

## Special conditions

**Name of work: "VGLJ - CNB Section: - Provision of road under bridge (RUB) at km 1253/0-2 near bridge no. 1253/1 in between SSKI-ATA stations."**

### **1. Location of proposed work: -**

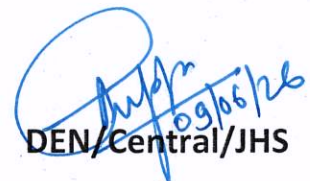
The scope of work in this tender shall consist of the trespassing location at km 1253/0-2 in JHS-CNB section under ADEN/CNB jurisdiction.

The work will mainly be executed at the location mentioned above as per approved drawing. However, the location of work can be shifted due to change in alignment or due to any other reason. No extra claim of payment shall be entertained on account of this. Railway reserves the right for shifting of such location.

### **Scope of proposed work**

(A) The work involves construction of subway at trespassing location between JHS-CNB section of North Central Railway by providing RCC box of required size as per approved GAD by HQ & the standard RDSO drawing.

1. Casting of RCC boxes as per approved drawing & shuttering arrangement for RCC structures as standard specifications and codes. The RCC box will be as per standard RDSO drawing or will be designed by contractor as per site conditions duly proof checked by IIT/NIT & submitted to railway & got approval from HQ (if required).
2. Designing & Casting of Thrust Bed.
3. Cutting of rails for the RH girder length on both end under block and remove shoulder/ crib ballast
4. Isolation and removal of track, to insert RH Girder in specified position, excavation of place for insertion of CC crib at its location.
5. After placing of RH girder in position, Air pushing of RCC box in segments as per approved GAD.
6. Maintenance, protection and rectification of track to ensure safe & smooth passage of railway traffic.
7. Removal of RH girder from existing track and place beyond any infringement to working Machinery and plants.
8. Construction of U-trough wall as per approved design and drawing by HQ. The design should be submitted by contractor proof checked by IIT/NIT to railway for HQ approval (if required).
9. Finishing work e.g. painting, parapet wall, bank protection, U-trough wall, toe wall etc .as per schedule.
10. Construction of Approaches of subways with cover over approaches.
11. Work may be carried out as per schedule of USSOR-2021 & CPWD DSR -2023 with applicable specification etc. & relevant NS item if any.

  
 DEN/Central/JHS

12. Payment of all items will be done as per SOR-2021 (based on AOR-2021) items and if there is duplicity in the activities in various items, deduction will be done as per the AOR-2021. Contractor shall not be entitled for any claim or compensation for payment. No plea shall be entertained on account of this.
13. Any other miscellaneous works required for successful completion of work as per schedule between JHS-CNB sections.

#### 14. Maintenance period: -

After successful completion of subway at site, contractor has to maintain the subway for a period of 4 year. No payment shall be made extra for this.

### **SPECIAL CONDITIONS OF CONTRACT FOR ONSTRUCTION OF LHS (BY AIRPUSHING METHOD)**

#### **Special Conditions for Air pushing of the box.**

- 1) Designing, casting of thrust bed.
  - 2) Casting and air pushing of the box.
1. Maximum water cement ratio and minimum cement content shall be as per mix design or mentioned in standard RDSO drawings/ HQ approved drawings.
  2. Work shall be executed with least disturbance to the Railways tracks and without causing any infringements to running tracks.
  3. The rate includes slewing of disturbed BG track to correct alignment, lifting/lowering of track under traffic condition if required arising out of Air pushing of RCC box and maintenance of track to required standards during the entire period of Air pushing.
  4. The rate is inclusive of necessary protection needed for safe passage of road traffic in case of Air pushing under road including provision of road traffic signals.
  5. Necessary precautions are to be taken to safeguard and avoid damage to signalling /communication /electrical /water pipeline or any other utility though the same will be shifted by the concerned authorities.
  6. Proper safety precautions and if required corrective measures are to be taken in case of damage to embankments including slopes during the execution of works for both railway and Road formation as applicable.
  7. The contractor has to submit detailed structural design and drawing of RCC thrust bed, pushing scheme in soft and hard copies as per programmed specified/approved by competent authority, for approval of Railways. If required necessary corrections/re designs to be done by contractor and resubmit both design and drawing for approval of railways. No separate payment will be made for the same.
  8. In case of Ready Mixed Concrete (RMC) is likely to be used for casting of RCC Box/boxes/thrust bed, the same to be approved by Divisional Engineer/Sr. Divisional Engineer/Dy. Chief Engineer, in-charge of work. No separate payment will be made for using RMC concrete.
  9. The work should be carried out under Traffic and power Block where applicable. Due to any reasons if block is not granted or cancelled at a later stage, no extra payment will be paid. Speed restriction will be arranged as



per the traffic movement; contractor will not be having any claim over it. The contractor has to keep his labour, machinery, equipment's etc at the site till the completion of work and as per the instructions of Engineer in charge.

10. Being safety and time bound period, suitable road crane capacity is required. Hence, mentioned road crane capacity as per approved pushing scheme submitted by contractor, shall be deployed for launching of RH girder. 1 no. stand by crane as per approved pushing scheme should be there in case of failure of crane & nothing extra is payable for.

#### **PARTICULARS OF WORK GENERAL FEATURES:**

The Tender is for construction of a RCC box by Air pushing method and the following works would form part of this contract as per the approved General arrangement drawings: -

- A. Arrangement of necessary plant and equipment like jacking line jacks, hydraulic pumps and other plant and equipment required for execution of this work.
- B. Casting of thrust bed as per Railway approved design and RCC box as per Railway's design and Air pushing including shoring or any other arrangement required to protect the earth slopes from sides or Railway embankment to the satisfaction of Engineer in charge and disposal of the excavated earth in the nearby available Railway land within maximum lead of 1 KM. The disposable earth will be utilized to improve cess work, widen the Railway embankment or to develop the circulating area.
- C. Pre-casting and curing of RCC box units.
- D. Jacking of pre-cast boxes to form the opening under running Railway traffic conditions. Air pushing work shall be done in the presence of Railway's supervisor not below the rank of JE. The contractor will further ensure that Air pushing will not disturb the Railway tracks and will be personally responsible for the safety of Railway traffic. Maintenance of track to the required geometry will be the responsibility of the contractor and the contractor is required to ensure this with labour trained in attending p-way with all tools and plant under the supervision of Railway supervisor.
- E. Providing 150mm thick C.C wearing coat on the floor of the box with design camber. Providing longitudinal drainage arrangements within the RCC boxes as per approved GAD/Decision of Engineer incharge.
- F. During the execution of work if any sub-soil water is met with, the contractor will make their own arrangements to bail out/pump out such water from the site and payment of this only will be made in respective USSOR item(s).
- G. Any unforeseen accumulated rainwater, during the progress of work, shall be bailed out/pumped out by the contractor free of cost and the rates quoted should include all these elements.
- H. This is an important project which shall be completed well within the stipulated period as mentioned in tender booklet as it is related to safety
- I. The work will mainly be executed at the location mentioned above as per approved drawing. However, the location of work can be shifted if the need arises. No extra claim of payment shall be entertained on account of this. Railway reserves the right for change of such location.
- J. The pushing scheme/TAD for the pushing of RCC box for each subway shall be prepared and submitted by

contractor in division and got approval from the HQ before pushing of RCC box at site.

- K. The work is to be executed as per the Railway's approved plan. GAD is only for general guidance & actual item to be operated shall be as per the tender schedule & site condition. Decision of Engineer-in-charge or his representative shall be final and binding on the contractor.
- L. The GAD is available in the Drawing Office of JHS division for reference. Tenderers are requested to visit the site of work before quoting their rates. Also, any update drawing/type plan circulated by the Division/Head Quarter office for the purpose of construction of bridge will also be applicable as per directions of Engineer-in-charge at site
- M. The tenderers should have an experience of successfully completion of such type of work/similar work (As mentioned in tender document) and should have capacity to complete the work. Tenderers are requested to submit documents in support of their credentials.
- N. Contractor shall take all care to avoid any damage to underground cables, telephone cable, OFC cables, water pipe lines, sewerage system etc. Any damage to the railway property on account of contractor's negligence shall be made good at contractor's cost.
- O. In case any ambiguity between special conditions and general standard condition, special conditions shall prevail.
- P. Any roof or branch of tree coming in the way of foundation/pile excavation etc. shall be cut/ trimmed by the contractor at his own cost. Necessary permission in regard to these shall be obtained. No extra payment shall be made.
- Q. Tenderer should submit his credentials along with Tender form, failing which his offer will not be considered.
- R. In case of any dispute arising out of the punctuation and or any typographical error in the schedule, the same will be corrected with reference to CPWD- DSR-2023 & USSOR-2021 of Indian Railway.
- S. Contractor will not be entitled for any claims if any of the items indicated in the schedule is not got done or not given to him.
- T. **Payment schedule for Concrete of RCC box & thrust bed:** - For item no. 024010, only 70% payment will be done for RCC box segments concrete after casting of RCC box segments and remaining 30% payment will be done after successful pushing of RCC box segments.
- U. **Payment for NS items for launching and De -launching of girder:** - The rates are inclusive of the completed operation for successful launching and de-launching of RH girder using contractor road crane as per the approved pushing scheme. Nothing shall be paid extra for the crane as it includes in the items. for the and fixing of track panel after removal of RH girder. The rates are inclusive of placing and removal of wooden/CC Cribs supports and other accessories for which no extra payment will be made. The payment under this item will be made for the weight of RH-Girder, Channel sleepers and Rails only. Hence, contractor should quote the rates accordingly.

#### **Time is the essence of contract.**

The contractor shall submit a Bar Chart/CPM/PERT chart within 15 days on award of the work for completing



the work within the completion period. Progress shall be maintained strictly in accordance with the programme submitted by the contractor in the said chart time to time and as accepted by the Engineer-in-charge.

### **Air Pushing of RCC Box segments**

1. It includes Air pushing of RCC Box segments as per the Railway's General Arrangement Drawing and providing the same under running Railway traffic conditions to correct level and alignment. All necessary arrangements of jacks, plants, equipment's, generator, and power arrangements as required shall be made by the Tenderer/s.
2. It will be the responsibility of the contractor to get the soil strata of the site of work checked. Soil strata shown in the GAD is only representative.
3. It includes designing of U-trough wall all as per site conditions including its foundation as approved by Engineer-in-charge with contractor's own design. Payment for shall be payable under relevant USSOR items.
4. It includes taking suitable precautions while Air pushing of RCC Box segments box under running Railway traffic to ensure that there is no disturbance to the overlaying track and there is no shift in the box either in the horizontal or the vertical direction.
5. This also includes provision of all temporary protection work as necessary for existing running Railway tracks and removing the same after completion of work. Decision of Engineer in charge regarding temporary protection work shall be final and binding to the contractor.
6. Air pushing of RCC Box segments shall be done as per approved pushing scheme by HQ submitted by contractor to division. Payment will be made under relevant NS item for the preparation and approval of pushing scheme.
7. Normally pushing of RCC Box segments activity during night is strictly prohibited unless until specifically ordered by the Engineer in charge in writing.
8. All the existing underground and overhead services such as pipelines, cable lines, telephone line etc. which may interfere shall be relocated or removed at a suitable place before or during the progress of work as directed by the Engineer-in-charge. Payment will be made under relevant USSOR item.
9. The contractor can be asked to remove any buried foundation or overhead of obstruction for which he shall be paid under relevant USSOR items.
10. Suitable speed restrictions as per the approved sanctioned drawing shall be imposed during the Air pushing of RCC Box segments work. The speed restriction shall be made available as per the running traffic conditions. If for want of traffic blocks or speed restrictions, the contractor/s work is delayed, the currency of the contract will be extended to the extent considered justified by the Railway. The contractor/s will have no claim whatsoever against the Railway on this account.
11. The contractor shall maintain a suitable gang of P-Way at his own cost during Air pushing of RCC Box segments and also during course of work of pre-cast RCC box to maintain the track in proper conditions i.e.in proper line and level. The maintenance of track covers packing of ballast, putting up of additional ballast



from nearby stacks including all lead and lift, proper spacing of sleepers and as directed by Engineer in charge. In case if the contractor fails to maintain the track as per IRPWM or as directed by Engineer in charge, the Railway shall deploy his own labourers for which the recovery shall be made as per extant Rules. The contractor has also to note that the gang deployed by him for maintenance of track shall be fully conversant with P-Way working. The contractor shall also depute competent technical staff, basing them at the site of work during the box pushing operation as well as during the period the box is in critical position vis-à-vis the track and extra attention is required in track maintenance. The decision of the box being in critical position rests with the Engineer-in-charge or his representative.

12. The rate considered in the tender is for box of any size and barrel length as per approved per drawing. The item includes all cost of labour, materials, plants, & machinery etc. complete in all respect as directed by Engineer in Charge including all protection and all temporary work & all required items for successful completion of the work.
13. **Preparation and submission of completion drawing of RUB:** The contractor has to submit the completion drawings of RUB. The drawings shall be prepared in AUTO-CAD and submitted in pen drive as soft copy as well as on reproducible tracing film of 75-micron double matt type of approved quality available in the market in of minimum size A1 indicating all the site details of completed RUB along with notes of specification etc. The rate includes for submission of completion plan of RUB and nothing extra will be paid for this work. However, if contractor fails to submit the completion drawing of RUB, recovery at the rate of Rs. 10000/- will be done from the contractor's final bill.

### Special Condition for working of road cranes

1. No machine shall be selected to do any lifting on a specific job until its size and characteristics are considered fit against the weights, dimensions, and radii of the heaviest and largest loads.
2. The contractor shall ensure that a valid certificate of fitness including working radius load chart etc. is available before use of Road cranes. This certificate must be produced before engineer or his representative.
3. The wire ropes, D-shackles, hooks and such other temporary arrangements used for lifting loads shall be in good shape, free wear and tear and shall not suffer from twist/permanent deformation etc. resulting in load carrying capacity. The permissible load on such arrangements shall be as per theoretical calculations with sufficient safety margins. All loads carrying arrangement shall be load tested to 50% overload on permissible load and shall not suffer any failure or permanent deformation during test. Such load test shall have been carried out within three months prior to the date of block. Engineer-in-Charge may permit the load carrying arrangements tested prior to this date to be used for work if the condition of such arrangement is satisfactory. If Engineer-in-Charge is not satisfied with the condition of such arrangements, the load test shall be carried out afresh.
4. Contractors can utilize the services of competent person for smooth execution of work, at his own cost.
5. All lifting appliances including all parts and gears thereof, whether fixed or movable shall be thoroughly examined before execution of work.
6. Contractor will ensure crane of appropriate capacity to suit the weight of precast slabs / box segment units for lifting and placing in bridge opening. It will be his responsibility to handle the box segment in proper



manner, Railways will not be responsible for any damage/injury to his labour, during the process of the box lifting and placing in position etc.

7. Contractor will have to make temporary approach road for approach of material and crane etc. whatever required for completing the work as per site condition, hence tenderer are requested to visit the site before quoting the rate.

### **Quality control for RCC and Mass CC works**

1. Generally, specifications as specified under new CPWD DSR/Indian Railway USSOR with updated correction slip if any, shall be applicable except those modified under these specifications.
2. The contractor shall have to submit the detailed design mix for M-20, M-30 and M-35 as included in the tender for the approval of Railway.
3. The rate quoted by the tenderer shall be deemed to include the work of Mass CC/RCC to all depth and lifts below/above the ground levels.
4. The rate quoted by the tenderer shall be inclusive of cost of all labour and materials like sand, aggregates, shuttering, and pipe for weep holes etc. for the successful completion of item in all respects.
5. Only machine crushed broken stone aggregate of size 6 mm to 40 mm and 6 mm to 20 mm shall be used. Proper grading of coarse aggregate as per mix design shall be ensured.
6. Protection works such as strutting, timbering, shoring, etc. required for the safe passage of trains shall be arranged by the contractor. The contractor shall have to get the temporary arrangements approved by the Engineer-in-Charge in advance prior to placing in position.
7. The contractor will maintain quality control charts at site of work, based on the test results, which should be made available to the inspecting officials on demand.
8. The Contractor/s will be required to exercise effective quality control over production, placement & curing of cement concrete/Reinforced cement concrete at site. He/they will ensure that work is carried out as per specifications laid down & as per relevant IS Code. No extra payment for this quality control will be admissible. The contractor shall submit the mix design done by NABL approved laboratory/reputed Government institution and get approved by the Engineer-in-charge before starting the concrete work.
9. Sample from fresh concrete shall be taken as per IS-1192 (1959) - "Method of sampling & analysis of concrete and cubes shall be made, cured and tested in accordance with IS: 516(1959) - „Method of test for strength of concrete". The Contractor/s shall arrange for testing of cubes in compression at his own cost in accordance with IS: 516(1959) in presence of the Engineer's representative. Latest standards/techniques or latest version shall be followed, if any. No extra payment for carrying out such tests will be made to the contractor.
10. For all concrete work, the aggregate will be tested as per standard tests prescribed to IS-2384 pt. I &
11. II, IS-383 to determine their properties and their grading. As far as possible, stock piling of aggregate shall be done in accordance with the standard practices to enable standard analysis being made of such batch that is brought to the site. The design of the mix will be carefully done from

representative samples of the aggregate. The preliminary test results along with analysis of aggregate and mix design calculations should be sent to Engineer for his approval.

12. The contractor will modify/carry out design mix to the satisfaction of the Engineer, if so required and get his final approval, such approval, is however, does not relieve the contractor of his responsibility and obligations regarding the minimum strength requirement. Latest standards/techniques or latest version shall be followed, if any.
13. No concreting shall be allowed till reinforcement and shuttering work are properly checked and okayed in writing by the Engineer's representative.
14. All concreting to be done for CC/RCC work shall be mixed mechanically by use of concrete mixture and properly compacted by use of vibrators.
15. Contractor shall ensure one stretch concreting during one shift of concreting. Any rest/pauses such as for meals etc should be adjusted accordingly with the consent of Engineer's representative.
16. During placing of concrete, free fall of concreting shall not be more than 1.25 m and concrete shall be cured to the satisfaction of Site Engineer. Removal of the shuttering of form work shall be done as IRS/IS: 456-2000 and in the presence of site Engineer & no patch repair & finishing of surface should be done without the approval of Engineer-in-Charge. The contractor at his own risk & expenses will do any such rectification. Any part of the CC / RCC structure which does not come up to the standard or is damaged during any operation of the work shall be fully made good by the Contractor at his own cost
17. Construction joint may be provided only after approval of Engineer-in-charge and will be prepared as under: - "All the laitance which has come on the surface will be removed by wire brushing before hardening of the concrete in such a manner that aggregates are exposed but not disturbed from their position. Surface should be cleaned by water jetting.
18. All controlled concrete shall be weigh batched. Concrete mixers with devices for automatic weighing facilities for aggregate moisture content in the aggregate shall be taken into consideration. Standard measuring boxes can be used after proper calibration for unit weight.

#### **Centering & Shuttering:**

The Contractor shall provide only approved type of form work as per IS 456-2000 or latest if any, preferably of steel and the same shall be got approved by the Railway before use in work.

19. Centering and shuttering for all major RCC & CC work, the contractors are required to design the shuttering and centering properly and submit his design with drawings for approval of Engineer. No concreting will be done unless such drawings have been approved by the Engineer.
20. All the joints between different shuttering plate and concrete surface shall be made watertight by application of sponge, compressible gaskets or any other materials approved by Railway.

#### **Curing of RCC/CC Work:**

Contractor will have to make sufficient arrangement for water required for curing purpose. Gunny bags/cement bags may be used for better curing.

#### **Reinforcement:**



1. Before concreting the RCC work, the Contractor's must sign the records of reinforcement used therein maintained by the Engineer's representative Any loose mill scale or loose or scaly rust must be completely removed before the reinforcement is placed in position. Sufficient number of concrete cover blocks of size equal to minimum cover specified in drawing shall be provided before placing the reinforcement in position. Quantity of reinforcement as required for the work will not be a matter of dispute for RCC work and no extra payment shall be made for using higher reinforcement will be admissible over basic RCC rate.
2. Guidelines for procurement of Steel Items in Railway projects/ Contracts as per Rly. Bd's letter No. 2007/CE-I/CT/8 dated 1st May 2012. "All Reinforcement Steel (TMT) and Structural Steel shall be procured as per specifications mentioned in BIS's document -IS: 1786 and IS: 2062 respectively. Independent tests shall be conducted, wherever required, to ensure that the materials procured conform to the specifications. Reinforcement steel should be procured as per list of approved vendors from RDSO.
3. Test certificates for steel before use as per latest relevant IS specifications will be furnished by the contractor at his own cost from the manufacturer or the NABL approved laboratories/reputed Govt. institutions.
4. Railway will also take sample during the course of work and get the steel tested to ascertain their conformity to the IS specifications at contractor's cost before a particular lot is put to use. Frequency of testing shall be as prescribed by relevant IS code.
5. Payment for steel reinforcement shall be made on the basis of standard unit weight per meter to the extent actually consumed on the work as per approved drawings and nothing extra will be paid for unauthorized over laps and wastage of steel involved in cutting the steel bars to their required sizes. Nothing extra will be payable for overweight steel and no deduction will be made for underweight steel within the limit of tolerances permitted as per IS: 1786-1985.
6. Steel having unit weights per meter not falling within the tolerances specified in above IS code shall not be accepted.

#### **Detailing of Reinforcement:**

Proper detailing of reinforcement is essential as any cracking caused by defective detailing of reinforcement accelerates corrosion. Importance shall be given to ensure proper drainage, water proofing of the surface with protective coating is necessary. The contractor shall make necessary arrangement for clearing and removing rust, etc. from reinforcement before the material are put to actual use.

#### **Binding Wire:**

All ends of binding wire (as per codal specification) shall be carefully turned inwards so that they do not project out of concrete to avoid rusting action. Annealed wires shall only be used as binding wire.

#### **CEMENT:**

1. Cement for use in the works will be procured by the contractor from the main producers or their

authorized dealers only.

2. Cement older than 3 months from the date of manufacture as marked on the bags shall not be accepted. Cement bags preferably in paper bag packing should bear the following markings.
  1. Manufacture's name.
  2. Registered trade mark of manufacture, if any.
  3. Type of cement.
  4. Weight of each bag in Kgs or nos. of bags/ton.
  5. Date of manufacture generally marked as week of the year/year of manufacture.
3. Quality test certificate for cement as per IS: 4031 codes shall be furnished by the contractor at his own cost from the manufacturer, before use of cement so supplied.
4. Railway may also take samples during the execution of works and get the cement tested to ascertain its conformity to the relevant IS specifications at contractor's cost before particular lot is put to use. Frequency of testing shall be as prescribed by the relevant IS codes. Following tests shall be carried out-
  1. Fineness
  2. Compressive strength.
  3. Initial and final setting time.
  4. Soundness
5. In case samples tested do not pass the quality tests conducted, the entire batch of cement supplied shall be rejected and not to be used by the contractor.

### **Testing and field laboratory:**

The contractor shall provide a field laboratory for testing of cement, fine aggregate, coarse aggregate and concrete cubes of all testing shall be carried out in presence of Engineer in charge or his representative. All the expenditure on this account shall be borne by contractor and no extra payment shall be made by Railway. The contractor shall get a percentage of samples tested from other approved NABL laboratories/reputed Govt. college as may be directed by Engineer in charge as confirmatory test without any extra cost. In the use of materials procured by the contractor, all physical/chemical testing as required by the codes and specifications shall be arranged by him/them at his/their own cost. The field laboratory must be well equipped to enable testing at site itself facilities of testing of size of aggregate, moisture content and bulk age of sand, slump test, and cube test of suitable capacity should be made available at field sites.

### **Removal of Rejected Material:**

Any filling materials (including stone), which are rejected by the Engineer for any reason before or after placing shall be re-excavated and removed from site at the contractor's expenses. Rate quoted by the tenderer shall be deemed to include the work Mass CC/RCC to all depth and lifts above/below Ground level.

### **SPECIAL CONDITION FOR TRACK WORKS**

1. Before starting track works, joint inventory should be prepared by the contractor along with SSE(Works/P-way) in-charge of the work for particular strip in which work is to be taken in hand



with in short period showing details of existing track & nature of replacement, showing quantity of requirement of new materials for replacement and released materials will be sent for record to AEN office and DRM office and one copy of it will remain with SSE/P-way and one copy will be kept by the contractor. Since this will be done along the track yard up to 2% variation in released keys and cotters and other small fittings will be permitted.

2. 60/52Kg sleepers will be inserted as per the norms of IRPWM/LWR manual.
3. Released material with fittings will have to bring back to the nearest station and stacked properly as per instruction of engineer in charge in countable condition.
4. Proper squaring of newly laid PRC sleeper with provision of rubber pad, elastic fastening like pandrol clips, liners will have to be provided with proper gauging, alignment of surfacing as per direction of engineer in charge.
5. No work shall be carried out without the presence of Rly supervisor's minimum of the rank of JE(Works/P-way) or PWM.
6. Safeguarding of the materials to be released from the track and new materials as taken from nearest Railway station to the site of work or the materials which will be supplied to the contractor from the PWI's and will cease his responsibility as soon as sorting and stacking in lots is completed in the PWI's depot or any other place as directed and verified by PWI's and Laying of new materials in the track is completed and surplus material handed over to the PWI's at his store / depot.
7. In case of any loss damage all shortage to any materials (Either released or New) from the custody of contractor, recovery will be made from the contractors will as per prevailing rates of disposal / procurement of such items by the railway depending upon the released or new material as the case may be.
8. Contractor shall ensure that all P-Way materials are properly used and no damage is done to P- Way materials new or released. In the event of any damage to P-way material contractor shall be responsible for damage.
9. Contractor shall be responsible for proper maintenance of track with in the restricted portion of length of track. Restriction will only be removed when track is fully maintained by contractor up to specifications and satisfaction of the engineer's representative in charge at site.
10. Before commencement of the work contractor along with his supervisors and labour should get clear cut "know-how" of the work from the Railway officials to avoid confusion during the progress of work.

### **Special condition for Contractor's Vehicles plying near Railway track**

- 1) PCE circular 103R must be followed to ensure safety at work site.
- 2) If any condition regarding safety is violated as per above, then following action may be taken against agency-
  - a. Incident of 1 time- Penalty of Rs. 50000/- will be imposed.
  - b. Incident of 2nd time- Penalty of Rs. 100000/- will be imposed.



- c. Incident of 3rd time- Railway may terminate the contract without any prejudice.
- 3) The contractor shall not allow any road vehicle belonging to him or his suppliers etc. to ply in Railway land next to the running line. If for execution of certain works viz. earthwork for parallel Railway line and supply of ballast for new or existing rail line gauge conversion etc. road vehicles are necessary to be used in Railway land next to the Railway line, the contractor shall apply to the Engineer-in-charge for permission giving the type and number of individual vehicles, names and license particulars of the drivers, location, duration and timings for such work/movement. The Engineer in charge or his authorized representative will personally counsel, examine and certify, the road vehicle drivers, contractor's flagmen and supervisor and will give written permission giving names of road vehicle drivers, contractor's flagmen and supervisor to be deployed on the work, location, period and timing of the work. This permission will be subject to the following obligatory conditions:
  - 4) Road vehicles can ply along the track after suitable cordoning off track with minimum distance of 6 m from the center of the nearest track. For plying of road vehicles during night hours, adequate measures to be communicated in writing along with a site sketch to the contractor/contractors' representative and controlling engineers/supervisors in charge of the work including officers and the in charge of the sections.
  - 5) Nominated vehicles and drivers will be utilized for work in the presence of at least one flagman and one supervisor certified for such work.
  - 6) The vehicles shall ply 6 m clear of track. Any movement/ work at less than 6m and upto minimum 3.5 m clear of track centre shall be done only in the presence of Railway employee authorized by the Engineer-in-charge. No part of the road vehicle will be allowed at less than 3.5 m from track centre. Cost of such Railway employee shall be borne by the Railway.
  - 7) The Contractor shall remain fully responsible for ensuring safety and in case of any accident, shall bear cost of all damages to this equipment and men and also damages to Railway and its passengers.
  - 8) Engineer in-charge may impose any other condition necessary for a particular work or site.
  - 9) The staff engaged by the contractor at site should be competent enough for the job. They should possess the certificate of competency certificate; necessary training will be arranged by the contractor at his cost by an expert to enable ADEN in-charge to accord permission for the job. Without a suitable competency certificate, the contractor's supervisors shall not be allowed to carry out concreting and earthwork.

### CODE OF PRACTICE

The work will be executed based on provisions in the following Codes and also the structural design to be submitted for launching, erection & temporary arrangements is to conform to the standard codes with the latest amendments till the date of tender. Any other codes, references made use of by the tenderers in execution/design shall be specifically brought out in their tender along with the results and advantages of the same including brief design calculations and plans.

A. **Indian Railways Bridges Rules:** -Rules specifying the loads for design of Super structure and sub-structure of bridges and for assessment of strength of the existing bridges including Chapter-VII of the Rules for the opening of a Railway- adopted - 1941 - Revised - August 1982 incorporating Correction Slips No.1 to 14 (Hereinafter referred to as the Bridge Rules).



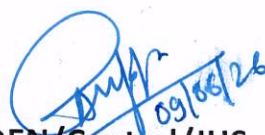
- B. **Indian Railway's Standard (IRS) Bridge Substructures and Foundation Code**-Code of Practice for the design of substructure and foundations of bridges-adopted 1936 - Revised – 1985 (Hereinafter referred to as "the Substructure Code").
- C. **IRS Concrete Bridge Code** - Code of Practice for Plain, reinforced and prestressed concrete for general bridge construction incorporating Correction Slips 1 to 14 and SI Units - adopted 1936 - Revised 1982 (hereinafter referred to as "the Concrete Bridge Code").
- D. IS-456-2000-Code of Practice for plain and reinforced concrete.
- E. IS - 800 - Code of Practice for use of structural steel in general building Construction (Revised) Eighth Re-print April 1977 (incorporation amendments No.1 & 2).
- F. Indian Railway Schedule of dimensions for Broad Gauge including correction slips.
- G. IRCIS-1995 Code of Practice for Grouting.
- H. IS13620:1993-Code for Fusion Bond Epoxy coating to reinforcement.

#### **Indian Railway Standard specifications/codes of practice**

1. Sub-Structure Code - 1962 together with latest amendments. Concrete bridge code - 1962 together with latest amendments. Indian Railway Schedule of Dimensions -1973 - 1676mm gauge.
2. Railways Unified standard Specifications (Works & Material) Volume – I & Volume-II (2010). IRS specifications B-1 and B-2 as per the latest version.

#### **Notes: -**

1. In the event of any difference of opinion in regard to any item of work not explicitly covered by specifications or Codes in or in regard to the interpretation of specifications including Codes, the directions and decisions of the Engineer in charge shall be final and binding on the successful tenderer. All such changes, modifications to designs and decisions shall not be entitled for any claim or compensation for payment. No plea of customs or usage shall be entertained. The tenderer should note that there may be changes after approval of design as per site conditions, which they are bound to carry out and comply with.
2. There may be changes in the design even during the construction stage or before completion of the work and the successful tenderer shall not be entitled for any claim or compensation on this account and shall be bound to carry out without additional liability as covered in agreement, such changes, modifications, revised designs as may be required to suit the completion of this work.
3. Decision of Divisional Engineer/Central) or his representative shall be final and binding to contractor.

  
 09/06/26  
**DEN/Central/JHS**