भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)
National Highways Authority of India
(Ministry of Road Transport and Highways, Govt. of India)
परियोजना कार्यान्वयन इकाई पालमपुर
Project Implementation Unit - Palampur

NHAI/PIU-PALM/HP/11016/12/Forest/2022-23/ 1236 17 Nov, 2022

To,

1. The Divisional Forest Officer (DFO)
   Nurpur Distt Kangra, Himachal Pradesh.
2. The Divisional Forest Officer (DFO)
   Dharamshala Distt Kangra, Himachal Pradesh.
3. The Divisional Forest Officer (DFO)
   Dalhousie Distt Chamba, Himachal Pradesh.

Sub: Diversion of 7.1203 hectare of forest land for rehabilitation and up-gradation to Four Lane configuration & Strengthening of Sihuni to Rajol from Kms. 51/00 to 72/00 (Package-IIA) (Design Length 18.450 Kms) of NH-20 (New NH-154) of Pathankot-Mandi Section in the State of Himachal Pradesh within the jurisdiction of Nurpur, Dharamshala & Dalhousie Forest Divisions in District Kangra & Chamba (Online Proposal No. FP/HP/Road/152261/2021).

(i) Proposal No. : FP/HP/Road/152261/2021.

(ii) Name of Project for which Forest Land is required:- Diversion of 7.1203 hectare of forest land for rehabilitation and up-gradation to Four Lane configuration & Strengthening of Sihuni to Rajol from Kms. 51/00 to 72/00 (Package-IIA) (Design Length 18.450 Kms) of NH-20 (New NH-154) of Pathankot-Mandi Section in the State of Himachal Pradesh

(iii) Short narrative of the proposal and Project/scheme for which the forest land is required :- Diversion of 7.1203 Ha Forest land for Rehabilitation and Up-gradation to Four Lane configuration & Strengthening of Sihuni to Rajol from Kms. 51/00 to 72/00 (Package-IIA) (Design Length 18.450 Kms) of Pathankot-Mandi Section in the state of Himachal Pradesh.

(iv) State	: Himachal Pradesh
(v) Category of the Proposal	: Road
(vi) Shape of forest land proposed to be diverted	: Linear
(vii) Area of forest land proposed for diversion (in ha)	: 7.1203

Memo:

Kindly refer to GoI letter No. FC/HPC/06/155/2022 dated 18.10.2022 addressed to Addl. Chief Secretary (Forests) to Govt. of Himachal Pradesh Shimla copy of which endorsed to Nodal Officer-Cum-Addl. PCCF (FCA) O/o Pr.CCF (HoFF) H.P. Shimla & DFO Nurpur, Dharamshala, Dalhousie, on the above sited subject.

In this connection, it is submitted that the point-wise reply to the observations raised by GoI is furnished as under:-

Project Director
NHAI PIU - Palampur

Office :- 1st & 2nd Floor, Dayal Ji Niwas, Opp. Govt. Primary School, Chimbalhaar, Palampur (HP) 176061,
Email :- pdpiupalampur@gmail.com & piupalampur@nhai.org ☎ : 01894-230122/-1894-292938
NHAI, Head Office :- G-5&6, Sector-10, Dwarka, New Delhi - 110075

1. The forest land is not involved for diversion in village Paid, Kholi, Falgehar, Dadroli, Hara, Bagru, Parrel, Manjhgran, Kutlehar, Upahu, Mahakali, Har, Kakroh, Thara, Behkari & Uparla Bhaniar. Hence, the FRA certificate along with FRC consultations and proceedings of its meetings are not required. All the authenticated FRC consultations of the villages in which the forest land is affected in the part of PROW are submitted as annexure-A

2. The necessary cost benefit ratio analysis has been prepared on the prescribed format and uploaded on the MoEF & CC Web Portal. The copy of the same is also enclosed herewith. Annexure-B

3. The private land/non forest land has not been included in the proposal. Only 7.1203 ha of forest land involved in the proposal. The private land has been acquired as per National Highways Act 1956 and Compensation for the same has been paid as per Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation Resettlement act. (RFCTLARR)Act, 2013.

4. Yes the existing road was constructed before 1980 as NH 20. The Survey of India Topo-Sheet No 52 D/4, which are based on surveys conducted during the year 1961 and 1981-82, in which the National Highway has been marked is enclosed herewith and have been authenticated by the undersigned and the DFO Dharamshala. Annexure-C

5. The slope inclination of cutting is determined based on the geological composition of the rock strata and slope. The optimum angle at which minimum excavation by cutting at steeper angle (Angle of repose) without causing any impact on slope stability is chosen. Three-dimensional reinforced erosion control mats (IRC 56:5.9), Ring net, Gabion Wall has already been catered necessary mitigation measures in addition to RCC/PCC retaining structures. The elaborate slope stabilization measures if felt necessary during work in progress like Hydro seeding, reinforcing slope material etc. will be carried out by engaging the field experts. It is intimated that the funds as applicable as per para 1(a) & (b) of the letter No. FC-11/43/2021-FC dated 07.06.2022 will be deposited into the account of CAMAPA as and when the demand is raised for the same, prior to actual working on the Forest area and the same may be intimated to the MoEF&CC. It is further intimated that the stretch of the proposed highway does not fall within approx. 34.67 Km from the nearest wildlife sanctuary (Kalatop Khajjiar).Hence, there is no need to deposit 2% of project cost for wildlife mitigations. Whereas 0.5% of the project cost will be deposited towards the cost of implementation of Soil and Moisture conservation Plan. The funds will be deposited in the CAMPA account prior to actual working on forest area as directed in para 1(b) of the above letter.(The undertaking for the same is attached herewith)

b) However a case has been taken up with NHAI HQ for further directions on the matter.

6. The needful has been done in the KML file

7. The needful has been done in the KML file, the KML included both Forest area and Non Forest area.

8. The instant diversion proposal involves 11 No's of bridges, 113 No's of culverts. There are no flyovers, Tunnels or railway crossing in the stretch. Also all the components is included in the component wise breakup (Part-1). Area wise detailed calculations is attached as annexure-D

Project Director
NHAI PIU - Palampur

9. The copy of the sanction latter of the instant proposal issued by the competent authority is enclosed herewith. The same has also been uploaded PARIVESH Portal Annexure-E

10. The necessary action may be done by the concerned Divisional Forest Officer's.

11. There is an "S" curve from KM 51.700 to KM 52.560 on existing highway. To improve the geometry of the road as per IRC SP-84 standard the "S" curve has been improved. Due to which stretch of existing highway from KM 51.850 to KM 52.170. and KM 52.215 to KM 52.400 has been excluded from the PROW. The sketch is attach as annexure-F

12. The kilometer wise proposed RoW (PRoW) and existing RoW (ERoW) along with chinage wise area calculation falling in the forest land as well as non-forest land has been prepared and enclosed herewith. Annexure-G

13. Since the proposed road traverses in mixed terrain i.e. plain & rolling to mountainous & steep. Thus, ROW has been proposed from 35.5 to 45.0m considering the site conditions and to construct road in this bare minimum Proposed ROW only. For the extant proposal IRC SP; 84 is applicable as per guidelines of Ministry of Transport & Highways. Accordingly, the average affected width in forest land is around 10.160 Km. Similarly, affected width in non-forest land is 24.429 Km. However, as per clause 2.3 of IRC SP: 84-2019, ROW for development of 4-lane road is 60.0m. Annexure-H

14. Yes, the existing road was constructed before 1980 as NH-20. The Survey of India Topo-Sheet No 52 D/4, which are based on surveys conducted during the year 1961 and 1981-82, in which the National Highway has been marked is enclosed herewith. (Copy enclose as annexure C, (refer para 4 above).

15. Muck Dumping sites, Muck dumped balance capacity and amount of muck to be dumped in tabulated form has been prepared and duly authenticated by DFO concerned. Also, the undertaking has been enclosed herewith. Annexure -I

16. The necessary village wise population certificate to be benefited along with village code duly authenticated by the competent authority has been obtained by the user agency which is enclosed herewith. The same has also been uploaded on the online Web Portal. Annexure -J

17. The necessary line plan has been prepared on the prescribed format and uploaded on the MoEF & CC Web Portal. The copy of the same is also enclosed herewith. Annexure -K

18. Need full has been done and submitted. The Forest Department has no such Waste lands which comes under the category of Protected Forests also have neither been demarcated on the ground or transferred & mutated in the name of forest department in the revenue records which could be considered for CA and double the area of such category which is covered under Indian Forest Act, 1927 & declared as RF/PF after mutation in the name of State Forest Department.

19. The division-wise enumeration list of trees duly authenticated by DFO concerned has been prepared and uploaded on the Parivesh portal.

20. The necessary action may be done by the concerned Divisional Forest Officer's.

Project Director
NHAI, PIU - Palampur

21. The necessary action may be done by the concerned Divisional Forest Officer's.

22. There is no other alternative alignment feasible for this project as per IRC guidelines except the approved one. Thus, resulting into involvement of 7.1203 ha. Forest land 2538 of trees are falling within the PROW. However all the endeavors will be made to save the trees during finalizing of the road design/construction of the proposed highway.

23. The proposal involves the rehabilitation in respect of the road and not about the rehabilitation of displaced population. The displaced population/affected families are being compensated as per policy/Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement **Act, 2013.**

24. Endeavors will be made not to disturb any water source whether natural or man- made. However, where ever it is inevitable to avoid disturbance the contractor on his cost has to shift the affected source in such a manner that the yield & utility of the resources is maintained (As per schedule B of the contract agreement).

25. The revised detailed note mentioning all the details of the extant proposal has been prepared and uploaded on the online Web Portal.

26. The necessary action may be done by the concerned Divisional Forest Officer's

27. It is stated that at the locations where Brahl Khad & Chambi Khad flows, existing bridges have already been constructed and fully operational. Also, length of new bridges have been proposed either equal or higher to existing bridges based on the hydrological studies at the same locations only without disturbing the catchment area as well as without violating any Hydrological layer rule.

28. The necessary action may be done by the concerned Divisional Forest Officer's

29. The necessary action may be done by the concerned Divisional Forest Officer's

It is therefore requested that the necessary approval for the diversion of 7.1203 hectare of forest land in favour of National Highways Authority of India PIU Palampur for the Rehabilitation and up-gradation to Four Lane configuration & Strengthening of Sihuni to Rajol (Km.51.000 to 72.000) of NH-154 may kindly be obtained from the Govt. of India under Forest (Conservation) Act, 1980 and conveyed to this office at the earliest please.

Encl: As above.

Col. Anil Sen
GM/Project Director

Copy to:-

i) The Nodal Officer Shimla (FCA), Distt Shimla HP.
ii) The Chief Conservator of Forest, Dharamshala, Distt Kangra HP
iii) The Chief Conservator of Forest, Chamba, Distt Chamba HP

निर्यात के लिए नहीं NOT FOR EXPORT

RESTRICTED

हिमाचल प्रदेश
HIMĀCHAL PRADESH

SECOND EDITION

भारत INDIA

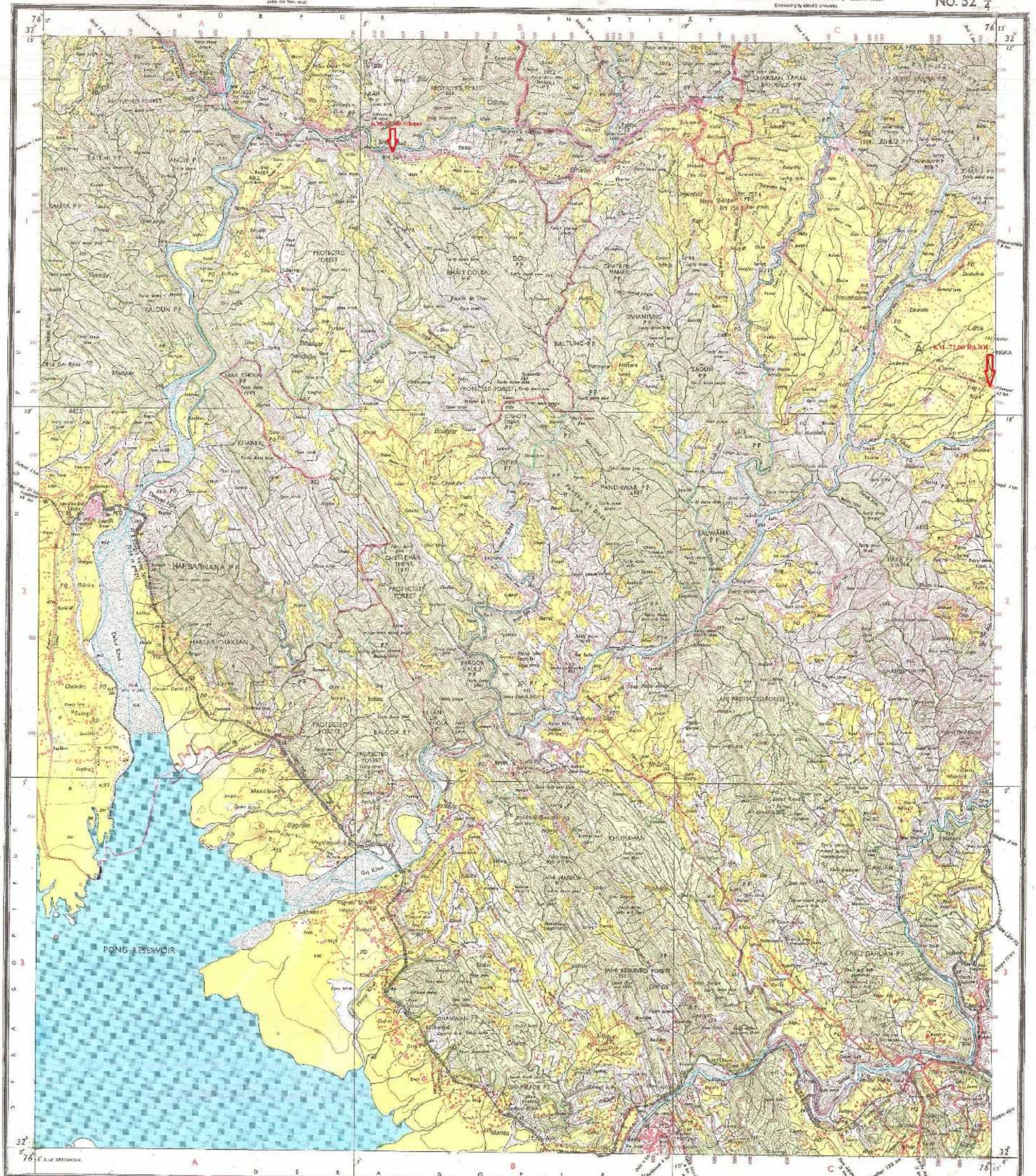
REFER TO THIS MAP AS :- 1:50,000
SHEET 52 D/4 SECOND EDITION

CHAMBA & KĀNGRA DISTRICTS.

Surveyed 1961-62.

Magnetic Variation from True North about 1° East in 1995.
Increasing by about 7 minutes.

No. 52 D/4



Index to Sheets

52 D/1	52 D/2	52 D/3
52 D/5	52 D/6	52 D/7
52 D/9	52 D/10	52 D/11
52 D/13	52 D/14	52 D/15

Roads, classified: according to maintenance; distance stone ... bridge
Cart-track. Path, track and year. Foot-path with bridge
Bridges: with piers; without. Causeway. Ford or ferry
Streams: with track in bed; undefined. Canal
Dams: masonry or rock fill; earth work. Weir
River banks: drying; steep. Cliff; if unsurveyed
dry with cross channels; with inland & coastal tidal river
Submerged rocks: Shoal. Swamp. Reed
Vertical feed; coloured fibre wall. Spring; tanks; perennial; dry
Embankments: road or rail; dam. Broken ground
Railways: broad gauge; metre gauge; narrow gauge
other gauges; to scale; not to scale; dis
Mineral line or tramway. Telegraph line; Overhead; underground
Contours with datum; or Rocky scarps. Cliffs
Sand: hard; reed like. Trees: if in an avenue; orchard; if individual

1st Edition 1967: Rep. 2000.
Revision Edition of Feet style: February 1976 Rep. 1978.

REFER TO THIS MAP AS : 1:50,000
SHEET 52 D/4 SECOND EDITION

INDIA

भारत के महासर्वेक्षक का, पृथ्वीश नाग, के निदेशन में प्रकाशित,
Published under the direction of Dr. Prithvish Nag, Surveyor General of India.
Survey of India Hathibarkala Estate, Post Box No. 37, Dehra Dun-248001 (Uttaranchal), Department of Science & Technology, Government of India.

1:50,000

1 cm to 1 km
Miles to 1000 500 0 1 2 3 4 5 6 Kilometres

HEIGHTS & CONTOURS IN METRES
CONTOUR INTERVAL 20 METRES

Water features are shown in blue where they generally contain water.
Cultivated areas are coloured yellow.
The various boundaries or areas of reserved or protected forests are shown by green ribbons.

Contours are represented.
A number near to, or representing the approximate height, in metres, between the top and bottom of a steep slope.
Woodland areas are coloured green. Scattered trees and other vegetation are in green, but prominent, surveyed trees are in black.

The triangulated heights and contours in this sheet have not been adjusted to the values of the bench-levelled benchmarks and may not be strictly in accordance with them.
Unmetalled roads in this sheet are generally motorable in dry season. Reconnaissance of the above metalled forest areas is required from the Forest Authorities.
This sheet has been compiled from 1:25,000 survey.

REFERENCES

Vet. Hosp	Veterinary Hospital	OT	Overhead tank
Disp	Dispensary	WF	Wire fence

Administrative Index

Towns or Villages (small and large) and Huts ... Temple. Church. Chapel. Mosque. Masjid. Tomb. Graves ... Lighthouse & Lightship (Major light, minor light and Anchor light) ... Wind. Wind on sails. Graves. Sand dune ... Palmyra (single tree). Phoenix. Conifer. Bamboo. Other trees ... Boundary, international ... state or province, undemarcated, undetermined ... district, subdivision, taluk or tehsil, forest ... Boundary pillars numbered: international, village, village organization ... Height, triangulated: station, point, approximate ... Bench-mark: geodetic, tertiary, canal ... Post office. Telegraph office. Combined office. Police station. PO TO PTO PS ... Bungalow. Rest-house. Dak bungalow, halting-place, Rest-house ... DB IB (Canal) RH (Forest) ... Circuit house. Camping ground. Forest rangers' or other protected ... CH CG FR PF ... Special names: administrative, locality or tribal ... KIKRI NAGA

Price: Twenty-nine Rupees.

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Project Director
NHAI, PIU - Palampur

Divisional Forest Officer,
Dharamshala Forest Division,
Dharamshala

Proposed Bridge details of Pkg-IIA section of NH-154

Span Length of Bridges have been proposed based on the Detailed Hydrological studies to cater the Surface Run off considering HFL of last 100 years & the catchment of Rivers as well as Channels/Streams/Khad/Nallahs and. Also, bridge spans have been finalized considering the techno-economic feasibility & aesthetic view of site location.

Existing bridges those are under capacity based on cross sectional width of 4-lane+PS and loading capacity are undergoes for re-construction and those existing bridges which are fulfilling the requirement are retained. The details of Major Bridges & Minor Bridges are given below.

Major Bridge

S.No	Design Chainage (Km)	Proposed Span arrangement (m)	Total Length (m)	Overall Width in (m)	Remarks
1	59+778	4x42	168	25	PSC I-Girder
2	62+925	2x30+1x42	102	25	PSC I-Girder

Minor Bridge

S.No	Design Chainage (Km)	Proposed Span arrangement(m)	Total Length (m)	Remarks
1	48+855	1x20	20	RCC T-Beam
2	51+370	1x15	15	RCC T-Beam
3	51+430	1x15	15	RCC T-Beam
4	53+025	1x25	25	RCC T-Beam
5	56+152	1x14	14	RCC Solid Slab
6	56+840	1x20	20	RCC T-Beam
7	57+320	1x10	10	RCC Solid Slab
8	59+258	1x10	10	RCC Solid Slab
9	66+244	1x14	14	RCC Solid Slab

Culverts

S.No	Proposed Span arrangement(m)	No of Culverts	Remarks
1	4X4	14	RCC Box Culvert
2	2X2	99	RCC Box

Project Director
NHAI, PIU - Palampur

Appendix-BIX

a) Reconstruction of Culverts

S. No	Existing Chainage(KM)/ Culvert No.	Design Chainage (KM)	Spans/Opening with span length (m)	Remarks
1.	52/1	48+260	4x4	RCC Box Culvert
2.	52/2	48+382	4x4	RCC Box Culvert
3.	52/3	48+506	4x4	RCC Box Culvert
4.	53/3	49+070	4x4	RCC Box Culvert
5.	54/1	49+507	4x4	RCC Box Culvert
6.	54 /2	49+550	4x4	RCC Box Culvert
7.	54/3	49+605	2x2	RCC Box Culvert
8.	54/4	49+775	2x2	RCC Box Culvert
9.	54/5	49+795	2X2	RCC Box Culvert
10.	54/6	50+033	2x2	RCC Box Culvert
11.	54/7	50+153	2x2	RCC Box Culvert
12.	54/8	50+334	2x2	RCC Box Culvert
13.	54/9	50+408	2x2	RCC Box Culvert
14.	54/10	50+494	2x2	RCC Box Culvert
15.	55/6	50+982	2X2	RCC Box Culvert
16.	55/7	51+109	4x4	RCC Box Culvert
17.	56/5	51+650	2x2	RCC Box Culvert
18.	56/7	51+743	2x2	RCC Box Culvert
19.	56/8	51+823	2x2	RCC Box Culvert
20.	56/10	51+983	4x4	RCC Box Culvert
21.	56/11	52+093	4x4	RCC Box Culvert
22.	57/1	52+403	2x2	RCC Box Culvert
23.	57/2	52+453	2x2	RCC Box Culvert
24.	57/3	52+653	2x2	RCC Box Culvert
25.	57/4	52+803	2x2	RCC Box Culvert
26.	57/5	52+907	4x4	RCC Box Culvert
27.	58/2	53+623	2x2	RCC Box Culvert

Project Director
NHAI, PIU - Palampur

S. No	Existing Chainage(KM)/ Culvert No.	Design Chainage (KM)	Spans/Opening with span length (m)	Remarks
28.	58/3	53+740	2x2	RCC Box Culvert
29.	58/4	53+800	4x4	RCC Box Culvert
30.	58/5	53+850	4x4	RCC Box Culvert
31.	59/2	54+345	2x2	RCC Box Culvert
32.	59/3	54+480	2x2	RCC Box Culvert
33.	59/4	54+702	4x4	RCC Box Culvert
34.	60/1	55+155	2x2	RCC Box Culvert
35.	60/2	55+370	2x2	RCC Box Culvert
36.	60/4	55+640	2x2	RCC Box Culvert
37.	60/5	55+790	2x2	RCC Box Culvert
38.	61/1	55+895	2X2	RCC Box Culvert
39.	61/5	56+250	2x2	RCC Box Culvert
40.	61/6	56+558	2x2	RCC Box Culvert
41.	61/7	56+960	4x4	RCC Box Culvert
42.	62/2	57+400	2x2	RCC Box Culvert
43.	63/1	57+505	2x2	RCC Box Culvert
44.	63/2	57+605	2x2	RCC Box Culvert
45.	63/3	57+845	2x2	RCC Box Culvert
46.	63/4	58+515	2x2	RCC Box Culvert
47.	63/5	58+700	2x2	RCC Box Culvert
48.	64/1	58+860	2x2	RCC Box Culvert
49.	64/2	58+945	2x2	RCC Box Culvert
50.	64/3	59+010	2x2	RCC Box Culvert
51.	64/4	59+055	2x2	RCC Box Culvert
52.	64/5	59+180	2X2	RCC Box Culvert
53.	64/7	59+445	2x2	RCC Box Culvert
54.	64/8	59+615	2x2	RCC Box Culvert
55.	65/11	60+000	2x2	RCC Box Culvert
56.	65/12	60+090	2x2	RCC Box Culvert
57.	65/13	60+155	2x2	RCC Box Culvert

Project Director
NHAI, PIU - Palampur

S. No	Existing Chainage(KM)/ Culvert No.	Design Chainage (KM)	Spans/Opening with span length (m)	Remarks
58.	65/17	60+315	2x2	RCC Box Culvert
59.	66/1	60+400	2x2	RCC Box Culvert
60.	66/2	60+540	2x2	RCC Box Culvert
61.	66/4	60+630	2x2	RCC Box Culvert
62.	66/5	60+745	2x2	RCC Box Culvert
63.	66/6	61+945	2x2	RCC Box Culvert
64.	66/7	61+015	2x2	RCC Box Culvert
65.	66/8	61+030	2x2	RCC Box Culvert
66.	66/9	61+200	2x2	RCC Box Culvert
67.	66/11	61+230	2x2	RCC Box Culvert
68.	66/12	61+320	2x2	RCC Box Culvert
69.	66/13	61+375	2x2	RCC Box Culvert
70.	67/1	61+430	2x2	RCC Box Culvert
71.	67/2	61+545	2x2	RCC Box Culvert
72.	67/3	61+645	2x2	RCC Box Culvert
73.	67/4	61+710	2x2	RCC Box Culvert
74.	67/5	61+860	2x2	RCC Box Culvert
75.	67/6	61+945	2x2	RCC Box Culvert
76.	70/10	64+180	2x2	RCC Box Culvert
77.	70/11	64+250	2x2	RCC Box Culvert
78.	70/15	64+380	2X2	RCC Box Culvert
79.	70/16	64+435	2X2	RCC Box Culvert
80.	70/17	64+505	2x2	RCC Box Culvert
81.	70/18	64+540	2x2	RCC Box Culvert
82.	71/1	64+580	2X2	RCC Box Culvert
83.	71/2	64+730	2X2	RCC Box Culvert
84.	71/3	64+775	2X2	RCC Box Culvert
85.	71/4	64+830	2X2	RCC Box Culvert
86.	71/5	64+930	2X2	RCC Box Culvert
87.	71/6	65+010	2x2	RCC Box Culvert

Project Director
NHAI (HQ) - Palampur

S. No	Existing Chainage(KM)/ Culvert No.	Design Chainage (KM)	Spans/Opening with span length (m)	Remarks
88.	71/7	65+088	2x2	RCC Box Culvert
89.	71/8	65+160	2x2	RCC Box Culvert
90.	71/9	65+225	2x2	RCC Box Culvert
91.	71/10	65+325	2x2	RCC Box Culvert
92.	71/11	65+405	2x2	RCC Box Culvert
93.	72/1	65+610	2x2	RCC Box Culvert
94.	72/2	65+640	2x2	RCC Box Culvert
95.	72/4	65+790	2x2	RCC Box Culvert
96.	72/5	65+890	2x2	RCC Box Culvert
97.	72/6	65+925	2x2	RCC Box Culvert
98.	72/7	65+990	2x2	RCC Box Culvert
99.	72/8	66+100	2x2	RCC Box Culvert
100.	72/9	66+130	2x2	RCC Box Culvert
101.	72/10	66+190	2x2	RCC Box Culvert
102.	72/13	66+300	2x2	RCC Box Culvert
103.	72/14	66+340	2x2	RCC Box Culvert
104.	72/15	66+410	2x2	RCC Box Culvert

b) Widening of Culverts

S. No.	Existing Chainage (KM)	Design Chainage (KM)	Type, span, height and width of existing culvert (m)	Repairs to be carried out [specify]
NIL				

c) Retaining of Culverts

S. No.	Existing Chainage (KM)	Design Chainage (KM)	Existing			Development Proposal			
			Existing Structure	Span (m)	Width (m)	Retained	Proposed Structure Type	Span Arrangement	Total Width (m)
NIL									

d) Additional New culverts

Project Director
NHAI, PIU - Palampur

S. No.	Design Chainage (KM)	Type	Span (m)
1.	50+755	RCC Box Culvert	2x2
2.	50+883	RCC Box Culvert	2x2
3.	62+185	RCC Box Culvert	4x4
4.	62+300	RCC Box Culvert	2x2
5.	62+600	RCC Box Culvert	2x2
6.	63+340	RCC Box Culvert	2x2
7.	63+600	RCC Box Culvert	2x2
8.	63+850	RCC Box Culvert	2x2
9.	64+010	RCC Box Culvert	2x2

Project Director
NHAI, PIU - Palampur

Annexure -C

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय)
National Highways Authority of India
(Ministry of Road Transport and Highways)
जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली 110075
G-5 & 6, Sector-10, Dwarka, New Delhi-110075

NHAI/Pathankot-Mandi/HP/2020 Date : 09.10.2020

To,

Shri Sudip Chaudhary
Chief Engineer (Planning)
Ministry of Road Transport & Highways
Transport Bhawan, Parliament Street, 1,
New Delhi 110001

Sub: HP/Punjab Border to Mandi section on NH-20 (Now NH-154) from km 11.000 to km 208.000 and in the State of Himachal Pradesh.
Ref: NHAI letter dt. 11.09.2020
Secretary, MoRTH DO letter dated 15.09.2020

Sir,

In continuation to NHAI even no. letter dt. 11.09.2020 and in reference to Secretary, MoRTH DO letter dated 15.09.2020, it is submitted that the subject stretch was entrusted to NHAI for maintenance and development under NH(O). The preparation of DPR for the same is under advanced stage. Considering strategic point of view, it has been in principally decided to take up development of Pathankot-Mandi highway in five packages. Based on availability of resources and inter-se priority, following 05 packages will be taken up in financial year 2020-21 with following tentative details.

Package No	Length (in km)	Length of proposed tunnel	Civil Cost/ Bid Project Cost (Rs. In Cr.)	LA & Pre Construction Cost (Rs. In Cr.)	Total Capital Cost (Rs. In Cr.)	Traffic (2020) as per the DPR Consultant traffic done in July 2017
Package No I(HAM) HP/Punjab Border to Sihuni section from km 11.000 to km 51.000 4 Laning	37.03	700 m & 450 m	1150/ 1524.60	190.71	1715.31	13,526
Package No II (HAM) Sihuni to Paror section from km 51.000 to km 100.840 4 Laning	47.52	500m	1136.18/ 1497.50	463.10	1960.60	12,822

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Package No III(HAM) Paror to Chauntra section from km 100.840 to km 140.625 2L+PS	32.18	1750 m	680.08/ 904.70	204.93	1109.63	8,739
Package No IV(HAM) Chauntra to Padhar section from km 140.625 to km 180.000 2L+PS	32.178	Nil	578.58/ 769.15	180.70	949.85	5,315
Package No V (HAM) Padhar to Mandi section from km 180.000 to km 208. 2L+PS	23.417	3800 m	1001.04/ 1331.80	193.68	1525.48	5,992

2. The above details are for your kind perusal & information and further directions, if any in the matter please.

Yours faithfully,

(Virender Sambyal)
General Manager (T) J&K/HP

Copy: RO HP & PD PIU Palampur

Project Director
NHAI, PIU - Palampur

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय)
National Highways Authority of India
(Ministry of Road Transport and Highways)
जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075
G-5 & 6, Sector-10, Dwarka, New Delhi-110075
दूरभाष / Phone : 91-11-25074100/25074200
फैक्स / Fax : 91-11-25093507 / 25093514

NHAI/Pathankot-Mandi/HP/2020

Date : 09.10.2020

To,

Regional Officer, Himachal Pradesh
National Highways Authority of India
House No- 1, Rishikesh Sadan,
Shanti Kutia, Chakkar,
Shimla - 171005 (HP)

Sub: HP/Punjab Border to Mandi section on NH-20 (Now NH-154) from km 11.000 to km 208.000 and in the State of Himachal Pradesh.

Ref: NHAI letterdt. 11.09.2020
Secretary, MoRTH DO letter dated 15.09.2020

Sir,

The subject stretch was entrusted to NHAI for maintenance and development under NH(O). The preparation of DPR for the same is under advanced stage. Considering strategic point of view, it has been in principally decided to take up development of Pathankot-Mandi highway in five packages. Based on availability of resources and inter-se priority, following 05 packages will be taken up in financial year 2020-21 with following tentative details.

Package No	Tentative Length (in km)
Package No I(HAM), HP/Punjab Border to Sihuni section from km 11.000 to km 51.000, 4 Laning	37.03
Package No II (HAM), Sihuni to Paror section from km 51.000 to km 100.840, 4 Laning	47.52
Package No III(HAM), Paror to Chauntra section from km 100.840 to km 140.625, 2L+PS	32.18
Package No IV(HAM), Chauntra to Padhar section from km 140.625 to km 180.000, 2L+PS	32.178
Package No V (HAM), Padhar to Mandi section from km 180.000 to km 208, 2L+PS	23.417

2. It is therefore requested to finalize the DPR duly verified for its suitability as per site condition, for the above 05 packages at the earliest, get it peer reviewed by Retired Government Officers as per NHAI Policy no. 10.2.24 dt. 22.07.2020 (in consultation with NHAI HQ) and submit the detailed proposals for placing before LAC Committee for consideration and necessary approvals.

3. This issues with the approval of the Competent Authority.

Yours faithfully,

Project Director
NHAI, PIU - Palampur

(Virender Sambyal)
General Manager (T) J&K/HP

Copy to: PD PIU Palampur


KM-52.000
KM-52.560
154
KM-52.170
KM-51.850
KM-51.700
Lord Hanuman Temple
KM-52.400
154
KM-52.215
Image © 2022 Maxar Technologies

Table 2.1 Design Speed

Nature of Terrain	Cross Slope of the Ground	Design Speed (km/h)	
		Ruling	Minimum
Plain and Rolling	Up to 25 percent	100	80
Mountainous and Steep	More than 25 percent	60	40

Short stretches (say less than 1 km) of varying terrain met with on the road stretch shall not be taken into consideration while deciding the terrain classification for a given section of Project Highway.

2.2.2 In general, the ruling design speed shall be adopted for the various geometric design features of the road. Minimum design speed shall be adopted only where site conditions are restrictive and adequate land width is not available. Such stretches where design speed other than ruling speed is to be adopted shall be as indicated as deviation in **Schedule 'D'** of the Concession Agreement.

2.3 Right-of-Way

A minimum Right of Way (ROW) of 60 m should be available for development of a 4-lane highway. The Authority would acquire the additional land required, if any. The land to be acquired shall be indicated in **Schedule 'B'** of the Concession Agreement. The consideration for planning, design and construction described in Para 1.13 shall apply.

2.4 Lane Width of Carriageway

The standard lane width of project highway shall be 3.5 m.

2.5 Median

2.5.1 The median shall be either raised or depressed. The width of median is the distance between inside edges of carriageway. The type of median shall depend upon the availability of Right of Way. The minimum width of median, subject to availability of Right of Way, for various locations shall be as in **Table 2.2**.

Table 2.2 Width of Median

Type of Section	Minimum Width of Median (m)		
	Plain and Rolling Terrain		Mountainous and Steep Terrain
	Raised*	Depressed Median	Raised*
Open country with isolated built-up area	5.0	7.0	2.5
Built up area	2.5	Not Applicable	2.5
Approach to grade separated structures	5.0	Not Applicable	2.5

* Including Kerb shyness of 0.50 m on either side. In the existing 4-lane reaches also, the minimum kerb shyness of 0.5 m shall be maintained. This additional width for kerb shyness shall be catered by augmenting the carriageways toward the shoulder side. The type and widths of median in various stretches of Project Highway shall be as indicated in **Schedule 'B'**.

Project Director
NHAI, PIU - Palampur

Annexure-I

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Project Director
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Annexure-I

MUCK DISPOSAL PLAN

1. **Generated Muck Volume**

Since proposed road traverses through undulated section in Plain & Rolling Terrain as well as in Mountainous & Steep Terrain in Open Country due to which road side cutting involves which requires removal of excavation of material i.e. soil, boulders etc.

The estimated volumes of muck to be generated from the road side cutting are given in table 1 below.

About 100% of the generated muck is to be reused in road construction for filling, construction of retaining/RS walls and in approaches of VUP as necessary. The total quantity of generated muck, reusable quantity, and quantity to be disposed are provided in **Table 2 below.**

Table: 1 Volume of Muck to be generated

S.No.	Description	Quantity	Unit
1	Material received from hill side cutting	795545.05	Cum
2	**Total (1)**	**795545.05**	**Cum**
3	Disposal and use of cutting material in road work		
I	Embankment filling from roadway cutting (80%)	298372.58	Cum
4	Total	298372.58	Cum
5	**Material required to be disposed by cartage(2-4)**	497172.47	**Cum**
6	**Swell Factor 40%**	198868.99	Cum
7	**Total Material Required to be Disposed(5+6)**	696041.46	**Cum**

Table 2 Summary of debris disposal

S.No.	Reused material for road construction	Total debris including 40% swell factor	Total disposal in dumping zone
1	298372.58	696041.46	696041.46

Note: - Muck Disposal 696041.46 cum is catered to Muck dumping location design km 84+927 to km 86+277 of Nagrota Bagwan bypass section for NH-154 Dumping Site Capacity length 1350 m size (1350*45*11.5) 698625 Cum.

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2. Proposed Muck Disposal Site

The muck disposal site measuring a total area of 6.0750 ha have been selected as designated site for muck disposal as detailed in **Table 3 below.**

Table 3: Muck Disposal Sites-Present Status

Villages	Dumping Sides	Survey No	Existing Land		To be acquired Land		Total Land (Ha.)
			Forest Land (Ha.)	Non Forest Land (Ha.)	Forest Land (Ha.)	Non Forest Land (Ha.)	
Lalesar	MDS1	164				0.0218	0.0218
		165				0.0413	0.0413
		165/1				0.0130	0.0130
		166				0.0576	0.0576
		606				0.0062	0.0062
		607				0.0183	0.0183
		613				0.0158	0.0158
		614				0.1299	0.1299
		615				0.0821	0.0821
		616				0.0131	0.0131
		617				0.0806	0.0806
		618				0.0925	0.0925
		619				0.0243	0.0243
		620				0.0068	0.0068
		621				0.0928	0.0928
		622				0.0603	0.0603
		623				0.0196	0.0196
		624				0.0060	0.0060
		625				0.0099	0.0099
		626				0.0175	0.0175
		627				0.0056	0.0056
		628				0.0105	0.0105
		629				0.0791	0.0791
		630				0.0042	0.0042
		631				0.0124	0.0124

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		632				0.0014	0.0014
		633				0.0018	0.0018
		634				0.0038	0.0038
		635				0.0050	0.0050
		636				0.0062	0.0062
		637				0.0097	0.0097
		638				0.0118	0.0118
		639				0.0095	0.0095
		641				0.0120	0.0120
		645				0.0483	0.0483
		652				0.0240	0.0240
		733				0.0886	0.0886
		734				0.0158	0.0158
		735				0.0092	0.0092
		736				0.0494	0.0494
		740				0.0182	0.0182
		741				0.0151	0.0151
		742				0.0039	0.0039
		743				0.0021	0.0021
		744				0.0071	0.0071
		745				0.0064	0.0064
		746				0.0052	0.0052
		753				0.0183	0.0183
		1601/754				0.0779	0.0779
		1602/754				0.0835	0.0835
		1603/754				0.0662	0.0662
		1606/754				0.0533	0.0533
		1607/754				0.2150	0.2150
Ranoohn		387				0.0030	0.0030
		388				0.0182	0.0182
		389				0.0013	0.0013
		390				0.0053	0.0053
		396				0.0146	0.0146

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		397				0.0216	0.0216
		398				0.1503	0.1503
		399				0.0036	0.0036
		400				0.0036	0.0036
		402				0.0018	0.0018
		403				0.0338	0.0338
		404				0.0425	0.0425
		405				0.0082	0.0082
		406				0.1943	0.1943
		407				0.0025	0.0025
		408				0.0813	0.0813
		409				0.0140	0.0140
		410				0.0080	0.0080
		411				0.0078	0.0078
		412				0.0118	0.0118
		413				0.0131	0.0131
		414				0.0034	0.0034
		415				0.0392	0.0392
		416				0.0208	0.0208
		417				0.0020	0.0020
		418				0.0066	0.0066
		419				0.0122	0.0122
		420				0.0515	0.0515
		421				0.0054	0.0054
		422				0.0212	0.0212
		423				0.0657	0.0657
		424				0.0276	0.0276
		425				0.0309	0.0309
		426				0.0028	0.0028
		427				0.0759	0.0759
		428				0.0024	0.0024
		431				0.0034	0.0034
		432				0.0016	0.0016

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		433				0.0046	0.0046
		434				0.0020	0.0020
		435				0.0040	0.0040
		436				0.0114	0.0114
		437				0.0487	0.0487
		438				0.0021	0.0021
		439				0.0024	0.0024
		440				0.0222	0.0222
		441				0.0200	0.0200
		442				0.0094	0.0094
		443				0.0044	0.0044
		447				0.0014	0.0014
		448				0.0102	0.0102
		449				0.0094	0.0094
		450				0.0016	0.0016
		452				0.0010	0.0010
		453				0.0010	0.0010
		454				0.0088	0.0088
		455				0.0094	0.0094
		456				0.0030	0.0030
		457				0.0010	0.0010
		458				0.0070	0.0070
		464				0.0012	0.0012
		465				0.0014	0.0014
		466				0.0120	0.0120
		467				0.0151	0.0151
		468				0.0054	0.0054
		469				0.0022	0.0022
		892				0.0076	0.0076
		900			0.0144		0.0144
		901				0.0381	0.0381
		902				0.0102	0.0102
		903				0.0067	0.0067

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		1013				0.0015	0.0015
		1016				0.0020	0.0020
		1017				0.0052	0.0052
		1018				0.0068	0.0068
		1019				0.0060	0.0060
		1020				0.0091	0.0091
		1023				0.0021	0.0021
		1024				0.0205	0.0205
		1025			0.0060		0.0060
		1026				0.1266	0.1266
		1027			0.0016		0.0016
		1028				0.0498	0.0498
		1029			0.0126		0.0126
		1030				0.0033	0.0033
		1031				0.0044	0.0044
		1032				0.0537	0.0537
		1033			0.0118		0.0118
		1034				0.0474	0.0474
		1035				0.0502	0.0502
		1036				0.0032	0.0032
		1037				0.0024	0.0024
		1038				0.0033	0.0033
		1039			0.2072		0.2072
		1040			0.2828		0.2828
		1041				0.0177	0.0177
		1042			0.1082		0.1082
		1043				0.1409	0.1409
		1044			0.1128		0.1128
		1045				0.0108	0.0108
		1046				0.0415	0.0415
		1954/1047				0.0074	0.0074
		1955/1047				0.0384	0.0384
		1956/1047				0.0200	0.0200

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		1048				0.0701	0.0701
		1050				0.0271	0.0271
		1051			0.0100		0.0100
		1052				0.0477	0.0477
		1053			0.0173		0.0173
		1054				0.0060	0.0060
		1055			0.1078		0.1078
		1056				0.0358	0.0358
		1057				0.1160	0.1160
		1058			0.0576		0.0576
		1059			0.3434		0.3434
		1154				0.0091	0.0091
		1155			0.4343		0.4343
		1753				0.0180	0.0180
		1756				0.0190	0.0190
		1757				0.0238	0.0238
		1758				0.2125	0.2125
Total					**1.7278**	**4.3472**	**6.0750**

The muck disposal lands proposed are generally in non-forest area but due to under-capacity some forest land has also been acquired within the PROW to fulfil the muck dumping as no other alternative non-forest land is available along the project area. Out of the total 6.0750 ha, 4.3472 ha. Forest land has already been diverted in 2021 through Proposal FP/HP/ROAD/152261/2022 dated 15/07/2022 for muck disposal.

Moreover, Digital elevation models, as presented in **Figure 1** of the one (01) selected muck disposal sites, were prepared for all muck dumping sites to ascertain the topography and determining the location and length of the gabion wall for slope protection so as to prevent the muck from reaching into natural streams.

Project Director
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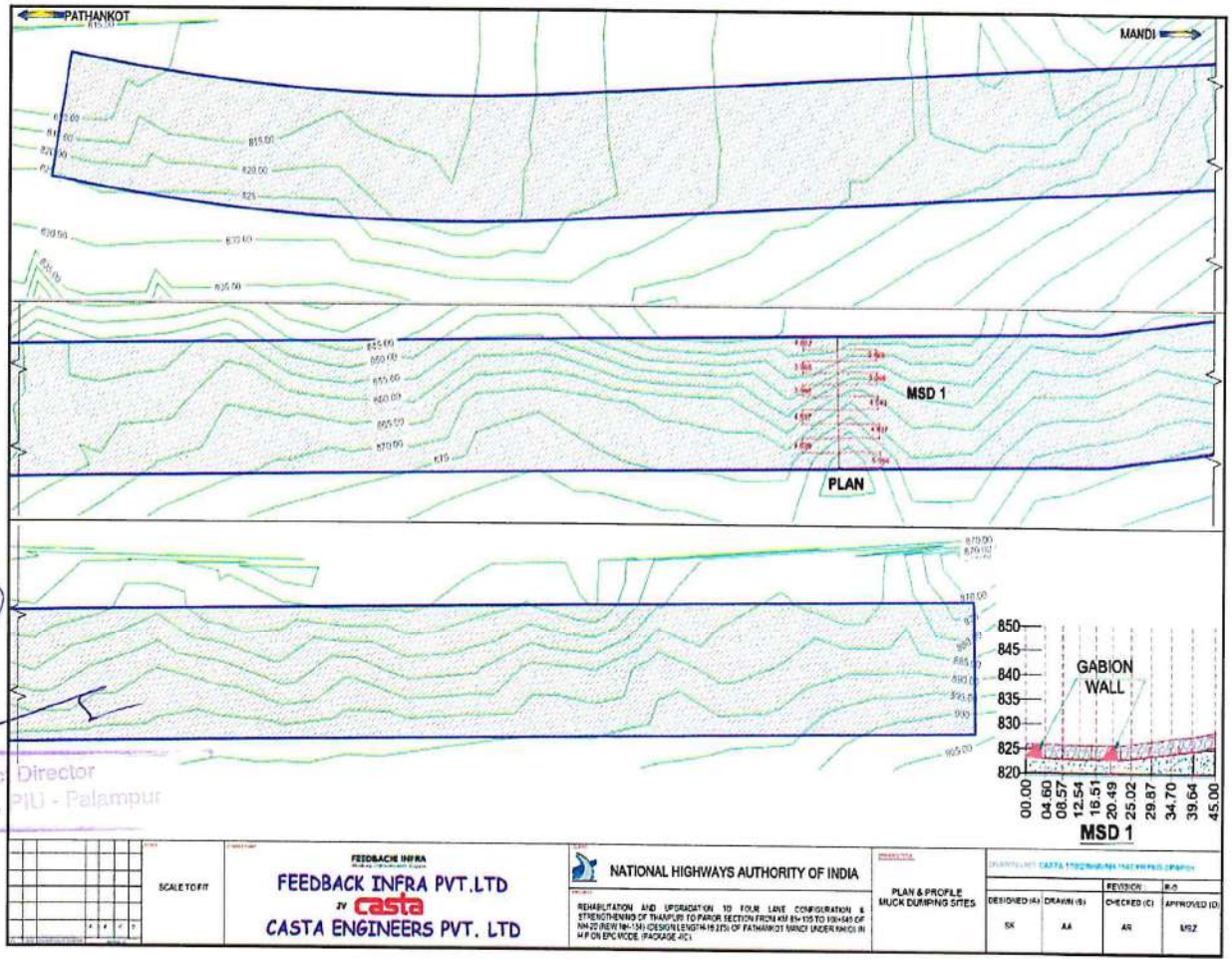
Muck Dumping Site-I

Figure: 1 MDS-1 Villages Lalesar & Ranoohn



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4-Lane of Pathankot to Mandi section NH-20 (New NH-154) PKG-IIA (Km 51.00 to Km 72.00)

The muck holding capacity of the all muck disposal sites (including the already diverted/acquired plot) are detailed in **Table 4 below** and comparison of muck volume to be generated vis-à-vis capacity of the disposal sites are presented in info graphics in **Figure 3 below.**

Table: 4 Muck Holding Capacity of Disposal sites

S.No	Villages	Design Chainage (km)		Length (m)	Width (m)	Height (m)	Area (Sqm)	Capacity (Cu.m)
		From	To					
1	Lalesar & Ranoohn	84.927	86.277	1350	45	11.5	60750	698625
	Total						**60750**	**698625**

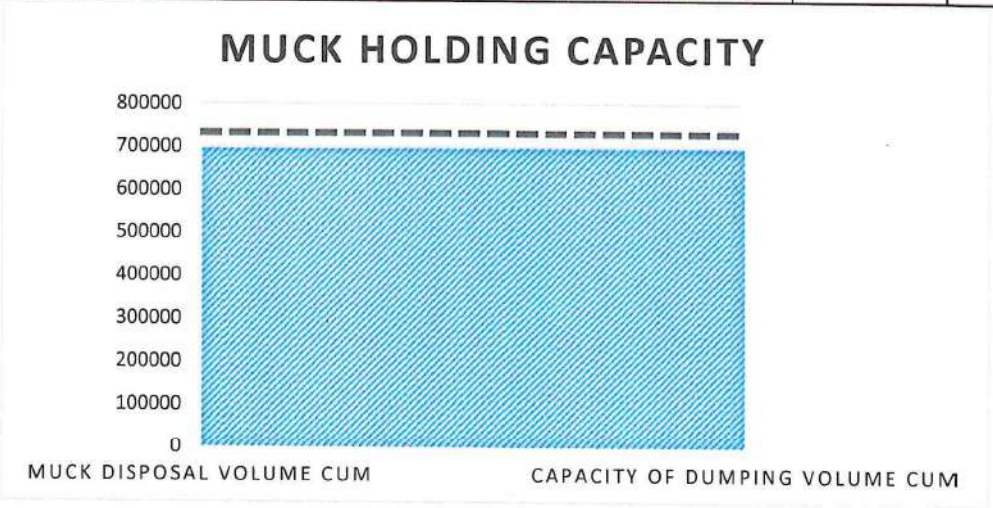


Figure: 3 Generate Muck Volume Vis -a-Vis's capacity of Disposal sites

It can be inferred from the Figure 3 above that capacity of the disposal sites fulfils the requirement of generated muck volume. Therefore, the proposed muck disposal sites with the suggested gabion wall height will suffice the requirement of dumping of excavated muck.

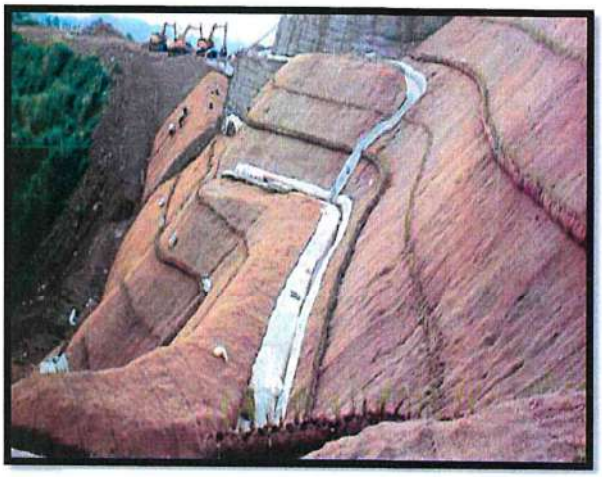
3. Environmental Impacts of Improper Muck disposal

The dumping of rock spoil can potentially be a cause for environmental problems and land degradation. It may cause landslides if not disposed properly and be an aesthetical damage to the natural landscape. Improper muck dumping without slope protection measures results in wash away into the channels/Khad/Streams causing siltation and blockage of natural channels. The trees and undergrowth vegetation of the dumping sites are also affected due to change in land use. Further, when stacked without adequate stabilisation measures, muck moves along with runoff and creates landslides.

4. Environmental Safeguard Measures for Muck Disposal Sites

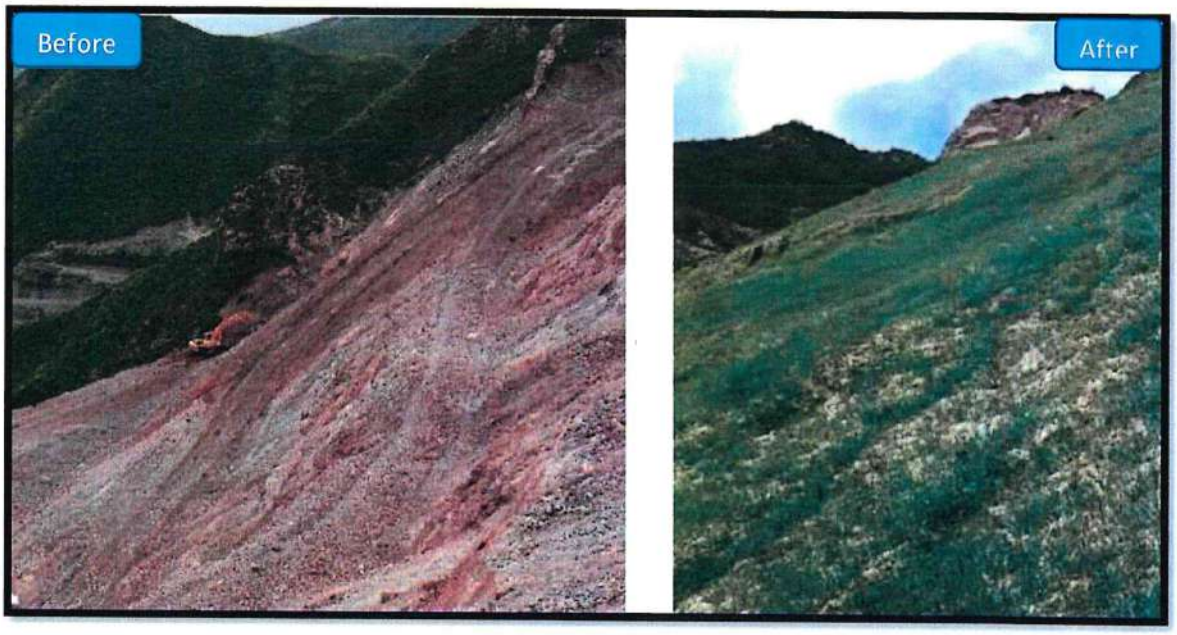
Project Director
NHAI

- Multiple gabion walls at different elevation levels are proposed to retain muck within the boundary of muck disposal sites. Gabion wall of height of 5 m including 0.75 m of buffer along with standard wire gauge galvanised wire (SWG GI) having 10 cm x 10 cm mesh and dimension 1.15 m x1.15 m x1.15 m in multi tiers with 0.5 m wide offset to be laid concurrently with the dumping of muck for side protection. Muck dumping plan of all two (02) proposed disposal sites along with elevation profile and desired Placement of gabion wall is provided in drawings at the end of this report.



Use of Geo- mats for Slope Stabilization

- After preparing the gabion wall at muck disposal site, the muck brought in dumpers shall be dumped and manually spread behind the wall in such a manner that rock mass is properly stacked behind the wall with minimum of voids.



Rehabilitation of slopes using bio-engineering techniques

- Regular inspection by environmental expert of concessionaire and Independent engineer (IE) shall be made to ensure complete avoidance of spilling of muck outside the boundary, especially into channels/Khad/Streams.
- Bioengineering is the technique of utilizing vegetation in addressing geotechnical problems. Slope of muck disposal sites after completion of dumping to a particular site should be stabilized by stone pitching and turfing with geo mats (Coir Geotextile) & indigenous species of soil stabilizing legumes like Vetiver grasses. Natural geotextiles degrade quicker than man-made counterpart, but facilitate growth of vegetation quicker and better to due to this inherent characteristics. Hydro-seeder sprays are to be used for restoring soil fertility of the slope walls for quicker result, as necessary.

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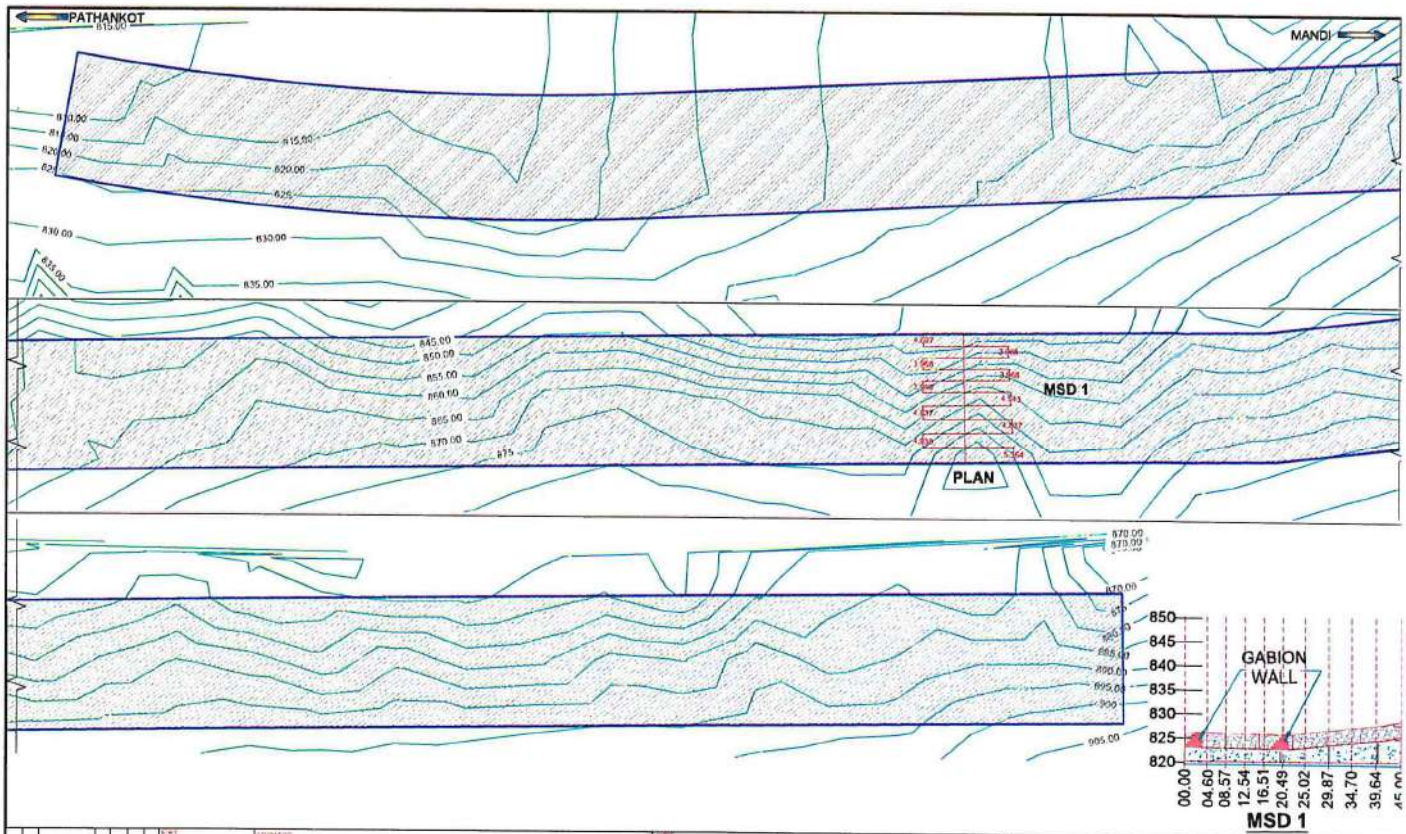
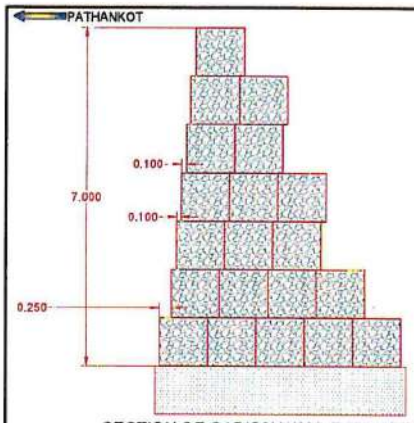


	SCALE TO FIT	FEEDBACK INFRA PVT.LTD JV casta CASTA ENGINEERS PVT. LTD	NATIONAL HIGHWAYS AUTHORITY OF INDIA	PLAN & PROFILE MUCK DUMPING SITES	CASTA 17002/NHAI/NH-154/DPR/PKG-2/P&P/01	
			REHABILITATION AND UPGRADATION TO FOUR LANE CONFIGURATION & STRENGTHENING OF THANPURI TO PAROR SECTION FROM KM 81+125 TO 100+840 OF NH-20 (NEW NH-154) (DESIGN LENGTH-18.276) OF PATHANKOT MANDI UNDER NH-O) IN H.P ON EPC MODE. (PACKAGE -IIC).		REVISION :	R-0
					DESIGNED (A)	DRAWN (B)
					SK	AA
					CHECKED (C)	APPROVED (D
					AR	MS2

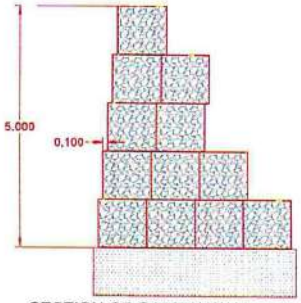
Project Director
NHAI, PIU - Palampur

PATHANKOT

MANDI



SECTION OF GABION WALL 7.00m HEIGHT



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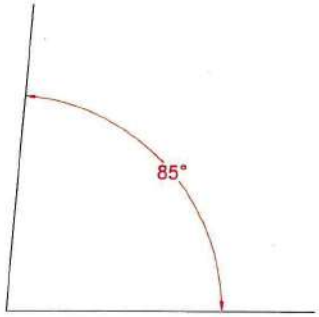
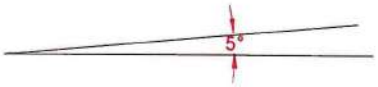
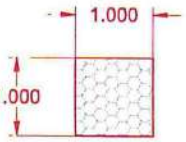


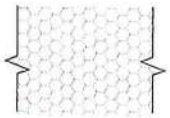
INCLINATION OF VERTICAL FACE



INCLINATION OF HORIZANTAL FACE



GABION BOX



ZINC COTED STEEL
WIREGABION MESH

SCALE TO FIT	FEEDBACK INFRA PVT.LTD JV casta CASTA ENGINEERS PVT. LTD	NATIONAL HIGHWAYS AUTHORITY OF INDIA REHABILITATION AND UPGRADATION TO FOUR LANE CONFIGURATION & STRENGTHENING OF THANPURI TO PARORI SECTION FROM KM 85+135 TO 109+540 OF NH-20 (NEW NH-154) (DESIGN LENGTH-16.375) OF PATHANKOT MANDI UNDER NH(O) IN H.P ON EPC MODE, (PACKAGE -IC).	PLAN & PROFILE MUCK DUMPING SITES	CASTA 1700/NHAI/H-154/DPR/PKG-2/P&P/03	REVISION : 0-0
				DESIGNED (A): SK	DRAWN (B): AA
				CHECKED (C): AR	APPROVED (D): MSZ

Project Director
NHAI, PIU - Palampur

Full Title of the Project: Diversion of 7.1203 Ha. Forest land for Rehabilitation and Upgradation to Four Lane configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 km) of NH-20 (New NH-154) of Pathankot-Mandi Section in the state of Himachal Pradesh.

File No : FP/HP/ROAD/152261/2021

Date of Proposal : 15.07.2022

UNDERTAKING REGARDING MUCK DUMPING SITE

I, Col. Anil Sen GM/Project Director NHAI, PIU-Palampur (H.P) hereby undertake that no additional forest land will be requested for the muck dumping during Rehabilitation and Up-gradation to Four Lane Configuration & Strengthening of Sihuni to Rajol (Km.51/00 to 72/00) of NH-20 (New NH-154).

National Highways Authority of India
PIU-Palampur
NHAI

Col. Anil Sen
GM/Project Director
NHAI, PIU-Palampur (H.P)

Annexure-I

Four Laning of Sihuni to Takhniar section from km 51.00 to km 55.00 of NH-20 (New NH-154) in the state of Himachal Pradesh. Regarding			
List of 04 villages with Hadbast no & code No. CALA-cum SDM Jawali			
Sr. no	**Village name**	**Hadbast No.**	**Code No.**
1	Vorka	234	019801
2	Chichar	237	019001
3	Takhniar	236	019401
4	Bhaniari	238	018901

Competent Authority for
Land Acquisition (CALA)
cum SDO (C) Jawali,
Distt. Kangra (H.P.)

Project Director
NHAI, PIU - Palampur.

List of 27 Villages with Hadvast no. & Code no. Sub Division Shahpur			
KM 55.00 TO 60.60 and KM 61.00 TO 74.00(Pathankot to Mandi Section)			
Sr. NO.	Village Name	Hadvast No.	Code No.
1	Paid	92	009001
2	Chatrunh	94	017401
3	Kholi	93	017201
4	Mohru	91	008901
5	Falgehar	95	009101
6	Sehwan	90	017301
7	Dadroli	87	008301
8	Uperla Bhaniar	89	008501
9	Dramman	83	008401
10	Shahpur	82	007401
11	Hara	81	007301
12	Chandroon	78	007601
13	Majhiar	75	012001
14	Pohara	127	011101
15	Prasel	126	014301
16	Bagru	128	016601
17	Rait	132	012501
18	Noshera	131	011201
19	Manjhgran	297	008001
20	Kutehar	298	015301
21	Har	296	016001
22	Upahu	295	015801
23	Kakroh	294	009201
24	Mahakali	293	009701
25	Behkari	291	010201
26	Thara	292	010301
27	Rajol	281	010501

CALA CUM-SDM
Shahpur, Kangra (H.P.)

Project Director
NHAI, PIU - Palampur

Statement Showing the Village Code and Hadbast No. of Sub- Division Bhattiyat Distt. Chamba H.P.

Km 60.600 To Km 61.000 (Pathankot Mandi Saction)

Sr No.	Name Of Villege	Hadbast No	Code No.
1.	Hatli	345	009701

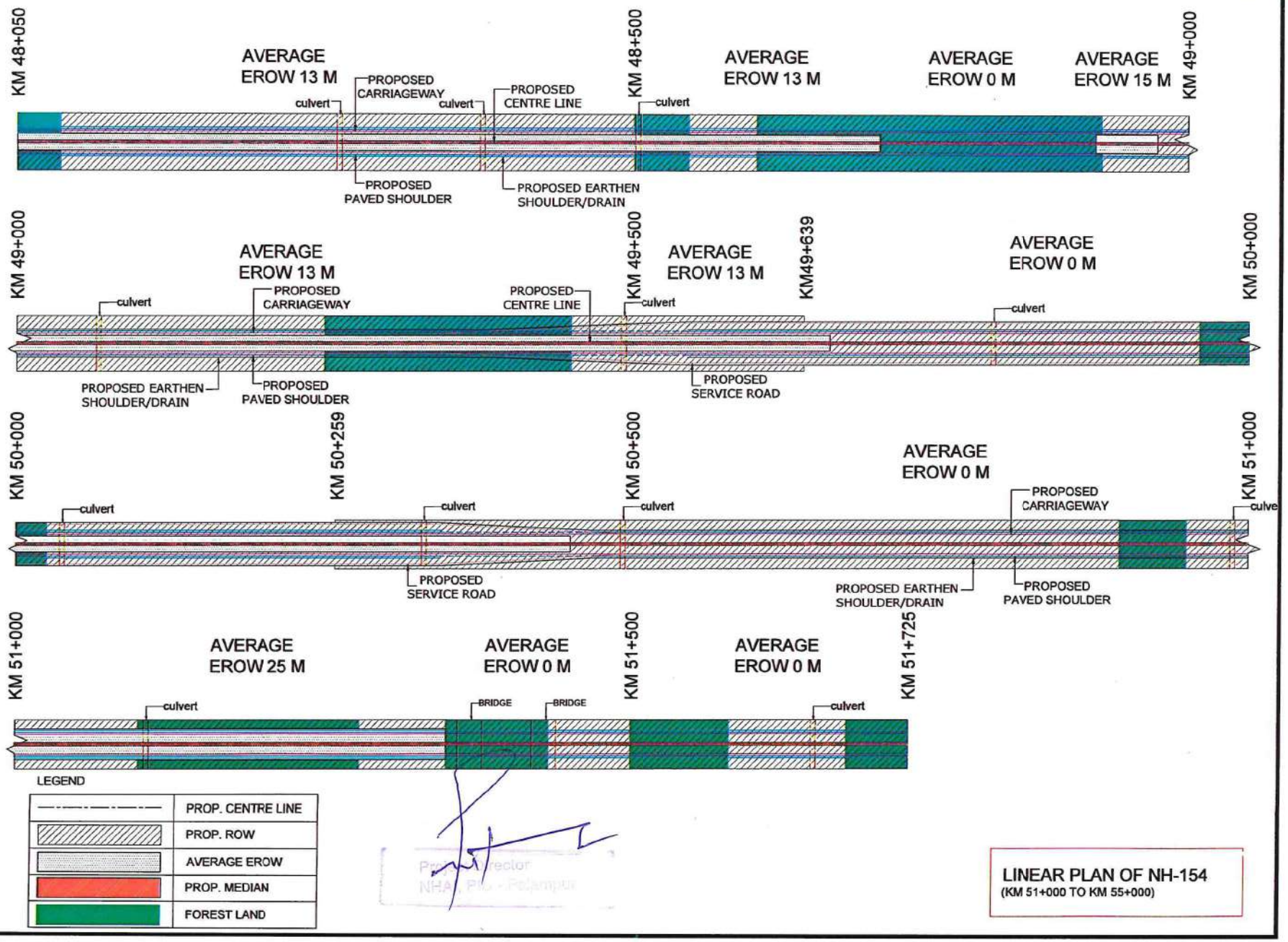
No 4840 dt 01-11-2022

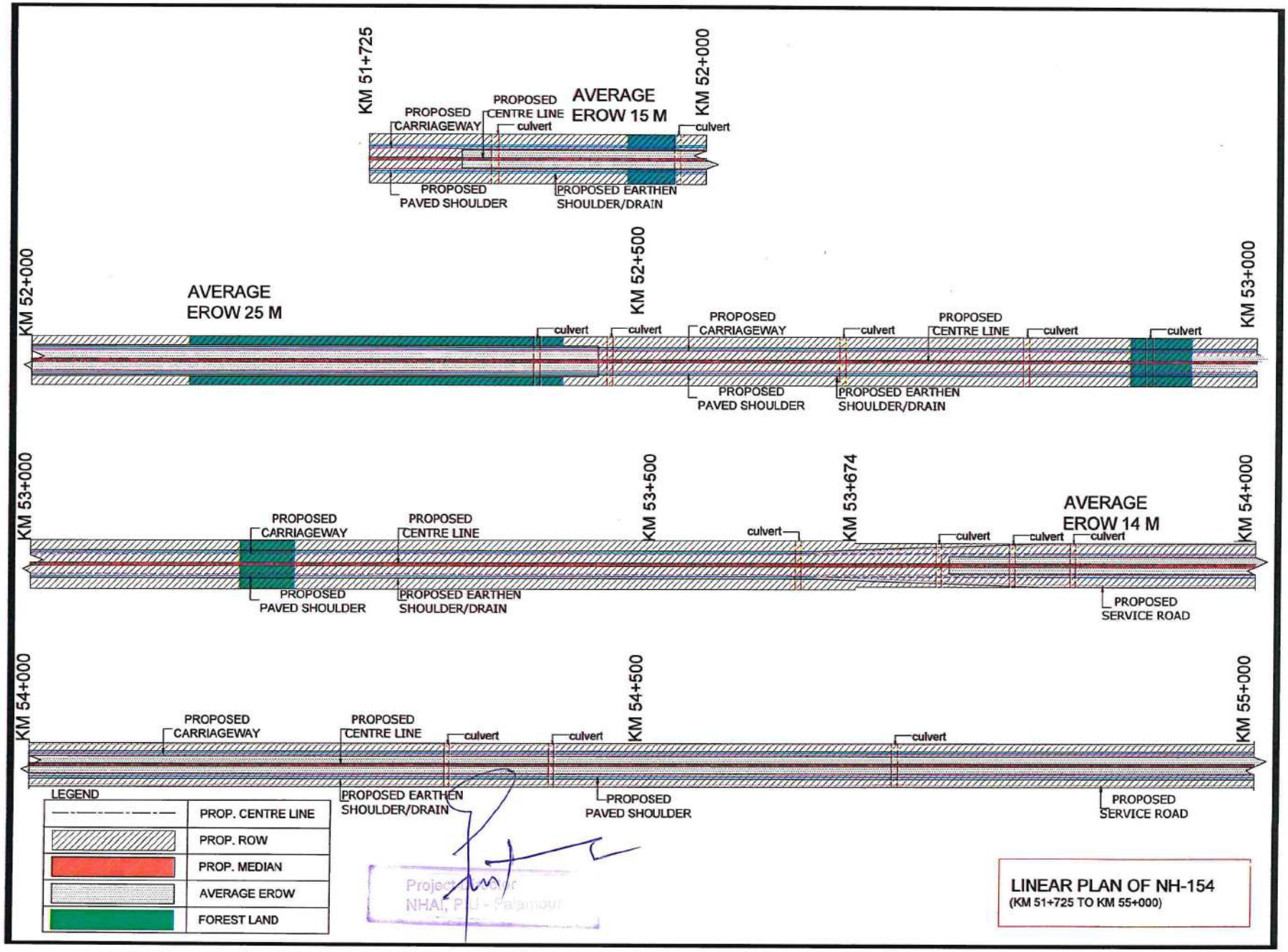
CALA-cum-Sub Divisonal Officer
Bhattiyat at Chowari
Distt. Chamba H.P.

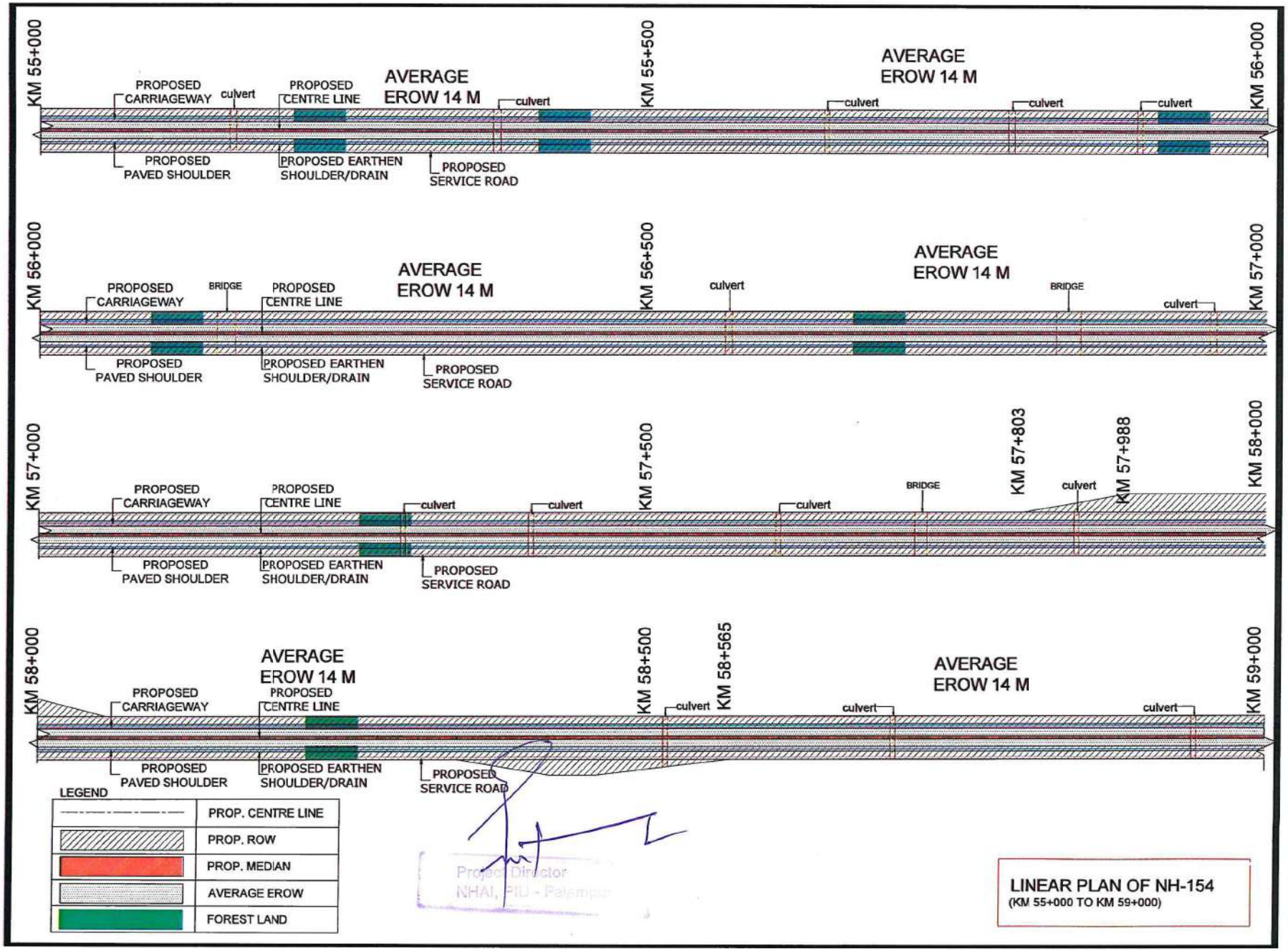
CALA cum Sub Divisional Magistrate
Bhattiyat at Chowari, Distt. Chamba.

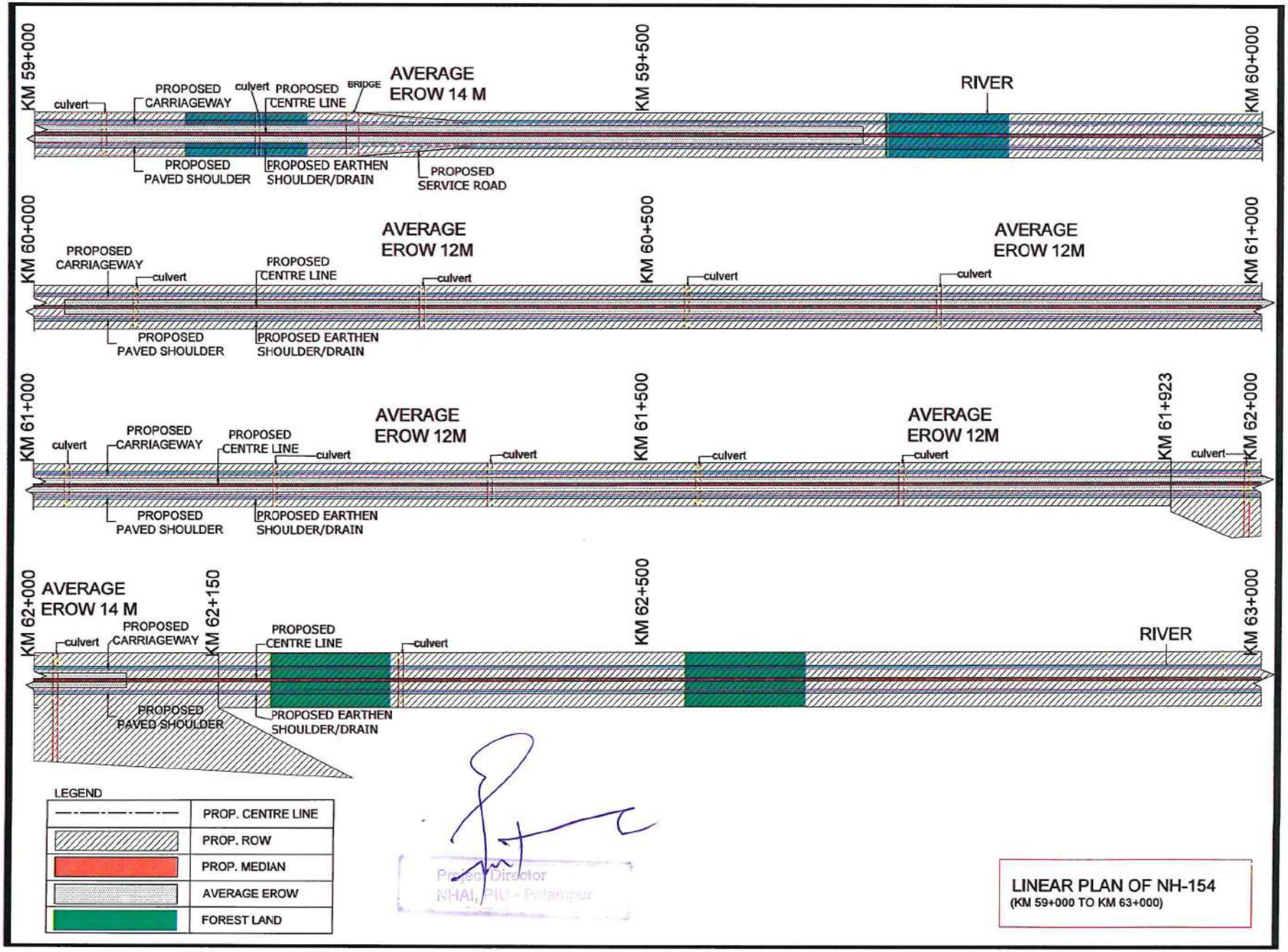
Project Director
NHAI

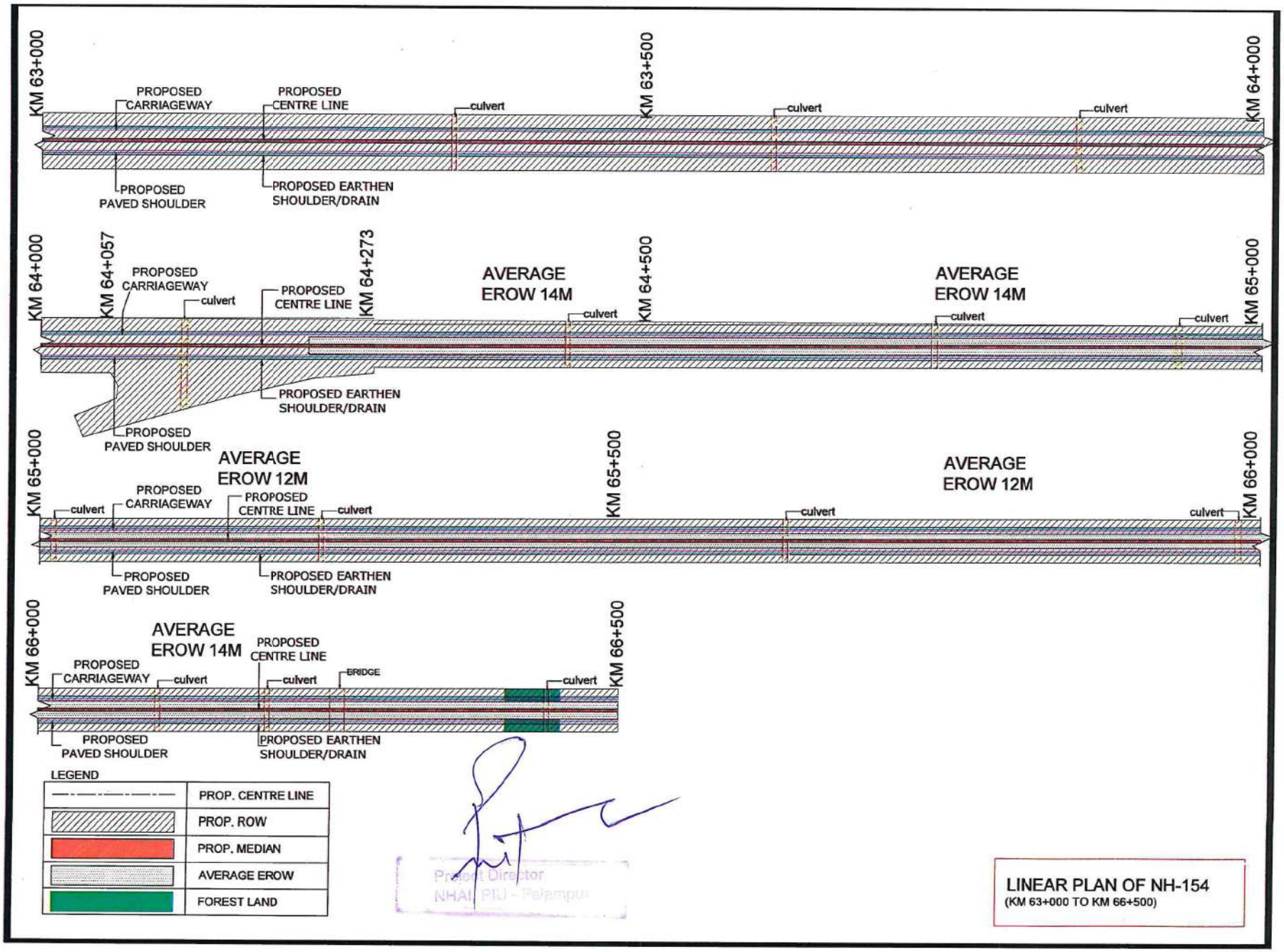
Annexure-K


KM 48+050
AVERAGE EROW 13 M
PROPOSED CARRIAGEWAY
culvert
culvert
PROPOSED CENTRE LINE
KM 48+500
culvert
AVERAGE EROW 13 M
AVERAGE EROW 0 M
AVERAGE EROW 15 M
KM 49+000
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER/DRAIN
KM 49+000
AVERAGE EROW 13 M
KM 49+500
AVERAGE EROW 13 M
KM49+639
AVERAGE EROW 0 M
KM 50+000
culvert
PROPOSED CARRIAGEWAY
PROPOSED CENTRE LINE
culvert
culvert
PROPOSED EARTHEN SHOULDER/DRAIN
PROPOSED PAVED SHOULDER
PROPOSED SERVICE ROAD
KM 50+000
KM 50+259
KM 50+500
AVERAGE EROW 0 M
KM 51+000
culvert
culvert
culvert
PROPOSED CARRIAGEWAY
culve
PROPOSED SERVICE ROAD
PROPOSED EARTHEN SHOULDER/DRAIN
PROPOSED PAVED SHOULDER
KM 51+000
AVERAGE EROW 25 M
AVERAGE EROW 0 M
KM 51+500
AVERAGE EROW 0 M
KM 51+725
culvert
BRIDGE
BRIDGE
culvert
LEGEND
PROP. CENTRE LINE
PROP. ROW
AVERAGE EROW
PROP. MEDIAN
FOREST LAND
Project Director
NHAI, PIU - Palampur
LINEAR PLAN OF NH-154
(KM 51+000 TO KM 55+000)


KM 51+725
KM 52+000
AVERAGE
EROW 15 M
PROPOSED
CARRIAGEWAY
PROPOSED
CENTRE LINE
culvert
culvert
PROPOSED
PAVED SHOULDER
PROPOSED EARTHEN
SHOULDER/DRAIN
KM 52+000
KM 52+500
KM 53+000
AVERAGE
EROW 25 M
culvert
culvert
PROPOSED
CARRIAGEWAY
culvert
PROPOSED
CENTRE LINE
culvert
culvert
PROPOSED
PAVED SHOULDER
PROPOSED EARTHEN
SHOULDER/DRAIN
KM 53+000
KM 53+500
KM 53+674
KM 54+000
AVERAGE
EROW 14 M
PROPOSED
CARRIAGEWAY
PROPOSED
CENTRE LINE
culvert
culvert
culvert
culvert
PROPOSED
PAVED SHOULDER
PROPOSED EARTHEN
SHOULDER/DRAIN
PROPOSED
SERVICE ROAD
KM 54+000
KM 54+500
KM 55+000
PROPOSED
CARRIAGEWAY
PROPOSED
CENTRE LINE
culvert
culvert
culvert
PROPOSED EARTHEN
SHOULDER/DRAIN
PROPOSED
PAVED SHOULDER
PROPOSED
SERVICE ROAD
LEGEND
PROP. CENTRE LINE
PROP. ROW
PROP. MEDIAN
AVERAGE EROW
FOREST LAND
LINEAR PLAN OF NH-154
(KM 51+725 TO KM 55+000)


KM 55+000
PROPOSED CARRIAGEWAY
culvert
PROPOSED CENTRE LINE
AVERAGE EROW 14 M
culvert
KM 55+500
AVERAGE EROW 14 M
culvert
culvert
culvert
KM 56+000
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER/DRAIN
PROPOSED SERVICE ROAD
KM 56+000
PROPOSED CARRIAGEWAY
BRIDGE
PROPOSED CENTRE LINE
AVERAGE EROW 14 M
KM 56+500
culvert
AVERAGE EROW 14 M
BRIDGE
culvert
KM 57+000
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER/DRAIN
PROPOSED SERVICE ROAD
KM 57+000
PROPOSED CARRIAGEWAY
PROPOSED CENTRE LINE
culvert
culvert
KM 57+500
culvert
BRIDGE
KM 57+803
culvert
KM 57+988
KM 58+000
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER/DRAIN
PROPOSED SERVICE ROAD
KM 58+000
AVERAGE EROW 14 M
PROPOSED CARRIAGEWAY
PROPOSED CENTRE LINE
KM 58+500
culvert
KM 58+565
culvert
AVERAGE EROW 14 M
culvert
KM 59+000
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER/DRAIN
PROPOSED SERVICE ROAD
LEGEND
PROP. CENTRE LINE
PROP. ROW
PROP. MEDIAN
AVERAGE EROW
FOREST LAND
Project Director
NHAI, PIU - Palampur
LINEAR PLAN OF NH-154
(KM 55+000 TO KM 59+000)


KM 59+000
AVERAGE
EROW 14 M
culvert
PROPOSED
CARRIAGEWAY
culvert
PROPOSED
CENTRE LINE
BRIDGE
KM 59+500
RIVER
KM 60+000
PROPOSED
PAVED SHOULDER
PROPOSED EARTHEN
SHOULDER/DRAIN
PROPOSED
SERVICE ROAD
KM 60+000
AVERAGE
EROW 12M
KM 60+500
AVERAGE
EROW 12M
KM 61+000
PROPOSED
CARRIAGEWAY
culvert
PROPOSED
CENTRE LINE
culvert
culvert
culvert
PROPOSED
PAVED SHOULDER
PROPOSED EARTHEN
SHOULDER/DRAIN
KM 61+000
AVERAGE
EROW 12M
KM 61+500
AVERAGE
EROW 12M
KM 61+923
KM 62+000
culvert
PROPOSED
CARRIAGEWAY
PROPOSED
CENTRE LINE
culvert
culvert
culvert
culvert
culvert
culvert
PROPOSED
PAVED SHOULDER
PROPOSED EARTHEN
SHOULDER/DRAIN
KM 62+000
AVERAGE
EROW 14 M
KM 62+150
KM 62+500
RIVER
KM 63+000
culvert
PROPOSED
CARRIAGEWAY
PROPOSED
CENTRE LINE
culvert
PROPOSED
PAVED SHOULDER
PROPOSED EARTHEN
SHOULDER/DRAIN
LEGEND
PROP. CENTRE LINE
PROP. ROW
PROP. MEDIAN
AVERAGE EROW
FOREST LAND
Project Director
NHAI, PIU - Palampur
LINEAR PLAN OF NH-154
(KM 59+000 TO KM 63+000)


KM 63+000
PROPOSED CARRIAGEWAY
PROPOSED CENTRE LINE
culvert
KM 63+500
culvert
culvert
KM 64+000
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER/DRAIN
KM 64+000
KM 64+057
PROPOSED CARRIAGEWAY
culvert
PROPOSED CENTRE LINE
KM 64+273
AVERAGE EROW 14M
culvert
KM 64+500
AVERAGE EROW 14M
culvert
culvert
KM 65+000
PROPOSED EARTHEN SHOULDER/DRAIN
PROPOSED PAVED SHOULDER
KM 65+000
culvert
PROPOSED CARRIAGEWAY
AVERAGE EROW 12M
PROPOSED CENTRE LINE
culvert
KM 65+500
culvert
AVERAGE EROW 12M
culvert
KM 66+000
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER/DRAIN
KM 66+000
AVERAGE EROW 14M
PROPOSED CENTRE LINE
PROPOSED CARRIAGEWAY
culvert
culvert
BRIDGE
culvert
KM 66+500
PROPOSED PAVED SHOULDER
PROPOSED EARTHEN SHOULDER/DRAIN
LEGEND
PROP. CENTRE LINE
PROP. ROW
PROP. MEDIAN
AVERAGE EROW
FOREST LAND
Project Director
NHAI, PIU - Palampur
LINEAR PLAN OF NH-154
(KM 63+000 TO KM 66+500)

Title of the project: - Diversion of 7.1203 Ha. Forest land for Rehabilitation and Upgradation to Four Lane configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 km) of NH-20 (New NH-154) of Pathankot-Mandi Section in the state of Himachal Pradesh.

File No. FP/HP/ROAD/152261/2022

Date of proposal: 15.07.2022

DETAILS NOTE ON THE PROJECT

The project road earlier known as NH-20 which is starting from Pathankot to Nauni (279 km) is now re-named and known as NH-154, one of the oldest national highways in the state, This Project considered as the lifeline of 30 lakh residents of the northern region of Himachal. Our project section starts at Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 km) of NH-20 (New NH-154) of Pathankot-Mandi Section in the state of Himachal Pradesh.

LOCATION OF THE PROJECT:

The alignment pass through tehsil and district which are given below.

S. No.	Districts	Tehsils	Design Length (Km)
1	Kangra & Chamba	Nurpur, Shahpur & Shihunta	18.425

JUSTIFICATION FOR LOCATION THE PROJECT IN FOREST AREA.

The project starts Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 km) of NH-20 (New NH-154) of Pathankot-Mandi Section in the state of Himachal Pradesh. Forest Land of 7.1203 ha. has been proposed to be acquired considering the widening proposal of Project road from existing 2-lane to 4 lane with paved shoulder with geometrical improvements, realignment as per relevant design standards. In Rait town, dense habitation exist due to which bypass have been proposed from design chainage Km 61.900 to Km 64.300 (Total Length 2.400 Km). Since, Existing Right of Way (EROW) is restricted, thus additional right of way (ROW) has been acquired for 4-laning with Paved Shoulder on existing alignment. There is no other alternative alignment feasible for this project. Thus, resulting into involvement of forest land.

National Highways Authority of India
PIU-Palampur
NHAI

Col. Anil Sen
GM/Project Director
NHAI, PIU-Palampur (H.P)

Full Title of the Project: Diversion of 7.1203 Ha. Forest land for Rehabilitation and Upgradation to Four Lane configuration & Strengthening of Sihuni to Rajol (Package IIA) from Km 51.00 to Km 72.00 (Design Length 18.450 km) of NH-20 (New NH-154) of Pathankot-Mandi Section in the state of Himachal Pradesh.

File No. FP/HP/ROAD/152261/2021

Date of proposal: 15.07.2022

UNDERTAKING REGARDING DEPOSOTION OF COST OF SOIL AND MOISTURE CONSERVATION PLAN

I, Col. Anil Sen GM/Project Director NHAI, PIU-Palampur (H.P) hereby undertake that the cost of soil and moisture Conservation plan i.e. 0.5% of the project cost will be deposited towards the cost of implementation of Soil and Moisture conservation Plan in the CAMPA account prior to actual working on forest area as directed in para 1(b) of GoI letter No FC-11/432021-FC dated 07.06.2022.

National Highways Authority of India
PIU-Palampur
NHAI

Col. Anil Sen
GM/Project Director
NHAI, PIU-Palampur (H.P)

CERTIFICATE

As per verification submitted by Patwari हटली it is certified that Land comprising Khasra No 1252/514/1, 512/1, 513/1, 468/1, 509, 510, 515. of Mohal हटली ह.व. 345. Mouza _____.is the land in question does not fall under the category of "earlier forest land" and revenue entries have not been changed from earlier forest land to present category and that forest land entries have not been deleted/altered. Land in question vested in favor of H.P. Govt. under Village common land vesting and utilization Act.1974. The said land in possession of HP PWD Department and also managed by HP PWD Department. The said land is not managed by Forest Department as per working plan. It is revealed that the land has been vested in the state under the provisions of H.P. Village Common Land (Vesting and Utilization) Act 1974. It was not recorded as Forest land in the Revenue record before settlement and has not been demarcated by Forest Department in consultation with revenue department in terms of clause 8 of the HP utilization of surplus are scheme 1974, also above mentioned land is not recorded as Forests in the record of revenue department, Forest settlement record, notification under Indian Forest act. There is no entry in the name of HP Forest department before and after the settlement of above mentioned land in State Government. Therefore, in the light of letter No. Rev B.A(4)8/2004-Loose dated 21.04.2006 issued by Financial Commissioner Cum Secretary (Revenue) HP and letter No Ft.-48-66/83 (FCA) dated 15.09.2010 issued by Pr. Chief Conservator of Forest, Himachal Pradesh, the land in question does not attract the provisions of applicability of FCA and the above said land is Non forest land and said land is in possession of HP PWD Department and transferred to HP PWD department by competent authority.

Station : पटवार वृत हटली
Dated : 17/11/2022

Patwari Jitesh 17/11/22
प्रा० रा० क्षेत्र हटली
तहसील सिहुन्ता
जिला चम्बा (हि०प्र०)

Station : हटली
Dated : 17-11-2022

Tehsildar
Tehsildar 17-11-2022
Sihunta, Distt. Chamba (H.P.)

Station : CHOWARI
Dated : 17-11-2022

Sub Divisional Officer (C)
Bhattiyat at Chowari.
District Chamba (H.P.)