

S.No.	Description
3	SPECIAL CONDITIONS OF CONTRACT- III (Track Work)
3.1	<p>The contractor shall have to supply 02 nos. of Abrasive Rail Cutter Machines of approved brand/make as demanded by Engineer-in-Charge or his authorized Railway representative to designated SSE/JE/P.Way units within 30days of issuance of LOA, failing which no bill shall be processed.</p> <p>These supplied machines shall become the property of Railways after acceptance of supply & shall be used at the will of railways. The contractor may have to deploy his own Abrasive Rail Cutter Machine while carrying out the work concerned with this tender. There pairs to breakage or replacement to any part/tool of the supplied machine shall have to be done by the contractor at his own cost as & when ordered by Engineer-in-Charge or his authorized Railway representative during the currency of this contract. No extra payment shall be made to the Contractor for supply and/or maintenance of these machines.</p>
3.2	All the works covered under the contract shall be executed with contractor's own materials of approved quality, as decided by Engineer-in-Charge or his authorized Railway representative, unless other wise specified. The entire work will be executed under supervision and presence of Authorized Railway representative.
3.3	Railway Administration will have complete liberty to operate any of the above item partially, fully or not at all. The decision of the Railways shall be final & binding upon the Contractor. The contractor will not have any claim for less and/or excess execution of the work.
3.4	Some of the essential works may have to be executed during night hours and within stipulated period with proper safety precautions for which no extra payment will be made.
3.5	<p>Railway staff/trackmen will be provided for protection of worksite as per IRPWM, in lieu of which, contractor will have to provide equal number of labourers to the SSE/JE/P.Way unit for various P.Way works.</p> <p>If contractor fails to supply equal number of manpower/labourers (in mandays) against the Railway's departmental manpower/gang engaged by the Railway in different works as mentioned above & in various conditions of this document, Railway will recover the cost at the rate of Rs.700/- per man-day of departmental manpower deployed.</p>
3.6	The contractor shall have to ensure provision of retro-reflective and/or fluorescent net jackets Along with all applicable Personal Protective Equipment/Kits to all the labourers employed for this instant tender. No extra payment shall be made to contractor for aforementioned provision.
3.7	Contractor will have to use his own hooter for safety at worksite.
3.8	Before quoting/offering the rate in the tender, the tenderers are required to inspect the site thoroughly and satisfy themselves as to the nature of work involved and all possible difficulties likely to be encountered for execution the work. In any case, no excuse/request of tenderer/contractor shall be entertained after opening of tender.
3.9	While carrying out works pertaining to lifting of rail, care is to be taken that the easement gradient for the passing of trains in any case is not steeper than the one permitted in IRPWM (up-to-date). In curved track the inner rails are to be set to the correct level and grade & outer rail is to be raised so as to give the required superelevation. Care must be taken to ensure that cant is with in the permissible limits as per the directions of Engineer-in-Charge or his authorized Railway representative.
3.10	Any work connected with running track should not be started by contractor without the presence of authorized Railway's representative at site. In case the contractor commences the work on any day in the absence of authorized Railway representative, it shall be treated as unauthorized and illegal tampering with the track and shall be liable for action under relevant clauses of Railway Act & other applicable laws, as the case may be.
3.11	WELDING OF RAIL JOINTS:

	(a) Contractor shall arrange the required numbers of welders with valid competency certificate from either RDSO/Lucknow or Tharmit Portion Plant, Lucknow. The competency certificate issued by any other institution will not be accepted. (b) The painting of weld collar shall be done with two coats of bituminous paint confirming to IS-158 immediately after welding of rail joint. The weld collar and adjacent area shall be cleaned thoroughly and no extra payment will be made for this. (c) The welding portions, welding supervisor, welding equipment, trimmer and grinder will be arranged by Railway either through another agency or departmentally. The contractor has to arrange skilled/unskilled labour, consumable and carry out the actual welding work in the field.
3.12	The work has to be carried out under train traffic and also in an electrified territory. The contractor should take all the precautions for safe passage of train traffic moving on the line where work is being carried out and also on adjacent lines. He should also ensure the safe working of his own labours, tools & equipments along with Railways property. In case of any damage to the Railway property, passenger and his own labours, tools & equipments due to contractor's negligence, the Contractor shall be fully responsible for such damages. Contractor will have to compensate the Railways for all such damages as decided by Engineer-in-Charge Or his authorized representative.
3.13	All assistance will be provided for arrangement of traffic blocks (wherever required) but Railway will not be responsible for idling of labour due to non-availability of traffic block. The tenderer/contractor shall have no claim resulting from idling of labourers/machinery/material etc.
3.14	The rubber pad should be painted before placement on concrete sleepers with contractor's Epoxy resin of approved quality to ensure proper bonding between rubber pad and concrete sleeper surface.
3.15	The payment of Through Rail Renewal will be made only for the length for which released rail has been carried & stacked at location specified by Engineer-in-Charge or his authorized Railway's representative at site.
3.16	Sleeper/Rail Renewal:
3.16.1	The payment of Through Sleeper Renewal will be made only for the length for which released sleeper has been carried & stacked at location specified by Engineer-in-Charge or his authorized Railway's representative.
3.16.2	The payment of TRR will be made only for the length for which released rail has been carried & stacked at location specified by Engineer-in-Charge or his authorized Railway's representative.
3.16.3	Renewal of Concrete Sleeper by Concrete Sleeper includes all types of Concrete Sleepers (except Turnout Sleepers) including heavier, wider base sleepers etc. No additional payment Shall be made to the contractor in this regard, unless otherwise specified categorically.
3.17	<p>Contractor may be advised by Engineer-in-Charge or his authorized representative to deploy resources at more than one site and/or location at a time for different or same works like TSR, TRR, CTR, TBR etc.</p> <p>The works are labour intensive & hence deployment of sufficient labours may be needed simultaneously at multiple locations. Hence, contractor must possess a valid labour license in connection with the above requirement of work. It is contractor's responsibility to get the labour license modified for adequate number of labours.</p> <p>No work in contract shall proceed without a valid labour license of minimum labours or actual number of labours deployed.</p> <p>Upon issuance of instructions from Engineer-in-Charge or his authorized representative, the contractor must deploy the mandated number of labourers and/or number/type of machinery for the work instructed by the Engineer-in-Charge or his authorized representative at one or multiple locations. The decision of the Railways shall be final & binding upon the Contractor.</p> <p>Non-adherence to the instructions of the Engineer-in-Charge or his authorized representative</p>

	may lead to imposition of penalty or termination of contract. The decision of the Railways shall be final & binding upon the Contractor.
3.18	Contractor has to apply his own grease of IS: 408 Grade - O to all ERCs free of cost at the time of rail renewal or at the time of de-stressing of track etc. As instructed by the Engineer-in-Charge or his authorized representative.
3.19	The out of square sleepers if any, shall be corrected and made perfectly square by contractor with his own labour and tools free of cost prior to rail renewal. The work of rail renewal shall be carried out only after certification by authorized Railway's representative for perfect squaring done by contractor. Instruction of authorized Railway's representative at site will be Final and binding on the contractor.
3.20	Contractor will have to carry out marking of sleepers pacing and squaring on web of rail with his own paint and labour as approved by the Engineer-in-charge or his authorized representative at site.
3.21	Manual Deep Screening shall be done as per provisions of IRPWM (up-to-date) or as advised by Engineer-in-Charge or his authorized representative at site.
3.22	For points and crossings on any type of sleepers, the payment will be made considering length of track as below:
3.22.1	For 1 in 12 points and crossings: 82m.
3.22.2	For 1 in 8.5 points and crossings: 58m.
3.22.3	The expression 'Points and Crossing' includes length covered from Stock Rail Joints (SRJ) to end sleeper of point & x-ing. The rate includes 12 nos. of approach/exit sleeper for all three approaches.
3.22.4	Points and crossings shall be treated as portion of the track from first approach sleeper to last exit sleeper on all sides of a turnout as per RDSO drawing. No extra lead, lift or any other charges will be paid to the contractors, unless otherwise specified.
3.23	Work has to be carried out by contractor with his own tools, plants, machinery & labour under The supervision of authorized Railway supervisor only.
3.24	The rubber pad should be painted before placement on concrete sleepers with contractor's epoxy resin of approved quality to ensure proper bonding between rubber pad and concrete sleeper surface.
3.25	SAFETY HAZARDS:
3.25.1	Works will be done to the satisfaction of the Engineer-in-Charge or his authorized Railway's representative at site of the work for the safety of track and passage of trains. Any unjustified detention of trains due to unsatisfactory work done by the contractor will be responsibility of contractor only. The cost of detention charges for engines/wagons will be recovered from contractor's bills.
3.25.2	In case contractor fails to provide labour for post work and engage labours only for track renewal works (CTR, TRR, TBR, TSR, TTR etc), Railway reserves the right to completely stop the track renewal work and divert the labour to post work of track renewal works completed earlier. The decision of the Railways shall be final & binding upon the Contractor. Non-adherence to the instructions of the Engineer-in-Charge or his authorized representative may lead to imposition of penalty or termination of contract. The decision of the Railways Shall be final & binding upon the Contractor.
3.25.3	In case of sudden rainfall or other reasons whatsoever, when the work is in progress and the contractor's labourers leave the site of work, endangering safety of the track, the authorized Railway's representative may engage immediately the Railway's manpower to rectify the track for passing trains and maintain it on that day till contractor's labour takes over the work. In all such cases the cost of departmental labour engaged for a day or multiple of days as the case may be, will be recovered from contractor's dues at the rate specified in this document.
3.25.4	During the execution of work if track geometry is disturbed & it becomes necessary to detain/stop an approaching train, Railway representative present on site can do so. However, such detention should not be more than 15 minutes. If it exceeds beyond this period, detention charges for entire period of detention shall be recovered from contractor's bill/dues.

3.25.5	The work should be executed in workmen like manner to the satisfaction of the Engineer-in-Charge or his authorized Railway's representative at site. Contractor will be primarily responsible for the safety of traffic that moves on the opened-up track notwithstanding the presence of the Engineer-in-charge or his authorized Railway's representative at site.
3.25.6	As per extant rules, contractor will take reasonable care and attention to keep the Railway's tools in working order. If any damage occurs to the tools, not attributable to normal wear and tear occurs, the cost of the same including departmental charges as per extant rules will be recovered from contractor's dues.
3.25.7	Contractor shall ensure that all his work men are given equipment including safety equipment As is necessary to work in all conditions of weather.
3.25.8	Contractor will arrange the required number of tarpaulines etc., for the labourers to stay. The watering and transportation arrangement required for the labours will be made by contractor only. The contractor shall have to ensure compliance to all the applicable provisions of Labour Laws.
3.26	SPEED RESTRICTIONS:
3.26.1	Speed Restrictions, as required for safe passage of traffic, will be arranged by the Engineer- in-Charge or his authorized Railway's representative at site. No work on the track should be commenced until the Engineer-in-Charge or his authorized Railway's representative at site of the works has imposed the Speed Restrictions and speed indicators are placed in order.
3.26.2	After speed restriction is imposed, contractor shall proceed with work in systematic manner Keeping the following considerations in view:
3.26.3	Necessary traffic block/Caution order will be made available as far as possible if required for Execution of the work. However, if on any day, the traffic block/Caution order is not permitted, the contractor will not have any claim for idling of his men and materials.
3.26.4	Contractor shall engage sufficient skilled labours to complete the work to relax the speed restriction within specified period mentioned in IRPWM. If he fails to do so Railway may initiate action as per applicable clause of Indian Railway Standard General Conditions of Contract (GCC). If required, Railway may also engage departmental gang to relax the speed restriction, however, cost of which shall be borne by the contractor at the rate specified in this document.
3.27	INSERTION OF RAIL/PANELS:
3.27.1	During rail renewal, to avoid welded joint falling over the sleepers, the concerned sleeper will Have to be shifted on either side by the contractor with his own labour and tools free of cost.
3.27.2	All Released ERCs & liners cut marks / gas cut marks to be done by the contractor with contractor's own gas, tools & plants etc. & nothing extra will be paid for the same.
3.28	DESTRESSING OF LWR/CWR:
3.28.1	(a) Destressing of LWR/CWR shall be done using hydraulic rail tensor unless otherwise permitted by Engineer-in-Charge or his authorized Railway's representative. (b) For making the closure rail to be put behind the SEJ abrasive rail cutting machine shall be used. (c) The joints in LWR shall be welded immediately after distressing unless otherwise Permitted by Engineer-in-Charge or his authorized Railway's representative.
3.29	In all cases, the decision of the Railways shall be final & binding upon the Contractor. Non-adherence to the instructions of the Engineer-in-Charge or his authorized representative may lead to imposition of penalty or termination of contract. The decision of the Railways shall be Final & binding upon the Contractor.

Sl.No.	Description
4	SPECIAL CONDITIONS OF CONTRACT –IV (TRACKWORK) (PQRS/TRT Machine) STANDARD RENEWAL/THROUGH SLEEPER RENEWAL.
4.1	GENERAL:
4.1.1	The Contractor either himself should be a qualified/ experienced P.Way Engineer or should keep a qualified/experienced P.Way Engineer at site(s).
4.1.2	Items of the work are to be executed with contractor's own skilled/ unskilled labours, tools & Equipments except TRT train etc., as the case may be, which will be arranged by Railway.
4.1.3	The work is to be carried out under train traffic and also in an electrified territory. The contractor should take all the precautions for safe passage of train traffic moving on the line where work is being carried out and also on adjacent lines. He should also ensure the safe working his own labours, equipments and Railway's property etc. In case of any damage to the Railway property, passenger and his own labours, tools& equipments due to contractor's negligences, he will be fully responsible for such damages. Contractor will have to compensate the Railways for any such damages as decided by Engineer-in-Charge or his authorized Railway representative.
4.1.4	For execution of the items requiring traffic blocks, Railway will arrange for the traffic blocks to the extent possible. The duration and time of traffic block will be decided by Engineer-in-Charge or his authorized Railway representative. However, Railway will not responsible for any losses suffered by the contractor for idling of labours, tools & plants due to non-availability of traffic blocks.
4.1.5	The work may have to be carried out during day and/or night time. However, depot working items of the works like unloading and/or loading of PSC sleepers from Railway wagons, fabrication of panels, dismantling of released panels, loading of new panels into TRT/PQRS, BFRs etc. may have to be done in night time also. The contractor should make his own lighting arrangement to facilitate such night working. In case, Railway is unable to give the traffic blocks in day time for carrying out the items requiring traffic blocks and traffic blocks are given in night time for carrying out the items requiring traffic blocks and the contractor is asked to do the work in the night, he has to do the same by making his own arrangement for night working at the same rates terms and conditions. The payment of lighting arrangement will be made by Railway in relevant items. Upon issuance of instructions from Engineer-in-Charge or his authorized Railway representative, the contractor must deploy the mandated number of labourers and/or number/type of machinery for the work instructed by the Engineer-in-Charge or his authorized Railway representative at one or multiple locations during day/night hours. The decision of the Railways shall be final & binding upon the Contractor. Non-adherence to the instructions of the Engineer-in-Charge or his authorized representative may lead to imposition of penalty or termination of contract. The decision of the Railways shall be final & binding upon the Contractor.
4.1.6	The contractor is expected to arrange the adequate resources to complete the specified work (as decided by Engineer-in-Charge or his authorized Railway representative) in the given traffic block and make the track fit for movement of the train traffic with a restricted speed of at least 20 kmph immediately after the block period. In case the contractor fails to do the same, Engineer-in- Charge or his authorized Railway representative at site will be at liberty to deploy the Railway staff to complete the work and pass the train. The expenditure incurred by the Railway will be recovered from the contractor's running bill at the rate of Rs.700/-per labour. No formal notice to the contractor for deploying the Railway's labour will be necessary. The spot decision of Railway's representative will be final and binding on the contractor. Non-adherence to the instructions of the Engineer-in-Charge or his authorized representative may lead to imposition of penalty or termination of contract. The decision of the Railways shall be final & binding upon The Contractor.
4.1.7	It is responsibility of the contractor to keep all P.Way tools and plants in safe custody after day's work.

4.1.8	Men required for the track protection shall be arranged by the Railways free of cost. However, look out men to warn the contractor's labours for approaching trains on line where they are working and also on adjacent lines shall be kept by the contractor himself. No additional payment shall be made to the contractor in this regard.																																																
4.1.9	<p>The contractor should have with him following tools and plants in adequate numbers depending upon quantity of work and daily progress. However, contractor shall have minimum of tools and plants as indicated against them.</p> <table> <tr> <td>1. Hydraulic Jim Crow suitable for 52Kg/60Kg 90UTS Rails-</td><td>1Nos.</td></tr> <tr> <td>2. Abrasive Rail cutting machine</td><td>- 2Nos.</td></tr> <tr> <td>3. Hydraulic Tensor</td><td>- 1Nos.</td></tr> <tr> <td>4. Rail drilling machine</td><td>- 2Nos.</td></tr> <tr> <td>5. Non-infringing lifting jacks (Hydraulic/Mechanical)-</td><td>4Nos.</td></tr> <tr> <td>6. Rail dollies</td><td>- 6Nos.</td></tr> <tr> <td>7. Rail Tongues</td><td>- 20Nos.</td></tr> <tr> <td>8. Crowbars</td><td>- 30Nos.</td></tr> <tr> <td>9. Beaters</td><td>- 150Nos.</td></tr> <tr> <td>10. Ballast Screens</td><td>- 100Nos.</td></tr> <tr> <td>11. Rake Iron Ballast</td><td>- 50Nos.</td></tr> <tr> <td>12. Hand Punjas</td><td>- 150Nos.</td></tr> <tr> <td>13. Gauge cum level</td><td>- 2Nos.</td></tr> <tr> <td>14. Versine Measuring Kit</td><td>- 1Nos.</td></tr> <tr> <td>15. Wooden rammers</td><td>- 6Nos.</td></tr> <tr> <td>16. Wooden mellet</td><td>- 10Nos.</td></tr> <tr> <td>17. Rollers</td><td>- 110Nos.</td></tr> <tr> <td>18. Rail Thermometers</td><td>- 1Nos.</td></tr> <tr> <td>19. Fish bolts/Rail Screw Spanner</td><td>- 4Nos.</td></tr> <tr> <td>20. ERC applicators</td><td>- 1Nos.</td></tr> <tr> <td>21. T-Square</td><td>- 2Nos.</td></tr> <tr> <td>22. Mortar Pan</td><td>- 100Nos.</td></tr> <tr> <td>23. Gas cutting equipments</td><td>- 1Nos.</td></tr> <tr> <td>24. Chamfering Equipment</td><td>- 1Nos.</td></tr> </table>	1. Hydraulic Jim Crow suitable for 52Kg/60Kg 90UTS Rails-	1Nos.	2. Abrasive Rail cutting machine	- 2Nos.	3. Hydraulic Tensor	- 1Nos.	4. Rail drilling machine	- 2Nos.	5. Non-infringing lifting jacks (Hydraulic/Mechanical)-	4Nos.	6. Rail dollies	- 6Nos.	7. Rail Tongues	- 20Nos.	8. Crowbars	- 30Nos.	9. Beaters	- 150Nos.	10. Ballast Screens	- 100Nos.	11. Rake Iron Ballast	- 50Nos.	12. Hand Punjas	- 150Nos.	13. Gauge cum level	- 2Nos.	14. Versine Measuring Kit	- 1Nos.	15. Wooden rammers	- 6Nos.	16. Wooden mellet	- 10Nos.	17. Rollers	- 110Nos.	18. Rail Thermometers	- 1Nos.	19. Fish bolts/Rail Screw Spanner	- 4Nos.	20. ERC applicators	- 1Nos.	21. T-Square	- 2Nos.	22. Mortar Pan	- 100Nos.	23. Gas cutting equipments	- 1Nos.	24. Chamfering Equipment	- 1Nos.
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4.2.1	The single rails and three rails panels shall be unloaded side ways from BFRs/BRNs by using ramps Made out of unserviceable rails. The longer panels shall be unloaded by "end-off loading" method.																																																
4.2.2	Utmost care shall be exercised in unloading rails ensuring that no damage takes place to rails.																																																
4.2.3	It shall be ensured that rails are unloaded fairly opposite to the position where they are to be laid first as auxiliary track and then finally in the track. It Is also to be ensured that the rails are unloaded in Such a way that shifting and re-handling is to the barest minimum.																																																
4.2.4	The unloaded rails/panels shall be carefully stacked on a level base, care being taken to prevent formation of kinks. The rails/panels shall be on its foot. Any damage occurring to rails shall be Recovered from the contractor.																																																
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4.3.1	Contractor shall make his own loading/unloading frame (Gantry) for loading/unloading the sleepers to/from Railway wagons. The Contractor shall have to commission required numbers of gantry (as instructed by Engineer-in-Charge or his authorized representative), for unloading/loading of sleepers, at the nominated Railway Loop Line/Siding/Shunting Neck within 15 days from the date of intimation by Railway. A penalty of Rs.10,000/- (Rupees Ten Thousands Only) per day per gantry shall be levied for non-commissioning of gantry at the nominated Railway Loop Line/Siding/Shunting Neck beyond 15 days from the date of intimation. Non-commissioning of communicated numbers of gantry at the nominated Railway Loop Line/Siding/Shunting Neck beyond 30 days from the date of intimation may lead to Determination of Contract as per provisions of GCC. The Contractor shall have to make arrangements for deployment of adequate numbers of Hydra, JCB, Hyva, Dumpers, Poacilin etc. to assist & carryout works to facilitate unloading/loading of sleepers as per instructions of Engineer-in-Charge or his authorized representative. The decision of Railway in this regard shall be final & binding upon the Contractor. Non-deployment of intimated																																																

	Machinery at the nominated Railway Loop Line/Siding/ Shunting Neck beyond 15days from the date of intimation may lead to Determination of Contract as per provisions of GCC.
4.3.2	The unloading of released sleepers shall start immediately after placement of wagons in TRT/PQRS siding if placed in day time or in night. The wagons shall be released within the free time permitted by the Railway as per rule enforced. In case of delay, on contractor's account he will be responsible for payment of demur rage charges finalized by the Railway. The amount will be recovered from the running bills. Upon issuance of instructions from Engineer-in-Charge or his authorized representative, the contractor must deploy the mandated number of labourers and/or number/type of machinery for the work instructed by the Engineer-in-Charge or his authorized representative at one or multiple locations. The decision of the Railways shall be final & binding upon the Contractor. Non-adherence to the instructions of the Engineer-in- Charge or his authorized representative may lead to imposition of penalty or termination of contract. The decision of the Railways shall be final & binding upon the Contractor.
4.3.3	Contractor should remove any infringement from the sides of the wagons as per the directives of the Engineer-in-Charge or his authorized representative in order to allow free movement of TRT/PQRS portal.
4.3.4	Stacking of sleepers shall be done at the nominated place in layers. No damage shall take place to any sleeper while unloading and stacking. In case of any damage, the cost of damage at the rate of Rs.3300/- per sleeper shall be recovered from contractor's bill.
4.3.5	The sleepers shall be stacked in such a way that it does not infringe the movement of TRT/PQRS portals/mechanical gantry.
4.3.6	The contractor shall maintain the auxiliary tracks in the TRT/PQRS depot yard in satisfactory condition.
4.4	FABRICATION OF PANELS:
4.4.1	The shifting of the PSC sleepers from the stacks will be done by the contractor with his labour, tools & plants and equipment etc. complete. Loading of fabricated panels into TRT/PQRS, BFRs shall be done by Portal/Suitable Machinery. The decision of the Railways shall be final& Binding upon the Contractor.
4.4.2	The sleepers shall be spread at a center-to-center spacing of 60 cms/65 cms depending upon the sleepers density of 1660/1540 sleepers per kilometer respectively with permissible variation of not more than 20 mm with respect to standard spacing. The service rails to be used for making panels should be in pairs of equal length. The first sleeper at either end of rail shall be at half spacing as specified above. The sleeper density will be decided by Engineer-in-Charge or his authorized Railway representative. The marking of sleepers position shall be done on rails with paint marks.
4.4.3	The contractor shall bring the required quantity of ERCs, MS/GFN liners, GR pads, etc. from SSE/JE/P.Way Store depot to TRT/PQRS depot with his own transport and use the min fabricating of panels
4.4.4	The eyes of the MCI inserts of PSC sleepers shall be cleaned thoroughly by brush and other means. Contractor shall be apply his own bituminous anticorrosive paint of approved quality and grease graphite confirming to specifications IS:-408-1981Grade“O”inside the eyes of MCI insert and middle leg of ERC before fastening rail and sleeper.
4.4.5	The fabricated panels may be stacked in layers at nominated locations (to be communicated by Engineer-in-Charge or his authorized Railway representative) in such a way that it does not infringe the movement of TRT/PQRS portals/mechanical gantries. The panels shall be loaded into BFRs as soon as same are placed in loading position. The numbers of panels fabricated and loaded in to BFRs shall not be less than the number of panel likely to be laid in track as decided By Engineer-in-Charge or his authorized Railway representative.
4.4.6	The fabrication of panels and its loading into TRT/PQRS, BFRs shall be done round the clock so that it is possible to work daily in the block. The contractor should make lighting arrangement and labours in different shifts to facilitate 24 hour working.
4.5	LOADING/UNLOADING OF FABRICATED/RELEASED PANELS:
4.5.1	Unloading of released sleepers/panels brought from the section shall be done immediately after placement of TRT/PQRS, BFRs in depot. It should be ensured the tempty BFRs are available

	for loading back the fabricated panels immediately for next block working. Loading of new sleepers/panels must commence at the earliest & must finish well in advance before next block timings so as to keep sufficient margin for shunting of TRT/BRNs/Wagons etc.
4.5.2	Unloading may have to be carried out in the night also in case the same could not be completed in day time or if the TRT/PQRS, BFRs with released panels are placed in night. To facilitate the night working contractor should arrange adequate lighting arrangement and labour in shifts.
4.5.3	The released panels shall be dismantled immediately after its unloading from the TRT/PQRS, BFRs and the released materials is stacked classification wise at nominated locations in the yard (locations to be decided by Engineer-in-Charge or his authorized representative). The fittings and fastenings shall be carried and handed over to the SSE/JE/P.Way Store depot.
4.6.	AUXILIARY TRACK:
4.6.1	Auxiliary track shall be laid with new/old 52Kg/60 kg rails/panels. In case of 52 Kg rails, CST- 9 plates may be used but for 60 Kg rails wooden blocks with bearing plates or sleepers or other suitable track fixture/assembly shall be used as per directed by Engineer-in-Charge or his authorized representative. Contractor will have to make wooden blocks from the Railways unserviceable wooden sleepers/CST-9/PSC at the nominated station whenever it could be made available by Railways and carry them to work site. He has to carry the required bearing plate, CST-9 plates, keys, plate's screw etc. from SSE/JE/P.Way store to work site in case the new rail panels are not available, AT have to be made by other sections of SH rail.
4.6.2	The center line of auxiliary track should be same as that of the existing track.
4.6.3	The rail level should be same that of the existing track rail level.
4.6.4	The contractor should maintain line and level of the auxiliary track satisfactory so that the TRT/PQRS portals can travel with maximum permissible speed during the actual operation of track relaying in the block period.
4.6.5	The required fish plate and fish bolt/clamp for making auxiliary track for the required length shall be brought by the contractor from SSE/JE/P.Way Store.
4.6.6	The auxiliary track should be dismantled immediately after the relaying work is completed by TRT/PQRS and the released PSC/CST-9 plates/wooden blocks along with bearing plates, keys, fish plates and fish bolts/clamps should be taken to the next location by the contractor for making the further auxiliary track.
4.6.7	Minimum 500m auxiliary track should always be available for actual relaying by TRT/PQRS.
4.7	CUTTING OF EXISTING SWP/LWR/CWR TO SINGLE RAIL:
4.7.1	Contractor should convert the existing SWR/LWR/CWR in to single rail by his own abrasive rail cutting machine, ahead of TRT/PQRS relaying as per instructions of Engineer-in-Charge or his authorized Railway representative.
4.7.2	The length of a single rails will be 13/13.2 meters or as decided by Engineer-in-Charge or his authorized Railway representative.
4.7.3	The location of cut shall be marked by thin paint line on the outside of rail face by the contractor under the direction of Railways representative. The fish bolt holes shall be drilled in the rail as per template at correct location with contractor's own drilling machine, prior to the Rail cutting.
4.7.4	Contractor shall collect the fish plates and fish bolt initially required from SSE/JE/P.Way store depot and carry them to the work site. He should subsequently bring the fishplate and fish bolts from the released location after rail renewal. The fishplates should be fixed immediately after the rail is cut.
4.8.	LAYING OF PRE-ASSEMBLED PANELS:
4.8.1	The joint inventory of existing P.Way material available in the track should be taken by the contractor and SSE/JE/P.Way of the section prior to the actual commencement of the relaying work. The joint inventory of P.Way material may be taken one kilometer length of track at a time. The contractor will be responsible for safeguarding of the material till it is handed over to SSE/JE/P.Way at TRT/PQRS store depot as released material. For any shortage, contractor will be fully responsible and the cost of short P.Way material as per rule enforced will be recovered from his bills.

4.8.2	Railway TRT/PQRS portals, operator, consumables and its maintenance will be arranged by the Railway free of cost.
4.8.3	While lifting the existing panels from the track, if any sleeper or fitting is fallen same should be Put by the contractor in TRT/PQRS BFRs.
4.8.4	Any work which can be done safely prior to the actual commencement of relaying panels by TRT/PQRS in traffic block, may be done by the contractor in presence of the Railway authorized representative. Prior to doing so, he should obtain written permission from Engineer in Charge or his authorized representative clearly mentioning the type of work and safety Precautions to be taken.
4.8.5	The cutting of rail to provide the closure rails if required at the time for closing the work shall normally be done by abrasive rail cutting machine. However, in emergencies to restore the traffic in time rail may be cut by gas.
4.8.6	Proper ramp between the new track and old track shall be given as per provisions of IRPWM (up-to-date) be foreclosing the work and allowing the train traffic.
4.9.	RAIL RENEWAL:
4.9.1	All Rail panels shall be checked and identified for any permanent kinks. These permanent kinks should be removed with contractors own hydraulic Jim Crow before rail renewal.
4.9.2	The elastic rail clips shall be removed and re-fixed using clip applicator only or as instructed by Engineer in Charge or his authorized representative.
4.9.3	It should be ensured by the contractor that rail sits properly on sleepers and all fittings are put correctly to have uniform gauge. The sleeper to sleeper variation of gauge shall not be more than 2mm.
4.9.4	The contractor shall bring the required fish plates and fish bolts/clamps from SSE/JE/P.Way store.
4.9.5	The fishing surface of rail and fishplates should be greased before putting the fishplates in position. For this contractor should use his own stiff paste of plumb ago (graphite) and kerosene oil in the specified proportion for fishing planes. Black oil or reclaimed oil may be used for fish bolts and nuts.
4.9.6	Grease shall be applied on outer gauge face of the rail incurves immediately after rail renewal and before passage of the first train. The grease shall be arranged by contractor at his own cost.
4.9.7	The rail renewal shall closely follow the TRT/PQRS relaying if AT is made with new rails.
4.9.8	The contractor should immediately connect the electrical bonds after the rail renewal in electrified territory by doing holes in the rails of required dia.
4.9.9	After rail renewal and removing there lease derails, the ballast should be dressed so as to give LWR profile.
4.9.10	After renewal there leased rails to be stacked clear of the cess as directed by the Engineer in Charge or his authorized representative.
4.10	LEADING OF RELEASED RAILS:
4.10.1	The released rail after rail renewal should be carried to TRT/PQRS working location with the help of rail dollies and placed over the panels which are to be lifted to TRT/PQRS. Maximum four rails shall be placed on one panel.
4.10.2	The released rails shall be unloaded and stacked properly at TRT/PQRS depot by the contractor. The serials then shall be handed over to SSE/JE/P.Way.
4.11	HOLE DRILLING
4.11.1	<ol style="list-style-type: none"> 1. All holes drilled on fish plates shall be chamfered with contractors own chamfering tool. 2. Template shall be used for marking the correct location of the hole. 3. The diameter of the hole shall be 32mm for 52Kg and 60Kg rail and 28mm for 90R. 4. Holes shall be drilled. No punching or reaming/drilling shall be permitted.

Sl.No.	Description
4.12	DEEP SCREENING (MANUAL)
4.12.1	The Engineer-in-Charge or his authorized representative shall decide the final longitudinal section after the existing rail level at every 30meters, at changes of grades, obligatory points like culverts, bridges, over line structures, tunnels, level crossings, signal gantries and points and crossings etc., and plot it on graph paper or in computer. The contractor will be given the final longitude in al section having the final rail levels. He shall carry out the deep screening with respect to the final rail levels. The rails levels shall be recorded jointly in presence of the Contractor or his authorized representative.
4.12.2	The depth of deep screening from the existing rail level and amount of lifting will be decided by the Engineer in Charge or his authorized representative and the contractor has to carry out the work accordingly. The general consolidated ballast cushion of 300mm should be made available in final stage.
4.12.3	Pegs shall be provided by the contractor at interval of 30meters on cess to indicate the final rail levels.
4.12.4	The screen to be used for screening the ballast shall have an square mesh of opening 20mm and The screen size shall be 1200x900mm.
4.12.5	<p>The length of stretch taken up for deep screening on particular day shall be completed without leaving any non-deep screened patch. A day's length shall be deep screened as per the procedure detailed below.</p> <p>Stage I: The ballast should be removed from space 'A' and 'B' on either side of sleeper 'I' down to the final formation level or to the depth as specified by Engineer in charge or his authorized representative and wooden blocks provided to support rail for passing trains.</p> <p>Stage II: The ballast is removed from under sleeper 'I' down to final formation lever/predetermined level.</p> <p>Stage III: The ballast should then be screened and placed it under sleeper 'I' which should be packed.</p> <p>Stage IV: The wooden blocks from space 'A' should then be removed.</p> <p>Stage V: The ballast from space 'C' down to formation level should be removed and after screening be placed in space 'A' up to bottom of sleeper. The balance may be taken outside the track and screened. The rail in space 'C' should be supported with wooden blocks.</p> <p>Stage VI: The ballast should be removed from under sleeper '2' down to formation level or to the depth as specified by Engineer in charge or his authorized representative.</p> <p>Stage VII: Screened ballast should be provided under sleeper '2' and sleeper well packed.</p> <p>Stage VIII: The ballast from space 'D' down to formation level or to the depth as specified by Engineer in charge or his authorized representative should be removed and after screening be placed in space 'B' up to bottom of sleeper, the balance may be taken outside the track and screened. He wooden blocks should have be removed from the space 'B' and placed to support the rail in space 'D'.</p> <p>Stage IX: The ballast from under sleeper '3' should be removed and so on till the whole rail length is provided with screened ballast up to level of the bottom of sleepers.</p> <p>Final Stage: The track should be lifted to final rail level to provide additional cushion where required. The track should be packed to make iot fit for passage of train traffic.</p>
4.12.6	It shall be ensured that when ballast is being removed from any sleeper, in variably there are at least 4fully supported sleepers between it and the next sleeper worked upon. Lifting shall be Limited to 50mm at a time.

Sl.No.	Description																								
4.12.7	It shall be ensured that packing cross levels and grade run off are satisfactory, as per provisions of IRPWM (up-to-date) before closing the day’s work.																								
4.12.8	<p>The final rail level as per the predetermined longitudinal section shall be achieved before introduction of machine packing. The final rail level shall be achieved generally on third day from deep screening and track is made fit for machine packing, so that the speed restrictions does not prolong for a longer duration. For introduction of machine packing of the track, following track geometry shall be achieved by the contractor.</p> <table><tr><th>Sl.No.</th><th>Parameter</th><th>Criteria</th><th>Permissible limit</th></tr><tr><td>1.</td><td>Gauge</td><td>Sleeper to sleeper variation</td><td>Not more than 2mm</td></tr><tr><td>2.</td><td>Spacing of sleepers</td><td>With respect to theoretical spacing</td><td>20mm</td></tr><tr><td>3.</td><td>Alignment</td><td>On straight on 10 meter chord. On curves of radius more than 600 meter on 20 meter chord variation over theoretical versines On curves of radius less than 600 meter on 20 meter chord variation over theoretical versines</td><td>2mm Not more than 5mm Not more than 10mm</td></tr><tr><td>4.</td><td>Longitudinal level</td><td>Variation in longitudinal level with reference to approved longitudinal sections</td><td>Not more than 50mm</td></tr><tr><td>5.</td><td>Ballast cushion</td><td>With respect to desired cushion</td><td>25mm</td></tr></table>	Sl.No.	Parameter	Criteria	Permissible limit	1.	Gauge	Sleeper to sleeper variation	Not more than 2mm	2.	Spacing of sleepers	With respect to theoretical spacing	20mm	3.	Alignment	On straight on 10 meter chord. On curves of radius more than 600 meter on 20 meter chord variation over theoretical versines On curves of radius less than 600 meter on 20 meter chord variation over theoretical versines	2mm Not more than 5mm Not more than 10mm	4.	Longitudinal level	Variation in longitudinal level with reference to approved longitudinal sections	Not more than 50mm	5.	Ballast cushion	With respect to desired cushion	25mm
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4.12.9	The deep screening should closely follow the TRT/PQRS relaying/rail renewal, so that the stretch of speed restrictions of 20 kmph do not lengthen.																								
4.12.10	The cess shall be redressed up to the edge of the formation in the same slope, as before, irrespective of the width of the formation.																								
4.13	LOADING OF RELEASED MATERIAL:																								
4.13.1	The released material like rails and sleepers shall be loaded into wagons within the free loading time all owed by the Railways. In case the contractor takes more time, then he has to pay demurrage charges as per the rules enforced at that time. The demurrage charges will be recovered from his bills. Upon issuance of instructions from Engineer-in-Charge or his authorized representative, the contract or must deploy the mandated number of labourers and/or number/type of machinery for the work instructed by the Engineer-in-Charge or his authorized representative at one or multiple locations. The decision of the Railways shall be final & binding upon the Contractor. Non-adherence to the instructions of the Engineer-in-Charge or his authorized representative may lead to imposition of penalty or termination of contract. The Decision of the Railways shall be final & binding upon the Contractor.																								
4.14	UNLOADING OF BALLAST FROM RAILWAY WAGONS:-																								
4.14.1	<p>1. The ballast shall be spread manually as per requirement in track immediately after unloading the same from Railway wagons.</p> <p>2. The contractor shall keep minimum 10 labours on each non hopper type of wagons for unloading. In case of non-hopper type of wagon, all wagons should be tackled at one time.</p>																								
4.15	FABRICATION OF CHECK RAIL:																								
4.15.1	Contractor shall fabricate the check rail from there leased 90R/52Kg rails as per Railway approved drawing. The flange of the check rail shall be shaped by machine in the workshop or as per instructions of Engineer-in-Charge or his authorized Railway representative. The contractor will be given the rails, shall make arrangement for its transportation to workshop and bring back the prepared check rail to work site. The drilling of holes shall be also be done by machine or as Per instructions of Engineer-in-Charge or his authorized Railway representative.																								

4.15.2	Contractor shall fabricate MS brackets as per the Railway's approved drawing.
4.15.3	The paint to be applied on running rail and check rail within the level crossing portion shall be conforming to BIS.
4.16.	REGISTERSTOBEMAINTAINEDATSITE: Following registers and the information under various heads in the given proforma shall be maintained by the SSE/JE/P.Way jointly with contractor at work site.
4.16.1	Site order book: Sl.No., Date, Detail orders & signature of Engineer in charge or his authorized representative, signature of contractor, compliance date, remarks.
4.16.2	TRT/PQRS Depot Register: Following details shall be maintained in separate pages of the register:
4.16.3	Sleeper unloading detail: Sl. No., Date and Time of receipt of sleeper rake, type of wagons, Wagon No., Nos. of sleepers, placement date and time in TRT/PQRS siding, Nos. of labours engaged, unloading time and date, Nos. of sleepers damaged, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.4	Panel fabrication details: Sl.No.,Date,Nos of panel fabricated, cumulative progress, Nos of labours engaged, time of Placement of TRT/PQRS rake in siding, completion time of loading panels, signature of the SSE/JE (P.Way), signature of contractor, remarks.
4.16.5	Panel unloading and dismantling details: Sl. No., Date, Time of placement of TRT/PQRS, BFRs with released in siding, Nos of labours engaged, date & time of unloading released panels, time and date of dismantling, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.6	TRT/PQRS train formation details: Sl.No.,date, completion time of loading panels, time of train ready to go in block, reason for delay if any, signature of SSE/JE (P.Way), signature of contractor, remarks.
4.16.7	Loading of released material details: Sl.No., date & time of placement on empty wagons, date and time of loading completion, total time taken, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.8	Field Register: Following details shall be maintained in separate pages of the register.
4.16.9	Rail unloading details: Sl. No., date of receipt of rail rakes, quantity, date of unloading, block period and duration, Nos of panels unloaded, Nos. of labours engaged, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.10	Auxiliary track laying details: Sl.No., Date, location, length of auxiliary track laid, cumulative progress, number of labours engaged, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.11	Relaying of panels details: SL No., date, traffic block period & duration, departure time of TRT/PQRS train from station arrival time of TRT/PQRS train at work spot, departure time from block, arrival time in station number of panel laid, cumulative progress, Nos of labour engaged, time of track certificate, time of passage of first train, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.12	Rail renewal details: Sl.No.,location,date,dateofsleeperrenewalbyTRT/PQRS,progress,cumulativeprogress, Nos. of labour engaged, signature of theSSE/JE(P.Way), signature of contractor, remarks.
4.16.13	Released rail transportation details: Sl.No., date, Nos of rail carried and loaded byTRT/PQRS portal, signature of the SSE/JE(P.Way), signature of contractor, remarks.

Sl.No.	Description
4.16.14	Deep screening details: Sl. No., location, date of deep screening, Nos of labour engaged for DS, progress of DS, cumulative progress of DS, signature of the SSE/JE(P.Way), signature of contractor, DATE OF LIFTING, Nos of labour engaged for lifting, progress of lifting, cumulative progress, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.15	Machine packing details: Sl. No., location, Date of DS, date of first packing ,date of second packing, date of third packing, date of final dressing of ballast, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.16	Ballast unloading: Sl.No., date, wagons, number and type, quantity of ballast unloaded, period and duration of Traffic block, Nos. of labour engaged, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.17	Rail cutting details: Sl.No., date, location No., CR cuts made, Nos of holes drilled, Nos of labour engaged, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.18	Destressing of LWRdetails: Sl. No., date, LWR No. & location, destressing temperature, period and duration of destressing,Nos. of labours engaged, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.19	Curve re-alignment details: Sl.No., location, date, curve No., station No., existing versine, proposed versine, amount of slew, Nos. of labour engaged, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.20	Speed restriction chart:
4.16.21	Recovery Register: Recovery Register in which all details shall be maintained.
4.16.22	Joint inventory details: Sl.No., date of inventory, location, type of material existing in the track, quantity, signature of the SSE/JE(P.Way), signature of contractor, date of handling over the released materials, shortage of materials, cost of the short receipt material, recovery particulars, signature of the SSE/JE (P.Way), signature of contractor, remarks.
4.16.23	Sleeper damaged details: Sl. No., date of damage of sleepers, number of sleeper damaged, reason for damage, cost of damaged sleepers at the rate of 3300/- per sleeper, recovery particulars, signature of the SSE/JE(P.Way), signature of contractor, remarks.
4.16.24	Night block working details: Sl.No.,date, block duration & period, type of work done, progress of work, reason for night working, signature of the SSE/JE(P.Way), signature of contractor, remarks
4.16.25	Track parameter register.
4.16.26	Level book, existing & final'L'section.
4.17	Sleepers spacing marks are to be painted on the rails by contractor with his white paints as per Directions of Engineer-in-Charge or his authorized representative.
4.18	Adjusting the alignment longitudinal & cross levels of track to bring the track parameters within Specified tolerance on curved track, the curve should be sleeved to proper alignment as per the directions of the Engineer-in-Charge or his authorized representative.
4.19	Spreading and boxing of ballast will include the following items of works:
4.19.1	Pulling all the ballast on the formation of the track by ballast rakes and boxing it to approved profiles proper template and long lines should be used. The width at the shoulder should be as directed by the Engineer-in-Charge or his authorized representative which will be as per Provisions of IRPWM (up-to-date).

4.19.2	If ballast is required to make up deficiency, the same will be unloaded at site by ballast train arranged by the Railway Administration.
4.19.3	No ballast should be spread on the slopes of banks or kept on toe of cuttings.
4.20	Upon issuance of instructions from Engineer-in-Charge or his authorized representative, the contractor must deploy the mandated number of labourers and/or number/type of machinery for the work instructed by the Engineer-in-Charge or his authorized representative at one or Multiple locations.
4.21	In all cases, the decision of the Railways shall be final & binding upon the Contractor. Non-adherence to the instructions of the Engineer-in-Charge or his authorized representative may lead to imposition of penalty or termination of contract. The decision of the Railways shall be final & binding upon the Contractor.
4.22	Contractor shall have to supply one computer of make DELL/HP (One PC Desktop/Laptop) having configuration i.e. Intel Core i5/i7 processor 2400MHz GHZ or more, RAM capacity minimum 16GB, Hard Disk Drive (HDD) Type or Solid State Drive (SSD) and 23" diagonal full HD display, Wireless keyboard, Wireless optical mouse, Hard disk (HDD/SSD) capacity minimum 2 TB, Windows 10 or above, and minimum onsite (OEM) warranty 1 years, UPS/Power Backup, under the jurisdiction of DEN/II/Raipur for monitoring details of work, drawings, daily progress related to this work within one month from issue of LOA. No extra payment shall be made to contractor in this regard. Subsequent to supply, the computer shall be come property of Railway & the contractor shall have no right to use it for their purposes.

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