

# Clifton Pedestrian Circulation Study

## Executive Summary

October 2006



# Clifton Pedestrian Study Executive Summary

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Mesa County, on behalf of the Mesa County Regional Transportation Planning Office (RTPO), contracted with LSC Transportation Consultants, Inc. to complete the Clifton Pedestrian Circulation Study, a tool to be used by local decision makers related to transit, bicycle, and pedestrian facilities in the Clifton area.

The Clifton area—defined as part of the Grand Junction Urbanized Area—is, for the most part, served by roads built to rural standards. Many of these roads do not have pedestrian facilities, thus the need to identify and prioritize safety, capacity, and geometric improvements for transit, bicycle, and pedestrian facilities.

## PURPOSE OF THE STUDY

The primary goal of this project is to assist local decision makers with a prioritized list of pedestrian-related facility improvements which will be included in the Mesa County Public Works Capital Investment Program (CIP). These prioritized projects will identify both short- and long-term investments in the area. While current and future improvements are required to provide safe and accessible pedestrian walkways (sidewalks), historical developments in this rather rural area did not incorporate these facilities. Historically, developments occurred when pedestrian ways were not required, as much of this area is in unincorporated Mesa County. There are very small portions of the study area which fall within the City of Grand Junction.

## STUDY AREA

The study area boundaries are between 30 Road on the west, 33 Road on the east, Interstate 70 (I-70) on the north, and the Colorado River on the south. The study area is approximately 10 square miles in size.

## **REPORT OVERVIEW**

The study presents a brief review of existing planning documentation and other relevant work done in the Clifton area. This includes documents such as the Clifton Transportation Study, the Pear Park Neighborhood Plan, the current Capital Investment Program 2005-2010, and information such as historic building permits and current and future zoning. Initial field investigation was done in the area by the consultant team. This preliminary investigation included on-site visits of the area and initial inventory of existing facilities. Much of the initial inventory identified major gaps and inconsistencies in development. As mentioned, the Clifton area has developed from one characterized by rural elements such as open fields, waterways, and inconsistent/undefined densities into more of a suburban to urban development. The area is currently experiencing large growth in residential areas. Many new developments are occurring and likely will continue for some time to come. The study also presents the inventory of pedestrian-related facilities.

Criteria, used to determine which projects Mesa County should invest in to obtain the greatest improvement to the pedestrian system, were developed through this process. The criteria were developed in a cooperative working process between the LSC team and the Steering Committee. The criteria were used to rank the projects in order of highest need and importance to the Clifton area and were used to determine the projects appropriate for inclusion in the CIP.

Pedestrian project rankings for the Clifton area were detailed in the study. The facility improvements are based upon the project ranking information and upon the estimated cost information from a variety of sources. These improvements range from a “status quo” approach to an approach wherein all of the existing pedestrian deficiencies are improved over the next 20 years. The top ranked projects in each alternative are those projects that have the highest priority within the area.

## **STUDY APPROACH**

The approach to preparing a prioritized list of improvements involves both subjective and objective means to determine the best improvements for the community. One important step toward providing communitywide acceptable recommendations involves key groups and individuals such as the Steering Committee, Clifton residents, key stakeholders, Colorado Department of Transportation, current bus patrons, school district representatives, key organizations and interest groups, and others as identified throughout the study.

### **Project Team**

An initial “kick-off meeting” was held in Grand Junction, Colorado on January 11, 2006. The meeting was attended by members of the RTPO, Mesa County, and the City of Grand Junction. The project team met to discuss project goals, priorities, the public participation process, and a time line for completion of the final study. The project team also discussed which local stakeholders would be critical in completing the study and how to best inform the residents of the study. An important issue was the coordination with the ongoing Clifton Community Plan. It was advised that all public outreach be coordinated with this ongoing planning effort. While the planning boundaries are somewhat different, there is overlap in some of the neighborhoods between both plans/studies.

### **Current Issues and Priorities**

During the January kick-off meeting, the project team identified some of the issues with pedestrian circulation in the Clifton area. Several of the issues discussed deal with safety-related issues and accessibility. Currently, the pedestrian network has connectivity issues as well as accessibility in terms of compliance with ADA guidelines for bus stops.

### **Issues**

The following does not represent a comprehensive list of issues in the area, but provides a preliminary list developed by the project team:

- Limited connectivity – from subdivision to destination;

## *Executive Summary*

- Present and future schools and the connectivity and safety issues with pedestrian networks from home to school;
- A lack of consistent design standards; however, this issue is resolved for future development;
- Existing barriers – US 6 and I-70B as well as existing rail sidings, and;
- Safety issues.

### Study Priorities

Priorities for the Clifton community pedestrian network include the following types of priorities, as discussed by the Steering Committee. These priorities are not provided in any order of precedence or importance. This list was developed as the study progressed.

- Access to/from schools
- Access to/from transit
- Access to/from recreation facilities
- Access to/from commercial areas
- Accessibility between neighborhoods
- Development of the “triggers” to improvement (i.e., major road reconstruction triggers major pedestrian way improvements)
- D<sup>1</sup>/<sub>2</sub> Road as a priority
- Input from transit riders

### **Interview with Local Resident**

On January 13, 2006, the LSC team met with a local Clifton resident to discuss pedestrian-related issues from an accessibility standpoint. The local resident is a disabled person who is confined to a wheelchair and who has a distinct perspective on local issues regarding disabilities and accessibility. The major issues discussed with the resident were:

- Lack of adequate sidewalks or off-street paths for safe travel in a wheelchair;
- Existing sidewalks which are very narrow or are in poor condition;
- Lack of concrete pads for bus waiting areas;
- Safety of some existing bus waiting areas;
- Timing of signals at major roads to allow for adequate crossing time;

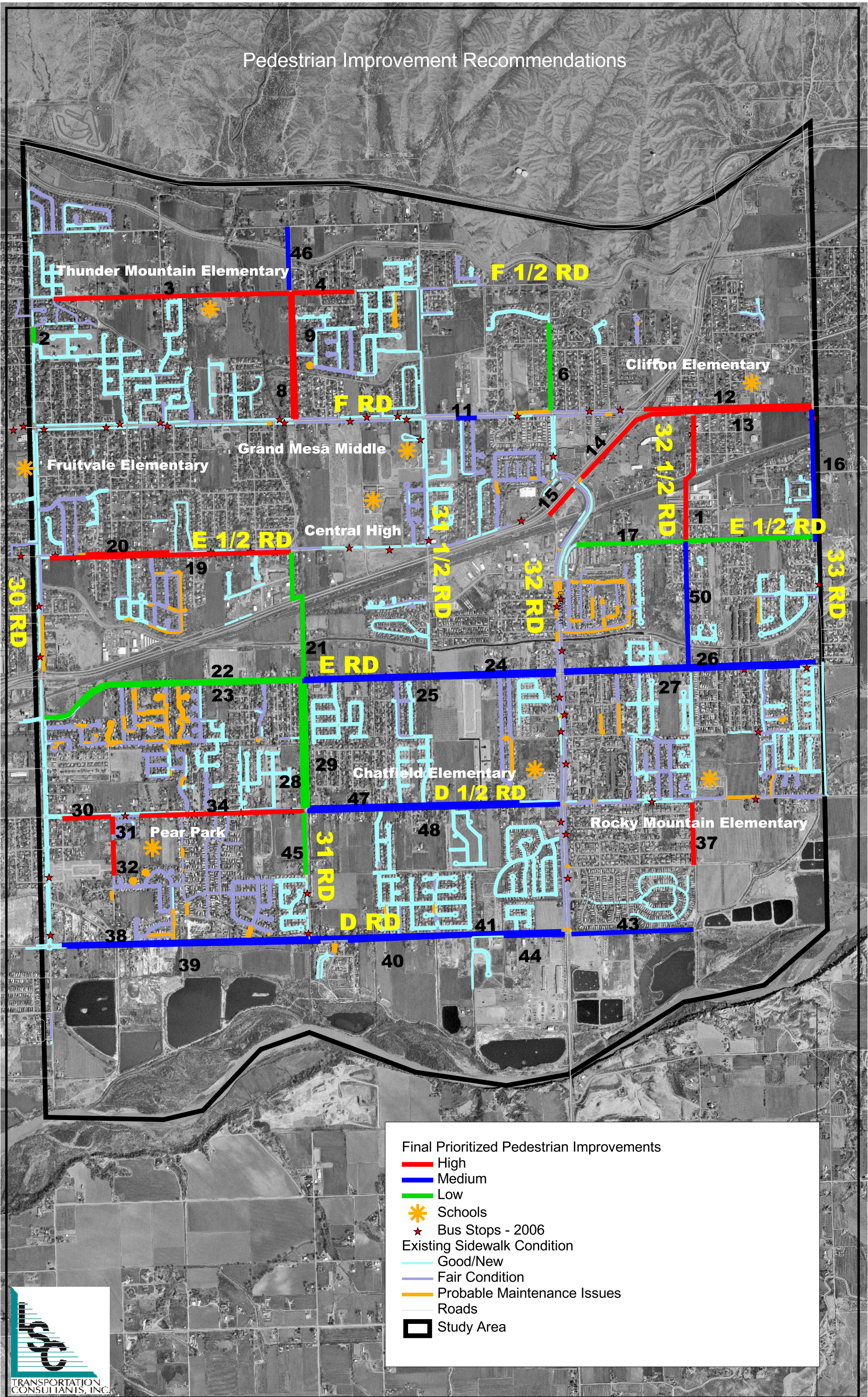
- Lack of adequate on-street lighting which creates nighttime safety hazards for pedestrians and vehicles, and;
- Grade and/or railroad crossings issues.

## **STUDY RESULTS**

Final ranked projects are presented in the following figures and tables. These list those projects which should be invested in over the next 20 years. Projects are prioritized into Low, Medium, and High rankings, each with an estimated cost for implementation. Pedestrian projects range from \$9 million to \$10.2 million over the next 20 years, with another \$5 million in trail improvements.

New Sidewalk Improvements																
Segment ID	Improvement	Road	BETWEEN		Side of Road	Road Class	Approximate Length	INDEX	PRIORITY BASED ON INDEX	FINAL RANKING	Cost Estimates					
			From	To							4" x 8' Sidewalk	6" x 8' Sidewalk	Curb and Gutter	Min Cost	Max Cost	
2	New Sidewalk	30 Rd	Country Road	Sovereign Lane	East	Major Collector	312	240	Low	Low		\$16,354	\$18,421	\$5,301	\$27,068	\$29,653
6	New Sidewalk	32 Rd	F Rd	High View Rd (east side)	East	Major Collector	1,785	280	Low	Low		\$93,619	\$105,456	\$30,347	\$154,957	\$169,753
17	New Sidewalk	E.5 Rd	32 Rd	33 Rd	South	Minor Collector	5,391	320	Low	Low		\$282,743	\$318,494	\$91,652	\$467,994	\$512,682
21	New Sidewalk	31 Rd	E	E.5 Rd	Either	Major Collector	2,849	365	Medium	Low		\$149,390	\$168,279	\$48,425	\$247,269	\$270,880
22	New Sidewalk	E Rd	30 Rd	31 Rd	North	Major Collector	5,475	345	Low	Low		\$287,127	\$323,432	\$93,073	\$475,250	\$520,631
23	New Sidewalk	E Rd	31 Rd	32 Rd	North	Major Collector	4,652	345	Low	Low		\$243,948	\$274,793	\$79,076	\$403,780	\$442,336
28	New Sidewalk	31 Rd	E	D.5 Rd	East	Major Collector	2,566	345	Low	Low		\$153,956	\$173,098	\$43,621	\$246,971	\$270,898
29	New Sidewalk	31 Rd	E	D.5 Rd	West	Major Collector	2,573	345	Low	Low		\$134,951	\$152,014	\$43,745	\$223,370	\$244,699
45	New Sidewalk	31 Rd	D.5 Rd	Colorado Ave	West	Major Collector	1,258	285	Low	Low		\$65,970	\$74,311	\$21,384	\$109,193	\$119,620
											<b>SUBTOTAL COST</b>	<b>\$1,428,057</b>	<b>\$1,608,297</b>	<b>\$456,624</b>	<b>\$2,355,852</b>	<b>\$2,581,152</b>
11	New Sidewalk	F Rd	Sanford Road	Ford Street	South	Principal Arterial	438	435	Medium	Medium		\$22,959	\$25,862	\$7,442	\$38,001	\$41,630
16	New Sidewalk	33 Rd	F Rd	San Marco Place	West	Major Collector	2,560	430	Medium	Medium		\$134,237	\$151,210	\$43,513	\$222,188	\$243,405
24	New Sidewalk	E Rd	32 Rd	33 Rd	North	Major Collector	1,584	475	High	Medium		\$83,055	\$93,556	\$26,922	\$137,471	\$150,598
25	New Sidewalk	E Rd	30 Rd	31 Rd	South	Major Collector	1,572	475	High	Medium		\$82,429	\$92,851	\$26,720	\$136,436	\$149,464
26	New Sidewalk	E Rd	31 Rd	32 Rd	South	Major Collector	1,588	475	High	Medium		\$83,279	\$93,808	\$26,995	\$137,842	\$151,004
27	New Sidewalk	E Rd	32 Rd	33 Rd	South	Major Collector	4,788	450	Medium	Medium		\$251,121	\$282,873	\$81,402	\$415,653	\$455,343
38	New Sidewalk	D Rd	30 Rd	31 Rd	North	Minor Arterial	5,016	395	Medium	Medium		\$263,082	\$296,347	\$85,279	\$435,451	\$477,032
39	New Sidewalk	D Rd	30 Rd	31 Rd	South	Minor Arterial	5,154	395	Medium	Medium		\$270,289	\$304,465	\$87,615	\$447,380	\$490,100
40	New Sidewalk	D Rd	31 Rd	31.625 Rd	South	Minor Arterial	2,520	395	Medium	Medium		\$132,164	\$148,875	\$42,841	\$218,756	\$239,645
41	New Sidewalk	D Rd	31 Rd	32 Rd	North	Minor Arterial	5,107	395	Medium	Medium		\$267,834	\$301,700	\$86,819	\$443,317	\$485,649
43	New Sidewalk	D Rd	32 Rd	32.5 Rd	South	Minor Arterial	782	435	Medium	Medium		\$41,022	\$46,208	\$13,297	\$67,899	\$74,382
44	New Sidewalk	D Rd	Nottingham Dr	32 Rd	South	Minor Arterial	1,242	465	High	Medium		\$65,133	\$73,368	\$21,113	\$107,807	\$118,101
46	New Sidewalk	31 Rd	F.75 Rd	F.5 Rd	East	Major Collector	1,281	385	Medium	Medium		\$67,169	\$75,662	\$21,773	\$111,178	\$121,794
47	New Sidewalk	D.5 Rd	31 Rd	800 east of 32 Rd	North	Minor Arterial	4,296	420	Medium	Medium		\$225,276	\$253,760	\$73,024	\$372,875	\$408,480
48	New Sidewalk	D.5 Rd	230' east of 31 Rd	31 Rd	North	Minor Arterial	5,142	390	Medium	Medium		\$269,657	\$303,753	\$87,410	\$446,334	\$488,954
50	New Sidewalk	32.5 Rd	E Rd	E.5 Rd	East	Minor Collector	2,548	270	Low	Medium		\$133,603	\$150,496	\$43,308	\$221,138	\$242,254
											<b>SUBTOTAL COST</b>	<b>\$2,392,309</b>	<b>\$2,694,794</b>	<b>\$775,473</b>	<b>\$3,959,728</b>	<b>\$4,337,834</b>
1	New Sidewalk	32.5 Rd	F Rd	E.5 Rd	East	Minor Collector	790	475	High	High		\$41,431	\$46,670	\$13,430	\$68,576	\$75,125
3	New Sidewalk	F.5 Rd	30 Rd	31 Rd	South	Major Collector	5,177	325	Low	High		\$271,492	\$305,820	\$88,005	\$449,372	\$492,281
4	New Sidewalk	F.5 Rd	31.5 Rd	Ronald Drive	South	Major Collector	1,267	345	Low	High		\$66,442	\$74,843	\$21,537	\$109,975	\$120,476
8	New Sidewalk	31 Rd	F.5 Rd	F Rd	East	Major Collector	2,568	485	High	High		\$134,677	\$151,706	\$43,656	\$222,917	\$244,203
9	New Sidewalk	32 Rd	F.5 Rd	F Rd	West	Major Collector	2,586	485	High	High		\$135,641	\$152,791	\$43,968	\$224,511	\$245,949
12	New Sidewalk	F Rd	I70 Business	33 Rd	North	Minor Arterial	3,428	445	Medium	High		\$179,789	\$202,522	\$58,279	\$297,586	\$326,001
13	New Sidewalk	F Rd	I70 Business	33 Rd	South	Minor Arterial	2,644	445	Medium	High		\$138,665	\$156,198	\$44,949	\$229,517	\$251,433
14	New Sidewalk	I70 Business	Front Street	Overpass	South	Principal Arterial	2,554	435	Medium	High		\$133,942	\$150,877	\$43,418	\$221,699	\$242,868
15	New Sidewalk	I70 Business	New Transfer Point	Overpass	South	Principal Arterial	743	450	Medium	High		\$38,968	\$43,895	\$12,632	\$64,500	\$70,659
19	New Sidewalk	E.5 Rd	200' east of 30 Rd	31 Rd	South	Major Collector	4,906	430	Medium	High		\$257,280	\$289,811	\$83,398	\$425,848	\$466,511
20	New Sidewalk	E.5 Rd	150' east of Peachwood Drive	100' west of Shoshone St	North	Major Collector	1,691	430	Medium	High		\$101,480	\$114,097	\$28,753	\$162,790	\$178,562
30	New Sidewalk	D.5 Rd	Colorow Drive	30.25 Rd	South	Minor Arterial	980	505	High	High		\$51,419	\$57,921	\$16,668	\$85,109	\$93,236
31	New Sidewalk	30.25 Rd	D.5 Rd	Choctaw	East	Minor Collector	361	395	Medium	High		\$18,947	\$21,342	\$6,142	\$31,360	\$34,355
32	New Sidewalk	30.25 Rd	Choctaw	Colorado Cr/Ave	East	Minor Collector	720	435	Medium	High		\$37,739	\$42,511	\$12,233	\$62,466	\$68,430
34	New Sidewalk	D.5 Rd	550' east of 30.25 Rd	31 Rd	South	Minor Arterial	3,342	485	High	High		\$175,282	\$197,445	\$56,818	\$290,126	\$317,829
37	New Sidewalk	32.5 Rd	D.5 Rd	D.25 Rd	East	Minor Collector	1,272	360	Medium	High		\$66,728	\$75,165	\$21,630	\$110,447	\$120,993
											<b>SUBTOTAL COST</b>	<b>\$1,849,923</b>	<b>\$2,083,615</b>	<b>\$595,515</b>	<b>\$3,056,798</b>	<b>\$3,348,913</b>
<b>Total Costs</b>														<b>\$9,372,377</b>	<b>\$10,267,899</b>	

# Pedestrian Improvement Recommendations



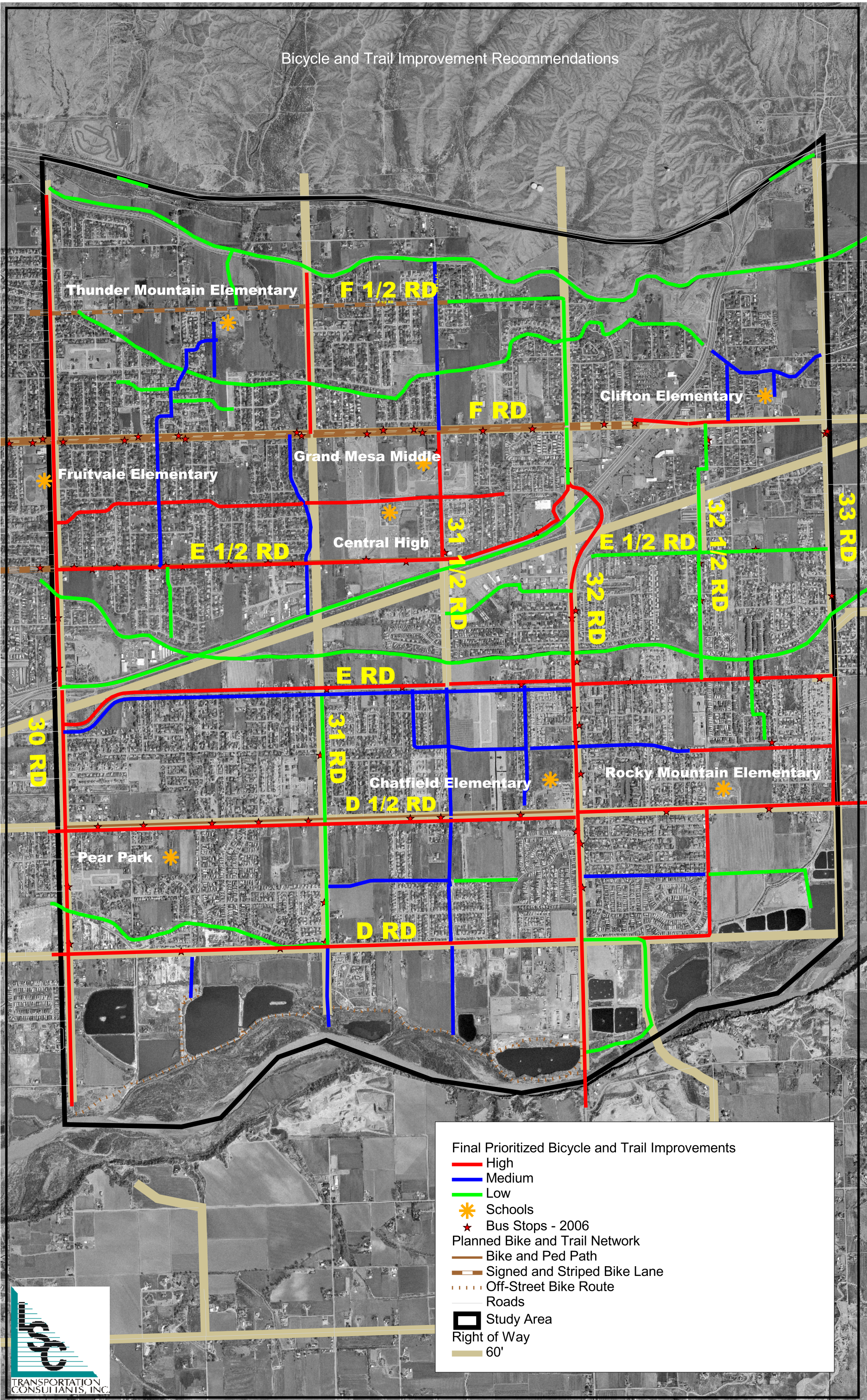
## Final Prioritized Pedestrian Improvements

- High
- Medium
- Low
- ★ Schools
- ★ Bus Stops - 2006
- Existing Sidewalk Condition
- Good/New
- Fair Condition
- Probable Maintenance Issues
- Roads
- Study Area



Bike and Trail Improvements								
Segment #	Improvement	Project Length	Priority	Cost Estimates				
				Signage Cost	Striping Cost	Possible Pavement Extension Construction Costs (bike lanes)	Path (crushed stone or other)	TOTAL COST
6	BIKE LANE	23,284	Low	\$5,433	\$34,926	\$419,118	\$0	\$459,477
89	DETACHED PATH	5,523	Low	\$0	\$0	\$0	\$55,228	\$55,228
27	BIKE LANE	1,326	Low	\$309	\$1,989	\$23,864	\$0	\$26,162
28	CANAL PATH	5,639	Low	\$0	\$0	\$0	\$0	\$0
32	BIKE LANE	1,004	Low	\$234	\$1,506	\$18,066	\$0	\$19,806
35	BIKE LANE	10,862	Low	\$2,535	\$16,293	\$195,521	\$0	\$214,349
56	DETACHED PATH	1,544	Low	\$0	\$0	\$0	\$30,876	\$30,876
57	CANAL PATH	14,465	Low	\$0	\$0	\$0	\$0	\$0
58	CANAL PATH	13,546	Low	\$0	\$0	\$0	\$0	\$0
60	CANAL PATH	9,708	Low	\$0	\$0	\$0	\$0	\$0
61	CANAL PATH	8,285	Low	\$0	\$0	\$0	\$0	\$0
68	CANAL PATH	6,000	Low	\$0	\$0	\$0	\$0	\$0
75	CANAL PATH	7,821	Low	\$0	\$0	\$0	\$0	\$0
91	BIKE ROUTE	2,620	Low	\$611	\$0	\$47,167	\$0	\$47,778
37	BIKE LANE	2,917	Low	\$681	\$4,376	\$52,507	\$0	\$57,563
52	DETACHED PATH	1,172	Low	\$0	\$0	\$0	\$23,441	\$23,441
13	BIKE LANE	5,944	Low	\$1,387	\$8,915	\$0	\$0	\$10,302
34	BIKE LANE	3,732	Low	\$871	\$5,598	\$67,176	\$0	\$73,644
63	BIKE ROUTE	5,794	Low	\$1,352	\$0	\$104,292	\$0	\$105,644
73	DETACHED PATH	5,219	Low	\$0	\$0	\$0	\$104,388	\$104,388
3	BIKE LANE	5,138	Low	\$1,199	\$7,707	\$0	\$0	\$8,906
26	BIKE LANE	4,800	Low	\$1,120	\$7,200	\$0	\$0	\$8,320
31	BIKE LANE	1,130	Low	\$264	\$1,695	\$20,342	\$0	\$22,301
38	BIKE LANE	10,355	Low	\$2,416	\$15,532	\$186,382	\$0	\$204,330
87	BIKE ROUTE	9,710	Low	\$2,266	\$0	\$0	\$0	\$2,266
90	BIKE ROUTE	4,983	Low	\$1,163	\$0	\$89,696	\$0	\$90,859
			<b>SUBTOTAL</b>	<b>\$21,840</b>	<b>\$105,737</b>	<b>\$1,224,130</b>	<b>\$213,933</b>	<b>\$1,565,640</b>
14	BIKE LANE	5,184	Medium	\$1,209	\$7,775	\$93,304	\$0	\$102,288
69	BIKE ROUTE	4,989	Medium	\$1,164	\$0	\$89,806	\$0	\$90,970
70	BIKE ROUTE	5,185	Medium	\$1,210	\$0	\$93,338	\$0	\$94,548
71	BIKE ROUTE	6,924	Medium	\$1,616	\$0	\$124,634	\$0	\$126,250
72	BIKE ROUTE	5,268	Medium	\$1,229	\$0	\$94,831	\$0	\$96,061
74	DETACHED PATH	1,618	Medium	\$0	\$0	\$0	\$32,353	\$32,353
76	DETACHED PATH	837	Medium	\$0	\$0	\$0	\$16,732	\$16,732
77	DETACHED PATH	1,823	Medium	\$0	\$0	\$0	\$36,457	\$36,457
24	BIKE LANE	2,339	Medium	\$546	\$3,509	\$0	\$0	\$4,055
36	BIKE LANE	2,295	Medium	\$535	\$3,442	\$41,304	\$0	\$45,281
55	DETACHED PATH	493	Medium	\$0	\$0	\$0	\$9,869	\$9,869
64	BIKE ROUTE	2,586	Medium	\$603	\$0	\$46,548	\$0	\$47,151
65	BIKE ROUTE	2,388	Medium	\$557	\$0	\$42,984	\$0	\$43,541
85	DETACHED PATH	1,136	Medium	\$0	\$0	\$0	\$22,716	\$22,716
86	DETACHED PATH	921	Medium	\$0	\$0	\$0	\$18,420	\$18,420
			<b>SUBTOTAL</b>	<b>\$8,670</b>	<b>\$14,726</b>	<b>\$626,750</b>	<b>\$136,547</b>	<b>\$786,693</b>
9	BIKE LANE	7,643	High	\$1,783	\$11,464	\$137,568	\$0	\$150,815
78	DETACHED PATH	8,077	High	\$0	\$0	\$0	\$161,534	\$161,534
79	DETACHED PATH	2,516	High	\$0	\$0	\$0	\$50,316	\$50,316
4	DETACHED PATH	10,160	High	\$0	\$0	\$0	\$101,600	\$101,600
15	BIKE LANE	10,586	High	\$2,470	\$15,879	\$190,545	\$0	\$208,893
1	BIKE LANE	6,916	High	\$1,614	\$10,373	\$0	\$0	\$11,987
7	BIKE LANE	3,546	High	\$827	\$5,318	\$63,820	\$0	\$69,966
8	BIKE LANE	4,795	High	\$1,119	\$7,192	\$86,305	\$0	\$94,615
10	DETACHED PATH	4,024	High	\$0	\$0	\$0	\$40,235	\$40,235
12	BIKE LANE	8,108	High	\$1,892	\$12,162	\$145,950	\$0	\$160,004
33	BIKE LANE	4,690	High	\$1,094	\$7,035	\$84,425	\$0	\$92,555
41	BIKE LANE	9,945	High	\$2,320	\$14,917	\$0	\$0	\$17,238
46	DETACHED PATH	2,769	High	\$0	\$0	\$0	\$81,778	\$81,778
53	DETACHED PATH	2,945	High	\$0	\$0	\$0	\$58,893	\$58,893
59	BIKE LANE	20,152	High	\$4,702	\$30,228	\$0	\$0	\$34,930
80	BIKE LANE	17,071	High	\$3,983	\$25,607	\$0	\$0	\$29,590
84	BIKE LANE	25,725	High	\$6,003	\$38,588	\$0	\$0	\$44,590
21	BIKE LANE	928	High	\$217	\$1,393	\$16,712	\$0	\$18,321
47	DETACHED PATH	1,317	High	\$0	\$0	\$0	\$26,349	\$26,349
81	BIKE LANE	21,464	High	\$5,008	\$32,196	\$0	\$0	\$37,204
2	BIKE LANE	6,608	High	\$1,542	\$9,912	\$0	\$0	\$11,454
5	BIKE LANE	2,247	High	\$524	\$3,371	\$0	\$0	\$3,896
16	BIKE LANE	4,550	High	\$1,062	\$6,825	\$0	\$0	\$7,887
82	BIKE LANE	21,600	High	\$5,040	\$32,400	\$0	\$0	\$37,440
93	BIKE LANE	5,200	High	\$1,213	\$7,800	\$0	\$0	\$9,013
11	BIKE LANE	10,560	High	\$2,464	\$15,840	\$0	\$0	\$18,304
			<b>SUBTOTAL</b>	<b>\$44,878</b>	<b>\$288,501</b>	<b>\$725,323</b>	<b>\$520,705</b>	<b>\$1,579,407</b>
			<b>TOTAL COST</b>					<b>\$3,931,741</b>

Bicycle and Trail Improvement Recommendations



- Final Prioritized Bicycle and Trail Improvements**
- High
  - Medium
  - Low
  - \* Schools
  - ★ Bus Stops - 2006
- Planned Bike and Trail Network**
- Bike and Ped Path
  - - - Signed and Striped Bike Lane
  - ⋯ Off-Street Bike Route
  - Roads
  - Study Area
  - Right of Way
  - 60'

