

Training of Trainers Workshop

on Traffic Impact Studies of Commercial Buildings and Facilities in Palestinian Cities.

30 November 2020 – 3 December 2020

Economic and Social Commission for Western Asia



REGULATION TO BE PREPARED BY AUTHORITIES

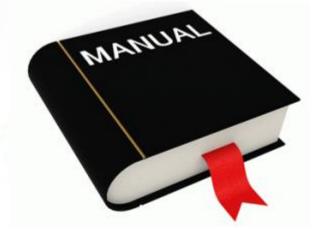
Eng. Rami Semaan



TIS REGULATION

WHY TO HAVE A MANUAL?

- To have a common and unified scope of work for analysis and to estimate similarly the cost of the study
- To ensure the quality of the study
- To understand the requirements of the client
- To have a knowledge about the city environment
- To unify the parameters to be used by city or region





MANUAL CONTENTS

- Each Country/City has his own Manual identifying the main authorities needs and phases to follow, if any.
- First step in all manuals should be the needed requirements as per the size of the project
- Qualifications of the Consultant
- Grid crossing the project size vs. level of requirements
- Trip generation rates



MANUAL CONTENTS

- Manual to be used, if any
 - ✓ Geometric design manual, Road safety manual, parking Manual, ...
- Software to be used, if any
- Modes to be taken into consideration
- Traffic surveys level of details
- Other authorities to coordinate with
- Reviews and approval procedures and timeline



LIMITATIONS OF A MANUAL?

- Inconsistency in the required data
- No recurrent update is done on the manual
- ◆ Absence of clear grid relating the size of the project to the requirements ⇒ Authorities Discretion
- Conflict in proposed recommendations between several running projects at the same time
- To end up proposing a very heavy and costly road projects
- To have a vague guidelines ⇒ more time
 ⇒ high cost study or doubtful quality

RESPONSABILITIES

• Who is responsible of applying the manual?











RESPONSABILITIES

- Who is responsible of applying the manual?
 - Municipality or Ministry of Municipalities
 - ✓ Transportation authorities of the city
- Responsibility for big cities are different than small cities
- Whoever is responsible coordination with other authorities still important

APPROVALS

- The responsible authorities are the only one that can give an approval on the study
- The approval should not be related to the endorsement of other authorities ⇒ endless process
- Requesting solutions that suits the budget of the client
- Connecting several developments approvals
- Pressure on the Consultant to change results of the study for a faster approval procedure





Training of Trainers Workshop

on Traffic Impact Studies of Commercial Buildings and Facilities in Palestinian Cities.

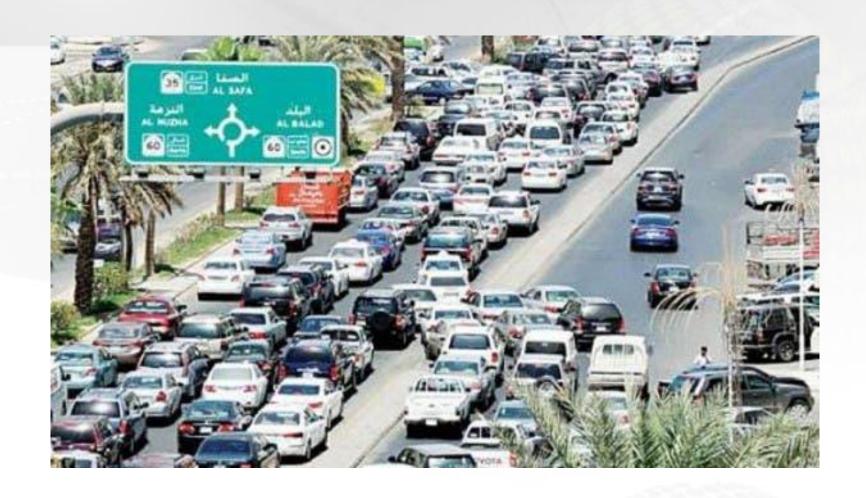
30 November 2020 – 3 December 2020

Economic and Social Commission for Western Asia



GUIDELINES EXAMPLES

Eng. Rayane Wehbe



JEDDAH TIS GUIDELINES

- Responsibilities: Jeddah Municipality, Ministry of Transport procedure and other Authorities having Jurisdiction, taking into consideration the latest Transport Master plan for Jeddah.
- Traffic and road standards to be used
- Traffic model software to be used
- To coordinate with other consultants of adjacent projects

- Data collection and required traffic surveys (Traffic counts, road inspection, pedestrians, etc.)
- Trip generation to be used
- Modelling periods : AM, PM & noon peak hours
- Three future scenarios with an interval of 5 years to be evaluated



 All assumptions used in the study (Modal share, car occupancy, ...) should be endorsed by the Municipality

- Parking requirements
- Public transport requirements
- Pedestrian requirements
- The Consultant should propose the mitigation and improvement measures which should be discussed with the Client and authorities.
- Phasing plans and financially optimal road improvement plans.
- Conceptual design for the proposed mitigation







Dubai TIS GUIDELINES

- The trip generation and parking rates for the analysis of new development projects
- The necessary instructions and descriptions on how to use the trip generation and parking rates provided in the appendices of the guideline
- The trip rates for the AM, NOON, and PM peak hours of the adjacent street traffic
- The terms of reference for conducting future trip generation and parking rate surveys

 A continual, uniform method of obtaining and summarizing the most current trip generation and parking rates is also included in the guideline

The guidelines do not mention anything about the TIS methodology





Abu Dhabi TIS GUIDELINES

The Guidelines contain mainly the following:

- Criteria that will be used to determine the necessity for a Traffic Impact Study and Parking Study
- The methodology to follow
- Initial meeting is a must
- Guidelines for Study Area, Key facilities that should be analyzed, Horizon Years, Peak Hours of Analysis, level-ofservice calculation for different network component.

- Assumptions to be used
- Required information to be included in the "Analysis of Existing Conditions"
- A detailed description of the future baseline conditions components
- Development description: technical requirements for estimating trip generation, trip distribution and parking rates
- Severity of impact and level of mitigation measures.

- The requirements of the site plan used as the basis for review by the Municipality
- Guidelines for parking design auditing and parking demand
- The general characteristics, features, and structure of the traffic impact study report





QATAR TIS GUIDELINES

TIS GUIDELINES POLICY

- The responsible for reviewing and for approval process Ministry of Municipality and Environment MME
- The guidelines indicates that the MME has the right to impose any additional requirements or conditions at any stage during or after the study period based

on the proposed development and project location, size and effects on the adjacent and surrounding roads network.



TIS GUIDELINES REQUIREMENTS

- Level of applicability:
 - ✓ Generate less than 100 trips: No study
 - ✓ Generate between100 and 500 trips: Reduced study
 - ✓ Generate more than 500 trips: Detailed study
- Traffic and road references and standards to be used
- Traffic model softwares to be used



- Transport Study Procedure
- Transport Study Methodology Report
- Project/Development Review Report
- Requirements for path, facilities, analysis, and design for pedestrian, bicycle and public transport.
- A list for the required information and data that should be collected

- A list of the agencies that shall be contacted for the data collection
- MME Requirements for conducting the traffic surveys (ATC, MCC, TMC, TTS)
- Requirements for the traffic analysis report
- The methodologies, analysis, components and all needed coefficient and assumptions of the TMPQ transport model that is currently used for testing any transportation project

- Model Report contents
- The analytical techniques used to derive study findings, conclusions, and recommendations
- A list of design parameters and assessment criterion
- Requirements for the traffic assessment, and key performance indicators that should be adopted (key performance indicators of Dubai Guidelines are also applicable)
- A list of the required topics coverage and a list of the expected output of this study

- Structure and items required in the Impact Assessment Report
- Concept Design Submittal and Review Guidelines
- Parking Design Guidelines
- Pedestrian Facilities Design Guidelines
- Bicycle Facilities Design Guidelines

	eddah	Qatar	Dubai	Abu Dhabi
Traffic Impact Study Applicability		√		✓
Manuals & Guidelines, required assumption to be used	√	√		
Required Traffic Model Softwares	✓	✓		
Transport Study Procedure & Report content		√		✓
Guidelines for Study Area and Key Facilities that should be analyzed				✓
Guidelines for the Initial Meeting and Development of Inception Plan				✓
Data Collection and Required Traffic Surveys	√	√	√	✓
Trip Generation			√	
Modeling Periods (Peak Hours)	√	√	√	✓
Parking Requirements and Analysis	√	√	√	✓
Procedure for Adequate Parking Plan Development				✓
Pedestrian & Public Transport Requirements and Analysis	✓	✓		✓
Bicycle Requirements and Analysis		√		✓
Phasing Plans & Financially Optimal Road Improvements Plans + Conceptual Design for the Proposed Mitigation	✓			



Training of Trainers Workshop

on Traffic Impact Studies of Commercial Buildings and Facilities in Palestinian Cities.

30 November 2020 – 3 December 2020

Economic and Social Commission for Western Asia



QUALIFICATIONS OF AUTHORIZED CONSULTANT

Eng. Rami Semaan

TIS PREQUILIFIED CONSULTANT

- Requirements should be very clear and well structured
- Process should be very specific and with no ambiguity
- Company qualifications
 - ✓ Years of experience
 - Number of similar achieved projects
 - ✓ Number of required experts and qualifications
 - Required certificates and legal papers
- ⇒ The most important is that this company should have an experience in Traffic studies.

TIS PREQUILIFIED CONSULTANT

- Experts qualifications
 - √ Years of experience
 - Domain of expertise
 - ✓ University degrees
 - ✓ Accreditation from Association or Syndicate or chamber of commerce
 - ⇒ As a minimum a traffic engineer is a must, in big projects an urban planner and a road design engineer is a must.
- It is not about how big is the company. It is the experience in the traffic domain.



Training of Trainers Workshop

on Traffic Impact Studies of Commercial Buildings and Facilities in Palestinian Cities.

30 November 2020 – 3 December 2020

Economic and Social Commission for Western Asia



INSTITUTIONAL & ORGANIZED ASPECTS

Eng. Rami Semaan

INSTITUTIONAL & ORGANIZATIONAL ASPECTS

• Governance:

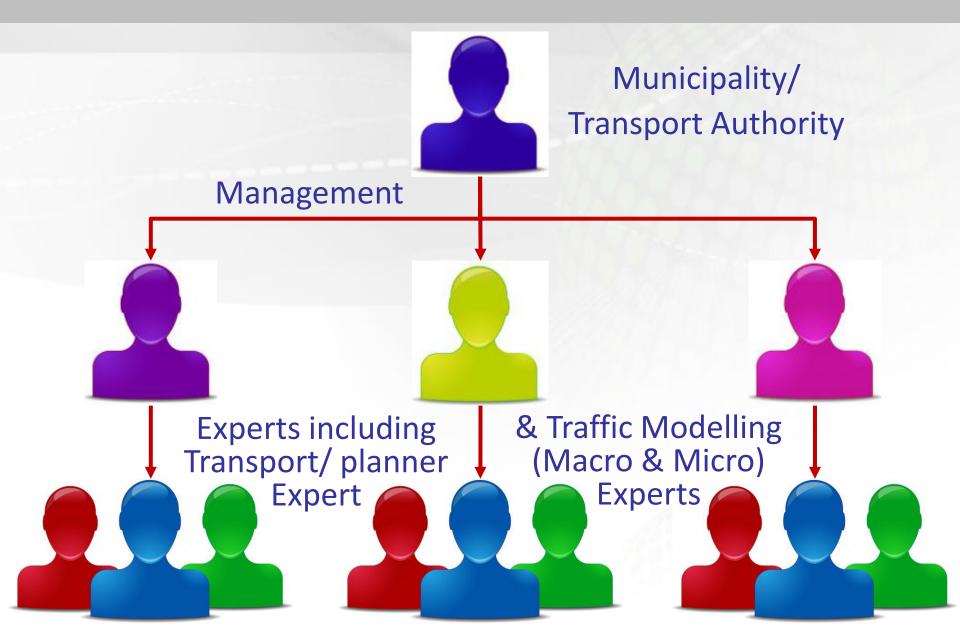
- How and by whom are final decisions made?
- ✓ What responsibilities do the leaders have?
- ✓ Who should be the members?



• Management:

- ✓ How are rules/procedures enforced?
- ✓ What types of resources are available to the organizations?

INSTITUTIONAL & ORGANIZATIONAL ASPECTS



CONCERNS

- Restrictions
 - ✓ Illegible skilled team
 - ✓ Losing big companies with international experience
- Risk of monopoly
 - ✓ Consultant lobbying
- Pressure of Developers/Authorities
- Endless Study
 - Overloading the study leading to an endless process
- Risk of trivialization

Thank You 1 15th