

Designing Paratransit Hubs

By Philbert Morris, PhD., FTICA
SoftCom Limited
Trinidad & Tobago

DESIGNING PARATRANSIT HUBS

Throughout the Caribbean we are devoting a lot of resources to private transport. Even in those cases where we institute toll charges, we tend not to think of the use of our scarce land, of pollution costs, of maintenance costs



LOCATION ISSUES

- Transit and Paratransit hubs should be centrally located
Unfortunately, our policy makers think that buses and maxi-taxis 'clutter' the cities
- Transit hubs are often part of pedestrianisation schemes
- An important part of public transport is *the walking experience*

DESIGN PARAMETERS

- paratransit arrivals and departures are stochastic.
implications for determining both the size of the facility, its queue-handling structures (logical and physical) and its operating methodology.

DESIGN PARAMETERS

- Secondly, because vehicle loading sizes are normally smaller than those of regular transit vehicles, turnaround can often be faster.

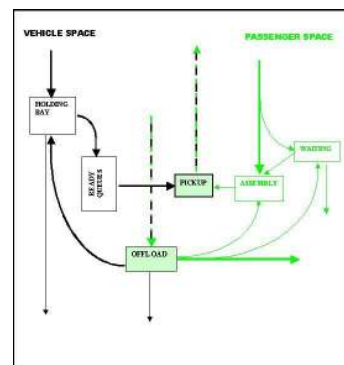
This, together with the stochastic nature of the departures, can result in disorder. Hence there must be an emphasis on order, and its corollary, safety.

DESIGN PARAMETERS

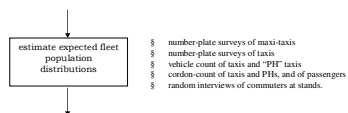
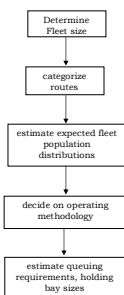
- Thirdly, support facilities (e.g toilet facilities and shops) are different
- In the paratransit hub, we design separate rest-room facilities specifically for the drivers. Also, the selection of support shops needs to be thought out, since the *expected* (both in the mathematical and the colloquial sense) waiting times may be shorter.

DESIGN PRINCIPLES

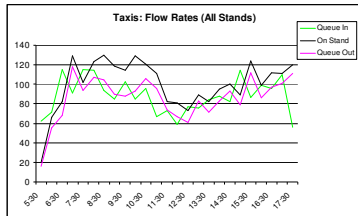
- Provide facilities for drivers and passengers
- Promote safety, especially in controlling vehicle-passenger interactions



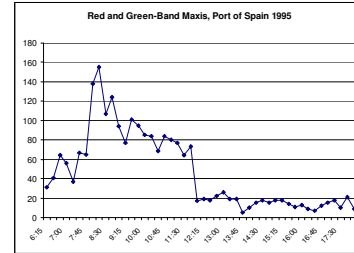
THE DESIGN PROCESS



ESTIMATING HOLDING REQUIREMENTS



ESTIMATING HOLDING REQUIREMENTS



PASSENGER FLOW REQUIREMENTS

