

28 November 2012

**UHM UPDATE ON PARKING ASSESSMENT AS COMPARED TO THE 2009 PRU/2007 LRDP**

**Background:**

1. 2009 PRU (2007 LRDP) "Parking Supply/Demand Study...": Total of 6323 stalls includes a shortage of 1623 stalls that is to be offset by:
  - a. Kennedy Theater: 480 stalls (@ \$24,400/stall = \$11.7M)
  - b. Lower Campus - Phase IIB: 900 stalls (@\$24,000/stall = \$21.6M)
  - c. If needed, Ag. Science: 420 stalls (@\$24,400/stall = \$10.25M)

**Subsequent Efforts and New Circumstances:**

1. **2012 Updated UHM count of parking stalls**, which now include counts for New, ADA, Reserved, Loading, Visitor, and Other spaces = 6201 stalls.
  - a. See attached parking maps
  - b. 2009 PRU Parking Required (6323) minus 2012 Parking Provided (6201) = 122 stalls

UHM Parking Analysis 2009 PRU/2007LRDP v. 2012 Parking stall count				
	UHM PARKING AREAS:	2007 parking count (# stalls)	2012 parking count (# stalls)	NOTES:
1	Upper Central	4700	799	
2	Central		1403	
3	Makai		3719	
4	On Street/Off-campus parking	1240	0	Neighborhood street parking
5	Off Street/Off-campus parking		280	Japanese Cultural Center, Church of the Crossroads, (Puck's Alley and Varsity Place still unaccounted for)
6	Total count (Add Lines 1-5)	<b>5940</b>	<b>6201</b>	
Identified Shortfall per 2007 study by Parking Planners/2009 PRU				
7	Parking over utilization	178	N/A	
8	Lost spaces per Music/Law school improvements at Dole St./Univ. Ave:	30	2012 count includes lost spaces	
9	Lost spaces per planned projects listed in 2007 LRDP	175	includes lost spaces to date	
10	<b>TOTAL PARKING (Add Lines 6-9) 2007 count - 2012 count = # stalls needed</b>	<b>6323</b>	<b>6201</b>	<b>Difference: 6323-6201 = 122 parking stalls needed</b>

## 2. TDM Efforts by Commuter Services :

- a. UHM has established a student U-Pass program. For the last four years, every undergraduate student pays a mandatory fee each semester for a U-Pass sticker on their student identification card. The U-Pass sticker allows unlimited access to TheBus system during the semester. The City could not give us figures for the increase in transit ridership following implementation of the U-Pass program. However, the Victoria Transport Policy Institute reports that unlimited access to transit passes is estimated to reduce vehicle trips up to 15% on average. The University of Colorado at Boulder instituted free ridership for students, faculty, and staff in 1991 and saw a ridership increase of 400% between 1991 and 1998. As another comparison, the 2010 Census found 8% transit usage in the Metro area, where as the University has 17% transit usage.
  
- b. UHM Transportation Demand Management Plan, April 2012:  
The overarching policy direction for the University of Hawai'i at Mānoa is access to education. UHM views itself as having a fiduciary responsibility to expand access to education. The TDM Plan provides an implementable plan to increase the number of viable and economical access options for all affiliates, especially for those affiliates that are economically constrained. Access to UHM is not a singular approach and must balance the needs of various modes of transportation. Consequently, UHM will take an active stance at enhancing and promoting alternative transportation options in place of automobile access. The TDM Plan and recommended strategies and solutions were guided by the following eight goals:
  - Goal 1: Encourage world class faculty and students to continue accessing the campus by providing first class campus access.
  - Goal 2: Manage campus access with current and possibly reduced parking capacity.
  - Goal 3: Produce a more sustainable future for the campus.
  - Goal 4: Make a more livable environment within the campus that encourages higher quality of life.
  - Goal 5: Develop a fiscally sound approach to transportation that meets access requirements.
  - Goal 6: Ensure effective communications and visible marketing of campus transportation options.
  - Goal 7: Ensure campus access is equitable by investing equitably in all modes of transportation.
  - Goal 8: Foster connections between the broader University of Hawai'i system and local community colleges.
  
- c. TDM Plan recommendations: a number of strategies to be implemented and a suggested timeline for implementation. Strategic management of automobile parking on campus is a crucial part of the TDM Plan. The study found that roughly 17% of UHM affiliates live within one mile of campus, while 36% live one to three miles. So a total of 43% of all UHM affiliates live within three miles of campus. Recommended strategies that have been or are currently being implemented in the next year include:
  - Launching of the WeCar car-sharing program, along with the new Enterprise Rent-A-Car branch located on UHM campus. According to the Transportation Research Board, each car-sharing vehicle takes nearly 15 private vehicles off the road.
  - Replacement of existing outdated short-term bicycle racks with modern U-racks and the installation of a self-service bike repair station on campus. A recent survey of bicyclists on campus found that better bike parking (modern U-racks) ranked as the

third most important improvement needed to increase bicycle ridership to campus. Bike lanes to and on campus ranked number one and two, respectively.

- Planned enrollment in a social media based online ridesharing program that allows for one-time rideshares. The 2010 Census found that carpooling and ride-sharing in the Honolulu Metro region accounts for over 19% of travel, while carpooling accounts for only 6% of the university's mode split. The university has an antiquated and unused carpool matching system that will be replaced by a modern online ridesharing program.
- Planned establishment of preferential parking on campus for carpools following revamping of ridesharing program. Electric vehicles and car-share vehicles currently have preferential parking on campus.
- Redesign of the Rainbow Shuttle service to better serve demand generators. Shuttle routes were revamped for fall 2012 semester, with additional service and stops in the Moiliili and Mānoa neighborhoods. An additional shuttle route connecting the UHM and Kapi'olani Community College campuses and providing service to the Kaimuki, Palolo, and St. Lewis neighborhoods is planned for the near future. Installation of GPS tracking system and passenger information system (phone app) is also planned.
- Development of neighborhood-based marketing initiatives along the Waiālae Avenue corridor to increase bicycling to UHM campus following installation of bike lanes (installation expected in spring 2013). Well-coordinated education and marketing programs typically reduce participant's vehicle travel by 5-8%, depending on participation levels according to research the Victoria Transport Policy Institute. Furthermore, a recent survey of bicyclists on campus found that installing bike lanes to and on campus ranked number one and two, respectively, as the most important improvements needed to increase bicycle ridership. Also planned is the development of a UHM bike share program.

### 3. Recent legislation:

- a. Act 54, Session Laws of Hawaii (SLH) 2009 led to creation of Complete Streets Task Force (CSTF). CSTF recommendations are outlined in "Complete Streets Legislative Report", prepared for the Hawaii State Department of Transportation.
  - i. Page 4: Complete streets principles will help contribute to a clean and secure energy future for Hawaii by offering flexibility and better accommodation for safe transit, walking, bicycling, and alternate fuel vehicles that together, will decrease demand for imported oil.
  - ii. Page 8: Energy Efficiency – Plan, design, and construct a transportation system that offers transportation choices for residents and visitors and reduces reliance on single-occupant vehicles to improve energy efficiency in travel, and mitigates vehicle emissions.
- b. Honolulu General Plan Update: Sustainability Trend Report, February 2011. Report was prepared to support the City and County of Honolulu's General Plan Update Project by presenting information about the concept of sustainability as it relates to the General Plan. The report finds that ". . . there is universal recognition the sustainability is an important theme for the General Plan Update, and that sustainability issues need to be considered at every level of City policy decision-making."
- c. C&C Honolulu Ordinance 12-15. Bill to implement provisions of Section 264-20.5, Hawaii Revised Statutes (Act 54 SLH 2009) and establish a Complete Streets policy for the City and County of Honolulu.
  - i. Every transportation facility or project provides the opportunity to implement complete streets policy and principles. This policy provides that a context sensitive solution process and multi-modal approach be considered in all

planning documents and for the development of all city transportation facilities and projects. Complete streets principles include the following objectives:

1. Balance the needs and comfort of all modes and users;
2. Improve energy efficiency in travel and mitigate vehicle emissions by providing non-motorized transportation options.

- d. Honolulu County Amendment -- 2006 Charter Amendment: Overwhelmingly passed by voters in the 2006 November election, this amendment added the following language to the City and County of Honolulu Charter: "It shall be one of the priorities of the department of transportation services to make Honolulu a pedestrian- and bicycle-friendly city."

#### 4. **New climate science since 2009:**

See IPCC executive summary for small islands -- increasing vulnerabilities to climate change, sea-level rise, and extreme events:

[http://www.ipcc.ch/publications\\_and\\_data/ar4/wg2/en/ch16s16-es.html](http://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch16s16-es.html)

#### 5. **Proposed OMPO JOINT PLANNING STUDY:**

Proposal: A joint study between O'ahu Metropolitan Planning Organization (OMPO), the University of Hawai'i at Mānoa (UHM), and the City & County of Honolulu (City).

Project Justification: The 2007 University of Hawai'i at Mānoa LRDP and the 2009 PRU envisioned new parking structures on campus to accommodate projected parking needs. Justifiably, the City is questioning UHM as to why one or more of these parking structures have not been built given the additional building space that has been constructed on campus.

However, since the 2009 PRU application was approved, traffic congestion in much of Honolulu County has worsened considerably, UHM has established a TDM program to reduce the parking demand on campus, and new scientific information about the impact of climate change and the need to reduce greenhouse gas emissions has come to light. Extreme storms, sea-level rise, inundation, storm surge, erosion, and other coastal hazards caused by climate change are likely to threaten vital infrastructure (including transportation facilities), settlements, and facilities that support the livelihood of island communities.

This joint study proposes to review best practices and methods used by urban jurisdictions to meet transportation demand using a range of transportation modes, regulations, and incentives that reduce the need for vehicular parking stalls, while addressing the new challenges described. The study will make specific recommendations for each of the parties, including implementation projects, cost estimates, project tasks, available funding sources, lead agency, and timelines for the following possible efforts:

- a. to review best practices by other municipalities for traffic demand management (TDM) that promote multi-modal transportation while reducing greenhouse gasses, Vehicle Miles Traveled (VMT), and road congestion and its impact (eg: reduced parking requirements & commuter time, community safety, air quality, recreational time, etc.);
- b. to support TDM strategies to reduce vehicle miles traveled (VMT) to UHM and to redirect monies otherwise spent building parking spaces on the development of those strategies;
- c. to fund a study to completely revamp the UHM Rainbow Shuttle and determine how the shuttle can be used to complete the "last mile" travel need between transit express lines and the UHM campus;

- d. to fund a study to determine if establishment of an institutional Transportation Management Association would be feasible and a cost-effective method for reducing single occupant vehicle travel within the Mānoa Valley travel shed;
- e. to review best practices and methods used by urban jurisdictions for reducing vehicular congestion;
- f. to review successful TDM programs that reduce the demand for parking at comparable sites in the urban core;
- g. to review new scientific updates on island vulnerabilities to climate change and the impact on transportation facilities and TDM during emergency situations;
- h. to review municipalities that were able to reduce parking requirements resulting from successful TDM efforts and to determine the best method for calculating new parking requirements that accounts for the reduction of parking demand by TDM programs, while taking into account the regional need to reduce urban and regional congestion and climate change impacts over time.

Work Products/Outcomes: A joint study of best practices and methods, with specific recommendations for OMPO, UHM, and City, including implementation projects, tasks, cost estimates, available funding sources, lead agency, opportunities for partnerships, and timeline including draft legislative language, as needed.

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