



सत्यमेव जयते

भारत सरकार
Government of India
सड़क परिवहन और राजमार्ग मंत्रालय
Ministry of Road Transport & Highways
परिवहन भवन, 1 संसद मार्ग, नई दिल्ली - 110001
Transport Bhawan, 1 Parliament Street, New Delhi- 110001

604.36



No.RW/NH-29012/1/2015-P&M(RSCE)

Dated: 17. 02.2017

OFFICE MEMORANDUM

Sub: Operational Road Safety Engineering audits for identifying short term safety improvement measures.

Several highway development/ capacity augmentation works are being taken up in the form of two laning with paved shoulders / Four laning / Six laning which take time for completing the pre-construction activities including land acquisition wherever the same is involved. It would be appropriate to implement short term measures in such cases based on an objective operational audit of the stretch to improve safety in the intervening period till the major development project is executed with all long term permanent safety improvements. However, where no major development works are in progress or are not in pipeline, detailed road safety audits and permanent improvements based there on may be taken up as per guidelines already issued in this regard.

2. These Operational Road Safety Engineering audits and subsequent short term improvements may be taken up where execution of major development project on the selected stretches is expected to commence at least after one year of implementation of the short term measures based on operational audits. Stretches for operational audits may be proposed in consultation with R O MORTH giving the status details of the development projects in progress / in the pipe line on the selected stretches. Operational audits may be taken up after getting the stretches approved from Ministry in the light of the above. Stretches up to a total length of 300 Km may be proposed by each State / UT for taking up short term measures through operational audits.

3. To facilitate carrying out operational audits in a uniform and objective manner standard terms of reference have been prepared and enclosed for further necessary action.

Enclosure: As above


(Ravi Prasad)
Chief Engineer

To

Chief Engineer (NHs) of PWD of all the States/UTs.

Copy to: The Principal Secretaries/secretaries of PWD of all states /UTs (dealing with National Highways and other centrally financed schemes), All Regional Officers of MoRTH

Copy for information to: 1. PS to Hon'ble Minister (RTH&S), PS to Hon'ble Minister of state (RTH&S), PS to Hon'ble Minister of state (RTH&S, C&F), PPS to Secretary (RT&H), PPS to DG(RD) &SS, PPS to AS&FA, PPS to ADG-I, PS to CE (Road Safety). PS to all Chief Engineers of MoRTH. Sr. Technical Director (NIC) for placing on MoRTH Website.

Terms of Reference for Operational Road Safety Engineering Audit & Framing of Remedial Proposals

1. **Objective:** Carrying out Operational Engineering Road Safety Audit of the stretch under consideration for identifying the safety concerns causing accidents/ having potential for causing accidents and framing of proposals for immediate/ temporary remedial measures. The operational engineering audit and remedying is mainly targeted for the stretches of Highways which are already identified and are under consideration for development which is likely to take about one or two years for commencement of execution on the ground.

2. Scope of work:

- i. The stretch under consideration is from *Km to Km..... of NH-in the state of*
- ii. The stretch under consideration shall be audited from Road Safety perspective through keen inspection of the traffic operations, simple measurements through hand held GPS, tapes etc.
- iii. The accident prone locations and safety concerns shall be identified based on the above audit supplemented by local enquiry, discussions with local police officials wherever considered essential.
- iv. Immediate/ Temporary remedial measures shall be worked out which can be implemented within a period of one to two months to make the stretch significantly safer for traffic operations.
- v. The proposals shall be furnished through indicative drawings/sketches along with cost estimates and Bills of Quantities amenable to sanction.

3. Inspection of stretches & carrying out Audit:

- (i) The stretch under consideration shall be inspected thoroughly in different times of the day including night time by a team of experienced Highway engineers supported by survey support personnel conversant with GPS operations and surveying for Highway projects.
- (ii) Survey of the stretch shall be carried out through simple equipment like hand held GPS, tapes, chains/ distomat etc., with the objective of locating various points of concerns relative to the KM stones or chainage system existing on the road.
- (iii) The safety concerns like obstructions to sight lines, lack of essential road signs & markings, mismatch between prevailing vehicle speeds and the exiting road conditions, irregular vehicle movements, any other unsafe conditions shall be identified and located on the indicative drawings/sketches.



4. Local enquiry & discussions with authorities:

- (i) During inspections local enquiries shall be made to appreciate the safety issues being faced by the local people and the road users at the critical locations.
- (ii) Discussions shall be held with road and police authorities to appreciate the safety issues being experienced by them during the traffic / road operations
- (iii) Enquiries with road users can also be made to appreciate the safety concerns being experienced by them.
- (iv) Details of the recently completed, on-going and in-pipe line developmental or resurfacing/strengthening works, available width of land shall be collected through discussions with concerned road authorities and included in the audit report.

5. Preparation of proposals:

- (i) Various short term/ immediate improvements like provision of appropriate road signs, markings, control of speeds restricting inappropriate movements, Channelizing the traffic within available road space, provision of railings, removal of obstructions, protecting road side hazards, addressing any other safety issues through simple remedies etc., required for removing safety concerns and achieving safety shall be worked out.
- (ii) The proposed improvements shall be indicated on indicative drawings/ sketches with simple measurements. The proposals shall be indicated in a way which can be used for working out quantities and implementation of proposed remedial measures.
- (iii) Simple remedial measures which can be implemented in one to two months shall only be considered and Capital intensive time taking remedies like grade separators, Vehicular/ pedestrian under / overpasses, elaborate development of junctions, provision of service roads/ bypasses etc., are **not expected** to be proposed under the operational audit.
- (iv) Necessary quantities and costs shall be worked out based on the latest SOR applicable to the project stretch.
- (v) Audit report indicating the inspections and surveys carried out, safety concerns identified and remedial measures worked out together with proposals & cost estimates shall be prepared.

6. Deliverables:

Audit report duly signed by the auditors along with

- (a) Indicative drawings/sketches giving the remedial measures proposed with reference to the chainage referencing system existing on the Highway.



- (b) Cost estimates based on latest SOR including centages as per extant guidelines.

7. Time Schedules:

Complete audit report including the supporting documents as specified under deliverables *shall be prepared and submitted withindays of giving go ahead to proceed with the work* (Time schedule shall be 30 days to 45 days depending on the complexity of work and length of the stretch)

8. Deployment of personnel & payment Schedule:

(i) *This assignment being a very short duration one, single stage payment on acceptance of the Report or a two stage payment can be specified under this para depending on the size of the stretch at the time of procuring the services.*

(ii) *At least two numbers of experienced Highway/Road Safety professionals with minimum of Graduation in Civil Engineering & 5 years of professional experience in the concerned field along with adequate survey /drafting support is expected to be deployed on the audit work which can be worked out and specified at the time of procuring the services.*

