

**RESTRICTED**

(65)  
Headquarters  
Chief Engineer  
Project Beacon  
C/o 56 APO

750803/AA/CE's Power/ ) /Estg

10 Jul 2021

HQ 32 BRTF  
C/o 56 APO

**ADMINISTRATIVE APPROVAL**

**CONSTRUCTION/ IMPROVEMENT OF ALTERNATE ALIGNMENT OF BANDIPUR-GUREIZ (B-G) ROAD FROM KM 79.68 (NEW LOCATION KM 0.000) TO KM 84.125 (NEW LOCATION KM 3.706) TO NHSL WITH PAVED SHOULDERS SPECIFICATIONS AND CONSTRUCTION OF 85 MTR SPAN MAJOR PMT BRIDGE (MARKOOT) WITH STEEL SUPERSTRUCTURE (THROUGH TYPE) ON OPEN FOUNDATION OVER KISHAN GANGA RIVER AT KM 81.375 ON BANDIPUR-GUREIZ (B-G) ROAD INCLUDING LA & FC UNDER 56 RCC/32 BRTF/PROJECT BEACON IN J&K (UT)**

1. In pursuance of the financial and administrative powers delegated to Chief Engineer vide Govt of India, Ministry of Defence (BR Wing), D (BR-1), 'B' wing, 4<sup>th</sup> floor, Sena Bhawan New Delhi letter No MoD (BR) F.No.04/696/2015/D&P (BR-I) dated 11<sup>th</sup> Aug 2017, Item Ser No.2 of Annexure-I, I hereby issue the Administrative Approval and Expenditure Sanction for "Construction/ improvement of alternate alignment of Bandipur-Gureiz (B-G) road from Km 79.68 (new location Km 0.000) to Km 84.125 (new location Km 3.706) to NHSL with paved shoulders specifications and construction of 85 mtr span Major Pmt Bridge (Markoot) with Steel Superstructure (through type) on open foundation over Kishan Ganga river at Km 81.375 on Bandipur-Gureiz (B-G) road including LA & FC under 56 RCC/32 BRTF/Project Beacon in J&K (UT)" at estimated cost of **Rs. 2819.64 lakh (Rupees twenty eight crore nineteen lakh and sixty four thousand only)** as per details in the annexure to this letter.

(a)	Cost of Departmental work	-	Rs 1131.87 lakh
(b)	Cost of Execution contract	-	Rs 1087.15 lakh
(c)	Cost of Supply Contract	-	Rs. 42.35 lakh
(d)	Cost of LA	-	Rs. 539.91 lakh
(e)	Cost of FC	-	Rs. 18.36 lakh
	<b>Total</b>	-	<b><u>Rs. 2819.64 lakh</u></b>

2. The expenditure on the work is debitable to "MH 5054.02.337.03.00.53 Road Works OTNH".

3. The work has been assigned **Job No. 217/22 (BCN)** which may please be quoted in all future correspondence on the subject.

4. This issues with the concurrence of ACDA (P) Beacon vide Note No. VII & File No. ABC/185/Concurrence/Wks/ESTG dated 02 July, 2021.

*(Signature)*  
(I K Jaggi)  
Brigadier  
Chief Engineer

**Copy to:-**

1. HQ DGBR/West Dte, Seema Sadak Bhawan, Ring Road, Delhi Cantt, New Delhi-10.
2. HQ ADGBR (North West), Sector 48C, Chandigarh, PIN- 160047.
3. AO (P) Beacon, C/o 56 APO.

**RESTRICTED**  
**APPROXIMATE ESTIMATE**  
**PART-I**

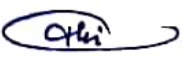
**Name of State :** Jammu and Kashmir

**Name of Unit/Project :** 56 RCC/32 BRTF/BEACON

**Name of work :** CONSTRUCTION/ IMPROVEMENT OF ALTERNATE ALIGNMENT OF BANDIPUR-GUREIZ (B-G) ROAD FROM KM 79.68 (NEW LOCATION KM 0.000) TO KM 84.125 (NEW LOCATION KM 3.706) TO NHSL WITH PAVED SHOULDERS SPECIFICATIONS AND CONSTRUCTION OF 85 MTR SPAN MAJOR PMT BRIDGE (MARKOOT) WITH STEEL SUPERSTRUCTURE (THROUGH TYPE) ON OPEN FOUNDATION OVER KISHAN GANGA RIVER AT KM 81.375 ON BANDIPUR-GUREIZ (B-G) ROAD INCLUDING LA & FC UNDER 56 RCC/32 BRTF/PROJECT BEACON IN J & K (UT)

S/ No	ITEMS OF WORKS	Cost of LA/ FC in (Rs)	85 Mtr span Markut Bridge (Rs)	FMN Works in (Rs)	PMT Works in (Rs)	SURF Works in (Rs)	Total in (Rs)
(A)	<b>Work Assessed as per SSR 2016</b>						
1	Cost of works	55826594.00	108715000.00	10095941.00	18404998.00	59160476.00	252203009.00
2	Road Lift Charges	-	-	166623.00	4803887.00	3679337.00	8649847.00
3	Extra TPT Charges	-	-	-	31569.00	58774.00	90343.00
4	Credit for PNR	-	-	-439900.00	-602585.00	-853120.00	-1895605.00
5	Deduct cost of material as per SSR 2016	-	-	-	-	-8459446.00	-6459446.00
6	Deduct cost of bridge as per Bridge SSR 2019	-	-108715000.00	-	-	-	-108715000.00
7	Credit for GP Tradesmen	-	-	-170814.00	-818833.00	-561617.00	-1551264.00
8	Cost of Proof Checking of Design/Drawings for Bridges upto 80.00-150.00 m Span is Rs. 30.00 lakh as per HQ DGBR letter No 32020/DGBR/POLICY/WORKS/81/East Dte dated 12 Feb 2015	-	3000000.00	-	-	-	3000000.00
	<b>Total (A)</b>	<b>55826594.00</b>	<b>3000000.00</b>	<b>9651850.00</b>	<b>21819036.00</b>	<b>55024404.00</b>	<b>145321884.00</b>
(B)	<b>Escalation Charges</b>						
1	Add Escalation Charges @ 15.44% during 2021-22, 2022-23 & 2023-24	-	-	1490246.00	3368859.00	8495768.00	13354873.00
	<b>Total (B)</b>	<b>-</b>	<b>-</b>	<b>1490246.00</b>	<b>3368859.00</b>	<b>8495768.00</b>	<b>13354873.00</b>
	<b>Total (A) + (B)</b>	<b>55826594.00</b>	<b>3000000.00</b>	<b>11142096.00</b>	<b>25187895.00</b>	<b>63520172.00</b>	<b>158676757.00</b>
(C)	<b>Following charges on (A + B)</b>						
1	Add @ 1% for Quality Control Charges	-	-	111421.00	251879.00	635202.00	998502.00
2	Add @ 5% for Physical Contingencies Charges	-	-	557105.00	1259395.00	3176009.00	4992509.00
3	Add @ 2% for Road Side Accn	-	-	222842.00	503758.00	-	726600.00
4	Add @ 1% for Labour Cess Charges	-	-	111421.00	251879.00	635202.00	998502.00
	<b>Total (C)</b>	<b>-</b>	<b>-</b>	<b>1002789.00</b>	<b>2266911.00</b>	<b>4446413.00</b>	<b>7716113.00</b>
(D)	<b>Cost of contract</b>						
1	Cost of execution contract for bridge including @ 10% Contract overhead & Profit charges.	-	108715000.00	-	-	-	108715000.00
2	Cost of materials through supply contract	-	-	-	-	4235122.00	4235122.00
3	Add @ 1% for Quality Control Charges	-	1087150.00	-	-	42351.00	1129501.00
4	Add @ 0.5% for Physical Contingencies	-	543575.00	-	-	-	543575.00
	<b>Total (D)</b>	<b>-</b>	<b>110345725.00</b>	<b>-</b>	<b>-</b>	<b>4277473.00</b>	<b>114623198.00</b>
(E)	<b>Royalty Charges</b>	-	-	-	230658.00	716941.00	947599.00
	<b>G/Total (A to E)</b>	<b>55826594.00</b>	<b>113345725.00</b>	<b>12144885.00</b>	<b>27685464.00</b>	<b>72960999.00</b>	<b>281963667.00</b>
	<b>Say Rs in lakh</b>	<b>558.27</b>	<b>1133.46</b>	<b>121.45</b>	<b>276.85</b>	<b>729.61</b>	<b>2819.64</b>

Station : C/o 56 APO

  
(Chaman Lal)  
SE (Civ)  
Dir (Estg & Br)  
For Chief Engineer

**RESTRICTED**



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**RESTRICTED**  
**APPROXIMATE ESTIMATE**  
**Part-II**

Name of Area/State :- JAMMU & KASHMIR

Name of Project :- 56 RCC/32 BRTF/BEACON

SSR 2016, Zone -'J'

Name of work : CONSTRUCTION/ IMPROVEMENT OF ALTERNATE ALIGNMENT OF BANDIPUR-GUREIZ (B-G) ROAD FROM KM 79.68 (NEW LOCATION KM 0.000) TO KM 84.125 (NEW LOCATION KM 3.706) TO NHSL WITH PAVED SHOULDERS SPECIFICATIONS AND CONSTRUCTION OF 85 MTR SPAN MAJOR PMT BRIDGE (MARKOOT) WITH STEEL SUPERSTRUCTURE (THROUGH TYPE) ON OPEN FOUNDATION OVER KISHAN GANGA RIVER AT KM 81.375 ON BANDIPUR-GUREIZ (B-G) ROAD INCLUDING LA & FC UNDER 56 RCC/32 BRTF/PROJECT BEACON IN J & K (UT)

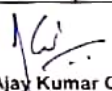
S/ No	SSR 2016 Item No.	Brief Discription of Works	A/U	ZONE-J, All CPL		
				Alt: Between 2401-2700 Mtr.		
				Qty	Rate (RS)	Amount (RS)
1	2	3	4	5	6	7
(A)		<b>LAND ACQUISITION</b>				
	As recd from SDM, Gureiz	Revenue land (Proprietary & Shamilat) as per Sub Divisional Magistrate, Gureiz letter No. SDM/G/2020/1023-25 dated 25 Nov 2020	K-M-S	24-00 -00	2500000	60000000.00
		Deduct Amount already paid to SDM Gureiz on account of acquisition of 6K 9M revenue land for construction of pmt bridge at Km 80.500 on B-G Road vide HQ 32 BRTF letter No. 5021/110/E5C dated 28 Jun 2018				6009465.00
		<b>Net Cost of Revenue Land</b>				<b>53990535.00</b>
		<b>FOREST CLEARANCE</b>				
	As recd from DFO, Bandipora	Net Present Value of Forest Land 1.70 ha @ Rs 6.99 Lakh/ha	Ha	1.70	699000	1188300.00
		Extraction Charges				55159.00
		Compensatory Afforestation				592600.00
		<b>Net Cost of Forest Clearance</b>				<b>1836059.00</b>
		<b>Total Land Acquisition &amp; Forest Clearance</b>				<b>55826594.00</b>
(B)		<b>BRIDGE PROPER</b>				
		Construction of 85 m span permanent steel superstructure (through type) Markut Bridge with open foundation	Mtr	85	1279000	108715000
		<b>Total Bridge Proper</b>				<b>108715000</b>
(C)		<b>FMN WORKS</b>				
1	F 101	Jungle clearance including cutting down trees not exceeding 30 cm girth measured at 1 meter above ground level & clearing away shrubs, brushwood, under growth & grubbing up roots in areas having annual rain fall upto 200 cm.	10 Sqm	911.99	337.71	307988.00
2	F 401	Rough excavation in soil/soil mixed with small boulders, getting out and disposing all excavated material lead upto 6 m and upto 1.5 m deep (75% machine and 25% by manual labour).	Cum	47042.85	162.55	7646815.00
3	F 701	Earthwork in embankment by filling with earth free from roots etc. spreading in layers not exceeding 30 cm including watering and finishing to required slope & level not exceeding 1.5 m high above the base in ordinary soil in hill roads where cut & fill method is adopted.	Cum	1075.65	63.02	67787.00
4	F 802	Disposal of excavated earth with vehicle up to 5 Km initial lead.	Cum	22983.60	90.21	2073351.00
		<b>Total( Fmn Works)</b>				<b>10095941.00</b>

Sl. No.	SSR 2016 Item No.	Brief Description of Works	A/U	ZONE-J. All CPL		
				Alt: Between 2401-2700 Mtr.		
				Qty	Rate (RS)	Amount (RS)
		Road Lift Charges				166623.00
		Credit for PNR				-439900.00
		Credit for GP Tradesman				-170814.00
(D)		<b>PMT WORKS</b>				
1	P 101	Excavation in trenches not exceeding 1.2 m width and 1.5 m depth in soil/soil mixed with boulders (SMB), including dressing bottom and sides getting out and disposing all excavated material lead upto 6 m and lift upto 1.5 m. (by manual means)	Cum	3635.06	436.36	1586195
2	P 107	Hard core comprising of broken road metal size 5 cm graded downwards spread in layers not exceeding 15 cm including watering, ramming and finishing to required level and gradient including cost of stone metal.	Cum	14.44	2200.83	31780
3	P 201	Plain cement concrete 1:5:10 (1 cement: 5 sand: 10 stone aggregate of size 4 cm graded downwards) in foundation or elsewhere (excluding the cost of centering/shuttering).	Cum	331.07	3913.86	1295762
4	P 202	Plain cement concrete 1:4:8 (1 cement: 4 sand: 8 stone aggregate of size 4cm graded downwards) in foundation or elsewhere (excluding the cost of centering/shuttering).	Cum	349.11	4162.38	1453128
5	P 203	Plain cement concrete 1:3:6 (1 cement: 3 coarse sand: 6 stone aggregate size 4cm graded downwards) in foundation or elsewhere (excluding the cost of centering/shuttering).	Cum	1044.58	4475.19	4674694
6	P 204	Plain cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 stone aggregate size 4cm graded downwards) in foundation or elsewhere (excluding the cost of centering/shuttering).	Cum	34.03	7273.04	247502
7	P 206	Reinforced Cement concrete M-20 nearly corresponding to nominal mix, 1 cement: 1.5 sand: 3.0 stone aggregate. of size 20 mm graded downward. (excluding the cost of reinforcement & centering/shuttering)	Cum	79.18	7777.05	615787
8	P 209	Centering/Shuttering (Steel) including strutting, propping and removal of formwork (considering 10 times to be used).	10 Sqm	191.10	5955.26	1138050
9	P 301	Reinforced cement concrete in pre-cast slab 1:2:4 including cost of steel bending, binding and cost of centering/shuttering, rendering etc complete	Cum	38.18	24740.75	944602
10	P 302	Laying reinforcement including cutting bending, binding, providing hooks overlaps etc bars upto 12 mm (labour only).	100 Kg	54.01	2029.67	109627
11	P 303	Laying reinforcement including cutting bending, binding, providing hooks and overlaps etc bars above 12 mm (labour only).	100 Kg	17.61	1348.18	23741
12	P 501	Walling of rubble stone laid dry, well bonded, faced with selected stones and built with bond or through stone evenly spaced @ 2 nos per sq meter of wall face.	Cum	452.56	3578.18	1619341
13	P 505	Random or polygonal rubble walling in cement mortar (1:6) brought to course 45cm high, well bonded with through/bond stones evenly spaced at 2 Nos per Sqm of wall face (material and Labour)	Cum	753.60	4486.59	3381094
14	P 601	Filling of stone/selected materials in layers well packed behind retaining walls, breast walls, abutment/wing walls of bridges or culverts (labour and material)	Cum	640.92	1212.96	777410
15	P 703	Flush pointing on stone work with Cement mortar (1 Cement: 3 sand)	10 sqm	2.21	1752.07	3872

Sl. No.	SSR 2016 Item No.	Brief Description of Works	A/U	ZONE-J, All CPL		
				Alt: Between 2401-2700 Mtr.		
				Qty	Rate (RS)	Amount (RS)
16	P 801	White washing (two Coats) prepared by slaking freshly burnt class C lime conforming to IS 712 1964, the quantity of gum to be used shall be @ 4 Kg/Cum of cream.	10sqm	6.20	175.87	1090
17	P 807	Providing and laying of Weep Holes of size 4"x4"x1 mtr using PVC pipe 4" dia with PCC 1:4:8	Mtr	219.88	205.11	45100
18	F 701	Earthwork in embankment by filling with earth free from roots etc. spreading in layers not exceeding 30 cm including watering and finishing to required slope & level not exceeding 1.5 m high above the base in ordinary soil in hill roads where cut & fill method is adopted.	Cum	29.25	63.02	1843
19	G06	Providing and fixing of Warning/Mandatory road signs made of MS plate of triangular in shape 60 cms side tightly bolted or welded to suitable post of mild steel angle iron (50 x 50 x 5mm) two numbers braced by MS plates 1mm thick 20 cm wide embedded in PCC 1:4:8 including painting. The height of bottom of the board to be 1.5 m from the crown of pavement ( All as per IRC 67 of 1977)	Nos	16.00	2969.78	47516
20	G08	Providing & fixing of Ordinary KM Stone	Nos	3.00	3081.76	9245
21	G09	Providing & fixing of Sub KM Stone	Nos	15.00	823.63	12354
22	G10	Providing & fixing of 5th KM Stone	Nos	1.00	4378.34	4378
23	MP12	Cost of Steel	MT	7.16	53180.00	380887
		<b>Total (Pmt Works)</b>				<b>18404998</b>
		Extra TPT Charges				31569
		Road Lift Charges				4803887
		Credit for GP Tradesman				-818833
		Credit for PNR				-602585
		Royalty Charges				230658
		Cost of Hume Pipes 50 Cm dia as per Contract supply rates				0
(E)		<b>SURFACING WORKS</b>				
1	S101	Preparation of sub grade in SMB by excavating upto 20 cm average depth, dressing excavated earth to required camber or super elevation and compaction with power roller incl disposal of surplus earth within a lead of 30m.	10 Sqm	2055.47	488.15	1003378
2	S917	Non Frost Susceptable Stone Base (NFSSB) 15 cm thick	10 Sqm	4110.95	4650.36	19117397
3	S810	Providing crushed stone aggregate (75 mm ), depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a vibratory roller to clause 405 of MoSRT&H specifications to form a layer of sub-base/base.	10 Sqm	4329.03	2616.28	11325955
4	S509	Providing and laying 75 mm thick DBM layer, precoated stone aggregate physical requirements/grading/mix composition as per Table - 500-8/9/10 respectively of MORT&H specifications for road and bridge works with 4.250% asphalt VG-10 penetration grade as per MoSRT&H data book and rolled to the required specification.	10 Sqm	2057.16	7559.45	15550998



Sl. No.	SSR 2016 Item No.	Brief Description of Works	A/U	ZONE-J, All CPL		
				Alt: Between 2401-2700 Mtr.		
				Qty	Rate (RS)	Amount (RS)
5	S513	Providing and laying 40 mm thick BC on bituminous concrete layer with precoated stone chips grading confirming to Table:500-17 and mix satisfying the physical requirement of table 500-16 of MORT&H specifications, mixed with 5% binder asphalt VG-10 penetration grade by weight of total mix and 2% cement by weight of mix ( for filler) all as specified as per MoSRT&H data book.	10 Sqm	2057.16	4815.53	9906316
6	S809	Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including clearing of road surface and spraying primer @ 7.50 Kg per 10 sqm. (using BPD with manual labour).	10 Sqm	2057.16	747.18	1537069
7	S814	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor @ 2.5 Kg/10 Sqm on prepared bituminous/granular surface cleaned with mechanical broom, all complete as per clause 503 of MoSRT&H specifications.	10 Sqm	2057.16	166.99	343525
8	P802A	Road marking with thermoplastic paint (2.5 mm thick) conforming to MOST: 803.4 including preparation of surface and application.	10 Sqm	85.80	4380.40	375838
		<b>Total (Surf Works)</b>				<b>59160476</b>
		Road lift charges				3679337
		Extra TPT Charges				58774
		Credit GP Tradesmen				-561617
		Deduct Credit for PNR				-853120
		Deduct Cost of materials as per SSR 2016				-6459446
		Add Cost of materials through Supply Contract				4235122
		Royalty Charges				716941

  
 (Ajay Kumar Chikhale)  
 EE (Civ)  
 SO-I (Estg & Br)  
 For Chief Engineer

## TECHNICAL NOTE

**GOVERNMENT OF INDIA**  
**MINISTRY OF DEFENCE (BORDER ROADS ORGANIZATION),**  
**HQ CE (P) BEACON C/O 56 APO**

Job No: 217/22 (BCN)

### TECHNICAL NOTE

1. Name of work : CONSTRUCTION/ IMPROVEMENT OF ALTERNATE ALIGNMENT OF BANDIPUR-GUREIZ (B-G) ROAD FROM KM 79.68 (NEW LOCATION KM 0.000) TO KM 84.125 (NEW LOCATION KM 3.706) TO NHSL WITH PAVED SHOULDERS SPECIFICATIONS AND CONSTRUCTION OF 85 MTR SPAN MAJOR PMT BRIDGE (MARKOOT) WITH STEEL SUPERSTRUCTURE (THROUGH TYPE) ON OPEN FOUNDATION OVER KISHAN GANGA RIVER AT KM 81.375 ON BANDIPUR-GUREIZ (B-G) ROAD INCLUDING LA & FC UNDER 56 RCC/32 BRTF/PROJECT BEACON IN J & K (UT)
2. Name of Road : BANDIPUR-GUREIZ
3. State : JAMMU & KASHMIR
4. Estimated cost : (a) As Submitted by TF Rs 3038.14 Lakh  
(b) As Modified by HQ CE (P) BCN Rs 2819.64 Lakh
5. Length of Stretch : 3.706 Km
6. Cost per Km : 760.83 Lakh
7. Reference : TF letter No. 2258/DPR/BG RD/KM 79.68 – 84.125/01/E2 dated 17 April 2021.

### COMMENTS

8. Scope of Work:

(a)	Formation	- 3.084 Eq CI-9
(b)	Surf	- 10.104 Eq CI-9
(c)	Pmt wks	- 276.85 lakh
(d)	Maj Br	- 85 M

9. Modifications done if any: Approach slab of size 12x04x0.30 mtr (02 Nos.) for both side of 85 mtr span Major Pmt Steel superstructure (through type) on open foundation over Kishanganga River at Km 81.375 which were left out in subject DPR submitted 32 TF, now considered.

10. **Estimated cost of the work: -** As per AE Part-I:-

Item of work	Scope	Cost (Lakhs)
<b>(A) CIVIL WORK</b>		
Formation	Linear 3.706 Kms. (3.084 Eqvt CI-9)	121.45
Permanent	Cross Drainage work-11 Nos. R/B/T/S walls- 344 Mtrs Lined Drain (Kerb & Channel) – 3257.90 Mtrs Lined Drain with Cover (Rectangular) – 318.20 Mtr Approach Slab for Br (02 Nos.) - 12x04x0.30 Mtr Road furniture	276.85
Surfacing	Linear 3.706 Kms. (10.104 Eqvt CI-9) Layer composition i) BC 30 mm thick ii) DBM 50 mm thick iii) CSB 75 mm thick iv) NFSSB 150 mm thick in two layer v) Prime Coat vi) Tack coat vii) Road marking with thermoplastic paint	729.61
Bridge	Pmt Bridge of 85 m span through execution contract	1133.46
<b>Total (A)</b>		<b>2261.35</b>
<b>(B) NON CIVIL WORK</b>		
Shifting of utility	NA	
Land Acquisition	Land Acquisition for property and shamilat involved Tentative 24.00 Kanal	539.91
FC/Wild life	Forest compensation	18.36
<b>Total (B)</b>		<b>558.27</b>
<b>Total (A+B)</b>		<b>2819.64</b>

11. **Rates and Leads:**

- 11.1 The DPR has prepared based on DGBR SSR 2016 and cost of Br Proper calculated as per SSR 2019. Rate for material and conveyance has been adopted as per DGBR SSR-2016.
- 11.2 The leads for the collection of various materials as adopted in the estimate have been allowed for estimate purpose only. However, while calling tender, the source may not be indicated. The contractor shall be



responsible to procure the material conforming to the specifications of the work. No provision of extra lead during execution of the work shall be allowed.

12. **Specifications and quality control:**

- 12.1 All the work to be executed as per DGBR Technical instructions as well as MoRTH specification for Road and Bridge work (Latest edition) and circular guidelines issued by HQ DGBR as well as by MoRTH. Deviation if any required on ground should be got approved from the competent authority.
- 12.2 Adequate tests should be done for all items of work as per TI-17 and MoRTH guidelines in the Field Lab available in RCC level/TF Level. No any compromise in quality and frequency of test should be made. A test register must be maintained at platoon level. If there is any premature failure/ necessary action to be taken at RCC/TF level to identify and fix the responsibility. Info should be given to Chief Engineer.
- 12.3 TF CDR and OC RCC to ensure proper quality control test. If required, Western Field lab can be utilized for this purpose.
- 12.4 Provision for quality control @ 1% has been made as per DGBR SSR 2016.
- 12.5 Photographic/ video graphic records must be maintained. One CD be send to TF & CE (P) Beacon for records.
- 12.6 The work of road items should not continue over the bridge, if any. The longitudinal profile of the immediate approaches should be suitably adjusted to merge with the road level of the bridge as per the guidelines circulated vide MoRTH letter No RW/NH-33044/10/2000-S&R dated 1<sup>st</sup> June 2000.
- 12.7 Before lodging of foundation, SBC must be ensure by conducting plate load test as any other accepted method of SBC evaluation.
- 12.8 Frequency of testing of concrete cube must be adhered to.

13. **Maintenance of Records:** Documents to be maintained and available on site as per para 1.4 of TI-17 are as under:-

- 13.1. General investigation, surveys and sub-soil report.
- 13.2. Copy of Contract Agreement.
- 13.3. Approved plans and detailed working drawings.
- 13.4. Copy of AA, TS and bill of quantities.
- 13.5. Standard specifications, guidelines and codes of practice.

- 13.6. Copies of TI, relevant to the work under execution.
- 13.7. Site order book.
- 13.8. Stage passing register.
- 13.9. Time and progress charts.
- 13.10. Mix design of controlled concrete.
- 13.11. Test results of aggregates used in cement concrete works.
- 13.12. Record of approvals accorded for foundation levels before laying of footings.
- 13.13. Test results of engineering properties of sub soil especially the shear strength and compressibility, SBC of foundation soil, supporting details of the silt factor, etc.
- 13.14. Record of issue of stores to the contractor if any.
- 13.15. Contractors work diaries.
- 13.16. Results of all quality control tests carried out during execution of work.
- 13.17. Inspection notes of visiting officers.
- 13.18. Cube test register.
- 13.19. Steel register and Cement register

14. **General Instructions:**

- 14.1 Collection of material on the roadside should be so planned that it should commensurate with the physical progress of work and the collected material should not cause any hindrance to the traffic. It must be insured that the contractor arranges for separate land for storage of road construction material and machinery and these shall not be allowed to be stacked on roadside.
- 14.2 The provisions made in the estimate are accepted for estimate purpose only. Any saving (in the provisions in the estimate) during execution of the work shall be credited to the Job
- 14.3 The work should be carried as per DGBR SSR/ MoRT&H specifications for Road and Bridge Works and guidelines issued by the HQ DGBR/ MoRT&H from time to time. Deviations in specifications for any work should be got approved from CFA before adopting the same
- 14.4 No work beyond the scope of the sanctioned estimate leading to increase in the scope of the work or change in specification should be undertaken without obtaining prior written approval of the CFA.
- 14.5 Neither the work nor any time of work shall be split into small parts for awarding the work to a number of contractors. In case any splitting is essential due to the specific prevailing conditions, it should be done only after prior approval of CFA.

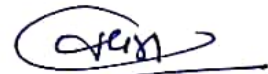
- 14.6 In order to ensure that there is no slippage in achieving the targets, the progress may be closely monitored by Commander TF and quarterly status report furnished to this HQ and HQ DGBR in the prescribed proforma.
- 14.7 During the course of execution, the traffic may be regulated in accordance with guidelines laid down vide MoRTH letter no. NH III-33 (126)/72 dated 20.03.1973 & letter No RW/NH-11060/1/1998-D.O. 1 dated 07.10.1987. Smooth flow of the traffic may be ensured by providing adequate traffic control devices in accordance with stipulation of IRC: SP: 55:200 "Guidelines on Safety in construction Zone .1".
- 14.8 The display boards on development activities of the work shall be made as per guidelines issued vide MoRTH letter no RW/NH-33044/10/2002/S&R ® dated 26<sup>th</sup> May 2003. The cost of the same will be met out of the provision of contingencies allowed in the estimate.
- 14.9 After reaching 50% progress, if it is anticipated that scope of work would change or expenditure is likely to exceed or decrease the amount of AA beyond permissible limit (except corrigendum case), a report in accordance with para 552 of BRR be initiated by the TF. After perusal of para 552 report, TF to initiate RAE/RDPR.

**15. Contracts:**

- 15.1 E-Procurement must be adhered to while inviting the tender.
- 15.2 The bill of quantities (BOQ) for the tender purpose may be modified in compliance of this technical note and observations given below. The excess due to any item (s) of work may be met from the savings in other items (s) of work. However, it shall be ensured that all items of work including the items against L.S. provisions are included in the Bill of Quantities (BOQ) to be issued along with the tender document.
- 15.3 It needs to be clearly mentioned in the NIT that the rates are inclusive of cost of traffic management during construction. Contractor shall provide road signage, ballads, boards, gunny bags, sheets etc for safety of traffic during construction period, which will be incidental to work.
- 15.4 MoRTH Standard Document must be followed for works contract costing more than Rs 5.00 cr as per Ministry's circular no. NH-24035/4/2008-P&M/PIC-EAP dated 13.11.2014.
- 15.5 Defects liability period is three year as per Ministry's circular no. NH-11065/4/2002-P&M (Pt -II) dt 12.04.2012.



- 15.6 MoRTH circular RW/NH-24035/4/2008-P&M/PIC dated 27.11.2009, 21.05.10, 25.03.2011 and 13.11.2014 must be followed for guidelines and procedure to be adopted for invitation of tenders and qualification of contractor for execution of Road & Bridge works on National Highway and Centrally Finance Schemes.
- 15.7 All the relevant Circulars and amendments regarding tender procedures issued from time to time by this HQ shall be followed. While finalizing the tender Central Vigilance Commission (CVC) guidelines circulated vide Circular No. 4/3/07 dated 03.03.2007 should be strictly followed.
- 15.8 The work shall be entrusted to contractors having adequate experience in similar type of works and having adequate machineries and financial resources to execute the work using HMP and sensor paver finisher of adequate capacity and specifications.
- 15.9 TF will intimate this HQ, ACDA Beacon and JCDA Chandigarh about award of contract/ commencement of work immediately.



(Signature of approving authority)

Name- CHAMAN LAL, SE(Civ)

Designation- Dir. (Estg. & Br.)

Date - 10 Jul 2021