



Survey Paper on The Parking Management

Keval Malakiya

Student, Department Of Civil Engineering, L.D.R.P Institute Of Technology & Research, Gandhinagar, Gujarat, India

Jay Goti

Student, , Department Of Civil Engineering, L.D.R.P Institute Of Technology & Research, Gandhinagar, Gujarat, India

Meera Mehta

Student, , Department Of Civil Engineering, L.D.R.P Institute Of Technology & Research, Gandhinagar, Gujarat, India

Zamila Shaikh

Student, , Department Of Civil Engineering, L.D.R.P Institute Of Technology & Research, Gandhinagar, Gujarat, India

Krupa Dave

Professor, , Department Of Civil Engineering, L.D.R.P Institute Of Technology & Research, Gandhinagar, Gujarat, India

ABSTRACT

The growing population of India is facing many problems. One of the challenging problem is lack of sufficient parking space. If we consider the problem of cities, then the traffic has become the crucial factor for any city. The situation is such that on any given working day approximately 40% of the roads in urban India are taken up just for parking the vehicles.

In this study, we have surveyed the location of city Gandhinagar, capital of Gujarat, where parking is very important and provide a way through which we can efficiently utilize the spaces.

KEYWORDS : On street parking, Off street parking, Loads, Area, Cost, Efficiency.**INTRODUCTION:**

- All the cities in India face severe parking problems. Though parking has negligible effect on quality of transport but there is damage to the life of engine due to parking. Due to anonymous increase of traffic in India parking has become the new problem along with pollution and poor quality of roads.
- There are main two types of parking.
 1. Off street parking.
 2. On street parking.
- Off street parking is common in big shopping malls, residential area, theaters and offices which are easily used by public. When parking that is allowed to be done on road called as on street parking.
- Now a day, parking problem is related to space, so we should minimize the space to decrease the parking problems and its load .Due to lack of parking there will be a problem of fuel loss and low air quality or congestion.
- With the growing culture of automobile dependency in Indian cities, the demand for parking spaces are sky rocketed. This is especially because the infrastructural growth of our cities is unable to keep up with the growing demand for spaces to park.
- Our research is being done to utilize the area, where the cost is not so high and efficient parking can be done.

PROBLEMS IDENTIFIED:

- Outer footpath is not necessary due to presence of inner foot path area.
- When public came for shorter duration of work, they not park their vehicles at off street parking area. It makes illegal parking at road side. We can't change mentality of public, so ultimately we should modify our parking plan.

**Fig. : (1) Field photograph of parking area shows an illegal on street parking.****Fig.: (2) Outer foot path area which is needed to remove.**

- This on street parking leads to overcrowding of vehicles, increase air and noise pollution, accidental rates and fuel consumption.

AIMS AND OBJECTIVES:

- To make optimal utilization of on street legal parking area, by removing outer foot path and providing one single lean of block.
- Lower construction cost.
- Low maintenance and operational cost.
- Safety of vehicle.
- Easy on street 90° angle parking can possible.
- Environment friendly.
- Reduces traffic problems.



Fig.: (3) Modal structure (Front view).



Fig.: (4) Modal structure (Top view).

ANALYSIS:

- We analyzed the parking problem of (Shopping complex) sector- 16 and (Cinemax complex) sector-11, Gandhinagar, Gujarat, India.
- By applying this new plan we can park extra 20 to 30 two wheelers on the road side by using on street legal parking.

Area of study: - Bank & restaurant area Complexes, Sector – 16 Gandhinagar.
Date: - 1/10/2015

Day: - Thursday
Time: - 11:00 AM to 1:30 PM

VEHICLES TYPE	PRESENT PARKING CAPACITY	TIME	TOTAL NUMBER OF VEHICLE	IN	OUT	ERROR
TWO WHEELER	66	11:00 AM	68	48	37	3
		12:00 PM	82	23	21	-
		12:30 PM	84	27	37	2
		1:00 PM	76	22	40	-
		1:30 PM	50	-	-	-
FOUR WHEELER	18	11:00 AM	23	10	7	-
		12:00 PM	26	-	-	-
		12:30 PM	26	4	6	-
		1:00 PM	24	2	3	-
		1:30 PM	23	-	-	-
THREE WHEELER	00	11:00 AM	3	2	1	-
		12:00 PM	4	-	2	-
		12:30 PM	2	1	2	-
		1:00 PM	1	-	-	-
		1:30 PM	1	-	-	-

VEHICLES TYPE	PRESENT PARKING CAPACITY	TIME	TOTAL NUMBER OF VEHICLE	IN	OUT	ERROR
CYCLE	00	11:00 AM	1	2	-	-
		12:00 PM	3	1	1	-
		12:30 PM	3	1	2	-
		1:00 PM	2	-	1	-
		1:30 PM	1	-	-	-
HEAVY VEHICLE	00	11:00 AM	0	-	-	-
		12:00 PM	0	-	-	-
		12:30 PM	0	-	-	-
		1:00 PM	0	-	-	-
		1:30 PM	0	-	-	-

Area of study: - Cinemax complex, Suman tower, Sector-11, Gandhinagar.
Date: - 02/10/2015
Day: - Friday
Time: - 11:00 AM to 1:00PM

VEHICLES TYPE	PRESENT CAPACITY	TIME	TOTAL NUMBER OF VEHICLE	IN	OUT	ERROR
TWO WHEELER	78	11:00 AM	98	78	76	2
		12:00 PM	102	89	74	1
		1:00 PM	116	-	-	-
FOUR WHEELER	20	11:00 AM	14	16	13	-
		12:00 PM	17	16	11	-
		1:00 PM	21	-	-	-
THREE WHEELER	00	11:00 AM	3	8	6	-
		12:00 PM	5	13	11	1
		1:00 PM	6	-	-	-
CYCLE	00	11:00 AM	10	-	-	-
		12:00 PM	10	-	1	-
		1:00 PM	9	-	-	-
HEAVY LOADED VEHCLE	00	11:00 AM	2	1	-	-
		12:00 PM	3	1	3	-
		1:00 PM	1	-	-	-

CONCULSION:

We can provide better area for parking of vehicles by removing outer foot path. By doing these many traffic problems can be solved and convenient to public for on street parking.

REFERENCE:

1. Dawei IVxinsha fu, To analyze the parking problems and find solutions in urban central areas, Jan 2011.

2. Tom budd "An empirical examination of the growing phenomenon of off-site residential car parking provision" Cranfield university August- 2013.

3. Miguel Jaller, Parking in the city: challenge for the freight traffic , Jan 2014.

4. Michel Owayjan, Bahaa Sleem, Elio Saad, Amer Maroun , Parking Management System, American University of Science & Technology April 21,2015.