9 Park-and-Ride Accessibility: Experience from a Pilot Study for the Island of Trinidad

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R. J. Furlonge and M. Cudjoe

Background

The twin-island Republic of Trinidad and Tobago is a Small Island Developing State. It is the leading Caribbean producer of oil and gas and the highest consumer of fossil fuel. Its relatively small economy accounts for less than 1 % of global GHGs. However, the country ranks among the top five emitters per capita. The current dominance of private transportation confirms that any effective strategy to reduce GHGs from the transportation sector must include efforts to decarbonise private transportation, in addition to reducing the kilometres travelled. Public transportation has become far less attractive to middle- and upper-class riders, and as a result, the Public Transport Service Corporation (PTSC), which is the Government-owned public transport provider, experiences very low ridership among segments of the population that prefer travel by automobile to using any public transportation mode. Very high traffic densities are a serious and worsening problem and cause increases in both GHGs and traffic congestion and can be improved by provision of transit incentives and simultaneous auto disincentives. Therefore, it is not only important to decrease carbon emission but also to reduce vehicle traffic densities while maximising human densities on the roadways.

The Government is pursuing services to design, operationalise, and evaluate a demonstration pilot project of a P&R initiative for the capital, Port of Spain's (POS) greater area along the main East-West and North-South transport corridors using parking infrastructure (such as, sporting stadia facilities) and tools of behavioural economics in order to modify commuter choices. The objective of this project is to test a specific strategy to provide support to long-term goals for transit that can contribute to reducing congestion and air pollution and increasing the use of public transportation

systems. The pilot is expected to provide a reliable, convenient, and enjoyable public transportation experience to both users and shuttle drivers alike. This will be achieved through the use of GPS and data-enabled smartphones that will allow a high level of automatic coordination between users and transit shuttle drivers. The target market would be (a) users with smartphones who are making use of the P&R facilities being established by this endeavour, and (b) transit shuttle drivers with smartphones providing services to the P&R users.

Critical Issues in Developing Transportation in Trinidad and Tobago

There is currently no agency of the Government responsible for national transportation planning and administration (APDSL, 2010, pp. 8–12). There is a division of the Ministry of Works and Transport responsible for highways, including a special project unit for new and upgrading of highways and bridges; there is another division for licensing vehicles; and there is a Government-owned company for operating buses (PTSC). There is a need for a road transportation authority charged with responsibility for planning, administering and developing the transportation system for the nation. This authority would conduct planning and analysis to meet short-, medium-, and long-term mobility needs. It would formulate policies and implement public involvement programmes to secure public understanding and support. It would be responsible for building, expanding, and maintaining the road network and improving transportation infrastructure. It would also undertake traffic surveys and data collection and reporting, and road safety education and accident reduction schemes. Future mobility improvements in Trinidad and Tobago must consider managing vehicle ownership. The demand for personal vehicle ownership needs to be balanced with the number of vehicles using the roads. If these two competing demands are not managed properly, the result would be continued traffic congestion and increases in GHGs.

Another critical component in the transport sector not being addressed is in the domain of public transportation (APDSL, 2010, pp. 19–20). There is no coordination and monitoring of the planning for locations of public buildings, housing communities, schools, etc., with respect to the transportation needs of the users. At present, no single agency of the Government is responsible for monitoring, controlling or coordinating the operations of the public transportation industry. The Public Transport Service Act, which created the PTSC in 1965, does not give them responsibility for regulating taxis or maxi-taxis (minibuses). The Transport Division of the Ministry of Works and Transport is responsible for the licensing and inspection of taxis and maxi-taxis. In other

words, PTSC is a publicly owned bus operator governed by its Act, while other privately supplied public transport services (taxis and maxi-taxis) are effectively deregulated and operate on their own. So, there is a critical need for the administration, rationalisation, and control of the industry. This would include planning, organising, and administering services, routes, and terminals, collection and analysis of data pertaining to passenger demand and potential suppliers, and an ongoing monitoring of the industry, including vehicle standards.

Decision makers need to carefully consider who they are providing these components for. They need to determine the following: (a) What are we trying to achieve, and why; and (b) How do we coordinate this information. The answers to these questions would involve the planning and administration of transport services, routes, and terminals and parking facilities; collection and analysis of data pertaining to the persons desiring to travel, where they are coming from, and where they are going; and what are the accessibility needs of the travellers.

The country has been desperately in need of continued transportation planning and policies to guide sustainability ever since the first and only national transportation plan was completed in 1967. Many were elated with the award of the Government commissioned Comprehensive National Transport Study in February 2005, and this was to be completed by September 2006. A report was submitted in November 2006, but it was not accepted by the Government. Thus, there is a long outstanding need for a comprehensive national transport plan and associated policies, and consequently there is a severe shortage of data for transportation decisionmaking.

Purpose of this Work

The pilot study included the following activities, and this chapter focusses on them:

- Rapid diagnosis of the current situation related to transit in the Greater POS area, establishing a baseline situation of traffic volumes, and public transit usage and characteristics.
- Identification and prioritisation of two feasible sites for implementing the pilot project, preferably State-owned, as this is a pilot project, one in the East-West Corridor and the other in the North-South Corridor. The sites identified should generate the highest potential impact on expected outcomes as attraction of users, good connectivity, and travel times and congestion reductions in POS.

Baseline Situation of Traffic Volumes and Public Transit Usage

The information in this section was taken from the Trinidad Rapid Rail Project: Traffic Study Final Report (Steer Davies Gleave, 2008). This secondary data was used because no new data was collected since that time, and it was not possible to arrange primary traffic data during the Covid-19 Pandemic. The East-West Corridor is made up of the Eastern Main Road, the Priority Bus Route (PBR) and the Churchill Roosevelt; and the North-South Corridor comprises the Southern Main Road and the Solomon Hochoy Highway and the Uriah Butler Highway. The PBR was created as a busway; it was conceived as dedicating its two lanes for the exclusive use of buses. Cars account for 39 % of the total traffic on the PBR, which is a significant number using a road for buses only. Most of these cars are understood to be military vehicles or government officials with special licenses, but some are also illegal drivers who use the PBR as a quick alternative to avoid congestion. Table 9.1 gives the key transportation information for the East-West and North-South Corridors. Nearly 200,000 vehicles transported 344,000 persons on weekdays to and from POS, and the modal split was just over 60 % cars. Fifty Percent travelled for work and about 30 % went for business. The average travel speed during the peak periods ranged from about 20 to 30 kmph (32 to 41 kmph on the PBR).

Table 9.1 East-West and North-South Corridors Key Transportation Information

NO.	ACTIVITY	EAST-WEST CORRIDOR	NORTH-SOUTH CORRIDOR
1	Total No. of Vehicles (weekday)	95.000	104.000
2	Cars (weekday)	60.000	63.000
3	Passengers (weekday)	191.000	153.000
4	Trip Purpose (Work) %	52	47
5	Trip Purpose (Business) %	25	31
6	Journey Speed to POS (AM)	20-39	29-32
7	Journey Speed from POS (PM)	21-31	18-23

Note. Compiled by R. J. Furlonge

Identification and Justification of Two Sites for the Pilot Project

The nation of Trinidad and Tobago has never had official P&R services. Prior to the Covid-19 pandemic, a large number of motorists were making use of the shopping malls (because they are usually located in suburban centres) to safely park and use easily accessed legal and illegal taxi shuttle service to the nearby urban centres to get to work or

conduct business in POS. Identification of an appropriate methodology for site selection methodology will result in a more efficient and inexpensive planning process for selecting P&R facilities.

Methodology

The objective of this Pilot Study was the identification and prioritisation of two feasible sites along the main East-West and North-South transit corridors of the island of Trinidad. Therefore, only one site was sought in the East-West Corridor and another in the North-South Corridor. The research sought a simple yet effective method for site selection.

Site selection should give priority to (1) Land currently in parking use; (2) Undeveloped or unused land in public ownership; (3) Undeveloped private land; and (4) Developed private land (Coffel et al., 2012). This Pilot Study focussed on the first two only because the Government is interested in state-owned properties for P&R development, as this is a demonstration pilot project and it would not like to acquire or rent property for operation.

Potential Park-and-Ride Sites

Six sites were identified as having potential for investigation as P&R sites for the Pilot Study:

1. Ato Boldon Stadium in Couva
2. Brian Lara Cricket Academy in Tarouba
3. Centre of Excellence in Macoya
4. Eddie Hart Facilities in Tacarigua
5. Larry Gomes Stadium in Arima, and
6. Trincity Mall, Trincity

These sites are shown in Figure 9.1.

Ato Boldon Stadium

The Ato Boldon Stadium for football and athletics is visible from the Solomon Hochoy Highway and has an access gate located about 900 metres west of the Couva-Preysal Interchange on the Couva Main Road. The site is located at the beginning of the morning peak period highway traffic queues from the south and is 35 km from downtown POS.

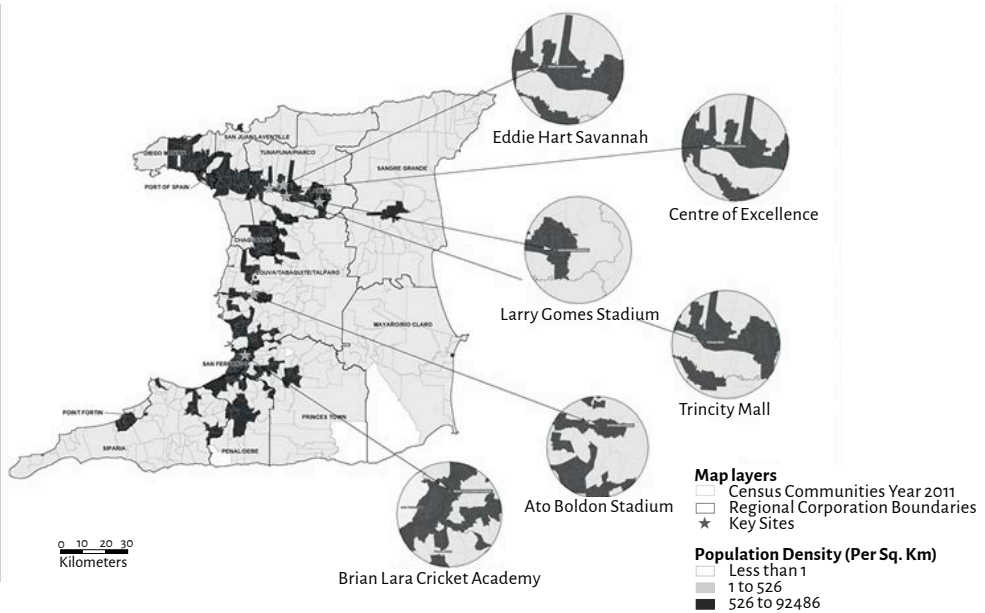

Figure 9.1 Potential Catchment Areas and Their Residential Densities
Note. Copyrights by R. J. Furlonge

Brian Lara Cricket Academy

The Brian Lara Cricket Academy (BLCA) is a multi-purpose stadium in Tarouba, Trinidad and Tobago, used mostly for cricket matches. The site is located just east of the Solomon Hochoy Highway between Gasparillo Bypass Road in the north and the Tarouba Interchange on the Tarouba Link Road in the south. Access is primarily via the Gasparillo Bypass Road, but vehicles may also exit on the Tarouba Link Road. The site is located outside of the morning peak period highway traffic queues from the south and is 52 km from downtown POS.

Centre of Excellence, Macoya

The Centre of Excellence is situated on the Macoya Road, just off the Churchill Roosevelt Highway. The complex consists of a hotel, a swimming pool, a stadium, a fitness centre and sports clinic, including event indoor and outdoor spaces for rent. The site is located in the midst of the morning peak period highway traffic queues from the east but is less than 400 metres away from the PBR. It is 15 km from downtown POS.

Eddie Hart Savannah

The Eddie Hart Savannah in Tacarigua can also be considered as a P&R lot in the east. Apart from the now popular car park food court with its hard surface carpark, there appears to be some parking space at the National Racquet Centre, Eastern Regional Indoor Sport Arena, and the National Hockey Centre areas. The site is located next to the PBR, with its access less than 150 metres south of the PBR and in the midst of the morning peak period highway traffic queues from the east. It is 17 km from downtown POS.

Larry Gomes Stadium

The Larry Gomes Stadium for football and athletics is not visible from the Churchill-Roosevelt Highway (CRH) and its access is located about 1.7 km northeast of the intersection of CRH and O'Meara Road in Arima, via O'Meara Road and Lennox Yearwood Expressway. The site is located at the beginning of the morning peak period highway traffic queues from the east and is only 2.5 km away from the PBR. It is 27 km from downtown POS.

Trincity Mall

Trincity Mall is visible from the Churchill-Roosevelt Highway (CRH) and its access is located on Trincity Central Road in Trincity. A Government financial bailout caused it to be operated by the Government, and there is good vehicle ingress and egress. The site is located near the beginning of the morning peak period highway traffic queues from the east, and is only 1.5 kilometres away from the PBR. It is 19 km from downtown POS.

Literature Review

Studies have been done over the years to plan for the optimal location of P&R facilities, such as, geographic information system (GIS), multi-criteria method, multi-objective spatial optimisation modelling methods, mixed linear programming formulation, and minimising the operating deficit while adding decision variables such as transit and parking fees. Also, there have been studies of catchment areas for P&R, such as hyperbola method; parabola method; circle method; GIS, and dynamic approaches using GIS as well as user navigation data such as costs, travel time. (Ortega et al., 2021). All of

these methods require extensive data variables and apply complex computations, and are likely to encounter difficulty in procurement of funding for data collection, as well as expertise for analyses.

Parking lots should have convenient access, and thus should be near arterial roadways, and preferably upstream of major congestion points. (Transportation Research Board, 2004; Vermont Agency of Transportation, 2015A; Coffel et al., 2012). The Vermont Agency of Transportation (2015B) further stated that a site should be within 0.4 km of a major commuter corridor, defined as connecting major employment centres; also, the site should be able to be seen from the road. Ukkusuri et al. (2010) advised that the location should be visible from important highways with clear signage. P&R lots should be near to home relative to the overall trip. (Transportation Research Board, 2004).

The road capacity (that is, the maximum number of vehicles that can pass a point on the road per unit of time) of access points should be adequate. Parking accesses should be set back at least 45 m (preferably 75 m) from nearby intersections and spaced at least 105 m apart and at least two combined entrances and exits should be provided for facilities with more than 500 spaces (Coffel et al., 2012). The location should be able to accommodate most of the parking demand (Cornejo, 2014).

P&R facilities should be located at least 8 to 13 km from the city centre and should be far enough away to compensate for the time spent changing travel modes (Coffel et al., 2012). It should also be placed near the trip origins (residential areas) and far from the trips destinations (employment areas) (Cornejo, 2014); Greater than 6 to 8 km, preferably 16 km from CBD (Ukkusuri et al., 2010). Coffel et al. (2012, p. 100) recommended that population densities in P&R catchment areas should be less than 1,600 to 2,400 persons per square km.

Personal safety and protection of automobiles left in the lot are important commuter concerns. These include lighting, fencing and gates, security monitoring booths, cameras and surveillance equipment, signing, and ensuring adequate visibility from all parts of the facility. (Turnbull, 1995, p. 24). The site should be secure both by being visible and by providing safety amenities such as lighting. Being proximate to a populated area such as a shopping centre is also helpful (Vermont Agency of Transportation, 2015A). The quantity and quality of facilities provided are important factors in P&R site selection, such as toilets, telephones, tourist information, small convenience store, parking for differently abled and cycle parking/lockers (Higginson, 2001).

Selection should consider sites that are likely to have to share activities (Higginson, 2001). A shared lot is the available portion of an existing parking lot for P&R service. The following should be included when considering shared lots: (a) Availability of parking spaces on a weekday basis, (b) Adequacy of the amenities, and (c) During peak

periods, the access points are not impacted by traffic generated by adjacent land use activities (Christiansen and Rathbone, 1978).

Site Selection Criteria

The criteria were adopted from the literature review for the site selection process. The potential catchment areas were determined based on computation applied in the literature. The following criteria have been adopted for the site selection process. The individual factors applied to the relevant components were 1- lowest, 2 - medium, and 3–highest.

1. Property Ownership and Operation Type: Government-owned and operated; or, Government-owned but Private-operated; or, Private-owned; Private-operated.
2. Ease of Access: Good proximity to expressway/highway; Upstream of major congestion points; Good access and egress; Visible from important highways.
3. Facility Access Travel Distance: Proximity to home relative to the length of the overall trip.
4. Adequacy of Capacity of Ingress and Egress Points: Parking entrances and exit locations should be set back at least 45 m (preferably 75 m) from nearby intersections and spaced at least 105 m apart.
5. Facility Number of Parking Spaces: At least 250 spaces (150–200 equal to 2 points; more than 250 equal to 3).
6. Distance of P&R Facility from Destination: At least 8 to 13 km from the city centre.
7. Residential Population Density: Population densities in P&R catchment areas should be less than 1,600 to 2,400 persons per square km.
8. Safety and Security: Provision of Security and Monitoring.
9. Amenities: Comprehensive facilities, including toilets, telephones, tourist information, small convenience store, and parking for differently-abled.
10. Shared Lots: Assurance that a certain number of parking spaces will be available on a weekday basis; adequacy of the amenities provided; and, during peak periods, especially the evening peak, congestion within the lot and at the access points not intensified due to traffic generated by the shared use.
11. Potential Catchment Area: Catchment area population is large.

Potential Catchment Areas and their Residential Densities

P&R facilities should be located to serve the best possible population base and population densities. Table 9.2 gives the population and residential density of the potential P&R sites.

Table 9.2 Population and Residential Density of the Potential P&R Sites

NO.	POTENTIAL CATCHMENT AREAS	POPULATION	RESIDENTIAL DENSITY (PER SQ. KM)
1	Ato Boldon Stadium	40.454	252
2	Brian Lara Cricket Academy	108.594	679
3	Centre of Excellence	111.644	697
4	Eddie Hart Savannah	110.095	688
5	Larry Gomes Stadium	83.940	524
6	Trincity Mall	105.966	662

Note. Compiled by R. J. Furlonge

Research has shown that 90 % of a P&R facility's demand will come from an area defined by a circle formed by extending 4 kilometres downstream of the lot and with a chord of 6.4 kilometres either side of the P&R lot, as shown in Figure 9.2 (Spillar, 1997, p. 35).

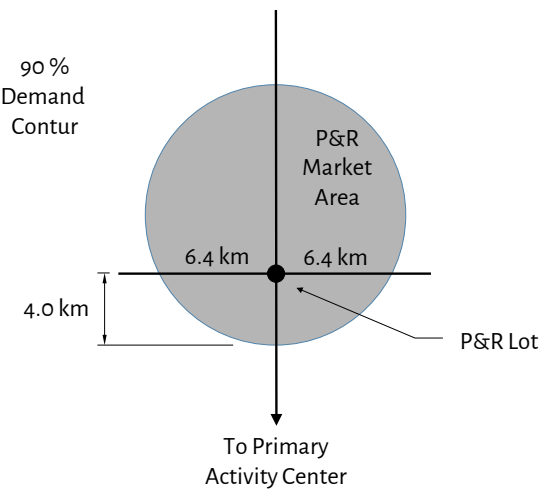

Figure 9.2 Potential Catchment Area Determination
Note. Park-and-Ride Planning and Design Guidelines, by: Spillar (1997)

Figure 9.1 also gives the Potential Catchment Areas and their Residential Densities for the potential sites. It also shows the following:

- Census Community boundaries (light colour, with white representing forest reserves)
- Regional Corporation boundaries, including their names
- The two cities (capital POS and San Fernando)
- Population Density, with the darkest areas representing and range of 526 to 92,486 persons per sq. km.

Site Evaluation

Table 9.3 gives the Site Selection Criteria and Evaluation. The maximum value available from application of the individual factors was 48 points. The ranking was as follows:

a) Brian Lara Cricket Academy–North-South Corridor–43 points (90 %)
b) Trincity Mall–East-West Corridor–39 points (81 %)
c) Larry Gomes Stadium–East-West Corridor–38 points (79 %)
d) Centre of Excellence–East-West Corridor–37 points (77 %)
e) Ato Boldon Stadium–North-South Corridor–35 points (73 %)
f) Eddie Hart Savannah–East-West Corridor–32 points (67 %)

All of these sites have good potential, with the few shortcomings being mainly with amenities and safety and security. Since only two sites are to be selected for the Pilot Study, one each from the east and south, the following were selected:

- From the east, Larry Gomes Stadium
- From the south, Brian Lara Cricket Academy

Table 9.3 Site Selection Criteria and Evaluation

NO.	SELECTION CRITERIA	SELECTION CRITERIA COMPONENTS	SITES					
			A	B	C	D	E	F
1	Property Ownership and Operation Type	Government-owned; Government-operated	✓	✓		✓	✓	
		Government-owned; Private-operated						✓
		Private-owned; Private-operated			✓			
2	Ease of Access	Good proximity to expressway/highway	3	3	3	3	3	3
		Upstream of major congestion points.	3	3	2	3	3	3
		Good access and egress	3	3	3	3	3	3
		Visible from important highways	3	3	3	3	3	3
3	Facility Access Travel Distance	Proximity to home relative to the length of the overall trip	1	2	2	2	2	2
4	Adequacy of Capacity of Ingress and Egress Points	Parking entrances and exit locations should be set back at least 45 m (preferably 75 m) from nearby intersections and spaced at least 105 m apart	2	3	3	1	3	3
		At least two combined entrances and exits should be provided for facilities with more than 500 spaces	-	3	2	-	3	3
5	Facility Number of Parking Spaces	At least 250 spaces	3	3	3	2	3	3
6	Distance of P&R Facility from Destination	At least 8 to 13 km from the city centre	3	3	3	3	3	3
7	Residential Population Density	Population densities in P&R catchment areas should be less than 1,600 to 2,400 persons per square km	3	2	2	2	2	2
8	Safety and Security	Provision of Security and Monitoring	2	2	2	2	1	2
9	Amenities	Comprehensive facilities, including toilets, telephones, tourist information, small convenience store, and parking for differently-abled	2	2	2	1	1	2
10	Shared Lots	Assurance that a certain number of parking spaces will be available on a weekday basis	2	3	1	2	2	1
		Adequacy of the amenities provided	2	2	2	1	1	2
		During peak periods, especially the evening peak, congestion within the lot and at the access points not intensified due to traffic generated by the shared use	2	3	1	1	3	1
11	Potential Catchment Area	Catchment area population is large.	1	3	3	3	2	3
	TOTAL		**35**	**43**	**37**	**32**	**38**	**39**
	%		**73**	**90**	**77**	**67**	**79**	**81**
	RANK		**5**	**1**	**4**	**6**	**3**	**2**

A: Ato Boldon Stadium; B: Brian Lara Cricket Academy; C: Centre of Excellence; D: Eddie Hart Facilities; E: Larry Gomes Stadium; F: Trincity Mall

Note. Individual Applicability Factors are 1- lowest, 2 - medium, and 3–highest.
Compiled by R. J. Furlonge

Discussion

Most people in Trinidad and Tobago still mistakenly believe that public transport is the responsibility of the PTSC. The PTSC is simply a Government-owned bus company. Public transportation is required by everybody at one time or the other and is essential for more than 60 % of the population in Trinidad and Tobago. Public transportation cannot be effectively developed and managed without a well-planned transit administration. A properly organised public-transport sector could make a large difference, especially to the peak-hour traffic congestion and to accessibility in many areas. The necessary first step to organising public transport is to place control of the sector in a single dedicated agency—a transit authority (Furlonge, 2011, January 20, p. 16).

The PBR is an extremely valuable asset whose capacity should not be jeopardised by illegal or inappropriate use. Since its primary function is to move people, other non-public transport uses should be prioritised and only be granted a pass when they will not impact on the primary function. In 1974, a decision was taken to convert the abandoned railway lines to exclusive busways. The PBR was created from a railway to an extensive 26-km busway. This means it was conceived as dedicating its two lanes for the exclusive use of buses and other high-capacity road-passenger vehicles. The PBR was completed around 1990 between POS and Arima and was once the longest exclusive busway in the world. The Government was quite futuristic in its thinking in seeking to develop this route as part of a bus rapid transit (BRT) system. A BRT system provides a high quality of service along dedicated or close-to dedicated routes, with increased service frequency, capacity, and speed. Unfortunately, the PBR has never functioned as a rapid bus transit route (Furlonge, 2014).

Studies have shown that transit travel time is competitive with auto travel time, and transit fare is competitive with the cost of driving (Connetics, 2014). Lower public transport travel time increases the probability of choosing public transport while lower transfer time convinces travellers to choose P&R mode over public transport (Islam et al., 2015). The PBR provides an opportunity for an exclusive busway in the East-West Corridor, and thus an improvement in transit travel times. There is no busway in the North-South Corridor. There is potential for a Bus-On-Shoulder (BOS) facility on North-South highway system (that is, on the Uriah Butler Highway and Solomon Hochoy Highway). The BOS concept is the allowing of buses to use shoulders on freeways and major arterial streets during peak congestion periods to bypass congestion in the general purpose traffic lanes. BOS differs from shoulders that are open to high-occupancy vehicle (HOV) and general traffic during peak congestion hours. BOS applications carry much lower volumes of traffic than HOVs and general traffic use of shoulders. Typically, the BOS

projects limit buses using the shoulder to times when traffic on the highway is congested and moving very slowly, and they cap the speed buses are allowed to operate on the shoulder. BOS applications minimise congestion-related schedule reliability problems; they improve the competitive travel times for buses versus cars; they reduce bus running times; they are low cost and easy to implement; they do not require new rights-of-way; and they are not obtrusive (Martin et al., 2012).

Customer Amenities at the two selected pilot sites have need for tent shelters. Partially enclosed tent shelters should be provided for passengers. A separate enclosed tent shelter should be provided for the customer information and ticketing staff, and another for security staff. Trash receptacles would also need to be suitably placed. Portable toilets and hand-washing facilities would have to be provided. Concessions for food vendors could be considered, but patrons would have to be advised that food and drink would not be allowed on transit vehicles.

Concerning safety and security at the two selected sites, it has to be recognised that both personal safety and protection of automobiles left in its slot all day are important commuter concerns that must be addressed for the P&R pilot. These would include lighting, security personnel, and ensuring adequate visibility from all parts of the facility. If it is assumed that P&R services for the Pilot would be expected to operate from 5:00 am to 8:00 pm, then the facilities would need to be open from 4:00 am to 9:00 pm, and thus lighting would be required. Lighting is already available at the BLCA, and so temporary lighting would have to be provided at the Larry Gomes Stadium external carpark. Suitable numbers of security personnel would have to be worked out for both facilities.

Conclusion and Recommendations

Trinidad is about to develop official P&R services. It is critical to optimise the location of the P&R lots and maximise the size of the associated catchment areas. All of the current methods for such require extensive data variables and apply complex computations, which would be prohibitive from the perspectives of data collection cost and analyses. This article has attempted to provide a simple yet effective method for site selection. The two Government-owned sites recommended are Larry Gomes Stadium in the east, and the BLCA in the south. The likely patrons of the P&R Pilot will compare the cost of commuting to work using a personal auto and paying for parking at the destination with the transit fare and cost of parking at the P&R lot. P&R will only be attractive to them if the latter overall cost is lower.

There is a weekday transient population to POS from the East and South of Trinidad of 344,000 persons transported in 200,000 vehicles, inclusive of 80,000 public transport. Of these persons, 172,000 travelled for work and about 103,200 went on business.

The following are the suggested system objectives to provide the conceptual design of the P&R Pilot Project, considering user equity in a car-dependent society:

- overcome the shortcomings in transit administration and management
- provide reliable transit services
- provide adequate service frequencies
- provide sufficient services in the off-peak
- provide dedicated bus lanes
- provide adequate passenger information systems
- provide sufficient marketing and awareness of transit services
- provide high-quality waiting environments in terms of cleanliness, lighting, furniture, shelters, safety, toilets, Wi-Fi and phones, trash receptacles, and commercial or service opportunities.

The PBR should be given priority for High Occupancy Transit Vehicles, such as PTSC Buses and Maxi-Taxis, with a heavy emphasis on very large buses such as articulated, accordion-types. Traffic signals would be coordinated along the PBR to emphasise its priority, with pre-emption signal control at intersections favouring transit. This would be the beginning of the functioning of the PBR as a BRT System. The Ministry of Works and Transport should implement a BOS system for the Uriah Butler Highway and Solomon Hochoy highway (North-South highway system) as dedicated bus lanes in order to improve the transit travel times.

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