

Paradise Thin TS

Specified Road Reconstruction Plans	7 pages
Costing	1 page Cost Summary
	3 pages Schedule of Items
Specifications	2 pages Specifications Listing
	42 pages FSSS Specifications Package
	53 pages total

UNITED STATES DEPARTMENT OF AGRICULTURE

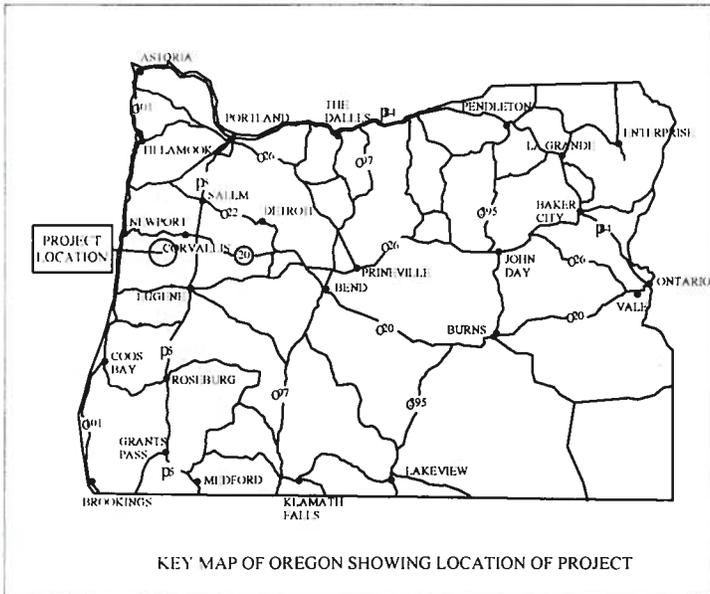
FOREST SERVICE - REGION SIX SIUSLAW NATIONAL FOREST CENTRAL COAST RANGER DISTRICT



PLANS FOR PROPOSED PARADISE THIN LINCOLN COUNTY

INDEX OF SHEETS		ROAD NO.	TERMINI (MP to MP)	LENGTH (MILES)	TYPE OF WORK
SHEET NO	DESCRIPTION				
1	TITLE SHEET	3413	0.00 - 4.32	4.32	RECONSTRUCTION
2	VICINITY MAP	3414127	0.00 - 0.60	0.60	RECONSTRUCTION
3	ESTIMATE OF QUANTITIES				
4	ROAD STRUCTURE DETAIL AND DRAINAGE LISTING				
5	BRUSHING AND VEGETATION REMOVAL TYPICAL				
6	DRAINAGE CONSTRUCTION DETAILS				
7	RECONSTRUCTION LOG				

Plan In Hand Review: July 8, 2014



Designed by: J. Latham 7/13/2014
 Designer (J. Latham) Date

Reviewed by: R. Tomlinson 7/14/14
 Reviewer (R. Tomlinson) Date

J. Caswell 7/23/14
 Development Engineer (J. Caswell) Date

Recommended by: J. Acosta 7/15/14
 Zone Engineer (J. Acosta) Date

Approved by: M. Jones 7/21/14
 Line Officer (M. Jones) Date

C. McKenna 7/23/14
 Forest Engineer (C. McKenna) Date

T12 and 13S-R09W
SEC 23, 14, 11, 12, AND 10

DISPOSAL SITES: (MP)

1.40

1.85

2.06

2.24

2.35

WATER SOURCE: (MP)

1.02



HARLAN

END ROAD 3413

BEGIN 3413126

EOP MP 4.32

JUNCTION 3413
AND ROAD 1080

ROAD 3413127

BOP 0.00 EOP 0.60

BOP ROAD 3413/ 1080
4.7 MILES FROM HIGHWAY 34

FALL CREEK
FISH HATCHERY

FALL CREEK ROAD
COUNTY ROAD 714

OR
34

OR
34

TO ALSEA, OR
12 MILES

2.0 miles

PARADISE THIN

VICINITY MAP

U.S.D.A. FOREST SERVICE

PACIFIC NORTHWEST REGION



SHEET NUMBER TOTAL SHEETS

2

7

Road Number			3413	3413127	Payment will be made on actual work performed as described in FP-03 109.01 unless otherwise noted.
Project Length (Miles)			4.32	0.60	
Item No	DESCRIPTION	Unit	Quantities	Quantities	Remarks
15204	Drainage structure survey and staking	Each		1	MP 0.58
15101	Mobilization	Lump Sum	All		Covers entire project: Traffic control, hazardous spill equipment, equipment washing, fire prevention, and sign installation are included by indirect payment.
15713	Soil Erosion & Pollution Control	Lump Sum	All		Covers entire project: Use Certified weed free straw or other approved erosion control materials as needed. Dewatering plan for Road 3413127 MP 0.58 included.
20301	Removal of culvert	Each	1	1	Dispose of legally off National Forest lands.
20418	Drainage excavation, type pipe culvert, compaction method B	Cubic Yard*		875	Culvert excavation for 6027648
23051	Roadside Brushing	Mile	4.32	0.60	Scatter outside of clearing limits
25101	Keyed riprap, class 3	Cubic Yard*	5	5	Commercial Source.
30359	Roadway reconditioning, compaction method E	Mile	4.32	0.60	Includes bridge decks and cattle guard.
32203	Aggregate base, grading C, compaction method B	Cubic Yard*	802		Commercial Source. Includes material testing per FP-03 703.05. Quantities included for 12 inch over culvert installations.
32218	Screened aggregate, grading Q, compaction method B	Cubic Yard*		226	Commercial Source. Includes material testing per FP-03 703.05. Quantities included for 12 inch over culvert installations.
6027648	48 Inch corrugated aluminized steel pipe 0.109 inch thickness, method C	Foot		78	Culvert excavation included.
6027818	18 Inch corrugated polyethylene pipe, type S, method B	Foot	28		Culvert excavation included.
Disposal Area: 6' maximum heights of material, 1V:2H slopes, shape to drain & reconstruct ditchline between road and disposal site. Disposal areas will be flagged by CO prior to any material placement.					
See Timber Sale provisions and specifications for daily and seasonal restrictions.					
All utility locates, permits, and water rights are the responsibility of the purchaser.					
* Denotes Contract Quantities					

PARADISE THIN

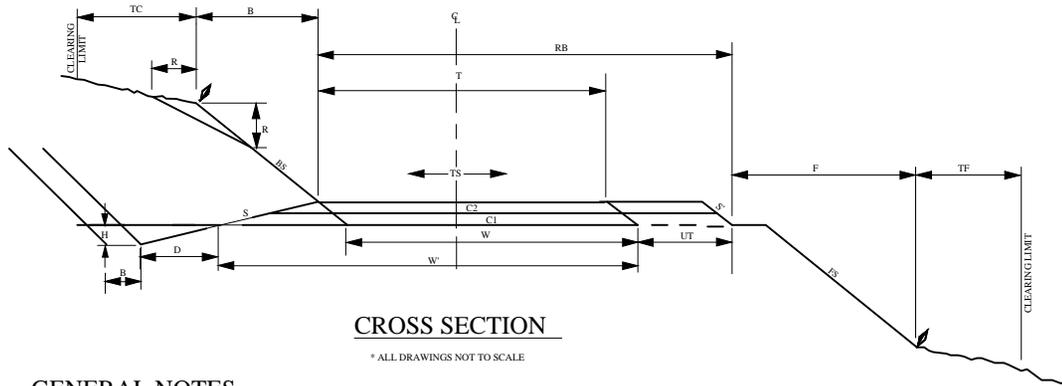
ESTIMATE OF QUANTITIES

U.S.D.A. FOREST SERVICE

PACIFIC NORTHWEST REGION



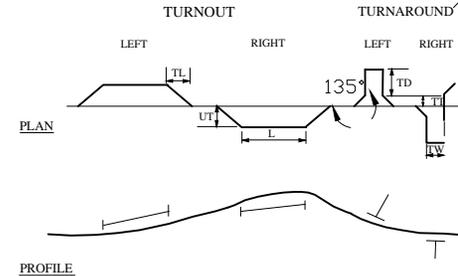
SHEET NUMBER	TOTAL SHEETS
3	7



CROSS SECTION

* ALL DRAWINGS NOT TO SCALE

TURNOUT AND TURNAROUND SYMBOLS



GENERAL NOTES

1. CURVE WIDENING, TURNOUTS AND TURNAROUNDS SHALL BE SURFACED TO THE SAME DEPTH AS THE ROADBED UNLESS OTHERWISE SHOWN ON THE PLANS.
2. EX = MATCH EXISTING DIMENSIONS.
3. V- VARIES, SEE RECONSTRUCTION LOGS

ROAD NUMBER	SEGMENT	STATION OF MILEPOST TO	STATION OF MILEPOST	TRAVELED WAY WIDTH FT	CLEARING		GRADING											SURFACE STRUCTURE				SHOULDER ROCK											
					WHICHEVER IS GREATER FT		CONSTRUCTION TOLERANCE	OUTSLOPE (O) INSLOPE (I) CROWN (C) %	ROADBED WIDTH		DITCH DIMENSIONS			TURNOUT			TURN AROUND		GRADATION		COMPACTED DEPTH		SLOPE RATIO		DEPTH	SLOPE RATIO	WIDTH	GRADATION					
					MINIMUM BEYOND SHOULDER	BEYOND SLOPE STAKE			W	W'	B	D	H	UT	TL	L	TT	TW	TD	C1	C2	C1	C2	S					S'				
																														TC	TF	TS	W
3413		M.P. 0.00	M.P. 2.10	14			C	C-5		EX	0	3	1	10	25	50	EX	EX	EX		C			4"	1V:2H								
3413		M.P. 2.10	M.P. 4.32	13			C	C-5		EX	0	3	1	10	25	50	EX	EX	EX														
3413127		M.P. 0.00	M.P. 0.60	13			C	C-5		EX	0	3	1	10	25	50	EX	EX	EX		Q			6"	1V:2H								

DRAINAGE LISTING

MILEPOST OR STATION	DESIGNED					INSTALLATION DETAILS					RIPRAP - CY			REMARKS										
	PLASTIC PIPE		PLASTIC SPILLWAY			CORRUGATED METAL PIPE		CORRUGATED METAL SPILLWAY			GRADE (%)	SCREW (DEGREE)	ANCHOR ASSEMBLY		TYPE	PLASTIC SPILLWAY CONNECTION	HAND PLACED		MACHINE PLACED		DUMPED			
	DIAMETER (INCHES)	LENGTH (FEET)	DIAMETER (INCHES)	LENGTH (FEET)	FULL CIRCLE	HALF ROUND	DIAMETER (INCHES)	LENGTH (FEET)	FULL CIRCLE	HALF ROUND							INLET CY	OUTLET CY	INLET CY	OUTLET CY		INLET CY	OUTLET CY	
ROAD 3413 1.08	18	28									EX	EX		3						5				REPLACES EXISTING CMP
ROAD 3413127 0.58						48	78				12	EX		1						5				

PARADISE THIN

ROAD STRUCTURE DETAIL AND DRAINAGE LISTING

PACIFIC NORTHWEST REGION

U.S.D.A. FOREST SERVICE



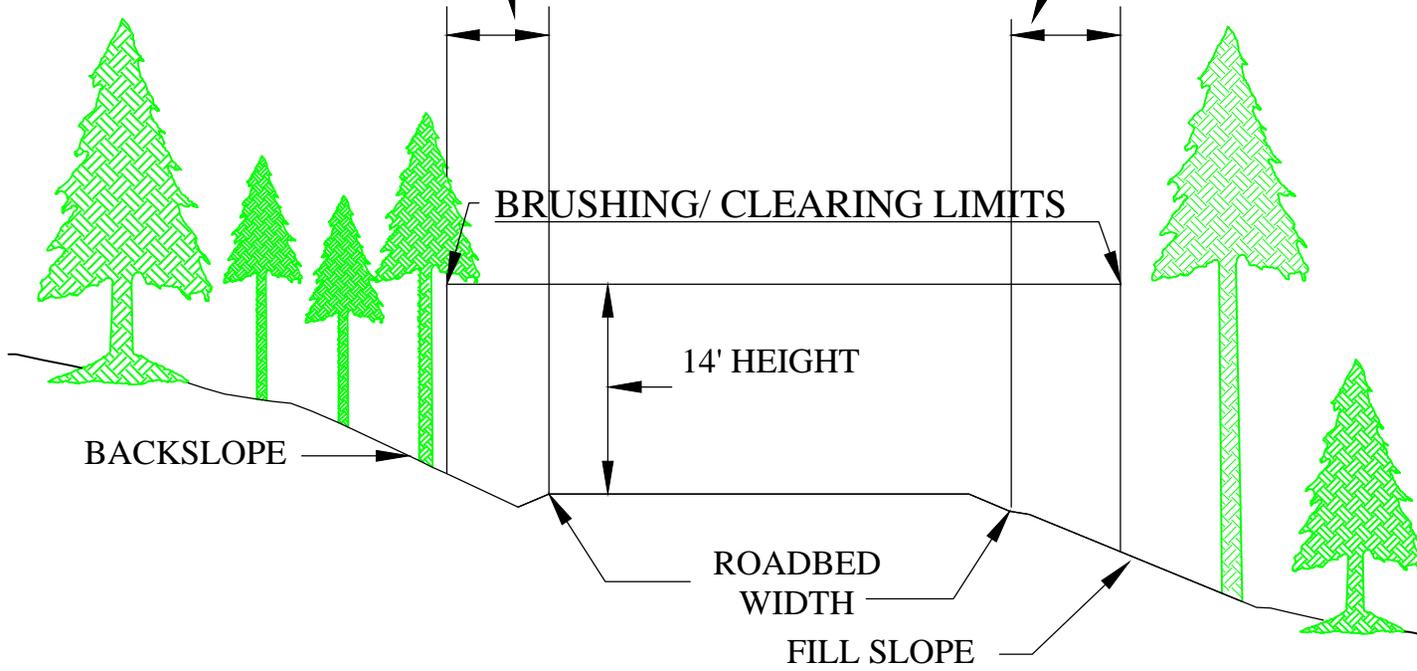
SHEET NUMBER TOTAL SHEETS

4

7

10' HORIZONTAL
DISTANCE

6' HORIZONTAL
DISTANCE



PARADISE THIN

BRUSHING AND VEGETATION REMOVAL TYPICAL

PACIFIC NORTHWEST REGION

U.S.D.A. FOREST SERVICE

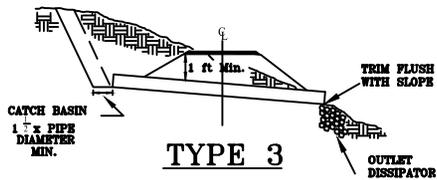
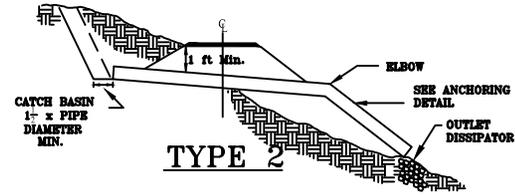
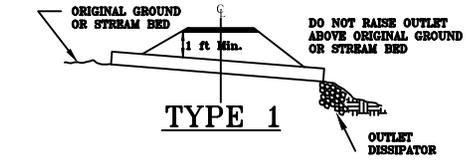


SHEET NUMBER TOTAL SHEETS

5

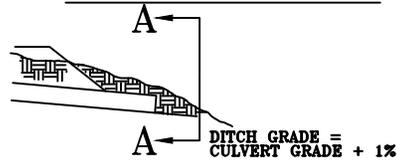
7

CULVERT INSTALLATION TYPES

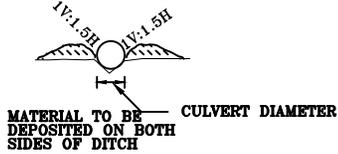


CULVERT INVERT - THE LOWEST INTERIOR ELEVATION OF THE CULVERT AT ANY SELECTED POINT.

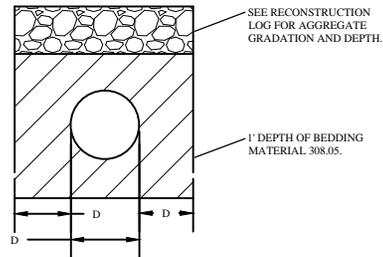
OUTLET DITCH



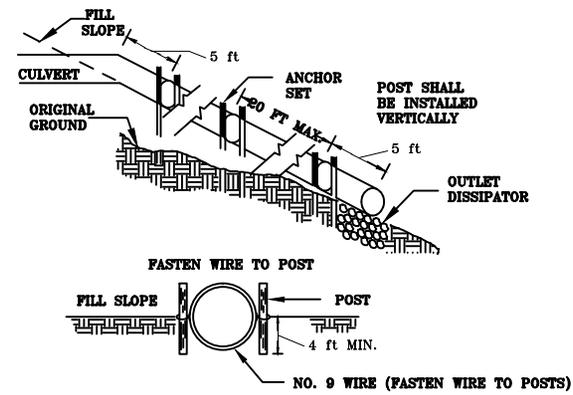
SECTION A-A



CULVERT INSTALLATION DETAIL

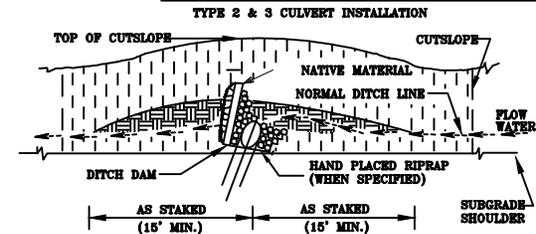


ANCHOR DETAILS

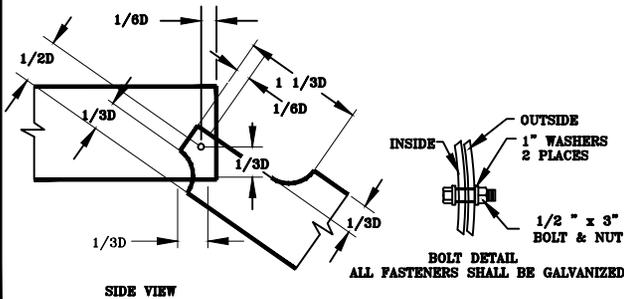


NOTE:
3 FT DIAMETER AND LARGER DOWNPIPE SHALL BE HALF BURIED.
ANCHOR SETS SHALL CONSIST OF TWO 6 FT STEEL FENCE POSTS (AASHTO M 281) AND NO. 9 GALVANIZED WIRE. 3 STRANDS OF WIRE SHALL BE TWISTED TOGETHER AND ENCOMPASS THE ENTIRE CIRCUMFERENCE OF THE PIPE.

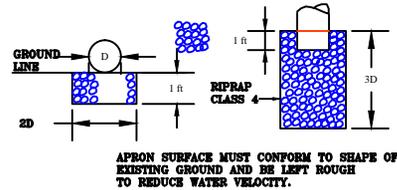
DITCH DAM PLAN VIEW



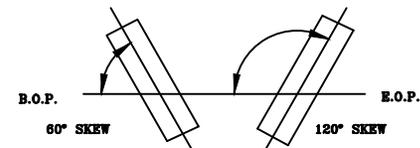
FLEX ELBOW



OUTLET DISSIPATER DETAIL



SKREW DIAGRAM



B.O.P. = BEGINNING OF PROJECT
E.O.P. = END OF PROJECT

PARADISE THIN

DRAINAGE CONSTRUCTION DETAILS

PACIFIC NORTHWEST REGION

U.S.D.A. FOREST SERVICE



SHEET NUMBER TOTAL SHEETS

6

7

ROAD 3413

MP	Remarks	Pay Item	Quantity
0.000	BOP (Begin Road 1080)		
	Roadside brushing, disposal method 1	23051	4.32
	Begin roadway reconditioning, scarification 4" depth	30359	4.32
	Begin placement of aggregate	32203	792
0.150	Clean Bridge	30359	
0.310	Clean cattle guard	30359	
0.530	Clean Bridge	30359	
0.718	Junction 3413127		
0.750	End aggregate placement and scarification 4 inch depth, Begin scarification as needed to remove irregularities from roadway.		
1.080	Replace existing culvert with 18"X30' CPP	6027818	28
	Riprap dissipator	25101	5
	Aggregate base, grading C, compaction method B	32203	10
	Removal of culvert	20301	1
1.720	Ref: Leaving National Forest		
1.770	Ref: Junction Road 1080 left		
2.060	Ref: Junction Road left		
3.560	Ref: Junction Road left		
3.970	Ref: Junction Road right		
4.320	EOP, Ref: Leaving National Forest		
	End brushing and reconditioning		

ROAD 3413127

MP	Remarks	Pay Item	Quantity
0.000	BOP		
	Roadside brushing, disposal method 1	23051	0.60
	Roadway reconditioning, compaction E	30359	0.60
	Aggregate base, grading Q, compaction method B	32218	226
0.580	Replace existing culvert with 48"X78' CMP	6027648	78
	Riprap dissipator	25101	5
	Aggregate base, grading Q, compaction method B	32203	40
	Removal of culvert	20301	1
	Excavation	20418	875
	Survey	15204	1
0.600	EOP		
	End brushing and reconditioning		

PARADISE THIN

RECONSTRUCTION LOGS

PACIFIC NORTHWEST REGION

U.S.D.A. FOREST SERVICE



SHEET NUMBER TOTAL SHEETS

7

7

Paradise Thin Cost Summary

Road	TS Cost	PW Cost
3413	\$ 69,354.84	\$ 73,044.90
3413127	\$ 32,403.32	\$ 33,410.28
DRES		\$ 14,300.00
Totals	\$ 116,058.16	\$ 120,755.18

SCHEDULE OF ITEMS

Paradise Thin

Road Number 3413
Mile post 0.00 to Mile post 4.32

TS COSTS

Pay		Pay	Estimated	Unit	Total
Item	Item Description	Unit	Quantity	Price	
15101	Mobilization	Lump Sum	All		\$ 13,272.80
15713	Soil Erosion & Pollution Control	Lump Sum	All		\$ 2,648.00
20301	Removal of culvert	Each	1.00	\$ 175.00	\$ 175.00
23051	Roadside Brushing	Mile	4.32	\$ 734.00	\$ 3,170.88
25101	Keyed riprap, class 3	Cubic Yard*	5	\$ 74.00	\$ 370.00
30359	Roadway reconditioning, compaction method E	Mile	4.32	\$ 2,388.00	\$ 10,316.16
32203	Aggregate base, grading C, compaction method B	Cubic Yard*	802	\$ 47.00	\$ 37,694.00
6027818	18 Inch corrugated polyethylene pipe, type S, method B	Foot	28	\$ 61.00	\$ 1,708.00
TOTAL COST:					\$ 69,354.84

*Denotes Contract Quantities

SCHEDULE OF ITEMS

Paradise

Road Number 3413127
Mile post 0.00 to Mile post 0.60

TS COSTS

Pay Item	Item Description	Pay Unit	Estimated Quantity	Unit Price	Total
15204	Drainage structure survey and staking	Each	1	\$ 188.00	\$ 188.00
20301B	Removal of Culvert	Each	1	\$ 175.00	\$ 175.00
20418	Drainage excavation, type pipe culvert, compaction method B	Cubic Yard*	875	\$ 15.00	\$ 13,125.00
23051	Roadside Brushing	Mile	0.60	\$ 734.00	\$ 440.40
25101	Keyed riprap, class 3	Cubic Yard*	5	\$ 254.11	\$ 1,270.54
30357	Roadway reconditioning, compaction method E	Mile	0.60	\$ 2,388.00	\$ 1,432.80
32203	Aggregate base, grading Q, compaction method B	Cubic Yard*	226	\$ 43.00	\$ 9,718.00
60276	48 Inch corrugated aluminized steel pipe 0.109 inch thickness, Method C	Foot	78	\$ 77.61	\$ 6,053.58
TOTAL COST:					\$ 32,403.32

*Denotes Contract Quantities

SCHEDULE OF ITEMS

Paradise

Reconstruction of FS Roads
3413 and 3413127

TS COSTS

Pay Item	Item Description	Pay Unit	Estimated Quantity	Unit Price	Total
C5.213#	Reconstruction Engineering Deposits	Lump Sum	1	\$ 14,300	\$ 14,300
				TOTAL COST:	\$ 14,300.00

FP-03 SPECIFICATIONS LIST FOR Paradise Thin

All specifications not included in the specification listing, but included by reference, are applicable. "X" denotes applicable standard and/or supplemental specification. The supplementals shown on the specification list are physically attached.

		<u>Title</u>	<u>Revised</u>	<u>Road Number</u>	
				<u>3413</u>	<u>3413127</u>
Preface		Preface	3/15/2004	X	X
101		Terms Format, and Definitions	FP03	X	X
101	01	Meaning of Terms	1/22/2009	X	X
101	03	Abbreviations	6/16/2006	X	X
101	04	Definitions	3/29/2007	X	X
101	04	Definitions	11/6/2007	X	X
102		Bid, Award, and execution of Contract	FP03	X	X
102	00	Bid, Award, and execution of Contract	2/16/2005	X	X
103		Scope of Work	FP03	X	X
103	00	Deletions	2/16/2005	X	X
104		Control of work	FP03	X	X
104	00	Deletions	6/16/2006	X	X
104	03	Specifications and Drawings	1/22/2009	X	X
104	03	Specifications and Drawings	2/22/2005	X	X
104	06	Use of Roads by Contractor	2/17/2005	X	X
105		Control of Material	FP03	X	X
105	02	Material Sources	1/18/2007	X	X
105	02	Material Sources	3/8/2007	X	X
105	05	Use of Material Found in the Work	5/12/2004	X	X
106		Acceptance of Work	FP03	X	X
106	01	Conformity with Contract Requirements	7/31/2007	X	X
106	07	Delete	5/11/2004	X	X
107		Legal Regulations and responsibility to Public	FP03	X	X
107	05	Responsibility for Damage Claims	5/11/2004	X	X
107	06	Contractor's Responsibility for Work	6/16/2006	X	X
107	08	Sanitation, Health, and Safety	3/29/2005	X	X
107	09	Legal Relationship of the Parties	6/16/2006	X	X
107	10	Enviromental Protection	6/16/2006	X	X
108		Prosecution and Progress	FP03	X	X
108	00	108 Delete	2/16/2005	X	X
109		Measurement and Payment	FP03	X	X
109	00	Deletions	2/17/2005	X	X
109	02	Measurement Terms and Definitions	6/16/2006	X	X
151		Mobilization	FP03	X	X
152		Construction Surveying and Staking	FP03	X	X
152	00	Construction Surveying and Staking	8/5/2005	X	X
153		Contractor Quality Control	FP03	X	X
153	04	Records	10/24/2007	X	X
155		Schedules for Construction Contracts	FP03	X	X
155	00	Delete	5/11/2004	X	X
156		Public Traffic	FP03	X	X
156	03	Accomidating Traffic Durring Work	2/24/2005	X	X
156	04	Maintaining Roads During Work	2/24/2005	X	X
156	08	Traffic and Safety Supervisor	2/24/2005	X	X

FP-03 SPECIFICATIONS LIST FOR Paradise Thin

All specifications not included in the specification listing, but included by reference, are applicable. "X" denotes applicable standard and/or supplemental specification. The supplementals shown on the specification list are physically attached.

			Road Number	
	<u>Title</u>	<u>Revised</u>	<u>3413</u>	<u>3413127</u>
157	Soil Erosion Control	FP03	X	X
157 03	General	2/24/2005	X	X
170 00	Develop Water Supply and Watering	3/26/2007	X	X
203	Removal of Structures and Obstructions	FP03	X	X
203 01	Description	2/25/2005	X	X
203 04	Removing Material	2/18/2005	X	X
203 05	Disposing of Material	3/26/2007	X	X
203 05	Disposing of Material	3/26/2007	X	X
203 08	Payment	2/24/2005	X	X
230 00	Complete Specification	3/31/2010	X	X
251	Riprap	FP-03	X	X
303	Road Reconditioning	FP03	X	X
303 01	Work	9/10/2008	X	X
303 05	Work	3/26/2007	X	X
303 07	Roadway Reconditioning	3/2/2005	X	X
303 07	Roadway Reconditioning	3/23/2007	X	X
303 10	Measurement	3/26/2007	X	X
322 00	Minor Aggregate Coarses	10/14/2011	X	X
602	Culverts and Drains	FP03	X	X
602 03	General	9/6/2005	X	
602 06	Laying Plastic pipe	8/5/2009	X	
635	Temporary Traffic Control	FP03	X	X
635 03	General	5/13/2004	X	X
703	Aggregate	FP03	X	X
703 05	Subbase, Base, Surface Coarse, and Screened Aggre	8/14/2009	X	X
703 10	Flakiness Index	4/11/2011	X	X

Preface

Preface_wo_03_15_2004_m

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-03 for construction of National Forest System Roads.

101 - Terms, Format, and Definitions

101.00_nat_us_07_25_2005

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the TAR (Transportation Acquisition Regulations) in the specifications.

101.03_nat_us_06_16_2006

101.03 Abbreviations.

Add the following to (a) Acronyms:

AFPA	American Forest and Paper Association
MSHA	Mine Safety and Health Administration
NIST	National Institute of Standards and Technology
NESC	National Electrical Safety Code
WCLIB	West Coast Lumber Inspection Bureau

.

Add the following to (b) SI symbols:

mp	Milepost
ppm	Part Per Million

101.04_nat_us_03_29_2007

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

Contractor--The individual or legal entity contracting with the Government for performance of prescribed work. In a timber sale contract, the contractor is the “purchaser”.

Culvert--No definition.

Right-of-Way--A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse public or private lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Add the following:

Adjustment in Contract Price--“Equitable adjustment,” as used in the Federal Acquisition Regulations, or “construction cost adjustment,” as used in the Timber Sale Contract, as applicable.

Change--“Change” means “change order” as used in the Federal Acquisition Regulations, or “design change” as used in the Timber Sale Contract.

Design Quantity--“Design quantity” is a Forest Service method of measurement from the FS-96 *Forest Service Specifications for the Construction of Roads and Bridges*. Under these FP specifications this term is replaced by the term “Contract Quantities”.

Forest Service--The United States of America, acting through the Forest Service, U.S. Department of Agriculture.

Neat Line--A line defining the proposed or specified limits of an excavation or structure.

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

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

Protected Streamcourse--A drainage shown on the plans or timber sale area map that requires designated mitigation measures.

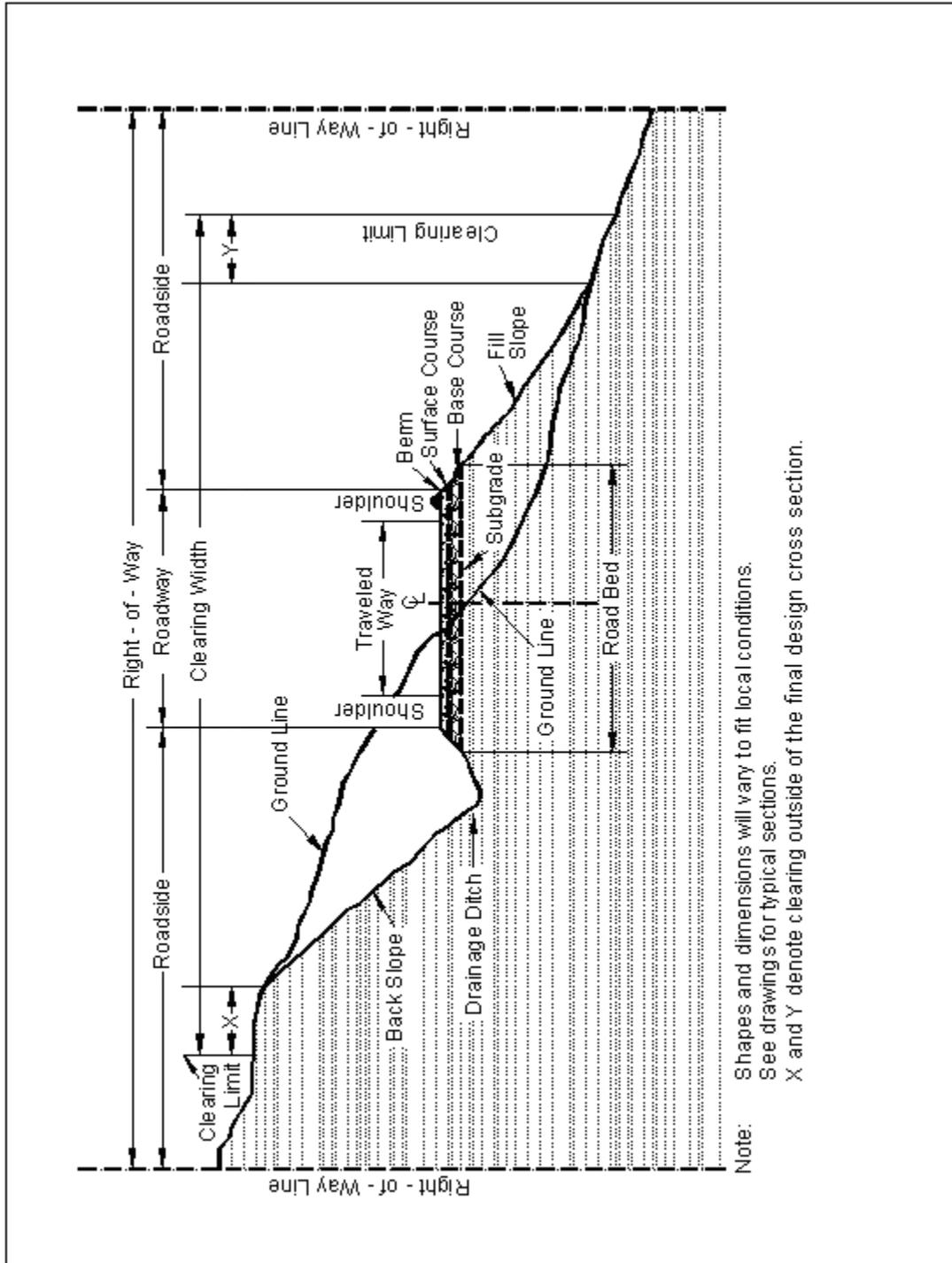
Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

Schedule of Items--A schedule in the contract that contains a listing and description of construction items, quantities, units of measure, unit price, and amount.

Utilization Standards--The minimum size and percent soundness of trees described in the specifications to determine merchantable timber.

Add Figure 101-1—Illustration of road structure terms:

Figure 101-1—Illustration of road structure terms.



102 - Bid, Award, and Execution of Contract

102.00_nat_us_02_16_2005

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

103 - Scope of Work

103.00_nat_us_02_16_2005

Deletions

Delete all but subsection 103.01 Intent of Contract.

104 - Control of Work

104.00_nat_us_06_16_2006

Deletions

Delete Sections 104.01, 104.02, and 104.04.

104.03_nat_us_02_22_2005

104.03 Drawings and Specifications

Delete subsection 104.03

104.03_nat_us_01_22_2009

104.03 Specifications and Drawings.

Delete 104.03.

104.06_nat_us_02_17_2005

Add the following subsection:

104.06 Use of Roads by Contractor

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

105 - Control of Material

105.02_nat_us_01_18_2007

105.02 Material Sources.

105.02(a) Government-provided sources.

Add the following:

Comply with the requirements of 30 CFR 56, subparts B and H. Use all suitable material for aggregate regardless of size unless otherwise designated. When required, re-establish vegetation in disturbed areas according to section 625.

105.02_nat_us_03_08_2007

105.02 Material Sources.

105.02(a) Contractor-provided sources.

Add the following:

All material (e.g., soil, gravel, sand, borrow, aggregate, etc.) transported onto National Forest System land or incorporated into the work will be weed-free. The Contracting Officer may request written documentation of methods used to determine the weed-free status of any and all materials furnished by the contractor. Contractor-provided expertise and methods to establish weed-free status must be appropriate for the weeds of concern in the local area. The following applies to this contract:

OPTION 1: LIST PROJECT-SPECIFIC WEEDS OR APPROPRIATE WEED LIST. YOU MAY INCLUDE ACCEPTABLE METHODS TO ESTABLISH "WEED-FREE" AS APPLICABLE TO YOUR PROJECT. DO THIS IN CONJUNCTION WITH YOUR UNIT WEED SPECIALIST.

Weeds specific to this project:

Weeds specific to this project:

<u>Common Name</u>	<u>Scientific Name</u>
African rue	Peganum harmala

Bamboo	<i>Sasa palmata</i>
Beachgrass, European	<i>Ammophila arenaria</i>
Bean-caper, Syrian	<i>Zygophyllum fabago</i>
Biddy-biddy	<i>Acaena novae-zelandiae</i>
Bindweed, field	<i>Convolvulus arvensis</i>
Blackberry, evergreen	<i>Rubus laciniatus</i>
Blackberry, Himalaya	<i>Rubus discolor</i>
Blueweed, Texas	<i>Helianthus ciliaris</i>
Broom, French	<i>Genista monspessulana</i>
Broom, Portuguese	<i>Cytisus striatus</i>
Broom, Scot's	<i>Cytisus scoparius</i>
Broom, Spanish	<i>Spartium junceum</i>
Broomrape, small	<i>Orobanche minor</i>
Buffalobur	<i>Solanum rostratum</i>
Bugloss, common	<i>Anchusa officinalis</i>
Buttercup, creeping	<i>Ranunculus repens</i>
Butterflybush	<i>Buddleja globosa</i>
Camelthorn	<i>Alhagi pseudalhagi</i>
Canary grass, reed	<i>Phalaris arundinacea</i>
Cherry, laurel	<i>Prunus laurocerasus</i>
Cinquefoil, sulfur	<i>Potentilla recta</i>
Clematis	<i>Clematis vitalba</i>
Cocklebur, spiny	<i>Xanthium spinosum</i>
Coltsfoot	<i>Tussilago farfara</i>
Cordgrass, Common	<i>Spartina anglica</i>
Cordgrass, Dense-flowered	<i>Spartina densiflora</i>
Cordgrass, Saltmeadow	<i>Spartina patens</i>
Cordgrass, smooth	<i>Spartina alterniflora</i>
Cress, creeping yellow	<i>Rorippa sylvestris</i>
Crupina, common	<i>Crupina vulgaris</i>
Daisy, ox-eye	<i>Chrysanthemum leucanthemum</i>
Dyers woad	<i>Isatis tinctoria</i>
False brome	<i>Brachypodium sylvaticum</i>
Floating heart, yellow	<i>Nymphoides peltata</i>
Garlic Mustard	<i>Alliaria petiolata</i>
Geranium, Robert	<i>Geranium robertianum</i>
Geranium, shining	<i>Geranium lucidum</i>
Goatgrass, barbed	<i>Aegilops triuncialis</i>
Goatgrass, jointed	<i>Aegilops cylindrical</i>
Goatgrass, ovate	<i>Aegilops ovata</i>
Gorse	<i>Ulex europaeus</i>
Halogeton	<i>Halogeton glomeratus</i>
Hawkweed, king devil	<i>Hieracium piloselloides</i>

Hawkweed, meadow	<i>Hieracium pratense</i>
Hawkweed, mouse-ear	<i>Hieracium pilosella</i>
Hawkweed, orange	<i>Hieracium aurantiacum</i>
Hawkweed, yellow	<i>Hieracium floribundum</i>
Holly, English	<i>Ilex aquafolium</i>
Hogweed, giant	<i>Heracleum mantegazzianum</i>
Horsetail, giant	<i>Equisetum telmateia</i>
Houndstongue	<i>Cynoglossum officinale</i>
Hydrilla	<i>Hydrilla verticillata</i>
Iris, flag	<i>Iris pseudocorus</i>
Ivy, English	<i>Hedera helix</i>
Johnsongrass	<i>Sorghum halepense</i>
Knapweed, diffuse	<i>Centaurea diffusa</i>
Knapweed, meadow	<i>Centaurea pratensis</i> (jacea x nigra)
Knapweed, Russian	<i>Acroptilon repens</i>
Knapweed, short-fringed	<i>Centaurea nigrescens</i>
Knapweed, spotted	<i>Centaurea maculosa</i>
Knapweed, squarrose	<i>Centaurea virgata</i>
Knotweed, giant	<i>Polygonum sachalinense</i>
Knotweed, Himalayan	<i>Polygonum polystachyum</i>
Knotweed, Japanese	<i>Polygonum cuspidatum</i>
Kudzu	<i>Pueraria lobata</i>
Loosestrife, purple	<i>Lythrum salicaria</i>
Matgrass	<i>Nardus stricta</i>
Millet, wild proso	<i>Panicum miliaceum</i>
Nightshade, silverleaf	<i>Solanum elaeagnifolium</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>
Nutsedge, purple	<i>Cyperus rotundus</i>
Pampas grass	<i>Cortaderia selloana</i>
Parrot feather	<i>Myriophyllum aquaticum</i>
Paterson's curse	<i>Echium plantagineum</i>
Peavine, everlasting	<i>Lathyrus latifolius</i>
Peaweed, Austrian	<i>Sphaerophysa salsula</i>
Policeman's helmet	<i>Impatiens glandulifera</i>
Puncturevine	<i>Tribulus terrestris</i>
Quackgrass	<i>Agropyron repens</i>
Ragweed	<i>Ambrosia artemisiifolia</i>
Rush skeletonweed	<i>Chondrilla juncea</i>
Saltcedar	<i>Tamarix ramosissima</i>
Skeletonleaf bursage	<i>Ambrosia tomentosa</i>
Spikeweed	<i>Hemizonia pungens</i>
Spurge, leafy	<i>Euphorbia esula</i>
Spurge, myrtle	<i>Euphorbia myrsinites</i>

St. John's-wort	<i>Hypericum perforatum</i>
Starthistle, yellow	<i>Centaurea solstitialis</i>
Starthistle, Iberian	<i>Centaurea iberica</i>
Starthistle, purple	<i>Centaurea calcitrapa</i>
Tansy ragwort	<i>Senecio jacobaea</i>
Teasel	<i>Dipsacus sylvestris</i>
Teasel, cutleaf	<i>Dipsacus laciniatus</i>
Thistle, bull	<i>Cirsium vulgare</i>
Thistle, Canada	<i>Cirsium arvense</i>
Thistle, Italian	<i>Carduus pycnocephalus</i>
Thistle, musk	<i>Carduus nutans</i>
Thistle, plumeless	<i>Carduus acanthoides</i>
Thistle, Scotch	<i>Onopordum acanthium</i>
Thistle, slender-flowered	<i>Carduus tenuiflorus</i>
Thistle, smooth distaff	<i>Carthamus baeticus</i>
Thistle, woolly distaff	<i>Carthamus lanatus</i>
Toadflax, yellow	<i>Linaria vulgaris</i>
Toadflax, Dalmatian	<i>Linaria dalmatica</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Water chestnut, European	<i>Trapa natans</i>
Waterlily, fragrant	<i>Nymphaea odorata</i>
Watermilfoil, Eurasian	<i>Myriophyllum spicatum</i>
Waterweed, South. American.	<i>Elodea densa</i>
Whitetop	<i>Lepidium draba</i>
Whitetop, hairy	<i>Lepidium pubescens</i>
Whitetop, lens-podded	<i>Lepidium chalepensis</i>

105.05_nat_us_05_12_2004

105.05 Use of Material Found in the Work.

Delete 105.05 (a) and (b) and the last sentence of the second paragraph and substitute the following:

Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

106 - Acceptance of Work

106.01_nat_us_07_31_2007

106.01 Conformity with Contract Requirements.

Delete Subsection 106.01 and substitute the following:

References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids.

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

Incorporate manufactured materials into the work according to the manufacturer's recommendations or to these specifications, whichever is more strict.

Plan dimensions and contract specification values are the values to be strived for and complied with as the design values from which any deviations are allowed. Perform work and provide material that is uniform in character and reasonably close to the prescribed value or within the specified tolerance range. The purpose of a tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons.

When standard manufactured items are specified (such as fence, wire, plates, rolled shapes, pipe conduits, etc., that are identified by gauge, unit mass, section dimensions, etc.), the identification will be considered to be nominal masses or dimensions. Unless specific contract tolerances are noted, established manufacturing tolerances will be accepted.

The Government may inspect, sample, or test all work at any time before final acceptance of the project. When the Government tests work, copies of test reports are furnished to the Contractor upon request. Government tests may or may not be performed at the work site. If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the Government to evaluate work for acceptance. Do not rely on the availability of Government test results for process control.

Acceptable work conforming to the contract will be paid for at the contract unit bid price. Four methods of determining conformity and accepting work are described in Subsections 106.02 to 106.05 inclusive. The primary method of acceptance is specified in each Section of work. However, work may be rejected at any time it is found by any of the methods not to comply with the contract.

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

(a) Disputing Government test results. **If the accuracy of Government test results is disputed, promptly inform the CO. If the dispute is unresolved after reasonable steps are taken to resolve the dispute, further evaluation may be obtained by written request. Include a narrative describing the dispute and a proposed resolution protocol that addresses the following:**

- (1) Sampling method;
- (2) Number of samples;
- (3) Sample transport;
- (4) Test procedures;
- (5) Testing laboratories;
- (6) Reporting;
- (7) Estimated time and costs; and
- (8) Validation process.

If the evaluation requires additional sampling or testing be performed, mutually agree with the Government on witnessing procedures and on sampling and testing by a third party laboratory. Use a third party laboratory accredited by the AASHTO accreditation program. Provide proof of the laboratory's accreditation for the test procedures to be used. Do not use the same laboratory that produced the disputed Government test results or that produced the test results used as a basis for the dispute.

The CO will review the proposed resolution protocol and may modify it before final approval and execution.

The Government will use the approved resolution protocol test results to determine the validity of the disputed testing. If the Government test results are validated, the Contractor will be responsible for all costs associated with developing and performing the resolution protocol. If the Government test results are not validated, the Government will be responsible for all costs associated with developing and performing the resolution protocol. If the validity of the Government test results cannot be determined, the Contractor and Government will equally share all costs associated with developing and carrying out the resolution protocol.

(b) **Alternatives to removing and replacing non-conforming work.** As an alternative to removal and replacement, the Contractor may submit a written request to:

- (1) Have the work accepted at a reduced price; or

(2) Be given permission to perform corrective measures to bring the work into conformity.

The request must contain supporting rationale and documentation. Include references or data justifying the proposal based on an evaluation of test results, effect on service life, value of material or work, quality, aesthetics, and other tangible engineering basis. The CO will determine disposition of the nonconforming work.

106.07_nat_us_05_11_2004

106.07 Delete

Delete subsection 106.07.

107 - Legal Relations and Responsibility to the Public

107.05_nat_us_05_11_2004

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06_nat_us_06_16_2006

107.06 Contractor's Responsibility for Work.

Delete the following from the first paragraph.

“except as provided in Subsection 106.07”.

107.08_nat_us_03_29_2005

107.08 Sanitation, Health, and Safety

Delete the entire subsection.

107.09_nat_us_06_16_2006

107.09 Legal Relationship of the Parties.

Delete the entire subsection.

107.10_nat_us_06_16_2006

107.10 Environmental Protection.

Add the following:

Design and locate equipment repair shops, stationary refueling sites, or other facilities to minimize the potential and impacts of hazardous material spills on Government land.

Before beginning any work, submit a Hazardous Spill Plan. List actions to be taken in the event of a spill. Incorporate preventive measures to be taken, such as the location of mobile refueling facilities, storage and handling of hazardous materials, and similar information. Immediately notify the CO of all hazardous material spills. Provide a written narrative report form no later than 24 hours after the initial report and include the following:

- Description of the item spilled (including identity, quantity, manifest number, and other identifying information).

- Whether amount spilled is EPA or state reportable, and if so whether it was reported, and to whom.
- Exact time and location of spill including a description of the area involved.
- Containment procedures.
- Summary of any communications the Contractor had with news media, Federal, state and local regulatory agencies and officials, or Forest Service officials.
- Description of clean-up procedures employed or to be employed at the site including final disposition and disposal location of spill residue.

When available provide copies of all spill related clean up and closure documentation and correspondence from regulatory agencies.

The Contractor is solely responsible for all spills or leaks that occur during the performance of this contract. Clean up spills or leaks to the satisfaction of the CO and in a manner that complies with Federal, state, and local laws and regulations.

108 - Prosecution and Progress

108.00_nat_us_02_16_2005

108 Delete.

Delete Section 108 in its entirety.

109 - Measurement and Payment

109.00_nat_us_02_17_2005

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.

109.07 Eliminated Work.

109.08 Progress Payments.

109.09 Final Payment.

109.02_nat_us_06_16_2006

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

Contract quantities will be adjusted only when there are errors in the original design of 15% or more.

Change the following:

“(b) Cubic yard” to “(c) Cubic yard”.

Add the following definition:

(p) Thousand Board Feet (Mbf). 1,000 board feet based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminated timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.

153 - Contractor Quality Control

153.04_nat_us_10_24_2007

153.04 Records.

Delete all but the first sentence

155 - Schedules for Construction Contracts

155.00_nat_us_05_11_2004

155 Delete.

Delete Section 155 in its entirety.

156 - Public Traffic

156.03_nat_us_02_24_2005

156.03 Accommodating Traffic During Work.

Delete the following from the last paragraph:
according to Subsection 106.07(b)

156.04_nat_us_02_24_2005

156.04 Maintaining Roadways During Work.

(a) Add the following:

Do not construct detours outside of the clearing limits or use alternate route detours without the approval of the CO.

156.08_nat_us_02_24_2005

156.08 Traffic and Safety Supervisor.

Delete this subsection in its entirety.

157 - Soil Erosion Control

157.03_nat_us_02_24_2005

157.03 General

Delete the entire subsection and replace with the following:

Prior to the start of construction, submit a written plan that provides permanent and temporary erosion control measures to minimize erosion and sedimentation during and after construction. Do not begin work until the necessary controls for that particular phase of work have been implemented. Do not modify the type, size, or location of any control. An alternate erosion control plan with all necessary permits may be submitted 30 days before intended use.

Incorporate all permanent erosion control features into the project at the earliest practicable time, as outlined in the approved plan.

When erosion control measures are not functioning as intended, immediately take corrective action.

170 - Develop Water Supply and Watering

170.00_0618_us_03_26_2007

Description

170.01 This work consists of developing an acceptable water supply, furnishing, hauling, and applying water.

Materials

170.02 Conform to the following subsection.

Water 725.01.

Construction Requirements

170.03 Development of Supply & Access. Develop water supplies and access to the water supplies as required. Use designated water sources or other approved water sources. Before using non-designated water sources, obtain all necessary permissions, water rights, and permits.

170.04 Equipment.

(a) Water tanks. Provide mobile watering equipment with watertight tanks of known capacity. Provide for positive control of water application from the driver's position.

(b) Juvenile fish protection. All draft hoses being used to withdraw water from any live flowing stream or pond will utilize one of the following methods of screening.

(1) Perforated plate: Screen opening shall not exceed 3/32 or 0.0938-inches.

(2) Profile bar screen: The narrowest dimension in the screen openings shall not exceed 0.0689-inches in the narrowest direction.

(3) Woven wire screen: Screen openings shall not exceed 3/32 or 0.0938-inches in the narrow direction.

All methods shall be cleaned frequently with either wire brushing, flushing or other acceptable method.

170.05 Application. Apply water uniformly without ponding or washing.

170.06 Acceptance. Developing water supplies and watering will be evaluated under Subsections 106.02 and 106.04.

Measurement and Payment

170.07 See Subsection 109.05.

Do not measure develop water supply and watering for payment.

203 - Removal of Structures and Obstructions

203.01_nat_us_02_25_2005

203.01 Description.

Delete and replace with the following:

This work consists of disposing of construction slash and debris, salvaging, removing, and disposing of buildings, fences, structures, pavements, culverts, utilities, curbs, sidewalks, and other obstructions.

203.04_nat_us_02_18_2005

203.04 Removing Material.

Replace the fourth and fifth paragraphs with the following:

Where part of an existing culvert is removed, remove the entire culvert upstream from the removal. The remaining downstream culvert may be left in place if no portion of the culvert is within 12 inches of the subgrade, embankment slope, or new culvert or structure; and the culvert ends are sealed with concrete.

Remove structures and obstructions in the roadbed to 12 inches below subgrade elevation.

Remove structures and obstructions outside the roadbed to 12 inches below finished ground or to the natural stream bottom.

203.05_0618_us_03_26_2007

203.05 Disposing of Material

(a) Remove from project.

Delete the last two sentences

203.05_0618_us_03_26_2007

203.05 Disposing of Material.

Add the following:

(e) Windrowing Construction Slash. Place construction slash outside the roadway in neat, compacted windrows approximately parallel to and along the toeline of embankment slopes. Do not permit the top of the windrows to extend above subgrade. Use construction equipment to matt down all material in a windrow to form a compact and uniform pile. Construct breaks of at

least 15 feet at least every 200 feet in a windrow. Do not place windrows against trees. Obtain approval for pioneer roads. A pioneer road may be constructed to provide an area for placement of windrows, provided the excavated material is kept within the clearing limits and does not adversely affect the road construction.

(f(1)) Scattering method outside clearing limits. Scatter construction slash outside the clearing limits without damaging trees. Limb all logs. Place logs and stumps away from trees, positioned so they will not roll, and are not on top of one another. Limb and scatter other construction slash to reduce slash concentrations.

(f(2)): Scattering method inside clearing limits. Scatter pieces of wood less than 3 inches in diameter and 3 feet in length within the clearing limits. Do not place construction slash in lakes, meadows, streams, or streambeds. Immediately remove construction slash that interferes with drainage structures.

(g) Chipping or Grinding. Use an approved chipping machine to grind slash and stumps greater than 3 inches in diameter and longer than 3 feet. Deposit chips or ground woody material on embankment slopes or outside the roadway to a loose depth less than 6 inches. Minor amounts of chips or ground woody material may be permitted within the roadway if they are thoroughly mixed with soil and do not form a layer.

(h) Debris Mat. Use tree limbs, tops, cull logs, split stumps, wood chunks, and other debris to form a mat upon which construction equipment is operated. Place stumps upside down and blend stumps into the mat.

(i) Decking Firewood Material. Remove brush from decks. Limb and deck logs that do not meet Utilization Standards according to Subsection 201.04 as directed by the CO. Cut logs to lengths less than 30 feet. Ensure that logs stacks are stable and free of brush and soil.

(j) Removal to designated locations. Remove construction slash to designated locations.

(k) Piling. Pile construction slash in designated areas. Place and construct piles so that if the piles are burned, the burning will not damage remaining trees. Keep piles free of dirt from stumps. Cut unmerchantable logs into lengths of less than 20 feet.

(l) Placing Slash on Embankment Slopes. Place construction slash on completed embankment slopes to reduce soil erosion. Place construction slash as flat as practicable on the completed slope. Do not place slash closer than 2 feet below subgrade. Priority for use of available slash is for: (1) through fills; (2) insides of curves; and (3) ditch relief outlets.

(m) Hydrological Sensitive Placement. Where required use this method in combination with other designated methods to dispose of material to reduce erosion and to aid in re-vegetation:

1. Place windrow segments on contours, wrap in type I geotextile.
2. Place logs as log erosion barriers on contours. Place logs so that 80% of their length is on the ground surface.
3. Scatter slash on bare or disturbed areas within or outside the clearing limits as directed.

4. Scatter chips or ground woody material on bare or disturbed areas within or outside the clearing limits as directed.

Place stumps in swales or on sites to form planting pockets. Place windrow segments on contours, wrap in type I geotextile.

230 - Roadside Brushing

230.00_0618_us_03_31_2010

230.01 Description. This work consists of removing limbs, residual slash, roadside brush and small trees within the brushing limits designated in the plans, including turnouts.

Construction Requirements

230.02 General. Cut all brush and small trees, (6 inch diameter or less at the point of cut) within the brushing limits and outside the roadbed no higher than 3 inches above the ground surface or obstructions such as rocks or stumps. Trees beyond the bottom of ditch and beyond the hinge point on the fill slope side, with a diameter larger than 6 inches at a point 2 feet above the ground shall be limbed to a height of 14 feet above the road surface.

Cut all brush and trees located in the roadbed. Grub and haul stumps to designated waste areas or as directed by the Contracting Officer. Smooth and shape the disturbed areas where stumps are removed to prevent water ponding.

230.03 Windfalls. Cut windfalls lying within or across the brushing limits to a horizontal distance of 10 feet from each shoulder or at the brushing limit, whichever is least. Dispose of windfall material as slash.

230.04 Slash Treatments. Remove limbs, chunks, and debris within the roadway in excess of 2 feet in length or 1 inch in diameter, or concentrations which may plug ditches or culverts, from the traveled way, shoulders, ditches and water courses.

Dispose of slash in accordance with one or more of the following methods, as shown in the bid schedule:

- (1) **Scattering.** Scatter slash outside the roadway limits without damaging trees. Do not scatter any material in streambeds, culvert inlets or outlets, drainage ways or cattleguards.
- (2) **Chipping.** Process slash through a chipping machine. Deposit chips on embankment slopes or outside the roadway to a loose depth less than 6 inches.
- (3) **Piling.** Pile slash in designated locations. Place and construct piles so that if the piles are burned, the burning will not damage surrounding trees. Keep piles free of dirt. Cut unmerchantable logs into lengths less than 20 feet.
- (4) **Decking.** Deck logs in excess of ___feet long and ___inches in diameter in designated locations. Logs shall be limbed and decks are to be stable and free of brush and soil. Treat other material according to designated slash treatment methods.
- (5) **Placing slash on embankment slopes.** Place slash on embankments slopes as designated in the plans to reduce soil erosion. Place slash as flat as practicable on slope. Do not place closer than 2 feet below shoulder. Priority for use of available slash in for: (1) through fills; (2) insides of curves.
- (6) **Burying.** Bury slash at designated locations. Mat slash down in layers and cover with rock and soil.
- (7) **Piling & burning.** Pile and burn slash in designated locations. Construct piles so that burning does not damage remaining trees.

Measurement

230.05 Measure the Section 230 items listed in the bid schedule according to Subsection 109.02. Quantities will be the number of miles and fractions thereof along the road centerline, regardless of the amount of work required.

Payment

230.06 The accepted quantities will be paid at the contract price per unit of measurement for the Section 230 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

303 - Road Reconditioning

303.01_nat_us_03_02_2005

303.01 Work.

Delete and add the following:

This work consists of reconditioning ditches, shoulders, roadbeds, cattleguards, asphalt surfaces, and aggregate surfaces.

303.05_0618_us_03_26_2007

303.05 Roadbed Reconditioning.

Delete fourth sentence and replace with the following:

Scarify to the depth and width shown on the drawings, remove surface irregularities, and shape to provide a uniform surface.

303.06_nat_us_08_05_2008

303.06 Aggregate Surface Reconditioning.

Delete and replace with the following:

303.06 Asphalt and Aggregate Surface Reconditioning.

Repair soft and unstable areas to the full depth of the aggregate surface and according to Subsection 204.07. Scarify to the depth of the aggregate surface or to a depth of 6 inches, whichever is less, and remove surface irregularities. Reshape, finish, and compact the entire aggregate surface according to Subsection 301.05, Subsection 321.05, or Subsection 322.05 as applicable.

For asphalt surfaces, clean the existing surface of all loose material, dirt, or other deleterious substances by approved methods. Remove and dispose of unsuitable material that shows evidence of distress, excess asphalt material, or settlement in the roadbed. Patch the areas with approved material that conforms to and is compatible with the adjacent pavement structure. Perform the patch work according to Section 301, 404, 430, or other sections as applicable for the layer or courses being repaired. Clean and seal cracks in the existing asphalt surface according to Subsection 414.05. Correct surface irregularities exceeding 6 inches in depth with a specified aggregate. Place and compact the aggregate according to Subsections 301.04 and 301.05. Prelevel other dips, depressions, sags, excessive or nonexistent crown, or other surface

irregularities with asphalt concrete according to Section 404. Spread and compact the asphalt concrete in layers parallel to the grade line not to exceed 2 inches in compacted depth.

Delete Table 303-1 and replace with the following:

**Table 303-1
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	
Existing Roadway	Measured and tested for conformance (106.04)	Moisture-density Method D	—	AASHTO T 99 (1)	1 per each mixture or change in material	Processed material before incorporating in work	Yes, when requested	Before using in work	
		Moisture-density Method E	—	R-1 Marshall	“	“	“	“	
		Moisture-density Method F	—	AASHTO T 180(1)	“	“	“	“	“
		Moisture-density Method G	—	R-1 Marshall	“	“	“	“	“
		In-place density & moisture content	—	AASHTO T 310 or other approved procedures	1 per 3000 yd ²	In-place	—	Before placing next layer	

(1) Minimum of 5 points per proctor.

303.07 Roadway Reconditioning.

Add the following:

Remove cattleguard decks. Clean the deck and the area beneath the cattleguard of soil and other material to the bottom of the original foundation over the entire width of the installation.
Reinstall the cattleguard deck.

303.10_0618_us_03_26_2007

303.10 Measurement

Remove and replace the first sentence in the third paragraph with the following:

Measure roadbed reconditioning, aggregate surface reconditioning, roadway reconditioning, and pulverizing by the mile, by the foot, by the station or by the square yard.

602 - Culverts and Drains

602.03_nat_us_09_06_2005

602.03 General.

Add the following:

Ensure that the final installed alignment of all pipe allows no reverse grades, and does not permit horizontal and vertical alignments to vary from a straight line drawn from center of inlet to center of outlet by more than 2 percent of pipe center length or 1.0 feet, whichever is less.

602.06_nat_us_08_05_2009

602.06 Laying Plastic Pipe.

Delete the second paragraph and substitute the following:

Provide soil-tight bell and spigot joints for plastic pipe culverts.

635 - Temporary Traffic Control

635.03_nat_us_05_13_2004

635.03 General.

Add the following:

Install temporary traffic control signs to temporary posts or approved temporary sign mounts.

703 - Aggregate

703.05_nat_us_08_14_2009

Delete 703.05 and replace with the following:

703.05 Subbase, Base, Surface Course, and Screened Aggregate.

(a) Subbase or base aggregate. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming the following:

(1) Gradation	Table 703-2
(2) Liquid limit, AASHTO T 89	25 max.
(3) Plastic limit, AASHTO T 90	Nonplastic
(4) Los Angeles abrasion, AASHTO T 96	40% max.
(5) Sodium sulfate soundness loss (5 cycles), AASHTO T 104	12% max.
(6) Durability index (coarse), AASHTO T 210	35 min.
(7) Durability index (fine), AASHTO T 210	35 min.
(8) Fractured faces, ASTM D 5821	50% min.
(9) Free from organic matter and lumps or balls of clay	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

(b) Surface course aggregate. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming the following:

(1) Gradation	Table 703-3
(2) Liquid limit, AASHTO T 89	35 max.
(3) Plastic Index, AASHTO T 90	
a) If the percent passing the No. 200 sieve is less than 12%	2 to 9
b) If the percent passing the No. 200 sieve is greater than 12%	Less than 2
(4) Los Angeles abrasion, AASHTO T 96	40% max.
(5) Sodium sulfate soundness loss (5 cycles), AASHTO T 104	12% max.
(6) Durability index (coarse), AASHTO T 210	35 min.
(7) Durability index (fine), AASHTO T 210	35 min.
(8) Fractured faces, ASTM D 5821	75% min.
(9) Free from organic matter and lumps or balls of clay	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Do not furnish material that contains asbestos fibers.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

(c) **Screened aggregate** – Furnish hard, durable particles or fragments of stone, slag, or gravel conforming the following:

- | | |
|--|--------------|
| (1) Gradation | Table 703-16 |
| (2) Plastic Index, AASHTO T 90 | Less than 9 |
| (3) Los Angeles abrasion, AASHTO T 96 | 55% max. |
| (4) Free from organic matter and lumps or balls of clay. | |

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary.

Delete Table 703-2 and replace with the following:

**Table 703-2
Target Value Ranges for Subbase and Base Gradation
Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)**

Sieve Size	Grading Designation				
	A (Subbase)	B (Subbase)	C (Base)	D (Base)	E (Base)
2½ inch	100				
2 inch	97 – 100	100	100		
1½ inch		97 – 100			
1 inch	65 – 79 (6)		80 – 100 (6)	100	
¾ inch			64 – 94 (6)	86 – 100 (6)	100
½ inch	45 – 59 (7)				
⅜ inch			40 – 69 (6)	51 – 82 (6)	62 – 90 (6)
No. 4	28 – 42 (6)	40 – 60 (8)	31 – 54 (6)	36 – 64 (6)	36 – 74 (6)
No. 40	9 – 17 (4)			12 – 26 (4)	12 – 26 (4)
No. 200	4.0 – 8.0 (3)	4.0 – 12.0 (4)	4.0 – 7.0 (3)	4.0 – 7.0 (3)	4.0 – 7.0 (3)

() The value in the parentheses is the allowable deviation (±) from the target values..

Delete Table 703-3 and replace with the following:

**Table 703-3
Target Value Ranges for Surface Gradation
Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)**

Grading Designation						
F	G	H	S	T	U	U
100			100			
97-100	100		72 – 92 (6)	100		
76-89 (6)	97 - 100	97 - 100			100	
				71 – 91 (6)		
56-68 (6)	70 – 80 (6)	80 – 92 (6)	51 – 71 (6)		71 – 90 (6)	
43-53 (7)	51 – 63 (7)	58 – 70 (7)	36 – 53 (7)	43 – 60 (7)	50 – 68 (7)	
			26 – 40 (6)	30 – 46 (6)	34 – 51 (6)	
23-32 (6)	28 – 39 (6)	28 – 40 (6)				
15-23 (5)	19 – 27 (5)	16 – 26 (5)	14 – 25 (5)	16 – 28 (5)	19 – 30 (5)	
10.0-16.0 (4)	10.0 – 16.0 (4)	9.0 – 14.0 (4)	8.0 – 15.0 (4)	8.0 – 15.0 (4)	8.0 – 15.0 (4)	

() The value in the parentheses is the allowable deviation (\pm) from the target values.
If the plasticity index (PI) is greater than 0, the TV range for the No. 200 sieve size is 8-12 (4).

Sieve Size
1 1/2 inch
1 inch
3/4 inch
1/2 inch
3/8 inch
No. 4
No. 8
No. 16
No. 40
No. 200

Add Table 703-16:

Table 703-16

Gradation Requirements for Screened Aggregate

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)						
	Grading Designation						
	L	M	N	O	P	Q	R
6 inch	100	100					
4 inch			100	100			
3 inch					100	100	
2 inch							100
No. 4		15-45		15-45		15-45	

703.10_nat_us_03_02_2005

Delete Table 703-7 and substitute the following:

Table 703-7 Target Value Ranges

Table 703-7

**Target Value Ranges for
Single and Multiple Course Surface Treatment Aggregate Gradation**

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 & T 11)					
	Grading Designation					
	A	B	C	D	E	F
1½ inch	100 ⁽¹⁾					
1 inch	90-100(3)	100 ⁽¹⁾				
¾ inch	0-35(5)	90-100(3)	100 ⁽¹⁾			
½ inch	0-8(3)	0-35(5)	90-100(3)	100 ⁽¹⁾		

3/8 inch	—	0-12(3)	0-35(5)	85-100(3)	100 ⁽¹⁾	100 ⁽¹⁾
No. 4	—	—	0-12(3)	0-35(5)	85-100(3)	85-100 ⁽¹⁾
No. 8	—	—	—	0-8(3)	0-23(4)	—
No. 200	0-1(1)	0-1(1)	0-1(1)	0-1(1)	0-1(1)	0-10 ⁽¹⁾

(1) Statistical procedures do not apply.

() The value in the parentheses is the allowable deviation (\pm) from the target values.

718 - Traffic Signing and Marking Material

718.05_nat_us_08_05_2009

718.05 Aluminum Panels

Delete the third paragraph and replace with the following:

Clean, degrease and properly prepare the panels according to methods recommended by the sheeting manufacturer. Conversion coatings will conform to ASTM B-921 or ASTM B-449.