

No RW-NH-29011/01/2019-S&R(P&B)
Government of India
Ministry of Road Transport & Highways
(S&R (P&B) Section)
 Transport Bhawan, 1, Parliament Street, New Delhi-110001

Dated: 26th August, 2019

To,

1. The Chief Secretaries of all the State Governments/ UTs.
2. The Principal Secretaries/ Secretaries of all States/ UTs Public Works Department dealing with National Highways, other centrally sponsored schemes.
3. All Engineers-in-Chief and Chief Engineers of Public Works Department of States/ UTs dealing with National Highways, other centrally sponsored schemes.
4. The Director General (Border Roads), SeemaSadakBhawan, Ring Road, New Delhi- 110 010.
5. The Chairman, National Highways Authority of India, G-5 & 6, Sector-10, Dwarka, New Delhi-110 075.
6. The Managing Director, NHIDCL, PTI Building, New Delhi-110001.
7. All CE-ROs, ROs and ELOs of the Ministry.

Subject: Rectification of Accident Black Spot - Preparation of proposal and sanction/approval regarding.

Reference:

- (i) Circular No- RW/NH-15017/109/2015-P&M(RSCE) dated 08.10.2015
- (ii) Circular No- RW/NH-29011/2/2015-P&M(RSCE) dated 07.12.2015
- (iii) Circular No- RW/NH-29011/2/2015-P&M(RSCE) dated 02.09.2016
- (iv) Circular No- RW/NH-29011/2/2015-P&M(RSCE) dated 14.09.2016

Precious life of several road users is lost due to road accident in India. The Road Accident imposes a huge social and economic cost in terms of untimely deaths, injuries, disabilities and loss of potential income. The cost of road accidents is borne not only by the victims and their family, but by the society and economy also.

2. Ministry earlier issued several guidelines/circulars as mentioned in reference above, for rectification of black spots so that the road accidents could be minimized and precious life of the road users are saved. A comprehensive guideline, in supersession of above circulars/guidelines has now been prepared and to be followed by all concerned.

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3. The definition of road accident black spots on National Highways and the protocol for their identification has already been provided in Ministry's OM No. RW/NH-15017/109/2015-P&M(RSCE) dated 28.10.2015 (copy enclosed at Annexure A). However for inspection, framing of proposal and obtaining approvals/sanction for rectification of the accident black spots, the instant guidelines may be followed. The definition as per said circular is as under:

"Definition of Road Accident Black Spot on National Highways: Road Accident Black spot is a stretch of National Highway of about 500m in length in which either 5 road accidents (in all three years put together involving fatalities/grievous injuries) took place during the last 3 calendar years or 10 fatalities (in all three years put together) took place during the last 3 calendar years."

4. The Regional Officers inter-alia by involving their Officers, PWD Officers, PIU Officers etc. has to inspect each black spots on National highways under their jurisdiction, analyze the reason of accidents with respect to geometry and other features of Highways, the cross roads and other reasons. Local enquiry and discussion with local authorities including with Police Personnel may also be duly considered in identifying the reasons/remedial measures for repeated accidents/fatalities. Based on such inspection and analysis if it is concluded that the accidents are not due to engineering deficiencies, a certificate in this regard may be issued by the Regional Officer.

5. Based on site inspection, preliminary survey etc. the type of interventions required may be identified and accordingly the action for taking corrective measures i.e. short term measures and Long Term Measures may be initiated at Regional Office Level. Depending upon the site condition/requirement the corrective measures may require Short Term Measures only, and in some cases Long Term Measures including Cautionary Measures&/or Short Term Measures. The suggestive items/measures and guidelines to be followed for rectifications of black spots are as under:

(a) Short term measures:

(I) The suggestive items/measures:

- (i) Pedestrian facilities like Zebra crossings
- (ii) Crash barriers/ railings
- (iii) Solar light
- (iv) Junctions improvement

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(v) Road signs inter-alia speed limits sign, pavement/road markings, delineators, studs/ cats eye.

(vi) Traffic calming measures including rumble strip

(vii) Repairing/maintenance of unsafe road/appurtenance including filling of berms/shoulder on National Highways

(viii) Restriction of certain types of vehicles, one way streets, reversible lanes, bus lanes, restriction on movement of different types of vehicles by time/ by lane etc. specially in urban areas.

(II) Procedure:-The Regional Officers inter-alia by involving their Officers, PWD Officers, PIU Officers etc. or/and by engaging Road Safety Auditor/ Expert may prepare the estimate for carrying out short term measures. The provision of IRC SP-88 may also be referred for proposing safety measures /analysis etc appropriately.

The qualification and experience of the Road Safety Auditor / Expert shall be as under:

- (i) Graduate in Civil Engineering with more than 7 years' experience in design, construction and maintenance of roads;
 - (ii) Should have completed an approved road safety audit / engineering training program of at least two weeks duration
- or
- Post-graduate/diploma/course in Traffic & Transportation including Road Safety Engineering / Audit.
- (iii) Should have a minimum of two years practical experience in a road safety;
 - (iv) Should have completed at least three road safety audits / engineering.

A lump sum fee of Rs. 5 Lakh per black spot including all other expenses (i.e. TA, DA, inspection, survey, report, estimate etc.) may be paid to the Road Safety Auditor / Expert, if engaged. These fees may be paid by the Regional Officer at his level under the provision of contingencies of any NH work in the State concerned.

These short term measures may be taken up under the provision of ordinary repair or such estimate may be sanctioned by the Regional Officers at their own level under the provision of contingencies of any NH work in the State concerned. The short tender notice (of 7 days) may be invited by Regional Officers in case measures are to be taken up under the provision of contingencies and work shall be completed within a time span of 3 months.

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(b) **Long term permanent measure:** Based on inspection, survey etc. if it is concluded that the spot require long term measures, a detailed estimate may have to be prepared for the same. In such situations some of the short term measure as mentioned in above para and following cautionary measures may also be carried out.

(I) **The signanges for cautionary/alerting road users may be as under:**

- (i) Cautionary accident black spot signs at both ends
- (ii) Solar red blinking signals at both the ends
- (iii) Rumble strips together with rumble strip sign
- (iv) "Restriction ends" sign
- (v) Traffic Calming Measures

An indicative sketch showing the locations and shapes of the above signs is at **Annexure-B**. Sizes, shapes, locations and other specifications of all the cautionary signs indicated at (I) above shall be as per IRC-67-2012 or its latest edition.

The cautionary measures and short term measures(if required) which are part of long term permanent measure may be taken up under the provision of ordinary repair or such estimate may be sanctioned by the Regional Officers at their own level under the provision of contingencies of any NH work in the State concerned. The short tender notice may be invited by Regional Officers in case measures are to be taken up under the provision of contingencies and work shall be completed within a time span of 3 months.

A lump sum fee of Rs. 7.5 Lakh per black spot including all other expenses (i.e. TA, DA, inspection, survey, report, estimate etc.) may be paid to the Road Safety Auditor / Expert for preparation of design, estimate etc. for cautionary/short term measures. The Road Safety Auditor / Expert shall also render his service as an advisor for preparation of estimate for permanent measures within the lump sum fee of Rs. 7.5 lakh per black spot as mentioned above. These fees may be paid by the Regional Officer at his level under the provision of contingencies of any NH work in the State concerned.

The consultant may be engaged in addition to the road safety auditor/expert for detailed survey investigation, preparation of DPR, RFP documents etc as detailed in the subsequent para.

(II) **Suggestive Long Term Measures:-** The long term corrective measures shall be decided and finalized based on details survey and investigation.

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Some of the long term suggestive measures depending upon the location of black spot are as under:

Location of Black spot	Corrective/remedial measures
Obstacles such as trees, poles, structure, etc. within the clear zone, encroachments etc.	Shifting/removal of these obstacles or providing other safety measures including crash barrier etc. further set back distance at all locations should invariably be achieved.
At grade junction	Flyover, underpasses, overpasses junction improvement etc.
Deficient geometry	Improvement of horizontal/vertical alignment/curvature or other safety measures including crash barrier etc.
Mix traffic	Providing service lane, Footpath, crash barrier etc.
Distressed/narrow Bridge/culvert	Reconstruction, rehabilitation/ widening of the bridges
Crossing of pedestrians/habitant area/school/hospitals/educational institute etc.	Foot over bridge etc.
Animal/cattle crossing	Cattle pass/VUP, fencing etc.
Hill roads/sharp curves	Various safety measures including crash barriers

(III) Procedure of sanction for long term measures:

The Regional Officers inter-alia by involving their Officers, PWD Officers, PIU Officers etc. or/and by engaging Road Safety Auditor / Expert may prepare the detailed estimate for carrying out Long Term Measures. The services of consultants may also be hired if so required. The cost towards hiring the consultancy for preparation of detailed design, drawing, estimate, bid document etc. @ of 5% of the civil work cost may also be included in the civil work estimate. The following procedure shall be followed:

- (i) Regional Officers shall forward indicative approximate cost (including centages) for rectification of each identified black spots on National Highways for administrative/financial approval with estimated cost upto **Rs 50.0 Crore (including land acquisition cost if any)** to concerned Project Zone. For tender purposes Black spots at nearby locations may be clubbed together (if felt appropriate) and such details shall be indicated by ROs in their approval.

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- (ii) Detailed estimates for black spot rectification including layout drawings & technical proposals up to 5% above the approved indicative cost shall be approved by ROs at their level.
- (iii) Other aspects shall be followed as per the procedures applicable to NH (0) works.
- (iv) The indicative timeline to be followed is as under:-

Sl. No.	Activity	Timeline
1	Indicative cost estimate to be prepared and submitted by Regional Officer.	45 days
2	Administrative and financial approval to be accorded by HQ.	30 days
3	Detailed survey/investigation/preparation of drawing, design, detailed estimate, bid documents etc. by RO through consultant (if required) and technical sanction. <i>(If consultant is require to be engaged the process for the same may be initiative through short tender notice while submitting the indicative estimate to MoRTH.)</i>	120 days
4	Finalization of contractor for the civil construction work.	120 days
5	LA/ environment clearance etc. (if required)	1 Year
6	Time line for Completion of civil construction work	2 years

6. The execution of the remedial measures after the sanction/ approval may be carried out through a contract to be awarded through bidding as mentioned above. However, in case some work is in progress on a nearby NH location, the execution of Cautionary/short term/long term remedial measures may be carried out through variations, within the provisions of that contract avoiding extension of time/ delay on account of these additional works.

7. Efficacy of the Road Safety Engineering measures is ensured only when road accidents / fatalities related to road and road environment are eliminated as reflected in feedback on accidents/ fatalities at the improved

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location for at least 3 years. Therefore, State PWD shall collect accident / fatality data at the improved locations from police authorities and forward the same to Road Safety Cell Engineering MORTH on yearly basis through Regional Officer, MORTH.

8. In case some of these black spots are falling on State roads immediate necessary action for removal of those black spots may be taken by the State Government including under CRF fund. These works shall be taken up by the State Government after carrying out survey, investigation and design etc. as per their own procedure. **In view of the highest importance which road safety deserves, it is requested that all concerned should take the actions with special attention in a strictly time bound matter.**

9. In respect of black spots falling on the stretches entrusted to NHAI/NHIDCL appropriate actions may be taken by the respective organizations for implementing remedial measures wherever such measures are required and the action taken/ progress achieved may be intimated to the Road safety Engineering cell, MoRTH.

10. This circular is issued with the concurrence of vide IFD U.O. No.471/TF-II/2019 dated 16/08/2019 and approval of competent authority.

Yours faithfully,



(Varun Aggarwal)

Superintending Engineer-S&R
For Director General (Road Development) & SS

Copy to:

1. All CEs in the Ministry of Road Transport & Highways
2. The Secretary General, Indian Roads Congress
3. Technical circular file of S&R (R) Section
4. NIC-for uploading on Ministry's website under "What's new"

Copy for kind information to:

1. Sr. PPS to Secretary (RT&H)
2. PPS to DG (RD) & SS
3. PPS to AS&FA
4. PS to ADG-I
5. PS to JS (T)/ JS (H)/ JS (LA&C)/ JS (EIC)



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



No. RW/NH/15017/109/2015/P&M (RSCE)

Dated: 28.10.2015

OFFICE MEMORANDUM

Subject: Protocol for identification and rectification of road accident black spots on National Highways

The present Road Safety scenario on road network in general and on National Highways in particular with a high rate of accidents leaves much to be desired. Though the roads especially National Highways were expected to be developed adopting all Safety Engineering measures including design stage Road Safety Audit at the time of preparation of DPRs and Pre-opening stage Road Safety Audit after completion of the development work, a significant number of locations even on NHs have remained prone to accidents on the road network in the country including NH network which has already been developed in one scheme or the other, due to several reasons and constraints in the development and maintenance. For improvement of such locations a systematic approach is required which includes a common definition for road accident black spots on NHs and a sequence of actions with time frame for removal of those black spots. For this purpose the following is the protocol for road accident black spots on National Highways.

2. Definition of Road Accident Black spot on National Highways: Road Accident Black spot is a stretch of National Highway of about 500m in length in which either 5 road accidents (in all three years put together involving fatalities/grievous injuries) took place during the last 3 calendar years or 10 fatalities (in all three years put together) took place during the last 3 calendar years.

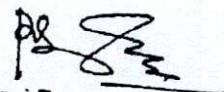
3. Forwarding the road accident data on NHs to Transport Research Wing (TRW) of MORTH: The accident data (keeping in view the above definition of accident black spot) giving the specific location of black spot, limits of the black spot stretch (Up to a length of about 500 m). Number of accidents involving fatalities/ grievous injuries, number of fatalities if any during a calendar year are to be forwarded by police authorities/National Crime Records Bureau so as to reach TRW of Ministry of Road Transport & Highways by 31st March, of the subsequent calendar year (For example Road accident data of the year 2015 is to be forwarded to TRW by 31st March 2016).

4. Forwarding of compiled road accident black spot data on National Highways by TRW to Road Safety Cell(Engineering) of MORTH: Transport Research Wing of MORTH shall compile/analyse road accident data on NHs of a particular calendar year based on the above definition and furnish the black spot details along with details of accidents/fatalities to Road Safety Cell(Engineering) of MORTH by 31st May of the subsequent calendar year (For example black spot data based on road accident data of the year 2015 is to be forwarded to RSCE of MORTH by 31st May 2016).

5. Remedial measures for Rectification of Road accident black spots on NHs: The concerned executing agency should take necessary actions for preliminary inspection, framing of proposal and obtaining of approvals/sanctions as per the guidelines given in OM No RW/NH-15017/ 109/2015 / P&M (RSCE) dated 08.10.2015 and obtain sanctions/approvals for rectification of the accident black spots identified based on accident details of a particular Calendar year by 31st March of the next to subsequent Calendar year (For example sanctions of remedial measures for black spots based on road accident data of the year 2015 by 31st March 2017). The execution of the remedial measures including acquisition of the land for implementation of the road safety measures for removal of black spots should be taken up on top priority and should be completed in minimum possible time commensurate with the size/ complexity of the remedial measures as per the respective contract conditions. In any case, short term measures like installation of road signs, road markings, speed reduction measures and repair of damages causing unsafe conditions on the National Highway shall be taken up immediately and completed within 3 months of identification of the road accident black spot. The progress of the execution of these remedial measures should be regularly (on quarterly basis) reported to Road Safety Cell (Engineering) of Ministry of Road Transport & Highways.

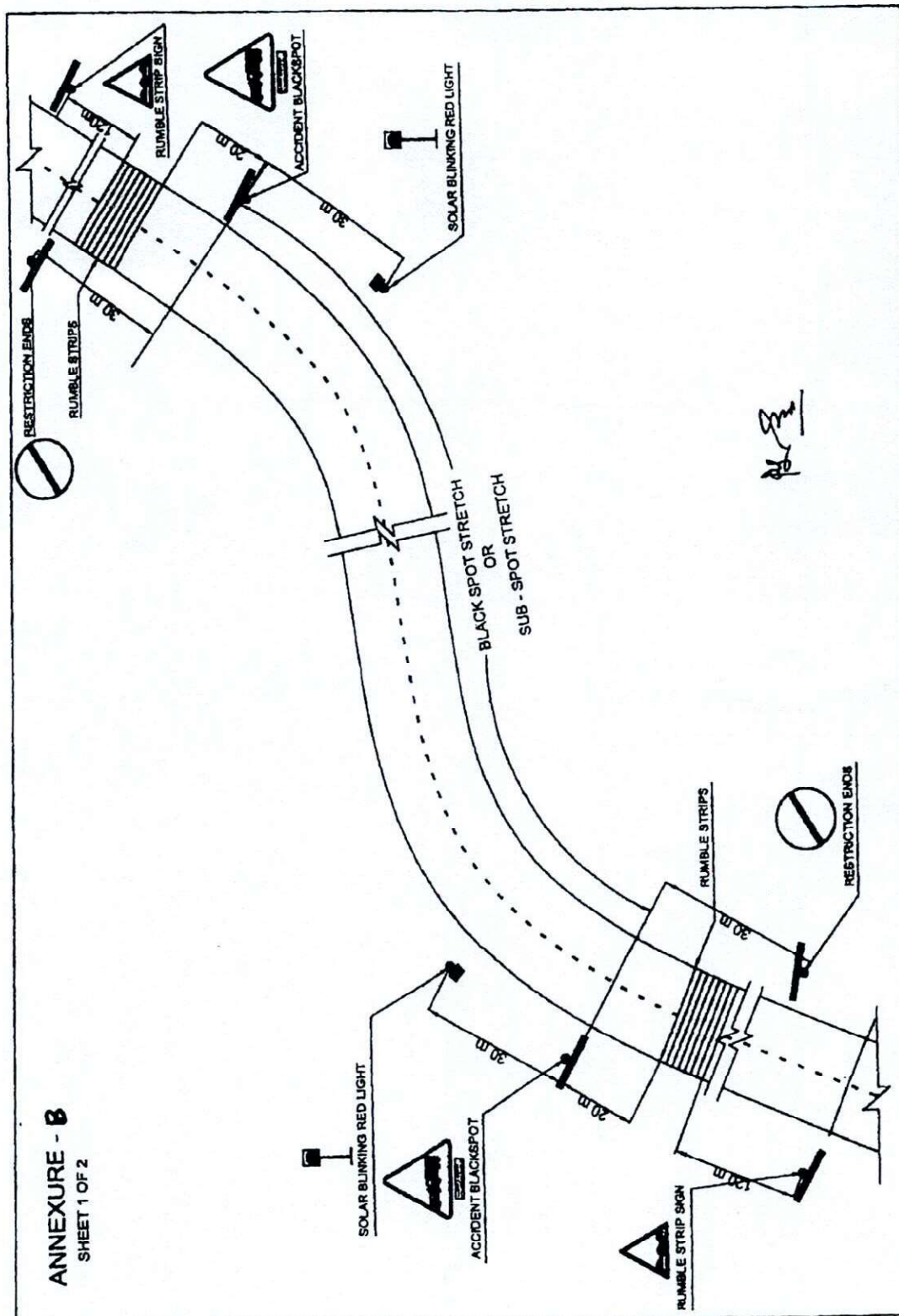
6. Feedback on effectiveness of remedial measures taken:
Concerned executing agencies who executed the remedial measures should obtain Road accident data of the location/stretch where remedial measures are executed, from concerned Police Authorities on a calendar year basis after the remedial measures are executed and should communicate to the Road Safety Cell (Engineering) by 31st March of the subsequent calendar year till 3 years after completion of remedial measures or the declaration of the remedial measures as effective by Road Safety Cell (Engineering) whichever is later.

This issues with the approval of Secretary (RT&H).

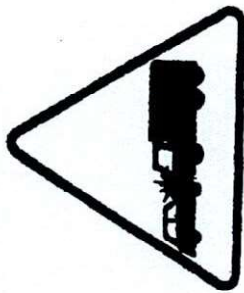


(Ravi Prasad)
Chief Engineer (Road Safety)

To
Chief Engineer-P-1/P-2/P-3/P-4/P-5/P-6/P-7/NER/PL/MON-I/EAP/NHDP-IV/ LWE/S&R
(R)/S&R (B)
Chairman, NHAI [Attention: Chief General Manager (Road Safety)]/
Director General Border Roads/Managing Director, NHIDCL, Director, IAHE.
Joint Secretary (Transport), Senior Advisor, Transport Research Wing.
All Secretaries of PWDs, Chief Engineers of NH, Chief Engineers of project zones,
Regional Officers of MORT&H, DGBR, NHAI, NHIDCL
Copy for information to: PS to Hon'ble Minister (RTH & S), PS to Hon'ble Minister of State
for RTH & S, PS to Secretary (RT&H), Sr. PPS to DG (RD) & SS, Chief Secretaries of
Concerned States & UTs, PPS to ADG-I ADG-II, Coordinator-I, II & III.

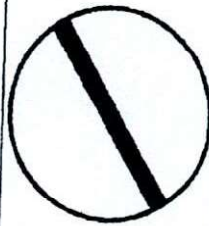


ANNEXURE - B
SHEET 1 OF 2

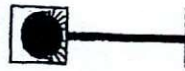


ACCIDENT BLACKSPOT
PATENTED IN 1994

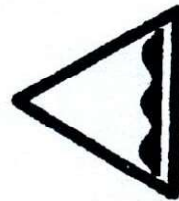
ACCIDENT BLACKSPOT



RESTRICTION ENDS



SOLAR BLINKING RED LIGHT



RUMBLE STRIP

200m