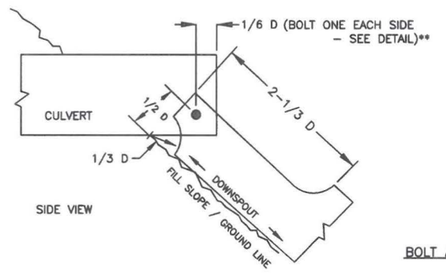
BEDDING OF CULVERT IN SOLID ROCK OR BOULDER FOUNDATION



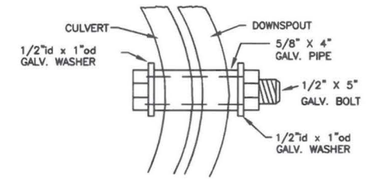
BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT. BACKFILL MATERIAL SHALL BE APPROVED GRANULAR MATERIAL.

BEDDING OF CULVERTS ON EXISTING SURFACED ROADS

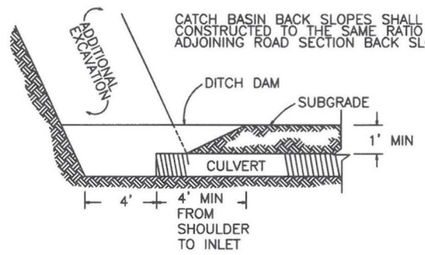
USE "ADJUSTABLE ELBOW" FOR CPE AND CMP DOWNSPOUTS



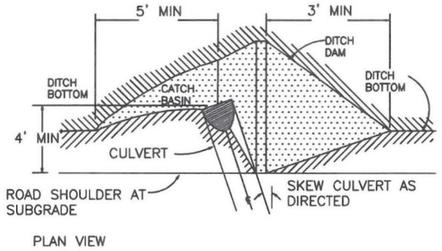
BOLT ASSEMBLY DETAIL**



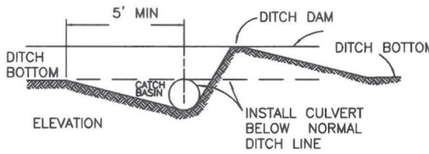
★ NOTE: ANCHOR DOWNSPOUTS ACCORDING TO SECTION 407b OF THE ROAD CONSTRUCTION SPECIFICATIONS



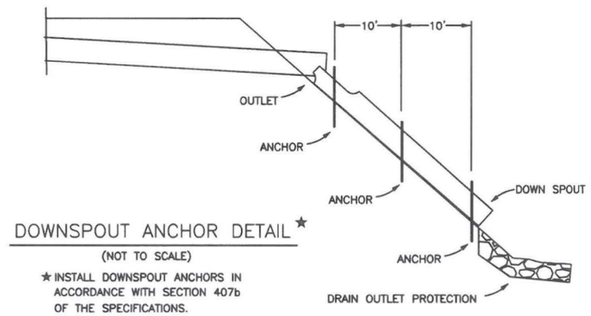
CROSS SECTION AT CATCH BASIN



PLAN VIEW



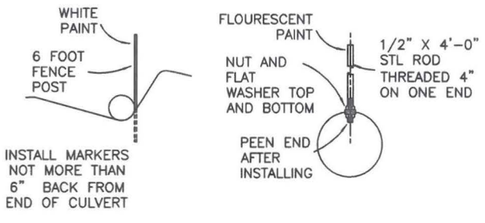
CATCH BASIN



DOWNSPOUT ANCHOR DETAIL ★

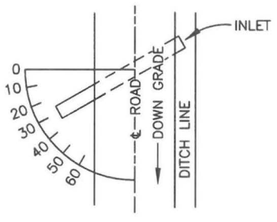
(NOT TO SCALE)

★ INSTALL DOWNSPOUT ANCHORS IN ACCORDANCE WITH SECTION 407b OF THE SPECIFICATIONS.



CPE CMP

CULVERT MARKERS

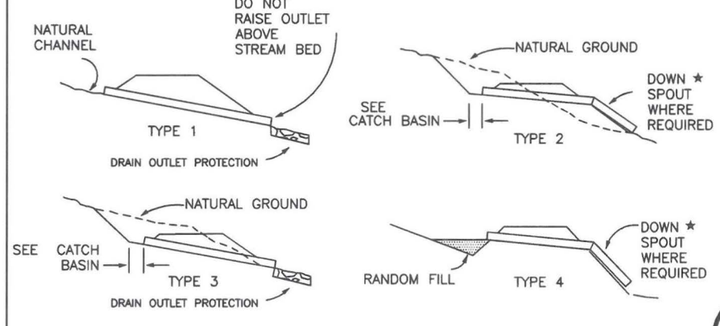


SKEW DIAGRAM

HORIZONTAL SKEW SHALL BE AS SHOWN, OR PERPENDICULAR TO DITCH LINE IN GRADE DIPS. THE GRADE OF CROSSDRAINS SHALL BE AT LEAST 2% GREATER THAN THE GRADE OF THE DITCH, WITH A MAXIMUM GRADIENT OF 5%.

BANDS SHALL MEET MANUFACTURER'S SPECIFICATIONS

CULVERT INSTALLATION TYPES



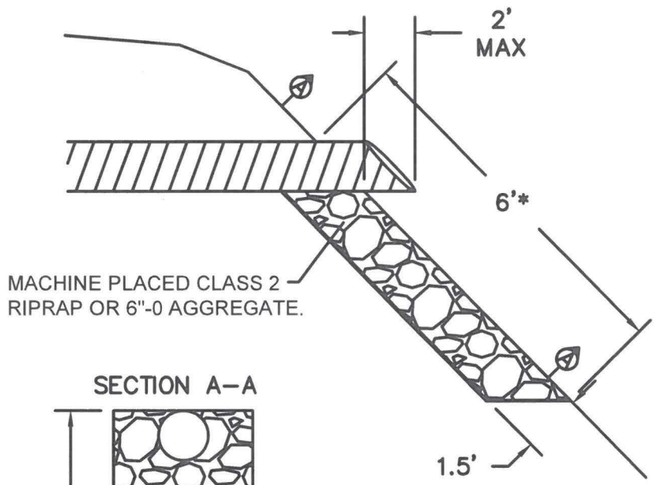
REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Stuntzner Engineering & Forestry, LLC

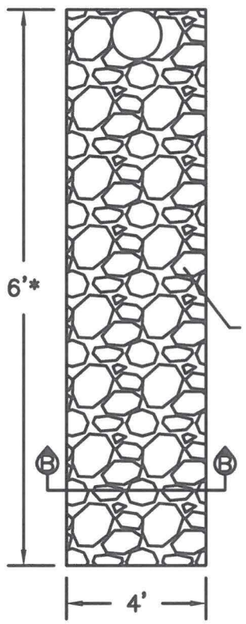
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT
DATE: SEPT. 2026	CULVERT INSTALLATION DETAILS
DRAWN BY: ABM	
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2.dwg — SHEET 4 OF 24

CROSS DRAIN OUTLET PROTECTION DETAIL



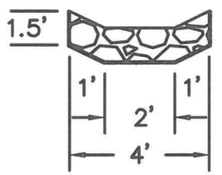
SECTION A–A



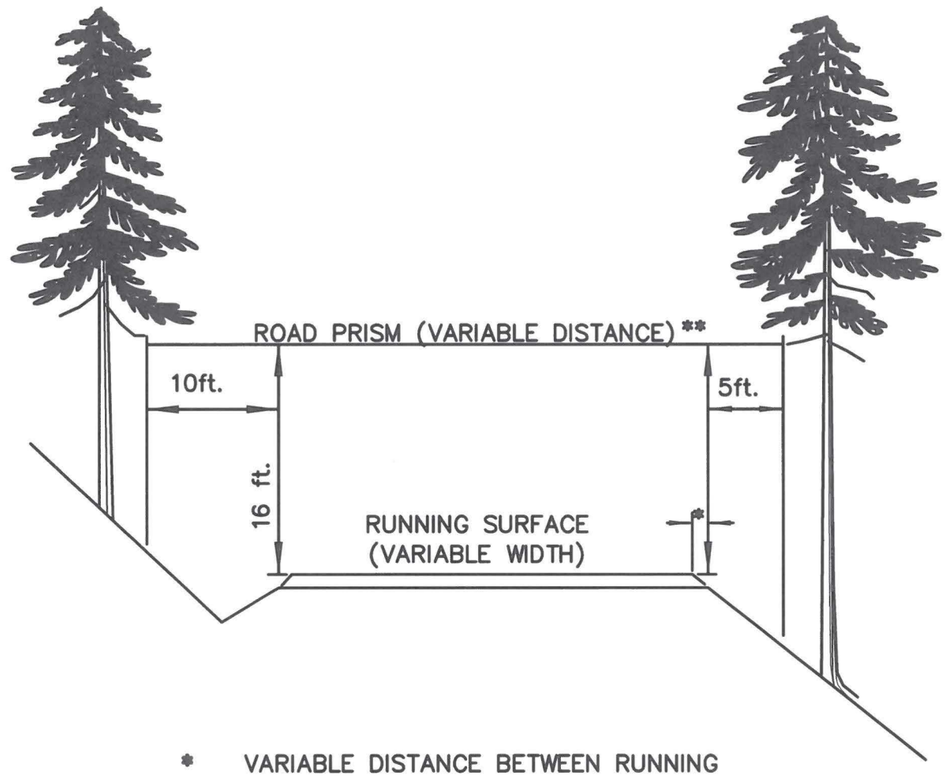
* 6' MIN OR AS DIRECTED BY AO.

MACHINE PLACED CLASS 2
RIPRAP OR 6"-0 AGGREGATE.

SECTION B–B



ROADSIDE BRUSHING DIAGRAM



* VARIABLE DISTANCE BETWEEN RUNNING SURFACE AND START OF FILL SLOPE.

** ALL AREAS WITHIN THE VARIABLE DISTANCE SHALL BE FREE OF ALL VEGETATION CAPABLE OF GROWING ONE (1) FOOT IN HEIGHT OR HIGHER, AND FREE OF ALL OVER–HANGING LIMBS AND BRANCHES 16 FEET IN ELEVATION ABOVE THE RUNNING SURFACE.



Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

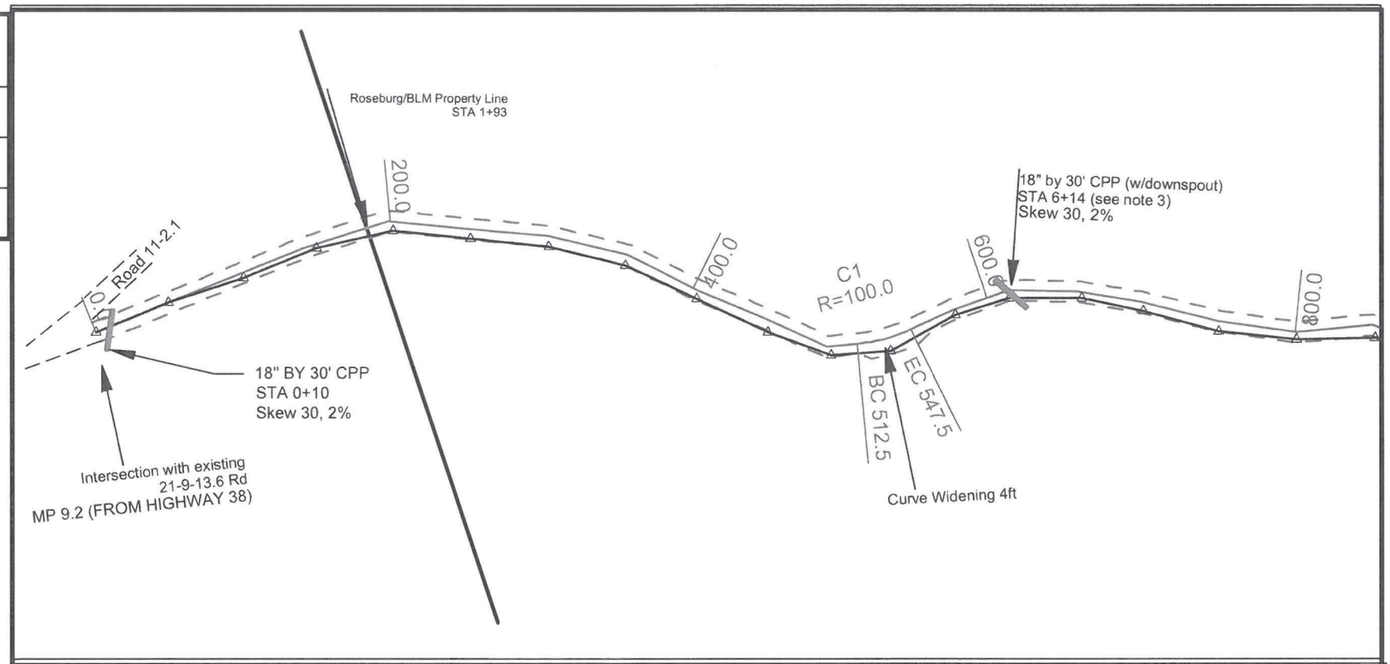
JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	CULVERT CONTINUED & ROADSIDE BRUSHING DETAIL	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2.dwg	SHEET 5 OF 24

Plan Legend

- Road Centerline
- Plan P-line Location
- Plan Road Edges

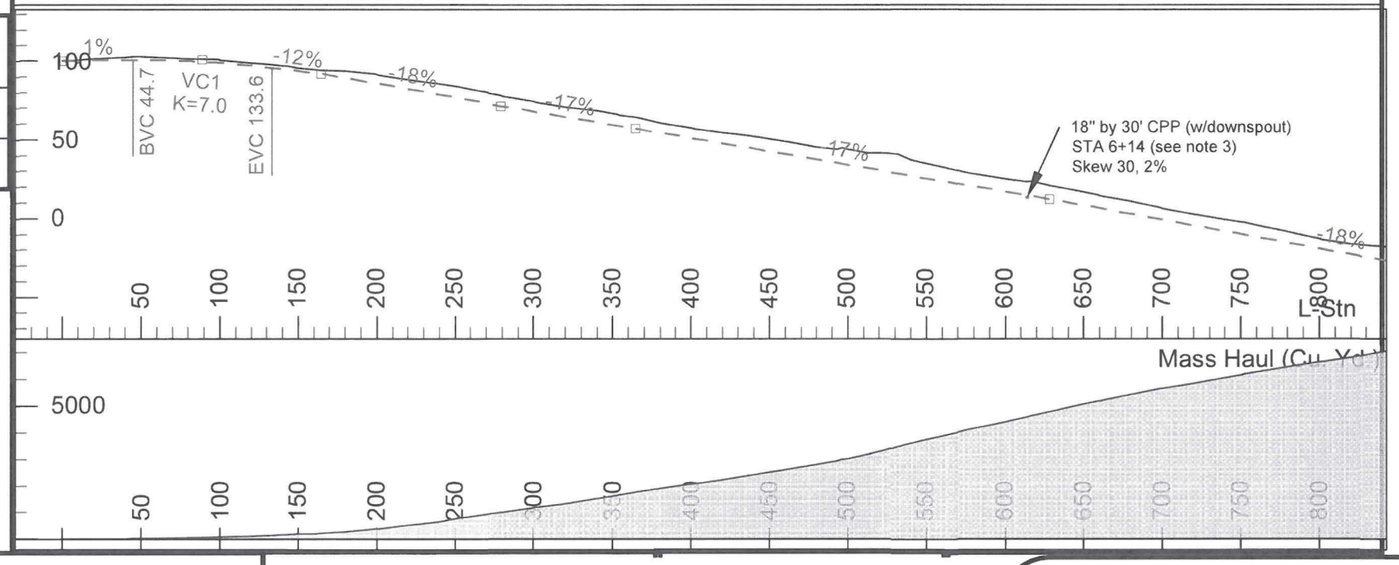
NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend

- Existing Topography
- Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
0.0	800.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

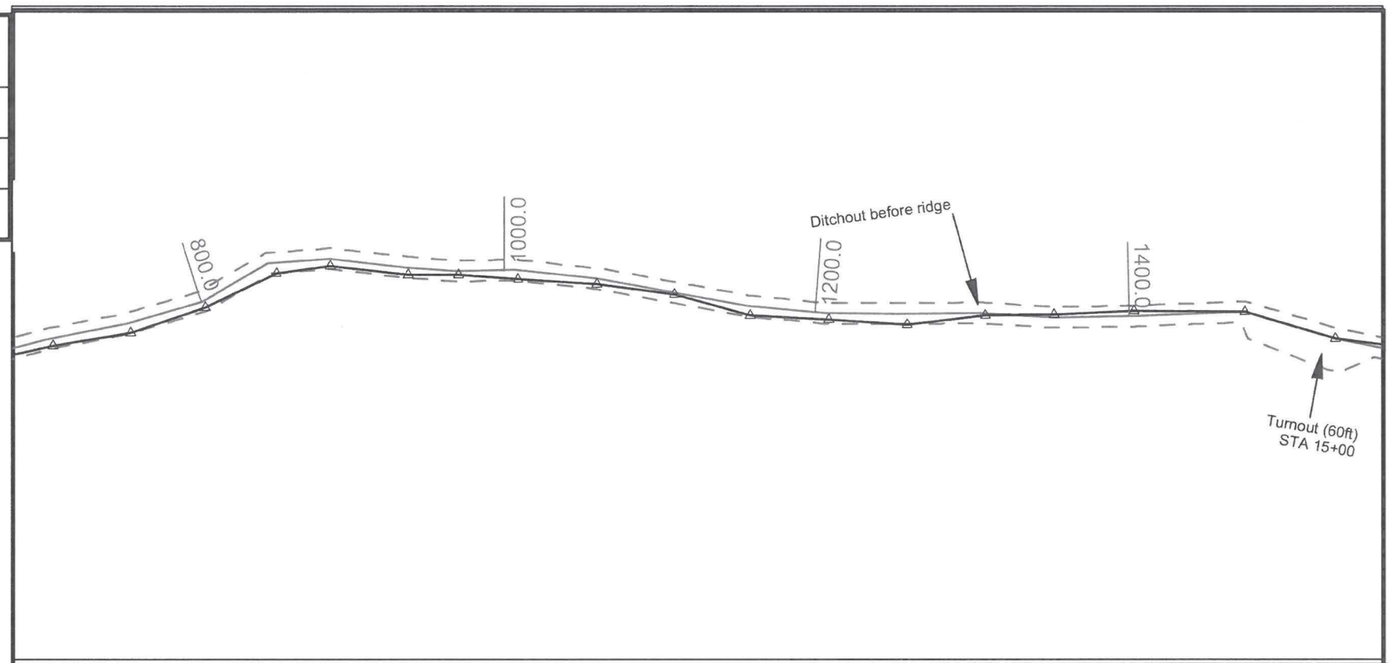
JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 6 OF 24

Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.

Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
720.0	1520.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

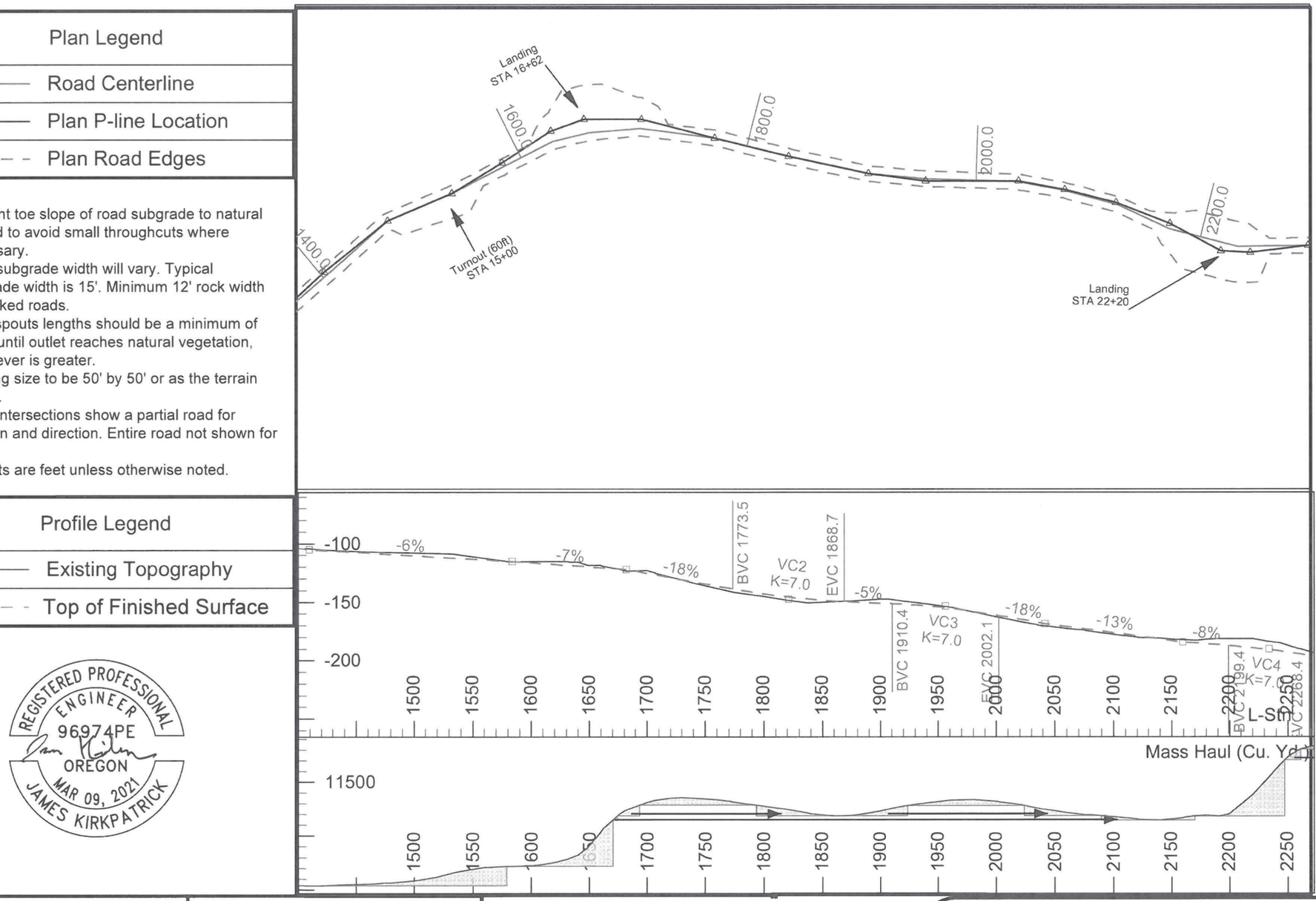
JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 7 OF 24

Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.

Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
1440.0	2240.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

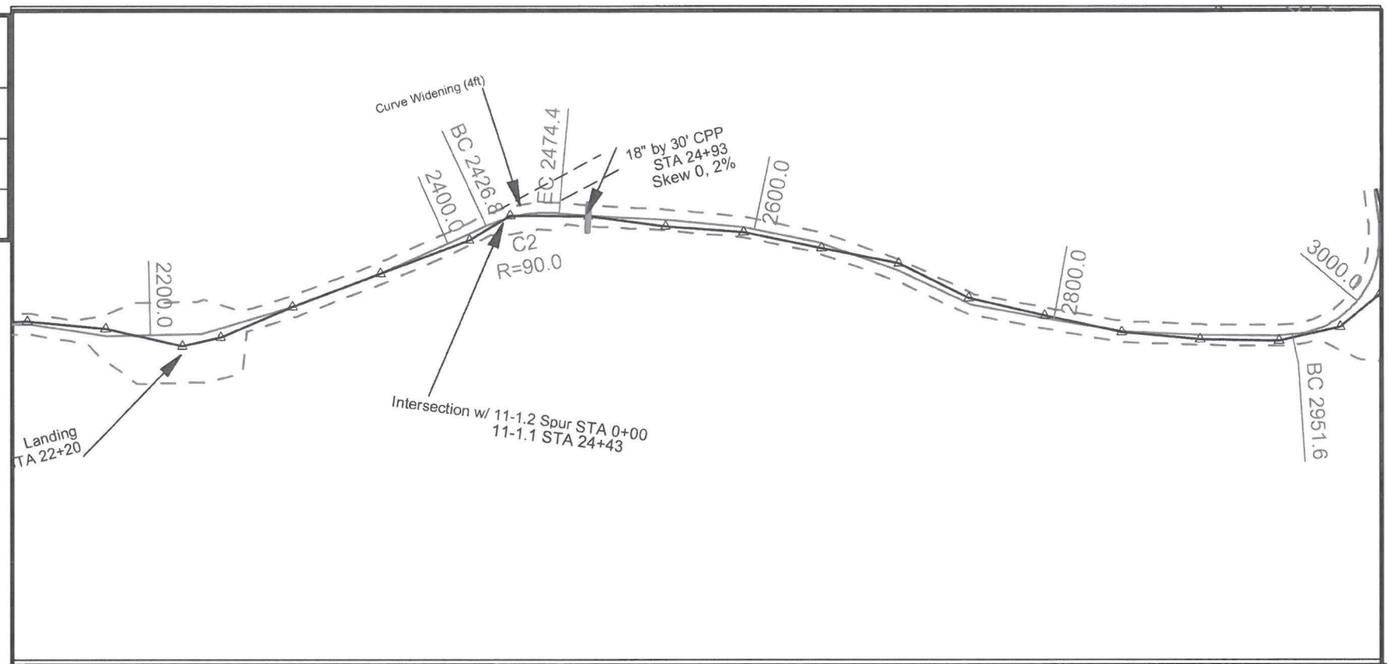
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 8 OF 24

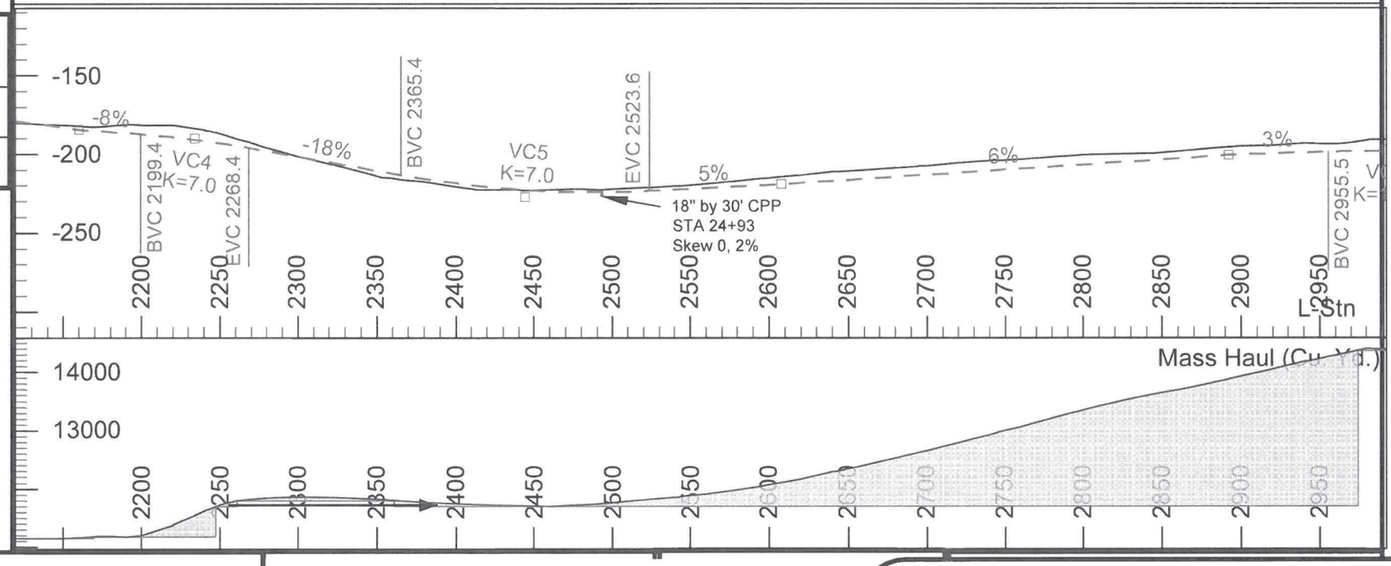
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
2160.0	2960.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

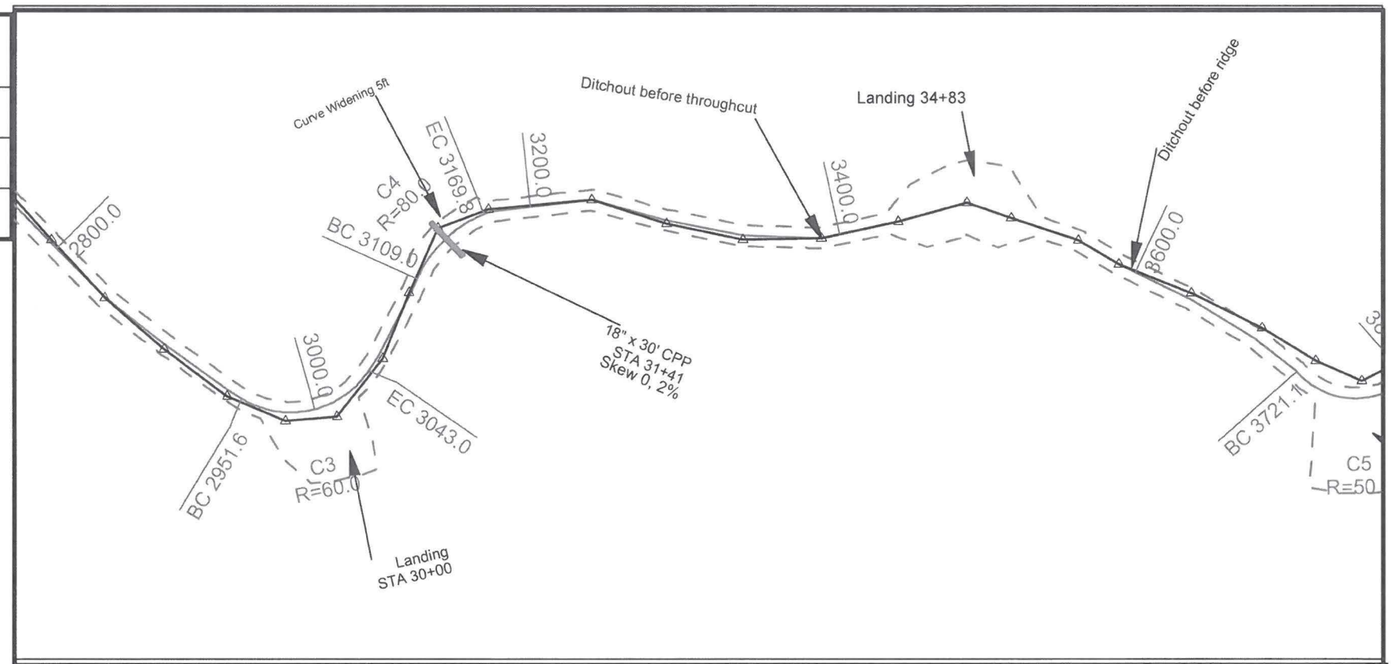
JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 9 OF 24

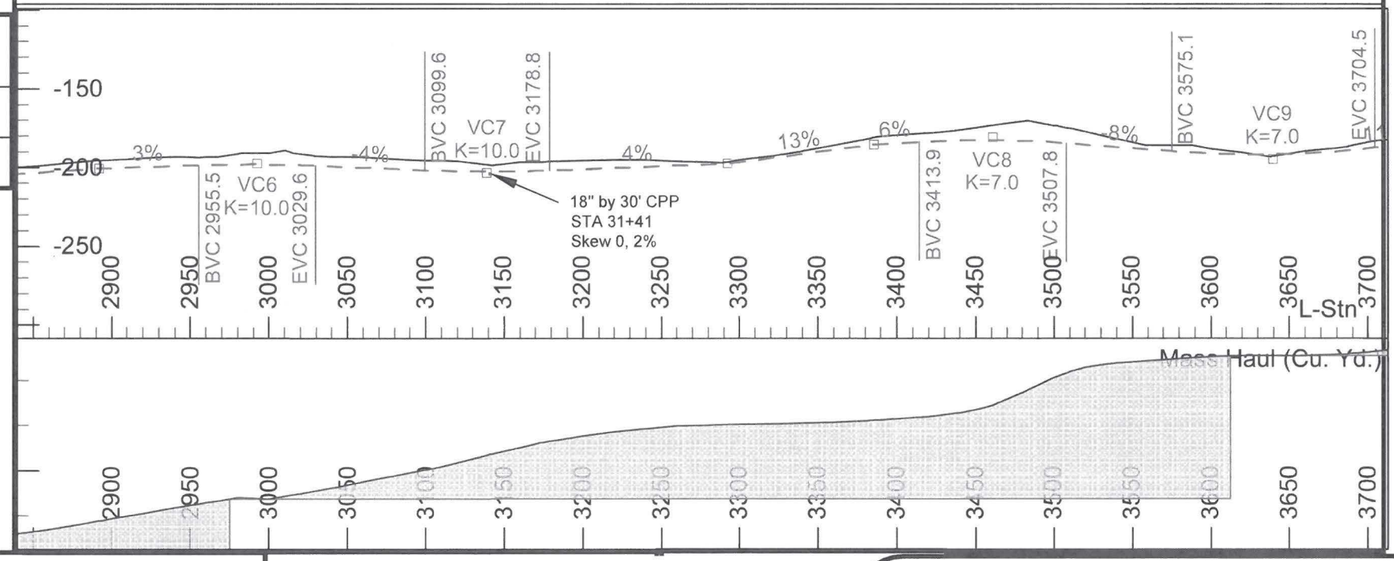
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.

Profile Legend
Existing Topography
Top of Finished Surface





REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
2880.0	3680.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

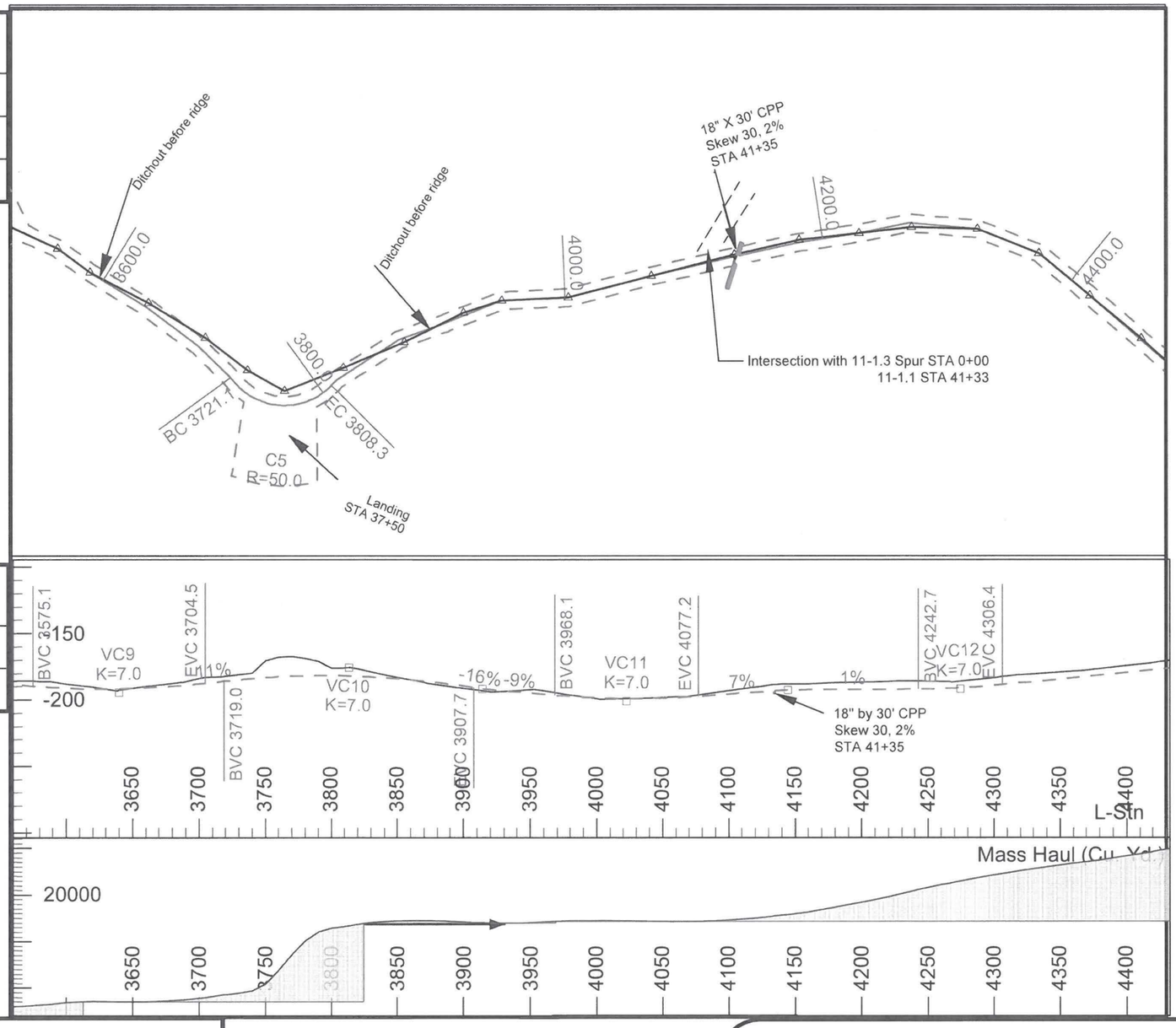
JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 10 OF 24

Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.

Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
3600.0	4400.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

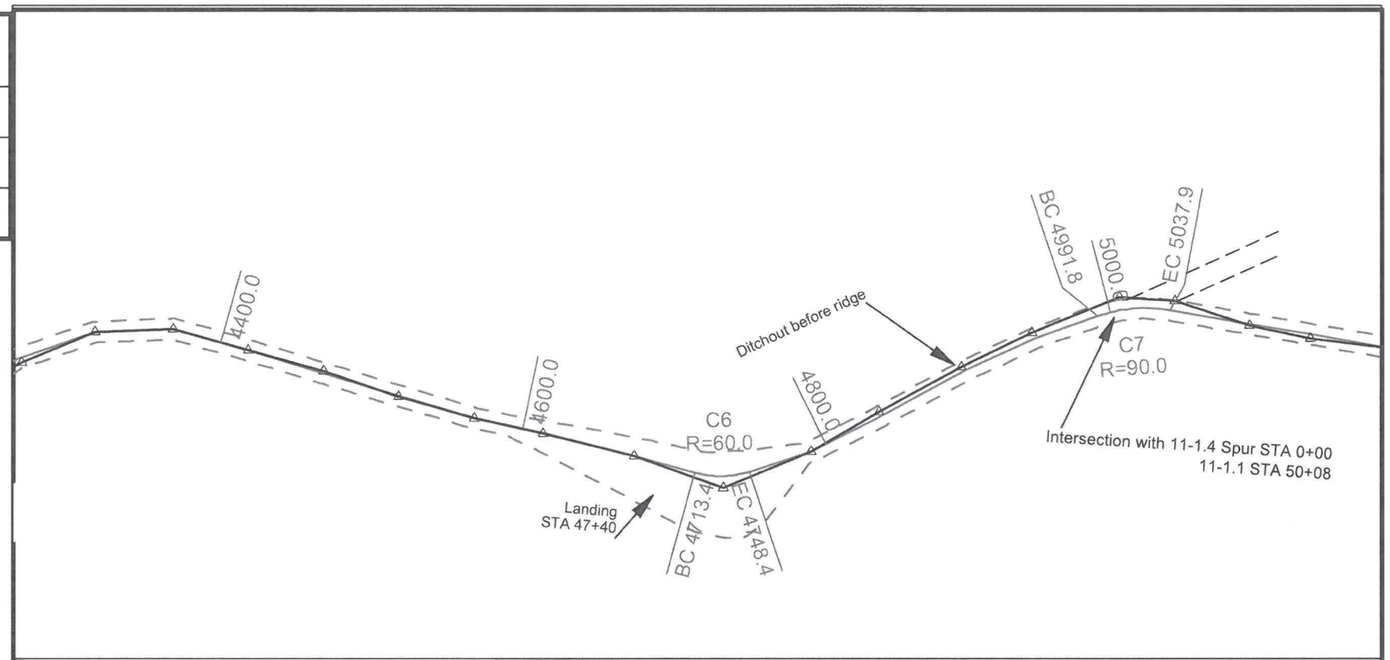
JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 11 OF 24

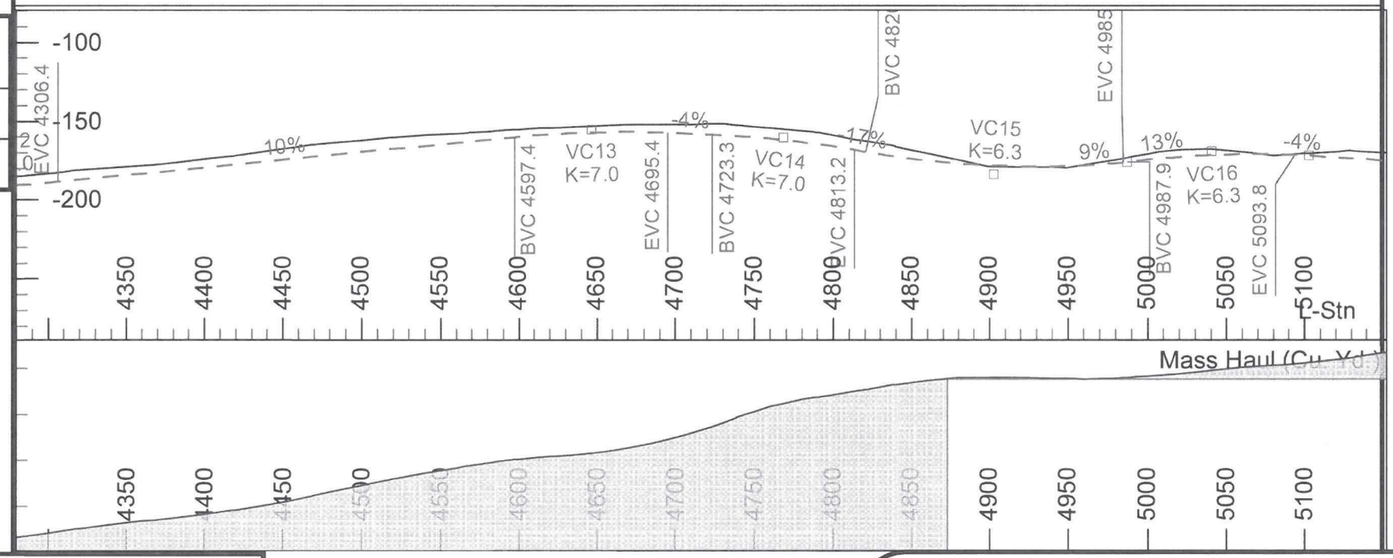
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.

Profile Legend
Existing Topography
Top of Finished Surface





REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
4320.0	5120.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

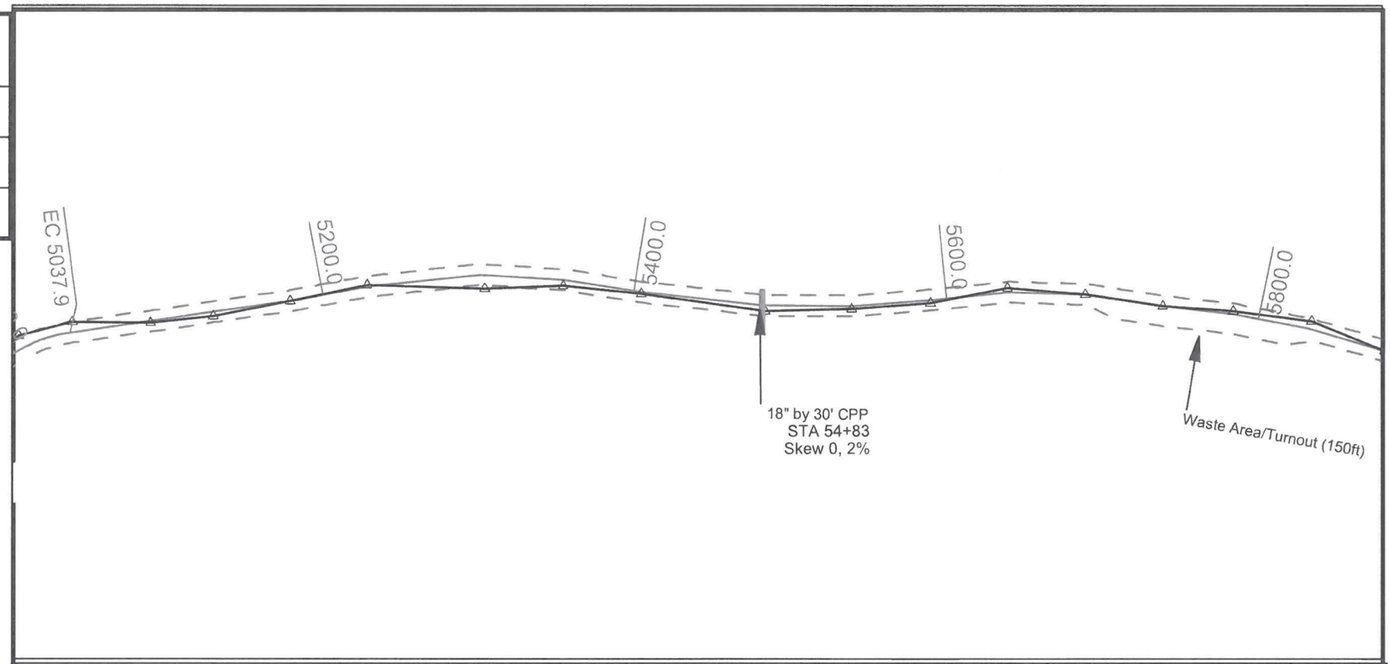
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 12 OF 24

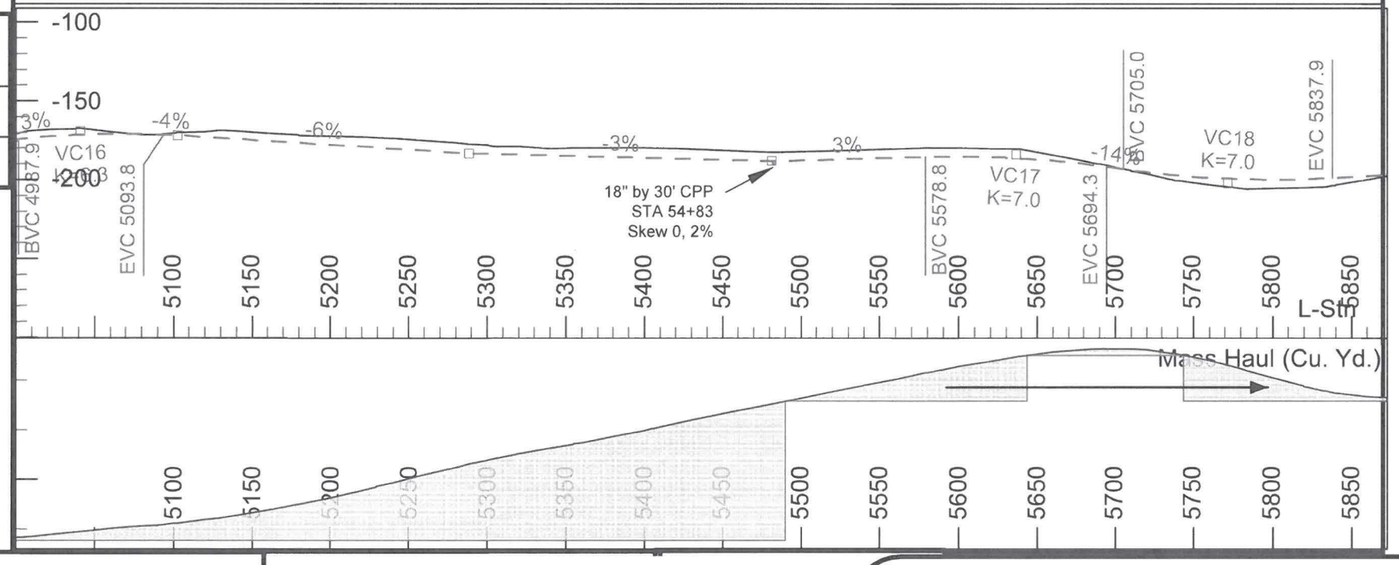
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
5040.0	5840.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

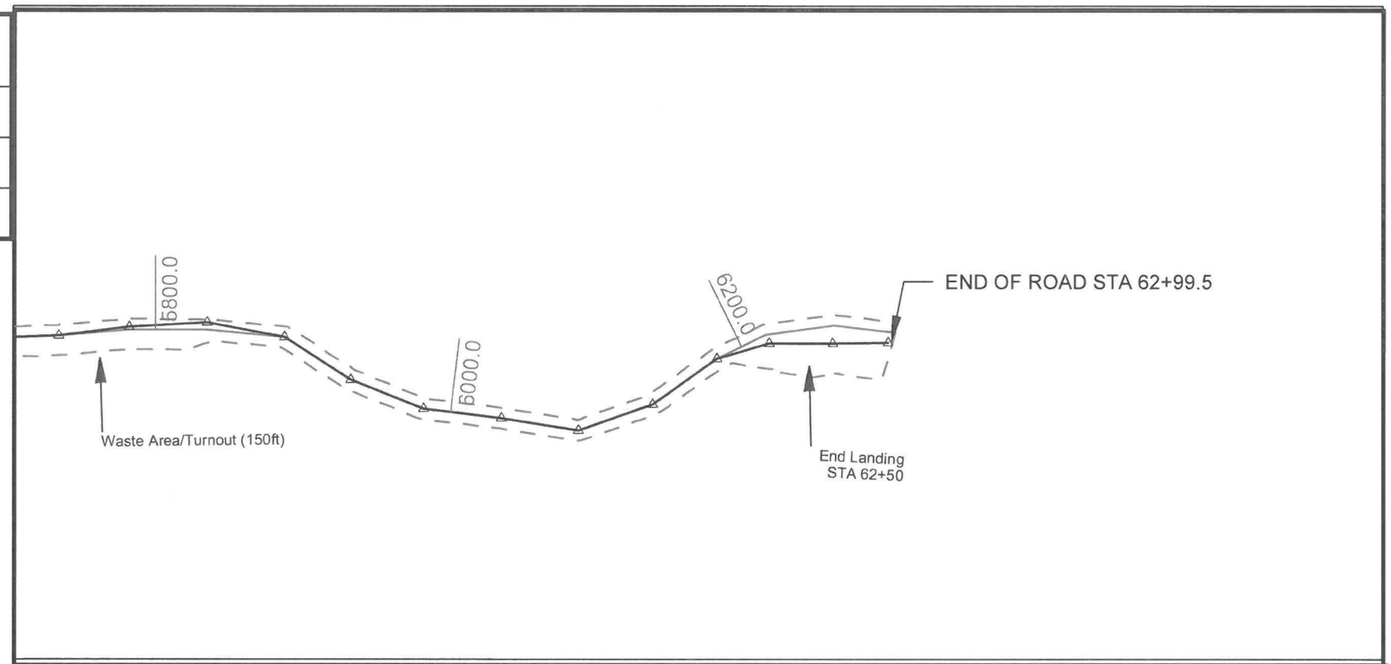
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 13 OF 24

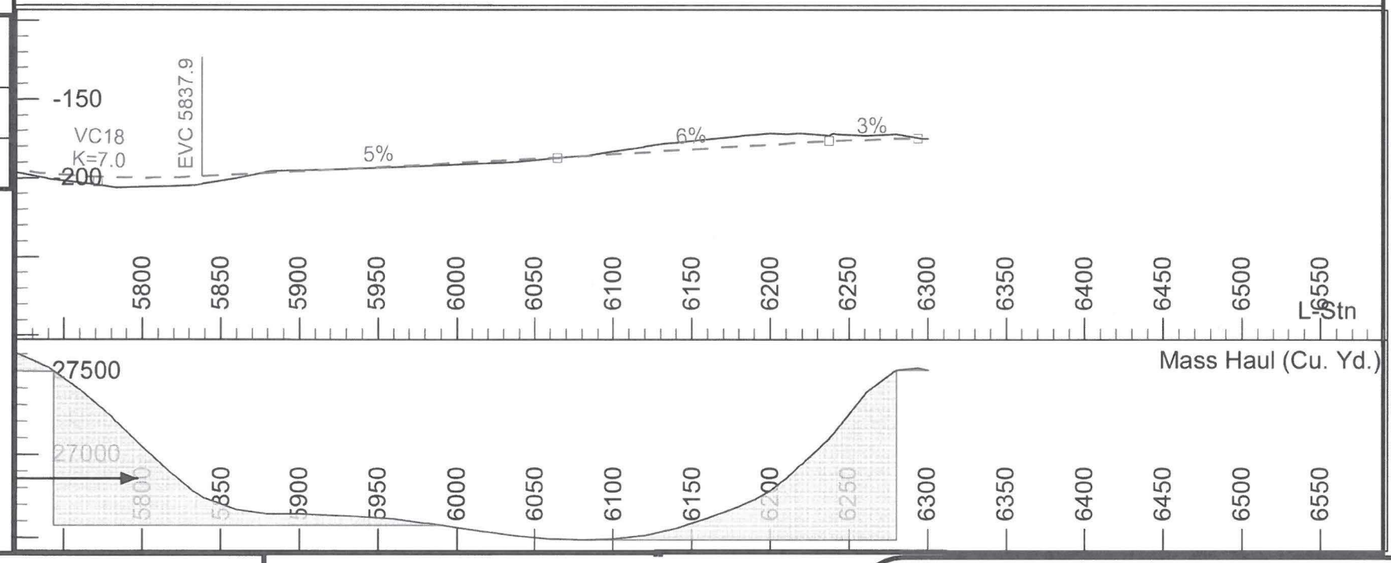
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
5760.0	6300.4	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

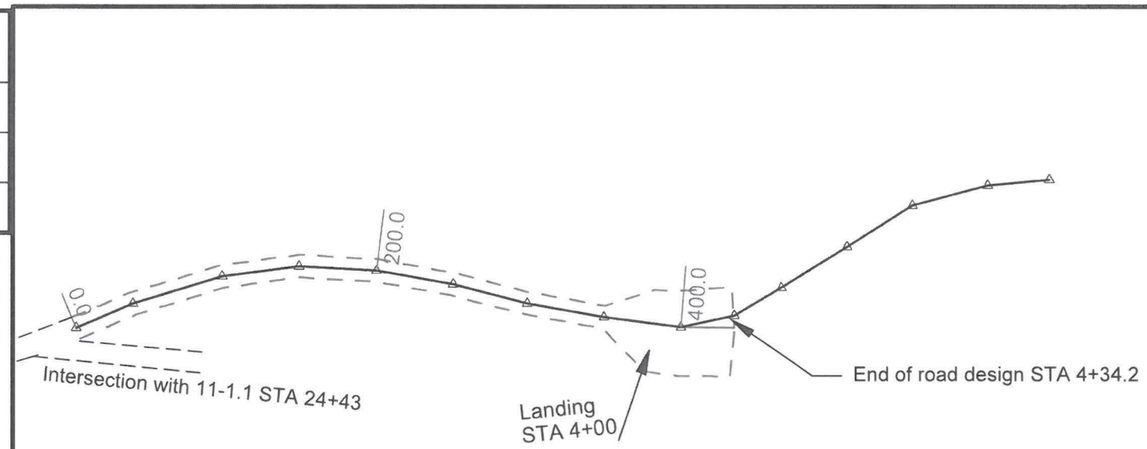
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 14 OF 24

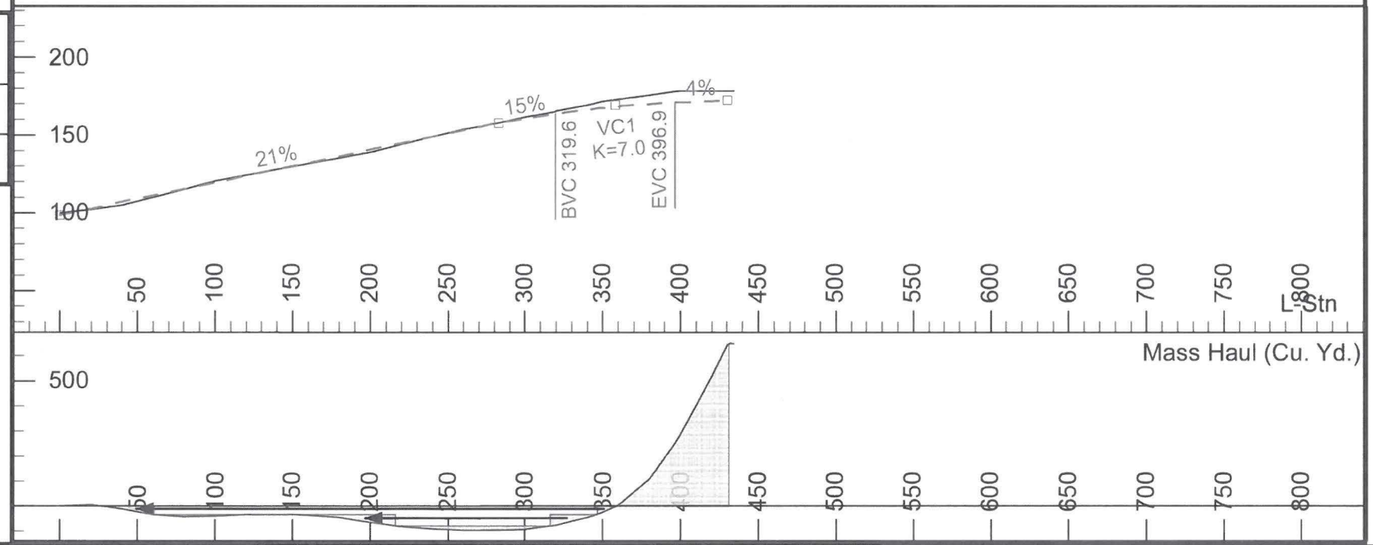
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
0.0	434.2	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

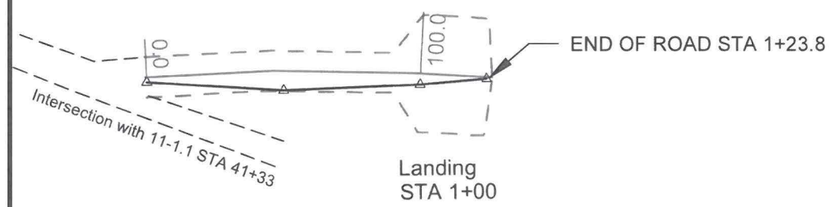
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.2	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 15 OF 24

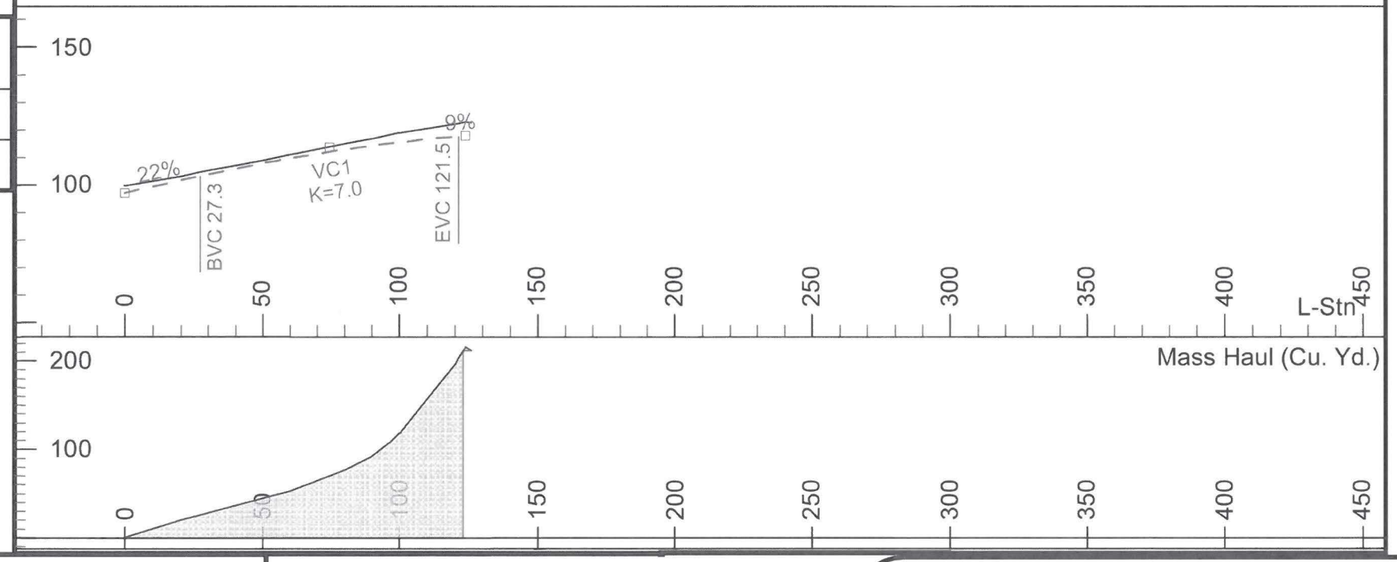
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:800 Profile Horz Scale 1:800
-0.4	125.8	Plan Scale 1:800

Stuntzner Engineering & Forestry, LLC

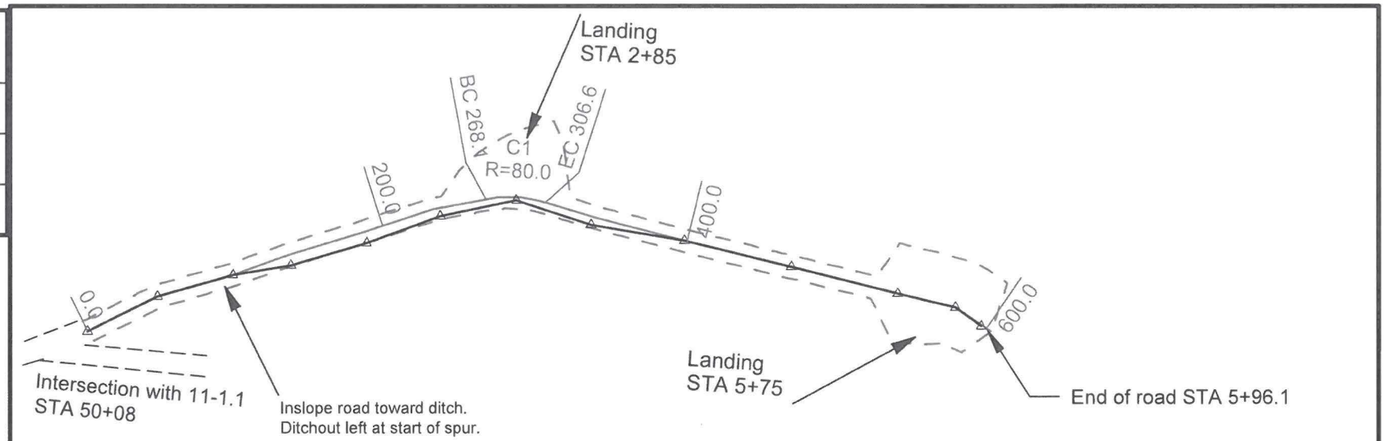
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.3	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 16 OF 24

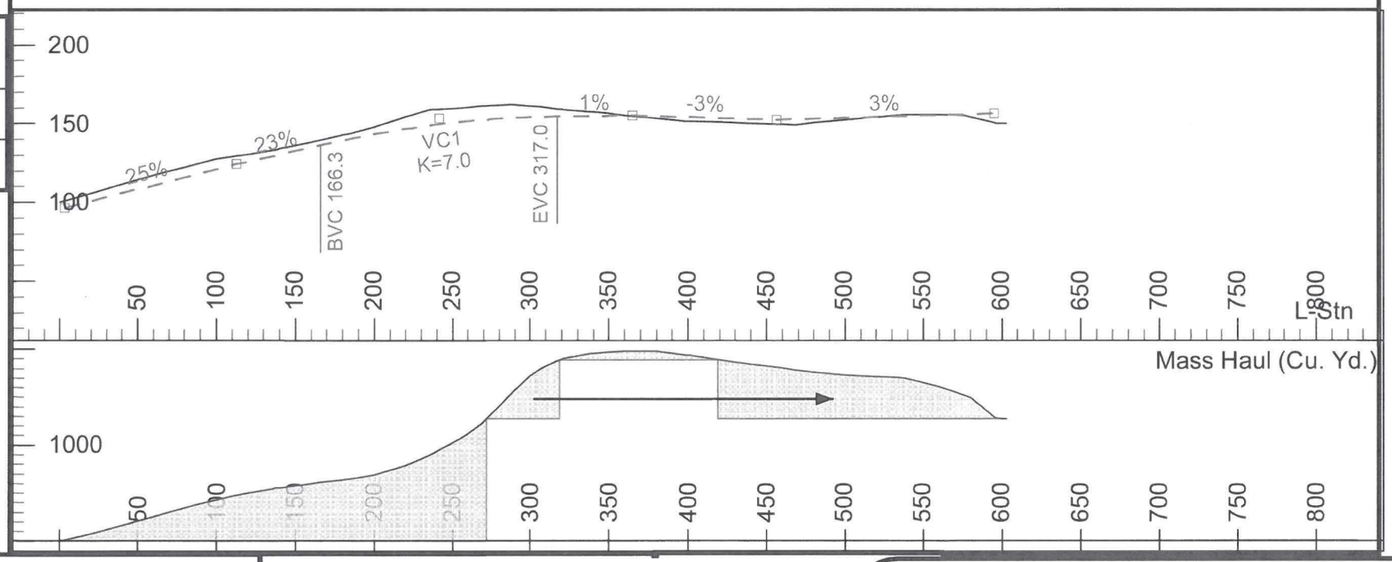
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
0.0	603.1	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

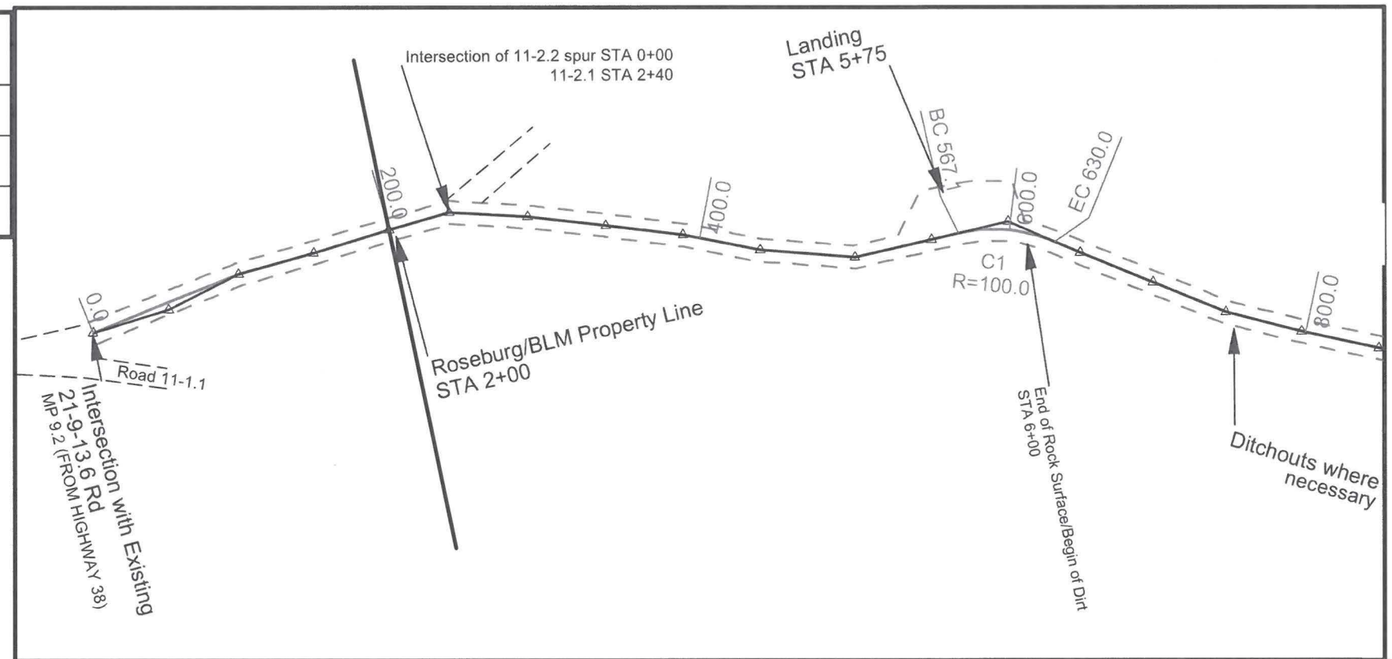
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-1.4	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 17 OF 24

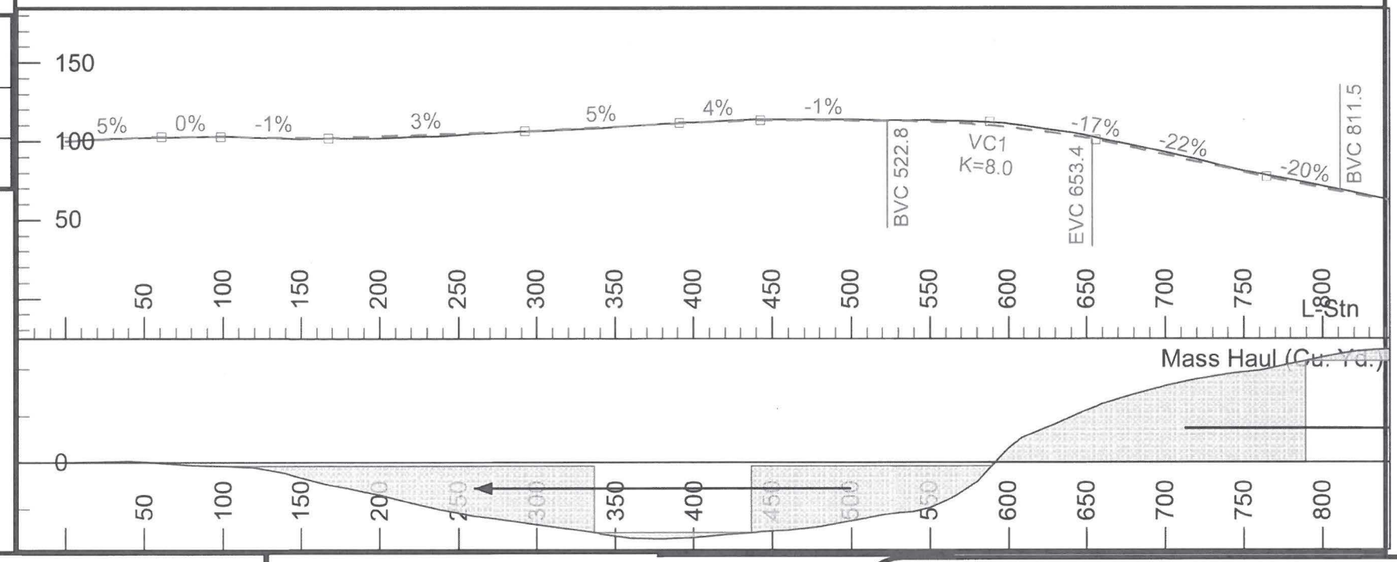
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
0.0	800.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

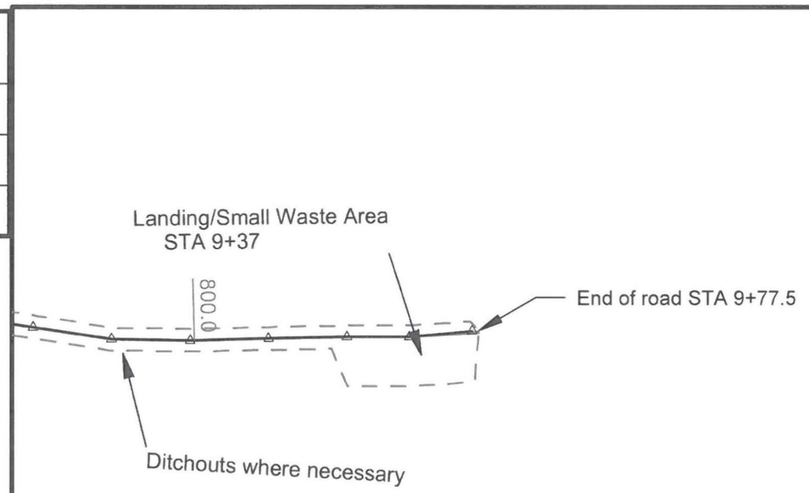
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-2.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 18 OF 24

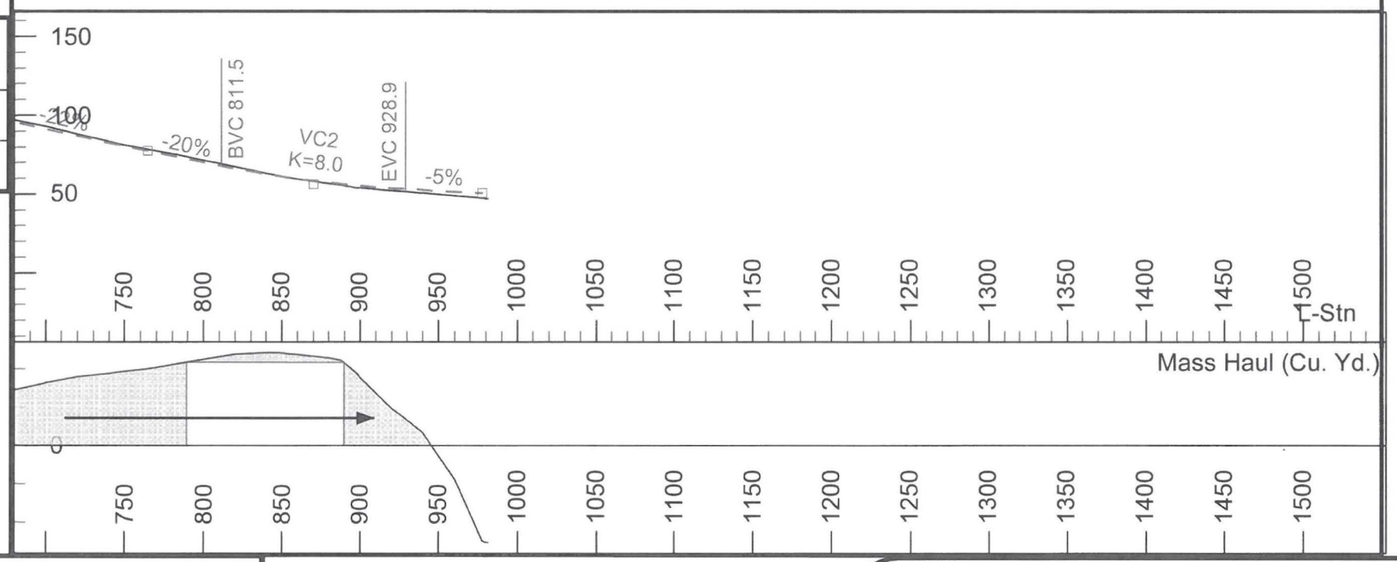
Plan Legend	
———	Road Centerline
——△———	Plan P-line Location
- - - - -	Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend	
———	Existing Topography
- — ⊟ — -	Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
720.0	981.3	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

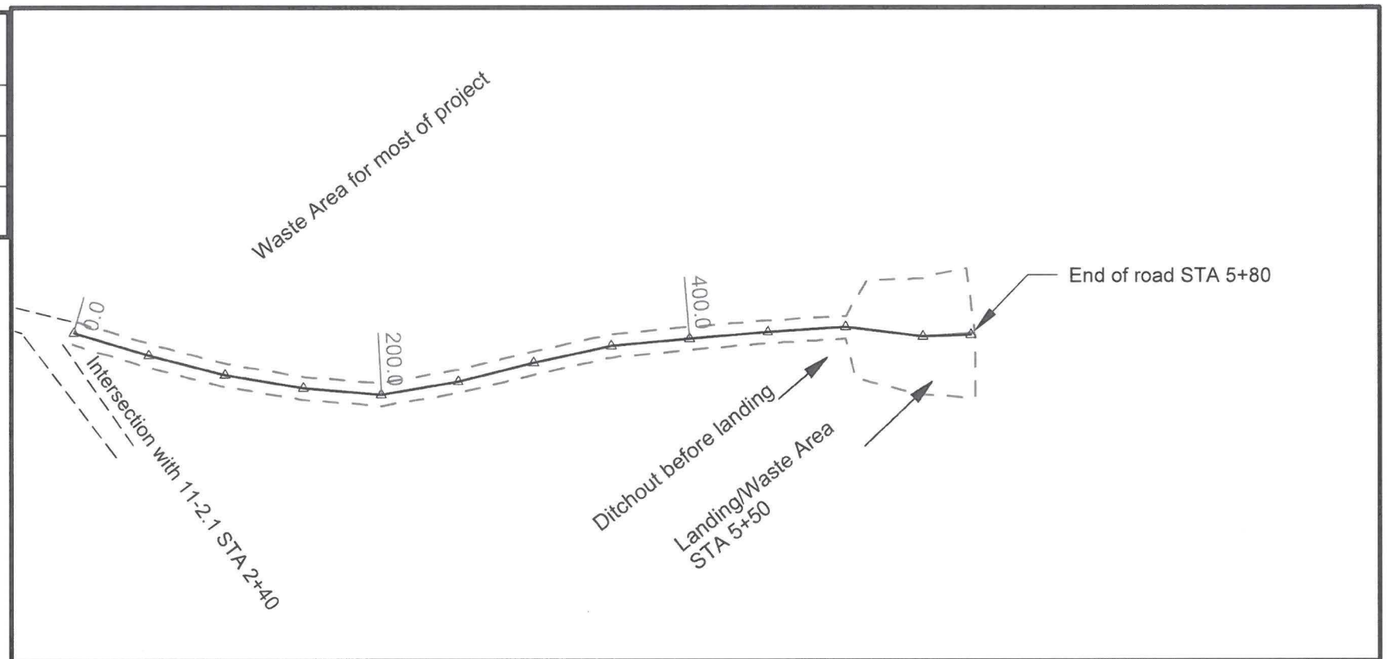
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-2.1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 19 OF 24

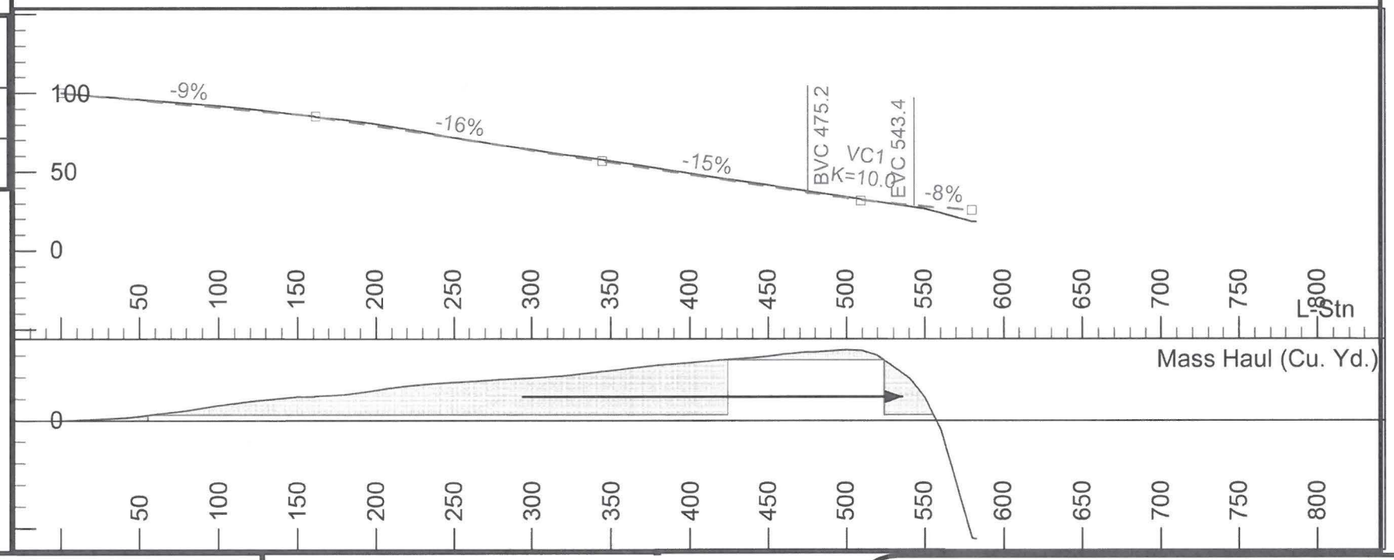
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
0.0	582.7	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

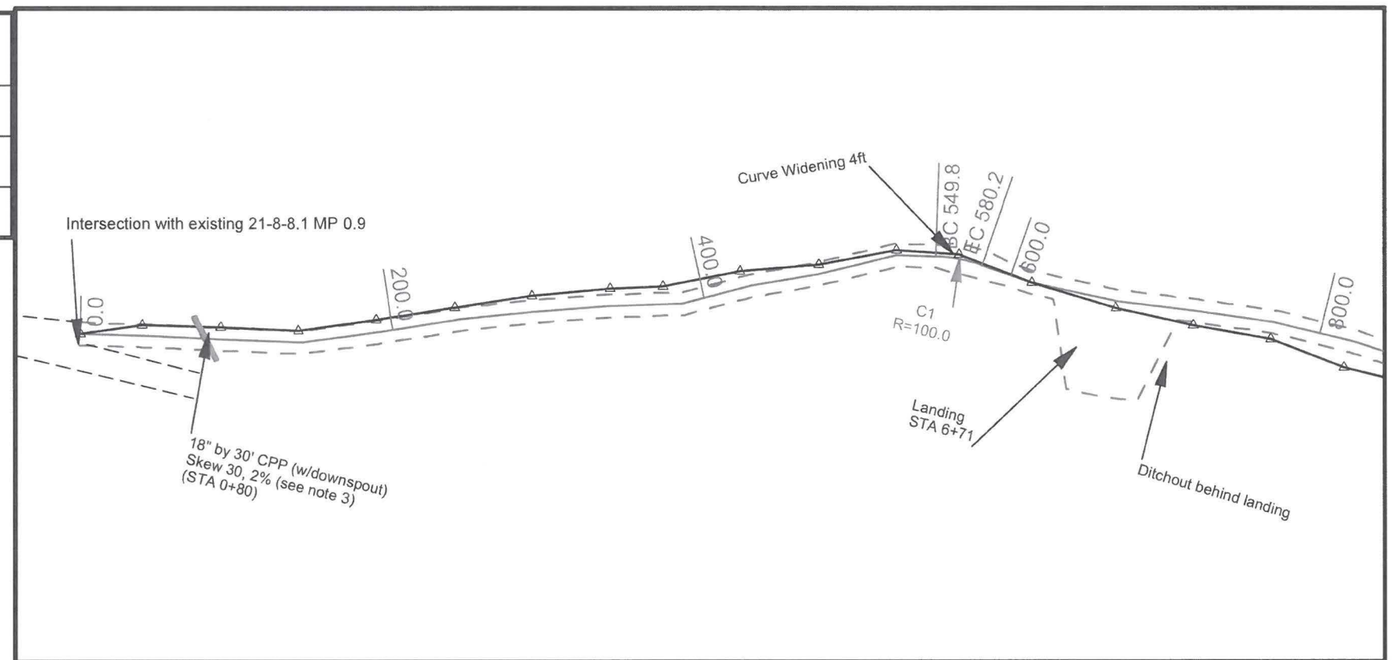
JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 11-2.2	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 20 OF 24

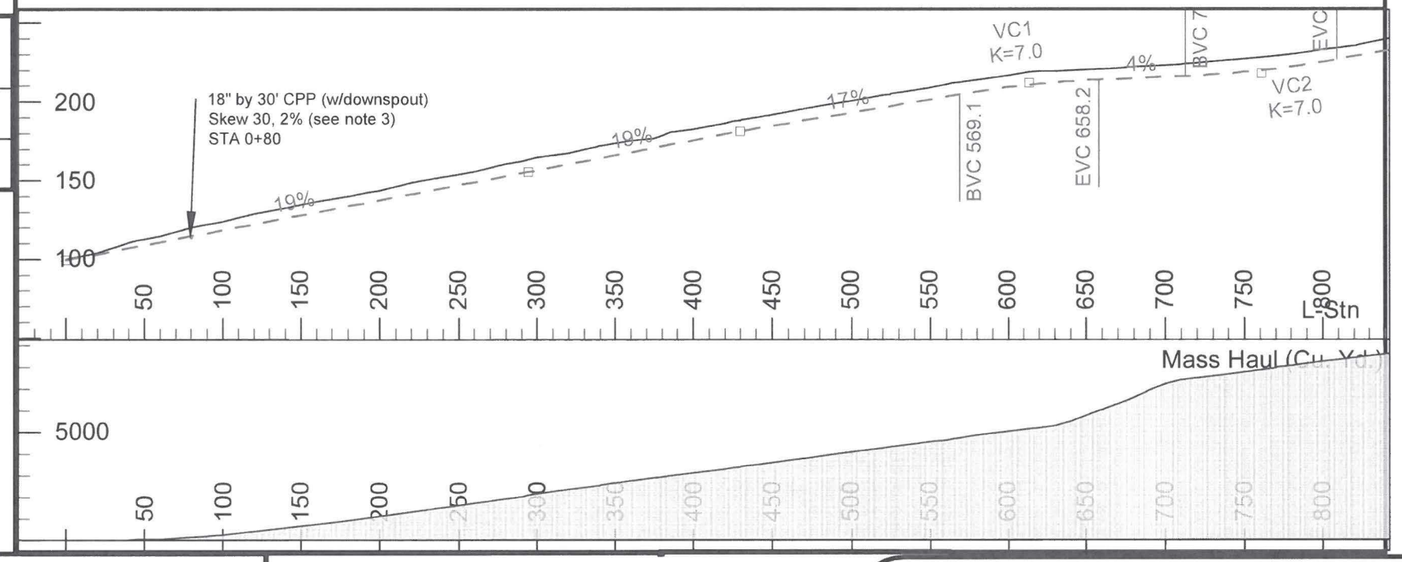
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.

Profile Legend
Existing Topography
Top of Finished Surface





REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
0.0	800.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

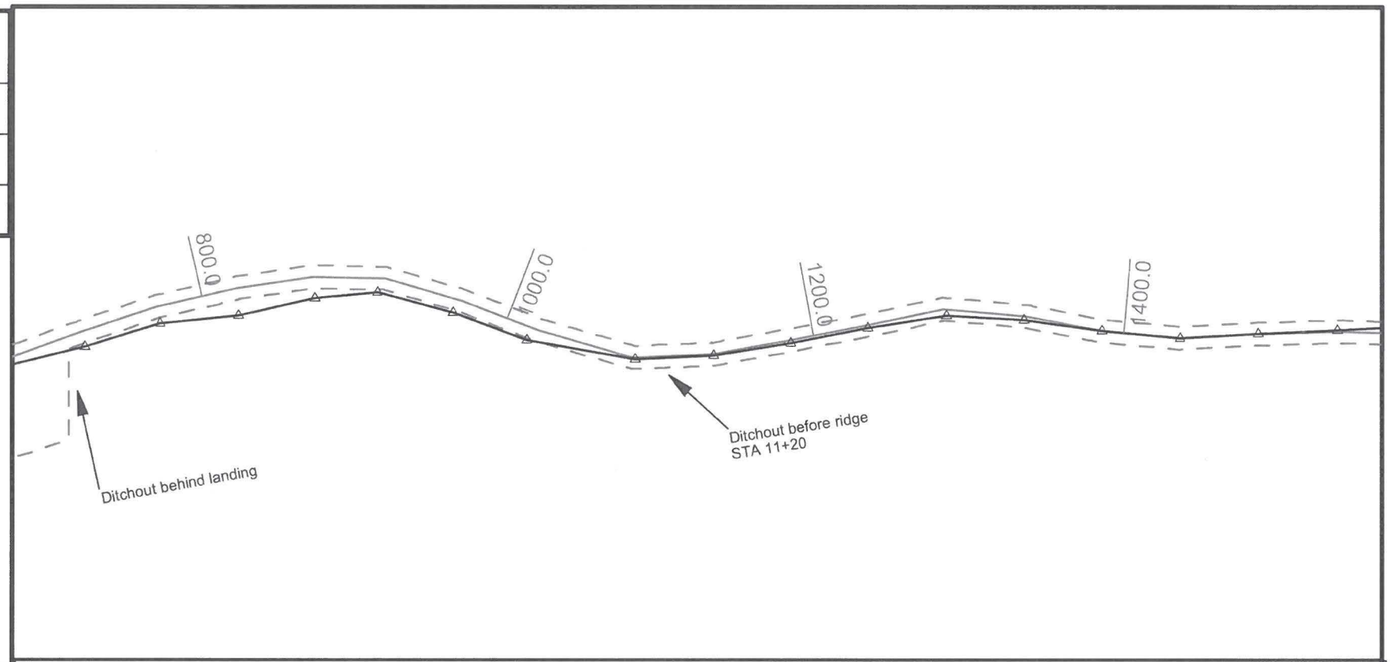
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 12-1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 21 OF 24

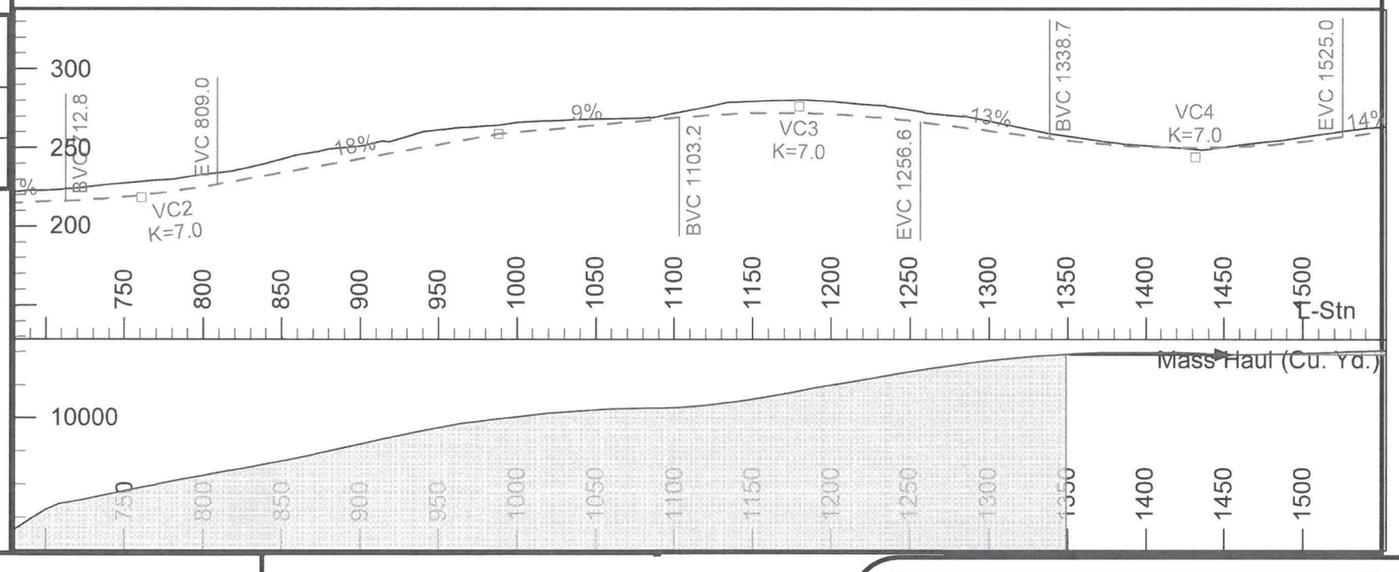
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
720.0	1520.0	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

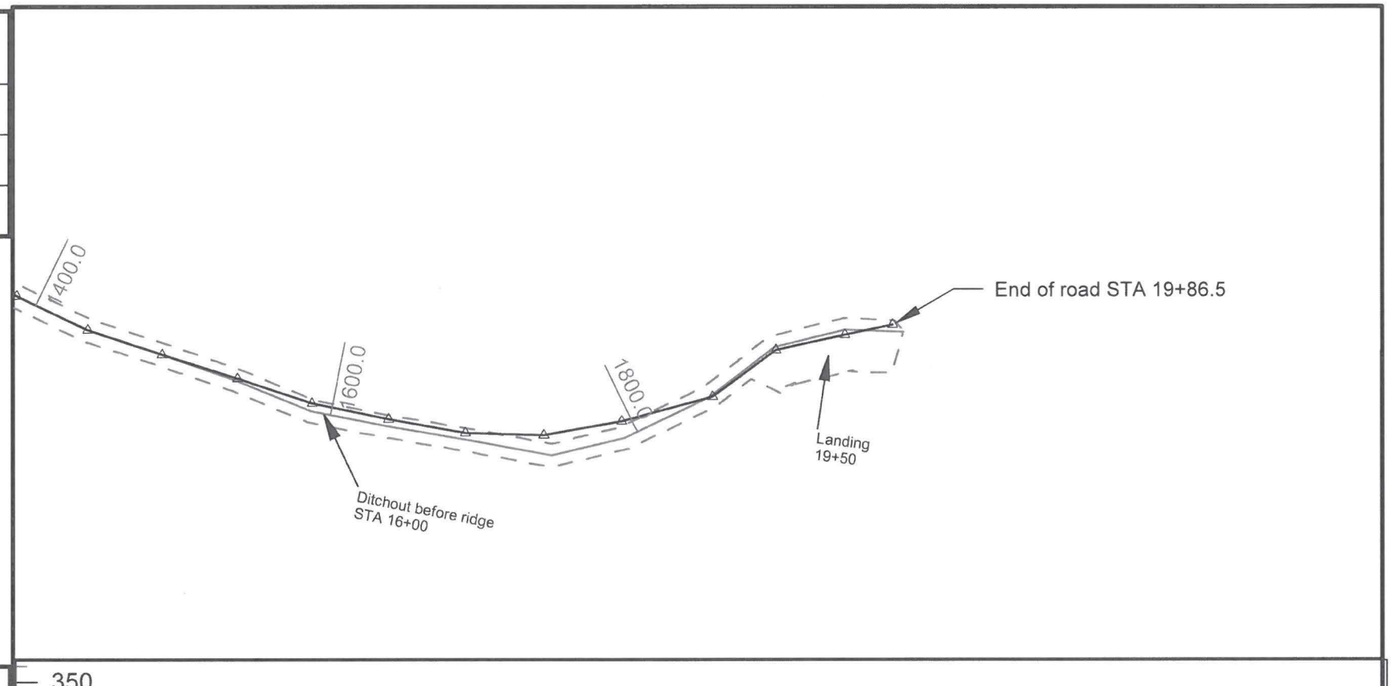
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 12-1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 22 OF 24

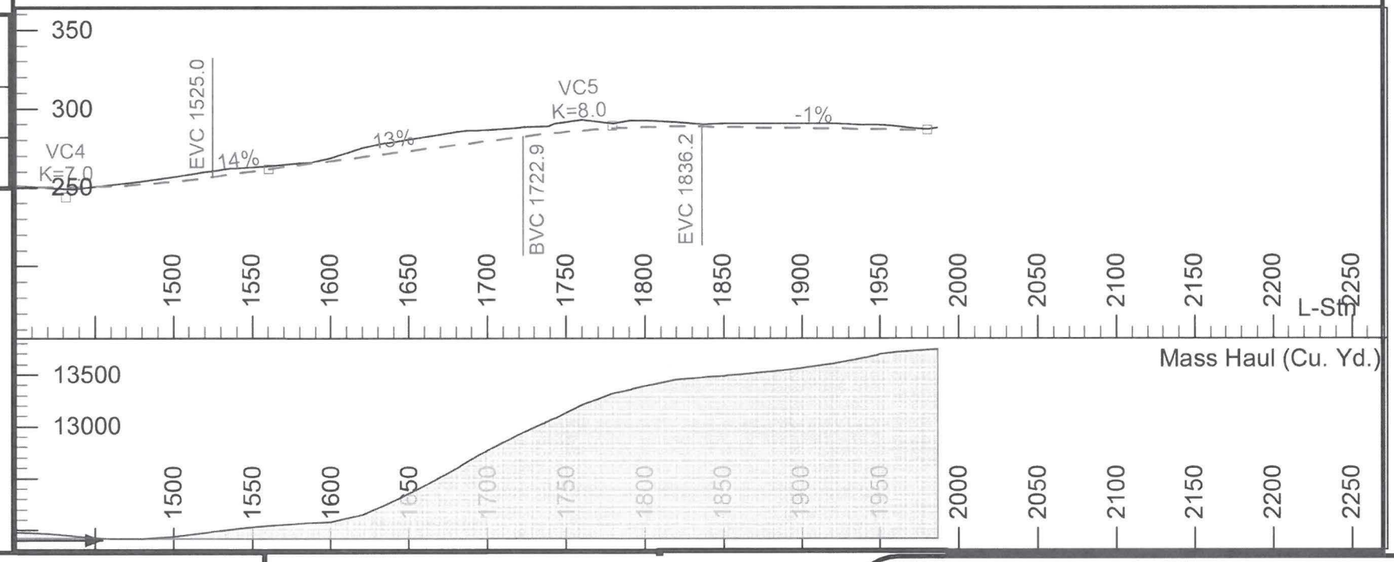
Plan Legend
Road Centerline
Plan P-line Location
Plan Road Edges

NOTES:

1. Daylight toe slope of road subgrade to natural ground to avoid small throughcuts where necessary.
2. Road subgrade width will vary. Typical subgrade width is 15'. Minimum 12' rock width for rocked roads.
3. Downspouts lengths should be a minimum of 10' or until outlet reaches natural vegetation, whichever is greater.
4. Landing size to be 50' by 50' or as the terrain allows.
5. Road intersections show a partial road for location and direction. Entire road not shown for clarity.
6. All units are feet unless otherwise noted.



Profile Legend
Existing Topography
Top of Finished Surface



REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Station Range		Profile Vert Scale 1:1400 Profile Horz Scale 1:1400
1440.0	1986.5	Plan Scale 1:1400

Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	PLAN & PROFILE 12-1	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 23 OF 24

ROAD NUMBER	NEW CONSTRUCTION	RESURFACING OF EXISTING ROADS	EARTHWORK (DESIGNED) ◇4.								SURFACING ◇5.				◇2. CPP			◇3. DOWN - SPOUTS 18" CPE FULL ROUND ◇1.
			COMMON	RIPPABLE	DRILL AND SHOOT	FILL	WASTE AREA	MATERIAL DRIFTED	SHORT HAUL 100-500'	LONG HAUL >500'	3"-0" BASE ROCK ROADWAY	3"-0" BASE ROCK TURNOUT LANDING JUNCTION	1.5"-0" SURFACE ROCK ROADWAY	1.5"-0" SURFACE ROCK TURNOUT LANDING JUNCTION	18"	RIPRAP OR 6"-0	CULVERT BEDDING 1.5"-0	
UNITS	STA.	STA.	CY	CY	CY	CY	CY	STA. CY	STA. CY	CY.MI	CY	CY	CY	CY	LF	CY	CY	LF
11-1.1	62+99.5		6492	12983	12983	2877	29581		3246	29212	70	25	40	10	180	18	12	10
11-1.2	4+34.2		54	378	108	128	412		128	284								
11-1.3	1+23.8		15	103	30		147			147								
11-1.4	5+96.1		1228	1364	137	725	2003		725	1278								
11-2.1	9+77.5		1011		112	682	441	800		323	170	100	100	50				
11-2.2	5+80		1121		125	897	349	531		715	165	125	100	60				
12-1	19+86.5		2786	5571	5571	123	13805	279	1114	12535	560	225	330	110	30	3	2	10
21-8-8.1		54+91.2										100	150	50				
21-9-13. 6A&B		25+34.4											60					

NOTES:

◇1. CPE = CORRUGATED POLYETHYLENE PIPE

◇2. CPP = CORRUGATED PLASTIC PIPE

◇3. SEE DOWNSPOUT INSTALLATION SHEET. DOWNSPOUTS LENGTHS SHOULD BE A MINIMUM OF 10' OR UNTIL OUTLET REACHES NATURAL VEGETATION, WHICHEVER IS GREATER.

◇4. VOLUMES ARE "IN PLACE" CUBIC YARDS. NO EXPANSION FACTOR HAS BEEN APPLIED.

◇5. VOLUMES ARE "TRUCKED" CUBIC YARDS.

REGISTERED PROFESSIONAL ENGINEER
96974PE
OREGON
MAR 09, 2021
JAMES KIRKPATRICK

Stuntzner Engineering & Forestry, LLC

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COOS BAY DISTRICT, OREGON

JOB #: 126-049	TIMBER SALE: BIG IRON CT	
DATE: SEPT. 2026	ESTIMATE OF QUANTITIES	
DRAWN BY: ABM		
CHECKED BY: JK	FILE NAME: 126-049 BASEMAP V2_DesignSheets.dwg	SHEET 24 OF 24

SPECIAL PROVISIONS

Bituminous surfaced roads

The Purchaser shall avoid damaging any bituminous surfaced roads and will be responsible for the repair of all road damage as a result of their activity. Bituminous roads shall be left in the same or better condition than they were prior to logging operations. Bituminous surfaced roads shall be brushed off to expose entirety of running surface to prevent slippery conditions.

The bituminous road surface at any roadside landing locations shall be protected by applying a layer of wood chips, hog fuel, or other material (excluding rock or soil) approved by the Authorized Officer, to a depth sufficient to prevent damage from all logging activities.

Roadwork restrictions

All road construction, renovation, improvement, and decommissioning work shall be done during the dry construction season, avoiding precipitation periods, **between June 1 and October 15.**

Seasonal/Blasting restrictions apply to portions of roads 21-8-7.0 and 21-8-18.1 as shown in Exhibit A Seasonal Timing Restrictions.

Native Seed

The Government will furnish native seed mix. The Purchaser shall pick up the native seed mix at the North Bend, BLM warehouse. The Purchaser shall give the Authorized Officer a 3-day notice in advance before picking up. The native seed mix shall be applied at the rate of 20 pounds per acre. Sand can be mixed with the native seed to aid broadcast seeding. Approved weed-free mulch material shall be applied at the rate of 3000 pounds per acre. Seeding shall be applied according to the dates specified in road specification 1803.

Over-wintering

All natural-surfaced new construction shall not over-winter without being either decommissioned, as specified in the Exhibit D, or winterized, in accordance with the 1700 Erosion Control Specifications, prior to the first rains of the wet season, but no later than October 15 in the year of construction.

When haul road grades exceed 20 percent slope

The vehicle or machine must be approved by the manufacturer for operation on steeper grades. Additional precautions must be taken, such as assisting or snubbing the vehicle or machine up/down the slope.

Bridge Requirement

For all truck loads that are greater than legal or posted loads, a haul authorization is required to cross a BLM structure. Contact: Micah Kittel – (541)-751-4465. Allow for up to 120 days processing time in advance before bridge use.

SPECIAL DETAILS

RENOVATION OF ROAD NO. 21-8-8.1
Milepost 0.00 to Milepost 1.04

Milepost	Remarks
0.00	Begin renovation. Junction with 22-9-14.0 at M.P. 13.0. Begin slough and slide removal, surfacing, grading, shaping, compacting, turnout renovation, soil stabilization, and roadside brushing in accordance with Sections 500, 1000, 1200, and 2100 of the Road Specifications, Typical Cross Section Sheet, and Roadside Brushing Detail Sheet, or as directed by Authorized Officer.
NOTE:	Place 150 CY of 1.5-0” crushed aggregate conforming to Section 1200 of the Road Specifications from milepost 0.00 to 1.00.
0.32	Existing landing from RRC harvest. Place 30 CY of 3”-0” crushed aggregate in accordance with Section 1000 of the Road Specifications to utilize as truck turnout on left.
0.52	Existing waste area left and truck turnout right. Place 30 CY of 3”-0” crushed aggregate in accordance with Section 1000 of the Road Specifications to utilize truck turnout on right.
0.60	Remove slide material from road prism.
0.75	Approximate BLM property line.
0.78	Existing landing. Place 50 CY of 6”-0” crushed aggregate in accordance with Section 1000 of the Road Specifications.
0.84	Existing landing. Renovate landing and place 50 CY of 6”-0” crushed aggregate in accordance with Section 1000 of the Road Specifications.
1.00	Junction left with BLM new construction road, 21-8-7.0.
1.04	Renovate existing end landing. End renovation.

RENOVATION OF ROAD NO. 21-9-13.6A&B
Milepost 0.00 to Milepost 0.48

Milepost	Remarks
0.00	Begin renovation. Junction with 21-9-24.0 at M.P. 1.5. Begin slough and slide removal, surfacing, grading, shaping, compacting, soil stabilization, and roadside brushing in accordance with Sections 500, 1200, and 2100 of the Road Specifications, Typical Cross Section Sheet, and Roadside Brushing Detail Sheet, or as directed by Authorized Officer.
NOTE:	Place 60 CY of 1.5-0” crushed aggregate conforming to Section 1200 of the Road Specifications from station 0.00 to 0.48.
0.07	Junction left with 21-9-13.16.
0.13	Junction right with BLM Spur Rd.

0.22	Approximate BLM property line.
0.33	Junction right with RRC Rd.
0.48	Existing end landing. End Renovation. Begin new construction of the 21-9-13.6C, see the Construction Detail Sheet.

CONSTRUCTION DETAIL SHEET
ROAD NO. 21-9-13.6C
DESIGNED ROAD

GENERAL
Purchaser shall construct Road No. 21-9-13.6C from Sta. 0+00 to 2+00 as shown on the crossing plat. This work shall be accomplished in accordance with details and road specifications which follow:

SHAPING
Crowned at 2% for drainage. The roadway shall be constructed and shaped to conform to standards shown on the Typical Cross Section Sheet.

TURNOUTS
None.

SUBGRADE
The subgrade shall be excavated and compacted in accordance with Sections 200 and 300 of the Road Specifications,

DRAINAGE FEATURES
Ridgetop road construction.

SURFACING
Place a 5” lift of compacted 3”-0” crushed aggregate capped with a 3” lift of compacted 1.5”-0” crushed aggregate in accordance with Section 1000 and 1200 of the Road Specifications.

ALIGNMENT
Roadway shall be constructed within posted or painted right-of-way boundaries. Minimum curve radius shall be sixty (60) feet.

GRADE
Grade shall not exceed 5% favorable.

TRUCK TURNAROUND
None.

LANDINGS
None.

SOIL STABILIZATION
Apply seed, fertilizer, and mulch in accordance with Section 1800 of the Road Construction Specifications. All exposed soils shall be seeded and mulched.

CONSTRUCTION DETAIL SHEET
ROAD NO. 21-9-13.6D
DESIGNED ROAD

GENERAL
Purchaser shall construct Road No. 21-9-13.6D from Sta. 2+00 to 6+00. This work shall be accomplished in accordance with details and road specifications which follow:

SHAPING
Crowned at 2% for drainage. The roadway shall be constructed and shaped to conform to standards shown on the Typical Cross Section Sheet.

TURNOUTS
None.

SUBGRADE
The subgrade shall be excavated and compacted in accordance with Sections 200 and 300 of the Road Specifications,

DRAINAGE FEATURES
Ridgetop road construction. Install ditchouts, where necessary.

SURFACING
Place a 5” lift of compacted 3”-0” crushed aggregate capped with a 3” lift of compacted 1.5”-0” crushed aggregate in accordance with Section 1000 and 1200 of the Road Specifications.

ALIGNMENT
Roadway shall be constructed within posted or painted right-of-way boundaries. Minimum curve radius shall be one hundred (100) feet.

GRADE
Grade shall not exceed 5% favorable.

TRUCK TURNAROUND
None.

LANDINGS
A Roadside Landing shall be constructed within posted or painted right-of-way boundaries with the Center at Sta. 5+75.

JUNCTION
Construct a junction and surface at Sta. 2+40 with Road No. 21-8-7.1.

SOIL STABILIZATION
Apply seed, fertilizer, and mulch in accordance with Section 1800 of the Road Construction Specifications. All exposed soils shall be seeded and mulched.

CONSTRUCTION DETAIL SHEET
ROAD NO. 21-9-13.6E
DESIGNED ROAD

GENERAL
Purchaser shall construct Road No. 21-9-13.6E (Truck Assist Road) from Sta. 6+00 to 9+77.5. This work shall be accomplished in accordance with details and road specifications which follow:

SHAPING
Crowned at 2% for drainage. The roadway shall be constructed and shaped to conform to standards shown on the Typical Cross Section Sheet.

TURNOUTS
None.

SUBGRADE
The subgrade shall be excavated and compacted in accordance with Sections 200 and 300 of the Road Specifications,

DRAINAGE FEATURES
Ridgetop road construction. Install ditchouts, where necessary.

SURFACING
Natural surface.

ALIGNMENT
Roadway shall be constructed within posted or painted right-of-way boundaries. Minimum curve radius shall be one hundred (100) feet.

GRADE
Grade shall not exceed 21% adverse.

TRUCK TURNAROUND
None.

LANDINGS
An End/Roadside Landing/Waste Area shall be constructed within posted or painted right-of-way boundaries with the Center at Sta. 9+37.

SOIL STABILIZATION
Apply seed, fertilizer, and mulch in accordance with Section 1800 of the Road Construction Specifications. All exposed soils shall be seeded and mulched.

CONSTRUCTION DETAIL SHEET
ROAD NO. 21-8-7.0
DESIGNED ROAD

GENERAL
Purchaser shall construct Road No. 21-8-7.0 from Sta. 0+00 to 19+86.5, Junction is at MP 0.90 of Road No. 21-8-8.1. This work shall be accomplished in accordance with details and road specifications which follow:

SHAPING
Crowned at 2% for drainage. The roadway shall be constructed and shaped to conform to standards shown on the Typical Cross Section Sheet.

TURNOUTS
None.

SUBGRADE
The subgrade shall be excavated and compacted in accordance with Sections 200 and 300 of the Road Specifications. Some Full-Bench Construction required. Construction shall be as per design and slope stakes.

DRAINAGE FEATURES
Ridgetop and Full-Bench road construction. Place an 18” x 30’ CPP w/ 10’ DS at STA 0+80. Ditchouts constructed at approx. Sta. 7+00 (behind landing), Sta. 11+20 (before ridge), and Sta. 16+00 (before ridge).

SURFACING
Place a 5” lift of compacted 3”-0” crushed aggregate capped with a 3” lift of compacted 1.5”-0” crushed aggregate in accordance with Section 1000 and 1200 of the Road Specifications.

ALIGNMENT
Roadway shall be constructed within posted or painted right-of-way boundaries. Minimum curve radius shall be one hundred (100) feet.

GRADE
Grade shall not exceed 19% favorable.

TRUCK TURNAROUND
None.

LANDINGS
A Roadside Landing shall be constructed within posted or painted right-of-way boundaries with the Center at Sta. 6+71. An End/Roadside Landing shall be constructed within posted or painted right-of-way boundaries with the Center at Sta. 19+50.

SOIL STABILIZATION
Apply seed, fertilizer, and mulch in accordance with Section 1800 of the Road Construction Specifications. All exposed soils shall be seeded and mulched.

CONSTRUCTION DETAIL SHEET
ROAD NO. 21-8-7.1
DESIGNED ROAD

GENERAL
Purchaser shall construct Road No. 21-8-7.1 from Sta. 0+00 to 5+80. Junction is at Sta. 2+40 of Road No. 21-9-13.6D. This work shall be accomplished in accordance with details and road specifications which follow:

SHAPING
Crowned at 2% for drainage. The roadway shall be constructed and shaped to conform to standards shown on the Typical Cross Section Sheet.

TURNOUTS
None.

SUBGRADE
The subgrade shall be excavated and compacted in accordance with Sections 200 and 300 of the Road Specifications,

DRAINAGE FEATURES
Ridgetop road construction. Ditchout constructed at approx. Sta. 5+00 (before landing),

SURFACING
Place a 5” lift of compacted 3”-0” crushed aggregate capped with a 3” lift of compacted 1.5”-0” crushed aggregate in accordance with Section 1000 and 1200 of the Road Specifications.

ALIGNMENT
Roadway shall be constructed within posted or painted right-of-way boundaries. Minimum curve radius shall be one hundred (100) feet.

GRADE
Grade shall not exceed 16% adverse.

TRUCK TURNAROUND
None.

LANDINGS
An End Landing/Waste Area shall be constructed within posted or painted right-of-way boundaries with the Center at Sta. 5+50.

SOIL STABILIZATION
Apply seed, fertilizer, and mulch in accordance with Section 1800 of the Road Construction Specifications. All exposed soils shall be seeded and mulched.

CONSTRUCTION DETAIL SHEET
ROAD NO. 21-8-18.1A
DESIGNED ROAD

GENERAL
Purchaser shall construct Road No. 21-8-18.1A from Sta. 0+00 to 2+00 as shown on the crossing plat. Junction is at MP 0.48 of Road No. 21-9-13.6B. This work shall be accomplished in accordance with details and road specifications which follow:

SHAPING
Crowned at 2% for drainage. The roadway shall be constructed and shaped to conform to standards shown on the Typical Cross Section Sheet.

TURNOUTS
None.

SUBGRADE
The subgrade shall be excavated and compacted in accordance with Sections 200 and 300 of the Road Specifications, Some Full-Bench Construction required. Construction shall be as per design and slope stakes.

DRAINAGE FEATURES
Full-bench road construction. Place an 18” x 30’ CPP at STA 1+50.

SURFACING
Place a 5” lift of compacted 3”-0” crushed aggregate capped with a 3” lift of compacted 1.5”-0” crushed aggregate in accordance with Section 1000 and 1200 of the Road Specifications.

ALIGNMENT
Roadway shall be constructed within posted or painted right-of-way boundaries. Minimum curve radius shall be one hundred (100) feet.

GRADE
Grade shall not exceed 18% adverse.

TRUCK TURNAROUND
None.

LANDINGS
None.

JUNCTION
Construct a junction and surface at Sta. 0+00 with Road No. 21-9-13.6B.

SOIL STABILIZATION
Apply seed, fertilizer, and mulch in accordance with Section 1800 of the Road Construction Specifications. All exposed soils shall be seeded and mulched.

CONSTRUCTION DETAIL SHEET
ROAD NO. 21-8-18.1BCDE
DESIGNED ROAD

GENERAL
Purchaser shall construct Road No. 21-8-18.1 from Sta. 2+00 to 62+99.5. This work shall be accomplished in accordance with details and road specifications which follow:

SHAPING
Crowned at 2% for drainage. The roadway shall be constructed and shaped to conform to standards shown on the Typical Cross Section Sheet.

TURNOUTS
Turnouts shall be constructed and surfaced within posted or painted right-of-way boundaries with the Centers at Sta.15+00 & 57+50.

SUBGRADE
The subgrade shall be excavated and compacted in accordance with Sections 200 and 300 of the Road Specifications. Some Full-Bench Construction required. Construction shall be as per design and slope stakes.

DRAINAGE FEATURES
Ridgetop and Full-Bench road construction. Place an 18” x 30’ CPP w/ 10’ DS at Sta. 6+14, 18” x 30’ CPP at Sta. 24+93, 18” x 30’ CPP at Sta. 31+41, 18” x 30’ CPP at Sta. 41+35, & 18” x 30’ CPP at Sta. 54+83. Ditchouts constructed at approx. Sta. 12+95 (before ridge), Sta. 33+50 (before through-cut), Sta. 36+00 (before ridge), Sta. 38+80 (before ridge), & 48+75 (before ridge).

SURFACING
Natural surface.

ALIGNMENT
Roadway shall be constructed within posted or painted right-of-way boundaries. Minimum curve radius shall be sixty (60) feet.

GRADE
Grade shall not exceed 18% adverse.

TRUCK TURNAROUND
None.

LANDINGS
Roadside Landings shall be constructed within posted or painted right-of-way boundaries with the Centers at Sta. 16+62, Sta. 22+20, Sta. 30+00, Sta. 34+83, Sta. 37+50, & Sta. 47+40. An End/Roadside Landing shall be constructed within posted or painted right-of-way boundaries with the Center at Sta. 62+50.

JUNCTION
Construct a junction at Sta. 24+43 with Spur Rd 1, Sta. 41+33 with Spur Rd 2, & Sta. 50+08 with Spur Rd 3.

SOIL STABILIZATION
Apply seed, fertilizer, and mulch in accordance with Section 1800 of the Road Construction Specifications. All exposed soils shall be seeded and mulched.

CONSTRUCTION DETAIL SHEET
ROAD NO. Spur 1 (swing/skid)
DESIGNED ROAD

GENERAL
Purchaser shall construct Road No. Spur 1 (Spur/Swing Road) from Sta. 0+00 to 4+34.2. Junction is at Sta.24+43 of Road No. 21-8-18.1BCDE. This work shall be accomplished in accordance with details and road specifications which follow:

SHAPING
Crowned at 2% for drainage. The roadway shall be constructed and shaped to conform to standards shown on the Typical Cross Section Sheet.

TURNOUTS
None.

SUBGRADE
The subgrade shall be excavated and compacted in accordance with Sections 200 and 300 of the Road Specifications,

DRAINAGE FEATURES
Ridgetop road construction.

SURFACING
Natural surface.

ALIGNMENT
Roadway shall be constructed within posted or painted right-of-way boundaries. Minimum curve radius shall be one hundred (100) feet.

GRADE
Grade shall not exceed 21% favorable.

TRUCK TURNAROUND
None.

LANDINGS
An End Landing Area shall be constructed within posted or painted right-of-way boundaries with the Center at Sta. 4+00.

SOIL STABILIZATION
Apply seed, fertilizer, and mulch in accordance with Section 1800 of the Road Construction Specifications. All exposed soils shall be seeded and mulched.

CONSTRUCTION DETAIL SHEET
ROAD NO. Spur 2 (swing/skid)
DESIGNED ROAD

GENERAL
Purchaser shall construct Road No. Spur 1 (Spur/Swing Road) from Sta. 0+00 to 1+23.8. Junction is at Sta. 41+33 of Road No. 21-8-18.1 BCDE. This work shall be accomplished in accordance with details and road specifications which follow:

SHAPING
Crowned at 2% for drainage. The roadway shall be constructed and shaped to conform to standards shown on the Typical Cross Section Sheet.

TURNOUTS
None.

SUBGRADE
The subgrade shall be excavated and compacted in accordance with Sections 200 and 300 of the Road Specifications,

DRAINAGE FEATURES
Ridgetop road construction.

SURFACING
Natural surface.

ALIGNMENT
Roadway shall be constructed within posted or painted right-of-way boundaries. Minimum curve radius shall be one hundred (100) feet.

GRADE
Grade shall not exceed 22% favorable.

TRUCK TURNAROUND
None.

LANDINGS
An End Landing Area shall be constructed within posted or painted right-of-way boundaries with the Center at Sta. 1+00.

SOIL STABILIZATION
Apply seed, fertilizer, and mulch in accordance with Section 1800 of the Road Construction Specifications. All exposed soils shall be seeded and mulched.

CONSTRUCTION DETAIL SHEET
ROAD NO. Spur 3 (swing/skid)
DESIGNED ROAD

GENERAL
Purchaser shall construct Road No. Spur 3 (Spur/Swing Road) from Sta. 0+00 to 5+96.1. Junction is at Sta. 50+08 of Road No. 21-8-18.1BCDE. This work shall be accomplished in accordance with details and road specifications which follow:

SHAPING
Crowned at 2% for drainage. The roadway shall be constructed and shaped to conform to standards shown on the Typical Cross Section Sheet.

TURNOUTS
None.

SUBGRADE
The subgrade shall be excavated and compacted in accordance with Sections 200 and 300 of the Road Specifications,

DRAINAGE FEATURES
Ridgetop road construction.

SURFACING
Natural surface.

ALIGNMENT
Roadway shall be constructed within posted or painted right-of-way boundaries. Minimum curve radius shall be one hundred (80) feet.

GRADE
Grade shall not exceed 25% favorable.

TRUCK TURNAROUND
None.

LANDINGS
Roadside Landings shall be constructed within posted or painted right-of-way boundaries with the Centers at Sta. 2+85. An End Landing Area shall be constructed within posted or painted right-of-way boundaries with the Center at Sta. 5+75.

SOIL STABILIZATION
Apply seed, fertilizer, and mulch in accordance with Section 1800 of the Road Construction Specifications. All exposed soils shall be seeded and mulched.

ROAD CONSTRUCTION SPECIFICATIONS

General road construction specifications are designated by numeric symbols according to the type of road work to be performed, as follows:

Section	
100	GENERAL
200	CLEARING AND GRUBBING
300	EXCAVATION AND EMBANKMENT
400	PIPE CULVERTS
500	RENOVATION AND IMPROVEMENT OF EXISTING ROADS
600	WATERING
1000	AGGREGATE BASE COURSE (CRUSHED ROCK)
1200	AGGREGATE SURFACE COURSE (CRUSHED ROCK)
1400	SLOPE PROTECTION
1700	EROSION CONTROL
1800	SOIL STABILIZATION
2100	ROADSIDE BRUSHING

GENERAL - 100

101 Pre-work Conference(s):

A pre-work conference will be held prior to the start of operations. The Purchaser shall request the conference at least 48 hours prior to the time it is to be held. The conference will be attended by the Purchaser and/or his representative(s), subcontractor(s) and/or his or their representative(s) and the Authorized Officer and/or his representative(s).

The purpose will be to review the required work, exhibits and specifications, and to establish clear expectations around a work schedule and a list of the Purchaser's representatives and subcontractor(s).

102 Definitions:

AASHTO - American Association of State Highway and Transportation Officials. Current editions of tests and specifications.

Abrasion Resistance - The ability of a fabric surface to resist wear by friction.

ACI - American Concrete Institute

Apparent Opening Size (AOS) - Number of the U.S. Bureau of Standard sieve (or its opening size in millimeters or inches) having openings closest in size to the diameter of uniform particles which will allow 5 percent by weight to pass through the geotextile material when shaken in a prescribed manner. Also referred to as Equivalent Opening Size (EOS).

ASTM - American Society for Testing and Materials.

Base Course - Surfacing structure consisting of crushed gravel or stone, crushed sandstone, pitrun rock, bank or river-run gravels, etc., to provide support and, in the event no surface course is placed, the running surface for traffic load.

BLM - Bureau of Land Management

Borrow - Excavated material required for embankments and other portions of the work.

Burst Strength - The resistance of a geotextile material to rupture from pressure applied at right angles to the plane of the geotextile material under specified conditions, usually expressed as the amount of pressure causing failure. Rupture or burst results from tensile failure of the geotextile material.

Culvert - A pipe, pipe-arch, arch, or box structure constructed of metal, concrete, plastic or wood which provides an opening under the roadway primarily for the conveyance of liquids, pedestrians or livestock.

Curve Widening - Widening required on inside of curves to accommodate long log and equipment hauling trucks.

Embankment - A structure of soil, aggregate, or rock material placed on a prepared ground surface and constructed to subgrade.

End Haul - Excavated material moved, other than by dozer, to an embankment or waste area to prevent sidecasting material outside of the road prism.

Excess Excavation - Material from the roadway in excess of that needed for construction of the designed roadway (waste).

Grab Tensile Strength - A modified tensile strength of a geotextile material. The strength of a specific width of geotextile material together with the additional strength contributed by adjacent areas. Typically, grab strength is determined on a 12-inch-wide strip of geotextile material, with the tensile load applied at the midpoint of the geotextile material width through 1-inch-wide jaw faces.

Grading - Leveling to grade, shaping and smoothing of a road subgrade; the shaping of roadside ditches as to grade and contour. In some instances includes smoothing of the cut bank.

Nonwoven Geotextile Material - A textile structure produced by bonding or interlocking of fibers, or both, accomplished by mechanical or chemical means.

Overhaul - Distance excavated material is transported in excess of the distance included in the cost for excavation.

Pioneer Road - Temporary construction access built along the route of the project.

Penetration Resistance - The geotextile material property determined by the force required to penetrate a geotextile material with a sharp pointed object. Initial penetration is by separating the fibers. Further penetration is essentially a tearing process.

Percent Open Area - The net area of a geotextile material that is not occupied by geotextile material filaments, normally determinable only for woven and nonwoven geotextile material having distinct, visible, and measurable openings that continue directly through the geotextile material.

Permeability - The geotextile material property which permits water to be transmitted in the longitudinal or transverse planes of the geotextile material.

Piping - The process by which soil particles are washed in or through pore spaces in drains and filters or poorly compacted fill/backfill material.

Plans - The approved drawings, or exact reproductions thereof which show the locations, character, dimensions, and details of the work to be done.

Pore Size - The size of an opening between geotextile material filaments; apparent opening size (AOS) is used to quantify this geotextile material property.

Puncture Resistance - The geotextile material property determined by the force required to penetrate a geotextile material with a blunt object. Failure results in a tearing of the geotextile material.

Purchaser - The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through their, or its agents, employees, or contractors.

Reasonably Close Conformity - Compliance with reasonable and customary manufacturing and construction tolerances where working tolerances are not specified.

Reinforcement - Strengthening of concrete with iron bars or mesh: geotextile with geotextile material inclusion: subgrade with aggregate: etc.

Roadbed - The graded portion of the road within top and side slopes, prepared as a foundation for the pavement structure and shoulders.

Road Centerline - Longitudinal center of roadbed.

Road Improvement - Work done to an existing road which improves it over its original design standard.

Road Renovation - Work done to an existing road which restores it to its original design.

Roadway - The portion of a road within limits of construction. Usually from the toe of the fill slope to a point where the cut slope intersects natural ground line. Synonym - road prism.

Scale - In quarrying, consists of the removal of loose or overhanging rock adhering to the solid face after a shot or a round of shots has been fired.

Scarification - The process of loosening or breaking up of the surface layer of soil or road, usually to a specified depth.

Separation - Function of geotextile material as a partition between adjacent materials to prevent mixing of those materials.

Shoulder - The portion of the roadbed contiguous with the traveled way designed for accommodation of stopped vehicles, safety, and lateral support of base and surface courses.

Spalls - Flakes or chips of stone.

Specifications - A general term applied to all directions, provisions, and requirements pertaining to performance of the work.

Specific Gravity - The ratio of the density of a material to the density of water obtained by weighing known volumes of both items in air. A specific gravity less than one implies that the material will float.

Structures - Bridges, culverts, catch basins, retaining walls, underdrains, flumes, splash pads, downspouts, and other project features which may be involved in the work and not otherwise classified in these specifications.

Subbase - Reinforcement of the subgrade with large particles of pitrun or crushed stone. Usually confined to roads having wet subgrades or subgrades with weak support characteristics.

Surface Course - Top layer of a road structure consisting of finely crushed gravels or asphalt designed to provide a smooth running surface for traffic load.

Subgrade - The top surface of a roadbed upon which the traveled way and shoulders are constructed.

Tackifier - A compound which penetrates into the earth and assists in creating a crust through the cohesive bonding of the surface materials to a depth sufficient to stabilize the soil surface and/or a compound used to mat together mulching material.

Tensile Strength - The strength shown by a geotextile material subjected to tension as distinct from torsion, compression, or shear.

Tensile Stress - Strain Modulus - A measure of the resistance to elongation under stress. The ratio of the change in tensile stress to the corresponding change in strain.

Tensile Test - A test which subjects geotextile material to tensile forces and measures resultant stresses and strains.

Timber - Standing trees, downed trees, or logs, or portions thereof, which are capable of being measured in board feet.

Traveled Way - The portion of the roadbed used for the movement of vehicles, exclusive of shoulders.

Typical Cross Sections - Cross-sectional plane of a typical roadway; showing natural ground line and designed roadway in relation to cut and fill, through cut, and through fill.

Turnout - Extra widening of the roadbed at appropriate intervals on single-lane roads for passing purposes.

Ultraviolet (UV) Radiation Stability - The ability of geotextile material to resist deterioration from exposure to sunlight.

Unaged Cloth - Cloth in condition received from the manufacturer or distributor.

Woven Geotextile Material - A textile structure comprising two or more sets of filaments of yarns interlaced in such a way that the elements pass each other at essentially right angles with one set of elements parallel to the geotextile material axis.

102a - Tests Used in These Specifications:

AASHTO T 11 — Quantity of rock finer than No. 200 sieve.

AASHTO T 27 — Sieve analysis of fine and coarse aggregate using sieves with square openings; gradation.

AASHTO T 89 — Liquid limit of material passing the 0 sieve. Water content at which the soil passes from a plastic to a liquid state.

AASHTO T 90 — Plastic limits and plasticity index of soil.

a. Plastic limit - lowest water content at which the soil remains plastic.

b. Plasticity index - range of water content, within which the material is in a plastic state. Numerical difference between the liquid and plastic limits of the soil.

AASHTO T 96 — Resistance to abrasion of small size coarse aggregate by use of the Los Angeles machine.

AASHTO T 99 — Relationship between soil moisture and maximum density of soil.

- Method A - 4" mold, soil passing a Sieve. 25 blows/layer & 3 layers.
- Method D - 6" mold, soil passing a 19.00 mm (3/4 inches) sieve. 56 blows/layer & 5 layers.

AASHTO T 176 Shows relative portions of fine dust or clay-like materials in soil or graded aggregate.

AASHTO T 180 (OSHD 106-71) moisture density relationship of soil same as AASHTO T 99 proctor but uses a 10-lb rammer & 18-in drop.

AASHTO T 191 Sand Cone. Density of soil in place: For subgrade use 6-inch or 12-inch cone. For rock surfacing for 1-1/2-inch minus to 3-inch minus use 12-inch cone.

AASHTO T 205 Rubber balloon. Density of soil in place. Use for compacted or firmly bonded soil.

AASHTO T 210 Durability of aggregates based on resistance to produce fines.

AASHTO T 224 Correction for coarse particles in the soil.

AASHTO T 238 Determination of density of soil and soil-aggregates in place by nuclear methods.

AASHTO T 248 Reducing field samples of aggregate to testing size by mechanical splitter, quartering, or miniature stockpile sampling.

DES. E-12 Determination of relative density of cohesionless soils.

DMSO (dimethyl sulfide) - Determines volume of expanding clays in aggregates. Usually associated with marine basalts.

103 Compaction equipment shall meet the following requirements:

103e Grid roller. A grid roller shall consist of two or more cylindrical drums independently mounted on a common shaft in a rigid frame. Each drum shall have a minimum outside diameter of 5 feet and a minimum width of 2 feet 6 inches. The overall width of the roller exclusive of frame shall be not less than 5 feet 6 inches of which not more than 6 inches shall be used for center spacing between two roller drums. The face of the drums shall have the appearance of woven open-mesh made by interlacing bars of not less than 1-1/4 inches nor more than 1-3/4 inches diameter space spaced on 4-1/2 inches to 5-1/2 inches center. Net opening between the bars shall be not less than 3-inches nor more than 4 inches. The roller shall be so constructed that counterweights can be used to adjust the gross weight of the roller to not less than 27,000 pounds. The grid roller shall be drawn by a power unit capable of propelling the fully loaded roller at a speed of at least 4 miles per hour.

103f Vibratory roller. The drum diameter shall be not less than 48 inches, the drum width not less than 58 inches, and have a turning radius of 15 feet or less. Vibration frequency shall be regulated in steps to 1400, 1500, and 1600 vibrations per minute (VPM), corresponding to engine speeds of 1575, 1690, and 1800 RPM. The centrifugal force developed shall be 7 tons at 1600 RPM. It shall be activated by a power unit of not less than 25 horsepower. The vibratory roller shall be self-propelled or drawn by a vehicle of sufficient horsepower to enable the unit to travel through a loose layer of material at a speed ranging from 0.9 mile to 1.8 miles per hour, as directed by the Authorized Officer. The towing vehicle and roller or self-propelled unit meeting the above requirements shall be considered a vibratory roller unit.

103i Other. Compaction equipment approved by the Authorized Officer.

CLEARING AND GRUBBING - 200

201 This work shall consist of clearing, grubbing, removing and disposing of vegetation, debris, surface objects, and protruding obstructions within the clearing limits in accordance with these specifications and conforming to the lines, grades, dimensions and typical cross sections as shown on the plans.

202 Where clearing limits have not been staked, established by these specifications or shown on the plans, the limits shall extend 10 feet back of the top of the cut slope and 5 feet out from the toe of the fill slope.

203 Clearing shall consist of the removal and disposal of trees, logs, rotten material, brush, and other vegetative materials and surface objects in accordance with these specifications and within the limits established for clearing as specified under Subsection 202 and as shown on the plans.

203a Brush under 2 feet in height need not be cut within the limits established for clearing.

203b Standing trees and snags to be cleared shall be felled within the limits established for clearing unless otherwise authorized.

204 Grubbing shall consist of the removal and disposal of stumps, roots, and other wood material embedded in the ground and protruding obstacles remaining as a result of the clearing operation in accordance with Subsection(s) 204a, 204b, 204c, 204d, 204e between the top of the cut slope and the toe of the fill slope. Undisturbed stumps, roots and other solid objects which will be a minimum of 3 feet below subgrades or slope surfaces or embankments are excepted.

204a Stumps, including those overhanging cut banks, shall be removed within the required excavation limits.

204b Stumps and other protruding objects shall be completely removed within the limits of required embankments having heights of less than 4 feet. When authorized, stumps and other nonperishable objects may be left provided they do not extend more than 6 inches above the existing ground line.

204c On excavated areas, roots and embedded wood shall be removed to a depth not less than 6 inches below the subgrade.

204d On areas to be occupied by embankments having heights greater than 4 feet, no stump or portion thereof shall remain within 3 feet of embankment subgrades or slope surfaces after grubbing is completed.

204e Roots and embedded wood material shall be removed to a depth not less than 1 foot below embankment subgrades or slope surfaces.

205 Clearing and grubbing debris shall not be placed or permitted to remain in or under road embankment sections.

206 Clearing and grubbing debris shall be disposed of by scattering in accordance with Subsection 210.

210 Disposal of clearing and grubbing debris shall be by scattering over government owned lands outside of established clearing limits in a manner acceptable to the Authorized Officer. The areas for such scattering shall have the prior approval of the Authorized Officer.

213 No clearing or grubbing debris shall be left lodged against standing trees.

EXCAVATION AND EMBANKMENT - 300

301 This work shall consist of excavating, overhaul, placement of embankments, backfilling, borrowing, leveling, ditching, grading, insloping, outsloping, crowning and scarification of the subgrade, compaction, disposal of excess and unsuitable materials, and other earth-moving work in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.

302 Excavation shall also consist of the excavation of road and landing cut sections, borrow sites, backfilling, leveling, ditching, grading, compaction, and other earth moving work necessary for the construction of the roadway in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.

303 Suitable material removed from the excavation shall be used in the formation of embankment subgrade, shoulders, slopes, bedding, backfill for structures, and for other purposes as shown on the plans.

303a **Excavated material shall not be wasted as sidecast or perched. All material perched or sidecast as waste shall be retrieved and disposed of at the Purchaser's expense and at the direction of the Authorized Officer.**

305 Embankment construction shall consist of the placement of excavated and borrowed materials, backfilling, leveling, grading, compaction, and other earth-moving work necessary for the construction of the roadway and landings in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.

305a Material used in the construction of embankment sections shall be free of stumps, cull logs, brush, muck, sod, roots, frozen material, and other deleterious materials and shall be placed and compacted as specified.

305b Embankment materials shall be placed in successive parallel layers on areas cleared of stumps, cull logs, brush, sod, and other vegetative and deleterious materials, except as provided under Subsection 204. Roadway embankments of earth material shall be placed in horizontal layers not exceeding 8 inches in depth.

305c Embankments formed of material containing less than 25 percent rock not larger than 8 inches in the greatest dimension shall be placed in 12-inch layers. Material containing more than 25 percent of rock not larger than 12 inches, in the greatest dimension, shall be placed in successive layers not exceeding 2 feet in thickness. Individual rocks and boulders greater than 12 inches in diameter may be used to construct 2-foot embankment layers, provided they are carefully distributed, with interstices filled with fine material to form a dense and compact mass.

305d Where embankments are constructed predominantly of blasted rock material, depth of layers shall not exceed 4 feet. Rock fragments having dimensions greater than 4 feet will be permitted provided that they have no dimensions greater than 6 feet and that clearance between adjacent fragments is adequate for the placing and compacting of material in horizontal layers as specified, and that no part of the larger fragments comes within 4 feet of subgrade.

306 Layers of embankment and final subgrade material as specified under Subsection(s) 305a and 305b shall be moistened or dried to a uniform optimum moisture content suitable for maximum density and compacted to full width with compacting equipment conforming to requirements of Subsection 103f and in accordance with the following table:

Road No.	From Station/M.P.	To Station/M.P.
21-8-7.0	0+00	19+86.5
21-8-7.1	0+00	5+80
21-9-13.6 CDE	0+00	9+77.5
21-8-18.1	0+00	62+99.5
SPUR 1	0+00	4+34.2
SPUR 2	0+00	1+23.8
SPUR 3	0+00	5+96.1

306d Compacted materials within 1 foot of the established subgrade elevation shall have a density in place of not less than 95 percent of maximum density, and below the 1-foot limit, these materials shall have a density in place of not less than 90 percent of maximum density. Maximum density shall be determined by AASHTO T 99, Method A or Method D.

306f Compaction of embankment layers placed as specified under Subsection 305b above shall be accomplished by routing construction equipment over full width of embankment structures except as specified in Subsection 306.

306g **The face of all fill slopes shall be compacted to 85% of maximum density, either by walking with cat/excavator or by pressing with excavator bucket, to prevent surface erosion and raveling.**

311 In solid rock cuts where pockets that will not drain are formed by blasting below the subgrade elevation, drainage shall be provided by ditching to the edge of the subgrade and backfilling to grade and compacting both the pockets and the ditch with rock fragments, gravel, or other suitable porous material.

312 When material, except solid rock, encountered in cuts at subgrade, is suitable for use in forming the finished roadbed, the top 6-inch layer of the subgrade shall be thoroughly scarified for the full width of the roadbed. Roots, sod, and other deleterious material or stones that will not pass a 6-inch square opening shall be removed. The scarified material shall be processed to the optimum moisture content suitable for maximum density and compacted in accordance with Subsection 306.

313 In cut areas where solid rock is encountered at or near subgrade, the rock shall be excavated to a minimum depth of 6 inches below subgrade elevation and the excavated area backfilled with suitable material. The backfill material shall be processed to the optimum moisture content suitable for maximum density and compacted to full width in accordance with the requirements of Subsection 306.

314 When heavy clays, muck, clay shale, or other deleterious material for forming the roadbed is encountered in cuts at subgrade, it shall be excavated to a minimum depth of 2 feet below the

subgrade elevation and the excavated area backfilled with a selected borrow material approved by the Authorized Officer. The backfill material shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density in accordance with the requirements of Subsection 306. Unsuitable material shall be disposed of as directed by the Authorized Officer.

320 Ditches shall conform to the slope, grade, dimensions, and shape of the required cross section shown on the plans. Roots, stumps, rocks, and other projections shall be removed to form smooth, even slopes.

321 Excess excavated, unsuitable, or slide materials shall not be disposed of on areas where the material will encroach on a stream course or other body of water. Such materials shall be disposed of in accordance with Subsection 321c.

NOTE: Any material being hauled over gravel or bituminous surfaced roads will be done in vehicles which meet legal highway weight requirements while hauling.

321c End-dumping will be permitted for the placement of excess materials under Subsection 321 in designated disposal areas or within areas approved by the Authorized Officer. Placement in layers is required. Materials placed shall be sloped, shaped, and otherwise brought to a neat and sightly condition, acceptable to the Authorized Officer.

324 Excavated material shall not be allowed to cover boles of standing trees to a depth in excess of 2 feet on the uphill side.

327 The finished grading shall be approved in writing by the Authorized Officer. The Purchaser shall give the Authorized Officer 3 days notice prior to final inspection of the grading operations.

328 The Purchaser shall adopt methods and procedures in using explosives which will prevent damage to adjacent landscape features and which will minimize scattering rocks and other debris outside the road prism.

PIPE CULVERTS - 400

401 This work shall consist of furnishing and installing pipe culverts, pipe arch culverts, half rounds flume(s), perforated pipe culverts, downspout(s), elbow(s), and other erosion control device(s) in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. Individual lengths and locations are approximate; final lengths and locations will be determined by the Authorized Officer. Additional pipe and erosion control devices may be required at the option of the Authorized Officer, in which case a reduction in the total purchase price shall be made to offset the cost of furnishing and installing such items. Costs will be based upon the unit prices set forth in the current BLM Timber Appraisal Production Cost Schedule.

403 Grade culverts shall have a gradient of from 2 percent to 4 percent greater than the adjacent road grade and shall be skewed down grade 30 degrees as measured from the perpendicular to the centerline unless otherwise specified on the plans.

404 Damage to the spelter, or burn back in excess of 3/8 inch, shall be wire brushed and painted with two coats of zinc-rich paint on zinc-coated, steel pipe and aluminum-rich paint on aluminum or aluminum-coated pipe.

405 Corrugated steel riveted and helical pipe culverts and pipe-arch culverts and special sections shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274 as specified on the plans.

405a Corrugated-steel-welded pipe culverts and pipe-arch culverts and special sections shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274 as specified on the plans.

405e Corrugated-polyethylene pipe for culverts 12-inch through 24-inch diameter shall meet the requirements of AASHTO M 294 for type S. Installation will be subject to the same specification as other pipe materials.

406 Coupling bands shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274 with the exception of band widths and the "Hugger"-type band which shall conform to the details, dimensions, and typical diagram shown on the plans.

406a "Hugger"-type coupling bands shall only be used with annular corrugated pipe and pipe-arch culverts or helically corrugated pipe and pipe-arch culverts having annular reformed ends. Annular reformed ends shall consist of 2 annular corrugations.

406b Coupling bands produced from flat galvanized steel sheets with impressed dimples will be permitted only for connecting annular corrugated steel pipe to helically corrugated steel pipe. Such coupling bands shall conform to the width requirements shown on the plans.

406f Channel-type or flanged-end coupling bands may be used on helical pipe with reformed rolled ends and flanged specifically to receive these bands. Such coupling bands shall conform to the requirements shown on the plans.

407 Special sections, such as elbows, branch connections, and flared-end sections, shall be of the same gauge as the pipe to which they are joined and shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274.

407b Full round culvert downspouts conforming to the material and construction requirements as shown on the plans shall be anchored with two six-foot steel fence posts (one on each side of the pipe) wired together with No. 12 galvanized wire in a manner approved by the Authorized Officer. These anchors shall be placed every ten feet along the pipe beginning at the outlet of the culvert pipe.

408 Pipe culverts and pipe-arch culverts shall be placed on the bed starting at the downstream end with the inside circumferential laps pointing downstream and with the longitudinal laps at the side or quarter points. Coupling bands of the type required under these specifications shall be installed so as to provide the circumferential and longitudinal strength necessary to preserve the pipe alignment, prevent separation of the pipe sections, and minimize infiltration of fill material.

409 Structural-plate pipe culverts and pipe-arch culverts shall be installed in accordance with the plans and detailed erection instructions furnished by the manufacturer. One copy of the erection instructions shall be furnished the Authorized Officer prior to erection.

410 Pipe shall be unloaded and handled with reasonable care. If the Authorized Officer determines any structure is damaged to the extent that it is unsuitable for use in the road construction, it shall be replaced at the Purchaser's expense.

411 Trenches necessary for the installation of pipe culverts shall conform to the lines, grades, dimensions, and typical diagram included in the plans shown on Exhibit C and the Culvert Installation Detail Sheet.

412 Where ledge rock, boulders, soft, or spongy soils are encountered, they shall be excavated a minimum of 24 inches below the invert grade for a width of at least one pipe diameter or span on each side of the pipe and shall be backfilled with selected granular or fine readily compactable soil material.

413 Pipe culverts and pipe-arch culverts shall be bedded on a selected granular or fine readily compactable soil material. Foundation material shall be of uniform density throughout the length of the structure and shall be shaped to fit the pipe.

413a Bedding material for pipe culverts on existing surfaced roads shall be 1½ inch minus crushed aggregate meeting the requirements of Sections 1204, 1205, 1206, 1207, and 1208 of these specifications.

414a - The invert grade of the bedding shall be cambered at the middle ordinate a minimum of 1 percent of the total length of the drainage structure. Camber shall be developed on a parabolic curve.

415 - Inspection of pipe culverts having a diameter of 48 inches and pipe-arch culverts having a height of 40 inches or a cross sectional area of 13 square feet or larger shall be made before backfill is placed. Culverts found to be out of alignment or damaged shall be replaced, reinstalled, or repaired as directed by the Authorized Officer at the Purchaser's expense.

416 - Side-fill material for pipe culverts shall be placed within 1 pipe diameter, or a minimum of 2 feet, of the sides of the pipe barrel and to 1 foot over the pipe with fine, readily compactable soil or granular fill material free of excess moisture, muck, frozen material, roots, sod, or other deleterious or caustic material and devoid of rocks or stones of sizes which may impinge upon and damage the pipe or otherwise interfere with proper compaction.

417 - For pipe culvert(s) side-fill material conforming to the requirements of Subsection 416 shall be placed and compacted under the haunches of the pipe and shall be brought up evenly and simultaneously on both sides of the pipe to 1 foot above the pipe in layers not exceeding 6 inches in depth and 1 pipe diameter/span or a minimum of 2 feet in width each side of, and adjacent to, the full length of the pipe barrel. Each layer shall be moistened or dried to a uniform moisture content suitable for maximum compaction and immediately compacted by approved hand or pneumatic tampers until a uniform density of 95 percent of the maximum density is attained as determined by AASHTO T 99, Method C.

418 - Side fills beyond the compaction limits specified under Subsection 417 shall be compacted as specified under Section 300.

423 - Construction of catch basins and ditch dams conforming to lines, grades, dimensions and typical diagrams shown on the plans, shall be required for grade culverts.

425 - Where pervious materials are used for backfill and bedding, collars consisting of selected impervious material shall be placed at the inlet and at various intervals along the pipe barrel as shown on the plans and as directed by the Authorized Officer.

426 - Culvert marker(s) consisting of ½-inch round steel bars 4 feet in length bolted to the culvert at the inlet or 6-foot steel fence posts painted white, shall be furnished, fabricated, and installed by the Purchaser at all grade culvert

RENOVATION AND IMPROVEMENT OF EXISTING ROADS - 500

501 - This work shall consist of reconditioning and preparing the roadbed and shoulders, cleaning and shaping drainage ditches, trimming vegetation from cut and embankment slopes, and cleaning and repairing drainage structures of existing roads in accordance with these specifications and as shown on the plans.

501a - This work shall include the removal and disposal of slides in accordance with these specifications.

502 - The existing road surface shall be scarified to its full width and to a sufficient depth to eliminate surface irregularities and bladed and shaped to the lines, grades, dimensions, and typical cross sections shown on the plans at the following location(s):

ROAD NUMBER **	FROM MILEPOST/STATION	TO MILEPOST/STATION
21-8-8.1	0+00	54+91.2
21-9-13.6	0+00	25+34.4

502a Rocks larger than 4 inches in maximum dimension shall be removed from the scarified layers of the roadbed. Material so removed will not be permitted to remain on road shoulders or in ditches.

502b Drainage ditches shall be bladed and shaped in accordance with the lines, grades, dimensions, and typical cross sections shown on the plans.

Drainage ditches that are vegetated, capable of adequate water flow, and are in accordance with the lines, grades, dimensions, and typical cross sections shown on the plans shall not be bladed.

503 Debris from slides shall be disposed of as directed by the Authorized Officer.

504 Scarified material and existing road surface shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density and compacted to full width with equipment conforming to requirements of Subsection 103f and in accordance with the following table:

ROAD NUMBER **	FROM MILEPOST/STATION	TO MILEPOST/STATION
21-8-8.1	0+00	54+91.2
21-9-13.6	0+00	25+34.4

504a Minimum compaction required shall be 1 hour of continuous rolling for each 4 stations of road, or fraction thereof, as measured along the centerline per layer of material.

506 The inlet end of existing drainage structures shall be cleared of vegetative debris and boulders that are of sufficient size to obstruct normal stream flow. Pipe inverts shall be cleared of sediment and other debris lodged in the barrel of the pipe. The outflow area of designated pipe structures shall be cleared of rock and vegetative obstructions which will impede the structure's designed outflow configuration. Catch basins shall conform to the lines, grade, dimensions, and typical diagram shown on the plans.

507 The finished grading shall be approved in writing by the Authorized Officer. The Purchaser shall give the Authorized Officer 3 days notice prior to final inspection of the grading operations.

WATERING - 600

601 This work shall consist of furnishing and applying water required for the compaction of embankments, roadbeds, backfills, base courses, surface courses, finishing and reconditioning of existing roadbeds laying dust, or for other uses in accordance with these specifications.

602 Water, when needed for compaction shall be applied at the locations in the amounts and during the hours as directed by the Authorized Officer. Amounts of water to be provided will be the minimum needed to properly execute the compaction requirements in conformance with these specifications.

603 - Water trucks used in this work shall be equipped with a distributing device of ample capacity and of such design as to ensure uniform application of water on the roadbed.

605 - The Purchaser shall secure the necessary water permits and pay all required water fees for use of water sources selected by the Purchaser and approved by the Authorized Officer.

AGGREGATE BASE COURSE AND LANDING ROCK - 1000
CRUSHED ROCK MATERIAL

1001 - This work shall consist of furnishing, hauling, and placing one or more lifts of crushed rock material on roadbeds and landings approved for placing crushed rock material, in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans. Material not conforming to these specifications will be rejected and shall be removed from the road.

1002a - Crushed rock materials may be obtained from commercial sources selected by the Purchaser at his option and expense providing that the rock materials selected comply with the specifications in this section.

1003 - Crushed rock material produced from gravel shall have 3 manufactured fractured face(s) on 75 percent, by weight, of the material retained on the sieve.

1004 - Crushed rock materials shall consist of hard durable rock fragments conforming to the following gradation requirements:

TABLE 1004
AGGREGATE BASE COURSE
CRUSHED ROCK MATERIAL
Percentage by Weight Passing Square Mesh Sieves
(AASHTO T 11 & T 27)
GRADATION

Sieve Designation	A	B	D
6-inch	-	100	100
3-inch	100	-	45-65
2-inch	90-95	-	-
1-1/2-inch	-	-	-
1-inch	45-75	-	-
3/4-inch	-	-	-
2-inch	-	-	-
3/8-inch	-	-	-
No. 4	15-45	-	0-10
No. 8	-	-	-
No. 10	-	-	-
No. 30	-	-	-
No. 40	5-25	-	-
No. 200	2-15	-	-

1005 Crushed rock material retained on the sieve shall have a percentage of loss of not more than 35 at 500 revolutions, as determined by AASHTO T 96.

1006 Crushed rock material shall show durability value of not less than 35 as determined by AASHTO T 210.

1007 That portion of crushed rock material passing the 0 sieve, including blending filler, shall have liquid limits of not more than 35 and a plasticity index of not less than 4 and not more than 12, as determined by AASHTO T 89 and AASHTO T 90.

1007a That portion of crushed rock material passing sieve, including blending filler, shall have a sand equivalent of not less than 35 as determined by AASHTO T 176, except where that portion exhibits a sand equivalent of less than 35, the aggregate will be accepted if it complies with the additional requirement as follows:

Sand Equivalent AASHTO T 176 Maximum	Percentage Passing No. 200 Sieve AASHTO T 27 Maximum
34	9
33	8
32	7
31	6
30	5
29 or less	4

1008 If additional binder or filler is necessary in order to meet the grading or plasticity requirements, or for satisfactory bonding of the material, it shall be uniformly blended with the crushed rock material at the crushing and screening plant prior to placing on the road, unless otherwise agreed. The material for such purposes shall be obtained from sources approved by the Authorized Officer and shall be free from stones, vegetative matter, and other deleterious materials.

1008a Each layer of crushed rock material shall be thoroughly mixed on the roadbed by alternately blading to full depth until a uniform mixture has been obtained. The mixture shall then be spread to full width. When completed, the spreading shall produce a surface which is smooth, presents uniform shoulder lines, and conforms to the specified cross section.

1009 The roadbed, as shaped and compacted under Sections 300 and 500 of these specifications, shall be approved in writing by the Authorized Officer prior to placement of crushed rock materials. Notification for subgrade approval prior to rocking shall be 3 days prior to that approval and shall be 6 days prior to start of rocking operations.

1010 Crushed rock materials shall be placed and processed on the approved roadbed in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and compacted in layers not to exceed 4 inches in depth. When more than one layer is required, each shall be shaped, processed, and compacted, before the succeeding layer is placed. 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 crushed rock material until the surface is smooth and uniform.

1010a Crushed rock material used to repair or reinforce a soft, muddy, frozen, yielding, or rutted roadbed shall not be construed as surfacing under this specification.

1012 Each layer of crushed rock material shall be placed, processed, shaped, moistened, or dried to a uniform moisture content suitable for maximum compaction, and compacted to full width by compaction equipment conforming to the requirements of Subsection 103f. Minimum compaction shall be one (1) hour of continuous compacting for each 150 cubic yards, or fraction thereof, of crushed rock material placed per layer.

AGGREGATE SURFACE COURSE, SPOT, AND MAINTENANCE ROCK - 1200
CRUSHED ROCK MATERIAL

1201 This work shall consist of furnishing, hauling, and placing one or more layers of crushed rock material on roadbeds and base courses approved for placing crushed rock material in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans. Material not conforming to these specifications will be rejected and shall be removed from the road.

1202a Crushed rock materials used in this work may be obtained from commercial source(s) selected by the Purchaser at his option and expense, providing rock materials furnished comply with the specifications in this section.

1203 When crushed rock material is produced from gravel, not less than 75 percent by weight of the particles retained on the sieve will have 3 manufactured fractured face(s).

1204 Crushed rock material shall consist of hard durable rock fragments conforming to the following gradiation requirements:

TABLE 1204

AGGREGATE SURFACE COURSE
CRUSHED ROCK MATERIAL

Percentage by weight passing square mesh sieves
AASHTO T 11 & T 27

GRADIATION

Sieve Designation	A	C
6-inch	-	-
3-inch	100	-
2-inch	90-95	-
1-1/2-inch	-	100
1-inch	45-75	-
3/4-inch	-	50-90
2-inch	-	-
3/8-inch	-	-
No. 4	15-45	25-50
No. 8	-	-
No. 10	-	-
No. 30	-	-
No. 40	5-25	5-25
No. 200	2-15	2-15

1205 Crushed rock material retained on the sieve shall have a percentage of loss of not more than 35 at 500 revolutions, as determined by AASHTO T 96.

1206 Crushed rock material shall show a durability value of not less than 35 as determined by AASHTO T 210.

1206a The crushed rock material shall show a loss of not more than 20 percent by weight, when submerged in DMSO, dimethyl sulfoxide, for five days, according to Federal Highway Administration Region 10 Accelerated Weathering Test Procedure.

1207 That portion of crushed rock material passing the 0 sieve, including blending filler, shall have liquid limits of not more than 35 and a plasticity index of not less than 4 and not more than 12 as determined by AASHTO T 89 and AASHTO T 90.

1207a That portion of crushed rock material passing sieve, including blending filler, shall have a sand equivalent of not less than 35, as determined by AASHTO T 176, except where that portion exhibits a sand equivalence of less than 35, the aggregate will be accepted if it complies with the additional requirement as follows:

Sand Equivalent AASHTO T 176 Maximum	Liquid Limit AASHTO T 89 Maximum	Plasticity Index AASHTO T 90 Maximum	Percentage Passing No. 200 Sieve AASHTO T 27 Maximum
34	25	9	9
33	25	8	8
32	25	7	7
31	25	6	6
30	25	5	5
29 or less	25	4	4

1208 If additional binder or filler material is necessary to meet the grading or plasticity requirements or for satisfactory bonding of the material, it shall be uniformly blended with the crushed rock material at the crushing and screening plant prior to placing on the road, unless otherwise agreed. The material for such purposes shall be obtained from sources approved by the Authorized Officer and shall be free from stones, vegetative matter, and other deleterious materials.

1208a Each layer of crushed rock material shall be thoroughly mixed on the roadbed by alternately blading, to full depth, until a uniform mixture has been obtained. The mixture shall then be spread to full width. When completed, the spreading shall produce a surface which is smooth, presents uniform shoulder lines, and conforms to the specified cross section.

1209 Shaping and compacting of roadbed shall be completed and approved in writing, prior to placing crushed rock material, in accordance to the requirements of Subsections 500 for placing on the roadbeds. Notification for roadbed inspection, prior to rocking, shall be 3 days prior to that inspection and shall be 6 days prior to start of rocking operations.

1210 Crushed rock material conforming to the requirements of these specifications shall be placed on the approved roadbed in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. Compacted layers shall not exceed 4 inches in depth. When more than one layer is required, each shall be shaped, processed, compacted, and approved by the Authorized Officer before the succeeding layer is placed. Irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and then adding or removing crushed rock material until the surface is smooth and uniform.

1210a Crushed rock material used to repair or reinforce soft, muddy, frozen, yielding, or rutted roadbed shall not be construed as surfacing required by this specification.

1212 Each layer of crushed rock material placed, processed, and shaped as specified shall be moistened or dried to a uniform moisture content suitable for maximum compaction and compacted to full width by compacting equipment conforming to the requirements of Subsection 103i. Minimum compaction shall be 1 hour of continuous compacting for each 150 cubic yards or fraction thereof, of crushed rock material placed per layer.

SLOPE PROTECTION - 1400

1401 This work shall consist of furnishing, hauling, and placing stone materials (riprap) for slope protection structures (energy dissipaters at culvert outlets) in accordance with these specifications. Material not conforming to these specifications will be rejected, and shall be removed from the slope protection structure as directed by the Authorized Officer.

1402 **Riprap shall be hard, durable, angular in shape, and resistant to weathering and water action.** Thickness of a single stone should be more than one-third its length. Do not use rounded rock or boulders. Stone shall be free from overburden, spoil, shale, and organic material and conforming to the following:

a. Apparent Specific Gravity (AASHTO T85)	2.50 Min.
b. Absorption (AASHTO T85)	4.2% Max.
c. Coarse Durability Index (AASHTO T210)	20 Min.

1403 Loose riprap shall meet the following gradation:

A	
Equivalent Cubic Dimensions	Total Size Smaller Than Given
34 inches	100
27 inches	80
22 inches	50
10 inches	10

1404 The placement of slope protection riprap by the end dumping method is not permitted.

1405 **Riprap shall be placed to produce a well keyed mass of rock with the least practical amount of void spaces.** The foundation course is the course placed in contact with the ground surface, and shall be placed on a stable key bench. Bearing shall not be on smaller rocks that may be used for filling voids.

1405a Riprap shall be placed directly under the culvert outlet and extend to the point where a 45-degree angle from the outlet invert intersects the key bench. Riprap shall extend a minimum distance equal to the culvert diameter on all sides.

1406 Determination of the acceptability of the slope protection structure will be by visual inspection and / or physical measurements by the Authorized Officer.

EROSION CONTROL - 1700

1701 This work shall consist of measures to control soil erosion or water pollution during the construction operation through the use of berms, dikes dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains and other erosion control devices or methods in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.

1702 The Purchaser shall construct dike(s), dam(s), diversion channel(s), settling basin(s) and other erosion control structure(s) as directed by the Authorized Officer.

1704 The erosion control provisions specified under this subsection shall be coordinated with the soil stabilization requirement(s) of Section 1800.

1705 The surface area of erodible earth material exposed at any one time by clearing and grubbing shall not exceed 25,000 square feet without prior approval by the Authorized Officer.

1706 The surface area of erodible earth material exposed at one time by excavation, borrow, or fill within the right-of-way shall not exceed 25,000 square feet without prior approval by the Authorized Officer.

1706a The Purchaser shall perform, during the same construction season, erosion control measures specified in the plans on all exposed excavation, borrow, and embankment areas.

1707 Completed and partially completed segments of road(s) to be carried over the winter and early spring periods shall be stabilized by mulching exposed areas at the rate of 2,000 pounds per acre.

1708a Road segments not completed during dry weather periods shall be winterized, by providing a well-drained roadway by water barring, maintaining drainage, and performing additional measures necessary to minimize erosion and other damage to the roadway, as directed by the Authorized Officer. Portions of roads not having surface rock in place will be blocked or barricaded to prevent vehicular traffic.

SOIL STABILIZATION - 1800

1801 This work shall consist of seeding, fertilizing and mulching on designated cut, fill, borrow, disposal, and special areas in accordance with these specifications and as shown on the plans. This work is not required for road acceptance under Section 18 of this contract.

1802a Soil stabilization work consisting of seeding, fertilizing and mulching shall be performed on new road construction, road renovation, improvements, landings and disturbed areas in accordance with these specifications and as shown on the plans.

1803 Soil stabilization work as specified under Subsection 1802a shall be performed during the following seasonal periods:

From:	March 15	To:	April 30
From:	September 1	To:	October 15

If soil stabilization of disturbed areas is not completed by the specified fall date, the Purchaser shall treat disturbed areas in accordance with Section 1707 and then complete the requirements of Soil Stabilization 1800 the next construction season.

The Authorized Officer may modify the above seasonal dates to conform to existing weather conditions and changes in the construction schedule.

1806 The Purchaser shall apply the seed mixtures specified under Special Provisions to the corresponding seeding projects (roads), as shown in the following table:

Road Number	Seeding	
	Seed and Mulch	
	Dry	Hydro
Section No.	1800	
Units	Acres	
21-8-18.1	3.00	N/A
21-8-7.0	2.00	
21-8-7.1	0.63	
21-9-13.6 CDE	0.23	
Spur 1	0.10	
Spur 2	0.03	
Spur 3	0.14	
Total	**6.13**	

1806a Additional soil stabilization work consisting of seeding, fertilizing and mulching may be required at the option of the Authorized Officer. Providing the additional stabilization is not due to Purchaser negligence as specified in Section 12 of the contract, a reduction in the total purchased price shall be made to offset the cost of furnishing and applying such additional stabilization material. Cost shall be based upon the unit price set forth in the current BLM Timber Appraisal Production Cost Schedule.

1809 Mulch materials conforming to the requirements of Subsections 1809b, 1809d or 1809e shall be furnished by the Purchaser in the amounts specified under Subsection 1812.

1809b Natural wood cellulose or grass fiber shall have the property of dispersing readily in water and shall have no toxic effect when combined with seed or other materials. The homogeneous slurry or mixture shall be capable of application with power spray equipment. A green-colored dye which is non-injurious to plant growth shall be used. Processed wood cellulose or grass fiber shall be packaged in new, labeled containers in an air dry condition. Processed wood cellulose or grass fiber furnished by the Purchaser shall be one of the following brand names or approved equal :

Silva Fiber	-	Weyerhaeuser Timber Co.
Conweb Fiber	-	Wood Conversion Co.
Spra-Mulch	-	Spra-Mulch Industries, Inc.
Grass-Mulch	-	Grass Mulch, Inc.

If the Purchaser proposes using a wood or grass fiber other than those listed above, he shall furnish a sample and descriptive literature to the Authorized Officer for approval prior to application. Processed wood cellulose or grass fiber furnished by the Purchaser which has become wet or otherwise damaged in transit or storage will not be accepted.

1809d Straw mulch shall be from oats, wheat, rye, or other approved grain crops which are free from noxious weeds, mold, or other objectionable materials. Straw mulch shall be in an air-dry condition and suitable for placing with power spray equipment.

1809e Grass straw mulch shall be from perennial grass or, if specified, an annual rye grass, from which the seed has been removed. The straw shall be free from noxious weed seed, mold, or other objectionable materials.

1810 Mulch material shall be delivered to the work area in a dry state. Material found to be wet will not be accepted. Material to be used in the mulching operation may be stockpiled along the road designated for treatment provided that it be maintained in a dry state and has the approval of the Authorized Officer.

1811 Bulk mulching material required under these specifications shall be delivered to the work area bound either by twine, string, or hemp rope. Wire binding and plastic twine will not be permitted.

1812 The Purchaser shall furnish and apply to approximately **6.13** acres designated for treatment as shown on the plans and as specified under Subsection 1806, a mixture of water, fertilizer and mulch material, or a mixture of grass seed and fertilizer material at the following rate of application:

a. Single Stage (Hydraulic):

Water	3,000	gals./acre
Grass Seed	60	lbs./acre
Fertilizer	200	lbs./acre
Mulch	3,000	lbs./acre

b. Dry Application:

Grass Seed	60	lbs./acre
Fertilizer	200	lbs./acre
Mulch/Straw	3,000	lbs./acre

The above proportion and application rate are subject to adjustment by the Authorized Officer during the application operation.

1815 The Purchaser may reduce the application rate on partially covered slopes and no application on areas already well stocked with grass or on rock surfaces.

1816 The seed, fertilizer and mulch materials shall be placed by the hydraulic or dry method in accordance with the requirements set forth in Subsection 1816a and 1816b.

1816a Hydraulic Method - The seed, fertilizer and mulch materials shall be mixed with water to form a slurry and then applied under pressure by hydroseeder. When processed wood cellulose or grass fiber mulch material is to be incorporated as an integral part of the slurry mix, it shall be added after the seed and fertilizer have been thoroughly mixed.

1816b Dry Method - Blowers, mechanical seeders, seed drills, landscape seeders, cultipaker seeders, fertilizer spreaders, or other approved mechanical seeding equipment may be used when seed and fertilizer are to be applied in dry form.

1817 Hydraulic equipment used for the application of slurry shall meet the following requirements: The equipment shall have a built-in agitation system. The slurry distribution lines shall be large enough to prevent stoppage. Discharge line shall be equipped with a set of hydraulic spray nozzles which will provide even distribution of the slurry on the various slopes to be treated. The slurry tank shall have a minimum operation capacity of 1,300 gallons and shall be mounted on a traveling unit which will place the slurry tank and spray nozzles within sufficient proximity to the areas to be treated so as to provide uniform distribution without waste. Lug- or track-type units are not authorized. The hydroseeder must be capable of

spraying the slurry a minimum distance of 100 feet. The nozzle, mounted on a stand, must be capable of traversing 360 degrees on a horizontal plane and a minimum of 70 degrees on a vertical plane.

1817a Hydromulch slurry mixing shall be with water and seed first, followed by fertilizer, and finally fiber. The time between mixing and application shall not exceed 1 hour.

1819 The maximum distance to be seeded, fertilized and mulched from the road centerline shall be 100 feet for the cut slopes and 150 feet for the fill slopes.

1820 The Purchaser shall notify the Authorized Officer at least 3 days in advance of date he intends to commence the specified soil stabilization work.

1822 Mulch that collects at the end of culverts or accumulates to excessive depths on the slopes shall be evenly spread by hand methods, as directed by the Authorized Officer.

1823 No materials shall be applied when wind velocities would prevent a uniform application of the mix or slurry or when winds would drift the mix or slurry spray outside of the designated treatment area.

1826 Twine, rope, sacks, and other debris resulting from the soil-stabilization operation shall be picked up and disposed of to the satisfaction of the Authorized Officer.

ROADSIDE BRUSHING – 2100

2101 This work shall consist of cutting and the removal of vegetation from the road prism - variable distance and inside curves in accordance with these specifications. This work shall conform to the lines, grades, dimensions, and typical cross sections shown on the Roadside Brushing Detail Sheet, at designated locations as shown in the plans.

2102 Roadside brushing may be performed mechanically with self-powered, self-propelled equipment and/or manually with hand tools, including chainsaws.

2103 Vegetation cut manually or mechanically less than 6 inches in diameter at D.B.H. shall be cut to a maximum height of 6 inches above the ground surface or above obstructions such as rocks or stumps on cut and fill sloped and all limbs will be severed from the trunk.

2103a Vegetation shall be cut and removed from the roadbed between the outside shoulders and the ditch centerline and such vegetation shall be cut to a maximum height of 1 inch above the ground and running surface. All limbs will be severed from the trunk. Sharp pointed ends will not be permitted. Cuts shall be parallel to the ground line or running surface.

2104 Trees in excess of 6 inches in diameter at D.B.H. shall be limbed, so that no limbs extend into the treated area or over the roadbed to a height of 14 feet above the running surface of the roadway on cut and fill slopes, within the road prism-variable distance. Limbs shall be cut to within 1 inch of the trunk to produce a smooth vertical face. Removal of trees larger than 6 inches in diameter for sight distance or safety may be directed by the Authorized Officer.

2105 Vegetation that is outside of the road prism-variable distance that protrudes into the road prism and within 14 feet in elevation above the running surface shall be cut, to within 1 inch of the trunk to produce a smooth vertical face.

2106 Vegetative growth capable of growing 1 foot in height or higher shall be cut within the road prism/variable distance or as directed by the Authorized Officer.

2108 Self-propelled equipment shall not be permitted on cut and fill slopes or in ditches.

2109 Debris resulting from roadside brushing shall be scattered downslope from the roadway. Debris shall not be allowed to accumulate in concentrations. Debris in excess of 1 foot in length and 2 inches in diameter shall not be allowed to remain on cut slopes, ditches, roadways or water courses, or as directed by the Authorized Officer.

2113 Roadside brushing shall be accomplished as specified on the roads listed in Estimate of Quantities Sheet.

2116 Mechanical brush cutters shall not be operated when there are people and occupied vehicles within 400 feet of the immediate operating area.

2117 Traffic warning signs shall be required at each end of the work area. Signs shall meet the requirements of the Manual on Uniform Traffic Control Devices.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Version: 8.0.0.34

Summary of All Roads and Projects Updated: 11/4/2022

T.S. Contract Name: Big Iron TS Tract No: Sale Date: 11/22/2026
Prepared by: VSMK Ph: Print Date: 10/1/2026 10:11:48 AM
Construction: 109.98 sta
Improve: 0.00 sta Renov: 80.26 sta Decom: 0.00 sta Temp: 0.00 sta

200 Clearing and Grubbing: 10.19 acres $41,519.67

300 Excavation: 45681 cy $407,947.12
Haul < 500 ft: 5587 sta-yds
Haul > 500 ft: 49130 yd-mi

400 Drainage: $11,580.35
Culvert: 0.00 lf DownSpout: 20.00 lf
PolyPipe: 210.00 lf

500 Renovation: $2,855.05
Blading 1.52 mi

700-1200 Surfacing: $170,209.20
Commercial Quarry Name: RR Aggregate Base 1,600.00 LCY
Commercial Quarry Name: RR Aggregate Surface 1,060.00 LCY
Commercial Quarry Name: RR Aggregate Bedding 14.00 LCY
Commercial Quarry Name: RR Aggregate ED 21.00 LCY

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 6.13 acres $6,087.18
Includes Small Quantity Factor of 1.23

1900 Cattleguards: $0.00

2100 RoadSide Brushing: $2,402.65
Manual Brushing: 2.24 acres
Mechanical Brushing: 0.50 acres

2300 Engineering: 0.00 sta. $0.00

2400 Minor Concrete: $0.00

2500 Gabions: $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $21,200.00 Surf. $0.00..... $21,200.00

Quarry Development: $0.00

Total = $663,801.22

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026
Road Number: 21-8-18.1 Road Name: 11-1.1
Road Construction: 1.19 mi 15 ft Subgrade 2 ft ditch

200 Clearing and Grubbing: 4.00 acres	$16,435.90
300 Excavation: Standard cy	$239,296.93
Haul < 500 ft: 3,246.00 sta-yds	
Haul > 500 ft: 29,212.00 yd-mi	
400 Drainage:	$9,783.80
Culvert: 0.00 lf	
DownSpout: 10.00 lf	
PolyPipe: 180.00 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$11,068.35
Quarry Name: RR Aggregate Base 95.00 LCY	
Quarry Name: RR Aggregate Surface 50.00 LCY	
Quarry Name: RR Aggregate Bedding 12.00 LCY	
Quarry Name: RR Aggregate ED 18.00 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 3.00 acres	$2,979.05
Includes Small Quantity Factor of 1.23	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing (NONE):0.00 acres	$0.00
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $9,223.07 Surf. $0.00	$9,223.07
Quarry Development:	$0.00
Total:	$288,787.10

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 21-8-18.1 Road Name: 11-1.1

Section 200 Clearing and Grubbing:
Clearing - Medium (Clearing): Adjustment Factor (1.67)
46+% (Avg Side Slopes): Adjustment Factor (0.3)
Pile and Burn (Slash): Adjustment Factor (1.28)
20-40' (Avg Clearing Widths): Adjustment Factor (0.1)
Total Adjustment Factor:1.67 + 0.3 + 1.28 + 0.1 = 3.35
Base Cost/Acre: $1,226.56 x Adjustment Factor: 3.35 x Total Acres: 4 = $16,435.90
Subtotal: $16,435.90

Section 300 Excavation:
Excavation - Common: $2.69/cy x 6,492.00 cy = $17,463.48
Excavation - Rippable: $5.35/cy x 6,492.00 cy = $34,732.20
Excavation - Solid: $7.48/cy x 12,983.00 cy = $97,112.84
Embankment Placement & Compaction 306.f - Common: $0.40/cy x 1,151.00 cy = $460.40
Embankment Placement & Compaction 306.f - Rock: $0.39/cy x 2,494.00 cy = $972.66
Subgrade Compaction: 6 Sta/hr $23.57/sta. x 63.0 sta = $1,484.79
Slope Rounding: $0.40/lf x 6,300.00 lf = $2,520.00
End Hauling - 100 to 500 ft: $0.21/sta-yd x 3,246.00 sta-yd = $681.66
End Hauling > 500 ft and 10 mph: $2.58/yd-mi x 29,212.00 yd-mi = $75,366.96
Blading with ditch: $18.56/station x 63.00 stations = $1,169.19
Waste Area Construction
Tractor: D8 with rippers 15 hr x $319.15/hr = $4,787.25
Excavator - Large (3 CY) 15 hr x $169.70/hr = $2,545.50
Subtotal:$239,296.93

Section 400 Drainage:

Full Round - Poly	Sta 6+14	18 inch 10 lf x $19.91/lf = $199.10
Poly Pipe	Sta 0+10	18 inch 30 lf x $51.19/lf = $1,535.70
Poly Pipe	Sta 24+93	18 inch 30 lf x $51.19/lf = $1,535.70
Poly Pipe	Sta 31+41	18 inch 30 lf x $51.19/lf = $1,535.70
Poly Pipe	Sta 41+35	18 inch 30 lf x $51.19/lf = $1,535.70
Poly Pipe	Sta 54+83	18 inch 30 lf x $51.19/lf = $1,535.70
Poly Pipe	Sta 6+14	18 inch 30 lf x $51.19/lf = $1,535.70

Culvert Bedding Compaction
General Laborer 3 hr x $57.54/hr = $172.62
Tamper – handheld 3 hr x $65.96/hr = $197.88
Subtotal: $9,783.80

Section 700-1200 Surfacing:

Commercial Quarry Name: RR Aggregate Base
Comment: 5" Lift 3"-0"

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
0.00mi									70 LCY

Rock Volume = 70.00 LCY
Purchase Price / Royalty: $19.83/LCY x 70.00 LCY = $1,388.10
Processing: $1.22/LCY x 70.00 LCY = $85.40
Compaction: $1.41/LCY x 70.00 LCY = $98.70
Basic Rock Haul cost: $0.85/LCY x 70.00 LCY = $59.50
Rock Haul +15% grades: $2.56/LCY-mi x 70.00 LCY x 2.00 mi= $358.40
Rock Haul -15% grades: $1.28/LCY-mi x 70.00 LCY x 12.00 mi= $1,075.20
Rock Haul St& Co Roads: $0.57/LCY-mi x 70.00 LCY x 25.00 mi= $997.50
Basic Water Haul cost: $0.83/LCY x 70.00 LCY = $58.10
Water Haul +15% grades: $0.36/LCY-mi x 70.00 LCY x 2.00 mi= $50.40
Water Haul -15% grades: $0.18/LCY-mi x 70.00 LCY x 12.00 mi= $151.20
Water Haul St&Co Roads: $0.10/LCY-mi x 70.00 LCY x 14.00 mi= $98.00

Commercial Quarry Name: RR Aggregate Base

Comment: Junction Rock

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									25 LCY

Rock Volume = 25.00 LCY
Purchase Price / Royalty: $19.83/LCY x 25.00 LCY = $495.75
Processing: $1.22/LCY x 25.00 LCY = $30.50
Compaction: $1.41/LCY x 25.00 LCY = $35.25
Basic Rock Haul cost: $0.85/LCY x 25.00 LCY = $21.25
Rock Haul +15% grades: $2.56/LCY-mi x 25.00 LCY x 2.00 mi= $128.00
Rock Haul -15% grades: $1.28/LCY-mi x 25.00 LCY x 12.00 mi= $384.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 25.00 LCY x 25.00 mi= $356.25
Basic Water Haul cost: $0.83/LCY x 25.00 LCY = $20.75
Water Haul +15% grades: $0.36/LCY-mi x 25.00 LCY x 2.00 mi= $18.00
Water Haul -15% grades: $0.18/LCY-mi x 25.00 LCY x 12.00 mi= $54.00
Water Haul St&Co Roads: $0.10/LCY-mi x 25.00 LCY x 14.00 mi= $35.00

Commercial Quarry Name: RR Aggregate Surface

Comment: 3" Lift 1-1/2"-0" Surfacing Rock

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									40 LCY

Rock Volume = 40.00 LCY
Purchase Price / Royalty: $19.83/LCY x 40.00 LCY = $793.20
Processing: $1.22/LCY x 40.00 LCY = $48.80
Compaction: $1.41/LCY x 40.00 LCY = $56.40
Basic Rock Haul cost: $0.85/LCY x 40.00 LCY = $34.00
Rock Haul +15% grades: $2.56/LCY-mi x 40.00 LCY x 2.00 mi= $204.80
Rock Haul -15% grades: $1.28/LCY-mi x 40.00 LCY x 12.00 mi= $614.40
Rock Haul St& Co Roads: $0.57/LCY-mi x 40.00 LCY x 25.00 mi= $570.00
Basic Water Haul cost: $0.83/LCY x 40.00 LCY = $33.20
Water Haul +15% grades: $0.36/LCY-mi x 40.00 LCY x 2.00 mi= $28.80
Water Haul -15% grades: $0.18/LCY-mi x 40.00 LCY x 12.00 mi= $86.40
Water Haul St&Co Roads: $0.10/LCY-mi x 40.00 LCY x 14.00 mi= $56.00

Commercial Quarry Name: RR Aggregate Surface

Comment: Junction Surfacing Cap

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									10 LCY

Rock Volume = 10.00 LCY
Purchase Price / Royalty: $19.83/LCY x 10.00 LCY = $198.30
Processing: $1.22/LCY x 10.00 LCY = $12.20
Compaction: $1.41/LCY x 10.00 LCY = $14.10
Basic Rock Haul cost: $0.85/LCY x 10.00 LCY = $8.50
Rock Haul +15% grades: $2.56/LCY-mi x 10.00 LCY x 2.00 mi= $51.20
Rock Haul -15% grades: $1.28/LCY-mi x 10.00 LCY x 12.00 mi= $153.60
Rock Haul St& Co Roads: $0.57/LCY-mi x 10.00 LCY x 25.00 mi= $142.50
Basic Water Haul cost: $0.83/LCY x 10.00 LCY = $8.30
Water Haul +15% grades: $0.36/LCY-mi x 10.00 LCY x 2.00 mi= $7.20
Water Haul -15% grades: $0.18/LCY-mi x 10.00 LCY x 12.00 mi= $21.60
Water Haul St&Co Roads: $0.10/LCY-mi x 10.00 LCY x 14.00 mi= $14.00

Commercial Quarry Name: RR Aggregate Bedding

Comment: Crushed Bedding Rock

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									12 LCY

Rock Volume = 12.00 LCY
Purchase Price / Royalty: $19.83/LCY x 12.00 LCY = $237.96
Processing: $1.22/LCY x 12.00 LCY = $14.64
Compaction: $1.41/LCY x 12.00 LCY = $16.92
Basic Rock Haul cost: $0.85/LCY x 12.00 LCY = $10.20
Rock Haul +15% grades: $2.56/LCY-mi x 12.00 LCY x 2.00 mi= $61.44
Rock Haul -15% grades: $1.28/LCY-mi x 12.00 LCY x 12.00 mi= $184.32
Rock Haul St& Co Roads: $0.57/LCY-mi x 12.00 LCY x 25.00 mi= $171.00
Basic Water Haul cost: $0.83/LCY x 12.00 LCY = $9.96
Water Haul +15% grades: $0.36/LCY-mi x 12.00 LCY x 2.00 mi= $8.64

Road Number: 21-8-18.1 11-1.1 Continued

Water Haul -15% grades: $0.18/LCY-mi x 12.00 LCY x 12.00 mi= $25.92
Water Haul St&Co Roads: $0.10/LCY-mi x 12.00 LCY x 14.00 mi= $16.80

Commercial Quarry Name: RR Aggregate ED
Comment: Culvert outlet rock

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									18 LCY

Rock Volume = 18.00 LCY
Purchase Price / Royalty: $19.13/LCY x 18.00 LCY = $344.34
Processing: $1.22/LCY x 18.00 LCY = $21.96
Grid Rolling: $3.06/LCY x 18.00 LCY = $55.08
Basic Rock Haul cost: $0.85/LCY x 18.00 LCY = $15.30
Rock Haul +15% grades: $2.56/LCY-mi x 18.00 LCY x 2.00 mi= $92.16
Rock Haul -15% grades: $1.28/LCY-mi x 18.00 LCY x 12.00 mi= $276.48
Rock Haul St& Co Roads: $0.57/LCY-mi x 18.00 LCY x 25.00 mi= $256.50
Basic Water Haul cost: $0.83/LCY x 18.00 LCY = $14.94
Water Haul +15% grades: $0.36/LCY-mi x 18.00 LCY x 2.00 mi= $12.96
Water Haul -15% grades: $0.18/LCY-mi x 18.00 LCY x 12.00 mi= $38.88
Water Haul St&Co Roads: $0.10/LCY-mi x 18.00 LCY x 14.00 mi= $25.20

Subtotal: $11,068.35

Section 1800 Soil Stabilization:
Comment: All exposed soils
Dry Method with Mulch: $673.02/acre x 3.00 acres = $2,019.05
Includes Small Quantity Factor of 1.23
+ Mulch Cost: $320.00/acre x 3.00 acres = $960.00

Subtotal: $2,979.05

Mobilization:
Construction - 43.51% of total Costs = $9,223.07

Subtotal: $9,223.07

Total: $288,787.10

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026
Road Number: 21-8-7.0 Road Name: 12.1
Road Construction: 0.38 mi 15 ft Subgrade 2 ft ditch

200 Clearing and Grubbing: 3.82 acres $15,696.29

300 Excavation: Standard cy $130,304.10
Haul < 500 ft: 1,269.00 sta-yds
Haul > 500 ft: 16,296.00 yd-mi

400 Drainage: $1,796.55
Culvert: 0.00 lf
DownSpout: 10.00 lf
PolyPipe: 30.00 lf

500 Renovation: $0.00

700-1200 Surfacing: $77,677.35
Quarry Name: RR Aggregate Base 785.00 LCY
Quarry Name: RR Aggregate Surface 440.00 LCY
Quarry Name: RR Aggregate Bedding 2.00 LCY
Quarry Name: RR Aggregate ED 3.00 LCY

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 2.00 acres $1,986.03
Includes Small Quantity Factor of 1.23

1900 Cattleguards: $0.00

2100 RoadSide Brushing (NONE):0.00 acres $0.00

2300 Engineering: 0.00 sta. $0.00

2400 Minor Concrete: $0.00

2500 Gabions: $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $7,504.12 Surf. $0.00..... $7,504.12

Quarry Development: $0.00

Total: $234,964.44

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 21-8-7.0 Road Name: 12.1

Section 200 Clearing and Grubbing:
Clearing - Medium (Clearing): Adjustment Factor (1.67)
46+% (Avg Side Slopes): Adjustment Factor (0.3)
Pile and Burn (Slash): Adjustment Factor (1.28)
20-40' (Avg Clearing Widths): Adjustment Factor (0.1)
Total Adjustment Factor:1.67 + 0.3 + 1.28 + 0.1 = 3.35
Base Cost/Acre: $1,226.56 x Adjustment Factor: 3.35 x Total Acres: 3.82 = $15,696.29
Subtotal: $15,696.29

Section 300 Excavation:
Excavation - Common: $2.69/cy x 2,786.00 cy = $7,494.34
Excavation - Rippable: $5.35/cy x 5,571.00 cy = $29,804.85
Excavation - Solid: $7.48/cy x 5,571.00 cy = $41,671.08
Embankment Placement & Compaction 306.f - Common: $0.40/cy x 148.00 cy = $59.20
Subgrade Compaction: 6 Sta/hr $23.57/sta. x 19.9 sta = $468.22
Slope Rounding: $0.40/lf x 1,987.00 lf = $794.80
End Hauling - 100 to 500 ft: $0.21/sta-yd x 1,269.00 sta-yd = $266.49
End Hauling > 500 ft and 10 mph: $2.58/yd-mi x 16,296.00 yd-mi = $42,043.68
Blading with ditch: $18.56/station x 19.87 stations = $368.69
Waste Area Construction
Tractor: D8 with rippers 15 hr x $319.15/hr = $4,787.25
Excavator - Large (3 CY) 15 hr x $169.70/hr = $2,545.50
Subtotal:$130,304.10

Section 400 Drainage:
Full Round - Poly 0+80 18 inch 10 lf x $19.91/lf = $199.10
Poly Pipe Sta 0+80 18 inch 30 lf x $51.19/lf = $1,535.70
Culvert Bedding Compaction
General Laborer .5 hr x $57.54/hr = $28.77
Tamper - handheld .5 hr x $65.96/hr = $32.98
Subtotal: $1,796.55

Section 700-1200 Surfacing:

Commercial Quarry Name: RR Aggregate Base
Comment: 5" Lift 3"-0" Base

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									560 LCY

Rock Volume = 560.00 LCY
Purchase Price / Royalty: $19.83/LCY x 560.00 LCY = $11,104.80
Processing: $1.22/LCY x 560.00 LCY = $683.20
Compaction: $1.41/LCY x 560.00 LCY = $789.60
Basic Rock Haul cost: $0.85/LCY x 560.00 LCY = $476.00
Rock Haul +15% grades: $2.56/LCY-mi x 560.00 LCY x 2.00 mi= $2,867.20
Rock Haul -15% grades: $1.28/LCY-mi x 560.00 LCY x 12.00 mi= $8,601.60
Rock Haul St& Co Roads: $0.57/LCY-mi x 560.00 LCY x 25.00 mi= $7,980.00
Basic Water Haul cost: $0.83/LCY x 560.00 LCY = $464.80
Water Haul +15% grades: $0.36/LCY-mi x 560.00 LCY x 2.00 mi= $403.20
Water Haul -15% grades: $0.18/LCY-mi x 560.00 LCY x 12.00 mi= $1,209.60
Water Haul St&Co Roads: $0.10/LCY-mi x 560.00 LCY x 14.00 mi= $784.00

Commercial Quarry Name: RR Aggregate Base
Comment: Junction Base

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									25 LCY

Rock Volume = 25.00 LCY
Purchase Price / Royalty: $19.83/LCY x 25.00 LCY = $495.75
Processing: $1.22/LCY x 25.00 LCY = $30.50
Compaction: $1.41/LCY x 25.00 LCY = $35.25

Road Number: 21-8-7.0 12.1 Continued

Basic Rock Haul cost: $0.85/LCY x 25.00 LCY = $21.25
Rock Haul +15% grades: $2.56/LCY-mi x 25.00 LCY x 2.00 mi= $128.00
Rock Haul -15% grades: $1.28/LCY-mi x 25.00 LCY x 12.00 mi= $384.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 25.00 LCY x 25.00 mi= $356.25
Basic Water Haul cost: $0.83/LCY x 25.00 LCY = $20.75
Water Haul +15% grades: $0.36/LCY-mi x 25.00 LCY x 2.00 mi= $18.00
Water Haul -15% grades: $0.18/LCY-mi x 25.00 LCY x 12.00 mi= $54.00
Water Haul St&Co Roads: $0.10/LCY-mi x 25.00 LCY x 14.00 mi= $35.00

Commercial Quarry Name: RR Aggregate Base
Comment: Landing Base

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									200 LCY

Rock Volume = 200.00 LCY
Purchase Price / Royalty: $19.83/LCY x 200.00 LCY = $3,966.00
Processing: $1.22/LCY x 200.00 LCY = $244.00
Compaction: $1.41/LCY x 200.00 LCY = $282.00
Basic Rock Haul cost: $0.85/LCY x 200.00 LCY = $170.00
Rock Haul +15% grades: $2.56/LCY-mi x 200.00 LCY x 2.00 mi= $1,024.00
Rock Haul -15% grades: $1.28/LCY-mi x 200.00 LCY x 12.00 mi= $3,072.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 200.00 LCY x 25.00 mi= $2,850.00
Basic Water Haul cost: $0.83/LCY x 200.00 LCY = $166.00
Water Haul +15% grades: $0.36/LCY-mi x 200.00 LCY x 2.00 mi= $144.00
Water Haul -15% grades: $0.18/LCY-mi x 200.00 LCY x 12.00 mi= $432.00
Water Haul St&Co Roads: $0.10/LCY-mi x 200.00 LCY x 14.00 mi= $280.00

Commercial Quarry Name: RR Aggregate Surface
Comment: 3" Lift 1-1/2"-0" Crushed

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									330 LCY

Rock Volume = 330.00 LCY
Purchase Price / Royalty: $19.83/LCY x 330.00 LCY = $6,543.90
Processing: $1.22/LCY x 330.00 LCY = $402.60
Compaction: $1.41/LCY x 330.00 LCY = $465.30
Basic Rock Haul cost: $0.85/LCY x 330.00 LCY = $280.50
Rock Haul +15% grades: $2.56/LCY-mi x 330.00 LCY x 2.00 mi= $1,689.60
Rock Haul -15% grades: $1.28/LCY-mi x 330.00 LCY x 12.00 mi= $5,068.80
Rock Haul St& Co Roads: $0.57/LCY-mi x 330.00 LCY x 25.00 mi= $4,702.50
Basic Water Haul cost: $0.83/LCY x 330.00 LCY = $273.90
Water Haul +15% grades: $0.36/LCY-mi x 330.00 LCY x 2.00 mi= $237.60
Water Haul -15% grades: $0.18/LCY-mi x 330.00 LCY x 12.00 mi= $712.80
Water Haul St&Co Roads: $0.10/LCY-mi x 330.00 LCY x 14.00 mi= $462.00

Commercial Quarry Name: RR Aggregate Surface
Comment: Junction Surfacing Cap

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									10 LCY

Rock Volume = 10.00 LCY
Purchase Price / Royalty: $19.83/LCY x 10.00 LCY = $198.30
Processing: $1.22/LCY x 10.00 LCY = $12.20
Compaction: $1.41/LCY x 10.00 LCY = $14.10
Basic Rock Haul cost: $0.85/LCY x 10.00 LCY = $8.50
Rock Haul +15% grades: $2.56/LCY-mi x 10.00 LCY x 2.00 mi= $51.20
Rock Haul -15% grades: $1.28/LCY-mi x 10.00 LCY x 12.00 mi= $153.60
Rock Haul St& Co Roads: $0.57/LCY-mi x 10.00 LCY x 25.00 mi= $142.50
Basic Water Haul cost: $0.83/LCY x 10.00 LCY = $8.30
Water Haul +15% grades: $0.36/LCY-mi x 10.00 LCY x 2.00 mi= $7.20
Water Haul -15% grades: $0.18/LCY-mi x 10.00 LCY x 12.00 mi= $21.60
Water Haul St&Co Roads: $0.10/LCY-mi x 10.00 LCY x 14.00 mi= $14.00

Commercial Quarry Name: RR Aggregate Surface
Comment: Landing Surfacing Cap

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									100 LCY

Road Number: 21-8-7.0 12.1 Continued

Rock Volume = 100.00 LCY
Purchase Price / Royalty: $19.83/LCY x 100.00 LCY = $1,983.00
Processing: $1.22/LCY x 100.00 LCY = $122.00
Compaction: $1.41/LCY x 100.00 LCY = $141.00
Basic Rock Haul cost: $0.85/LCY x 100.00 LCY = $85.00
Rock Haul +15% grades: $2.56/LCY-mi x 100.00 LCY x 2.00 mi= $512.00
Rock Haul -15% grades: $1.28/LCY-mi x 100.00 LCY x 12.00 mi= $1,536.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 100.00 LCY x 25.00 mi= $1,425.00
Basic Water Haul cost: $0.83/LCY x 100.00 LCY = $83.00
Water Haul +15% grades: $0.36/LCY-mi x 100.00 LCY x 2.00 mi= $72.00
Water Haul -15% grades: $0.18/LCY-mi x 100.00 LCY x 12.00 mi= $216.00
Water Haul St&Co Roads: $0.10/LCY-mi x 100.00 LCY x 14.00 mi= $140.00

Commercial Quarry Name: RR Aggregate Bedding
Comment: Culvert Bedding Sta 0+80

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									2 LCY

Rock Volume = 2.00 LCY
Purchase Price / Royalty: $19.83/LCY x 2.00 LCY = $39.66
Processing: $1.22/LCY x 2.00 LCY = $2.44
Compaction: $1.41/LCY x 2.00 LCY = $2.82
Basic Rock Haul cost: $0.85/LCY x 2.00 LCY = $1.70
Rock Haul +15% grades: $2.56/LCY-mi x 2.00 LCY x 2.00 mi= $10.24
Rock Haul -15% grades: $1.28/LCY-mi x 2.00 LCY x 12.00 mi= $30.72
Rock Haul St& Co Roads: $0.57/LCY-mi x 2.00 LCY x 25.00 mi= $28.50
Basic Water Haul cost: $0.83/LCY x 2.00 LCY = $1.66
Water Haul +15% grades: $0.36/LCY-mi x 2.00 LCY x 2.00 mi= $1.44
Water Haul -15% grades: $0.18/LCY-mi x 2.00 LCY x 12.00 mi= $4.32
Water Haul St&Co Roads: $0.10/LCY-mi x 2.00 LCY x 14.00 mi= $2.80

Commercial Quarry Name: RR Aggregate ED
Comment: Culvert outlet rock

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									3 LCY

Rock Volume = 3.00 LCY
Purchase Price / Royalty: $19.13/LCY x 3.00 LCY = $57.39
Processing: $1.22/LCY x 3.00 LCY = $3.66
Grid Rolling: $3.06/LCY x 3.00 LCY = $9.18
Basic Rock Haul cost: $0.85/LCY x 3.00 LCY = $2.55
Rock Haul +15% grades: $2.56/LCY-mi x 3.00 LCY x 2.00 mi= $15.36
Rock Haul -15% grades: $1.28/LCY-mi x 3.00 LCY x 12.00 mi= $46.08
Rock Haul St& Co Roads: $0.57/LCY-mi x 3.00 LCY x 25.00 mi= $42.75
Basic Water Haul cost: $0.83/LCY x 3.00 LCY = $2.49
Water Haul +15% grades: $0.36/LCY-mi x 3.00 LCY x 2.00 mi= $2.16
Water Haul -15% grades: $0.18/LCY-mi x 3.00 LCY x 12.00 mi= $6.48
Water Haul St&Co Roads: $0.10/LCY-mi x 3.00 LCY x 14.00 mi= $4.20

Subtotal: $77,677.35

Section 1800 Soil Stabilization:
Comment: All Exposed Soils
Dry Method with Mulch: $673.02/acre x 2.00 acres = $1,346.03
Includes Small Quantity Factor of 1.23
+ Mulch Cost: $320.00/acre x 2.00 acres = $640.00

Subtotal: $1,986.03

Mobilization:
Construction - 35.40% of total Costs = $7,504.12

Subtotal: $7,504.12

Total: $234,964.44

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026
Road Number: 21-8-7.1 Road Name: 11-2.2
Road Construction: 0.11 mi 15 ft Subgrade 2 ft ditch

200 Clearing and Grubbing: 0.90 acres	$3,477.30
300 Excavation: Standard cy	$10,077.57
Haul > 500 ft: 1,076.00 yd-mi	
400 Drainage:	$0.00
Culvert: 0.00 lf	
DownSpout: 0.00 lf	
PolyPipe: 0.00 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$28,417.50
Quarry Name: RR Aggregate Base 290.00 LCY	
Quarry Name: RR Aggregate Surface 160.00 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.63 acres	$625.60
Includes Small Quantity Factor of 1.23	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing (NONE):0.00 acres	$0.00
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $1,405.35 Surf. $0.00	$1,405.35
Quarry Development:	$0.00
Total:	$44,003.32

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 21-8-7.1 Road Name: 11-2.2

Section 200 Clearing and Grubbing:
Clearing - Medium (Clearing): Adjustment Factor (1.67)
16-30% (Avg Side Slopes): Adjustment Factor (0.1)
Pile and Burn (Slash): Adjustment Factor (1.28)
20-40' (Avg Clearing Widths): Adjustment Factor (0.1)
Total Adjustment Factor:1.67 + 0.1 + 1.28 + 0.1 = 3.15
Base Cost/Acre: $1,226.56 x Adjustment Factor: 3.15 x Total Acres: .9 = $3,477.30
Subtotal: $3,477.30

Section 300 Excavation:
Excavation - Common: $2.69/cy x 1,121.00 cy = $3,015.49
Excavation - Solid: $7.48/cy x 125.00 cy = $935.00
Embankment Placement & Compaction 306.f - Common: $0.40/cy x 1,076.00 cy = $430.40
Subgrade Compaction: 6 Sta/hr $23.57/sta. x 5.8 sta = $136.71
Slope Rounding: $0.40/lf x 580.00 lf = $232.00
End Hauling > 500 ft and 10 mph: $2.58/yd-mi x 1,076.00 yd-mi = $2,776.08
Blading with ditch: $18.56/station x 5.80 stations = $107.65
Waste Area Construction
Tractor: D8 with rippers 5 hr x $319.15/hr = $1,595.75
Excavator - Large (3 CY) 5 hr x $169.70/hr = $848.50
Subtotal: $10,077.57

Section 700-1200 Surfacing:

Commercial Quarry Name: RR Aggregate Base
Comment: 5" Lift 3"-0" Base

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									165 LCY

Rock Volume = 165.00 LCY
Purchase Price / Royalty: $19.83/LCY x 165.00 LCY = $3,271.95
Processing: $1.22/LCY x 165.00 LCY = $201.30
Compaction: $1.41/LCY x 165.00 LCY = $232.65
Basic Rock Haul cost: $0.85/LCY x 165.00 LCY = $140.25
Rock Haul +15% grades: $2.56/LCY-mi x 165.00 LCY x 2.00 mi= $844.80
Rock Haul -15% grades: $1.28/LCY-mi x 165.00 LCY x 12.00 mi= $2,534.40
Rock Haul St& Co Roads: $0.57/LCY-mi x 165.00 LCY x 25.00 mi= $2,351.25
Basic Water Haul cost: $0.83/LCY x 165.00 LCY = $136.95
Water Haul +15% grades: $0.36/LCY-mi x 165.00 LCY x 2.00 mi= $118.80
Water Haul -15% grades: $0.18/LCY-mi x 165.00 LCY x 12.00 mi= $356.40
Water Haul St&Co Roads: $0.10/LCY-mi x 165.00 LCY x 14.00 mi= $231.00

Commercial Quarry Name: RR Aggregate Base
Comment: Junction Base

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									25 LCY

Rock Volume = 25.00 LCY
Purchase Price / Royalty: $19.83/LCY x 25.00 LCY = $495.75
Processing: $1.22/LCY x 25.00 LCY = $30.50
Compaction: $1.41/LCY x 25.00 LCY = $35.25
Basic Rock Haul cost: $0.85/LCY x 25.00 LCY = $21.25
Rock Haul +15% grades: $2.56/LCY-mi x 25.00 LCY x 2.00 mi= $128.00
Rock Haul -15% grades: $1.28/LCY-mi x 25.00 LCY x 12.00 mi= $384.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 25.00 LCY x 25.00 mi= $356.25
Basic Water Haul cost: $0.83/LCY x 25.00 LCY = $20.75
Water Haul +15% grades: $0.36/LCY-mi x 25.00 LCY x 2.00 mi= $18.00
Water Haul -15% grades: $0.18/LCY-mi x 25.00 LCY x 12.00 mi= $54.00
Water Haul St&Co Roads: $0.10/LCY-mi x 25.00 LCY x 14.00 mi= $35.00

Commercial Quarry Name: RR Aggregate Base

Road Number: 21-8-7.1 11-2.2 Continued

Comment: Landing Base

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									100 LCY

Rock Volume = 100.00 LCY
Purchase Price / Royalty: $19.83/LCY x 100.00 LCY = $1,983.00
Processing: $1.22/LCY x 100.00 LCY = $122.00
Compaction: $1.41/LCY x 100.00 LCY = $141.00
Basic Rock Haul cost: $0.85/LCY x 100.00 LCY = $85.00
Rock Haul +15% grades: $2.56/LCY-mi x 100.00 LCY x 2.00 mi= $512.00
Rock Haul -15% grades: $1.28/LCY-mi x 100.00 LCY x 12.00 mi= $1,536.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 100.00 LCY x 25.00 mi= $1,425.00
Basic Water Haul cost: $0.83/LCY x 100.00 LCY = $83.00
Water Haul +15% grades: $0.36/LCY-mi x 100.00 LCY x 2.00 mi= $72.00
Water Haul -15% grades: $0.18/LCY-mi x 100.00 LCY x 12.00 mi= $216.00
Water Haul St&Co Roads: $0.10/LCY-mi x 100.00 LCY x 14.00 mi= $140.00

Commercial Quarry Name: RR Aggregate Surface

Comment: 3" Lift 1-1/2"-0" Crush Surfacing

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									100 LCY

Rock Volume = 100.00 LCY
Purchase Price / Royalty: $19.83/LCY x 100.00 LCY = $1,983.00
Processing: $1.22/LCY x 100.00 LCY = $122.00
Compaction: $1.41/LCY x 100.00 LCY = $141.00
Basic Rock Haul cost: $0.85/LCY x 100.00 LCY = $85.00
Rock Haul +15% grades: $2.56/LCY-mi x 100.00 LCY x 2.00 mi= $512.00
Rock Haul -15% grades: $1.28/LCY-mi x 100.00 LCY x 12.00 mi= $1,536.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 100.00 LCY x 25.00 mi= $1,425.00
Basic Water Haul cost: $0.83/LCY x 100.00 LCY = $83.00
Water Haul +15% grades: $0.36/LCY-mi x 100.00 LCY x 2.00 mi= $72.00
Water Haul -15% grades: $0.18/LCY-mi x 100.00 LCY x 12.00 mi= $216.00
Water Haul St&Co Roads: $0.10/LCY-mi x 100.00 LCY x 14.00 mi= $140.00

Commercial Quarry Name: RR Aggregate Surface

Comment: Junction Surfacing Cap

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									10 LCY

Rock Volume = 10.00 LCY
Purchase Price / Royalty: $19.83/LCY x 10.00 LCY = $198.30
Processing: $1.22/LCY x 10.00 LCY = $12.20
Compaction: $1.41/LCY x 10.00 LCY = $14.10
Basic Rock Haul cost: $0.85/LCY x 10.00 LCY = $8.50
Rock Haul +15% grades: $2.56/LCY-mi x 10.00 LCY x 2.00 mi= $51.20
Rock Haul -15% grades: $1.28/LCY-mi x 10.00 LCY x 12.00 mi= $153.60
Rock Haul St& Co Roads: $0.57/LCY-mi x 10.00 LCY x 25.00 mi= $142.50
Basic Water Haul cost: $0.83/LCY x 10.00 LCY = $8.30
Water Haul +15% grades: $0.36/LCY-mi x 10.00 LCY x 2.00 mi= $7.20
Water Haul -15% grades: $0.18/LCY-mi x 10.00 LCY x 12.00 mi= $21.60
Water Haul St&Co Roads: $0.10/LCY-mi x 10.00 LCY x 14.00 mi= $14.00

Commercial Quarry Name: RR Aggregate Surface

Comment: Landing Surfacing Cap

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									50 LCY

Rock Volume = 50.00 LCY
Purchase Price / Royalty: $19.83/LCY x 50.00 LCY = $991.50
Processing: $1.22/LCY x 50.00 LCY = $61.00
Compaction: $1.41/LCY x 50.00 LCY = $70.50
Basic Rock Haul cost: $0.85/LCY x 50.00 LCY = $42.50
Rock Haul +15% grades: $2.56/LCY-mi x 50.00 LCY x 2.00 mi= $256.00
Rock Haul -15% grades: $1.28/LCY-mi x 50.00 LCY x 12.00 mi= $768.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 50.00 LCY x 25.00 mi= $712.50
Basic Water Haul cost: $0.83/LCY x 50.00 LCY = $41.50
Water Haul +15% grades: $0.36/LCY-mi x 50.00 LCY x 2.00 mi= $36.00

Road Number: 21-8-7.1 11-2.2 Continued

Water Haul -15% grades: $0.18/LCY-mi x 50.00 LCY x 12.00 mi= $108.00
Water Haul St&Co Roads: $0.10/LCY-mi x 50.00 LCY x 14.00 mi= $70.00

Subtotal: $28,417.50

Section 1800 Soil Stabilization:
Comment: All exposed soils includes WA
Dry Method with Mulch: $673.02/acre x 0.63 acres = $424.00
Includes Small Quantity Factor of 1.23
+ Mulch Cost: $320.00/acre x 0.63 acres = $201.60

Subtotal: $625.60

Mobilization:
Construction - 6.63% of total Costs = $1,405.35

Subtotal: $1,405.35

Total: $44,003.32

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026
Road Number: 21-8-8.1 Road Name: Eastern Mnln
Road Renovation: 1.04 mi 16 ft Subgrade 2 ft ditch

200 Clearing and Grubbing: 0.00 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0.00 lf	
DownSpout: 0.00 lf	
PolyPipe: 0.00 lf	
500 Renovation:	$1,953.45
Blading 1.04 mi	
700-1200 Surfacing:	$22,734.00
Quarry Name: RR Aggregate Base 160.00 LCY	
Quarry Name: RR Aggregate Surface 200.00 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.00 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing (Manual):2.02 acres	$1,950.59
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $878.81 Surf. $0.00	$878.81
Quarry Development:	$0.00
Total:	$27,516.86

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 21-8-8.1 Road Name: Eastern Mnln

Section 500 Renovation:
  Blading: $939.38/mi x 1.04 mi = $976.96
  Compaction: $424.32/mi x 1.04 mi = $441.29
  Clean Culverts: $514.62/mi x 1.04 mi = $535.20

Subtotal: $1,953.45

Section 700-1200 Surfacing:

Commercial Quarry Name: RR Aggregate Base
 Comment: Landing Base

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									100 LCY

  Rock Volume = 100.00 LCY
  Purchase Price / Royalty: $19.83/LCY x 100.00 LCY = $1,983.00
  Processing: $1.22/LCY x 100.00 LCY = $122.00
  Compaction: $1.41/LCY x 100.00 LCY = $141.00
  Basic Rock Haul cost: $0.85/LCY x 100.00 LCY = $85.00
  Rock Haul +15% grades: $2.56/LCY-mi x 100.00 LCY x 2.00 mi= $512.00
  Rock Haul -15% grades: $1.28/LCY-mi x 100.00 LCY x 12.00 mi= $1,536.00
  Rock Haul St& Co Roads: $0.57/LCY-mi x 100.00 LCY x 25.00 mi= $1,425.00
  Basic Water Haul cost: $0.83/LCY x 100.00 LCY = $83.00
  Water Haul +15% grades: $0.36/LCY-mi x 100.00 LCY x 2.00 mi= $72.00
  Water Haul -15% grades: $0.18/LCY-mi x 100.00 LCY x 12.00 mi= $216.00
  Water Haul St&Co Roads: $0.10/LCY-mi x 100.00 LCY x 14.00 mi= $140.00

Commercial Quarry Name: RR Aggregate Base
 Comment: Turnout rock M.P. 0.32 and 0.52

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									60 LCY

  Rock Volume = 60.00 LCY
  Purchase Price / Royalty: $19.83/LCY x 60.00 LCY = $1,189.80
  Processing: $1.22/LCY x 60.00 LCY = $73.20
  Compaction: $1.41/LCY x 60.00 LCY = $84.60
  Basic Rock Haul cost: $0.85/LCY x 60.00 LCY = $51.00
  Rock Haul +15% grades: $2.56/LCY-mi x 60.00 LCY x 2.00 mi= $307.20
  Rock Haul -15% grades: $1.28/LCY-mi x 60.00 LCY x 12.00 mi= $921.60
  Rock Haul St& Co Roads: $0.57/LCY-mi x 60.00 LCY x 25.00 mi= $855.00
  Basic Water Haul cost: $0.83/LCY x 60.00 LCY = $49.80
  Water Haul +15% grades: $0.36/LCY-mi x 60.00 LCY x 2.00 mi= $43.20
  Water Haul -15% grades: $0.18/LCY-mi x 60.00 LCY x 12.00 mi= $129.60
  Water Haul St&Co Roads: $0.10/LCY-mi x 60.00 LCY x 14.00 mi= $84.00

Commercial Quarry Name: RR Aggregate Surface
 Comment: 1-1/2"-0" Crushed Spot Rock

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									150 LCY

  Rock Volume = 150.00 LCY
  Purchase Price / Royalty: $19.83/LCY x 150.00 LCY = $2,974.50
  Processing: $1.22/LCY x 150.00 LCY = $183.00
  Compaction: $1.41/LCY x 150.00 LCY = $211.50
  Basic Rock Haul cost: $0.85/LCY x 150.00 LCY = $127.50
  Rock Haul +15% grades: $2.56/LCY-mi x 150.00 LCY x 2.00 mi= $768.00
  Rock Haul -15% grades: $1.28/LCY-mi x 150.00 LCY x 12.00 mi= $2,304.00
  Rock Haul St& Co Roads: $0.57/LCY-mi x 150.00 LCY x 25.00 mi= $2,137.50
  Basic Water Haul cost: $0.83/LCY x 150.00 LCY = $124.50
  Water Haul +15% grades: $0.36/LCY-mi x 150.00 LCY x 2.00 mi= $108.00
  Water Haul -15% grades: $0.18/LCY-mi x 150.00 LCY x 12.00 mi= $324.00
  Water Haul St&Co Roads: $0.10/LCY-mi x 150.00 LCY x 14.00 mi= $210.00

Commercial Quarry Name: RR Aggregate Surface

Comment: Landing Crushed Cap

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									50 LCY

Rock Volume = 50.00 LCY
Purchase Price / Royalty: $19.83/LCY x 50.00 LCY = $991.50
Processing: $1.22/LCY x 50.00 LCY = $61.00
Compaction: $1.41/LCY x 50.00 LCY = $70.50
Basic Rock Haul cost: $0.85/LCY x 50.00 LCY = $42.50
Rock Haul +15% grades: $2.56/LCY-mi x 50.00 LCY x 2.00 mi= $256.00
Rock Haul -15% grades: $1.28/LCY-mi x 50.00 LCY x 12.00 mi= $768.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 50.00 LCY x 25.00 mi= $712.50
Basic Water Haul cost: $0.83/LCY x 50.00 LCY = $41.50
Water Haul +15% grades: $0.36/LCY-mi x 50.00 LCY x 2.00 mi= $36.00
Water Haul -15% grades: $0.18/LCY-mi x 50.00 LCY x 12.00 mi= $108.00
Water Haul St&Co Roads: $0.10/LCY-mi x 50.00 LCY x 14.00 mi= $70.00

Subtotal: $22,734.00

Section 2100 Roadside Brushing:
Manual Brushing
Comment: See Roadside Brushing Details
RoadSide Brushing Medium: $965.64/acre x 2.02 acres = $1,950.59

Subtotal: $1,950.59

Mobilization:
Construction - 4.15% of total Costs = $878.81

Subtotal: $878.81

Total: $27,516.86

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026
Road Number: 21-9-13.6A Road Name: BLM
Road Renovation: 0.26 mi 16 ft Subgrade 2 ft ditch

200 Clearing and Grubbing: 0.00 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0.00 lf	
DownSpout: 0.00 lf	
PolyPipe: 0.00 lf	
500 Renovation:	$488.36
Blading 0.26 mi	
700-1200 Surfacing:	$2,526.00
Quarry Name: RR Aggregate Surface 40.00 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.00 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing (Mechanical):0.50 acres	$239.62
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $107.35 Surf. $0.00	$107.35
Quarry Development:	$0.00
Total:	$3,361.34

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 21-9-13.6A Road Name: BLM

Section 500 Renovation:
  Blading: $939.38/mi x 0.26 mi = $244.24
  Compaction: $424.32/mi x 0.26 mi = $110.32
  Clean Culverts: $514.62/mi x 0.26 mi = $133.80

Subtotal: $488.36

Section 700-1200 Surfacing:

Commercial Quarry Name: RR Aggregate Surface
 Comment: 1-1/2"-0" Crushed Spot Rock

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									40 LCY

  Rock Volume = 40.00 LCY
  Purchase Price / Royalty: $19.83/LCY x 40.00 LCY = $793.20
  Processing: $1.22/LCY x 40.00 LCY = $48.80
  Compaction: $1.41/LCY x 40.00 LCY = $56.40
  Basic Rock Haul cost: $0.85/LCY x 40.00 LCY = $34.00
  Rock Haul +15% grades: $2.56/LCY-mi x 40.00 LCY x 2.00 mi= $204.80
  Rock Haul -15% grades: $1.28/LCY-mi x 40.00 LCY x 12.00 mi= $614.40
  Rock Haul St& Co Roads: $0.57/LCY-mi x 40.00 LCY x 25.00 mi= $570.00
  Basic Water Haul cost: $0.83/LCY x 40.00 LCY = $33.20
  Water Haul +15% grades: $0.36/LCY-mi x 40.00 LCY x 2.00 mi= $28.80
  Water Haul -15% grades: $0.18/LCY-mi x 40.00 LCY x 12.00 mi= $86.40
  Water Haul St&Co Roads: $0.10/LCY-mi x 40.00 LCY x 14.00 mi= $56.00

Subtotal: $2,526.00

Section 2100 Roadside Brushing:
Mechanical Brushing
 Comment: See Brushing Details
  RoadSide Brushing Medium: $479.24/acre x 0.50 acres = $239.62

Subtotal: $239.62

Mobilization:
  Construction - 0.51% of total Costs = $107.35

Subtotal: $107.35

Total: $3,361.34

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026
Road Number: 21-9-13.6B Road Name: Private
Road Renovation: 0.22 mi 16 ft Subgrade 2 ft ditch

200 Clearing and Grubbing: 0.00 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0.00 lf	
DownSpout: 0.00 lf	
PolyPipe: 0.00 lf	
500 Renovation:	$413.23
Blading 0.22 mi	
700-1200 Surfacing:	$1,263.00
Quarry Name: RR Aggregate Surface 20.00 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.00 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing (Manual):0.22 acres	$212.44
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $62.31 Surf. $0.00	$62.31
Quarry Development:	$0.00
Total:	$1,950.98

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 21-9-13.6B Road Name: Private

Section 500 Renovation:
  Blading: $939.38/mi x 0.22 mi = $206.66
  Compaction: $424.32/mi x 0.22 mi = $93.35
  Clean Culverts: $514.62/mi x 0.22 mi = $113.22

Subtotal: $413.23

Section 700-1200 Surfacing:

Commercial Quarry Name: RR Aggregate Surface
 Comment: 1-1/2"-0" Crushed Spot Rock

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									20 LCY

  Rock Volume = 20.00 LCY
  Purchase Price / Royalty: $19.83/LCY x 20.00 LCY = $396.60
  Processing: $1.22/LCY x 20.00 LCY = $24.40
  Compaction: $1.41/LCY x 20.00 LCY = $28.20
  Basic Rock Haul cost: $0.85/LCY x 20.00 LCY = $17.00
  Rock Haul +15% grades: $2.56/LCY-mi x 20.00 LCY x 2.00 mi= $102.40
  Rock Haul -15% grades: $1.28/LCY-mi x 20.00 LCY x 12.00 mi= $307.20
  Rock Haul St& Co Roads: $0.57/LCY-mi x 20.00 LCY x 25.00 mi= $285.00
  Basic Water Haul cost: $0.83/LCY x 20.00 LCY = $16.60
  Water Haul +15% grades: $0.36/LCY-mi x 20.00 LCY x 2.00 mi= $14.40
  Water Haul -15% grades: $0.18/LCY-mi x 20.00 LCY x 12.00 mi= $43.20
  Water Haul St&Co Roads: $0.10/LCY-mi x 20.00 LCY x 14.00 mi= $28.00

Subtotal: $1,263.00

Section 2100 Roadside Brushing:
Manual Brushing
 Comment: See Brushing Details
  RoadSide Brushing Medium: $965.64/acre x 0.22 acres = $212.44

Subtotal: $212.44

Mobilization:
  Construction - 0.29% of total Costs = $62.31

Subtotal: $62.31

Total: $1,950.98

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026
Road Number: 21-9-13.6CDE Road Name: 11-2.1
Road Construction: 0.19 mi 15 ft Subgrade 2 ft ditch

200 Clearing and Grubbing: 0.67 acres	$2,670.83
300 Excavation: Standard cy	$5,688.82
Haul > 500 ft: 388.00 yd-mi	
400 Drainage:	$0.00
Culvert: 0.00 lf	
DownSpout: 0.00 lf	
PolyPipe: 0.00 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$26,523.00
Quarry Name: RR Aggregate Base 270.00 LCY	
Quarry Name: RR Aggregate Surface 150.00 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.23 acres	$228.39
Includes Small Quantity Factor of 1.23	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing (NONE):0.00 acres	$0.00
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $1,158.35 Surf. $0.00	$1,158.35
Quarry Development:	$0.00
Total:	$36,269.39

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 21-9-13.6CDE Road Name: 11-2.1

Section 200 Clearing and Grubbing:
Clearing - Medium (Clearing): Adjustment Factor (1.67)
31-45% (Avg Side Slopes): Adjustment Factor (0.2)
Pile and Burn (Slash): Adjustment Factor (1.28)
20-40' (Avg Clearing Widths): Adjustment Factor (0.1)
Total Adjustment Factor:1.67 + 0.2 + 1.28 + 0.1 = 3.25
Base Cost/Acre: $1,226.56 x Adjustment Factor: 3.25 x Total Acres: 0.67 = $2,670.83
Subtotal: $2,670.83

Section 300 Excavation:
Excavation - Common: $2.69/cy x 1,011.00 cy = $2,719.59
Excavation - Solid: $7.48/cy x 112.00 cy = $837.76
Embankment Placement & Compaction 306.f - Common: $0.40/cy x 818.00 cy = $327.20
Subgrade Compaction: 6 Sta/hr $23.57/sta. x 9.8 sta = $230.51
Slope Rounding: $0.40/lf x 978.00 lf = $391.20
End Hauling > 500 ft and 10 mph: $2.58/yd-mi x 388.00 yd-mi = $1,001.04
Blading with ditch: $18.56/station x 9.78 stations = $181.52
Subtotal: $5,688.82

Section 700-1200 Surfacing:

Commercial Quarry Name: RR Aggregate Base
Comment: 5" lift 3"-0" Base

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									170 LCY

Rock Volume = 170.00 LCY
Purchase Price / Royalty: $19.83/LCY x 170.00 LCY = $3,371.10
Processing: $1.22/LCY x 170.00 LCY = $207.40
Compaction: $1.41/LCY x 170.00 LCY = $239.70
Basic Rock Haul cost: $0.85/LCY x 170.00 LCY = $144.50
Rock Haul +15% grades: $2.56/LCY-mi x 170.00 LCY x 2.00 mi= $870.40
Rock Haul -15% grades: $1.28/LCY-mi x 170.00 LCY x 12.00 mi= $2,611.20
Rock Haul St& Co Roads: $0.57/LCY-mi x 170.00 LCY x 25.00 mi= $2,422.50
Basic Water Haul cost: $0.83/LCY x 170.00 LCY = $141.10
Water Haul +15% grades: $0.36/LCY-mi x 170.00 LCY x 2.00 mi= $122.40
Water Haul -15% grades: $0.18/LCY-mi x 170.00 LCY x 12.00 mi= $367.20
Water Haul St&Co Roads: $0.10/LCY-mi x 170.00 LCY x 14.00 mi= $238.00

Commercial Quarry Name: RR Aggregate Base
Comment: Landing Base

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									100 LCY

Rock Volume = 100.00 LCY
Purchase Price / Royalty: $19.83/LCY x 100.00 LCY = $1,983.00
Processing: $1.22/LCY x 100.00 LCY = $122.00
Compaction: $1.41/LCY x 100.00 LCY = $141.00
Basic Rock Haul cost: $0.85/LCY x 100.00 LCY = $85.00
Rock Haul +15% grades: $2.56/LCY-mi x 100.00 LCY x 2.00 mi= $512.00
Rock Haul -15% grades: $1.28/LCY-mi x 100.00 LCY x 12.00 mi= $1,536.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 100.00 LCY x 25.00 mi= $1,425.00
Basic Water Haul cost: $0.83/LCY x 100.00 LCY = $83.00
Water Haul +15% grades: $0.36/LCY-mi x 100.00 LCY x 2.00 mi= $72.00
Water Haul -15% grades: $0.18/LCY-mi x 100.00 LCY x 12.00 mi= $216.00
Water Haul St&Co Roads: $0.10/LCY-mi x 100.00 LCY x 14.00 mi= $140.00

Commercial Quarry Name: RR Aggregate Surface
Comment: 3" Lift 1-1/2"-0" Crushed

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									100 LCY

Rock Volume = 100.00 LCY

Road Number: 21-9-13.6CDE 11-2.1 Continued

Purchase Price / Royalty: $19.83/LCY x 100.00 LCY = $1,983.00
Processing: $1.22/LCY x 100.00 LCY = $122.00
Compaction: $1.41/LCY x 100.00 LCY = $141.00
Basic Rock Haul cost: $0.85/LCY x 100.00 LCY = $85.00
Rock Haul +15% grades: $2.56/LCY-mi x 100.00 LCY x 2.00 mi= $512.00
Rock Haul -15% grades: $1.28/LCY-mi x 100.00 LCY x 12.00 mi= $1,536.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 100.00 LCY x 25.00 mi= $1,425.00
Basic Water Haul cost: $0.83/LCY x 100.00 LCY = $83.00
Water Haul +15% grades: $0.36/LCY-mi x 100.00 LCY x 2.00 mi= $72.00
Water Haul -15% grades: $0.18/LCY-mi x 100.00 LCY x 12.00 mi= $216.00
Water Haul St&Co Roads: $0.10/LCY-mi x 100.00 LCY x 14.00 mi= $140.00

Commercial Quarry Name: RR Aggregate Surface
Comment: Crushed Landing Cap

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									50 LCY

Rock Volume = 50.00 LCY
Purchase Price / Royalty: $19.83/LCY x 50.00 LCY = $991.50
Processing: $1.22/LCY x 50.00 LCY = $61.00
Compaction: $1.41/LCY x 50.00 LCY = $70.50
Basic Rock Haul cost: $0.85/LCY x 50.00 LCY = $42.50
Rock Haul +15% grades: $2.56/LCY-mi x 50.00 LCY x 2.00 mi= $256.00
Rock Haul -15% grades: $1.28/LCY-mi x 50.00 LCY x 12.00 mi= $768.00
Rock Haul St& Co Roads: $0.57/LCY-mi x 50.00 LCY x 25.00 mi= $712.50
Basic Water Haul cost: $0.83/LCY x 50.00 LCY = $41.50
Water Haul +15% grades: $0.36/LCY-mi x 50.00 LCY x 2.00 mi= $36.00
Water Haul -15% grades: $0.18/LCY-mi x 50.00 LCY x 12.00 mi= $108.00
Water Haul St&Co Roads: $0.10/LCY-mi x 50.00 LCY x 14.00 mi= $70.00

Subtotal: $26,523.00

Section 1800 Soil Stabilization:
Comment: All Exposed Soils
Dry Method with Mulch: $673.02/acre x 0.23 acres = $154.79
Includes Small Quantity Factor of 1.23
+ Mulch Cost: $320.00/acre x 0.23 acres = $73.60

Subtotal: $228.39

Mobilization:
Construction - 5.46% of total Costs = $1,158.35

Subtotal: $1,158.35

Total: $36,269.39

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026
Road Number: Spur 1 Road Name: 11-1.2
Road Construction: 0.08 mi 15 ft Subgrade 2 ft ditch

200 Clearing and Grubbing: 0.30 acres	$1,195.90
300 Excavation: Standard cy Haul < 500 ft: 166.00 sta-yds Haul > 500 ft: 369.00 yd-mi	$4,383.55
400 Drainage: Culvert: 0.00 lf DownSpout: 0.00 lf PolyPipe: 0.00 lf	$0.00
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.10 acres Includes Small Quantity Factor of 1.23	$99.30
1900 Cattleguards:	$0.00
2100 RoadSide Brushing (NONE):0.00 acres	$0.00
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $187.35 Surf. $0.00	$187.35
Quarry Development:	$0.00
Total:	$5,866.09

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: Spur 1 Road Name: 11-1.2

Section 200 Clearing and Grubbing:
   Clearing - Medium (Clearing): Adjustment Factor (1.67)
   31-45% (Avg Side Slopes): Adjustment Factor (0.2)
   Pile and Burn (Slash): Adjustment Factor (1.28)
   20-40' (Avg Clearing Widths): Adjustment Factor (0.1)
   Total Adjustment Factor:1.67 + 0.2 + 1.28 + 0.1 = 3.25
   Base Cost/Acre: $1,226.56 x Adjustment Factor: 3.25 x Total Acres: 0.30 = $1,195.90
                                                                Subtotal: $1,195.90

Section 300 Excavation:
  Excavation - Common: $2.69/cy x 54.00 cy = $145.26
  Excavation - Rippable: $5.35/cy x 378.00 cy = $2,022.30
  Excavation - Solid: $7.48/cy x 108.00 cy = $807.84
  Embankment Placement & Compaction 306.f - Rock: $0.39/cy x 166.00 cy = $64.74
  Subgrade Compaction: 6 Sta/hr $23.57/sta. x 4.3 sta = $102.34
  Slope Rounding: $0.40/lf x 434.00 lf = $173.60
  End Hauling - 100 to 500 ft: $0.21/sta-yd x 166.00 sta-yd = $34.86
  End Hauling > 500 ft and 10 mph: $2.58/yd-mi x 369.00 yd-mi = $952.02
  Blading with ditch: $18.56/station x 4.34 stations = $80.59
                                                                Subtotal: $4,383.55

Section 700-1200 Surfacing:
Surfacing:
Section 1800 Soil Stabilization:
 Comment: All exposed soils
  Dry Method with Mulch: $673.02/acre x 0.10 acres = $67.30
        Includes Small Quantity Factor of 1.23
        + Mulch Cost: $320.00/acre x 0.10 acres = $32.00
                                                                Subtotal: $99.30

Mobilization:
  Construction - 0.88% of total Costs = $187.35
                                                                Subtotal: $187.35

                                                                Total: $5,866.09

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026
Road Number: Spur 2 Road Name: 11-1.3
Road Construction: 0.02 mi 15 ft Subgrade 2 ft ditch

200 Clearing and Grubbing: 0.09 acres	$358.77
300 Excavation: Standard cy	$1,410.34
Haul > 500 ft: 191.00 yd-mi	
400 Drainage:	$0.00
Culvert: 0.00 lf	
DownSpout: 0.00 lf	
PolyPipe: 0.00 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.03 acres	$29.79
Includes Small Quantity Factor of 1.23	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing (NONE):0.00 acres	$0.00
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $59.35 Surf. $0.00	$59.35
Quarry Development:	$0.00
Total:	$1,858.24

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: Spur 2 Road Name: 11-1.3

Section 200 Clearing and Grubbing:
   Clearing - Medium (Clearing): Adjustment Factor (1.67)
   31-45% (Avg Side Slopes): Adjustment Factor (0.2)
   Pile and Burn (Slash): Adjustment Factor (1.28)
   20-40' (Avg Clearing Widths): Adjustment Factor (0.1)
   Total Adjustment Factor:1.67 + 0.2 + 1.28 + 0.1 = 3.25
   Base Cost/Acre: $1,226.56 x Adjustment Factor: 3.25 x Total Acres: 0.09 = $358.77
Subtotal: $358.77

Section 300 Excavation:
  Excavation - Common: $2.69/cy x 15.00 cy = $40.35
  Excavation - Rippable: $5.35/cy x 103.00 cy = $551.05
  Excavation - Solid: $7.48/cy x 30.00 cy = $224.40
  Subgrade Compaction: 6 Sta/hr $23.57/sta. x 1.2 sta = $29.18
  Slope Rounding: $0.40/lf x 124.00 lf = $49.60
  End Hauling > 500 ft and 10 mph: $2.58/yd-mi x 191.00 yd-mi = $492.78
  Blading with ditch: $18.56/station x 1.24 stations = $22.98
Subtotal: $1,410.34

Section 700-1200 Surfacing:
Surfacing:
Section 1800 Soil Stabilization:
 Comment: All exposed soils
  Dry Method with Mulch: $673.02/acre x 0.03 acres = $20.19
        Includes Small Quantity Factor of 1.23
        + Mulch Cost: $320.00/acre x 0.03 acres = $9.60
Subtotal: $29.79

Mobilization:
  Construction - 0.28% of total Costs = $59.35
Subtotal: $59.35

Total: $1,858.24

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026
Road Number: Spur 3 Road Name: 11-1.4
Road Construction: 0.11 mi 15 ft Subgrade 2 ft ditch

200 Clearing and Grubbing: 0.41 acres	$1,684.68
300 Excavation: Standard cy	$16,785.81
Haul < 500 ft: 906.00 sta-yds	
Haul > 500 ft: 1,598.00 yd-mi	
400 Drainage:	$0.00
Culvert: 0.00 lf	
DownSpout: 0.00 lf	
PolyPipe: 0.00 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.14 acres	$139.02
Includes Small Quantity Factor of 1.23	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing (NONE):0.00 acres	$0.00
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $613.94 Surf. $0.00	$613.94
Quarry Development:	$0.00
Total:	$19,223.45

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: Spur 3 Road Name: 11-1.4

Section 200 Clearing and Grubbing:
   Clearing - Medium (Clearing): Adjustment Factor (1.67)
   46+% (Avg Side Slopes): Adjustment Factor (0.3)
   Pile and Burn (Slash): Adjustment Factor (1.28)
   20-40' (Avg Clearing Widths): Adjustment Factor (0.1)
   Total Adjustment Factor:1.67 + 0.3 + 1.28 + 0.1 = 3.35
   Base Cost/Acre: $1,226.56 x Adjustment Factor: 3.35 x Total Acres: 0.41 = $1,684.68
                                                                Subtotal: $1,684.68

Section 300 Excavation:
  Excavation - Common: $2.69/cy x 1,228.00 cy = $3,303.32
  Excavation - Rippable: $5.35/cy x 1,364.00 cy = $7,297.40
  Excavation - Solid: $7.48/cy x 137.00 cy = $1,024.76
  Embankment Placement & Compaction 306.f - Common: $0.40/cy x 435.00 cy = $174.00
  Embankment Placement & Compaction 306.f - Rock: $0.39/cy x 471.00 cy = $183.69
  Subgrade Compaction: 6 Sta/hr $23.57/sta. x 6.0 sta = $140.50
  Slope Rounding: $0.40/lf x 596.00 lf = $238.40
  End Hauling - 100 to 500 ft: $0.21/sta-yd x 906.00 sta-yd = $190.26
  End Hauling > 500 ft and 10 mph: $2.58/yd-mi x 1,598.00 yd-mi = $4,122.84
  Blading with ditch: $18.56/station x 5.96 stations = $110.64
                                                                Subtotal: $16,785.81

Section 700-1200 Surfacing:
Surfacing:
Section 1800 Soil Stabilization:
 Comment: All Exposed Soils
  Dry Method with Mulch: $673.02/acre x 0.14 acres = $94.22
        Includes Small Quantity Factor of 1.23
        + Mulch Cost: $320.00/acre x 0.14 acres = $44.80
                                                                Subtotal: $139.02

Mobilization:
  Construction - 2.90% of total Costs = $613.94
                                                                Subtotal: $613.94

                                                                Total: $19,223.45

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Mobilization Costs - Construction and Surfacing

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026

Average Mobilization distance = 50 miles Factor = 1.00

Mobilization: Construction

Fire Equipment:	2 ea x (1.00 x $98.00/ea +	0 mi x $5.43/mi)=	$196.00
Powder House:	2 ea x (1.00 x $558.00/ea) =		$1,116.00
Drill and Comp:	2 ea x (1.00 x $558.00/ea) =		$1,116.00
Graders-all:	2 ea x (1.00 x $558.00/ea +	0 mi x $18.75/mi)=	$1,116.00
Loaders > 3cy:	2 ea x (1.00 x $883.00/ea +	0 mi x $16.90/mi)=	$1,766.00
Rollers & Comp:	2 ea x (1.00 x $558.00/ea +	0 mi x $28.29/mi)=	$1,116.00
Excavators (Lg):	2 ea x (1.00 x $1208.00/ea +	0 mi x $33.94/mi)=	$2,416.00
RTBackhoes 24/30:	2 ea x (1.00 x $415.00/ea +	0 mi x $7.36/mi)=	$830.00
Tractors >= D8:	2 ea x (1.00 x $1208.00/ea +	0 mi x $63.83/mi)=	$2,416.00
Dump Truck<=15cy:	6 ea x (1.00 x $130.00/ea +	0 mi x $5.44/mi)=	$780.00
Dump Truck >15cy:	4 ea x (1.00 x $139.00/ea +	0 mi x $5.78/mi)=	$556.00
Water Truck:	2 ea x (1.00 x $138.00/ea +	0 mi x $5.75/mi)=	$276.00
Equipment Washing:	30 ea x ($250.00) /ea =		$7,500.00

Subtotal: $21,200.00

Mobilization: Surfacing

Subtotal: $0.00

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Summary of Construction Quantities

T.S. Contract Name: Big Iron TS Sale Date: 11/22/2026

Road Number	Const	Improv	Renov	Decomm	Temp
21-8-18.1	62.995				
21-8-7.0	19.865				
21-8-7.1	5.8				
21-8-8.1			54.91		
21-9-13.6A			13.73		
21-9-13.6B			11.62		
21-9-13.6CDE	9.78				
Spur 1	4.342				
Spur 2	1.238				
Spur 3	5.961				
Total Sta:	109.98		80.26		

200 Clearing and Grubbing*	Clearing acres
21-8-18.1	4.0
21-8-7.0	3.8
21-8-7.1	0.9
21-8-8.1	0.0
21-9-13.6A	0.0
21-9-13.6B	0.0
21-9-13.6CDE	0.7
Spur 1	0.3
Spur 2	0.1
Spur 3	0.4
Totals:	10.19

*Costs for Clearing and Grubbing included in Excavation.

300 Excavation	Excav LCY.s	Haul sta-yds	Haul yd-mi
21-8-18.1	25,967	3,246	29,212
21-8-7.0	13,928	1,269	16,296
21-8-7.1	1,246	0	1,076
21-9-13.6CDE	1,123	0	388
Spur 1	540	166	369
Spur 2	148	0	191
Spur 3	2,729	906	1,598
Totals:	45,681	5,587	49,130

Waste Area Construction 21-8-18.1
- Tractor: D8 with rippers . . . . . 15 hr
- Excavator - Large (3 CY) . . . . . 15 hr

Waste Area Construction 21-8-7.0
- Tractor: D8 with rippers . . . . . 15 hr
- Excavator - Large (3 CY) . . . . . 15 hr

Waste Area Construction 21-8-7.1
- Tractor: D8 with rippers . . . . . 5 hr
- Excavator - Large (3 CY) . . . . . 5 hr

400 Drainage

Continuation of Construction Quantities

Road Number	CMP Culvert	Polypipes	Downspouts
21-8-18.1	0 lf	180 lf	10 lf
21-8-7.0	0 lf	30 lf	10 lf
Total Drainage:		210 lf	20 lf

Culvert Qty	Aluminized	Galvanized	Poly Pipe
12 inch	0 lf	0 lf	
18 inch	0 lf	0 lf	210 lf
24 inch	0 lf	0 lf	0 lf
30 inch	0 lf	0 lf	0 lf
36 inch	0 lf	0 lf	0 lf
42 inch	0 lf	0 lf	
48 inch	0 lf	0 lf	

Downspout Qty	Half Round	Full (poly)	Full (galv)
18 inch	0 lf	20 lf	0 lf
21 inch	0 lf		
24 inch	0 lf	0 lf	0 lf
30 inch			0 lf

Culvert Bedding Compaction 21-8-7.0
- General Laborer . . . . . .5 hr
- Tamper – handheld . . . . . .5 hr

Culvert Bedding Compaction 21-8-18.1
- General Laborer . . . . . 3 hr
- Tamper – handheld . . . . . 3 hr

500 Renovation	Blade Miles	Slide cy
21-8-8.1	1.04	0
21-9-13.6A	0.26	0
21-9-13.6B	0.22	0
Totals:	1.52	0

Surfacing (Loose Cubic Yards)
Note: Due to slight rounding differences between total LCY vs. subtotaled LCY, Totals shown here may not be exactly as shown in the road summaries and worksheets.

Quarry Name: RR Aggregate Base

Commercial	Roadway	Turnouts	Other	
21-8-18.1	0	0	70	70
21-8-7.0	0	0	560	560
21-8-7.0	0	0	25	25
21-8-7.0	0	0	200	200
21-8-7.1	0	0	165	165
21-8-7.1	0	0	25	25
21-8-7.1	0	0	100	100
21-9-13.6CDE	0	0	170	170
21-8-18.1	0	0	25	25
21-8-8.1	0	0	100	100
21-8-8.1	0	0	60	60
21-9-13.6CDE	0	0	100	100
Totals:	0	0	1,600	1,600

Quarry Name: RR Aggregate Surface

Commercial	Roadway	Turnouts	Other	
21-8-18.1	0	0	40	40

21-8-18.1	0	0	10	10
21-8-7.0	0	0	330	330
21-8-7.0	0	0	10	10
21-8-7.0	0	0	100	100
21-8-7.1	0	0	100	100
21-8-7.1	0	0	10	10
21-8-7.1	0	0	50	50
21-8-8.1	0	0	150	150
21-9-13.6A	0	0	40	40
21-9-13.6B	0	0	20	20
21-8-8.1	0	0	50	50
21-9-13.6CDE	0	0	100	100
21-9-13.6CDE	0	0	50	50
Totals:	0	0	1,060	1,060

Quarry Name: RR Aggregate Bedding

Commercial	Roadway	Turnouts	Other	
21-8-7.0	0	0	2	2
21-8-18.1	0	0	12	12
Totals:	0	0	14	14

Quarry Name: RR Aggregate ED

Commercial	Roadway	Turnouts	Other	
21-8-18.1	0	0	18	18
21-8-7.0	0	0	3	3
Totals:	0	0	21	21

1300 Geotextiles

1400 Slope Protection

Totals:	0 cy

Totals:	0

1800 Soil stabilization - acres

	Dry W/O Mulch	Dry/with Mulch	Hydro Mulch
21-8-18.1	0.0	0.0	0.0
21-8-7.0	0.0	0.0	0.0
21-8-7.1	0.0	0.0	0.0
21-9-13.6CDE	0.0	0.0	0.0
Spur 1	0.0	0.0	0.0
Spur 2	0.0	0.0	0.0
Spur 3	0.0	0.0	0.0
Totals:	0.00	6.13	0.00

Small Quantity Factor of 1.23 used

1900 Cattleguards

2100 RoadSide Brushing

	acres
21-8-8.1 - Manual Brushing	2.0
21-9-13.6A - Mechanical Brushing	0.5

Continuation of Construction Quantities

21-9-13.6B - Manual Brushing		0.2
	Totals:	2.74

2300 Engineering		stations
	Totals:	0.00

2400 Minor Concrete

2500 Gabions

8000 Miscellaneous

ROAD MAINTENANCE SPECIFICATIONS

General road maintenance specifications are designated by numeric symbols according to the type of road work to be performed, as follows:

Section	
3000	GENERAL
3100	OPERATIONAL MAINTENANCE
3200	SEASONAL MAINTENANCE
3300	FINAL MAINTENANCE
3400	OTHER MAINTENANCE

GENERAL - 3000

3001 The Purchaser shall be required to maintain all roads as shown on the Exhibit D map of this contract in accordance with Sections 3000, 3100, 3200, 3300, and 3400 of this Exhibit.

3002 The Purchaser shall maintain the cross section of existing dirt or graveled roads to the existing geometric standards. **Any roads required to be constructed, improved, or renovated under terms of this contract shall be maintained to the standards required in Exhibit C of this contract.**

3003 The minimum required maintenance on any roads shall include the provisions specified in Subsections 3101, 3104, and 3105.

3004 The Purchaser shall be responsible for providing timely maintenance and cleanup on any road(s) with logging units substantially completed prior to moving operations to other roads. Release of maintenance requirements may be granted, upon written request, when the conditions specified in Sections 3300 and 3400 are met satisfactorily.

OPERATIONAL MAINTENANCE - 3100

3101 The Purchaser shall blade and shape the road surface and shoulders with a motor patrol grader. Banks shall not be undercut. Back blading with tractors or similar equipment will be allowed only around landings and other areas when approved by the Authorized Officer.

3102 The Purchaser shall place **1000 cubic yards** of crushed aggregate, conforming to the requirements in **Sections 1200** of Exhibit C of this contract, on the roadway at locations and in the amounts designated by the Authorized Officer.

This crushed aggregate shall be used to repair surface failures, and areas of depleted surface depth, excluding damages covered by Section 12 of this contract. The aggregate shall be furnished, hauled, placed, spread, and compacted by use of dump trucks, water trucks, roller, and motor patrol grader.

3103 The Purchaser shall maintain established berms and place additional berms using adjacent material where needed to protect fills as directed by the Authorized Officer.

3104 The Purchaser shall perform other road cleanup including removal of debris, fallen timber, bank slough, and slides which can practicably be accomplished by a motor patrol grader, rubber-tired front-end bucket loader, rubber-tired backhoe or comparable equipment, and by the use of hand tools.

3104a Removal of bank slough and slide material includes placement of material at the nearest suitable turnout or disposal site where material cannot erode into streams, lakes, or reservoirs or cause undue damage to road fill slopes which have been planted or mulched to control soil erosion.

3104b The Purchaser shall be responsible for removal of all slides or slough, up to fifteen (15) station yards in quantity, at any one site. This work includes unlimited multiple sites on all roads required to be maintained by the Purchaser.

Prior to removal of any slough or slide material exceeding fifteen (15) station yards at any one site, the Purchaser and the Authorized Officer or their Authorized Representatives shall agree in writing, in the field, to the quantity of material, method of disposal, and the disposal site. Work may commence immediately after agreement.

Upon completion of agreed upon work, a reduction in timber sale purchase price will be made to offset the cost of work, based on current BLM Timber Appraisal Production Cost Schedules. Adjustments in purchase price for completed work shall be made as necessary as and no less than once per year when actual work is ongoing.

3105 The Purchaser shall be responsible for maintaining normal flow in drainage structures. This includes cleaning out drainage ditches, catch basins, clearing pipe inverts of sediment and other debris lodged in the barrel of the pipe and maintaining water dips and water bars using equipment specified in Subsection 3104 and other culvert cleaning and flushing equipment.

3106 The Purchaser shall be responsible for repair and replacement of all materials eroded from road shoulders and fill slopes, up to fifteen (15) station yards in quantity, at any one site. The work includes unlimited multiple sites on all roads required to be maintained by the Purchaser. Prior to repair and replacement of eroded material exceeding fifteen (15) station yards at any one site, the Purchaser and the Authorized Officer or their Authorized Representatives shall agree in writing, in the field, to the quantity of material, borrow source, and method of repair. Work may commence immediately after agreement.

Upon completion of agreed upon work, a reduction in timber sale purchase price will be made to offset the cost of the work, based upon current BLM Timber Sale Appraisal Production Cost Schedules. Adjustments in purchase price for completed work shall be made as necessary, and no less than once per year when actual work is ongoing.

3107 The Purchaser shall cut or trim trees and brush which obstructs vision or prevents the safe passage of traffic along the traveled way, when directed by the Authorized Officer.

The Purchaser shall also cut trees or brush encroaching on the road prism that are a result of their activities or winter damage during the contract period. Disposal of such vegetative material shall be by scattering below the road.

3108 The Purchaser shall avoid fouling gravel or bituminous surfaces through covering with earth and debris from side ditches, slides, or other sources. The Purchaser shall also avoid blading surfacing material off the running surface of the roadway. Skidding logs on the roadway in or outside designated logging units is not authorized without prior written approval by the Authorized Officer. Repair required by such skidding activity is not considered maintenance and shall be performed at the Purchaser's expense.

3108a The Purchaser shall perform logging operations on gravel and/or bituminous roadways only where the locations have been marked on the ground and/or approved by the Authorized Officer.

SEASONAL MAINTENANCE - 3200

3201 The Purchaser shall perform preventive maintenance at the end of Purchaser's hauling each season and during no haul periods which occur between other operations on the contract area. This includes cross ditching, blockage, removing ruts or other surface irregularities, and all other requirements specified in Section 3100.

3202 The Purchaser shall perform and complete maintenance, specified in Sections 3000, 3100, and 3200, on all roads maintained by him, prior to October 1 each year, except as specified in Subsection 3203, after initial commencement of construction or logging operations. Thereafter all roads shall have continuous preventive maintenance and road cleanup until suspension of seasonal operations. This includes all roads used and not used during the preceding operating seasons.

3203 The Purchaser shall complete road cleanup and maintenance, as specified in Section 3100, at the completion of logging operations on any road(s) located in an area separate from the area where logging activities will resume.

3204 The Purchaser shall be responsible for performing post storm inspections and maintenance during the winter season to minimize erosion and potential road or watershed damage.

FINAL MAINTENANCE 3300

3301 The Purchaser shall complete final maintenance and/or damage repairs on all roads used under terms of their contract within 30 calendar days following the expiration of Purchaser's right to cut and remove timber (Sec. 4) and in accordance with Sec.16 (b) of this contract. This work shall include any maintenance and/or damage repairs specified in Sections 3000, 3100, and 3200 necessary to meet the conditions specified in Subsection 3002 and shall be executed in accordance with Subsection 3302 of this section.

The Authorized Officer may grant acceptance of Purchaser's maintenance responsibility in part where certain individual roads or road segments are no longer of any use to the Purchaser's remaining removal operations, providing that all contract requirements as specified under Section 16(b), Special Provisions Sections 3000, 3100, 3200, and 3300 of the maintenance specifications have been completed and a relinquishment of cutting and removal rights on cutting units tributary to these roads is signed by the Purchaser. Request for partial acceptance must be submitted in writing by the Purchaser.

3302 The Purchaser shall perform final road maintenance only when weather or soil moisture conditions are suitable for normal maintenance equipment operations as determined by the Authorized Officer.

If final maintenance is delayed after the date required in Subsection 3301 of this contract by adverse soil moisture or unsuitable equipment operating conditions, the Purchaser will be notified by the Authorized Officer when soil moisture and equipment operating conditions are suitable. The Purchaser shall then be required to complete final maintenance within 30 days.

OTHER MAINTENANCE - 3400

3401 The Purchaser shall repair any damage to road surfaces that was specified under Subsections 3108 and 3108a. **This repair includes restoring the roadway to the designed standard and replacement of surfacing with approved surface material.** This repair is not limited to use of equipment specified in Subsection 3104.

3402 The Purchaser shall be permitted to remove ice and snow from roads authorized for use under this contract only when prior written approval has been secured from the Authorized Officer. The Purchaser shall submit a written request for permission to remove ice and snow in advance of the date operations are to begin.

3420 The Purchaser shall perform the following work:

Road No.	Work
21-8-18.1	Install an earthen barrier at STA 2+00 to prevent access onto BLM-managed land. Install 32 waterbars, evenly spaced, between STA 2+00 and STA 62+99.5 to provide adequate drainage to relieve road subgrade of surface water flow.
21-8-7.0	Install an earthen barrier near the STA 0+00 junction.
21-9-13.6 CDE	Install an earthen barrier at STA 2+00 to prevent access onto BLM-managed land. Install 2 waterbars between STA 6+00 and STA 9+50 to provide adequate drainage to relieve road subgrade of surface water flow.
Spur 1	Install 2 waterbars between STA 0+00 and STA 4+00 to provide adequate drainage to relieve road subgrade of surface water flow.
Spur 2	Install 1 waterbar between STA 0+00 and STA 1+00 to provide adequate drainage to relieve road subgrade of surface water flow.
Spur 3	Install 3 waterbars between STA 0+00 and STA 5+50 to provide adequate drainage to relieve road subgrade of surface water flow.

Sale: Big Iron CT
Sale Date: 11/22/2026
Prep. By : VSMK
Tract No: 2027.0002

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ROAD MAINTENANCE AND ROAD USE APPRAISAL WORK SHEET

Summary of Costs

1.1) Road Use - Amortization: $0.00/6424 MBF = $0/MBF

Road Maintenance Obligation:

(2.1) BLM Maintenance		$0.00
(2.2) BLM Rockwear	$0.00	
(5.1) Purchaser Maintenance Rockwear	$0.00	
Total Rockwear Payable to BLM		$0.00
(3.1) 3rd Party Maintenance		$0.00
(3.2) 3rd Party Rockwear		$0.00
(4.1) Other Maintenance Payments		$0.00
Total Maintenance Fee Obligation (2.1-5.1)		$0.00

Purchaser Maintenance Allowances:

(5.2A) Move In	$7,047.00
(5.2B) Culverts, Catch Basins, Downspouts	$1,852.63
(5.2C) Grading, Ditching	$3,381.77
(5.2D) Slide Removal and Slump Repair	$447.52
(5.2E) Dust Palliative (Water)	$0.00
(5.2F) Surface Repair (Aggregate)	$59,740.00
(5.2G) Other	$0.00
Total Purchaser Maintenance Allowances (5.2A-5.2G)	$72,468.92

(2.1-5.2G) Cost ($0.00 + $72,468.92) = $72,468.92
Cost/MBF 72468.92 / 6424 MBF = $11.28/MBF

(5.2H) Decommissioning	$4,277.70

(5.2H) Cost/MBF $4,277.70/6424 MBF = $0.67/MBF

(2.1-5.2H) Cost ($0.00 + $72,468.92 + $4,277.70) = $76,746.62

Total Cost/MBF (Excluding Road Use) $$76,746.62/6424 MBF = $11.95/MBF

1) Road Use Fees - Amortization

Details

R/W Number	Road Number	Rd Use Fee	x	Vol MBF	=	Road Use Obligation

Subtotal by agreement number

(1.1) Subtotal $0.00

2) BLM Maintenance - Timber Haul

		MAINTENANCE (2.1)						ROCKWEAR (2.2)				
Road Number and Segment	A N	Surf Type	Maint Mi	x	Fee	x Vol MBF	=	Maint Fee	x	MBF	=	Rkwear

(2.1) Subtotal $0.00 (2.2) Subtotal $0.00

3) Third Party Maintenance and Rockwear

			MAINTENANCE (3.1)					ROCKWEAR (3.2)				
Agrmnt Number	Surface Type	Road Number	Mi	x	Fee	x MBF	=	Maint Fee	x	MBF	=	Rkwear

Subtotal of maintenance fees by agreement number:
Subtotal of rockwear fees by agreement number:

(3.1) Subtotal $0.00
(3.2) Subtotal $0.00

4) Other Maintenance Payments - USFS or Others Perform Maintenance

Agency	Road Number	Miles (Log)	x	Vol (mbf)	x	Fee MBF/MI	=	Cost

(4.1) Subtotal $0.00

5) Purchaser Maintenance - Rock Wear

TIMBER HAUL (5.1)

Road No and Segment	A N	Mi	RkWear x Fee	x Vol MBF	=	Total RkWear

(5.1) Subtotal $0.00

Purchaser Operational Maintenance

Move In

Equipment	No Units	Move x	Cost/ in x	Dist 50 Mi	x	Sub-Factor	=	total
Motor Grader:	1	3		558		1.00		$1,674.00
Back Hoe:	1	3		415		1.00		$1,245.00
Loader:				558		0.63		$0.00
Water Truck:				138		0.63		$0.00
Dump Truck:	2	3		130		1.00		$780.00
Excavator:	1	3		558		1.00		$1,674.00
Roller:	1	3		558		1.00		$1,674.00

(5.2A) Total $7,047.00

Culvert Maintenance - Including Catch basins and Downpipes

Miles	x	Cost/Mi	=	Subtotal
3.6		$514.62		$1,852.63

(5.2B) Total $1,852.63

Grading (Includes Ditches and Shoulders)

Miles	x	Cost/Mi	x	Freq	=	Subtotal
Blade w/ Ditch:		3.60		939.38	1	$3,381.77
Blade w/o Ditch:		0.00		568.71	0	$0.00

(5.2C) Total $3,381.77

Slide and Slough removal, Slump Repair (15 sta-yds. ea.)

Type Equipment	No Slides /Slumps	x	Hours Each	x	Equip Cost	= Subtotal
Grader:	0		0		$187.45	$0.00
Loader:	0		0		$117.39	$0.00
Backhoe:	4		1		$111.88	$447.52

(5.2D) Total $447.52

Dust Palliative (Water)

Spreading Hours

No Miles	/	Freq MPH	=	Truck Hours	x	Days	x	/Day	=	Hours
0.00		0				0		0		0

Load & Haul =	0.0	0	0	0
Total Hours =	0			

Truck Cost: $114.98/Hr. x 0.0 Hours = $0.00

(5.2E) Total $0.00

Surface Repair (Aggregate)

Quarry / Source Name: RR Aggregate Surface

Production Cost:	1000.0 CY x $19.83/CY		= 19,830.00
Haul to Stockpile:			
Grades > 15%	1000.0 CY x (($2.56/CY x 2.00 Mi)	+ $0.85)	= $5,970.00
Grades <= 15%	1000.0 CY x (($1.28/CY x 12.00 Mi)	+ $0.85)	= 16,210.00
State / Co Roads	1000.0 CY x (($0.57/CY x 25.00 Mi)	+ $0.85)	= 15,100.00
Process with Grader:	1000.0 CY x $1.22/CY		= $1,220.00
Compaction:	1000.0 CY x $1.41/CY		= $1,410.00
		SubTotal	$59,740.00

(5.2F) Total $59,740.00

Other

Fallen Timber Cutting:	0.0 Hours x $0.00/Hour	=$0.00
Brush Cutting/Tree Trimming:	0.0 Hours x $0.00/Hour	=$0.00
Oil/Asphalt Materials:	Lump Sum	=$0.00
Signing for Dust Palliatives:	Lump Sum	=$0.00
	Lump Sum	=$0.00
	Lump Sum	=$0.00
	Lump Sum	=$0.00

	Lump Sum	=$0.00
	Lump Sum	=$0.00

(5.2G) Total $0.00

Decommissioning

Other Costs

Road Number	Cubic Yds Pullback Material		Qty Waterbars		Qty Earthen Barriers	= Total
21-8-18.1	(0x2.23)	+	(32x87.3)	+	(1x261.9)	= $3,055.50
21-8-7.0	(0x2.23)	+	(0x87.3)	+	(1x261.9)	= $261.90
21-9-13.6CDE	(0x2.23)	+	(2x87.3)	+	(1x261.9)	= $436.50
Spur 1	(0x2.23)	+	(2x87.3)	+	(0x261.9)	= $174.60
Spur 2	(0x2.23)	+	(1x87.3)	+	(0x261.9)	= $87.30
Spur 3	(0x2.23)	+	(3x87.3)	+	(0x261.9)	= $261.90

(Other Cost) Total $4,277.70

(5.2H) Decommissioning Total $4,277.70

SALE NAME: Big Iron
NET MBF: 6424

EXHIBIT E
ORC03-TS-2027.0002

A. ROAD USE FEES - Payable to Private Company

COMPANY NAME:	AGREEMENT NUMBER:	ROAD NUMBER	NET MBF	USE FEE per MBF	TOTAL FEES:
Roseburg Resources	C-339	21-8-8.1	1652	$ 15.83	$ 26,151.16
Roseburg Resources	C-339	21-8-13.6	4772	$ 1.24	$ 5,917.28
			TOTAL USE FEE:		$32,068.44

B. MAINTENANCE FEES:

1. Maintenance and Rockwear Fees Payable to the U.S. (BLM Maintained Roads).

a. Timber Haul:

Surface Type	ROAD NUMBER:	NET MBF	ROAD MILES:	SURFACE REPLACEMENT /MBF/Mile	Subtotal	REGULAR MAINTENANCE /MBF/Mile	Subtotal	TOTAL FEE:
	22-9-14.0	1652	3.92		$0.00	$0.82	$5,310.19	$5,310.19
	22-9-14.0	6424	8.1		$0.00	$0.82	$42,668.21	$42,668.21
			12.02		$0.00		$47,978.40	$47,978.40

2. ROCKWEAR Fees Payable to the U.S. (OPERATOR Maintained Roads):

a. Timber Haul:

Surface Type	ROAD NUMBER:	NET MBF	ROAD MILES:	SURFACE REPLACEMENT /MBF/Mile	ROCKWEAR Subtotal
Rock	21-8-7.0	155	0.1	$0.95	$14.73
Rock	21-8-7.0	541	0.09	$0.95	$46.26
Rock	21-8-7.0	877	0.09	$0.95	$74.98
Rock	21-8-7.0	1108	0.1	$0.95	$105.26
Dirt	21-8-18.1	267	0.1	$0.00	$0.00
Dirt	21-8-18.1	707	0.2	$0.00	$0.00
Dirt	Spur 3	219	0.11	$0.00	$0.00
Dirt	21-8-18.1	926	0.05	$0.00	$0.00
Dirt	21-8-18.1	1193	0.1	$0.00	$0.00
Dirt	Spur 2	462	0.02	$0.00	$0.00
Dirt	21-8-18.1	1655	0.05	$0.00	$0.00
Dirt	21-8-18.1	1949	0.05	$0.00	$0.00
Dirt	21-8-18.1	2216	0.1	$0.00	$0.00
Dirt	21-8-18.1	2483	0.05	$0.00	$0.00
Dirt	Spur 1	292	0.08	$0.00	$0.00
Dirt	21-8-18.1	2775	0.05	$0.00	$0.00
Dirt	21-8-18.1	3165	0.2	$0.00	$0.00
Dirt	21-8-18.1	3530	0.3	$0.00	$0.00
Rock	21-9-13.6	462	0.05	$0.95	$21.95
Rock	21-9-13.6	632	0.05	$0.95	$30.02
Rock	21-8-7.1	316	0.06	$0.95	$18.01
Rock	21-8-7.1	610	0.05	$0.95	$28.98
Rock	21-9-13.6	1242	0.05	$0.95	$59.00
Rock	21-9-13.6	4772	0.26	$0.95	$1,178.68
Rock	21-9-24.0	4772	1.28	$0.95	$5,802.75
			3.59		$7,380.62

3. ROAD MAINTENANCE AND/OR ROCKWEAR FEES - Payable to Private Company:

Surface Type	COMPANY NAME:	AGREEMENT NUMBER	ROAD NUMBER	NET MBF	ROAD MILES:	MAINTENANCE AND/OR ROCKWEAR FEE /MBF/MILE	TOTALS
	Roseburg Resources	C-339	21-8-8.1	1108	0.1	$0.00	$0.00
	Roseburg Resources	C-339	21-8-8.1	1652	0.94	$0.00	$0.00
	Roseburg Resources	C-399	21-9-13.6	4772	0.25	$0.00	$0.00
					0.35		$0.00

4. OPERATOR MAINTENANCE WILL BE REQUIRED ON APPROX. 3.6 MILES OF ROAD. (SEE EXHIBIT D)

SALE VOLUME: 6424 MBF

SUMMARY OF ROAD USE & ROAD MAINTENAN	ROAD USE FEES: TOTAL:	ROAD USE FEES: $/MBF	ROCKWEAR FEES TOTAL:	ROCKWEAR FEES $/MBF	MAINTENANCE FEES TOTAL:	MAINTENANCE FEES $/MBF:
1. COMPANY-OWNED ROADS:	$32,068.44	$4.99	$0.00	$0.00		$0.00
2. BLM-MAINTAINED ROADS:			$0.00	$0.00	$47,978.40	$7.47
3. OPERATOR-MAINTAINED ROADS:			$7,380.62	$1.15		$0.00
	$32,068.44	$4.99	$7,380.62	$1.15	$47,978.40	$7.47

MAINTENANCE OBLIGATION PAYABLE TO BLM $55,359.02 8.617531133

United States
Department of the Interior
Bureau of Land Management

Timber Appraisal

Sale Name:	Big Iron CT	**Sale Date:**	Friday, November 20, 2026
BLM District:	Coos Bay DO	**Unit of Measure:**	16' MBF
Contract #:	ORC03-TS-2027.0002	**Contract Term:**	48 months
Sale Type:	Advertised	**Contract Mechanism:**	5450-003 Lump Sum Sale of Timber and other Wood Products

Content

Timber Appraisal Summary
Stumpage Summary
Unit Summary
Stump to Truck
Transportation
Engineering Allowances
Other Allowances

Prepared By: Kirkland, Travis S - 10/14/2026
Approved By: Kirkland, Travis S - 10/15/2026

Legal Description of Contract Area

Land Status	County	Township	Range	Section	Subdivision	Meridian
O&C	Douglas	21S	8W	7	Lots 13,14,15,20,23,24,25,26,27,28,29,30,31,32	Willamette

Species Totals

Species	Net	Gross Merch	Gross	# of Merch Logs	# of Cull Logs	# of Trees
Douglas Fir	6,401.0	6,719.0	6,772.0	134,886	3,040	33,691
Red Alder	17.0	18.0	18.0	420	0	125
Western Hemlock	6.0	7.0	7.0	271	0	88
Totals	**6,424.0**	**6,744.0**	**6,797.0**	**135,577**	**3,040**	**33,904**

Cutting Area Acres

Regeneration Harvest Acres	Partial Cut Acres	Right of Way Acres	Total Acres	Net Volume per Acre
0.0	244.0	8.0	252.0	25.5

Logging Costs

Stump to Truck	$1,692,539.52
Transportation	$589,290.72
Road Construction	$663,801.22
Maintenance/Rockwear	$127,827.94
Road Use	$32,068.44
Other Allowances	$26,331.20
Total:	**$3,131,859.04**
Total Logging Cost per MBF:	**$487.52**

Utilization Centers

Location	Distance	% of Net Volume
Winchester	60.0 miles	100%

Profit & Risk

Profit	11%
Risk	0%
Total Profit & Risk	**11%**

Tract Features

Quadratic Mean DBH	13.1 in
Average GM Log	50 bf
Average Volume per Acre	25.5 mbf
Recovery	95%
Net MBF volume:	
Green	6,424.0 mbf
Salvage	0 mbf
Export	0 mbf
Ground Base Logging:	
Percent of Sale Volume	6%
Average Yarding Slope	0%
Average Yarding Distance	0 ft
Cable Logging:	
Percent of Sale Volume	94%
Average Yarding Slope	60%
Average Yarding Distance	300 ft
Aerial Logging:	
Percent of Sale Volume	0%
Average Yarding Slope	0%
Average Yarding Distance	0 ft

Cruise

Cruise Completed	September 2025
Cruised By	Herron, Anctil, Murphy, Stover, Blum, Kirkland

Cruise Method

PCMTRE-216 plots and 100 plots for units and 3P with 18 samples for the RW

Stumpage Computation

Species	# of Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Costs	(+) Marginal Log Value	Appraised Price/MBF		Appraised Value ($)
Douglas Fir	33,691	6,401.0	$628.21	$69.10	$487.52	$0.00	$71.60		$458,311.60
Red Alder	125	17.0	$456.14	$50.18	$487.52	$0.00	$45.70	*	$776.90
Western Hemlock	88	6.0	$435.19	$47.87	$487.52	$0.00	$43.60	*	$261.60
Totals	**33,904**	**6,424.0**							**$459,350.10**

* Minimum Stumpage values were used to compute the Appraised Price/MBF (10.00% of Pond Value)

Other Wood Products

Product	Unit of Measure	# of Units	$/Unit	Appraised Value
Biomass	Green Tons	1930	$0.05	$96.50
Totals				**$96.50**

Total Appraised Value: $459,446.60

Percent of Volume By Log Grade

Species	No. 1 & 2 Peeler	No. 3 Peeler	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Douglas Fir				49.0%	44.0%	7.0%	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill		Camp Run
Red Alder		41.0%	34.0%	25.0%			

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Western Hemlock					89.0%	11.0%	

Unit: 1

Net Volume/Acre: 25.9 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	1,548.0	1,626.0	1,634.0	7,827
Red Alder	4.0	4.0	4.0	29
Totals:	**1,552.0**	**1,630.0**	**1,638.0**	**7,856**

Regeneration Harvest	0.0
Partial Cut	60.0
Right of Way	0.0
Total Acres:	**60.0**

Unit: 2

Net Volume/Acre: 24.3 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	4,459.0	4,680.0	4,708.0	23,725
Red Alder	13.0	14.0	14.0	96
Totals:	**4,472.0**	**4,694.0**	**4,722.0**	**23,821**

Regeneration Harvest	0.0
Partial Cut	184.0
Right of Way	0.0
Total Acres:	**184.0**

Unit: RW

Net Volume/Acre: 50.0 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	394.0	413.0	430.0	2,139
Western Hemlock	6.0	7.0	7.0	88
Totals:	**400.0**	**420.0**	**437.0**	**2,227**

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	8.0
Total Acres:	**8.0**

Total Stump To Truck	Net Volume	$/MBF
$1,692,539.52	6,424.0	$263.47

Stump to Truck: Falling, Bucking, Yarding, & Loading

Yarding System	Unit of Measure	# of Units of Measure	$/Unit of Measure	Total Cost	Remarks
Cable: Medium Yarder	GM MBF	6,324.0	$253.98	$1,606,169.52	Fuel 5.96\gal,6 loads\day, 5 mbf\load
Shovel	GM MBF	420.0	$198.50	$83,370.00	Fuel 5.96\gal, 6 loads\day, 5 mbf\load
Subtotal				**$1,689,539.52**	

Additional Costs

Item	Unit of Measure	# of Units of Measure	$/Unit of Measure	Total Cost	Remarks
Subtotal				**$0.00**	

Additional Moves

Equipment	Unit of Measure	# of Units of Measure	$/Unit of Measure	Total Cost	Remarks
Cable: Medium Yarder	1	1.0	$1,000.00	$1,000.00	
Loader	Each	1.0	$1,000.00	$1,000.00	
Stroke Delimber	Each	1.0	$1,000.00	$1,000.00	
Subtotal				**$3,000.00**	

Comments:
Shovel Logging for RW volume only

Total	Net Volume	$/MBF
$589,290.72	6,424.0	$91.73

Utilization Center	One Way Mileage	Description	Unit of Measure	# of Units	$/Unit of Measure	Total Cost	% of Sale Volume
Winchester	60.0	Saw Logs	GM MBF	6,744.0	$87.38	$589,290.72	100%

Engineering Allowances

Total	Net Volume	$/MBF
$823,697.60	6,424.0	$128.22

Cost Item	Total Cost
Road Construction:	$663,801.22
Road Maintenance/Rockwear:	$127,827.94
Road Use Fees:	$32,068.44

Comments:
Ex D 72,468.92+Ex 55359.02=127827.94 for road maintenance\rockwear

Total	Net Volume	$/MBF
$26,331.20	6,424.0	$4.10

Environmental Protection

Cost item	Total Cost
snag creation	$18,300.00
Vehicle Washing	$1,625.00
Subtotal	**$19,925.00**

Slash Disposal & Site Prep

Cost item	Total Cost
Slash Piling	$1,564.18
Pile Burning	$4,842.02
Subtotal	**$6,406.20**

Form 5440-009
(April 2025)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Name of Bidder

Tract Number
ORC03-TS-2027.0002

Sale Name
Big Iron CT

Sale Notice *(dated)*
10/22/2026

BLM Office
Coos Bay BLM

DEPOSIT AND BID FOR: (Check One):

☑ **Timber and/or Other Wood Products**
(Examples of Other Wood Products: biomass, firewood, posts, poles, etc...)

☐ **Vegetative Resources**
(Examples of Vegetative Resources: boughs, pinyon nuts, cones, plants, etc...)

☐ Sealed Bid for Sealed Bid Sale	☑ Written Bid for Oral Auction Sale
Deadline for accepting sealed bids ☐ a.m. ☐ p.m.	Sale commences 10:00 ☑ a.m. ☐ p.m.
On *(date)* Place	On *(date)* 11/20/2026 Place Coos Bay District Office

In response to the above dated Sale Notice, the required deposit and bid are hereby submitted for the purchase of designated Timber and/or Other Wood Products or Vegetative Resources on the tract specified above.

Required bid deposit is $ 46,000.00 and is enclosed in the form of:

☐ cash ☐ money order ☐ cashier's check ☐ certified check ☐ bank draft

☐ bid bond of corporate surety on approved list of the United States Treasury ☐ guaranteed remittance approved by the authorized officer.

IT IS AGREED That the bid deposit shall be retained by the United States as liquidated damages if the bid is accepted and the undersigned fails to execute and return the contract, together with any required performance bond and any required payment within 30 days after the contract is received by the successful bidder. If not otherwise specified in the advertisement, bids for less than the advertised price will not be considered. If the bid is rejected the deposit will be returned.

BID SCHEDULE – **TIMBER AND/OR OTHER WOOD PRODUCTS OR VEGETATIVE RESOURCES**
NOTE: Bidders should carefully check computations in completing the Bid Schedule

	BID SUBMITTED				ORAL BID MADE	
PRODUCT & SPECIES	UNIT of MEASURE	ESTIMATED VOLUME OR QUANITY	UNIT PRICE	PRODUCT VALUE (Quantity X Price)	UNIT PRICE	PRODUCT VALUE (Quantity X Price)
Douglas-fir	MBF	6401	$	$	$	= $
Red Alder	MBF	17	$ 45.70	$ 776.90	$	= $
Western Hemlock	MBF	6	$ 43.60	$ 261.60	$	= $
Biomass	GT	1930	$ 0.05	$ 96.50	$	= $
			$	$	$	= $
			$	$	$	= $
			$	$	$	= $
			$	$	$	= $
			$	$	$	= $
			$	$	$	= $
			$	$	$	= $
		TOTAL PURCHASE PRICE		$		$

(Continued on Page 2)

If sale contract is executed, undersigned is liable for total purchase price including all modifications executed under the terms of the contract. Timber and/or Other Wood Products or Vegetative Resources designated for removal may be less or more than total estimated volume or quantity shown above.

Bid submitted on *(date)*

By signing this form, the signatory is certifying the following:

- ☐ *(a) The signatory is a citizen of the United States, a partnership composed wholly of such citizens, an unincorporated association composed wholly of such citizens, or a corporation authorized to transact business in the state in which the timber is located.*
- ☐ *(b) The signatory is the age of majority in the state of the sale.*
- ☐ *(c) The signatory is an authorized representative if not signing as an individual and certifies that he or she is authorized to act as or on behalf of the bidder.*
- ☐ *(d) The signatory and any affiliates have not exported unprocessed private timber from west of the 100th meridian in the lower 48 states in the 24-months prior to the sale date shown on this form.*
- ☐ *(e) The signatory's bid was arrived at by bidder or offeror independently and was tendered without collusion with any other bidder or offeror.*
- ☐ *(f) The signatory and any affiliates are not currently suspended or debarred from contracting with the Federal government unless issued an exception by the Department's Director of the Office of Acquisition and Property Management (exception must be attached to bid form).*

Mark each box above to acknowledge each of the certifying statements and complete sections 1-3 as appropriate and sections 4 and 5:

1. Signature, if firm is individually owned	4. Name of firm *(type or print)*
2. Signatures, if firm is a partnership or L.L.C. i. _____ ii. _____	5. Business address, include zip code *(type or print)*
3. Corporation - organized under the state laws of: Signature of Authorized Corporate Officer: _____ Title: _____	*(To be completed following oral bidding)* I HEREBY confirm the above oral bid By *(signature)*: Date

Submit bid to qualify for either an oral auction or sealed bid sale, together with the required bid deposit.
Make remittance payable to: "Department of the Interior – BLM"

Oral Auction – Submit to Sale Supervisor prior to closing of qualifying period for tract.
Sealed Bid – Send to Contracting Officer, who issued the sale notice, in a sealed envelope marked on the outside with:
(1) "Bid for Timber and/or Other Wood Products" or "Bid for Vegetative Resources" depending on the products being sold.
(2) Time bids are to be opened.
(3) Legal description.
(4) Sale name and number.

NOTICES

The Privacy Act and the regulations in 43 CFR 2.223(d) require that you be furnished with the following information:

AUTHORITY: 38 FR 6280 and 43 CFR 5442.1

PRINCIPAL PURPOSE: To qualify an oral auction bidder, and then if successful, to bind bidder to certain contract conditions.

ROUTINE USES: To determine that an individual is qualified to participate in oral auction bidding, and, as surety that bidder will fulfill contract requirements.

EFFECT OF NOT PROVIDING INFORMATION: Filing this deposit and bid information is necessary only when an individual wishes to participate in a sealed or auction bid sale for Timber and/or Other Wood Products or Vegetative Resources.

(Continued on Page 3)

INSTRUCTIONS TO BIDDERS

1. AUTHORITY – Timber and/or Other Wood Products or Vegetative Resources, located on the revested Oregon and California Railroad Grant Lands and on the reconveyed Coos Bay Wagon Road Grant Lands is administered and sold pursuant to authority of the Act of August 28, 1937 (50 Stat. 874; 43 U.S.C. 2601); Timber and/or Other Wood Products or Vegetative Resources located on other public lands of the United States under jurisdiction of the Bureau of Land Management are administered and sold pursuant to authority of the Act of July 31, 1947 (61 Stat. 681), as amended, by the Act of July 23, 1955 (69 Stat. 367; 30 U.S.C. 601 et. seq.). Regulations of the Secretary of the Interior governing sale of Timber and/or Other Wood Products or Vegetative Resources, are codified in 43 CFR Group 5400.

2. QUALIFICATIONS OF BIDDERS – A bidder for sale of Timber and/or Other Wood Products or Vegetative Resources must be either (a) a citizen of the United States, (b) a partnership composed wholly of such citizens, (c) an unincorporated association composed wholly of such citizens, or (d) a corporation authorized to transact business in the state in which the Timber and/or Other Wood Products or Vegetative Resources are located.

3. INSPECTION OF TIMBER AND/OR OTHER WOOD PRODUCTS OR VEGETATIVE RESOURCES – Bidder is invited, urged, and cautioned to inspect the Timber and/or Other Wood Products or Vegetative Resources prior to submitting a bid. By executing the Timber and/or Other Wood Products or Vegetative Resources sale contract, bidder warrants that the contract is accepted on the basis of his/her examination and inspection of the Timber and/or Other Wood Products or Vegetative Resources and his/her opinion of its value.

4. DISCLAIMER OF WARRANTY – Government expressly disclaims any warranty of the fitness of the designated Timber and/or Other Wood Products or Vegetative Resources for any purpose of the bidder; all Timber and/or Other Wood Products or Vegetative Resources are to be sold "As Is" without any warranty of merchantability by Government. Any warranty as to the quantity or quality of Timber and/or Other Wood Products or Vegetative Resources to be sold is expressly disclaimed by Government.

5. BIDS – Each Sealed or written bid for Timber and/or Other Wood Products or Vegetative Resources must be submitted to the Contracting Officer who issued *Timber and/or Other Wood Products or Vegetative Resources Sale Notice.*

(a) *Sealed Bid Sales* – Bids will be received until time specified in the Advertisement. Enclose the bid with required bid deposit in a sealed envelope marked on the outside *Bid for Timber and/or Other Wood Products or Vegetative Resources*, time bid is to be opened, timber sale name and number, and legal description of land on which Timber and/or Other Wood Products or Vegetative Resources are located. In event of a tie, the high bidder shall be determined by lot from among those who submitted the tie bids.

(b) *Oral Auction Sales* – Submission of the required bid deposit and a written bid is required to qualify for oral bidding. Oral bidding shall begin from the highest written bid. No oral bid will be considered which is not higher than the preceding bid. In the event there is a tie in high written bids, and no oral bidding occurs, the bidder who was the first to submit his/her bid deposit and written bid shall be declared the high bidder. If the officer conducting the sale cannot determine who made the first submission of high tie written bids, the high bidder shall be determined by lot. High bidder must confirm his/her bid, in writing, immediately upon being declared high bidder.

(c) Except as otherwise provided in 43 CFR 5442.2, bids will not be considered in resale of Timber and/or Other Wood Products or Vegetative Resources remaining from an uncompleted contract from any person or affiliate of such person who failed to complete the original contract because of (1) cancellation for the purchaser's breach or (2) through failure to complete payment by expiration date.

(d) When it is in the interest of the Government to do so, it may reject any and all bids and may waive minor deficiencies in bids or in sale advertisement.

6. BID FORMS – All sealed, written bids, and confirmation of oral bids shall be submitted on forms provided by Government.

(a) *Timber and/or Other Wood Products or Vegetative Resources Sales* – For each product and species, bids shall specify (1) Bureau of Land Management estimated unit volume or quantity, (2) bidder's price per unit and total value, and (3) bidder's total purchase price. Estimated volume and price per unit are to be used for administrative and appraisal purposes only. Upon award of contract, the high bidder agrees to pay the Government for the Timber and/or Other Wood Products or Vegetative Resources designated for removal in accordance with the terms of the contract. Timber and/or Other Wood Products or Vegetative Resources designated for removal may be less or more than the total estimated volume or quantity shown above.

7. BID DEPOSIT – All bidders must make a deposit of not less than the amount specified in the *Timber and/or Other Wood Products or Vegetative Resources Notice*. Deposit may be in the form of cash, money orders, bank drafts, cashiers or certified checks made payable to the Department of the Interior – BLM, bid bonds of a corporate surety shown on the approved list of the United States Treasury Department (*Applies To Timber Only*), or any approved guaranteed remittance approved by the Contracting Officer. Upon conclusion of bidding, the bid deposit of all bidders, except high bidder, will be returned. The cash deposit of the successful bidder shall be applied toward the required sale deposit and/or the purchase price. If the BLM fails to award the timber sale within 90 days of the determination of the high bidder, a portion of the bid deposit may be refunded to the high bidder upon written request to the authorized officer, such that the BLM retains a deposit of at least 5% of the appraised value. The remainder of the full bid deposit must be resubmitted to the BLM once the high bidder is notified in writing that the delay of award has been remedied and the authorized officer is prepared to issue the contract. If the high bidder is unable to provide the full amount of the bid deposit within 30 days of the written notification, the sale may be re-auctioned and the high bidder will be barred from participating in any subsequent auctions for the same tracts.

8. AWARD OF CONTRACT – Government may require high bidder to furnish such information as is necessary to determine the ability of bidder to perform the obligation of contract. Contract will be awarded to high bidder, unless he/she is not qualified or responsible or unless all bids are rejected. If high bidder is not qualified or responsible or fails to sign and return the contract together with required performance bond and any required payment, contract may be offered and awarded to the highest bidders qualified, responsible, and willing to accept the contract. If contract award is delayed more than 90 days, half of the bid deposit may be refunded to the high bidder until the sale award process resumes.

9. TIMBER AND/OR OTHER WOOD PRODUCTS OR VEGETATIVE RESOURCES SALE CONTRACTS – To be executed by purchaser, has been prepared by Government, and may be examined in the District or Field Manager's office.

(Continued on Page 4)

10. PERFORMANCE BOND – (Primarily Used For Timber Sales)

(a) A performance bond in an amount of not less than 20 percent of total purchase price is required, but the amount of the bond shall not be in excess of $500,000, except when the purchaser opts to increase the minimum bond to permit cutting prior to payment as provided in 43 CFR 5451.2, or in the event the purchaser is a holder of an unresolved default the bond may be increased as provided in 43 CFR 5450.1(b). Performance bond may be (1) bond of a corporate surety shown on approval list issued by the United States Treasury Department and executed on an approved standard form, (2) personal surety bond executed on an approved standard form if Government determines principals and bondsman are capable of carrying out the terms of the contract, (3) cash bonds, (4) negotiable securities of the United States, or (5) any guaranteed remittance approved by the Contracting Officer.

(b) If purchaser elects to cut Timber and/or Other Wood Products or Vegetative Resources without skidding or yarding it to a loading point or removing it prior to the payment of the second or subsequent installments, Government shall require an increase in amount of performance bond initially required by an amount equal to the value of Timber and/or Other Wood Products or Vegetative Resources to be cut. Such increase must be on a bond rider form supplied by Government and be approved, in writing, by Government prior to cutting Timber and/or Other Wood Products or Vegetative Resources covered by the bond increase. This increased amount of bond shall be used to assure payment for Timber and/or Other Wood Products or Vegetative Resources cut in advance of payment.

11. PAYMENT BOND – (Primarily Used For Timber Sales)

If purchaser elects to (a) cut and remove Timber and/or Other Wood Products or Vegetative Resources, or (b) remove Timber and/or Other Wood Products or Vegetative Resources already cut which has been secured by an increased performance bond as provided in paragraph 10(b) above, before payment of the second or subsequent installments, Government shall require a payment bond on a form supplied by Government. Purchaser shall obtain written approval from Government of payment bond prior to cutting and/or removal of Timber and/or Other Wood Products or Vegetative Resources covered by the bond. Payment bond shall be used to assure payment for Timber and/or Other Wood Products or Vegetative Resources cut and/or removed in advance of payment.

12. PAYMENT OF PURCHASE PRICE – For sales of $500 or more, Government may allow payment by installments. Except as discussed in paragraphs 10 and 11 above, no part of any Timber and/or Other Wood Products or Vegetative Resources sold may be severed, cut, or removed unless advance payment has been made as provided in contract.

13. LIQUIDATED DAMAGES – Within thirty (30) days from receipt of *Timber and/or Other Wood Products or Vegetative Resources* Sale Contract, the successful bidder shall sign contract and return it to Government, together with required bond and any required payment. If successful bidder fails to comply within the stipulated time, his/her bid deposit shall be retained by Government as liquidated damages.

14. NINETY-DAY SALES – If no bid is received within time specified in the advertisement of sale and if Government determines that there has been no significant rise in the market value of Timber and/or Other Wood Products or Vegetative Resources, it may, in its discretion, keep the sale open, not to exceed ninety (90) days.

15. UNAUTHORIZED USE OF GOVERNMENT PROPERTY – A sale may be refused to high bidder who has been notified that he/she has failed to make satisfactory arrangements for payment of damages resulting from unauthorized use of, or injury to, property of the United States.

16. [RESERVED]

17. LOG EXPORT – All timber offered for sale except as noted in the *Timber Sale Notice* is restricted from export from the United States in the form of unprocessed timber and any exporters of unprocessed private timber west of the 100th meridian in the contiguous 48 states within 24-months of the sale date are not eligible to purchaser Federal Timber west of the 100th meridian in the contiguous 48 states. For the purpose of this contract, unprocessed timber is defined as:

(1) any logs except those of utility grade or below, such as saw logs, peeler logs, and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three quarters (8-3/4) inches in thickness; (3) split or round bolts or other roundwood not processed to standards and specifications suitable for end product use; or (4) western red cedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimensions or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 common or better.

Timber manufactured into the following will be considered processed: (1) Lumber or construction timbers, except western red cedar, meeting current American Lumber Standards Grades or Pacific Lumber Inspection Bureau Export R or N list grades, sawn on four sides, not intended for remanufacture; (2) Lumber, construction timbers, or cants for remanufacture, except western red cedar, meeting current American Lumber Standards Grades or Pacific Lumber Inspection Bureau Export R or N list clear grades, sawn on four sides, not to exceed twelve inches in thickness; (3) Lumber, construction timbers, or cants for remanufacture, except western red cedar, that do not meet the grades referred to in subclause 2 and are sawn on four sides, with wane less than ¼ of any face, not exceeding 8¾ inches in thickness; (4) Chips, pulp, or pulp products; (5) Veneer or plywood; (6) Poles, posts, or piling cut or treated with preservatives for use as such; (7) Shakes or shingles; (8) Aspen or other pulpwood bolts, not exceeding 100 inches in length, exported for processing into pulp; (9) Pulp logs, cull logs, and incidental volumes of grade 3 and 4 saw logs processed at domestic pulp mills, domestic chip plants, or other domestic operations for the primary purpose of conversion of the logs into chips, or to the extent that a small quantity of such logs are processed, into other products at domestic processing facilities.

18. DETAILED INFORMATION – Detailed information concerning contract provisions, bid, performance bond forms, tract location maps, and access conditions may be obtained from the Contracting Officer. All persons interested in bidding on the products listed are encouraged to familiarize themselves with all such detailed information.

NOTICE OF LITIGATION

The Northwest Coastal Resource Management Plan covering the **Big Iron CT** timber sale, contract number **ORC03-TS-2027.0002**, has been litigated. The court's decision is pending. The Bureau of Land Management (BLM) will proceed with normal bidding on the tracts.

Although the BLM does not know at this time what the court's decision will be, the BLM is providing this notice to advise all bidders that significant delays may occur before award of the contract or before any operations may be undertaken. Additionally, an adverse ruling may require the BLM to suspend, cancel, or modify the contract. The Authorized Officer retains the right to reject all bids associated with this tract.

To ensure that this notice is understood, the high bidders for each contract must sign the acknowledgement below and submit this document to the BLM to confirm your bid.

I acknowledge receipt of a copy of this notice and understand that because of the *Cascadia Wildlands v. Burgum et al*., Case 6:26-cv-01262-AP lawsuit in U.S District Court, District of Oregon, any decision to award the Big Iron CT timber sale, contract number ORC03-TS-2027.0002, may be significantly delayed, or operations suspended, and that the BLM has authority under 43 CFR 5442.3 to reject all bids if the Government determines it is in the Government's interest to do so.

Company Name _____

By _____

Title _____

Date _____