

Statewide Pedestrian Master Plan Design Guidelines/Guidebook



INTRODUCTION

The design guidelines or guidebook document is envisioned as a “toolbox” of best practices guidance, or “templates” of excellence for design solutions to address pedestrian needs. The intent is to provide a comprehensive document that can be applied under a wide variety of applications and diverse conditions in Hawaii to improve pedestrian accessibility, mobility, connectivity, and safety. The guidelines can be integrated within the overall pedestrian master plan, or can be provided as a companion document to the master plan. The guidelines will directly relate to the vision, goals, and objectives of the plan’s policy framework, as well as Areas of Concern identified in the planning process.

Some guidance will represent treatments that are preferred or desirable (actions that “should” or “could” be implemented or that are encouraged). Other provisions will represent standards or requirements (expressed as actions that “must” or “shall” be implemented), such as in the case with adopted standards by the Hawaii Department of Transportation or Americans with Disabilities Act (ADA) requirements.

PURPOSE OF DESIGN GUIDELINES

- To promote best practices throughout the state and achieve a broader-scale positive change in pedestrian environment.
- To provide consistency in pedestrian design guidance
- To provide comprehensive guidance in a number of pedestrian-related topics.



The design guidelines will be:

- Contextually appropriate for Hawaii’s communities and needs.
- Reflective of international and national best practices.
- Well organized with a detailed table of contents and index.
- “Toolboxes” of details for reference by agencies and consultants.
- Easy to navigate and find information.
- Highly illustrative – guidance through graphics, not just words.
- Internet accessible/easy to navigate and download.

OUTLINE OF POTENTIAL CONTENTS

The outline below is comprehensive and anticipates a broad spectrum of topics being addressed in the design guidelines. This outline can be further tailored and refined with more input from HDOT and the TAC and CAC and as specific Areas of Concern and problems continue to be identified.

Introduction /How to Use These Guidelines

- Purpose of Design Guidelines
- Who Should Use These Guidelines and How Should They Be Used?
(Note: it is anticipated that the guidelines will be for reference by all practitioners in Hawaii to guide better design, development, maintenance, and operations of pedestrian facilities. This includes not only HDOT staff as a high priority, but also local agency staff, private sector developers, engineers, designers, architects, and others; primarily for use within the public right-of-way)
- Developing the Guidelines
- Implementing the Guidelines
- Relationship to Other Guidelines and Standards (such as HDOT Standard Details, Bike Plan Hawaii, MUTCD and AASHTO)
- Permission to Reproduce and Copy
- Where Can You Find the Information You Need in These Guidelines?

About Pedestrians (Or Hawaii’s Pedestrians)

- Vision, Goals, and Objectives
- Pedestrians Defined
- Emerging Issues and Concerns Related to Pedestrians (Pedestrian Health and Safety Discussion)
- Pedestrian Needs and Characteristics (Including the Special Needs of Children, Pedestrians with Physical Challenges, and Older Adults, with Reference to More Details in Toolbox #1, Accessibility); will highlight special considerations related to contexts in Hawaii

Overview of the Design Guidelines – A Toolbox of Approaches

- Pedestrian Facilities Defined (sidewalks and multi-use paths – not shoulders)
- Purpose and Focus of Design Guidelines
- The Importance of Good Design for Pedestrians
- Land Use Planning for Pedestrian-Friendly Communities
- Creating a Continuous Pedestrian System
- Creating an Effective Pedestrian System
- Friendly Streets/Friendly Sidewalks
- Special Pedestrian-Oriented Districts
- Other Sources of Information

“TOOLBOX” SECTIONS:

The “Toolbox” will be the core area of technical content in the design guidelines. We can organize the flow of the toolbox in whatever way the HDOT, and the TAC and CAC believe will be best.

1 Accessibility

- Spatial Needs for People with Disabilities and Older Adults
- Understanding the Americans with Disabilities Act (ADA); will tie in with Disabilities Communications Access Board (DCAB)
- Designing for People with Disabilities
- Designing for Older Adults
- Pedestrian Access Routes (PAR)
- Eliminating Barriers and Obstacles
- Widths and Clearances
- Passing and Resting Areas
- Longitudinal Grade
- Cross Slopes
- Sidewalk Curb Ramps
- Ramps
- Handrails
- Accessibility across Driveways
- Surfacing
- Textural and Visual Cues
- Medians and Pedestrian Refuge Islands
- Signing and Other Communication Aids
- Site Connections
- Lighting
- Other Sources of Information

2 Sidewalks and Walkways

- Determining When and Where Sidewalks and Walkways are Needed (Including Location on Both Sides versus One Side)
- Sidewalks and Walkways in Various Settings and Recommended Dimensions
- Sidewalks in Rural Towns (along Belt Roads)
- Sidewalks in Business Districts and Downtowns (Sidewalk Corridors)
 - Building Frontage Zone
 - Pedestrian Travel Zone
 - Fixtures (Furnishings/Planter)
 - Edge/Curb Zone
- Descriptions and Comparisons of Sidewalks and Walkways
- Passing, Waiting, and Resting Areas

- Grades, Cross Slope, and Drainage
- Side Slopes, Railings, and Walls
- Surfacing
- Street Separation and Edge Treatments
 - Planting Buffers
 - Ditches or Swales as Separation
 - Curb and Gutter / Vertical Curb
 - Rolled Curb (Strongly Discouraged)
 - Extruded Curbing
 - Raised Pavement Markers
 - Bike Lanes as Separation
 - Concrete Barriers
- Street Furnishings, Utilities and Related Clearances
- Reference to Pedestrian Friendly Streets, Section 3
- Signing
- Shoulders as Walkways in Rural Areas
 - Use of Shoulders by pedestrians in rural areas; reference to Green Book and Hawaii County Roadway Standards
 - Recommended Shoulder Dimensions
 - Shoulder Surfacing and Delineation
 - Operational Considerations Related to Shoulders
- Bicycles on Sidewalks (will need to check Hawaii Revised Statutes-HRS)
- Street Design Considerations
- Ongoing Maintenance
- Other Sources of Information

3 Pedestrian Friendly Streets

- Street Classifications
- Green Streets and Transit (include bus and rail) Streets in Hawaii
- Sidewalks (Sidewalk Corridors)
- Curbs
- Bicycles
- On-Street Parking
- Access Management
- Traffic Calming

(Note: this toolbox section would be more for local agencies to refer to and not necessarily guidelines for state highways.)

 - Introduction to Traffic Calming / Why is Traffic Calming Used?
 - Residential Traffic Management
 - Traffic Calming and Management Methods / Techniques (toolbox of approaches and what is appropriate for use in certain areas)

- Furnishings and Utilities
- Street Trees and Landscaping
 - Appropriate plant selection in pedestrian environments (refer to other existing guidance being developed; streetscape plans)
 - Context appropriate landscaping and sustainability factors
- Lighting for Pedestrians in Addition to Lighting the Travel Lanes
- Ongoing Maintenance
- Other Sources of Information

4 Pedestrian Access to Transit

- Transit Compatible Design/Improving Pedestrian Access to Transit
- Improving Transit Facilities for Pedestrians
- Transit Stops and Bus Pullouts
- High Capacity Right-of-Way Transit
- Transit Centers
- Park-and-Ride Facilities
- Transit-Oriented Development
- Coordination Between Agencies
- Other Sources of Information

5 Intersections and Crossings

- Effects of Pedestrian Improvements on Vehicle Capacity
- Design Practices at Intersections
 - Crosswalk Use
 - Effectiveness of Crossing Improvements
 - Determining the need for Crossing Improvements at Intersections
 - Marked versus Unmarked Crosswalks
 - Crosswalk Dimensions
 - Crosswalk Markings
 - Curb Ramps
 - Lighting
 - Location of Drainage Inlets and Grates
 - Pedestrian Related Signs
- Minimizing Crossing Distances at Intersections
 - Curb Return Radius
 - Right-Turn Channelization Lane (Slip) with Refuge Island
 - Medians and Center Refuge Islands
 - Curb Bulb-Outs and Extensions
 - Avoiding or Reconfiguring Multiple and Skewed Intersections
- Minimizing Pedestrian/Motor Vehicle Conflicts
 - Visibility and Sight Distance

- On-Street Parking Restrictions
- Traffic Regulation and Access Management
- Signalization
- Turning Movements (Especially right turn movements)
- Interchanges and Expressway Ramps
- Grade Separation
- Traffic Circles – Roundabouts
- Raised Intersections
- Special Paving
- Mid-Block Crossings (When/Where to Use and How to Design)
- Other Innovative Technologies
- Grade Separation
- Pedestrian Overcrossings (guidance on when they should be utilized)
- Other Sources of Information

6 Shared Use Paths (Trails and Pathways)

- Trail Planning/Local and Regional Connectivity (Need for coordination with Land and Natural Resources (DLNR)—Na Hele Trails)
- Providing access and preserving the environment
- Potential conflicts between access and preservation
- Cultural, historic, religious, or significant natural features
- Nature of the setting or purpose of the trail
- Federal, State, or local regulations or statutes
- Terrain, conditions, or prevailing construction practices
- Priorities to access to extreme environments
- Trail components
- Shared Use Path Design
- Shared Use Paths Next to Roadways
- Recreation Trail Design
- Trail Crossing
- Specialized Trails
 - Viewpoints
 - Beach trails
 - Interpretive trails
- Accessibility of Multi-Use Paths
- Paving and Surfacing
- Longitudinal Grades
- Shoulders, Side Slopes, and Railings
- Connections and Crossings
- Managing Motor Vehicle Access
- Vegetation and Landscaping

- Signage
- Nighttime Use
- Ongoing Maintenance
- Other Sources of Information

7 Children and School Zones

- Special Considerations Related to Children
- Improving Student Pedestrian Safety
- Safe Routes to School Program (Reference to)
- School Related Pedestrian Improvements
- The School as a Community Focal Point
- Pedestrian-Friendly Schools and School Zones
 - School Site Design
 - Pedestrian Access Routes to the School
 - School Bus Stop Design
 - Visibility at Crossings along School Walk Routes
- Traffic Control and Crossings near Schools
 - Reduced Speed Zones
 - Traffic Calming
 - Marked Crosswalks
 - Stop Controlled Crosswalks
 - Signalized Crossings (with Pedestrian Actuators)
 - Flashing Beacons
 - Grade Separated Crossings
 - Crossing Guard and Student Patrol Controlled Crosswalks
 - Signing and Marking
- School Walk Routes and Safety Programs
- Educational Tools and Programs for Child Safety
- Ongoing Maintenance
- Other Sources of Information

8 Special Pedestrian Districts and Site Design for Pedestrians

- Special Pedestrian Districts and Pedestrian Exclusive Spaces
- All Modes of Transportation as Part of Site Development
- Pedestrian, Bicycle, and Transit Friendly Site Design
- The Benefits of Mixed Use Site Development
- Building Location and Design
- Walkways and Accessible Routes
- Site Access and Driveway Design
- On-Site Circulation and Parking Ramps, Stairways, and Steps
- Landscaping and Furnishings

- Public Art
- Open Space
- Ongoing Maintenance
- Other Sources of Information

9 Safety in Work Zones

- Protective Barriers
- Covered Walkways
- Sidewalk Closure during Construction
- Intersections and Crossings Near Work Zones
- Accessibility in the Work Zone
- Maintenance
- Other Sources of Information

10 Designing Effective Pedestrian Education and Encouragement Programs

- Overview of Existing and Potential Programs
- Community-Level Opportunities
- School Programs
- Partners and Advocates in Hawaii
- Case Studies/Examples
- Education for Drivers