

DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII

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The Statewide
**Pedestrian
Master Plan**

FEDERAL-AID PROJECT No. SPR-0010(31)

CAC Meeting #3 12/3/10

PUSH
BUTTON
FOR
[Pedestrian Icon]

Welcome & Introductions

Statewide Pedestrian Master Plan

- Welcome!
- Roundtable Introductions

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2

Agenda Review



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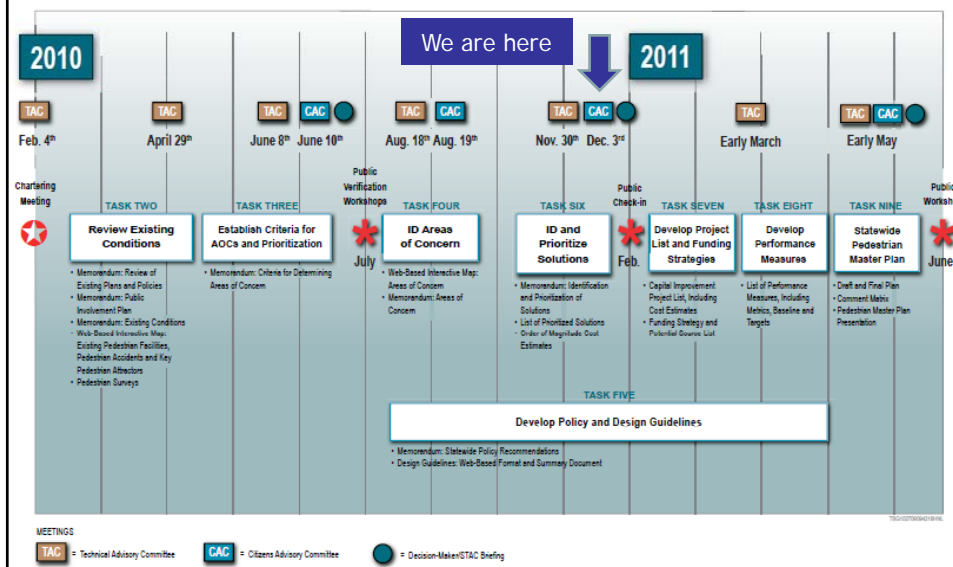
- Work Plan Review
- Meeting Goals
- Review Ped Plan Policies and Measurable Objectives
- Prioritize Area of Concern Locations
 - Break
- Design Guidelines
- Next Steps



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3

Work Plan Review



Meeting Goals



Statewide Pedestrian Master Plan

- Review Meeting #2 outcomes
- Review the pedestrian master plan policies and measurable objectives
- Prioritize the Area of Concern locations and discuss TAC feedback
- Review the Design Guidelines



CAC input is critical at each phase of the Plan.



Draft Policy Framework



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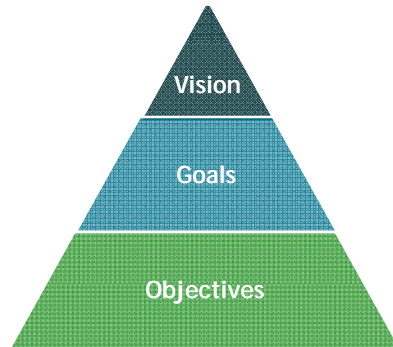
Draft Policy Framework



Statewide Pedestrian Master Plan

Introduction

- The policy framework is represented by the vision, goals and objectives described in the plan.
- Drawn from other statewide transportation policies for consistency, such as HSTP and SLRLTP, with TAC and CAC input.



Draft Vision



Statewide Pedestrian Master Plan

Statewide Pedestrian Master Plan Vision Statement

Hawaii's integrated and balanced transportation system provides a well-connected pedestrian network that encourages walking to reduce environmental impacts, foster healthy lifestyles and sustainable communities, economic development and conserve energy.

More people in Hawaii are choosing to walk as a result of enhanced mobility, accessibility, safety, and connectivity throughout the transportation system.





Goals and Measurable Objectives to Support the Vision

Goal
General purpose statement that responds to an identified need

Objective
A specific & measurable statement to guide actions to achieve the goal



Draft Goals & Objectives



The following seven goals (and measurable objectives) support the pedestrian master plan vision and are aligned with the Hawaii Statewide Transportation Plan, Statewide and Regional Long-Range Land Transportation Plans.



Draft Goals & Objectives



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*Goal 1 (supports a multi-modal trans. system)
Enhance overall pedestrian mobility and accessibility throughout Hawaii.*

Objectives:

- Increase the level of walking by residents, workers, and visitors.
- Provide clear design guidance related to accessibility compliance for street improvement projects.
- Complete pedestrian facility upgrades to enhance mobility and accessibility.



Draft Goals & Objectives



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*Goal 2 (supports a multi-modal trans. system)
Improve pedestrian safety.*

Objectives:

- Reduce the number of accidents and fatalities involving pedestrians.
- Increase driver and pedestrian knowledge of laws and legal requirements.
- Achieve positive changes in driver behavior in communities and activity areas.
- Increase pedestrians' sense of safety in communities and activity areas.
- Encourage the use of best practices in pedestrian design to enhance safety.



Draft Goals & Objectives



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Goal 3 (supports a multi-modal trans. system)

Increase pedestrian connectivity in communities and activity areas.

Objectives:

- Support development of seamless and continuous pedestrian networks:
 - ✓ Street and roadside paths and walkways
 - ✓ Trail corridors and off-street facilities
- Encourage reference to design guidelines with community and private-sector projects to support pedestrian connectivity and promote higher levels of walking.



Draft Goals & Objectives



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Goal 4 (supports the environment & quality of life)

Promote walking as a beneficial option for reducing environmental impacts.

Objectives:

- Broaden public awareness about the environmental benefits of walking/pedestrian travel.
- Increase pedestrian trips/mode share to reduce motor vehicle miles traveled in communities and activity areas.
- Enhance pedestrian access to transit by improving connectivity and providing efficient access to transit stops and stations.



Draft Goals & Objectives



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*Goal 5 (supports the environment & quality of life)
Encourage walking to foster healthy lifestyles and sustainable communities.*

Objectives:

- Broaden public awareness about the health benefits of walking/pedestrian travel.
- Develop and conduct education programs and campaigns for students, residents, employees and visitors about the health benefits of walking and pedestrian



Draft Goals & Objectives



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*Goal 5 (supports the environment & quality of life)
Encourage walking to foster healthy lifestyles and sustainable communities. (continued)*

Objectives:

- Create vibrant pedestrian-oriented environments in communities and activity areas that encourage and increase walking.
- Provide training for law enforcement officials related to effective education and enforcement for pedestrians.



Draft Goals & Objectives



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*Goal 6 (supports Hawaii's economy & future growth)
Support smart growth and economic development by creating vibrant, pedestrian-oriented communities and activity areas.*

Objectives:

- Encourage priority pedestrian infrastructure investment in communities, activity areas and special districts that serve residents and visitors/tourists.
- Encourage reference to and use of the design guidelines to create vibrant pedestrian settings that attract high levels of activity.



Draft Objectives



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*Goal 7 (supports the state's energy efficiency goals)
Promote and support walking as a viable transportation mode and enhance access to transit to reduce overall energy use.*

Objectives:

- Strengthen public awareness about the energy conservation benefits of walking and promote walking as a viable transportation mode.
- Support pedestrian improvements in proximity to transit stations and stops to encourage and increase access to transit.





Areas of Concern



Areas of Concern: Methodology: Factor Analysis



1. Review of Existing Conditions
 - Input from TAC, CAC and the public
2. Identify Factors for Developing the Areas of Concern
 - Connectivity
 - Accessibility
 - Environmental Justice
 - Safety
3. Prioritize of the Area of Concern Factors
 - Input from TAC, CAC and the public
4. Conduct a Factor Overlay Analysis
 - Overlay of 4 or more factors



Areas of Concern: Methodology: Public Input



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Public Input and Feedback

1. Solicitation of public comments at seven public meetings
2. Identification of potential opportunities and concerns
3. Compilation in a public comment log
4. Locations with multiple comments identified
5. Validation by the Island TAC



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21

Areas of Concern: Locations



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Island	Factor Analysis	Public Comments	TOTAL Locations
Kauai	4	8	12
Maui	2	2	4
Hawaii	1	3	4
Oahu	31	4	35
TOTAL	38	17	55



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22

Areas of Concern: Locations



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Considerations


- Types of Projects
- Types of Programs
- Types of Locations
- Population representation
- Geographic representation
- AOC Factors

Island	Population	Lane Miles	Revenue
Kauai	5%	9%	6%
Maui	11%	18%	11%
Hawaii	13%	31%	7%
Oahu	70%	40%	76%


GOAL: 30 Locations



BREAK



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24



Design Guidelines: Overview and Outline



Why 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, including design for "complete streets."

Supports
"Complete
Streets"
Objectives



Why Design Guidelines?



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- “Guidelines” not “standards” similar to other states’ approach (with the exception of adopted standards and ADA requirements).
- To clarify requirements (musts or shalls) vs. desirable practices (shoulds).



Design Guidelines Overview



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- 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 agencies and consultants



Design Guidelines Overview



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- Easy to navigate and find information
- Highly illustrative - guidance through graphics, not just words
- Internet accessible/easy to navigate and download



Design Guidelines Outline



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- Introduction / How to Use These Guidelines
- Hawaii's Pedestrians
- Overview of the Design Guidelines - A "Toolbox" Approach
- The Toolbox:
 - 1 Accessibility
 - 2 Sidewalks and Walkways
 - 3 Pedestrian Friendly Streets
 - 4 Pedestrian Access to Transit



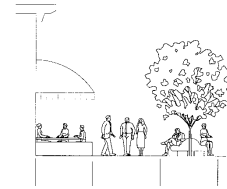
Design Guidelines Outline



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The Toolbox continued:

- 5 Intersections and Crossings
- 6 Shared Use Paths (Trails and Pathways)
- 7 Children and School Zones
- 8 Special Pedestrian Districts/Site Design for Pedestrians
- 9 Safety in Work Zones
- 10 Designing Effective Education and Encouragement Programs



Design Guidelines: Excerpts - Draft Work in Process



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Sidewalks and Walkways



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RURAL CONTEXT

Shoulders as Walkways in Rural Areas

Recommended Shoulder Dimensions

- Minimum 3- to 5-foot wide shoulder adjacent to a bike lane and on local roads with lower traffic volumes (less than 400 ADT)
- Wider shoulder if accommodating groups of pedestrians (students); or if located on major collectors/ arterials (more than 2000 ADT) - [ref to Children/School Zones Section]
- In rural areas where pedestrian use occurs an additional width of 4 feet should be added to the state highway to obtain maximum desirable shoulder width of 10 feet.



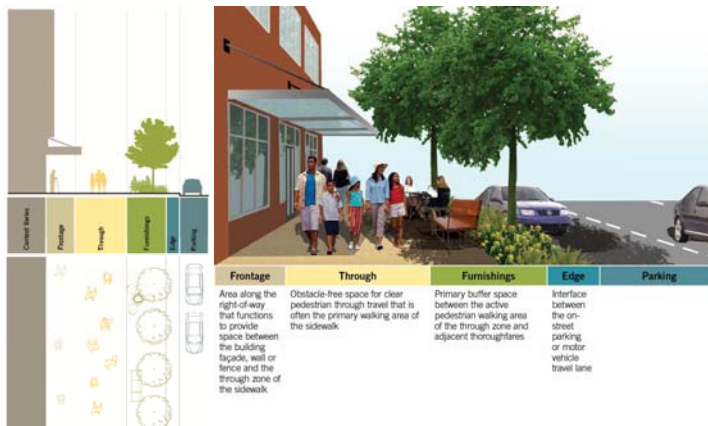
Sidewalks and Walkways



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URBAN CONTEXT

Sidewalks in Small Towns/Business Districts/Organizing the Street Edge



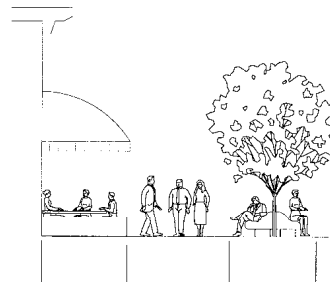
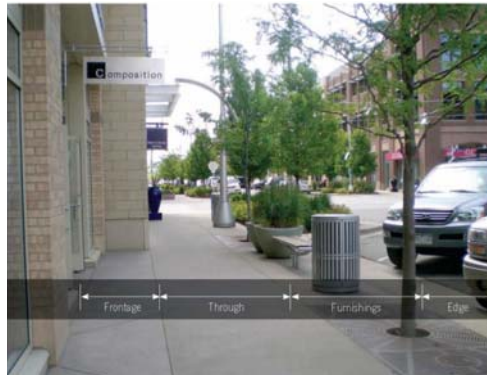
Sidewalks and Walkways



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URBAN CONTEXT

Sidewalks in Small Towns/Business Districts/Organizing the Street Edge



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Sidewalks and Walkways



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Sidewalks and Walkways in Various Settings and Recommended

Recommended Dimensions for Sidewalks and Walkways						
Road Type	Principal Arterial	Minor Arterial	Collector Arterial	Neighborhood Collector	Local Residential	Commercial Access
Right-of-Way	100 ft (30.5 m)	84 ft (25.6 m)	60 ft (18.3 m)	60 ft (18.3 m)	50-60 ft (15.2-18.3 m)	60 ft (18.3 m)
Width of Roadway	4 Lanes	4 Lanes	2 Lanes	2 Lanes	28 ft (8.5 m)	44 ft (13.4 m)
Sidewalk Widths						
No Buffer						
Desirable	8 ft (2.4 m)	8 ft (2.4 m)	6 ft (1.8 m)	6 ft (1.8 m)	5 ft (1.5 m)	6 ft (1.8 m)
Minimum	6 ft (1.8 m)	6 ft (1.8 m)	6 ft (1.8 m)	6 ft (1.8 m)	5 ft (1.5 m)	6 ft (1.8 m)
With Planting Strip/Buffer	6 ft (1.8 m)	6 ft (1.8 m)	6 ft (1.8 m)	5 ft (1.5 m)	5 ft (1.5 m)	5 ft (1.5 m)
With Street Trees, No Buffer	10 ft (3.0 m)	10 ft (3.0 m)	8 ft (2.4 m)	8 ft (2.4 m)	—	—
Urban Center/ Business District	10-15 ft (3.0-4.6 m)	10-15 ft (3.0-4.6 m)	Varies	—	—	—
Location						
Desirable				Both Sides	Both Sides	
Minimum	Both Sides	Both Sides	Both Sides	Both Sides	One Side	One Side
Planting Buffer Width When Used						
Desirable	5 ft (1.5 m)	5 ft (1.5 m)	5 ft (1.5 m)	5 ft (1.5 m)	5 ft (1.5 m)	5 ft (1.5 m)
Minimum	4 ft (1.2 m)	4 ft (1.2 m)	4 ft (1.2 m)	4 ft (1.2 m)	4 ft (1.2 m)	4 ft (1.2 m)



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Accessibility at Intersections and Crossings



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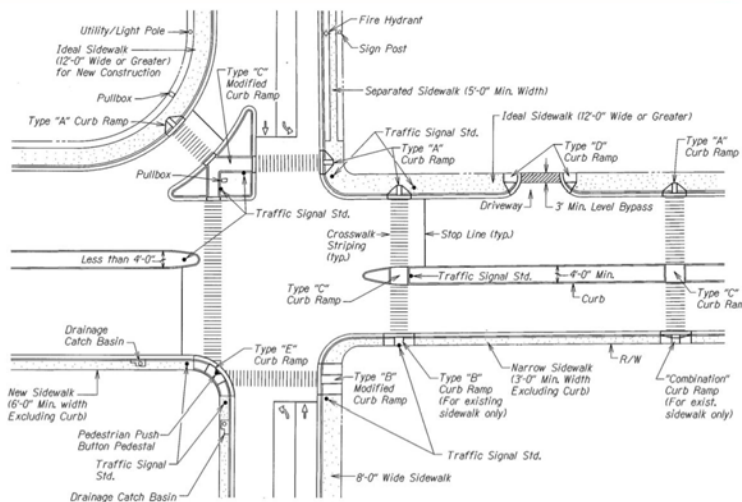
- We will use the HDOT Standard Details as a base for our recommendations. We may suggest some considerations/modifications to these Standard Details based on the currently adopted MUTCD requirements.
- We will reference recently adopted rules for accessibility in public rights-of-way (new projects and alterations).



Typical Curb Ramps



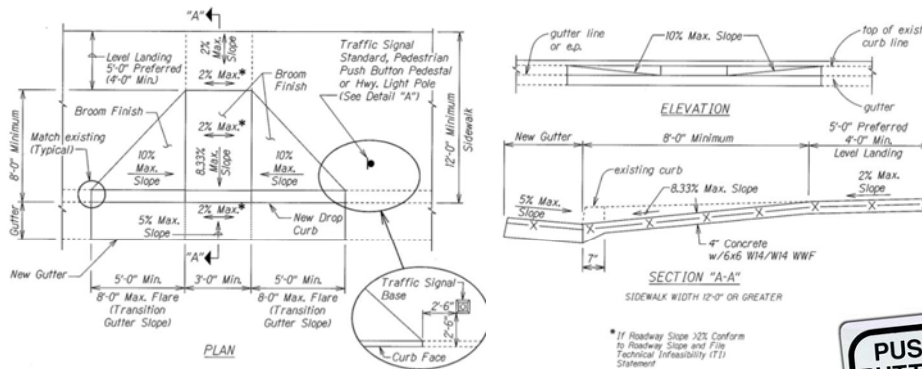
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Curb Ramp - Type "A"



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Source: HDOT Standard Details 39

Installation Example - APS Aligned with Crosswalk Lines



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Source: Accessible Design for the Blind 40

Speakers at the Pushbutton



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Source: Accessible Design for the Blind 41

Pedestrian Friendly Streets



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Want to Show Good Examples of Complete Streets and Access to Transit in Hawaii



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Pedestrian Friendly Streets



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Typical Elements of Pedestrian Friendly Streets

- Interconnected streets with small block patterns
- Sufficient sidewalk width
- Continuous sidewalks
- Well delineated crosswalks
- Public spaces and pedestrian "pockets"
- Awnings/covered building entrances
- Planting buffers and median refuge islands
- Street lighting at pedestrian scale
- Clear direction for pedestrians and no barriers (i.e.: special paving, easy-to-reach signal actuators)

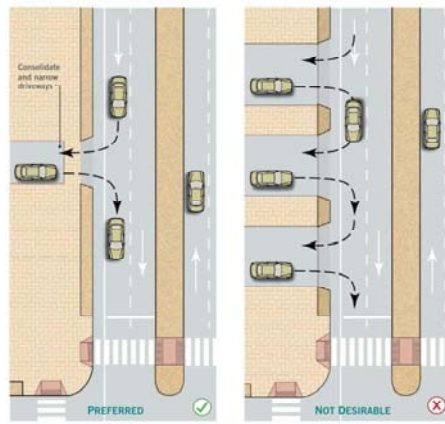


Pedestrian Friendly Streets



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Access Management



Preferred

- Reducing the number of access points improves safety and comfort for pedestrians.

Not Desirable

- Excessive access points require pedestrians to cross ingress/egress traffic more than necessary.



Intersections and Crossings



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Key Issues:

- Inadequate mid block crossings in suburbs
- Design of pedestrian facilities at intersections
- Minimizing crossing distances
- Signalization / pedestrian activated signals / APS
- Grade separated crossings



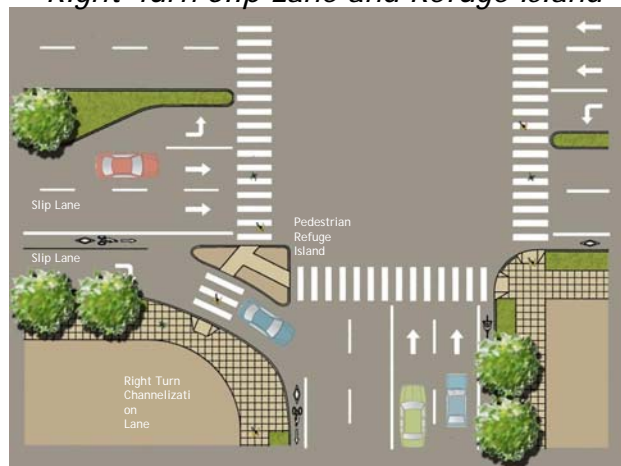
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Intersections and Crossings



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Right-Turn Slip Lane and Refuge Island



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Shared Use Paths (Trails and Pathways)



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Key Issues:

- Regional connectivity
- Transportation, recreation, health
- Respect for significant natural and cultural resources
- Shared use path design/safety considerations
- Motor vehicle separation
- Specialized trails - beach, viewpoint, interpretive



Kaena Point State Park, Oahu



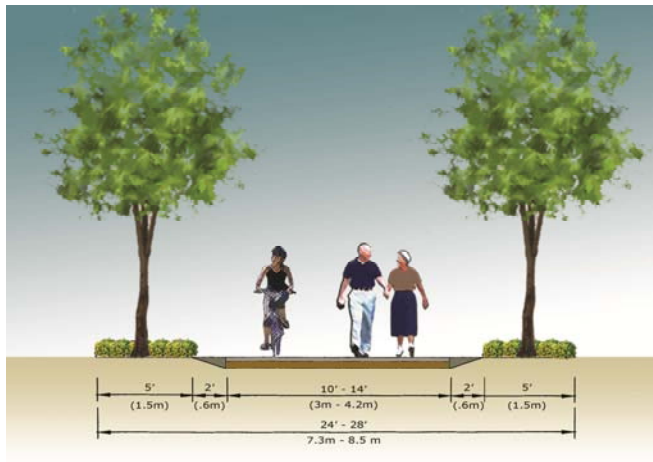
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Shared Use Paths (Trails and Pathways)



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Recommended Shared Use Path Cross Section



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Children and School Zones



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Key Issues:

- Special safety concerns with children
- School walk routes and safety programs
- School bus stop design / safety
- Crossings near schools
- Educational tools and programs



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Children and School Zones



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School Area Design Guidance



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Special Pedestrian Districts and Site Design for Pedestrians



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Key Areas of Guidance

- Pedestrian friendly basis of site design
- Pedestrian resort districts
- Plazas and gathering places
- Pedestrian furnishings and accommodations - secure (CPTED), accessible, comfortable, attractive
- Surface treatments
- Lighting
- Public art



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Next Steps



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- **CAC comments on policy, areas of concern locations, and design guidelines due by Dec. 17th**
- Confirm project/program list
- Identify and prioritize solutions -
 - Smaller group discussions/meetings with various technical resources
- Prepare design guidelines draft
- Refine performance measures
- Next CAC Meeting:
 - Early May 2011



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52