

PREPARED BY:

Chris Bielecki

Digitally signed by CHRISTOPHER BIELECKI
DN: c=US, o=U.S. Government, ou=Department of
Agriculture, cn=CHRISTOPHER BIELECKI,
0.9.2342.19200300.100.1.1=12001000132768
Date: 2016.01.12 12:13:16 -08'00'

Chris Bielecki, Design Engineer

Date

REVIEWED BY:

Brandon Taglioli

1/13/16

Brandon Taglioli, South Zone Engineer

Date

I CERTIFY THE TECHNICAL ADEQUACY OF
THESE DRAWINGS:

Dana R Bardsley

1/20/2016

Dana Bardsley, Forest Engineer

Date

I CERTIFY THESE DRAWINGS COMPLY WITH
LAND AND RESOURCE MANAGEMENT PLANS:

Chad Stewart

1/14/16

Chad Stewart, HPBE District Ranger

Date

APPROVED:

Dennis Jaeger

1/27/16

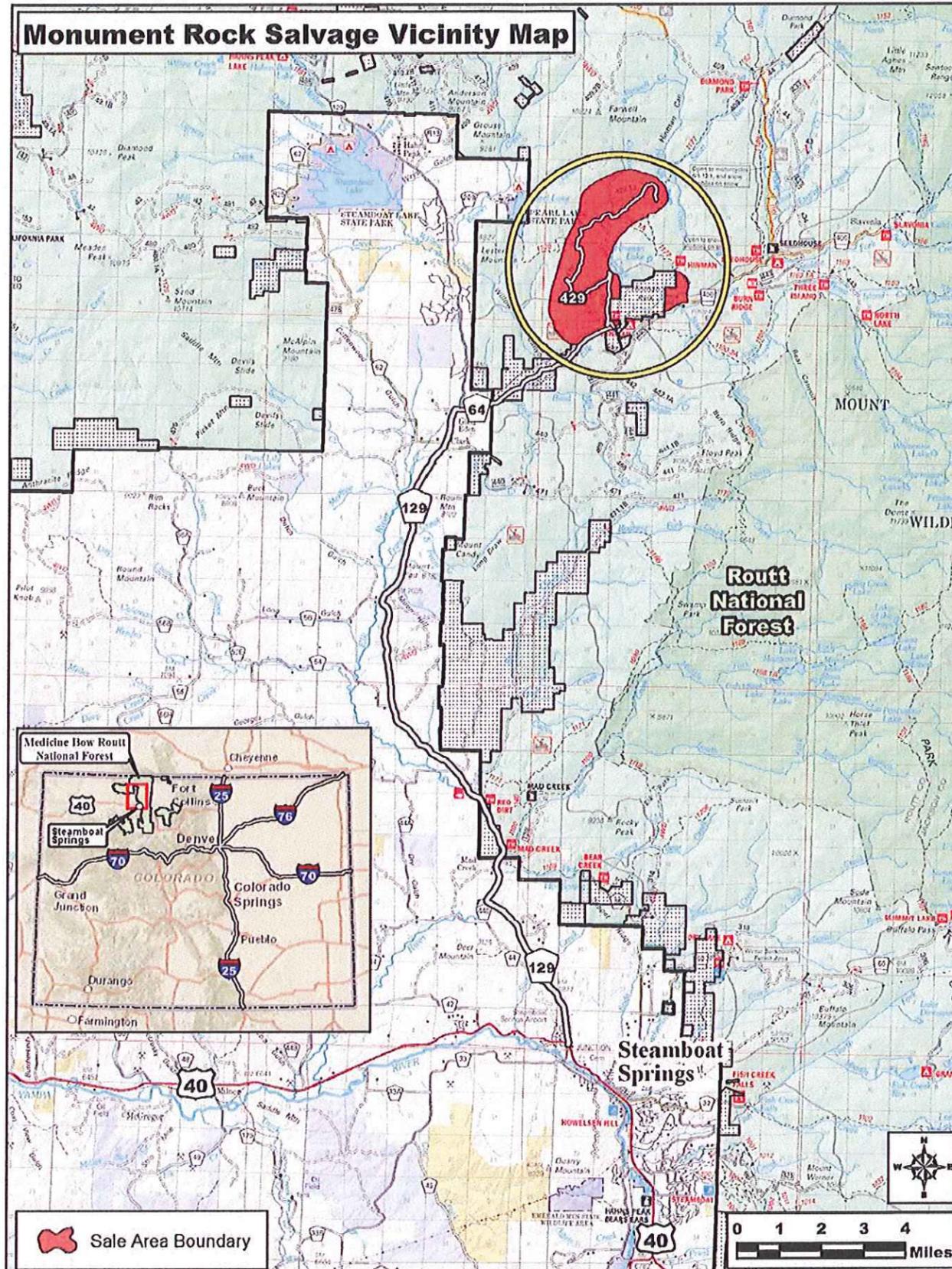
Dennis Jaeger, Forest Supervisor

Date

Medicine Bow-Routt National Forests
And
Thunder Basin National Grassland

PROJECT NAME:

Monument Rock Salvage Timber Sale



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

R-2

ROCKY MOUNTAIN REGION

A7 DRAWINGS FOR SPECIFIED ROAD
RECONSTRUCTION FOR
**MONUMENT ROCK
SALVAGE
TIMBER SALE**

HAHNS PEAK/BEARS EARS RANGER DISTRICT

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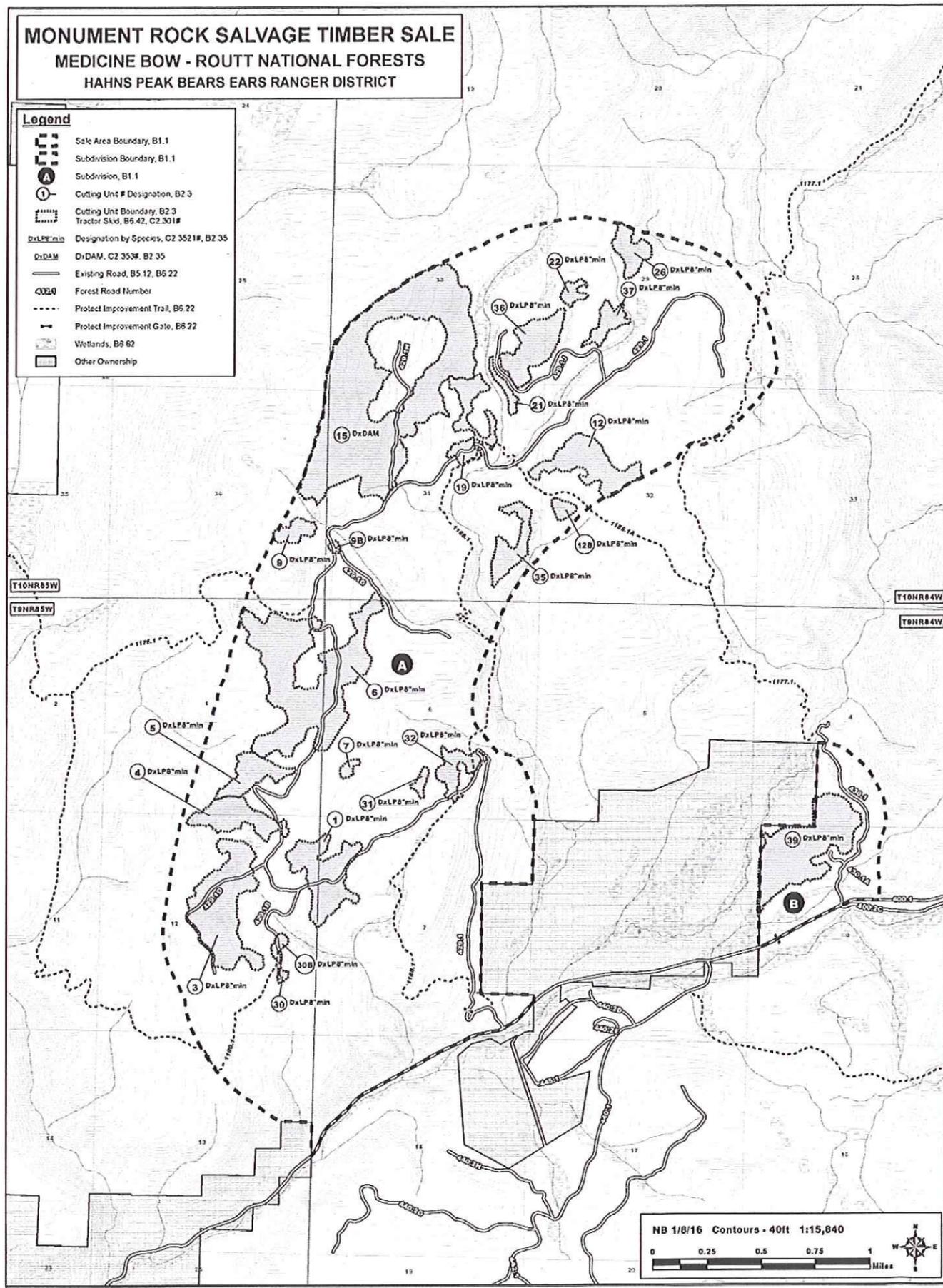
SHEET TITLE:
Title Sheet & Transportation Vicinity Map

SCALE:
None

SHEET:
1 of 18

MONUMENT ROCK SALVAGE TIMBER SALE
MEDICINE BOW - ROUTT NATIONAL FORESTS
HAHNS PEAK BEARS EARS RANGER DISTRICT

- Legend**
- Sale Area Boundary, B1.1
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 - Cutting Unit # Designation, B2.3
 - Cutting Unit # Designation, B2.3
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 - Protect Improvement Gate, B6.22
 - Wetlands, B5.62
 - Other Ownership



SPECIFIED ROADS LISTING

Road No.	Road Name	Design Class	Reconstruction (Miles)
429.1	Coulton Creek	SingleLane/5mph	6.68
429.1B	Guest	SingleLane/5mph	0.43
429.1D	Hunt Camp	SingleLane/10mph	0.80
429.1G	Hideout	SingleLane/5mph	0.33
429.1H	Trinket	SingleLane/5mph	0.75
429.1J	Crosshair	SingleLane/5mph	0.63
430.1	Hinman Lake	SingleLane/5mph	0.28
430.1A	Hinman Dispersed Campground	SingleLane/5mph	0.07

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 ROCKY MOUNTAIN REGION

Medicine Bow-Routt National Forests
 And
 Thunder Basin National Grassland

PROJECT NAME:
 Monument Rock Salvage Timber Sale

SHEET TITLE:
 Transportation Map & Specified Roads Listing

SCALE: None | SHEET: 2 of 18

GENERAL NOTES:

1. Work shall conform to 'Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects' (FP-03), <http://fh.fhwa.dot.gov/resources/pse/specs/fp-03usc.pdf>, and associated supplemental specifications.
2. All road work herein described in this contract is paid for directly and indirectly under the pay item numbers listed in the Summary of Quantities.
3. **Section 156 — Public Traffic**
Traffic Control shall conform to Timber Sale provision B6.33.
4. **Item No. 204(04) — Unclassified Borrow, Compaction Method C, Finishing Method A**
Cost to generate, load, haul and place from Government borrow source. Acceptance of material will be by visual inspection by CO. No gradation testing required. Measurement will be in place. Commercial pit-run (4" maximum) may be used in lieu of Government borrow source, at no additional expense to the Government.
5. **Item No. 204(20) — Drainage Excavation, Rolling Dip —or— Grade Dip**
Water not required for dust abatement or compaction.
6. **Item No. 212(01) — Linear Grading**
Travelway clearing & grubbing, surface blading, and ditch maintenance are incidental to pay item 212(01). Unless noted otherwise, maintenance of rolling dips, grade dips, drainage dips, and lead-out ditches is incidental to pay item.
7. **Item No. 230(50) — Roadside Brushing**
Slash and stump disposal is incidental to pay item. Slash disposal method: Scattering.
8. **Item No. 303(26) — Road Reconditioning**
Travelway surface blading, and ditch maintenance are incidental to pay item 303(26). Maintenance of all existing features, including rolling dips, grade dips, drainage dips, and lead-out ditches, is incidental to pay item.
9. **Item No. 322(01) — Aggregate Base**
AB = Aggregate Base
Cost to haul and place from commercial source. Use CDOT gradations (see table on right). Compact per 324.05 — Method A. Measurement will be in place. Acceptance of material quantities and depths will be by visual inspection by CO; acceptance of gradation will be by certified test results provided by commercial supplier. No new gradation testing required.

10. **Section 703 — Aggregate**
Refer to CDOT aggregate base specifications, table below:

**Table 703-3
CLASSIFICATION FOR AGGREGATE BASE COURSE**

Sieve Size	Mass Percent Passing Square Mesh Sieves						
	LL not greater than 35			LL not greater than 30			
	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7
150mm (6")			100				
100mm (4")		100					
75mm (3")		95-100					
60mm (2 1/2")	100						
50mm (2")	95-100			100			
37.5mm (2")				90-100	100		
25mm (1")					95-100		100
19mm (3/4")				50-90		100	
4.75mm (#4)	30-65			30-50	30-70	30-65	
2.36mm (#8)						25-55	20-85
75 µm (#200)	3-15	3-15	20 max	3-12	3-15	3-12	5-15

NOTE: Class 3 material shall consist of bank or pit run material.

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FOREST SERVICE

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ROCKY MOUNTAIN REGION

Medicine Bow-Routt National Forests
And
Thunder Basin National Grassland

PROJECT NAME:

Monument Rock Salvage Timber Sale

SHEET TITLE:
General Notes

SCALE:
None

SHEET:
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SUMMARY OF QUANTITIES

					ROAD NUMBER								TOTALS	
					429.1	429.1B	429.1D	429.1G	429.1H	429.1J	430.1	430.1A		TOTALS
RECONSTRUCTION LENGTH (MILES)					6.68	0.43	0.80	0.33	0.75	0.63	0.28	0.07		9.97
ITEM NO.	DESCRIPTION	METHOD OF MEASURE	UNIT	REVISION DATE	QUANTITIES									
151(01)	Mobilization	CQ	LS	2005	1	-	-	-	-	-	-	-		1
204(04)	Unclassified Borrow, Compaction Method C, Finishing Method A	CQ	CY	2005	-	-	40	-	-	-	-	-		40
204(20)	Drainage Excavation, Type - Rolling Dip	CQ	Each	2005	21	-	3	1	1	2	-	-		28
204(20)	Drainage Excavation, Type - Grade Dip	CQ	Each	2005	33	4	7	1	2	3	3	-		53
212(01)	Linear Grading	CQ	Mile	2004	0.11	0.02	0.02	0.02	0.02	0.02	0.28	-		0.49
230(50)	Roadside Brushing, Slash Disposal <u>Scattering</u>	CQ	Mile	2005	-	-	0.80	0.33	-	-	-	0.07		1.20
303(26)	Road Reconditioning	CQ	Mile	2005	-	-	0.80	0.33	-	-	-	0.07		1.20
322(01)	Aggregate Base, Grading CDOT Class 1, Compaction Method A	CQ	Ton	2005	945	-	-	15	15	-	105	-		1080
322(01)	Aggregate Base, Grading CDOT Class 5, Compaction Method A	CQ	Ton	2005	75	-	-	-	-	-	-	15		90
607(10)	Reconditioning Drainage Structures, culvert	CQ	Each	2005	1	-	-	-	-	1	-	-		2

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ROCKY MOUNTAIN REGION

**Medicine Bow-Routt National Forests
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PROJECT NAME:
Monument Rock Salvage Timber Sale

SHEET TITLE:
Summary of Quantities

SCALE: None SHEET: 4 of 18

SCHEDULE OF ITEMS

Timber Sale Monument Rock Timber Sale

Road No. 429.1D

Road Name Hunt Camp

Reconstruction Length (Miles) 0.80

Item Number	Description	Method of Meas.	Unit	Quantity	Unit Price	Total
204(04)	Unclassified Borrow, Compaction Method C, Finishing Method A	CQ	CY	40	\$ 35.77	\$ 1,430.80
204(20)	Drainage Excavation, Type - Rolling Dip	CQ	Each	3	\$ 153.83	\$ 461.49
204(20)	Drainage Excavation, Type - Grade Dip	CQ	Each	7	\$ 115.37	\$ 807.59
212(01)	Linear Grading	CQ	Mile	0.02	\$ 7,691.50	\$ 153.83
230(50)	Roadside Brushing, Slash Disposal <u>Scattering</u>	CQ	Mile	0.80	\$ 359.76	\$ 287.81
303(26)	Road Reconditioning	CQ	Mile	0.80	\$ 1,845.96	\$ 1,476.77
322(01)	Aggregate Base Course, Grading CDOT Class 1, Compaction Method A	CQ	Ton	-	\$ 30.26	-
322(01)	Aggregate Base Course, Grading CDOT Class 5, Compaction Method A	CQ	Ton	-	\$ 33.70	-
607(10)	Reconditioning drainage structures, culvert	CQ	Each	-	\$ 81.94	-
					SUB-TOTAL:	\$ 4,618.29
					TOTAL ALL ROADS:	\$59,019.18

SCHEDULE OF ITEMS

Timber Sale Monument Rock Timber Sale

Road No. 429.1G

Road Name Hideout

Reconstruction Length (Miles) 0.33

Item Number	Description	Method of Meas.	Unit	Quantity	Unit Price	Total
204(04)	Unclassified Borrow, Compaction Method C, Finishing Method A	CQ	CY	-	\$ 35.77	-
204(20)	Drainage Excavation, Type - Rolling Dip	CQ	Each	1	\$ 153.83	\$ 153.83
204(20)	Drainage Excavation, Type - Grade Dip	CQ	Each	1	\$ 115.37	\$ 115.37
212(01)	Linear Grading	CQ	Mile	0.02	\$ 7,691.50	\$ 153.83
230(50)	Roadside Brushing, Slash Disposal <u>Scattering</u>	CQ	Mile	0.33	\$ 359.76	\$ 118.72
303(26)	Road Reconditioning	CQ	Mile	0.33	\$ 1,845.96	\$ 609.17
322(01)	Aggregate Base Course, Grading CDOT Class 1, Compaction Method A	CQ	Ton	15	\$ 30.26	\$ 453.90
322(01)	Aggregate Base Course, Grading CDOT Class 5, Compaction Method A	CQ	Ton	-	\$ 33.70	-
607(10)	Reconditioning drainage structures, culvert	CQ	Each	-	\$ 81.94	-
					SUB-TOTAL:	\$ 1,604.82
					TOTAL ALL ROADS:	\$59,019.18

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

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ROCKY MOUNTAIN REGION

**Medicine Bow-Routt National Forests
And
Thunder Basin National Grassland**

PROJECT NAME:

Monument Rock Salvage Timber Sale

SHEET TITLE:

Schedule of Items

SCALE:

None

SHEET:

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DESCRIPTION OF WORK -- NFSR 429.1

Item Number	204(20)	204(20)	212(01)	322(01)	322(01)	607(10)	Remarks:
Unit of Measure	Each	Each	Mile	Ton	Ton	Each	
Station	Description of Work						
0+00			0.02		15		Beginning of Project (B.O.P.) Intersection with NFSR 400.1. Construct Type I intersection and place 15 tons 1.5-inch minus AB to cap intersection and protect pavement transition.
14+59							Landmark: Closure Gate
20+60							Landmark: Intersection with NFS Trail
23+00					15		Armor Rolling Dip with 15 tons 1.5-inch minus aggregate base (AB).
TBD			0.03				Construct turnout (location to be determined & staked by engineering representative)
30+41			0.01		15		Place 15 tons 1.5-inch minus AB to 4-inch compacted depth; inslope road to drain at culvert; repair fill slope erosion (unauthorized trail).
63+00					15		Place 15 tons 1.5-inch minus to cap and protect culvert. Compact to 6-inch depth, centered at pipe and tapered both directions.
64+31			0.01	15			Fill slope erosion: place 15 tons 2.5-inch minus AB in hole to restore road shoulder, utilize 6-inch compacted lifts. Shape to drain at STA 63+00 culvert.
81+38			0.02				Construct Turnaround (right) at switchback
83+00							Landmark: Aggregate surfacing ends.
93+18	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB. Preserve trail above.
93+40							Landmark: Intersection with NFS Trail
96+92		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
99+04		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
102+10		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB; install below culvert as diversion potential dip (overflow, in case pipe fails).
108+99		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
114+27		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
120+43		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
122+50		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
127+12		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
128+59		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB

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ROCKY MOUNTAIN REGION

DESCRIPTION OF WORK -- NFSR 429.1 continued...

Item Number	204(20)	204(20)	212(01)	322(01)	322(01)	607(10)	Remarks:
Unit of Measure	Each	Each	Mile	Ton	Ton	Each	
Station	Description of Work						
131+65		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
134+99		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
138.93	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
142+15							Landmark: Intersection with NFSR 429.1B (left)
145+62	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
150+60				15			Place 15 tons 2.5-inch minus AB to 4-inch compacted depth, centered at stake
151+66		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
154+49							Landmark: Intersection with NFSR 429.1D (left)
156+72		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
161+71		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
163+21				15			Place 15 tons 2.5-inch minus AB to 4-inch compacted depth, centered at stake; shape road to drain at culvert
167+38					15	1	Repair & clean 18-inch culvert; cap with 15 tons 1.5-inch minus AB to 4-inch compacted depth; center AB at pipe, outslope to drain; block ditch to divert flow through pipe
173+26	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
177+08			0.02				Landmark: Intersection with old temporary road (left); Construct Turnaround, move closure barrier/debris back 75 feet
179+92	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
185+32	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
186+76		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
190+18	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB

**Medicine Bow-Routt National Forests
And
Thunder Basin National Grassland**

PROJECT NAME:

Monument Rock Salvage Timber Sale

SHEET TITLE:

Description of Work

SCALE:

None

SHEET:

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DESCRIPTION OF WORK -- NFSR 429.1 continued...

Item Number	Drainage Excavation, Type - Rolling Dip	Drainage Excavation, Type - Grade Dip	Linear Grading	Aggregate Base Course, Grading CDOT Class 1, Compaction Method A	Aggregate Base Course, Grading CDOT Class 5, Compaction Method A	Reconditioning drainage structures, culvert	Remarks:
	204(20)	204(20)	212(01)	322(01)	322(01)	607(10)	
Unit of Measure	Each	Each	Mile	Ton	Ton	Each	
Station	Description of Work						
193+09		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
195+60				30			Place 30 tons 2.5-inch minus AB to 4-inch compacted depth, centered at stake
198+10				15			Place 15 tons 2.5-inch minus AB to 4-inch compacted depth, centered at stake
203+32		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
207+88		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
215+21		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
220+39		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
224+83				15			Place 15 tons 2.5-inch minus AB to 4-inch compacted depth, centered at stake
226+95				15			Place 15 tons 2.5-inch minus AB to 4-inch compacted depth, centered at stake
231+40		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
232+07		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
236+35	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
241+50	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
242+70							Landmark: Intersection with NFS Trail
243+83	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
247+92	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
250+27	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
255+43		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB

DESCRIPTION OF WORK -- NFSR 429.1 continued...

Item Number	Drainage Excavation, Type - Rolling Dip	Drainage Excavation, Type - Grade Dip	Linear Grading	Aggregate Base Course, Grading CDOT Class 1, Compaction Method A	Aggregate Base Course, Grading CDOT Class 5, Compaction Method A	Reconditioning drainage structures, culvert	Remarks:
	204(20)	204(20)	212(01)	322(01)	322(01)	607(10)	
Unit of Measure	Each	Each	Mile	Ton	Ton	Each	
Station	Description of Work						
257+40							Landmark: Intersection with NFSR 429.1G (right)
260+20							Landmark: Existing log crossing - OK
262+04		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB (overflow for culvert)
262+88							Landmark: Two-Bull Creek Crossing
267+13		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
271+13		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
273+40		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
276+10		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
279+16		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
281+48							Landmark: Intersection with NFSR 429.1H (left)
284+44	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
287+83				15			Place 15 tons 2.5-inch minus AB to 6-inch compacted depth, centered at pipe & tapered out
295+70		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
302+84		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
309+02							Landmark: Intersection with NFS Trail
309+90	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
313+25	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
314+96	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

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ROCKY MOUNTAIN REGION

**Medicine Bow-Routt National Forests
And
Thunder Basin National Grassland**

PROJECT NAME:

Monument Rock Salvage Timber Sale

SHEET TITLE:

Description of Work

SCALE:

None

SHEET:

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DESCRIPTION OF WORK -- NFSR 429.1 continued...

Item Number	Drainage Excavation, Type - Rolling Dip	Drainage Excavation, Type - Grade Dip	Linear Grading	Aggregate Base Course, Grading CDOT Class 1, Compaction Method A	Aggregate Base Course, Grading CDOT Class 5, Compaction Method A	Reconditioning drainage structures, culvert	Remarks:
	204(20)	204(20)	212(01)	322(01)	322(01)	607(10)	
Unit of Measure	Each	Each	Mile	Ton	Ton	Each	
Station	Description of Work						
315+93	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB (immediately above crossing)
318+47	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
320+57	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
321+42							Landmark: Intersection with NFS Trail
322+96							Landmark: Intersection with road (right)
328+58		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB
338+50		1		15			Construct Grade Dip, Armor with 15 tons 2.5-inch minus AB; shape roadway from here to 339+23 to drain at dip
342+60	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
348+22	1			15			Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB
351+91							Landmark: Intersection with NFSR 429.1J (left)
352+75							End of Project (E.O.P.)
TOTAL	21	33	0.11	945	75	1	

DESCRIPTION OF WORK -- NFSR 429.1B

Item Number	Drainage Excavation, Type - Grade Dip	Linear Grading				Remarks:
	204(20)	212(01)				
Unit of Measure	Each	Mile				
Station	Description of Work					
0+00						B.O.P. Intersection with NFSR 429.1. Move boulder to inside curve, out of travelled way.
5+80	1					Construct Grade Dip
10+60	1					Construct Grade Dip (serves as overflow drain for culvert at 11+10)
14+50	1					Construct Grade Dip
20+40	1					Construct Grade Dip
21+15			0.02			Construct turnaround (right); protect trail
21+50						Landmark: Intersection NFS Trail
22+50						E.O.P.
TOTAL	4	0.02				

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Monument Rock Salvage Timber Sale

SHEET TITLE:
Description of Work

SCALE:
None

SHEET:
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DESCRIPTION OF WORK -- NFSR 429.1D

Item Number	Unclassified Borrow, Compaction Method C, Finishing Method A	Drainage Excavation, Type - Rolling Dip	Drainage Excavation, Type - Grade Dip	Linear Grading	Roadside Brushing	Road Reconditioning	Remarks:
Unit of Measure	CY	Each	Each	Mile	Mile	Mile	
Station	Description of Work						
0+00							B.O.P. Intersection with NFSR 429.1. Begin reconditioning, Typical Section C14 with outslope. Begin roadside brushing.
3+50							Landmark: Down trees - road not driveable beyond this point.
5+05			1				Construct Grade Dip at crossing; customize dip length to site (don't follow typical drawing)
6+45		1					Construct Rolling Dip at crossing
10+15		1					Construct Rolling Dip
14+00			1				Construct Grade Dip
18+00			1				Construct Grade Dip; transition subgrade with lift (borrow-next item)
18+50	40						Place 40 CY borrow at 6-inch compacted depth, transitioning from 18+00 to 20+00. Shape roadway to drain at 18+00 grade dip.
21+50							Thru-cut; borrow site. Material within 5 feet of both shoulders may be utilized to generate 40 CY. Leave remaining slopes flatter than, or equal to, 2:1.
26+00			1				Construct Grade Dip
29+00		1					Construct Rolling Dip
30+75			1				Construct Grade Dip
32+50			1				Construct Grade Dip
39+00			1				Construct Grade Dip
41+00				0.02			Construct Turnaround (left - at old landing)
42+00					↓	↓	E.O.P. End reconditioning, end roadside brushing.
TOTAL	40	3	7	0.02	0.80	0.80	

DESCRIPTION OF WORK -- NFSR 429.1G

Item Number	Drainage Excavation, Type - Rolling Dip	Drainage Excavation, Type - Grade Dip	Linear Grading	Roadside Brushing	Road Reconditioning	Aggregate Base Course, Grading CDOT Class 1, Compaction Method A	Remarks:
Unit of Measure	Each	Each	Mile	Mile	Mile	Ton	
Station	Description of Work						
0+00							B.O.P. Intersection with NFSR 429.1. Begin reconditioning, Typical Section D14 with inslope. Begin roadside brushing.
11+45		1					Construct Grade Dip
12+50	1						Construct Rolling Dip
17+15			0.02			15	Construct Turnaround (right); Place 15 ton 2.5-inch minus AB at 3-inch depth to harden
17+65				↓	↓		E.O.P.
TOTAL	1	1	0.02	0.33	0.33	15	

U.S. DEPARTMENT OF AGRICULTURE
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ROCKY MOUNTAIN REGION

**Medicine Bow-Routt National Forests
And
Thunder Basin National Grassland**

PROJECT NAME:

Monument Rock Salvage Timber Sale

SHEET TITLE:

Description of Work

SCALE:

None

SHEET:

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DESCRIPTION OF WORK -- NFSR 429.1H						
Item Number	Drainage Excavation, Type - Rolling Dip	Drainage Excavation, Type - Grade Dip	Linear Grading	Aggregate Base Course, Grading CDOT Class 1, Compaction Method A		Remarks:
204(20)						1) Road is generally in good condition; blading, roadside brushing, ditch cleaning, culvert cleaning are considered maintenance under contract (per separate provision C5.31#). Only specified road work items are listed below. 2) Always maintain cross-slope in travelled way for drainage, 2-4%. Match existing inslope or outslope configuration except where noted.
204(20)						
212(01)						
322(01)						
Unit of Measure	Each	Each	Mile	Ton		
Station	Description of Work					
0+00	B.O.P. Intersection with NFSR 429.1.					
5+15	Landmark: Intersection with road (left)					
12+90	1			15		Construct Rolling Dip, Armor with 15 tons 2.5-inch minus AB (spring uphill); shape outlet to drain past slash pile
24+40	Landmark: Intersection with road (right)					
33+10		1				Construct Grade Dip (overflow for culvert)
35+27			0.02			Construct Turnaround (left); remove log
39+30		1				Construct Grade Dip
39+75	Down tree blocking road. E.O.P.					
TOTAL	1	2	0.02	15		

DESCRIPTION OF WORK -- NFSR 429.1J						
Item Number	Drainage Excavation, Type - Rolling Dip	Drainage Excavation, Type - Grade Dip	Linear Grading			Remarks:
204(20)						1) Road is generally in good condition; blading, roadside brushing, ditch cleaning, are considered maintenance under contract (per separate provision C5.31#). Only specified road work items are listed below. 2) Always maintain cross-slope in travelled way for drainage, 2-4%. Match existing inslope or outslope configuration except where noted.
204(20)						
212(01)						
607(10)						
Unit of Measure	Each	Each	Mile			
Station	Description of Work					
0+00	B.O.P. Intersection with NFSR 429.1.					
5+26	1					Construct Rolling Dip
6+95					1	Repair existing 24-inch culvert inlet. Add 15 tons 2.5-inch minus AB at 4-inch compacted depth.
7+00		1				Construct grade dip as overflow drain
13+50		1				Construct Grade Dip
13+89	Landmark: Intersection road (right)					
17+42	1					Construct Rolling Dip
26+82		1				Construct Grade Dip
31+85			0.02			Construct Turnaround (left)
33+30	E.O.P.					
TOTAL	2	3	0.02		1	

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 ROCKY MOUNTAIN REGION

Medicine Bow-Routt National Forests
 And
 Thunder Basin National Grassland
 PROJECT NAME:
 Monument Rock Salvage Timber Sale

SHEET TITLE:
 Description of Work
 SCALE: None
 SHEET: 13 of 18

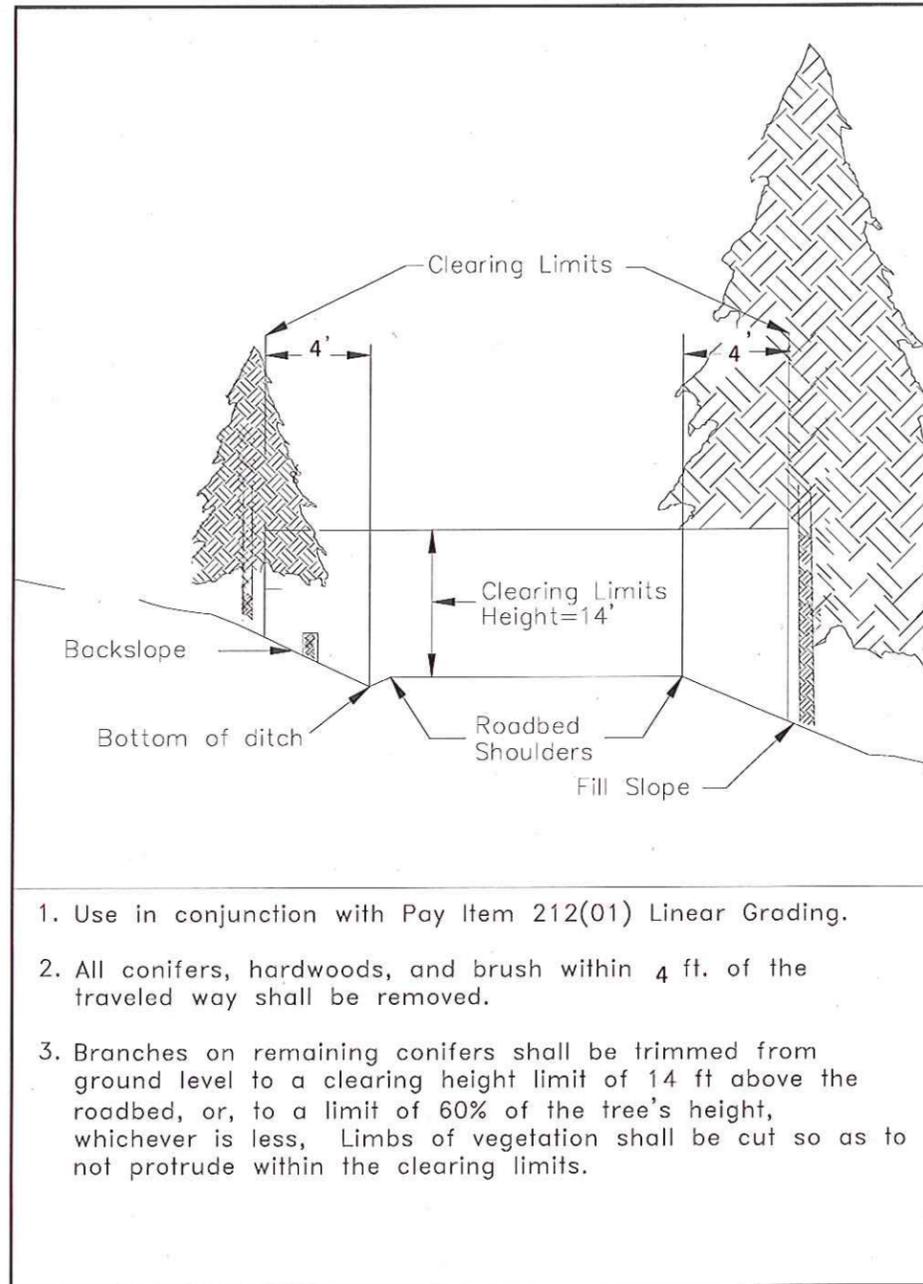
DESCRIPTION OF WORK -- NFSR 430.1						
Item Number	Drainage Excavation, Type - Grade Dip	Linear Grading		Aggregate Base Course, Grading CDOT Class 1, Compaction Method A		Remarks:
Unit of Measure	Each	Mile		Ton		
Station	Description of Work					
0+00						B.O.P. Intersection with NFSR 400.1. Begin Linear Grading, Typical Section C14 with outslope. Construct Type I intersection.
2+54	1			45		Construct Grade Dip, Armor w/ 45 tons 2.5 inch minus AB at 6-inch depth
3+61	1			45		Construct Grade Dip, Armor w/ 45 tons 2.5 inch minus AB at 6-inch depth
10+44						Landmark: Intersection with NFSR 430.1A (left)
13+04	1			15		Construct Grade Dip, Armor w/ 15 tons 2.5 inch minus AB
14+30						Install turnaround (left)
14+67						E.O.P. End Linear Grading.
TOTAL	3	0.28		105		

DESCRIPTION OF WORK -- NFSR 430.1A						
Item Number			Roadside Brushing	Road Reconditioning	Aggregate Base Course, Grading CDOT Class 5, Compaction Method A	Remarks:
Unit of Measure			Mile	Mile	Ton	
Station	Description of Work					
0+00						B.O.P. Intersection with NFSR 430.1. Begin Reconditioning. Begin Roadside Brushing. Typical Section C14 with outslope.
2+79					15	Place 15 tons 1.5-inch minus AB to 4-inch compacted depth (center at stake, approximately 50 linear feet total). Shape subgrade, remove ruts prior to rocking.
3+82						End of Project (E.O.P.) End Roadside Brushing. End Reconditioning.
TOTAL			0.07	0.07	15	

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 ROCKY MOUNTAIN REGION

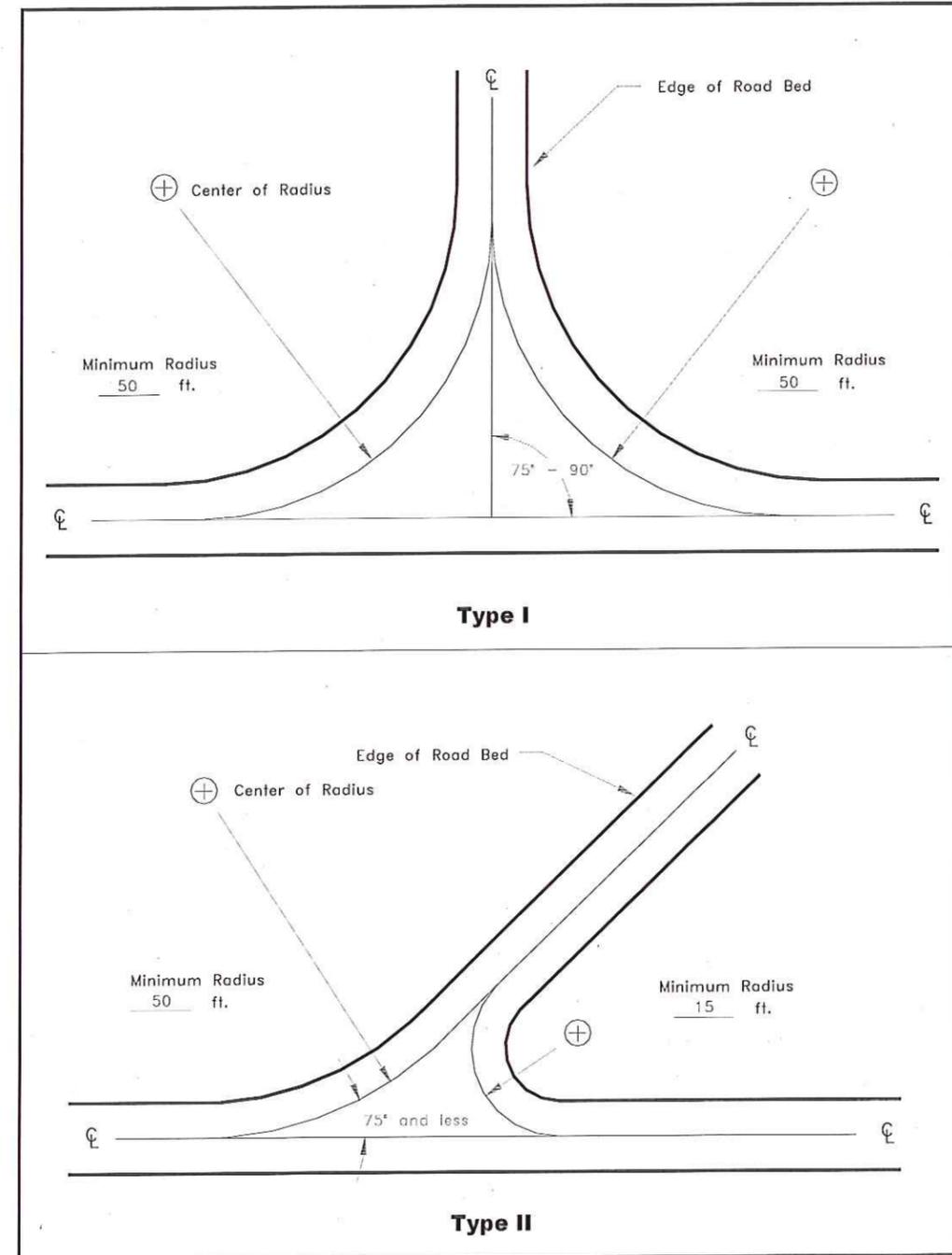
Medicine Bow-Routt National Forests
 And
 Thunder Basin National Grassland
 PROJECT NAME:
 Monument Rock Salvage Timber Sale

SHEET TITLE:
 Description of Work
 SCALE: None SHEET: 14 of 18



1. Use in conjunction with Pay Item 212(01) Linear Grading.
2. All conifers, hardwoods, and brush within 4 ft. of the traveled way shall be removed.
3. Branches on remaining conifers shall be trimmed from ground level to a clearing height limit of 14 ft above the roadbed, or, to a limit of 60% of the tree's height, whichever is less, Limbs of vegetation shall be cut so as to not protrude within the clearing limits.

CLEARING LIMITS DETAIL And 230(50) Roadside Brushing. 212-01



TYPICAL INTERSECTION TYPE I AND II 212-01

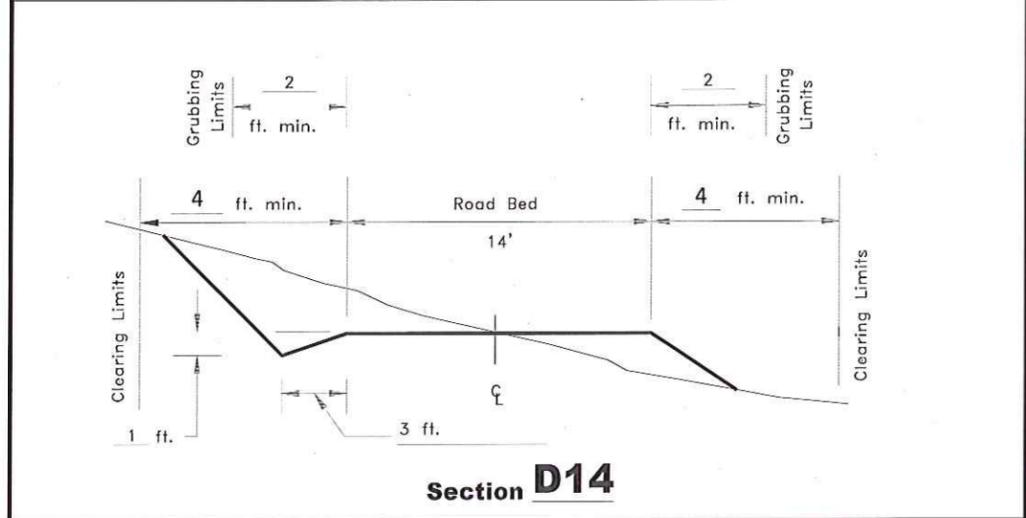
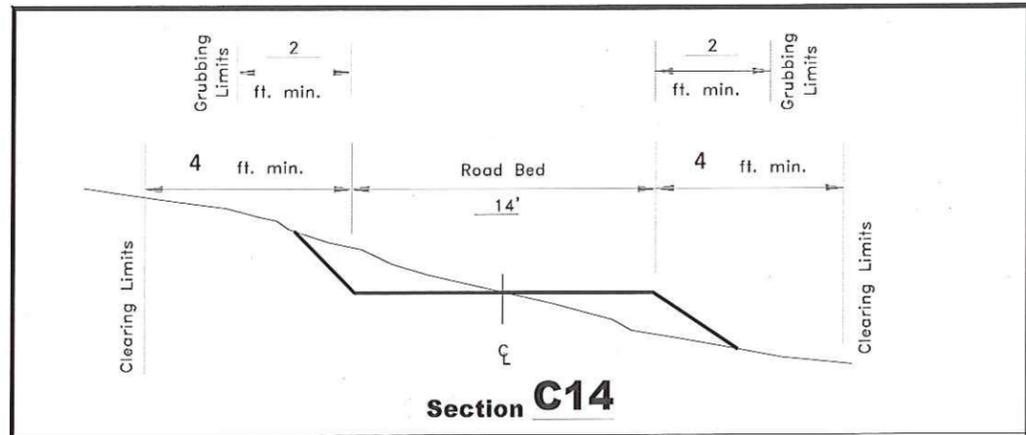
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 ROCKY MOUNTAIN REGION

**Medicine Bow-Routt National Forests
 And
 Thunder Basin National Grassland**

PROJECT NAME:
 Monument Rock Salvage Timber Sale

SHEET TITLE:
 Clearing Detail & Intersection Typicals

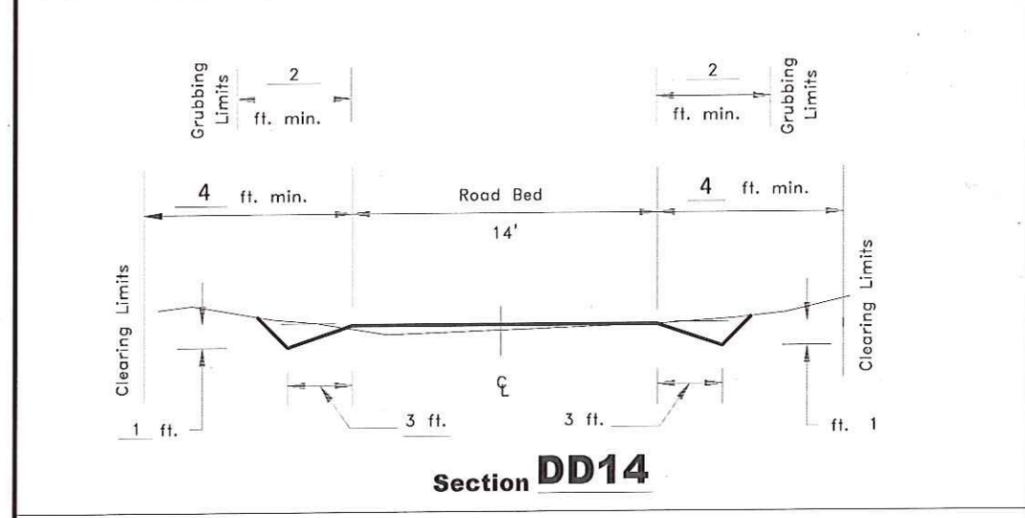
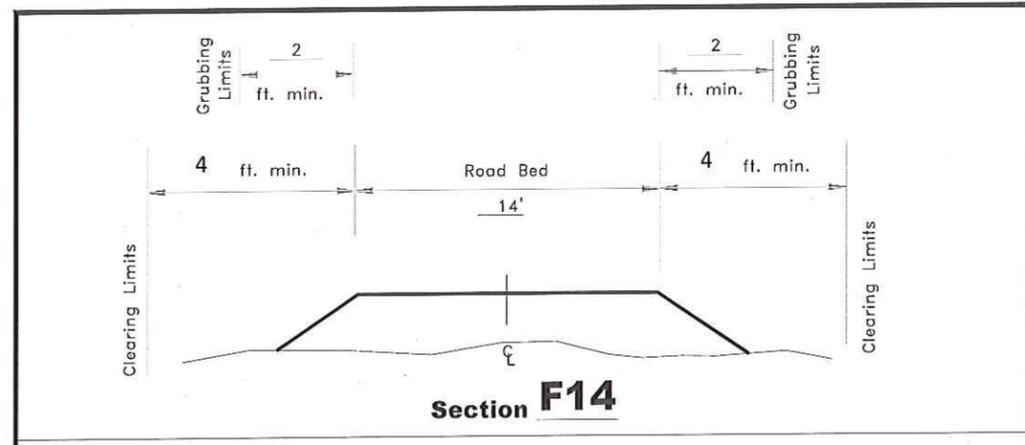
SCALE: None	SHEET: 15 of 18
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1. Cut slopes : 1.5:1
Fill slopes : 2:1
2. Road Bed width shown is without necessary widening for fill, sluff, curves, and turnouts. Required widening is included in the design and quantity calculations and is shown on the descriptions of work.
3. Construction Slash Treatment (203.05): Slash: Method F
Stumps: Method F
4. Oversize rock and unsuitable material shall be disposed of as approved by the CO.
5. Decking Areas shall be approved by the CO.
6. Road shall have a cross slope of 2% - 4%.

TYPICAL LINEAR GRADING SECTIONS

212-01



1. Cut slopes : 1.5:1
Fill slopes : 2:1
2. Road Bed width shown is without necessary widening for fill, sluff, curves, and turnouts. Required widening is included in the design and quantity calculations and is shown on the descriptions of work.
3. Construction Slash Treatment (203.05): Slash: Method F
Stumps: Method F
4. Oversize rock and unsuitable material shall be disposed of as approved by the CO.
5. Decking Areas shall be approved by the CO.
6. Road shall have a cross slope of 2% - 4%.

TYPICAL LINEAR GRADING SECTIONS

212-01

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ROCKY MOUNTAIN REGION

**Medicine Bow-Routt National Forests
And
Thunder Basin National Grassland**

PROJECT NAME:

Monument Rock Salvage Timber Sale

SHEET TITLE:

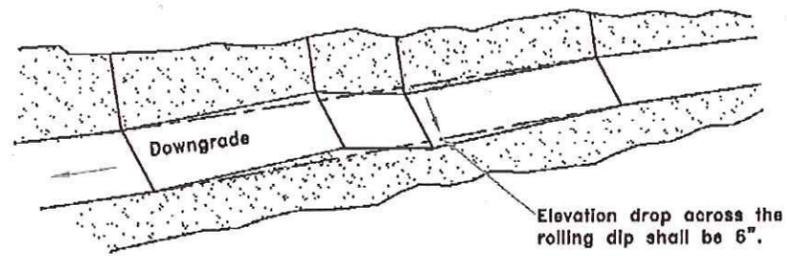
Typical Road Sections

SCALE:

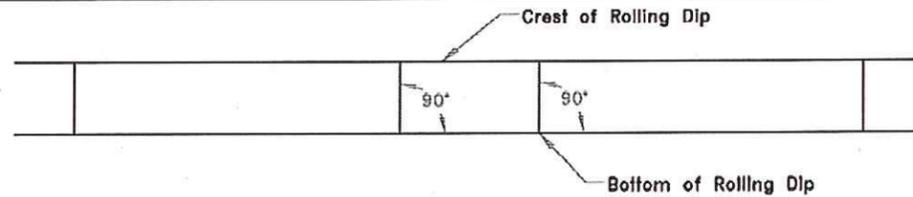
None

SHEET:

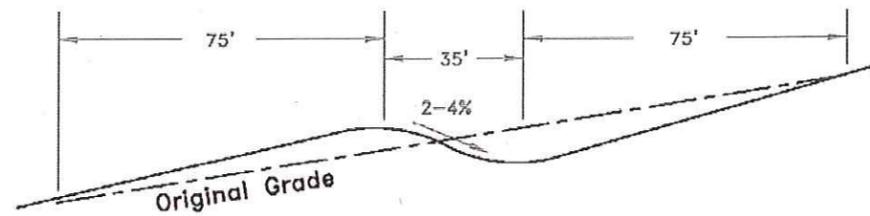
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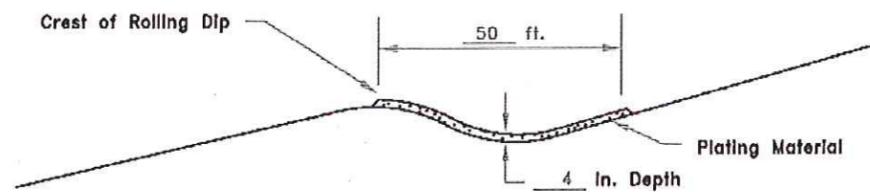
PERSPECTIVE VIEW



PLAN VIEW



PROFILE ROLLING DIP

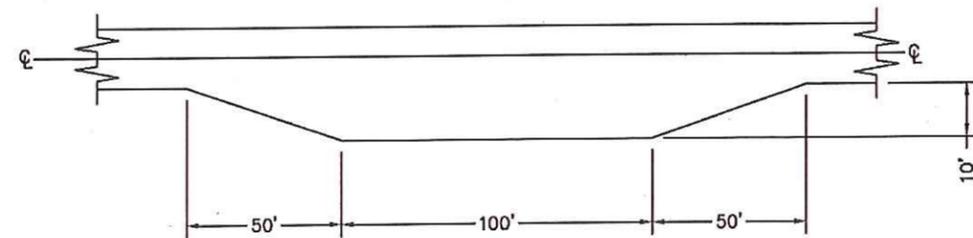


PROFILE ROLLING DIP WITH ARMOR/PLATING

1. When rolling dips are constructed in ditch sections the ditch shall drain across the rolling dip. Resume ditch construction 25' downgrade from the crest of the rolling dip.
2. Outlet drain ditches shall have cut slopes equal to or flatter than H1.5:V1. Excavation from outlet ditching shall be wasted along the sides of the ditch. All necessary clearing will be treated in with applicable specifications.
3. Tolerance class through the rolling dip shall be Class E (FSSS Table 204-2).

TYPICAL ROLLING DIP (R/D)

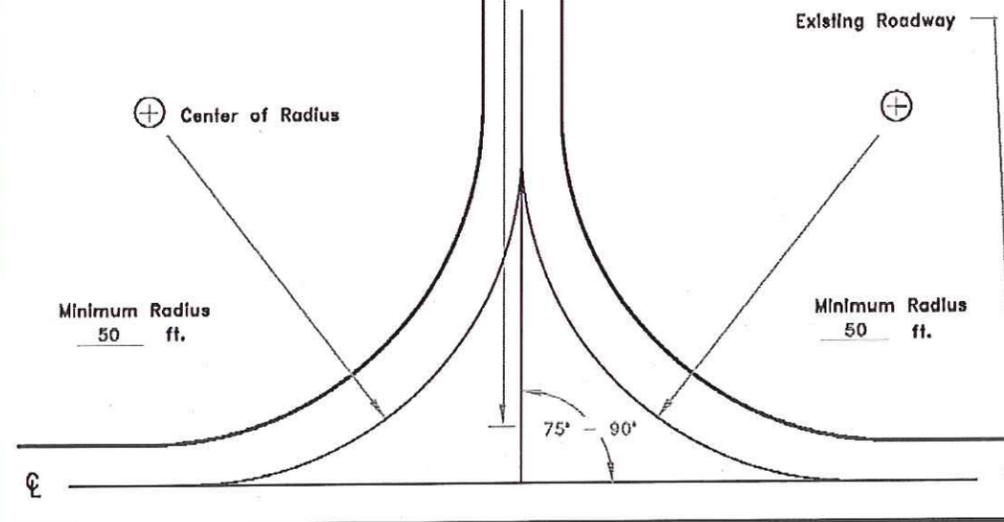
204-20A, 204-20B, 212-01



Turnout

*Match Vertical Grade to within ±5% of Existing Roadway

Minimum Turnaround Depth: 50 ft. off existing roadway



Turnaround

TYPICAL TURNOUT AND TURNAROUND

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ROCKY MOUNTAIN REGION

Medicine Bow-Routt National Forests
And
Thunder Basin National Grassland

PROJECT NAME:

Monument Rock Salvage Timber Sale

SHEET TITLE:

Rolling Dip, Turnout, Turnaround Typical

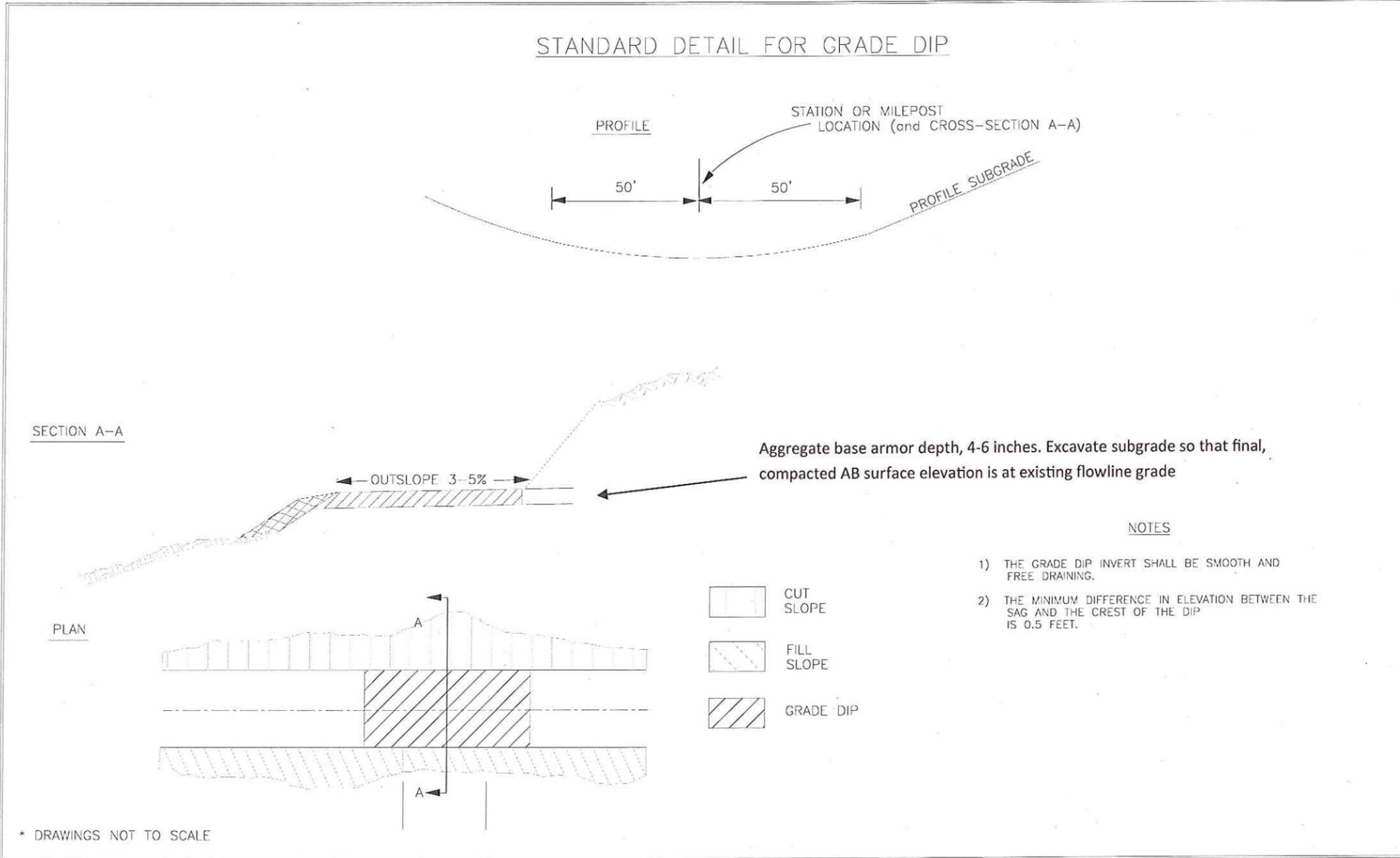
SCALE:

None

SHEET:

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STANDARD DETAIL FOR GRADE DIP



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 ROCKY MOUNTAIN REGION

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PROJECT NAME:
 Monument Rock Salvage Timber Sale

SHEET TITLE:
 Grade Dip Typical

SCALE: None	SHEET: 18 of 18
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