

## Appendix J.2: Prototype trail development costs

<b>Multipurpose trail - 8 foot crushed rock (5 miles w/svs)</b>					
	unit	unit cost	qty	qty cost	
a	clear/grade/earthwork along trail corridor - 12' wide	sq ft	\$0.75	322,800	\$242,100
b	crushed rock, rolled to 4", 3/8" minus - 8' wide	sq ft	\$1.00	215,200	\$215,200
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	5	\$9,500
e	trash receptacles w/concrete support	each	\$800.00	10	\$8,000
f	restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g	parking, 2" asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
h	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	30	\$4,680
i	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$526,080</b>	
j	construction sales tax (const)	8.2%		\$43,139	
k	design/engineering fees (const)	12.0%		\$63,130	
l	financing costs (const,tax, design)	8.0%		\$50,588	
m	contingency (const, tax, design, financing)	15.0%		\$102,440	
<b>Total development cost per 5 miles</b>				<b>\$785,376</b>	
<b>Prorated per mile</b>				<b>\$157,075</b>	

<b>Multipurpose trail - 8 foot asphalt (5 miles w/svs)</b>					
	unit	unit cost	qty	qty cost	
a	clear/grade/earthwork along trail corridor - 12' wide	sq ft	\$0.75	322,800	\$242,100
b	2"asphalt over 4"crushed rock - 8' wide	sq ft	\$2.50	215,200	\$538,000
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	5	\$9,500
e	trash receptacles w/concrete support	each	\$800.00	10	\$8,000
f	restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g	parking, 2" asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
h	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	30	\$4,680
i	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$848,880</b>	
j	construction sales tax (const)	8.2%		\$69,608	
k	design/engineering fees (const)	12.0%		\$101,866	
l	financing costs (const,tax, design)	8.0%		\$81,628	
m	contingency (const, tax, design, financing)	15.0%		\$165,297	
<b>Total development cost per 5 miles</b>				<b>\$1,267,279</b>	
<b>Prorated per mile</b>				<b>\$253,456</b>	

<b>Multipurpose trail - 10 foot crushed rock (5 miles w/svs)</b>					
	unit	unit cost	qty	qty cost	
a	clear/grade/earthwork along trail corridor - 14' wide	sq ft	\$0.75	376,600	\$282,450
b	crushed rock, rolled to 4", 3/8" minus - 10' wide	sq ft	\$1.00	269,000	\$269,000
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	5	\$9,500
e	trash receptacles w/concrete support	each	\$800.00	10	\$8,000
f	restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g	parking, 2" asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
h	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	30	\$4,680
i	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$620,230</b>	
j	construction sales tax (const)	8.2%		\$50,859	
k	design/engineering fees (const)	12.0%		\$74,428	
l	financing costs (const,tax, design)	8.0%		\$59,641	
m	contingency (const, tax, design, financing)	15.0%		\$120,774	
<b>Total development cost per 5 miles</b>				<b>\$925,931</b>	
<b>Prorated per mile</b>				<b>\$185,186</b>	

<b>Multipurpose trail - 10 foot asphalt (5 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qty</b>	<b>qty cost</b>	
a	clear/grade/earthwork along trail corridor - 14' wide	sq ft	\$0.75	376,600	\$282,450
b	2"asphalt over 4"crushed rock - 10' wide	sq ft	\$2.50	269,000	\$672,500
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	5	\$9,500
e	trash receptacles w/concrete support	each	\$800.00	10	\$8,000
f	restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g	parking, 2" asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
h	wheel stops, 10"x6"x8"precast concrete	each	\$156.00	30	\$4,680
i	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$1,023,730</b>	
j	construction sales tax (const)	8.2%			\$83,946
k	design/engineering fees (const)	12.0%			\$122,848
l	financing costs (const,tax, design)	8.0%			\$98,442
m	contingency (const, tax, design, financing)	15.0%			\$199,345
<b>Total development cost per 5 miles</b>				<b>\$1,528,310</b>	
<b>Prorated per mile</b>				<b>\$305,662</b>	

<b>Park walk trail class 1 - crushed rock (1 mile w/o svcs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qty</b>	<b>qty cost</b>	
a	clear/grade/earthwork trail corridor - 10' wide	sq ft	\$0.75	53,800	\$40,350
b	crushed rock, 6"depth, 3/8" minus - 6' wide	sq ft	\$1.10	32,280	\$35,508
c	interpretative signs, 4"x4"cedar framed	each	\$1,000.00	5	\$5,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	10	\$19,000
e	trash receptacles w/concrete support	each	\$800.00	2	\$1,600
<b>Total construction cost per mile</b>				<b>\$101,458</b>	
f	construction sales tax (const)	8.2%			\$8,320
g	design/engineering fees (const)	12.0%			\$12,175
h	financing costs (const,tax, design)	8.0%			\$9,756
i	contingency (const, tax, design, financing)	15.0%			\$19,756
<b>Total development cost per mile</b>				<b>\$151,465</b>	

<b>Park walk trail class 1 - asphalt (1 mile w/o svcs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qty</b>	<b>qty cost</b>	
a	clear/grade/earthwork trail corridor - 10' wide	sq ft	\$0.75	53,800	\$40,350
b	2"asphalt over 4"crushed rock - 6' wide	sq ft	\$2.50	32,280	\$80,700
c	interpretative signs, 4"x4"cedar framed	each	\$200.00	5	\$1,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	10	\$19,000
e	trash receptacles w/concrete support	each	\$800.00	2	\$1,600
<b>Total construction cost per mile</b>				<b>\$142,650</b>	
f	construction sales tax (const)	8.2%			\$11,697
g	design/engineering fees (const)	12.0%			\$17,118
h	financing costs (const,tax, design)	8.0%			\$13,717
i	contingency (const, tax, design, financing)	15.0%			\$27,777
<b>Total development cost per mile</b>				<b>\$212,960</b>	

<b>Park walk trail class 2 - crushed rock (1 mile w/o svcs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qty</b>	<b>qty cost</b>	
a	clear/grade/earthwork trail corridor - 8' wide	sq ft	\$0.75	43,040	\$32,280
b	crushed rock, 6"depth, 3/8" minus - 5' wide	sq ft	\$1.00	26,900	\$26,900
c	interpretative signs, 4"x4"cedar framed	each	\$1,000.00	5	\$5,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	10	\$19,000
e	trash receptacles w/concrete support	each	\$800.00	2	\$1,600
<b>Total construction cost per mile</b>				<b>\$84,780</b>	
f	construction sales tax (const)	8.2%			\$6,952
g	design/engineering fees (const)	12.0%			\$10,174
h	financing costs (const,tax, design)	8.0%			\$8,152
i	contingency (const, tax, design, financing)	15.0%			\$16,509
<b>Total development cost per mile</b>				<b>\$126,567</b>	

<b>Park walk trail class 2 - asphalt (1 mile w/o svcs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qty</b>	<b>qty cost</b>	
a	clear/grade/earthwork trail corridor - 8' wide	sq ft	\$0.75	43,040	\$32,280
b	2"asphalt over 4"crushed rock - 5' wide	sq ft	\$2.50	26,900	\$67,250
c	interpretative signs, 4"x4"cedar framed	each	\$200.00	5	\$1,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	10	\$19,000
e	trash receptacles w/concrete support	each	\$800.00	2	\$1,600
<b>Total construction cost per mile</b>				<b>\$121,130</b>	
f	construction sales tax (const)	8.2%			\$9,933
g	design/engineering fees (const)	12.0%			\$14,536
h	financing costs (const,tax, design)	8.0%			\$11,648
i	contingency (const, tax, design, financing)	15.0%			\$23,587
<b>Total development cost per mile</b>				<b>\$180,833</b>	

<b>Day hike trail class 3 - crushed rock (5 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along trail corridor - 6' wide	sq ft	\$0.75	161,400	\$121,050
b	crushed rock, rolled to 4", 3/8" minus - 4' wide	sq ft	\$1.00	107,600	\$107,600
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	5	\$9,500
e	trash receptacles w/concrete support	each	\$800.00	10	\$8,000
f	restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g	parking, 2" asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
h	wheel stops, 10"x6"x8"precast concrete	each	\$156.00	30	\$4,680
i	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$297,430</b>	
j	construction sales tax (const)	8.2%			\$24,389
k	design/engineering fees (const)	12.0%			\$35,692
l	financing costs (const,tax, design)	8.0%			\$28,601
m	contingency (const, tax, design, financing)	15.0%			\$57,917
<b>Total development cost per 5 miles</b>				<b>\$444,028</b>	
<b>Prorated per mile</b>				<b>\$88,806</b>	

<b>Day hike trail class 3 - asphalt (5 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along trail corridor - 6' wide	acre	\$0.75	161,400	\$121,050
b	2" asphalt over 4" crushed rock - 4' wide	sq ft	\$2.50	107,600	\$269,000
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	5	\$9,500
e	trash receptacles w/concrete support	each	\$800.00	10	\$8,000
f	restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g	parking, 2" asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
h	wheel stops, 10"x6"x8"precast concrete	each	\$156.00	30	\$4,680
i	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$458,830</b>	
j	construction sales tax (const)	8.2%			\$37,624
k	design/engineering fees (const)	12.0%			\$55,060
l	financing costs (const,tax, design)	8.0%			\$44,121
m	contingency (const, tax, design, financing)	15.0%			\$89,345
<b>Total development cost per 5 miles</b>				<b>\$684,980</b>	
<b>Prorated per mile</b>				<b>\$136,996</b>	

<b>Day hike trail class 4 - crushed rock (5 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along trail corridor - 5' wide	sq ft	\$0.75	134,500	\$100,875
b	crushed rock, rolled to 4", 3/8" minus - 3' wide	sq ft	\$1.00	80,700	\$80,700
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	5	\$9,500
e	trash receptacles w/concrete support	each	\$800.00	10	\$8,000
f	restroom facilities, sanican w/concrete platforms	each	\$1,500.00	2	\$3,000
g	parking, 2" asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
h	wheel stops, 10"x6"x8"precast concrete	each	\$156.00	30	\$4,680
i	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$250,355</b>	
j	construction sales tax (const)	8.2%			\$20,529
k	design/engineering fees (const)	12.0%			\$30,043
l	financing costs (const,tax, design)	8.0%			\$24,074
m	contingency (const, tax, design, financing)	15.0%			\$48,750
<b>Total development cost per 5 miles</b>				<b>\$373,751</b>	
<b>Prorated per mile</b>				<b>\$74,750</b>	

<b>Day hike trail class 5 - compacted dirt (10 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along trail corridor - 4' wide	sq ft	\$0.75	215,200	\$161,400
b	finish grade compacted dirt trail - 2' wide	sq ft	\$0.20	107,600	\$21,520
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	40	\$14,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	10	\$19,000
e	trash receptacles w/concrete support	each	\$800.00	20	\$16,000
f	restroom facilities, sanican w/concrete platforms	each	\$1,500.00	4	\$6,000
g	parking, 2" asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
h	wheel stops, 10"x6"x8"precast concrete	each	\$156.00	30	\$4,680
i	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 10 miles</b>				<b>\$279,200</b>	
j	construction sales tax (const)	8.2%			\$22,894
k	design/engineering fees (const)	12.0%			\$33,504
l	financing costs (const,tax, design)	8.0%			\$26,848
m	contingency (const, tax, design, financing)	15.0%			\$54,367
<b>Total development cost per 10 miles</b>				<b>\$416,813</b>	
<b>Prorated per mile</b>				<b>\$41,681</b>	

<b>Shoreline hike trail - access only (5 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork for site improvements	sq ft	\$0.75	10,890	\$8,168
b	landscape/bank stabilization plantings about access site	sq ft	\$3.25	2,723	\$8,848
c	picnic tables and benches, 4"x6"wood beams w/conc support	each	\$2,100.00	3	\$6,300
d	barbecue pits, concrete with iron grill	each	\$300.00	3	\$900
e	trail shelter (10'x6'), cedar pole w/shake roof	each	\$2,700.00	1	\$2,700
f	trail directory signs, 4"x4"cedar pole framed	each	\$200.00	10	\$2,000
g	parking, 2"asphalt concrete/4"crushed rock - 10 spaces	sq ft	\$3.00	3,000	\$9,000
h	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	10	\$1,560
i	access road, 2"asphalt concrete/4"crushed rock, 24'x100'	sq ft	\$2.00	2,400	\$4,800
j	restroom facility, sanican w/concrete platform	each	\$1,500.00	2	\$3,000
k	trash receptacles w/concrete support	each	\$800.00	2	\$1,600
<b>Total construction cost per 5 miles</b>				<b>\$48,876</b>	
l	construction sales tax (const)	8.2%			\$4,008
m	design/engineering fees (const)	12.0%			\$5,865
n	financing costs (const,tax, design)	8.0%			\$4,700
o	contingency (const, tax, design, financing)	15.0%			\$9,517
<b>Total development cost per 5 miles</b>				<b>\$72,966</b>	
<b>Prorated per mile/access site</b>				<b>\$14,593</b>	

<b>Off-road mtn bike trail class 1 - dirt (10 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along trail corridor - 6' wide	sq ft	\$0.75	322,800	\$242,100
b	finish grade bike trail - 2' wide	sq ft	\$0.20	107,600	\$21,520
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	10	\$3,500
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	10	\$19,000
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$950.00	1	\$950
f	trash receptacles w/concrete support	each	\$800.00	5	\$4,000
g	restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h	parking, 2"asphalt concrete/4"crushed rock (20 cars)	sq ft	\$3.00	6,000	\$18,000
i	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	20	\$3,120
j	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 10 miles</b>				<b>\$324,790</b>	
k	construction sales tax (const)	8.2%			\$26,633
l	design/engineering fees (const)	12.0%			\$38,975
m	financing costs (const,tax, design)	8.0%			\$31,232
n	contingency (const, tax, design, financing)	15.0%			\$63,244
<b>Total development cost per 10 miles</b>				<b>\$484,874</b>	
<b>Prorated per mile</b>				<b>\$48,487</b>	

<b>Off-road mtn bike trail class 2 - dirt (20 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along trail corridor - 5' wide	sq ft	\$0.75	538,000	\$403,500
b	finish grade bike trail - 1.5' wide	sq ft	\$0.20	161,400	\$32,280
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	15	\$28,500
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$950.00	2	\$1,900
f	trash receptacles w/concrete support	each	\$800.00	10	\$8,000
g	restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h	parking, 2"asphalt concrete/4"crushed rock (20 cars)	sq ft	\$3.00	6,000	\$18,000
i	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	20	\$3,120
j	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 20 miles</b>				<b>\$514,900</b>	
k	construction sales tax (const)	8.2%			\$42,222
l	design/engineering fees (const)	12.0%			\$61,788
m	financing costs (const,tax, design)	8.0%			\$49,513
n	contingency (const, tax, design, financing)	15.0%			\$100,263
<b>Total development cost per 20 miles</b>				<b>\$768,686</b>	
<b>Prorated per mile</b>				<b>\$38,434</b>	

<b>Off-road mtn bike trail class 3 - dirt (25 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along trail corridor - 4' wide	sq ft	\$0.75	538,000	\$403,500
b	finish grade bike trail - 1' wide	sq ft	\$0.20	134,500	\$26,900
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	25	\$8,750
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	20	\$38,000
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$950.00	3	\$2,850
f	trash receptacles w/concrete support	each	\$800.00	15	\$12,000
g	restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h	parking, 2"asphalt concrete/4"crushed rock (20 cars)	sq ft	\$3.00	6,000	\$18,000
i	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	20	\$3,120
j	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 25 miles</b>				<b>\$525,720</b>	
k	construction sales tax (const)	8.2%		\$43,109	
l	design/engineering fees (const)	12.0%		\$63,086	
m	financing costs (const,tax, design)	8.0%		\$50,553	
n	contingency (const, tax, design, financing)	15.0%		\$102,370	
<b>Total development cost per 25 miles</b>				<b>\$784,839</b>	
<b>Prorated per mile</b>				<b>\$31,394</b>	
<b>Off-road bike trail AASHTO 1 - crushed rock (5 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along trail corridor - 14' wide	sq ft	\$0.75	376,600	\$282,450
b	crushed rock, rolled to 4", 3/8" minus - 10' wide	sq ft	\$1.00	269,000	\$269,000
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	10	\$19,000
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$950.00	1	\$950
f	trash receptacles w/concrete support	each	\$800.00	10	\$8,000
g	restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h	parking, 2"asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
i	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	30	\$4,680
j	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$630,680</b>	
k	construction sales tax (const)	8.2%		\$51,716	
l	design/engineering fees (const)	12.0%		\$75,682	
m	financing costs (const,tax, design)	8.0%		\$60,646	
n	contingency (const, tax, design, financing)	15.0%		\$122,809	
<b>Total development cost per 5 miles</b>				<b>\$941,532</b>	
<b>Prorated per mile</b>				<b>\$188,306</b>	
<b>Off-road bike trail AASHTO 1- asphalt (5 miles w/svs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along trail corridor - 14' wide	sq ft	\$0.75	376,600	\$282,450
b	class 2 asphalt 2"crushed rock - 10'wide	sq ft	\$2.50	269,000	\$672,500
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	20	\$7,000
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	10	\$19,000
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$950.00	1	\$950
f	trash receptacles w/concrete support	each	\$800.00	10	\$8,000
g	restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h	parking, 2"asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
i	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	30	\$4,680
j	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$1,034,180</b>	
k	construction sales tax (const)	8.2%		\$84,803	
l	design/engineering fees (const)	12.0%		\$124,102	
m	financing costs (const,tax, design)	8.0%		\$99,447	
n	contingency (const, tax, design, financing)	15.0%		\$201,380	
<b>Total development cost per 5 miles</b>				<b>\$1,543,911</b>	
<b>Prorated per mile</b>				<b>\$308,782</b>	
<b>On-road bike tour AASHTO 2 - 2 lanes (10 miles w/o svcs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along road shoulder - 8' wide	sq ft	\$0.75	860,800	\$645,600
b	asphalt, 2"class 1/4"crushed rock - 6' wide	sq ft	\$2.50	645,600	\$1,614,000
c	pavement markings, paint stripes and symbols	lr ft	\$1.15	107,600	\$123,740
d	route directory, steel post w/reflective sign	each	\$100.00	80	\$8,000
<b>Total construction cost per 10 miles</b>				<b>\$2,391,340</b>	
e	construction sales tax (const)	8.2%		\$196,090	
f	design/engineering fees (const)	12.0%		\$286,961	
g	financing costs (const,tax, design)	8.0%		\$229,951	
h	contingency (const, tax, design, financing)	15.0%		\$465,651	
<b>Total development cost per 10 miles</b>				<b>\$3,569,993</b>	
<b>Prorated per mile</b>				<b>\$356,999</b>	

<b>On-road bike tour AASHTO 3 - 2 shlders (10 miles w/o svcs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along road shoulder - 6' wide	sq ft	\$0.75	645,600	\$484,200
b	asphalt, 2" class 1/4" crushed rock - 4' wide	sq ft	\$2.50	430,400	\$1,076,000
c	pavement markings, paint stripes and symbols	lr ft	\$1.15	107,600	\$123,740
d	route directory, steel post w/reflective sign	each	\$100.00	80	\$8,000
<b>Total construction cost per 10 miles</b>				<b>\$1,691,940</b>	
e	construction sales tax (const)	8.2%			\$138,739
f	design/engineering fees (const)	12.0%			\$203,033
g	financing costs (const,tax, design)	8.0%			\$162,697
h	contingency (const, tax, design, financing)	15.0%			\$329,461
<b>Total development cost per 10 miles</b>				<b>\$2,525,870</b>	
<b>Prorated per mile</b>				<b>\$252,587</b>	

<b>On-road bike tour AASHTO 4 - in lane (10 miles w/o svcs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	pavement markings, paint symbols and occasional strips	lr ft	\$1.15	107,600	\$123,740
b	route directory, steel post w/reflective sign	each	\$100.00	80	\$8,000
<b>Total construction cost per 10 miles</b>				<b>\$131,740</b>	
c	construction sales tax (const)	8.2%			\$10,803
d	design/engineering fees (const)	12.0%			\$15,809
e	financing costs (const,tax, design)	8.0%			\$12,668
f	contingency (const, tax, design, financing)	15.0%			\$25,653
<b>Total development cost per 10 miles</b>				<b>\$196,673</b>	
<b>Prorated per mile</b>				<b>\$19,667</b>	

<b>On-road bike tour - backcountry (10 miles w/o svcs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	route directory, steel post w/reflective sign	each	\$100.00	80	\$8,000
<b>Total construction cost per 10 miles</b>				<b>\$8,000</b>	
b	construction sales tax (const)	8.2%			\$656
c	design/engineering fees (const)	12.0%			\$960
d	financing costs (const,tax, design)	8.0%			\$769
e	contingency (const, tax, design, financing)	15.0%			\$1,558
<b>Total development cost per 10 miles</b>				<b>\$11,943</b>	
<b>Prorated per mile</b>				<b>\$1,194</b>	

<b>Horse trail - sepearate trail (5 miles w/svcs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork along trail corridor - 6' wide	sq ft	\$0.75	32,280	\$24,210
b	finish grade horse trail, compacted dirt - 2' wide	sq ft	\$0.20	10,760	\$2,152
c	trail directory, 4"x4" cedar pole framed	each	\$350.00	20	\$7,000
d	hitching posts, galvanized pipe w/cedar posts	each	\$500.00	10	\$5,000
e	trash receptacles w/concrete support	each	\$800.00	4	\$3,200
f	restroom facilities, sanican w/concrete platform	each	\$1,500.00	2	\$3,000
g	trailer parking, 2" asphalt concrete/4" crushed rock (20 stalls)	sq ft	\$3.00	10,000	\$30,000
h	wheel stops, 10"x6"x8" precast concrete	each	\$156.00	20	\$3,120
i	access road, 2" asphalt concrete/4" crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$87,282</b>	
j	construction sales tax (const)	8.2%			\$7,157
k	design/engineering fees (const)	12.0%			\$10,474
l	financing costs (const,tax, design)	8.0%			\$8,393
m	contingency (const, tax, design, financing)	15.0%			\$16,996
<b>Total development cost per 5 miles</b>				<b>\$130,302</b>	
<b>Prorated per mile</b>				<b>\$26,060</b>	

<b>Water trailhead - launch and campsite (5 miles w/svcs)</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork for site improvements	sq ft	\$0.75	10,890	\$8,168
b	landscape/bank stabilization plantings about site	sq ft	\$2.50	2,723	\$6,806
c	picnic tables and benches, 4"x6" wood beams w/conc support	each	\$2,100.00	3	\$6,300
d	barbecue pits, concrete with iron grill	each	\$300.00	2	\$600
e	camp shelter (10'x6'), cedar pole w/shake roof	each	\$2,700.00	1	\$2,700
f	camp directory signs, 4"x4" cedar pole framed	each	\$200.00	10	\$2,000
g	restroom facility, sanican w/concrete platform	each	\$1,500.00	2	\$3,000
h	trash receptacles w/concrete support	each	\$800.00	2	\$1,600
i	parking, 2" asphalt concrete/4" crushed rock - 10 spaces	sq ft	\$3.00	3,000	\$9,000
j	wheel stops, 10"x6"x8" precast concrete	each	\$156.00	10	\$1,560
k	access road, 2" asphalt concrete/4" crushed rock, 24'x100'	sq ft	\$2.00	2,400	\$4,800
<b>Total construction cost per 5 miles</b>				<b>\$46,534</b>	
l	construction sales tax (const)	8.2%			\$3,816
m	design/engineering fees (const)	12.0%			\$5,584
n	financing costs (const,tax, design)	8.0%			\$4,475
o	contingency (const, tax, design, financing)	15.0%			\$9,061
<b>Total development cost per 5 miles</b>				<b>\$69,469</b>	
<b>Prorated per mile/access site</b>				<b>\$13,894</b>	

<b>Trailhead - w/sanican svcs</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork for site improvements	sq ft	\$0.75	10,890	\$8,168
b	landscape/bank stabilization plantings about site	sq ft	\$3.25	2,723	\$8,848
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	2	\$700
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	3	\$5,700
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$950.00	1	\$950
f	trash receptacles w/concrete support	each	\$800.00	2	\$1,600
g	restroom facilities, sani-can w/concrete platform	each	\$1,500.00	2	\$3,000
h	parking, 2"asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
i	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	30	\$4,680
j	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$70,246</b>	
k	construction sales tax (const)	8.2%			\$5,760
l	design/engineering fees (const)	12.0%			\$8,429
m	financing costs (const,tax, design)	8.0%			\$6,755
n	contingency (const, tax, design, financing)	15.0%			\$13,679
<b>Total development cost per site</b>				<b>\$104,869</b>	

<b>Trailhead - w/permanent restroom facilities</b>					
	<b>unit</b>	<b>unit cost</b>	<b>qnty</b>	<b>qnty cost</b>	
a	clear/grade/earthwork for site improvements	sq ft	\$0.75	10,890	\$8,168
b	landscape/bank stabilization plantings about site	sq ft	\$2.50	2,723	\$6,806
c	trail directory, 4"x4"cedar pole framed	each	\$350.00	2	\$700
d	trail bench, 8"x8"x10'wood beams w/conc support	each	\$1,900.00	3	\$5,700
e	bike rack, prefab galvanized pipe (54 bikes)	each	\$950.00	1	\$950
f	trash receptacles w/concrete support	each	\$800.00	2	\$1,600
g	restroom facility, 4 stalls w/2 sinks	sq ft	\$125.00	500	\$62,500
h	sewer service, 8" side sewer	lr ft	\$17.00	500	\$8,500
i	water service, 8" service line	lr ft	\$30.00	500	\$15,000
j	fire hydrant	each	\$2,675.00	1	\$2,675
k	water meter, 2" size	each	\$4,880.00	1	\$4,880
l	parking, 2"asphalt concrete/4"crushed rock (30 cars)	sq ft	\$3.00	9,000	\$27,000
m	wheel stops, 10"x6"x8'precast concrete	each	\$156.00	30	\$4,680
n	access road, 2"asphalt concrete/4"crushed rock, 24'x200'	sq ft	\$2.00	4,800	\$9,600
<b>Total construction cost per 5 miles</b>				<b>\$158,759</b>	
o	construction sales tax (const)	8.2%			\$13,018
p	design/engineering fees (const)	12.0%			\$19,051
q	financing costs (const,tax, design)	8.0%			\$15,266
r	contingency (const, tax, design, financing)	15.0%			\$30,914
<b>Total development cost per site</b>				<b>\$237,008</b>	

Source: Beckwith Consulting Group