TRAFFIC STUDY REPORT

Of

THE PROPOSED SURAT DIAMOND BOURSE
SURAT, GUJARAT

Prepared for

M/s SDB Diamond Bourse

February – 2018
Traffic Study of the Proposed Surat Diamond Bourse, Surat, Gujarat

February 2018

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Chapter 1

Introduction
1.0 INTRODUCTION

1.1 Project Background

M/s SDB Diamond Bourse plans to develop a Diamond Bourse at Khajod, Surat. The proposed development comprises of 9 interconnected towers i.e. Tower 1, Tower 2, Tower 3, Tower 4, Tower 5, Tower 6, Tower 7, Tower 8 and Tower 9.

The proposed development is surrounded by external roads from all the sides. The ingress and egress to the proposed development is provided from all the sides through all the roads. These roads include 90m road to the North, 45m road to the East, 45m road to the South and 90m road to the West of the proposed development.

Recognizing the need for traffic engineering advice, M/s SDB Diamond Bourse, appointed M/s Transportation and Traffic Engineering Consultants in the month of November, 2016 to undertake the preparation of traffic study of the proposed development.

This report presents the results and findings of the traffic study.

1.2 Scope of Work

The scope of our work during this study report covers the following aspects related to Traffic study:

- Initial overview and comments on any current master plan layouts and surrounding roads and identification of potential traffic issues and concerns
- Assessment of existing traffic conditions in the vicinity of the site; which includes site surveys and analysis of the surrounding road network
- Future Traffic forecast: Traffic surveys to quantify existing flows and trip rates for this type of development
- Traffic Assignment: This involves the pattern in which the generated traffic will be distributed on the surrounding roads. The outcome of the traffic surveys & the existing and future road connectivity will be the inputs for the traffic assignment.
- Traffic Impact Analysis: Assessment of the impact of the vehicles coming to the proposed development on the surrounding road network in the immediate vicinity of the proposed development
- Assessment of the adequacy of existing road system capacity in the vicinity of the site to take the traffic generated from the proposed development.
- Traffic management measures to mitigate the traffic impact if any impact is significant.
- Ingress/egress points to the development site.
• Advise the team on pick-up, drop-off points, locations and design of pick-up and drop-off points etc.
• Overview of the internal traffic circulation at ground level and at different parking levels: This involves removing/reducing the conflicting vehicular movements at different levels
• Development of traffic management scheme, layout proposals, design of external junctions (if required), signal design (if required) etc.
• Comments on the road widths of the internal roads based on the projected traffic generation.
• Swept path analysis: Checking the turning radius of different vehicles types (i.e. cars.) at critical locations with the help of AUTOTRACK software
• Comments on the ramp system (i.e. circular ramps, straight ramps, the turning radius etc.)
• Review of the parking layouts. Analyzing the areas of concern inside the car parks
• Optimization of car parking bays inside the car park, comments on the aisle
• Preparation of a report on traffic issues and recommendations.

1.3 Structure of this Report

Following this introduction Chapter 1, this report is divided into the following chapters:

Chapter 2 Existing Conditions; which describes the existing road network and the prevailing traffic conditions in the vicinity of the development site.

Chapter 3 Development schedule

Chapter 4 Traffic Generation & Traffic Impact Analysis

Chapter 5 Recommended access to the site – Analysis of proposals
Chapter 2

Existing Conditions
2.0 EXISTING CONDITIONS

2.1 Existing Development Site Conditions

The proposed development project site location is presented in Figure 2.1. The figure shows the Google map of the proposed development and the surrounding area as per the existing conditions.

The site is located some 9 Km from the Surat Domestic Airport and some 15 Km from the Surat Railway Station.

The main roads surrounding the proposed development site is National Highway (NH-6) North of the proposed development. The other roads of the Development plan include a 90m road to the North (i.e. parallel to NH-6/SH-168), 45 m road to the East, 45m road to the South and 90 m road to the West.

The site is surrounded by road on all the sides. This will help in better traffic distribution particularly during peak hours.

The entries and exits to the proposed development is segregated by all the four surrounding roads.

As per the existing condition, the area surrounding the proposed development is yet to be developed.
Figure 2.1: Google Map of the surrounding area (as per the Existing conditions)
2.4 Existing Traffic Conditions

In order to quantify the traffic conditions and also to understand the impact of the proposed development traffic within 5km radial distance, following traffic surveys were carried out: The location of various traffic surveys is presented in Figure 2.13(a).

- Road Inventory Surveys
- Site Reconnaissance Survey
- Photographic Surveys
- Speed and Delay Surveys
- Weekday Classified turning movement traffic volume count on 4-arm junction (i.e NH 6 X Althan Canal Road). The survey was carried out for 12 hours.
- Weekday Classified Mid-Block Traffic Volume Count survey on National Highway 6 (NH 6) near TGB Hotel and near New Bamroli Road. These surveys were carried out for 12 hours (i.e. from 8AM to 8PM).
- Weekday Classified Mid-Block Traffic Volume Count survey on Vesu Main Road. This survey was carried out for 12 hours (i.e. from 8AM to 8PM).
- Traffic Generation/Attraction Surveys and Pedestrian traffic Generation/Attraction surveys at the Ingress and Egress of the following development:

  **Location: Bharat Diamond Bourse, Mumbai**

**Note:** In order to understand the traffic flow pattern for a typical Diamond Bourse, a traffic generation/attraction survey was required on a similar type of proposed development. The only existing similar type of development is Bharat Diamond Bourse, Mumbai.

Figure 2.13(b) shows the location of exiting Bharat Diamond Bourse Building in Mumbai and Figure 2.13(c) shows the locations of traffic generation/attraction survey. Figure 2.13(d) presents the location of pedestrian surveys in the existing Bharat Diamond Bourse.
Figure 2.22: Surrounding Major Road Network Traffic Details within 5km Radial Distance

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Road Name</th>
<th>Existing Width of Road</th>
<th>Existing Volume (PCUs/Hr.)</th>
<th>Capacity (PCUs/Hr)</th>
<th>(V/C) Ratio</th>
<th>LOS</th>
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<td>1</td>
<td>Khajod Village Road</td>
<td>6-6.5m</td>
<td>322</td>
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<td>2</td>
<td>Althan Canal Road</td>
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<td>822</td>
<td>2400</td>
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<td>3</td>
<td>National Highway 6/SH 168 (towards Sachin) at NH6XKhajod Village Junction</td>
<td>18-20m</td>
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<td>4800</td>
<td>0.49</td>
<td>C</td>
</tr>
<tr>
<td>4</td>
<td>National Highway 6/SH 168 (towards Hajira) at NH6XKhajod Village Junction</td>
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<td>2069</td>
<td>4800</td>
<td>0.43</td>
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<tr>
<td>5</td>
<td>Vesu Main Road</td>
<td>12-15m</td>
<td>595</td>
<td>2400</td>
<td>0.25</td>
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<td>6</td>
<td>National Highway 6/SH 168 near TGB Hotel</td>
<td>18-20m</td>
<td>1780</td>
<td>4800</td>
<td>0.37</td>
<td>B</td>
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<td>7</td>
<td>National Highway 6/SH 168 near New Bamroli Road</td>
<td>18-20m</td>
<td>3609</td>
<td>4800</td>
<td>0.75</td>
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### Traffic Study Report

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<tr>
<th>Road Name</th>
<th>Total Km</th>
<th>Start Time (mm:ss)</th>
<th>End Time (mm:ss)</th>
<th>Total Time (mm:ss)</th>
<th>Peak/Non Peak</th>
<th>Stop Delay Time (Seconds)</th>
<th>Total Time in Hr.</th>
<th>Journey Speed (Km/Hr.)</th>
<th>Running Speed (Km/Hr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>From New Bamroli Road to NH 6 (Right Turn)</td>
<td>0.67</td>
<td>0:00</td>
<td>1:34</td>
<td>1:34</td>
<td>Peak</td>
<td>10.00</td>
<td>0.026</td>
<td>25.77</td>
<td>29.13</td>
</tr>
<tr>
<td>From NH 6 to New Bamroli Road (Left Turn)</td>
<td>0.67</td>
<td>0:00</td>
<td>1:25</td>
<td>1:25</td>
<td>Peak</td>
<td>0.00</td>
<td>0.024</td>
<td>28.38</td>
<td>28.38</td>
</tr>
<tr>
<td>From Bheten Jian Road to NH 6 (Right Turn)</td>
<td>0.79</td>
<td>0:00</td>
<td>1:30</td>
<td>1:30</td>
<td>Peak</td>
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<td>0.025</td>
<td>31.60</td>
<td>34.35</td>
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<tr>
<td>From NH 6 to Bheten Jian Road (Left Turn)</td>
<td>0.79</td>
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<td>1:21</td>
<td>1:21</td>
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<td>0.0225</td>
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<td>35.11</td>
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<td>26.88</td>
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<td>0:00</td>
<td>1:18</td>
<td>1:18</td>
<td>Peak</td>
<td>15.00</td>
<td>0.022</td>
<td>25.85</td>
<td>32.00</td>
</tr>
<tr>
<td>From NH 6 to Vesu Main Road (Right Turn)</td>
<td>0.55</td>
<td>0:00</td>
<td>1:14</td>
<td>1:14</td>
<td>Peak</td>
<td>10.00</td>
<td>0.020</td>
<td>27.50</td>
<td>30.94</td>
</tr>
<tr>
<td>From Vesu Main Road to NH 6 (Left Turn)</td>
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<td>0:00</td>
<td>1:05</td>
<td>1:05</td>
<td>Peak</td>
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<td>0.018</td>
<td>30.46</td>
<td>30.94</td>
</tr>
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<td>0:00</td>
<td>1:30</td>
<td>1:30</td>
<td>Peak</td>
<td>12.00</td>
<td>0.025</td>
<td>26.00</td>
<td>30.00</td>
</tr>
<tr>
<td>From Surat Dumas Road to NH 6 (Left Turn)</td>
<td>0.65</td>
<td>0:00</td>
<td>1:20</td>
<td>1:20</td>
<td>Peak</td>
<td>0.00</td>
<td>0.022</td>
<td>29.25</td>
<td>29.25</td>
</tr>
<tr>
<td>From Vesu Main Road to Udhna Magdalla Road (Right Turn)</td>
<td>0.55</td>
<td>0:00</td>
<td>1:18</td>
<td>1:18</td>
<td>Peak</td>
<td>8.00</td>
<td>0.022</td>
<td>25.38</td>
<td>28.29</td>
</tr>
<tr>
<td>From Udhna Magdalla Road to Vesu main Road (Left Turn)</td>
<td>0.55</td>
<td>0:00</td>
<td>1:10</td>
<td>1:10</td>
<td>Peak</td>
<td>0.00</td>
<td>0.019</td>
<td>28.29</td>
<td>28.29</td>
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<tr>
<td>From Udhana Magdalla Road to Surat Dumas Road (Left Turn)</td>
<td>0.75</td>
<td>0:00</td>
<td>1:32</td>
<td>1:32</td>
<td>Peak</td>
<td>0.00</td>
<td>0.026</td>
<td>29.03</td>
<td>29.03</td>
</tr>
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<td>From Surat Dumas Road to Udhna Magdalla Road (Right Turn)</td>
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<td>0:00</td>
<td>1:40</td>
<td>1:40</td>
<td>Peak</td>
<td>3.00</td>
<td>0.028</td>
<td>27.00</td>
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</table>

*Figure 2.23: Summary sheet of Speed and Delay Survey Analysis for Surrounding Major Road Network Details within 5km Radial Distance*
3.4 Design Basis of the parking layout

The design basis for the proposed parking layouts is as follows:

- A car park should provide a safe and efficient connection to the external road network.
- Entry and exit radii should be larger than or equal to 90 degree to allow smooth entry and improved weaving and merging on exit.
- Queuing and storage at the entrance are to be within the car park/premises and not on the external roads. The queuing area should be based on the peak hour arrival – The storage/queuing area will depend on the security checking strategy.
- The location of the pick-up/drop-off points should provide a facility of immediate access to the pick-up points after exiting from the basements and also to access the basement after leaving the drop-off points.
- The pick-up/drop-off points should have adequate length and width to serve the peak hour vehicular arrivals and departures.
- Entry and exit lanes should not cross and exit should not be before entry. If possible, the entries and exits should be separated.
- The transition from the external road to a car park should be defined using lane marking or a change of surface.
- One way ramps are preferred, unless there is strong reason for 2 way ramps. In case of two-way ramp, the width should be at least 7.5m.
- Dedicated ramps for two-wheelers are also provided.
- The traffic circulation should remove/minimize the conflicting vehicular movements. Therefore as far as possible all the driveways/aisles should be kept one-way for better circulation.
- All the driveways/aisles should be straight and dead ends should be avoided. If a dead end cannot be avoided, then it is to be a maximum of 6 bay widths long. Else some space should be left at the dead end for proper maneuvering of vehicle.
- Cross-aisles and other vehicular conflict points should be eliminated. All junctions should be designed so that traffic merges and diverges, with only convenient and safe maneuvers required of drivers. “T” junctions/3-Arm junction is the recommended intersection type. 4-Arm junctions should be avoided.
- The minimum width of the aisle should be kept as 6m for one-way. The traffic circulation on the drive-ways should be through and the dead ends should be avoided. Most of the driveways are proposed as One-way driveway.

- The traffic flow should blend/merge conveniently with the circulation in the parking level at the vehicular entry point(s) and at the vehicular exit point(s).

- Adequate connectivity/ramps (i.e. in terms of capacity) should be provided between different parking levels.

- The traffic circulation should minimize the average distance from the parking bay to the ramps and vice versa should be minimized.

- The recommended colors are the following:
  - Aisle: blue
  - Pedestrian walkway: red delineated by solid yellow lines
  - Bay: light grey

- Speed control and traffic calming devices are to be used including ripple painted areas, surface textures and signs are to be used. Speed humps are to be used as a last option.

- Aisle lengths are to be kept to a minimum, consistent with providing convenient traffic flows for search and exit.

- Aisles that are 100m or longer are to have mandatory speed control devices.

- Speed humps are required at each access control point to control vehicle speed as it approaches the access control equipment. It is also required before entering to the parking level.

- No pedestrian crossings should be provided at or near corners or at the entry to or exit from ramps or intersections. Separate pedestrian walkways are to be located between bays or on the sides of aisles.

- A one way drive-way is usually 6 meters, therefore 4 meters of aisle width is acceptable for vehicle movement with a one meter pedestrian walkway on each side of the aisle where possible.
The minimum width of the pedestrian walkways should be 1 m

No parking space should be more than 30m away from a pedestrian route that leads to a car park exit.

Pedestrian walkways are preferably painted in a different colour which is usually red with yellow line marking

Disabled parking is to be provided at the rate of 1-2% of all parking spaces.

The disabled space configuration should consist of 2.6m width with 0.6m on each side for wheelchair usage. The minimum size of a disabled car park space is the same length as a standard space but is to be 1.2m greater in width
### Table 4.7: Comparison of Congestion Indices (V/C ratios)

<table>
<thead>
<tr>
<th>Road Name</th>
<th>Traffic Scenario</th>
<th>Volume (PCU’s/hr)</th>
<th>Capacity (PCU’s/hr)</th>
<th>V/C Ratio (Congestion Index)</th>
<th>Level of Service (LOS)</th>
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<tbody>
<tr>
<td><strong>45m wide Proposed DP Road to the West to the Proposed Development</strong></td>
<td>Existing Traffic Conditions</td>
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<td>-</td>
<td>-</td>
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</tr>
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<td></td>
<td>Projected Traffic Conditions (Year 2023)</td>
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<td>Road Type</td>
<td>Year</td>
<td>Existing Traffic Conditions</td>
<td>Projected Traffic Conditions (Year 2023)</td>
<td>Projected Traffic Conditions (Year 2028)</td>
<td>Projected Traffic Conditions (Year 2033)</td>
</tr>
<tr>
<td>-----------</td>
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<td>-----------------------------</td>
<td>----------------------------------------</td>
<td>----------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Vesu Main Road</td>
<td>2038</td>
<td>595</td>
<td>822</td>
<td>932</td>
<td>1059</td>
</tr>
<tr>
<td>90m wide Road to the North of the Proposed Development</td>
<td>2023</td>
<td>-</td>
<td>1103</td>
<td>1407</td>
<td>1796</td>
</tr>
<tr>
<td>90m wide Road to the West of the Proposed Development</td>
<td>2028</td>
<td>-</td>
<td>735</td>
<td>938</td>
<td>1198</td>
</tr>
<tr>
<td>45m wide Road to the East of the Proposed Development</td>
<td>2033</td>
<td>-</td>
<td>735</td>
<td>938</td>
<td>1198</td>
</tr>
<tr>
<td>45m wide Road to the South of the Proposed Development</td>
<td>2038</td>
<td>-</td>
<td>735</td>
<td>938</td>
<td>1198</td>
</tr>
<tr>
<td>Waste Disposal Road</td>
<td>2023</td>
<td>-</td>
<td>735</td>
<td>938</td>
<td>1198</td>
</tr>
<tr>
<td>Level of Service</td>
<td>General Operating Conditions</td>
<td>Range of V/C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>--------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Free flow (traffic flows at or above speed limit and motorists have complete mobility between lanes)</td>
<td>&lt;0.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Reasonable flow (slightly more congested, with some maneuverability)</td>
<td>0.3 – 0.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Stable flow (more congested than B, loads close to capacity)</td>
<td>0.48 – 0.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Approaching unstable flow (speeds are somewhat reduced, example: busy corridor during middle of a weekday, or a functional urban highway during rush hour)</td>
<td>0.69 – 0.88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Unstable flow (flow becomes irregular, speed varies widely and rarely reaches speed limit)</td>
<td>0.88 – 1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Forced or breakdown flow (a constant traffic jam)</td>
<td>&gt; 1.00</td>
<td></td>
<td></td>
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</tr>
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</table>
5.0 RECOMMENDED ACCESS TO THE SITE – ANALYSIS OF PROPOSALS

5.1 Recommendations

Initial analysis of the estimated traffic flows described above in Chapter 4, indicates about the peak hour traffic generation by different gates of the proposed development.

Therefore the Ground level/Entry level and the Basement levels of the proposed development are designed accordingly.

5.2 Ingress and Egress Gates Ground Level

The main points of consideration for the Entry/Exit and Traffic Circulation strategy are as follows:

- The traffic layout provides a one-way traffic circulation on the peripheral internal road. One-way traffic circulation minimizes traffic congestion and removes/reduces the potential point of vehicular conflict.

- A one-way traffic circulation utilizes maximum capacity of the road.

- The traffic is distributed (on the internal road as well as external road) as there are separate entries and exits. This will minimize the traffic congestion. This will further help to utilize the capacity of the internal peripheral road to maximum

- The holding area required at the entry for security screening will be minimum. There will be less chances of vehicular queues spilling off on the main road thereby disrupting external traffic.

- The traffic layout gives provision for cars, taxis, Autos, Service Vehicles/Goods Vehicles, Custom Vehicles and two-wheelers

- The traffic layout provides dedicated Entry & Exit for Customs Vehicles.

- The traffic layout gives provision for Intermediate Public Transport modes like taxies, Autos etc.

- It provides integration with the future public transport in terms of location of bus stops in the surrounding road network

- It provides immediate entry and immediate exit for a self driven car. This reduces the traffic congestion at the pick-up/drop-off points
The traffic layout provides immediate entry and immediate exit for two-wheelers with two dedicated set of two-wheeler entry and exit ramps without passing through the pick-up/drop-off point.

The traffic layout provides a facility for pick-up/drop-off for all the buildings. (i.e. A Chauffeur driven car can access the parking after dropping off a person. It can also access the pick-up point after exiting the parking levels)

A visitor car can exit immediately after pick-up/drop-off.

It provides a dedicated Service vehicles entry and exit.

It provides dedicated entry & exit plus for pedestrians. It also provides a 3.0m pedestrian walkway along the periphery which is segregated from vehicular movement.

Figure 5.1 presents the total entry and exit gates to the proposed development.

The details of all the gates are as follows:

- There are total 19 gates to the proposed development. The 19 gates include 5 Entry gates for Cars and Two-wheelers, 5 Exit Gates for Cars and Two-wheelers, One dedicated Entry gate and one dedicated Exit gate for Service Vehicles, 6 Pedestrian Entry plus Exit Gates and a dedicated entry and exit gate for Customs Vehicles.

Figure 5.2 presents the total number of ramps provided in the proposed development. The details of the ramp are as follows:

- Ramp 1: 6m One-way Exit Ramp for Cars & Two-wheelers
- Ramp 2: 6m One-way Entry Ramp for Cars & Two-wheelers
- Ramp 3: 7.5m Two-Way Ramp for Cars & Two-Wheelers
- Ramp 4: 4m One-way Exit Ramp for Two-wheelers
- Ramp 5: 4m One-way Entry Ramp for Two-wheelers
- Ramp 6: 7.5m Two-Way Ramp for Cars & Two-Wheelers
- Ramp 7: 6m One-way Exit Ramp for Cars & Two-wheelers
- Ramp 8: 6m One-way Entry Ramp for Cars & Two-wheelers
- Ramp 9: 7.5m Two-Way Ramp for Cars & Two-Wheelers
- Ramp 10: Assembly of two 3m scissor ramps for Two-wheelers

5.3 Recommended Traffic Layouts & Internal Traffic Circulation

Figure 5.3, Figure 5.4 and Figure 5.5 presents the recommended parking layouts with the complete traffic circulation.
Figure 5.1: Entry and Exit Gates to the Proposed Development
5.4 Mitigating measures within 5kms of Influence Radius

The same are listed as follows:

**Internal Measures by the Project Proponent**

Proper traffic control measures should be provided to regulate the flow of traffic/to streamline the traffic flow. These traffic management measures include:

- Adequate traffic signs will be provided to notify the residents
- Most of the junctions inside the premises will be made 3-arm junctions and the potential points of conflicts are removed/ minimized.
- There are separate entry and exit gates to the proposed development which will help in even distribution of traffic.
- Separate pedestrian gates are provided to remove/reduce the vehicles & pedestrian conflicts
- Proper Parking management system will be provided to guide the traffic flow
- Proper Signage system will be provided for efficient traffic movement at Ground level and basement levels.
- Traffic wardens will be assigned to regulate the traffic flow during peak hours.

**Future Development**

- Junctions in the vicinity of the proposed development should be signalized to regulate the traffic.
- All the surrounding roads should be widened and constructed as per the TP map of the area. The same needs to be done before the proposed development is in place
- NH6/SH 168 should be widened as six lanes two way divided road.
- The ROW of the highway is 90m. Therefore the Service road along the entire length of the NH6/SH 168 should be constructed on both the sides. This Service road should operate as one-way to increase the capacity and for better traffic movement. The same will help to distribute/reduce the traffic of the highway in future.
- In order to integrate the public transport, adequate number of bus stops should be provided. The locations of these bus stops are shown in the traffic management plan.

5.5 Conclusion

It is expected that the proposed development will attract and generate an increase of vehicular traffic coming into the area. It is estimated that proposed development will attract and generate some **3223-3776 PCU/Hr.** during peak hours.

The traffic generation from the proposed development is substantial. This will create pressure on surrounding roads but will be evenly distributed to multiple entries and exits from surrounding roads.

As per the existing conditions the peripheral roads (i.e. 90m Wide Roads the North and East and 45m wide Roads to the East & South direction) do not exist. However these proposed
roads are very wide and the capacity of these roads is adequate to take the additional traffic that will be generated from the proposed development. Therefore although the traffic impact will be substantial but will be mitigated.

The detail traffic analysis within 5km radial distance of the proposed development further shows that most of the major roads within 5km have enough capacity to take the additional traffic that will be generated from the proposed development. The speed and delay surveys show that the vehicular movement on the surrounding roads is smooth and has good operating speed with less delay. However in long term (i.e. around 10-15 years) the Highway NH-6/SH-168 need to be widened as per the proposed width and should be provided with a Service road on both the sides along the entire length. The Service road will mitigate the traffic impact because of the proposed development and other future developments.

The proposed one-way traffic circulation at Ground level and in the basements of the proposed development will remove the potential points of conflict and will help in efficient traffic circulation.