

# 12<sup>th</sup> Five Year Plan

## Guidelines

Institutes of Driving Training and Research (IDTR)  
Regional Driver Training Centre (s) - (RDTCs)



सत्यमेव जयते

Ministry of Road Transport & Highways  
Government of India

(48)

business proposition. During the 12<sup>th</sup> Plan, financial support will be provided for setting up of such institutes on a pilot basis.

## II. SCHEME FOR TIER-I (IDTR)

### 1. General Guidelines

- (i) The proposal should contain categorical recommendation of the State Government.
- (ii) Land for the Institute shall be provided free from all encumbrances and the title of the land will vest in the State Government/ Central Government/Society. In case of lease holding, same shall be on a lease of at least 33 years.
- (iii) The proposal should envisage self-sufficiency in meeting the recurring expenditure as this shall not be provided by the Central Government. However, the initial grant may include a component for the consumable for the first year only.
- (iv) The grant of the Central Government shall be one time grant for the capital component of the proposal and the estimates on this account should be based on latest approved CPWD or State PWD Schedule of Rates. However, actual procurement should be made by following tender procedure to obtain most competitive price and quality products. The capital component of the proposal may include modern equipments such as innovative driving test system (IDTS) using Radio Frequency Identification (RFID) tags or video recording, simulators, computers and other modern aids. Under this head, provision for hostel facilities including fitting and furnishing can also be considered.
- (v) In the case of Government- Private Partnership, the proposal should invariably contain a project appraisal report/feasibility report by an independent reputed agency and comments of State Government, if any.

## 1. Who Can Send the Proposal?

- i) State Government, and/or
- ii) Any other agencies such as State Transport Undertakings, Transport Companies/ Associations, NGOs, Private Party / Automobile Associations/Vehicle Manufacturers' Association/Autonomous Body/Private Vehicle Manufacturers authorized and recommended by the State Governments, in collaboration with the Government.
- iii) However, the Central Government shall give preference to those States/UTs, which make provisions in the motor vehicle rules to mandate driving training for certain categories and also vest in the IDTR the power to licence, monitor, categorize and audit the other driving training schools in the state. In order to facilitate the setting up of IDTRs in a time bound manner, the Central Government shall give preference to those States / UTs whose nodal agency, as approved by the respective State Government submits proposal for setting up IDTR in joint venture with above mentioned categories.

### 2.1 Criteria of the Eligibility for Agencies other than State Government for Collaboration

- i) Must be registered with the appropriate legal authority.
- ii) Must have a clean record since inception.
- iii) Must have an annual financial turnover of the NGO should be above Rs. 1.00 Crore.
- iv) Should have experience of minimum of 3 years in the field of Road Safety.

**Note:** NGOs and private firm are required to **hypothecate** the land/(to be built up infrastructure) in the name of the Ministry of Road Transport & Highways, Transport Bhawan, 1 Parliament Street New Delhi, till the utilization of funds released to them and submission of Utilization Certificate duly certified by CA in this respect.

## 3. Infrastructure Requirements

provided by the State Government free of cost or at a subsidized price, if it is not possible to provide it free of cost.

Funds shall be released as per the progress report, UC and recommendation of CIRT, engaged for appraising the progress and recommendation for next instalment based on the following milestones:-

- i) Mobilization advance: 10% of the project cost
- ii) Land development and construction of the compound wall: 10%
- iii) Construction of Training Centre, test track and other amenities:
  - After 25% construction: 20% of the project cost
  - After 50% construction: 20% of the project cost
  - After 75% construction: 20% of the project cost
  - After 100% construction: 10% of the project cost
  - After recommendation of the closure of the project: 10% of the project cost.

#### 5. Management of IDTR

For overseeing the construction and operation of the IDTR, a society shall be formed. The society will comprise of the representatives of Ministry of Road Transport, Govt. of India, State Government and Private partners.

#### 6. Responsibilities of Central, State Govt. and Private Partner Responsibilities

The parties involved in the establishment and management of IDTR are the Central Government, State Government and Private Partner. The responsibilities of the individual parties are given below:-

##### 6.1 Central Government

- Fund the setting up of IDTR subject to maximum up to Rs.17 Crore
- If required, necessary amendments will be incorporated in CMVR to make project viable

### **6.3 Private Partner**

- Play the lead role in the establishment and management of the IDTR.
- Sponsor the vehicles, training aggregates and teaching aids in the IDTR.
- Assist the Government in relation to various processes related to setting up and managing operations of training and training centres professionally, motor driving training, imparting technical assistance and skills in the said profession for maintenance of vehicles.
- Provide support in the form of designing course content, curriculum, technical assistance, guidance, vehicles and equipments required for training, know-how and services, training aggregates, training materials including vehicles manuals and teaching aids for driver training.
- Provide employment opportunities to the deserving qualified and trained drivers at the IDTR through their business processes.
- Impart free training to the instructors of the IDTR on a regular basis regarding the latest vehicle technologies.
- To bring in professionalism in the area of driver training.
- Design, develop and operate the institute on time line stipulated by the government
- Bring in new technology and modern tools and process Run the institute as a self sustainable mode
- Complete Administration and run the institute under the guidelines of the government
- Submit periodical progressive reports to the government.
- Install audit and review mechanism for quality assurance
- Bear any expenditure in excess of the stipulated grant in association with the State Government.

7. Details of a Standard IDTR are given at Annexure-I (A).

- (ix) The staff employed at the IDTR shall mandatorily have to undergo training for trainers and will be evaluated for suitability at one of the existing IDTRs designated by the Ministry.
- (x) The fee structure for the training courses will be decided by the Society administering the institute with the approval of state government.
- (xi) The RDTCs shall submit half yearly performance report.
- (xii) It shall be obligatory on the part of the RDTCs to implement the schemes run by Central Government on drivers training on the terms and conditions set out by the Central Government.
- (xiii) More than one proposal for RDTC may be considered across State (excluding the district in the State where IDTR is proposed or developed).
- (xiv) The Central Government shall give preference to those States/UTs, which make provisions in the motor vehicle rules to mandate driving training for certain categories of drivers, for renewal of heavy motor vehicle driving licence and vest the institutes with certain functions like testing of aspirants for issue of driving licence.
- (xv) The State Government will make efforts to implement the scheme in respect of RTDCs in the rest of the state on its own, with the support of private partners within 3 years of implementation of pilot scheme.

## **2. Who Can Send the Proposal**

Any agencies such as NGO/Automobile Associations/Vehicle Manufacturers' Association/Autonomous Body/Private Vehicle Manufacturers, ITI, authorized and recommended by the State Governments, in collaboration with the State and Central Government. **The Central Government will give the preference to those agencies who submit the proposal for setting up of RDTC for women only. In such centres, training will be imparted by lady instructors and trainee will be women only.**

#### **4. FINANCIAL IMPLICATIONS**

The setting up of tier-II RDTC(s) is envisaged with financial support through private party. The Central Government will provide the financial support subject to the maximum of Rs. 5 Crore per centre for the pilot phase thereafter the state has to implement the scheme its own post evaluation of the pilot project. The land will be provided by the State Government. However the land could also be provided by the private party but the cost of the land will not be added towards project cost. Any additional requirement of fund will be met either by the State Government or Private Party. However, to make the proposed RDTC self sustainable, the Central Government shall make necessary amendments in CMVR to mandate the grant of new licenses from LMV to HMV, renewal of HMV licenses and refresher training only on certification from the RDTCs of the respective region (if RDTC exist).

Funds shall be released as per the progress report, UC and recommendation of CIRT, engaged for appraising the progress and recommendation for next installment based on the following milestones:-

- i) Mobilization advance: 10% of the project cost
- ii) Land development and construction of the compound wall: 10%
- iii) Construction of Training Centre, test track and other amenities:
  - After 25% construction: 20% of the project cost
  - After 50% construction: 20% of the project cost
  - After 75% construction: 20% of the project cost
  - After 100% construction: 10% of the project cost
  - After recommendation of the closure of the project: 10% of the project cost.

#### **5. RECURRING EXPENDITURE**

The total recurring expenditure shall be borne by the RDTCs from the resources it would generate by way of fees or other allied activities.

- Design, develop and operate the institute on time line stipulated by the government
- Bring in new technology and modern tools and process Run the institute as a self sustainable mode
- Complete Administration and run the institute under the guidelines of the government
- Content development Procurement of equipments/ tools for running the institute
- Submit periodical progressive reports to the government.
- Install audit and review mechanism for quality assurance

19. Details of a Standard RDTCs are given at Annexure- II.

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**DETAILS OF A STANDARD INSTITUTE OF DRIVING TRAINING & RESEARCH (IDTR)**

**1.0. Introduction**

A good "Driver Training Institute" is aimed to develop right attitudes towards driving responsibilities, instills understanding of Traffic Regulations and creates good driving habits. By merely listening or reading, the driving skills cannot be acquired. The skills have to be learned by each individual's own practice. Haphazard learning never promises a high grade of skills. If young drivers are systematically trained, they can correct their mistakes and help reduce accidents. If the Drivers are not trained well, ultimately the general public will be endangered by their mistakes. Sound Driver Education and training produce good results. A properly trained generation of new Drivers would bring down the rate of accidents considerably in future.

With advancement of technology, not only has the condition of the roads improved, but there has been an induction of new types of vehicles with better and larger load carrying capacity. Besides, much more advanced signaling systems have been introduced in the metropolitan and other major cities. In spite of these advancements, India is ranked today amongst the topmost countries having the maximum number of road accidents and also road accident deaths. The large number of road accidents all the more demands upon the better skills of the drivers so that safety of both man and machine is maintained on the roads. In order to cope up with such demanding circumstances, a technologically advanced "Institute of Driving Training and Research (IDTR)" is all the more necessary to cater to the growing number of drivers, as the number of vehicles on Indian roads are increasing manifold. The proposed "IDTR" with ultra-modern facilities like IDTS, simulators etc. would definitely go a long way in educating the drivers of various categories in order that safety on the roads may be achieved. In order to train a good driver, it is all the more important to breed a capable trainer or instructor. The "IDTR" would, therefore, aim to churn out not only good quality drivers but also excellent Training Instructors.

of the C. M. V. Rules, 1989, the following minimum qualifications prescribed for Driving Instructor who is engaged for imparting driving instructions in the driving school.

- a minimum educational qualification of a pass in the 10<sup>th</sup> standard,
- a minimum driving experience of five years in addition to a certificate in a course in motor mechanics or any other higher qualification in mechanical engineering from an institution established by the Central or a State Government or from an institution recognized by the Board of Technical Education of a State Government,
- thorough knowledge of traffic sign specified in the Schedule to the Act and the regulations made under section 118,
- ability to demonstrate and to explain the functions of different components, parts of the vehicles,
- adequate knowledge of English or the regional language of the region in which the school or establishment is situated:

Provided that any person who has served as an instructor for a period of not less than five years immediately before the commencement of these rules, is exempted from the requirements of this sub-clause.

For a trainer to achieve proficiency in training, he should be thoroughly trained in a proper manner so as to enable him to handle theory classes and practical sessions systematically. The above mentioned qualifications as per the CMV Rules, may not solely be enough to make him competent enough to impart both theoretical and practical instructions during the course of the driver training. The Driving Instructor is mainly entrusted with the following responsibilities:

- Imparting training to the trainees in the vehicle i.e. the proper use of the controls etc.
- Handling theory classes in different subjects
- To oversee and supervise the driving performance of trainees with reference to fuel conservation as well as safe driving.
- To evaluate the performance of the trainees.
- Good personal conduct & ethical business dealing.

As per the Rule 31(3) and 31(4) of Central Motor Vehicles Rules, 1989 the training period for Transport Vehicles shall not be less than 30 days and Driving Hours shall not be less than 15 Hours.

Theoretical training should be made mandatory for HMV learners and must have a lot of focus on controlling road rage, good road user attitude and behaviour, stress management, tips to overcome physical and mental fatigue, socially relevant topics such as AIDS, alcoholism & tobacco consumption, besides topics related to driving a heavy vehicle and traffic education. It is proposed that practical training be for 20 hours and theory for 16 hours since such trainees are people who have first held the LMV licence for a period of minimum one year. Hence they have road sense and confidence to drive in traffic. They would have also undergone theory lessons earlier. This training should span over 30-45 days.

The details of the scheme for imparting training in heavy motor vehicle driving is detailed in the Annexure-I (C).

### *3.3. Induction Training Course in Light Motor Vehicle Driving*

The new Motor Vehicles Act, 1988 and Central Motor Vehicles Rules, 1989 are applicable to all classes of road users. Most important are the precautions and procedures laid down in the Driving Regulations in Section 118 of Motor Vehicles Act, 1988 which must be followed by all road users especially new road signs. Hence, the LMV drivers also be trained like heavy vehicle drivers in a systematic manner so as to improve the road safety.

As per the Rule 31 (2) and 31 (4) of Central Motor Vehicles Rules, 1989, the training period for non-transport vehicles shall not be less than 21 days and driving hours shall not be less than 10 hours.

➤ Training Course on Safety Clinic for Accident Prone Drivers

A practical skill test and theoretical behavioural analysis test to be conducted for such drivers to understand and analyse their improvement areas and give special focus on those areas during the course of training. Simulators should be used to train & assess such drivers in particular.

*5.2 Recurring expenditure*

The total recurring expenditure shall be borne by the Institute from the resources it would generate by way of fees or other allied activities of IDTR.

However, the State Government could also consider providing grants till such time the Institute becomes self-sustaining. Further in order that the curriculum offered by the Institute for training is made popular, the fees could also be subsidized initially. Grants may however be given for specific courses for the underprivileged and drivers of the unorganized sectors by the Central Government/State Government.

**6.0 Driver Training Simulators and Automated Driving testing Track**

To initiate driving in a safe and comfortable environment, to impart Driver Training in a scientific manner and to evaluate trainees' driving performance at the end of the training course without bias and to test the skills of drivers based on one's reactions under various traffic and roadway conditions, driver training simulators will be provided in the IDTR.

**Simulators will also be provided to the driving schools/Institutes which have already been set up as per the earlier scheme of this MoRTH or set up by the grants of State Government.** A certificate from State authorities will, however, be required that these driving schools are functional. The proposal of providing the simulator in case of other driving schools may be considered provided the State Government has recommended the proposal. However, the amount to be released for simulators will be maximum of Rs. 1 Crore or the cost of simulators whichever is less.

## ANNEXURE-I (B)

### SCHEME FOR TRAINING COURSE FOR TRAINERS

#### 1) MINIMUM STANDARDS REQUIRED FOR TRAINEES:

The minimum requirements for the trainees to undergo the "Training Course for Trainers" course is given as below:

Education	:	a pass in 10 <sup>th</sup> Std., preferably Graduates.
Driving Experience	:	5 years
Category of Licence	:	Min LMVC for eligibility as Car Driving Instructor Min HMV for LMVC & HMV Driving Instructor
Certificate	:	a certificate in motor mechanic course
Knowledge	:	Thorough knowledge in road traffic rules and regulations

#### 2) COURSE DURATION : **Car Driving Instructor Course. Duration 80 hrs spread over 12 weeks. Max batch size 25.**

Course comprising of:

- 30 hrs theory
- 25 hrs Simulator /pract/ evaluation/ training in groups of 4
- And 25 hrs on the job Training.

**LMVC Driving Instructor Advanced course. Duration 40 hrs. spread over 6-10 days. Max batch size 25.**

Course comprising of:

- 14 hrs theory
- 13 hrs Simulator /pract/ evaluation/ training in groups of 4
- And 13 hrs on the job Training.

**HMV Driving Instructor**

**Specialisation Course. Duration 40 hrs spread over 6-10 days. Max batch size 25.**

Course comprising of:

- 10 hrs theory
- 15 hrs Simulator/pract/ evaluation/ training in groups of 4
- And 15 hrs on the job Training.

On the job Training: Independently Conducting various modules of Theory,  
 Practical Training and Conducting Test and Evaluation 25 hrs.

3b) COURSE CONTENTS FOR LMVC DRIVING INSTRUCTOR COURSE:

<u>Theory</u>		<u>Practice Session</u>	
<u>Topic</u>	<u>No. of Hrs.</u>	<u>Topic</u>	<u>No. of Hrs</u>
Driving Theory	2	Simulator Training (rain, fog, hill, night, city roads)	3
Traffic Education (specific rules & laws for commercial vehicles)	2	Skill Driving Practice (in Driving Range)	3
Vehicle Mechanism Theory for LMVC	2	Driving Practice in Rural and Highway Roads	2
Vehicle maintenance Pollution & Environment	2	Driving Practice in City Roads (in Dense and Lane Traffic)	2
AIDS Awareness First Aid Alcohol & Tobacco	2	Vision Test, Theory Test & Driving Skill Test	2
Journey as an Instructor Types of Trainees Handling problem participants & slow learners, assessment of Trainee progress	2	To observe & assist Instructors conducting evaluation	1
Facilitating interaction and communication	1		
Conducting test and evaluation	1		
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Total Hrs.:	14		13
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On the Job Training: Independently Conducting various modules of Theory,  
 Practical Training and Conducting Test and Evaluation - 13 hrs.

ANNEXURE-I (C)

**SCHEME FOR INDUCTION TRAINING COURSE  
IN HEAVY MOTOR VEHICLE DRIVING**

1) MINIMUM STANDARDS REQUIRED FOR TRAINEES:

The minimum requirements for the trainees to undergo Heavy Vehicle Driver Training are given as below :

- Education : Fluent in reading and writing in Regional Language.
- Driving License : 1 year completed in Light Motor Vehicle Driving.
- Physical Condition : Good vision and free from other Physical disabilities.
- 2) COURSE DURATION : 36 Hrs spread over 6 Weeks  
(16 hrs theory & 20 hrs driving practice)

3) SYLLABUS:

The syllabus as prescribed in Rule 31(3) of Central Motor Vehicles rules, 1989 for Heavy Motor Vehicles (the lessons cover parts E, F, G, H, I, J & K) may be followed.

4) COURSE CONTENTS:

<u>Theory</u>		<u>Practice Session</u>	
<u>Topic</u>	<u>No. of Hrs</u>	<u>Topic</u>	<u>No. of Hrs</u>
Driving Theory	- 2	Basic Driving Practice (in Driving Range)	- 2
Traffic Education	- 2	Skill Driving Practice (in Driving Range)	- 4
Vehicle Mechanism Theory	- 2	Driving Practice in Rural and Highway Roads	- 4
Vehicle Maintenance & Repairs	- 1	Driving Practice in City Roads (in Dense and Lane	- 3

9) TEST:

The Trainees those who passed the driving Performance Test called Internal Trade Test conducted by the Institute will only be sent to Motor Vehicle Inspector's Test for Heavy Vehicle Driving Licence Endorsement.

10) CERTIFICATE: After passing in all Theory papers and Motor Vehicle Inspector's Test, the Proficiency Test Certificate will be issued to the candidates.



Causes of Accidents & Case studies	1	Uphill & Downhill driving	2
		Reversing, parking	2
		Simulator training (initiation, rain, fog, night etc)	4
		Test & Evaluation	2
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Total :	7		20
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Classroom training through interactive sessions supported with films, graphics and animations, of duration 7 hrs., covering all topics listed above. Practical training for 20 hrs to be given as per a structured Driving Training manual outlining the coverage for each session. Progress of trainee to be recorded and appraised after each session.

#### 5) EVALUATION:

At the end of the Training Course, the trainees are evaluated in Theory as well as in Driving Practice. Theory test to be conducted from a large question bank of questions picked up randomly through a pseudorandom software. Question paper of 40 questions with pre-assigned weightages to different topics.

#### 6) ELIGIBILITY TO WRITE EXAMINATIONS:

A minimum of 85% attendance is required.

#### 7) EXTENSION OF TRAINING:

For shortage of attendance or failure in Driving Practice, the training period may be extended as per requirement.

#### 8) FAILURE IN EXAMINATION:

If anybody fails in any theory paper or driving practice, the candidate has to re-appear.

#### 9) TEST:

The minimum score required to pass the test is 60% in theory as well as practical test. The Trainees who passed the Driving Performance Test called Internal Trade Test conducted by the Institute will only be sent to Motor Vehicle Inspector's Test for Light Motor Vehicle Driving Licence Endorsement.

#### 10) CERTIFICATE:

After passing in all Theory papers and Motor Vehicle Inspector's Test, the Proficiency Test Certificate may be issued to the candidates.

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75 candidates at a time, a minimum one Hostel Block of size 46 m x 6 m with 8 rooms of size each 5 m x 4 m may be constructed.

### 3. Furniture and Fittings:

For trainees: For each trainee a chair-cum-writing pad may be provided in the class rooms. To handle classes at a time for 35 heavy vehicle driver trainees, 15 light vehicle driver trainees and about 40 drivers of refresher and special training courses, 150 nos. of chair-cum-writing desk along with fittings may be provided.

ii) For staff: For office and staff also necessary furniture and fittings may be provided.

### 4. Vehicles:

To start with, it is proposed to train about 20,000 (twenty thousand) drivers in the refresher category and 2,000 (two thousand) in the learners category every year. Requisite vehicles in each category may accordingly be purchased.

### 5. Teaching and Training Equipments:

#### i) Working Models of various systems of an Automobile:

- Cooling System
- Transmission System
- Fuel system
- Electrical system

#### ii) Cut Section Models:

##### *Working Models*

- Petrol Engine ( 4 Cylinder)
- Diesel Engine (4 Cylinder)
- Diesel Engine (6 Cylinder)
- Rear Axle Assembly

##### *Non-Working Models*

- Front axle with Pull & Push Rod and Tie rod Assembly
- Gear Box Assembly
- Steering Box Assembly
- Brake Chamber
- E-1 Brake Valve
- Air Filter
- Unloader Valve

#### iii) Failed Components:

- Clutch cover Assembly
- Clutch Disc
- Gear Box Gears:
  - Top Gear Shaft
  - Main Shaft
  - Counter Gear

- Axle Shaft
- Crown wheel with pinion
- Starter Motor
- Alternator

#### iv) Static Models in Driving Procedures:

#### 10. Driver Training Simulator:-

To initiate driving in a safe and comfortable environment, to impart Driver Training in a scientific manner and to evaluate trainees' driving performance at the end of the training course without bias and to test the skills of drivers based on one's reactions under various traffic and roadway conditions, driver training simulators must be provided in the Training Institute. Simulators will also be provided to the driving schools which have already been set up as per the earlier scheme or set up otherwise also. A certificate from State authorities will, however, be required that these schools are functional.

#### 11. Driving Range:

A Driving Range is also proposed to formulate by incorporating different types of manoeuvres to impart off-road driving practice so as to learn basic driving procedures and practice driving skills in various situations. The details of roads proposed to be provided with various manoeuvres in the driving range and its purpose is as explained below: (vide Annexure - I (F)).

## **DETAILS OF A STANDARD REGIONAL DRIVER TRAINING CENTRES (RDTCs)**

### **1.0. INTRODUCTION**

RDTCs are aimed to cater to impart professional driving skills through adequate infrastructure and trained instructors. Accordingly the RDTCs are proposed to be developed across State (excluding district where IDTR is proposed or developed in the State). The network of proposed RDTCs as well as IDTR will cater to impart driving skills to the vehicle users of the vast region of each State.

The proposed RDTCs preferably with modern facilities like simulators, driving range, tools and equipments etc. would definitely go a long way in educating the drivers of various categories in order that safety on the roads may be achieved. The RDTCs would, therefore, aim to train not only good quality drivers but also Training Instructors.

### **2.0. OBJECTIVES**

- To conduct induction training course in driving of Light Motor Vehicles.
- To conduct induction and refresher training course in driving of Heavy Motor Vehicles.
- To conduct induction training course in driving of motorized 2-wheelers.
- To conduct Refresher and Orientation Training Courses for the drivers who are in service.
- To conduct Refresher and Orientation Training module for the drivers who violate traffic regulations.
- To conduct training course for the drivers who carry dangerous/hazardous goods including random periodic evaluation.
- To organize road safety awareness campaigns for school children and other vulnerable groups.
- Testing of aspiring drivers for issue of driving licence.

The details of the scheme for imparting training in heavy motor vehicle driving are detailed in the Annexure-I (C).

### **3.3. INDUCTION TRAINING COURSE IN LIGHT MOTOR VEHICLE DRIVING**

The new Motor Vehicles Act, 1988 and Central Motor Vehicles Rules, 1989 are applicable to all classes of road users. Most important are the new precautions and procedures laid down in the Driving Regulations in Section 118 of Motor Vehicles Act, 1988 which must be followed by all road users especially new road signs. Hence, the LMV drivers also be trained like heavy vehicle drivers in a systematic manner so as to improve the road safety.

As per the Rule 31 (2) and 31 (4) of Central Motor Vehicles Rules, 1989, the training period for non-transport vehicles shall not be less than 21 days and driving hours shall not be less than 10 hours.

Moreover, as per the Rule 15 of C. M. V. Rules, 1989, "No person shall appear for the test of competence to drive unless he has held a learner's licence for a period of at least 30 days".

In view of the above, the training course period for a Light Motor Vehicle training period has been prescribed as one month duration.

In one month duration, it is proposed to give 20 hours of steering practice and 7-10 hours of theory classes for each trainee based on the syllabus prescribed for Light Motor Vehicle Driving in the Rule 31(2) of C. M. V. Rules, 1989 (the lessons cover Parts A, B, C, F, G & K).

The details of the scheme for imparting training in LMV driving is detailed in the Annexure - I (D).

### **3.4. REFRESHER & ORIENTATION CAPSULE COURSE FOR DRIVERS WHO ARE IN SERVICE**

Refresher/Orientation Training courses for short duration of 2-3 days may also be conducted periodically in the Training Institute for the drivers who are in

## ANNEXURE – II (A)

### DETAILS OF INFRASTRUCTURE REQUIREMENT FOR RDTC

#### 1. Land:

To establish a full fledged driving center with various infrastructure facilities such as class rooms, office room, workshop, driving laboratory, canteen and driving range, about 3- 5 acres of land is required. However, in order to meet heavy capital expenses for acquiring land, it is proposed to develop RDTC in 2 phases (Phase 1 and Phase 2). In Phase 1, the RDTC may start operation on a built up area of about 2,500 sq. ft. buildings(through hire or acquire), and in Phase 2, either track and other basic facilities may be developed by acquiring additional land or full-fledged RDTCs may be developed on a new location.

#### 2. Buildings:

##### *i) Class Rooms:*

For handling theory classes, 2 class rooms of size each 8 m x 5 m are required in which 1 class room will be utilized for Heavy vehicle driver trainees, one will be utilized for light vehicle driver trainees and for conducting refresher and special training courses for the drivers who are in service including the drivers who carry hazardous/dangerous goods.

##### *ii) Office and Staff Rooms:*

One room of size each 5 m x 5 m are required for the use of office and staff.

##### *iii) Driving Laboratory cum mini workshop:*

One hall of size 10 m x 8 m is required to display various systems and cut section models of vehicle and to display models about various driving procedures.

##### *iv) Pantry room:*

For the benefit of trainees, pantry facilities are also proposed to be provided in a separate building of size 5 m x 3 m including necessary furniture and fittings.

#### 3. Furniture and Fittings:

i) For trainees: For each trainee a chair-cum-writing pad may be provided in the class rooms. To handle classes at a time for 35 heavy vehicle driver trainees, 15 light vehicle driver trainees and about 40 drivers of refresher and special training courses, 70 nos. of chair-cum-writing desk along with fittings may be provided.

ii) For staff: For office and staff also necessary furniture and fittings may be provided.

#### 4. Vehicles:

To start with, it is proposed to train about 11,000 (eleven thousand) drivers in the refresher category and in the learners category every year. Requisite vehicles in each category may accordingly be purchased.

#### 5. Teaching and Training Equipments:

##### i) Working Models of various systems of an Automobile:

- Cooling System
- Transmission System
- Fuel system
- Electrical system

##### ii) Cut Section Models:

###### Working Models

- Petrol Engine (4 Cylinder)
- Diesel Engine (6 Cylinder)
- Live Axle Assembly

###### Non-Working Models

- Front axle with Pull & Push Rod and Tie rod Assembly
- Gear Box Assembly
- Steering Box Assembly

##### iii) Failed Components:

- Clutch cover Assembly
- Clutch Disc
- Axle Shaft
- Crown wheel with pinion
- Starter Motor
- Alternator

##### iv) Static Models in Driving Procedures:

With the help of the Vehicle Toys the following driving procedures may also be displayed :

- MSM & PSL Safety Routines
- IPDE Principle
- Stopping Distance
- Following Distance
- Curve Handling

##### v) Traffic Sign Boards

##### vi) Overhead Projector

##### vii) Transparency sheets

##### viii) TV & DVD

##### ix) Multimedia Projector

##### x) Magnetic Board

## Annexure – II (B)

*The Annexure II (B) is recommended to be taken up in phase 2.*

<u>Road</u>	<u>Purpose</u>
i) Two Lane Straight Road :	Used for freshers to impart Basic Driving Practice i.e. starting – moving – stopping – gear changing – steering control – passing – overtaking – curve handling – driving in crawling speed – low speed – average speed – high speed – following distance – stopping distance – stopping the vehicle in case of brake failure, etc. can be practiced.
ii) Parking :	Practice in 3 types of parking manoeuvres i.e. parking in parallel, angular and perpendicular to road. Simulating parking operations in bus stations and truck parks.
iii) Hump Road :	Parking, stopping and starting operations on sloped road i.e. to practice clutch balance point and biting point and also cautious driving due to reduced sight distance.
iv) 3 Point Turn & 5 Point Turn :	This is to train the drivers on difficult turning on restricted roads to take U-Turn.
v) 8-Shaped Bend :	To train the drivers on left and right steering, sharp turning and negotiating round about.
vi) Reversing box :	To educate drivers on proper methods of reversing and turning.

### 11. Driving Range Aids:

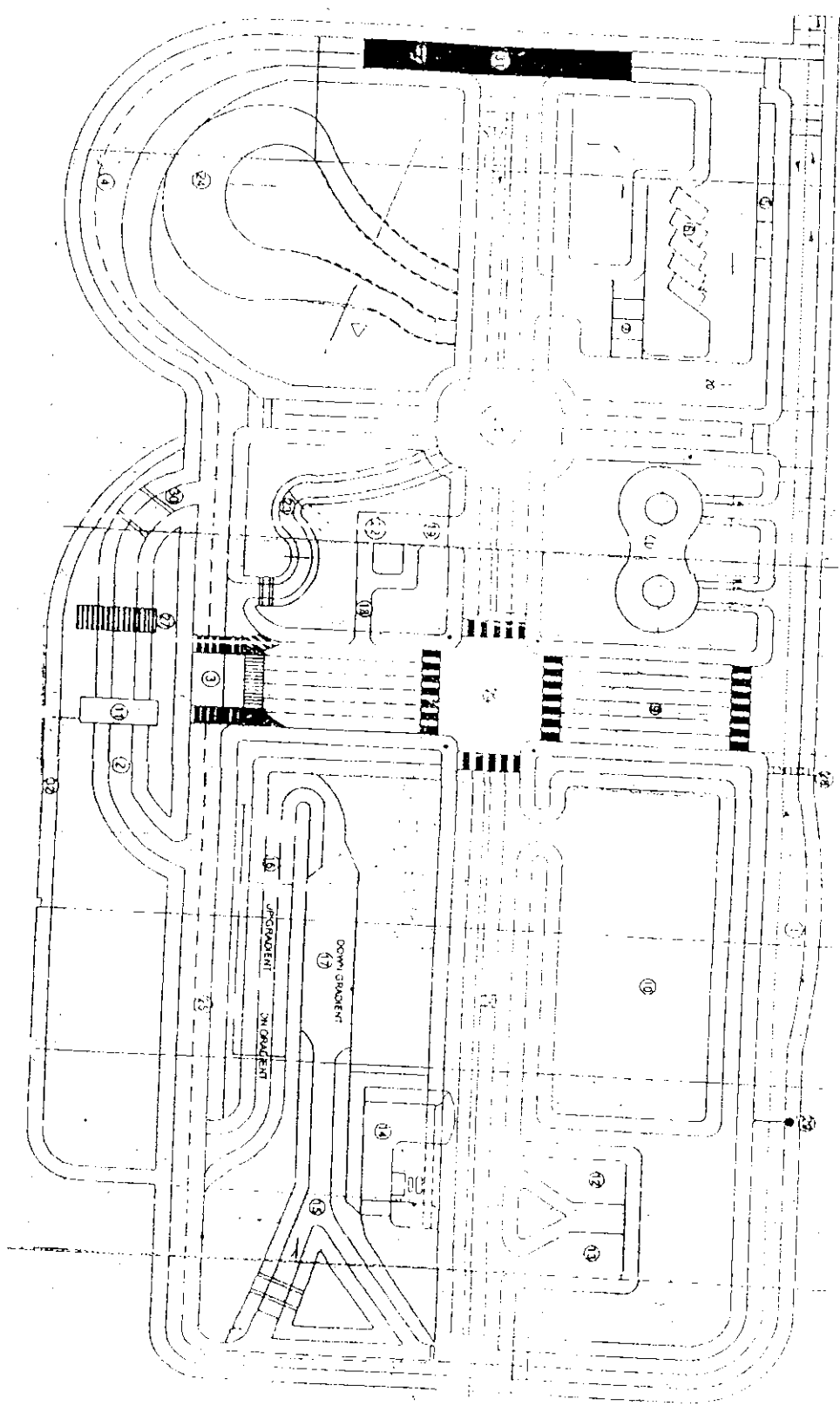
The Driving Range Aids such as erection of road traffic signs and automatic light signals, road markings, traffic barriers, traffic bollards, lighting and other road furniture and appurtenance may also be provided in the driving range.

### Suggestion for PPP Model

- Investment made by PPP Partner will be audited by State Transport Ministry and approved
- The training / testing for Licensing charges will be jointly agreed with State Governments till the recovery of PPP Partner totally recover their Investment ( Principal Investment, Interest, Recurring Expenses, .. etc )
- Post recovery of PPP Partner Investments, recovery can be split 80% / 20% (or) 70% /30%. This should be mutually negotiated & agreed.



ANNEXURE - 1 (E)



- FACILITIES
1. BUS STOP WITH BAY
  2. BYE PASS SINGLE LANE ROAD
  3. CHANNELISED INTERSECTION
  4. CURVED ROAD
  5. PARALLEL ROAD
  6. ANGULAR PARKING BAYS
  7. PERPENDICULAR PARKING BAYS
  8. 8° SHAPED ROAD
  9. SIX LANE DEVEDED CARBIDGE WAY
  10. BASIC AND VARIABLE TRAINING
  11. UNDER BRIDGE WITH HEIGHT BAR
  12. FIVE POINT TURN
  13. THREE POINT TURN
  14. FUEL FILLING STATION
  15. Y JUNCTION
  16. HUMP ROAD SINGLE LANE
  17. DIP ROAD SINGLE LANE
  18. REVERSE PARKING LEFT
  19. REVERSE PARKING LEFT
  20. SIGNALISED INTERSECTION
  21. ROTARY INTERSECTION
  22. MOTOR CAR CRAM COURSE
  23. S1 SHAPED ROAD
  24. HARP PIN BEND
  25. TWO LANE ROAD
  26. FOUR LANE DEVEN ROAD
  27. MODEL RAILWAY CROSSING
  28. UNCONTROLLED PEDESTRIAN CROSSING
  29. MODEL CHECK POST
  30. SPEED ARRESTERS
  31. FLT OVER
  32. BAD (KACHA) ROAD

ROAD FACILITIES  
REQUIRED FOR A  
ADVANCED DRIVER  
TRAINING CENTRE

ALL DIMENSIONS ARE IN METERS



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Government of India  
Ministry of Road Transport & Highways

**PROJECT FOR ESTABLISHMENT OF INSPECTION AND  
CERTIFICATION CENTRE FOR MOTOR VEHICLES**

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service and need to be maintained properly if they are to continue to operate at the desired emission levels. Any vehicle, which is not maintained well, would be an environmental and safety hazard to the society.

2.3 With the increase in vehicle population, it is essential to ensure that the in use vehicles, which are on road, meet the safety and emission requirements for safe and environmental friendly situation. The vehicle Inspection & Certification program is an effective tool to improve the condition of the in-use vehicle fleet.

### PRESENT PRACTICE

3.1 The Central Government lays down the norms and policy guidelines under the Central Motor Vehicle Rules and the State Transport Department performs the functions of testing of the vehicle and issue of the fitness certificate. The implementation of these rules at the state level is to be done by the State Government by creating suitable and adequate infrastructure for carrying out the fitness tests. The details of the requirement of the tests to be conducted for issue of the fitness certificate is given in rule 62 of the Central Motor Vehicle Rules (CMVR), 1989. As per this rule all transport vehicles are required to undergo fitness test every year after two years of initial registration. Besides, as per rule 115(7) of the CMVR, 1989, all vehicles are required to undergo mandatory idle emission test or free acceleration smoke test, as applicable, every six months after one year of initial registration.

3.2 The existing vehicle inspection system in India is inefficient and has several weaknesses. Some major issues are summarized below:-

- At present only visual inspection is carried out by the inspectors.
- The vehicle inspection is mandatory for the transport vehicles only.
- Non transport vehicles do not have to undergo fitness test for the first 15 years of its life.
- Most of the vehicle inspection centers do not have any instrumentation or equipment to carry out proper inspection of the vehicle.
- The inspectors and other staff are not given regular training for skill up-gradation.
- There is no set procedure for inspection and often the decision whether a vehicle is fit or not is left to the discretion of the vehicle inspector.
- The number of vehicles per inspection centre is very high due to centralized nature of inspection, putting further pressure on the limited capacity of these inspection centers.
- There is no mechanism at present for auditing, monitoring performance and capability of these centers.
- Although the present Pollution Under Control (PUC) system is authorized by the State Governments, there is a lack of control mechanisms, like auditing/ inspecting for these PUC Centers. The criteria for authorizing / registering a PUC Centre need to be augmented.
- The data collected in the inspection centre / PUC centre is not analyzed to check the data validity and improvement in the system.
- There is no organized industry for repair and maintenance of vehicles. There are number of roadside mechanics available that may or may not have adequate

### **Wheel System**

The condition and operation of the tyres, suspension unit, shock absorber, wheel bearing, the alignment of the wheels are checked to ensure that vehicle stability is not compromised.

### **Braking System**

The braking efficiency for both service and parking brakes are machine-tested to ensure that they are fully functional and effective.

### **Steering System**

The steering system affects the directional stability of the vehicle. During the inspection, it is checked if there is excessive free play in joints and linkages.

### **Body**

Checks of the body, which includes seat belts, windscreen, door latch and hinges etc, are conducted to ensure that the various items are in working condition.

### **Communication**

This comprises headlamps, reflectors, rear view mirror, direction indicators, windscreen wipers and horn etc.

### **Tyres**

Tyres & Road wheels for damage and tread depth

### **Propulsion System**

This consists of the exhaust and drive system. The exhaust system is machine-tested to check the smoke and noise emission levels. The emission levels have to meet the standards stipulated by the National Environment Agency. For the drive system, visual checks are made to ensure that there is no abnormality and that the drive shafts are in a good condition.

### **Summary:**

The kind and type of Inspection & maintenance programme to be implemented in a country differs from country to country as vehicle fleet varies. The main aim is to build a sustainable Inspection & certification system to reduce emissions and improve the safety. The vehicle owners are required to inspect and maintain their vehicles as per the national governing laws of each country. The success of the I&C programme in any country depends upon the effective implementation of nationwide awareness programme and law and enforcement effectiveness of concerned authorities.

5.2.2 For inspection of the vehicles in the automated vehicle inspection centers, detailed vehicle inspection manuals need to be developed. These manuals should prescribe the procedure for testing a vehicle, list of tests to be conducted, methods for conducting the tests. These manuals would have to be prepared for different categories of vehicles and should be available at all test centers and others concerned with the I&C programme. Different manuals will be required to cover following range of vehicles.

- Public service vehicle
- Heavy goods vehicle
- Car and light commercial vehicle
- Three wheeler and Motor cycle
- Trailers and tractors vehicle

5.2.3 A handbook for administrators would also need to be prepared specifying the role, and responsibility of the inspectors in the vehicle inspection centre and the auditors. A suggested list of items that needs to be included in the centralized test centre is listed below.

### Safety Inspection

<i>Visual inspection</i>
Inspection of legal documents, insurance and identification of the vehicle
Steering play
Chassis / frame integrity
CNG / LPG Safety inspections
Fuel tank and piping
Exhaust pipe
Catalytic converter (mounting, heat shield damages, presence)
Engine mountings
Battery (terminals, mounting, etc)
Seatbelts (presence, integrity)
Condition of Tyres including spare tyre
Lighting and signaling devices
Oil leakages (engine, transmission)
Leaf springs integrity, shock absorbers
Wind screen, wipers & doors,
Horn
Availability of Tool Box, First Aid kit, Fire Extinguisher and Warning Triangle
Registration plates

5.3.4 A penalty system should be imposed for auditing the performance of the service centers based on the UK model, where, for every different type of offence committed certain penalty points are awarded and after a centre accumulates a certain number of penalty points, its license is cancelled. This would enable a more transparent form of working. The penalty points could cover offences like:

- Issuing fake/duplicate fitness certificates
- Improper inspection procedure followed
- Inadequate infrastructure, equipment in the vehicles inspection centre
- Lack of well trained and qualified staff

#### 5.4 Enforcement on Road

5.4.1 The traffic authority would be responsible for checking vehicles for the possession of a valid fitness certificate. A legally enforceable sticker that is controlled by the state government, difficult to falsify and that has a highly visual design enabling an officer to identify immediately at 5 meters distance could serve this purpose. The traffic authority would have to be empowered to stop vehicles without such a valid sticker.

#### 5.5 Data collection and analysis

5.5.1 To ensure that the new system responds to improvements in vehicle technology and increasingly stringent emission and safety norms, a centralized data collection and analysis function should be vested with the Nodal agency. Centralized common software is required for data transfer, storage, data analysis and uploading to the website, etc. The development of such software can be done by ARAI as recommended by the Nodal agency. The test centre specifications should also include the software specifications so as to interface with the common software for data analysis.

5.5.2 Also, all the I/C centers in a state should be connected to the State registration authority and in turn all the state transport authorities are to be networked under the Central Government for data sharing and data analysis.

#### 5.6 Human resources development

5.6.1 For effective implementation of the I&C regime, manpower training and capacity building is necessary. Such training programmes and course content have to be centrally developed and the training should be imparted by the independent agencies. The training and refresher training have to be provided for the following target groups:-

- (i) Staff, attendants and motor vehicle inspectors at the vehicle inspection centers.
- (ii) Auditors for auditing performance of inspection centers and staff of state transport departments.

5.6.2 Training modules need to be prepared for the above target groups that specify the contents, schedule and, duration of the programme, and the period for refresher courses. In addition to the training, the manpower also should undergo refreshment courses to update their skills and knowledge. The training calendar have to be developed by the private operators for the personnel who are operating the centers and nominate them to the training courses provided by the appointed centers as designated by the State Transport Department. The state governments can pay the fees for the training

## 5.9 Legislative reforms

5.9.1 The following legislative provisions would need to be changed for successful implementation of the above-mentioned recommendations.

- ◆ The list of parameters to be checked at the time of fitness check, given in Rule 62 of the CMVR, 1989 would need to be modified to include more items concerning safety and environmental parameters requiring regular checks using the automated test equipments in a vehicle inspection center.
- ◆ Valid insurance and payment of all taxes would need to be made a prerequisite for fitness test.
- ◆ A code of practice would need to be prescribed for management of authorized vehicle testing stations under Rule 65 of the CMVR, 1989.
- ◆ State Governments would need to authorize such centres for testing of vehicles under Section 56 of the Act.

## 6 A Typical I&C Test Centre and capacity building

- ◆ The Inspection and Certification (I&C) centers will be initially set up to inspect and certify the in-use transport vehicles for its safety and emission compliance as per CMVR, 1989.
- ◆ The required number of centers in a given city would depend on the Vehicle-mix of and their active population.
- ◆ A centre would house inspection lanes for testing various categories of vehicles. The inspection lane would have test equipment arranged like a production line through which the vehicles go through for the inspections. A typical test center layout is given in **Annexure- I**. The safety and emission inspection can be conducted in the inspection lane in 3 stages wherein the vehicle is driven through a series of test equipment and the required inspections are conducted. The pass / fail decision on the inspections are entered in the computer network and at the end of the lane, the test report is generated.
- ◆ Based on the capability of the vehicle inspection equipment in terms of maximum axle weight and load force measuring capacity and the kind of vehicles, the vehicle inspection lanes can be classified into two categories such as Heavy Duty (HD) and Light Duty (LD).
- ◆ I&C centre will consist of Vehicle inspection lanes, Administration Office and Parking space for vehicles waiting for testing.
- The number of inspection lanes and kind type of inspection lane in a centre will depend on the vehicle population in that city.
- The LD vehicle inspection lane is for testing of transport vehicles (Three Wheelers and Taxis, LCVs) up to 3500 kg Gross Vehicle Weight (GVW). The

<i>Visual inspection</i>
CNG / LPG Safety inspections
Fuel tank and piping
Exhaust pipe
Catalytic converter (mounting, heat shield damages, presence)
Engine mountings
Battery (terminals, mounting, etc)
Seathelts (presence, integrity)
Condition of Tyres including spare tyre
Lighting and signaling devices
Oil leakages (engine, transmission)
Leaf springs integrity, shock absorbers
Wind screen, wipers & doors.
Horn
Availability of Tool Box, First Aid kit, Fire Extinguisher and Warning Triangle
Registration plates

#### Equipment based Inspection:

<i>Tests with Automated Equipments</i>		
<b>Test Items</b>	<b>Tests</b>	<b>Equipment</b>
Service brakes	Brake test	Roller Brake tester
Parking brakes		
Speedometer	Speedometer test	Speedometer tester
Headlight	Headlight test	Headlight tester
Side slip	Side slip test	Side slip tester
Suspension Test	Suspension test	Suspension Tester

#### Emission Inspection

<b>Vehicles</b>	<b>Test</b>	<b>Equipment Required</b>
Diesel	Free Acceleration test	Opacity meter
Petrol / CNG / LPG	Idle Test	Gasoline (4 Gas Analyser)

Though there are variety of standalone garage type equipment are available in the market for performing the tests described above, it is important to have an integrated lane for effective operation. The lane software which controls the functions of the equipment and



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### 6.3 Audit of garages:

An effective maintenance program is also an essential part of the overall strategy. The vehicle manufacturers would need to authorize these repair centers. Less number of well servicing and authorized vehicle repair centres are better and effective than a large number of unauthorized vehicle repair centers. This would ensure that the owners get good repair and maintenance of their vehicles. Therefore it is necessary to identify the facilities and manpower required for such garages. An auditing agency like ARAI will audit the garages in a city to verify the suitability for repair and maintenance activity. Suitable assessment system like star rating for garages can be implemented.

### 6.4 Scope of Central Government

- Funds for construction of building and establishment of utilities.
- Provide grant for capital expenditure for establishing test centers
- Any amendments in CMVR for revision of testing fees and test standards, based on the data collected by different I & C centers

### 6.5 Scope of State Government

- Provide land at its own cost
- Land Acquisition
- Land development processing
- Certification of fitness certificate by Government Department /Government staff
- Signing of Memorandum of Understanding among the State Government and the private operator after public bidding, after two year operation of center by ARAI / NATRIP/SIAM
- Make available vehicles for fitness testing.
- Provide list of garages in the identified city which need to be audited.

### 6.6 Scope of Centre Operator

- Operations & management of center
- Maintenance of equipment, software and facility
- Collection of Test fees

### 6.7 Role of ARAI/NATRIP/SIAM

- Acts as a facilitator for establishment of capacity building I & C centers in selected cities.
- Master planning and building layout as per experienced consultant
- Bid documentation for construction of building and establishment of utilities
- Preparation of tender document for test equipment, procurement of test equipment, installation and commissioning of test equipment.
- Supervision and construction of building activities
- Automation software for integration and testing.
- Interface between vehicle registration database (if made available) with test lane automation system.
- Calibration and maintenance of the test centre for first two years

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- It shall be obligatory on the part of State Government to implement this scheme on the terms and conditions set out by the Central Government.
- The State Government should submit a proposal for funding from the Central Government.
- ARAI/NATRIP/SIAM to provide technical consultancy for establishment of I&C Centers.
- The proposal should envisage self sufficiency in meeting the recurring expenditure as this shall not be provided by the Central Government after initial two years. However, the initial grant, which shall be one time grant for the capital component, shall be provided by the Central Government. Actual procurement should be made by following tender procedure to obtain most competitive priced quality products.

7. Project Approach for a Model City

7.1 One model center would be set up by the Central Government in each state & union territory. A typical model I&C centre should be limited to maximum 4 number of lanes for better management and handling. The selection of city wherein an I&C center to be established will be carried out by state government based on prioritization, vehicle mix, ease of implementation, availability of land etc. This will act as reference centers to develop further I/C regime statewide.

7.2 Number of Test centers required in a state would depend on total number of vehicles in that state and the mix of the vehicles ranging from 3 wheeler public carrier to heavy commercial vehicles. Depending on this data and throughput time of each Test Lane, the number of test centers required for any city can be estimated.

Throughput time of each lane is summarized in table indicated below.

**Expected Annual Throughput of each lane:**

	<b>LD Lane</b>	<b>HD Lane</b>
No. of Vehicles to be checked per hour / day	12	8
No. of Working Hours / day	8	8
No. of working Days / year	300	300
Operating efficiency	75%	75%
Annual inspection capacity of a lane	21600	14400
Indicative Test Cycle time per vehicle (minutes)	15	22

Government (Central & State) will own the equipment; ARAI/NATRIP/SIAM will act as a facilitator and the test centre will be operated on contract basis by a competent operator selected by ARAI/NATRIP/SIAM.

#### 7.4 Requirements of manpower

The I&C centre will require three operators to drive the vehicle and perform the visual inspection in a lane, and an additional personnel is provided as a standby. Additionally, a supervisor would be required to oversee the operation and assist the vehicle owners for smooth operation of the lanes. The supervisor would perform the duties of the operator when any of the regular operators are not available. The data entry operator would input the vehicle data to the server at the entry of the inspection lane and also generate daily performance reports of the centre. The manager would administer the lane operation and resolve any issues during inspection of vehicles.

A Typical manpower chart for operating a 4 lane I&C centre along with their job profile and qualification is as given below for reference.

Level	No. required	Job profile	Qualification
Operators	23	For inspection of vehicles in lane. One inspector for each station	ITI Motor mechanic
Supervisor	3		ITI Motor mechanic, with 3-5 year experience
Data entry operator	8	To verify documents and feed data. One person for each lane	Bachelor degree with Computer knowledge
Manager	1		Graduate in Engineering science with 3-5 yrs exp
Stores, Purchase & administration	1		Graduate
Maintenance	3		ITI Refrigeration / Electrical
Security	On contract basis		

- Commissioning and acceptance testing of the lanes.
- Run test centre for two year on BOOT basis through a competent contractor.
- Calibration and maintenance of the test centre for two years.
- Provide test data to the state and centre Government for two years.
- Finalising the specifications for standard garage & establishing an auditing system for the same
- Auditing of garages selected by local transport authorities.

#### 7.8 Total Cost of the project

Rs.1440 lakhs + taxes. The cost includes the:

- Supply and installation of necessary equipments for the 4 lanes
- Construction of building and establishment of utilities
- Technical services,
- Automation software and networking
- Two years operation on two shift basis
- Auditing of garages in a city.

#### 7.9 Project Duration

Project duration will depend on the infrastructure set up duration. Expected duration for infrastructure set up is around 4-6 months once the land is made available. Parallely equipment procurement will be processed in first 2 months. Expected time taken in the delivery of equipments is 4-6 months.

- Installation and commissioning: 1 lanes/ month. Hence, total 4 months for 4 lanes.
  - Total duration expected: 12 months after land is made available.
8. Financial Viability of a Test Centre

A typical established four lanes Test centre in a model city will have 2 HD lanes with annual inspection capacity of 14400 vehicles per lane and 2 LD lanes of annual inspection capacity 21600 vehicles per lane. If the center is run on two shift basis, the coverage of city fleet will be much higher. With 80% occupancy of lanes in two shifts, the vehicle throughput per lane will be 23040 vehicles for HD & 34560 vehicles for LD per year.

Existing Test charges according to CMVR guidelines are indicated in table below.

Yearly Charges for Grant and renewal of fitness certificate.			
Vehicle Category	Existing Test charges for Fitness(Rs.)	Existing Test charges for PUC(Rs.)	Total Test Charges (RS.)
3W -	100	30	130

- ◆ It would be mandatory for the concerned States to authorize the model centres as "authorized testing station" under Section 56 of the Act.
- ◆ After two years of operation and maintenance of the centres by the executing agencies, the centres would be handed over to the concerned State who would then manage it and could also replicate it.
- ◆ The Project would be executed through ARAI, NATRiP and SIAM.