

PRADHAN MANTRI GRAM SAĎAK YOJANA

ETAILS OF UNDER PASSES/OVERPASSES PROPOSED FOR THE SAFE PASSAGE OF WILD ANIMALS On

Nowapachi Dehrana upto Hanzal Road

Package No:- JK04-168

Length: - 18.00kms

Length of Road in forest Area: - 11.250kms

INTRODUCTION

The rural road network required for providing the 'basic access' to all villages/ habitations is termed at the Core Metwork. Dasie access is defined as one all medilies road access from each village/ habitation to the nearby Market Centre or Rural Business Hub (RBH) and essential social

A Core Network comprises of Through Routes and Link Routes. Through routes are the ones which collect traffic from several link roads or a long chain of habitations and lead it to a market centre or a higher category road, i.e. the District Roads or the State or National Highways. Link Routes are the roads connecting a single habitation or a group of habitations to Through Roads or District Roads leading to Market Centres. Link Routes generally have dead ends terminating on habitations, while Through Routes arise from the confluence of two or more Link Routes and emerge on to a major road or to a Market Centre.

The Core Network may not represent the most convenient or economic route for all purposes. However, since studies show 85-90% of rural trips are to market centres, the Core Network is likely to be a cost-effective conceptual frame work for investment and management purposes, particularly in the context of scarce resources.

The sub Road project takes off from Village Nowpachi being the Headquarter of Sub-Division Marwah for connecting the destination point village Hanzal where the Road from District Headquarter Kishtwar is being constructed from Dachhan to Hanzal namely by the nomenclature Ikhala Block Boundary Kishtwar to Lopara being the both Roads with the aim to connect the whole Sub Division Marwah and Tehsil Dachhan directly with the District Headquarter by taking up of work from both ends (Tail & Take-off) for its completion to connect the Sub Division at an earliest.

Hanzal is situated on the right bank of River Marsudhar and towards east side of block Marwah.

Presently Hanzal is connected with a bridle track having deep ascends and descends and remains mostly cut off during winter season. All the essential commodities are to be carried upto Hanzal by head load or ponies resulting in backwardness of the area both socially as well as economically.

Mostly the people are illiterate and unemployed due to lack of education facilities in the vicinity of the area

The Block Marwah is spreaded over a vast hilly area having many beautiful tourist spots, pastures and meadows having great exploration of Tourism potential. The construction of road shall boast tourism sector in the area in general and the whole block shall come up at par with the famous

Tourist resorts and shall improve the socio-economical condition of the down trodden and poverty stricken populace of the block.

This road will increase the intensity of tourism in the area similar as Phalgam in Kashmir. The road shall also provide accessibility to school, High school, Health Centre etc. The road construction has been proposed with a formation width of 6.0M except, except at valley/zig points where construction of R/walls are inevitable from geometrical constraints and at horizontal curves, extra widening has been proposed ranging from 0.60 to 0.90 Mtr. depending upon the radius of horizontal curve and as per IRC specification.

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Objectives of Animal Passage plan Study

The objectives of animal passage plan are:

- To incorporate the needs of wildlife into transportation projects.
- To maintain the habitat connectivity.
- To aid in the reduction of human wildlife conflict, improving awareness, safety andreducing collisions.

1. Project Location and Technical Details:

Tojecci	Project:	Construction of Motorable Road from Nowpach Deherna upto Hanzal
	Proposal No.	FP/JK/ROAD/51198/2020
	Project Proponent:	Marwah & Dachhan Forest Range
	Project Cost:	2071.15 lacs(Stage-I,Stage-II &Bridge)
- F	Details of Forest Area involved:	7.4783 Ha

1. Justification for Proposed route & alternative examined: The The present proposed road alignment is only feasible for construction of road Nowpachi Deherna upto Hanzal .There is no possibility of alternate alignment for the project road. Hence, the diversion of the Forest is the only choice to construct the road.

2. Area Details Falling in Forest area

Part- 1

- Total Length of the Road: 18000m (i)
- Total Length of the Road in Forest Area:- 11250m (ii)
- Width of the Road: 6.00m (iii)
- Area in forest land 7.47Ha.

3. Major Activities involved in the execution of Project:

A	Earthwork in excavation in Hilly area
A	Earthwork in cutting
1	Earthwork in filling
2 D	CD Works
D	p lums

Marwah

4	Construction of 2.0m Span RCC Culvert
5	Construction of 3.0m Span RCC Culvert
6	Construction of 6.0m Span RCC Culvert
C	Construction of Semi Pucca Walling
7	R/Wall Ht. 2.00 m
8	R/Wall Ht. 3.00 m
9	R/Wall Ht. 4.00 m
10	R/Wall Ht. 2.55 m
11	Parapet

12	Pucca Drain
D	Providing & Fixing of Signage and Boards
13	Citizen & Main Information Board
4	Logo Board
15	Road Sign Boards
6	Km Stone
	200 m Stones
7	5 Km Stones
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Proposed mitigation measures: In addition to proposed action plan following measures could be undertaken in view of projected increase in traffic load which could facilitates the animals to cross the road:

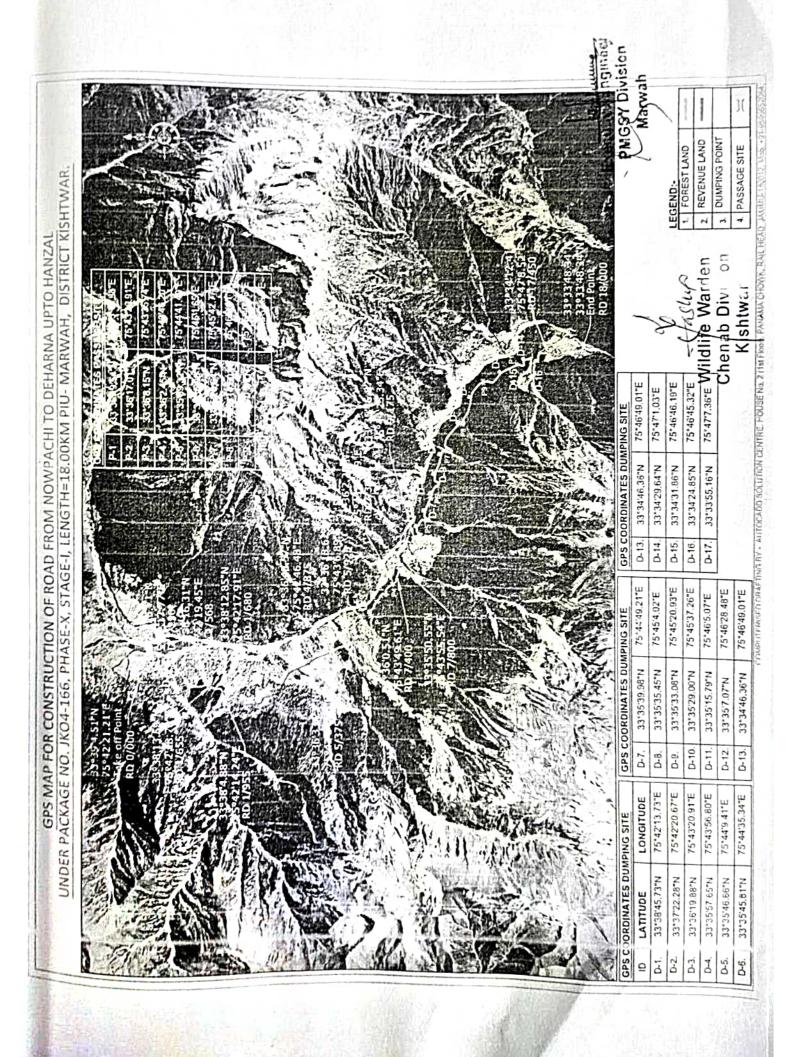
- Creation of barriers
- To provide RCC Box culverts/Animal Underpass at various strategic point, so that along
 with water various wildlife can also pass through the culvert to reach the other side of the
 road
- The culvert floor must be naturalized so that small vegetation can grow and give the underneath area a natural passage look.
- Noise barriers shall be installed near the underpasses for effective use of underpasses
- The culvert height shall accommodate animals like Black bear, Leapord, Muskdear etc
- The hydrological importance shall also be kept in mind while deciding on the relocation / modification of the culverts.
- During Construction period no construction work shall be allowed after night fall.
- Special care should be taken to ensure that the animal movement is not restricted due to the construction work
- Workers & local populace should be made aware through awareness workshops about the importance of wildlife and biodiversity and special attention paid that no poaching and hunting takes place
- Creation of rumble strip on stretches which are passing through longer forest patches.
- Pipe culverts shall be avoided and be replaced with box culverts if located in places having good forest patches on both side with larger and continuous patch size to save the smaller wild animals from road accidents. Culvert floor shall be planted with indigenous plant and grass species.
- No labour camps should be allowed at the construction sites. Arrangements should be made to bring in the labour during the working hours and drop them after that. No fire or cooking should be allowed at the construction site.
- No stocking and dumping of construction material other than the designated sites duly agreed by the Forest Department.
- Construction workers and local communities should be sensitized about importance of wildlife conservation and do's and don'ts through awareness workshops/meeting with full involvement of local Forest personnel. Workers should be made aware of provision of legal penalties to stop poaching and wood cutting.
- Vehicle speed limit should not be more than 30-40 km/hr. in the animal prone stretch
 warning signage shall be installed at every 25 m in entire project road. Night traffic should
 be controlled through barriers at appropriate locations to be decided by the project
 be controlled through barriers at appropriate locations to be flying Squad of
 authorities and local forest department. Random checking by the Flying Squad of
 Transport Authority.

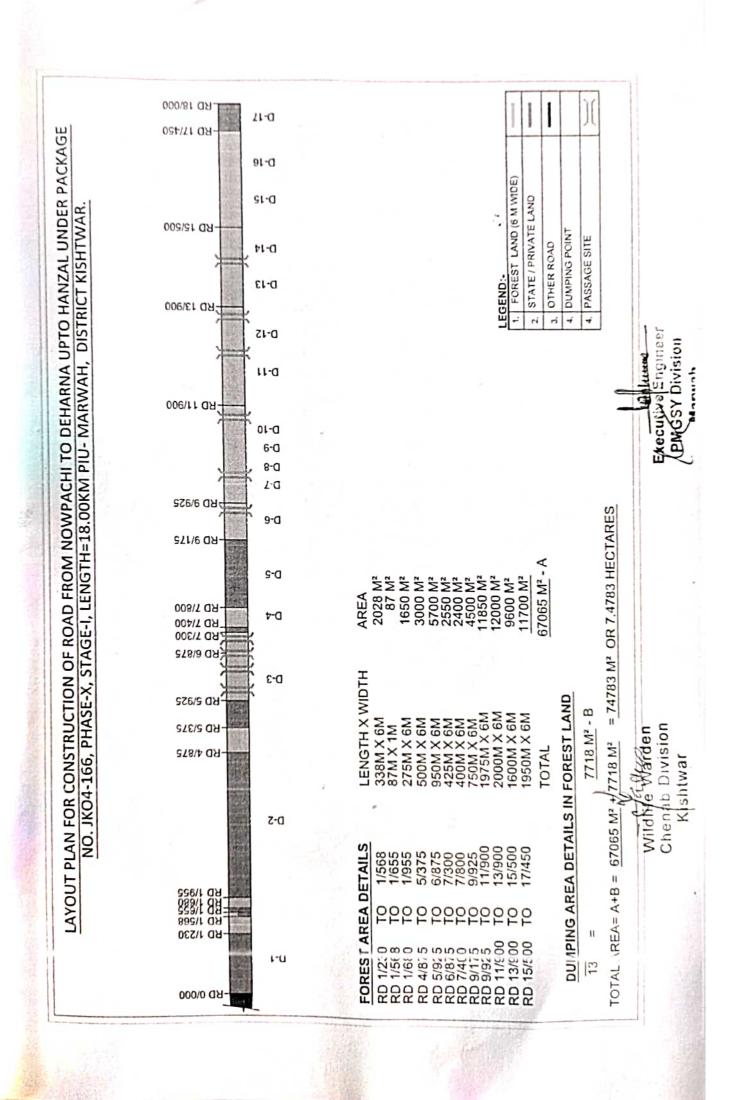
Abstract of Proposed action plan for safe passage of wild Animals

S.No	Name of Particulars	Amount (Rs in Lacs)
1	Provision for construction of R/walls & R/walls in addition to the already proposed in Project	20.00
2	Construction of 03mtr Span RCC Culvert/Animal Passage including Approach Track 10No's	166.80
3	Road Studs /Speed Breakers on 20 stretches	3.00
4	Provision for construction of Parapets	5.00
5	Provision for P/F Sign boards /Cautionary warning signs at every 20 to 25mtrs of Road Stretch	10.00
	G-Total	204.80

Say Rs.204.80

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UNDER PACKAGE NO. JKO4-166, PHASE-X, STAGE-I, LENGTH=18.00KM PIU- MARWAH, DISTRICT KISHTWAR. GEO REFERENCE MAP FOR CONSTRUCTION OF ROAD FROM NOWPACHI TO DEHARNA UPTO HANZAL

SCALE: 1:45000

GPS (GPS COORDINATES		GPS (GPS COORDINATES		
₽	LATITUDE	LONGITUDE	₽	LATITUDE	LONGITUDE	-
20.	33°35'39.98"N	75°44'49.21"E	<u></u>	33*39'4.51"N	75°42'21'21"E	
21.	33°35'35.45"N	75°45'4.02"E	2	33°38'45.73*N	75°42'13.73"E	
25	33*35'33.08"N	75°45'20.93"E	6.	33°38'26.71"N	75°42'17.77'E	
23.	33°35'29.00"N	75°45'37.26"E	4	33*38'16.31*N	75°42'19.45"E	
24.	33°35'15.79"N	75°46'5.07°E	5.	33*38'13.59"N	75*42'18.76'E	
25.	33°357.07"N	75°46'28.48"E	9	33°38'12.85"N	75°42'17.91°E	
26.	33°34'46.36"N	75°46'49.01"E	7.	33°38'4.88"N	75°42'14.24"E	
27.	33°34'29.64"N	75°47'1.03"E	ωi	33*37'22.28*N	75°42'20.67"E	
28.	33°34'31.86"N	75°46'46.19°E	6	33°36'48.57"N	75°42'46.48"E	
29.	33°34'24.85"N	75°46'45.32"E	10.	33°36'33.23"N	75°42′54.96″E	
30.	33°34'12.41"N	75°47'8.52°E	Ξ.	33*36'18.62"N	75*43'6.89"E	
31.	33°33'55.16"N	75°477.36°E	12.	33°36'19.88"N	75°43'20.91"E	
32.	33°33'48.34"N	75°47'8.47"E	13.	33°36'2.20"N	75°43'46.29"E	



75°43'56.80°E

33°35'57.65"N

75°43'55.54"E 75°44'9.41"E

75°43'49.61"E

33°36'0.51"N

4 5 16. 75°44'35.34"E

33°35'45.81"N 33°35'46.87"N

19 ₩.

75°44'25.34"E

33°35'46.66"N

33*35'50.55*N

Executive Engine PMGSY Divisio Marwah

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75°45'42.77*E

75.44.41.40°E

33*35'39.32"N 33*35*35.98*N 33*35'26.64"N 33°35'14.50"N

P-5

94

75*45'1.65"E

75"46'57.64"E

33"34'33.11"N

33.35'0,11'N

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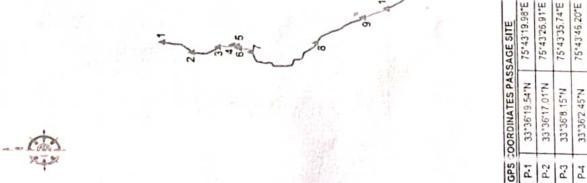
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75*46'40.66°E

75°46'6.01°E

LAND POINT

EGEND:	FORESTU	REVENUE	DUMPING	PASSAGE
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DETAILED ESTIMATE FOR CONSTRUCTION OF 03MTR SPAN RCC CULVERT / ANIMAL PASSAGE FOR SALE PASSAGE OF ANIMALS IN FOREST AREA ON

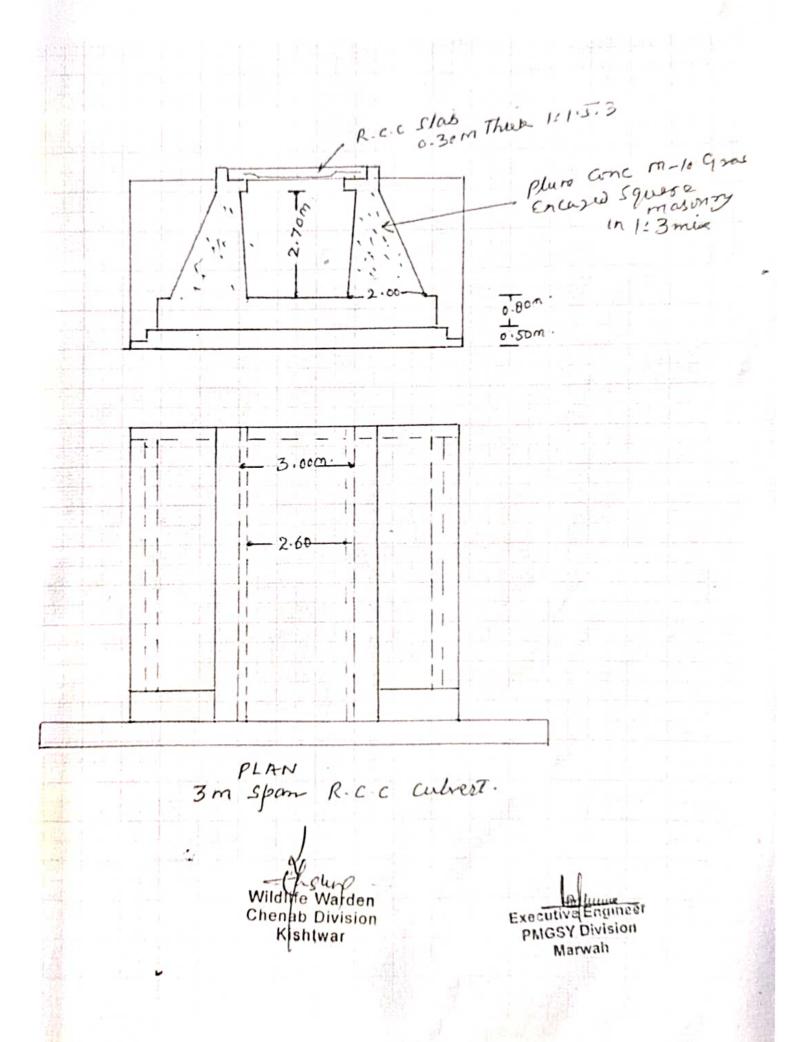
10.	Description	Unit	App. Quantity	Rate	Amount
	(hydraulic excavation by mechanical means (hydraulic excavator) in trenches for foundations, drains, pipes, cables etc. (not exceeding 1.5 m in width) and for shafts, wells, cesspits and the like not exceeding 10 sqm on plan, including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out excavated earth and disposal of surplus excavated earth as directed, within a lead of 50 metres:70% all kinds of soil & 30 % ordinary rock	cum	380.05	317.43	120639.00
	Abutment = $7.50 \times 8.60 \times 4.30 = 277.35 \text{ cum}$				
	Wing wall = 4 nos x 2.50 x 1.40 x 3.80 = 53.20 cum Approaches = 2 nos x 1/2 x 1.60 x 2.50 x 3.00 = 12.00 cum Approach for culvert to wild animals 1/2x 1.50x2.50x5.00x4Nos = 37.50cum				
	Total = 350.05 cum Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centring and shuttering. All work upto plinth level with:1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size)				
	Abutment step $1 = 8.60x 7.00 \times 0.20 = 12.04$ cum	cum	29.12	4943.40	143951.00
	Step ii = $8.00 \times 7.00 \times 0.20 = 11.20 \text{ cum}$ Wing wall = $4 \text{ nos } \times 1.40 \times 2.50 \times 0.40 = 1.16 \text{ cum}$				
	Approaches = $2 \text{ nos } x 3.00 \text{ x } 1.60 \text{ x } 0.20 = 1.92 \text{ cum}$ Bottom Inside = $2.00 \text{ x } 7.00 \text{ x } 0.10 = 2.80 \text{ cum}$	-		3	
	Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centring and shuttering. All work upto plinth level with: 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size)				
	Abutments 2nd step = $2 \text{ nos } x 6.50 \text{ x } 7.20 \text{ x } 0.80 =$ 37.44 cum 2nd step = $2 \text{ nos } x (0.60+2.00)/2 \text{ x } 7.00 \text{ x } 3.00 =$ 54.60 cum Dirt wall = $2 \text{ nos } x 7.00 \text{ x } 0.30 \text{ x } 0.30 = 1.26 \text{ cum}$ Wing wall 1^{st} step $4 \text{ nos } x 2.50 \text{ x } 1.20 \text{ x } 0.80 =$				

	2 nd step 4 pos v (0 co. 1 20 m	Road			
1	cum Bottom inside = $3.00 \times 7.00 \times 0.10 = 2.10 \text{ cum}$	cum	136.51	5877.45	802330.00
	Parapet Over culvert $2 \times 3.40 \times 0.60 \times 0.40 = 1.63$				
7	Over approaches & wing wall = 2 sides x 4 nos			!!!	
	x1.50				
	x(0.45+0.60)/2x 0.60 = 3.78 cum				
	$T = 136.51 \text{ M}^3$	1 1		, ti	
	Providing and laying in position specified grade of reinforced cement concrete including curing but excluding the cost of centering,				
4	shuttering, finishing and reinforcement. All works upto plinth level in 1:1½:3 (1 cement : ½ coarse sand : 3 graded stone aggregate 20 mm nominal size)	cum	7.56	8953.95	67692.00
	Slab = $1 \times 7.00 \times 3.60 \times 0.30 = 7.56 \text{ cum}$				
None of	Total = 7.56cum Steel reinforcement for R.C.C. work				
	includingstraightening, cutting, bending, placing in				
5	position and binding all complete upto plinth level Mild steel and medium tensile steel bars				
	Qty. vide item no. 4 = 7.56 @ 150 kgs / cum = 1134.00kgs	kg	1134	78.55	89075.00
學艺	Total = 1134.00 kgs	-		-	-
6	Random Rubble masonry with hard stone in foundation and plinth including leveling up with cement concrete 1:6:12 (1 Cement: 6 coarse sand: 12 graded stone aggregate 20mm nominal size) upto plinth level and curing complete with: Cement mortar 1:6 (1 Cement: 6 coarse sand) Nallah	cum	64.00	4400.5	281632.00
	$2 \cos x = 2.50 \times (0.60 + 1.60)/2 \times 3.00 = 16.50 \text{ cum}$	-			
	Approaches for wild animals $0.60+1.30/2x2.50x5Nos x4Nos = 47.50cum$				
	Net Total = 64.00 cum				
7	Net Total = 64.00 cum Back filling with stones behind abutment, wing wall and return wall complete as per drawing and technical specification clause 1204.3.8			, in	
,	$2 \times 2.50 \times \frac{1}{2} \times 1.20 \times 2.00 = 6.00 \text{ cum}$	cum	6.00	527.00	3162.00
8	Total = 6.00 cum carriage of stone av. Distance 1 km by M.T		64.00	139.71	8941.00
9	Carriage of sand av. Distance 33.00 km by M.T		102.24	462.14	47249.00
	Carriage of aggr. av. Distance of 35 km by MT	-	155,85	479.42	74717.00
10	Carriage of aggr. av. Distant				Time !-
			1.134	495.31	561.00
11	Carriage of steel Distance of 44 km by M.T				255

Details of Under passes proposed for safe passage of wild Animals in forest Land on Nowapachi

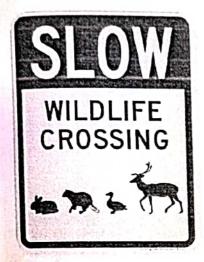
			Fotal =	16 68120
12 Carriage of come	12	iage of cement Distance of 44 km by M.T 57.87	495.31	28644.00

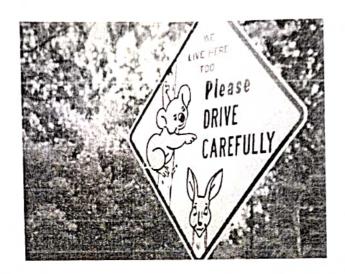
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Provision of Safety Features

Cautionary / Warning Sign Boards such as Over Hanging Signage will be provided at start and at the end of each stretch of Wildlife area / Forest area





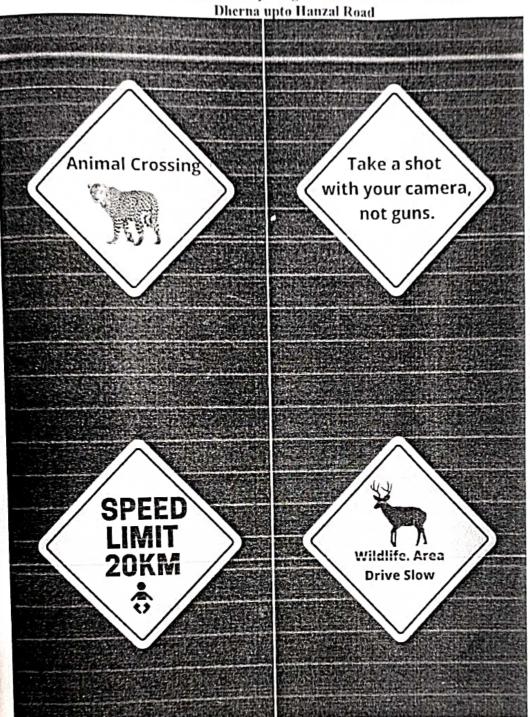


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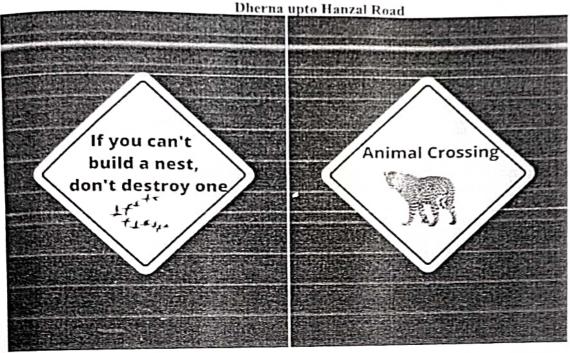
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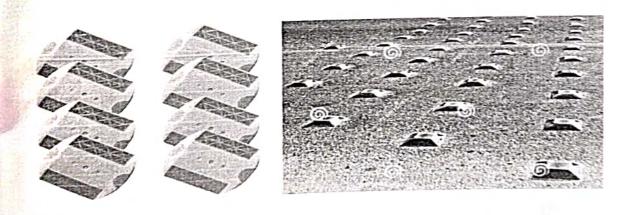


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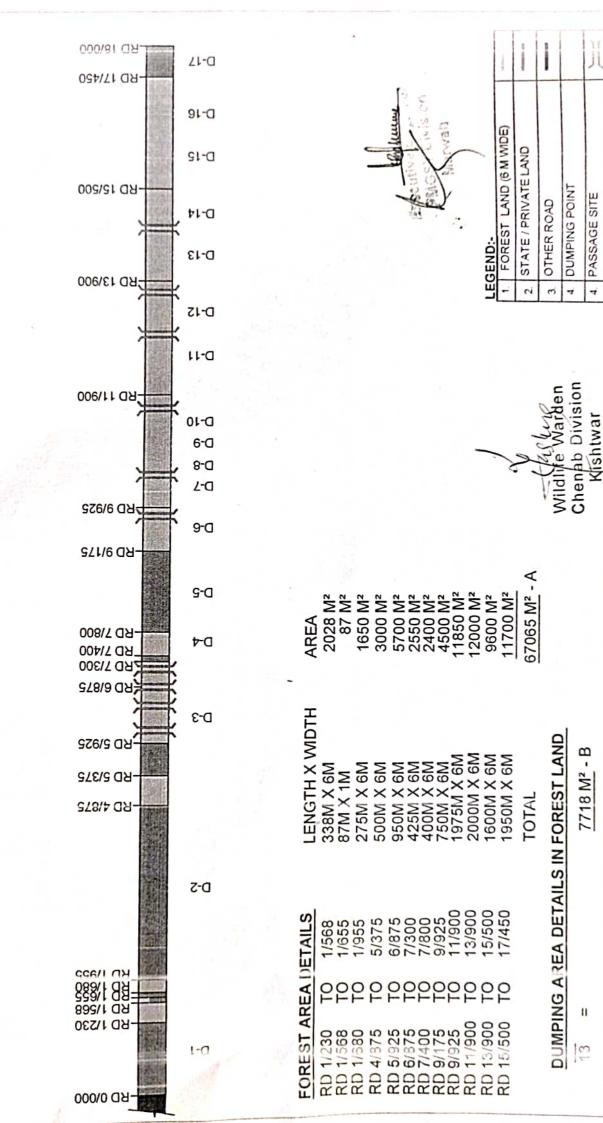


 Road Studs / Speed Breakers will be provided at the start and at the end of each stretch of Wildlife Area / Forest Area.



Wildlife Warden Chenab Division Kishtwar

LAYCUT PLAN FOR CONSTRUCTION OF ROAD FROM NOWPACHI TO DEHARNA UPTO HANZAL UNDER PACKAGE NO. JKO4-166, PHASE-X, STAGE-I, LENGTH=18.00KM PIU- MARWAH, DISTRICT KISHTWAR.



= 74783 M² OR 7.4783 HECTARES

TOTAL AREA= A-B = 67065 M2 + 7718 M2