

STANDARD CHECK LIST OF DPR ON PRIVATE SIDING PERTAINING TO

OPERATING DEPARTMENT:

1. Executive summary covering an overall project analysis.
2. Location of the Industry.
3. Certificate of incorporation of the industry under Companies registration Act- 1956.
4. Capacity of the plant.
5. Company's letter on appointment of consultant as well as letter of acceptance from the consultant.
6. Scope of the work of the consultant for the proposed project.
7. Brief description of in-principle approval.
8. Commodity to be manufactured.
9. Production methodology.
10. In case of imported coal based power plants (IPPs & CPPs), whether confirm to the logistic plan of the Railways regarding transportation of imported coal.
11. Traffic projections-if planned in phases/ phase wise traffic projection.
12. Direction of traffic (Movement Matrix).

13. Name of the raw materials/finished products and quantum of traffic inward/outward separately as per the following Proforma.

Traffic	Station from/to	Commodity	Quantity in MTPA	No of rakes per day	Via /Junction
Inward					
Outward					

14. Existing traffic at station and available infrastructural facilities.

15. Comparison of traffic with present level and future level; in terms of volume and rakes.

16. Capacity utilization of the section and analysis whether the projected traffic can be handled without any further enhancement of section capacity.

17. Proposed facilities to be created by the party in Railway premises with Justification.

18. Concept of the study and alternatives.

19. Analysis of adequacy of existing infrastructure at serving station to handle the additional traffic.

20. Additional infrastructure planned at serving station, if any.

21. Facilities/Infrastructure should be consistent with the additional traffic keeping in view the bunching factor.

22. Junction arrangement/Take off arrangements.

23. Surface crossing to be avoided and provision of grade separator based on the quantum of traffic to be Handled/section capacity.

24. Direct access to the in-plant siding where rake is to be placed except change of ends at the serving station.

25. Isolation of the siding from Railway network by provision of ORL/Sand Hump instead of DS.

26. Siding layout description of in-plant siding infrastructure.
27. Yard layout should be such that movement of train to be in forward direction from entry /exist as far as possible.
28. Siding layout should be bulb type yard instead of linear yard to avoid engine reversal based on the direction/ arrangement of traffic to be handled.
29. Method of reception and dispatch of trains to in-plant yard from and to main line station.
30. Procedure of working of in-plant siding.
31. Whether in-plant siding is proposed to be interlocked or points are to be hand operated.
32. Interlocking arrangement and signaling system of in -plant yard.
33. System of working between take off point and in-plant siding; whether on inter slot arrangement, or on Block working etc.
34. CAL of additional new lines at the serving station should not be less than 750m & 770m for directional loops and common loops respectively.
35. CAL of in-plant siding should not be less that 730m/750m length without interlocking /with interlocking arrangement respectively.
36. Nomenclature of lines are to be indicated for reception and dispatch and accordingly directional marks are to be indicated.
37. Detailed procedure of placement, drawn out of rakes at in-plant siding.
38. Detailed working procedure of unloading /loading of railway rakes and facilities for examination of rakes at in-plant siding based on the quantum of traffic to be handled.
39. Method of handling inward /outward traffic. Whether manual, Mechanical, wagon tippler or by track hopper.
40. Working of wagon tippler and track hopper and length of track hopper.
41. Provision of bye -pass line for tippler.

42. Conveyor belt capacity for evacuation of materials unloaded through tippler/hopper.
43. Provision of Brake Van siding and its working procedure.
44. Whether manual handling line is required or not comparative to traffic that is to be handled.
45. CC pathway for GDR Check at the dispatch yard/lines.
46. Whether the proposed siding is to be a private siding or assisted siding.
47. Whether siding plan confirms to EOL system or not? System of working should confirm to EOL system.
48. Whether conditions for charging freight on through distant basis are fulfilled or shunting charges to be levied.
49. Rail co-efficient.
50. Location of in-motion weighbridge and to confirm to RDSO specification.
Capacity of the in-motion weigh bridge.
51. Type of wagon required to handle the projected traffic.
52. Time and motion analysis of handling rakes and turn round time.
53. Wagon turn round and calculation of additional wagon requirement.
54. Environmental clearance from Pollution Control Board.
55. Name of by product if any and its disposal process.
56. Provision of crew & guard rest room and location should be nearer to the activity centre of in-plant siding.
57. Future expansion if any and provision for future infrastructure to be kept.
58. Requirement of operating staff for in-plant yard train operation.
59. Shunting engine for in-plant operation if any & capacity of shunting engines.
60. Route kms and Track kms of the siding.
61. Gradient of the siding from take off point to Dead end.
62. Farthest buffer end chainage of the in-plant siding.

63. Ruling gradient should not be steeper than 1 in 150 (*compensated*).
64. Details of existing level crossings.
65. Details of proposed new level crossings. No un-manned level crossing in the in-plant siding as well as lead line to the siding. Provision of LHS for level crossings.
66. Speed potential of the siding. Speed of lead line shall not be less than 50kmph.
67. Land requirement for the plant and Railway siding with details of the same with documents and status if not acquired.
68. Electrification of siding (if the section is electrified/sanction for electrification).
69. Estimated cost of the project with break up.
70. Time frame for commissioning of the siding along with other infrastructure and scope of work in different phases (if any).
71. Execution of works whether on deposit work basis or by other agencies to arrive at different codal charges.
72. Executing agencies for Civil Engg, S&T, and electrical works.
74. Brief description of work.
74. Key plan of the siding from take off point to in-plant siding in A3/A4 size.

COMMERCIAL DEPARTMENT

- 1) Provision of Central Freight Office (CFO): The Central Freight Office (CFO) should be located adjacent to Weigh-bridge location consisting of at least one Office room of 5m x 5m size with attached toilet and drinking water facility & one Record room of 5m x 4m size. The plan of the CFO has to be approved by the Commercial department.
- 2) Adequate furniture like table, chair, almirah, rack, cash safe & Copier machine etc. should be provided by the siding owner.
- 3) Suitable mode of communication i.e. DOT phone & FAX are to be provided in the CFO.
- 4) In-motion weighbridge as per Railway's standard & specification is to be installed, calibrated with Railway's Test wagon & certified by Legal metrological department of state government.
- 5) TMS hardware equipments with one set spare as standby are to be supplied by the siding owner. Number of equipments may vary depending on volume of work.
- 6) Payment of freight shall be made through 'e-payment' only for which the siding owner shall enter in to an e-payment agreement.
- 7) Cost of commercial staff for the siding has to be borne by the siding owner. Number of staff requirement shall be decided on the basis of volume of traffic and number of loading /unloading points. 01 (one) year advance cost of such posts shall be deposited for creation of posts for the siding prior to commissioning. Cost of staff will be provided by respective division.
- 8) Required stationery for day-to-day working shall be provided by the siding owner except printed books & forms of Railways.
- 9) A copy of clearance from SPCB for "consent to establish" and "consent to operate" are essential prior to issue of Commercial notification.
- 10) Residential accommodation and other facilities like medical, canteen etc. for the staff are to be provided by the siding owner.
- 11) Transportation arrangements for the staff from the siding office to serving station & back as per requirement shall be arranged by the siding owner.
- 12) 07 (seven) copies of Agreement plan based on approved CE's drawing are required to be submitted for preparation of siding agreement document.
- 13) Private siding agreement shall be executed before commissioning of the siding.

ELECTRICAL DEPARTMENT:

(General Services):

Check list concerned to Electrical General (power) for initial scrutiny of DPR is given below:

A. For areas beyond Railway Boundary & within Railway Boundary:

SN	ITEMS	Description of the items of Railway	Yes/ No or Values/ Qty	Compliance of Siding Owner
1.		Nos. of power lines of different voltages crossing/along the Railway track.		
2.	Power line crossings	Whether the party has submitted the lay out plans of power lines as mentioned above indicating all the clearances/Parameters as per the "Regulations for Electrical crossing of Railway tracks-1987" with amendments.		

B. For areas exclusively within the Railway Boundary:

1.	Level Crossing Gates	Nos. of manned/cabin operated LC gates to be modified. (Provision of power supply arrangement, Electrification and modification of LC gate to be done as per CEE/ECOR's Technical Circular no. 17/2005.)		
2.	Structures/ Buildings	(i) Nos./Types Railway infrastructures to be created by the siding owner within the Railway premises which require general electrification. (ii) Nos. of electric poles/structures to be shifted/dismantled. (Precaution to be taken to avoid infringement to the existing electrical general items. If any electric poles/structures/equipments are to be shifted/dismantled, the same may be shifted to a suitable location in consultation with		

		in-charge concerned.)		
3.	High Mast Towers	Nos. of High Mast flood lighting Towers for the Yard and loading/unloading PFs. (All the proposed new yards or yard modification shall be provided with sufficient scope for yard lighting along with energy efficient light fittings to have security lighting in the yards during night time. Necessary power supply arrangement with cabling and switch gear for auto switching with timer/photo switch shall also be provided in consultation with Division.)		
4.	Load enhancement, Sub-stations, Cables etc.	(i) How much additional loads (In KW) required for the above purposes. (Augmentation of existing power supply arrangement to be done if considerable amount of additional load required in consultation with the Division concerned) (ii) Has Schematic electrical power supply diagram submitted with DPR ?		
5.	Pumps, DG sets etc.	Nos. of pumping installation and DG sets as per requirement to be provided.		
6.	Estimate	Is any separate estimate for Electrical General Services in connection with the works within Railway premises submitted?		
7.	Energy Efficiency	Whether all the lights/electrical equipments provided are energy efficient type and also maintain the recommended Lux level.		

TRACTION & DISTRIBUTION (TRD):

Check list concerned to TRD for initial scrutiny of DPR is given below –

1. TKM of the siding.
2. TKM of the siding proposed to be electrified.
3. Type of OHE (conventional/tramway) proposed by siding owner.
4. Proposed traffic i.e. number of inward rakes (loaded/empty) and outward rakes (loaded/empty) average per day along with load details.
5. Layout of the siding.
6. Layout of the yard/section duly indicating take off arrangement of all other sidings and the permanent structures including TRD service buildings and power line crossings.
7. General power supply diagram of the siding including sectioning arrangement.
8. Railways future expansion plan.
9. Sidings future expansion plan.
10. Track centre to be indicated in the layout plan.
11. Detailed scope of work duly indicating TRD infrastructures to be created by the siding owner.
12. Detailed estimate of TRD works (OHE, PSI & RC works separately).
13. Cost of existing modification works if any.
14. Executing agency for TRD works (either siding owner or Railways) proposed by siding owner (Final decision will be of Railway).

Annexure-IV**MECHANICAL DEPARTMENT:**

1. The decision whether the posting of C&W staff & examination facility is required or not inside the siding will depend on the following factors.
 - (i). If large number of loaded rakes are moved on invalid BPC, in the subsequent examination, these rakes will be detained for repair & attachment of sick wagons after repair or these rakes have to be moved with short composition after examination. This is not desirable. Therefore if the proposed system does not ensure adequate supply of examined rake for loading, then examination facility is desirable.
 - (ii). If the rakes are expected to bypass the C&W examination point for traffic convenience in that case then examination of rake inside the siding is preferable.
 - (iii). In case 3 or more than 3 rakes per day are being tipped, then post tipping examination shall be done by TXR staff as per para (iv) of Railway Board letter No 2005/M(N)/951/13/Dtd.08.02.2006.
 - (iv). As per Railway Board's instruction vide letter No.2005/M(N)/951/13/Pt/Dtd.05.11.2007, post loading check of all trains loaded with steel consignment should be carried out by TXR staff.

The following C&W facilities should be provided inside the proposed siding by the siding owner.

2. Examination facility:

- (a). Concrete Pathway, Lighting & Welding facility as per CAMTECH specification should be provided along all lines on both sides in which rakes will be received for examination. One examination line per 2 rakes should be provided. Number of examination lines should therefore be fixed based on the expected examination load.
- (b). 2m wide Concrete Pathway & illumination should also be provided along lines on both sides where BTPN/ BTCS wagons will be decanted / loaded as closing of dummy plate, valves etc. are to be done by siding staffs.
- (c). 2m wide Concrete Pathway & illumination should be provided in all tippler inhaul lines i.e pre-tippler lines on both sides to facilitate release of rakes.
- (d). All lines in reception & dispatch yard where the trains will wait for line clear from adjoining station should have 2m wide Concrete Pathway & illumination on both sides for facilitating GDR check.

- (e). All lines in which packaged consignments like steel consignments/ billets/plates etc to be loaded with should have 2m wide Concrete Pathway, illumination & welding facility all along the length of track on both sides to facilitate welding of brackets for strapping the steel consignments by C&W staff & load certification by TXR.
- (f). All C&W examination facilities should be approachable to road. CC pathways should be joined to major road network to facilitate movement of staff & material handling trolley from one track to another track.
- (g). At each 20m interval of examination line, pneumatic points & 420V 3phase electric supply points should be provided so that minor welding repairs & break power testing can be done by C&W staff in wagon in-situ if required.
- (h). Adequate number of compressors of 300 CFM, 7 Kg/Sq.cm air deliver capacity with air reservoir, dryer and cooler and pneumatic connection should be provided for yard & sick line for examination & brake power testing considering the volume of traffic to be handled inside the siding.
- (i). One adequate service building for C&W staff should be provided near to the despatch line at a suitable place as specified by CAMTECH.
- (j). In load dispatch yard, where finished product will be loaded should be provided with one office room for TXR in each bay with telephone, bath & toilet facilities.
- (k). Two rolling in hut having (4x5) sq. meter each should be provided at the entry point of examination yard for checking roiling in examination, terminating examination & safety related activities of inward & outward rakes by (C&W) staff.

3. Sick line facility.

- (a). In all siding where unloading is proposed to be done by tippler, a small sick line spur of 50 to 100m should be provided. The sick line should provided with 10m wide & 50m long heavy duty concrete pathway on both sides. At each 20m interval of sick line, pneumatic points & 420V 3phase electric supply points should be provided so that minor welding repairs & break power testing can be done by C&W staff in wagon in-situ if required
- (b). In all siding where TXR requirement is indenspable, a sick line with a covered shed, one service building for C&W staff, compressors, M&P, furniture & office equipment etc should be provided as specified in CAMTECH guideline.
- (c). The sick line should be approachable by road.

4. Loading & unloading lines:

- (a). All loading lines where pay loaders are expected to be used for loading should be provided with steel fence all long the loading platform so as to

prevent pay, loaders coming in contact with wagon so that damage to wagon can be stopped.

- (b). Unloading by pay loaders or by any other means not suggested by railway will not be permitted.

5. Deployment of TXR staff:

- (a). For GDR check of a rake, 1 TXR +10 staff is required so as to complete 10man hrs job within 1 hour.
- (b). For end-to-end examination of a rake, a gang of 1 TXR +19 staff is required so as to complete 56 man hrs job within 3 hours.
- (c). Additional staff will be required for LR&RG, sick line & load fit certification for steel consignment.

6. Residential Accommodation: Residential accommodation of Type-III/IV for TXR & type-II for fitter/KH should be provided by siding owner at a suitable location in the vicinity of city for C&W staff who will be deputed to carry out C&W activities inside the siding. C&W staff should be provided with canteen, medical, transport facility as extended to siding owner's own staff.

7. Tippler: Tippler should confirm to latest RDSO specification No.G-33 & should be approved by RDSO. Tippler should be certified fit for operation by Sr.DME once in every six months before unloading of wagon by tippler. All conditions / stipulations specified in RDSO specification and approval must be complied to prevent damages to wagon. Wagon retarders must be provided for each tippler on post tippler line to reduce speed of wagon & prevent damage to wagon. Wagon retarders should be approved by RDSO.

8. Track hopper: Track hopper design should be approved by RDSO/Railway. Track hopper should be certified fit for operation by Sr.DME.

9. Weigh Bridge: Weigh Bridge should confirm to RDSO Specification WD-29-MISC-05. Minimum 100 meter of level and tangent track on either side of Weigh Bridge should be ensured.

10. Damage & deficiency: The cost of damage & deficiency occurring to wagons during loading and unloading operation while inside the plant siding will be paid by siding owner on the basis of joint sample check as per the JPO issued by ECoR. However for major damage or deficiencies to rolling stock, the charge on the siding owner will be decided on case to case basis.

11. Assistancess in case of derailment: Siding authority should keep sufficient MFD & ART equipments for restoration if any accident or derailment occurs inside the plant yard. Railway may provide assistance to siding owner if the siding owner requires any help in case of accident or derailment inside the siding premises However relief /restoration cost shall have to be borne by the siding owner.

12.Maintenance of siding owners wagon: Maintenance shall be done by railway at a suitable location on payment of charges by the siding owner to be deposited in advance in respective division which will maintain the rake.

Siding owner shall have to make an agreement with Railway(CME/CCM) regarding the maintenance of their wagons inside railway examination yard.

Annexure-V

CIVIL ENGINEERING DEPARTMENT:

A) General Cell

Sl. No.	Questionnaire on DPR	Remarks	DPR Para/ Page No./ Drg. No.
	<u>Plan:</u>		
1	Whether drawing has been prepared according to provisions in Indian Railway Works Manual Chapter-IX?	Yes/No	
2	Whether drawing is based on latest approved drawing for the affected yard?	Yes/No	
3	Whether the provisions of SOD have been followed? If not then mentions the exceptions?	Yes/No	
	<u>General :</u>		
1	For the cases involving Railway land for connectivity with any station for private siding: - Have charges been calculated in terms of Para No.3 of Railway Board's FM circular 1 of 2012 (vide letter No.99/TC(FM)/26/1/Pt-II dated 30.01.2012) & this office letter Lr. No. W6/333/Pt.II/Land policy/4765 dt. 28.06.13. (The copy of the letter dated 28.06.13 is enclosed.)	Yes/No	
2	For the cases without involvement of Railway land for connectivity with any station for private siding: Charges in terms of Railway Board's FM circular 1 of 2012 (vide letter No. 99/TC(FM)/26/1/Pt-II dt. 30.01.2012 and in terms of this office letter No. W6/333/Pt.II/Land policy/4765 dt. 28.06.13 are to be deposited by the firm on the basis of DPR cost provisionally before commencement of the work.		
	(i) Departmental charges @ 6.25% of DPR cost (Departmental charges includes already deposited charges by the party before approval of DPR).		

	(ii) D&G charges @ 1% of DPR cost. The difference between actuals and deposited money may be returned or deposited after arriving at completion cost.		
	These charges are to be finally adjusted as per final completion cost, actual approved mode of execution and cost of land in private premises and are to be confirmed before notification of the siding & issue of track certificate. Whether above provisions have been taken care of ?	Yes/No	
3	Whether cost of land in private premises (i.e. Outside Railway Boundary and in-plant portion) has been included in the project cost?	Yes/No	
4	Whether Railway land boundary has been shown along entire stretch of Railway track on both sides of railway line in consultation with the division?	Yes/No	
5	Whether authorisation of the consultant by the client for preparation of the DPR has been enclosed in the DPR?	Yes/No	
6	Whether the consultant has validity of enlistment as consultant on the date of submission?	Yes/No	

B.) Bridge Cell:

The check-list of Bridge Cell is as under: -

Sl. No.	Questionnaire on DPR	Remarks	DPR Page No./ Drg. No.	Para/ No./
1	Whether direction of flow of bridges have been shown in alignment plan?	Yes/No		
2	If existing Flat Top, Arch Bridge required to be extended for proposed siding, then whether it has been ensured that the load of proposed siding track is not shared by existing Bridge?	Yes/No		
3	In case the proposed bridges are parallel and nearby to the existing bridges, whether water ways of the proposed bridges is same as that of the existing railway bridges subject to minimum water way as per the practice in vogue.	Yes/No		
4	Whether the minimum clear height has been kept as 1.20 m for the RCC box culvert for facilitating easy inspection and maintenance.	Yes/No		

5	Whether Bridge wise list of proposed and existing span, type of proposed bridges has been furnished in the DPR?	Yes/No	
6	Whether proposed and existing span, type of Bridge has been furnished in the Alignment plan and L-section?	Yes/No	
7	Whether it has been ensured that extension of each Existing Bridge is proposed in front of existing Bridge (in alignment)?	Yes/No	
8	Whether loading standard of the bridges is 25t axle load-2008 & is mentioned in the DPR?	Yes/No	
9	Whether effort has been made to configure the Railway Bridges in such a way that all the relevant standard RDSO drawings are adopted?	Yes/No	
10	Whether formation levels at Bridge portion match with the approved L-section?	Yes/No	
11	Whether GAD of bridge will be got approved by CBE office before execution (For this detailed L-section and plan incorporating all the proposed bridges should be got approved & one copy should be submitted along with GAD of Bridges)?	Yes/No	

C.) Track Cell:

The check-list of Track Cell is as under: -

Sl. No.	Questionnaire on DPR	Remarks	DPR Para/ Page no. / Drg. No.
1	Proposed Speed on sidings. Whether mentioned or not ?	Yes/No	
2	Any permanent speed restriction proposed, if so, on what account.		
3	Axle load: Whether mentioned or not ?	Yes/No	
4	Ruling Gradient – [Para 403 & 511 of Engg. Code]. Whether mentioned or not ?	Yes/No	
5	Gradient in yards – As per SOD item no. 2 of Chapter II. Whether mentioned or not ?	Yes/No	
6	Formation width and slope: As per Para 4211(a) (b) & (c) of LWR manual & C.S no. 16. Provided or not ?		
7	Rails: – As per Para 248(2)(a) of IRPWM & C.S no. 117. Whether mentioned or not ?	Yes/No	
8	Sleepers: – Type/Density [Para 244(4) of IRPWM & C.S no. 130].	Yes/No	

	Whether mentioned or not ?											
9	Fittings: – ERC, GRSP (Thickness) & Liners.											
10	Ballast cushion (in mm) [Para 263(2) of IRPWM & C.S no. 126]. Provided or not?										Yes/No	
11	Track structure – SWR/LWR: If LWR, whether provision of LWR manual with latest C.S. nos. are complied with or not.										Yes/No	
12	Track centre minimum 6.3m in block sections & 5.3m in station sections (Ref.: CGE/ECOR/BBS's letter no. W1/162/Drg /Yard/ Pt.III /676 dt. 24.1.2013). Provided or not?										Yes/No	
13	Type of weld; AT/FBW.(Para 277(a)(7) - Joggled fish plate with clamps or two far end bolts on good AT welds shall be provided on bridges having length of water way as 100m or more and on approaches upto 100 m length. Para 429 Maintenance of thermit Welds on curves : Joggled fish plate with clamps or two far end bolts on good AT welds shall be provided on curves of 3 ⁰ or sharper.) (C.S. no.131 of IRPWM).											
14	Type of SEJ – Ordinary/Improved (As per RDSO drawing).											
15	SEJ sleeper – Spl. PSC/Others.											
16	Alignment; Details of curves. Provided in DPR or not ?										Yes/No	
	KM		Curv e no.	Degre e of curve	Radiu s in m.	Speed potenti al	Circular		Transition			
	Fro m	To					Fro m	To	Fro m	To		
17	Blanketing Material for formation as per RDSO Report no. 2007/GE/0014 issued in November, 2009 for “Guidelines and Specification for Design of Formation for Heavy Axle Loads”.										Yes/No	
18	Thickness of Blanket material as per RDSO Report no. 2007/GE/0014, Para no. 8.2 issued in November, 2009. Provided or not ?										Yes/No	
19	Type of soil & Bearing capacity of soil. Provided or not ?										Yes/No	
20	Loop line length in metres. CAL –In reference to COM/ECOR Lr. No. ECoR/Optg /Frt/CRS Corresp/85 dt. 29.7.08 for various wagon type rakes and as per SOD item no. 23 of Chapter II.										Yes/No	
21	Distance of Grade Change point from top most point (SRJ) minimum 50m – As per SOD item no. 2 of Chapter II.										Yes/No	
22	Track drainage system – Cutcha/Pucca drain.											
23	Max. height of embankment. Whether embankment slope protection proposed for banks ref P.Way manual > 4m high.										Yes/No	
24	All P-Way materials have to be procured from RDSO approved vendors and tested by RDSO approved firms/qualified personnel before use on track. Necessary certificates are to be kept on record. This has to be mentioned in the DPR clearly.										Yes/No	
25	Details of level Crossings (Confirming to chapter IX of IRPWM).											

i.	Whether elimination of LC aimed by provision of at the ROB/RUB/LHS/Closure/diversion. If not details of constraints.	Yes/No	
ii.	Class of LC. Whether Manned/Unmanned & Interlocked/ Non-interlocked: Mentioned or not ?		
iii.	Road carriage way width (W): As per IRPWM chapter IX, Annexure - 9/1 item no. 1.	Yes/No	
iv.	Minimum length of guard Rail : W+2m or not	Yes/No	
v.	Minimum width of gate as per class of road provided or not: As per IRPWM chapter IX, Annexure - 9/1 item no. 1.	Yes/No	
vi.	Lifting Barrier length (RDSO Drg. No. SA-8843). [Para 905 of IRPWM & C.S no. 117]		
vii.	Rail fencing 15m provided or not parallel to track both sides:	Yes/No	
viii.	Gate post distance for LC of nearest track centre: Minimum 3m provided or not.	Yes/No	
ix.	Speed breaker distance: 20m from gate post. Provided or not.	Yes/No	
x.	Warning Board distance:	Yes/No	
xi.	Height Gauge whether provided at 8m from Gate Post or not:	Yes/No	
xii.	OHE height from R.L.		
xiii.	Minimum distance of Gate lodge from centre line of track & edge of road metalling : 6m or not.	Yes/No	
xiv.	If on curve, whether Gate lodge provided road outside of curve or not.	Yes/No	
26	Any infringements to 'SOD' ? If yes - details to be furnished.	Yes/No	
i.	Height of FOB/ROB above Rail level. Confirming to Chapter-I, item no. 10 of SOD or not?	Yes/No	
ii.	Horizontal distance from nearest centre of track to face PF coping. Confirming to chapter II, item no.3 of SOD or not?	Yes/No	
27	Points & Crossings.		
i.	Type of turnout – 1 in 12, 1 in 8 ½.		
ii.	F/shaped or not.	Yes/No	
iii.	Whether lead rails & SRJ are proposed for welding (FBW) & welds proposed for protection. In case of AT Welds permission of PCE should be obtained (Ref: ME/RB's letter no. Track/21/2009/0110/7dt. 04.08.11)	Yes/No	
iv.	Whether 1m long fish plates proposed for X-ing approach joints or not.	Yes/No	
v.	Whether Gapless Joint at CMS X-ing aimed or not.	Yes/No	
28	Track on Bridges.		
i.	Whether steel channel sleepers are provided or not on girder bridges if any. If so bridge details such as span, type of girder, track structure on bridge proper as per Para 4.5.7 of LWR manual.	Yes/No	
ii.	Whether 26m long rail panel proposed with 1m long fish plates or	Yes/No	

	not (IRPWM No. 272(4)(a) & C.S. no. 125).		
iii.	Guard Rail section.		
iv.	Guard rail splay portion whether wooden gutka with through bolt proposed or not.	Yes/No	
v.	Whether through angle runner connecting all sleepers proposed or not ?	Yes/No	
vi.	Cess width up to 100m either side of Bridge approaches; proposed at 900mm or not.	Yes/No	
vii.	Max clear spacing of sleeper not > 450 mm [Para 273(b)(3) of IRPWM]. Provided or not ?	Yes/No	
viii.	Guard rail notching proposed or not.	Yes/No	
ix.	Jt. Sleeper clear spacing not > 200 mm [Para 273(a)(3) of IRPWM]. Followed or not ?	Yes/No	
x.	Guard rail clearance → 250 mm [Para 275(2) of IRPWM]. Followed or not?	Yes/No	
xi	Guard rail should not be lower by more than 25mm from Running Rail level. Followed or not?	Yes/No	
xii.	Whether 1m long F.P. provided or Free joints or bridge approaches & protection of the welds on 100 m either side with joggled fish plate/wooden gutka or not.	Yes/No	
xiii.	Whether all welds on bridge proper are protected with joggled fish plate or not.	Yes/No	
xiv.	Whether fittings/fastenings are Galvanised or not?	Yes/No	

Note: The above check list is subject to alteration at any date confirming to correction slips to various Track related Manuals and Railway Board/ RDSO guidelines being issued from time to time.

N.B. The details pertaining General, Bridges & Track Cells are to be given separately in the DPR for quick scrutiny.

(Signature of Authorized signatory of consultant or firm along with designation)

SIGNAL & TELECOMMUNICATION DEPARTMENT:

1. Scope of the work.
2. Details of Takeoff point at serving station.
3. Existing system of working at the serving station and adjacent Block Stations.
4. Proposed system of working.
5. Scope of the modification to the serving station indicating new signals, Block Instrument, Axle Counter, Data Logger, Power Supply equipments etc.
6. Briefing of existing procedure of train operation in the take off area.
7. Proposed procedure after introduction of the siding and also holding of trains to In-Plant yard if any.
8. Key EP and SIP to be submitted along with the scale plan for each with signature of the PMC.
9. Estimate should be prepared in the standard estimate Performa.
10. Rates of each quantity taken should have a LPR reference of ECoR or budgeted quotation collected from the market.
11. Executing agency for different S&T works need to be indicated in the DPR accordingly D&G charges to be allocated.
12. Regarding Tele Communication plan for FOIS connectivity provision of Communication facility to siding, TC/TPC telephones to the siding or SP/SSP to be explored.
13. Maintenance aspects of new assets to be created need to be discussed.
14. Railway Board Circular as regard to siding works No.99/TC(FM)/26/1/Pt-II, Dt.30.01.2012 has to be followed.
15. Condition stipulated in Policy Guidelines for S&T works in private sidings No.S&T/BBS/ECoR/Sig-18/4287 of 27.12.2010 will be implemented.
16. Regarding S&T of serving building like Panel Room, Relays, Power Supply maintenance, Goomty etc as per JPO No:01/2013,Dt:15.01.13 need to be explored and necessary estimate for them to be furnished along with the DPR.
17. For checking of Engineering Sketch Plans and Signalling Interlocking. Plan respective check list to be used, which are enclosed.

S & T (ENGG.PLAN CHECK LIST)

1. Must be approved by Operating Dept. before S&T.
2. Scale 1 in 1000.
3. Blue colour must not be used in Engineering Plan as it does not appear in ammonia print copy.
4. Proposed work shown in red.
5. North point & UP & DN directions shown at centre.
6. End terminals & adjacent station name, distance & UP & DN directions shown.
7. Centre line (C/L) of station building with km.
8. FWP no. scope of work and sanction work no. to be shown.
9. Reference of earlier Engg plan no.
10. All passenger lines must be isolated from goods lines & siding .All running lines should be isolated from goods line & siding. Provision of isolation.
11. Simultaneous reception and despatch facility.
12. Orientation of point/DS in entire plan is correct.
13. Verify existing IP for LC & gradients.
14. Gradients shown up to 2.8km from top point.
15. No change in gradient up to 30m of any point toe & 50m beyond top point. Except in gravity yard & hump.
16. Verification FOB, flyover bridge details, km no.
17. Station yard (50m) beyond top point Gradient 1:1200 or 1:1400 if not necessary condonation required.
18. Chainages of all point toe & FM.It should be minimum in 13 m lengths.
19. Point should not on concrete bridge or girder bridge.
20. Point to point toe in opposite direction should be minimum in 13 m lengths.
21. Point to point toe in same direction should be minimum 54m for 1 in 12 pt. & 12m for 1 in 8 ½ point.
22. Point on passenger line should not be 1 in 8 ½ point to be marked. In all point CS/SS to mentioned.
23. Designation of lines /sidings with CAL & direction of traffic.
24. Distance between tracks .Min 5.3 gap for new lines.
25. Tentative position of goomty /cabin and distance from track. Should not be near dead end or trap.
26. L C gate class, km w.r.t. RE mast , decimal km, manned/unmanned, gate goomty ,offset distance from nearest track and normal position of LC Gate .
27. Remarks for deviation of Std dimension, special remarks S&T building.
28. Terminal yard should be marked 'terminal'.
29. If gradient after station yard 1:120 ask for sectional gradient.
30. Steeper than 1:100 slip siding required.

31. Steeper than 1:80 catch siding required.
32. Engg plan should be in full, no part plan accepted.
33. S & T service building to be shown tentatively.
34. Clear available length (CAL) to be shown minimum 752M (FM to FM),
755.5M(PT to PT)

NOTES IN ENGINEERING PLAN

1. All chainages are taken from C/L of station building.
2. All new point & crossings shall be laid on PSC layouts. Or long sleeper for wooden layout for point machine or EPD.
3. All point & D/S chainages are taken from SRJ to SRJ.
4. GFN liners to be provided from chainages to chainages.
5. Approval of Railway Board to retain the existing grade of 1:400 has been obtained vide Board's letter No91/CEDO/SD/10 Dt.24.03.1992. Subject to the condition that a clause use will be inserted in the SWR ,no train should be stable on main line without a live engine.
6. CRS's/Board sanction to be obtained for retaining grade in station yard steeper than 1in 260.
7. Existing work shown in black.
8. Proposed work shown in red.
9. Works to be dismantled to be shown in black dotted.
10. Drawing supersedes existing engg plan no.
11. All new points are of 1 in 12(c/s) on 60kg PSC sleepers.
12. All existing points are to be provided with curved switches.
13. Station shall be provided with MACLS & panel interlocking, hence entire station yard should be laid on PSC sleepers up to 400m(S/L) & 300m (D/L) on either side of yard for track circuiting.
14. All point chainages measures from toe of switch.
15. Provision of LC gate shifting, CRS sanction to be obtained.
16. S&T service building are to be provided as per (JPO No: JPO/01/2013 15.01.2013) , or S&T service building to be jointly sited with concerned engineering & S&T officials.
17. S & T Goomties to be provide at rail level and at a distance of 450m .

S&T (SIP)

SIP CHECK LIST Primary checking

1. Width of SIP 300mm.
2. SIP No station name. code class, UP & DN direction
3. Yard drawn keeping UP direction for RHS to LHS movement.
4. Supercedes earlier SIP number.
5. Standard of interlocking based on isolation and provision of double distant.
6. Central panel or Electronic interlocking.
7. Drawing prepared as per scale by measuring some chainages randomly with scale.
8. Orientation of SM panel.
9. All distances between signals shown in dotted line.

Checking with respect to EP

1. Description of work, PB item reference & EP No mentioned.
2. Centre line of station building, KM, north direction and UP/DN direction at centre.
3. At name plate km no mentioned. If Terminal yard then it should be mentioned.
4. Adjacent station name with terminal station name along with distance.
5. Main line is drawn in bold line.
6. Roughly entire yard to be matched with EP.
7. All berthing line track centre provided. Any other track centres if provided, line nomenclature & direction of traffic indicated.
8. FOB if any.
9. All berthing line track centre provided. Any other place track centre provided.
10. All platform level and dimensions indicated.
11. All siding lines nomenclature indicated.
12. All over run line length indicated.
13. Minutely entire yard to be matched with km & chainages. Gate lodge indicated.
14. Cabin and goomtys indicated.
15. Roughly gradient posts continuity in sequence & its chainages matched with EP from RHS to LHS.
16. Check for all the DS points used for isolation are clear of FM.
17. 1 in 8 ½ (SS) point if any to be checked.
18. LC Gate if any provided with km & chainage. Gate lodge indicated.
19. Check gradient posts clear for 50m from top point & 30m clear of any point in yard.

Signals

1. Check from working time table, if there any mid section interlocked LC Gate is there whose signals is likely to be clubbed with station signals or not.
2. BSLB board provided.
3. Goods warning /double distant provided with distances.
4. All signals placed properly along with its distances if any.
5. Check for possibility for combing of any signal.
6. 120 m overlap if any from starter available to be indicated.
7. In S/L adv str is 120m (min) from top point.
8. All signal markers to be checked as P, C, G, A, B, TLBI.
9. If there is any slotting arrangement to be checked.
10. Placement of every gradient post with respect to chainages & position of signals to checked for.
11. All junction station calling on & shunt below starters. Starters R by Adv str.
12. All shunt signals placed including stop boards/stop till piloted boards.
13. 10kmph board below/starters for 1 in 8½ (SS) point.
14. All signal numbering to be checked along with control panel numbering & spares.
15. All signal routes indicated at destination.
16. If any parallel cross over is there in yard, then specific signal routes to be indicated over those points in reverse movements.
17. CSL of all berthing lines .CSL of all sidings. (pt-toe-SRJ-glued-signal) = $1.5m+3.25+13=17.75$).(FM to Glued-3m)
18. Aspect control chart along with distances between signals. Match the R, Y, G,YY aspect with the signals indicated.
19. Legend for change in signaling or block working.

Points

1. All point numbering to be checked along with control panel numbering & spares.LC gate numbering.
2. Siding point operation.
3. Crank handle grouping along with CH location boxes & siding location boxes.

Track Circuits

1. In S/L, block releasing tracks in between glued 2M staggering.
2. LVCD provided.
3. All track circuit glued joint clear of fouling mark min 3M, if more than better seeing CSL.
4. Total track circuit name indicated.
5. Analog axle counter if any. For analog axle counter location for site verification switch to be indicated

LC gate

1. Gate lodge, symbol of interlocking and boom cross.
2. If mechanical then max 150m from G/I.
3. Gate no, class, UP & DN km, telephone.
4. Working of Gate.
5. For special class approach working.
6. Non-interlocked gate normally closed to road traffic.
7. In D/L gate is before adv str, indicate its distance from starter.

Misc.

1. System of block working including IBS.
2. SM telephone communication.
3. Notes provided.
4. Check existing SIP for any special restrictions or telecommunications with SM.
5. When falling gradient is steeper than i in 260 with adv str, then shift the adv str rear at the gradient post to avoid any shunting vehicle to enter in the block section. Adv str may be at 46m from top point. Avoid back shunt in that case.
6. Check for any RHS signal & its reason.
7. Deviation if any needs dispensation.
8. Comments of Sr.DOM, COM & Sr.DSTE & field unit to be complied.
