



GOVERNMENT OF INDIA  
MINISTRY OF SHIPPING, ROAD TRANSPORT AND HIGHWAYS  
DEPARTMENT OF ROAD TRANSPORT AND HIGHWAYS  
(Project Zone -10)

Fax Nos. 23719070, 23730647

Parivahan Bhavan, 1, Sansad Marg  
New Delhi-110001.

No NH-12031/17/2007/Ar.P/ISC/NH-10

New Delhi, dated 23<sup>rd</sup> October, 2008.

To

The Commissioner  
Government of Arunachal Pradesh,  
Public Works Department  
Itanagar-791111

Sub: Construction of road from Yachuli of lower Subansiri district of Arunachal to Gerugamukh of Assam via Mai, Lej, Pei, Pochu and Dodo village Phase-I from km. 0.0 to 20.00 under Centrally Sponsored Scheme of Inter-State Connectivity(ISC) in the State of Arunachal Pradesh.

(Job No. ISC-Ar.P -2008-2009- 06)

Sir,

I am directed to refer to letter No. SPED/W-378/2007/1701 dated 19.11.2007 from Under Secretary, (PWD), Government of Arunachal Pradesh, Itanagar, forwarding an estimate amounting to Rs. 2500.00 lakhs for the above noted work and to say that the estimate has been examined in this Ministry and modified to Rs. 2339.00 lakhs in the light of the comments contained in the enclosed technical note.

2. I am directed to convey the administrative, technical and financial approval of the President to the modified estimate to the extent of 100% amounting to Rs. 2339.00 lakhs (Rupees Twenty Three Crores Thirty Nine Lakhs only) for the above noted work.

3. This 100% funds to this work is provided by this Ministry under the Centrally Sponsored Schemes of State Roads of Inter-State Connectivity Fund.

4. The work has been assigned (Job No. ISC-Ar.P-2008-09- 06 ). This job No. may be quoted in all future correspondence regarding this work.

5. This approval is accorded subject to the following conditions :

(i) the State Government may accord the technical and financial sanction of the estimate in terms of Guidelines issued by this Ministry vide letter No.NH-17012/9/97-PL dated 14.3.2001 and NH-11011/2/2000-P&M dated 8th August, 2007. The stipulations made in these Ministry's circulars may strictly be followed.

(ii) the release of funds shall be subject to overall availability of budget provisions and the expenditure by the State Government would have to be regulated accordingly.

(iii) the sanction is further subject to various provisions of Central Road Fund(State Roads) Rules, 2007.

6. No expenditure beyond permissible limits for fully financed projects shall be committed without obtaining the previous approval of the Central Government.

7. The quarterly progress report and the monthly expenditure report shall be submitted to the Central Government in Form-II and Form-III enclosed with the Central Road Fund(Rules), 2007.

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8. The State Government should furnish completion certificate duly vetted by audit after completion of the work as per targets.

9. The following physical and financial cumulative targets shall be achieved depending upon the availability of funds:-

<u>Financial Year</u>	<u>Physical ( in %)</u>	<u>Financial Progress(Rs. in lakh)</u>	<u>Ministry's Share( Rs. in Lakhs)</u>
2008-2009	Preliminary	5.00	5.00
2009-2010	60	1403.00	1403.00
2010-2011	100	2339.00	2339.00

10. The expenditure is debit to Major Head '3601' Grants-in-aid to State Governments-04-Grants for Centrally sponsored plan schemes – 04.105 Grants from Central Road Fund – 01- Roads of Inter-State and Economic Importance – 00.00.31 - Grants-in-aid under the Demand No. '87' is Department of Road Transport & Highways for the year 2008-2009.

11. This sanction issues with the concurrence of the Finance Division vide their U.O. No. 1364-TF-II/2008 dated 16.9.2008.

Yours faithfully,

(K.R. Gatti)

Under Secretary to the Govt. of India

Encl.: As above

Copy, with a copy of the technical note forwarded to:-

1. The Chief Engineer(EZ), PWD, Arunachal Pradesh, Itanagar-791111.  
(A copy of the approved estimate is enclosed)
2. The Regional Officer, Ministry of Road Transport & Highways, Rajgarh Road, Guwahati- 781 003.
3. The Accountant General, Arunachal Pradesh-791111.
4. The Pay and Accounts Officer, Ministry of Road Transport & Highways, IDA Building, Jamnagar House, New Delhi.
5. The Regional Pay and Accounts Officer, (NH) M/o Road Transport & Highways, Hrishikeshayan, Hriday Ranjan Path, 6<sup>th</sup> Byelane (W) R.G. Baruah Road, Guwahati – 781 003.
6. The Principal Director of Audit, Economic & Services Ministries, A.G.C.R. Building, New Delhi – 110 002.
7. The Director (NE-1), Ministry of Home Affairs, NE Division, North Block, New Delhi w.r.t. MHA ID No. 1/15/05-NEDC dated 25.9.2006 for news lettes.

(K.R. Gatti)

Under Secretary to the Govt. of India

Encl: As above.

Copy with enclosures also forwarded to:-

CE(P-10)/SE(P-10)/EE(P-10)-I/SE(PL)/SE (Mon)/W&A Section/ Finance Wing (TF-II) Section/Guard File.

(Dhananjay Kumar)  
Section Officer

**GOVERNMENT OF INDIA**  
**MINISTRY OF SHIPPING, ROAD TRANSPORT & HIGHWAYS**  
**(DEPARTMENT OF ROAD TRANSPORT & HIGHWAYS)**

*Transport Bhawan,  
1, Parliament Street,  
New Delhi-110 001*

No. NH-12031/17/2007/Ar.P/ISC/NH-10

Dated: 23<sup>rd</sup> October, 2008

**TECHNICAL NOTE**

1.	Name of work	:	<b>Construction of road from Yachuli of lower Subansiri district of Arunachal to Gerugamukh of Assom via Mai, Lej, Pei, Pochu and Dodo village Phase-I from km 0.0 to 20.00 under Centrally Sponsored Scheme of Inter State Connectivity</b> <b>(Job No. ISC - Ar.P- 2008 -09 - 06 )</b>		
2.	State	:	Arunachal Pradesh		
3.	Estimated cost (Rs. in lakhs)	:	As forwarded by State PWD	As modified in the Ministry	Ministry's share
			2500.00	2339.00	
4.	Length (Km)	:	20.00	20.00	
5.	Cost per km (Rs. in lakhs)	:	125.00	116.95	
6.	Reference	:	Letter No. SPWD/W-378/2007/1701 dated 19.11.2007 from Under Secretary, (PWD), Government of Arunachal Pradesh, Itanagar.		

**COMMENTS**

**2. Scope of work:**

- 2.1 Formation cutting for new road for attaining formation width of 5.95 m corresponding to single lane of 3.75 m carriageway width in hilly terrain for ODR road from km 0.00 to km 20.00.
- 2.2 Construction of pavement in single lane carriageway with 250 mm thick crust consisting of 100 mm WBM, , 75 mm WBM Gr.II, 75mm WBM Gr. III overlaid with 20 mm thick PC+SC.
- 2.3 Construction of two RCC permanent bridges of 18.30 m span at km 5.015 & 17.135 and one RCC permanent bridges of 15.0 m span at km 9.550.
- 2.4 Construction of 15 RCC slab culverts of 4.0 m span, 60 single row HP culverts & 20 double row HP culverts at various locations as per site requirement
- 2.5 Miscellaneous items such as kutchha drain, fixing of road sign boards and km stones etc.



### 3. Provision allowed in the estimate:

#### 3.1 Alignment

The design speed adopted for design of horizontal curves has been indicated. As per guidelines of IRC: 73-1980, all the curves ( 55 nos ) have been designed with design speed of 30 kmph or more applicable for ODR roads in hilly terrain except some stretches where design speed is restricted to 25 kmph. The gradients of the proposed road has been enclosed as per the limits stipulated vide IRC guidelines for hilly road. The vertical gradient adopted in the DPR is 5% or less along the proposed alignment.

#### 3.2 Earthwork

The earthwork in formation cutting and earth work in embankment & shoulders has been allowed for estimate purpose. The payment shall be made as per the actual execution carried out at the site.

#### 3.3 Pavement

3.3.1 The following are the pavement crust allowed by the Ministry: -

Crust description	As Proposed by PWD	As modified by Ministry	Remarks
WBM Gr. I	100mm	100mm	In carriageway width of 3.75m
WBM Gr. II	75mm	75mm	-do-
WBM Gr. III	75mm	75mm	-do-
PC+SC	20mm	20mm	

3.3.2 The bitumen for Prime Coat and Tack Coat shall be emulsion complying with the Clauses 502 and 503 respectively of Ministry's Specifications for Road and Bridge Works (4th Revision – August 2001). The quantity of bitumen in Prime Coat & Tack Coat shall conform to the Ministry's specifications in this regard.

#### 4.4 Cross-drainage (CD) works

4.4.1 The State PWD have proposed construction of RCC slab culverts 15 no of 4.0m span, 60 no single row hume pipe culverts of 1.0m diameter, 20 no double row hume pipe culverts of 1.0m diameter at various locations as per site requirement on the proposed road. Construction of two RCC permanent bridges of 18.30 m span at km 5.015 & 17.135 and one RCC permanent bridges of 15.0 m span at km 9.550 has also been proposed by PWD. The width of bridge has been shown on the General Arrangement Drawing as 12.0m. The matter has been discussed with CE (Western Zone), Arunachal PWD and he has clarified that width has been adopted in design as per single lane road in hilly terrain with formation width of 5.95m. Thereafter, the



working drawings for these bridges may be prepared by State PWD considering width of bridge as per IRC: 5-1998 for ODR and got approved by the State Chief Engineer, PWD at his end before taking up the work.

#### 4.5 Unlined drain

State PWD has proposed unlined drain in 19.747 km which has been allowed.

#### 4.6 Km Stone/road sign boards:

The State PWD has proposed fixing of road signs, steel railing, katcha drain and km-stones at various locations on the proposed road. This has been allowed. The State PWD may be ensured that road signs boards are provided as per guidelines vide IRC: 67 - 2001 and the km stones as per IRC: 8 - 1980.

4.7 Various centages have been allowed as per Ministry's latest guidelines in this regard except agency charge which is not applicable in ISC schemes. The cost of survey & investigation for 20 km stretch amounting to Rs. 5.00 lakh has been deleted. Similarly, provision of diversion for bridge at km 9.550 has been deleted as the proposed road is new.

#### 5 Rates and Lead

5.1 Lead adopted for procurement of materials from the proposed quarry has been allowed for the estimate purpose only. However, while calling tender, the State PWD may not indicate the source. 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.

5.2 The estimate has been made based on APSR-2007 rates. The present rate of bitumen has been claimed in the estimate as Rs. 36928.00 per MT, which is quite high, without giving support documents. Similarly difference in cost of cement and steel rate has also been claimed by PWD. Since, the SOR has been recently revised; the extra cost of bitumen, steel & cement due to price rise has been deleted. However, cartage has been allowed as proposed by PWD.

#### 6. Cost of work:

The estimate cost of the work comes out to Rs. 2339.00 lakhs based on SOR 2007-08.

#### 7. Targets for the work:

The following physical and financial cumulative targets may be achieved depending upon the availability of funds:-

Year of Phasing	Physical Phasing (%)	Financial progress (Rs. lakhs)	Ministry's share (Rs. lakhs)
2008- 2009	Preliminaries	5.00	5.00
2009- 20010	60	1403.00	1403.00
20010- 2011	100	2339.00	2339.00

**8. TENDER:-**

- 8.11 Tender shall be invited and accepted as per Ministry's extent guidelines and work shall be awarded as per guidelines issued vide letter No. NH- 15015/29/2001-PL dated 5.7.2001 and circular No. NH-12037/49/01/NER/NH-10 dated 16.7.2001.
- 8.12 As the cost of the work is more than Rs. 2.00 Crore, the tender will be called strictly as per Ministry's Standard Bidding Document issued vide letter No. NH-12037/49/01/NER/NH-10 dated 16.07.2001.
- 8.13 The contractor should possess all required machinery such as hot mix plant, paver finisher, road roller, wheel barrows, bitumen boiler, sprayer etc. and should be able to procure all required materials including bitumen, to execute the work as per Ministry specifications.

**9 GENERAL INSTRUCTIONS:**

- 9.1 The work shall be executed as per Ministry's "Specifications for Road and Bridge Works" (Fourth Revision- August 2001) and instructions issued by this Ministry from time to time. Deviation in specifications for any work should be got approved from the Ministry before adopting the same.
- 9.2 No work beyond the scope of the sanctioned estimate leading either to increase in the scope of the work or change in specification should be undertaken without obtaining prior written approval of the Ministry. In this connection Ministry's letter no. RW/NHIII/coord./32/84 dated 19.05.1984 may be referred.
- 9.3 Provision for quality control @ 1% has been allowed. The work is to be carried out in accordance with the "Hand Book of Quality Control for construction of Roads and Runways (Second Revision) – IRC SP: 11-1988", observing strict quality control instructions contained in Ministry's letter No. NHIII/P/I/83 dated 19.4.84 and permanent records maintained thereof.
- 9.4 Bitumen used for the work shall be heated in boilers only and not on open fire. Spraying of bitumen whenever necessary should be done only with the mechanical sprayers and premixing of bitumen and stone aggregates should be done only in the proper mechanical mixer/hot mix plant and Paver-finisher conforming to Ministry's specifications.
- 9.5 The selection of grade of bitumen to be used for the work shall be as per guidelines issued vide Ministry's circular No. RW/NH-33044/3/98-S&R dated 04.11.1999. No bitumen should be used which is having a softening point of less than 45 degree Celsius as per Ministry's direction issued vide letter No. RW/NH-35074/7/2001-S&R dated 03.04.2001.
- 9.6 Collection of material on the roadside should be so planned that it commensurate with the physical progress of work and the collected material should not cause any hindrance to the traffic.
- 9.7 During the course of execution of work, traffic may be regulated in accordance with the guidelines contained in Ministry's letter No. RW/NH/33038/1/87-NH-Std.dated 7-10-87.The display boards on development activities of the work shall be made as per guidelines vide Ministry's letter No. RW/NH-33044/10/2000-S&R dated 17.7.2001.



- 9.8 The display boards on development activities of the work shall be made as per guidelines issued vide Ministry's letter no. RW/NH-33044/10/2000-S&R (R) dated 12.08.2002.
- 9.9 Central Government machinery if available in the area shall be used in the work as spelt out in this Ministry's letter No.RW-14(1)/83-RMP dated 7.6.1988. In case of non availability of the Central Government machinery in the area, the work will be allotted to such contractors only who possess the required machinery or produces proof of procuring or hiring the same to the satisfaction of the Chief Engineer.
- 9.10 Roughness measurements as an aid to more effective monitoring of road construction and maintenance operation will be taken before start and after completion of work as per guidelines circulated to the State PWD in Ministry's letter no. RW/NH-33044/10/2000-S&R dated 22.05.2000 and the same reported to the Ministry.
- 9.11 State PWD will ensure that the site shall be free from all environmental clearances / MOEF clearances before work is awarded to contractor and no expenditure shall be allowed to incur on this work before obtaining such clearances.



(P.K Shakya)

Executive Engineer

For Director General (Road Development) & Special Secretary