STANDARD OPERATING PROCEDURES (SOPs), TIAS GUIDELINES AND PARKING REQUIREMENTS (According to MDA Buildings Bylaws)

FOR

ISSUANCE OF NOC REGARDING TRAFFIC IMPACT ASSESSMENT (TIA) STUDY OF NON - RESIDENTIAL BUILDINGS IN THE AREA OF JURISDICTION OF MDA MULTAN

Prepared by:
Traffic & Transportation Engineering Cell,
Directorate of Engineering, MDA Multan.
Part - A  INTRODUCTION

1. What is a Traffic Impact Assessment Study

A Traffic Impact Assessment (TIA) Study is a technical appraisal of the traffic and safety implications relating to the specific developments which are of a size or type that would generate significant additional traffic. The parameters of such developments are mentioned in paragraph No.2 below. It should be kept in mind that such developments require special on-site parking and internal vehicular circulation as well as off-site improvements in road infrastructure or traffic management measures in addition to the fulfillment of the provisions as required under the existing Multan Development Authority (MDA) laws, rules, regulations such as “Integrated Master Plan of Multan 2008-2028”, Special Byelaws for Northern & Southern Bypasses, MDA Building and Zoning Regulations 2007, Landuse Rules 2009 and other relevant directions / bindings issued for the specific developments by District Planning and Design Committee (DPDC), High Level Design Committee (HLDC) and other forums.

2. When is a NOC Regarding Traffic Impact Assessment Study Required

According to clause No. 10.3.3. (h) of MDA Building and Zoning Regulations, 2007:-

“The prospective builder shall conduct a Traffic Impact Assessment Study for the construction project if the project falls within any of the following conditions. The builder shall acquire a NOC from the Traffic Engineering Agency.

i. Non-Residential Building having plot area of 4 Kanals (1673 sq m) or above.

ii. Non-Residential Building having 5 Storeys and above”.

3. Amendment in MDA Building and Zoning Regulations 2007 by MDA Governing Body

Governing Body of MDA has approved following amendment in clause No. 10.3.3. (h) of MDA Building and Zoning Regulations, 2007 in its 66th meeting held on 15-08-2015 under item No.12 of the agenda:-

“The builder shall acquire an NOC from the Traffic Engineering Agency. However, if there is no such agency in the area of jurisdiction of MDA, the Traffic & Transportation Engineering. Cell of Engineering Directorate of MDA is authorized to issue such NOC till such time a proper Traffic Engineering Agency is established in Multan”.
In compliance of the above mentioned decision of MDA Governing Body (GB), NOC regarding Traffic Impact Assessment Study of Non-Residential Buildings is now to be issued by Traffic & Transportation Engineering (T&TE) Cell of Engineering Directorate of MDA in the area of jurisdiction of MDA.

4. Objective / Purpose of Traffic Impact Assessment Study

The information provided in the study report should enable the concerned authorities to assess the traffic impact of a proposed/planned development. It is particularly important that the Traffic Impact Assessment Study contains an objective assessment of the projected traffic impacts of the development for surrounding community. MDA Multan is interested to get following aspects from TIA Study conducted through a professional manner:-

4.1. To determine the existing traffic condition, future conditions without the development, and future conditions with the development in place;
4.2. To estimate the traffic likely to be generated by the proposed development;
4.3. To assess the impact of additional traffic on the existing and future road network system;
4.4. To identify roadway improvements and changes in the site plan of the proposed development necessary to mitigating this impact.

Similarly the Traffic Impact Assessment Study should also address the issues of internal vehicular circulation if any.

Part - B STANDARD OPERATING PROCEDURES (SOPs)

5. This Standard Operating Procedures (SOPs) has been prepared to streamline the process of submission of applications and issuance of NOC regarding Traffic Impact Assessment Study of Non-Residential Buildings in the area of jurisdiction of MDA Multan according to the prescribed guidelines.

6. Submission of application along with requisite Documents for NOC regarding Traffic Impact Assessment Study

A developer shall submit an application on given Format (Annex – A) after clearance from DPDC to the Deputy Director T&TE, MDA Multan for permission to get TIA Study conducted and issuance of NOC along with attested copies of following documents (attested by concerned DD TP MDA):-
6.1. CNIC of the Developer/Builder.
6.2. Commercialization Approval letter of DD Commercialization, Town Planning Directorate, MDA.
6.3. Approval of DPDC (If Applicable).
6.4. Location / Key Map along with Site Plan.
6.5. Two Copies of Building Plan along with Parking Plan.
6.6. Affidavit on given format (Annex - B).

7. Issuance of permission letter for conducting Traffic Impact Assessment Study

On receipt of the application of the builder/developer for issuance of NOC regarding Traffic Impact Assessment Study, Office Staff of T&TE Cell, MDA will examine the documents attached with the application. If complete documents have been provided and it is found that the commercialization of proposed development has been cleared by the relevant forum (DPDC), DD T&TE Cell MDA will issue a permission letter (Annex - C) to the builder/developer to get the Traffic Impact Assessment Study conducted.

8. Conducting of Traffic Impact Assessment Study

After getting letter from DD T&TE a builder/developer can get the TIA Study conducted through following Consultants:-

8.1. By a PEC registered Transportation or Traffic Engineer.
8.2. By a Consultant/Firm working in TEPA, LDA Lahore for conducting TIA Studies duly signed by a PEC registered Transportation or Traffic Engineer till the time MDA finalizes its own list of registered consultants/firms.
8.3. By a consultant/firm duly registered with Engineering Directorate, MDA for conducting TIA Study.
8.4. Hired consultant/firm shall submit necessary credentials of PEC/TEPA/MDA registration during coordination meeting.

8.5. Coordination meeting between Consultant and concerned Staff of MDA

The builder/developer shall ensure a coordination meeting of hired consultant with concerned staff of T&TE Cell, MDA before starting the study for the following purposes:-

8.5.1. To establish scope and extent of the study.
8.5.2. To discuss the guidelines of MDA/TEPA regarding TIA Study.
8.5.3. To coordinate the methodology and supervision of the TIA Study.
8.5.4. To share the available information pertaining to MDA bylaws, restrictions on concerned road, on-going or future plans regarding transportation infrastructure relating to the study area etc.

This interaction between Transportation Engineer of the builder / developer and the staff of T&TE Cell MDA is mandatory for conducting TIA Study according to the approved guidelines and to avoid un-necessary delays or revisions at later stage. The field staff of T&TE Cell MDA will be deputed during the study for guidance and monitoring by the officers of this formation if required.

8.6. The TIA Study shall be conducted strictly in a professional manner as per desired standards. For more clarity guidelines of TEPA regarding TIA Studies shall be followed till the time MDA frames and notify its own guidelines for this purpose.


The consultant will submit TIA Study Report to Director of Engineering MDA. The Study Report should comply with the requirements set out in the guidelines of Directorate of Engineering MDA or Guidelines issued by the TEPA LDA Lahore for the conducting and preparation of TIA Study Reports. Prepared map, spread sheets, tables or database files containing the traffic & parking generation calculations and traffic or other surveys conducted by the consultant should also be provided along with the Traffic Impact Assessment Study Report.

After review of TIA Study Report by the concerned staff of T&TE Cell MDA, it would be processed for formal approval but if there are issues with the Study Report, these will be conveyed to the developer in writing within one week. If necessary, a meeting will be arranged between consultant of builder / developer and concerned officers of T&TE Cell MDA. In this meeting, the issues with the TIA Study Report will be discussed. After necessary rectification, the builder/consultant shall provide two hard copies of Traffic Impact Assessment Study Report to the T&TE Cell.

He will also provide a soft copy of TIA Study Report along with its Annexures and appendices in PDF format. Revised map if any along with spread sheets, tables or database files containing the traffic & parking generation calculations and traffic or other surveys conducted by the consultant should also be provided. TIA Study shall only be valid for a year from the date of submission.
10. Approval of Traffic Impact Assessment Study Report

After the rectification of the observations or recommendations as suggested by the Consultant/Vendor in TIA Study through structural changes or through necessary changes in Plans, TIA Study will be approved by the competent authority i.e., Director Engineering MDA on the recommendation of DD T&TE Cell of Engineering Directorate MDA.

11. Fee of NOC regarding Traffic Impact Assessment Study

The builder / developer will deposit the prescribed fee of NOC regarding Traffic Impact Assessment Study in the relevant account of MDA after approval of the TIA Study. The Challan form of NOC fee will be issued by Accounts Section of T&TE Cell MDA and signed by Sub Divisional Officer or Assistant Director Transportation Engineering. The NOC fee will be deposited in the relevant head of account approved by the competent authority.

12. Issuance of NOC regarding Traffic Impact Assessment Study

After approval of submitted TIA Study Report and payment of prescribed fee, NOC will be issued by DD T&TE Cell MDA on a prescribed format (Annex - D). Additional clauses may be added in the format as per requirements. One Copy of NOC will also be forwarded to concerned DD Town Planning MDA for further process. **NOC shall be valid for a year from the Date of Approval.**

13. DUTIES OF OFFICERS AND OFFICIALS OF TRAFFIC & TRANSPORTATION ENGINEERING CELL OF ENGINEERING DIRECTORATE MDA FOR PROCESSING THE CASES OF NOC REGARDING TRAFFIC IMPACT ASSESSMENT STUDY

The role of the officers and officials of Traffic & Transportation Engg. Cell of Engineering Directorate MDA for processing the cases of NOC regarding Traffic Impact Assessment Study is given below.

13.1 Executive Engineer / Deputy Director. He shall:-

13.1.1. Supervise and monitor the whole process of the issuance of NOC regarding TIA Study including guidance of the builder / developer, his consultant and the staff of Traffic & Transportation Engineering Cell on all matters.

13.1.2. Issue permission letter to applying developer/Builder for conducting TIA Study after verification of his application by the staff of T&TE Cell.

13.1.3. Brief the consultant etc. during the coordination meeting regarding purposes as mentioned at Paragraphs 4 and 8.5 of SOPs.
13.1.4. Undertake at least one visit during the TIA Study for guidance of the consultant / builder and staff of T&TE Cell on the relevant matters.

13.1.5. Ensure compliance of recommendations given by consultant at the end of TIA Study.


13.1.7. Issuance of NOC on the prescribed format after approval of Final Traffic Impact Study Report by Director Engineering MDA.

13.2 Sub Divisional Officer. He shall:-

13.2.1. Assist Executive Engineer / Deputy Director during the process of issuance of NOC regarding Traffic Impact Assessment Study and shall ensure completion of the whole process according to the approved Standard Operating Procedure (SOP) and guidelines of Traffic & Transportation Engineering Cell of Engineering Directorate MDA and instructions of his superior.

13.2.2. Examine the Traffic Impact Assessment Study Reports and submit his recommendations to Executive Engineer / Deputy Director for further necessary action.

13.2.3. Undertake field visits as required during the TIA Study and ensure compliance of given guidelines by the consultant.

13.3 Assistant Director Transportation Engineering. He shall:-

13.3.1. Assist Executive Engineer / Deputy Director during the process of issuance of NOC regarding Traffic Impact Assessment Study on the aspects related to transportation engineering.

13.3.2 Provide professional guidance to the consultant of the builder / developer before and during the conducting of Traffic Impact Assessment Study according to the approved guidelines of Traffic & Transportation Engineering Cell of Engineering Directorate MDA.

13.3.3 Ensure compliance of study guidelines by the consultant.

13.3.4 Examine the submitted Traffic Impact Assessment Study Reports and submit his recommendations to Executive Engineer / Deputy Director for further necessary action.

13.3.5 Undertake field visits as required during the TIA Study and ensure compliance of given guidelines by the consultant.
13.4 Senior Sub Engineer. He shall:-

13.4.1 Receive and verify the documents attached with initial application for issuance of NOC and process it for issuance of permission letter by DD.

13.4.2 Assist Sub Divisional Officer and Assistant Director Transportation Engineering during the process of issuance of NOC regarding Traffic Impact Assessment Study.

13.4.3 Supervision and guidance of Survey Staff deputed with the consultant of the builder / developer during traffic and other surveys.

13.4.4 Assist above mentioned officers in examining the Traffic Impact Assessment Study Reports and submission of recommendations to the Executive Engineer / Deputy Director.

13.4.5 Undertake field visits as required during the TIA Study and ensure compliance of given guidelines by the consultant.

13.5 Senior Draftsman. He shall:-

13.5.1 Receive and verify the documents attached with initial application for issuance of NOC and process it for issuance of permission letter by DD.

13.5.2 Assist Sub Divisional Officer and Assistant Director Transportation Engineering during the process of issuance of NOC regarding Traffic Impact Assessment Study including examining the documents listed at paragraph No. 2 of Part-B above. He will also assist the above mentioned officers in examining the Traffic Impact Assessment Study Reports and submission of recommendations to the Executive Engineer / Deputy Director.

13.5.3 Keep the record of under process and approved TIA Studies and NOCs.

13.6 Survey / Site Inspector. He shall be:-

13.6.1 Deputed alongwith Surveyor and other Survey Staff for guidance and monitoring of the staff of consultant of the builder / developer during conducting TIA Study especially during traffic and other surveys.

13.7 Accounts Clerk. He shall:-

13.7.1 Prepare challan forms of NOC fee regarding TIA Study and get issued this challan form to the builder / developer after signature of SDO T&TE or AD TE. He shall also maintain all accounts of NOC fee regarding TIA Study including NOC Fee Register.
<table>
<thead>
<tr>
<th>S.#</th>
<th>Activity</th>
<th>Responsibility</th>
<th>Timeline</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Receiving of Applications for NOC</td>
<td>I/C One Window Cell/ Senior Sub Engr / Senior Draftsman</td>
<td>1st Day</td>
<td>They shall provide proper receiving to the applicant</td>
</tr>
<tr>
<td>2.</td>
<td>Scrutiny of the application</td>
<td>Senior Sub Engr / Senior Draftsman</td>
<td>Within one week of receiving</td>
<td>They shall process for issuance of permission letter</td>
</tr>
<tr>
<td>3.</td>
<td>Issuance of permission letter for conducting TIA Study</td>
<td>DD T&amp;TE</td>
<td>One week</td>
<td>After necessary process by staff</td>
</tr>
<tr>
<td>4.</td>
<td>Meeting of Consultant with staff of T&amp;TE Cell MDA</td>
<td>DD T&amp;TE / SDO T&amp;TE / AD TE / Builder / Consultant</td>
<td>Within one Month</td>
<td>After issuance of permission letter</td>
</tr>
<tr>
<td>5.</td>
<td>Conduct of TIA Study by the Consultant</td>
<td>Builder / Consultant / Developer</td>
<td>Within one year</td>
<td>After issuance of permission letter</td>
</tr>
<tr>
<td>6.</td>
<td>Supervisory visits by staff of T&amp;TE Cell MDA</td>
<td>T&amp;TE Cell</td>
<td>During Study</td>
<td>DD, SDO, AD, Sub Engr. and SI shall visit the site at least once during the TIA Study</td>
</tr>
<tr>
<td>7.</td>
<td>Submission of the TIA Study with DE, MDA</td>
<td>Consultant/ Builder/ Developer</td>
<td>Within one year</td>
<td>After issuance of permission letter</td>
</tr>
<tr>
<td>8.</td>
<td>Post TIA Study Meeting of Consultant / Builder / Developer with staff of T&amp;TE Cell MDA</td>
<td>DD T&amp;TE / SDO T&amp;TE / AD TE / Consultant / Builder</td>
<td>Within Fortnight</td>
<td>After submission of TIA Study</td>
</tr>
<tr>
<td>9.</td>
<td>Communication of observations to the Consultant / Builder</td>
<td>DD T &amp; TE / SDO / AD TE</td>
<td>One Week</td>
<td>After Post TIA Study meeting</td>
</tr>
<tr>
<td>10.</td>
<td>Rectification of observations &amp; suggestions and submission of Final TIAS Report</td>
<td>Consultant / Builder / Developer</td>
<td>One month</td>
<td>After communication of observations</td>
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<tr>
<td>11.</td>
<td>Submission of recommendation for approval of TIAS Report</td>
<td>DD T&amp;TE / SDO T &amp; TE / AD TE</td>
<td>One Week</td>
<td>After submission of Final TIAS Report</td>
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<tr>
<td>12.</td>
<td>Approval of the TIA Study Report</td>
<td>Director Engineering</td>
<td>One week</td>
<td>After recommendation by DD T &amp; TE</td>
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<tr>
<td>13.</td>
<td>Issuance of the NOC</td>
<td>DD T&amp;TE</td>
<td>One week</td>
<td>After approval of final TIAS Report</td>
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<td>Term</td>
<td>Definition</td>
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<tr>
<td>Builder/Developer</td>
<td>The proprietor of the proposed Development</td>
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<tr>
<td>Consultant</td>
<td>As described in Paragraphs 8.1 to 8.3</td>
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<td>DPDC</td>
<td>District Planning and Design Committee</td>
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<td>HLDC</td>
<td>High Level Design Committee</td>
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<td>NOC</td>
<td>No Objection Certificate</td>
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<td>GB</td>
<td>Governing Body of Multan Development Authority</td>
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<td>MDA</td>
<td>Multan Development Authority</td>
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<tr>
<td>DD T&amp;TE</td>
<td>Deputy Director Traffic &amp; Transportation Engineering Cell MDA Multan</td>
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<tr>
<td>DD Commercialization</td>
<td>Deputy Director Commercialization, TP Directorate, MDA</td>
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<td>PEC</td>
<td>Pakistan Engineering Council</td>
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<td>TEPA</td>
<td>Traffic Engineering and Transport Planning Agency, Lahore Development Authority</td>
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<tr>
<td>T&amp;TE Cell</td>
<td>Traffic &amp; Transportation Engineering Cell MDA Multan</td>
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<tr>
<td>AD TE</td>
<td>Assistant Director Traffic &amp; Transportation Engineering Cell MDA Multan</td>
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<tr>
<td>SDO T&amp;TE</td>
<td>Sub Divisional Officer Traffic &amp; Transportation Engineering Cell MDA Multan</td>
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<td>SSE</td>
<td>Senior Sub Engineer</td>
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<tr>
<td>SI T&amp;TE</td>
<td>Site Inspector Traffic &amp; Transportation Engineering Cell MDA Multan</td>
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To
The Executive Engineer/Deputy Director,
Traffic & Transportation Engineering Cell,
Directorate of Engineering,
MDA, Multan.

Subject: APPLICATION FOR ISSUANCE OF PERMISSION LETTER FOR CONDUCTING TRAFFIC IMPACT ASSESSMENT STUDY

It is submitted that undersigned is desirous to develop/construct

Name of the Project:

Location: having an area of _______ Kanals and _______ Marla. The building of the proposed project will consist of _______ storeys having _______ Nos. basements and _______ Nos. floors above road level.

2. The proposed land use of this project is permitted according to clause No. ______ of “Integrated Master Plan of Multan 2008-2028” OR The proposed land use of this project has been permitted by the DPDC in their meeting held on _______ at _______.

3. Approval letter for conversion of the site of this project into proposed land use has been issued by Deputy Director Commercialization Town Planning Directorate MDA Multan vide letter No. _______ dated _______.

4. Attested copies of following documents are attached (attested by DDTP MDA):
   4.1 Computerized National Identity Card (CNIC).
   4.2 Minutes of Meeting of DPDC (if applicable).
   4.3 Approval letter of Deputy Director Commercialization Town Planning Directorate MDA.
   4.4 Location / Key Plan and Site Plan.
   4.5 Two copies of Building Plan including Parking Plan.

5. It is requested that permission letter may please be issued to me for conducting Traffic Impact Assessment Study for the subject Project. Affidavit on prescribed format duly signed by me and two witnesses is also enclosed.

Name of Applicant: ____________________________
Mailing Address: ______________________________
Mobile Number: _______________________________ Signature
Date of Submission: ___________________________
UNDERTAKING BY THE DEVELOPER/BUILDER

(on a stamp paper of Rs.50/-)

I, __________________________ S/O ____________________________
CNIC No. __________________ R/O ____________________________
solemnly declare as under:

1. That undersigned is desirous to develop/construct
   Name of the Project: ____________________________
   Location: ____________________________
   having an area of _______ Kanals and _______ Marla. The building of the
   proposed project will consist of _______ Storeys having ______ Nos. basements
   and ______ Nos. floors above road level.

2. That the proposed land use of this project is permitted according to clause
   No. ______ of “Integrated Master Plan of Multan 2008-2028”

3. That the site of the proposed project is located at Road __________________
   which is already declared as commercial road according to __________________
   (Reference of the authority by which the road has been declared as commercial
   road) OR
   The approval for conversion of the subject site into proposed commercial land use
   has been granted by District Planning and Design Committee in its meeting held
   on ______ and approval letter has been issued by Deputy Director
   Commercialization Town Planning Directorate MDA Multan vide letter
   No. ______ dated ________.

4. That Traffic Impact Assessment Study shall be conducted according to the
   guidelines of TEPA LDA Lahore / Engineering Directorate MDA and instructions
   issued by the concerned officers / officials of Traffic & Transportation Engg. Cell
   MDA.

5. That Traffic Impact Assessment Study Report shall be submitted on the approved
   format of TEPA LDA Lahore / Engineering Directorate MDA and all relevant
   information, data and documents shall be provided in hard and soft shapes as
   desired.

6. That the observations on Traffic Impact Assessment Study Report, if any, shall be
   rectified as per entire satisfaction of the concerned officers / officials of
   Traffic & Transportation Engineering Cell Engineering Directorate of MDA.

7. That the structural changes in the already constructed portion of the project
   if required by the concerned staff of Transportation Engineering Cell MDA shall be
   made by me on my own expenses and I shall not challenge the decision of MDA in
   any court of law.
8. That the changes in the proposed Building Plan or Parking Plan if required by the concerned staff of Transportation Engineering Cell Engineering Directorate MDA shall be made as desired.

9. That no change in the Building Plan, Parking Plan, Land use etc. shall be made after approval of Traffic Impact Assessment Study Report by the competent authority of MDA.

10. That no addition / alternation shall be made in the structures of the project after approval of Traffic Impact Assessment Study Report by the competent authority of MDA.

11. That all other byelaws, rules, regulations of any government department applicable to this project shall be strictly followed and no violation shall be made.

12. That all the conditions of NOC shall be complied with during construction and operation phase of the project.

<table>
<thead>
<tr>
<th>Witness No. 1</th>
<th>Name, parentage and signature of builder / developer.</th>
<th>Witness No. 2</th>
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</thead>
<tbody>
<tr>
<td>Name, parentage, complete address, CNIC, mobile No. and signature.</td>
<td>Name, parentage, complete address, CNIC, mobile No. and signature.</td>
<td></td>
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</tbody>
</table>
FORMAT OF PERMISSION LETTER

Annexure-C

Office of Executive Engineer
Traffic & Transportation Engineering Cell
No. / EE(T&TE) / MDA.
Dated:

To

Name of builder / developer

Subject: PERMISISON FOR CONDUCTING TRAFFIC IMPACT ASSESSMENT STUDY FOR (NAME AND LOCATION OF PROJECT)

Your application for granting permission to conduct Traffic Impact Assessment Study for Project

has been received in this office on ______________. The documents provided by you with the application along with Affidavit have been examined by the concerned staff of this office and found in order. You are allowed to conduct Traffic Impact Assessment Study for the said project from the following:

1) By a PEC registered Transportation or Traffic Engineer.
2) By a Consultant/Firm working in TEPA, LDA Lahore for conducting TIA Studies duly signed by a PEC registered Transportation or Traffic Engineer.
3) By a consultant / firm duly registered with Engineering Directorate, MDA for conducting TIA Study.

You are directed to arrange a co-ordination meeting between your consultant and concerned staff of this office before starting the study. Hired consultant/firm shall submit necessary credentials of PEC/TEPA/MDA registration during such coordination meeting.

You are also directed to conduct Traffic Impact Assessment Study of the said project according to the guidelines of TEPA LDA Lahore / Directorate of Engineering MDA and submit Traffic Impact Assessment Study Report on the prescribed format within a period of one year starting from the date of issuance of this letter otherwise fresh application along with required documents will be submitted by you.

EXECUTIVE ENGINEER / DEPUTY DIRECTOR
TRAFFIC & TRANSPORTATION ENGG.
MDA MULTAN

C.C to:-
1) The Director Engineering, MDA for information please.
2) The Deputy Director Town Planning, MDA.
3) The Sub Divisional Officer and Assistant Director Transportation Engg. Traffic & Transportation Engg Cell MDA for information and further necessary action.

Annexure-C
Office of Executive Engineer
Traffic & Transportation Engineering Cell
No. / EE(T&TE) / MDA.
To

Name of builder / developer

Subject: NOC REGARDING TIAS OF (NAME AND LOCATION OF PROJECT)

The Competent Authority i.e., Director Engineering MDA has APPROVED Final Traffic Impact Assessment Study Report submitted by your consultant (name of consultant) for the Project  to ensure smooth flow of traffic in and around of the project subject to the following conditions:


3. Strict adherence of SET BACK and PARKING AREA reserved or notified by the competent authority shall be ensured.

4. Sufficient provision of Drop and Pickup Lanes in case of educational institutions shall be followed.

5. Separate Lanes for emergencies and ambulances in Hospitals shall be followed.

6. The builder / developer shall follow the relevant provisions of law (especially relating to the Requirements of Parking and Mandatory Open Spaces) including “Integrated Master Plan of Multan 2008-2028”, Special Bye Laws for Northern & Southern Bypasses (if applicable), MDA Building and Zoning Regulations 2007 and other Bindings / Conditions of District Planning & Design Committee and High Level Design Committee (if applicable).

7. The builder / developer shall make construction of the proposed project according to the plan approved by High Level Design Committee / Town Planning Directorate of MDA.

8. Mitigation measures suggested in Traffic Impact Assessment Study Report and Traffic Management Plan shall be strictly adhered to ensure smooth flow of traffic in and around the proposed project.

9. The spaces provided for Parking, Traffic Circulation and Drop & Pickup Lanes etc. shall not be used for other purpose and Mandatory Open Spaces (Front Set Back, Rear Yard and Side Spaces) shall not be violated.

10. Proper parking arrangements shall be made during and after construction of the project.
11. The flow of traffic on the main road as well as service road (if existing) in front of the project shall not be disturbed during construction and operation phase.

12. The objections / concerns of neighbors / stake holders (if any at any stage) shall be addressed on priority basis.


14. Any change proposed in the approved project shall be communicated to this office immediately and shall not be commenced at site without approval of this office.

15. Parking Plan submitted along with the application has been endorsed and approved along with this NOC. This plan shall be part of Building Plan to be submitted to High Level Design Committee for final approval.

16. This approval shall be treated as null and void if any of the conditions mentioned above is not complied with.

EXECUTIVE ENGINEER / DEPUTY DIRECTOR
TRAFFIC & TRANSPORTATION ENGG.
MDA MULTAN

C.C to:-

1) The Director Engineering, MDA with reference to the approval of Traffic Impact Assessment Study of the subject project as conveyed vide letter No.……….DE/MDA dated …………………

2) The Deputy Director Town Planning, MDA.
TRAFFIC IMPACT ASSESSMENT STUDY GUIDELINES

ISSUANCE OF NOC REGARDING TRAFFIC IMPACT ASSESSMENT (TIA) STUDY OF NON - RESIDENTIAL BUILDINGS IN THE AREA OF JURISDICTION OF MDA MULTAN

PREPARED BY:
Traffic & Transportation Engineering Cell, Directorate of Engineering, MDA Multan.
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1. INTRODUCTION

1.1 Traffic Impact Assessment Study

A Traffic Impact Assessment Study (TIAS) is a technical appraisal of the traffic and safety implications relating to a specific development. The goal of a Traffic Impact Assessment Study (TIAS) is to assess the potential impact of traffic generated by a proposed development or redevelopment and to identify the roadway improvements required to ensure that the road network will operate safely and efficiently upon completion of the development. It is particularly important that the TIAS remains an objective assessment of the traffic impact of the development and not merely an avenue for a developer getting planning and building approval. If there will be future traffic problems resulting from the proposed development then this needs to be objectively presented in the TIAS. Also the TIAS should investigate ways of mitigating this impact. Similarly the TIAS should address all issues related to on-site parking and internal circulation. A TIAS should follow the standard format and structure that is listed in the relevant sections of these Guidelines. This format covers the key issues to be addressed in determining the impact of a development on traffic of adjoining road network. A TIAS report may vary in scope and complexity depending on the type and size of the proposed development.

1.2 Objectives of Guidelines

Multan Development Authority (MDA) has prepared these guidelines in order to streamline the approval process and provide a standardized framework for consultants to follow when submitting studies for review. At all times, they should be complemented with good engineering judgment. The purpose of these guidelines is to ensure that a TIAS prepared for the MDA’s review meet the following criteria:

1.2.1 **Objective Assessment** - the study will evaluate the impacts of proposed new development or redevelopment in a rational manner.

1.2.2 **Consistency** - the study will utilize assumptions consistent with the MDA’s accepted methodologies and parameters and thus be comparable to other traffic studies in the area.

1.2.3 **Recognized by developers and consultants** - the guidelines will provide a standard approach to be followed and will eliminate confusion and delay in processing development proposals.

1.2.4 **Promote understanding of process** - the steps outlined in these guidelines will enable proponents, reviewers and elected officials to understand the process more effectively.

1.2.5 **Ease of review by staff** - a standardized set of guidelines will enable staff of the concerned formation of MDA in the timely review of TIAS.
2. Traffic Impact Assessment Study Requirements

The following sections outline the required contents for the TIAS. In general, the content and extent of the TIAS will depend on the location and size of the proposed development and the prevailing traffic conditions in the surrounding area.

The TIAS should consist of a main document supplemented by technical appendices containing required detailed analyses. The following is a suggested structure that will be helpful for the staff of concerned formation of MDA in a timely review of the TIAS:

- Description of the Proposal (with site plan or plan of subdivision if applicable).
- Study Area (with map identifying the study area and site).
- Horizon Year(s) and Time Periods for Analysis.
- Existing Conditions (exhibits required).
- Background Traffic Demand - Existing and Future Background (exhibits required).
- Site Generated Traffic Demands (exhibits required).
- Total Traffic Demand - Future Background plus Site Generated Traffic (exhibits required).
- Evaluation of Impacts of Site Generated Traffic.
- Access Location Analysis.
- Improvement Alternatives Required to Mitigate Traffic Impacts, including Traffic Impacts for Future Background and Total Traffic with and without Mitigation Measures (tabular summaries).
- Recommendations.

Maps, graphs and tables should be placed adjacent to relevant text.

2.1 Description of the Proposal

The TIAS should include a full description of the proposed development. It is recommended that this include the following elements, as appropriate:

- Municipal address.
- Existing land uses or permitted use provisions of the Official Plan, Official Plan Amendments, Zoning Byelaws, etc.
- Proposed land uses and relevant planning regulations to be used in the study.
- Total building size and building location on the site.
- Floor space including a summary of each type of use and/or number of units.
- Anticipated date of occupancy.
- Approximate days and hours of operation.
- Planned phasing of the development.
- Nearby intersections and access points for adjacent developments, including type of traffic control and existing access restrictions.
- Proposed access points and types of access (e.g. full moves, right-in-right-out only, specific turning restrictions, etc.).
- Locations of elementary school and senior citizen residences / facilities (within study area).
- Nearby transit facilitates and stops (within study area).

If the development is to be constructed in phases then a description of each phase and its proposed timing of implementation should also be included. A site plan or plan of subdivision of suitable scale must be submitted for consideration in the review of the TIAS.
2.2 Study Area

The study area should extend far enough from the development to contain all municipal, regional and provincial roadways that will be noticeably affected by the traffic generated by the proposed development. The MDA reserves the right to establish the study area as may be deemed necessary depending on the land use, traffic volumes and other geometric and traffic scenarios of the surrounding roads and area of project.

Within the study area, the applicant must use maps and other documentation to identify the components of the existing transportation system, including the following:

- All adjacent and nearby roads, indicating the number of lanes and the posted speed limit on each.
- All adjacent and affected intersections, indicating the type of control, lane configuration, lane widths and any turning or similar restrictions.
- On-street parking locations and areas with parking prohibitions in the vicinity of the site, clearly identifying those that would be affected by the proposed development.
- Transit routes.
- Heavy vehicle prohibitions and restrictions.
- Other transportation facilities, as appropriate.

Potential future transportation improvements that are currently being considered and may accommodate a proportion of the traffic demand produced by the development should be identified. These improvements should be described in sufficient detail to assess their implications for travel to/from the development. In each case, the status and anticipated date of implementation must be identified.

2.3 Time Period for Analysis

The consultant should provide the traffic model of existing traffic prevailing in the study area as well as project the traffic growth and analytical results up to 10 years.

Typically the AM Peak and PM Peak traffic periods will constitute the heaviest combination of site related and background traffic. However, Saturday, Sunday and site specific peak period analyses may be required for some proposed developments, such as retail, entertainment, religious, institutional and sports facilities, or developments which are located in areas in close proximity to these specific facilities.

2.4 Existing Traffic Conditions

The TIAS must include exhibits showing the existing traffic volumes and turning movements for roadways and intersections in the study area, including pedestrian and heavy vehicle volumes. Field observation (Traffic Counts) must be undertaken at each affected intersection to verify that traffic volumes through each intersection reflect actual demand and to confirm the necessary adjustment factors for level of service calculations.

A minimum seven (07) days Traffic count of existing traffic is required to simulate the existing traffic conditions depicting the trends of week days and weekends.
2.5 Data Collection

The applicant must provide both electronic and hard copies of all raw data collected for the TIAS. This includes but is not limited to the following:

- Turning movement counts
- Traffic signal timings
- AADT count
- Gap study observations etc.

2.6 Background Traffic Demand

2.6.1 Background Traffic

The background growth in traffic should be established in consultation with MDA staff through one of the following methods:

- Estimation of roadway growth factors from a calibrated traffic forecasting model.
- Regression analysis of historical traffic growth. or
- Traffic growth forecasts established through a previous land-use or transportation planning study.
- It is important that the consultant will consult with MDA staff to obtain agreement on the most applicable strategy for addressing background traffic growth in the TIAS.

2.6.2 Other Area Developments

All significant developments under construction, approved and in the approval process within the study area that are likely to occur by the specific horizon year(s) are to be identified and included in the background traffic growth for the study. The land-use types and magnitude of the probable future developments in the horizon years should be identified through consultation with MDA staff.

2.6.3 Transportation Network Improvements

Changes to the present or planned transportation network should be determined from the approved City, Regional and Provincial capital programs, if available, and consultation with MDA staff. The impacts of the transportation system changes should be identified. In particular, diversion of volumes from other facilities to new or improved facilities should be estimated.

2.6.4 Transit Considerations

In areas with transit service, the existing service should be identified. The potential impact and possible changes in modal split should be evaluated and discussed with in MDA Staff.
3. Site Generated Traffic Demands

All trip generation, trip distribution, assignment and modal split assumptions should be in accordance with standard/accepted techniques and based on local parameters. Sources should be well documented and any assumptions that may be considered less than conservative should be rigorously justified. Any “soft” parameters where there is a significant uncertainty or a range of possible values should be subjected to sensitivity analysis unless a demonstrated “worst case” situation is assumed.

3.1 Trip Generation

Consultation with MDA Staff is essential to ensure that appropriate and agreed upon trip generation rates are being employed in the TIAS. Available trip generation methods, in order of preference include:

• ITE Trip Generation (most recent edition) rates, provided that differences in the site nature and size of the side are accounted for.

3.2 Trip Distribution

The directions from which traffic will approach and depart the site can vary depending on several location specific factors, including:

• Size of the proposed development.
• Type of proposed development.
• Surrounding and in some case competing land uses, population and employment distributions.
• Prevailing conditions on the existing street network.

The trip distribution assumptions should be supported by one or more of the following, in the order of preference:

• Origin-destination surveys.
• Traffic Distribution according to existing scenario

3.3 Trip Assignment

Trip assignment assumptions should reflect the most "probable" travel patterns expected. They should consider logical routings, available and projected roadway capacities and travel times.

Traffic assignments may be estimated using a transportation planning model or "hand assignment" based on knowledge of the proposed/future road network in the study area.

4. Total Future Traffic Demand

A summary of the existing and future traffic demands should be provided in the form of exhibits / illustrations that summarize the following:

• Existing traffic
• Future background.
• Site generated traffic.
• Pass-by or other diversionary traffic and
• Future total traffic (Future background + site generated traffic).

Summary exhibits must be provided for each peak period and analysis horizon. This layout will aid in the timely review of the TIAS. In some cases, interim traffic conditions may need to be assessed to reflect phasing of developments, interim site access arrangements or planned transportation system improvements.
5. Evaluation of Impacts of Site Generated Traffic

An evaluation of all signalized and un-signalized intersections that will be affected by site generated traffic volumes for all relevant time periods is required. The objective must be to ensure that no new “problem” movements are created by the development and that “problem” movements that exist are not worsened with the addition of site generated traffic. Supplementary surveys or analyses may be required to assess saturation flows, gap availability and projected queue lengths.

5.1 Capacity Analyses at Intersections

For each intersection, the analyses must include Level Of Service calculations with average vehicle delays and volume to capacity (V/C) ratios for overall intersection operations and individual critical movements for each combination of time period and time horizon. The analyses must incorporate adequate crossing times for pedestrians and appropriate assumptions for modeling heavy vehicle operations.

5.2 Safety Analysis

The TIAS must include an evaluation and identification of potential safety and/or operations issues associated with the following, as applicable:

- Weaving
- Merging
- Sight distance
- Vehicle-pedestrian conflicts
- Traffic infiltration
- Access conflicts
- Cyclist movements
- Heavy vehicle movement conflicts
- Transit operational conflicts

6. Improvement Alternatives to Mitigate Traffic Impacts

The physical and operational-site road network deficiencies identified in the TIAS must be addressed and feasible solutions to mitigate these deficiencies must be identified. Functional design plans and detailed design drawings may be required for identified improvements to ensure their feasibility. A cost estimate and detailed design drawings must be provided for all identified infrastructure improvements.

7. Recommendations

The final section of the TIAS must present recommendations for improvements within appropriate time perspectives. Recommendations must be sensitive to the following issues:

- Timing of short term and longer range network improvements that are already planned and scheduled.
- Size and timing of individual phases of the proposed development.
- Right-of-way needs and availability of additional right-of-way within the appropriate time frames.
- Local priorities for transportation improvements and funding.
- Cost effectiveness of implementing improvements at a given stage of development.
- Necessary lead time for additional design and construction.
PARKING REQUIREMENTS

ACCORDING TO MDA BUILDING AND ZONING REGULATIONS
(Amended up to date)

PREPARED BY:
Traffic & Transportation Engineering Cell,
Directorate of Engineering, MDA Multan.
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INTRODUCTION

The Extracts of clause 3.9.10 “Mandatory Open Spaces” and chapter 5-Parking Requirements” included in MDA Building and Zoning Regulations 2007 amended by Governing Body of MDA in its 68th meeting held on 10-02-2016 under Item No.14 of agenda are given below. MDA Building Zoning Regulation 2007 (amended to date) are uploaded on official website of MDA i.e. www.mda.gop.pk.com. For more information about MDA Building Zoning Regulation 2007, please visit the official website of MDA.

3.9.10 MANDATORY OPEN SPACES

Note:

a. In case of educational institutions situated in approved schemes as well as on MDA controlled roads a separate lane for pick up and drop purposes shall be provided within setback area outside the boundary wall as follows:
   - Primary level 10’ separate lane
   - Secondary level 15’ separate lane
   - College 20’ separate lane

b. In case of health institute/hospital, a separate pick & drop lane shall be provided with following:
   - less than 2 kanal 15 ft
   - more than 2 kanal 20 ft

5. PARKING REQUIREMENT

5.1 General

The requirements of parking space shall not be applicable in such commercial areas including District and Divisional Centres and Neighborhood Commercial Areas in the Approved schemes where provisions for parking space have been made by the Development Authority.

5.2 Parking Space Standards

5.2.1 Apartment buildings

The following minimum parking space provisions shall be made:

One car space for every 1200 sq ft. (111.52 sq m) of covered area subject to a minimum of one car space for every housing unit; and
NOTE: In an apartment building, if any portion is intended to be used for a purpose other than residential, the parking standards prescribed hereunder shall apply in accordance with the nature of intended use.

5.2.2 Regulation Government or Semi Govt. Offices, Pvt. Offices, Court or Tribunals, Commercial including Large Stores & Retail Shops, Hospitals & Exhibition Halls

One car space for every 800 sq ft (74.36 Sq.m) of floor area.

5.2.3 Hotels

a. One Car space for every 5 Rooms and 1 Motor Cycle for each Room.

b. One car space for every 800 sq ft (74.36 sq m) of shopping area.

c. One car space for every 1000 sq ft (92.95 sq m) of office area.

d. One car space for every 500 sq ft (46.47 sq m) of floor area under restaurant, café and banquet hall.

5.2.4 Restaurants, Clubs & Cafes

One car space for every 500 sq ft (46.47 sq m) of floor area.

5.2.5 Marriage Halls, Banquet Halls & Community Centres

One car space for every 500 sq ft (46.47 sq m) of floor area.

5.2.6 Cinema, Theatres & Concert Hall

One car space for every 5 seats.

5.2.7 Cultural Institutions (Parks & Monuments), Post Offices & Police Stations

One car space for every 2000 sq ft (185.90 sq m) of floor area.

5.2.8 Industrial Buildings, Warehouses & Godowns

a. One car space for every 500 sq ft (46.47 sq m) of floor area of the administrative block of the building for the staff.

b. One car space for every 2000 sq ft (185.90 sq m) of floor area for the workers.

5.2.9 Schools, Colleges and Educational Institutions

a. One car space for every 2000 sq ft (185.90 sq m) of floor area.

b. 40% of car parking space shall be reserved for motor cycles and buses.

5.2.10 Motor Cycles

16% of the total car parking area shall be reserved for motor cycles.
5.3 Parking Spaces Specifications

5.3.1 Calculating the Parking Requirements

a. For the purpose of calculating parking requirements, the gross floor area shall not include the area of mechanical plant rooms, air conditioning plants, electric sub-station, space provided for prayer which shall not increase by 5% of total covered area of the building excluding the area under the use of, ducts, service shafts, public toilets for common use, lifts, escalators, stairs, covered parking and circulation of vehicles.

b. If corridors and arcades provided are more than 10 ft in width then additional area under corridors and arcades shall be excluded for calculating the car parking requirements.

c. In case of additions / alterations, additional parking will have to be provided for the additional floor area according to the standards given in these Regulations.

5.3.2 Floor Height

Minimum height of parking floors shall not be less than 8 ft (2.44 m).

5.3.3 Parking Geometry

Configuration of parking spaces and drive way etc shall conform to the following minimum standards:

<table>
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<tr>
<th>Components</th>
<th>M/Car</th>
<th>M/Cycle</th>
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<tbody>
<tr>
<td>Stall width</td>
<td>8 ft (2.44 m)</td>
<td>2 ft-6 in (0.76 m)</td>
</tr>
<tr>
<td>Stall width</td>
<td>16 ft (4.88 m)</td>
<td>16 ft (1.83 m)</td>
</tr>
<tr>
<td>Turning radius</td>
<td></td>
<td>20 ft (6.1 m)</td>
</tr>
<tr>
<td>(measured from middle of two way ramp or outer curve of one way ramp)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot turning radius</td>
<td></td>
<td>17.5 ft (5.33 m)</td>
</tr>
<tr>
<td>Approach ramp width/driving lane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• One way</td>
<td>10 ft (3.05 m)</td>
<td>3 ft (0.91 m)</td>
</tr>
<tr>
<td>• Two way</td>
<td>18 ft (5.49 m)</td>
<td>6 ft (1.83 m)</td>
</tr>
<tr>
<td>Width of approach ramp would increase at the turns allowing for turning radius of 20ft.</td>
<td></td>
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<tr>
<td>Gradient of Ramp</td>
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The ramp slopes may be increased to maximum 1:5 provided that for slopes over 1:10, a transition at least 8 ft (2.44 m) long is provided at each end of the ramp at one half of the gradient of the ramp itself as shown in figures-5.1 & 5.2.
### Aisle width (minimum)

- **One way**
  - 90 degree stall: 16 ft (4.88 m) / 14 ft (4.27 m)
  - Less than 90 degree stall: 6 ft (1.83 m) / 6 ft (1.83 m)
- **Two way**: 18 ft / 6 ft (1.83 m)

#### 5.3.4 Ventilation & fire protection in parking area

Adequate means of ventilation, fire protection and emergency exits shall be provided in the parking areas.

#### 5.3.5 Lighting Arrangement

All parking areas must be properly lit for clear visibility and safety.

#### 5.3.6 Basement, Ramp, Parking

**a.** The lower ground floor/basement if used for car parking purposes shall be constructed after leaving 4ft (1.22 m) space all around within the plot. This would apply in the case where basement is provided without piling. Ramp may be provided in the mandatory open spaces in the basements subject to the condition that it shall not obstruct these spaces on ground level. The owner will have to surrender the setback area for road widening in future if needed without any compensation.

**b.** For the construction of basement the entire plot area can be covered subject to the provision of RCC piling along all four sides of the plot. The owner will have to surrender the setback area for road widening in future if needed without any compensation.

**c.** No ramp is allowed in sided and Rear Spaces at ground level if these spaces are not abutting a road.

**d.** However, the level of the roof of the basement in the mandatory open spaces required to be provided under these Regulations shall not exceed 6 inches above the crown of the road.

**e.** The lower ground floor / basement if used for useable purposes other than car parking shall be constructed after leaving all the mandatory open spaces as required under these Regulations.

**f.** No Ramp shall start within 10 ft clear space from the plot line for entry and exit purposes. Such ramp should have a maximum slope of 1:5, with transition slopes minimum 8 ft long and maximum 1:10 gradient at both ends. (see fig. 5.1)

**g.** Where entry/exit to the basement is from the rear mandatory open space, a minimum chamfer of 6x6 ft shall be provided at the rear two corners of the building at the ground floor level (see fig. 5.2).
h. In case, a commercial building is proposed to be used for multi-purposes like hotel, banquet hall or apartments etc. the parking requirements for these uses shall be calculated separately on the basis of proposed uses as per these Regulations.

i. In the parking basement, non-useable areas such as generator room/water tanks / pumping stations/engineering services / transformer may be permitted subject to the condition that the area does not increase 10% of the particular floor area with proper enclosure.

j. The rooms for security/emergency staff may also be permitted in parking basement which will not create any hindrance in parking.

In case of provision of parking in basement, the parking space should be provided for both Motor Bikes and Motor Cars. Parking Basement only for Motor Bikes will not be approved.

5.3.7 Signage

a. The building plans should clearly show entry, exits, gradient of ramp, turning radius, storage spaces, circulation and movement of vehicles etc.

b. Proper parking signage such as entry and exit, directional arrows and road marking must be provided.

5.3.8 Construction of partition walls

No partition walls shall be constructed in parking areas.

5.3.9 Incentive for provision of additional Parking

Following incentives shall be given to the builder for providing car parking spaces over and above the requirements:

a. If the car parking spaces are 10% more than the requirement then the building plan fee shall be reduced by 10%

b. If the car parking spaces are 20% more than the requirement then the building plan fee shall be reduced by 20%