



# Pedestrian Master Plan

## The City of Oakland

Part of the Land Use and Transportation Element  
of the City of Oakland's General Plan  
November 12, 2002

## ACKNOWLEDGEMENTS

### Mayor and City Council

Mayor Jerry Brown  
Jane Brunner District 1  
Danny Wan District 2  
Nancy Nadel District 3  
Dick Spees District 4  
Ignacio De La Fuente District 5  
Moses L. Mayne, Jr. District 6  
Larry Reid District 7  
Henry Chang, Jr. At-Large

### Citizens Pedestrian Advisory Committee

Joyce Mende Wong District 1  
Michael Voorhies District 2  
Flossie Morris District 3  
Patrick Chellew District 4  
Xochilt Garcia District 5  
Thomas Van Demark District 6  
Edna Gurley District 7 and At-Large  
Ronald Chan Mayor's Commission on Aging  
Linda Teixeira Mayor's Commission on Persons with Disabilities  
Ron Bishop Bicycle and Pedestrian Advisory Committee  
Molly Bradshaw Public Health Professional  
Walter Finch Building Owners and Managers Association  
Heather Hood Urban Ecology

### Technical Advisory Committee

Leslie Gould Community and Economic Development Agency  
Natalie Fay Community and Economic Development Agency  
Margaret Stanzione Community and Economic Development Agency  
Lynn Warner Community and Economic Development Agency  
Jon Ewigleben Community and Economic Development Agency  
Raul Godinez Public Works Agency  
Amit Kothari Public Works Agency  
Joe Wang Public Works Agency  
Kathryn Hughes Public Works Agency  
Jose Martinez Public Works Agency  
Wladimir Wlassowsky Public Works Agency  
Christine Calabrese Office of the City Manager  
Jim Cunradi Alameda-Contra Costa Transit District  
Nathan Landau Alameda-Contra Costa Transit District

### Oakland Pedestrian Safety Project

Thomas Van Demark Director  
Zachary Wald Pedestrian Plan Project Manager  
Amit Patel Design & Planning Intern  
Jason W. Patton Editor

### Consultants

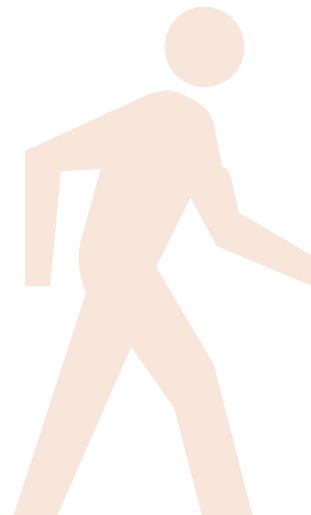
Allan Jacobs Jacobs MacDonald: CityWorks  
Mika Miyasota Korve Consulting  
Cheryl Parker Urban Explorer  
Noah Raford Urbitran Associates  
Bill Reuter Reuter Design  
Mathew Ridgeway Fehr and Peers Associates

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California Vehicle Code Section 467. (a) A “pedestrian” is any person who is afoot or who is using a means of conveyance propelled by human power other than a bicycle. (b) “Pedestrian” includes any person who is operating a self-propelled wheelchair, invalid tricycle, or motorized quadricycle and, by reason of physical disability, is otherwise unable to move about as a pedestrian, as specified in subdivision (a).



# TABLE OF CONTENTS

<b>CHAPTER 1 INTRODUCTION AND EXECUTIVE SUMMARY</b>	<b>6</b>	<b>CHAPTER 5 DESIGN ELEMENTS</b>	<b>64</b>
Goals	8	Sidewalk Guidelines	66
The Benefits Of A Walkable City	9	Crossing Treatments	73
Executive Summary	11	Traffic Calming	80
<b>CHAPTER 2 EXISTING CONDITIONS</b>	<b>14</b>	<b>CHAPTER 6 IMPLEMENTATION PLAN</b>	<b>88</b>
Oakland's Street Grid	16	Policy Implementation	90
Walking Rates in Oakland	18	Priority Projects	92
Pedestrian/Vehicle Collision Data	20	Pedestrian Route Network by District	100
School Safety	31	Staffing and Community Outreach	108
Connections to Transit	34	Funding	109
Education and Enforcement	36		
Community Outreach	37		
<b>CHAPTER 3 PEDESTRIAN ROUTE NETWORK</b>	<b>40</b>		
Selection of Routes	42		
Downtown Pedestrian District	44		
Safe Routes to School	46		
Safe Routes to Transit	47		
Route Types	48		
<b>CHAPTER 4 POLICY RECOMMENDATIONS</b>	<b>50</b>		
A Policy Response To Existing Conditions	52		
Goal 1: Pedestrian Safety	54		
Goal 2: Pedestrian Access	56		
Goal 3: Streetscaping And Land Use	58		
Goal 4: Education	60		
Issues For Further Discussion	61		
		<b>APPENDICES</b>	
		APPENDIX A ON-STREET ROUTES	113
		APPENDIX B WALKWAYS	122
		APPENDIX C STREET TRANSFORMATIONS	138
		APPENDIX D FHWA CROSSWALK GUIDELINES	144
		APPENDIX E FUTURE DIRECTIONS IN PEDESTRIAN PLANNING	145
		PEDESTRIAN LEVEL OF SERVICE	
		SPACE-SYNTAX	
		APPENDIX F SELECTED BIBLIOGRAPHY	150



## FIGURES

Figure 1	1990 Regional Weekday Walking Trips by Purpose (MTC 1994, P 12)	18
Figure 2	Walking Trips As a Percentage of Total Trips by County (MTC 2001B, P 95)	19
Figure 3	Car Ownership in 2000 For Oakland/Alameda Versus Other Areas (MTC 2001A, p45-54)	19
Figure 4	Pedestrian Collisions Table, 1996-2000	22
Figure 5	Pedestrian Collisions Chart, 1996-2000	22
Figure 6	Primary Collision Factors Table	23
Figure 7	Primary Collision Factors Chart	23
Figure 8	Movement Preceding Collision	24
Figure 9	Pedestrian Action In Collision	24
Figure 10	Pedestrian Action In Vehicle Collisions By Age Group	25
Figure 11	Top 10 Intersections by Number of Pedestrian Collisions	25
Figure 12	Top 10 Ranked Intersections for Seniors (1996-2000)	26
Figure 13	Top 10 Ranked Intersections for Children (1996-2000)	26
Figure 14	Top 10 Ranked Vehicle/Collisions Streets by Number of Collisions	27
Figure 15	Top 10 Ranked Collision Streets by Total Number of Collisions per Road Mile	27
Figure 16	Pedestrian Injuries/Fatalities by Age Group (1996-2000)	28
Figure 17	Pedestrian Collisions by Time of Day	29
Figure 18	Pedestrian Injury And Fatality for Selected California Cities (Averages of SWITRS 1995-1999 Annual Reports)	30
Figure 19	Top Ten Ranked Child Pedestrian/Vehicle Collisions/Schools (1996-2000)	31
Figure 20	AC Transit Daily Riders, Trunk Lines (AC Transit 2002)	34
Figure 21	Bart Daily Riders, Oakland Stations (BART 2000)	35
Figure 22	Proposed Sidewalk Guidelines	67
Figure 23	Proposed Lighting Guidelines (Fehr & Peers Associates, 2001)	69
Figure 24	Pedestrian Master Plan Priority Projects, 1-5 Years	93
Figure 25	Pedestrian Master Plan Priority Projects, 6-20 Years	96
Figure 26	Potential Project Components and Cost Estimates	115
Figure 27	On-Street Routes	116
Figure 28	Recommendations for Installing Marked Crosswalks	144

## ILLUSTRATIONS

Illustration 1	City Route Section	48
Illustration 2	City Route	48
Illustration 3	District Route Section	48
Illustration 4	District Route	48
Illustration 5	Neighborhood Route Section	48
Illustration 6	Neighborhood Route	48
Illustration 7	Neighborhood Hill Route	49
Illustration 8	Walkway Route Section	49
Illustration 9	Walkway Route	49
Illustration 10	Walkway Route Section	49
Illustration 11	Walkway Route	49
Illustration 12	Sidewalk For Two Pedestrians	66
Illustration 13	Sidewalk For Two Pedestrians In Wheelchairs	66
Illustration 14	Existing Oakland Sidewalk Standard	66
Illustration 15	City Sidewalk Section	68
Illustration 16	District Sidewalk Section	68
Illustration 17	Neighborhood Sidewalk Section	68
Illustration 18	Walkway Section	68
Illustration 19	Route Lighting	69
Illustration 20	Pedestrian Route Signage	70
Illustration 21	Tree Well	70
Illustration 22	Bus Bulb-Out	71
Illustration 23	Local Intersection	73
Illustration 24	Arterial Intersection	73
Illustration 25	Crosswalk Striping	74
Illustration 26	Accessible Intersection	74
Illustration 27	Bulb-Outs	75
Illustration 28	Refuge Island	76
Illustration 29	Bulb-Outs And Refuge Island	76
Illustration 30	Corner Radius	76
Illustration 31	Slip Turn Before	77
Illustration 32	Slip Turn After	77
Illustration 33	Stop Sign	77
Illustration 34	Traffic Signal	78

continues on next page

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Illustrations, cont.

Illustration 35 Audible Signal	79
Illustration 36 Speed Hump	80
Illustration 37 Slow Point	81
Illustration 38 Chicanes	81
Illustration 39 Traffic Circle	82
Illustration 40 Roundabout	82
Illustration 41 Narrow Lanes Before	83
Illustration 42 Narrow Lanes After	83
Illustration 43 Restriping Before	84
Illustration 44 Restriping After	84
Illustration 45 Median Before	85
Illustration 46 Median After	85
Illustration 47 City Route Before	138
Illustration 48 City Route Section Before	138
Illustration 49 City Route After	139
Illustration 50 City Route Section After	139
Illustration 51 District Route Section Before	140
Illustration 52 District Route Before	140
Illustration 53 District Route Section After	140
Illustration 54 District Route After	140
Illustration 55 Neighborhood Route Before	142
Illustration 56 Neighborhood Route After	142
Illustration 57 Neighborhood Route Section Before	142
Illustration 58 Neighborhood Route Section After	142
Illustration 59 Trail Route Before	143
Illustration 60 Trail Route After	143
Illustration 61 Trail Route Section Before	143
Illustration 62 Trail Route Section After	143

**MAPS**

Map 1 Pedestrian/Vehicle Collisions - Oakland (1996-2000)	21
Map 2 Child Pedestrian/Vehicle Collisions Near Schools - Oakland (1996-2000)	33
Map 3 Pedestrian Route Network	43
Map 4 Downtown Pedestrian District	45
Map 5 Pedestrian Route Network - Council District 1	101
Map 6 Pedestrian Route Network - Council District 2	102
Map 7 Pedestrian Route Network - Council District 3	103
Map 8 Pedestrian Route Network - Council District 4	104
Map 9 Pedestrian Route Network - Council District 5	105
Map 10 Pedestrian Route Network - Council District 6	106
Map 11 Pedestrian Route Network - Council District 7	107
Map 12 Walkways - Upper Rockridge	123
Map 13 Walkways - Montclair	124
Map 14 Walkways - Trestle Glen And Oakmore	125
Map 15 Walkways - Lake Merritt And Vicinity	126
Map 16 Walkways - Glen Echo Creek And Grand Lake	127
Map 17 Walkways - Fruitvale And Vicinity	128
Map 18 Walkways - Eastmont And Vicinity	129
Map 19 Walkways - Allendale and Fairfax	130
Map 20 City Of Oakland Pedestrian Volumes - Space Syntax Model	147





## Chapter 1 Introduction and Executive Summary

**Vision Statement** To promote a pedestrian-friendly environment; where public spaces, including streets and off-street paths, will offer a level of convenience, safety and attractiveness to the pedestrian that will encourage and reward the choice to walk.



Getting people out of their cars and walking as much as possible will put Oakland in the forefront of the pedestrian movement. As a matter of fact, we will be one of the first cities in America to create a Pedestrian Master Plan.

Oakland Mayor Jerry Brown, August 14, 2001

The Pedestrian Master Plan promotes pedestrian safety and access to help ensure that Oakland is a safe, convenient, and attractive place to walk. It establishes a Pedestrian Route Network emphasizing safe routes to school and connections to transit. The routes include streets, walkways, and trails that connect schools, libraries, parks, neighborhoods, and commercial districts throughout the City. It identifies priority street segments along these routes for targeted improvements over the next twenty years. The plan also identifies new pedestrian design elements to promote pedestrian safety and access throughout the City.

Policy T4.5 of Envision Oakland, the Land Use and Transportation Element of the Oakland General Plan, recommends the creation of a Pedestrian Master Plan as part of its objective to increase the use of alternative modes of transportation. While walking is the least expensive transportation mode, building and maintaining a high quality pedestrian infrastructure requires comprehensive planning and long term funding. The Pedestrian Master Plan will be a key resource for the City in securing grants from the increasingly large pool of funds dedicated to pedestrian safety and livable communities.



# Goals



The City of Oakland is committed to walking as a form of transportation and recreation that is safe, accessible, healthy, and affordable for all citizens. Every Oaklander is a pedestrian at some point during the day. We all walk with or without mobility aids\* whether to a school, transit stop, to a parked car, to work, or for exercise. The City also recognizes the value of walking for promoting environmental sustainability and the commercial vitality of downtown and neighborhood districts. To promote these benefits of a walkable city, the Pedestrian Master Plan specifies the following five goals.

\*Mobility aids are devices including wheelchairs, walkers, crutches, canes, scooters, and service animals used by people with disabilities.

**1 Pedestrian Safety.** Create a street environment that strives to ensure pedestrian safety.

**2 Pedestrian Access.** Develop an environment throughout the City – prioritizing routes to school and transit – that enables pedestrians to travel safely and freely.

**3 Streetscaping and Land Use.** Provide pedestrian amenities and promote land uses that enhance public spaces and neighborhood commercial districts.

**4 Education.** Educate citizens, community groups, business associations, and developers on the safety, health, and civic benefits of walkable communities.

**5 Implementation.** Integrate pedestrian considerations based on federal guidelines into projects, policies, and the City’s planning process.

# The Benefits of a Walkable City



The City of Oakland has amongst the highest walking rates for all cities in the San Francisco Bay Area (U.S. Census 2000). Additionally, approximately one out of five households in Oakland does not have an automobile (MTC 2001a) and 37% of Californians do not have driver's licenses. (STPP 2000a, p. 19).

With these goals, the Pedestrian Master Plan provides targeted solutions to pedestrian access and safety problems. The solutions also promote Oakland as a walkable city for sustainability, equity, vitality, and health – especially for children and seniors.

## Safety

Continuous sidewalks and safe crossings are the basic building blocks for pedestrian safety.\* These elements are essential for the most vulnerable populations: children, seniors, and persons with disabilities.

High speeds and volumes of motor vehicles can create safety concerns for pedestrians and residents.

Neighborhood streets that provide motor vehicle shortcuts for through traffic are of particular concern to residents. On larger streets, high speeds and volumes of motor vehicle traffic can be at odds with crossing safety, especially on streets with infrequent traffic signals. According to the Federal Highway Administration,

“At higher speeds, motorists are less likely to see a pedestrian, and are even less likely to be able to stop in time to avoid hitting one” (FHWA 2002b, p. 13). In collisions with motor vehicles, a pedestrian has an 85% chance of fatality at 40mph, a 45% chance of fatality at 30mph, and a 5% chance of fatality at 20mph (FHWA 2002b, p. 13).

A balanced approach to street design regulates motor vehicle speeds and affords pedestrians safe and convenient crossing opportunities. Ample sidewalks also serve to buffer pedestrians from motor vehicle traffic. Drivers and pedestrians share responsibility for pedestrian safety. Education and enforcement to prevent dangerous behaviors by both of these groups are important elements of a comprehensive solution.

\*California Vehicle Code Section 21949 specifies that “safe and convenient pedestrian travel and access, whether by foot, wheelchair, walker, or stroller, be provided to the residents of the state.”

# The Benefits of a Walkable City

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## Sustainability

Walkable cities reduce environmental impacts by promoting walking as a zero emissions form of transportation. Good walking routes to transit complement the role of public transit in providing an environmentally sustainable alternative to the private automobile. Although typically not counted in transportation surveys, every trip on transit is sandwiched between two pedestrian trips. Especially in conjunction with cycling and transit riding, walking provides a promising non-polluting transportation alternative.

## Equity

Walking is the most inexpensive and broadly accessible form of transportation and recreation. Walking requires no fare, fuel, or license. For those who cannot afford other modes of transportation, the ability to walk safely is essential. For young people, walking affords a sense of independence that is not possible with other modes. For older people, walking is an effective means to stay active, both physically and socially.

## Vitality

Walkable cities make for vital and active streets by promoting commercial and social exchange. With approximately 40% of the land area of United States' cities dedicated to transportation, streets and sidewalks are the city's most expansive public spaces. Sidewalks ideally function as positive places to meet, play, live, work, and shop. However, high speeds and heavy volumes of motor vehicle traffic can create inhospitable city blocks where people are less likely to know their neighbors and children are not allowed to play (Appleyard 1981). In residential areas, motor vehicle traffic negatively impacts residential property values. In commercial areas, the most congested streets are often the most economically vital.

## Health

Walkable cities promote healthy citizens. Health professionals recommend walking as a form of physical activity to help prevent a host of diseases including obesity, heart disease, and some forms of cancer. In announcing the nomination

for U.S. Surgeon General, President George W. Bush said, "Walking 30 minutes a day will dramatically improve your life." Drawing on the success of the public health model in reducing smoking, cities are recognizing that good places to walk help promote healthy citizens.

**In the United States, 300,000 deaths per year are associated with obesity and the number of overweight adolescents almost tripled in the last twenty years. While almost two-thirds of children walked or biked to school only thirty years ago, less than 10% do today (STPP 2000a, p. 6). According to the Surgeon General, encouraging at least 30 minutes of walking per day and creating walkable environments are recommended methods for reducing overweight and obesity (U.S. Dept. of Health 2001).**

# Executive Summary

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In the following chapters, the Pedestrian Master Plan identifies the existing conditions for pedestrians in Oakland and formulates a pedestrian route network, policies, and design elements for the City. Taken together, these chapters promote pedestrian safety and access by focusing improvements on safe routes to school, connections to transit, and in other areas of high pedestrian activity.

## Existing Conditions

Chapter 2 provides a comprehensive picture of pedestrian safety and access in Oakland. It addresses the City's existing street conditions, walking rates, pedestrian/vehicle collision data, school safety, connections to transit, education and enforcement, and the community outreach process for this Plan.

Oakland's downtown and many vibrant neighborhoods give it the foundation for a walkable city. Oakland has among the highest

walking rates of cities in the San Francisco Bay Area. Large numbers of pedestrian trips are to AC Transit bus lines, Oakland public schools, and BART stations.

Major constraints on walking include pedestrian/motor vehicle conflicts on busy streets and freeways as physical barriers for pedestrians.

On average, a pedestrian/vehicle collision occurs each day in Oakland.

Over three-quarters of those collisions result in pedestrian injuries. 36 fatal pedestrian collisions occurred between 1996 and 2000. Most pedestrian/vehicle collisions occur in downtown, in Chinatown, and along arterial streets.

By age, children have the highest rates of pedestrian injury and seniors have the highest rates of pedestrian fatality. By race, African-Americans and Hispanics are more likely than Caucasians to be a pedestrian in a collision.

In developing the Pedestrian Master Plan, the Oakland Pedestrian

Safety Project (OPSP) conducted 70 community presentations reaching 1,750 Oaklanders.

Through this outreach, citizens identified hundreds of areas of concern, noting in particular the danger of crossing streets with two or more lanes in each direction and the safety of children walking to school.

Sources of additional community input included the City Commissions on Aging and Disability and the Public Safety Committee of the City Council.

## Pedestrian Route Network

Chapter 3 presents a long-term vision for a network of on- and off-street routes that extends throughout Oakland. It includes "Safe Routes to School" and "Safe Routes to Transit." The network identifies common walking routes to schools, transit, neighborhood commercial districts, major employment centers, and other pedestrian destinations. These routes respond to community concerns over safe routes

# Executive Summary

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to these destinations and across major streets. They include city routes, district routes, neighborhood routes, walkways, and trails.

This chapter explains the Downtown Pedestrian District, Safe Routes to School, and Safe Routes to Transit. It describes the criteria used in the selection of routes and provides illustrations of each of the five route types. The Pedestrian Route Network identifies those streets in greatest need of improvements and those areas where improvements will have the greatest impact. The Pedestrian Route Network thereby serves as a long term planning tool for targeting pedestrian improvements. A citywide map of the network is included in this chapter. Maps of each Council District showing the Pedestrian Route Network and priority projects are included in the Implementation Plan. A comprehensive survey of the Pedestrian Route Network is included in the appendices.

## Policy Recommendations

Chapter 4 identifies policies and action

items for meeting the goals of the Pedestrian Master Plan. The Land Use and Transportation Element (LUTE) of the Oakland General Plan calls for the preparation, adoption, and implementation of a comprehensive pedestrian plan for the City (LUTE T4.5, p. 58).

Oakland's General Plan has many policy directives promoting a walkable city and the goals of pedestrian safety, access, streetscaping and land use, and education. Each goal of the Pedestrian Master Plan is listed with policy directives from the LUTE and the proposed policies and action items for achieving that goal.

Source documentation including the Open Space, Conservation, and Recreation (OSCAR) Element, Bicycle Master Plan, and Pedestrian Master Plans from other cities was consulted in developing policies for the Oakland Pedestrian Master Plan.

Recommended policies relating to implementation are listed as part of the Implementation Plan in Chapter 6.

This chapter concludes with a section identifying marked crosswalks, speed humps, and pedestrian auto-detection as issues for further discussion. These issues require ongoing debate in the City of Oakland. They lack the necessary consensus of stakeholders for establishing policy positions in the Pedestrian Master Plan. The differing viewpoints on these issues are presented here to facilitate further discussion on how best to promote pedestrian safety and access in the City of Oakland.

## Design Elements

Chapter 5 identifies guidelines and elements for improving Oakland streets and paths. Rather than proposing design standards, the Pedestrian Master Plan presents these design elements to inform designers, planners, and policy-makers on available design treatments and best practices for pedestrians.

The Design Elements are organized into three sections. First, the Sidewalk Guidelines section proposes minimum requirements for sidewalks and utility zones. Second, the Crossing Treatments

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section explains best practices for crosswalks and corners. And third, the Traffic Calming section presents concepts for reducing motor vehicle speeds.

### **Implementation Plan**

Chapter 6 contains the Implementation Plan identifying policies and priority projects to promote a safe and walkable city. Twenty years of projects are identified to rectify existing gaps and shortcomings in the City's pedestrian infrastructure. As part of a comprehensive planning process, this list of priority projects makes Oakland very competitive for the growing amount of transportation funding directed at pedestrian safety and livable communities. This chapter identifies staffing needs and funding sources to help ensure that these projects are managed, funded, and implemented. It also includes maps of each Council District showing the Pedestrian Route Network and the locations of priority projects.

### **Appendices A-B: Pedestrian Route Network Survey**

These appendices provide a comprehensive survey of the Pedestrian Route Network. They identify the routes that comprise the network and potential improvements to these routes. Appendix A contains the Pedestrian Route Network Survey for on-street routes. It identifies potential project components and cost estimates from which potential improvements to the route network are specified. It also explains a route context evaluation as a simple method for comparing potential improvements along the Pedestrian Route Network. Appendix B contains a survey of the City's walkways and includes a set of maps showing their locations throughout the City. These appendices provide the starting point for: (1) the development of a capital improvement program for pedestrian projects; and (2) the development of specific pedestrian improvement projects for specific street segments.

For implementation, the proposed projects would require additional review by traffic engineering and under the California Environmental Quality Act (CEQA). Furthermore, engineering judgment is necessary to determine the specific locations and features of each project.

### **Appendices C-F: Additional Resources**

The final four appendices provide additional resources on pedestrian planning. Appendix C presents a set of street transformations that provide a long-term vision for designing streets for pedestrians. Appendix D summarizes a recommended crosswalk policy developed by the Federal Highway Administration. Appendix E introduces pedestrian level of service and Space-Syntax as two emerging tools in pedestrian planning. Lastly, Appendix F lists the publications used in writing this Plan.