

Government of India
Ministry of Shipping, Road Transport & Highways
(Department of Road Transport & Highways)

Parivahan Bhavan, 1, Sandad Marg
NEW DELHI – 110 001

NH-12014/3/2004/Ar.P/NH-10

Dated the 27th September, 2004

To

The Commissioner (PWD),
Govt. of Arunachal Pradesh,
ITANAGAR – 791 111

Sub: Strengthening of NH-153 (Stilwell Road) from Km. 56/0 to 62/0 in Arunachal Pradesh.

(Job No. 0153 Ar.P.-2004-05-006)

Ref: Letter No. CEAP(EZ)/WTC-10(MOST-NH)-2003-04/8655-58 dt. 23.02.2004
from the Chief Engineer, Eastern Zone, PWD, Arunachal Pradesh.

Sir,

I am directed to convey the administrative approval, technical approval and financial sanction of the President to the estimate for the work mentioned above as per the following details and subject to the conditions stipulated in the attached technical note.

- | | |
|--|-----------------|
| (i) Amount as indicated in the estimate submitted by the State PWD | Rs. 655.54 Lakh |
| (ii) Amount as modified by the Ministry | Rs. 525.85 Lakh |
| (iii) Amount of administrative approval & technical approval (inclusive of agency charges @9%) | Rs. 525.85 Lakh |
| (iv) Amount of financial sanction | Rs. 525.85 Lakh |

2. This sanction is further subject to the following conditions:

- (i) There should not be any change or enlargement of the scope of work or specification approved under the sanction.
- (ii) The work should be completed as per phasing indicated below.

Year	Cumulative Progress	
	Physical (%)	Financial (Rs. Lakh)
2004-2005	10	50.00
2005-2006	60	275.00
2006-2007	100	525.85

(iii) In accordance with the orders contained in this Ministry's Circular letter No. RW/NH-11026/2/99-US(D-I) dated 13.01.2000, if the cost of tender exceeds 5% of the sanctioned estimated cost, the work should be got de-sanctioned and fresh estimate be got sanctioned from the Ministry.

(iv) On completion 50% work, if the appraisal of the project shows that it will necessitate revision of the estimate based on physical completion of the project vis-à-vis financial expenditure, immediate action should be taken to submit the revised estimate so as to ensure that the sanctioned revised estimate is available before necessity for incurring expenditure beyond permissible limit arises; and.

(v) The expenditure during the current financial year on this work and on other sanctioned works should not exceed the allotment placed at the disposal of the State Government during the year.

(vi) As per Ministry's Circular No. NH-15015/29/2001-PL dated 5.7.2001, the work should be awarded within 5 months. If the work is not awarded within the said period, it will lead to de-sanction of work.


3. The expenditure is debitible under the Major Head – 5054 Capital Outlay on Roads & Bridges (Major Head) 01 – National Highway (Sub Major Head), 01.337 Road Works (Minor Head) 01 – Works under Roads Wing, 01.02 Other Schemes, 01.02.53 – Major works for which the corresponding Demand Number for the financial year 2004-2005 is '79' – Ministry of Road Transport and Highways.

4. Quarterly progress reports in the stipulated proforma may be sent to this Ministry as is required for all sanctioned works.

5. The administrative approval, technical approval and financial sanction shall lapse after six months from the date of its issue in case the work is not commenced within that period.

6. This sanction issues with the concurrence of the Financial Division vide their U.O. No. 840/TF-II/2004 dt. 10.09.2004.

Yours faithfully,


(D.P. Singh) 27/9/04


Desk Officer (P-10)

Tele: 23717444

Encl: As above.

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

1. The Chief Engineer (NH) PWD, Arunachal Pradesh – 791 111 (a copy of the approved estimate is also enclosed)
2. The Regional Officer, Ministry of Road Transport & Highways, Rajgarh Road, Guwahati – 781 003.
3. The Accountant General, Arunachal Pradesh – 791 111.
4. The Pay and Accounts Officer, M/o Road Transport & Highways, Jam Nagar House, IDA Building, New Delhi.
5. The Regional Pay and Accounts Officer, (NH) M/o Road Transport & Highways, Krishikeshayan, Hriday Ranjan Path, 6th 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.


(D.P. Singh) 27/9/04

Desk Officer (P-10)

Copy also forwarded to:-

1. P.S. to Ministry SRT&H.
2. CE(P-10)/SE(P-10)-II/SE(PL)SE (Mon)/EE-(P-10)-II/TF-II Section/ Guard File.

(D.P. Singh)
Desk Officer (P-10)

GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

TECHNICAL NOTE

No: RW/NH-120014/03/2004/Ar.P/NH-10

New Delhi, Dated Sep 27, 2004.

- | | | | |
|----|------------------|--|---------------------------------------|
| 1. | Name of works : | Strengthening of NH-153 (Stilwell Road) from Km 56/0 to 62/0 in Arunachal Pradesh.
(Job No. 153 Ar.P.2004-05-006) | |
| 2. | State : | Arunachal Pradesh | |
| 3. | NH No : | 153 | |
| 4. | Estimated cost : | As forwarded by State
<u>PWD</u> | As modified in the
<u>Ministry</u> |
| | | : | 655.54 525.85 |
| 5. | Length (Km) : | 6 | 6 |
| 6. | Cost per km : | 109.26 | 87.64 |
| 7. | Reference : | Letter No. CEAP(EZ)/WTC-10 (MOST-NH) - 2003 – 04 /8655-58 dated 23 rd Feb, 2004 from the Chief Engineer, Eastern Zone, PWD Arunachal Pradesh, Itanagar. | |

COMMENTS

1. Scope of work:

- 1.1. Widening of existing formation width varying from 4.30m to 7.50m, to a uniform formation width of 7.50m (Single lane NH standard) for the entire stretch of 6.00km.
- 1.2. Realignment of existing road between Km. 56/187 and 56/764 (i.e. in a length of 577m) and construction of new formation having a uniform width of 7.50m.
- 1.3. Construction of new pavement in the entire length.
- 1.4. Miscellaneous items like road sign boards / km stones etc.

2. Provisions:

The following provisions in the estimate have been allowed in conformity with the Ministry's specifications and guidelines issued from time to time:

2.1. Alignment:

- 2.1.1. Detailed alignment plan along the existing road/realignment proposed drawn as per Plate 2 of IRC SP:13-2004 have not been enclosed, with the rest cannot be ascertained whether the proposed alignment conforms to relevant IRC Standards. The detailed alignment plan be drawn as per above mentioned guidelines showing the existing and the proposed alignment including the improvement of curves, if any. The horizontal curve shall be designed as per guidelines vide IRC:73-1980 and IRC:38-1988 and the design data shown on the drawing including the speed for which the curves

are designed. In this connection, clause 9 of IRC:73-1980 may also be referred.

- 2.1.2. Similarly, the longitudinal section has not be drawn as per above mentioned IRC guidelines showing al the relevant details. Suitably designed vertical curves shall be provided wherever there is change in 'gradient' as per guidelines vide IRC SP:23-1983 and the design data shown on the drawing. The vertical alignment need to be finalized keeping in view the guidelines vide Clause 10 of IRC:73-1980.
- 2.1.3. The horizontal and vertical alignment drawn on the dame sheet should be properly coordinated for better aesthetics as per guidelines vide clause 11 of IRC:73-1980.
- 2.1.4. The typical cross-section showing all the requisite details as per plate 2 of IRC SP:19-2001 may be enclosed in the estimate.
- 2.1.5. In view of the above details, it may ensured that the proposed alignment conforms to relevant IRC standards.

2.2. Earth work:

- 2.1.1. The existing formation width in the stretch from km. 56/0 to km. 62/0 varies from 4.30 to 7.50m. State PWD has proposed the widening of the same to a uniform width of 7.50m, corresponding to NH standards for single lane. This is agree to.
- 2.2.2. The side slopes in hill cutting may be adopted as per Clause 7.4.1 of IRC SP:48-1998. The quantities of earthwork as provided in the estimate have, however, been retained for the purpose of the estimate. The payment shall be made as per the actual soil strata met with during the execution.
- 2.2.3. The necessary credit may be given to the estimate for the useful stone material to be obtained out of hill cutting.
- 2.2.4. The provision for passing places as made in the estimate has been retained. However, passing place shall be provided as per guidelines vide Clause 6.11 of IRC:48-1998.
- 2.2.5. A camber or cross fall of 2.5% for bituminous surface and 3.5% for earthen surface may be provided as per Clause 6.7 of IRC:73-1980 considering the high rainfall in the area.

2.3. Pavements:

- 2.3.1. The crust composition as proposed by the State PWD and as in being allowed based on the details enclosed with the estimate are given below.

Sl. No.	Crust Composition	Compacted thickness (mm)		Remarks
		As proposed by PWD	As modified by Ministry	
i.	GSB	135	150	In full formation width. In full carriageway width of 3.75m
ii.	WBM Gr.-II	2x100=200	75	
iii.	WBM Gr.-III	2x100=200	2x75=150	
iv.	PC & SC	20	20	

The crust composition as above may be reviewed before the execution of work based on the CBR of sub-grade and traffic intensity, etc. as per guidelines vide IRC:37-2001.

2.3.2. The provision of seal coat with type 'B' has been modified to seal coat with type 'A'. Accordingly, estimate has been modified.

2.3.3. The bitumen for prime coat and tack coat shall be emulsion, complying with clauses 502/503 respectively of the Ministry's Specifications for Road and Bridge Works (4th Revision – August 2001).

2.4. Miscellaneous provisions:

2.4.1. **Road Sign Boards:** The provision of road sign board as made in the estimate has been retained for estimate purpose only. However, location/type etc. of the signboard may be finalized in consultation with RO Guwahati and a linear plan showing the location of the proposed signboards be sent to Ministry for reference and record. All signboards shall conform to IRC:67 – 2001 and shall be with retro-reflective sheeting as per Ministry's specifications.

2.4.2. **Km Stone:** The provision for km stones as made in the estimate has also been retained for estimate purpose. Km stones shall be provided as per Clause 804 of Ministry's 'Specification for Road & Bridge Works' – 4th Revision, August – 2001 and IRC:8 – 1980.

3. Rates & Leads:

3.1. The estimate is based on SOR 2003-04, which is applicable for NH works in State of Arunachal Pradesh during FY 2004-05, effective from 1st April 2004.

3.2. In the estimate, a lead in the range of 20-25kms has been considered for aggregates, which is allowed for estimate purpose. However, while calling tender, the source may not be indicated. The contractor shall be responsible to procure the material conforming to the relevant Ministry's specifications and IRC guidelines. No provision for extra lead during execution of the work shall be allowed.

4. Cost of work:

The estimate in the light of above comments works out to **Rs. 525.85 lakh** including 9% agency charges.

5. Targets for the work: The following physical and financial cumulative targets may be achieved depending upon the availability of funds:

Year	Physical Phasing (%)	Financial progress (Rs. Lakh)
2004-2005	10	50.00
2005-2006	60	275.00
2006-2007	100	525.85

6. TENDER:

6.1. Tender shall be invited and accepted strictly as per Ministry's guidelines as detained in the Ministry's circular No. RW/NH/11026/2/99 US(D.I) dated 13.1.200 & RW/NH/11024/3/99 US (D.I) dated 9.3.2001.

6.2. The work shall be awarded, as per guidelines issues 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.

- 6.3. The cost of the work is more than 2.00 crore, so the tenders for the work 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.
- 6.4. In accordance with the order contained in the Ministry's circular letter No. RW/NH11026/2/99-US (P) dated 13.1.200, if the cost of tender exceeds 5% of the sanctioned cost, the work shall be got de-sanctioned and fresh estimate be got sanctioned from this Ministry.
- 6.5. 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's specifications.
- 6.6. The State PWD will intimate this Ministry and Ministry's Regional Officer at Guwahati about award of contract/commencement of work immediately as per instructions contained in this Ministry letter No. RW/NH-11060/1/98-(DO-I) dated 5.11.1998.

7. GENERAL INSTRUCTIONS:

- 7.1. No work beyond the scope of the sanctioned estimate leading either to increase in the scope of the work or change in specifications should be undertaken without obtaining prior written approval of the Ministry. In this connection this Ministry's letter No. RW/NHIII/Coord/32/84 dated 19.5.84 refers.
- 7.2. The work may 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.
- 7.3. 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 Runway (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.
- 7.4. Central Government machinery if available in the area shall be used on 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.
- 7.5. Neither the work nor any item of work shall be split into small parts for awarding the work to a number of contractors. In case of any splitting is essential due to the specific prevailing conditions, it should be done only after prior approval of this Ministry. In this regard instructions issued in the Ministry's letter No. NHIII/P/75/78 dated 4.8.84 refers.

- 7.6. Bitumen used for the work shall be heated in boilers only 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.
- 7.7. 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 45⁰ Celsius as per Ministry's direction issued vide letter No. RW/NH-35074/7/2001-S&R dated 3.4.2001.
- 7.8. 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.
- 7.9. 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.
- 7.10. 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-33044/10/200-S&R dated 22.05.200 and the same reported to the Ministry.


(Sanjay Garg)

Executive Engineer,
For Director General (Road Development) & Special Secretary