

## **CHECK LIST FOR SUBMISSION OF PROPOSAL**

Details to be submitted along with proposal:

- 1) Name of the sponsoring authority with complete address
- 2) Section of proposed ROB with respect to Railway telegraphic posts of OHE Masts.
- 3) Name of Railway Station on either side.
- 4) Level crossing gate No. if proposed for replacement with ROB/RUB.
- 5) Nomenclature of existing/proposed road i.e. NH or MDR or ODE etc. with name of towns on either side.
- 6) Width of proposed ROB with details of carriage way median and foot paths.
- 7) Angle of crossing of proposed ROB alignment with Railway track.
- 8) Alignment plan of proposed bridge and its approaches.
- 9) Longitudinal section of proposed approaches with reference to rail level ; and highest rack.
- 10) In case of road Under Bridges, clear headway required between road surface and bottom of girders.
- 11) Details of drainage arrangements in case of Road Under Bridges.
- 12) Details of temporary arrangements for passage of road traffic during the construction of bridge.
- 13) Details of authorized and unauthorized structures required to be dismantled for construction of ROB/RUB and its approaches.

Besides these site details, the sponsoring authority is also required to fulfill the following formalities in later stages:-

- i) Joint Inspection with Railway Engineers to establish feasibility of execution at site.
- ii) In case of Deposit Works, payment of 2% Plans and Estimate Charges (by other than State Governments after the feasibility is established
- iii) Commitment of funds for construction of ROB/RUB.
- iv) Certificate from collector for closure of level crossing which are proposed to be replaced with ROB/RUB.
- v) Acceptance of draft agreement for land acquisition and removal of encroachments from the site of ROB and its approaches.

## CHECK LIST FOR GAD

The GAD shall be prepared as per typical layout space allocation for different items. Sketch No. GM(W)BB/SK.R.23468 is enclosed. Following details are required to be shown in the GAD.

- 1) Site Plan:
  - i) North direction
  - ii) Railway TP or OHE Mast on either side of ROB.
  - iii) Level crossing gate number and class.
  - iv) Exact location of level crossing gate with respect to Railways TPs or OHE Mast.
  - v) Name of stations on either side of site of ROB.
  - vi) Nomenclature of road and name of villages/towns on either side of crossing.
  - vii) Width of existing road.
  - viii) Overall width of proposed ROB.
  - ix) Railway land boundary on both sides of track over a length of 50 meters on either side of proposed ROB.
  - x) Location of proposed abutment and piers.
  - xi) Location and approximate size of all structures, installations and signaling gears etc. which will need to be dismantled/resited.
  - xii) Marking of existing and future tracks.
  - xiii) Layout plan of temporary diversion of road traffic with details of temporary level crossing if necessary for execution of the work.
  - xiv) In case proposed ROB is to be constructed at some distance away from the existing level crossing causing inconvenience to pedestrian/light vehicle, than a FOB/light over bridge/sub-way may be provided for pedestrian/light vehicles at the existing location of level crossing.
  
- 2) Trial Pit details:
  - i) Type of strata met at different levels upto 3 meters.
  - ii) Trial pit shall be taken within the plan area at the proposed location of abutments and piers at the rate of 2 pits for each structure.
  - iii) Approximate bearing capacity of strata at different levels.

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Longitudinal section (elevation)

- i) Clear span and overall spans.
- ii) Tentative section of abutment and piers.
- iii) Type and depth of girder to be provided in super structure.
- iv) Thickness of slab and wearing coat.
- v) Type & size of bearings.
- vi) Ground level of location of abutments and piers.
- vii) Formation levels.
- viii) Existing tracks and future tracks.
- ix) Rail level of tracks indicating higher rail level.
- x) (a) Vertical clearance from the highest rail level to bottom of girder shall not be less than 5.87 meters for AC traction.  
(b) As per Railway Board's letter No:BB/WDO/SD/20 dated 15-10-86, the vertical clearance from the highest rail level to bottom of girder shall not be less than 6.25 meters where a speed of 160 Kmph. Is contemplated on the route and where points and crossing is situated within 40 meters from center line of ROB.

Note: The vertical clearance mentioned in (a) & (b) above should be further increased by 0.275 meters if the existing track is not laid on MBC sleepers.

- xi) Clear horizontal distance at rail level of abutment and piers from the nearest Centerline of track should be shown as minimum 4.135 meters and 3.090 meters respectively
- xii) Tentative foundation details. The excavation for the foundation at cuttings shall not cut into the base of track structure.
- xiii) In case of proposals for widening of existing bridges, the foundation details of existing ROBs/RUBs to be shown.
- xiv) Approach spans and their slopes.
- xv) Part length of road approach indicating whether made of solid or raised or stilts/columns.

4) Cross Section:

- i) The tentative length and height of abutments and piers.
- ii) Width of carriage way, median and foot paths.
- iii) Type and section of cross girders.
- iv) Side batter of abutments and piers.
- v) Details of thickness of return walls.
- vi) Type and size of bearings.
- vii) Size of bed block.
- viii) Anti-crash barriers and railings.

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- 5) Plans:
- i) The plans will be shown as half bottom and half top.
  - ii) Location of abutments and piers.
  - iii) Overall width of ROB, carriage way, foot paths & separators.
  - iv) Layout of wing walls and returns.
  - v) Angle of crossing and returns.
  - vi) Angle of crossing and skew angle.
  - vii) Batter dimensions in piers and abutments.
  - viii) Details of ramp for the use of pedestrians & light vehicles to be shown on plan and its detail arrangement of sub/ super structure with respect to railway boundary.
- 6) Enlarges Details: For any items which can not be lucidly shown in the plan will be enlarged and shown in this portion.
- 7) Notes:- This place is meant for listing out all the assumptions on which the particular drawing is based and reference to all specification and Codes as per which the work is required to be executed. A comprehensive list of notes is appended below:
- 1) All dimension are in millimeters and levels in meters unless written otherwise.
  - 2) Dimensions in rectangle are obligatory.
  - 3) No dimension shall be scaled from this drawing. Only written dimensions shall be followed.
  - 4) Proposed work shown in red, assets being dismantled to be show in green and future works/tracks to be shown in yellow in site plan.
  - 5) Actual location of ROB/RUB shall be decided by Engineer-in-charge, in consultation with road authorities at the time of its construction.
  - 6) Depth of foundation may be altered by Engineer-in-charge to suit the soil strata met with at site.
  - 7) Length of return walls may be altered ;by Engineer-in-charge to suit the site conditions.
  - 8) (a) Vertical clearance from the highest Rail level to bottom of girder shall not be less than 5.87 meter for A.C. traction.  
(b) As per Railway Board's letter No: BB/WDO/SD/10 dated 15/10/86, the vertical clearance from the highest rail level to bottom of girder shall not be less than 6.25 meters where a speed of 160 Kmph is contemplated on the route and where points and crossing is situated within 40 meter from centre line of ROB.

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Note:- The vertical clearance mentioned in (a) & (b) above should be further increased by 00.276 meter if the existing track is not laid on MBC sleepers.

- 9) Clear horizontal distance at rail level of abutments and piers from the nearest centre line of track should be shown as minimum 4.135 meters and 3.090 meters respectively.
- 10) Height gauge shall be provided on both sides of RUB at a height 50cm lower than underside of girder and at a distance of 20m from the face of RUB.
- 11) Guard rails to be provided as per standard drawing.
- 12) Shapes and sizes of PSC Girders, Neoprene Bearings, bearing pedestals, shown in the drawing are tentative and are subject to changes in final execution design.
- 13) Shapes and dimensions of abutments, piers pier cap, pier shaft and footings are tentative and are subject to changes in final execution design.
- 14) Weep holes in abutments and return walls and filling behind them shall be provided as per Drawing No. GM(W)BB/3005.
- 15) For details of pre-cast RCC parapet wall refer drg. No.GM(W)BB/5073 sheet No.1 & 2.
- 16) In case blasting is to be carried out in the vicinity of Railway line necessary precautions and block shall be observed as per para 3616 of IRPW Manual.
- 17) T.B.M. taken on \_\_\_\_\_ with value as \_\_\_\_\_.
- 18) Controlled cement concrete mix is to be provided mass concrete and for RCC work shall not be leaner than M-20 and M-25 respectively as per CE, C.Rly's circular No:W.133/BR/44/III dated 16.4.92.
- 19) Controlled cement concrete mix M-25 in RCC parapet wall, RCC deck slab, RCC Bearing pedestals, RCC column cap, RCC column, RCC tie beam, RCC pile cap and foundations shall be provided.
- 20) Controlled cement concrete M-20 in PCC abutment and pier.
- 21) Controlled cement concrete M-40 in PSC girders. (Stipulations under item no.1s 19,20 & 21 are subject to finalization of design.)
- 22) Drawing and design of approach span and approaches shall be decided by sponsoring authority as per Clause 217-3 of I.R.C. cods. The approach span shall not be smaller than 3.6m/ and shall cover entire road width.
- 23) Wearing coat of thickness 50mm at kerb and 100 mm at centre of road shall be provided by road authority and shall consist of asphalt ;concrete with 13 mm uniform seal coat.
24. Any other ;note as may be relevant to a particular bridge.