

भारत सरकार (GOVERNMENT OF INDIA)
रेल मंत्रालय (MINISTRY OF RAILWAYS)
रेलवे बोर्ड (RAILWAY BOARD)

No.2014/CE-II/TSC/1 Pt.-I

New Delhi, date 08.09.2016

Executive Director (Track-I)
RDSO
Lucknow

Sub: - Requirement of minimum track structure for speeds beyond 110 kmph of Passenger carrying train on BG IR.

Ref: - (i) Board's letter of even no. dated 16.09.2015

(ii) ED/Track-I/RDSO's Letter No. CT/Tech. Mission/High Speed dated 21.07.2016

Please refer Board's order on Item No. 1270 of 85th TSC issued vide Board's letter dated 16/09/2015. The revised draft policy for minimum and recommended track structure and track maintenance standards for various speeds beyond 110 kmph sent vide above referred letter (ii) has been considered and approved by Board (ME), Railway Board which is as under:

Speed	Minimum/ Recommended	Speed above 110 kmph and upto 130 kmph	Speed above 130 kmph and upto 160 kmph
Rails	Minimum	52 kg 90 UTS	60 kg 90 UTS
	Recommended	60 kg 90 UTS	
Sleeper/ Sleeper density	Minimum	PSC at 1540	PSC at 1660*
	Recommended	PSC at 1660	
Note- * Wider and heavier PSC sleeper shall be used during renewals			
Ballast Cushion in mm	Minimum	Total 250 clean 100	Total 300 clean 150
	Recommended	Total 300 clean 150	Total 350 clean 150
Turnouts			
Switch	Minimum	Fixed Heel curved switch on PSC sleepers	Thick Web Switches in facing direction*
	Recommended	Thick web switches on all turnouts	Thick web switches on all turnouts
Note- *Also the requirement of Standard-IV Interlocking			
Crossing	Minimum	CMS	CMS
	Recommended	CMS	Weldable CMS
SEJ	Minimum	Ordinary	Improved Type
	Recommended	Improved Type	
Bridge Sleepers	Minimum	Steel Channel Sleepers	
	Recommended	H-Beam Sleepers/Composite sleepers	

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड / Railway Board
अनुलग्नक सहित जारी
Issue with Enclosure
हस्ताक्षर
Signature
08/09/16
Date of Issue

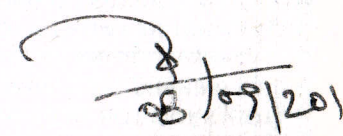
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Level Crossings	Minimum	Manned with telecommunication facilities	Manned & Interlocked (Replacement of all level crossing, by Grade Separators shall be planned while proposing increasing speed)
	Recommended	Interlocked	No level crossing
Fencing	Minimum	Need based as decided by Zonal Railway	All along the track.
	Recommended	All along the track	
Curves	All the curves shall be suitably realigned and proper transition lengths shall be provided. Maximum permissible cant of 165mm can be provided in the section so that speed potential on curves is fully exploited, however, this shall be subject to the consideration of maximum cant excess for the slowest moving train. This will require survey of each curve including the fixed installation and thereafter realignment should be undertaken keeping all the constraints in view. With a cant deficiency of 100 mm, the maximum permissible speed on 1 degree curve and 2 degree curve works out to be 160 kmph and 130 kmph respectively for 165 mm cant.		

Track Monitoring			
TRC	As per Para 606 of IRPWM	Once in Three Months	Once in Two Months
OMS	As Para 618 (3) of IRPWM	1. Monthly, Peak values exceeding 0.15 g to be reported 2. Recording shall be carried out at maximum sectional speed.	I. Monthly, Peak values exceeding 0.15 g to be reported. II. Recording shall be carried out at maximum sectional speed.
Oscillograph Car Run	As per Para 615 (3) of IRPWM	Once in Six months	Once in 4 months at maximum permissible sectional speed to study the oscillation behaviour of coaches as being done at present.
Note- Zonal Railways shall interpret the results of OMS, TRC and oscillograph car runs and impose suitable speed restrictions wherever considered necessary.			
Track Maintenance Standards	C&M I- Vol-I Standards & IRPWM for gauge.		

Note-

1. The recommended track structure shall be achieved within a time period of 3 years after increase in sectional speed based on minimum requirement.
2. In case operation of axle load of 25t or higher is permitted in sections, track structure shall be as required on that consideration.


 (Pankaj Tyagi)
 Director Civil Engg.(P)
 Railway Board