GANDHI BAZAAR

Pedestrianization Study

Directorate of Urban Land Transport,
Government of Karnataka
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CHAPTER 1. INTRODUCTION

The core of any Bazaar (Market) is its spontaneity and the reason why a Bazaar anywhere in India is so special. The paths that take you towards the bazaar are territorialized by the informal sector; the paths within the market itself are patterns of human interaction and movement that are generated only to disappear again in a little while, to be created once more in another way. The vendor displays are simple creations that are changing and transforming themselves to attract and to sell better. (Source: http://indianbazaars.blogspot.com)

1.1 PROJECT BRIEF

Gandhi Bazaar is an important street in Bangalore city in Basavanagudi Locality. It is famous for its bustling market activity all round the year. During festivals, the street attracts tremendous activity. The street houses vibrant informal activity on either sides of the road, number of restaurants, banks, clothes shops, puja item shops etc.

Due to the high in flow of pedestrians to Gandhi Bazaar all through the day, it was felt that, the stretch of Gandhi Bazaar main Road be Pedestrianised for the safety of pedestrians and to keep up the vibrancy of the market.

1.2 STUDY AREA BACKGROUND

The study area Gandhi Bazaar sits on the vicinity of the Basavanagudi, which had once been the cultural capital of Bengaluru. It is a residential and commercial locality situated in South Bangalore bordering Jayanagar. The famous Lalbagh, falls as part of Basavangudi.

The name "Basavanagudi" refers to the Bull Temple that is located here. It is a monolith statue of the Nandi Bull. Basava in the local language (Kannada), means ‘Bull’ and Gudi means ‘temple’ hence, the name Basavanagudi. Here the Nandi (Bull) actually belongs to a centuries old temple almost 2 km away –

Figure 1-1 Map of Bangalore City showing the location of Gandhi Bazaar area
the Gavi Gangadhareshwara Temple.

In this Street Bazaar, one can get down anywhere along the street and start walking and exploring. On a festival day, such as Sankranti or Pongal (14th January) or Ugadi (first week of April) or Diwali (October or beginning November) Gandhi Bazaar has more lively shopping interactions and is a place to be a part of.

On any given day of the year, the Bazaar opens at six in the morning and closes at nine in the evening. Amongst the shops that are very unique to a Bangalore Bazaar are the Granthige stores i.e. shops that sell Puja items. Besides all puja items, they also have Ayurvedic items, Dry fruits, Country drugs, Plastic covers, etc. The other shops are the ones that sell local Kannadiga dry snacks, such as Holige, Jaggery & Peanut balls and Pickles. These often have name boards that say, ‘Dealers in Condiments, Dry fruits and General Home products’. There is one on the Gandhi Bazaar Main road, on D.V.Gundappa Road. As one walks along the main Gandhi Bazaar road, one can see vendors stringing flowers into garlands with their dexterous hands. The jasmines (mallige), tuberoses, marigolds, asters and roses are coupled with leaves to make garlands for the temple deity or for a wedding ceremony. Early in the morning, between 5:30am to 10:00am, one can step into the 'Corporation market', which is on the main road and is primarily a flower market. There are shops along the Gandhi Bazaar main road that also sell Silk sarees. There is the Kancheepuram Silk Weavers'Co-operative Society shop. There is also the private Kancheepuram Silk showroom with a shop front that is more modern. When it is time to eat, there are two places that can be a worthwhile experience at Gandhi Bazaar. One of them is Vidyarthi Bhavan, on the Gandhi Bazaar main road. It was started in 1938 as an eating place that served students. It is known for its Benne (butter) masala dosas.. The Brahmins Café is the other very popular eatery here. There is also the Kamat Bugle Rock, a great restaurant for a North Karnataka thali, on Bull Temple Road.
1.3 CULTURE AND FESTIVALS

This area is the cultural capital of Bengaluru with predominant Kannadiga population and lot of festivities. It also houses the Ramakrishna Ashram and the Shankar Matt.

Every year two day fair of peanuts is held near Dodda Ganapathi temple of Basavanagudi called Kadlekai Parishe which translates to ‘Groundnut Fair’. Lot of different kinds of groundnuts are exhibited and sold during this time. Kadalekaye Parishe is one of the most famous events celebrated in the city of Bangalore. It is celebrated in the month of November. During this occasion the farmers perform puja (prayers) to thank the Almighty and pray for the better cultivation of crops in the coming year. Many groundnut traders visit the fair of Kadalekaye Parishe every year to sell variety of groundnuts. It is also one of the prime attractions of the city. The fair and the festival attract many visitors in Bangalore city during this occasion.

1.4 SYNOPSIS OF THE PRESENT SITUATION - GANDHI BAZAAR

Gandhi Bazaar which is frequented by thousands and which is also a popular meeting point for the residents of Basavangudi is today a bustling, noisy and chaotic place. Shopping is also leisure time activity and the area is a social meeting point, especially for senior citizens and women with children.

Gandhi Bazaar Main Road between KR Road and DVG Road is one of the principal shopping streets in the heart of Basavangudi stretches for a short distance of 300m, bordered on both sides by shops. This road connects Krishna Rajendra Road and Bull Temple Road. Substantial pedestrian activity is seen along the road due to the presence of commercial land use. Street
vending / hawking is observed on both sides of the road. The street exceeds its capacity during peak hours by heavy bi-directional movement of traffic.

1.4.1 **Bus Service**

Gandhi Bazaar Main Road being a main bus route adds more congestion onto the roadway. There are about 65 bus routes passing this road (refer to annexure for details), operated by BMTC which bring additional daily commuters to the area. The Bus stop is located, immediately after crossing the DVG road junction. The movement of buses is *uni directional*. The Buses enter from the KR road, pass through Gandhi Bazaar and enter Bull temple road. They do not move in the opposite direction.

The other close bus stops to the Gandhi Bazaar Bus stop are: the Bus stop at Basavanagudi Police Station on KR Road and the Bus stop at Ramakrishna Matt on Bull Temple Road. 108 bus routes (including 65 routes along Gandhi Bazaar main road) are operated along the Basavanagudi Police Station Bus stop, which is very close to the market area.

The buses connect Gandhi Bazaar area to major locations in the city like, KBS, Chikkalasandra, Yelanka, Bhanashankari, Mathikere, Koramangla, Jayanagar, KR Market, JP Nagar, Malleshwaram, Nandini Layout, ISRO layout, Mahalakshmi Layout, etc. Bus queuing up is the major source of vehicular congestion in the area. The bus frequency is on an average, one minute.

There are many conflict points between vehicles and pedestrians. Hence there is a need for segregating the pedestrians from the general traffic stream on this road by providing a separated pedestrian path where people can walk safely. (Map with location of Bus Stops)

1.4.2 **Primary Streets important for Pedestrians and Vehicles**

**DVG road:**

One of the roads in Basavangudi is named after great writer and philosopher of Karnataka D.V.Gundappa called DVG Road. This road is the commercial center of Basavangudi. Many scholars, writers and musicians lived and are living in this area. This is a 15m wide road and carries a lot of traffic. The road meets Gandhi Bazaar main road at the Gandhi Bazaar Circle.

**KR road:**

KR Road is the vehicular and pedestrian spine of the city. It is the southbound distributor of local traffic and the most important north-south transit corridor with corresponding heavy vehicular volumes. This is a 35 m wide road. It carries about 108 bus routes.

1.4.3 **The Stretch to be Pedestrianised**

The stretch to be considered for pedestrianization is shown in the Figure 1-3. The stretch is 300m in length, with an ROW ranging from 25-29.5 m. This stretch is bordered on both sides by hawkers selling different kinds of products. This stretch is congested during evening peak hours, due to heavy vehicular
movement and lot of pedestrians. Pedestrians face difficulty in accessing the shops and the hawkers. Due to traffic movement, there is a great possibility of pedestrian and vehicular conflicts.

**Figure 1-4 Gandhi Bazaar**
1.5 DESTINATIONS / TRIP GENERATORS

Several types of destinations exist within the Gandhi Bazaar that people walk to on a daily basis. Input received through the stakeholder interviews indicates that the destinations that generate the most pedestrian traffic include commercial centres. Some of the major landmarks existing here are:

- Vidyarthi Bhavan
- Roti Ghar
- Canara Bank
- Indian Institute of Hardware Technology
- Food World
- HDFC Bank
- Span Consultants
- Federal Bank
- NIIT
- Bennegovindappa Kalyana Mantapam

1.6 EXISTING PEDESTRIAN NETWORK

The tremendous growth of the city over the past 10-15 years has placed significant strain on the existing infrastructure and the effects of this growth can be seen throughout the community. By driving and walking around Gandhi Bazaar it is evident that, like most communities, emphasis was placed on the automobile and not on the pedestrian movement. For instance, most of the intersections within the town limits lack the basic treatments that are needed to create a safe walking environment. The Figure 1-4 shows the existing condition of pedestrian facilities available for pedestrians.
1.7 SIDEWALKS

Sidewalks are probably the most commonly used type of pedestrian facility in any community across India. While recent efforts to provide well-designed sidewalks are producing positive results. The majority of the existing sidewalks within the city are located in newer residential subdivisions. Many of the town’s older neighbourhoods were developed before sidewalks were required, therefore most of these neighbourhoods don’t have any sidewalks. The lack of sidewalks on the major roadways has created gaps in the overall system leading to encroachment on roads. Moreover the existing footpaths are being encroached by hawkers.

1.8 PARKING

Parking space has been provided for two wheelers and Cars at different segments of road. Though there exists some illegal parking of vehicles on some stretches, traffic police continuously monitor and offenders are penalized.
On a normal day,

- No of Two Wheelers Parked: (Going from Tagore circle towards Gandhi Bazaar Circle)
  - Left Hand Side: 102
  - Right Hand Side: 58
  - Total: 160
- No. of Cars Parked:
  - Left Hand Side: 24
  - Right Hand Side: 14
  - Total: 38

1.9 HAWKING AT GANDHI BAZAAR

Hawkers or “micro-entrepreneurs” provide a wide variety of services and amenities to people, at convenient locations – with negligible investment and infrastructural costs.

- They keep streets clean, busy, vibrant and safe.
- They provide a variety of cheaper food and retail options.
- They express our unique culture.
- They generate self-employment for a large number of people.

Hawkers are found everywhere in Gandhi Bazaar. Various kinds of hawking activities are carried out mostly of Flowers, Fruits and Vegetables. The business timing of these hawkers depends on the kind of hawking activities they are carrying out.

1.9.1 Kind of Hawking Activities:

- Food Kiosk
- Vegetables/Fruits/Flower Shops
- Clothes / Shoes / Toys / Accessories
- Boot Polish
- Temple Offerings
- Cycle Repair
- Chai Wallas
- Paan Wallas

| Figure 1-11 Fruit shop | Figure 1-10 Flower Shop | Figure 1-11 Vegetable shop |
On a normal day, there are approximately 62 hawkers in Gandhi Bazaar Area. The Division can be shown as follows:

**On a normal Day:**
- Fruit Hawkers, Left Hand Side : 20
- Flower Hawkers Left Hand Side : 13
- Pooja Item and other items Hawkers: 5
- Fruit Hawkers, Right Hand Side : 0
- Flower Hawkers Left Hand Side : 10
- Pooja Item and other items Hawkers: 4
- Banana Leaf sellers: 10

**Total : 62**

However, on festive and other important occasions, the hawking activity increases and may go up to 160 hawkers. The division based on the category on special days is depicted below:

- Vegetable and Fruit vendors : 47
- Flowers : 35
- Clothes : 15
- Others : 8

**Total : 105**

The vendors occupy the foot paths blocking the movement of Pedestrians, which thereby causes major problem for traffic as well as pedestrians.
The following is the Base Map of the stretch to be pedestrianised on the Gandhi Bazaar Main Road.

Gandhi Bazaar main Road is also bordered by trees on either sides of the street. The trees have a concrete base, upon which, the hawkers sell their items. The hawkers occupy the road space up till these trees. The road space within the border of these trees is also used for car and two wheeler parking. There are: 8 trees on the Left Hand Side and 11 trees on the Right Hand Side of the road.
CHAPTER 2. METHODOLOGY FOR THE STUDY

2.1 AIM

The aim of this study is to check the feasibility Pedestrianizing Gandhi Bazaar and to suggest measures which will facilitate comfortable shopping experience to shoppers by the provision of world class facilities, while preserving the cultural and historical value of the area.

2.2 GOALS AND OBJECTIVES OF THE STUDY

The following are the Goals and Objectives identified for the present study. These goals not only guide the development of this pedestrianization plan but, they will also continue to guide the implementation of the Pedestrian Plan for years to come.

- To increase the effective sidewalk widths and improve pedestrian levels-of-service by reducing obstructions and/or widening sidewalks.
- To check and suggest measures for providing designated space for organised operation of hawking activity with appropriate facilities.
- To improve the quality of street by working with the local shop keepers and the hawkers to upgrade and coordinate physical elements, such as signage, lighting, landscaping, pavement, street furniture, litterbins, kiosks and stalls etc.
- To enhance pedestrian safety by reducing pedestrian-vehicular conflict and/or reducing vehicle trips and speed on the street.
- To assess the parking demand on the stretch and recommend alternative parking provision.
- To improve air quality by encouraging pedestrian rather than vehicular trips.
- To develop a range of specific design proposals varying in cost and complexity;
- To identify the pros and cons of these proposed interventions and improvements;
- To establish an inclusive advisory and regulatory committee; and provide a basis for coordinating actions affecting street, such as capital improvements and maintenance efforts by Municipal agency (BBMP), the Hawkers and shop owners group, and other entities.
- To transform the street into an attractive and aesthetically appealing destination, that also serves as a tourist destination, being a part of Basavanagudi.


2.3 LITERATURE REVIEW

2.3.1 Case Studies

Many countries across the world have given priority to pedestrians using the road space. The regular roads that will be used predominantly by the vehicles have been converted into pedestrian-only streets during particular periods of the day or particular days of the week.

For example, in Bagota-Latin America, some of the popular commercial streets have been open only to pedestrians on Saturdays and Sundays. In Bangkok, Silom Road is meant for people alone on Sundays. Similarly, the famous Paris Plague in Paris is for people during the entire summer season every year.

While pedestrian zones in newer US cities, which grew up around the automobile, have been a mixed success, they have flourished in older European cities. The first efforts in Asia’s ancient cities show tremendous promise. The new pedestrian zone on Nanjing Road in Shanghai has some of the heaviest pedestrian traffic in the world. Chinese stores are winning shoppers back from Carrefour. Walking and transit trips are replacing car trips, and downtown has become less polluted, safer, and nicer.

But successful pedestrian zones are not only a matter of shutting the streets to traffic. Critical to success is the creation and management of a safe, clean, and attractive shopping environment. So far, the success stories have been in China, where government is powerful and wealthy, crime is minimal, and street hawking and parking are tightly controlled. Achieving success in more chaotic but also more democratic Indian and Indonesian cities is proving a challenge.
The following is the compilation of some of the case studies:

<table>
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<tr>
<th>SN</th>
<th>Place and Project Title</th>
<th>Illustration</th>
<th>Proposal/ Measures Taken</th>
<th>Key Learning/Results</th>
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| 1  | Hyderabad’s Charminar Pedestrianization Project | ![Illustration](image) | - Full Pedestrianization of the Historical Precinct.  
- A vehicle-free buffer zone  
- Planned road widening, parking lots, street design, infrastructure & lighting, street furniture, utilities and signage scheme.  
- To deal with diverted traffic, some roads have been widened. | - Just started the implementation process  
- The shoppers in the area are broadly supportive of the plans.  
- The opposition seems mainly based on the fact that they drive to their shops, and would no longer be able to park in front of them.  
- Proposed road widening is being met with opposition. |

Hyderabad’s historical centre, is virtually inaccessible and badly damaged by air pollution, largely because it is in a traffic island surrounded by thousands of rushing, highly polluting vehicles. In fact, the entire historical core of Hyderabad is now blighted because of air and noise pollution which have destroyed the area’s once majestic character.

Jaipur’s historical core is clogged with smoke spewing and noisy motorcycles, motor rickshaws, and taxis. With its heavy reliance on tourism, and a well-preserved walled city, Jaipur is a natural place for a world-class pedestrian zone.

| 2  | Jaipur’s Pedestrianization Programme | ![Illustration](image) | - Three Phases of Implementation.  
- Phase I: pedestrianization of a narrow street passing through the Bapu Bazaar, then expanding to the nearby Bazaars  
- Phase II, the Johari Bazaar, Kishan pole market and the Chauda Rasta road that passes in front of the Hawa Mahal, would | - Overall improvement in the business  
- Traffic conditions unpredictable, trucks continue to arrive throughout the day, so the time restriction on truck deliveries was dropped.  
- The improved business environment also did not benefit everyone equally. |

Jaipur’s historical core is clogged with smoke spewing and noisy motorcycles, motor rickshaws, and taxis. With its heavy reliance on tourism, and a well-preserved walled city, Jaipur is a natural place for a world-class pedestrian zone.
Pedestrianization of Gandhi Bazaar

be made completely vehicle free.

- Phase III, the whole walled city would be pedestrianised, with only cycle rickshaws and battery operated buses allowed.

- Initially, parking was provided at the two ends of the market area, in what used to be the through street. While larger, off-site parking facilities are planned, they have not yet been built. As a result, shops with ugly parking facilities directly in front of them lost customers.

- Businesses far from the parking area suffered because some shoppers did not want to walk all the way to the middle of the market area.

- Plan may collapse due to lack of offsite parking facilities

The fact is that tedious heavy traffic was a constant on Nanjing Road and surrounding streets, the incurred air and noise pollution and poor transport connections labelling it with a tarnished and tired image. The area's anchor businesses were apparently out of current trend and fashion. Also the area was lack of basic creature comforts like relaxing places to sit down or to eat. Therefore commercial businesses were hindered. Nevertheless; a shortage of entertainment and cultural venues meant that visitors had no incentive to stay for long. The absence of marketing campaigns or coordinated approaches to publicity made it difficult for visitors to hear about them. Also rich resources were not sufficiently allocated to street's life, making it a bit rigid.

The pedestrianization of Nanjing Road aimed to boost up the commercial lives of the area. It was a strategy for top-to-bottom revitalization of Nanjing Road, making the street as the most famous, longest, beautiful pedestrian commercial destination in the world and the most dynamic, attractive, world-class, multi-functional commercial area in Asia.
<table>
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| 2 | Nanjing Road in Shanghai | - Taking the advantage of a critical mass of pedestrians, the retail mix around major categories including food, beverage, lodging and entertainment were enhanced, with varied products and services appealing to the widest group of customers.  
- Many side streets were pedestrianised.  
- Also many pedestrian walkways were built in the pedestrianised areas in connection to outer districts.  
- With the compromise of the local government, strong public-private partnerships were formed including merchants, government officials and tenant organizations. All parties came together to forge comprehensive street-wide plans, create special events and launch marketing campaigns for the whole area.  
- A real estate organization was formed to manage the area, ensuring the street involves foreign investors.  
- The huge improvement plan was put into action and completed just in time for Chinese New Year 2000.  
- A large section of the street was pedestrianised and new shopping centres had been erected. The first phase of the project involved a pedestrianised street of 1033 metres, with a width of 20-28 metres.  
- At present there are many first class hotels scattering along the road.  
- In the evenings, the street looks at its best, with neon lights and advertising billboards illuminating the glorious buildings along the road.  
- The Nanjing Road has developed into a multi-functional street of shopping, tourism, commercial businesses, culture, exhibitions and conventions. |
Malioboro Avenue is the main commercial spine of downtown Yogyakarta, and it leads directly to the Sultan’s doorstep. The thoroughfare was converted from a busy mixed traffic street into a two-lane one-way street, a wide non-motorized traffic lane was added where traditional Indonesian becaks continue to ply, and pedestrian space was widened. Gradually, however, vehicle parking and street vendors have encroached on the pedestrian space. The constant traffic, pollution, noise, and trash all detract from the areas commercial character, driving wealthier shoppers to mall-like alternatives at the urban periphery.

### Pedestrianizing Malioboro Avenue to Sultan Place in Yogyakarta, Indonesia

<table>
<thead>
<tr>
<th>3</th>
<th>Pedestrianizing Malioboro avenue to Sultan Place in Yogyakarta, Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To start off the scheme, for one month one summer, they closed Malioboro from 3 – 9 every Saturday and Sunday, which is the peak traffic. The closing was announced through the mass media.</td>
</tr>
<tr>
<td></td>
<td>One of the proposals was to turn Malioboro into a very short toll road, but most experts and the business community felt the proposal would not work.</td>
</tr>
<tr>
<td></td>
<td>One proposal that enjoyed support was to fully pedestrianize one short section of the existing roadway, while using sections of Malioboro leading up to this area in part for additional parking.</td>
</tr>
<tr>
<td></td>
<td>Whatever plan goes forward, it will have to deal with the numerous competing interests of several politically powerful groups.</td>
</tr>
<tr>
<td></td>
<td>Currently, the largest stumbling block is resistance from the parking monopolies that control the area.</td>
</tr>
<tr>
<td></td>
<td>Public attitudes to the temporary pedestrianization were mixed.</td>
</tr>
<tr>
<td></td>
<td>Motorcyclists complained, street peddlers complained, and the shop owners complained.</td>
</tr>
<tr>
<td></td>
<td>Most people felt the municipality was not serious, as they did no simultaneous improvements in the urban landscape.</td>
</tr>
<tr>
<td></td>
<td>Most of them support the full pedestrianization plan, which also includes new parking facilities and special markets for street vendors, relocating them off Malioboro.</td>
</tr>
<tr>
<td></td>
<td>The project’s primary costs relate to land acquisition and construction for the parking facilities, the markets for vendors, and some road widening on parallel roads.</td>
</tr>
<tr>
<td></td>
<td>However, a lower cost, incremental approach is being explored.</td>
</tr>
</tbody>
</table>
The following conclusions can be drawn from the review of the above case studies that would be relevant to the case of Gandhi Bazaar:

- Parking provision and relocation has been the major determinant of the success/failure of any attempted Pedestrianization Project.
- Before implementing a pedestrianization project, a mock implementation has to be conducted to understand the reactions of the people.
- The minor approach roads could also be converted into vehicle free stretches and the parking could be accommodated there.
- Pedestrianizing in all the cases brought about a positive improvement in the business environment.

### 2.3.2 Recommendation by CTTP

The Bangalore Comprehensive Traffic and Transportation Plan study identified three roads that are equally suitable for becoming pedestrian only roads. The roads recommended in this study are:

- Gandhi Bazaar Main Road between KR Road and DVG Road
- 10th Main Road adjacent to Jayanagar Shopping Complex
- Russel Market Road
Gandhi Bazaar Main Road between KR Road and DVG Road

As part of the study, Consultants recommended that Gandhi Bazaar Main Road between KR Road and DVG Road be converted as a Pedestrian Zone with provision for bus operation, that is, the center of the road must be reserved for buses only. This lane has to be separated from pedestrians by way of barricading the bus lane. However, delivery vehicles can be allowed only during restricted hours for loading / unloading purposes. It was also observed that two wheelers and cars are parked on the carriageway reducing the capacity of the roadway. Hence these parking spaces should be relocated within convenient walking distance. There exists an abandoned flower market on Gandhi Bazaar Main Road. In order to meet the parking demand, it is proposed that a multi level parking facility be provided at this location, near the corporation flower market.

The conceptual drawing of the Pedestrian Zone proposal is presented in Figure 2-1.

2.4 NATIONAL POLICY FOR URBAN STREET VENDORS

Street vendors form a very important component of the urban informal sector in India. According to a study conducted during 1999-2000, by the National Association of Street Vendors of India (NASVI), Mumbai has the largest number of street vendors numbering around 2,50,000. Kolkata has more than 1,50,000 street vendors. Ahmedabad and Patna have around 80,000 each while Indore, Bangalore and Bhubaneshwar have around 30,000 street vendors. This Policy recognizes three basic categories of Street Vendors. First, those Street Vendors who carry out vending on a regular basis with a specific location; Second, those Street Vendors who carry out vending not on a regular basis and without a specific location, for example, Vendors who sell goods in weekly bazaars during holidays and festivals and so on; Third, the Mobile Street Vendors.
The policy recommends the following, which must be provided for the street vendors:

- Provide provisions for solid waste disposal
- Public toilets to maintain cleanliness.
- Aesthetic design of mobile stalls/push carts
- Provision for electricity
- Provision for drinking water
- Provision for protective covers to guard their wares as well as themselves from heat, rain, dust etc.
- Storage facilities including cold storage.

2.5 URBAN STREET DESIGN GUIDELINES – DELHI

The urban street design guidelines formed by UTTIPEC recommends the following:

- Hawkers MUST be accommodated within the Road RoW – approximately every 500-1000 M on a public street.
- They are needed at all commercial centres and must be at walking distance from offices, homes and retail areas.
- Flexible Hawking Zones can be accommodated within the Multi-Functional Zone.
- Hawkers must be given designated space within the road Right-of-Way, so that they don’t occupy the Minimum Clear 1.8 M Pedestrian Walking Zone. Designated spaces will make enforcement easier which has not been possible so far.
2.6 METHODOLOGY

This section discusses the planning process that is essential to the success and sustainability of a pedestrian plan. There is a proposal that the Gandhi Bazaar Main Road be converted to a pedestrian only zone. However, to do this there is a considerable planning process that needs to be pursued. Gandhi Bazaar Main Road between KR Road and DVG Road, is one of the principal shopping streets in the heart of Basavangudi stretches for a short kilometre, bordered on both sides by shops. This road connects Krishna Rajendra Road and Bull Temple Road.

2.6.1 Goals and objectives for the project need to clearly defined based on user profile

User profile survey forms the main crux of the study. The discussion with the public needs to be conducted and their opinion needs to be taken to understand their needs and requirements. This would involve users of the area, including the traders associations, resident associations, vendors, pedestrians along the corridor and the police. The discussions would be the first step to start the planning process.

The user discussions can help in assessing whether the road should be pedestrian only zone or public buses should be allowed.

2.6.2 Existing Conditions

Needs Assessment the area is identified as the area within 1 km radius approximately. An existing conditions survey needs to be conducted focusing on the following:

- Consideration of segregation of pedestrian and NMT traffic
- Conflict points between pedestrians/NMT and Motor vehicles
- Street Vending and other informal activities
- Consideration of existing topography like trees, heritage elements etc. into street design
- ROW considerations
- Integration of other modes like transit (bus, Metro) with the corridor
- Parking Needs Survey
- Topographic Survey— The topographic survey determines the location of natural and man-made physical features, like all objects along the corridor like light/telephone/electric poles, traffic signals, footpaths, pavements, utility/transmission boxes, structure, trees, drains, manholes, property lines, names etc.
- Pedestrian Footfall Estimation- Pedestrian Counts estimate footfalls, needed for designing sidewalk width and also read the needs of the pedestrians along the area. This should be done at various points of the road and not just at junctions, which pedestrians often avoid due to their safety concerns.
- Traffic Survey, including loading and unloading needs would help assess the traffic movement in the area, during various parts of the day.

2.6.3 **Right Of Way (ROW) Considerations**
The ROW of the study area needs to be premeditated to identify conflicts, constraints in roadway widths, utility locations and any other conflicts. It also helps in placement of the pedestrian elements.

2.6.4 **Identification of Pedestrian /NMT Elements**
This would be dependent of the above assessments and survey analysis along with ROW considerations. In this case, street vending spaces, pedestrian pathway, bus ways (if user profile demands it), street furniture, etc need to be accommodated.

2.6.5 **Intersection Design**
Intersections need to be designed that attend to the pedestrian traffic. This is usually done based on traffic counts (turning movement counts), pedestrian counts and adjustment of signal timing, visible crosswalks etc. The DVG Road intersection needs to be designed in this context.
2.6.6 **Minor Roads Design**

Minor roads intersecting the main corridor need to be made pedestrian safe by restricting through traffic, by traffic calming methods. Minor Roads intersecting the Gandhi Bazaar main road need to be designed in this context.

2.6.7 **Bus Transport Design**

Bus transport needs to be connected to the pedestrian network and so footpaths/cycle paths need to have good accessibility and connectivity to bus stops. Pedestrian/cycle facilities like secure bike parking, information regarding bus schedules and routes. Pedestrian footfalls also would decide the size of the bus stop. If this area is made pedestrian only zone, then the option is to allow buses to go on H B Samaj Road, instead of GB Main Road. The diversion/new routes need to be communicated to the public. If buses are allowed on GB Road, then bus ways need to be designed (minimum 7m-bi-directional). This should not conflict with the pedestrian activities.

2.6.8 **Access Management Needs**

There need to be efforts to reduce the pedestrian and motor vehicle conflicts. In this case, this is necessary when buses are allowed along the GB Road. The bus ways need to be barricaded and access points at 200 m intervals, where boarding and alighting can take place. Also visible crosswalks need to be accommodated in these locations for pedestrians.

2.6.9 **Delivery of Goods**

Loading and unloading of goods needs to be restricted. The hours need to be decided based on the discussions with the shop keepers and vendors.

2.6.10 **Parking**

There exists an abandoned flower market on Gandhi Bazaar Main Road. In order to meet the parking demand it might be suggested that a parking facility be constructed at this location, based on the assessment of parking needs.
2.6.11 **Institutional Mechanism**

Institutional Mechanism for implementation and monitoring of the pedestrian program should be carefully laid out detailing the responsibilities of the various agencies involved in the plan.

2.6.12 **The Draft Plan**

The draft plan should be drawn based on the ROW considerations and other ground realities for the area. It is essential that the plan has a detailed implementation and monitoring plan. Way finding and Signage plan need to be an integral part of the design.

2.6.13 **Public Participation**

The draft plan should be presented to the public, and the stakeholders, and their feedback should be sought.

2.6.14 **Final Plan**

The public and stakeholder feedback should be incorporated in the Final Plan

2.6.15 **Awareness Program**

An awareness program to detail out the plan to the general public and to make the area commercially and aesthetically successful is essential to the success and popularity of the program.
CHAPTER 3. DATA COLLECTION AND ANALYSIS

3.1 SURVEYS

A set of preliminary surveys were conducted in the study area during the month of March, 2011. The surveys include: Opinion surveys, Road side interviews, Volume Counts, Road Network Inventory surveys, Speed and Delay surveys, Bus Stop Passenger counts. Three groups of people were targeted while conducting these surveys:

a. The Pedestrians/ Shoppers / Visitors
b. The Hawkers
c. The Shop Owners
3.2 VISITOR’S PROFILE

The sample size selected was: 300

3.2.1 Sex and Age
63% of people interviewed were male and 37% were female. 69% of people interviewed were between the age of 20 – 40 years and 16% of people were between the ages of 40 – 60.

3.2.2 Purpose of visiting Gandhi Bazaar
Majority of people visited Gandhi Bazaar for shopping purpose (57%). 14% of people were at Gandhi bazaar for recreation purpose. And 10% of people were at Gandhi Bazaar for business.

3.2.3 Frequency of trip
It was found from analysis that majority of people (35%) visit Gandhi bazaar once in a week and 25% of people visit occasionally. 24% of people visit on daily basis for various purposes and 16% of people visit every alternate day.
3.2.4 **Mode of travel**

Majority of people commuting to Gandhi bazaar use two wheeler as their mode of travel (56%), about 8% of people use public transport (Bus) and 26% of people use car and 5% of people walk to Gandhi Bazaar.

3.2.5 **Facilities that must be given to Public who come for shopping**

When enquired about the facilities that must be provided for the shoppers who come to Gandhi Bazaar for shopping, considerable amount of people recommended that facilities like signage boards, Drinking water, Dustbins should be provided.

- 82% of people felt that parking space must be provided.
- 77% of people felt that wider footpaths for pedestrians should be provided.
- 52% of people felt that hawkers must be provided with designated place for carrying out their hawking activity and shelter must also be provided.
3.2.6 **Is pedestrianization a good idea?**

About 32% of people felt that pedestrianizing Gandhi Bazaar is a good idea, as it would result in less polluted area and good shopping experience with increased safety by the reduction of conflict points with vehicles and improved facilities for the shoppers.

![Chart 3-6 Opinion for pedestrianisation]

3.2.7 **Inconvenience of pedestrianizing**

About 59% of people felt that pedestrianizing will make people walk more as vehicles would not be allowed beyond a certain point. 54% of people felt that public need to take detour as Gandhi bazaar main road being a very important connecting road between various areas of Basavanagudi.

12% of people felt that the income of hawkers will come down as the number of people coming to Gandhi Bazaar will get considerably reduced and people will start going to some other markets.

![Chart 3-7 Views about the after effects of implementing pedestrianisation program]
3.3 RESPONSE FROM SHOP OWNERS

3.3.1 Mode for commuting to Gandhi Bazaar

From the surveys conducted it was found out that 62% of shop owners use their own vehicles (TW/Car) for commuting to Gandhi bazaar. They park their vehicles in front of their shops. 31% of shop owners use buses for commuting to Gandhi bazaar, while 3% and 4% of people use IPT and walking as their mode of travel.

17% of shops are running their business here for less than 5 years, while 48% of shops are operating for the past 5-10 years. It was also found that 13% of shops have been in running their business for more than 20 years.

3.3.2 Facilities to be provided in Gandhi Bazaar

When asked about their opinion on the facilities that were absent or that were needed in the area,

- 34% of shop owners felt that parking space had to be given.
- 27% of shop owners felt that wider footpaths have to be provided for free movement of people.
- 45% of shoppers felt that people must be provided drinking water facilities.
- 49% of shop owners felt that dust bins must be provided.
- 37% of shop owners felt that hawkers must be given a designated space for hawking.
16% of shop owners felt that connectivity of public transport had to be improved.

24% of shop owners felt that signage’s must be provided.

27% of shop owners felt that Gandhi bazaar must be vehicle free zone.
3.3.3 Advantages of pedestrianizing

26% of shop owners feel that pedestrianization is a good idea and 18% of shop owners feel that their income might increase because of pedestrianization.

38% of people feel that Pedestrianizing Gandhi bazaar will give good shopping experience for the shoppers. 45% of shop owners feel that traffic congestion in this area will get reduced and 30% of shop owners feel that pedestrianizing Gandhi bazaar will reduce air pollution.

3.3.4 Disadvantages of Pedestrianization

81% of shop owners feel that their incomes will come down. 79% of people feel that walking distance will increase to parking lot. 60% of people feel that public need to take a detour when this area is pedestrianized.
3.4 OPINION SURVEY FOR HAWKERS

3.4.1 **Designated space for Hawking:**
67% of hawkers feel that they must be given designated space for carrying out their hawking activity, while 33% of people feel that they will carry their business the way they have been doing for past years.

3.4.2 **Pedestrianizing Gandhi Bazaar?**
66% of hawkers feel that Pedestrianizing Gandhi Bazaar is a good idea. And 46% of hawkers feel that Pedestrianizing Gandhi Bazaar will increase their income and it will provide good shopping experience for the shoppers.
3.4.3 **Disadvantages of pedestrianization**

54% of hawkers are afraid that their income will come down as the number of people visiting Gandhi Bazaar will get reduced as people might start going to some other place for shopping.

![Chart 3-15 Disadvantage of Pedestrianizing](chart)

- **Incomes will increase**: 46%
- **Less air pollution**: 33%
- **No traffic congestion**: 55%
- **Good shopping experience**: 39%
3.4.4 Daily Earning

42% of hawkers said that their daily income is less than Rs.500. 37% and 11% of hawkers are within the income range of Rs.500-1000 and Rs.1000-2000 respectively. 10% of hawkers said that they are earning more than Rs.2000 in a day.

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incomes will come down.</td>
<td>54%</td>
</tr>
<tr>
<td>People need to walk to the parking lot</td>
<td>23%</td>
</tr>
<tr>
<td>Traveling public will need to take a detour.</td>
<td>65%</td>
</tr>
</tbody>
</table>

![Chart 3-16 Daily earning of hawkers](image)

3.5 ANALYSIS OF ROAD SURVEYS

3.5.1 Turning volume count survey

A turning volume count survey was conducted at Vidyarthi Bhavan Circle Junction. The vehicles counted were converted to Passenger Car Units (PCU). The PCUs corresponding to urban roads as per IRC: 106-1990 has been used (Table 2.9). The peak traffic occurs at 6.00 – 7.00 pm in the evening. The junction carries 3598 PCU (4809 Vehicles). Morning peak is during 9.00 – 10.00 am with 3203 PCU (4750 Vehicles).

![Chart 3-17 Disadvantages of Pedestrianizing](image)

Figure 3-1 Turning volume count survey location
### 3.5.2 Bus stop Passenger interview & Passenger Count Survey

The passenger alighting and boarding data survey was administered at Gandhi bazaar bus stop for a minimum of 8 hours covering both peak and off peak periods. The survey locations are shown in figure below.
<table>
<thead>
<tr>
<th>Time Period</th>
<th>No. Of Busses</th>
<th>Total No. Of Boarding Passengers</th>
<th>Total No. of Alighting Passengers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00-09:00</td>
<td>34</td>
<td>79</td>
<td>172</td>
<td>251</td>
</tr>
<tr>
<td>09:00-10:00</td>
<td>42</td>
<td>86</td>
<td>237</td>
<td>323</td>
</tr>
<tr>
<td>10:00-11:00</td>
<td>40</td>
<td>113</td>
<td>193</td>
<td>306</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td>41</td>
<td>140</td>
<td>139</td>
<td>279</td>
</tr>
<tr>
<td>04:00-05:00</td>
<td>45</td>
<td>276</td>
<td>156</td>
<td>432</td>
</tr>
<tr>
<td>05:00-06:00</td>
<td>37</td>
<td>212</td>
<td>161</td>
<td>373</td>
</tr>
<tr>
<td>06:00-07:00</td>
<td>19</td>
<td>168</td>
<td>101</td>
<td>269</td>
</tr>
<tr>
<td>07:00-08:00</td>
<td>30</td>
<td>179</td>
<td>112</td>
<td>291</td>
</tr>
</tbody>
</table>

**Chart 3-19 Tidal flow of passengers alighting and boarding**
3.5.3 **Pedestrian Count Survey**

The pedestrian count survey has been carried out around 10 locations in Gandhi Bazaar to know the total pedestrian fall in and out of the project corridor. The results are as follows.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Pedestrian Fall In to G.B.</th>
<th>Pedestrian Fall out to G.B.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning Peak Period</td>
<td>4427</td>
<td>3671</td>
</tr>
<tr>
<td>Evening Peak Period</td>
<td>4545</td>
<td>4318</td>
</tr>
<tr>
<td>Total Pedestrian Fall</td>
<td><strong>8972</strong></td>
<td><strong>7989</strong></td>
</tr>
</tbody>
</table>

3.5.4 **Parking Duration and Accumulation Survey**

The parking duration and Accumulation survey is carried out at 6 stretches in Gandhi Bazaar Road to understand the Parking Demand along the project corridor and the results are shown in below.
<table>
<thead>
<tr>
<th>Duration of Parking</th>
<th>Designation of Parking</th>
<th>Stretch 1</th>
<th>Stretch 2</th>
<th>Stretch 3</th>
<th>Stretch 4</th>
<th>Stretch 5</th>
<th>Stretch 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sum of ECS</td>
<td>%</td>
<td>Sum of ECS</td>
<td>%</td>
<td>Sum of ECS</td>
<td>%</td>
</tr>
<tr>
<td>Upto 0.5 Hour</td>
<td>Quick Parkers</td>
<td>199.7</td>
<td>66%</td>
<td>119.8</td>
<td>59%</td>
<td>72.8</td>
<td>66%</td>
</tr>
<tr>
<td>B/w 0.5 Hr and 1 Hrs</td>
<td>Short Stay Parking</td>
<td>61.84</td>
<td>21%</td>
<td>55.36</td>
<td>27%</td>
<td>18.44</td>
<td>17%</td>
</tr>
<tr>
<td>B/w 1 Hr and 2 Hrs</td>
<td>Medium Stay Parking</td>
<td>22.4</td>
<td>7%</td>
<td>12.72</td>
<td>6%</td>
<td>5.44</td>
<td>5%</td>
</tr>
<tr>
<td>B/w 2 Hr and 3 Hrs</td>
<td>Long Stay Parking</td>
<td>4.52</td>
<td>2%</td>
<td>4.28</td>
<td>2%</td>
<td>5.44</td>
<td>5%</td>
</tr>
<tr>
<td>&gt; 3 Hours</td>
<td>Very Long Stay Parking</td>
<td>12.8</td>
<td>4%</td>
<td>11.28</td>
<td>6%</td>
<td>8</td>
<td>7%</td>
</tr>
</tbody>
</table>

Chart 3-20 On site Parking
### 3.5.5 Parking Demand & Accumulation Survey

<table>
<thead>
<tr>
<th>Location Name</th>
<th>Car</th>
<th>2W</th>
<th>Auto/Maxicab</th>
<th>Corridor ECS</th>
<th>Available area for parking</th>
<th>Actual Parked Area</th>
<th>% of Parking Area utilized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dvg Road</td>
<td>40</td>
<td>232</td>
<td>98</td>
<td>1375</td>
<td>1250</td>
<td>90.91%</td>
<td></td>
</tr>
<tr>
<td>Bugle Rock Road</td>
<td>25</td>
<td>30</td>
<td>32.5</td>
<td>1375</td>
<td>750</td>
<td>54.55%</td>
<td></td>
</tr>
<tr>
<td>8th Cross Road</td>
<td>42</td>
<td>92</td>
<td>65</td>
<td>625</td>
<td>500</td>
<td>80.00%</td>
<td></td>
</tr>
<tr>
<td>Radhakrishna convention hall Road</td>
<td>50</td>
<td>80</td>
<td>70</td>
<td>1000</td>
<td>750</td>
<td>75.00%</td>
<td></td>
</tr>
<tr>
<td>BMS College Road</td>
<td>14</td>
<td>18</td>
<td>18.5</td>
<td>450</td>
<td>250</td>
<td>55.56%</td>
<td></td>
</tr>
<tr>
<td>H.B. Samaj Road</td>
<td>25</td>
<td>100</td>
<td>5</td>
<td>53.75</td>
<td>550</td>
<td>90.91%</td>
<td></td>
</tr>
<tr>
<td>Govindappa Kalyana Mantap Road</td>
<td>55</td>
<td>60</td>
<td>5</td>
<td>73.75</td>
<td>1000</td>
<td>75.00%</td>
<td></td>
</tr>
<tr>
<td>Shankar Mutt Road Ext.</td>
<td>11</td>
<td>34</td>
<td>19.5</td>
<td>500</td>
<td>250</td>
<td>50.00%</td>
<td></td>
</tr>
<tr>
<td>4th Block Jayanagar Road</td>
<td>18</td>
<td>30</td>
<td>25.5</td>
<td>875</td>
<td>375</td>
<td>42.86%</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 4. PEDESTRIANISATION OF GANDHI BAZZAR

4.1 WHAT IS PEDESTRIANIZATION?

Pedestrianization is defined as the creation or conversion of different public spaces exclusively for pedestrian use. These are the zones in town or city reserved for pedestrians only. In such zones all the vehicles are prohibited and are instituted by communities who feel that it is desirable to have pedestrian only areas. Converting a street or an area to pedestrian only use is called as pedestrianization.

4.1.1 Various Benefits of pedestrianization

<table>
<thead>
<tr>
<th>Economic</th>
<th>Social</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved accessibility Particularly for non-drivers</td>
<td>Reduces external transportation costs (crash risk, pollution, etc)</td>
<td>Reduced energy consumption and pollution emissions</td>
</tr>
<tr>
<td>Minimized conflict points with vehicles. Reduced transportation costs</td>
<td>Improved opportunities to preserve cultural resources (historic buildings)</td>
<td>Improved aesthetics</td>
</tr>
<tr>
<td>Facility to park vehicles/ cycle parking lot with locking facilities.</td>
<td>Increased exercise</td>
<td>Open space preservation</td>
</tr>
<tr>
<td>Facilities such as trolley/ rest room/landscaping/ street furniture/ample shading/ way finding signs/ Boards</td>
<td>Very low levels of TW/car use, resulting in much less traffic on surrounding roads</td>
<td>Reduced land needed for roads and parking facilities</td>
</tr>
<tr>
<td>Increase local business activity and employment</td>
<td>High rates of walking and cycling</td>
<td>less land taken for parking and roads - more available for green or social space</td>
</tr>
<tr>
<td>Health cost saving from improved exercise</td>
<td>Improved accessibility for people who are transport disadvantaged</td>
<td>No air pollution. Better for health of shopkeepers and shopper</td>
</tr>
</tbody>
</table>
4.2 SWOT ANALYSIS

SWOT analysis is a strategic planning method used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a project or in a business venture. It involves specifying the objective of the business venture or project and identifying the internal and external factors that are favorable and unfavorable to achieve that objective.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Better shopping experience for shoppers</td>
<td>- Making Gandhi Bazaar road for pedestrians only will increase the vehicular traffic on other bordering roads.</td>
</tr>
<tr>
<td>- World class facilities</td>
<td>- People need to take detour</td>
</tr>
<tr>
<td>- Improved safety of pedestrians</td>
<td>- Walking distance will increase</td>
</tr>
<tr>
<td>- Ample space for parking</td>
<td></td>
</tr>
<tr>
<td>- Raise of income for shop owners/Hawkers</td>
<td></td>
</tr>
<tr>
<td>- No cutting of trees</td>
<td></td>
</tr>
<tr>
<td>- Environmental benefits, Social benefits</td>
<td></td>
</tr>
<tr>
<td>- Increased Public transport connectivity</td>
<td></td>
</tr>
<tr>
<td>- NMT lane/NMT parking</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Designated hawker space</td>
<td>- Decrease in income of hawkers</td>
</tr>
<tr>
<td>- Disposal of wastes/recyclable materials</td>
<td>- People stop coming to Gandhi Bazaar and go somewhere else for shopping.</td>
</tr>
<tr>
<td>- No plastic zone</td>
<td>- Opposition from Hawkers/Shop Owners/General Public</td>
</tr>
<tr>
<td>- Beautification of the area</td>
<td>- Hawkers get displaced.</td>
</tr>
<tr>
<td>- Support from public</td>
<td></td>
</tr>
<tr>
<td>- Support from Gov Agencies</td>
<td></td>
</tr>
<tr>
<td>- Opportunity for controlling hawking activities on the footpaths.</td>
<td></td>
</tr>
<tr>
<td>- Revitalizes entire area</td>
<td></td>
</tr>
</tbody>
</table>
The following section discusses the proposals for the pedestrianization of Gandhi Bazaar. Before discussing the options for the layout of the road space, various facilities that are needed for the betterment of the area, for hawking and shopping are discussed at length.

4.3 FACILITIES TO BE PROVIDED

The following are the facilities that need to be provided for the Hawkers and the Pedestrians who use the Gandhi Bazaar Area.

4.3.1 Pedestrian Walkway zone
- Paving in two shades of grey with pedestrian zone clearly designated from hawker zone is necessary to separate walkway from the hawker’s space.
- Sidewalk widths should be greater in areas where higher volumes of pedestrian traffic are expected. For pedestrians to walk a clear walk way of 4 m is to be provided.
- Also it is recommended that the walkway must be paved with separate color paving (which automatically indicates that no hawking is allowed in that area)
- It is also necessary to remove hawking activity completely from the footpaths at certain locations where free walking zone of pedestrians are absolutely blocked.

<table>
<thead>
<tr>
<th>Width of Side-walk</th>
<th>IRC- 101- 1988</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Capacity in number of persons per hour</td>
</tr>
<tr>
<td></td>
<td>All in one direction</td>
</tr>
<tr>
<td>1.50</td>
<td>1200</td>
</tr>
<tr>
<td>2.00</td>
<td>2400</td>
</tr>
<tr>
<td>2.50</td>
<td>3600</td>
</tr>
<tr>
<td>3.00</td>
<td>4800</td>
</tr>
<tr>
<td>4.00</td>
<td>6000</td>
</tr>
</tbody>
</table>

4.3.2 Designated Space for hawkers
The hawkers occupy any space they get. Hence, they must be arranged in a systematic manner so that they don’t cause problems to the pedestrians or the shop owners.
Pedestrianization of Gandhi Bazaar

Shelter: Temporary canopies can be used as shelters, since they are most economical. These demo tents are easily portable and commutable at any place, with that it become easier for anyone to endorse the product. This is the best source through which everyone can actually exhibit his or her product in front of the consumer. They are available in various colors, designs, and shapes as per the requirement of customer. They also provide 100% UV protection and are Fire resistance. These can be designed to exhibit the product in various colors. These can also be very attractively designed.

4.3.3 Vehicle Parking Place

The parking space provided in Gandhi Bazaar is not systematic. Hence proper pedestrianization with lane parking methods will provide more space for parking.
4.3.4 **Cycle Parking Lot**

Cycle Racks at strategic arrival points to ensure people park bicycles and then walk through pedestrianised area.

4.3.5 **Lighting**

Pedestrian routes to and from commercial centres should be well lit with street and pedestrian-scale lighting. Pedestrians need street lighting which contributes to personal safety, traffic safety and a high quality pedestrian environment. Low and mid level ornamental lighting is generally considered preferable in high pedestrian use areas because it is typically installed to provide more lighting and more uniform lighting on sidewalks; its aesthetic design also contributes to a coherent streetscape.

4.3.6 **Cross walks**

Interior sidewalk widths should be a minimum of 5-feet and 6-feet for exterior sidewalks to improve pedestrian safety and comfort.

In Gandhi Bazaar crossing walks are given in terms of zebra crossing.

4.3.7 **Disable Friendly Design**

Tactile pavement must be provided to facilitate physically disabled people.
4.3.8 Waste Management
Dust bins must be provided at various points. This is one of the most important factors here in Gandhi Bazaar to keep the area clean, the segregation of the waste is an important factor here. The government should make waste collection points at every interval of specified distance and should be segregated by the government to avoid polluting the environment. And special care should be taken by the government to keep the area clean so that it could be attracted by more number and all kinds of people, by whom it will become a major business center and automatically the economy of the business and the government will be increased. The present environment in Gandhi bazaar is very much polluted due to the dumping of waste on roads. As the number of hawkers, shops, and pedestrian are more in this area, there is no proper point for the disposal of waste at the particular point, hence proper measures are to be taken for improving the sanitary facility in the zone by providing dustbins and sanitary points, etc.

At the end of each day, each Hawker disposes the waste collected during the day into specific bins. It will be proposed that BBMP collects this waste from the bins.

4.3.9 Loading and unloading bays
The zone consists of many shops and various types of hawkers. Raw materials required for their business are to be delivered in time but due to traffic congestion and uneven roads, heavy vehicles cannot load and unload the raw materials to their respective shops or hawkers in time. Hence by providing unloading and loading bays the time required for transporting the raw materials to their respective shops and hawkers will be much easier and less consuming.

4.3.10 Toilets
The public toilets must be provided in this zone.

4.3.11 Way finding Signage
These sign boards must be provided as per the IRC standards which provide easy and proper direction and designations of the particular place or the road.

4.3.12 **Signage indicating different hawker zones**

The hawkers occupy the space where ever they find one; the hawkers must be rearranged in a particular manner as per their business. Hence by providing sign boards we can help the public to clearly know the way as it indicates where the particular hawkers are located, it helps the public to locate the hawkers easily rather than making the pedestrian search for their requirements.

4.3.13 **Street Furniture**

**Benches:**
Timber slat seating on stainless steel base; some with back and arm rests, some without, to facilitate different users. Shelters, benches, bicycle racks, newspaper racks, kiosks, trash/recycling bins; public art, etc. are important infrastructure for pedestrians.

**Trash Receptacles:**
Pedestrians need a place to dispose trash. So the trash receptacles need to be placed at all bus shelters, and all commercial corridor intersections. The standard trash receptacle is a large plastic container serviced mechanically by a garbage truck.

4.3.14 **Additional Facilities**

Security and ambulance with paramedics and even a medical room for emergencies can be provided.

4.3.15 **Additional Attractions**

Street plays and social awareness campaigns and kid's park can be added attractions.

4.3.16 **Kiosks for Hawkers**

**MATERIALS:**
- Aluminum extrusion with natural clear anodized aluminum exterior surfaces.
- Plywood or particle board with laminate or lacquer enamel finish.
- Light/ Heavy gauge vacuum formed plastics with epoxy coating.
• Fiber reinforced plastics with epoxy finish.

• Non-ferrous metals with epoxy finish.

### 4.4 DESIGN SPECIFICATIONS

#### 4.4.1 Foot Paths
A hierarchical approach should be taken to the design of footpaths where the importance of the route is reflected by its width and quality of materials. In general all footpaths should be wide enough and remain free of obstructions to allow pedestrians to freely pass each other and to avoid potential hazards for blind or partially sighted pedestrians.

Footpaths along the Gandhi Bazaar Street should be wide enough to cater for higher pedestrian flows. Footpath widths should be a minimum of 3 metres within areas of higher activity (additional width should also be provided around areas of retail activity to allow for the placement of outdoor seating).

Footpaths along the Pedestrianised Street should be finished with paving. In higher specification areas natural or reconstituted stone should be used. In other areas concrete paving should be used. Footpaths along Side Streets and Back Streets can be finished in standard concrete finishes. Concrete block paving or paved banding/trim should also be considered on key pedestrian routes or within areas of civic importance.

Paving set should be applied in an unobstructed manner. Where driveways cross the footpath the level of the footpath should be maintained across the vehicular crossing to allow continuous pedestrian movement and priority.

4.4.2 Parking Bay Design

On street parking bays should be finished so that they are clearly distinguished from the main vehicular carriageway. Parking on important streets should be finished in higher specification materials such as small sett stone or concrete block paving. A line of contrasting block paving trim should also be used to clearly demarcate individual parking bays and the road edge.

Individual parking bays should not be demarcated by painted lines. Concrete block paving parking bays are also preferred on Streets and Back Streets, in higher amenity areas. A more standard approach may involve the use of colored macadam/asphalt finishes with a line of contrasting concrete block or brick paving provided as a trim.

To reduce the visual impact of parking, the number of spaces grouped together should be restricted to no more than two parallel or five perpendicular spaces. Each group should be broken up by landscaping treatments. These treatments should be meters wide to facilitate the planting of a substantial street tree and may encroach into the main carriageway to provide a
Pedestrianization of Gandhi Bazaar

arowing effect. Perpendicular spaces are discouraged on both sides of the same street as the volume of parked cars can be a major streetscape detractor as the streets appears more like a car park.

4.4.3 Pedestrian Crossing
Frequent crossing points are essential to promoting a walkable neighbourhood and calm traffic by requiring drivers to be alert of their surroundings and possible pedestrian activity. Along the street, the maximum distance between crossing points should be no greater than 100 meters.

The precise location of crossing points should be determined by the frequency of junctions, pedestrian desire lines and cycling routes.

Pedestrian crossings may also be desirable along Side Streets where a major pedestrian route is identified and/or at mid block locations as a traffic calming element.

In higher specification areas pedestrian crossings should be constructed with robust surface changes such as smooth concrete block paving or stone sets. Where paving is used they should be of a finish similar to the footpaths, with a moderate degree of contrast. A contrasting line of trim should also be provided to clearly demarcate the edges of the crossing to minimize the need for line painting.

4.4.4 Safety Installation and Signage
Pedestrian desire lines are to be sufficiently catered for and other measures have to be introduced to reduce vehicle speeds. Where installations are used to direct pedestrians preference should be given to less intrusive measures such as bollards and tactile/contrasting paving. The careful placement of items of street furniture (such as planters, bicycle racks and benches) can also be considered as an alternative to protect pedestrians and guide them toward crossing points.
The use of bollards to prevent vehicles kerb mounting is increasingly common. However this should be carefully considered in the context of Gandhi Bazaar where on-street parking is freely available. Narrower carriageways may also serve to discourage kerb mounting as mounted vehicles will directly impede the path of traffic. The excessive use of bollards can contribute greatly to cluttering and can be hazardous to cyclists and near sighted pedestrians. Where used, bollards should be demountable and of a uniform design that is of a simple/streamlined metallic finish. Where provided in close proximity to crossing points a contrasting band should be provided to assist the visually impaired.

4.4.5 Kerbs

Distinctive kerb elements should be provided on all streets where it is necessary to provide an edge to the vehicular carriageway and segregate pedestrian and vehicular activity. In such instances kerbs should consist of block elements that contrast and/or are distinctive from the footpath.

Lower kerbs should be considered on Side/Back Streets to provide a greater sense of shared space. Where appropriate the height of kerbs may be reduced from the standard 125mm to a lower height of 75mm.

Kerbs within the higher specification areas should be constructed with natural or reconstituted stone More generally they can be finished in concrete. Kerbs will not be provided within shared surface areas such as homezones or mews.

Drop kerbs should be provided at all crossing points and on the corners of all intersections to assist the movement of cyclists, buggy/pram users and the mobility impaired. Where provided, a distinctive line should be maintained at the base of the drop kerb. Dished kerbs should be used at all driveway crossings and should maintain a level and continuous footpath.
4.5 PEDESTRIANIZATION PLAN PROPOSALS

The many forms of pedestrianization that can be looked at are as follows:

- **Full pedestrianization**
  - Elimination of motor vehicle traffic at all times and on all days by means of formal traffic orders

- **Part-Time pedestrianization**
  - Elimination of motor vehicle traffic for only certain hours of the day and/or certain days of the week; (vehicle restricted)

- **Partial pedestrianization**
  - Claiming space from road for pedestrians and increasing the footpath width
  - Bus and NMT Lane only
The following section will discuss various proposal options that can be worked out for Gandhi Bazaar, their detailed drawings, pros and cons of such proposals. It is important therefore to review the existing scenario through a base map, before looking at the proposals.
### 4.6 PROPOSAL OPTIONS

Various options for the proposals for Gandhi Bazaar, their advantages and disadvantages are discussed as follows:

<table>
<thead>
<tr>
<th>Proposal Option</th>
<th>Description</th>
<th>Necessary Interventions</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Business As Usual</td>
<td>• Continue with the existing situation • Traffic Management • Parking Management • Provision of some necessary infrastructure for Hawkers</td>
<td>• Provision and regulation of Parking bays, Metered Parking • Hawker Organization • Managerial Interventions required</td>
<td>• Hawkers need not shift • Mixed traffic allowed • No change so, no confusion for people</td>
<td>• Traffic and Pedestrian Conflicts continue • Pollution • Uncomfortable shopping experience • Lack of good shop frontage</td>
</tr>
</tbody>
</table>

---

[Diagram of Gandhi Bazaar traffic flow and pedestrian routes]
### Pedestrianization of Gandhi Bazaar

<table>
<thead>
<tr>
<th>Minimum Intervention</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Wider Footpaths</td>
<td>-</td>
</tr>
<tr>
<td>Organized Hawker Zone</td>
<td>-</td>
</tr>
<tr>
<td>Traffic Management</td>
<td>-</td>
</tr>
<tr>
<td>Provision of facilities</td>
<td>-</td>
</tr>
<tr>
<td>Widen Footpaths</td>
<td>-</td>
</tr>
<tr>
<td>Removal of encroachments</td>
<td>-</td>
</tr>
<tr>
<td>Car and Bike parking to be provided elsewhere</td>
<td>-</td>
</tr>
<tr>
<td>Comfortable Shopping Experience</td>
<td>-</td>
</tr>
<tr>
<td>More space for walking</td>
<td>-</td>
</tr>
<tr>
<td>Good shop frontage</td>
<td>-</td>
</tr>
<tr>
<td>Traffic and Pedestrian conflicts</td>
<td>-</td>
</tr>
<tr>
<td>Pollution and Noise</td>
<td>-</td>
</tr>
</tbody>
</table>

### Map of Gandhi Bazaar

- **Gandhi Bazaar**
- **D.V.V. Road**
- **Gandhi Main Road**
- **Flower Market**
Pedestrianization of Gandhi Bazaar

- Organized Hawker Zones and Foot Paths
- One lane reserved for Buses
- One lane for mixed traffic
- Traffic management, calming

- Widen Footpaths
- Removal of encroachments
- Hawker zone
- Car and Bike parking to be provided elsewhere
- Pavement demarcation for the lanes

- Mixed traffic is allowed but discouraged due to lesser speeds
- Buses given priority
- Enhanced shopping experience

- Traffic and Pedestrian Conflicts continue
- Requires strict management
Pedestrianization of Gandhi Bazaar

4.a Bus Lane - One way

- Wide Foot Path
- Organized Hawker Zone
- Central Bus Lane
- Provision of Street Furniture and other pedestrian and hawker facilities
- Widen Foot Paths
- Hawker zone
- Cars, bikes, autos etc, diverted to parallel roads
- Provision of Street Furniture and other facilities for hawkers and pedestrians
- Managerial interventions like traffic diversion required.
- Comfortable shopping experience
- Ample space for the provision of pedestrian facilities
- Good Shop Frontage
- Pedestrians safer due to removal of other traffic
- Pollution and noise reduction
- In-Accessibility to the area through private modes.
- Lack of parking and non allowance of private vehicles may reduce the no. of people visiting
- May lead to congestion on parallel roads
- Time taking process
- Lack of Awareness may make it a failure

Directorate of Urban Land Transport
### Pedestrianization of Gandhi Bazaar

#### 4.b Bus Lane – Two Way, Median Bus Stop

- Wide Foot Path
- Organized Hawker Zone
- Median Bus Stop
- Median Pedestrian Facilities, Street furniture
- Two Way Side Bus Lanes
- Improve Foot Paths
- New Bus Stop in the center
- Diversion of Mixed traffic to parallel lanes
- Provision of Street Furniture
- Bus Route Modification
- Comfortable shopping experience
- Seating space
- Good Shop Frontage
- Pollution and Noise reduction
- Caters to two way Bus Movement and hence accessible
- Lack of parking and non allowance of private vehicles may reduce the no. of people visiting
- May lead to congestion on parallel roads
- Time taking process
- Lack of Awareness may make it a failure

---

[Diagram showing pedestrianization of Gandhi Bazaar with bus lane, footpath, and shops.]
### Pedestrianization of Gandhi Bazaar

<table>
<thead>
<tr>
<th>4. c</th>
<th>Bus Lane – Two way, side Bus stops</th>
</tr>
</thead>
</table>

- Wide Foot Paths
- Organized Hawker Zone
- Two Way Bus Lanes
- Side Bus Stops
- Other facilities

- Improve Foot Paths
- New Bus Stops on either sides
- Diversion of Mixed traffic to parallel lanes
- Provision of facilities
- Bus Route Modification

- Comfortable shopping experience
- Good Shop Frontage
- Pollution and Noise reduction
- Caters to two ways Bus Movement and hence accessible.

- Lack of parking and non allowance of private vehicles may reduce the no. of people visiting
- Congestion on parallel toads

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![Map of Gandhi Bazaar showing bus lane and pedestrian pathways.](image)

**Note:**
- SHOPS
- FOOT PATH
- BUS LANE
- BUS STOP
- HAWKER ZONE

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**Directorate of Urban Land Transport**
Complete Pedestrianization

- Wide Foot Paths with street furniture
- Median Cycle Lane can be reserved
- Wide Organized Hawker Zone
- Recreational facilities
- Widen Foot paths
- Provision for Hawker Zone
- Provision for Bicycle Lanes for future
- Improve pavement surface
- Landscaping, Beautification
- Safe and convenient for the users
- Comfortable Shopping experience
- Aesthetically appealing
- Many eating joints, plazas, children’s playing areas etc could be accommodated
- Lot of scope for landscaping, fountains, greenery possible
- Can be made a mini tourist destination along with Basavannagudi
- Lot of intervention
- Diversion of traffic may impact the parallel roads and lead to congestion
- People may stop visiting Gandhi Bazaar since, commuting may become a problem
- Economy of hawkers may drop
- Time consuming exercise
## 4.7 PROPOSAL OPTION RANKING

It is attempted to rank these options based on various attributes as:

- Shopping Experience
- Conflict Reduction
- Aesthetics
- Public Acceptability

<table>
<thead>
<tr>
<th>Option 1</th>
<th>Business As Usual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute</td>
<td>1</td>
</tr>
<tr>
<td>Shopping Experience</td>
<td></td>
</tr>
<tr>
<td>Conflict Reduction</td>
<td></td>
</tr>
<tr>
<td>Aesthetics</td>
<td></td>
</tr>
<tr>
<td>Public Acceptability</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option 2</th>
<th>Minimum Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute</td>
<td>1</td>
</tr>
<tr>
<td>Shopping Experience</td>
<td></td>
</tr>
<tr>
<td>Conflict Reduction</td>
<td></td>
</tr>
<tr>
<td>Aesthetics</td>
<td></td>
</tr>
<tr>
<td>Public Acceptability</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option 3</th>
<th>Bus Priority Lane with one way Mixed Traffic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute</td>
<td>1</td>
</tr>
<tr>
<td>Shopping Experience</td>
<td></td>
</tr>
<tr>
<td>Conflict Reduction</td>
<td></td>
</tr>
<tr>
<td>Aesthetics</td>
<td></td>
</tr>
<tr>
<td>Public Acceptability</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option 4</th>
<th>Bus Only Lanes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute</td>
<td>1</td>
</tr>
<tr>
<td>Shopping Experience</td>
<td></td>
</tr>
<tr>
<td>Conflict Reduction</td>
<td></td>
</tr>
<tr>
<td>Aesthetics</td>
<td></td>
</tr>
<tr>
<td>Public Acceptability</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option 5</th>
<th>Complete Pedestrianization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute</td>
<td>1</td>
</tr>
<tr>
<td>Shopping Experience</td>
<td></td>
</tr>
<tr>
<td>Conflict Reduction</td>
<td></td>
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<tr>
<td>Aesthetics</td>
<td></td>
</tr>
<tr>
<td>Public Acceptability</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Marks</th>
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<tbody>
<tr>
<td>8</td>
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<tr>
<td>11</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>16</td>
</tr>
<tr>
<td>17</td>
</tr>
</tbody>
</table>
The adjacent Tables provide an exhaustive list of various physical and managerial interventions that are required and also high lights the relative significance of that intervention for each proposal option.

- The red color of the boxes indicates Very Important,
- The Orange indicates Moderately Important,
- The Yellow color indicates Lowest Importance.
- The Blank Boxes indicate that, for the particular option, that particular intervention is not required.

It can be inferred from the ranking that, Option 5, which is the complete pedestrianization, scores the highest points. However, Option 4, which is, to allow only buses and divert the mixed traffic gains the next highest, with only a one point difference. It is therefore felt that, for better public acceptability, conflict reduction, and aesthetics and to enhance the shopping experience, Option 4 is chosen as an immediate short term proposal for Gandhi Bazaar. Based on the level of intervention also, provision of Bus only lanes requires moderate level of intervention and the interventions are flexible enough to be done in phases. For example, the managerial interventions like private vehicle diversion and alternate parking provision could be done as a first step, followed by more time consuming physical interventions.
4.8 GANDHI BAZAAR PEDESTRIANIZATION PROPOSAL

It is felt that, the Pedestrianization of Gandhi Bazaar should be done in a phased manner, so that the regular users are not affected. Therefore, two kinds of proposals are recommended based on the time consumption, implementation and cost. These will be short term and long term proposals.

4.8.1 Short Term Proposal

Based on the previous Discussion, allowance of Buses alone onto the main road of Gandhi Bazaar and diversion of the mixed traffic is felt the most efficient proposal for pedestrianizing Gandhi Bazaar.

However, there are three sub options under the selected option for the provision of bus only lanes. These are illustrated in the adjacent figures.

The proposals involve, breaking up of the available 27 m ROW (30 m ROW available, but varies at some sections, so, a uniform 27m is chosen) available into 3 equal parts of 9 m each. The trees that are along the road side form natural barriers. The 9m wide road stretch should be purely reserved for Public Transport operation.

In the Option A, one way Bus operation is continued to be allowed as it currently exists. A new bus stop is provided specially for the stretch. The main advantages of choosing this option is that, there would be no requirement of re aligning the extant bus routes and the

Directorate of Urban Land Transport
9 m wide road that is available could be used further for the provision of future cycle tracks or street furniture all along and more hawker space. However, the main disadvantage is that, the pedestrians who would want to access Gandhi Bazaar from the opposite direction of the bus route would have to alight at National College Bus Stop and walk a minimum of 500m to reach Gandhi Bazaar. The main aim of the project is to create a convenient and comfortable atmosphere for Pedestrians. Ease of access is one of the main features that provides for this convenience. Hence, this option is ruled out.

The options B and C provide for two way movement of buses. This requires re-routing of buses. The main difference between the two options is the location of bus stops. While the option B provides for side bus stops on either sides of the carriageway, the Option C provides for a single median bus stop that caters to buses plying on both directions.

The option B is considered for the proposal, since, option C suffers from the following disadvantages:

- The Pedestrian movement in the middle of the road, may create chaotic conditions which may require additional interventions
- It is comparatively difficult to erect a bus stop in the center of the carriageway, since, pavement has to be modified, other provisions must be given for safety
- In the option B, the Bus stop space can be consumed from the Hawker and Pedestrian Zones; hence, there is no need for creation of any extra space.

The following section, in detail discusses the proposal and other related aspects.
4.9 THE PROPOSAL – SHORT TERM

The following figure illustrates the proposal for Gandhi Bazaar:

- **Clothes Stores, Retail Shops**
- **Flower Market**
- **Vidhyarthi Bhavan**
- **Banks, Shops**
- **Hotels and Restaurants**

**Key Features**

- **4 m Wide Foot Paths**
- **3 m Wide Access Paths**
- **5 m Wide Hawker Zone**
- **0.5 m Wide Separator Landscape Strip or Railing**
- **Bus Stop with space for Trolley Stand (Yellow color)**
- **Improved Access to Flower Market**
- **Space for location of Public Toilets**
- **New two wheeler parking for 40 bikes**
- **Pedestrianization of Access roads on both sides**
- **Sign Boards placed at all the four entrance points into Gandhi Bazaar**
4.9.1 **Description**

The proposal provides for the following:

- 4 m wide Pedestrian Walkway/ Foot Path on both sides
- 5 m wide Dedicated Hawker Zone on either sides. Provision of Modular Hawker Spaces. (Refer to section on allocation of stall spaces)
- 0.5 m wide Landscaping or hand grills to serve as a barrier to segregate road and the hawker zone
- 3 m wide access paths placed at an interval of 10 m, to give good frontage to the shops and restaurants behind the hawker zone. These access paths are at present maintained by chained barricades, but are not paved. The proposal aims at paving these access paths. These could also be used by the pedestrians who use the Hawker zone.
- Well Designed Tree Spaces, which are at present damaged. (Please refer the section on renovation of tree spaces)
- Converting the two approach roads on the right and Left hand sides into pedestrian only streets and use the space for:
  - Public Toilets Provision
  - Parking Provision for Two Wheelers
  - Auto Stands
  - Drinking Water Facilities
  - Waste disposal bins etc.
- Improved access to Flower Market (Refer to the section on Renovation of Flower Market)
- Space for Bus stops, carved out from the Hawker Zone and Trolley stands adjacent to the stop, for people to pick up a trolley after alighting and bring it back to the bus stop after shopping.
- Entrance arches on all approach roads, which would welcome a commuter to enter the pedestrian area. This would add to the aesthetics and also serve as a demarcation of the pedestrianised area.
4.9.2 **Allocation of stall spaces**

On a normal day, around 70 hawkers occupy are found on the main road. However, during festive times and peak hours, the number of hawkers can be around 100 to 150. So, there is a requirement to provide enough space for these hawkers within the dedicated hawker zone.

The present stall sizes are of two kinds:

- 3m X 2m
- 5m X 2.5m

The proposal provides for a 2m X 2m modular spaces for Hawkers. Hawkers who need two modular spaces can take two, whose dimension would be, 4m X 2m. Hawkers can buy extra space if needed at a fixed charge per square meter. This would be a source of finance for the Implementing agency.

The same is illustrated as follows:

The stall structure could be as it is in its existing in a staired fashion, so as to give a better display of the items to be sold. In addition, a shell structure to store items and a shelter for the hawker and the items sold can be provided as in the following figure. The hawker can lock all his items at the end of the day and leave. (Refer Section 4.3.16. Kiosks for Hawkers)
Zoning of Spaces:
Zoning of the stalls could be done in either of the following ways:

- **A Mixed Zoning**, where, in each block, the hawkers of each kind is placed based on their proportion. This would be convenient for the pedestrians since, all the required items can be bought at the same place without frequent crossing of road.

- **Zoning Based on the Products sold**, can be also done to segregate, the fruit, flower and vegetable sellers who are in majority. The other products like, handicrafts, food items, puja items, clothes, plastic and other miscellaneous items could be placed together or in intermediate blocks to break the monotony.

The following conceptual diagram could be taken as one of the illustration of the second option:

### 4.9.3 Tree Treatments
The following figure shows the existing tree spaces, their usage and condition:
The existing trees are used by the hawkers in the following ways:

- The hawkers use old worn out rubber tires and fruit crates to create levels in their fruit/vegetable displays, these, when not in use, they hang them on the tree branches.
- The tree spaces are used mostly by banana leaf sellers.
- Some of the vendors use these tree spaces for selling their items, without the requirement of an additional stall.
- The trunks of the trees are used to support the tied up temporary shelters prepared by them.

The adjacent figure shows the average dimensions of the tree trunk and the paved space around the tree, which is in a deteriorated state at present. Some tree spaces lack this pavement.

It is proposed that, a uniform pavement renovation of these tree spaces be made for all the trees in the stretch. A uniform and pleasant color code should be given and painted on this paved surface. These paved surfaces could be used in one of the following ways:

- Could be attractively designed and could be used as street benches for the pedestrians to relax, wherever possible.
- Continued to be used by the banana leaf sellers.
- Partially allowed for the banana leaf sellers on one side and for pedestrians on the other side.
- Could be used as a continuum for the stalls and merged with them, to increase the no. of hawker stalls.

A strict monitoring is needed in order not to misuse these spaces.

### 4.9.4 Renovation of Dormant Flower Market Space

There is a Corporation flower market right in the middle of the pedestrianization stretch. This area is not used efficiently throughout the day. The peak activity takes place only during the early hours of the day when the Fresh flowers are brought. Later during the day, the flower sellers shift out of this place. They occupy the road space and sell their flowers. The following are the probable reasons why this place is not used properly. These are:

1. The access is poor and unseen. People may tend to miss the entrance.
2. The interior is not well maintained.
3. The access to the market is not attractive.
4. The building facade is old and ill maintained.

There is a proposal that, this plot, which is under BBMP, be demolished and a Multi Level Parking lot be built.

**The Site Details:**

The following is the detailed plan and elevation of the site along with some photos taken on the site.
The following could be some of the proposals to renovate this space and make it functional and busy all through the day:

1. **Proposal of Multi Level Parking**: The Approach road that is adjacent to the flower market could be used as the entrance and exit into the Multi Level Parking Lot, so that, this does not disturb the pedestrianization proposal on the Gandhi Bazaar Main Road. This proposal requires demolishing entire existing structure.

2. **Proposal of Renovation of the market into a much aesthetic Flower Plaza**: This could be done in the following ways:
   a. Make the entrance attractive and not allow any vendors in the close proximity who hinder the view of the area.
   b. Built a guided and colored pavement that would attractively guide a pedestrian to this area.
   c. Location of the bus stop close to the market would also attract the pedestrians.
   d. An Arch at the entrance with attractive and florid decoration with a sign board saying “Gandhi Bazaar Flower Market” would inform the pedestrians about the presence of this market.
   e. The interior, in its existing form could be used by the flower sellers as it is. Some modification to the pavement is however recommended, going by the deteriorated and undulated condition of the existing pavement.
   f. The building can be retained as it is and the façade could be enhanced with good, pleasant coloring.

The following are some modifications that could be made:
3. **Usage of the space as a Fast food Joint:** The existing building could be used as it is and the concrete sheltered spaces could be used for selling the items.

4.9.5 **Other Improvements**

Some of other improvements must be made along the corridor, of which junction improvements are the most important.
4.9.6 Traffic Management Plan

Bus Circulation

Existing Bus Circulation in Basavanagudi Area

LEGEND

- Bus Stop Location
- Direction of Bus Movement

Points to be noted:
- 65 bus routes ply through Gandhi Bazaar main road.
- There are 3 Bus stops in close proximity.
- In the existing setup, people have to walk more than 500m to reach Gandhi Bazaar in the opposite direction.
- The location of the existing bus stop is not in the Pedestrianization stretch.
Pedestrianization of Gandhi Bazaar

Proposed Bus Circulation for Basavanagudi Area

LEGEND

- Bus Stop Location
- Direction of Bus Movement

Directorate of Urban Land Transport
Vehicular Diversion:

Proposed Vehicular Diversion for Basavanagudi Area

LEGEND

- Bus Stop Location
- Direction of Bus Movement
A) **Traffic regulations**: All vehicular traffic should be diverted around periphery of Gandhi Bazaar, that is, Tagore circle - KR Road - Vani Vilas Road - North Road through Gandhi Bazaar via Girls School Road - National Co-operative Bank to Vivekananda circle. Only uni-directional flow should be allowed.

Diversion of Vehicular traffic should be done through the 12m wide internal parallel roads to Gandhi Bazaar for both to and fro movement as illustrated in the plan above. To not affect the residential area, various traffic calming measures should be taken in the internal roads like provision of speed bumps, extended curbs, road surface treatment etc. wherever required. The intersections should be designed to accommodate the heavy volumes of diverted traffic.

Special entry permit should be provided for supply vehicles that supply the traders at prescribed restricted timings.

B) **BMTC bus routes** must be made two way and two new bus stops will cater to the two side alighting and boarding passengers.

Also, the possibility of finding space for multi-storey parking is greater on KR Road and Bull Temple Road than on DVG Road. Secondly, converting wide and busy roads like KR Road or Bull Temple road to one-ways may lead to strong opposition and chaos. One-ways are terrible for pedestrians. Pedestrianizing a small stretch of Gandhi Bazaar, should not jeopardize the lives of pedestrians on other roads.

4.9.7 **Alternate space for parking**:

The major problem which has been identified during the surveys and existing situation analysis is *parking*. In Gandhi Bazaar, on-street authorized parking is prevalent and done by the shop keepers as well as the visitors who visit the bazaar. As per the analysis, the short term parking is observed there, which is about 30-45 min.

As per the existing situation analysis, the parking is needed for the shop keepers as well as the visitors. So, if Gandhi Bazaar is fully Pedestrianised, then alternate space for parking should be provided near the Gandhi Bazaar, so that shop keepers as well as the visitors can park their vehicles.

On a normal day,

- No of Two Wheelers Parked: (Going from Tagore circle towards Gandhi Bazaar Circle)
  - Left Hand Side : 102
  - Right Hand Side : 58
  - Total : 160
No. of Cars Parked:
  - Left Hand Side: 24
  - Right Hand Side: 14
  - **Total: 38**

These many parking spaces are needed in an alternate area. Some of the proposals for accommodating these vehicles are:

- Provision of Two Wheeler Parking on Puttanna road and the approach road on RHS as shown in the figure.
- Provision of Angular Car Parking near Tagore Circle, as Shown in Figure.
- Provision of Multi Level Parking lot at the corporation flower market.
- Provision of parking spaces on the parallel roads

The plan should be initiated and executed through a partnership of citizens, stake holders including, Gandhi Bazaar Traders Associations, and the BBMP, on a sustained day-to-day basis, by a standing committee. This will be for the welfare of the citizens at large. Success of the project lies majorly in citizen and stakeholder acceptance and participation.
4.9.8  **Long Term Proposal**

The long term proposal can be of the following forms:

1. Partial Pedestrianization of the 800m Stretch
2. Full Pedestrianization of the 300m Stretch
4.10 REGULATORY AUTHORITY

It is recommended that, An Association, ASHA – ASSOCIATION OF HAWKERS AND SHOP KEEPERS should be constituted, where in, representatives from the shop owners, hawkers along with a member of BBMP should be present. This association should function as an authority for the maintenance and regulation of the area and as a platform for discussion of common issue.
BBMP should give permits to the Hawkers. A regulatory mechanism should be designed. Fares have to be fixed depending on the shopkeepers and hawkers to contribute to the fund which will be used for maintenance and regulation. Permit should be renewed every year.

CHAPTER 5. CONCLUSION

Gandhi Bazaar sits in the Basavana Gudi area. It is a prominent Bazaar in Bangalore with bustling hawking activity and pedestrian movement. The street market offers the pedestrians with many kinds of items, ranging from food, fruits, vegetables, flowers, pooja items (offerings to God), plastic utilities, clothes, handicraft items etc. There are also, many shops in this area which offer clothes, mobile phones and accessories, groceries, services etc. This area is found congested during evening peak hours and during festival seasons, when lots of users visit the area to shop for different items. The Gandhi Bazaar road is a main road and carries high volumes of traffic.
At present, the rate of hawking activity is growing at a high pace. This would in future lead to uncontrolled activity and may occupy the foot paths and the road space if proper action and space allocation is not made. Moreover, to make the shopping experience safer and convenient for the pedestrians who visit the area, proper precautions must be taken. For the same, an attempt has been made in the study, to critically examine the problems with the existing setup at Gandhi Bazaar and recommend necessary steps to make the place more attractive and safe for the pedestrians. Primary surveys were conducted in the area that brought out the views of the public who use the area, including, the hawkers, shop keepers and the visiting people. The available ROW for the road has been mapped and it was found to range between 25-29 m along the 800 m study corridor. The pedestrian count across the Gandhi Bazaar is found to be very high. The number of passengers boarding and alighting is high during peak hours. Hawkers have encroached upon the foot path and road space in a very un-organized manner.
The present study has come up with various kinds of pedestrianizing options that can be explored in the area with their advantages and disadvantages. From the opinion surveys, it was found that, more than 50% of the people opposed the idea of full pedestrianization. People wanted the parking space to be retained. The key learnings from some of the case studies also indicate that, *Provision of parking has been the major determining factor for the success of the scheme.* Hawkers felt that their business would be lost, if the motor traffic is not allowed on the road. From the study, it was found out however that designated and designed place for hawkers would make it convenient for the hawkers, shop keepers and the pedestrians. Designed and designated place for hawkers is recommended to be allotted as per the product categorization of hawkers.

The short term proposal recommends that, a dedicated hawker zone be provided, wider foot paths be provided, mixed traffic should be diverted and not be allowed on the main road, the existing Carriageway, 9 m wide should be used for the two way bus movement, Parking of Vehicles should be strictly restricted in the area. The stall spaces are provided in a 2m x 2m modular form. Hawkers requiring larger spaces for hawking can buy the extra space from the implementing agency. In addition to these, the proposal also, reserves space for provision of facilities like trolley stands and public toilets, new bus stops on either sides. It recommends that, the two approach roads also be pedestrianised of proposed as legalized parking areas. A detailed description of the treatment of existing tree spaces and renovation of flower market has been provided. Traffic circulation plan for both buses and vehicles has been described.

A Long term proposal for Full Pedestrianization is also described.

Various facilities to be provided for the hawkers are discussed in detail. It is also recommended in the study that, an awareness program for the hawkers is necessary. The study has proposed the formation of a welfare association of shopkeepers and Hawkers “ASHA” for their general maintenance and regulation.
ANNEXURE I:

Bus Stage Information

Distance from Kempegowda Bus Station (Majestic Station)

Near by Bus Stages and Localities of Gandhi Bazaar are Gandhi Bazaar, Ramakrishna Ashram, National College Basavanagudi, Basavanagudi Police Station, Ganesh Bhavan, Nettakalappa Circle, Bangalore High School, N R Colony, Nagasandra Circle, Hanumanthanagar, Sajjan Rao Circle, Teachers College, Kumaraswamy Temple, Tata Silk Farm

Bus Routes Details

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