



## New Bus Terminal Design of Smart City Gandhinagar

Jay Pandya<sup>1</sup>, Yogesh Patel<sup>2</sup>,

<sup>1</sup>PG Student, M.E. (Civil) Infrastructure Engineering, L.D.R.P. Institute of Technology & Research Gandhinagar

<sup>2</sup>Faculty, Department of Civil Engineering, L.D.R.P. Institute of Technology & Research, Gandhinagar

**Abstract** — Bus transportation is essential things in development of country in many ways. So proper utilization of various resources related to transport should be evaluate, identified and modified as per the requirement. As the Need of More public transportation utility is required. To be able to provide such start up to the transportation facilities, terminal building was being provided in Gandhinagar City. As the population is increasing day by day further modification or redesigning existing bus terminals is mandatory for benefits of the daily users like student and employee and also useful for more revenue generation. Redesign of Gandhinagar bus terminal is required for the purpose of providing comfortable and compatible transportation movement for passengers and workers. In this study the goal is to provide improved design and infrastructure view, proper space utilization, new required elements can be introduced in a decent manner.

**Keywords-** Terminal, Infrastructural Elements, Bus Station, Transportation, Population, Capital city, Redesigning.

### I.INTRODUCTION

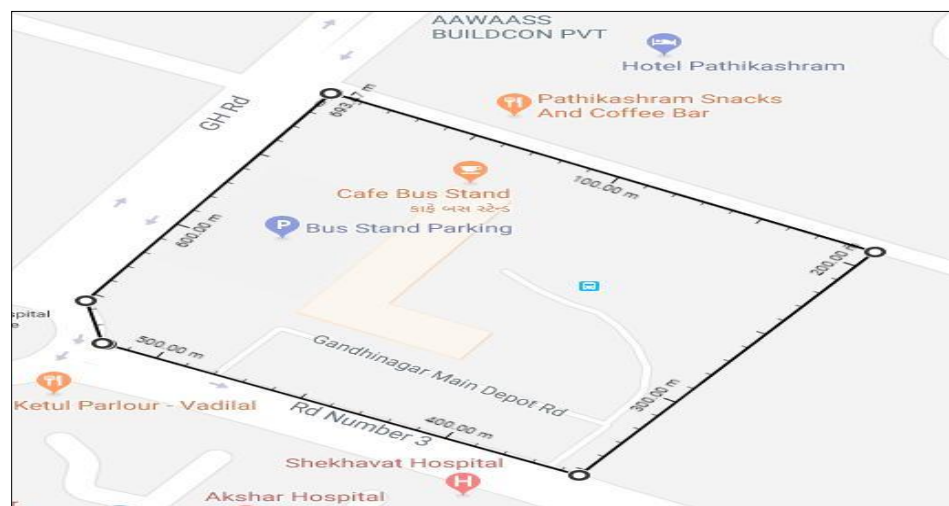
**Gandhinagar** is the capital of Gujarat state. All the necessary function should be adequate in amount and in proper way of using it frequently. There are so many government offices; industries are located in the city. Gandhinagar is a planned city with lots of good infrastructural elements being gifted for the overall development of it and still adding structures like Mahatma Gandhimandir, gift city, etc...So redesigning of bus terminal with respect to public demand and according to modern time should be a key factor in overall development in the public transportation facility.

### II.STUDY AREA

#### A. Gandhinagar City:

**Gandhinagar** is located approximately 23 km north of Ahmadabad , on the west central point of the Industrial corridor between Delhi, the political capital of India , and Mumbai, the financial capital of India Gandhinagar, Gujarat's new capital city, lies on the west bank of the Sabarmati River, about 545 km (338 miles) north of Mumbai, the financial capital of India and 901 km (560 miles) southwest of Delhi, the political capital. There is a provision of parks, extensive planting and a recreational area along the river giving the city a green garden-city atmosphere.

- Elevation: 81 m (266ft)
- Population: 292,167(2011) Density: 1700/km<sup>2</sup>



### **B. City Terminal (Pathikasharm):**

Existing Bus Terminal is there for at least for 45 years (1973). After survey of study to area, identify problem of the Terminal is that passenger are gradually increasing by the last around 4.5 decades as the population is rising of the city and all the existing basic facilities is not appropriate to use in a quantitative manner. And all the nearby bus terminal is being newly redesign for the future use and modernization also adopted.

### **C. Survey of nearby Terminal:**

FACILITY	A'BAD	MEHSANA	VADODARA	G'NAGAR
AC DELUXE WAITING ROOM	YES	YES	YES	NO
RESTURANT	YES	YES	YES	NO
RO WATER PLANT	YES	YES	YES	NO
MODREN SHOPS	YES	YES	YES	NO
NIGHT LIGHTING	YES	YES	YES	NO
BANK AND ATM	YES	YES	YES	NO
BUS STOP SHELTER	YES	YES	YES	NO

### **D.Why To Redesign:**

- To provide adequate, economical, efficient, reliable, comfortable, safe and environment-friendly modern passenger transport services for the people.
- To provide affordable, safe and sustainable passenger transport services to the public.
- For further modern infrastructure in bus terminal, should be implementing as all the major city of Gujarat is being redesigning it's bus terminal and increase its lifespan and public rush & more revenue generation can be achieve.

## **III. DESIGN OF BUS TERMINAL**

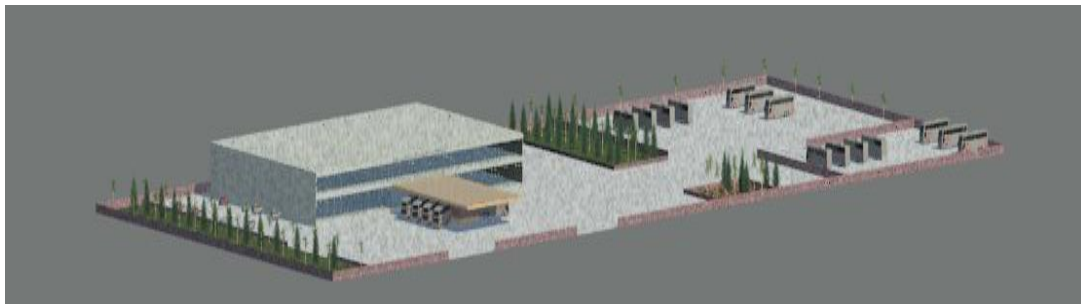
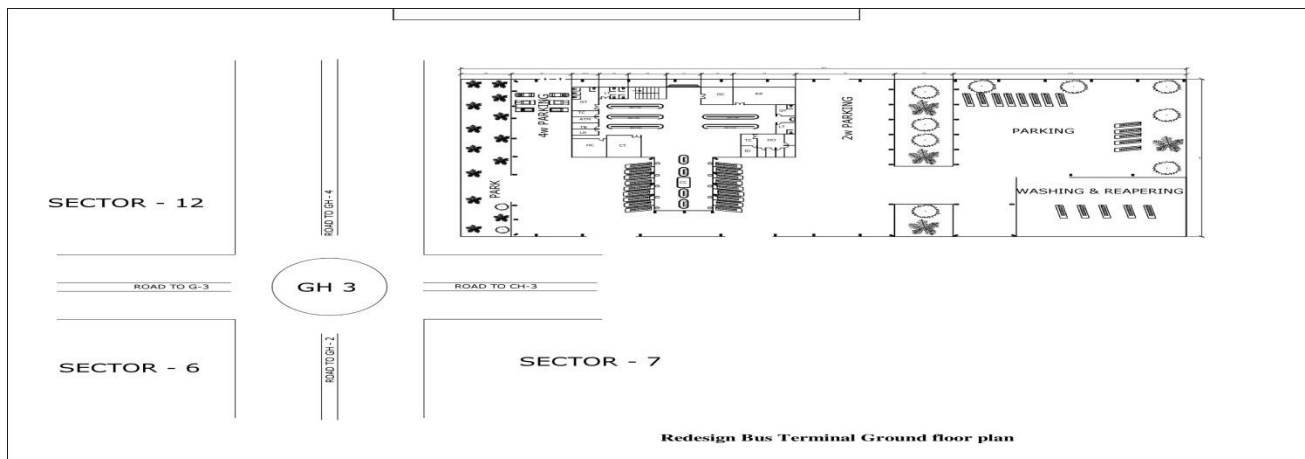
### **A. Existing Bus Terminal:**

#### **Data-**

- Total platforms-14
- Total number of bus- 103
- Total number of bus trips daily- 1018 (approx.)
- Total drivers- 236
- Total conductors- 200
- Passenger travel daily- 23,500 (approx.)



### B. New Design of Bus Terminal:



This design is for the new infrastructure as the capital city is now included in the smart city. For that estimate cost of the new terminal is around 235 Crores with follow listed facilities included:

- Digital display, 4w and 2w Vehicles separate parking,
- Mineral Water Facilities, Modern Infrastructural Building
- Spacious passenger waiting area, A.C. Deluxe Waiting room for Driver & conductors,
- Showrooms at First floor, Restaurants, Gym, Bank and ATM.

### C. Conclusion:

- Through this new bus terminal design authority will have more revenue generation,
- Users will benefits for the various facilities.

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