CHAPTER 8.0

VIJAYAWADA BUS SYSTEM PLANNING AND DEVELOPMENT

The prospective growth and change in the physical, economic and social structure of Vijayawada and the resultant increase in travel demand, calls for a policy of promotion of public mass transport system (PMTS). Amongst the spectrum of choice of PMTS technologies, road based bus system is the most appropriate choice for Vijayawada city at this juncture. However the bus system needs to be modern high capacity urban buses operating along dedicated corridors and supported by Intelligent Transport System (ITS) technologies. Such a system would provide faster service with safety and comfort. Such a system is termed as Bus Rapid Transit System and it is proposed to introduce the same in Vijayawada City.

Bus System

The basic system will remain the conventional bus system with due modernization.

Fleet Size

The required fleet size of the bus system is estimated with the following parameters:

Bus Capacity	:	60
Fleet Utilization	:	90%
Vehicle Utilization (City Service)	:	220 km
Load Factor	:	0.7
Travel Demand	:	18 lakh passengers per day
Average Trip length	:	8 km

The required fleet size works out to 1732, say 1750.

Bus Depots

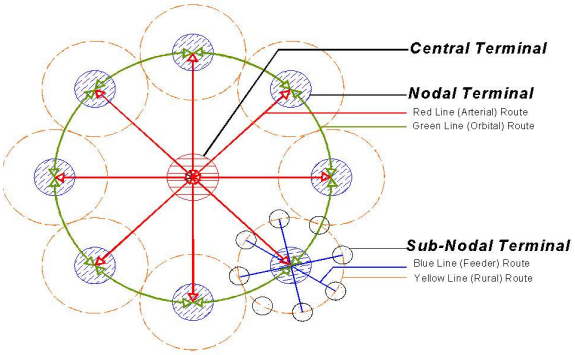
To maintain the fleet, 18 depots, each of 2 ha in extent, would need to be developed. The depots would need to be located carefully to minimize dead kilometerage.

Workshop

To attend to specialized maintenance and repair of buses, one central workshop, over an extent of 2 ha, with all tools and equipments needs to be established.

Bus Route Network

The bus route network needs to be rationalized. Considering the radial pattern of the road network, 'hub and spoke' pattern offers a good choice. The City Bus Stand on NH-5 near Rajeev Park could be the central terminal. Nodal terminals at future city limits at Gollapudi along Hyderabad road, Nainavaram along Mylavaram road, Nunna along Nuzevedu road, Ramavarapupadu along Kolkata road, Kanuru along Machilipatnam road, and Tadepalli along Chennai road need to be developed. Each nodal terminal to be of 2 ha in extent.



Some services along each corridor need to be extended to regional centers like Ibrahimpatnam, Nainavaram, Nuzevedu, Gannavaram, Machilipatnam, and Mangalagiri. These services would integrate the regional centers with the mother city, increase patronage of bus system and improve performance levels.

Radial services of high frequency would be operated from the central terminal to the nodal terminals. The nodal terminals will be interconnected by orbital services.

Other services/routes will be operated as feeder services to and from the central and nodal terminals.

Special services will run to and from railway station to different parts of the city to disperse rail passenger traffic.

The above envisaged bus system will be the core PMTS of Vijayawada.

As discussed earlier the main road corridors will be saturated with traffic. This will adversely affect the productivity of the bus system. It is important to re-engineer the road corridors, operate modern urban buses and technologically modernize the control systems to improve the operational efficiency and capacity of the buses. It would be prudent to introduce and operate Bus Rapid Transit System (BRTS) along selected corridors as integral component of the PMTS.