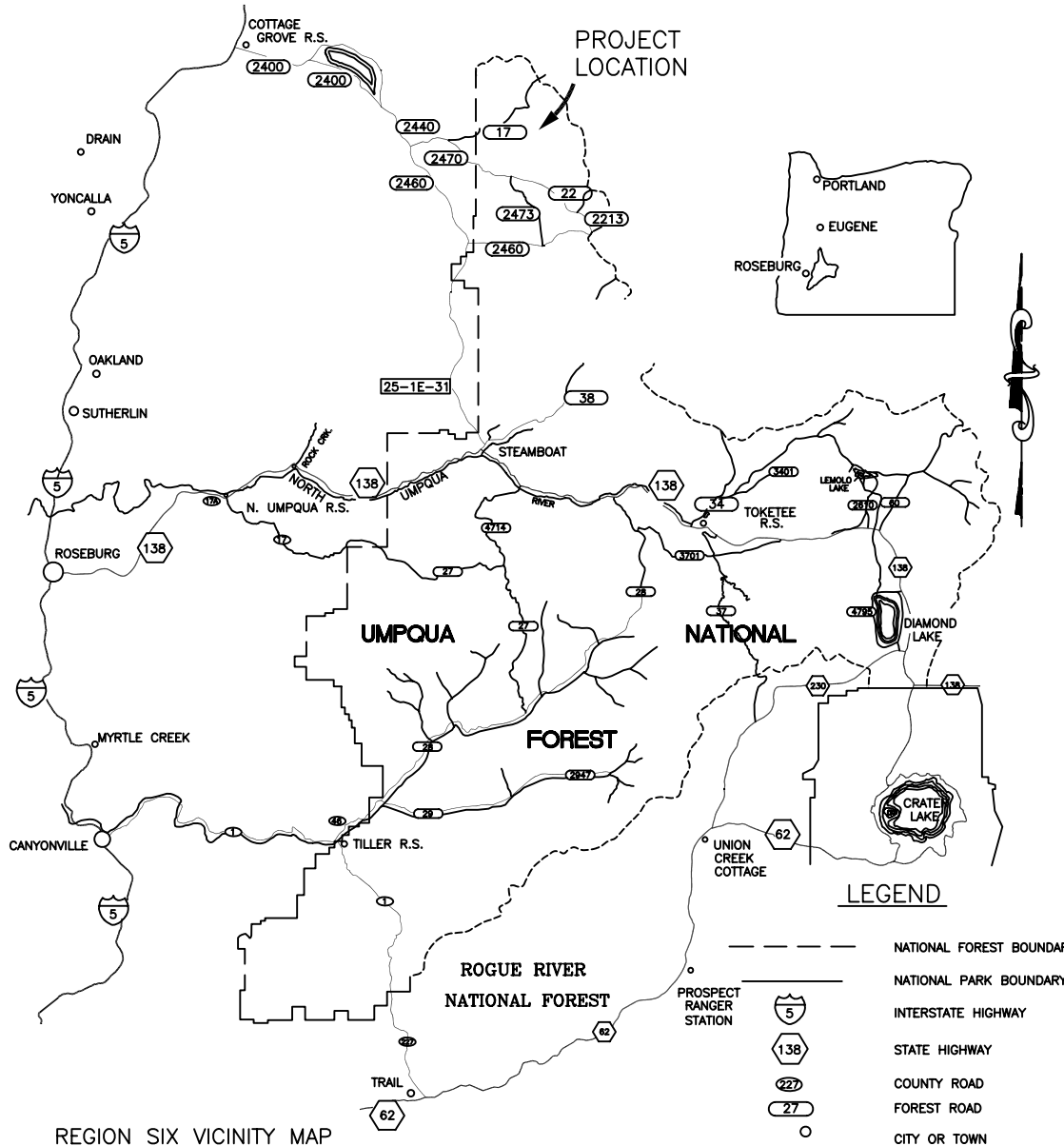




U.S. DEPARTMENT of AGRICULTURE  
 FOREST SERVICE  
 UMPQUA NATIONAL FOREST  
 COTTAGE GROVE RANGER DISTRICT



REGION SIX VICINITY MAP

INDEX

SHEET #	SHEET TITLE
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2	VICINITY MAP
3	ESTIMATE OF QUANTITIES
4	DRAINAGE LISTING
5	CULVERT CONSTRUCTION DETAILS
6	CONSTRUCTION TYPICAL
7-8	WORKLIST

PROPOSED PROJECT

ROAD NUMBER	SITES	TYPE OF WORK
1746-460	0.01 MILES	CULVERT REPLACEMENT
1746-707	4.50 MILES	CULVERT REPLACEMENT
1746-824	0.04 MILES	RECONSTRUCTION

RECOMMENDED BY:	DESIGNED BY:
TRANSPORTATION ENGINEER	PLAN IN HAND BY:
APPROVED BY:	REVIEWED BY:
DISTRICT RANGER	PROJECT TEAM LEADER/DISTRICT ENGINEER
FOREST ENGINEER	

DORIS TIMBER SALE

SHT 1  
 OF 8

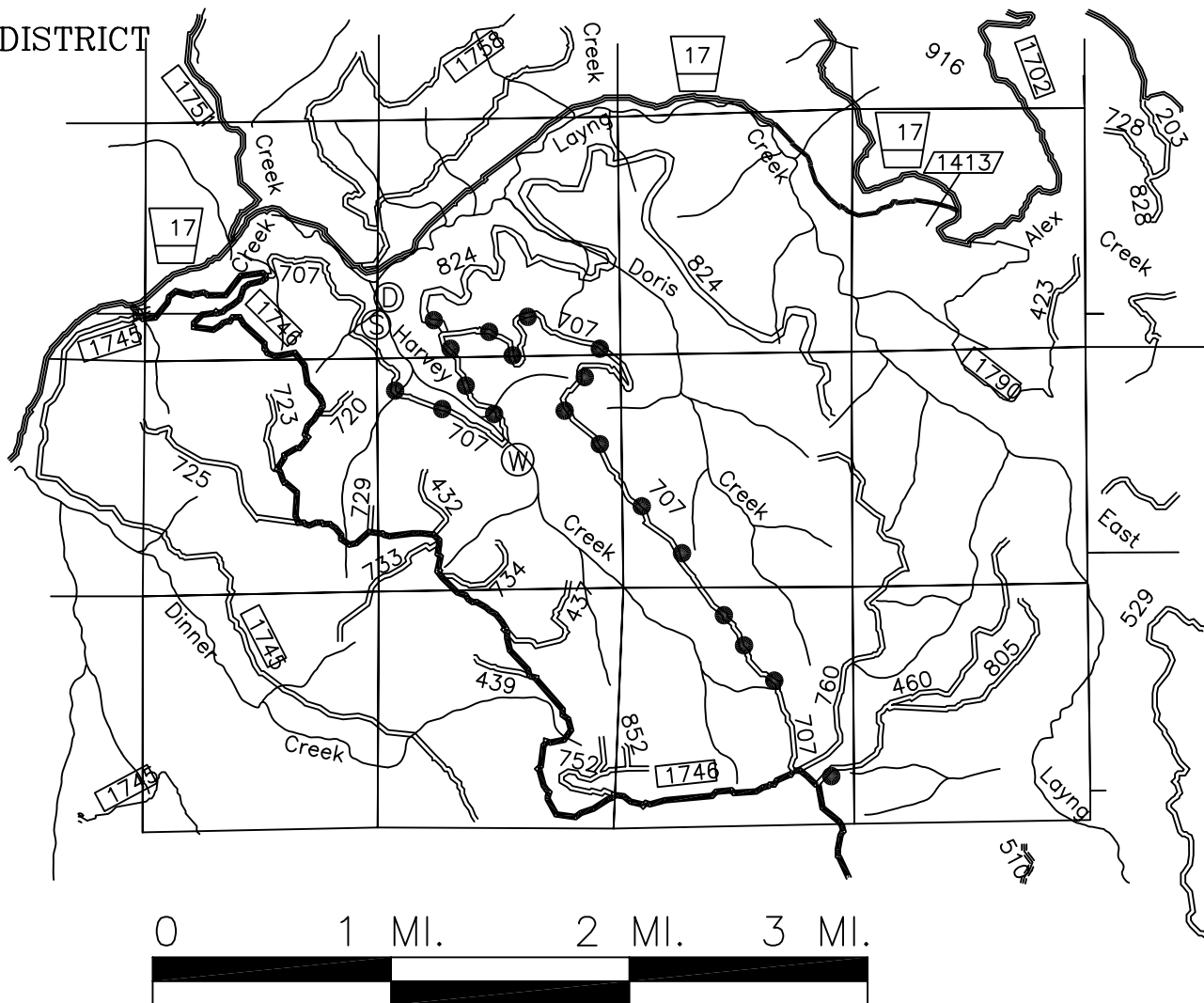
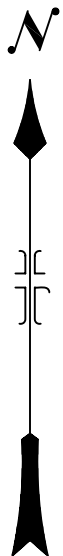
# UMPQUA NATIONAL FOREST

## COTTAGE GROVE RANGER DISTRICT

R. 01 E.

### LEGEND

- PROJECT LOCATION
- ⓓ DISPOSAL SITE
- Ⓢ STOCKPILE SITE
- Ⓦ WATER SOURCE
- 700 2241 ROAD NUMBERS
- ▬▬▬ COUNTY ROAD (PAVED)
- ▬▬▬ IMPROVED ROAD (PAVED)
- ▬▬▬ IMPROVED ROAD (GRAVEL)
- ▬▬▬ IMPROVED ROAD (DIRT)



SCALE IN MILES

06-30-08

U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
**UMPQUA NATIONAL FOREST**  
THE PACIFIC NORTHWEST REGION

VICINITY MAP  
**DORIS TIMBER SALE**

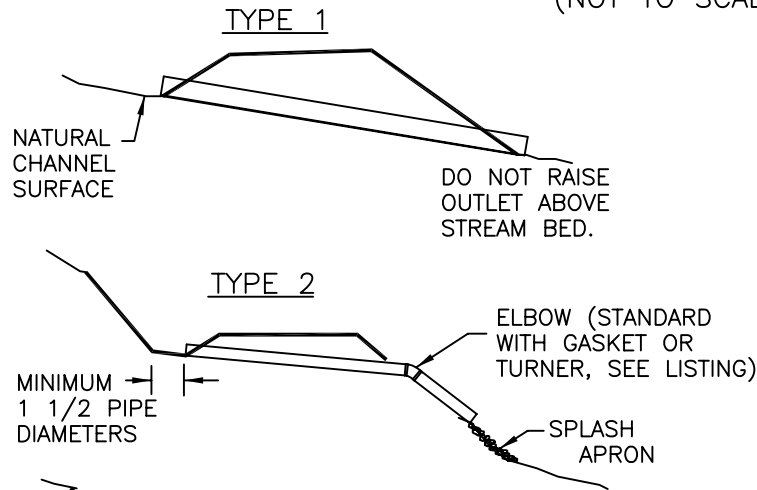
SHT	2
OF	8

DORIS TIMBER SALE ROADS - ESTIMATE OF QUANTITIES					DORIS TIMBER SALE ROADS SHEET 3 OF 8		
NOTES: 1) All volume unit pay items are measured in-place. All reference to quantities of excavated volumes refer to original (prior to excavation) volume. 2) See worklists and vicinity map for further description and location of work. 3) Construction tolerance class "F" (Spec. 204.13).			<b>Road No.</b>	<b>1746-460</b>	<b>1746-707</b>	<b>1746-824</b>	4) Units are measured as Contract Quantity unless denoted by an asterisk * 5) Road 1746-707 has other MP locations identifying work inclusive to the mile posts designated under the road number on this sheet. See worklist.
			<b>Project Length (MP)</b>	<b>0.01 Miles</b>	<b>4.5 Miles</b>	<b>0.04 Miles</b>	
			<b>Work Type</b>	<b>Culvert work</b>	<b>Culvert work</b>	<b>Reconstruction</b>	
Pay Item	Description		Pay Item Quantities by Road			Total Quantities this sheet	Remarks
151-01	Mobilization	Lump Sum				1	Mobilization for all road work
201-03	Clearing and grubbing, disposal of tops and limbs 4, logs 4, stumps 4	Mile			0.04	0.04	
203-01.1	Removal of metal culvert, (ditch relief)	Each*	1	8		9	Excavation is indirect payment to culvert removal.
203-01.2	Removal of metal culvert (stream crossing under 10' deep at centerline)	Each*		1		1	Excavation is indirect payment to culvert removal.
203-01.3	Removal of metal culvert (stream crossing over 10' deep at centerline)	Each*		1		1	Excavation is indirect payment to culvert removal.
204-01	Roadway excavation, compaction method C, finishing meathod A	Cubic yard			190	190	Disposal site location road 1746-707 M.P. 0.8.
204-15	Unsuitable Excavation	Cubic yard		40		40	Disposal site location road 1746-707 M.P. 0.8.
209-59	Furnishing backfill material for pipe	Cubic yard	5	50		55	Commercial source, 5 CY per culvert placement
251-01.3	Placed riprap, class 3	Cubic yard	2	24		26	Commercial source. Slope protection, splash aprons
251-10.1	Hand-placed riprap, class 1	Cubic yard	1	10		11	Commercial source. Headwalls.
301.13.1	Aggregate surface course, Type 3/4" minus, compaction method A.	Cubic yard		32		32	Commercial source, roadway aggregate for spot rock area. Scarify roadway.
301-13.2	Aggregate surface course, Type 3/4" minus, compaction method A.	Cubic yard			17	17	Commercial source, roadway aggregate for road alignment shift. Do not scarify roadway.
602-63.18	18" aluminized steel, type 2, corrugated steel pipe, 0.064 inch thickness, Method B	L.F.*	40	264		304	See worklist for work activity details.
602-63.24	24" aluminized steel, type 2, corrugated steel pipe, 0.064 inch thickness, Method B	L.F.*		136		136	See worklist for work activity details.

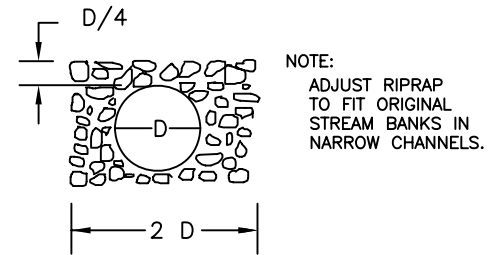
LOCATION AND CULVERT LENGTHS						INSTALLATION DETAILS AND SPECIAL SECTIONS									RIPRAP REQUIREMENTS									SHEET 4 OF 8			
DESIGNED			AS BUILT			CORRUGATED METAL PIPE			SPILLWAYS			BEVELED DROP INLET			HEADWALL			SPLASH APRON			SLOPE PROTECTION			SUBGRADE REINFORCEMENT			DORIS TIMBER SALE DRAINAGE LISTING
MP	STA. (FT)	LENGTH (FT)	MP	STA. (FT)	LENGTH (FT)	DIA. (IN)	TH. (IN)	TYPE	DOWN- DRAIN LENGTH (FT)	ANCHORS (EA)	ELBOW	DIA (INCH)	LENGTH (FT)	"B" ANGLE	CY	CLASS	TYPE	CY	CLASS	TYPE	CY	CLASS	TYPE	CY	CLASS	TYPE	
						Road #1746-460																					
0.160					40	18	0.064								1	1	H	2	3	D							
						Road #1746-707																					
1.811					90	24	0.064								1	1	H	3	3	D							Stream crossing
2.021					46	24	0.064								1	1	H	5	3	D							Stream crossing
2.095					28	18	0.064								1	1	H	2	3	D							
2.297					36	18	0.064								1	1	H	2	3	D							
2.544					38	18	0.064								1	1	H	2	3	D							
4.815					30	18	0.064								1	1	H	2	3	D							
5.207					30	18	0.064								1	1	H	2	3	D							
5.610					34	18	0.064								1	1	H	2	3	D							
5.734					34	18	0.064								1	1	H	2	3	D							
5.835					34	18	0.064								1	1	H	2	3	D							
Note:																											
1) Staking for culverts has been completed by the Forest Service. Culvert lengths and locations are based on as-staked conditions. Install culverts as staked.																											
2) Excavations for new culverts and culvert replacements may be deeper than existing culvert installations. Excavation of solid rock may be required in some locations.																											
3) Dimpled bands shall not be used on downpipes, elbows, or pipes laid on grades greater than 15%.																											
4) Unless shown otherwise, where cover heights exceed 11', culverts shall be cambered an amount equal to 0.5% of the culvert length.																											
5) Riprap shall be placed to the minimum dimensions shown on typical section drawings.																											
6) Riprap type abbreviations: D - Dumped, H - Hand Placed, M - Machine Placed.																											
7) Minimum one foot cover over culvert installation.																											

# CULVERT CONSTRUCTION DETAILS

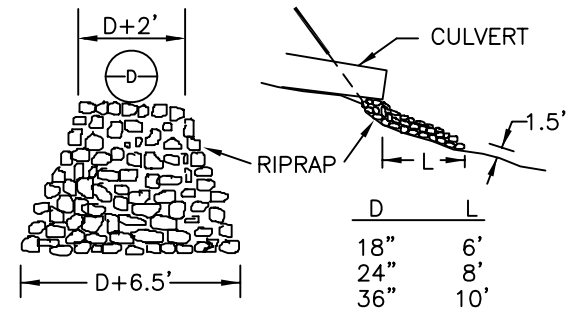
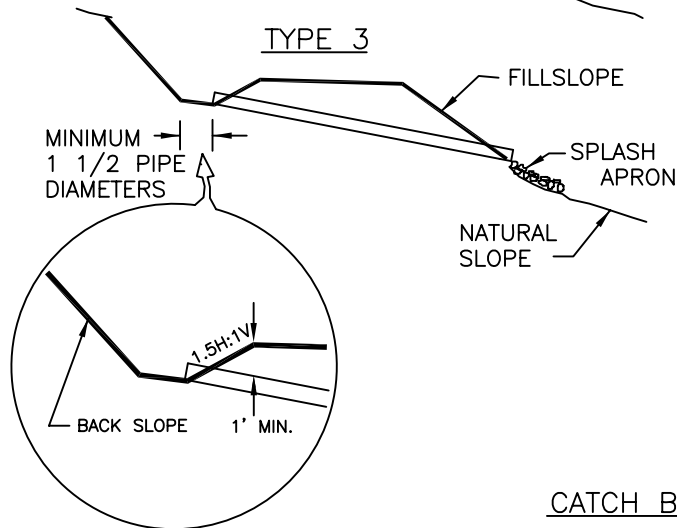
(NOT TO SCALE. ALSO REFER TO WORKLISTS.)



## HEADWALLS FOR TYPE 1

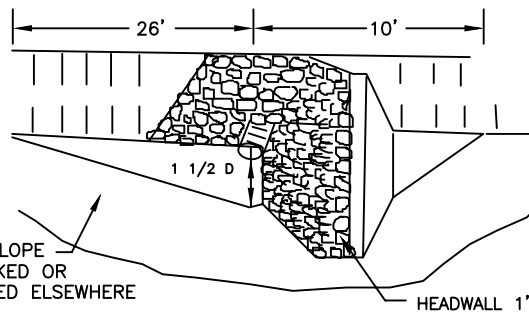


## SPLASH APRON

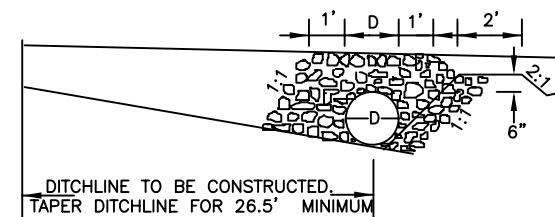


## CATCH BASIN DETAIL FOR TYPE 2 & 3

### HEADWALL - PLAN VIEW



### HEADWALL - INLET PROFILE VIEW





Reconstruction Worklist for Road 1746-460

SHEET 7 OF 8

<u>MILE POST</u>	<u>DESCRIPTION</u>	<u>PAY ITEM</u>	<u>QUANTITY</u>	
0	Beginning of road 1746-460, at intersection with Rd.1746-000			
0.16	Remove existing culvert and replace with a new 18" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.18) over the pipe, then place Aggregate and compact over the new culvert installation. Construct headwall and splash apron. End work this road.	203-01.1 209-59 251-01.3 251-10.1 602-63.18	1 5 2 1 40	EA CY CY CY LF

Reconstruction Worklist for Road 1746-707

<u>MILE POST</u>	<u>DESCRIPTION</u>	<u>PAY ITEM</u>	<u>QUANTITY</u>	
0	Beginning of road 1746-707, at intersection with Rd.1746-000			
0.8	Disposal site for waste material and stockpile site for aggregate and riprap.			
1.343	Begin work this road. Scarify existing roadbed 2" depth (indirect payment to 301-13.1) for placement of aggregate. Place and compact 4" of surface aggregate for 174' as staked over the entire running surface.	301-13.1	32	CY
1.43	Water source Harvey Creek.			
1.811	Remove existing 24" culvert and replace with a new 24" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.24) over the pipe, then place Aggregate and compact over the new installation. Construct headwall and splash apron. Reestablish 125' of 1' deep ditchline as staked by the Forest Service (indirect payment to 602-63.24).	203-01.3 209-59 251-01.3 251-10.1 602-63.24	1 5 3 1 90	EA CY CY CY LF
2.021	Remove existing 18" culvert and replace with a new 24" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.24) over the pipe, then place Aggregate and compact over the new installation. Construct headwall and splash apron. Remove 40 C.Y. of unsuitable material above the inlet as staked by the Forest Service. Remove three trees (indirect payment to 204-15) above the inlet. Haul unsuitable material to disposal site at M.P. 0.8. Stockpile waste where staked by the Forest Service. Deck logs at wide area adjacent to culvert site where staked by Forest Service.	203-01.2 204-15 209-59 251-01.3 251-10.1 602-63.24	1 40 5 5 1 46	EA CY CY CY CY LF
2.095	Remove existing culvert and replace with a new 18" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.18) over the pipe, then place Aggregate and compact over the new installation. Construct headwall and splash apron.	203-01.1 209-59 251-01.3 251-10.1 602-63.18	1 5 2 1 28	EA CY CY CY LF
2.297	Remove existing culvert and replace with a new 18" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.18) over the pipe, then place Aggregate and compact over the new installation. Construct headwall and splash apron.	203-01.1 209-59 251-01.3 251-10.1 602-63.18	1 5 2 1 36	EA CY CY CY LF
2.312	Intersection with Rd. 1746-824 left.			

Reconstruction Worklist for Road 1746-707, Continued

SHEET 8 OF 8

<u>MILE POST</u>	<u>DESCRIPTION</u>	<u>PAY ITEM</u>	<u>QUANTITY</u>	
2.544	Remove existing culvert and replace with a new 18" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.18) over the pipe, then place Aggregate and compact over the new installation. Construct headwall and splash apron.	203-01.1	1	EA
		209-59	5	CY
		251-01.3	2	CY
		251-10.1	1	CY
		602-63.18	38	LF
4.815	Remove existing culvert and replace with a new 18" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.18) over the pipe, then place Aggregate and compact over the new installation. Construct headwall and splash apron.	203-01.1	1	EA
		209-59	5	CY
		251-01.3	2	CY
		251-10.1	1	CY
		602-63.18	30	LF
5.207	Remove existing culvert and replace with a new 18" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.18) over the pipe, then place Aggregate and compact over the new installation. Construct headwall and splash apron.	203-01.1	1	EA
		209-59	5	CY
		251-01.3	2	CY
		251-10.1	1	CY
		602-63.18	30	LF
5.61	Remove existing culvert and replace with a new 18" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.18) over the pipe, then place Aggregate and compact over the new installation. Construct headwall and splash apron.	203-01.1	1	EA
		209-59	5	CY
		251-01.3	2	CY
		251-10.1	1	CY
		602-63.18	34	LF
5.734	Remove existing culvert and replace with a new 18" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.18) over the pipe, then place Aggregate and compact over the new installation. Construct headwall and splash apron.	203-01.1	1	EA
		209-59	5	CY
		251-01.3	2	CY
		251-10.1	1	CY
		602-63.18	34	LF
5.835	Remove existing culvert and replace with a new 18" CMP as staked by the Forest Service. Salvage existing aggregate (indirect payment to 602-63.18) over the pipe, then place Aggregate and compact over the new installation. Construct headwall and splash apron. End work this road.	203-01.1	1	EA
		209-59	5	CY
		251-01.3	2	CY
		251-10.1	1	CY
		602-63.18	34	LF

Reconstruction Worklist for Road 1746-824

<u>MILE POST</u>	<u>DESCRIPTION</u>	<u>PAY ITEM</u>	<u>QUANTITY</u>	
0	Beginning of road 1746-824, at intersection with Rd.1746-707			
0.20	Begin work this road. Excavate roadway horizontal alignment shift 4' right (construct backslope 1V:0.75H) as staked by the Forest Service. Haul all unused excavated material (indirect payment to 204-01) to waste area on road 1746-707 M.P. 0.8. Maintain existing grade. Place 4" of surface aggregate for 93' on roadway running surface as staked by the Forest Service. Place surface aggregate flush against cut slope. No roadside ditch is needed. Do not scarify roadway. Deck merchantable logs where staked by Forest Service. End work this road.	201-03	0.04	Mile
		204-01	190	CY
		301-13.2	17	CY