

Reconstruct R-6 Permanent Truck Road (Ryan Creek Road):

Proposed permanent road	0.22 miles
Reconstruct permanent road	0.47 miles
Abandonment	0.15 miles
Tree removal	79 trees
Wet area impacted	153' x 16' width = 2,448 square feet (1 area)
Ditch relief culverts	7
Stream xing culverts	6
Base rock volume	900 cubic yards
Surface rock volume	450 cubic yards

- 10' rocked road width, 12' subgrade width, 16' clearing width, includes room for continuous 3' width Inboard Ditch.
- Geotextile fabric under entire road length (0.69 miles)
- 8" uncompacted depth base rock (4-8" d50)
  - 8" depth x 10' road width = 1,304 cubic yards per mile of road of base rock
- 4" uncompacted depth surface rock (<3")
  - 4" depth x 10' road width = 652 cubic yards per mile of surface rock
- Roller packed rock
- Slope of road surface (crown/inslope/outslope) 4% minimum
- For constructed ditches from culvert outlets to Ryan Creek maintain existing berm by burying culvert and rebuilding berm to prevent flooding of road and diversion/capture of Ryan creek.
- Install intervisible pull outs, additional 10' width x 40' length every 500-1,000' in suitable locations with rock surfacing
- Maximum spacing of 200-300' between drainage features (culverts or rolling dips)
- Construction details for numbered Map Points are included the CSDS table in Section 2.

Road Station Plan- McKay Community Forest

Road Station Notes

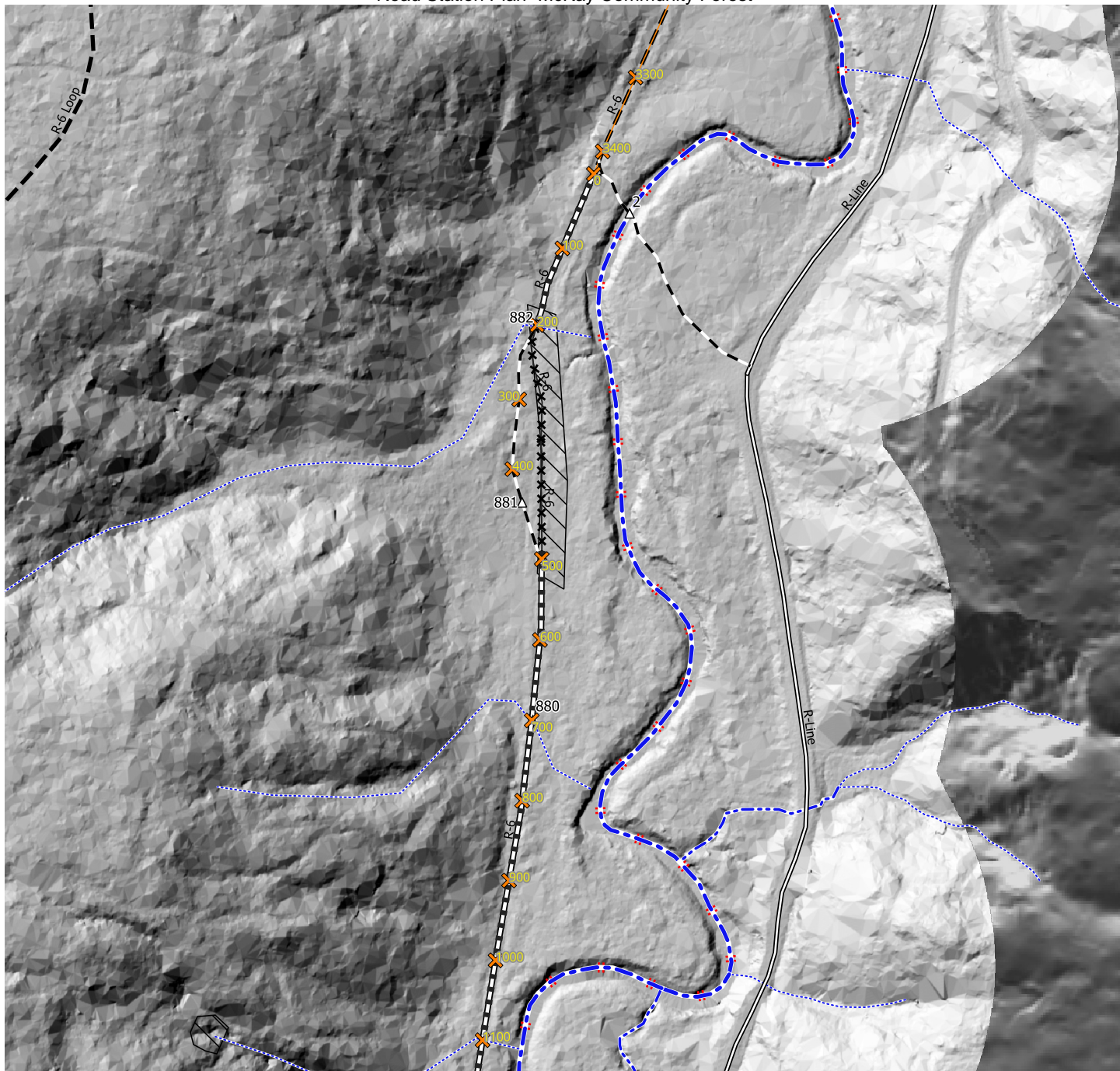
Road Name	Road Station	Road Surface Shape	IBD	IBD Drains to	Road Points	Notes	DRC Tally
R-6 RC	0	Outslope	Yes	Bridge	2- Bridge	Road approaches on west side of bridge will require road construction to accommodate 80' radius curves north and south. Refer to Bridge Design documents.	
R-6 RC	100	Crown	Yes	882		IBD drains to south, 882	
R-6 RC	200	Crown	Yes	882	882	Construct ditch from culvert outlet to Ryan Creek, approx 100'L x 3' W x 3-6' D	
R-6 RC	210	Crown	Yes	882		Begin new construction of road west of existing road, to bypass wet area. Starts at Stn 200 and goes to Stn 500.	
R-6 RC	300	Outslope	Yes	882		Remove trees from berm on existing road, west side	
R-6 RC	380	Outslope	Yes	881	881	Road point 881 now at stn 380 on new road.	
R-6 RC	400	Outslope	Yes	<a href="#">DRC@S470</a>			
R-6 RC	470	Crown	Yes			Install new DRC 18"x30' at Stn 470'	1
R-6 RC	500	Crown	Yes	<a href="#">DRC@S470</a>			
R-6 RC	600	Crown	Yes	880			
R-6 RC	700	Crown	Yes	880	880		
R-6 RC	800	Crown	Yes	<a href="#">DRC@800</a>		Install new DRC 18"x30' at Stn 800'	1
R-6 RC	900	inslope	Yes			IBD drains from Station 970' south to Road Point 878 at Station 1170'	
R-6 RC	1000	inslope	Yes			Road is through cut from Station 970'-1100', inslope to IBD	
R-6 RC	1100	inslope	Yes	878	878	Install culvert at RP 878	
R-6 RC	1200	Crown	Yes	878		RP 879 will not be installed	
R-6 RC	1300	Inslope	Yes	877		omit RP877.1, Drain to 877 which is closer to drain to Ryan Creek.	
R-6 RC	1450	Crown	Yes	876		Reconstruct Road through Wet area 1450-1600, drain ditch to RP876 and under road	
R-6 RC	1600	Crown	Yes				
R-6 RC	1700	Crown	Yes			Remove 4-8" alders from IBD Station 1700'-2000' (20+ trees)	
R-6 RC	1765	Crown	Yes	<a href="#">Drc@1765</a>		IBD drains from 1600 to 1765. Install DRC 18"x30' at Station 1765'	1
R-6 RC	1930	Crown	Yes	<a href="#">DRC@1930</a>		Install berm breach and DRC 18"x40' at Station 1930'	1
R-6 RC	1950	Crown	Yes			Remove spruce roots at Station 1950'	
R-6 RC	2000	Crown	Yes	<a href="#">DRC@2030</a>	874	Install DRC at RP874, STation 2030'	1
R-6 RC	2120	Crown	Yes	2120	873	Install RP873, excavate outlet to Ryan Creek ~ 70'	
R-6 RC	2300	Outslope	Yes	873		omit RP872	
R-6 RC	2400	Outslope	Yes			Outslope road from Station 2300 to 2400, suitable cross slope.	
R-6 RC	2500	Outslope	No			New Permanent road construction from Station 2500' to 3000' west of existing road closer to hill slope. Abandon existing road. There is an 6' diameter OG RW stump at 2530, would be preferable alignment to remove or cut the stump and build road over it. If not possible to remove stump, new road construction can begin at south edge of stump.	
R-6 RC	2700	Outslope	No			Outslope road from Station 2500'-2700', no IBD	
R-6 RC	2850	Outslope	Yes	<a href="#">DRC@2850</a>		Outslope with IBD Station 2700' to 2900'. Install DRC at Station 2850'	1

Road Station Plan- McKay Community Forest

R-6 RC	2900	Outslope	Yes	<a href="#">DRC@2970</a>		Install DRC 30' north of existing road	1
R-6 RC	3000	Outslope	Yes	<a href="#">DRC@2970</a>			
R-6 RC	3050	Crown	No				
R-6 RC	3100	Crown	No				
R-6 RC	3125	Crown	No		200	Install 48"x40' cmp in overflow channel, See Section 5 StanTec Report	
R-6 RC	3190	Crown	No		201	Install bridge over Henderson Gulch, see Section 5 StanTec Report	
R-6 RC	3200	Crown	No				
R-6 RC	3350	Crown	No			Station 3300'-3380' construct road to meet R-7-6 on east side of small ridge, parallel to Ryan Creek.	

## Tree Removal by Station

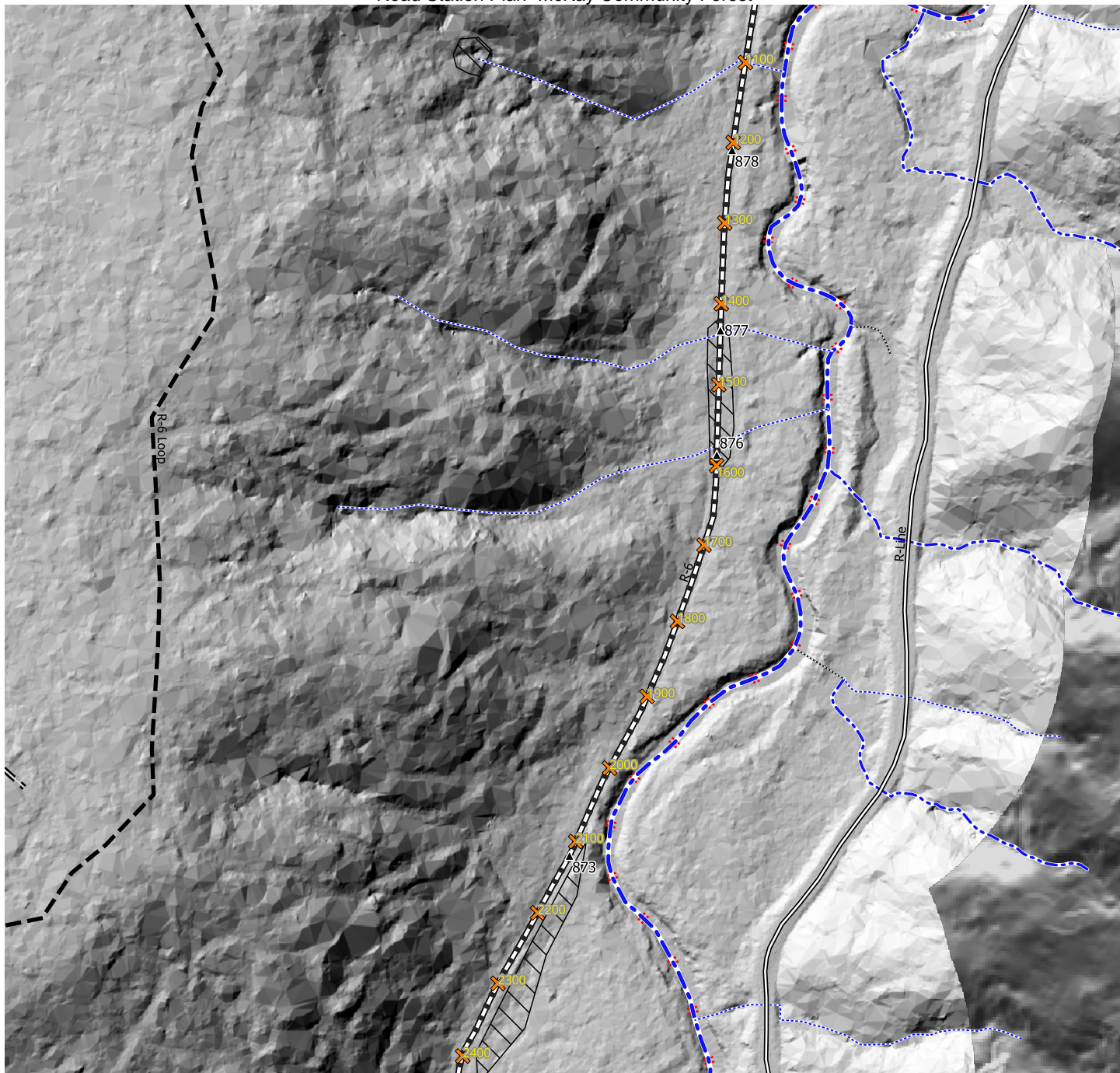
Road	Station (feet)	Species	Diameter (inches)	Tally
R-6 RC	50	RW	36	1
R-6 RC	50	RW	34	1
R-6 RC	50	RW	32	1
R-6 RC	50	SS	44	1
R-6 RC	300	SS	18	6
R-6 RC	300	RW	20	1
R-6 RC	300	RW	6	1
R-6 RC	400	SS	19	3
R-6 RC	500	SS	16	9
R-6 RC	2550	RW	30	1
R-6 RC	2600	RW	5	3
R-6 RC	2600	RA	5	6
R-6 RC	2600	RW	16	1
R-6 RC	2650	RW	28	1
R-6 RC	2650	SS	16	1
R-6 RC	2650	RA	6	1
R-6 RC	2650	SS	24	1
R-6 RC	2700	RA	8	1
R-6 RC	2700	RW	4	1
R-6 RC	2700	RA	4	1
R-6 RC	2800	RW	36	2
R-6 RC	2860	SS	16	3
R-6 RC	2860	SS	6	2
R-6 RC	2860	RW	10	2
R-6 RC	2860	DF	10	1
R-6 RC	2950	SS	12	4
R-6 RC	3000	RW	30	1
R-6 RC	3070	BM	20	1
R-6 RC	3100	RA	12	5
R-6 RC	3150	RA	14	1
R-6 RC	3150	RA	10	3
R-6 RC	3150	GF	10	1
R-6 RC	3250	RA	14	1
R-6 RC	3250	PM	10	1
R-6 RC	3300	GF	18	1
R-6 RC	3300	PM	16	8



Road Stations- Map 3

0 100 200 ft

Map Points	Road Class	Watercourses
▲ Timber CSDS	— Public	--- 1
△ Timber	== Permanent	--- 2
● Trail CSDS	== Seasonal	--- 3
🌿 Spring/Seep	- - Proposed Seasonal	--- 4
▨ Wet Areas	- - Reconstruct Seasonal	
	*** Abandonment	
	---- Trail	
	- - Proposed Permanent	
	▬ Reconstruct Permanent	



Road Stations- Map 4

0 100 200 ft

Map Points

- ▲ Timber CSDS
- △ Timber
- Trail CSDS
- 🌿 Spring/Seep

Wet Areas

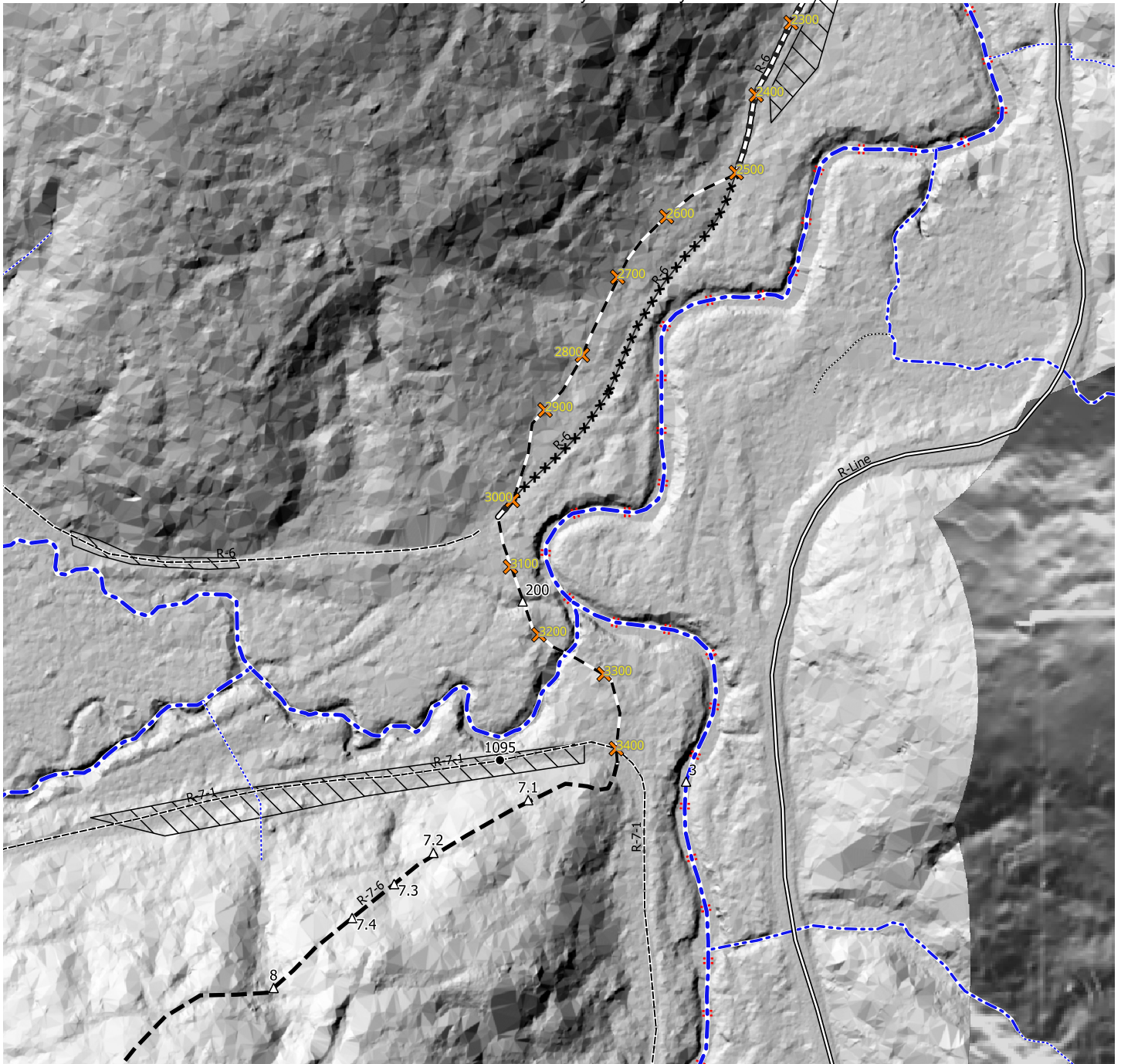
Road Class

- Public
- Permanent
- = = Seasonal
- - Proposed Seasonal
- - Reconstruct Seasonal
- \*\*\* Abandonment
- Trail
- - Proposed Permanent
- ▬ Reconstruct Permanent

Watercourses

- - - 1
- - - 2
- - - 3
- - - 4

Road Station Plan- McKay Community Forest



Road Stations- Map 5

0 100 200 ft

Map Points	Road Class	Watercourses
▲ Timber CSDS	— Public	--- 1
△ Timber	== Permanent	--- 2
● Trail CSDS	= = Seasonal	..... 3
🌿 Spring/Seep	- - Proposed Seasonal	..... 4
▨ Wet Areas	- - - Reconstruct Seasonal	
	*** Abandonment	
	---- Trail	
	- - Proposed Permanent	
	▬ Reconstruct Permanent	

**TABLE 18.** Outsloping “pitch” for roads up to 8% grade<sup>1</sup>

Road grade	Outslope “pitch” for unsurfaced roads	Outslope “pitch” for surfaced roads
≤ 4%	3/8” per foot	1/2” per foot
5%	1/2” per foot	5/8” per foot
6%	5/8” per foot	3/4” per foot
7%	3/4” per foot	7/8” per foot
≥ 8%	1” per foot	1 ¼” per foot

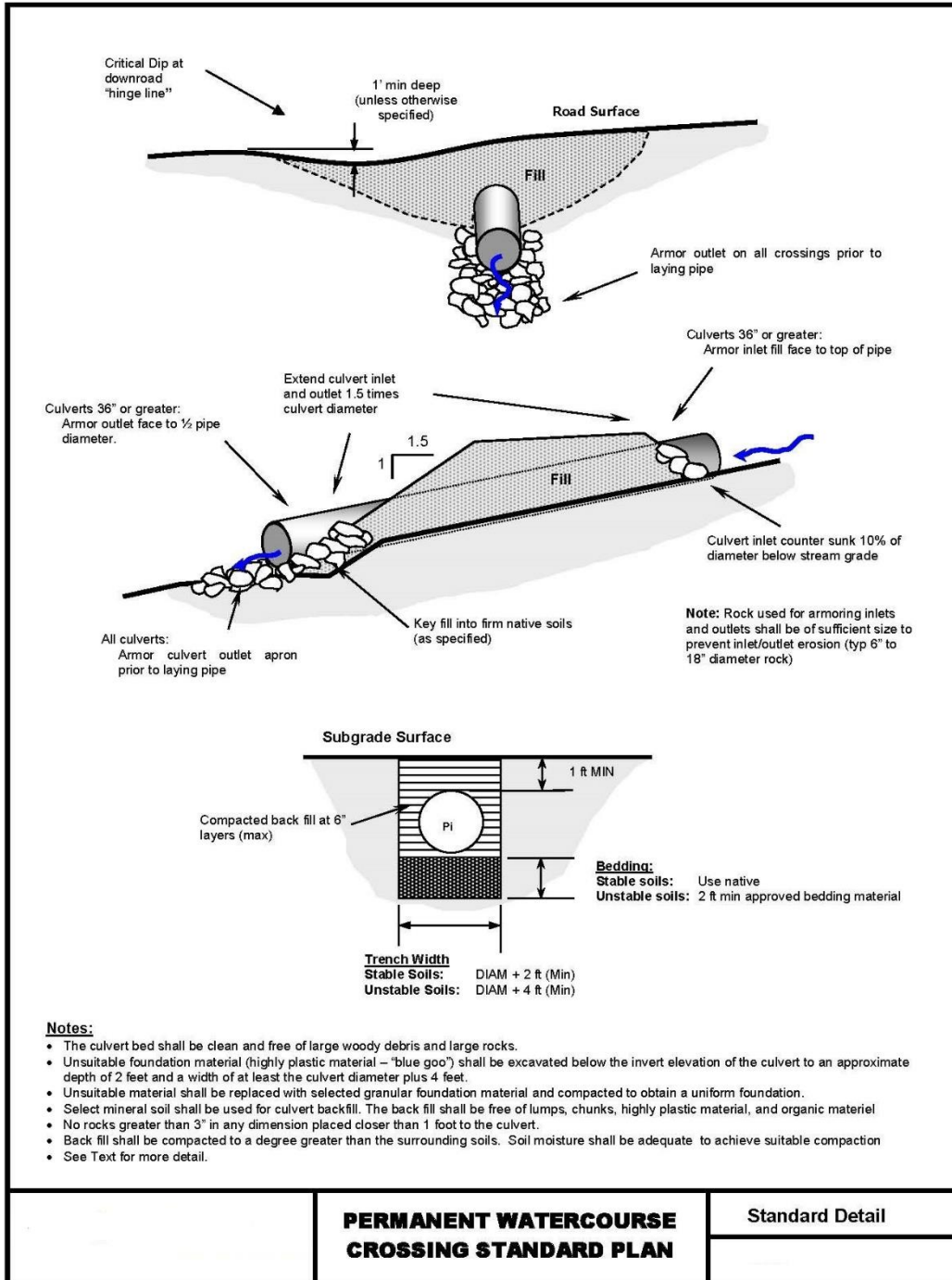
<sup>1</sup>California Department of Forestry and Fire Protection (2008)

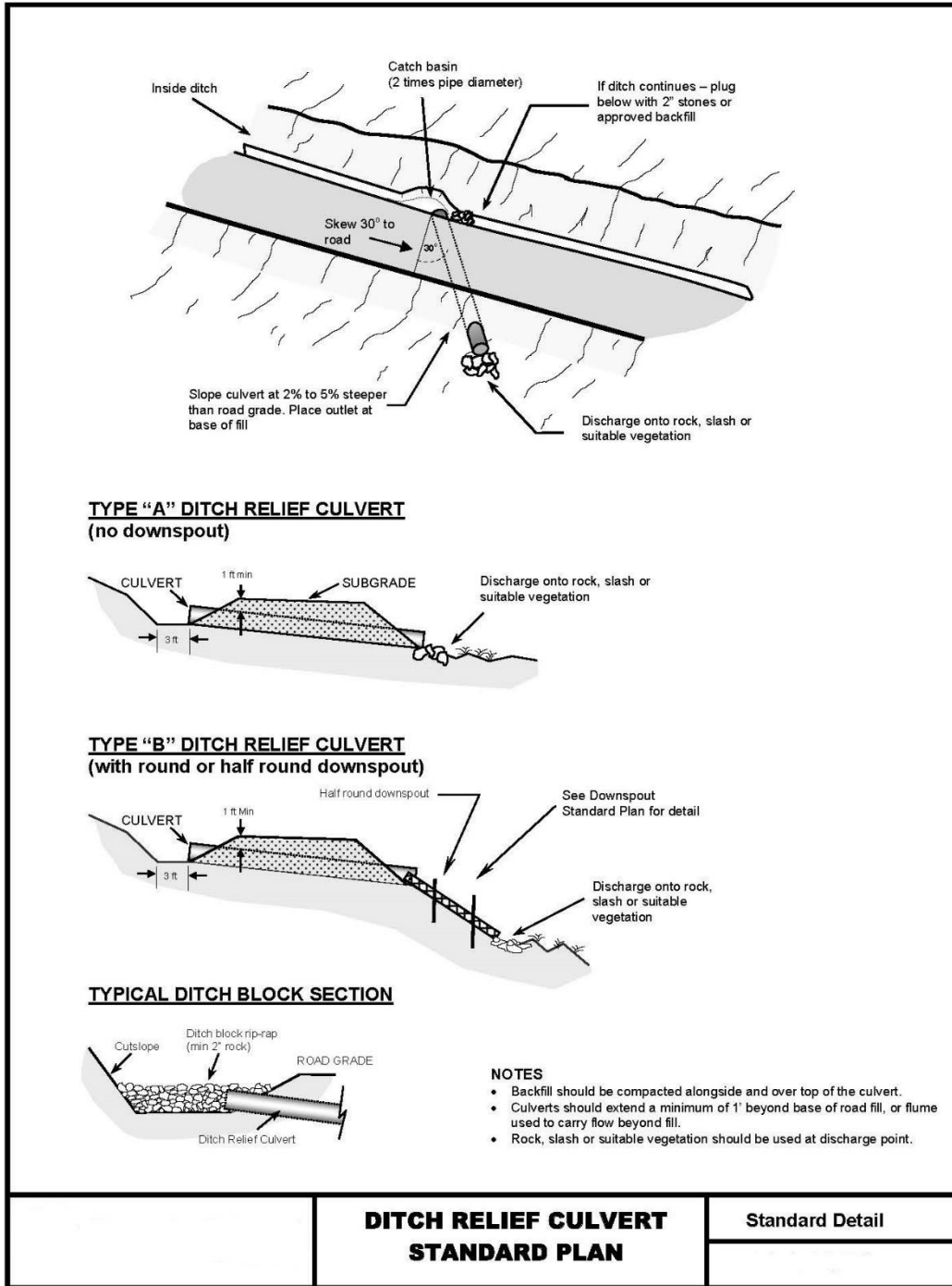
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**TABLE 33.** Aggregate (yd<sup>3</sup>) required to surface or armor one mile of road<sup>1</sup>

Road width (ft)	Depth of uncompacted rock (in)					
	2”	4”	6”	8”	10”	12”
10’	326	652	978	1,304	1,630	1,956
12’	391	782	1,174	1,564	1,956	2,348
14’	456	913	1,369	1,826	2,282	2,738
16’	522	1,043	1,565	2,086	2,608	3,130
18’	587	1,174	1,760	2,348	2,934	3,520
20’	652	1,304	1,956	2,608	3,260	3,912

<sup>1</sup>USDA Forest Service (1978). Uncompacted 16.3 yd<sup>3</sup> equals 1 in deep by 1 ft wide by 1 mi long. When aggregate is compacted, increase volumes required by 15-30%, depending on type and gradation of material.





**DITCH RELIEF CULVERT  
STANDARD PLAN**

Standard Detail

