

**INDIAN RAILWAY SIGNAL ENGINEERING MANUAL
(JULY 2021 EDITION)**

Addendum and Corrigendum Slip No. 2

Replaced existing Annexure:8-A2 of Para of 8.1.1(b) and existing para 8.1.4 (b) as under:

Annexure: 8-A2 of para 8.1.1(b)

Existing Annexure:8-A2 of Para of 8.1.1(b) of Chapter 8 of IRSEM, 2021 edition may be replaced as:-

Para No.8 .1.1 (b)

Annexure: 8- A2

Check List for Engineering Scale Plan (ESP)

S. No.	Description of the Item	REMARKS OF		
		JE/SE/ SSE/Drg.	ADSTE	SSTE/ DSTE
1.	Complete layout of the yard should be shown by the Engg. Dept. even for works. minor nature. Alteration/Modification should not be shown in a part plan.			
2.	Plan should be prepared in 1:1000 scale.			
3.	North Point should be shown on the top of the sheet.			
4.	Kilometerage and Chainage (0.00 m) of the station building should be clearly indicated.			
5.	Direction of Train movement i.e. UP & DN should be clearly indicated at the top centre as well as at the ends of the yard.			
6.	Name of the adjacent Block Stations with their distances at both ends and name of the Junction Stations to be indicated. The Kilometerage shall start incrementing from left hand side to right hand side & mid section siding if any to be shown.			
7.	All Gradient at the yard must be shown and should be in sequence. Gradient & its changes upto 2.5 km from outer most point on both ends should be shown.			
8.	Gradient shall be as per IRSOD.			
9.	There must be no change of grades within 30 meters of any points & crossing.			
10.	If any alteration is proposed for the existing yard, the portion of the yard where alteration is proposed shall be marked with Red colour, and the portion of the yard where alteration is not proposed is tallying with the existing sigg. Plan.			
11.	All Lines should be designated for identification and reference. All lines No. to be written starting line No.1 from station Bldg. side.			
12.	The Clear Standing Room shall be decided as per para 23 of the Chapter-II, IRSOD.			
13.	Deleted.			
14.	The classification, kilometerage, chainage from Centre of station building, Manned/ Unmanned and number of each level crossing should be shown. Classifications of L.C. Gates are to be revised			

	according to present TVU. Spl- >50000, A->=30000 & <50000, B1->=25000 & <30000, B2->=20000 & <25000, C-up to 20000.			
15.	a) Preferably, Level crossing gate may be located outside the outermost facing points. b) LC Gate within berthing track shall be avoided.			
16.	a) The angle of turnouts and type of Switches (ST or CS) of each point in the yard should be shown. b) Passenger lines turnouts shall be 1 in 12 or 1 in 16.			
17.	The distance between center of tracks in Stn. Yds. should be shown. Minimum Track centers as per IRSOD.			
18.	As far as possible, Turn-Outs should be taken off clearing the Fouling of adjacent T.O. Distance between SRJ's of two crossovers shall be normally 13 m minimum and with Glued joints 7 m minimum.			
19.	Location of cabins/ Goomties/ Stn Bldgs: (a) Preferably they should not be in front of a trap, or dead end. (b) Where two cabins are provided, as far as possible they should be located on either side of the track so that Cabin men can ensure complete arrival of trains.			
20.	All goods running lines may be isolated from all sidings as per Rules for opening of Railways			
21.	All passenger running lines shall be isolated from all goods lines or sidings as per Rules for opening of Railways.			
22.	Deleted.			
23.	At junction station where trains run through on the main line at speed exceeding 50 KMPH, the main line should be isolated from all other lines of the yard.			
24.	Preferably sidings should take-off from the loop line, and not from the main line.			
25.	Chainages of all Points, De-railing switches, Dead Ends, Fouling Marks, LC Gates, Platform ends etc., should be shown.			
26.	Reference of the Work is to be mentioned i.e. sanction particulars.			
27.	Drawing No. shall be indicated.			
28.	Deleted			
29.	Details of open bridges: Span more than 6.1 meters, insulated or not.			
30.	Deleted			
31.	Deleted			
32.	Deleted			
33.	Deleted			
34.	Any other station specific items.			
35.	Details of ROB/ RUB /FOB with its length and distance / chainage from C/L of station. (Details of Steel/Concrete of Bridge)			
36.	CSR's of lines shall be decided as per para 23 of the Chapter-II, IRSOD.			

37.	Provision of Slip Siding/Catch Siding as required. a) If the Gradient steeper than 1 in 100 falling towards Block, Slip Siding is to be provided b) If the Gradient steeper than 1 in 80 falling towards Station side, Catch Siding is to be provided.			
38.	Details of LC Gates with their class, Kilometerage, Gate Lodge position, Manned/Unmanned, Interlocked/Non interlocked, Lifting Barriers/Swing Gates, etc. upto 2.5 km. on both sides.			
39.	Deleted.			
40.	Electronic Weigh Bridge if any in Track Circuit portion, to be shown.			
41.	Color schemes for drawings as per Indian Railways Works Manual 2000 chapter IX, para No.907 is as follows: a) Existing work that is to remain should be in full line Black. b) All proposed works - Vermilion Red or Scarlet Lake variety. c) All future proposals- Emerald Green. d) Work that is to be dismantled should in thin dotted lines - Yellow. e) Phase-I- Red f) Phase-II - Green Dotted g) Sanitary Works - Blue			

Signature of: JE/SSE/D ADSTE DSTE
Name Name Name

1.0 The above check list after scrutiny of the ESP has to be submitted by division to HQs under covering letter for further action at Headquarters.

2.0 Same format of the check list shall be followed at HQs for scrutiny of the ESP before obtaining the approval of competent authority till further amendment.

Signature & Designation	ASTE/D&D/HQ	SSTE/D&D	Dy.CSTE/D&D
Name			

Note:

(1) The above list is not exhaustive, zonal railways may add or modify as per local requirements.

(2) Where electronic form of checking/approvals are in place, they may be adopted.

Existing para 8.1.4 (b) as under: Existing para 8.1.4 (b) of Chapter 8 of IRSEM replaced as :-

8.1.4 (b)	Drawings pertaining to any station, viz., Signalling Interlocking plans, Locking Tables/Control Tables/Route Control Charts, Locking diagrams, wiring diagrams etc. shall bear the same number say SIP.SCR.GTL.VPL.Ø1.
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Case No. 2022/Sig/33/1/SEM/Misc
New Delhi, dated 20.06.2023

(Shyam Verma)
Executive Director/Signal Development
Railway Board

GOVERNMENT OF INDIA

MINISTRY OF RAILWAYS

(RAILWAY BOARD)

No.2022/Sig/33/1/SEM/Misc

New Delhi, dated:20.06.2023

1. The General Managers/ All Indian Railways.
2. The Director General/ RDSO/ Lucknow.
3. The Director General, NAIR, Vadodara.
4. The Chief Commissioner of Railway Safety, 16A, Ashoka Marg, Lucknow-1
5. The Commissioner of Railway Safety, Western Circle, 2nd floor, Churchgate, Station Building Annexe, M.K.Road, Mumbai – 20.
6. The Commissioner of Railway Safety, Central Circle, 2nd floor, Churchgate, Station Building Annexe, M.K.Road, Mumbai – 20.
7. The Commissioner of Railway Safety, Eastern Circle, 12th floor, 14 Strand Road, Kolkata.
8. The Commissioner of Railway Safety, South Eastern Circle, 12th Floor, 14 Strand Road, Kolkata.
09. The Commissioner of Railway Safety (Metro Railway), C/o CRS/Eastern Circle, 12th Floor, 14 Strand Road, Kolkata.
10. The Commissioner of Railway Safety, Southern Circle, 7 Seshadri Road, Gandhinagar PO, Bangalore -9.
11. The Commissioner of Railway Safety, South Central Circle, Sarojini Devi Road, Secunderabad – 71.
12. The Commissioner of Railway Safety, North Eastern circle, NE Railway Compound, Hazratganj, Lucknow – 1.
13. The Commissioner of Railway Safety, Northeast Frontier Circle, 12th Floor, 14 Strand Road, Kolkata.
14. The Commissioner of Railway Safety, Northern Circle, Safdarjung Railway Station Building, Chanakyapuri, new Delhi – 21.
15. ADAI (Railways), New Delhi (with 15 spare copies for Chief Auditor).
16. As per list 'A' attached.



LIST 'A'

1. PCSTE's, All Indian Railways.

2. ED(Co-ord.)/Signal, RDSO Lucknow.

3. The Director Generals
- IRICEN, Pune
 - IRIEEN, Nasik
 - IRISSET, Secunderabad
 - IRIMEE, Jamalpur
 - IRITM, Lucknow

4. The Chairman & Managing Directors/

Managing Directors

Delhi

- Konkan Railway Corporation Ltd. New
- IRCON International Ltd, New Delhi
- RITES Ltd., Gurugram
- RVNL, New Delhi
- DFCCIL, New Delhi
- DMRC, New Delhi
- MRVC Ltd., Mumbai
- RLDA, New Delhi
- IRFC, New Delhi
- RCIL, Gurugram
- High Speed Rail Corridor

