

# UNITED STATES DEPARTMENT OF AGRICULTURE

## FOREST SERVICE

PACIFIC NORTHWEST REGION

ROGUE RIVER – SISKIYOU NATIONAL FOREST

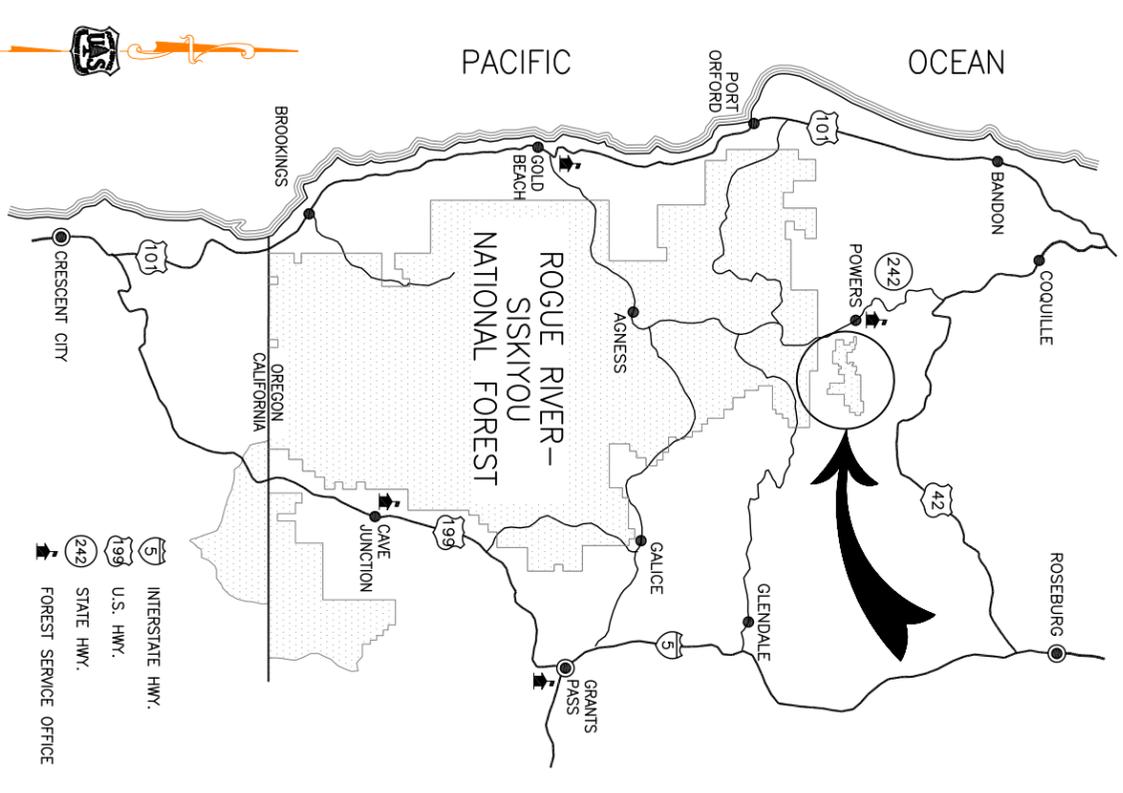
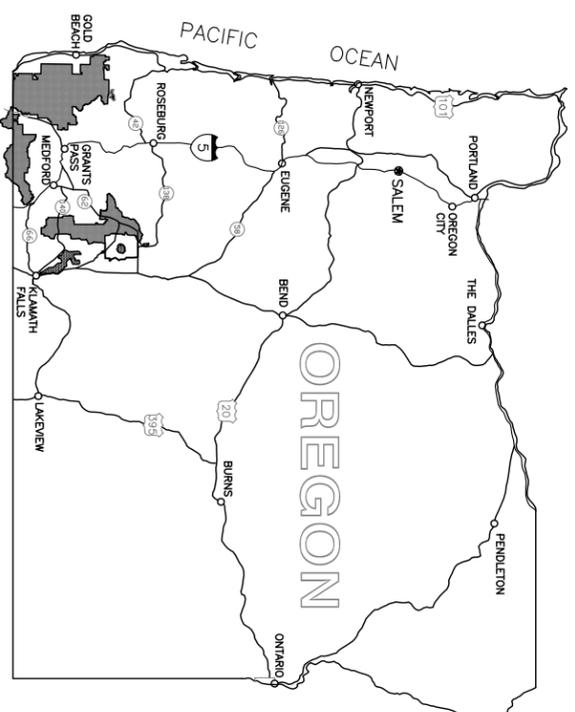
POWERS RANGER DISTRICT

COUNTY: COOS

PLANS FOR PROPOSED

### TWO SPOT TIMBER SALE

DESIGNED BY:	_____	Date	_____
PROJECT DESIGNER	_____	Date	_____
REVIEWED BY:	_____	Date	_____
REVIEWER	_____	Date	_____
RECOMMENDED BY:	_____	Date	_____
ASSISTANT FOREST ENGINEER	_____	Date	_____
APPROVED BY:	_____	Date	_____
REHLM STAFF OFFICER	_____	Date	_____
APPROVED BY:	_____	Date	_____
DISTRICT RANGER	_____	Date	_____
APPROVED BY:	_____	Date	_____
FOREST SUPERVISOR	_____	Date	_____



PROJECT LOCATION MAP  
Not to Scale



U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
**R6**  
PACIFIC NORTHWEST REGION

Forest: **ROGUE RIVER-SISKIYOU NATIONAL FOREST**  
District: **POWERS RANGER DISTRICT**

Design: D. SAMSON  
Drawn: D. SAMSON  
Checked: L. COOMBE  
Date: 7/2015

Sheet Title:  
**COVER SHEET**  
**TWO SPOT TIMBER SALE**

Project No:  
Sheet **1** OF **27**



U.S. DEPARTMENT OF AGRICULTURE  
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**R6**  
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Forest:  
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Design: D. SAMSON  
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Checked: L. COOMBE  
Date: 7/2015

Sheet Title:  
**INDEX TO SHEETS**  
**TWO SPOT TIMBER SALE**

Project No:  
Sheet **2** OF **27**

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5	PAY ITEM GENERAL NOTES
6	DRAINAGE LISTING
7	FSR 5000440 WORK LIST & QUANTITIES
8	FSR 5000520 WORK LIST & QUANTITIES
9	FSR 5000525 WORK LIST & QUANTITIES
10	FSR 5000530 WORK LIST & QUANTITIES
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12	FSR 5000520 MP 0.70 STREAM CROSSING, 2 OF 2
13-18	ROAD 5000525 PLAN & PROFILES
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20	CLEARING AND GRUBBING TYPICALS
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25	CULVERT CATCH BASIN & OUTLET DITCH
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27	TEMPORARY TRAFFIC CONTROL - SINGLE LANE CLOSURE LAYOUT



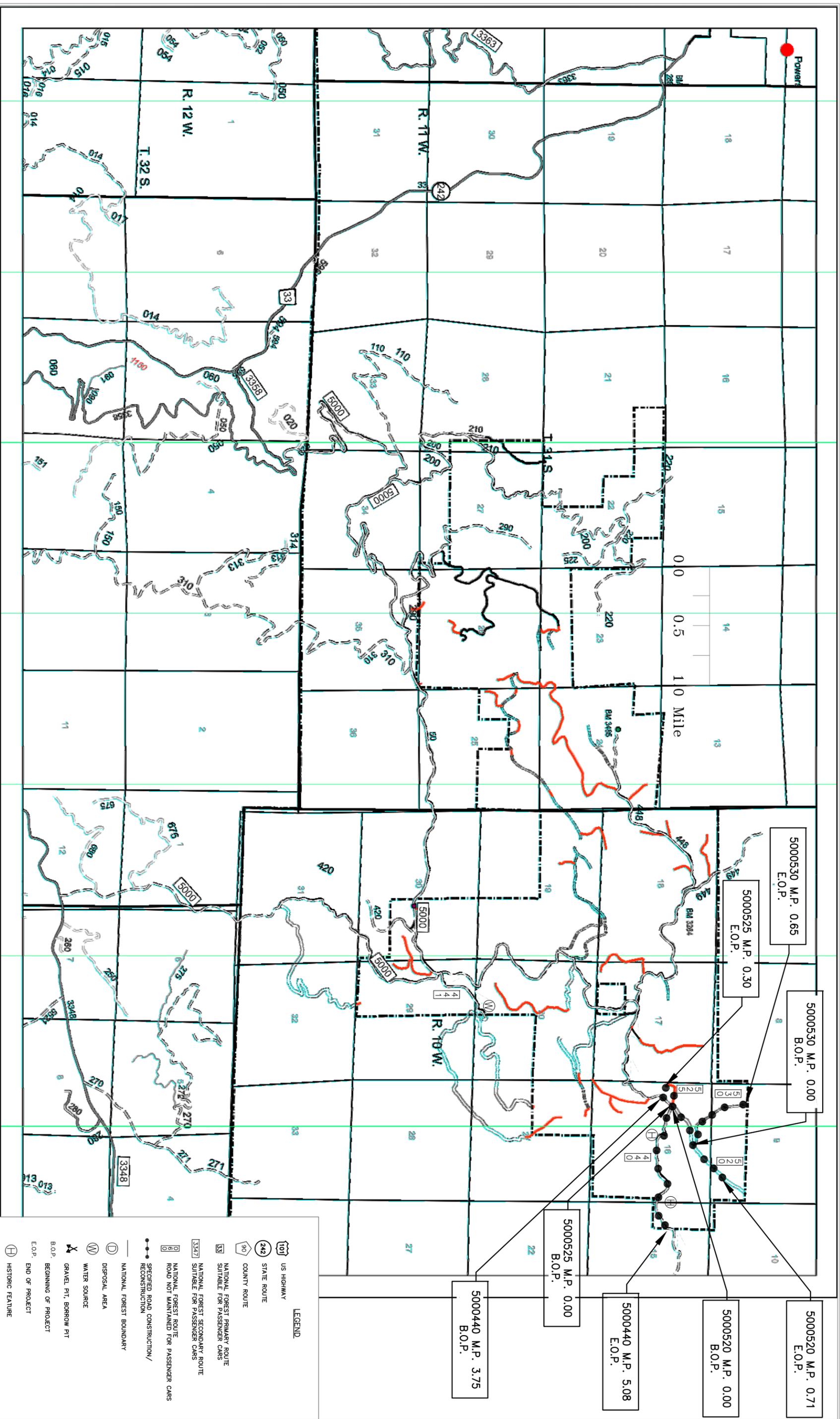
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Sheet Title:  
**VICINITY MAP**  
**TWO SPOT TIMBER SALE**

Project No:  
**3** OF **27**





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Sheet Title:  
**ESTIMATE OF QUANTITIES**  
**ALL ROADS**  
TWO SPOT TIMBER SALE

Project No:  
Sheet **4** OF **27**

**TWO SPOT TIMBER SALE**

**ESTIMATE OF QUANTITIES**

<b>FP-03 Pay Items</b>		Item Number:	Unit of Measure:	Contract Quantity																
	Mobilization	15101	LSQ																	
	Construction survey and staking, method 2, tolerance C	15211	Mile																	
	Soil erosion & pollution control	15713	LSQ																	
	Clearing and grubbing, disposal of tops and limbs (f), logs (i), stumps (f)	20105	LSQ																	
	Roadway excavation, compaction method B, finishing method A	20401	CY	*																
	Unclassified borrow, compaction method B, (government source)	20404	CY	*																
	Drainage Excavation, Type Outlet Ditch	20420	Each																	
	Earthwork geotextile, Type IV-C	20701	SY	*																
	Keyed Riprap, Class 1	25104	CY	*																
	Geogrid, Category 3	26201	SY	*																
	Road reconditioning, compaction method B	30322	Mile																	
	Roadway aggregate, compaction method 2	30801	CY	*																
	Aggregate surface course, grading XX, compaction method B	32111	CY	*																
	18-inch pipe culvert, aluminized-corrugated steel pipe, 16 gage, compaction method B	60201	FT																	
	Seeding and mulching, dry method	62530	LSQ																	
	Install road closure device, type earthen barrier	65002	Each																	
	<b>Road Number</b>																			
5000440	All	0.00		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5000520	All	0.00		All	All	0	47	0	35	60	144	0.71	4	157	26	All	0			
5000525	All	0.30		All	1621	0	0	0	0	0	0	0.00	0	578	0	All	1			
5000530	All	0.00		0	0	0	0	6	0	0	0	0.65	0	547	0	0	0			
	<b>TOTAL FOR ALL ROAD</b>	All	0.30	All	1621	47	6	35	60	144	2.69	1695	1282	26	All	1				

PAY ITEM NUMBER	PAY ITEM DESCRIPTION	PAY UNIT	NOTES
15101	MOBILIZATION	LUMP SUM	INDIRECT PAYMENT FOR TRAFFIC CONTROL AND EQUIPMENT WASHING. ALLOW 5 DAYS AFTER REQUEST HAS BEEN MADE TO SCHEDULE EQUIPMENT INSPECTIONS.
15211	CONSTRUCTION SURVEY AND STAKING, METHOD 2, TOLERANCE C	MILE	RESPONSIBLE FOR PROTECTION OF ALL STAKES
15713	SOIL EROSION AND POLLUTION CONTROL	LUMP SUM	SILT FENCE FOR CULVERTS AS NEEDED
20105	CLEARING AND GRUBBING, DISPOSAL OF TOPS AND LIMBS (f), LOGS (i), STUMPS (f)	LUMP SUM	f-SCATTER, i-DECK, f-SCATTER, CLEARED TOPS AND LIMBS MAY BE PLACED ON FINISHED SLOPES AS EROSION CONTROL
20401	ROADWAY EXCAVATION, COMPACTION METHOD B, FINISHING METHOD A	* CUBIC YARD	IN PLACE QUANTITIES
20404	UNCLASSIFIED BORROW, COMPACTION METHOD B, (GOVERNMENT SOURCE)	* CUBIC YARD	QUANTITY IS COMPACTED IN PLACE, MATERIAL IS WASTE FROM CONSTRUCTION OF FSR 5000525
20420	DRAINAGE EXCAVATION, TYPE OUTLET DITCH	EACH	ENSURE PROPER DRAINAGE THROUGH ENTRENCHED SECTIONS OF ROAD.
20701	EARTHWORK GEOTEXTILE, TYPE IU-C	* SQUARE YARD	FOR WRAP AROUND ROADWAY AGGREGATE AND BEDDING, PROTECTING CULVERT FROM RIPRAP
25104	KEYED RIPRAP, CLASS 1 (6" TO 8" MAX. SIZE)	* CUBIC YARD	COMPLETELY WRAP RIPRAP IN GEOGRID, NO GAPS OR LOOSE ENDS. SEE FP-03 SECTION 705 - ROCK FOR RIPRAP DIMENSIONS
26201	GEOGRID, CATEGORY 3	* SQUARE YARD	FOR WRAP AROUND RIPRAP TO LIMIT MOVEMENT OVER BEDROCK
30322	ROAD RECONDITIONING, COMPACTION METHOD B	MILE	
30801	ROADWAY AGGREGATE, COMPACTION METHOD 2	* CUBIC YARD	COMMERCIAL SOURCE, QUANTITY IS COMPACTED IN PLACE
32111	AGGREGATE SURFACE COURSE, GRADING XX, COMPACTION METHOD B	* CUBIC YARD	COMMERCIAL SOURCE, QUANTITY IS COMPACTED IN PLACE
60201	18-INCH PIPE CULVERT, ALUMINIZED CORRUGATED STEEL PIPE, 16 GAGE, COMPACTION METHOD B	FOOT	INDIRECT PAYMENT FOR STAKING, EXCAVATION, BACKFILL, BEDDING, BANDS AND HARDWARE, LENGTHS SHOWN ARE APPROXIMATE, STAKE AND MEASURE FOR APPROVAL PRIOR TO ORDERING, 0'-5' DEEP @ ROADWAY CENTERLINE
62530	SEEDING AND MULCHING, DRY METHOD	LSQ	GOVERNMENT PROVIDED SEED, ALLOW 7 DAY DELIVERY AFTER REQUEST IS MADE, CERTIFIED WEED FREE MULCH. COVER ALL DISTURBED AREAS
65002	INSTALL ROAD CLOSURE DEVICE, TYPE EARTHEN BARRIER	EACH	ROAD 5000525 SHALL HAVE AN EARTHEN BARRIER CONSTRUCTED UPON APPROVAL AND COMPLETION OF CONSTRUCTION. CONSTRUCT EARTHEN BARRIER AS STAKED BY THE FOREST SERVICE. UTILIZE LOGS, BOULDERS AND DIRT MATERIAL ONSITE TO CONSTRUCT EARTHEN BARRIER.

\* CONTRACT QUANTITIES



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District:  
**POWERS RANGER DISTRICT**

Design: D. SAMSON  
Drawn: D. SAMSON  
Checked: L. COOMBE  
Date: 7/2015

Sheet Title:  
**PAY ITEM GENERAL NOTES**  
**TWO SPOT TIMBER SALE**

Project No:  
Sheet **5** OF **27**









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Design: D. SAMSON  
Drawn: D. SAMSON  
Checked: L. COOMBE  
Date: 7/2015

Sheet Title:  
**FSR 5000525  
WORK LIST & QUANTITIES**  
TWO SPOT TIMBER SALE

Project No:  
Sheet **9** OF **27**

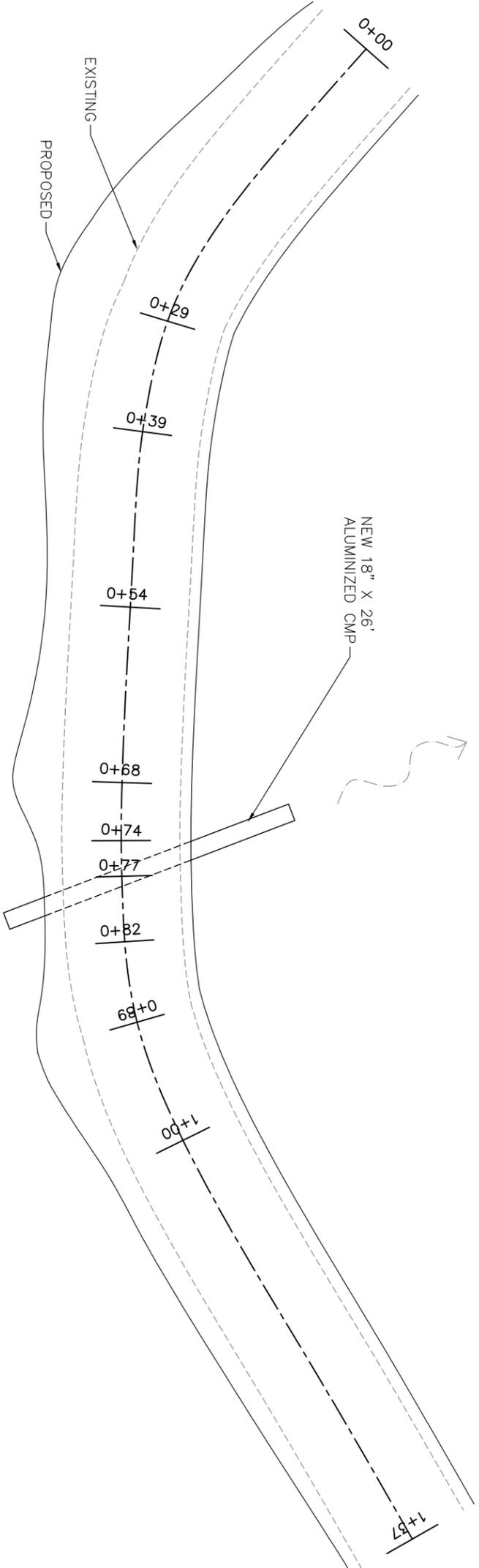
**TWO SPOT TIMBER SALE**

**WORK LIST & QUANTITIES**

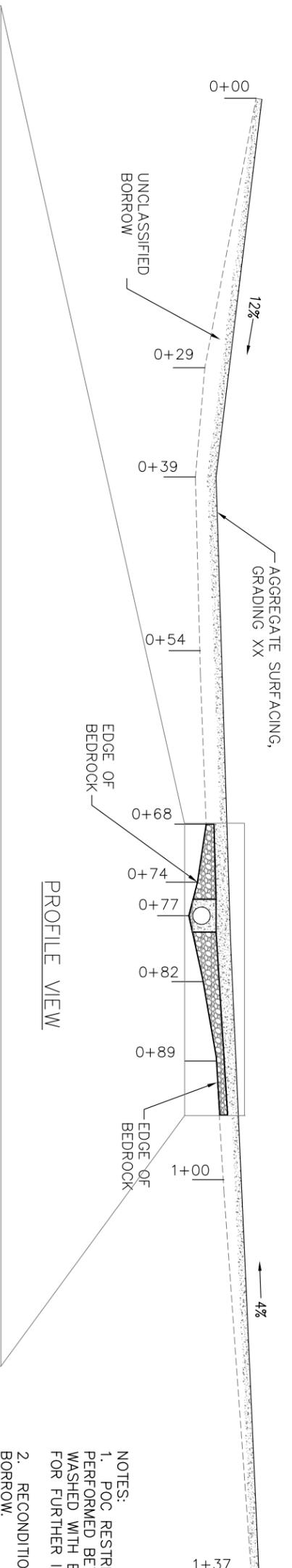
Mile Post/ Station		Item Number:	Unit of Measure:	Contract Quantity	Description of Work													
		<b>FP-03 Pay Items</b>																
Begin	End	<b>FSR 5000525</b>																
0+00		Beginning Of Project: Upon completion of road construction, Construct earthen barrier near entrance of road.																
		Intersection with FSR 5000520																
0+00	15+85	Construction survey and staking, method 2, tolerance C																
0+00	15+85	Clearing and grubbing, disposal of tops and limbs (f), logs (i), stumps (f)																
0+00	15+85	Roadway excavation, compaction method B, finishing method A																
0+00	15+85	Aggregate surface course, grading XX, compaction method B																
0+00	2+00	Waste 1,455 cubic yards, Suitable material can be used in the construction of the intersection, excess material to be disposed of from station 0+00 - 2+00, ~50 cy as unclassified borrow on FSR 5000520																
0+50		Begin Full width Turn out Left																
1+00		End full Width Turnout Left, Begin 50' Taper.																
	1+50	End 50' Taper																
0+57	2+01	Curve Left, 200' Radius, Curve Widening Left 2.0'																
3+68	4+40	Curve Left, 150' Radius, Curve Widening Left 2.0'																
5+05	6+77	Curve Right, 75' Radius, Curve Widening right 5.0'																
7+00	15+85	Begin Full Bench Cut Section.																
7+30	8+49	Curve Left, 150' Radius, Curve Widening Left 2.5'																
8+00		Begin 50' Taper																
8+50		Begin Full width Turn out Left																
	9+00	End full Width Turnout Left, Begin 50' Taper.																
	9+50	End 50' Taper																
8+96	10+57	Curve Left, 150' Radius, Curve Widening Left 2.5'																
14+00		Construct Turnaround																
	15+85	End Of Project																
TOTAL FOR ROAD		All	0.30	0	All	1621	0	0	0	0	0	0	0.00	0	578	0	All	1

15101	LSQ	Mobilization
15211	Mile	Construction survey and staking, method 2, tolerance C
15713	LSQ	Soil erosion & pollution control
20105	LSQ	Clearing and grubbing, disposal of tops and limbs (f), logs (i), stumps (f)
20401	CY *	Roadway excavation, compaction method B, finishing method A
20404	CY *	Unclassified borrow, compaction method B, (government source)
20420	Each	Drainage Excavation, Type Outlet Ditch
20701	SY *	Earthwork geotextile, Type IV-C
25104	CY *	Keyed Riprap, Class 1
26201	SY *	Geogrid, Category 3
30322	Mile	Road reconditioning, compaction method B
30901	CY *	Roadway aggregate, compaction method 2
32111	CY *	Aggregate surface course, grading XX, compaction method B
60201	FT	18-inch pipe culvert, aluminized-corrugated steel pipe, 16 gage, compaction method B
62530	LSQ	Seeding and mulching, dry method
65002	Each	Install road closure device, type earthen barrier

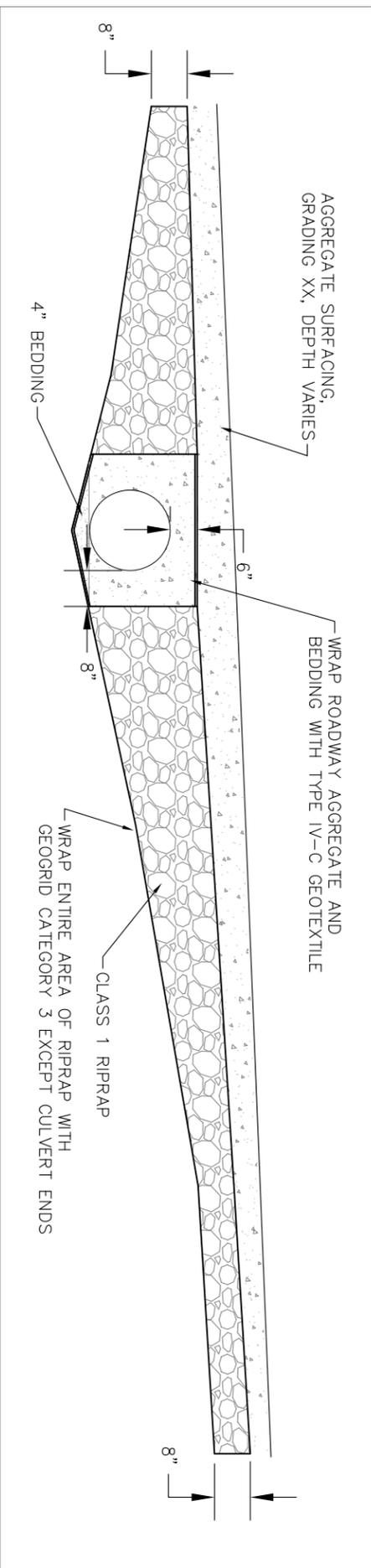




PLAN VIEW



PROFILE VIEW



- NOTES:
1. POC RESTRICTIONS IN EFFECT AT THIS SITE. WORK MUST BE PERFORMED BETWEEN JUNE 1 AND SEPTEMBER 30. EQUIPMENT MUST BE WASHED WITH BLEACHED PRIOR TO USE ON OTHER SITES. SEE FSSS 107 FOR FURTHER INSTRUCTIONS.
  2. RECONDITION ROAD PRIOR TO PLACING GEOGRID OR UNCLASSIFIED BORROW.
  3. LOCATION AND ALIGNMENT OF CULVERT IS APPROXIMATE. PLACE IN LOWEST ELEVATION OF BEDROCK FORMATION.
  4. PLACE GEOGRID ON BEDROCK PRIOR TO PLACING GEOTEXTILE AND BEDDING FOR SETTING CULVERT. WRAP BEDDING AND 1" MINUS ROADWAY AGGREGATE FILL MATERIAL WITH GEOTEXTILE TO PROTECT CULVERT FROM RIPRAP, STA 0+77.
  5. WRAP ENTIRE SECTION OF RIPRAP, STA 0+68 TO 0+94, WITH GEOGRID CATEGORY 3. COVER WITH AGGREGATE SURFACE COURSE, GRADING XX.
  6. USE WASTE FROM FSR 5000525 ROAD CONSTRUCTION AS UNCLASSIFIED BORROW.
  7. GRADE OR CUT OUTLET DITCHES TO ENSURE DRAINAGE AWAY FROM ROADWAY.



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District:  
POWERS RANGER DISTRICT

Design: L. COOMBE  
Drawn: L. COOMBE  
Checked: D. TULEE  
Date: 7/2015

Sheet Title:  
**FSR 5000520 MP 0.70**  
**STREAM CROSSING, 1 OF 2**  
TWO SPOT TIMBER SALE

Project No:  
Sheet **11** OF **27**



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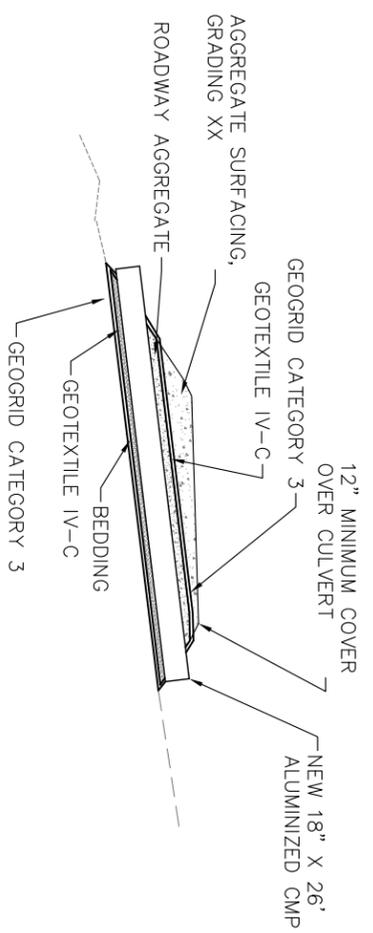
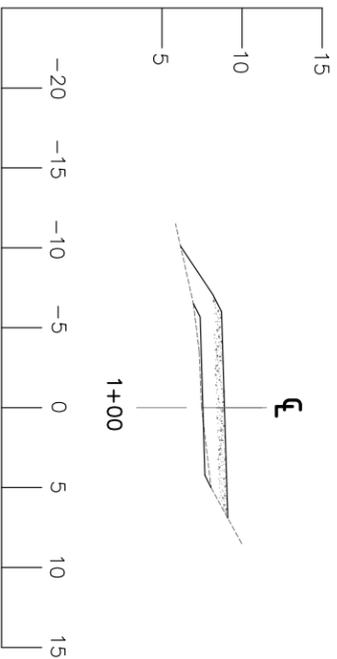
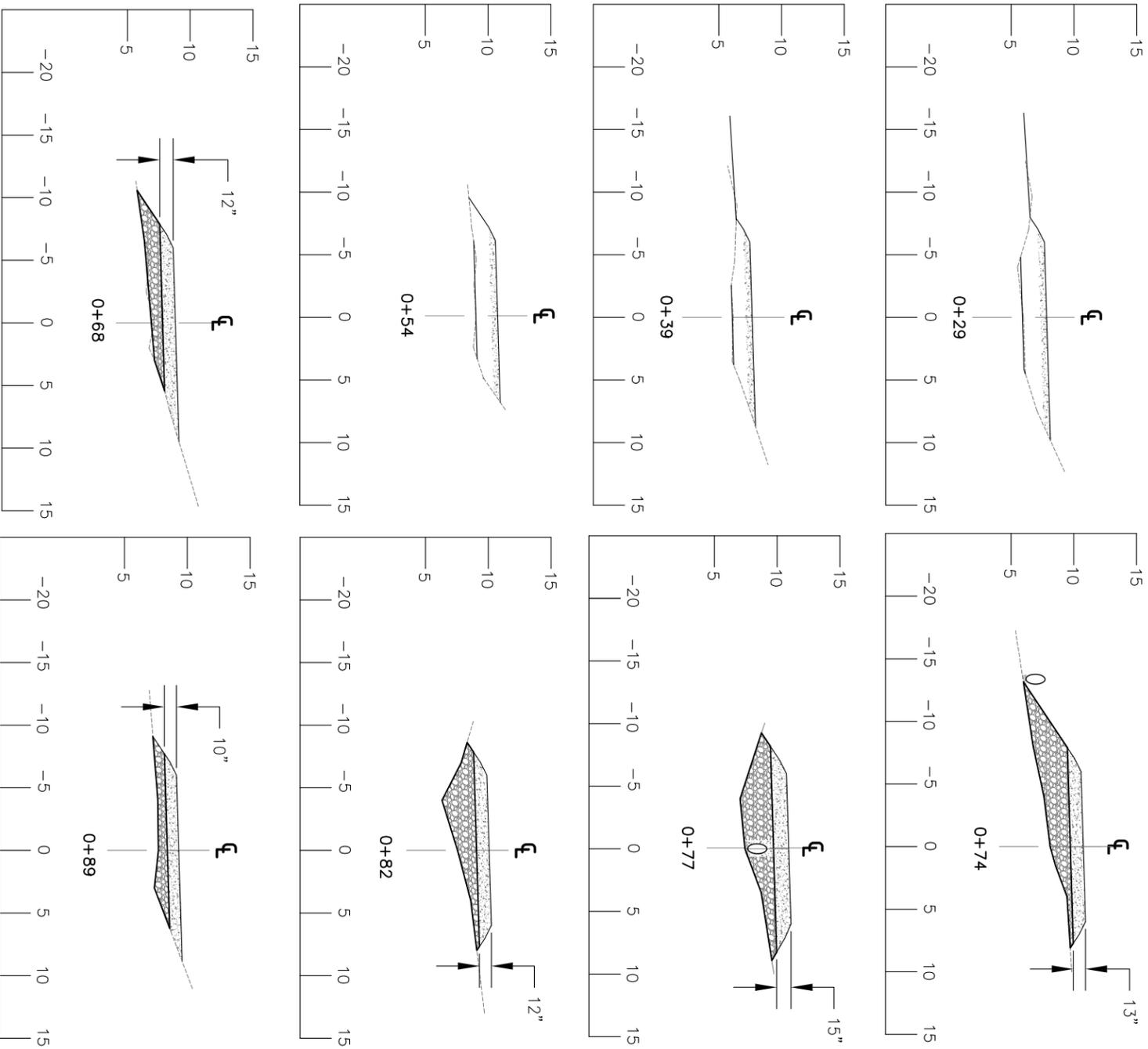
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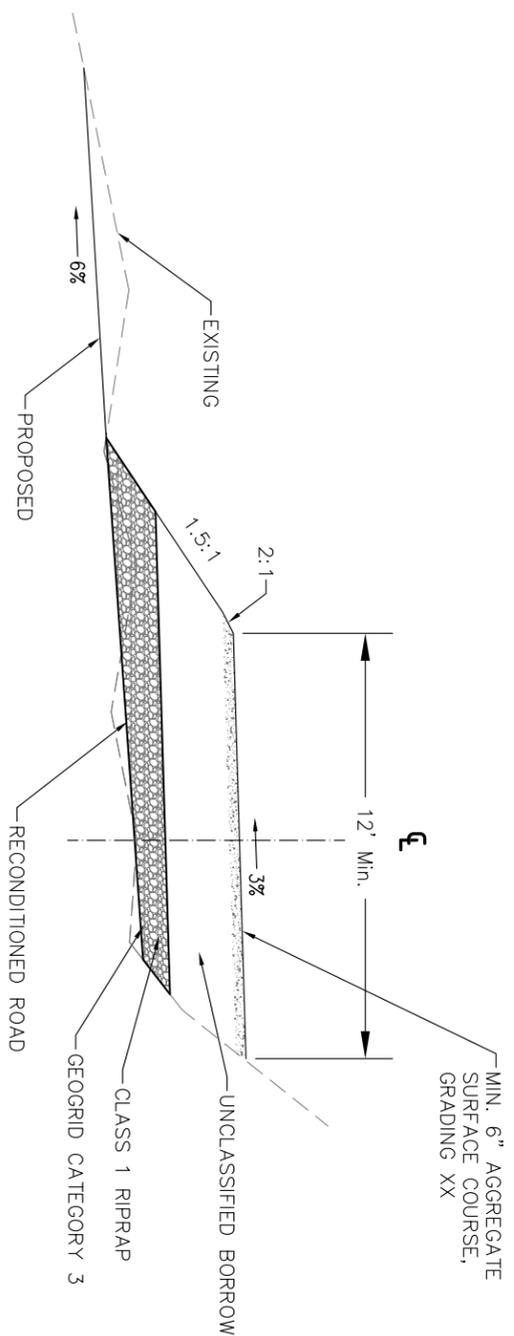
Sheet Title:  
**FSR 5000520 MP 0.70  
STREAM CROSSING, 2 OF 2**  
TWO SPOT TIMBER SALE

Project No:  
            
Sheet 12 OF 27

CROSS SECTIONS



CULVERT CROSS SECTION



TYPICAL SECTION

NOT TO SCALE







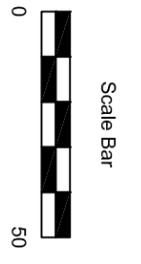
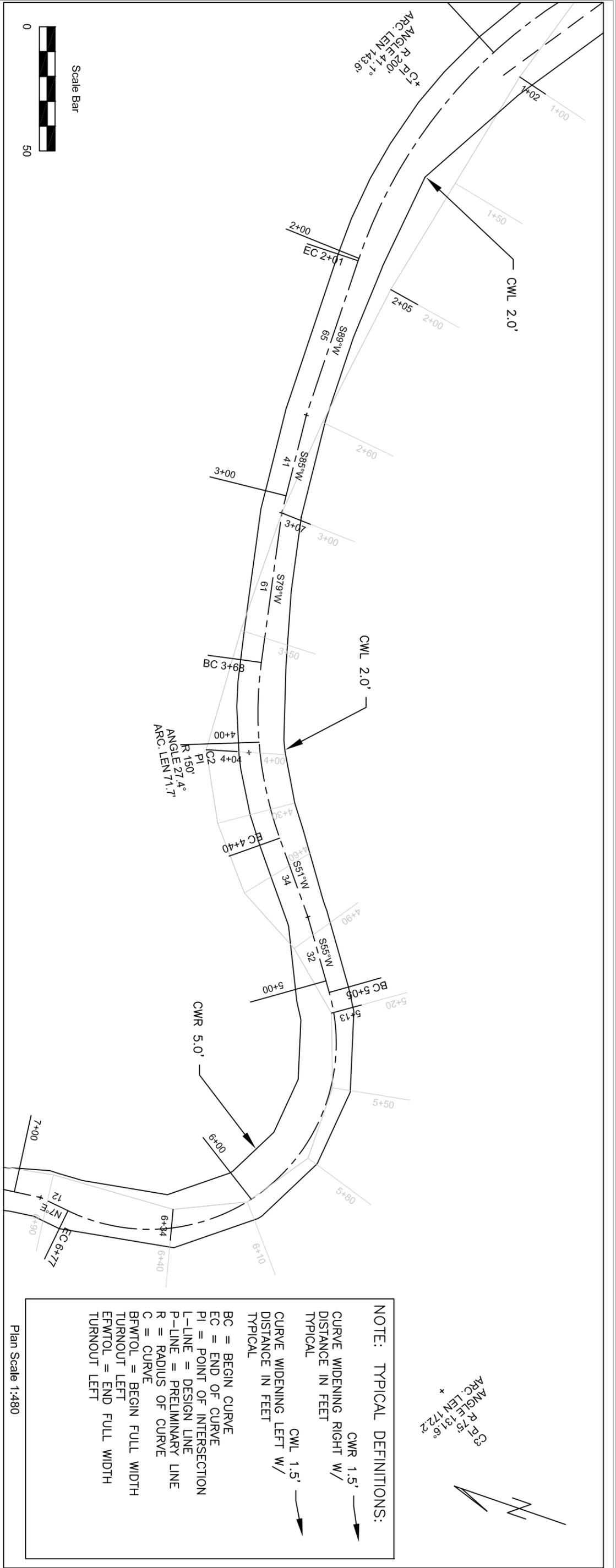
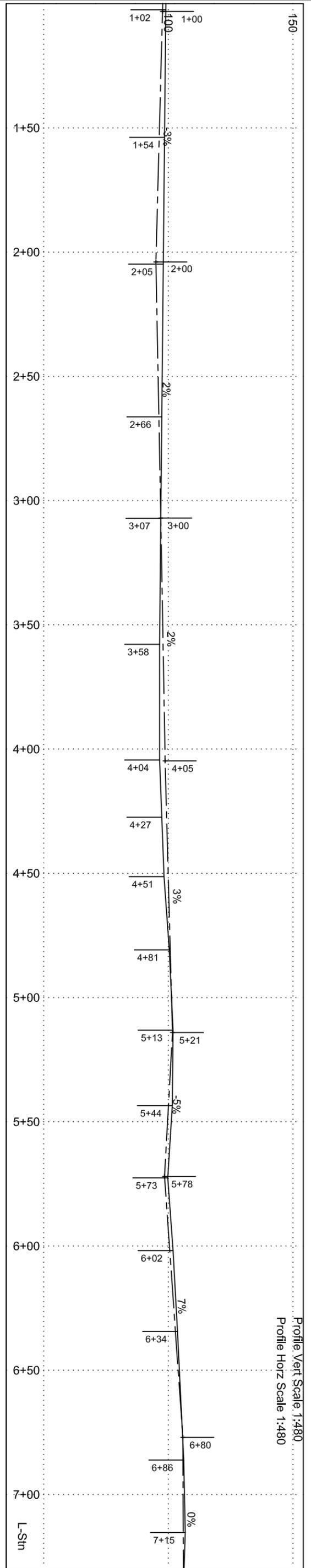
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Checked: L.Coombe  
Date: 7/2015  
Revised by: \_\_\_\_\_  
Rev. Date: \_\_\_\_\_

Sheet Title:  
**Road 5000525 Plan and Profile**  
Project Name:  
**TWO SPOT TIMBER SALE**

Project No:  
Sheet **14** OF **27**



R 75'  
PI C3  
ANGLE 131.6°  
ARC. LEN 172.2'



C5  
PI  
R 150'  
ANGLE 45.3°  
ARC. LEN 118.6'

**NOTE: TYPICAL DEFINITIONS:**

CWR 1.5' →  
CURVE WIDENING RIGHT W/  
DISTANCE IN FEET  
TYPICAL

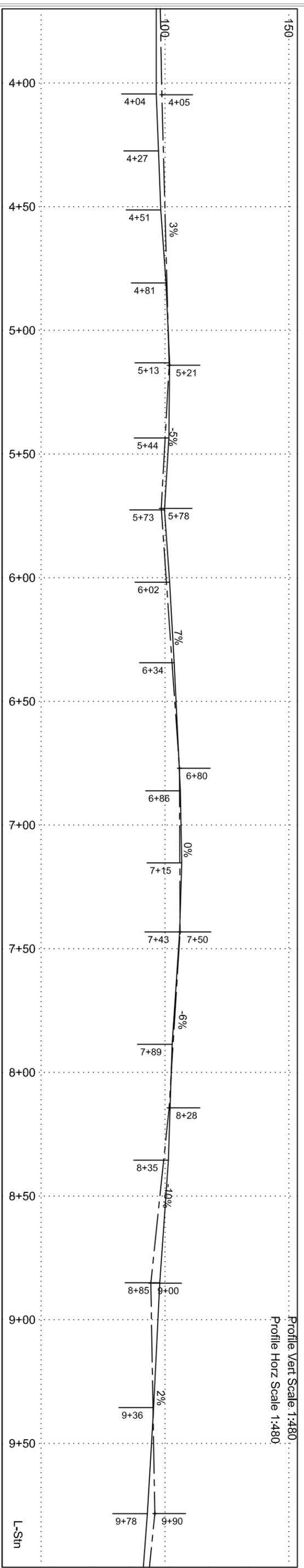
CWL 1.5' →  
CURVE WIDENING LEFT W/  
DISTANCE IN FEET  
TYPICAL

BC = BEGIN CURVE  
EC = END OF CURVE  
PI = POINT OF INTERSECTION  
L-LINE = DESIGN LINE  
P-LINE = PRELIMINARY LINE  
R = RADIUS OF CURVE  
C = CURVE  
BFWTOL = BEGIN FULL WIDTH  
TURNOUT LEFT  
EFWTOL = END FULL WIDTH  
TURNOUT LEFT

Scale Bar



Plan Scale 1:480



Profile Vert Scale 1:480  
Profile Horz Scale 1:480



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Revised by: \_\_\_\_\_  
Rev. Date: \_\_\_\_\_

Sheet Title:  
**Road 5000525 Plan and Profile**  
Project Name:  
**TWO SPOT TIMBER SALE**

Project No:  
Sheet **15** OF **27**

NOTE: TYPICAL DEFINITIONS:

CWR 1.5' →  
 CURVE WIDENING RIGHT W/  
 DISTANCE IN FEET  
 TYPICAL

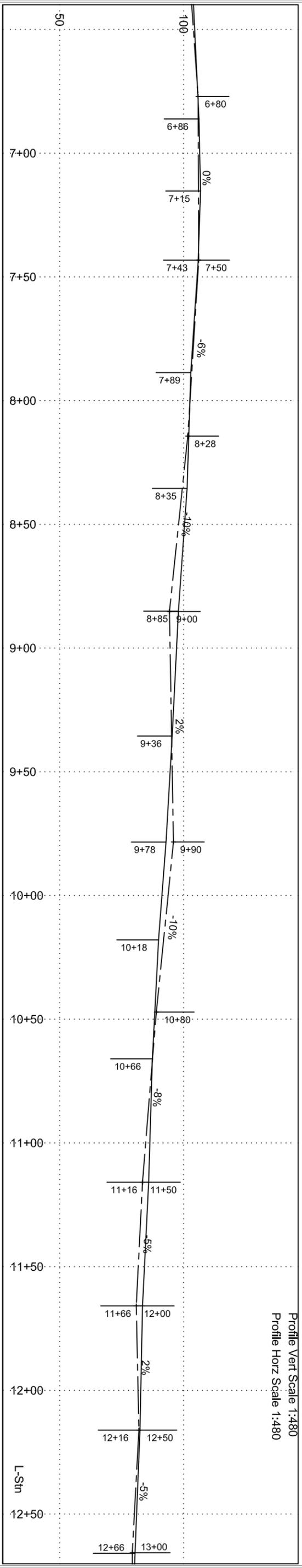
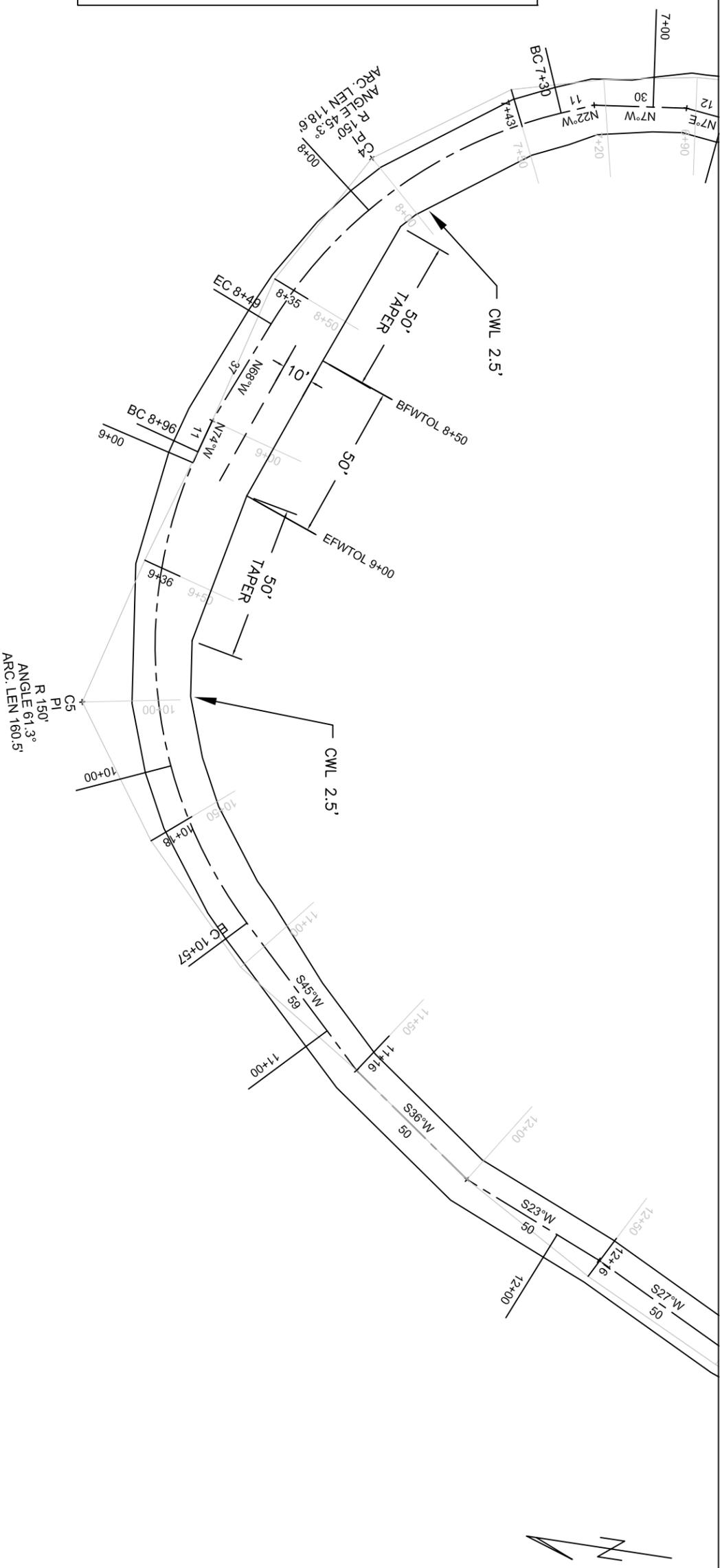
CWL 1.5' →  
 CURVE WIDENING LEFT W/  
 DISTANCE IN FEET  
 TYPICAL

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Scale Bar



Plan Scale 1:480



Profile Vert Scale 1:480  
 Profile Horz Scale 1:480



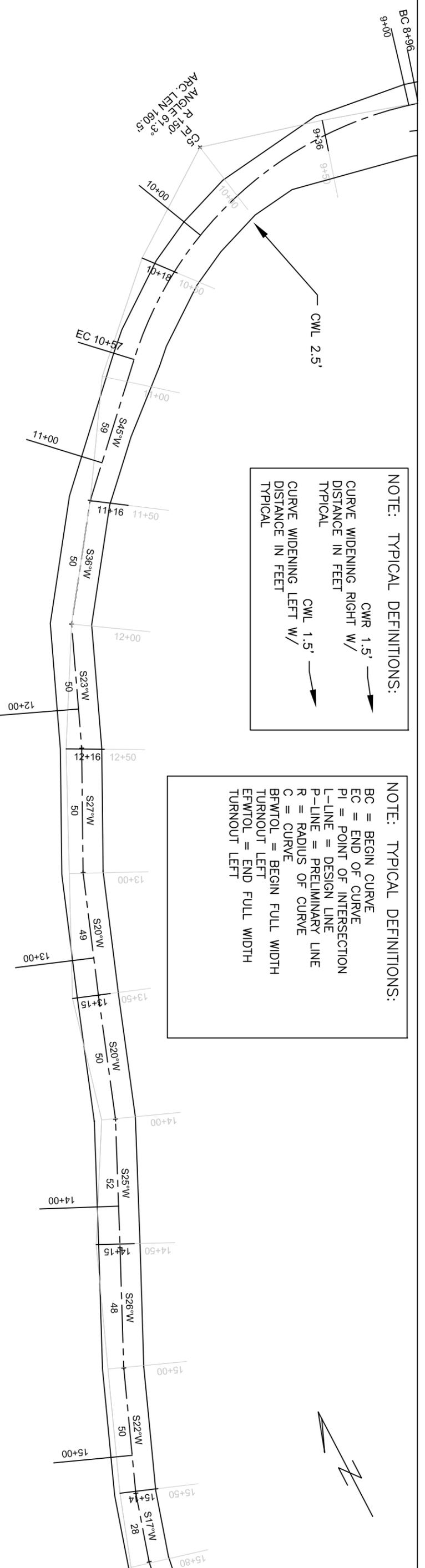
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 Date: 7/2015  
 Revised by: \_\_\_\_\_  
 Rev. Date: \_\_\_\_\_

Sheet Title:  
**Road 5000525 Plan and Profile**  
 Project Name:  
**TWO SPOT TIMBER SALE**

Project No:  
 Sheet **16** OF **27**

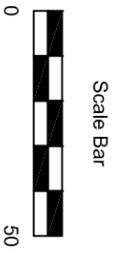


**NOTE: TYPICAL DEFINITIONS:**

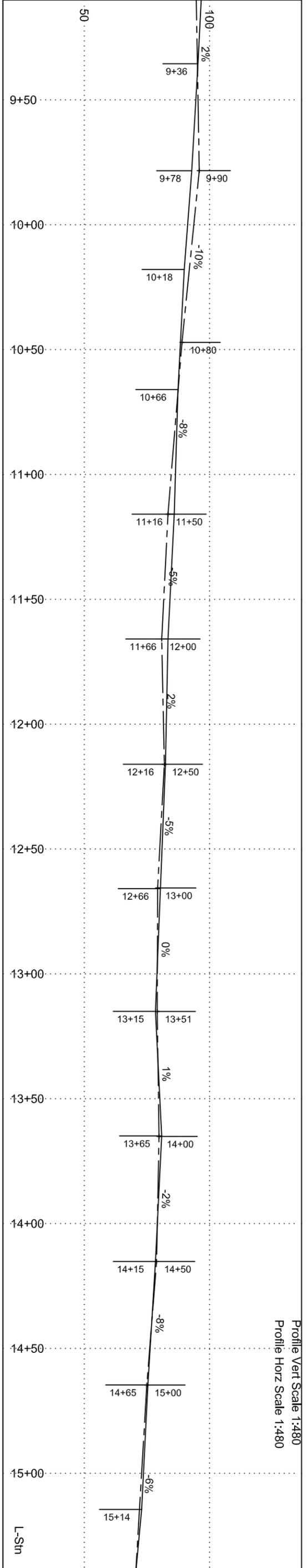
- CWR 1.5' → CURVE WIDENING RIGHT W/ DISTANCE IN FEET TYPICAL
- CWL 1.5' → CURVE WIDENING LEFT W/ DISTANCE IN FEET TYPICAL

**NOTE: TYPICAL DEFINITIONS:**

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- EC = END OF CURVE
- PI = POINT OF INTERSECTION
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- P-LINE = PRELIMINARY LINE
- R = RADIUS OF CURVE
- C = CURVE
- BFWTOL = BEGIN FULL WIDTH TURNOUT LEFT
- EFWTOL = END FULL WIDTH TURNOUT LEFT



Plan Scale 1:480



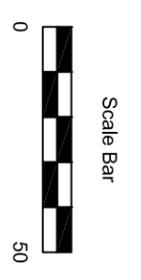
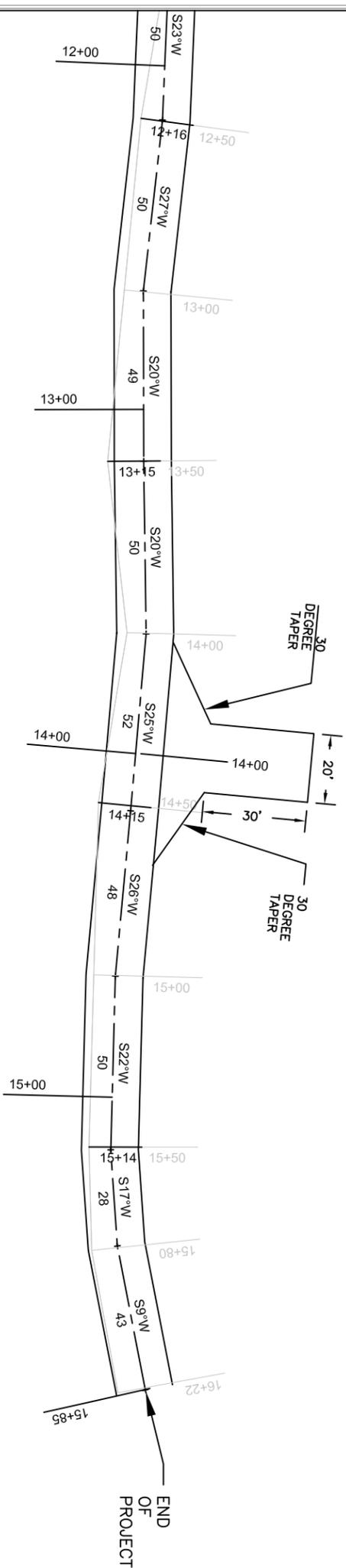
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Checked: L.Coombes  
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Revised by: \_\_\_\_\_  
Rev. Date: \_\_\_\_\_

Sheet Title: **Road 5000525 Plan and Profile**  
Project Name: **TWO SPOT TIMBER SALE**

Project No: \_\_\_\_\_  
Sheet **17** OF **27**



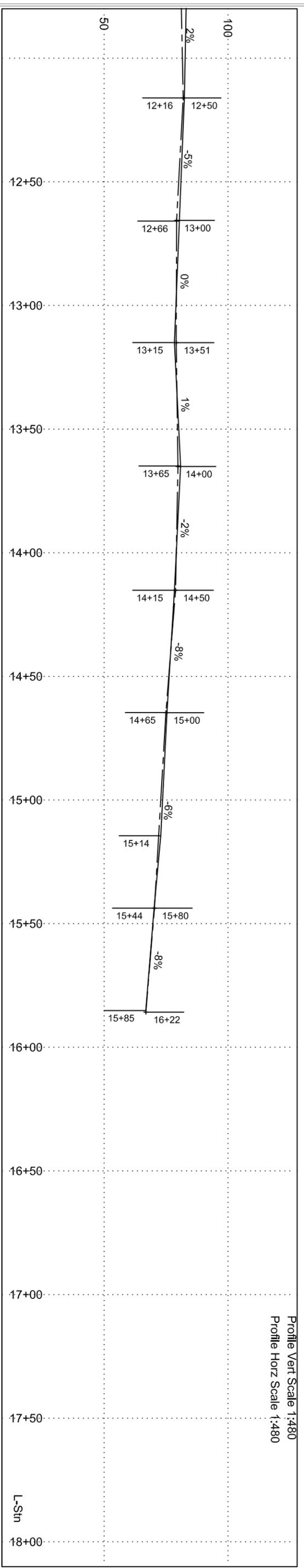
**NOTE: TYPICAL DEFINITIONS:**

CWR 1.5' → CURVE WIDENING RIGHT W/ DISTANCE IN FEET TYPICAL

CWL 1.5' → CURVE WIDENING LEFT W/ DISTANCE IN FEET TYPICAL

BC = BEGIN CURVE  
 EC = END OF CURVE  
 PI = POINT OF INTERSECTION  
 L-LINE = DESIGN LINE  
 P-LINE = PRELIMINARY LINE  
 R = RADIUS OF CURVE  
 C = CURVE  
 BFWTOL = BEGIN FULL WIDTH TURNOUT LEFT  
 EFWTOL = END FULL WIDTH TURNOUT LEFT

Plan Scale 1:480



Profile Vert Scale 1:480  
 Profile Horz Scale 1:480



U.S. DEPARTMENT OF AGRICULTURE  
 FOREST SERVICE  
**R6**  
 PACIFIC NORTHWEST REGION

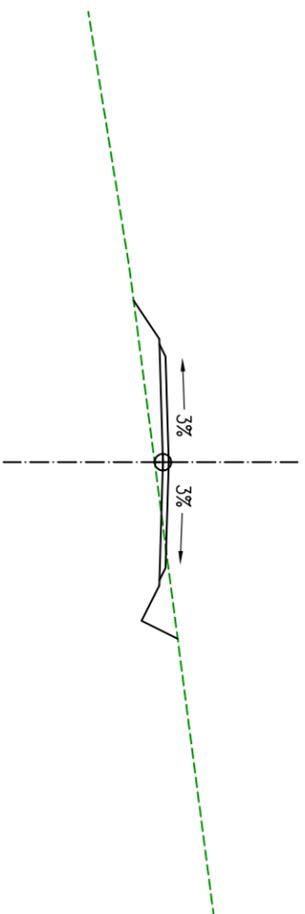
Forest: **ROGUE RIVER-SISKIYOU NATIONAL FOREST**  
 District: **POWERS RANGER DISTRICT**

Design: D.TJULIE  
 Drawn: D.TJULIE  
 Checked: L. Coombe  
 Date: 7/2015  
 Revised by: \_\_\_\_\_  
 Rev. Date: \_\_\_\_\_

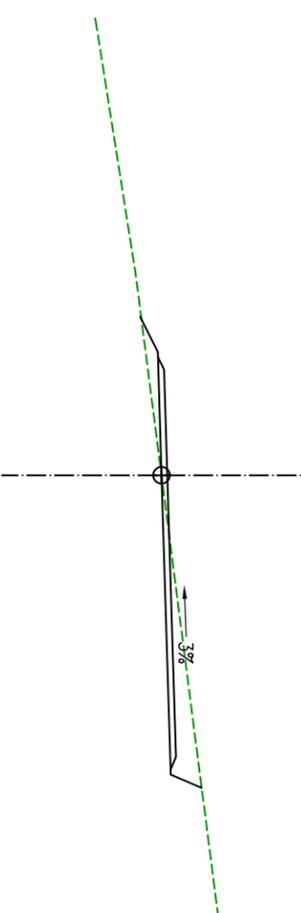
Sheet Title: **Road 5000525 Plan and Profile**  
 Project Name: **TWO SPOT TIMBER SALE**

Project No: \_\_\_\_\_  
 Sheet **18** OF **27**

12' TOP WIDTH W/ DITCH  
CROWN -3%

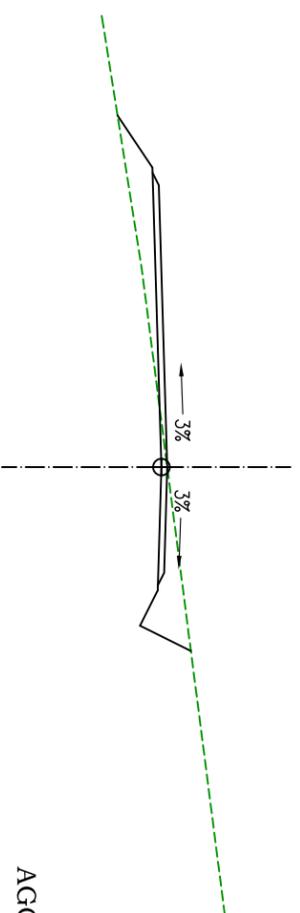


10' TURNOUT RIGHT / NO DITCH  
OUTSLOPE -3% LEFT

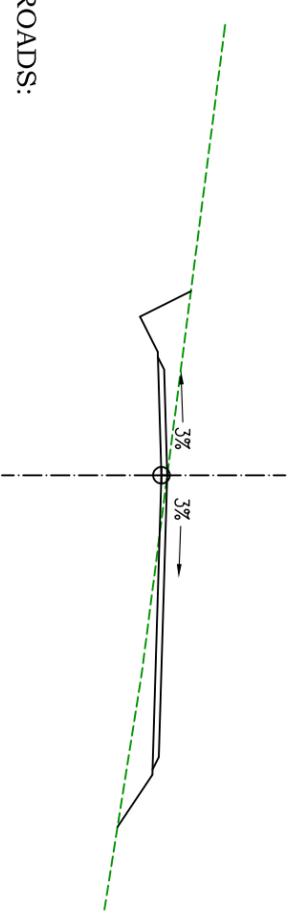


REFER TO THE SLOPE STAKING NOTES FOR TYPICAL SECTION ASSIGNMENTS.

10' TURNOUT LEFT W/ DITCH  
CROWN -3%



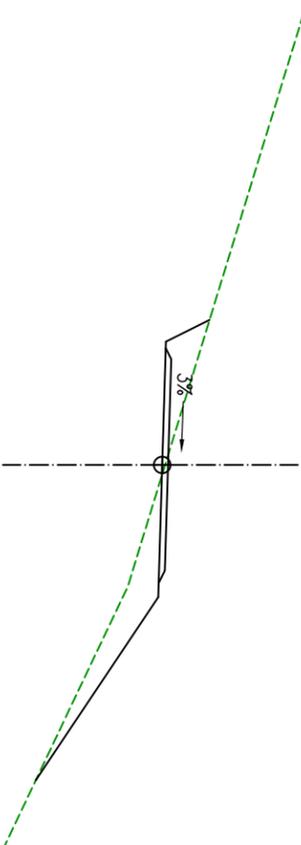
10' TURNOUT RIGHT W/ DITCH  
CROWN -3%



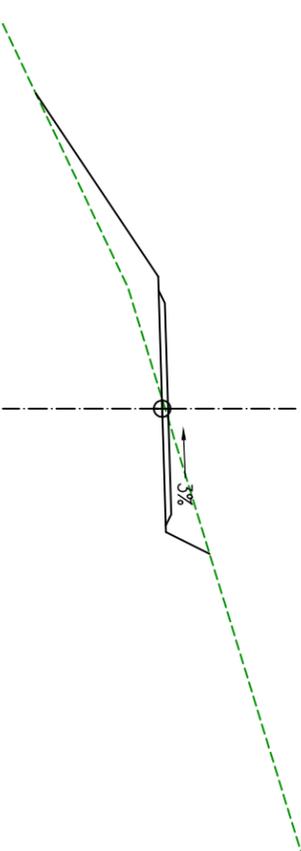
AGGREGATE DEPTH FOR ROADS:

- 5000440 - 6" MP 3.75 - 5.08
- 5000525 - 6" STATION 0+00 - 15+85
- 5000520 - 6" MP 0.44 - 0.53
- 5000530 - 6" MP 0.14 - 0.57

OUTSLOPE RIGHT / NO DITCH  
OUTSLOPE -3% RIGHT



OUTSLOPE LEFT / NO DITCH  
OUTSLOPE -3% LEFT



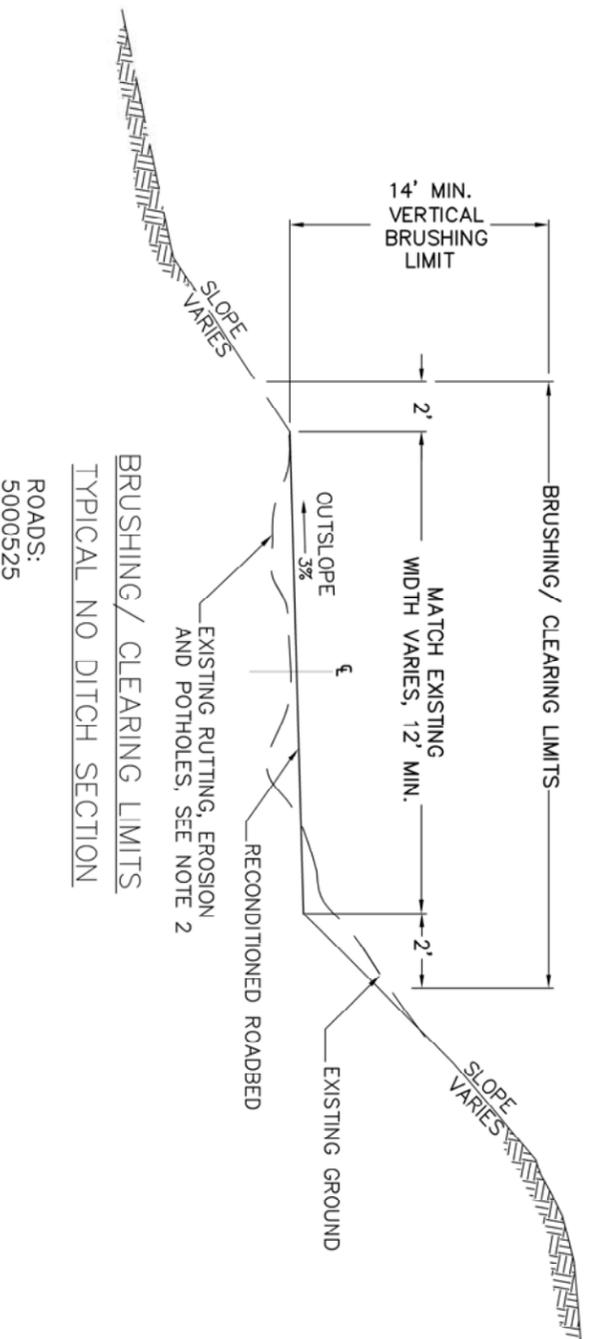
U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
**R6**  
PACIFIC NORTHWEST REGION

Forest:  
**ROGUE RIVER-SISKIYOU  
NATIONAL FOREST**  
District:  
**POWERS RANGER DISTRICT**

Design:      D. SAMSON  
Drawn:      D. SAMSON  
Checked:      L. COOMBE  
Date:      7/2015

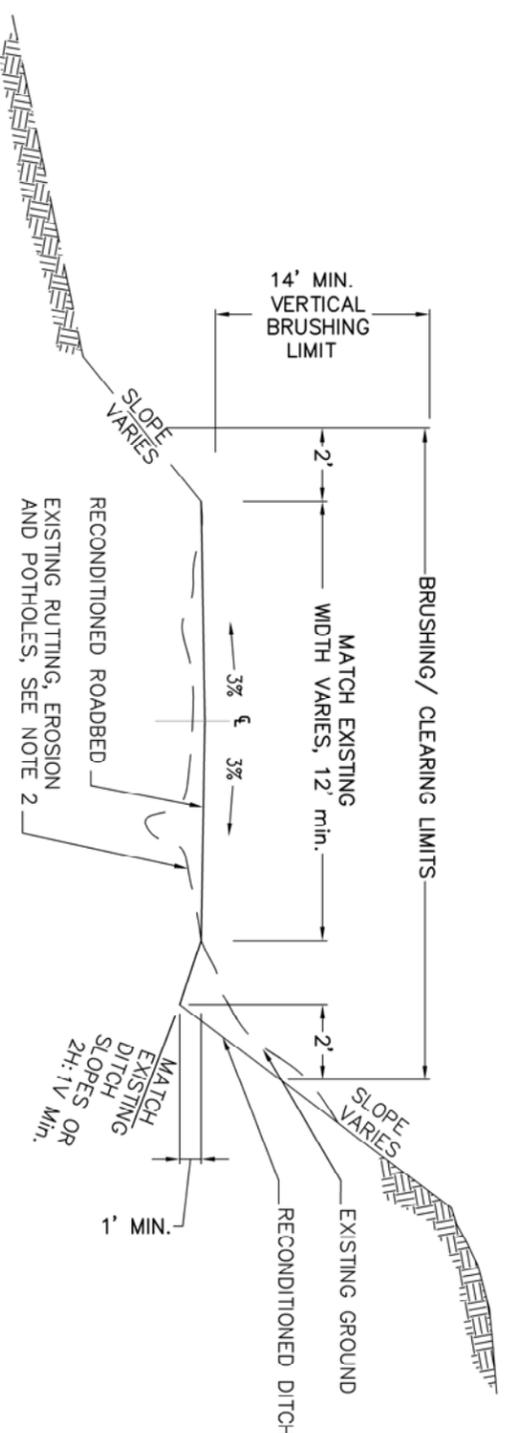
Sheet Title:  
**TYPICAL SECTIONS**  
**TWO SPOT TIMBER SALE**

Project No:  
Sheet **19** OF **27**



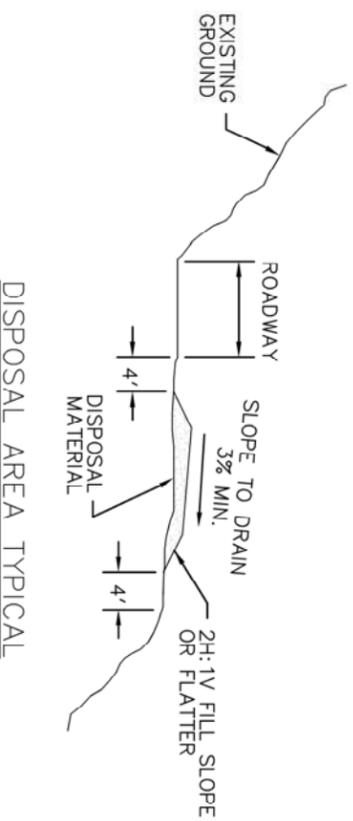
BRUSHING / CLEARING LIMITS  
TYPICAL NO DITCH SECTION

ROADS:  
5000525

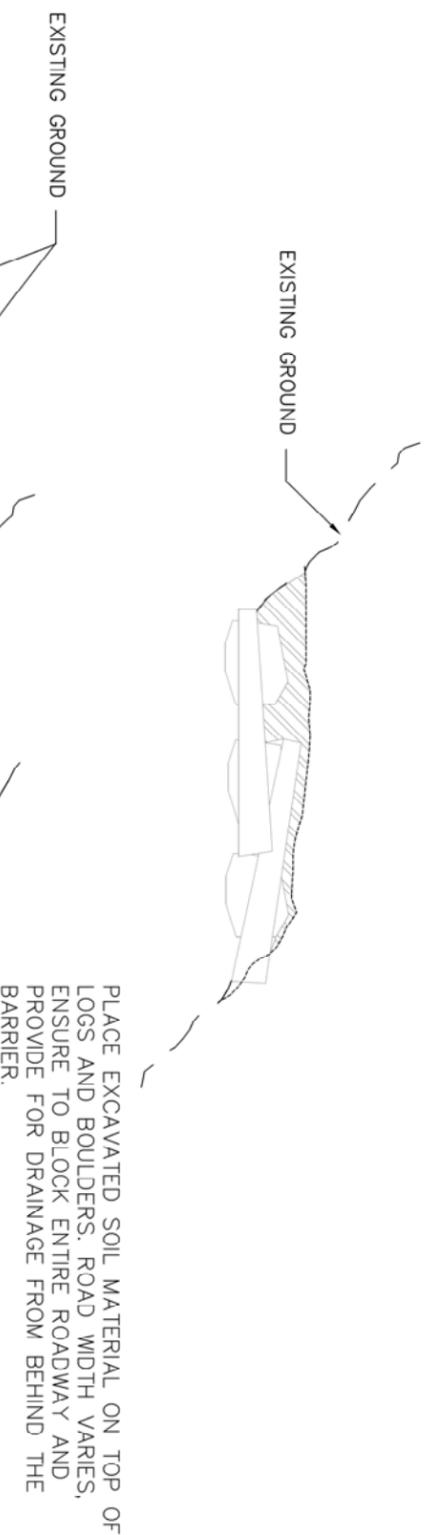


BRUSHING / CLEARING LIMITS  
TYPICAL DITCH SECTION

ROADS:  
5000525



DISPOSAL AREA TYPICAL



EARTHEN MOUND BARRIER

ROADS:  
5000525

**NOTES:**

1. RECONDITION ROADS AS SHOWN AND IN ACCORDANCE WITH FP-03 SECTION 303. REQUIRED RECONDITIONING INCLUDES CURVE WIDENING AND TURNOUTS.
2. WHERE RUTTING, EROSION AND POTHOLES EXIST, SCARIFY TO DEPTH OF RUT/EROSION/POTHOLE, BLADE, SHAPE AND COMPACT EXISTING AGGREGATE OR NATIVE SURFACE MATERIAL.
3. REMOVE AND DISPOSE OF SLIDE, DITCH, AND CATCH BASIN MATERIAL. SEE VICINITY MAP FOR DISPOSAL SITE LOCATIONS OR AS STAKED ON THE GROUND. DISPOSAL/WASTE SITES SHALL BE APPROVED BY THE C.O. PRIOR TO USE.
4. CONSTRUCT /OR REMOVE AND RE-INSTALL EXISTING EARTH MOUND BARRIER AS DESIGNATED OR AS SHOWN ON PLANS. CONSTRUCT EARTH MOUND BARRIER FROM EXISTING BOULDERS, LOGS AND EXCAVATED MATERIAL ADJACENT TO EXISTING BARRIER LOCATION. USE ADEQUATE AMOUNT OF LOGS AND BOULDERS. PLACE EXCAVATED SOIL MATERIAL ON TOP OF BOULDERS AND LOGS, MINIMUM 5 FEET HIGH. ENSURE TO COMPLETELY BLOCK ENTRANCE FROM CUTBANK TO OUTER EDGE OF EXISTING ROADWAY.

DRAWINGS  
**NOT TO SCALE**



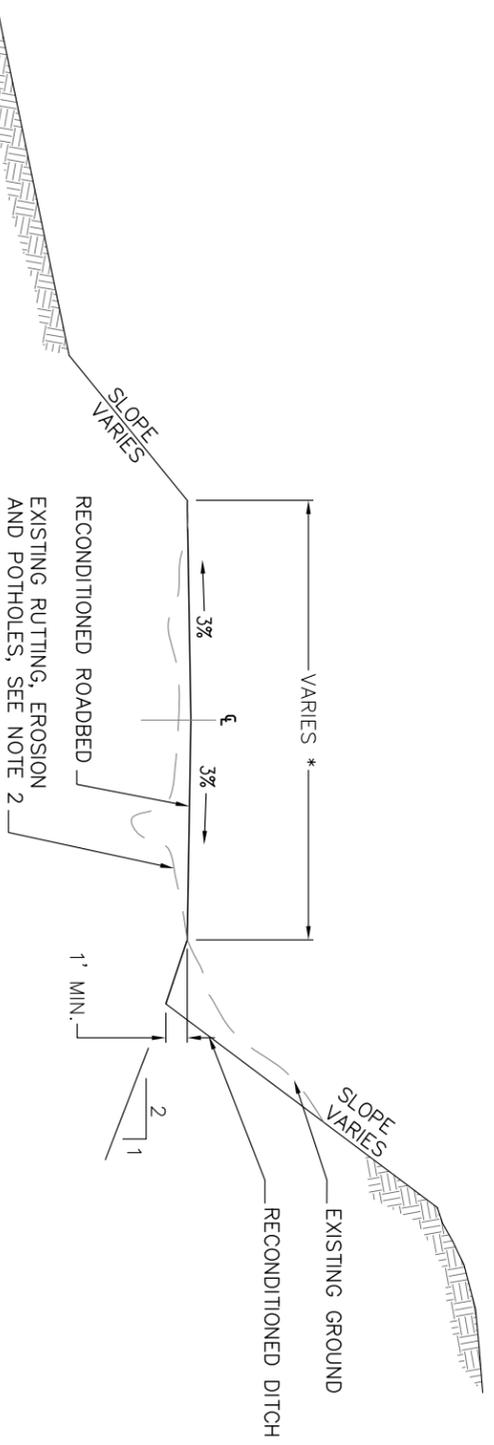
U.S. DEPARTMENT OF AGRICULTURE  
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**R6**  
PACIFIC NORTHWEST REGION

Forest:  
**ROGUE RIVER-SISKIYOU  
NATIONAL FOREST**  
District:  
**POWERS RANGER DISTRICT**

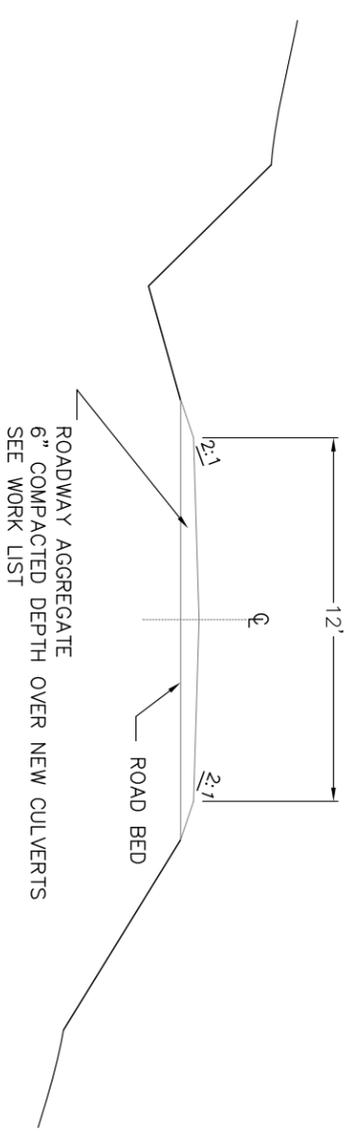
Design: D. SAMSON  
Drawn: D. SAMSON  
Checked: L. COOMBE  
Date: Z/2015

Sheet Title:  
**CLEARING AND GRUBBING  
TYPICALS**  
TWO SPOT TIMBER SALE

Project No:  
Sheet **20** OF **27**



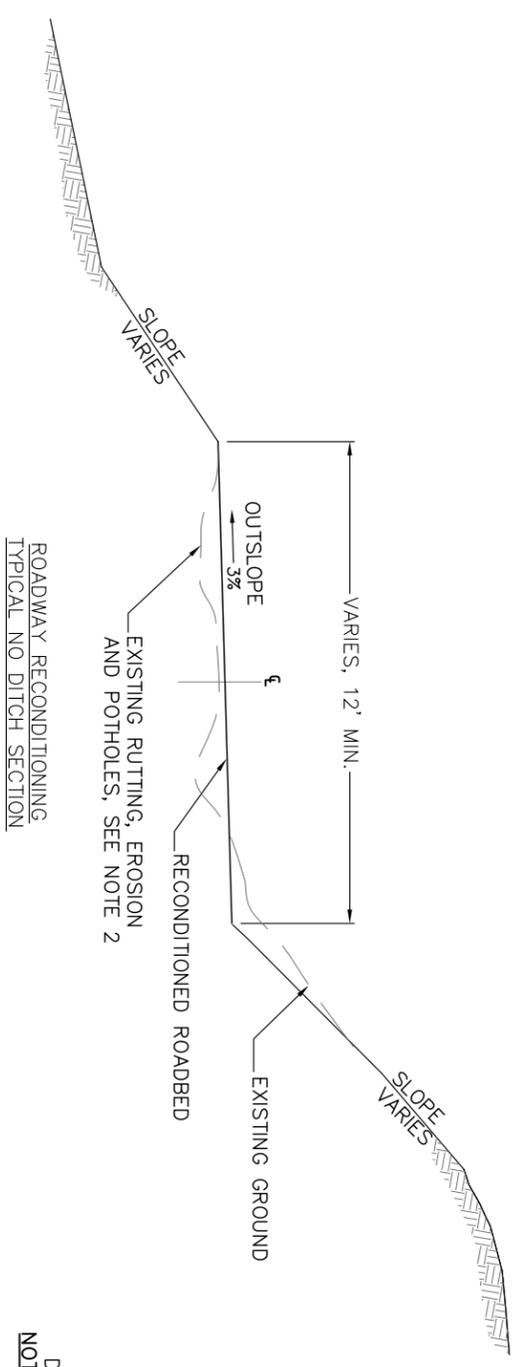
ROADWAY RECONDITIONING  
TYPICAL DITCH SECTION



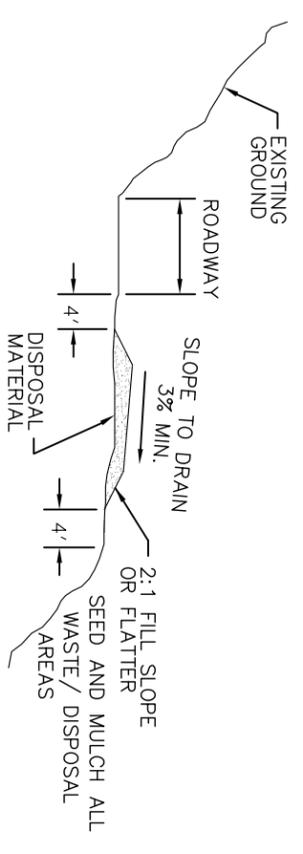
AGGREGATE PLACEMENT TYPICAL

**NOTES:**

1. RECONDITION ROADS AS SHOWN AND IN ACCORDANCE WITH FP-03 SECTION 303. REQUIRED RECONDITIONING INCLUDES WIDENING FOR CURVES AND TURNOUTS.
2. WHERE RUTTING, EROSION AND POTHOLES EXIST, SCARIFY TO DEPTH OF RUT/EROSION/POTHOLE, BLADE, SHAPE AND COMPACT EXISTING AGGREGATE SURFACE MATERIAL.
3. PLACE AGGREGATE SURFACE OR ROADWAY EXCAVATION MATERIAL AS SHOWN ON WORK LISTS.
4. REMOVE AND DISPOSE OF SLIDE, DITCH, AND CATCH BASIN MATERIAL.
5. SEED AND MULCH ALL WASTE/DISPOSED MATERIAL.



DRAWINGS  
NOT TO SCALE



DISPOSAL AREA TYPICAL

DISPOSAL SITES	
ROAD #	MILEPOSTS



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Forest:  
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NATIONAL FOREST**  
District:  
**POWERS RANGER DISTRICT**

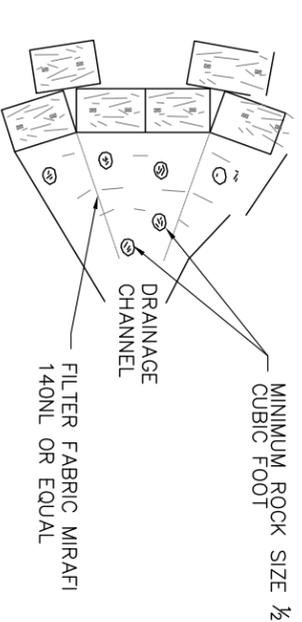
Design: D. SAMSON  
Drawn: D. SAMSON  
Checked: L. COOMBE  
Date: 7/2015

Sheet Title:  
**ROAD RECONDITIONING**  
TWO SPOT TIMBER SALE

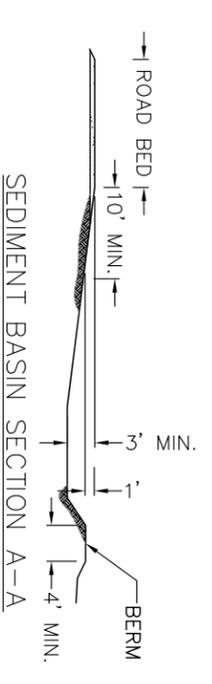
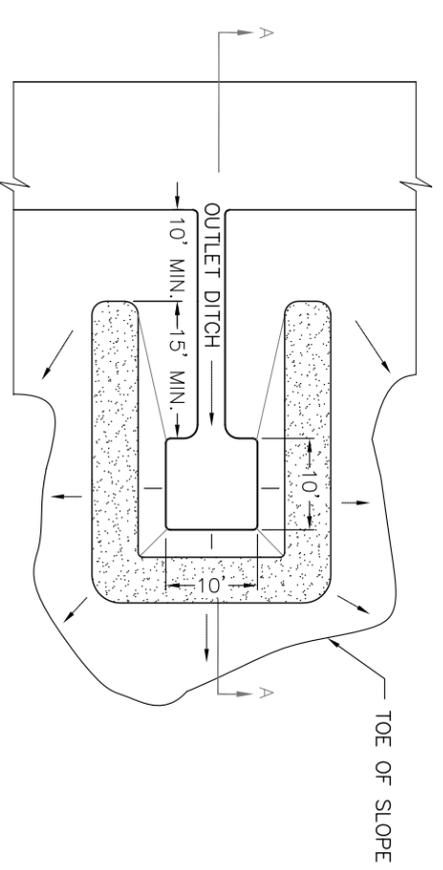
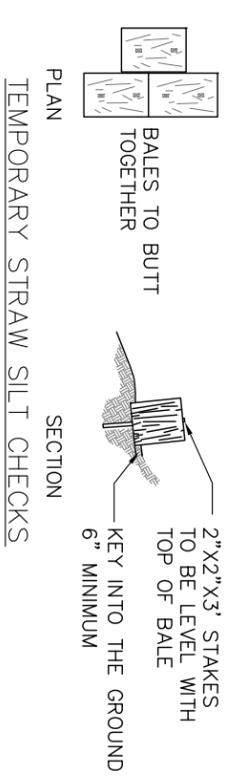
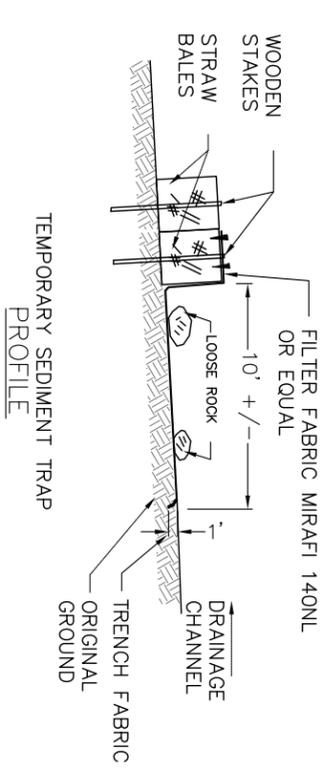
Project No:  
Sheet **21** OF **27**

EROSION AND SEDIMENT CONTROL:

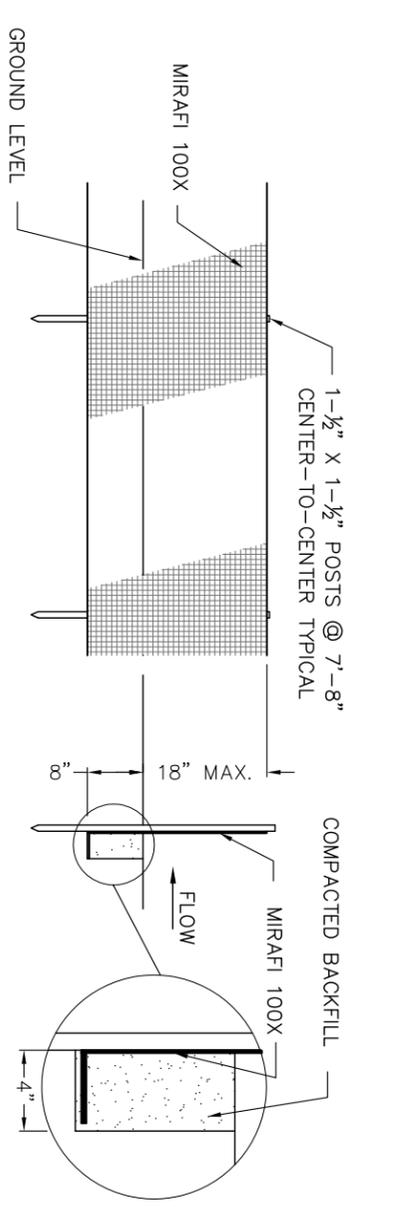
1. PRIOR TO THE START OF CONSTRUCTION, SUBMIT A WRITTEN PLAN THAT PROVIDES PERMANENT AND TEMPORARY EROSION CONTROL MEASURES TO MINIMIZE EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION.
2. PURCHASER SHALL PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED TO CONTROL SOIL EROSION DURING ROAD RECONSTRUCTION.
3. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO BEGINNING EARTH DISTURBING ACTIVITIES IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLAN. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY CONTRACTING OFFICER.
4. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER WORK HAS CEASED.
5. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN (7) DAYS OR AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-HALF (1/2) INCH. DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPAIRED OR REPLACED.
6. SEDIMENT SHALL BE REMOVED FROM BEHIND TEMPORARY SILT FENCING WHEN THE DEPTH OF SEDIMENT REACHES 6 INCHES.
7. ALL DISTURBED AREAS WHERE EARTH IS EXPOSED SHALL BE CLEANED, GRADED SMOOTH, SHAPED TO DRAIN. SEEDED AND MULCHED. SEED WILL BE GOVERNMENT FURNISHED. MULCH SHALL BE CERTIFIED WEED FREE.
8. ALL TEMPORARY SEDIMENT CONTROL MEASURES AND PRACTICES SHALL BE REMOVED WITHIN TWO (2) MONTHS AFTER THE FOREST SERVICE HAS ACCEPTED THE PROJECT.



TEMPORARY STRAW SEDIMENT TRAP  
PLAN VIEW



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FOREST SERVICE  
**R6**  
PACIFIC NORTHWEST REGION

Forest: **ROGUE RIVER-SISKIYOU NATIONAL FOREST**  
District: **POWERS RANGER DISTRICT**

Design: **D. SAMSON**  
Drawn: **D. SAMSON**  
Checked: **L. COOMBE**  
Date: **2/2015**

Sheet Title: **SEDIMENT CONTROL**  
**TWO SPOT TIMBER SALE**

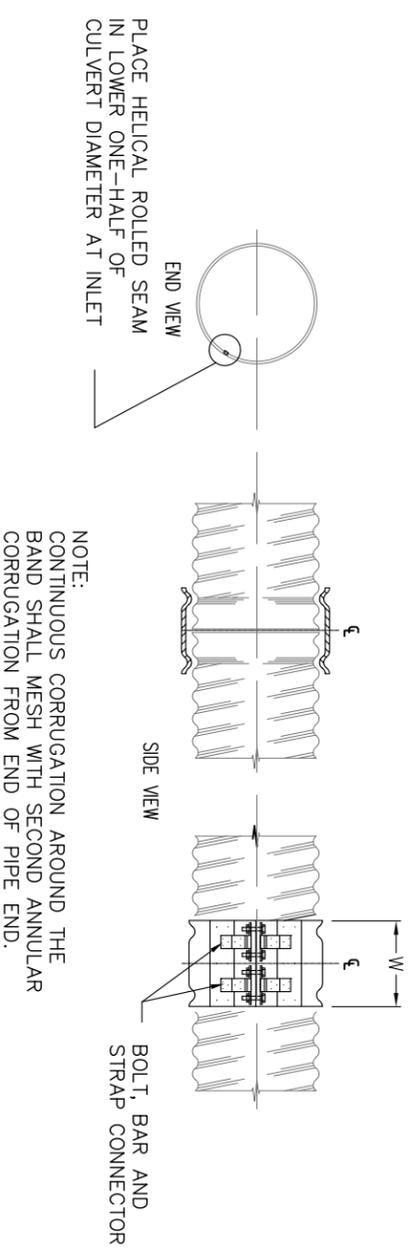
Project No: \_\_\_\_\_  
Sheet **22** OF **27**

COUPLING BANDS FOR METAL PIPE CULVERT				
CORRUGATION SIZE	PIPE DIAMETER	PIPE - ARCH SPAN X RISE	MINIMUM BAND WIDTH - W	
			ANNULAR CORRUGATED BANDS	HELICALLY CORRUGATED BANDS
INCHES				
1-1/2 by 1/4	under drain	-	12	12
	12 to 36	17x13 to 42x29	12	12
2-2/3 by 1/2	42 to 72	49x33 to 83x57	12	12
	78 to 84	-	12	12
3 by 1	36 to 72	42x29 to 81x59	12	14
	78 to 144	87x63 to 142x91	12	14
5 by 1	48 to 72	57x38 to 81x59	20	22
	78 to 144	87x63 to 142x91	20	22

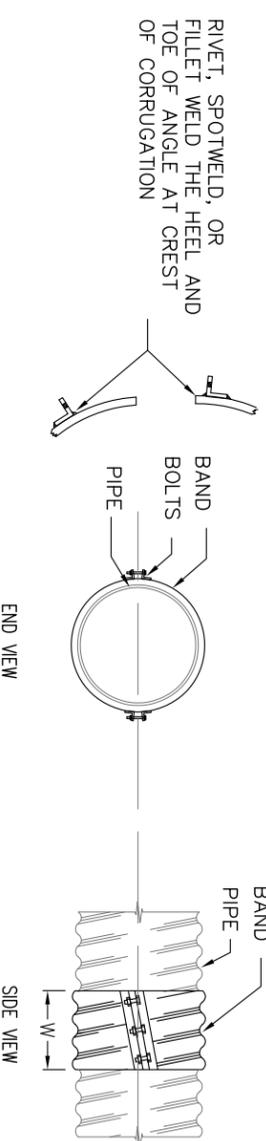
**NOTES:**

- FABRICATE ANNULAR, HELICAL AND SEMI-CORRUGATED TYPE COUPLING BANDS FROM THE SAME METAL AS THE CONNECTING PIPE. PROVIDE COUPLING BANDS NOT MORE THAN 2 NOMINAL SHEET THICKNESS THINNER THAN THE THICKNESS OF THE PIPE TO BE CONNECTED, AND NO THINNER THAN 0.052 INCH (18 GAGE) FOR STEEL OR 0.048 INCH (18 GAGE) FOR ALUMINUM. FASTEN COUPLING BANDS WITH THE FOLLOWING SIZE OF BOLT:
  - 3/8-INCH FOR PIPE DIAMETER - 18" (21"x15" PIPE ARCH) OR LESS
  - 1/2-INCH FOR PIPE DIAMETER - 21" (24"x18" PIPE ARCH) OR MORE
- FOR HELICALLY CORRUGATED PIPE WITH REROLLED ENDS, THE NOMINAL CORRUGATION SIZE REFERS TO THE DIMENSION OF THE END CORRUGATION IN THE PIPE.
- USE ANNULAR CORRUGATED BANDS WITH PIPES HAVING ANNULAR CORRUGATIONS OR WITH HELICAL PIPE HAVING REROLLED ENDS TO FORM ANNULAR CORRUGATIONS.
- USE HELICAL CORRUGATED BAND WITH PIPES HAVING HELICALLY CORRUGATED ENDS. HELICAL CULVERT INSTALLATIONS SHALL HAVE THE ROLLED SEAM AT THE INLET PLACED IN THE LOWER ONE-HALF OF THE PIPE DIAMETER.
- SMOOTH SLEEVE-TYPE COUPLERS AND FLAT BANDS MAY BE USED FOR PIPE DIAMETERS OF 12 INCHES OR LESS. USE A MATCHING METAL HAVING A NOMINAL THICKNESS OF NOT LESS THAT 0.040 INCH (20 GAGE) FOR STEEL, OR 0.036 INCH (20 GAGE) FOR ALUMINUM, OR A PLASTIC WITH AN EQUIVALENT STRENGTH TO METAL.

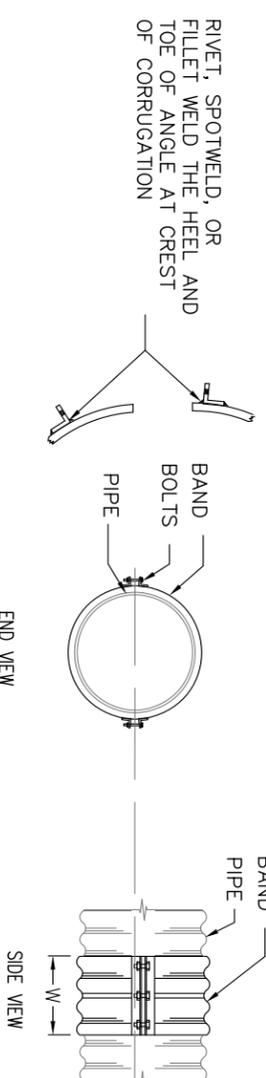
GAUGE NUMBER	EQUIVALENT CULVERT THICKNESS	
	STEEL	ALUMINUM
16	0.064	0.060
14	0.079	0.075
12	0.109	0.105
10	0.138	0.135
6	0.168	0.165



**SEMI-CORRUGATED BAND**



**HELICAL BAND**



**ANNULAR BAND**

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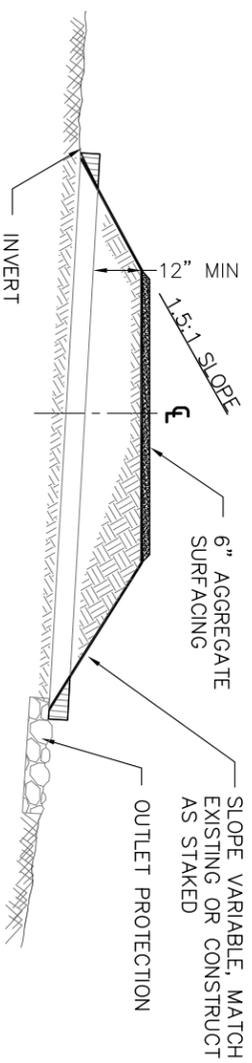
U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
**R6**  
PACIFIC NORTHWEST REGION

Forest: **ROGUE RIVER-SISKIYOU**  
National Forest  
District: **POWERS RANGER DISTRICT**

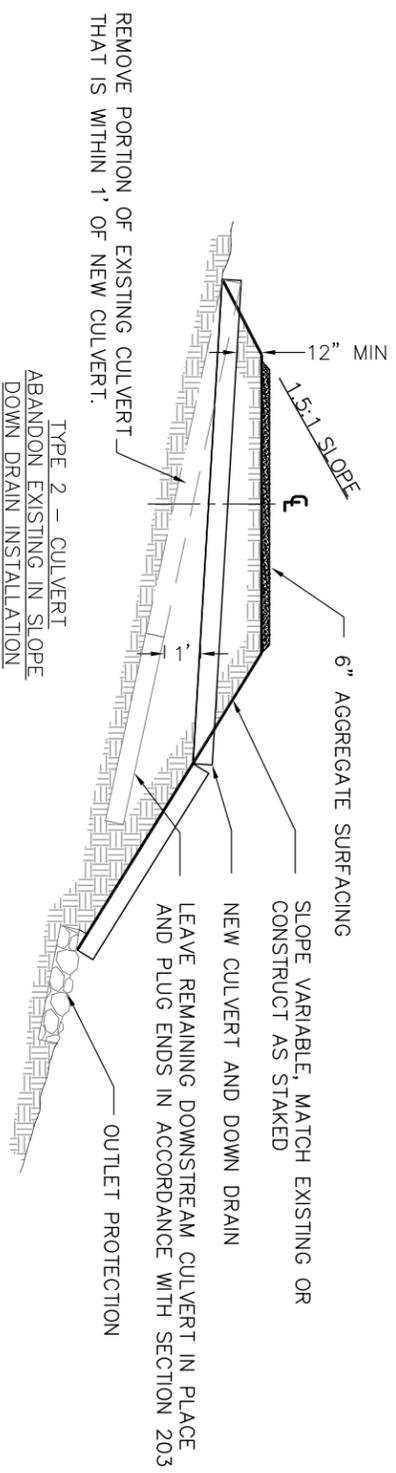
Design: **D. SAMSON**  
Drawn: **D. SAMSON**  
Checked: **L. COOMBE**  
Date: **7/2015**

Sheet Title:  
**COUPLING BANDS FOR METAL PIPE CULVERTS**  
TWO SPOT TIMBER SALE

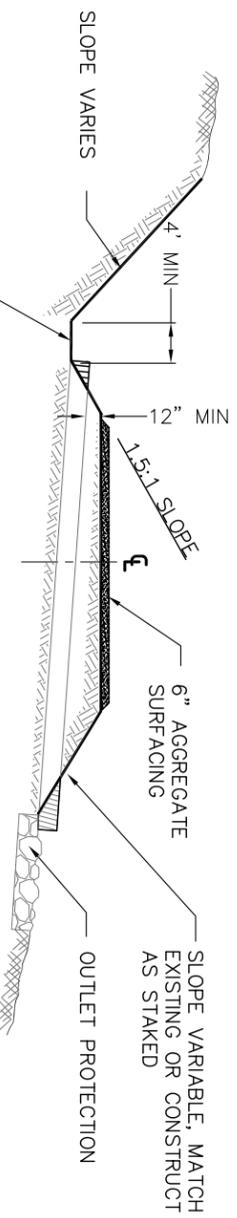
Project No:  
Sheet **23** OF **27**



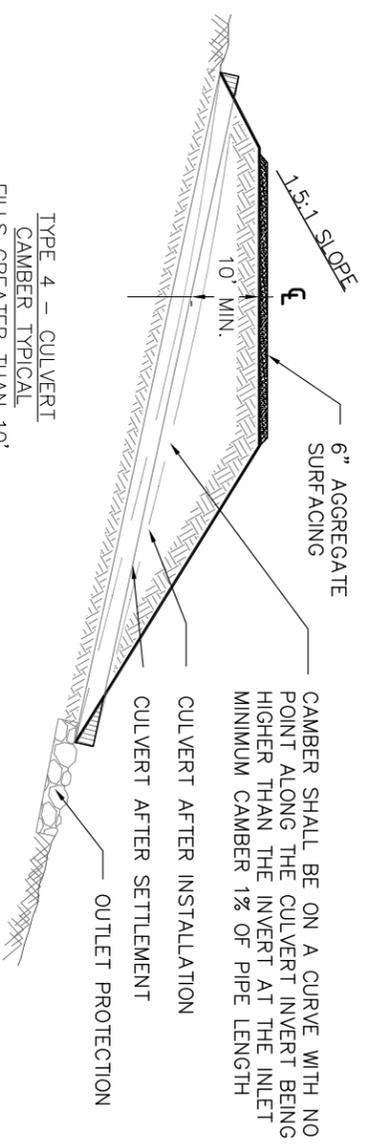
TYPE 1 - CULVERT  
FILL SECTION INSTALLATION



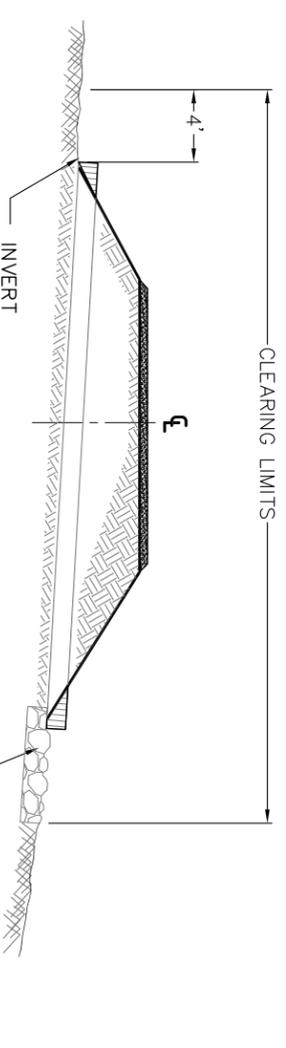
TYPE 2 - CULVERT  
ABANDON EXISTING IN SLOPE  
DOWN DRAIN INSTALLATION



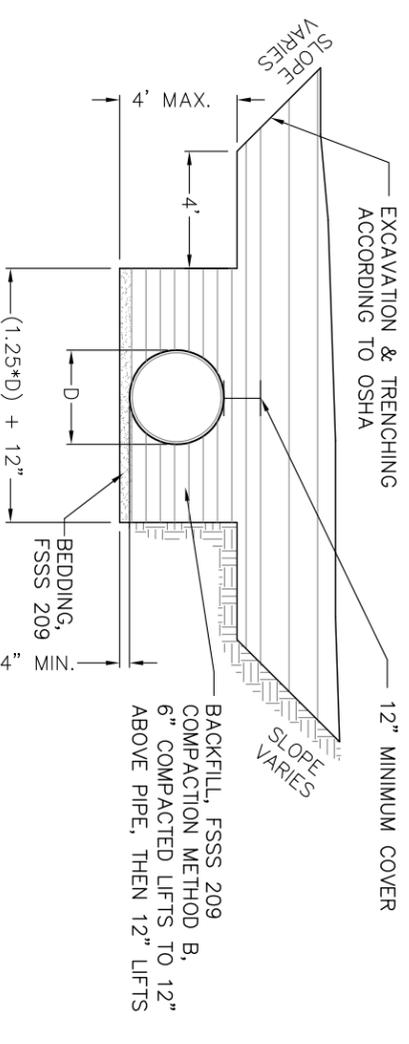
TYPE 3 - CULVERT  
SIDEHILL SECTION INSTALLATION



TYPE 4 - CULVERT  
CAMBER TYPICAL  
FILLS GREATER THAN 10'



CLEARING LIMITS



TYPICAL CMP ROUND CULVERT SECTION

**NOTES:**

1. CLEAR AND GRUB IN ACCORDANCE WITH SECTION 201. SEE PAY ITEM 201 FOR DISPOSAL METHODS.
2. INSTALL NEW CULVERT ACCORDING TO SECTION 602. EXCAVATION, BEDDING, AND BACKFILL ARE INCIDENTAL TO ITEM 602 AND IN ACCORDANCE WITH SECTION 209. USE COMPACTION METHOD B FOR BACKFILL.
3. MATCH EXISTING ROAD WIDTH AND GRADE. IMPORT SELECT BORROW AS NEEDED.
4. PLACE CRUSHED AGGREGATE AT 6" DEPTH OVER CULVERT INSTALLATION FOR ROAD SURFACING. SALVAGE EXISTING ROAD AGGREGATE AND UTILIZE AS BASE ROCK.
5. PROVIDE FOR A 25' TRANSITION GRADE INTO INLET OF CULVERT. SEE 'CULVERT CATCH BASIN & OUTLET DITCH'.
6. ALL EXCAVATION AND TRENCHING OPERATIONS SHALL CONFORM TO OSHA REQUIREMENTS.
7. DO NOT OPERATE ANY HEAVY EQUIPMENT OVER ANY CULVERT UNTIL IT HAS BEEN PROPERLY BACK FILLED WITH A MINIMUM OF 1-FOOT COVER.
8. CULVERTS SHALL BE INSTALLED AS STAKED, WITH A MINIMUM OF 8% SLOPE WHERE POSSIBLE.
9. THE MINIMUM LENGTH OF A SINGLE PIPE SECTION FOR ANY INSTALLATION SHALL NOT BE LESS THAN 10 L.F.
10. FIELD CUTTING OF CULVERT IS NOT PERMITTED UNLESS APPROVED BY THE CONTRACTING OFFICER.
11. REMOVE AND DISPOSE OF EXISTING CULVERT ACCORDING TO SECTION 203.

DRAWINGS  
NOT TO SCALE



U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

R6  
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Forest:  
District:

ROGUE RIVER-SISKIYOU  
NATIONAL FOREST

POWERS RANGER DISTRICT

Design: D. SAMSON  
Drawn: D. SAMSON  
Checked: L. COOMBE  
Date: 7/2015

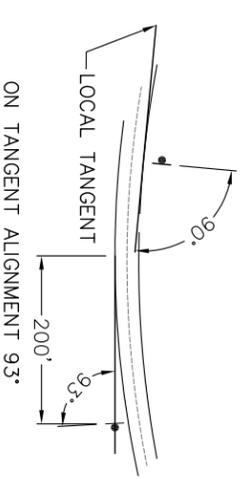
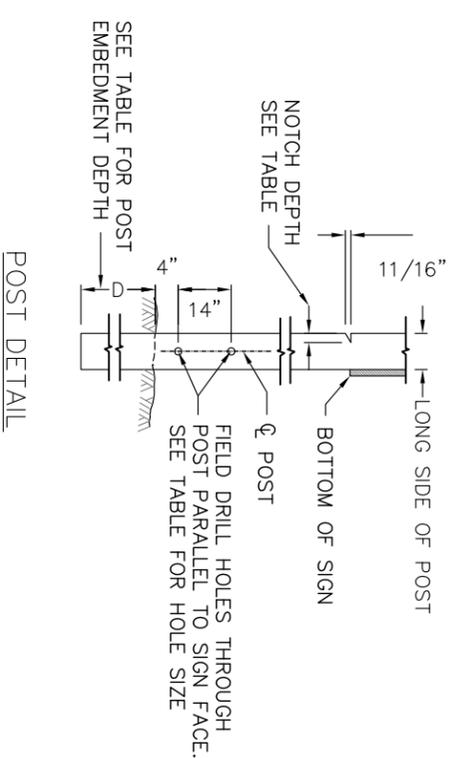
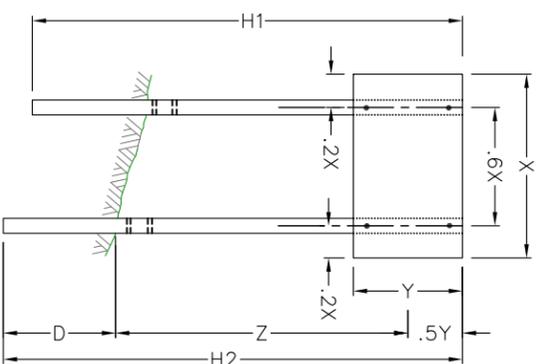
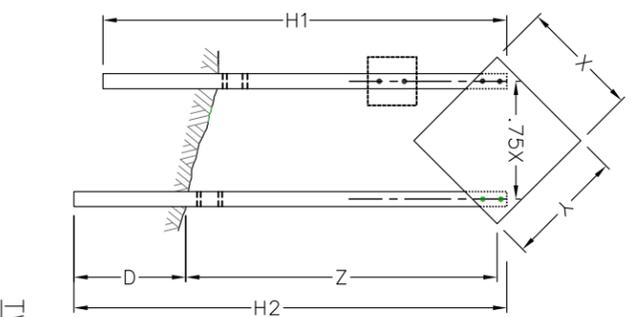
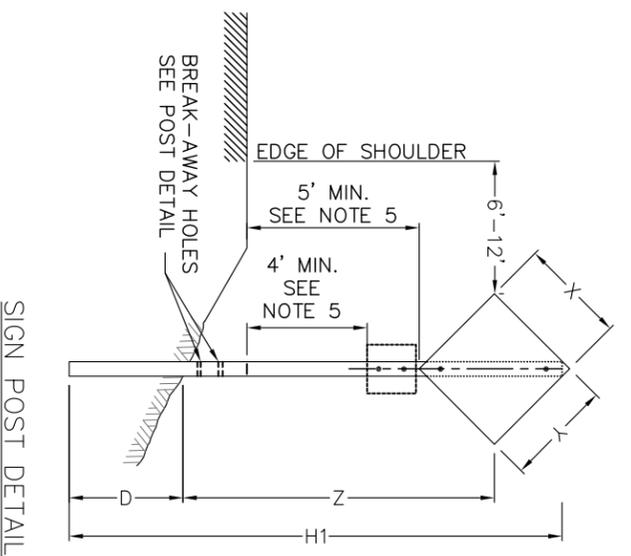
Sheet Title:  
**CULVERT INSTALLATION & BEDDING**

TWO SPOT TIMBER SALE

Project No:

Sheet  
24 OF 27





DRAWINGS  
NOT TO SCALE

WOOD POST SELECTION TABLE

SIGN SHAPE	X x Y	Z IS 10' OR LESS				Z IS GREATER THAN 10'					
		NUMBER OF POSTS	POST SIZE	D	HOLE SIZE	NOTCH DEPTH	NUMBER OF POSTS	POST SIZE	D	HOLE SIZE	NOTCH DEPTH
	30" X 30"	1	4" X 4"	36"	0	0	1	4" X 6"	48"	1 1/2"	0
	30" X 30"	1	4" X 4"	36"	0	0	or 2	4" X 4"	36"	0	0
	36" X 36"	1	4" X 6"	48"	1 1/2"	0	1	4" X 6"	48"	1 1/2"	0
	36" X 36"	or 2	4" X 4"	36"	0	0	or 2	4" X 4"	36"	0	0
	48" X 48"	1	4" X 6"	48"	1 1/2"	0	1	6" X 8"	48"	3"	0
	48" X 48"	1	4" X 6"	48"	1 1/2"	0	or 2	4" X 6"	48"	1 1/2"	1 3/4"
	60" X 30"	2	4" X 4"	36"	0	0	2	4" X 6"	48"	1 1/2"	1 3/4"
	78" X 42"	2	4" X 6"	48"	1 1/2"	1 3/4"	2	4" X 6"	48"	1 1/2"	1 3/4"
	96" X 48"	2	4" X 6"	48"	1 1/2"	1 3/4"	2	6" X 8"	48"	3"	2 1/4"

- NOTE:
1. ATTACH SIGN PANELS WITH A MINIMUM OF 2 - 1/4" DIA. BOLTS PER POST.
  2. MOUNT SIGNS SMALLER THAN LISTED ON A SINGLE 4" X 4" POST. FOR SIGNS NOT SHOWN, USE NEXT LARGEST SIZE.
  3. H1 AND H2 = OVERALL POST LENGTH. SELECT POST LENGTHS TO FIT FIELD CONDITIONS.
  4. D = POST EMBEDMENT DEPTH FOR AVERAGE SOIL CONDITIONS.
  5. WHEN PEDESTRIANS ARE PRESENT, OR IN AREAS WHERE THE VIEW IS OBSTRUCTED, USE 7' MINIMUM MOUNTING HEIGHT.
  6. USE TYPE III OR HIGHER TYPE SHEETING ON ALL SIGNS AND CHANNELIZING DEVICES. WARNING LIGHTS ARE NOT NORMALLY NEEDED ON DEVICES WITH TYPE III OR HIGHER TYPE SHEETING, BUT MAY BE BENEFICIAL TO ATTRACT THE DRIVERS ATTENTION IN FOG OR OTHER SPECIAL CONDITIONS. WHEN USED, APPLY THE APPROPRIATE TYPE OR WARNING LIGHT (TYPE A, B, C, OR D) PER THE MUTCD CHAPTER 6F.
  7. ENSURE ALL SIGN SUPPORTS EXPOSED TO IMPACT BY TRAFFIC MEET THE REQUIREMENTS OF NCHRP-350 FOR CRASH WORTHINESS.
  8. DO NOT STORE TRAFFIC CONTROL DEVICES ALONG THE ROADWAY WHEN NOT IN USE. COVER POST-MOUNTED SIGNS WHEN NOT APPLICABLE.
  9. STATE STANDARDS MAY BE USED AS AN ALTERNATIVE IF APPROVED BY THE CONTRACTING OFFICER.



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NATIONAL FOREST**  
District:  
**POWERS RANGER DISTRICT**

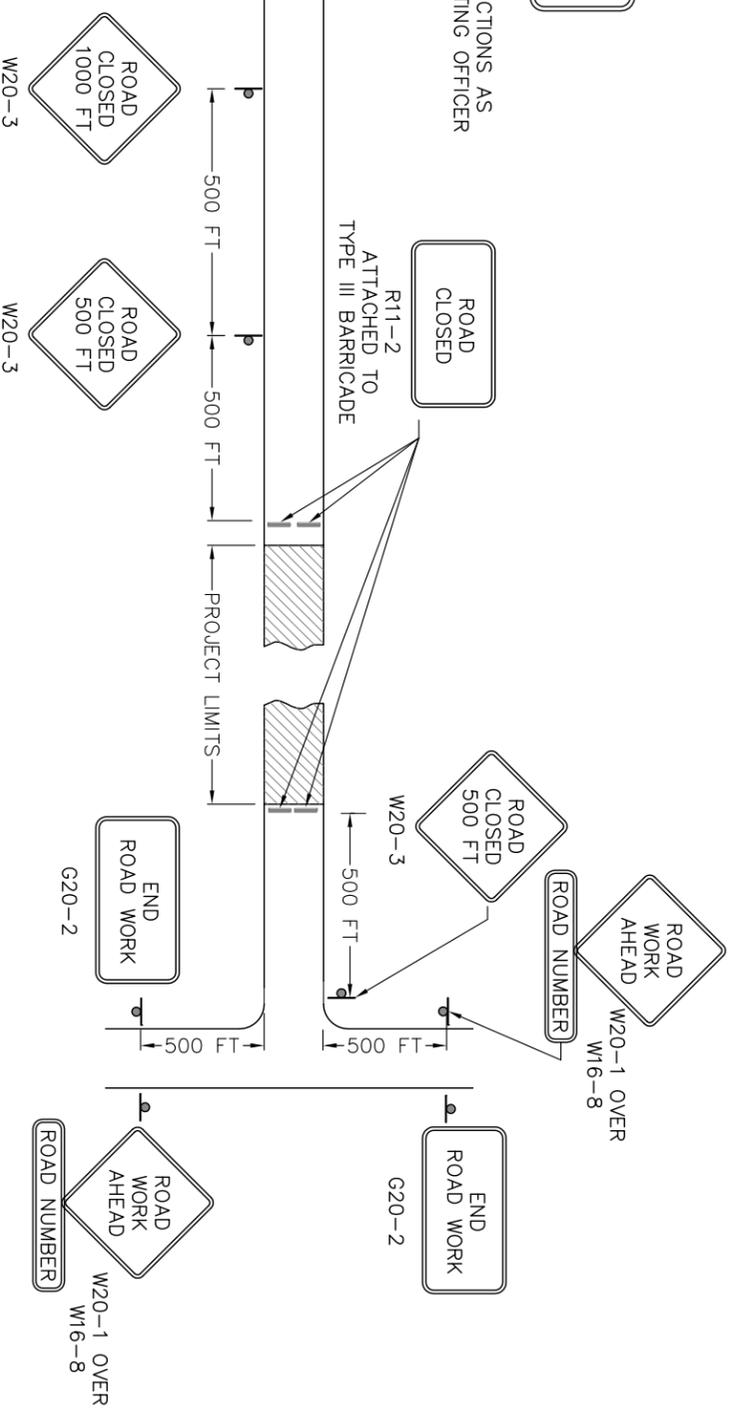
Design: D. SAMSON  
Drawn: D. SAMSON  
Checked: L. COOMBE  
Date: Z/2015

Sheet Title:  
**TEMPORARY TRAFFIC CONTROL -  
POST DETAIL**  
TWO SPOT TIMBER SALE

Project No:  
Sheet **26** OF **27**

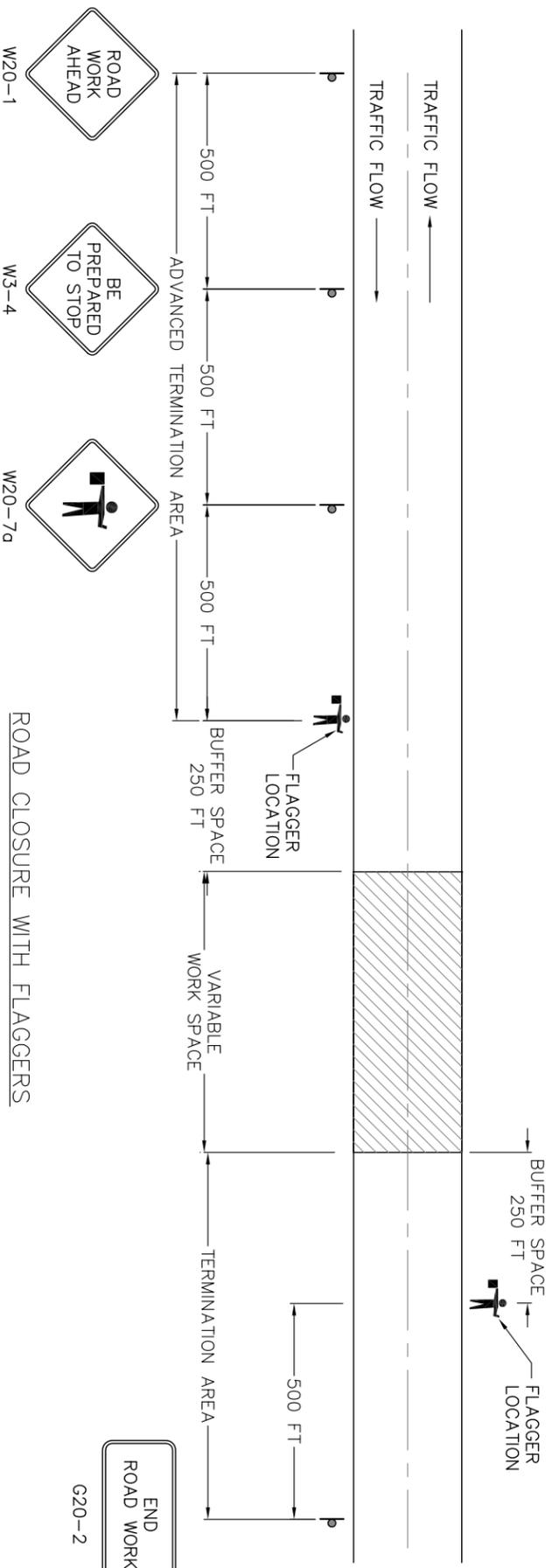
ROAD CLOSED  
XX MILES AHEAD

R11-3  
INSTALL AT ROAD INTERSECTIONS AS  
DIRECTED BY THE CONTRACTING OFFICER



ROAD CLOSURE WITHOUT FLAGGERS

- NOTE
1. ERECT ALL ADVANCE WARNING SIGNS BEFORE STARTING CONSTRUCTION WORK.
  2. NOT ALL DETAILS SHOWN ON THE TEMPORARY TRAFFIC CONTROL SHEETS MAY BE APPLICABLE TO THIS PROJECT. THE CONTRACTOR MAY ADD OR DELETE INFORMATION AND DETAILS IN THIS TRAFFIC CONTROL PLAN AS NECESSARY TO ACCOMMODATE ACTUAL OPERATIONS WITH WRITTEN APPROVAL FROM THE CONTRACTING OFFICER.
  3. WHERE ADVANCE WARNING SIGNS, PLACED AS SHOWN, INTERFERE WITH PERMANENT SIGNS, LOCATE THE WARNING SIGNS AS DETERMINED BY THE CO FOR BEST RESULTS. VARY MESSAGES AS REQUIRED.
  4. ADDITIONAL OR DIFFERENT MESSAGE SIGNS MAY BE REQUIRED TO FIT THE ACTUAL CONSTRUCTION CONDITIONS.
  5. IF W20-1 IS ON A ROADWAY OTHER THAN THAT ON WHICH THE ACTUAL CONSTRUCTION WORK OCCURS, INCLUDE A SUPPLEMENTARY PLAQUE INDICATING THE NAME OF THE ROAD THE WORK IS ON.
  6. IF SIGNS WILL BE IN PLACE MORE THAN 72 CONSECUTIVE HOURS, USE GROUND-MOUNTED POSTS.



ROAD CLOSURE WITH FLAGGERS

- NOTE
1. SIGNS ARE SHOWN FOR ONE DIRECTION OF TRAVEL ONLY. PLACE DEVICES SIMILAR TO THOSE DEPICTED FOR THE OPPOSITE DIRECTION OF TRAVEL.
  2. FINAL LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE CHANGED TO FIT FIELD CONDITIONS AS APPROVED BY THE CO.
  3. FOR PILOT CAR OPERATION, MOUNT THE "PILOT CAR FOLLOW ME" (G20-4) SIGN AT A CONSPICUOUS LOCATION ON THE REAR OF VEHICLE. PROMINENTLY DISPLAY THE NAME OF THE CONTRACTOR ON THE PILOT CAR.
  4. FOR NIGHT TIME FLAGGING OPERATION, PROVIDE FLOODLIGHTING AT FLAGGER STATIONS PER OSHA REGULATIONS.
  5. DO NOT ALLOW EQUIPMENT, MATERIALS, OR VEHICLES TO BE PARKED OR STORED IN THE BUFFER SPACE.

DRAWINGS  
NOT TO SCALE



U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
R6  
PACIFIC NORTHWEST REGION

Forest:  
ROGUE RIVER-SISKIYOU  
NATIONAL FOREST  
District:  
POWERS RANGER DISTRICT

Design: D. SAMSON  
Drawn: D. SAMSON  
Checked: L. COOMBE  
Date: 7/2015

Sheet Title:  
TEMPORARY TRAFFIC CONTROL -  
SINGLE LANE CLOSURE LAYOUT  
TWO SPOT TIMBER SALE

Project No:  
Sheet 27 OF 27