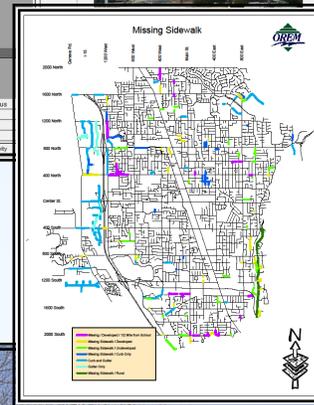
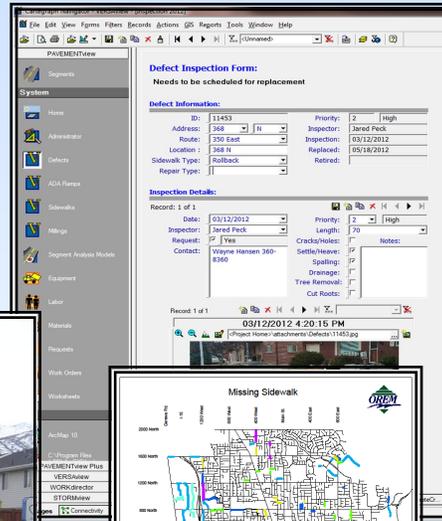


# STATE OF THE SIDEWALKS 2012



**Helping our fellow citizens build and preserve a community  
in which we all want to live**

City of Orem's Sidewalk Management Program  
Public Works Maintenance Division

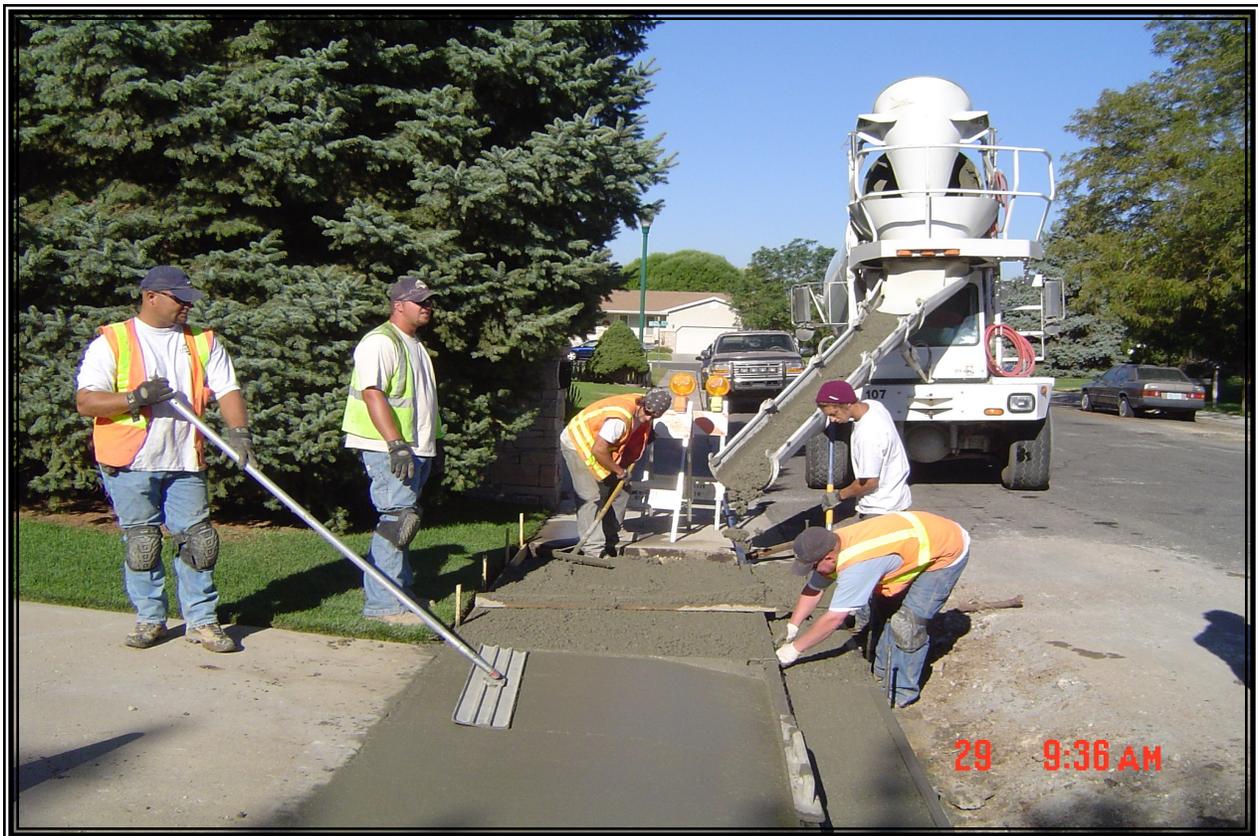
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## Introduction

Sidewalk, curb and gutter, ADA ramps and walking paths are major assets to a City. The City of Orem's Street Section takes pride in the overall quality of the City's sidewalk system and their responsibility of improving and maintaining it. The functionality, condition, and quantity of these concrete structures are all factors in determining attitudes, perceptions and realities of the City's overall condition, quality, and priorities. Sidewalks, ADA ramps and gutters provide a safe walking area. They outline and beautify homes and yards, help define and contain street systems, and control the flow of drainage water.

This report is intended to provide information and outline current processes and future plans concerning the City of Orem's sidewalks and Sidewalk Management Program. The overall scope of work, challenges, and costs associated with installing and maintaining sidewalk and gutter will be outlined.



## Executive Summary

The City of Orem owns and maintains +/- 500 lineal miles of sidewalk, walking paths, ADA ramps and gutter. The estimated value of this infrastructure is approximately \$120 million. In order to maintain this valuable investment and necessary asset, the Street Section has implemented and maintains a Sidewalk Management Program. This program provides a comprehensive plan, determining unbiased allocation of City resources and funding for sidewalk, ADA ramp, and gutter installation and maintenance. This plan has been developed, updated and improved over the past several years.

The City has an obligation to reasonably maintain all City owned sidewalks. The City has also taken it upon themselves to obtain and allocate funding for the installation of new sidewalk and gutter in areas that are without. Currently, just over 13 miles of the City does not have sidewalk and gutter. All maintenance and installation is determined through an inspection, rating, and prioritizing process, then performed by City Crews or contracted companies.

Since 2005, approximately 25,500 lineal feet (LF) of new sidewalk has been installed. A total of 1,139 ADA Ramps have been installed or updated, and over 70,000 LF of defective sidewalk has been replaced or repaired by both contractors and City Crews. Several thousand sections of sidewalk have been milled to eliminate trip hazards.

As long as we have sidewalks, there will be defects. Following the Sidewalk Program will help us identify, organize and eliminate hazards as well as install needed sidewalk in a cost effective, responsible manner.

## Facts

- The City maintains +/- 500 lineal miles of sidewalk, gutter and ADA ramps.
- The estimated value of this infrastructure is approximately \$120 million. This is figured at \$45.00 LF, including base and concrete replacement only. Recent contracts have shown the total costs required with new sidewalk installation, including road and landscape restoration, is approximately \$100.00 LF.
- The City maintains 4,278 ADA ramps.
- A total of 745 locations do not currently have an ADA ramp.
- Just over 13 miles of the City does not have sidewalks or gutter.
- Approximately 6,971 defects, excluding ADA ramp defects, have been identified.
- Since 2005, over 2,000 sidewalk hazards have been replaced with new sidewalk.
- Over 6,000 mills have been performed over the last 15 years.
- There are currently 615 "High Priority" defects.
- Since 2005, approximately 25,500 LF of new sidewalk has been installed in areas that did not have any.
- A total of 1,139 ADA Ramps have been installed or updated to meet current ADA standards.
- Over 9,000 yards of concrete has been poured by City crews since 2005.

## Sidewalk Management Program

The Sidewalk Management Program includes individuals, computer software and other resources working together. GIS and Cartêgraph software are used to help maintain and manage the City's sidewalk system. Sidewalk data is recorded, organized and analyzed. The goal is to determine and execute the most risk reductive, cost effective, efficient course of action concerning installation and maintenance of City sidewalks.

Our Sidewalk Management Program is centered around the need to reduce hazards for pedestrian traffic. In the early 1980's, a crisis developed in the liability market among municipalities in the state of Utah. For example, even though Salt Lake City has a long standing ordinance that transfers liability to the owner of the property where the sidewalk is located, a 1986 Utah Supreme Court decision ruled as follows:

"A City has a nondelegable duty to exercise due care in maintaining streets and sidewalks within its corporate boundaries in a reasonable safe condition for travel and may be liable for injuries resulting from its failure to do so."

The private insurance companies, with which the municipalities held policies, were required to pay large claims from lawsuits where the municipalities were held liable. This led to a drastic increase in insurance premiums that the municipalities could not afford. As a result, a group of cities came together to form their own insurance company, called the Utah Risk Management Mutual Association (URMMA). Although a licensed insurance company, URMMA emphasizes risk management activities rather than insurance. The City of Orem is a member of URMMA and performs the necessary actions to remain in high standing.

The Sidewalk Management Program is divided into four categories:

- **Sidewalk and Gutter Defects** (pg. 12)
- **ADA Ramps** (pg. 15)
- **Areas Without Sidewalk (Missing Sidewalk)** (pg. 17)
- **Poor Performing Types of Sidewalk and Gutter** (pg. 25)

Sidewalk Management members inspect all sidewalks, gutter, ADA ramps, and other concrete structures within a five year period. Date, address, sidewalk condition, sidewalk type, and ADA type are recorded. Defects, causes, deterioration and their severity are recorded, and a rating of "Extreme," "High," "Moderate," or "Low" is determined. The maintenance, replacement, or installation schedule is determined according to the following priorities:

- 1. - Extreme and High rated defect replacement. Specifically, replacement of areas with 2" or higher lips, causing trips hazards.**
- 2. - Milling of trip hazards between 1/2" and 2".**
- 3. - Installation of ADA ramps in designated areas.**
- 4. - Replacing ADA ramps and High rated defects on overlay or reconstruct roads.**
- 5. - Budget and Resources.**

Areas that have missing sidewalk and/or gutter are also noted and entered into the database. Priorities are determined with regards to needs, budget and standards set forth by the City.

Inspections, maintenance, replacement, and installation are all recorded into the database. The following two pages show a Defect Inspection and Concrete Work Completed form and the information entered.

## Defect Inspection Form

Cartograph Navigator - VERSAview - [Inspection 2012]

File Edit View Forms Filters Records Actions GIS Reports Tools Window Help

<Unnamed>

PAVEMENTview

Segments

System

Home

Administrator

Defects

ADA Ramps

Sidewalks

Millings

Segment Analysis Models

Equipment

Labor

Materials

Requests

Work Orders

Worksheets

GIS

ArcMap 10

C:\Program Files

PAVEMENTview Plus

VERSAview

WORKdirector

STORMview

Pages

Connectivity

### Defect Inspection Form:

Needs to be scheduled for replacement

#### Defect Information:

ID:	11453	Priority:	2	High
Address:	368 N	Inspector:	Jared Peck	
Route:	350 East	Inspection:	03/12/2012	
Location:	368 N	Replaced:	05/18/2012	
Sidewalk Type:	Rollback	Retired:		
Repair Type:				

#### Inspection Details:

Record: 1 of 1

Date:	03/12/2012	Priority:	2	High
Inspector:	Jared Peck	Length:	70	
Request:	<input checked="" type="checkbox"/> Yes	Cracks/Holes:	<input type="checkbox"/>	
Contact:	Wayne Hansen 360-8360	Settle/Heave:	<input checked="" type="checkbox"/>	
		Spalling:	<input checked="" type="checkbox"/>	
		Drainage:	<input type="checkbox"/>	
		Tree Removal:	<input type="checkbox"/>	
		Cut Roots:	<input type="checkbox"/>	

Record: 1 of 1

03/12/2012 4:20:15 PM

<Project Home>\attachments\Defects\11453.jpg



Inspection ...
Concrete Cr...
Concrete Cr...
RussDefects
Inspection 2...
ConcreteCr...

Defects ID: 11453
Viewing
Record: 11 of 11
Total: 6971
Filter
Sort

## Concrete Completion Form

Cartegraph Navigator - VERSAview - [Concrete Crew 2012]

File Edit View Forms Filters Records Actions GIS Reports Tools Window Help

PAVEMENTview

Segments

System

Home Administrator Defects ADA Ramps Sidewalks Millings Segment Analysis Models Equipment Labor Materials Requests Work Orders Worksheets

GIS

ArcMap 10 C:\Program Files (x86)\Cartegraph\...

PAVEMENTview Plus

VERSAview WORKdirector STORMview

Pages Connectivity

### Concrete Crew Form:

#### Defect Information:

ID:	11453	Priority:	High
Address:	368 N	Replaced:	05/18/2012
Route:	350 East	Retired:	
Location:	368 N	Inspect Length:	70

#### History Information:

Record: 2 of 2

Date:	Started:	05/18/2012	Ended:	05/18/2012
Activity:	Sidewalk Repair			
Who:	Concrete Crew			
Why:	Scheduled Work			

Events Completed:

#### Crew Information:

Leader:	Bill Peterson	Concrete Type:	6 Bag Mix
Event Hours:	5	Concrete Yrds:	5.5
Feet Repaired:	50	Roadbase Yrds:	2
Crew Count:	5	Topsoil Yrds:	
Equipment:	8104, 8105, 8203, Backhoe, Saw	Comments:	
Other Employees:	Mike, Ryan, Gerhard, Cameron		

Inspection ... Concrete Cre... Concrete Cr... RussDefects Inspection 2... ConcreteCr...

Defects ID: 11453 Viewing Record: 11 of 11 Total: 6971 Filter Sort

## Descriptions and Details

Having an understanding of each type of concrete structure, its design and function, the hazards and challenges they may present as well as the work and costs required is important. This information is necessary for those approving budgets, performing inspections, or completing the maintenance, replacement and installation needed. This understanding helps ensure decisions made and work being performed are meeting the needs and responsibilities of the City.

### Types of Sidewalk and Gutter

The City maintains +/- 500 miles of several types of sidewalk and gutter.

Types include:

- Standard Combination - 362 miles
- Rollback Combination - 18.5 miles
- Planter Strip - 30 miles
- Curb and Gutter - 13 miles
- Gutter - 3 miles
- Cross Gutter - 10 miles
- State Roads - 25 miles
- Parks and City Building sidewalks account for the remaining miles.

## Types of Sidewalk and Gutter



## Sidewalk and Gutter Defects

Sidewalk and gutter defects refer to any sidewalk or gutter issue causing or potentially causing a safety risk or functionality problem. Defects are identified through inspections as well as individuals informing the City of the issue. Each defect is inspected and the information is recorded into the database. Currently, 6,971 defects have been identified, with over 2,400 being replaced. Of these, 608 are rated as "High," and 15 "Extreme." With the average length of a defect affecting approximately 25' of sidewalk, there are close to 22.5 miles of defect rated sidewalks, including 3 miles rated as "High" or "Extreme." The Defect Rating System is as follows:

1. LOW - Defect is visible.
2. MODERATE - Defect is a potential hazard.
3. HIGH - Defect is a safety hazard or non-functional.
4. EXTREME - Defect is hazardous. Priority replacement.

Defect descriptions are divided into several categories.

- 1. Cracking and Holes:** (Causes: Compaction issues, heavy drive loads, expansion)
  - Low - Crack or hole is visible but not causing unsafe conditions. (Hairline cracks)
  - Moderate - 1/4" - 1/2" separation, lift, settle or chipping.
  - High - Between 1/2" and 1" separation, lift, settle or chipping.
  - Extreme - Greater than 1" separation, lift, settle or chipping.



2. **Settling and Heaving:** (Causes: Trees, utilities, poor compaction)

- Low - < 1/2".
- Moderate - 1/2" to 1".
- High - >1" to 2".
- Extreme - > than 2".



3. **Spalling:** (Causes: Weak surface, freeze/thaw cycles, poor mix design or over finishing)

- Low - Minimal shallow, random flaking.
- Moderate - Up to 25% of the slab is spalling. Exposed aggregate, 1/2" recesses.
- High - Up to 50% of the slab is spalling. Exposed aggregate, >1/2" recesses.
- Extreme - Over 50% of the slab is spalling. Exposed aggregate, > 1" recesses.



## State of Sidewalks Report 2012

### 4. **Drainage:** (Causes: Settling, improper grade)

- Low - Small area puddle.
- Moderate - Water puddles to the road surface.
- High - Water puddles onto the road or approach causing damage or ice buildup or water backup.
- Extreme - Water puddles onto the road or sidewalk causing damage, flooding or ice buildup.



## ADA Ramps

Passed by Congress in 1990, the Americans with Disabilities Act (ADA) addresses the needs of people with disabilities, prohibiting discrimination in employment, public services, public accommodations, and telecommunications. Title II of the ADA requires state and local governments to make pedestrian crossings accessible to people with disabilities by providing curb ramps. Newly constructed (after 1992) or altered streets must have ramps that comply with the ADA specifications of that time period. Some leeway is given when new ADA ramps are installed in areas developed before 1992. Ramps must be installed to comply to the maximum extent feasible.

ADA ramp specifications have and continue to change since 1992. Due to this fact, each ADA ramp recorded has been given one of the following designations.

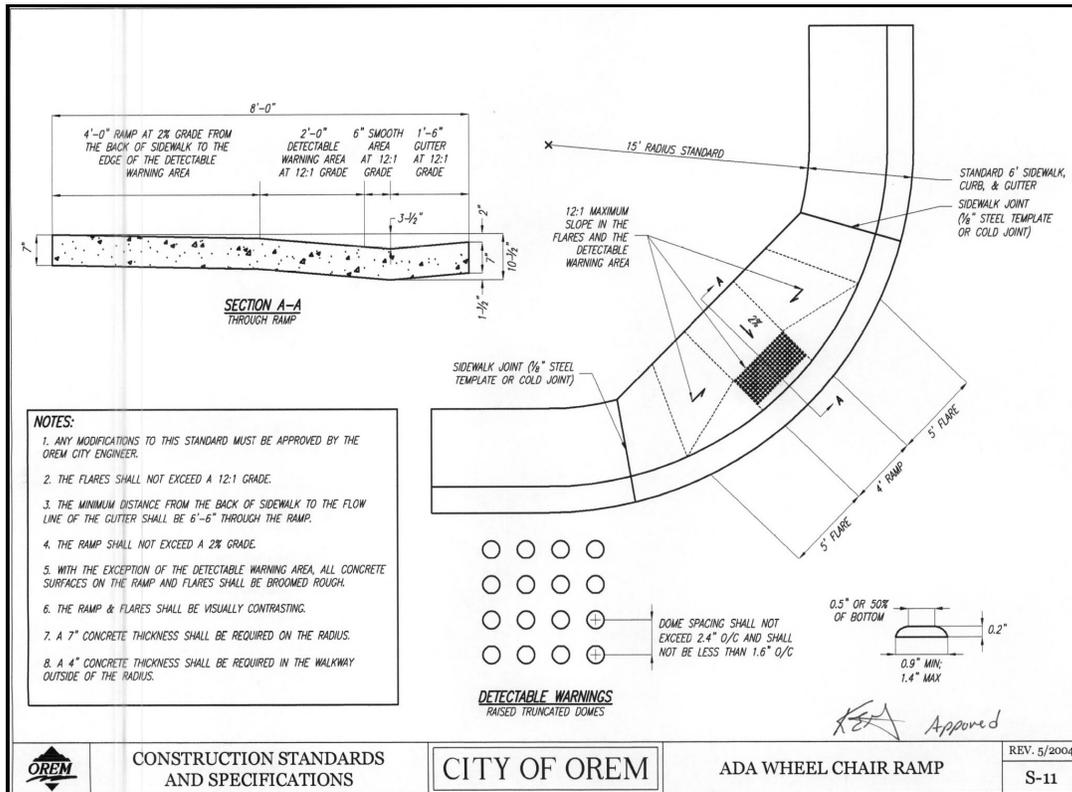
1. No Ramp Installed
2. Ramp Installed - Does not meet ADA specifications. (pre-1992)
3. Ramp Installed - Met ADA specifications at that time. Not currently.
4. Ramp Installed - Meets current ADA specifications.

The City currently maintains approximately 4,278 ADA ramps. Since 2005, 1,139 City ramps have been installed to meet current ADA specifications. ADA ramp updates are required for new, reconstructed and overlaid roads, and are considered in the project design. Remaining prioritization is dependent on the following factors.

- Disability Accommodation - Areas with individuals that have disabilities.
- Defects - High priority defects on ADA ramps.
- ADA Type
- Budget - ADA ramp installation can cost significantly more than standard sidewalk.



Current ADA ramp specifications are illustrated below.



Modifications are allowed if the ramp installation occurs in previously developed areas



## Areas Without Sidewalk (Missing Sidewalk)

The City of Orem currently has over 13 miles of streets without sidewalk or gutter. An additional 16 miles have only curb and/or gutter. Since 2005, approximately 25,500 LF of new sidewalk and curb and gutter has been installed. This amount is equal to nearly five miles. Road Bond money has been used to fund the majority of the new sidewalk installation. The original top priority of missing sidewalk included approximately 9,500 LF of sidewalk within one-third of a mile of a school. This project was completed in 2006. City Crews install a limited amount of new sidewalk when it coincides with current defect replacement projects. CDBG funding has also been used for sidewalk installation projects.

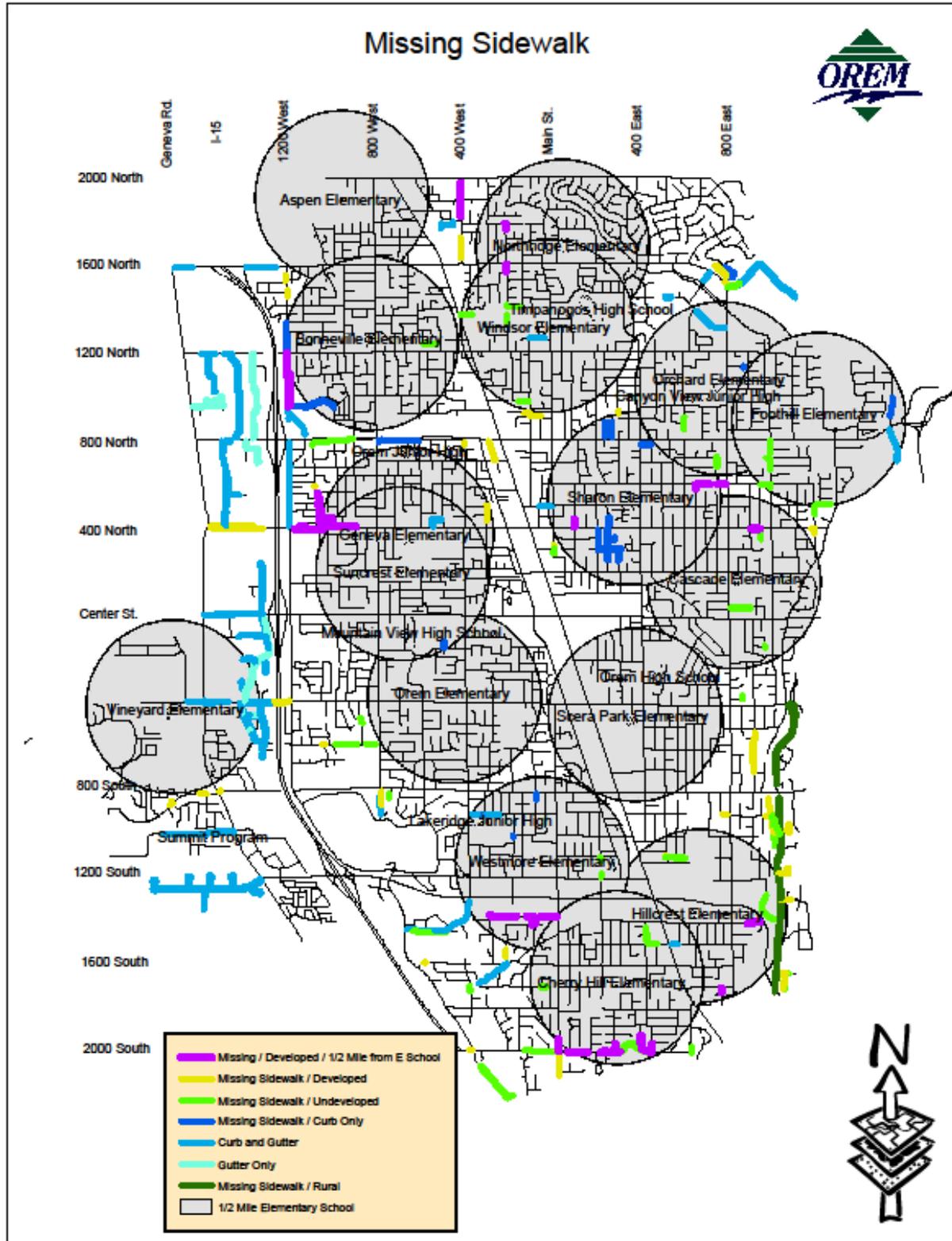
Prioritization of areas needing sidewalk are as follows:

- Areas receiving new road construction.
- Developed property, located within 1/2 mile of a school.
- All remaining developed property.
- Undeveloped property.
- Areas with curb and gutter only.



# State of Sidewalks Report 2012

The breakdown, prioritization, and map of the areas in the City without sidewalk.



# State of Sidewalks Report 2012

Missing Sidewalk Breakdown				
Priority	Type	Length	Cost @ \$100.00 LF	
1	Missing Sidewalk, Curb and Gutter / Developed / 1/2 Mile from School	16,329.78	\$1,632,978.00	
2	Missing Sidewalk, Curb and Gutter / Developed	19,323.85	\$1,932,385.00	
3	Missing Sidewalk, Curb and Gutter / Undeveloped	20,494.07	\$2,049,407.00	
	TOTAL	56,147.70	\$5,614,770.00	
			Cost @ \$50.00 LF	
4	Curb and Gutter Only / Residential	19,001.01	\$950,050.50	
5	Curb and Gutter Only / Industrial	49,407.82	\$2,470,391.00	
6	Gutter Only	14,917.78	\$745,889.00	
	TOTAL	83,326.61	\$4,166,330.50	
	Missing / Rural	16,101.54		

Missing Sidewalk and Curb and Gutter / Developed Area / 1/2 Mile from School					
Priority	Location	Route	Type	Length	Cost @ \$100.00 L/F
1	400 N to 350 N	600 East	Missing Walk / Developed / 1/2 Mile from School	404.37	\$40,437.00
1	400 N to 430 N	100 East	Missing Walk / Developed / 1/2 Mile from School	225.30	\$22,530.00
1	900 to 950 E	400 North	Missing Walk / Developed / 1/2 Mile from School	245.55	\$24,555.00
1	766 to 800 E	600 N.	Missing Walk / Developed / 1/2 Mile from School	333.00	\$33,300.00
1	650 E to 740 E	600 North	Missing Walk / Developed / 1/2 Mile from School	401.61	\$40,161.00
1	650 E	600 North	Missing Walk / Developed / 1/2 Mile from School	118.90	\$11,890.00
1	1430 S	100 West	Missing Walk / Developed / 1/2 Mile from School	185.00	\$18,500.00
1	100 to 135 West	1435 South	Missing Walk / Developed / 1/2 Mile from School	148.89	\$14,889.00
1	875 E	1400 South	Missing Walk / Developed / 1/2 Mile from School	103.00	\$10,300.00
1	1700 S to 1720 S	750 East	Missing Walk / Developed / 1/2 Mile from School	125.94	\$12,594.00
1	75 W to Main	1400 South	Missing Walk / Developed / 1/2 Mile from School	486.44	\$48,644.00
1	925 E	1400 South	Missing Walk / Developed / 1/2 Mile from School	192.90	\$19,290.00
1	100 to 131 W	1400 South	Missing Walk / Developed / 1/2 Mile from School	240.00	\$24,000.00
1	211 to 300 W	1400 South	Missing Walk / Developed / 1/2 Mile from School	758.00	\$75,800.00
1	1400 S	300 West	Missing Walk / Developed / 1/2 Mile from School	20.33	\$2,033.00
1	220 E to 260 E	2000 South	Missing Walk / Developed / 1/2 Mile from School	548.50	\$54,850.00
1	275 E	2000 South	Missing Walk / Developed / 1/2 Mile from School	131.12	\$13,112.00
1	Main to 66 E	2000 South	Missing Walk / Developed / 1/2 Mile from School	459.21	\$45,921.00
1	84 to 142 E	2000 South	Missing Walk / Developed / 1/2 Mile from School	356.59	\$35,659.00
1	37 SE to 424 E	2000 South	Missing Walk / Developed / 1/2 Mile from School	450.23	\$45,023.00
1	243 E	2000 South	Missing Walk / Developed / 1/2 Mile from School	76.31	\$7,631.00
1	215 E	2000 South	Missing Walk / Developed / 1/2 Mile from School	83.24	\$8,324.00
1	2000 S to 1950 S	250 East	Missing Walk / Developed / 1/2 Mile from School	232.58	\$23,258.00
1	1926 S to 1952 S	375 East	Missing Walk / Developed / 1/2 Mile from School	177.34	\$17,734.00
1	1953 S to 1925 S	375 East	Missing Walk / Developed / 1/2 Mile from School	192.66	\$19,266.00
1	1950 to 2000 S	Main Street	Missing Walk / Developed / 1/2 Mile from School	343.57	\$34,357.00
1	460 to 570 N	1060 West	Missing Walk / Developed / 1/2 Mile from School	725.75	\$72,575.00
1	455 North to 400 North	1060 West	Missing Walk / Developed / 1/2 Mile from School	305.80	\$30,580.00
1	430 to 500 N	1060 West	Missing Walk / Developed / 1/2 Mile from School	537.08	\$53,708.00
1	1080 West to 1015 West	Dart Drive	Missing Walk / Developed / 1/2 Mile from School	578.05	\$57,805.00
1	1020 West to 900 West	Dart Drive	Missing Walk / Developed / 1/2 Mile from School	766.33	\$76,633.00
1	1060 West to 400 North Ftg. Rd.	Dart Drive	Missing Walk / Developed / 1/2 Mile from School	513.28	\$51,328.00
1	1000 to 1100 W	400 N	Missing Walk / Developed / 1/2 Mile from School	861.00	\$86,100.00
1	870 to 1050 W	400 N	Missing Walk / Developed / 1/2 Mile from School	1,040.00	\$104,000.00
1	1600 North to 1565 North	200 West	Missing Walk / Developed / 1/2 Mile from School	198.00	\$19,800.00
1	1758 North to 1780 North	200 West	Missing Walk / Developed / 1/2 Mile from School	164.63	\$16,463.00
1	1997 North to 1835 North	400 West	Missing Walk / Developed / 1/2 Mile from School	1,031.33	\$103,133.00
1	950 North to 1100 North	1200 West	Missing Walk / Developed / 1/2 Mile from School	941.99	\$94,199.00
1	950 North to 1200 North	1200 West	Missing Walk / Developed / 1/2 Mile from School	1,625.96	\$162,596.00
			Total	16,329.78	\$1,632,978.00

# State of Sidewalks Report 2012

Missing Sidewalk and Gutter / Developed					
Priority	Location	Route	Type	Length	Cost @ \$100.00 L/F
2	530 S to 700 S	900 East	Missing Walk / Developed	1,209.53	\$120,953.00
2	400 S to 390 S	900 East	Missing Walk / Developed	152.72	\$15,272.00
2	500 S to 700 S	900 East	Missing Walk / Developed	909.33	\$90,933.00
2	763 N	100 West	Missing Walk / Developed	159.09	\$15,909.00
2	400 N	1200 East	Missing Walk / Developed	159.85	\$15,985.00
2	205 E	1200 South	Missing Walk / Developed	113.64	\$11,364.00
2	1533 N	1200 West	Missing Walk / Developed	186.56	\$18,656.00
2	1484 N	1200 West	Missing Walk / Developed	202.21	\$20,221.00
2	588 W	1600 South	Missing Walk / Developed	73.82	\$7,382.00
2	876 to 916 S	1840 West	Missing Walk / Developed	447.36	\$44,736.00
2	1100 S	200 East	Missing Walk / Developed	110.70	\$11,070.00
2	600 E to 1900 S	2000 South	Missing Walk / Developed	630.55	\$63,055.00
2	12 W	2000 South	Missing Walk / Developed	85.59	\$8,559.00
2	208 E	2000 South	Missing Walk / Developed	97.00	\$9,700.00
2	Sandhill Rd	2000 South	Missing Walk / Developed	112.81	\$11,281.00
2	1586 S to 1551 S	235 West	Missing Walk / Developed	227.47	\$22,747.00
2	936 to 946 N	300 East	Missing Walk / Developed	109.50	\$10,950.00
2	500 North to 420 North	300 West	Missing Walk / Developed	497.14	\$49,714.00
2	1300 West - Geneva Road	400 North	Missing Walk / Developed	2,910.00	\$291,000.00
2	1188 E	400 North	Missing Walk / Developed	106.10	\$10,610.00
2	1164 W	400 North	Missing Walk / Developed	159.33	\$15,933.00
2	1200 to 1288 W	400 South	Missing Walk / Developed	486.48	\$48,648.00
2	1230 W	400 South	Missing Walk / Developed	223.37	\$22,337.00
2	1230 W	400 South	Missing Walk / Developed	122.66	\$12,266.00
2	780 North to 750 North	400 West	Missing Walk / Developed	86.44	\$8,644.00
2	1600 to 1669 N	400 West	Missing Walk / Developed	248.72	\$24,872.00
2	1683 to 1736 N	400 West	Missing Walk / Developed	310.96	\$31,096.00
2	436 E	425 East	Missing Walk / Developed	69.54	\$6,954.00
2	1112 South	500 East	Missing Walk / Developed	79.59	\$7,959.00
2	1050 W	600 South	Missing Walk / Developed	85.82	\$8,582.00
2	1600 N	800 East	Missing Walk / Developed	206.96	\$20,696.00
2	1495 W	800 South	Missing Walk / Developed	56.22	\$5,622.00
2	875 to 904 S	800 West	Missing Walk / Developed	268.35	\$26,835.00
2	800 to 875 S	800 West	Missing Walk / Developed	423.66	\$42,366.00
2	100 West to 28 West	900 North	Missing Walk / Developed	341.72	\$34,172.00
2	750 E	900 South	Missing Walk / Developed	159.40	\$15,940.00
2	495 East	900 South	Missing Walk / Developed	84.51	\$8,451.00
2	450 East to 500 East	900 South	Missing Walk / Developed	233.35	\$23,335.00
2	139 West to 100 West	930 North	Missing Walk / Developed	166.67	\$16,667.00
2	180 West to 100 West	975 North	Missing Walk / Developed	337.82	\$33,782.00
2	735 to 797 E	Bowl Drive	Missing Walk / Developed	464.65	\$46,465.00
2	740 to 775 E	Bowl Drive	Missing Walk / Developed	391.26	\$39,126.00
2	1850 S to 1804 S	Columbia Lane	Missing Walk / Developed	313.59	\$31,359.00
2	1850 S	Columbia Lane	Missing Walk / Developed	108.80	\$10,880.00
2	1947 S to 1880 S	Columbia Lane	Missing Walk / Developed	389.80	\$38,980.00
2	590 E to 1880 S	Columbia Lane	Missing Walk / Developed	144.65	\$14,465.00
2	700 to 800 N	Commercial Street	Missing Walk / Developed	629.42	\$62,942.00
2	2000 to 2044	Main Street	Missing Walk / Developed	369.10	\$36,910.00
2	2044 S to 2080 S	Main Street	Missing Walk / Developed	331.74	\$33,174.00
2	11 E	Main Street	Missing Walk / Developed	125.00	\$12,500.00
2	1760 W	Springwater Drive	Missing Walk / Developed	116.53	\$11,653.00
2	Carterville to 926 S	Riverside Lane	Missing Walk / Developed	421.85	\$42,185.00
2	1000 E	900 South	Missing Walk / Developed	177.00	\$17,700.00
2	904 to 924 S	1000 East	Missing Walk / Developed	162.00	\$16,200.00
2	300 E to 420 E	2000 South	Missing Walk / Developed	523.09	\$52,309.00
2	1021 E	1630 South	Missing Walk / Developed	301.88	\$30,188.00
2	275 E to 305 E	2000 South	Missing Walk / Developed	338.99	\$33,899.00
2	305 E to 375 E	2000 South	Missing Walk / Developed	453.38	\$45,338.00
2	280 E to 300 E	2000 South	Missing Walk / Developed	529.85	\$52,985.00
2	1040 E	1290 South	Missing Walk / Developed	304.27	\$30,427.00
2	1630 S	1030 East	Missing Walk / Developed	701.37	\$70,137.00
2	826 to 900 S	1000 E	Missing Walk / Developed	504.00	\$50,400.00
2	940 to 996 S	1000 E	Missing Walk / Developed	296.00	\$29,600.00
2	900 S to 924 S	1000 East	Missing Walk / Developed	160.48	\$16,048.00
			TOTAL	19,323.85	\$1,932,385.00

# State of Sidewalks Report 2012

Missing Sidewalk and Curb and Gutter / Undeveloped Area					
Priority	Location	Route	Type	Length	Cost @ \$100.00 L/F
3	579 N	1000 East	Missing Walk / Undeveloped	106.37	\$10,637.00
3	800 N to 760 N	1000 East	Missing Walk / Undeveloped	368.27	\$36,827.00
3	650 N to 720 N	1000 East	Missing Walk / Undeveloped	356.40	\$35,640.00
3	500 East to 590 East	1100 South	Missing Walk / Undeveloped	625.45	\$62,545.00
3	450 to 500 N	1230 East	Missing Walk / Undeveloped	298.85	\$29,885.00
3	500 N	1230 East	Missing Walk / Undeveloped	473.85	\$47,385.00
3	525 West to 580 West	1240 North	Missing Walk / Undeveloped	400.77	\$40,077.00
3	State St. to 370 West	1360 North	Missing Walk / Undeveloped	380.60	\$38,060.00
3	1265 South to Carterville Rd.	1385 South	Missing Walk / Undeveloped	1,098.48	\$109,848.00
3	400 East to 450 East	1500 South	Missing Walk / Undeveloped	337.81	\$33,781.00
3	120 West to 200 West	1415 North	Missing Walk / Undeveloped	407.57	\$40,757.00
3	465 to 660 W	1430 South	Missing Walk / Undeveloped	1,089.00	\$108,900.00
3	931 S	1000 E	Missing Walk / Undeveloped	213.09	\$21,309.00
3	900 S to 990 S	1000 E	Missing Walk / Undeveloped	530.64	\$53,064.00
3	26 to 140 W	2000 South	Missing Walk / Undeveloped	516.55	\$51,655.00
3	35 W to Main	2000 South	Missing Walk / Undeveloped	314.76	\$31,476.00
3	150 W	2000 South	Missing Walk / Undeveloped	216.44	\$21,644.00
3	40 to 80 W	1700 South	Missing Walk / Undeveloped	161.31	\$16,131.00
3	1320 North to 1360 North	200 West	Missing Walk / Undeveloped	220.59	\$22,059.00
3	160 W	2170 South	Missing Walk / Undeveloped	162.00	\$16,200.00
3	130 to 208 E	2000 South	Missing Walk / Undeveloped	382.68	\$38,268.00
3	1964 S	375 East	Missing Walk / Undeveloped	172.33	\$17,233.00
3	800 East to 900 East	40 North	Missing Walk / Undeveloped	637.88	\$63,788.00
3	1500 South to 1425 South	400 East	Missing Walk / Undeveloped	492.71	\$49,271.00
3	11 to 17 E	300 North	Missing Walk / Undeveloped	159.00	\$15,900.00
3	1726 S	400 West	Missing Walk / Undeveloped	183.99	\$18,399.00
3	872 West to 810 West	600 South	Missing Walk / Undeveloped	309.22	\$30,922.00
3	660 North to 700 North	700 North	Missing Walk / Undeveloped	312.58	\$31,258.00
3	1028 E	720 North	Missing Walk / Undeveloped	134.69	\$13,469.00
3	896 North to 850 North	600 East	Missing Walk / Undeveloped	376.11	\$37,611.00
3	926 West to 996 West	600 South	Missing Walk / Undeveloped	677.09	\$67,709.00
3	800 S	750 West	Missing Walk / Undeveloped	136.80	\$13,680.00
3	350 to 370 S	850 East	Missing Walk / Undeveloped	136.00	\$13,600.00
3	600 N	950 East	Missing Walk / Undeveloped	311.48	\$31,148.00
3	353 N to 400 N	950 East	Missing Walk / Undeveloped	327.53	\$32,753.00
3	800 N	980 West	Missing Walk / Undeveloped	1,310.98	\$131,098.00
3	1847 S	Columbia Lane	Missing Walk / Undeveloped	470.52	\$47,052.00
3	1963 S	Columbia Lane	Missing Walk / Undeveloped	249.83	\$24,983.00
3	930 to 1000 S	Carterville Road	Missing Walk / Undeveloped	245.71	\$24,571.00
3	1015 S	Carterville Road	Missing Walk / Undeveloped	134.37	\$13,437.00
3	495 S	880 West	Missing Walk / Undeveloped	174.19	\$17,419.00
3	2000 to 2170 S	Sandhill Road	Missing Walk / Undeveloped	1,824.00	\$182,400.00
3	2000 to 2170 S	Sandhill Road	Missing Walk / Undeveloped	1,758.00	\$175,800.00
3	295 N	Main Street	Missing Walk / Undeveloped	74.00	\$7,400.00
3	900 S to 940 S	1000 East	Missing Walk / Undeveloped	305.04	\$30,504.00
3	1015 S	1000 East	Missing Walk / Undeveloped	336.05	\$33,605.00
3	1031 S	1000 East	Missing Walk / Undeveloped	93.72	\$9,372.00
3	1015 S to 1031 S	1000 East	Missing Walk / Undeveloped	313.63	\$31,363.00
3	984 S 1000 S	1000 East	Missing Walk / Undeveloped	226.12	\$22,612.00
3	1031 S	1000 East	Missing Walk / Undeveloped	108.01	\$10,801.00
3	1630 S to 1721 S	1030 East	Missing Walk / Undeveloped	561.36	\$56,136.00
			TOTAL	20,494.07	\$2,049,407.00

## State of Sidewalks Report 2012

Curb and Gutter Only / Missing Sidewalk					
Priority	Location	Route	Type	Length	Cost @ \$50.00 L/F
4	434, 482, 490 East	1600 South	Curb Only / Missing Walk	476.58	\$23,829.00
4	500 to 534 N	1025 West	Curb Only / Missing Walk	221.33	\$11,066.50
4	506 N	1025 West	Curb Only / Missing Walk	105.91	\$5,295.50
4	491 to 500 N	1025 West	Curb Only / Missing Walk	202.89	\$10,144.50
4	558 N	1025 West	Curb Only / Missing Walk	93.37	\$4,668.50
4	564 N	1025 West	Curb Only / Missing Walk	79.35	\$3,967.50
4	1340 North to 1200 North	1200 West	Curb Only / Missing Walk	889.73	\$44,486.50
4	800 to 835 S	100 West	Curb Only / Missing Walk	211.73	\$10,586.50
4	482 East to 490 East (Village	1600 South	Curb Only / Missing Walk	85.58	\$4,279.00
4	1000 South	200 West	Curb Only / Missing Walk	133.25	\$6,662.50
4	816 to 870 N	235 East	Curb Only / Missing Walk	462.60	\$23,130.00
4	819 to 893 N	275 East	Curb Only / Missing Walk	455.42	\$22,771.00
4	1050 to 1180 W	400 North	Curb Only / Missing Walk	861.61	\$43,080.50
4	980 to 1015 W	500 North	Curb Only / Missing Walk	211.78	\$10,589.00
4	165 South to 130 South	500 West	Curb Only / Missing Walk	239.59	\$11,979.50
4	165 South to 140 South	500 West	Curb Only / Missing Walk	239.22	\$11,961.00
4	1025 W	570 North	Curb Only / Missing Walk	101.92	\$5,096.00
4	400 East to 450 East	780 North	Curb Only / Missing Walk	301.41	\$15,070.50
4	400 East to 450 East	780 North	Curb Only / Missing Walk	337.04	\$16,852.00
4	600 to 800 W	800 North	Curb Only / Missing Walk	1,304.22	\$65,211.00
4	400 W	900 South	Curb Only / Missing Walk	218.92	\$10,946.00
4	830 North to 800 North	900 West	Curb Only / Missing Walk	186.83	\$9,341.50
4	900 to 1200 W	950 North	Curb Only / Missing Walk	1,030.50	\$51,525.00
4	900 W	950 North	Curb Only / Missing Walk	1,045.49	\$52,274.50
4	235 to 275 E	880 North	Curb Only / Missing Walk	215.42	\$10,771.00
4	1575 to 1600 N	Mountain Oaks Drive	Curb Only / Missing Walk	652.19	\$32,609.50
4	1700 N	Oak View Circle	Curb Only / Missing Walk	708.34	\$35,417.00
4	1600 to 1680 S	Hidden Hollow Drive	Curb Only / Missing Walk	1,091.00	\$54,550.00
4	400 N to 450 N	250 East	Curb Only / Missing Walk	291.82	\$14,591.00
4	426 to 450 N	250 East	Curb Only / Missing Walk	190.27	\$9,513.50
4	400 N to 450 N	250 East	Curb Only / Missing Walk	40.59	\$2,029.50
4	250 to 300 E	300 North	Curb Only / Missing Walk	297.00	\$14,850.00
4	265 to 315 E	300 North	Curb Only / Missing Walk	378.00	\$18,900.00
4	250 E	Ninnetta Circle	Curb Only / Missing Walk	464.08	\$23,204.00
4	259 to 300 N	250 East	Curb Only / Missing Walk	297.00	\$14,850.00
4	214 to 234 E	300 North	Curb Only / Missing Walk	209.00	\$10,450.00
4	300 to 400 N	200 East	Curb Only / Missing Walk	599.09	\$29,954.50
4	245 to 300 N	300 East	Curb Only / Missing Walk	327.83	\$16,391.50
4	310 E	300 North	Curb Only / Missing Walk	70.83	\$3,541.50
4	300 to 400 N	275 East	Curb Only / Missing Walk	607.16	\$30,358.00
4	350 to 400 N	250 East	Curb Only / Missing Walk	277.69	\$13,884.50
4	215 to 250 E	300 North	Curb Only / Missing Walk	286.00	\$14,300.00
4	250 to 300 N	300 East	Curb Only / Missing Walk	300.79	\$15,039.50
4	254 to 300 N	250 East	Curb Only / Missing Walk	305.00	\$15,250.00
4	300 to 350 N	250 East	Curb Only / Missing Walk	289.44	\$14,472.00
4	596 North	1500 West	Curb Only / Missing Walk	869.00	\$43,450.00
4	776 North	1500 West	Curb Only / Missing Walk	305.70	\$15,285.00
4	400-450 North	1500 West	Curb Only / Missing Walk	431.50	\$21,575.00
			TOTAL	19,001.01	\$950,050.50

# State of Sidewalks Report 2012

Curb and Gutter Only					
Priority	Location	Route	Type	Length	Cost @ \$50.00 L/F
5	1797 West	1000 South	Curb and Gutter	263.74	\$13,187.00
5	Geneva Road - 1780 West	1000 South	Curb and Gutter	1,861.26	\$93,063.00
5	1565 West	1200 North	Curb and Gutter	192.83	\$9,641.50
5	1565 West	1200 North	Curb and Gutter	197.88	\$9,894.00
5	1435 West	1200 North	Curb and Gutter	175.77	\$8,788.50
5	800 - 935 North	1200 West	Curb and Gutter	975.83	\$48,791.50
5	400 - 800 North	1200 West	Curb and Gutter	2,633.08	\$131,654.00
5	40 - 100 West	1250 North	Curb and Gutter	471.89	\$23,594.50
5	1580 - 1645 West	1250 South	Curb and Gutter	593.77	\$29,688.50
5	1480 - 1554 West	1250 South	Curb and Gutter	598.40	\$29,920.00
5	Geneva Rd. - 1577 West	1250 South	Curb and Gutter	1,781.84	\$89,092.00
5	1680 - 1840 South	1250 South	Curb and Gutter	986.19	\$49,309.50
5	Geneva Rd. - 1452 West	1250 South	Curb and Gutter	873.63	\$43,681.50
5	1635 - 1839 West	1250 South	Curb and Gutter	1,507.65	\$75,382.50
5	Mountain Way - 1450 West	130 South	Curb and Gutter	851.97	\$42,598.50
5	1353 - 1379 West	130 South	Curb and Gutter	330.00	\$16,500.00
5	487 South	1325 West	Curb and Gutter	274.03	\$13,701.50
5	400 - 450 south	1325 West	Curb and Gutter	369.40	\$18,470.00
5	635 - 650 South	1325 West	Curb and Gutter	195.79	\$9,789.50
5	620 South	1325 West	Curb and Gutter	256.69	\$12,834.50
5	511 - 577 South	1325 West	Curb and Gutter	389.56	\$19,478.00
5	435 South	1325 West	Curb and Gutter	259.53	\$12,976.50
5	465 - 580 South	1325 West	Curb and Gutter	754.16	\$37,708.00
5	511 South	1325 West	Curb and Gutter	66.72	\$3,336.00
5	644 South	1325 West	Curb and Gutter	187.42	\$9,371.00
5	615 - 635 South	1325 West	Curb and Gutter	262.44	\$13,122.00
5	Center st. - 211 North	1330 West	Curb and Gutter	1,599.86	\$79,993.00
5	Center st. - 212 North	1330 West	Curb and Gutter	1,564.39	\$78,219.50
5	1270 South	1380 West	Curb and Gutter	117.51	\$5,875.50
5	1250 South	1380 West	Curb and Gutter	60.64	\$3,032.00
5	1280 South	1380 West	Curb and Gutter	93.13	\$4,656.50
5	1276 South	1380 West	Curb and Gutter	204.68	\$10,234.00
5	1260 South	1380 West	Curb and Gutter	177.32	\$8,866.00
5	800 - 1200 North	1430 West	Curb and Gutter	2,644.78	\$132,239.00
5	800 - 1200 North	1430 West	Curb and Gutter	2,636.30	\$131,815.00
5	1176 - 1226 South	1480 West	Curb and Gutter	791.83	\$39,591.50
5	State - 550 East	1500 South	Curb and Gutter	197.00	\$9,850.00
5	651 - 800 North	1500 West	Curb and Gutter	1,053.81	\$52,690.50
5	573 North	1500 West	Curb and Gutter	544.11	\$27,205.50
5	1059 - 1200 North	1565 West	Curb and Gutter	1,256.94	\$62,847.00
5	1060 - 1200 North	1565 West	Curb and Gutter	1,201.75	\$60,087.50
5	1177 - 1238 South	1580 West	Curb and Gutter	798.57	\$39,928.50
5	1275 - 1345 West	1600 North	Curb and Gutter	649.45	\$32,472.50
5	1645 West	1600 North	Curb and Gutter	181.75	\$9,087.50
5	1645 West	1600 North	Curb and Gutter	397.01	\$19,850.50
5	1395 West	1600 North	Curb and Gutter	249.45	\$12,472.50
5	1250 - 1312 South	1600 West	Curb and Gutter	613.56	\$30,678.00
5	1260 South	1600 West	Curb and Gutter	232.38	\$11,619.00
5	1206 - 1250 South	1680 West	Curb and Gutter	795.53	\$39,776.50
5	430 - 486 West	1780 North	Curb and Gutter	688.50	\$34,425.00
5	1218 -1238 South	1840 West	Curb and Gutter	678.34	\$33,917.00
5	1550 - Geneva Rd.	400 South	Curb and Gutter	284.98	\$14,249.00
5	1351 - 1401 West	400 South	Curb and Gutter	540.90	\$27,045.00
5	Mtn Way - Commerce Loop	400 South	Curb and Gutter	437.70	\$21,885.00
5	Vineyard Rd	400 South	Curb and Gutter	418.28	\$20,914.00
5	1279 - 1325 West	400 South	Curb and Gutter	303.89	\$15,194.50
5	1522 West - Geneva Rd.	400 South	Curb and Gutter	756.63	\$37,831.50
5	512 - 542 West	440 North	Curb and Gutter	283.79	\$14,189.50
5	513 - 533 West	440 North	Curb and Gutter	261.10	\$13,055.00
5	1325 West - Commerce Dr.	465 South	Curb and Gutter	437.46	\$21,873.00
5	1325 West	465 South	Curb and Gutter	84.01	\$4,200.50
5	Commerce Dr	465 South	Curb and Gutter	48.09	\$2,404.50
5	1396 West	465 South	Curb and Gutter	52.93	\$2,646.50
5		500 North	Curb and Gutter	392.17	\$19,608.50
5	413 - 439 North	550 West	Curb and Gutter	230.42	\$11,521.00
5	400 - 430 North	550 West	Curb and Gutter	198.93	\$9,946.50
5	1325 West - Commerce	580 South	Curb and Gutter	258.56	\$12,928.00
5	1325 West	580 South	Curb and Gutter	146.64	\$7,332.00

## State of Sidewalks Report 2012

5	1590 West	Center Street	Curb and Gutter	369.02	\$18,451.00
5	1330 - 1500 West	Center Street	Curb and Gutter	1,282.00	\$64,100.00
5	556 South	Commerce Drive	Curb and Gutter	50.92	\$2,546.00
5	502 South	Commerce Drive	Curb and Gutter	42.73	\$2,136.50
5	556 - 576 South	Commerce Drive	Curb and Gutter	110.39	\$5,519.50
5	485 - 561 South	Commerce Drive	Curb and Gutter	743.10	\$37,155.00
5	520 South	Commerce Drive	Curb and Gutter	88.94	\$4,447.00
5	464 South	Commerce Drive	Curb and Gutter	39.72	\$1,986.00
5	540 South	Commerce Drive	Curb and Gutter	89.43	\$4,471.50
5	576 - 620 South	Commerce Drive	Curb and Gutter	100.21	\$5,010.50
5	400 - 436 South	Commerce Drive	Curb and Gutter	236.60	\$11,830.00
5	502 South	Commerce Drive	Curb and Gutter	84.04	\$4,202.00
5	400 - 443 South	Commerce Drive	Curb and Gutter	425.90	\$21,295.00
5	482 South	Commerce Drive	Curb and Gutter	55.54	\$2,777.00
5	454 South	Commerce Drive	Curb and Gutter	58.01	\$2,900.50
5	352 - 366 South	Gold Tip Drive	Curb and Gutter	334.72	\$16,736.00
5	356 South	Gold Tip Drive	Curb and Gutter	305.84	\$15,292.00
5	Mountain Way - 1430 West West	Industrial Drive	Curb and Gutter	396.60	\$19,830.00
5	Mountain Way - 1420 West	Industrial Drive	Curb and Gutter	426.82	\$21,341.00
5	130 - 140 South	Mountain Way Drive	Curb and Gutter	369.37	\$18,468.50
5	Center st. - 130 South	Mountain Way Drive	Curb and Gutter	609.00	\$30,450.00
5	15 South	Mountain Way Drive	Curb and Gutter	119.36	\$5,968.00
5	165 - 245 South	Mountainlands Drive	Curb and Gutter	448.87	\$22,443.50
5	187 - 250 South	Mountainlands Drive	Curb and Gutter	429.90	\$21,495.00
5	1500 N	Technology Way	Curb and Gutter	314.25	\$15,712.50
			TOTAL	49,407.82	\$2,470,391.00

### Gutter Only

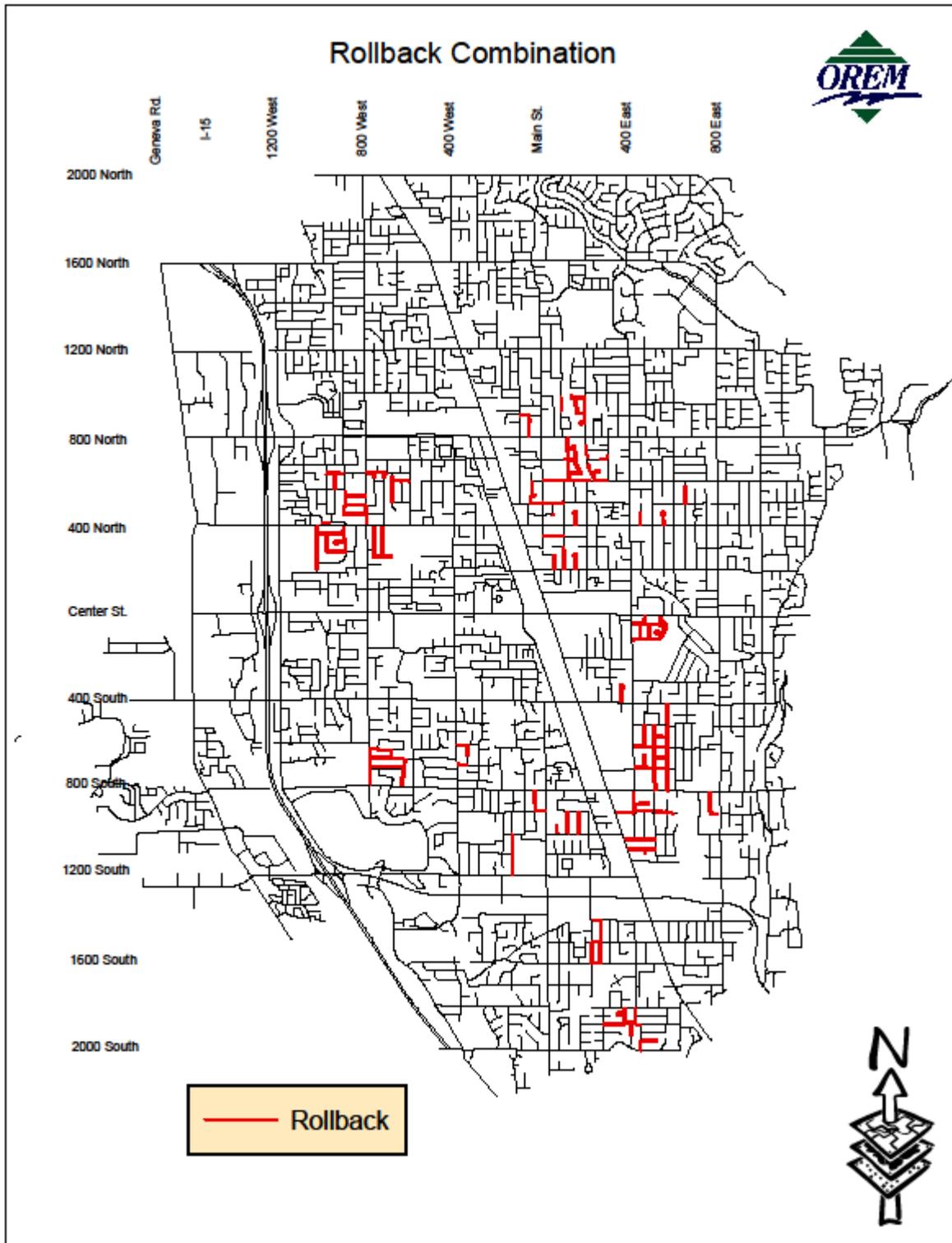
Priority	Location	Route	Type	Length	Cost @ \$50.00 L/F
5	800 - 1200 North	Industrial Park Road	Gutter	2,606.52	\$130,326.00
5	720 - 800 North	1340 West	Gutter	1,767.14	\$88,357.00
5	960 - 996 North	1580 West	Gutter	356.62	\$17,831.00
5	960 - 985 North	1540 West	Gutter	355.68	\$17,784.00
5	187 - 365 South	Mountain Way Drive	Gutter	1,264.38	\$63,219.00
5	385 South	Mountain Way Drive	Gutter	156.73	\$7,836.50
5	960 - 985 North	1500 West	Gutter	261.57	\$13,078.50
5	220 - 356 South	Mountain Way Drive	Gutter	897.67	\$44,883.50
5	135 - 165 South	Mountain Way Drive	Gutter	780.09	\$39,004.50
5	386 South	Mountain Way Drive	Gutter	333.32	\$16,666.00
5	1396 West	465 South	Gutter	48.04	\$2,402.00
5	75 South	Commerce Drive	Gutter	500.00	\$25,000.00
5	1590 W. - Geneva Rd.	960 North	Gutter	391.13	\$19,556.50
5	620 South	1325 West	Gutter	42.31	\$2,115.50
5	436 South	Commerce Drive	Gutter	66.26	\$3,313.00
5	518 South	Commerce Drive	Gutter	21.38	\$1,069.00
5	538 South	Commerce Drive	Gutter	28.30	\$1,415.00
5	976 - 1002 North	1500 West	Gutter	263.20	\$13,160.00
5	1520 West	960 North	Gutter	141.01	\$7,050.50
5	140 - 160 South	Mountain Way Drive	Gutter	550.37	\$27,518.50
5	482 South	Commerce Drive	Gutter	29.83	\$1,491.50
5	800 - 1200 North	Industrial Park Road	Gutter	2,623.03	\$131,151.50
5	1497 W. - Geneva Rd	960 North	Gutter	915.95	\$45,797.50
5	1498 West	960 North	Gutter	51.20	\$2,560.00
5	1544 - 1556 West	960 North	Gutter	235.63	\$11,781.50
5	635 South	1325 West	Gutter	32.86	\$1,643.00
5	1358 West	465 South	Gutter	197.56	\$9,878.00
			TOTAL	14,917.78	\$745,889.00

## Poor Performing Types of Sidewalk and Gutter

The City maintains approximately 18.5 miles of rollback combination sidewalk. Rollback does not perform as well as other types of sidewalk and gutter. In many cases, water does not stay in the intended flow line and works its way over the front lip of the gutter and under the asphalt road. The continued presence of water on the asphalt and in the base below can lead to road damage. Another concern with rollback is its use as an approach. Many citizens install a ramp system using metal, concrete, or asphalt to help them into their driveway. This practice is against City Code and can cause difficulty with water drainage. The majority of rollback combination is well over 50 years of age and deterioration is becoming a concern. At this time, replacement is determined only through the defect inspection criteria unless specified when road construction is scheduled.



# Poor Performing Types of Sidewalk and Gutter



## Maintenance, Replacement and Installation Process

The maintenance, replacement and installation processes are dependent on several factors. Planning and organization helps ensure a cost effective, efficient process and product. Blue stake marking, removing and disposing of existing concrete, preparing the surface grade, form setup, concrete pouring and finishing, and restoration of the landscape and road are a few of the necessary steps performed. Specialized equipment and skilled workers are needed to complete quality maintenance, replacement, and installation.



## Future Challenges

### Tree Removal:

One difficulty we are facing and will continue to face is the sidewalk damage and expense caused by tree root systems. As trees become more mature, their root system increases in size. Roots that have grown under sidewalks may lift the sidewalk, causing a trip hazard or drainage problems. In many cases, the only resolution is to remove the tree and root system and replace the sidewalk.

City Code concerning this matter states:

#### 13-3-1. Definitions.

D. **Nuisance Tree** shall mean:

2. The roots of any tree or portion thereof which causes the surface of a public street, curb, gutter, or sidewalk to be up-heaved or otherwise disturbed;

#### 13-3-6. Responsibility for Correcting Nuisance

##### Tree.

Where a Nuisance Tree exists upon property, the property owner, landlord, tenant, or his or her agent, and all other persons having control of the property on which such nuisance exists, shall be deemed to be the cause thereof, and shall be liable therefor.

A. It is unlawful for any person, either as owner, agent, or occupant, to create, aid in creating, or maintaining a Nuisance Tree.

(Ord. No. O-93-0020, Enacted, 07/06/93)

B. The City shall determine if a particular tree is a Nuisance Tree and may cause all Nuisance Trees to be abated at the expense of the owner, agent, or occupant of the property on which the Nuisance Tree is located.

(Ord. No. O-93-0020, Enacted, 07/06/93)

C. Except as provided in this ordinance, the City may serve a notice in writing upon the owner, occupant, or agent of any lot, building, or premises in or upon which a Nuisance Tree is found, or upon the person who may be the cause of such Nuisance Tree, requiring the person to abate the Nuisance Tree within 15 calendar days. Failure to give a notice as provided herein shall not relieve the cause of any Nuisance Tree from the obligation to abate such nuisance, or from the penalty provided for the maintenance thereof. Notice of appeal may be filed with the Urban Forester within 5 working days of service of the notice to abate. Appeals from the Urban Forester's decision shall be heard by the City Manager within 15 calendar days, whereby a final decision will be made.

(Ord. No. O-93-0020, Enacted, 07/06/93)

D. In case of neglect or refusal of any person to abate any Nuisance Tree within the time specified in the written notice, the City may abate or procure the abatement thereof, and the expense of such abatement shall be charged to the person or entity failing to remove the Nuisance Tree.

The City, in many instances, has handled sidewalks damaged by nuisance trees in a different manner. To expedite tree removal for sidewalk replacement, owners have been asked to sign an agreement, allowing the City to remove the tree at the City's expense. This courtesy has worked in a positive manner up to this point. As we look to the future, the time and expense to the City for tree removal may be too great. The tree ordinance in place will need to be enforced.

## State of Sidewalks Report 2012

### **Non-Compliant Crossover Ramps:**

Many citizens install or insert crossover ramps in the gutter. This helps with a smoother transition from the street to their driveway. Ramps installed in areas other than those designated and approved by the City are not allowed. These ramps are not approved because of the drainage issues they may pose.

City Code concerning this issue states:

#### **16-1-1. Damaging streets and sidewalks.**

It shall be unlawful to damage or cause to be damaged any street, curb, gutter or sidewalk in the City without a permit to do work on such street, curb, gutter or sidewalk.

(Ord. No. 661, Revised, 04/10/90)

#### **16-2-1. Permit required.**

It shall be unlawful to do any construction or excavation work on any street, curb, gutter or sidewalk in the City without a permit from the City to do so. A contract with the City to do such work shall be deemed to fulfill the permit requirement. A permit from the State Highway Department to do work on any state road within the City shall also satisfy the permit requirement of this section with respect to any work on state roads only.

(Ord. No. 661, Revised, 04/10/90)

E. The design and construction of all driveways shall comply with the City of Orem Construction Standards and Specifications.

(Ord. No. 661, Revised, 04/10/90; Ord. No. O-05-0017, Amended, 5/24/2005)

City Code concerning crossover ramps is not specific, making enforcement difficult. Due to the amount of crossover ramps currently in the City, investigation, identification and analysis is needed to determine whether a more specific, detailed solution is needed or even possible.



## Summary

The City of Orem's sidewalk system and Sidewalk Management Program are in good standing. Our Sidewalk Program has been used as a positive reference model for cities involved with URMMA as well as other municipalities using Cartêgraph. Less than 3% of the City does not have any sidewalk and gutter and 95% of the current sidewalk and gutter is standard combination or planter strip. Only 3% of the current sidewalk and gutter has a defect, with less than 1% rated as "Extreme," or "High."

Current funding and resources provide the ability for City Crews to replace or install approximately 10,000 LF of sidewalk and gutter, including 80+ ADA ramps yearly. By following the Sidewalk Management Program and priorities, up to **200** "High" rated defects can be replaced or repaired each year.

Prioritization of maintenance, replacement and installation will continue as follows:

1. Eliminating High defects, specifically 2" or greater trip hazards.
2. Milling of 1/2" to 2" lips.
3. ADA ramp installation on overlay and reconstruct roads, and known areas with disabled individuals.

The replacement of poor performing types of sidewalk and installation of new sidewalk in areas that are without, has previously been completed through Road Bond project funding. Future replacement and installation will be limited to a small number of areas and completed by City Crews, determined by the defect priority rating. Additional installation and replacement will require other sources of funding determined by City Management.

Future challenges may be eased or overcome through enforcing the City Code concerning nuisance trees and determining a feasible standard for crossover ramp removal or replacement.

Budget concerns will continue for the foreseeable future. By following the Sidewalk Management Program, we can be confident that the money allocated will be used appropriately, to improve the safety, functionality and aesthetics of the City of Orem's sidewalk system and meet the needs of the citizens.

## References:

1. The U.S. Equal Employment Opportunity Commission. EEOC and Title I of the ADA: Overview and History. 2002.
2. ADA Best Practices Tool Kit for State and Local Governments. Curb Ramps and Pedestrian Crossings under Title II of the ADA. 2007.
3. GIS Sidewalk Risk Management and Maintenance Program. Steven C. Jones. 1999. Kathy Kenison, Support Service Manager, URMMA.