

Reconnaissance Report for Possible Road Locations within Saint Edwards State Park

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ESRM 468 - Forest Operations – Recon Report

Road Name: Seminary Lane

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Road #: 2

Starting Point: N47 43.726 W122 15.640

Ending Point: The crew was stopped short at approximately 14:00 at Station 28+50 in order to return to Station 18+50 and assess the switchback. At Station 28+50 we were faced with a steep drop off (<-15%) to the north and a steep incline (>10%) to the northeast.

Other Junctions: N/A

Setting Accessed: N/A

Status: The lay out of our proposed road line fell short our intended landing destination. If future time permits we feel confident that our crew would be able to successfully complete our proposed road line.

Soils: The soils within St Edwards Park are Alderwood, Kitsap, Ragnar, and Indianola series. All soils formed from glacial activity. Alderwood, Ragnar, and Indianola soils are sandy, while Kitsap soils are silty. The landing started on a Kitsap soil. The rest of the road was on an Alderwood-Kitsap complex. This explains the variation in soils that we saw throughout the road tracking. On the steepest hills we saw sandy soils, but in the flatter areas the soils were finer.

Side Slopes: Side slopes were calculated at every station, see notes attached as Appendix A.

Grades: The grades never exceeded 10% adverse or 15% favorable.

Stream Crossing: There was one stream crossing on our road. The stream was between stations 6+00 and 6+50. We used a switchback to cross the stream. The switchback was laid out by deflection angles for a 50 ft radius with a 25 ft cord. Starting from the north side of the stream at station 6+50, we took a 14 degree deflection angle for 25 ft cord. Then we did 28 degree deflection angles for the next three 25 ft cords. This placed us about 10 ft east and 0% grade of our 6+00 station.



Figure 1: Curve Lay-Out at stations 6+00 and 6+50.

Switchbacks: A switchback was laid out with ribbon starting from station 18+00 and ending at station 19+00. Our goal was to create a curve radius of 60 feet. The grade line from station 18+00 to 18+50 was 10%. The grade line from station 18+50 to 19+00 was also 10%. From station 18+50 we ran ribbon north for 60 feet, east for 60 feet and west for 60 feet. At the end of the 60 feet in the east direction we ran a 0% grade line back (south) to station 19+00. At the end of the 60 feet in the west direction we ran a 0% grade line back (south) to station 18+00. Our minimum curve radius was 60 feet, with a distance of 120 feet between the east and west points.

Attempts: The current location of the switch back was not intended to be created at station 18+50. Considering this unexpected event our crew successfully managed to lay out a proper curve with a radius of 60 feet.

Comments: Below outlines the original projection of road #2 as well as the actual route traveled, which was documented using a Garmin GPS. As the road progressed towards the landing point, our crew began to rely more on the grade as opposed to the original projected azimuth. This may have clouded the overall vision of the road, as our crew began veering southeast when we should have been pushing north for one or two more stations.

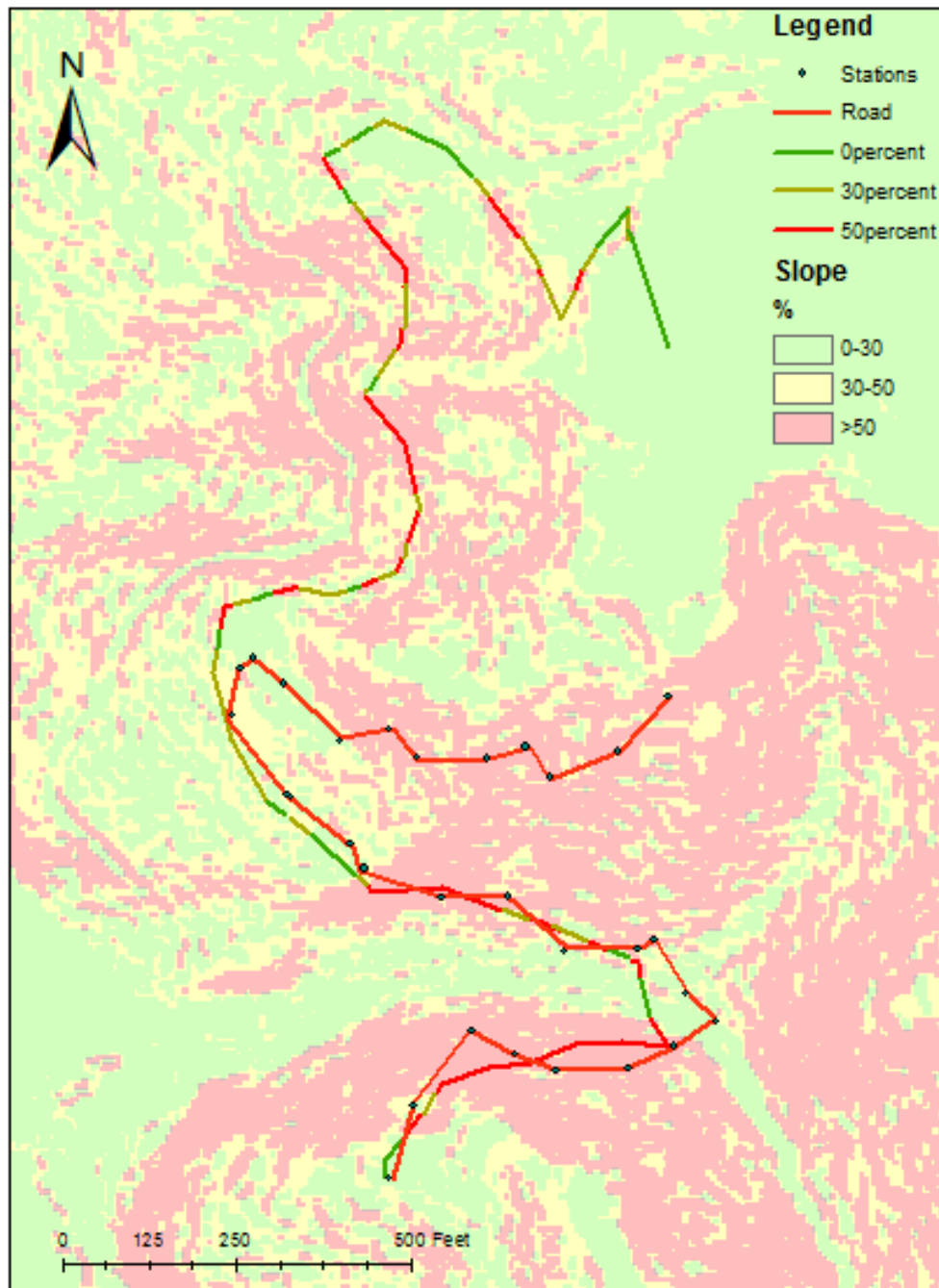


Figure 1. Paper road map and actual road traversed by our group through St. Edwards State Park.

Appendix A

4-6-09

STATION #	BEARING	GRADE	SIDE SLOPE	
			L	R
14+00	320°	+10	-25%	+43%
13+50	330°	+10%		
13+00	278°	+10%	-60%	+85%
12+50	278°	+10%		
12+00	282°	+10%	-50%	+85%
11+50	298°	+10%		
11+00	COLOR 284°	+10%	-45%	+60%
10+50	YELLOW/BLK 282°	+10%		
10+00	NO STREAM 294°	+10%	-55%	+55%
9+50	292°	+10%		
9+00	302°		-45%	-85%
8+50	302%	+10%		
8+00	286°	+10%	-10%	+30%
7+50	294°	0		
7+00	322°		-15	+55%
6+50	87° 336°	-5.24%		
6+00				
5+50	347°	+10%		
5+00	348°	+10%	-15%	70%
4+50	350°	+10%		
4+00	10%	0%	+5%	120%
3+50	140°	+15%		*
3+00	START 110° 65%	-15% 0%	-55%	65%
2+50	STREAM 98°	-15%		
2+00	98°	-15%	-70%	65%
1+50	78°	-15%		
1+00	66°	-15%	-55%	65%
0+50	40°	-15%		
0+00	110°	-15%	-60%	75%
0+50	68°	-15%		
0+00	78°	-15%	-60%	65%
0+50	42°	-15%		
0+00	78°	-15%	-30%	42%
0+75	38°			
0+50	28°	+12%		
0+25	28°	+1%		
00				

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STATION	BEARING	GRADE	SIDE SLOPE	
			L	R
18+50	128°	60' (Big Street) +10%		
	60°	60°		
18+00	17°	+10%	+5%	+20%
17+50	353°	+10%		
17+00	344°	+10%	-25	40%
16+50	331°	+10%		
16+00	326°	+10%	-25%	+35%
15+50	312°	+10%		
15+00	284°	+10%	-20%	+40%
14+50	323°	+10%		

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STATION#	BEARING	GRADE	SIDE SLOPE	
			L	R
21+50	91°			
21+00	125°	-10%	+70%	-40%
20+50	125°	+10%		
20+00	126°		+65%	-20%
19+50	130°	+10%		
19+00	132°	+10%	+30%	-15%

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STATION #	BEARING	GRADE	SIDE SLOPE	
			L	R
24+50	84°	+10		
24+00	44°	+10%	+80%	-60%
23+50	67°	+10%		
23+00	96°	+10%	+50%	-50%
22+50	105°	+10		
22+00	102°	+10%	+70%	-45%

4-8-09

STATION#	BEARING	GRADE	SIDESLOPE	
			L	R
27+50	70°	+10%		
27+00	64°	+10%	+80%	-45%
26+50	64°	+10%		
26+00	96°	+10%	+45%	-45%
25+50	106°	+10%		
25+00	82°	+10%	+65%	-50%

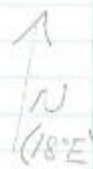
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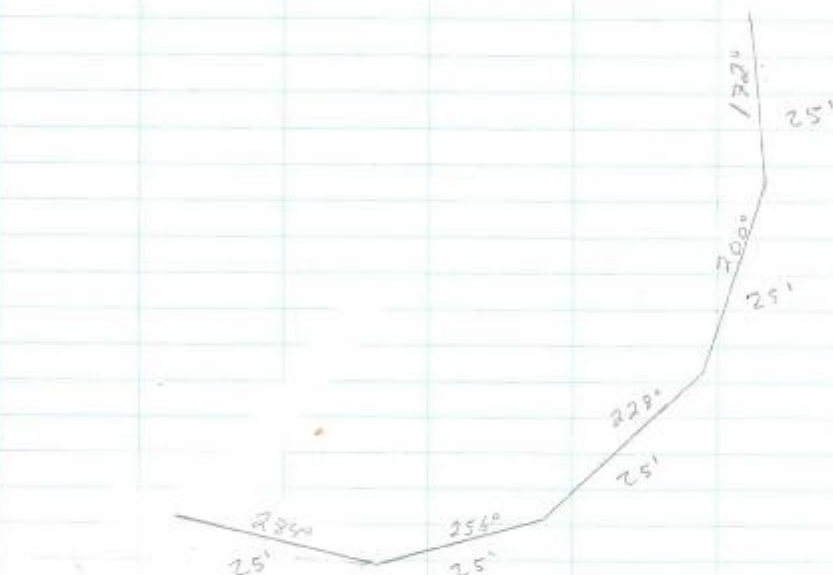
SIDE SLOPE
L R

STATION#

BEARING

GRADE



N
(18°E)


28+00

78°

10%

6.54% -45%

B.C.C.