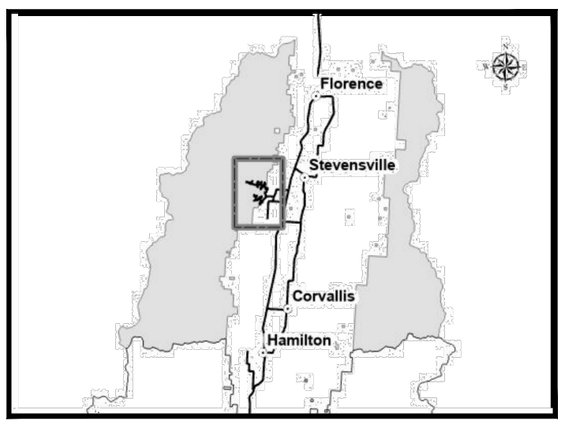
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
REGION ONE

CONSTRUCTION/RECONSTRUCTION PLANS FOR SPECIFIED ROADS

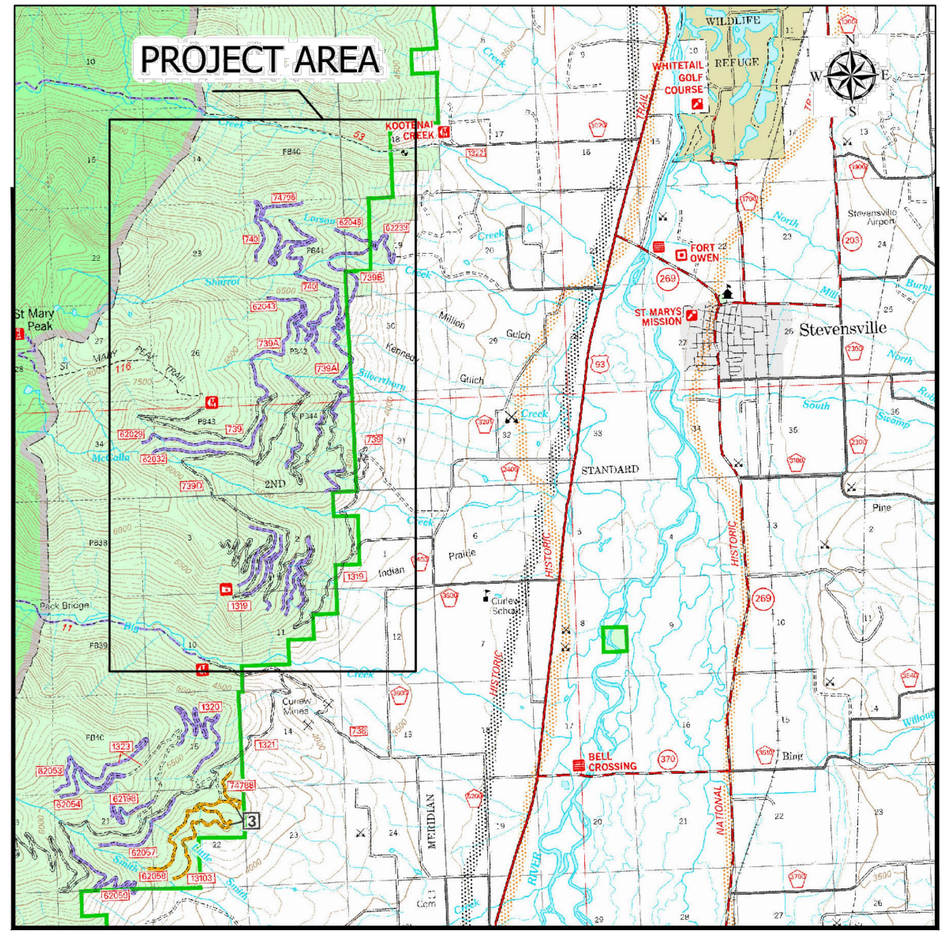
MCCALLA LARSON BMP PROJECT

BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT
RAVALLI COUNTY MONTANA

MONTANA / IDAHO INDEX MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE



AREA MAP
NOT TO SCALE

SHEET INDEX

PROJECT: PROJECT NUMBER
DATE: DATE

Sheet List Table

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DESIGNED BY:

PROJECT ENGINEER
BITTERROOT NATIONAL FOREST — DATE

RECOMMENDED BY:

DISTRICT RANGER
BITTERROOT NATIONAL FOREST — DATE

APPROVED BY:

FOREST ENGINEER
BITTERROOT NATIONAL FOREST — DATE

APPROVED BY:

FOREST SUPERVISOR
BITTERROOT NATIONAL FOREST — DATE

NO.	REVISION DESCRIPTION	BY	DATE
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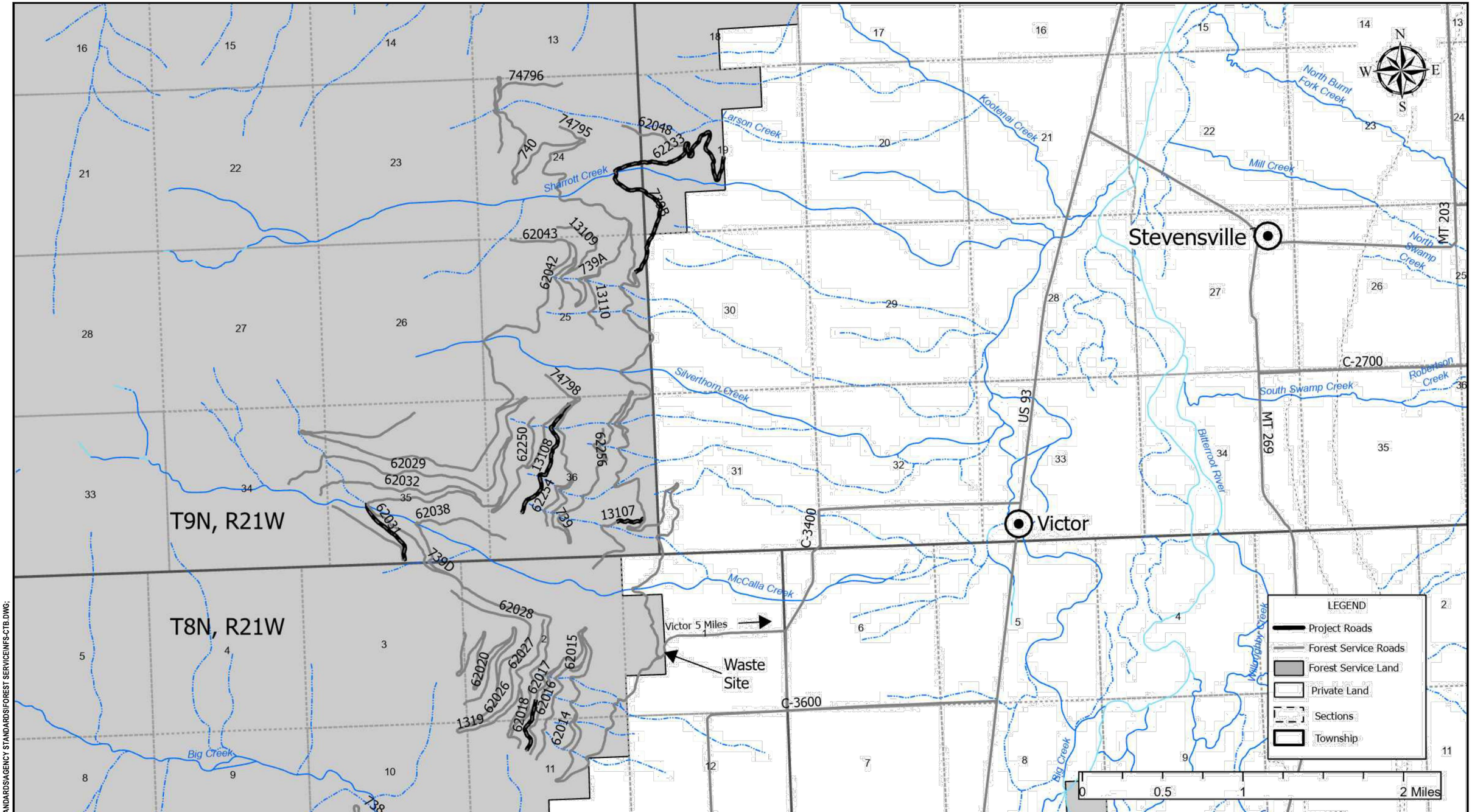
SET NO.

SHEET NO.
1

C:\7730TimberSaleSupport\Bitterroot_Front\McCalla_Larson_Plans and SHEETSET\DWG\R01_Title.dwg



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USDA FOREST SERVICE

United States Department of Agriculture
Forest Service

01
NORTHERN REGION

PROJECT NAME
MCCALLA LARSON BMP PROJECT
BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT

DRAWING TITLE
PROJECT MAP

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	J.PINTOK	A. RICHARDSON	2	2 OF 14

NO.	REVISION DESCRIPTION	BY	DATE
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Pay Item	McCalla Larson BMP Project	Road No.	739B	13107	13108	62031	62233	Grand Total
		MILES	0.86	0.19	0.85	0.46	1.33	3.69
		CON/RECON	RECON	RECON	RECON	RECON	RECON	
	Pay Item Description	UNITS						
15101	Mobilization	LS	ALL	ALL	ALL	ALL	ALL	1
20209	Selective Clearing, Type Roadside, Disposal Method (f)	MI		0.19			0.93	1.12
20425	Drainage Excavation, Type II Dip, Tolerance Class A, Compaction Method 3	EA	1				1	2
21201	Linear Grading, Compaction Method C, Disposal Method (k)	MI	0.86		0.85	0.46	0.40	2.57
30326	Roadway Reconditioning, Compaction Method 3	MI		0.19			0.93	1.12
60201	18 - Inch Corrugated Metal Pipe, 16 Gage, Compaction Method (f)	LF	38				38	76

GENERAL NOTES:

1. SPECIFICATIONS: MATERIALS AND CONSTRUCTION OF THIS PROJECT SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP 14), FP 14 AND ALL APPLICABLE FOREST SERVICE SPECIAL SPECIFICATIONS (FSSS).
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING HAUL ROUTE DURING AND AFTER PERIODS OF HAUL IN A MANNER THAT KEEPS ROUTES SAFE AND ADEQUATELY MAINTAINED TO ACCOMMODATE PUBLIC TRAFFIC. DUST CONTROL IS REQUIRED DURING PERIODS OF ACTIVE HAUL AS REQUIRED BY SECTION 158. DEVELOP WATER SOURCES ON FOREST SERVICE LAND IN ACCORDANCE WITH FSSS 170. DUST CONTROL IS INCIDENTAL TO ITEM 15101.
3. TRAFFIC CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR, SEE 156 - PUBLIC TRAFFIC.
4. SPECIFICATION 157 - PROTECT AGAINST SOIL EROSION AND SEDIMENTATION DURING CONSTRUCTION IN ACCORDANCE WITH FP 14 SECTION 157. CONTRACTOR SHALL PREPARE AND SUBMIT A SOIL EROSION AND SEDIMENT CONTROL PLAN TO C.O. FOR APPROVAL. PLAN SHALL INCLUDE DRAWINGS AND WRITTEN OUTLINE ILLUSTRATING AND DESCRIBING PROPOSED LAYOUT AND METHODS.
5. ITEM 21201 - LINEAR GRADING - ROAD WIDTH SHALL BE 14 FT MINIMUM WITH CURVE WIDENING AS NOTED IN THE PLANS. ALL VEGETATIVE MATERIAL INCLUDING STUMPS, LOGS AND OTHER DELETERIOUS MATERIAL SHALL BE GRUBBED FROM THE ROAD PRISM AND REPLACED WITH SUITABLE LOCAL MATERIAL AS NEEDED, ALL REMAINING VEGETATIVE MATERIAL WITHIN THE CLEARING LIMITS SHALL BE CUT TO A 6-INCH HEIGHT, OR 6-INCHES ABOVE ROCKS OBSTRUCTIONS IN THE ROADWAY AS SHOWN ON SHEET 5. THIS WORK IS CONSIDERED INCIDENTAL TO PAY ITEM 21201.
6. ITEMS 204 AND 303 - UNLESS OTHERWISE SPECIFIED, DISPOSE OF ALL UNSUITABLE OR EXCESS MATERIAL AT THE WASTE SITE IDENTIFIED BY THE C.O.
7. ITEM 251 - CONSERVE ROCK FROM EXCAVATIONS, AND PLACE AS RIPRAP ARMORING AT THE INLETS AND OUTLETS OF DRAINAGE FEATURES. UNLESS RIP RAP QUANTITIES ARE SPECIFIED, THIS WORK IS CONSIDERED INCIDENTAL TO THE DRAINAGE FEATURE INSTALLATION, AND IS NOT MEASURED FOR PAYMENT. SEDIMENT TRAPS SHALL BE 4 FT WIDE, 4 FT DEEP AND 8 FT LONG AS STAKED BY C.O.
8. Item 30207 - AGGREGATE SURFACE COURSE - ALL QUANTITIES ARE IN PLACE QUANTITIES. CONSTRUCTION WATER, COMPACTION AND HAUL ARE INCIDENTAL TO THIS PAY ITEM. AGGREGATE COMPACTED DEPTH IS 4- INCHES.
9. ITEM 30326 - ROADWAY RECONDITIONING: MAINTENANCE OF EXISTING DRAINAGE FEATURES OR REMOVAL OF BERMS, HUMPS, BARRIER ROCK OR OTHER OBSTRUCTIONS IS INCIDENTAL TO PAY ITEM 30326.

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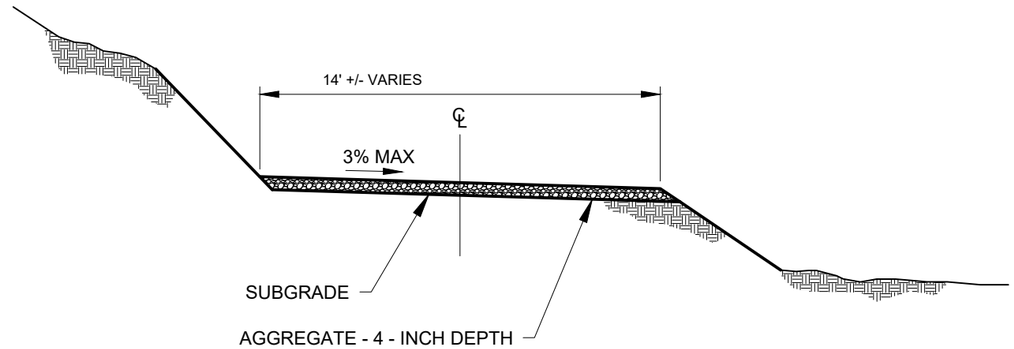
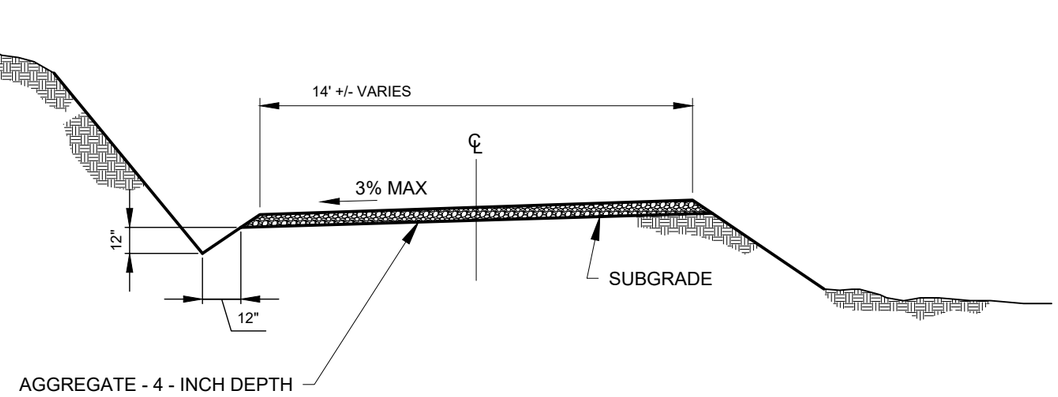


TYPICAL ROAD SECTION - OUTSLOPE DETAIL

NOT TO SCALE



TYPICAL ROAD SECTION - INSLOPE DETAIL

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United States Department of Agriculture
Forest Service

01
NORTHERN REGION

PROJECT NAME
MCCALLA LARSON BMP PROJECT
BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT

DRAWING TITLE
ROAD RECONDITIONING DETAIL

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	J.PINTOK	A. RICHARDSON	4	4 OF 14

NO.	REVISION DESCRIPTION	BY	DATE
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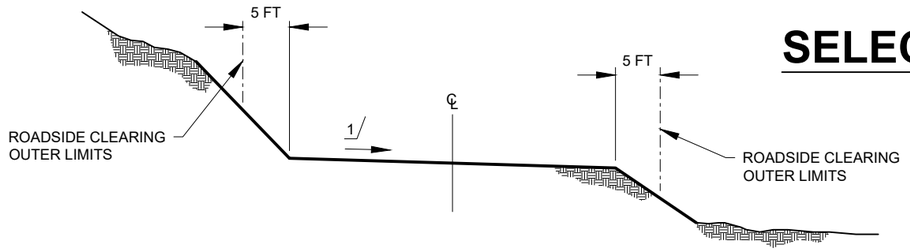
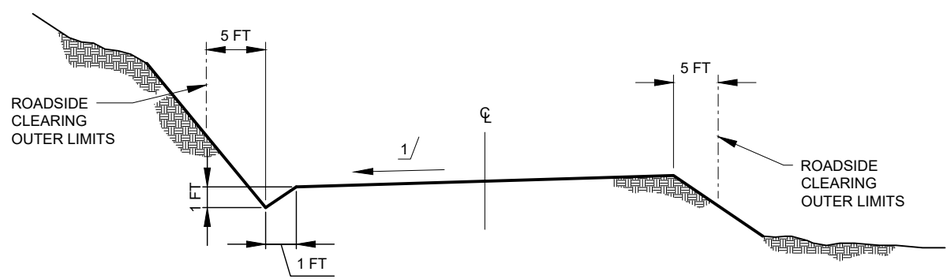
SELECTIVE CLEARING DETAIL
NOT TO SCALE



ROADSIDE CLEARING AND ROAD RECONDITIONING

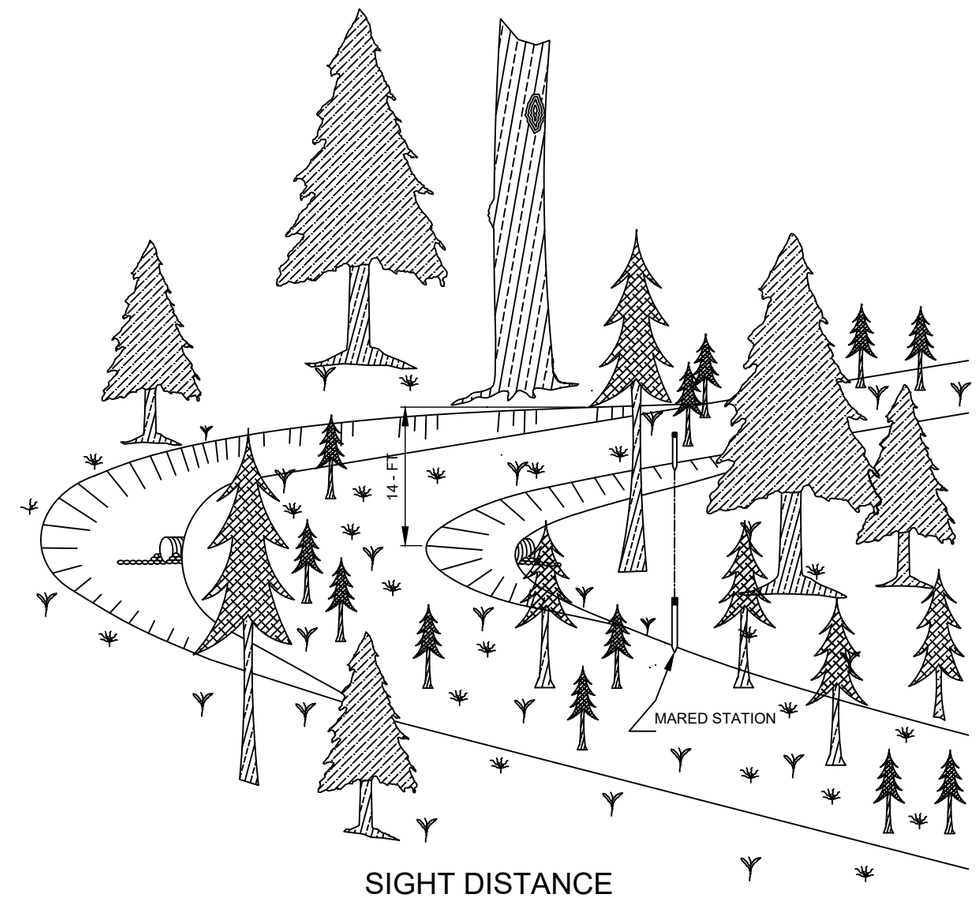
NOT TO SCALE

1/ INSLOPE, OUTSLOPE, OR CROWN WHEN SPECIFIED IN THE WORKLIST. OTHERWISE MAINTAIN EXISTING.



ROADSIDE CLEARING AND ROAD RECONDITIONING W/DITCH

NOT TO SCALE



SIGHT DISTANCE

NOTES:

1. THE AREA OF SIGHT DISTANCE CLEARING WILL BE FROM THE ROADSIDE CLEARING LIMIT TO A LINE OF SIGHT BETWEEN THE BEGINNING AND THE ENDING STATIONS MARKED ON THE GROUND. SIGHT DISTANCE CLEARING IS INCLUDED IN ROADSIDE CLEARING LIMITS AT STAKED LOCATIONS.

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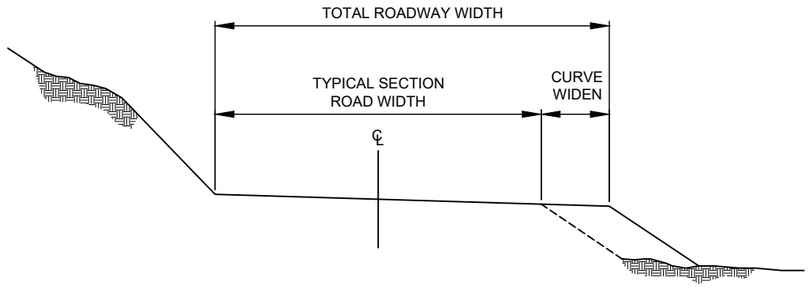
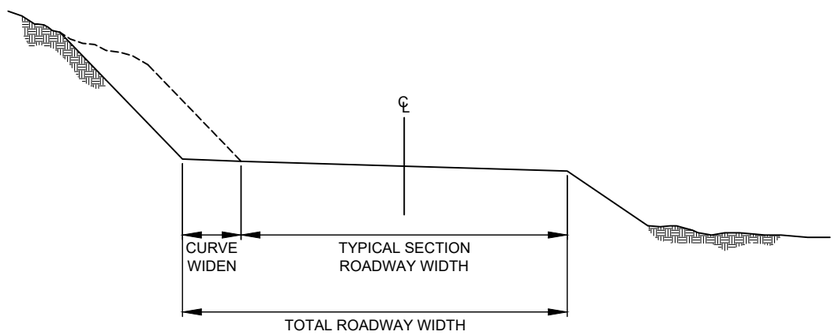
USDA Forest Service United States Department of Agriculture	01 NORTHERN REGION	PROJECT NAME: MCCALLA LARSON BMP PROJECT — BITTERROOT NATIONAL FOREST — STEVENSVILLE RANGER DISTRICT	DRAWING TITLE: ROADSIDE CLEARING DETAIL	DATE: DATE	DESIGNER: J.PINTOK	CHECKED: A. RICHARDSON
				NO. / REVISION DESCRIPTION / BY / DATE	DWG SHEET NO. 5	SHEET 5 OF 14



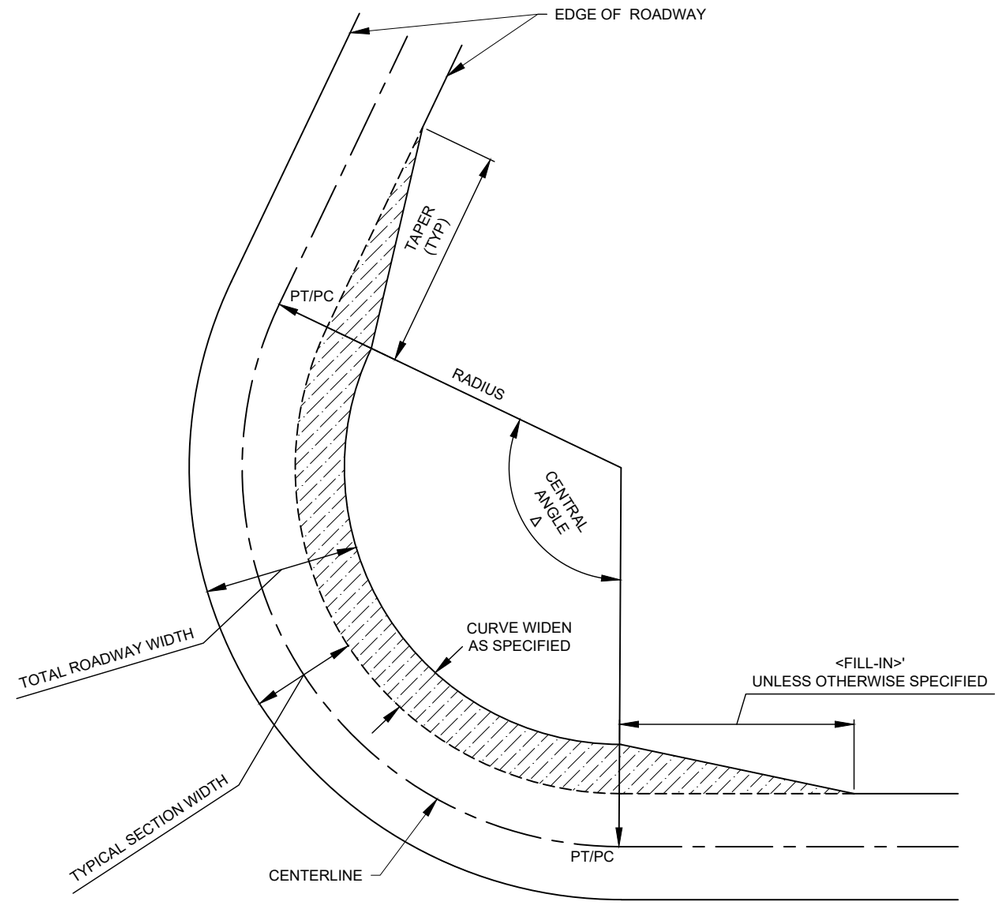
FILL SLOPE CURVE WIDENING

NOT TO SCALE



CUT SLOPE CURVE WIDENING

NOT TO SCALE



Road	Milepost	Curve Radius (ft)	Central Angle	Length of Cuvre (ft)	Taper Length (ft)	Curve Widening (ft)
13108	0.558	50	100	92	60	7.5

NOTES:

1. ADD HORIZONTAL CURVE WIDENING TO THE INSIDE OF CURVES. WIDENING APPLIES TO THE ROADWAY THROUGH THE ENTIRE CURVE FROM PC TO PT.

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Forest Service

01
NORTHERN REGION

PROJECT NAME
MCCALLA LARSON BMP PROJECT
BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT

DRAWING TITLE
CURVE WIDEN DETAIL

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	J.PINTOK	A. RICHARDSON	6	6 OF 14

NO.	REVISION DESCRIPTION	BY	DATE
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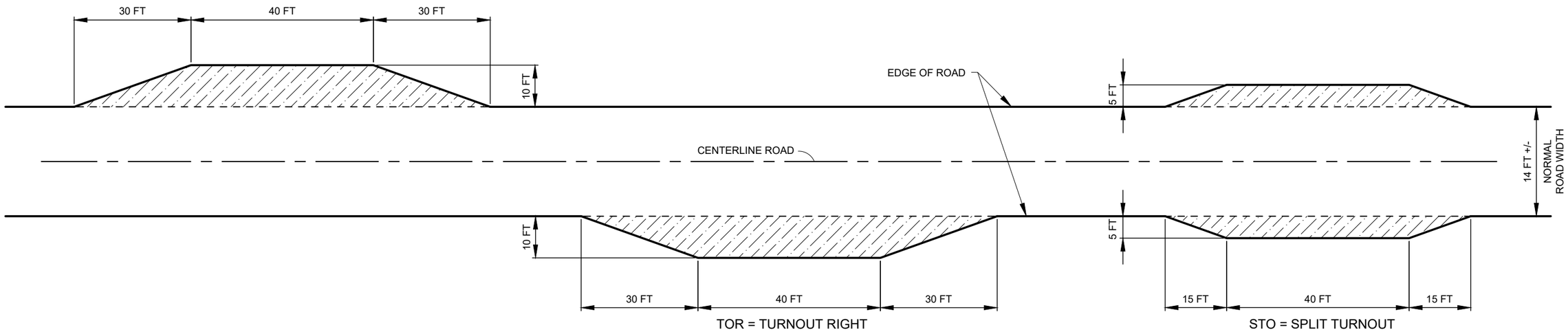

TURNOUT DETAIL

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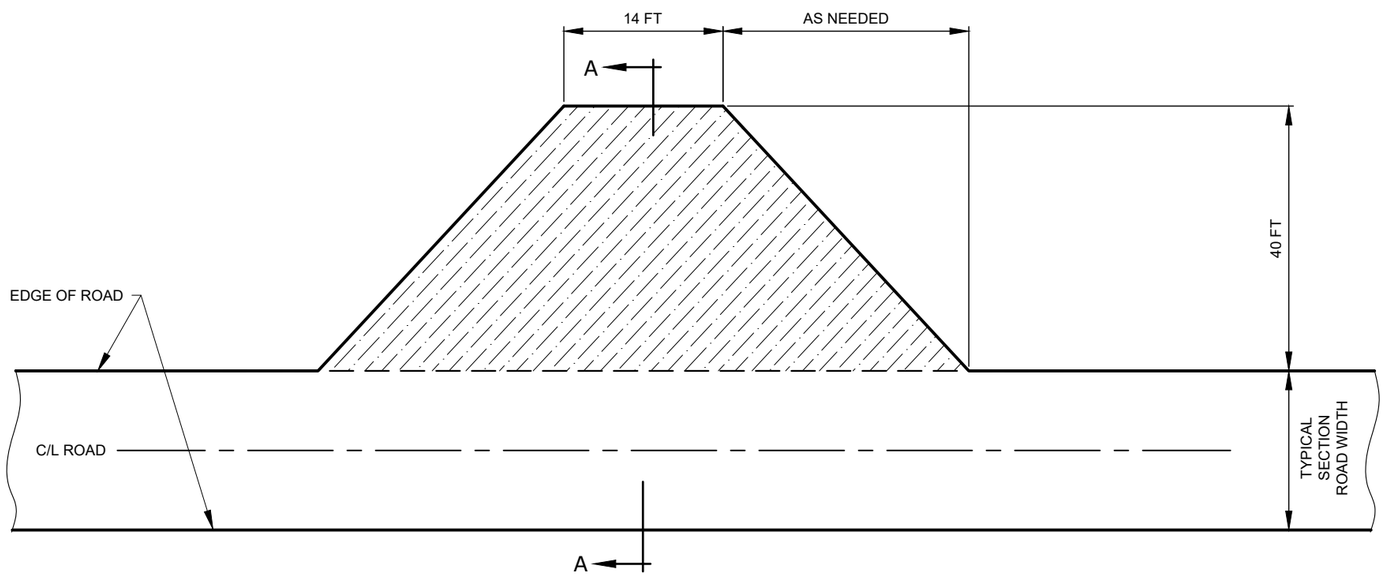
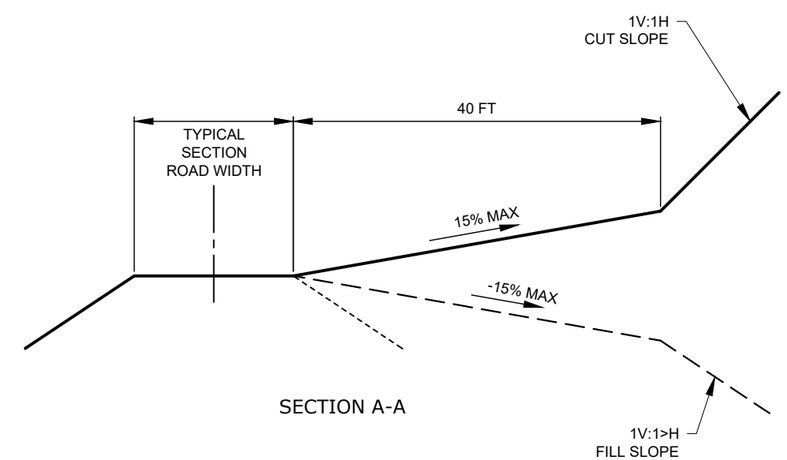


PLAN VIEW



SECTION A-A

TURNAROUND DETAIL

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USDA United States Department of Agriculture Forest Service	01 NORTHERN REGION	PROJECT NAME: MCCALLA LARSON BMP PROJECT — BITTERROOT NATIONAL FOREST — STEVENSVILLE RANGER DISTRICT	DRAWING TITLE: TURNOUT AND TURNAROUND DETAILS	DATE: DATE	DESIGNER: J.PINTOK	CHECKED: A. RICHARDSON
				DWG SHEET NO.: 7	SHEET 7 OF 14	

NO.	REVISION DESCRIPTION	BY	DATE
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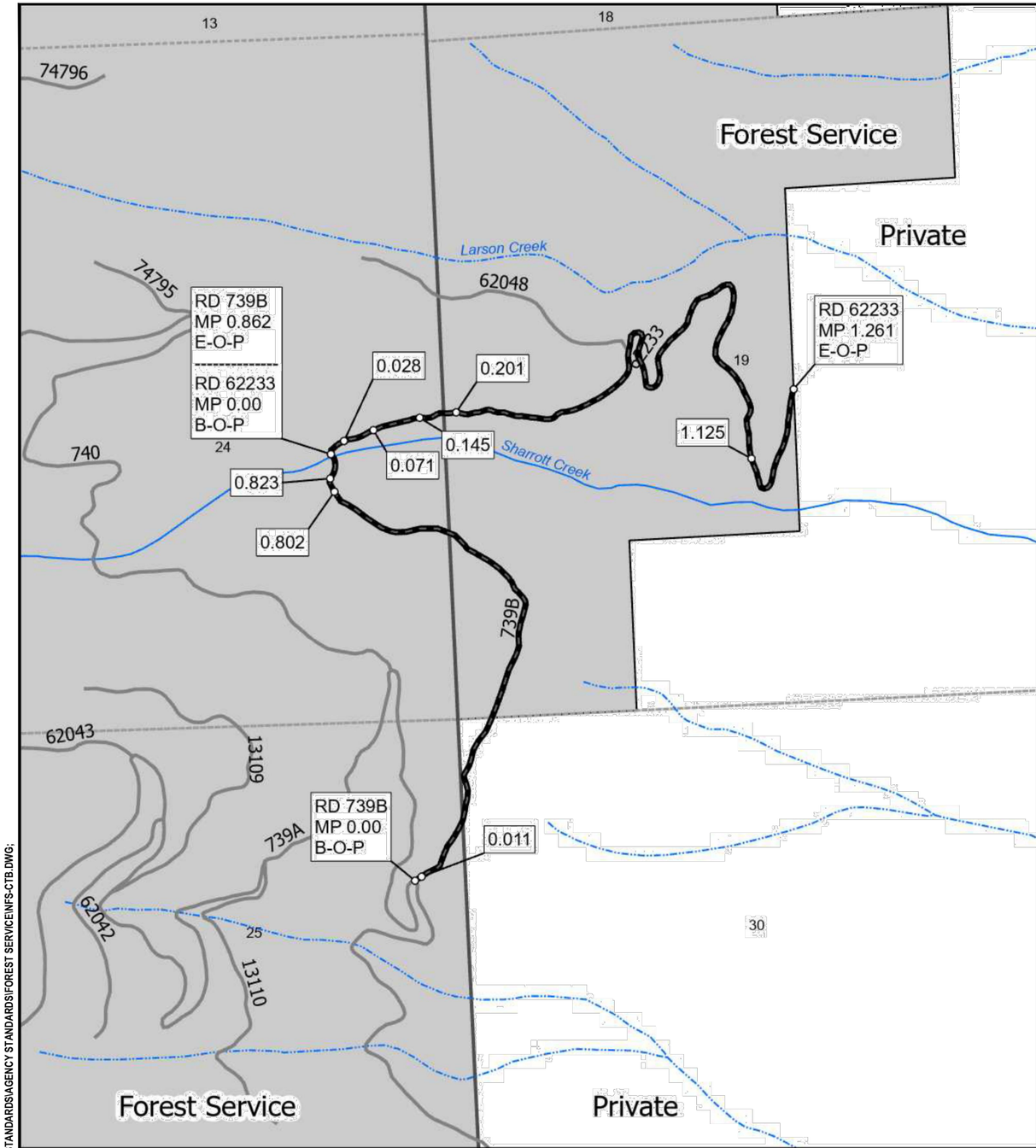

Road 739B

BMP	EMP	PAY ITEM	PAY ITEM DESCRIPTION	QUANTITY	UNIT
0.000	0.862	21201	Linear Grading, Compaction Placement Method 3, Disposal Method (k)	0.86	MI
0.011		None	Existing CMP, Ditch Relief	-	-
0.802		20425	Drainage Excavation, Type II Dip, Tolerance Class A, Compaction Method 2	1	EA
0.823		60201	18-inch pipe culvert, CMP, gage 16, Compaction Method 2	38	LF

Road 62233

BMP	EMP	PAY ITEM	PAY ITEM DESCRIPTION	QUANTITY	UNIT
0.000	0.400	21201	Linear Grading, Compaction Placement Method 3, Disposal Method (k)	0.40	MI
0.028		60201	18-inch pipe culvert, CMP, gage 16, Compaction Method 2	38	LF
0.071		20425	Drainage Excavation, Type II Dip, Tolerance Class A, Compaction Method 2	1	EA
0.145		None	Narrow Section of Road, Rocky	-	-
0.201		None	Narrow Section of Road	-	-
0.400	1.330	20209	Selective Clearing, Type Roadside, Disposal Method (F)	0.93	MI
0.400	1.330	30326	Roadway Reconditioning, Compaction Method 2	0.93	MI
1.125		None	Existing Gate	-	-
				-	-

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United States Department of Agriculture
Forest Service

01
NORTHERN REGION

PROJECT NAME
MCCALLA LARSON BMP PROJECT
BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT

DRAWING TITLE
WORKLIST 739B - 62233

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	J.PINTOK	A. RICHARDSON	8	8 OF 14

NO.	REVISION DESCRIPTION	BY	DATE
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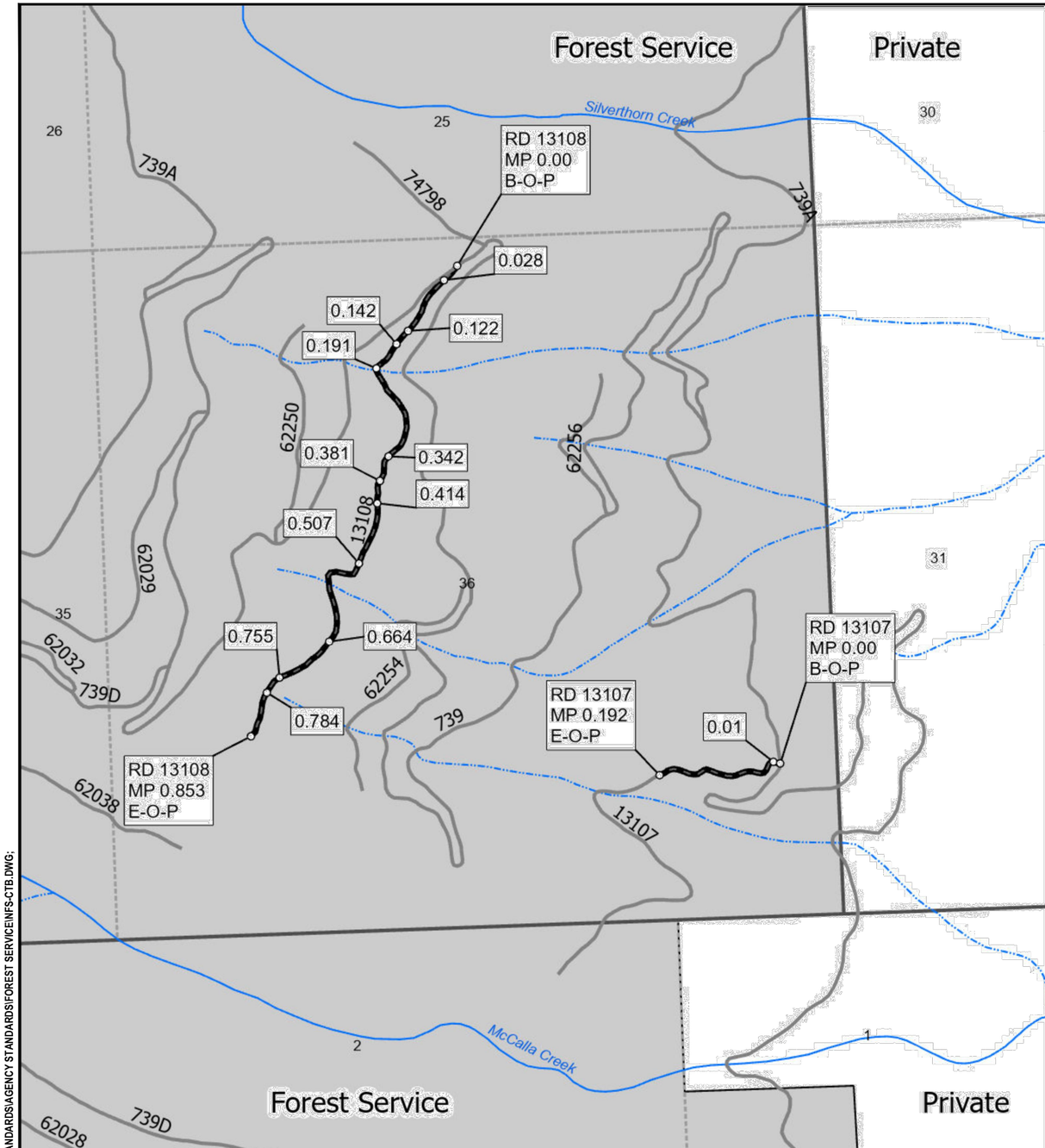

Road 13107

BMP	EMP	PAY ITEM	PAY ITEM DESCRIPTION	QUANTITY	UNIT
0.000	0.192	20209	Selective Clearing, Type Roadside, Disposal Method (F)	0.19	MI
0.000	0.192	30316	Roadway Reconditioning, Compaction Method 2	0.19	MI
0.010		None	Existing Gate	-	-

Road 13108

BMP	EMP	PAY ITEM	PAY ITEM DESCRIPTION	QUANTITY	UNIT
0.000	0.853	21201	Linear Grading, Compaction Placement Method 3, Disposal Method (k)	0.85	MI
0.028		None	Narrow Section of Road	-	-
0.122		None	Remove Stump in Prism	-	-
0.142		None	Burned Out Log in Road Prism	-	-
0.191		None	Existing CMP, Live Stream	-	-
0.342		None	Remove Stump in Prism	-	-
0.381		None	Remove Stump in Prism	-	-
0.414		None	Remove Stump in Prism	-	-
0.507		None	Fire Line Crossing Road, Reconstruct Road Prism	-	-
0.558		None	Curve Widening Section, See Sheet 6	-	-
0.664		None	Narrow Section of Road	-	-
0.755		None	Narrow Section of Road	-	-
0.784		None	Remove Stump in Prism	-	-

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NORTHERN REGION

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MCCALLA LARSON BMP PROJECT
BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT

DRAWING TITLE
WORKLIST
13107-13108

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	J.PINTOK	A. RICHARDSON	9	9 OF 14

NO.	REVISION DESCRIPTION	BY	DATE
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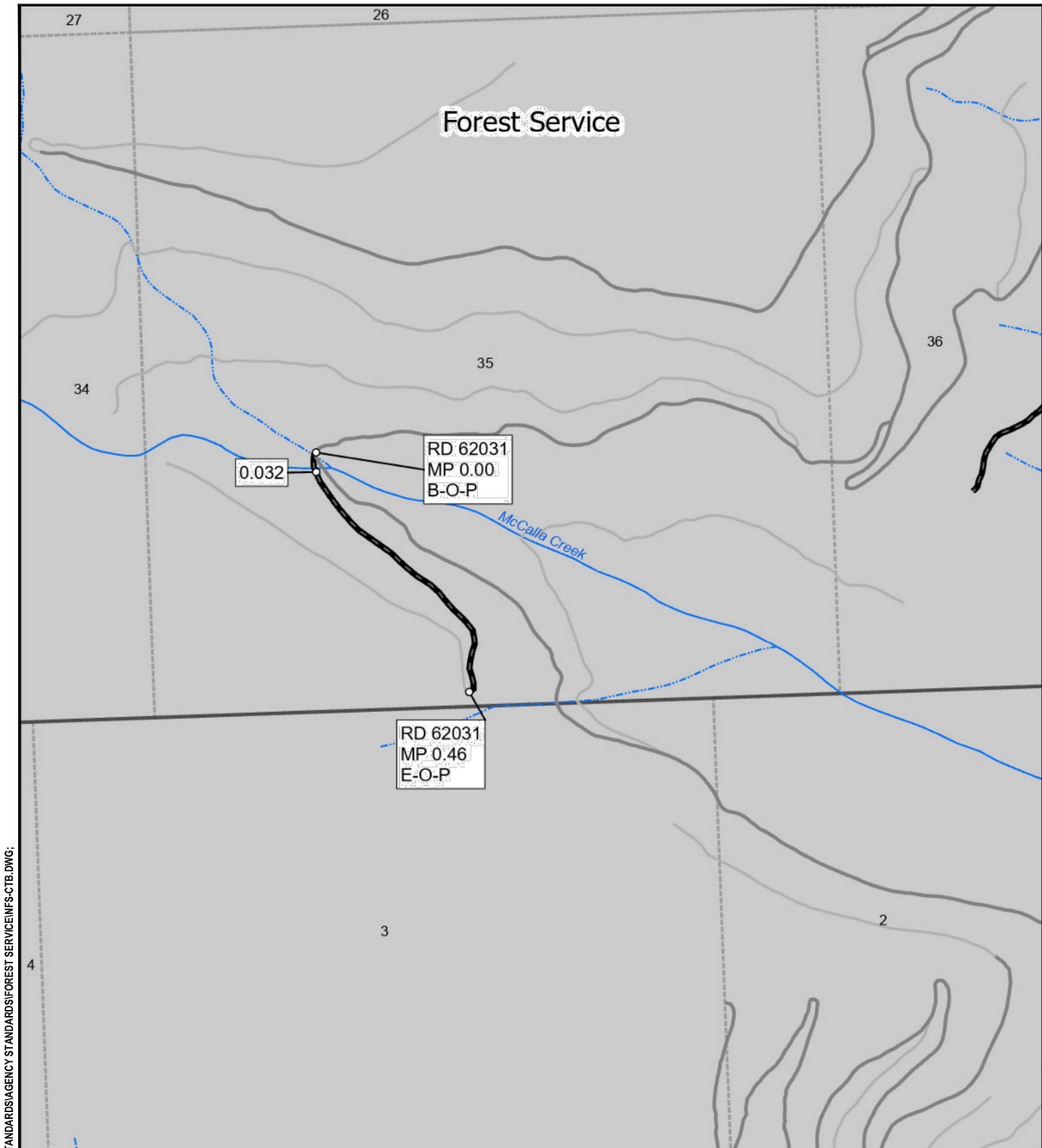

Road 62031

BMP	EMP	PAY ITEM	PAY ITEM DESCRIPTION	QUANTITY	UNIT
0.000	0.46	21201	Linear Grading, Compaction Placement Method 3, Disposal Method (k)	0.46	MI
0.032		None	Barrier Rocks	-	-
				-	-

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01
NORTHERN REGION

PROJECT NAME
MCCALLA LARSON BMP PROJECT
BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT

DRAWING TITLE
WORKLIST 62018 - 62031

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	J.PINTOK	A. RICHARDSON	10	10 OF 14

NO.	REVISION DESCRIPTION	BY	DATE
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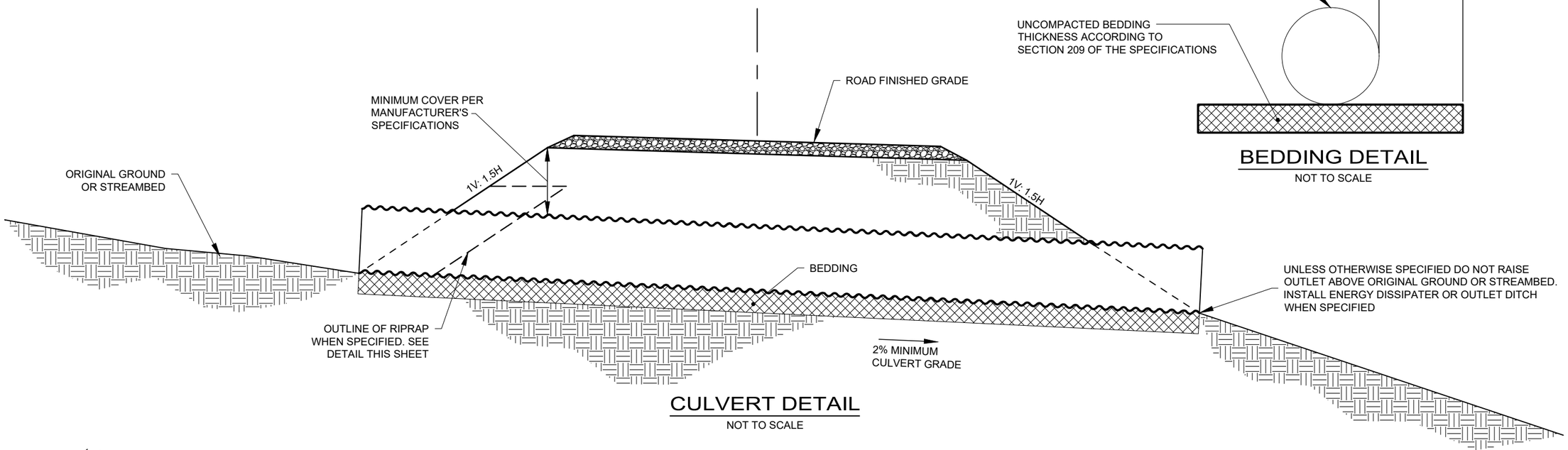
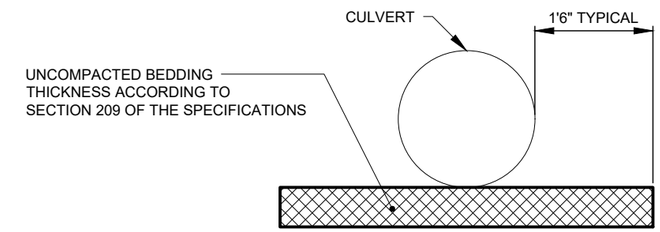


CULVERT DETAIL

NOT TO SCALE



BEDDING DETAIL

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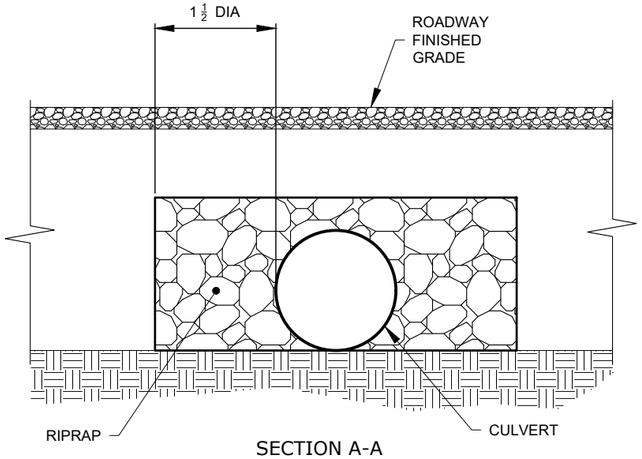
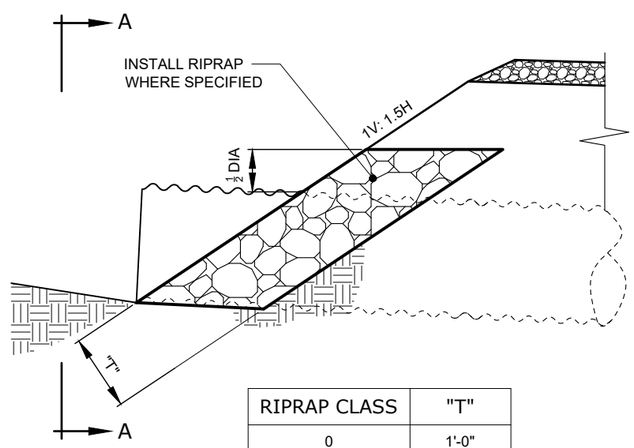


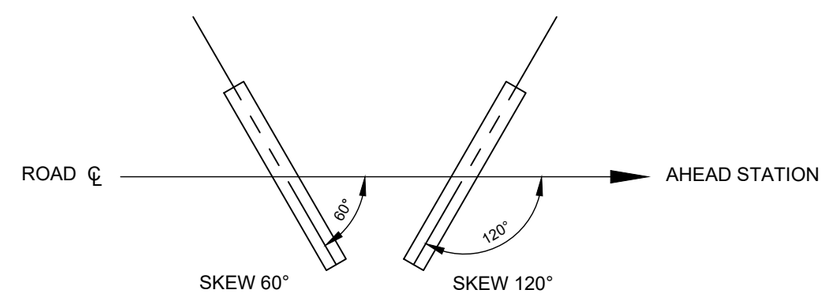
SECTION A-A



RIPRAP CLASS	"T"
0	1'-0"
1	1'-6"
2	2'-6"
3	3'-0"
4	3'-6"

RIPRAP DETAIL

NOT TO SCALE



SKEW DIAGRAM

NOT TO SCALE

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01
NORTHERN REGION

PROJECT NAME
MCCALLA LARSON BMP PROJECT
BITTERROOT NATIONAL FOREST
STEVENSVILLE RANGER DISTRICT

DRAWING TITLE
CULVERT DETAIL

DATE	DESIGNER	CHECKED	DWG SHEET NO.	SHEET
DATE	J.PINTOK	A. RICHARDSON	11	11 OF 14

NO.	REVISION DESCRIPTION	BY	DATE
△			
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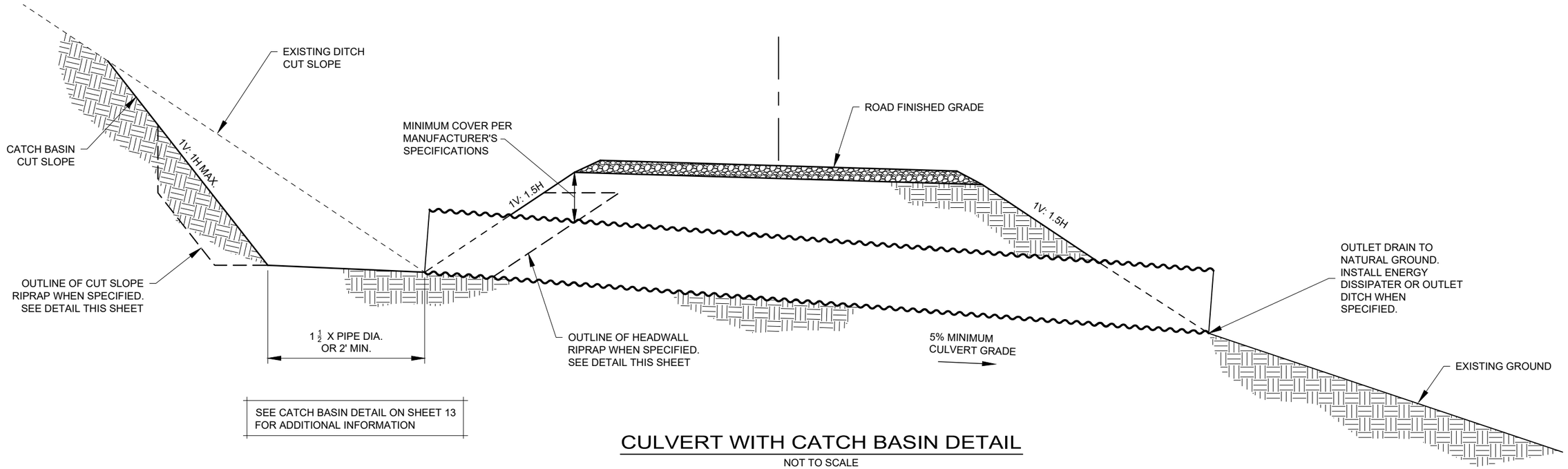
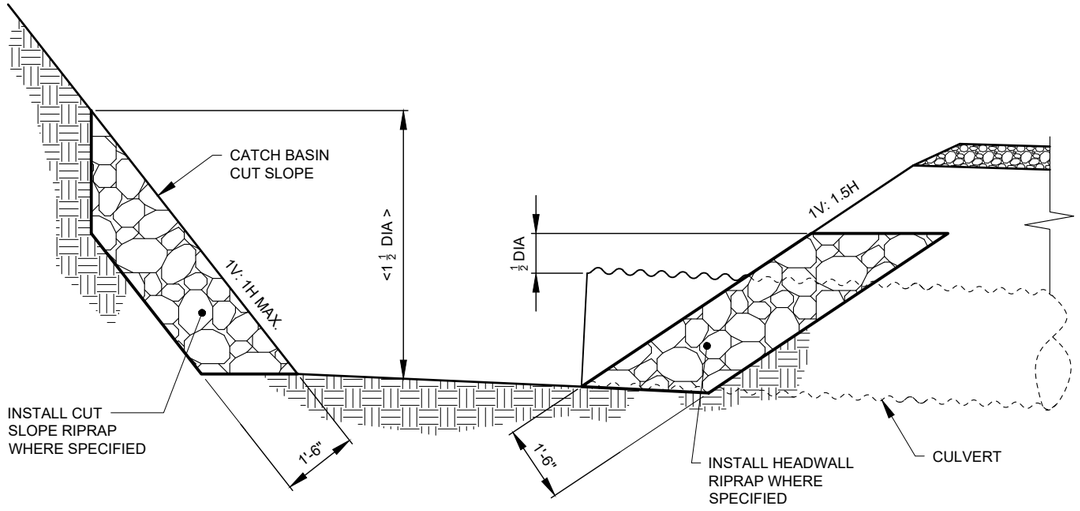


SEE CATCH BASIN DETAIL ON SHEET 13
FOR ADDITIONAL INFORMATION

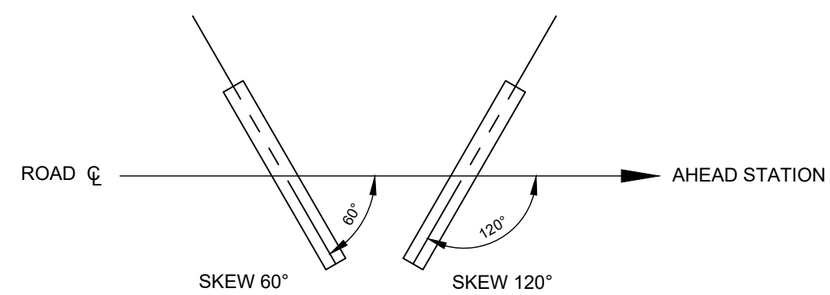
CULVERT WITH CATCH BASIN DETAIL

NOT TO SCALE



RIPRAP DETAIL

NOT TO SCALE



SKEW DIAGRAM

NOT TO SCALE

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

USDA United States Department of Agriculture Forest Service	01 NORTHERN REGION	PROJECT NAME: MCCALLA LARSON BMP PROJECT — BITTERROOT NATIONAL FOREST — STEVENSVILLE RANGER DISTRICT	DRAWING TITLE: CULVERT WITH CATCH BASIN DETAIL	DATE: DATE	DESIGNER: J.PINTOK	CHECKED: A. RICHARDSON
				DWG SHEET NO.: 12	SHEET 12 OF 14	

NO.	REVISION DESCRIPTION	BY	DATE
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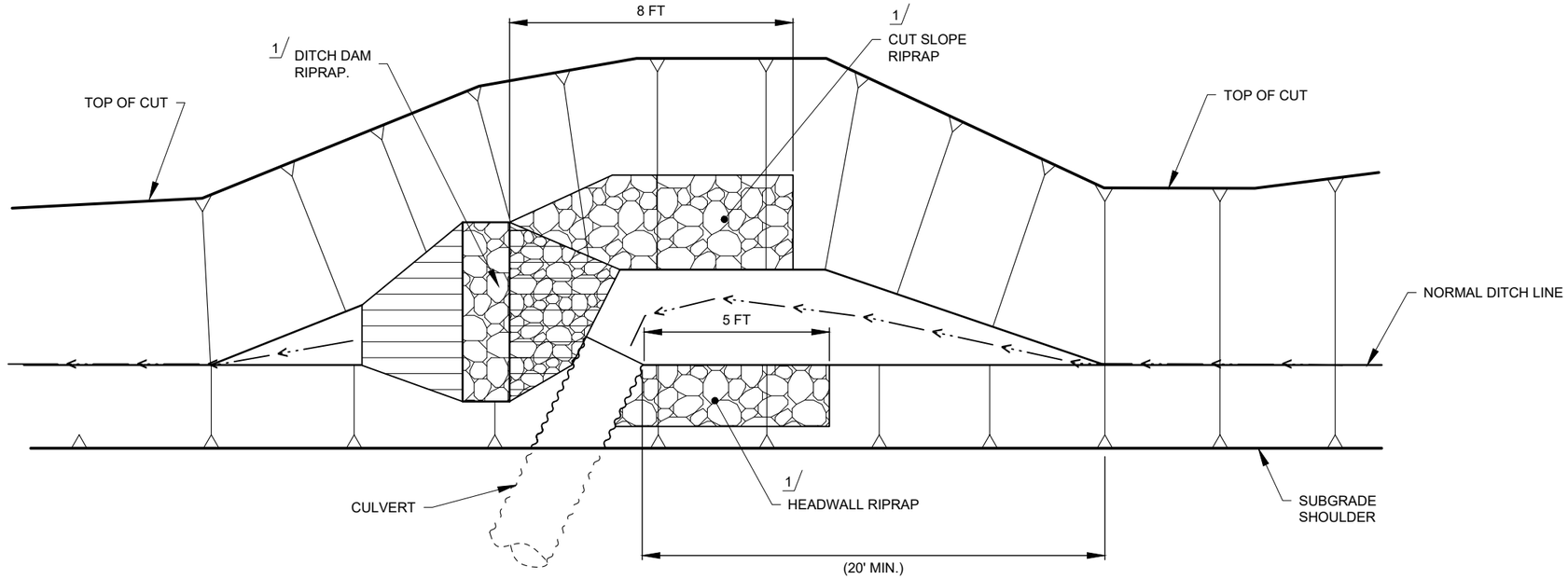
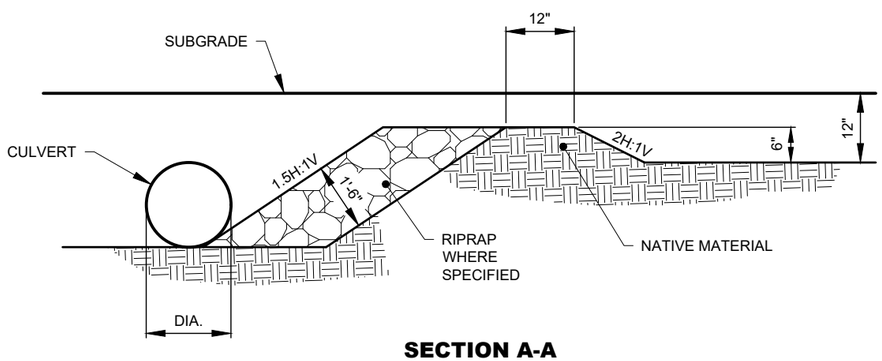


PLAN VIEW

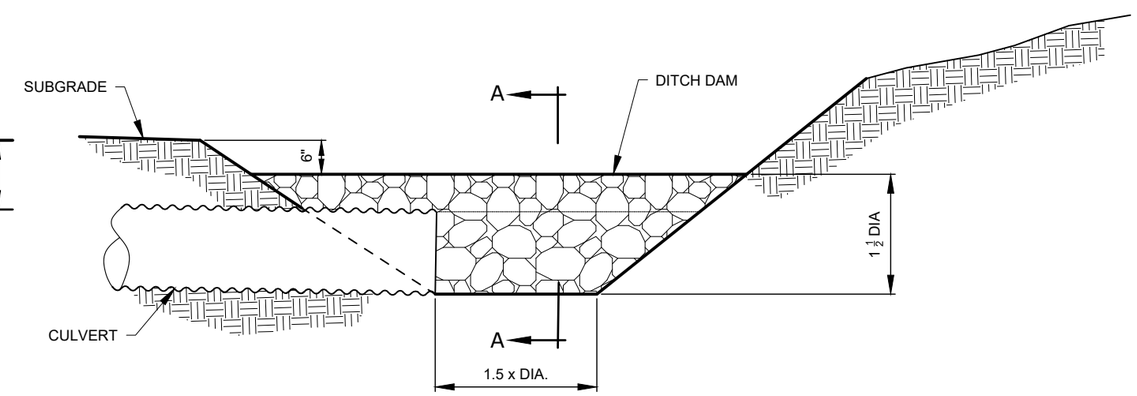
1/ INSTALL RIPRAP WHEN SPECIFIED

CATCH BASIN DETAIL

NOT TO SCALE



SECTION A-A

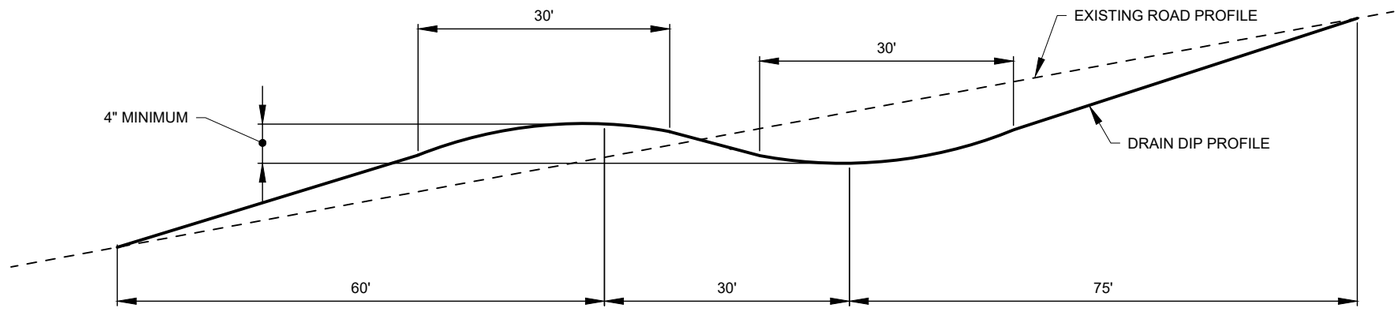


CATCH BASIN ELEVATION

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\NFS-CTB.DWG;

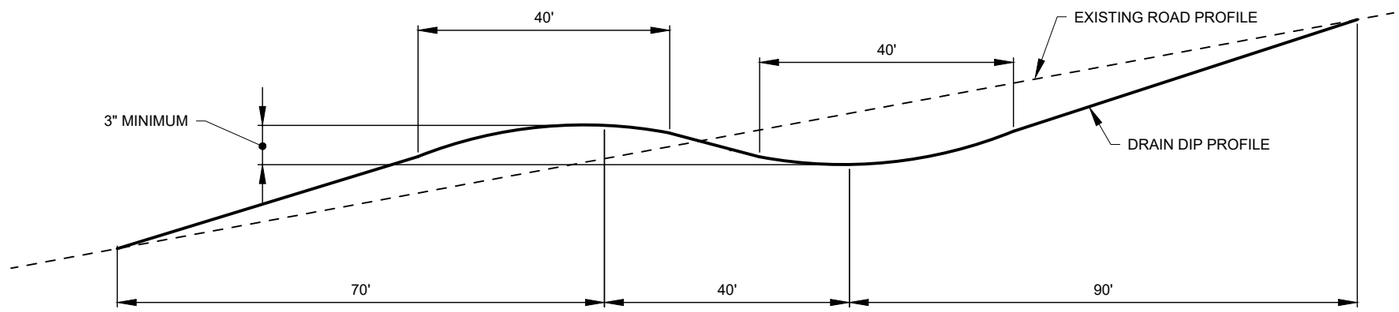
United States Department of Agriculture Forest Service	01 NORTHERN REGION	PROJECT NAME: MCCALLA LARSON BMP PROJECT — BITTERROOT NATIONAL FOREST — STEVENSVILLE RANGER DISTRICT	DRAWING TITLE: CATCH BASIN DETAIL	DATE: DATE / DESIGNER: J.PINTOK / CHECKED: A. RICHARDSON	DWG SHEET NO. 13 / SHEET 13 OF 14

NO.	REVISION DESCRIPTION	BY	DATE
△			
△			
△			



DRAIN DIP - TYPE II

NOT TO SCALE



DRAIN DIP - TYPE I

NOT TO SCALE

NOTES:
1. CROSS SLOPE OF THE LOW POINT DRAINLINE SHALL BE 5%.
2. SKEW OF DRAINLINE SHALL BE 0-25 DEGREES.
3. UNLESS OTHERWISE SPECIFIED IN THE WORKLIST DO NOT INTERCEPT THE ROADWAY DITCH.

9/28/18 07:07 MARKL F:_CAD STANDARDS\AGENCY STANDARDS\FOREST SERVICE\FS-CTB.DWG;

United States Department of Agriculture Forest Service	01 NORTHERN REGION	PROJECT NAME: MCCALLA LARSON BMP PROJECT — BITTERROOT NATIONAL FOREST — STEVENSVILLE RANGER DISTRICT	DRAWING TITLE: DRAIN DIP DETAIL	DATE: DATE	DESIGNER: J.PINTOK	CHECKED: A. RICHARDSON
				NO. / REVISION DESCRIPTION / BY / DATE	DWG SHEET NO. 14	SHEET 14 OF 14