

Hawai'i Physical Activity and Nutrition Summit, 2013

Community Design and Access

Physical Activity

May 24 – Hilton Waikīkī Prince Kuhio



Hawai'i Physical Activity and Nutrition Summit, 2013

Community Design and Access | Physical Activity

Panelists

- Matthew Gonser, AICP – Extension Faculty
University of Hawai'i Sea Grant College Program
- Daniel Simonich – Planner
Hawai'i Community Development Authority (HCDA)
- Natalie Iwasa, CPA, aka, Bike Mom – President
Cycle On Hawai'i



UH Sea Grant College Program



Physical Activity and Nutrition Plan (2013-2020)

Community Design and Access

Physical Activity

Objectives 2-5*

- **Dedicated** Federal and State **transportation funds** for *Complete Streets, Bicycle and Pedestrian Plans, Greenbelt and Trail Systems, and Safe Routes to Schools Programs.*
- **Implement** the above **through** *updating and/or developing codes; roadway/design standards; implementation plans, and; tracking of performance measures.*
- **Include physical activity priorities** when determining *building design and location, land-use planning and transportation decisions.*
- **Increase the percentage of people** who use active transportation to **commute** to work or school **by** expanding opportunities for **active transportation.**

*For specific measures and exact language see the *Hawai'i Physical Activity and Nutrition Plan 2013-2020.*



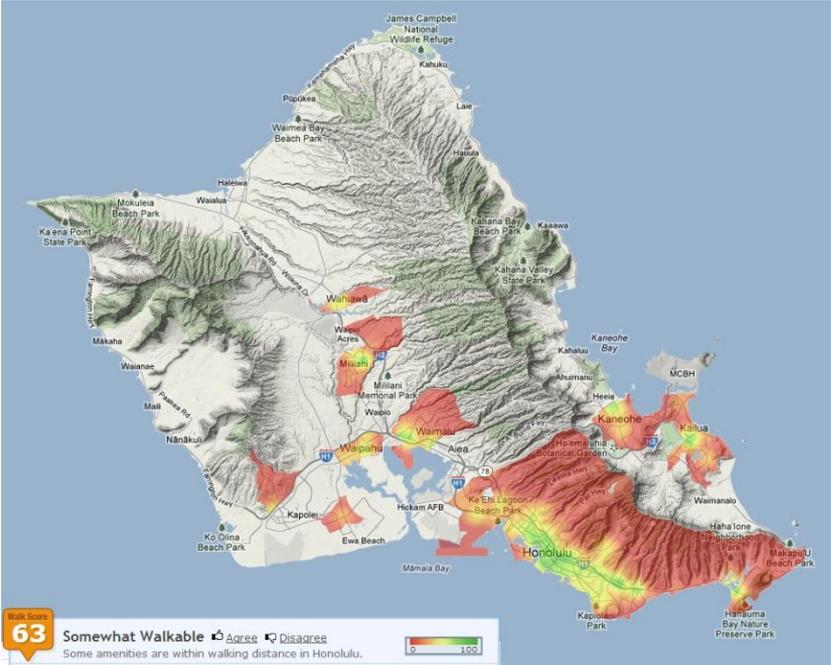
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Hawai'i Physical Activity and Nutrition Summit, 2013

Pedestrianism | Taking It In Stride

Walkability and Communication in the Environment



Matthew Gonser, AICP
May 24, 2013
Hawai'i PAN Summit

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Community Design and Access | Physical Activity

Environmentalism

- Environmental Experience – comprehension, understanding
- Environmental Visioning – design
- Environmental Exchange – interactions, sociability

Government and Planning

- The provision of urban infrastructure
- The initiation of social reform

*From Department of Urban and Regional Planning,
University of Hawai'i at Mānoa

Experience, Visioning, and Exchange

“The decline of walking has become a full-blown public health nightmare... walking has been engineered out of existence.”

-Tom Vanderbilt, [“The Crisis in American Walking”](#), April 10, 2012, *Slate* – 4 part series, *Walking: America’s Pedestrian Problem*

“Walking’s not something that people rally around – it’s very *pedestrian*.”

-Scott Bricker, Director of America Walks, in Vanderbilt, April 10, 2012

Experience, Visioning, and Exchange

Pedestrian

-adjective: going or performed on foot

-noun: a person going on foot

-adjective: commonplace, unimaginative

"My vicinity affords me many good walks; and though I have walked almost every day... I have not yet exhausted them... The limits of an afternoon walk... will never become quite familiar to you." - **"Walking", Henry David Thoreau, June, 1862**

Experience, Visioning, and Exchange

Hilton Waikīkī
Prince Kuhio

Ewa building façade =
140 feet

Rooftop pool =
60 feet

Mauka-makai crosswalk =
56 feet

Pacific Beach Hotel/
Waikīkī Tennis Club tennis court =
120 feet



Source: Esri, Leica, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

Experience, Visioning, and Exchange

Key Elements

- How Far Is It?
- How Long Will It Take?
- Will I Enjoy It?
- Do I Have To?

Key Elements

- Distance
- Travel Time
- Perception + Experience
- Choice/Necessity

1 mile = 5,280 feet = 15-20 minutes

metrominuto Pontevedra



Distancias e tempos camiñando pola cidade.

Tempos aproximados para camiñar pola cidade, calculados sobre a base de 5 km/h de media.

Fíxate na cor do traxecto, a distancia e o tempo que aproximadamente che levará percorrelo.



	Senda do Gafos		Aparcadoiros de pago
	Parques		Aparcadoiros gratuítos
	Paseos fluviais		

Experience, Visioning, and Exchange

[How 'guerilla urbanists' made Raleigh more walkable with cardboard signs and QR codes](#)

-Nathan Ingraham,
The Verge, April 11, 2012



Experience, Visioning, and Exchange

“[W]alking and biking infrastructure within established neighborhoods is almost always a high return investment. This is especially true when it is done with an incremental mindset. We should be narrowing traffic lanes and adding bike lanes anywhere we have or want a productive street.”

Charles Marohn, PE, AICP, [“The Driving Boom is Over”](#), May 15, 2013, *Better Cities & Towns*

building blocks of a vibrant street



walkable

A vibrant street is part of a walkable community and is supported by pedestrian-oriented residents.



accessible

Establishments along a vibrant street are well-served either by transit or by adequate parking facilities, but not necessarily both.



2 of 11 building blocks from, streetsense. 2012. *DC Vibrant Retail Streets Toolkit*.



Experience, Visioning, and Exchange



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Experience, Visioning, and Exchange | Walking

Audience Activity

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May 24, 2013
Hawai'i PAN Summit



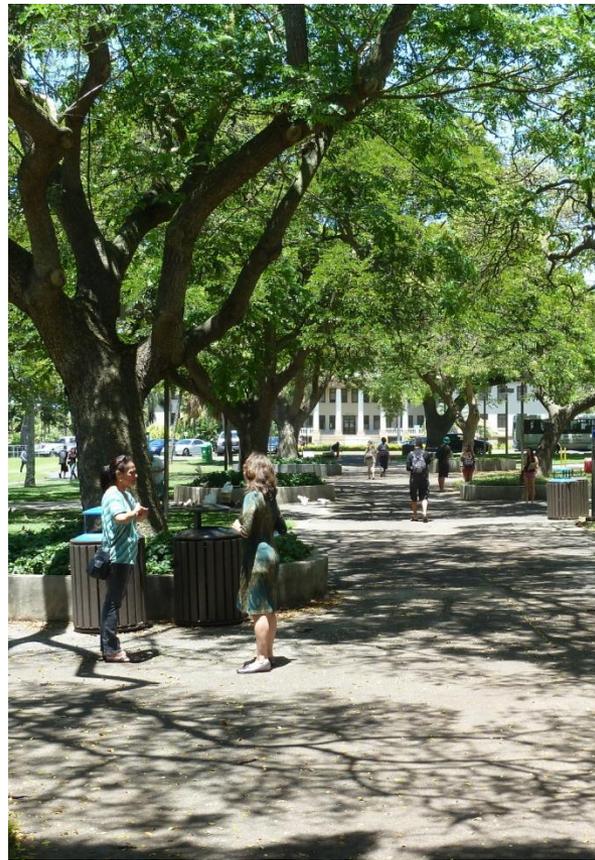
Waikiki Beach, Natatorium to Atlantis Pier
> 1.5 miles (1.65 miles) or 8,765 feet



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Ala Wai Canal, McCully to Kapahulu
< 1.5 miles (1.4 miles) or 7,540 feet



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UHM McCarthy Mall, Varney Circle to East-West Rd
< 1/4 mile (0.21 miles) or 1,130 feet



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Ala Moana Center, Sears to Macy's
< 1/4 mile (0.24 miles) or 1,240 feet



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Fort Street Mall, Queen to Beretania
1/3 mile (0.33 miles) or 1,735 feet



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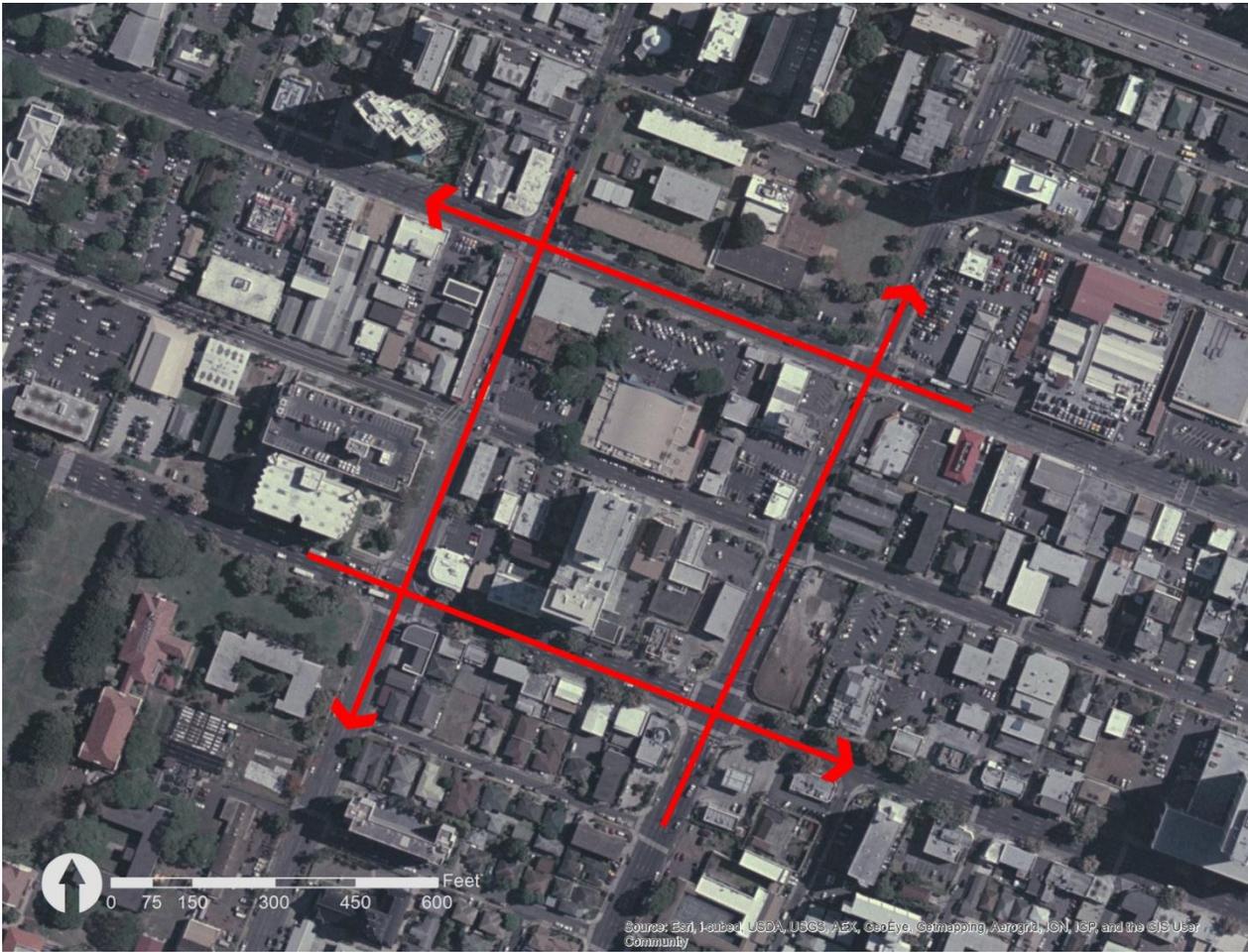
Pedestrianism

Circulation

Couplets

King + Beretania
6 lanes + 4-5 lanes

Pensacola + Pi'ikoi
4 lanes + 4-6 lanes



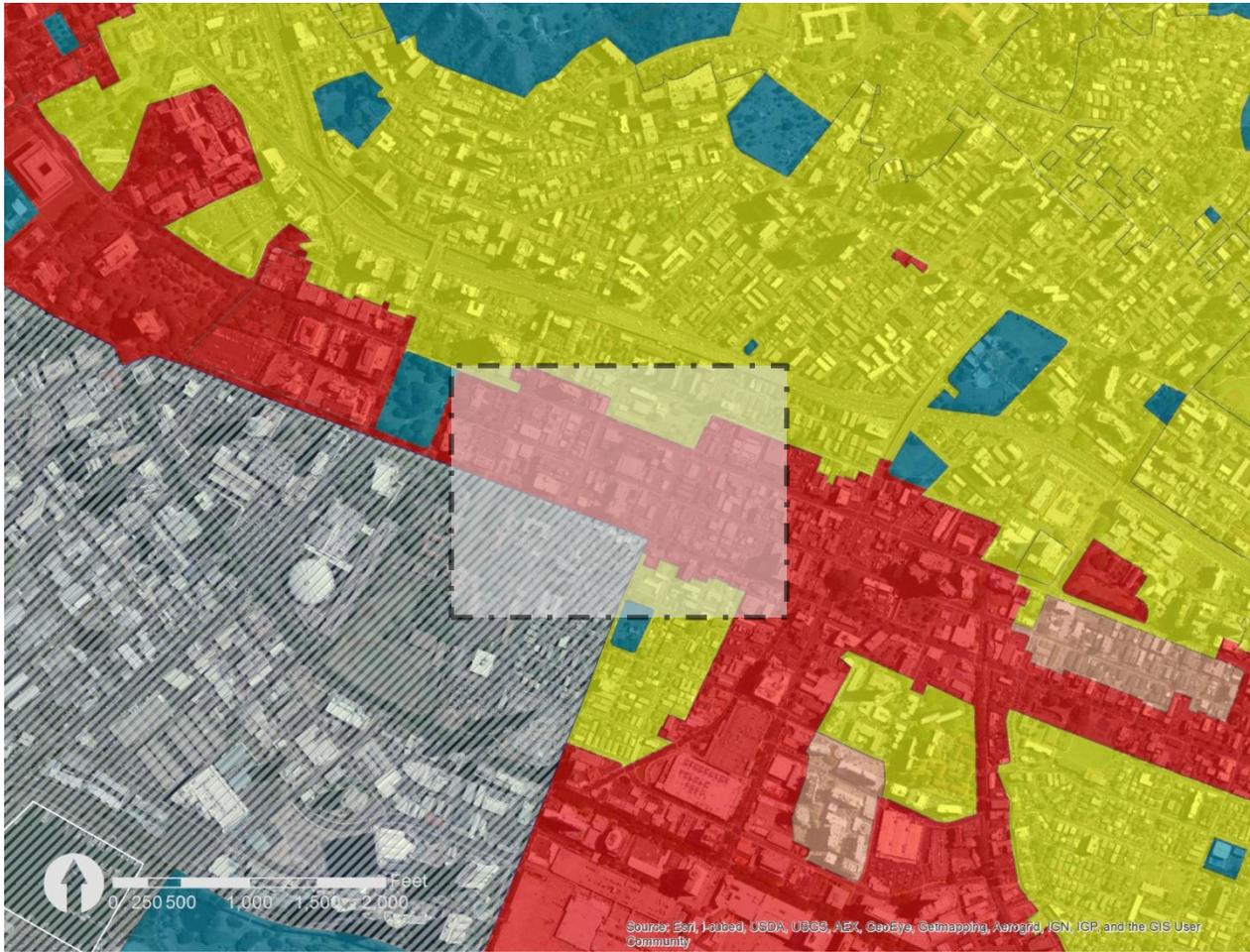
Pedestrianism

Zoning

What's where, what's next to it, how do I get to it, and how far is it?

What are the incentives or reasons to walk?

- Apartment/Residential
- Apartment Mixed Use
- Business/Business Mixed Use
- Kaka'ako Comm. Dev. Dist.
- Park/Public Precinct





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Pedestrianism

Circulation

Couplets

King + Beretania
6 lanes + 4-5 lanes

Bishop + Alakea
5 lanes + 4-5 lanes



Source: Esri, DeLorme, UGA, USGS, AEX, GeoEye, Geomapping, Aemgrid, IGN, IGP, and the GIS User Community

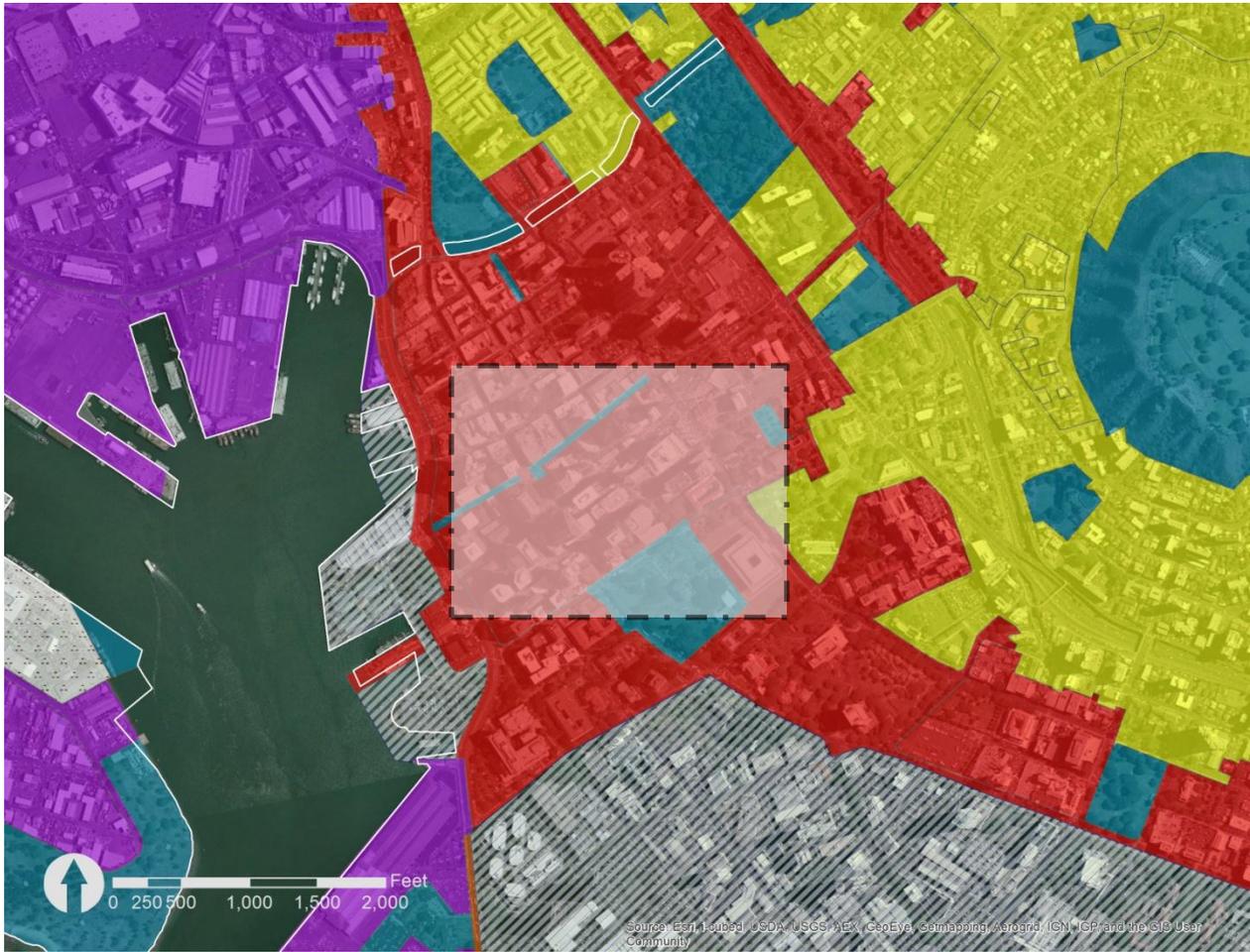
Pedestrianism

Zoning

What's where, what's next to it, how do I get to it, and how far is it?

What are the incentives or reasons to walk?

- Apartment/Residential
- Apt. Mixed Use Subprecinct
- Business/Business Mixed Use
- Fed/Military Preserv. Dist.
- Comm. Development Districts
- Industrial



Pedestrianism

Circulation

What else has at least 4 travel lanes per direction?



Environmental Experience | Pedestrianism



Environmental Experience | Pedestrianism



Environmental Experience | Pedestrianism

Chicago Tribune

May 6, 1913

The streets of Chicago belong to the city, not to automobilists.

-Chicago Municipal Judge Fry



Environmental Experience | Pedestrianism

What is walking *for*?

In the US, **commuting** by any mode of travel accounts for **< 15% of all trips**

28% of all trips in America are **< 1 mile** – “discretionary travel”

Hawai'i's numbers?

Who actually can commute to work via “**active transportation**”?

Other considerations:

- Relationships between land use, housing, and transportation
- Siting, distance, terrain
- Infrastructure

Environmental Experience | Physical Activity

Daily Web

Key Elements

- How Far Is It?
- How Long Will It Take?
- Will I Enjoy It?
- Do I Have To?

Key Elements

- Distance
- Travel Time
- Perception + Experience
- Choice/Necessity

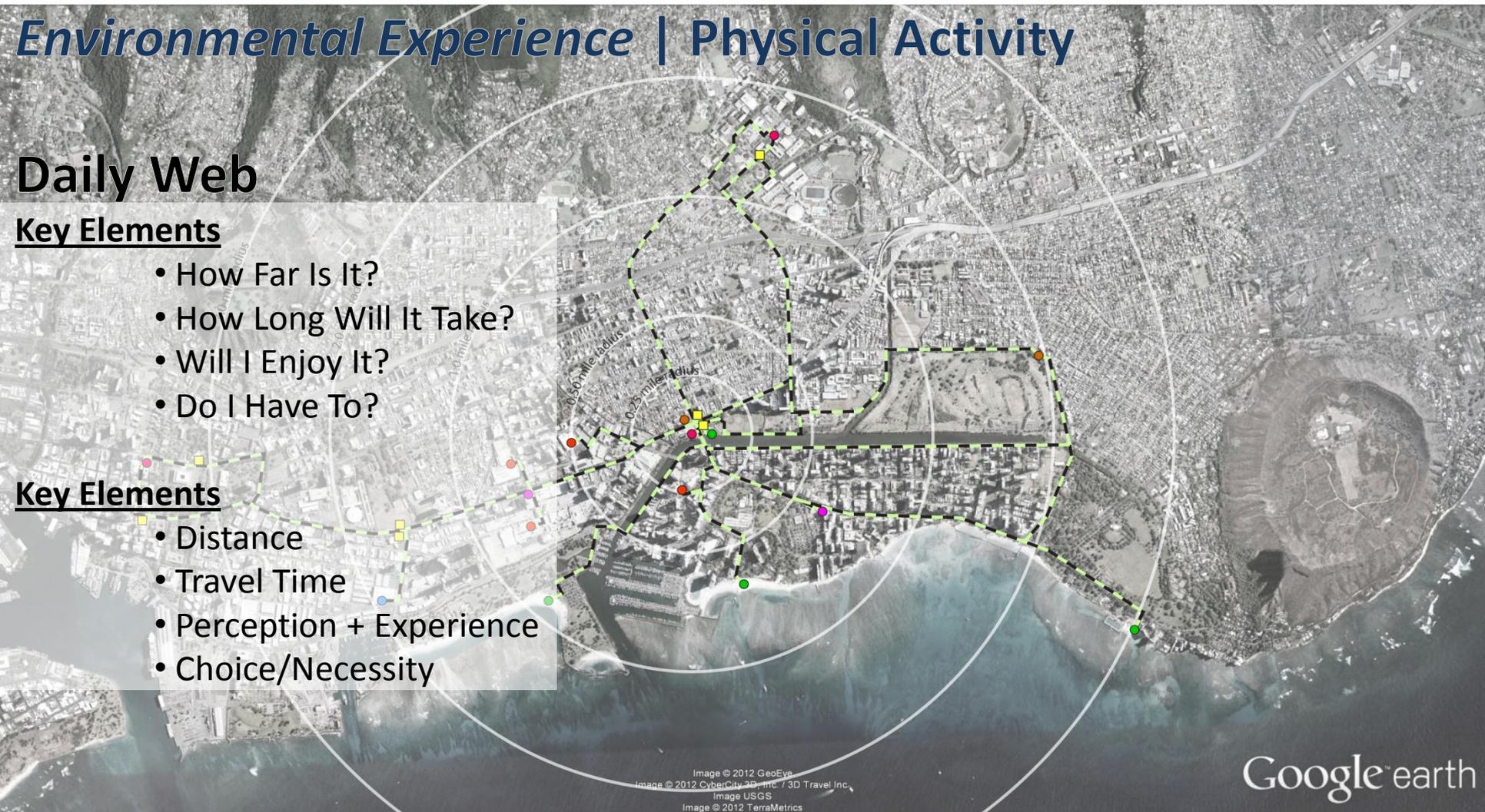


Image © 2012 GeoEye
Image © 2012 CyberCity 3D, Inc. / 3D Travel Inc.
Image USGS
Image © 2012 TerraMetrics

Google earth



Environmental Experience | Pedestrianism

“What better way to understand pedestrians than to be out among them...”

-Tom Vanderbilt, [“Sidewalk Science”](#), April 11, 2012, *Slate*

Environmental Experience | Pedestrianism



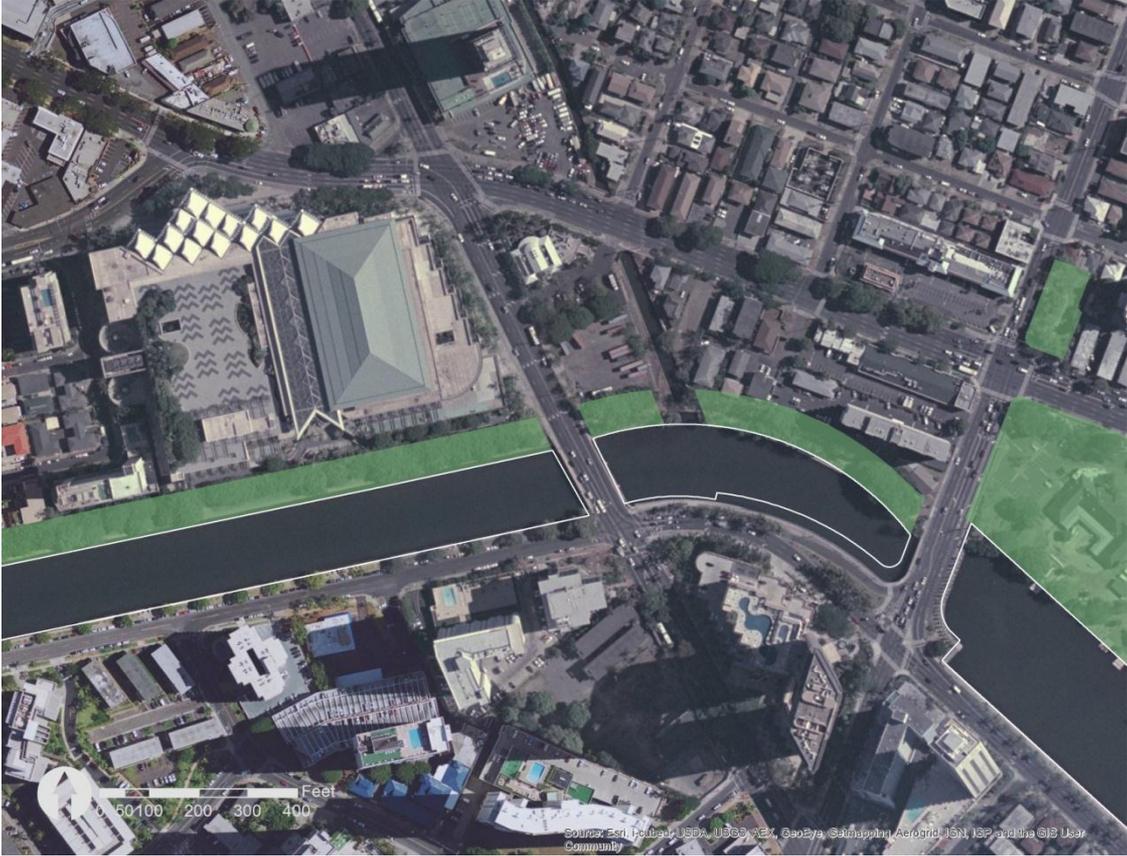
Kapiolani Blvd. + Pensacola St.

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Environmental Experience | Pedestrianism

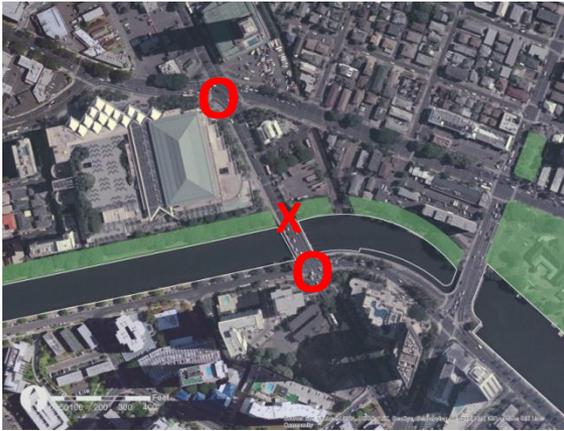


Kalakaua Ave. – Kapiolani Blvd. and Ala Wai Blvd.

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Environmental Experience | Pedestrianism



Kalakaua Ave. – Kapiolani Blvd. to Ala Wai Blvd.

Matthew Gonser, AICP
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Environmental Experience | Pedestrianism

“[A] person, when they walk, is seeking to minimize their dissatisfaction... you can plot frustration.”

-Dan Plottner, Vice President for Business Development, Legion (a pedestrian modeling software), in Vanderbilt, April 11, 2012

“[P]edestrians are natural Pythagoreans...”

-Tom Vanderbilt, [“Sidewalk Science”](#), April 11, 2012, *Slate*

Environmental Experience | Pedestrianism

Next Step = f(tolerance for/wish to avoid inconvenience, frustration, discomfort)

Results: people using escalators; preferring street-levels vs. elevated walkways or subterranean tunnels; jaywalking; “desire-lines” or “cow paths”

How to make walking as easy and enjoyable as possible?

How to make walking habitual?

What is walkable?

Environmental Experience | Walkability

Key Elements

- How Far Is It?
- How Long Will It Take?
- Will I Enjoy It?
- Do I Have To?

Key Elements

- Distance
- Travel Time
- Perception + Experience
- Choice/Necessity

metrominuto Pontevedra



Environmental Visioning | Walkability

“By putting a number on it, you are essentially defining it.”

-Tom Vanderbilt, [What's Your Walk Score?](#), April 13, 2012, *Slate*

“Urban planners have been talking about walkability for a long time, but it's hard to get people to pay attention... But because the scores are so personal, it's gotten people to pay attention.”

-Matt Lerner, CTO, Walk Score®, in Vanderbilt, April 13, 2012, *Slate*

Environmental Visioning | Walk Score®

Walk Score®
Drive less. Live more.™

Cities & Neighborhoods Apartments & Rentals Why It Matters

Like 28k +1

Log in

Walk Score 87 Get Your Score:
Type a neighborhood or address Go

Find Rentals:
Where do you want to live? Go

Locate me Locate me

32min 45min 15min

Save money, get fit, and make more room for the rest of your life.

Live More

What's Your Walk Score? Find Apartments & Rentals Drive Less, Live More

www.walkscore.com

Environmental Visioning | Walk Score®

Walkability = access to amenities, transit, and living in a “pedestrian friendly neighborhood”

Two most important factors are: **choice** and **proximity**

The more and closer amenities around, the higher the score

Walk Score® is walking for and to things

Strengths

- Quantifying the amenities, travel routes, distances, and times of the walk or bus/bike ride
- Can “agree/disagree” – enhance data through reporting

Weaknesses/Limitations

- Qualifying the purpose, intent, conditions, and experience of the walk
- Food sources – e.g., does not weight a supermarket as “better” than a mini-mart
- Presence or absence of sidewalks
- Based on Google Maps and includes any mistakes in locations/labeling

Environmental Exchange | Hawaii's Walk Scores

City	Walk Score (0-100)	Population
East Honolulu	27	49,914
Ewa Gentry	37	22,690
Hilo	30	43,263
Honolulu	63	337,256
Kahului	42	26,337
Kailua	44	38,635
Kaneohe	45	34,597
Kihei	48	20,881
Makakilo	23	18,248
Mililani Mauka	24	21,039
Mililani Town	48	27,629
Pearl City	39	47,698
Wahiawa	43	17,821
Waipahu	57	38,216

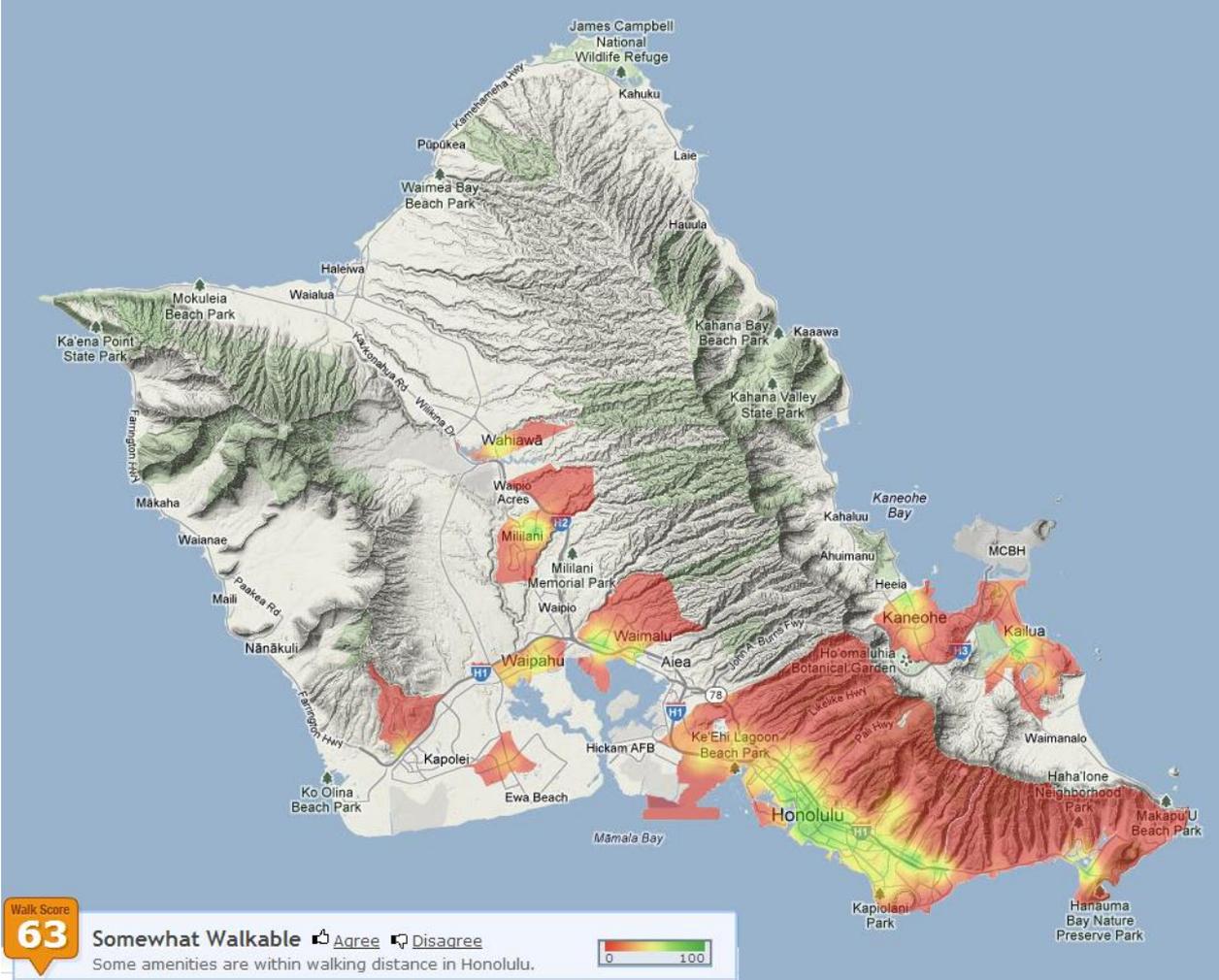
Environmental Exchange | Walk Score®

Honolulu "Heat Map"

63 = "Somewhat Walkable"
"Some amenities are within walking distance in Honolulu"

Honolulu Neighborhoods

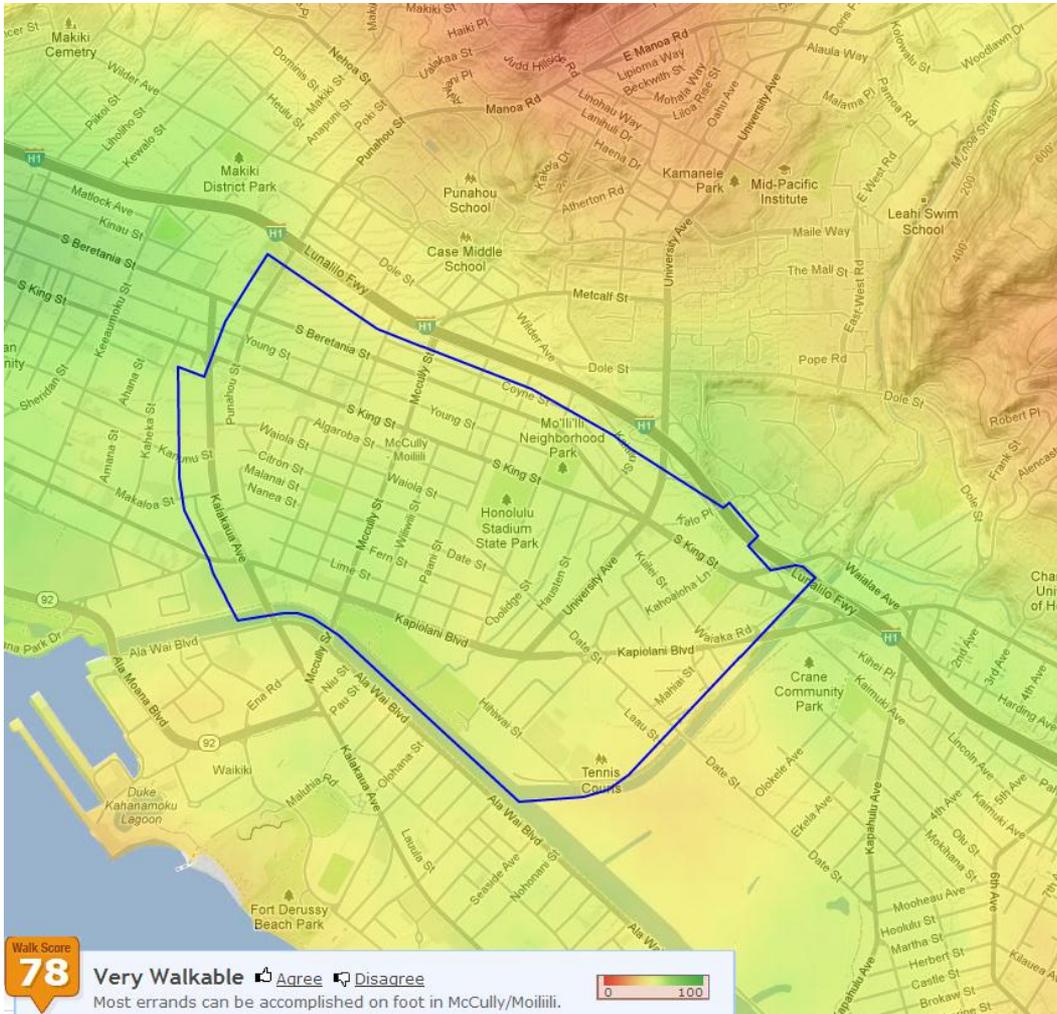
- #1: Downtown – 88;
Pop = 13,2972
- #2: Ala Moana/Kaka'ako – 85;
Pop = 17,0753
- #3: Makiki/Lower Punchbowl/Tantalus – 78;
Pop = 31,5954
- #4: McCully/Mō'ili'ili – 78;
Pop = 27,4475
- #5: Waikīkī – 74;
Pop = 22,189



Environmental Exchange | Walk Score®

McCully-Mō'ili'ili "Heat Map"

78 = "Very Walkable"
"Most errands can be accomplished on foot"



Environmental Exchange | Walk Score®

My “Walk Score”

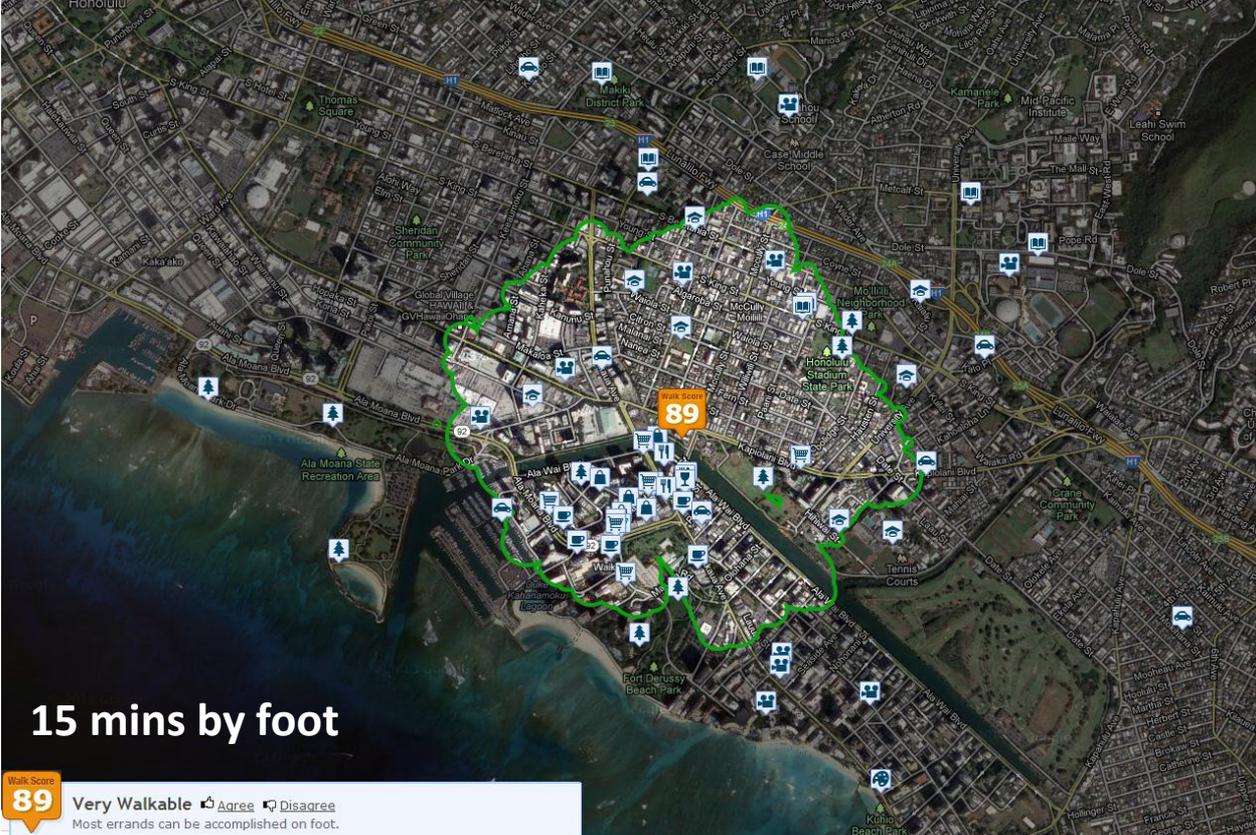
89 = “Very Walkable”
“Most errands can be accomplished on foot”

My “Transit Score”

73 = “Excellent Transit”
Nearby: 42 bus stops/routes

My “Bike Score”

61 = Bikeable
Mostly flat, minimal lanes



15 mins by foot

Walk Score **89** Very Walkable Agree Disagree
Most errands can be accomplished on foot.

Environmental Exchange | Walk Score®

Selected Research

- “Street Smart Walk Score is a strongly significant predictor of MVPA (moderate to vigorous physical activity)”

Larry Frank (2011) [Walk Score Across the Life-Span](#), Active Living Research

- “The only variable that was statistically significant is the Walk Score index ($p=0.048$), indicating cities with a higher accessibility of amenities within walking distance are likely to have 1.9% lower rates of adult obesity.”

Daniel Murray (2011) Active Transportation Networks and Obesity Rates. University of Colorado, Denver

- “Increasing levels of walkability decrease the risks of excess weight. Approximately doubling the proportion of neighborhood residents walking to work decreases an individual's risk of obesity by almost 10%. Adding a decade to the average age of neighborhood housing decreases women's risk of obesity by about 8% and men's by 13%.”

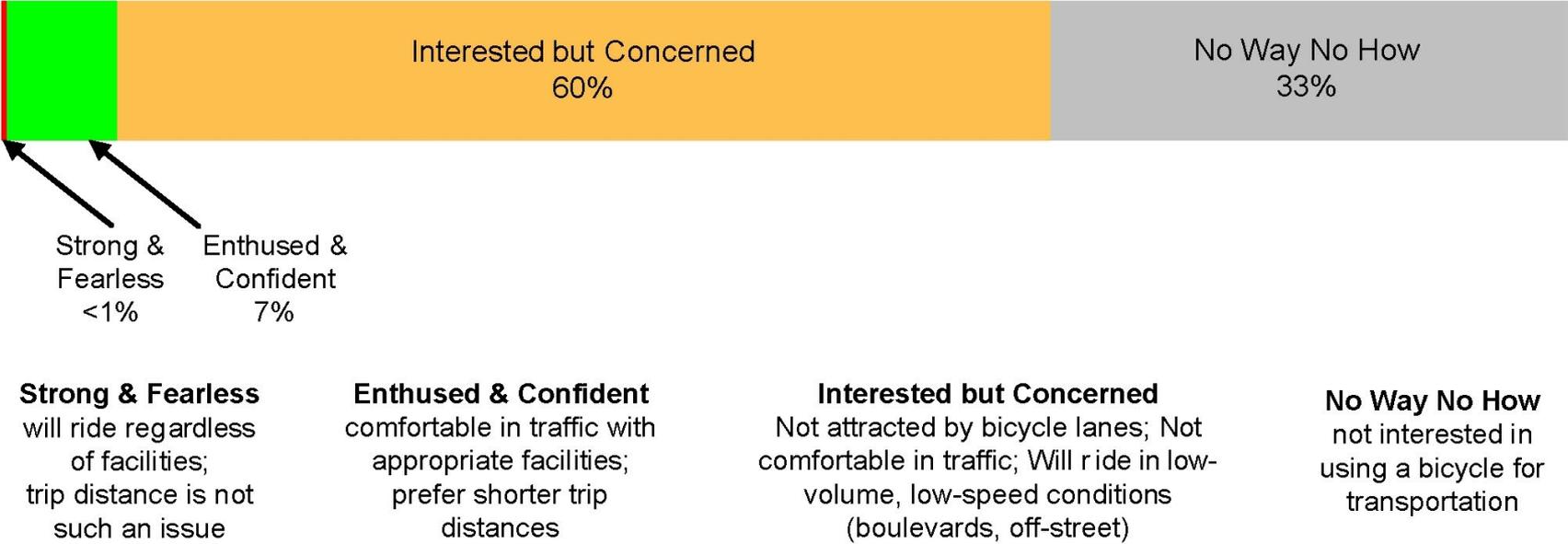
Ken R. Smith, Barbara B. Brown, Ikuho Yamada, Lori Kowaleski-Jones, Cathleen D. Zick, and Jessie X. Fan (2008) [Walkability and Body Mass Index](#). American Journal of Preventive Medicine

- “Together with many other studies, our analysis provides evidence of the population-level health benefits of active travel. Policies on transport, land-use, and urban development should be designed to encourage walking and cycling for daily travel.”

John Pucher, Ralph Buehler, David R. Bassett, and Andrew L. Dannenberg (2010) [Walking and Cycling to Health: A Comparative Analysis of City, State, and International Data](#), American Journal of Public Health

Environmental Exchange | Active Transportation

Four Types of Transportation Cyclists in Portland By Proportion of Population

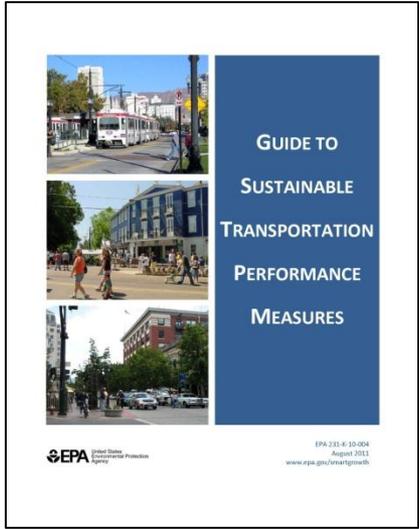
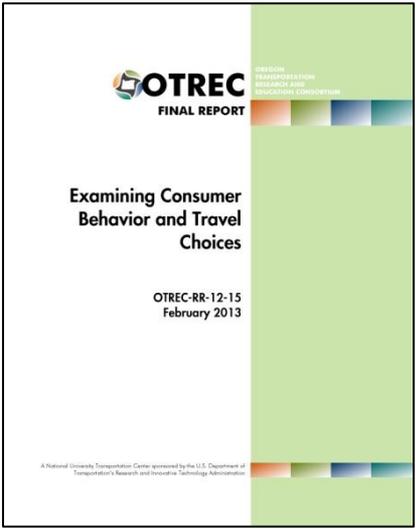
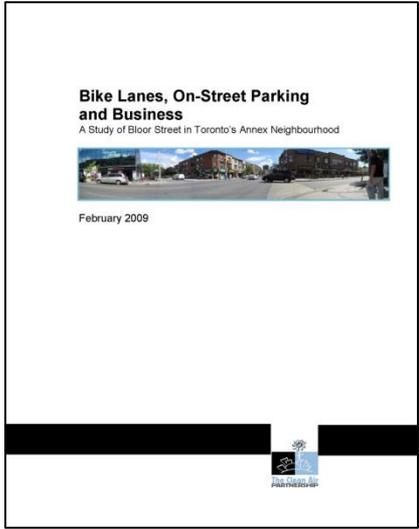
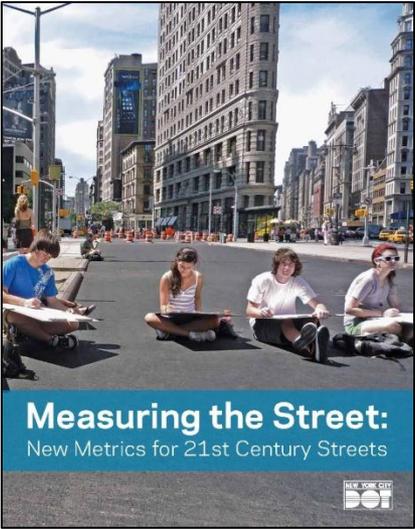


[Roger Geller, Bicycle Coordinator, Portland Office of Transportation](#)



Environmental Exchange | Active Transportation

Other benefits of bicycles/active transportation



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Environmental Exchange | Physical Activity

“[T]he idea [Complete Streets] harkens back to an idea that was essentially rendered obsolete in the early 20th century as the car began its ascent: that the public road is intended for more than one mode of transportation.”

-Tom Vanderbilt, [“Learning to Walk”](#), April 14, 2012, *Slate*

Making **active transportation** more **desirable** and **possible** and **habitual**

- Safety
- Accessibility
- Aesthetics
- Better facilities
- Better connections with transit
- Better transit (which itself increases walking)
- Stronger financial incentives (e.g., higher gas prices, pre-tax bus passes)
- Better land-use decisions (e.g., housing + transportation index, density)
- Design guidelines, street and sidewalk treatments (e.g., block length, building facades, intersections/sq.mi., street trees)

Environmental Exchange | Physical Activity

Chicago Tribune
May 6, 1913

The streets of Chicago belong to the city, not to automobilists.

-Chicago Municipal Judge Fry

SPEEDER WANTS ALL STREET

Motorist Complains to Judge Because Pedestrian Gets in Way.

COURT FINES HIM \$200.

Declares That the Thoroughfares Belong to the City.

Harold Bracken, the 19 year old son of a saloonkeeper at 2122 West Fifty-ninth street, learned yesterday that the streets of Chicago belong to the city and not to motorists. The lesson cost him slightly over \$200.

According to Adam Papiroa, Bracken on Sunday night while speeding on Michigan avenue, knocked him down and injured him. Papiroa jumped into a passing car, caught up with Bracken, and had him arrested.

"He was in the way," said Bracken lightly. "If he had been on the sidewalk where he belonged he would not have been hurt."

"The streets of Chicago belong to the city, not to automobilists," said Municipal Judge Fry. "Fined \$200 and costs."

Government and Planning | Physical Activity

Getting in Step: Making our values explicit and living them

- Complete Streets
 - State of Hawai'i: Law, June 2009; Effect, January 2010 – [Act 54](#)
 - County of Kaua'i: September 2010 – [Resolution No. 2010-48](#)
 - County of Hawai'i: October 2011 – [Resolution 171-11](#)
 - City and County of Honolulu: March 2012 – [Bill 26](#)
 - County of Maui: April 2012 – [Resolution No. 12-34](#)
- [Hawai'i Statewide Pedestrian Master Plan](#)
- [O'ahu Bike Plan](#)
- [Kaua'i Multimodal Land Transportation Plan](#)
- County General Plans, Development Plans, and Special Area Plans
- Hawai'i Community Development Authority
- Cyclovias and “Hele On...” events

Implementation?

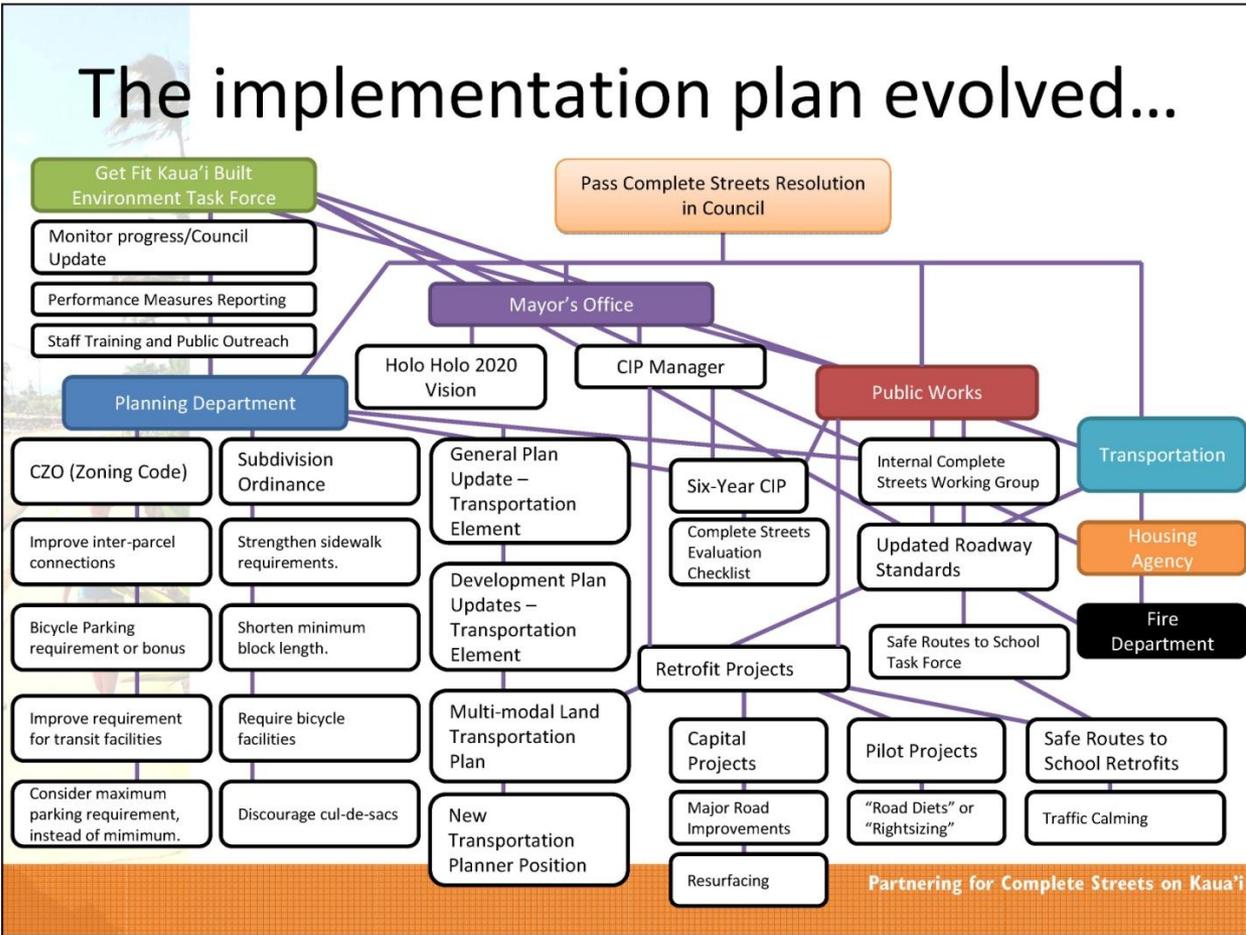
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Government and Planning | Physical Activity

Getting in Step

Implementation?

*Tabata, L and Williams, M. 2012. Partnering for Complete Streets on Kaua'i, *Hawai'i Congress of Planning Officials: September 14.*

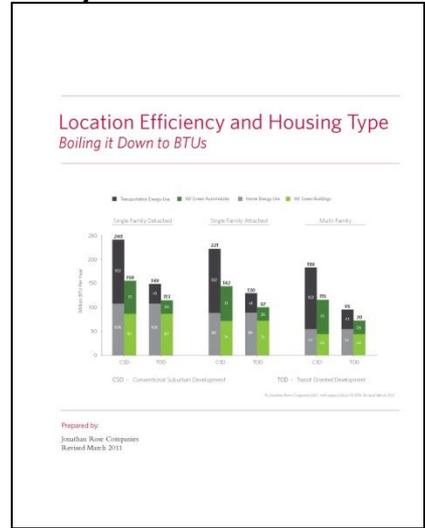
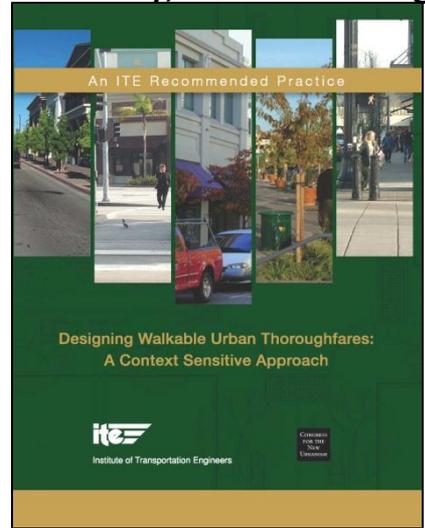
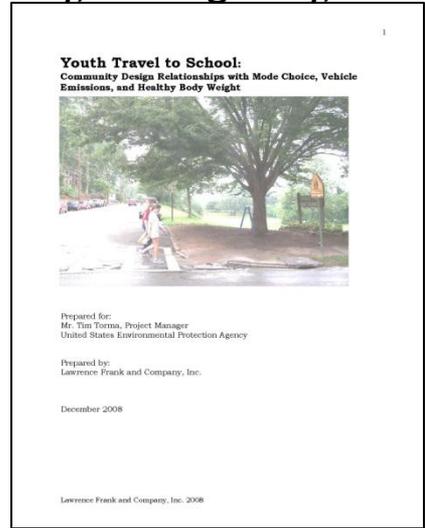
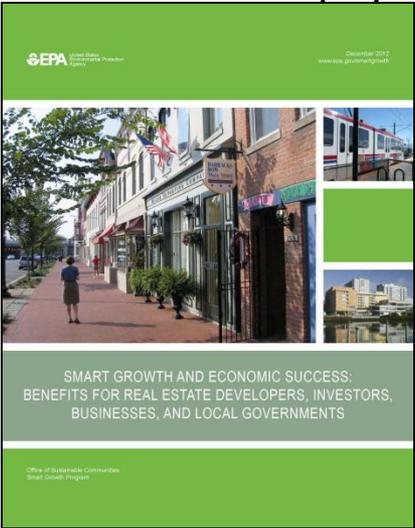


Government and Planning | Physical Activity

Getting in Step

- Smart Growth, Land Use Planning, and CIP and Infrastructure Investments
- Housing + Transportation Index, Location Efficiency, Getting to School

All can have individual, community, and governmental benefits physically, ecologically, economically, and sociologically.



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*For specific measures and exact language see the *Hawai'i Physical Activity and Nutrition Plan 2013-2020.*

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Environmentalism

Environmental Experience – comprehension

Environmental Visioning – design

Environmental Exchange – interactions, sociability

Government and Planning

The provision of urban infrastructure

The initiation of social reform

*From Department of Urban and Regional Planning,
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