

PROJECT COMPLETION REPORT



JHELUM TAWI FLOOD RECOVERY PROJECT

WORLD BANK FUNDED

LOAN No. IDA 56950

ERA Jammu Projects

Components:

1. Reconstruction & Strengthening of Critical Infrastructure.
2. Reconstruction of Roads & Bridges.
3. Contingent Emergency Response.

Schools



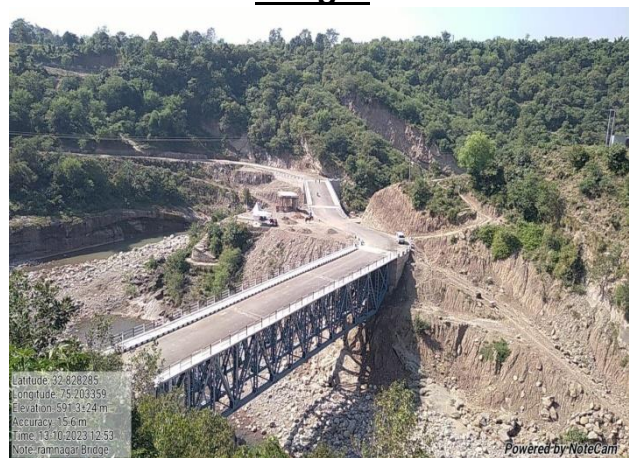
Oxygen Generation Plants



Roads



Bridges



JTFRP WORKS IN JAMMU REGION

CONTENTS:

INTRODUCTION (JTFRP WORKS)	PAGE NO. 1-2
COMPONENT-I (SCHOOL BUILDINGS)	
1. BACKGROUND	3
2. NO. OF SCHOOLS DISTT. WISE	4
3. DETAILS OF EACH SCHOOL DISTT. WISE	4-11
4. CONCLUSION	12-14
5. PHTOGRAPHS	15-59
COMPONENT-II (ROADS & BRIDGES)	
1. BACKGROUND	60
2. NO. OF SUB-PROJECTS DISTT. WISE	61-62
3. DETAILS OF EACH SUB-PROJECT	63-65
4. CONCLUSION WITH PHOTOGRAPHS	65-115
COMPONENT-IV (OXYGEN GENERATION PLANTS)	
1. BACKGROUND	116
2. NO. OF SUB-PROJECTS	117-118
3. DETAILS OF EACH PROJECT WITH RESULTS	119-123
4. PHOTOGRAPHS	123-136
5. DETAILS OF COMPLETION CERTIFICATE ISSUED.	137

PROJECT COMPLETION REPORT JTFRP WORKS JAMMU

PIU JKERA JAMMU PMU JTFRP JAMMU

Introduction

Project Background

In September 2014, Jammu & Kashmir experienced torrential monsoon rains in the region causing major flooding & landslides. The continuous spell of rains from September 2-6, 2014 caused Jhelum and Chenab Rivers as well as many other streams/tributaries to flow above the danger mark. The Jhelum River also breached its banks flooding many low-lying areas in Kashmir, including the capital. In many districts, the rainfall exceeded the normal by over 600%. The Indian Meteorological Department (IMD) records precipitation above 244.4 mm as extremely heavy rainfall and J&K received 558mm of rain in the June – September period as against the normal 477.4 mm. For example, the district of Qazigund recorded over 550 mm of rainfall in 6 days as against a historic normal of 6.2 mm over the same period.

Due to unprecedented heavy rainfall the catchment areas particularly the low lying areas were flooded for more than two weeks. Some areas in urban Srinagar stayed flooded for 28 days. Water levels were as high as 27 feet in many parts of Srinagar. The areas from the main tributaries of river Jhelum vis-à-vis Brenginallah, Vishavnallah, Lidernallah and Sandrannallah started overflowing due to the heavy rainfall causing water levels in Jhelum to rise. Subsequently, the discharge of the river Suran was 200 thousand cusecs as against an average of 50 thousand cusecs. With the excessive discharge of water, the river Suran affected the basin areas and also took a different course at various locations causing damages to the surrounding villages in the catchment area. Water levels also increased in the rivers of Chenab and Tawi, both of which were flowing above normal levels. Due to the rivers overflowing nearly 20 districts of the State were impacted.

A Joint team led by the Department of Economic Affairs (DEA), Gol, with representation from the World Bank visited J&K on October 21, 2014. Subsequently, Gol has sent a request to the World Bank on January 5, 2015 to field a joint Rapid Damage and needs Assessment (RDNA) Mission within the State. In response, a mission of the World Bank visited the State during February 1-6, 2015 in order to produce a rapid multi- sectoral assessment report of the damages and needs. The RDNA estimates the total damages and loss caused by floods at about INR 211.975 Million, most of it to housing, livelihoods; roads and bridges which combined represented more than 70% of the damages in terms of value. Public service infrastructure and equipment of hospitals and education centers were also severely damaged and are still not fully operational.

Based on the Rapid Damage Needs Assessment (RDNA): Results, restoration works underway and discussion with the GOJ&K, the project will focus on resorting critical infrastructure using international best practice on resilient infrastructure. Given the state's vulnerability to both floods and earthquakes, the infrastructure will be designed with upgraded resilient features and will include contingency planning for further disaster events. Therefore, the project aims at both restoring essential services disrupted by the floods and improving the design standard and practices in the state to increase resilience.

Project Development Objective. The Project Development Objective (PDO) is to support the recovery and increase disaster resilience in targeted areas of the state and increase the capacity of the state entities to respond promptly and effectively to an eligible crisis or emergency.

The Project is comprised of following seven components:

- 1. Reconstruction and Strengthening of Critical Infrastructure.
(Construction of 24 no's of Govt.Schools in Jammu Division)**
- 2. Reconstruction of Roads and Bridges.**
- 3. Restoration of Urban flood management infrastructure.**
- 4. Strengthening and restoration of livelihoods.**
- 5. Strengthening disaster risk management capacity.**
- 6. Contingent Emergency Response.
(Construction of 15 no's Oxygen Generation Plants in Govt.
Hospitals for Jammu Division.)**

7. Implementation Support.

- 1. Reconstruction and Strengthening of Critical Infrastructure :** Under this Components 26 no's Schools building in Primary Schools, Middle Schools, High Schools and Higher Secondary Schools were constructed under the Supervision of PWD (R&B) Jammu as PIU. All the Schools were identified by the PWD (R&B) authority and approved by the World Bank under JTFRP (J&K). Out of 26 no's School Buildings only 24 no's completed and following 2 no's School Buildings cannot be taken up for construction as the land has not been made available by the School Education Department as conveyed by C.E, PWD (R&B) Jammu vide his letter no. CEJ/TO/4075-79 dated 17-05-2023.

(A) Construction of 6 no's Class Room with Verandah, Toilet block and allied infrastructure at GHSS Rajouri.

(B) Construction of 2 no's Class room with Verandah, Toilet block and allied infrastructure at GMS Chibba Jammu.

All these buildings have been designed as Frame structure based on the individual bearing capacity of the Soil. The Infrastructure has been designed to with stand Earthquake as per the latest design guideline.

S. N o.	District	No. of School	Primary school	Middle School	High School	Higher Secondary School	Type of Structure	Roofing	Status of Building
1	Jammu	7 no's	2	4	1	—	Frame	Slab	Completed & Handed over to School Education Deptt. And Functioning.
2	Kathua	2 no's	—	—		2	Frame with Rcc Ramp.	Slab	Completed & Handed over to School Education Deptt. And Functioning.
3	Udham pur	(a) 2 no's (b) 1 no's	—	2	1	—	Frame Frame	Steel Truss CGI Sheet sRoof	Completed & Handed over to School Education Deptt. And Functioning.

								ing.	
4	Rajouri	4 no's	—	3	1	—	Frame	Slab	Completed & Handed over to School Education Deptt. And Functioning.
5	Poonch	8 no's	1	6	1	—	Frame	Slab	Completed & Handed over to School Education Deptt. And Functioning.

The complete Detail of the Schools completed in Jammu Division is as Follows:

Component-I:Construction of School Buildings in Jammu Division.

PIU = PWD (R&B) Department Jammu

PMU = JTFRP (J&K)

(A) District Jammu

S.N o.	Distt.Jammu Name of Sub-project	Name of Contract or	Contract Amount	Date of Start (NTP)	DOC within extended period.	Completion Period (Months)	Status of Work	Remarks
1	Construction of 2 no's classrooms, toilet block & allied services in Govt.Middle School Dhoon, Jammu (Package no. 01)	M/S Vivek Construction Co.	0.51 cr.	20.2.2021	30.6.22	16	Completed & Handed over to School Education Deptt. Jammu.	All the Rooms are of 18'.0" x 24'.0" size and Verandah of 8'.6" wide Ground level ramp with steel railing for Handicapped Rcc frame structure with isolated footing.
2	Construction of 2 no's classrooms, toilet block & allied services in Govt.Middle School Makwal, Jammu.	M/S Vivek Construction Co.	0.39 cr.	30.11.20	30.6.22	19	Completed	-As Above-

	(Package-02-1)							
3	Construction of 3 no's class rooms, 2 no's toilet blocks, kitchen block & allied services in Govt.Primary School GujjarBastiKarnailayChak, Jammu. (Package- 02-2)	Mr. Manohar Singh	0.98 cr.	27.11.20	30.6.22	19	Completed	-As Above-
4	Construction of 2 no's classrooms block, toilet block, Pathway, Land Scaping and other allied services in Govt.Middle School, Pargwal Jammu. (Package- 02-3)	M/S Vivek Construc tion Co.	0.48 cr.	01.01.20	30.6.22	30	Completed	-As Above-
5	Construction of 2 no's classrooms block, Toilet block & allied services in Govt.Primary School, Belicharana Jammu. (Package- 03-1)	Mr.Narinder Singh Jamwal	0.38 cr.	21.11.19	30.6.22	29	Completed	-As Above-
6	Construction of 2 no's classroom block, Toilet block & allied services in Govt.High School ChakMajra, Jammu. (Package- 03-02)	Mr. Joydeep Wali.	0.47 cr.	16.10.19	30.6.22	32	Completed	- As Above-
7	Construction of 4 no's classroom block, Toilet block, Pathway, Land scaping and allied services Middle School PuranaPind,R.SPura, Jammu. (Package- 03-03)	Mr. Joydeep Wali	0.73 cr.	16.10.19	30.6.22	32	Completed	-As Above-

(B) District Kathua

S.No.	Distt.Jammu Name of Sub-project	Name of Contractor	Contract Amount	Date of Start (NTP)	DOC within extended period.	Completion Period (Months)	Status of Work	Remarks
8.(a)	Construction of 3 no's Classroom block, Toilet block & allied services & Hand pump at Govt.High Secondary School GujrooNagrota, BillawarKathua.	M/S Romesh Constructi on Co.	1.45 cr.	01.01.20	30.6.22	30	80 % Completed	-As Above-
8 (b)	Construction of 6 no's classrooms (3 no's on G.F & 3 no's on F.F) Toilet block, Rcc Ramp, Hand pump and other allied services at Govt.Higher Secondary School GurahKalyal, BillawarKathua.	M/S Romesh Constructi on Co.					Note: During the construction of GurhaKalyal School, it was found that there was no provision of RCC Ramp for Handicapped students, which is mandatory as per the Standing guideline of Govt. The contractor was allowed to construct the RCC ramp, accordingl y the original	Rcc Ramp upto 1 st floor with Steel Railing. These two schools were allotted under one package No. 04.

							allotted scope of work reduced. The contractor completed the work upto his allotment with the result, the painting of both the Schools & flooring of Gurha Kalyal School of both the floors and Steel Railing of Ramp is Pending. The Contract was finalised by the PIU accordingly.	
--	--	--	--	--	--	--	--	--

(C) District Udhampur

S.N o.	Distt.Jammu Name of Sub-project	Name of Contractor	Contract Amount	Date of Start (NTP)	DOC within extended period.	Completion Period (Months)	Status of Work	Remarks
9	Construction of 3 no's classrooms with Verandah, Toilet Blocks, Septic Tank, Soak Pit, Compound wall in	Mr.Raj Kumar	0.71 Cr.	07.01.20	06.01.21	12	Completed	Completed & Handed over to School Education Deptt. And Functioning.

	Govt.High School, S.K.Ber (Majalta) in Udhampur District under JTFRP.							
10	Construction of 6 no's classrooms (Block A&B) and other allied infrastructure for GMS at Upper Manta zone ChenaniDistt. Udhampur under JTFRP.	Mr. Krishan Singh	1.18 cr.	01.09.20	31.12.23	21	Completed	Completed & Handed over to School Education Deptt. And Functioning.
11	Construction of 2 no's classrooms with Verandah , toilet block & other allied services for GMS BeriManyal, Package -05-3 (R&B) Div- Udhampur)	Mr. Krishan Singh	0.88 cr.	07.04.22	31.12.23	21	Completed	Earlier the work couldn't be started by the Contractor due to the non-availability of approach road. There was a Head Load of 6 kms. Due to the Construction of PMGSY (Phase-1) Road passing nearby the School, the work could be completed & Handed over to the School Authority.

(D) District Rajouri

S.no.	Name of Sub-Project	Name of Contractor	Contract Amount (Cr.)	D.O.S (NTP)	D.O.C within extended period	Completion Period (Months)	Status of Work	Remarks
12	Construction of 2 no's class rooms, with Verandah,	M/S New Emerging SHG	0.70	2-9-2020	30.6.2022	22	Completed	Handed over to School

	Toilet block, Septic Tank, Soakage Pit in Govt. Middle School at Prat, Rajouri.							Education Deptt. & Functioning.
13	Construction of 2 no's class room with Verandah, Toilet block, Septic Tank with Soakage pit in Govt. Middle School, Tichka, Rajouri.	M/S New Emerging SHG	0.72	2-9-2020	30.6.2022	22	---do---	---do---
14	Construction of 2 no's Class Room with Verandah, Toilet block, Septic Tank with Soakage pit in Govt. Middle School, Rajgarh, Rajouri.	M/S Vivek Construction	0.52	7.1.2020	6.10.2020	9	---do---	---do---
15	Construction of 3 no's Class Rooms with Verandah, Toilet block, Septic Tank with Soakage pit at GHS GambhirMuglan, Rajouri.	Mr. Mohd. Shafi	0.81	4.1.2020	30.6.2022	30	---do---	---do---

(E) District Poonch

S.no.	Name of Sub-Project	Name of Contractor	Contract Amount (Cr.)	D.O.S (NTP)	D.O.C within extended period	Completion Period (Months)	Status of Work	Remarks
16	Construction of 2 no's Class rooms with Verandah, Toilet block, Septic Tank, Soakage Pit at Govt. Middle School, BissanKayein Poonch.	Mr. Abdul Aziz Mir.	0.70	16.9.2019	31.12.2021	27	Completed	Handed over to School Education Deptt. & Functioning.
17	Construction of 3 no's Class rooms	Mr. Abdul Aziz Mir.	1.15	5.9.2019	30.9.2021	12	--do--	--do--

	with Verandah, Toilet block, Septic Tank, Soakage Pit & protection work at Govt. Middle School, Nari Poonch.							
18	Construction of 4 no's Class rooms with Verandah, Toilet block, Septic Tank, Soakage Pit & protection work at Govt. Middle School, Qasba Poonch.	Mr. Abdul Aziz Mir.	1.41	1.6.2019	30.6.2022	36	--do--	--do--
19	Construction of 4 no's Class rooms with Verandah, Toilet block, Septic Tank, Soakage Pit & protection work at Govt. Middle School, Kiran Moorian Arai, Poonch.	Mr. Abdul Aziz Mir.	0.88	1.6.2019	31.3.2022	33	--do--	--do--
20	Construction of 2 no's Class rooms with Verandah, Kitchen, Toilet block, Septic Tank, Soakage Pit & other allied works at Govt. Middle School, Palani Khanetar, Poonch.	Mr. Abdul Aziz Mir.	1.14	27.7.2020	30.9.2021	15	--do--	- --do--
21	Construction of 2 no's Class rooms with Verandah, Kitchen, Toilet block, Septic Tank, Soakage Pit & other allied works at Govt. Middle School, Dhara J.W. Gali, Mendhar, Poonch.	Mr. Abdul Aziz Mir.	0.99	9.12.2020	31.3.2022	15	--do--	--do--
22	Construction of 2 no's Class rooms with Verandah, Kitchen, Toilet block, Septic Tank, Soakage Pit & other allied works at Govt. Middle School, Khait, Mendhar, Poonch.	Mr. Abdul Aziz Mir.	0.97	9.12.2020	30.6.2022	18	--do--	--do--
23	Construction of 2 no's Class rooms with Verandah,	Mr. Abdul Aziz Mir.	1.02	9.12.2020	30.6.2022	18	--do--	--do--

	Kitchen, Toilet block, Septic Tank, Soakage Pit & other allied works at Govt. Middle School, Jabran, Mendhar, Poonch.							
--	---	--	--	--	--	--	--	--

Project Manager (T) is the Nodal Officer for JTFRP Jammu. To check the quality of work all the material test conducted by the PIU from the Jammu based NABL accredited Laboratory as a third party were duly witnessed by a team of TAQAC, Consultant of JTFRP. Even all RCC Slab of the School Buildings were laid in the presence of Team of TAQAC. After the completion of procurement process by PWD (R&B) Deptt., as PIU, the Documents Audit of all the Schools was conducted by the Team of TAQAC. The record is available with the TAQAC Office, Jammu.

1. Executive Summary:

- **Objective:**Construction of 24 no's Schools in Jammu Division.
- **Summary of Achievement:** All the 24 no's of Schools comprising of 23 Packages are completed by PWD (R&B) Jammu as PIU as per Allotted cost and approved extension of time.

- 2. Introduction & Background:**Under this Components 26 no's Schools building in Primary Schools, Middle Schools, High Schools and Higher Secondary Schools were constructed under the Supervision of PWD (R&B) Jammu as PIU. All the Schools were identified by the PWD (R&B) authority and approved by the World Bank under JTFRP (J&K). Out of 26 no's School Buildings only 24 no's completed and following 2 no's School Buildings cannot be taken up for construction as the land has not been made available by the School Education Department as conveyed by C.E, PWD (R&B) Jammu vide his letter no. CEJ/TO/4075-79 dated 17-05-2023.

(C) Construction of 6 no's Class Room with Verandah, Toilet block and allied infrastructure at GHSS Rajouri.

(D) Construction of 2 no's Class room with Verandah, Toilet block and allied infrastructure at GMS Chibba Jammu.

All these buildings have been designed as Frame structure based on the individual bearing capacity of the Soil. The Infrastructure has been designed to with stand Earthquake as per the latest design guideline.

3. **Project Detail:** All the Schools has been designed as Frame structure on the basis of individual safe bearing capacity of the soil which will withstand the intensity of Earthquake wave and building as learning aids i.e BALA Technique which incorporate the idea of activity based learning as well as Child friendly and inclusive education for all the Children.

CONTRACT DETAIL:

1	Contract Title	Construction of 24no's School Buildings in Govt. Primary, Middle, High& Higher Secondary Schools in Jammu Region.
2	Project Implementation Unit (PIU).	PWD (R&B) Deptt. Jammu.
3	Project Management Unit (PMU)	JHEM TAWI FLOOD RECOVERY PROJECT (JTFRP)
4	Contracting Agency	1. <u>PWD (R&B) Distt. Jammu (7no's Schools)</u> a) M/S Vivek Construction Co. b) M/S Vivek Construction Co. c) M/S Manohar Singh d) M/S Vivek Construction Co. e) M/S Narinder Singh Jamwal f) Mr. JoydeepWali. g) Mr. JoydeepWali

		<p>2. <u>PWD (R&B) Distt. Kathua (2no's Schools)</u></p> <p>a) M/S Romesh Construction Co.</p> <p>b) M/S Romesh Construction Co.</p>
		<p>3. <u>PWD (R&B) Distt. Udhampur (3 no's Schools)</u></p> <p>a) Mr. Rajkumar.</p> <p>b) Mr. Krishan Singh.</p> <p>c) Mr. Krishan Singh.</p>
		<p>4. <u>PWD (R&B) Distt. Rajouri (4 no's Schools)</u></p> <p>a) M/S New Emerging SHG.</p> <p>b) M/S New Emerging SHG.</p> <p>c) M/S Vivek Construction Co.</p> <p>d) Mr. Mohd. Shafi.</p>
		<p>5. <u>PWD (R&B) Distt. Poonch (8 no's Schools)</u></p> <p>a) Mr. Abdul Aziz Mir.</p> <p>b) Mr. Abdul Aziz Mir.</p> <p>c) Mr. Abdul Aziz Mir.</p> <p>d) Mr. Abdul Aziz Mir.</p> <p>e) Mr. Abdul Aziz Mir.</p> <p>f) Mr. Abdul Aziz Mir.</p> <p>g) Mr. Abdul Aziz Mir.</p> <p>h) Mr. Abdul Aziz Mir.</p>
5	Audit Consultants	LEA ASSOCIATES SOUTH ASIA PVT LTD. (TAQAC)
6	Funding Agency	World Bank
7	Contract Price	19.17 cr.

4. RESULTS :

- **Deliverables:** Construction of 24 no's School Buildings in Govt. Primary, Middle, High & Higher Secondary Schools in Jammu Region with Building as Learning Aid i.e BALA Technique with all safety and quality standards.
- **Performance Metrics:** 24 no's New School Buildings Completed within allotted cost & within approved extended time of completion.
- **Quality Assurance:** Regular inspections and adherence to construction best practices ensured high quality outcomes.

5. LESSONS LEARNT:

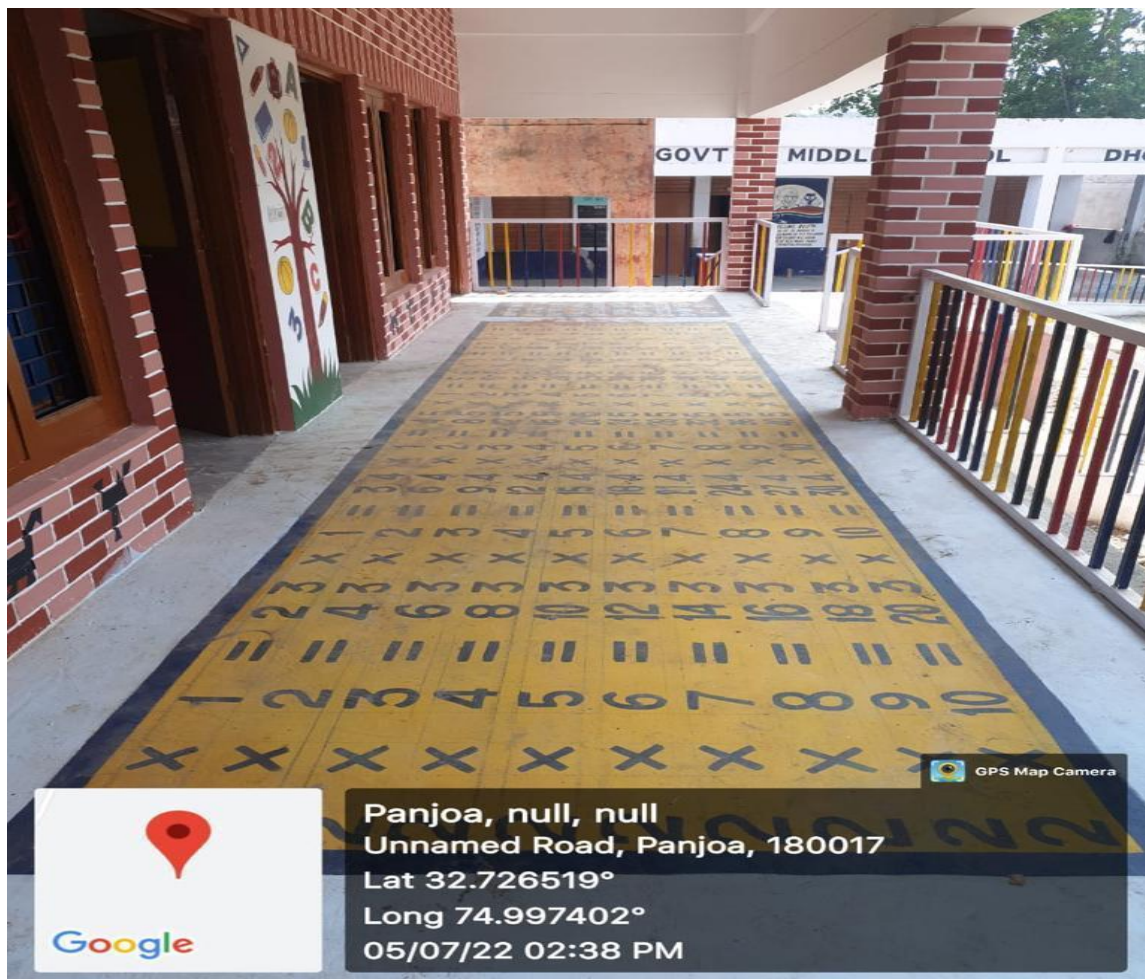
- **Successes:** With effective communication among School Education Authority and PWD (R&B) Deptt. as PIU, the Project could be completed within allotted cost and approved time extension.
- **Area of Improvement:** All the 24 no's Schools i.e 7 no's in Distt. Jammu & 8 no's in Distt. Kathua, 3 no's in Distt. Udhampur, 4 no's in Distt. Rajouri & 8 no's in Distt. Poonch completed handed over & functioning.

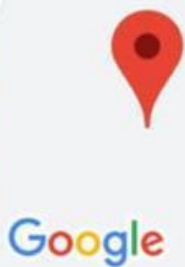
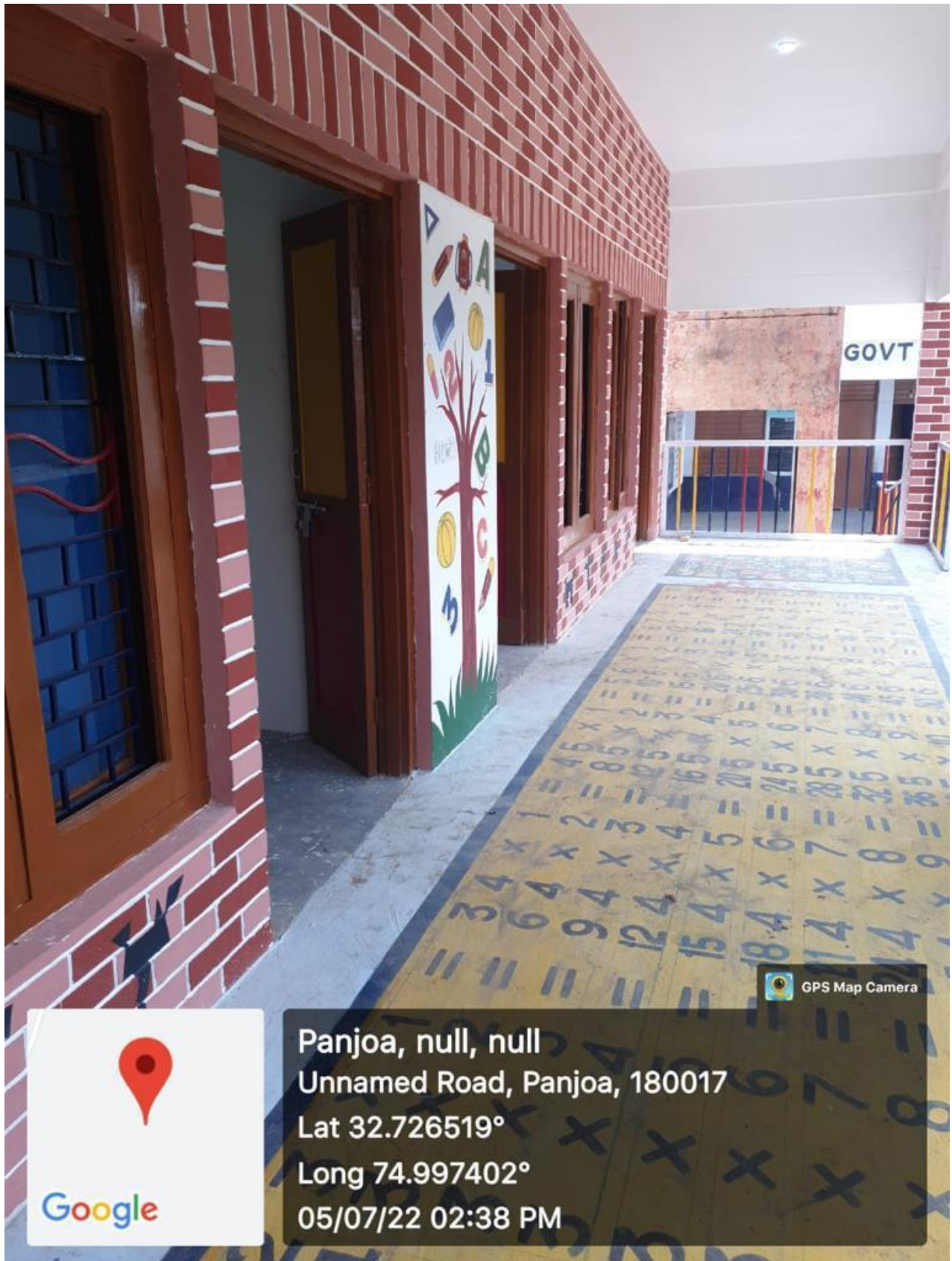
6. CONCLUSION:

- **Summary:** 24 no's School Building completed in Jammu Region with BALA Technique & type of structure of buildings has been Designed to withstand Earthquake as per the latest design guidelines issued by MORTH.
- **Impact :** With the completion of these Earthquake resistant building with latest design, equipped with building as Learning Aids i.e BALA Technique which incorporate the idea of activity based learning as well as Child friendly & inclusive education for all the Children, the enrolment in these School increases tremendously.

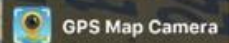
(A) Pictures of Completed Schools (District Jammu):

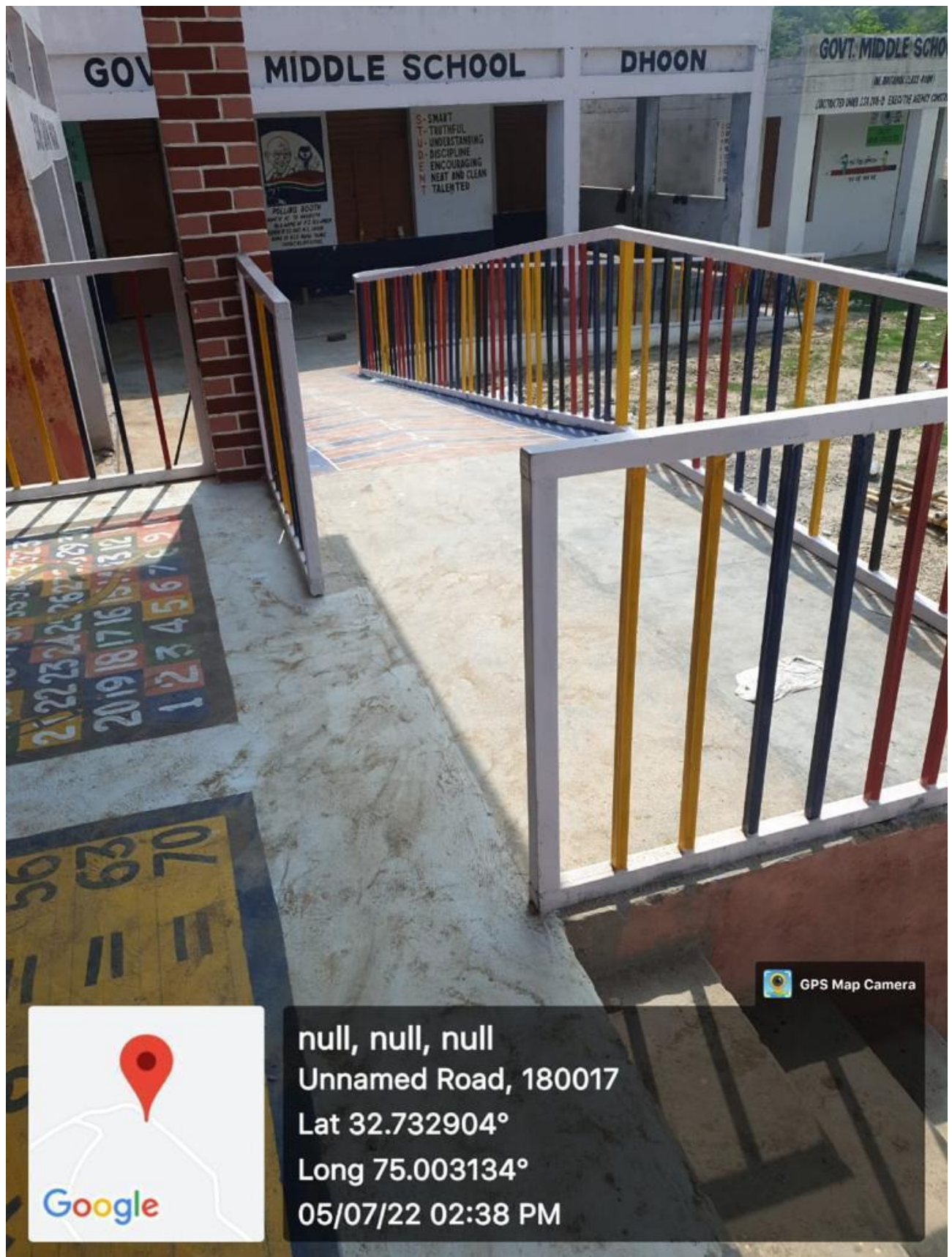
1. Govt. Middle School, Dhoon





Panjoa, null, null
Unnamed Road, Panjoa, 180017
Lat 32.726519°
Long 74.997402°
05/07/22 02:38 PM

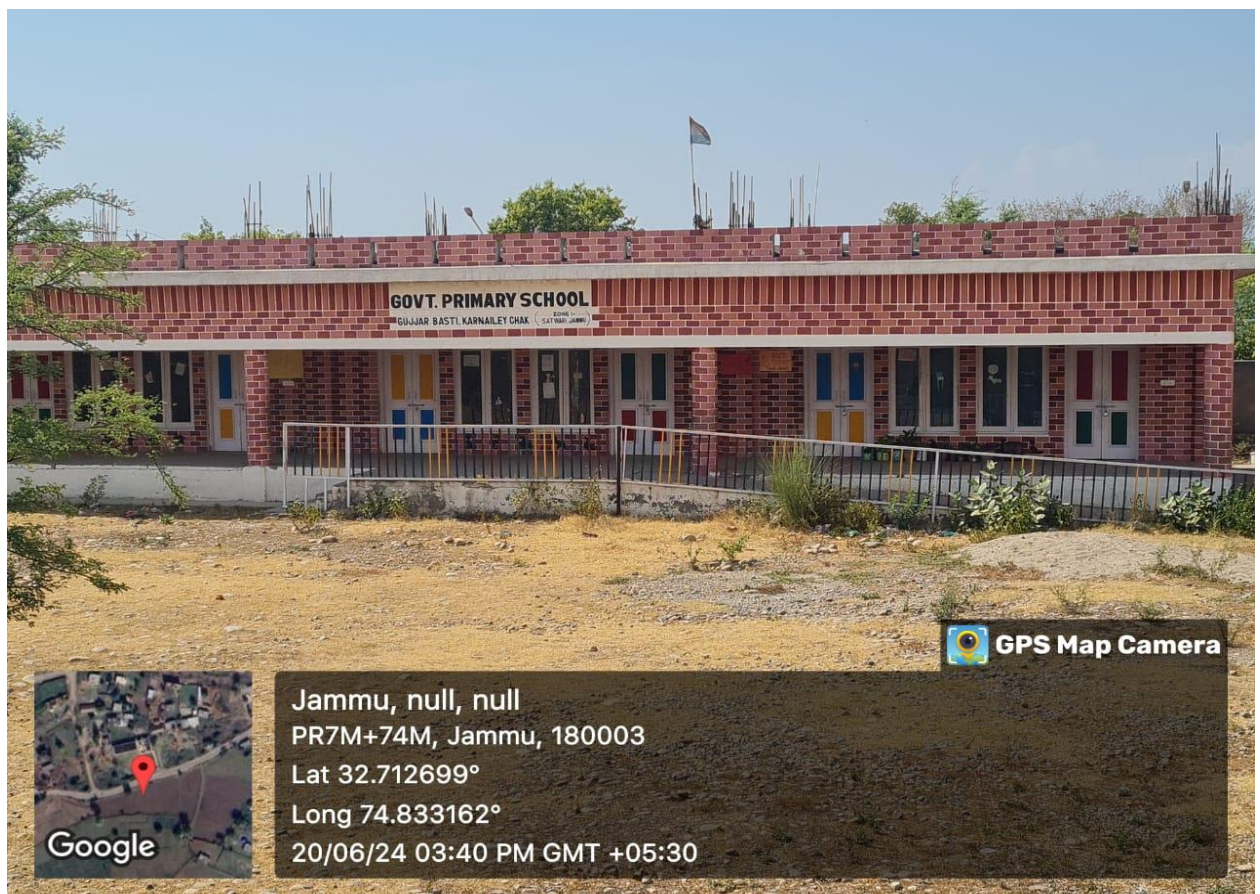


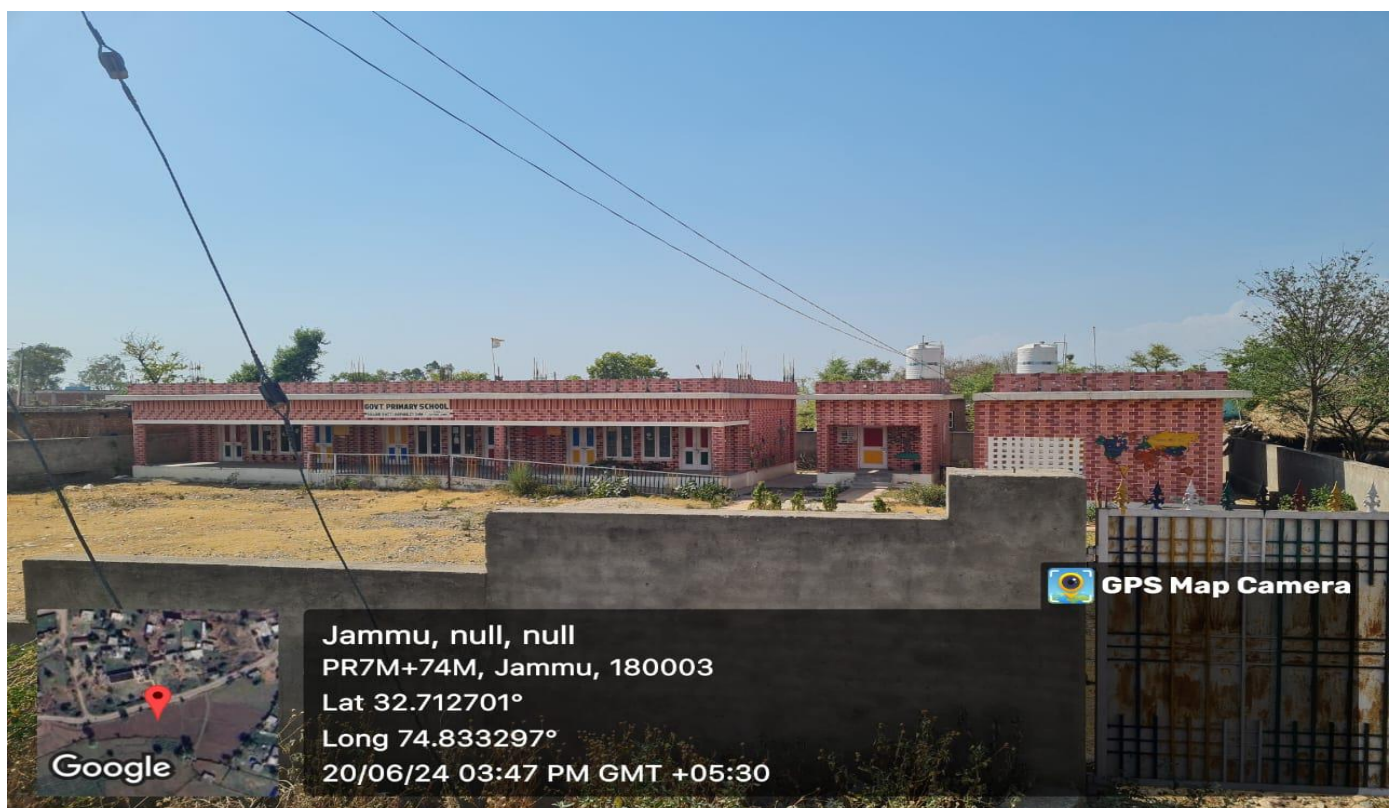


2. Govt. Middle School, Makwal:



3. Govt. Primary School, GujarBasti, KarnalayChak:





4. Govt. Middle School, Pargwal.

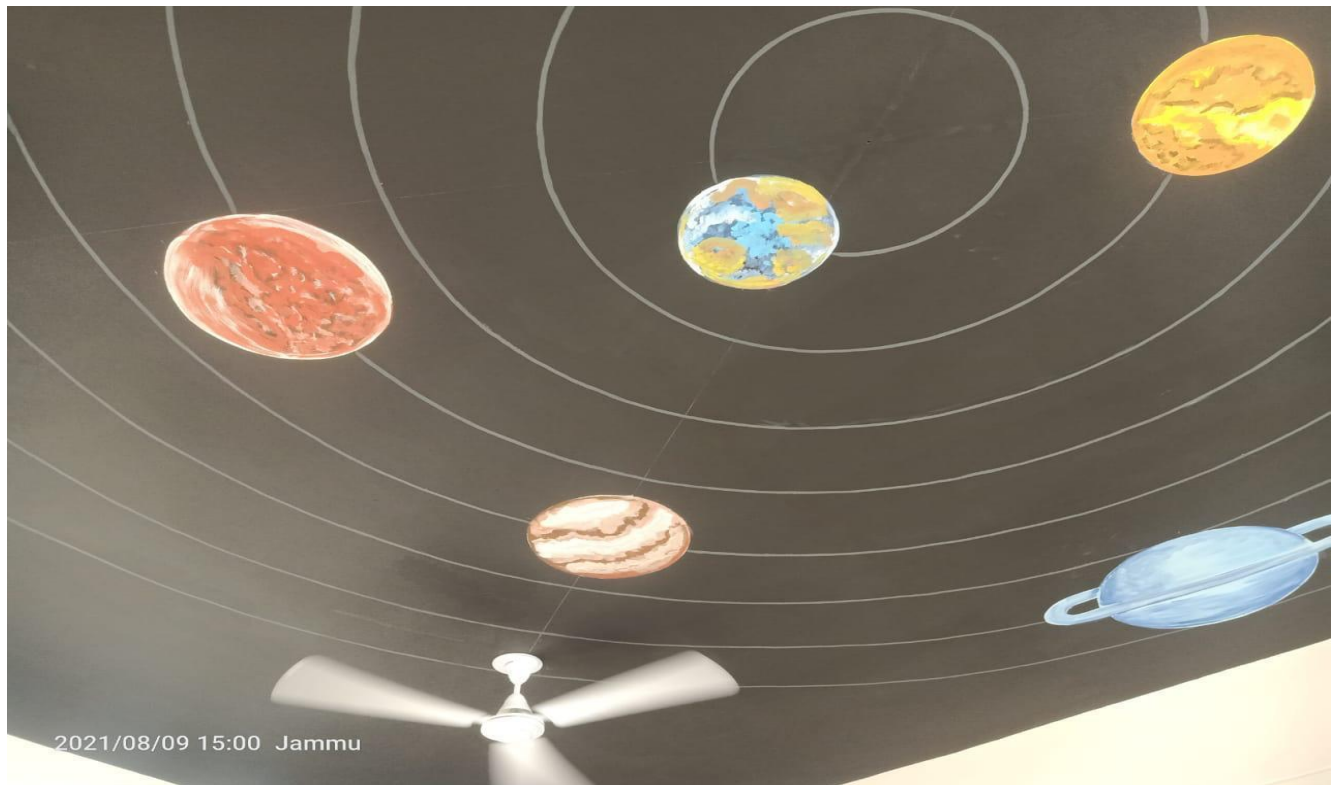




5. GOVT. Primary School, Belicharana:







6. Govt. High School, ChakMajra, R.S.Pura:









7. Govt. Middle School, PuranaPind, R.S.Pura:







(B) Pictures of Completed Schools (District Kathua):



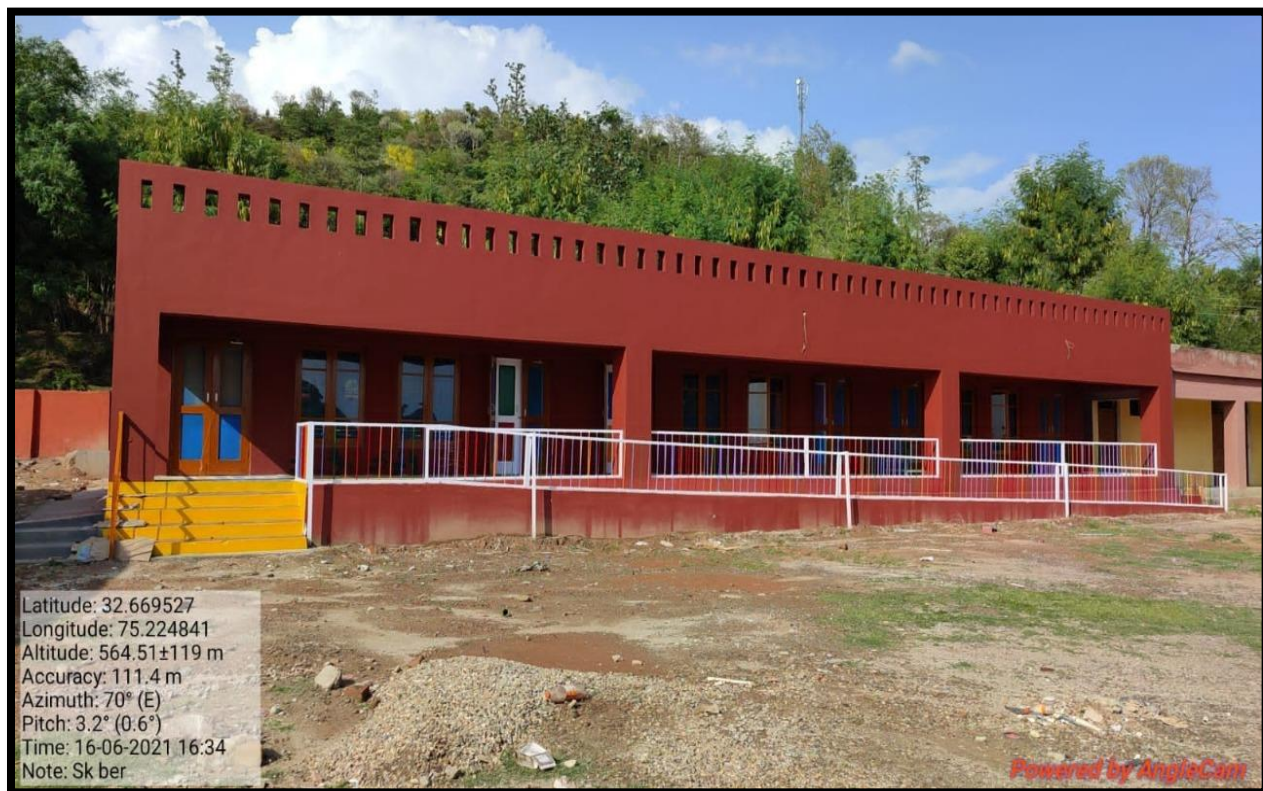
1. Govt. Higher Secondary School, NagrotaGijrooBillawar.



2. Govt. Higher Secondary School, GurhaKalyalBillawar.

(C) Pictures of Completed Schools (District Udhampur):

1. GOVT. High School, SK Ber, Majalta.



2. Govt. Middle School, Upper Manta. (3 no's class rooms with Verandha in Upper Terrace, 3 no's class rooms at Lower Terrace including Protection Work.







3. Govt. Middle School, BerrianManyal.





(C) Pictures of Completed Schools (District Rajouri)

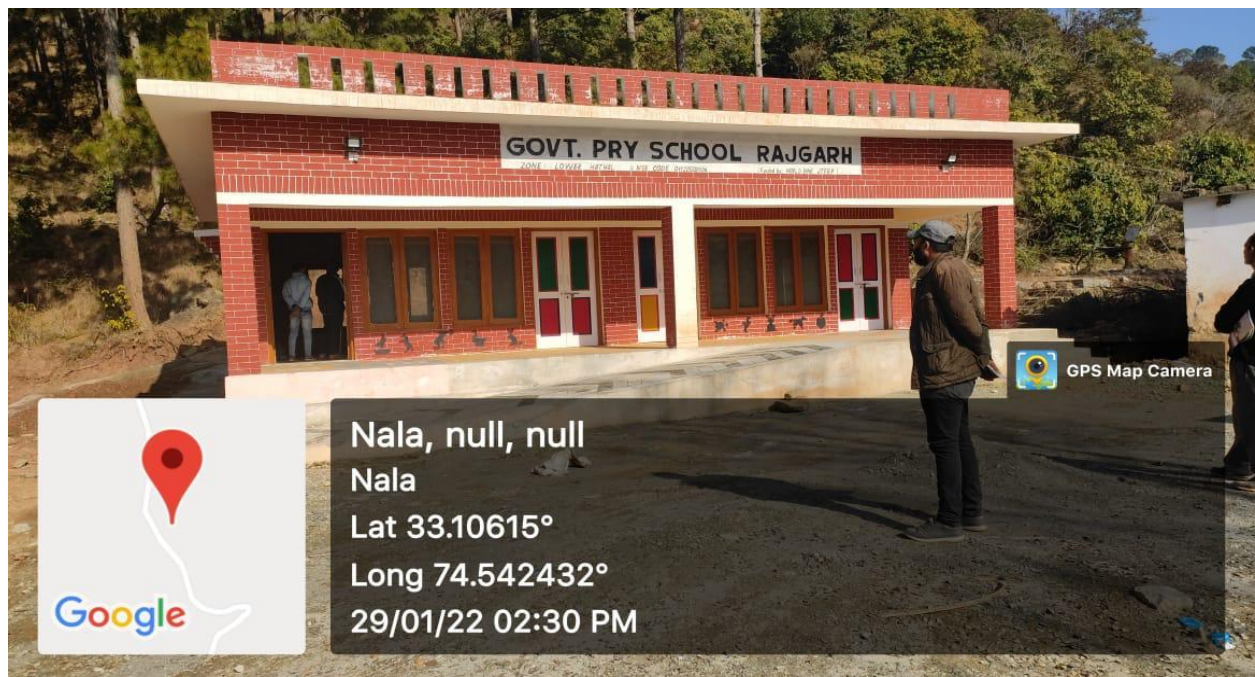
1. Govt. Middle School, Prat.Nowshera Rajouri.



2. Govt. Middle School, Thichka. Nowshera Rajouri.



3. Govt. Primary School, RajgarhNowshera, Rajouri.



4. Govt. Higher Secondary School, GambhirMuglian, Rajouri.





(D) Pictures of Completed Schools, Poonch:

1. Govt. Middle School, BissanKayian.













2. Govt Middle School, Nari.









3. Govt Middle School, Qasba.







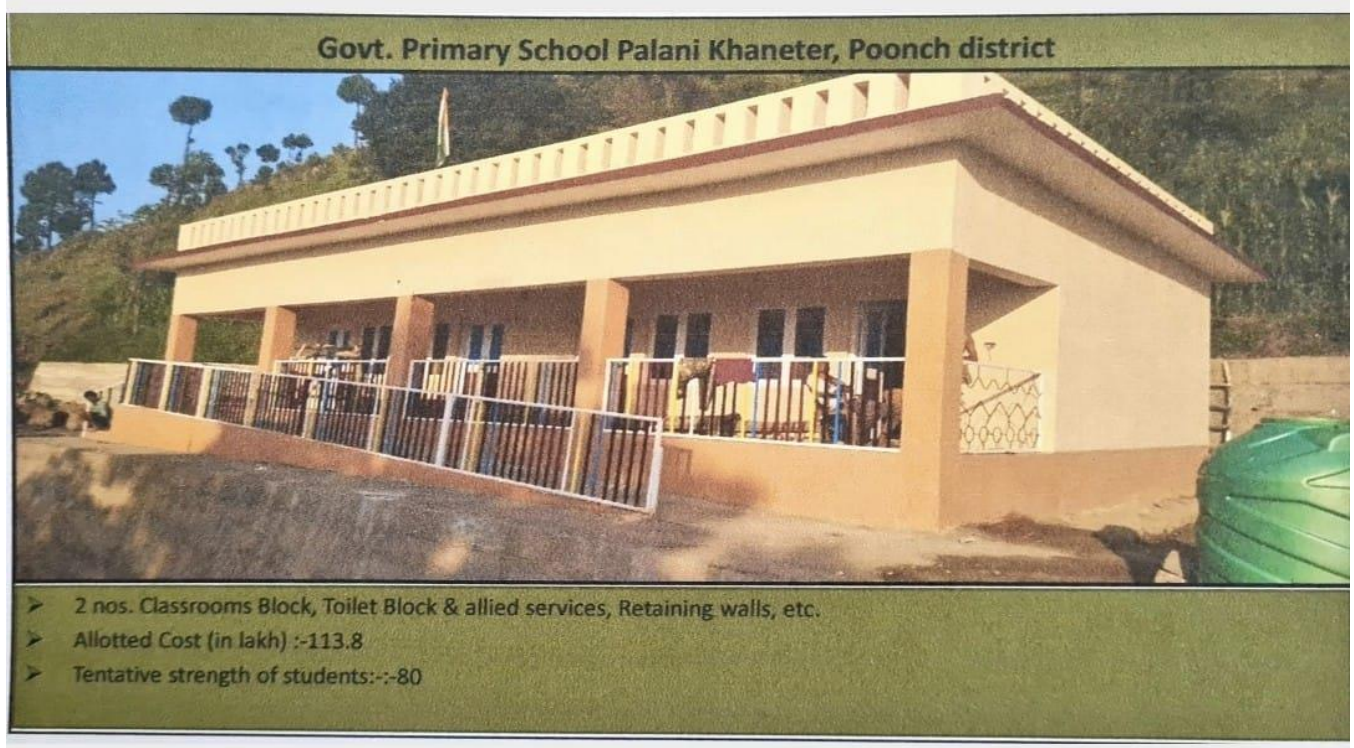


4. Govt. Middle School, KiranMorrian.



5. Govt. Middle School, PalaniKhanetar.





6. Govt. Middle School, JW Gali.







7. Govt. Middle School, Khait.



8. Govt Middle School, Jabran.



2. **Reconstruction of Roads & Bridges** :The Objective of Component 2 “Reconstruction of Roads & Bridges” is to restore and improve the connectivity disrupted due to the disaster through the Reconstruction of damaged Roads & Bridges. The infrastructure has been designed to withstand Earthquake and flood forces as per the latest official design guidelines. For the Jammu region Seven Road sub-projects and three bridges were identified by the PWD (R&B) Department vide their **Letter no. PW/R&B/Plan/PIU/803/2016 Dated 27.09.2017**.The Detailed Project Report for the Road Sub-Projectswas prepared by the EPTISA Consultants hired by the JTFRP and DetailedProject Report of Bridges was prepared by the Engineers of ERA/JTFRP. All the Road sub-projects were tendered and allotted to the Lowest Bidder on the basis of Bill of Quantities. All the Three

Bridges were tendered and allotted on the basis of Engineering Procurement and construction basis and on the Approved GAD floated with the tender. The brief detail of Sub-Projects has been summarized as follows:

S.No	Name of Sub-Project	STEP Ref. No.	Name of Contractor	Length/ Span	Allotted Cost
1	Upgradation of SidhraSurinsar Road (Lot-1)	Revised Roads/Jammu/01	M/S SRM-Rajindra Projects (JV)	18.19 kms	16.71 cr.
2	Upgradation of Tuta di Khui to KhadaMadana Road (Lot-2)	Road/Jammu/Tutian/Revised	__do__	11.0 kms	26.62 cr.
3	Upgradation of Chirala Link Road.	Revised/Chirala/Road	M/S JavidIqbal Wani (JV)	10.0 kms	19.70 cr.
4	Upgradation of MalainiChakarvatti Road	JTFRP/Road/Revised/Malaini/02	__do__	10.0 kms	19.98 cr.
5	Upgradation of Gulati to ShahdraShrief Road Package-3	Revised/Road/Jammu/03	M/S SRM - Rajindra (JV)	27.200 cr.	39.98 cr.
6	Upgradation of AnjiPanasa/ Deva Mai Road/ Package-04	Revised/Road/Jammu/04	M/S New Jhelum Construction Company	9.24 kms	16.05 cr.
7	43 m Span Steel Truss Foot Bridge at SukhalGhati, Reasi.	New/JTFRP/PMU/Bridges/Jammu/02	M/S SGF Infra Pvt Ltd.	43m	1.22 cr.
8	165m Span (2-Lane) Steel Truss MotorableBrisge over BetarNallah In Poonch.	Revised/Bridges/Jammu/Poonch	M/S A.K Engineer & Contractor Ltd.	165m	18.00 cr.
9	58m Span (2-lane) Steel Motorable Bridge at GhordiNallah.Design& construction of 50.0m span (2-lane) motorable bridge from Barsoa to Pathri over	New/JTFRP/PMU/Bridges/Jammu/01	M/S SRM Contractor Pvt Ltd.	58 + 50 = 108 m	13.24 cr.

	BarmeenNallah in RamnagarDistt.Udham pur.				
--	--	--	--	--	--

All these three bridges as captioned above were designed after Hydrological Study, Geological Drill Bore Logging and design duly vetted by Head Civil Engineering Deptt. GCET Jammu, IIT Bombay and IIT Jammu, further scrutinized by the Bridge Designer of the TAQAC as per the clause of the Contract Agreement. After the allotment of all the sub-projects, documentation Audit were carried out by the Team of TAQAC-Jammu and during the execution of these sub-projects, Audit of all the Tests conducted by the Contractor duly assured by the Site Engineer of PIU were done as per check list format for Quality Assurance, QAP and submitted to Project Manager (T) Jammu from time to time.

The Following Sub-Projects completed and handed over to the PWD (R&B) Department.

(A)

- 1. Upgradation of AnjiPanasa Road, Reasi.**
- 2. Upgradation of SidhraSurinsar Road, Jammu**
- 3. 43m Span Steel Truss Foot Bridge at SukhalGhati, Reasi.**
- 4. 58m Span (2-lane) Steel Motorable Bridge at Ramanagar.**
- 5. Upgradation of Chirala Link Road, Doda.**
- 6. Upgradation of MalainiChakarvatti Road, Doda.**

The following Sub-Projects Completed and likely to be handed over to the PWD (R&B) Department after Defect Liability Period.

(B)

- 1. 165m Span (2-lane) Steel Truss Motorable Bridge over
BetarNallah, Poonch.**
- 2. Upgradation of Deva Mai to OhliMandir Road, Reasi.**

The following Sub-Projects which are still in progress are likely to be completed within the extended period i.e ending Dec.2024.

(C)

1. Upgradation of Gulati to Shahdra Shrief Road ----- In Progress
(DOC: 30.06.2024)

2. Upgradation of Tuta di Khui to Khada Madana Road ---- Work terminated due to Non- performance by the Contractor. Rate list for floating the Tender for the balance work prepared. (DOC: 31.12.2024.

Sub-Project Road Description.

FINAL REVIEW REPORT JTFRP WORKS JAMMU											
COMPONENT-II RECONSTRUCTION OF ROADS & BRIDGES											
PIU JKERA JAMMU						PMU JTFRP JAMMU					
Name of the Sub-Project	Completion Time	Estimated Cost (INR Cr.)	Alloted Cost (INR Cr.)	Cost as per Approved final variation.	LOA Issued	Signing of Contract Agreement	Date of Notice to Proceed	Date of Start as per Allotment	Date of Completion (Actual)	Population Benefitted	Remarks
Upgradation of Sidhra Surinsar Road (Lot-1) L=18.290 kms M/S SRM- Rajindra Projects (JV)	12 Months	21.42	16.7	16.67	30.12.2019	13.3.2020	13.7.2020	20.7.2020	08.6.2022	5 Lakh	Work completed within approved EOT i.e 30.6.2022, inaugurated by Lt. Governor of UT of J&K on 08.6.2022. Road Handed over to PWD (R&B) Deptt. Jammu. Internal (Documentation) Audit and External (Field) Audit as per QAP done by Team of TAQAC Jammu (Enclosed Report)
Upgradation of Tuta di Khui to Khada Madana Road (LOT-2) L= 11.08 kms M/S SRM Contractor Pvt Ltd.	15 Months	26.38	26.61	26.496	02.11.2020	06.1.2021	07.1.2021	07.1.2021	31.10.2023	5 Lakh	Due to poor performance by the Contractor, the construction of the Sub-project terminated as per clause 57.0 of the Contract Agreement by the Director (Tech.) JTFRP Jammu vide his Letter no. JTFRP/DT/23/K/8041-8045 Dated 14.09.2023. The final IPC-5th of the Contractor amounting to Rs.10.982 cr. framed and submitted to the Head Office, Srinagar. The Rate list of the balance work on JK-SSR of 2022 were framed which was amounting to Rs.16.928 cr. including Provisional sum of Rs.0.50 cr. was also submitted to Head Office for floating fresh Tender for the balance work.
Upgradation of Chirala Link Road L= 10.14 kms M/S Javid Iqbal Wani (JV)	7 Months	16.65	19.7	20.705	25.01.2021	08.3.2021	26.03.2021	27.3.2021	30.6.2023	>20,000	Work completed & likely to be handed over to PWD (R&B) Department.

FINAL REVIEW REPORT JTFRP WORKS JAMMU											
COMPONENT-II RECONSTRUCTION OF ROADS & BRIDGES											
PIU JKERA JAMMU						PMU JTFRP JAMMU					
Name of the Sub-Project	Completion Time	Estimated Cost (INR Cr.)	Alloted Cost (INR Cr.)	Cost as per Approved final variation.	LOA Issued	Signing of Contract Agreement	Date of Notice to Proceed	Date of Start as per Allotment	Date of Completion (Actual)	Population Benefitted	Remarks
Upgradation of Malaini Chakarbatti Road L= 10.06 kms M/S Jvid Iqbal Wani (JV)	9 Months	17.83	19.98	20.011	15.3.2021	27.5.2021	11.6.2021	12.6.2021	30.6.2023	> 15,000	Work completed & likely to be handed over to PWD (R&B) Department.
Upgradation of Gulati to Shahdra Shrief Road via Gambhir Gali. L = 27.280 kms M/S SRM-Rajindra Project (JV)	15 Months	40.4	38.97	38.977	23.12.2019	13.3.2020	13.7.2020	20.7.2020	30.6.2024	3 Lakh	Work in Progress.

FINAL REVIEW REPORT JTFRP WORKS JAMMU											
COMPONENT-II RESTORATION OF ROADS &											
PIU JKERA JAMMU						PMU JTFRP JAMMU					
Name of the Sub-Project	Completion Time	Estimated Cost (INR Cr.)	Alloted Cost (INR Cr.)	Cost as per Approved final variation.	LOA Issued	Signing of Contract Agreement	Date of Notice to Proceed	Date of Start as per Allotment	Date of Completion (Actual)	Population Benefitted	Remarks
Upgradation of Deva Mai to Ohli Mandir Road L= 4.99 kms M/S New Jehlum Construction Co. Upgradation of Anji Panasa Road L= 4.20 kms M/S New Jehlum Construction Co.	15 Months	22.3	16.04	12.633	26.12.2019	13.3.2020	30.6.2020	07.7.2020	31.1.2024	1 lakh	Work completed & likely to be handed over to PWD (R&B) Department. Work completed & Handed over to PWD (R&B) Department.

FINAL REVIEW REPORT JTFRP WORKS JAMMU											
COMPONENT-II RECONSTRUCTION OF ROADS & BRIDGES											
PIU JKERA JAMMU						PMU JTFRP JAMMU					
Name of the Sub-Project	Completion Time	Estimated Cost (INR Cr.)	Alloted Cost (INR Cr.)	Cost as per Approved final variation.	LOA Issued	Signing of Contract Agreement	Date of Notice to Proceed	Date of Start as per Allotment	Date of Completion (Actual)	Population Benefitted	Remarks
Design & Construction of 43mtr Span Foot Bridge over Anji Nallah at Sukhal Ghati including Approach Path on Both sides (Complete Job) in Reasi District. M/S SGF Pvt Ltd.	18 Months	1.50cr.	1.22cr.	1.22cr.	30.7.2019	07.3.2020	23.7.2020	30.7.2020	23.1.2022	More than 5000.	Work completed & inaugurated by Lt. Governor of UT of J&K on 08.6.2022 and Handed over to PWD (R&B) Department.
Design & Construction of 165m Span (3x55m) (2-lane) Steel truss motorable bridge with footpaths over Betar Nallah including approach roads at Dalhan in Poonch. M/S A.K Construction Pvt Ltd.	18 Months	19.66cr.	18cr.	18.24cr.	07.3.2020	24.7.2020	23.7.2020	30.7.020	31.7.2023	25000	Work Completed and thrown open to all types of Traffic after load testing through it was on EPC mode, the cost revised on account of increase in cost @ 6% GST and given as per Clause 43.2 of the Contract Agreement and likely to be handed over to PWD (R&B) Department, Poonch.
Design & Construction of 58.0m Span (2-lane) Steel motorable bridge from Katheel Ganjoo to Barsoa over Ghordi Nallah and 50.0 mtr span (2-lane) motorable bridge from Barsoa to Patri over Barmeen Nallah Ramnagar including approach roads in Udhampur. M/S SRM Contractor Pvt Ltd.	18 Months	16.50cr.	13.24cr.	13.60cr.	30.7.2019	07.3.2020	23.7.2020	30.7.2020	31.8.2023	30,000	Work completed and inaugurated by Prime Minister of India on 20.02.2024 and likely to be Handed over to the PWD (R&B) Department. Cost of the Project revised on account of increase in GST as per clause 43.2 of GCC of Contract Agreement.

➤ **Name of the Project: Upgradation of Road from Sidhra to Surinsar (LOT-1) (RD.0)**

1. Executive Summary:

- **Objective:** The Project Objective under this component is to provide all weather road by upgrading the existing road by way of opening blind curves, and narrow stretches where formation width is not as per MORTH Specification protection work, cross drainage. Design the pavement as per CBR value and traffic intensity and all other safety measures as per the latest guidelines of MORTH.

- **Summary of Achievement:** The road upgraded from Sidhra Ch.0.00 kms to 18.290 kms. Start of Wild Life Sanctuary Surinsar upto B.T status, benefitting a population of more than 5.0 lacs and this road is very vital owing to it providing the road connectivity to various pilgrimages, tourist locations in and around Jammu Distt. The directly benefitted settlements are Bajalta, Chilah, ChakChilah, Atthem and Badgah.

2. Introduction, Location & Background: Project Road starts from Jammu-Srinagar National Highway (NH-44) at Sidhra and ends at km 18 + 290. Latitude 32°45'41.03"N at Sidhra to 32°41'53.06"N at Surinsar. Longitude 74°54'57.71"E at Sidhra (RD0.0) to 75°9'3.31" at Surinsar. The road from Chainage km 0 to 4.763 km is of double lane with carriage way of 7m and thereafter there is intermediate lane (5.5m) Carriage way and 6.0m at curves. After the end point of this road wild life sanctuary starts. This road has importance from Pilgrimage, Tourism point of view. The road is very vital owing to it providing the road connectivity to various pilgrimages, tourist locations in and around Jammu district. It completes the pilgrimage tourist circuit from Purmandal, Mansar, Utterbani, Devak and connecting with Vaishno Devi, PeharDevta Temple and SudhMahadev in Reasi, Jammu and Udhampur districts. This MDR passes through hilly terrain and numbers of settlements such as Bajalta, Chilah, ChakChilah and Badgah. The land use along the Project Road is combination of open Residential and commercial. The Road has been upgraded by way of opening all the blind curves which were prone to accidents, grade connection and providing additional layers of GSB, WMM at the widened portion, construction of Line Drain, Drainage crossings, Protection work and provided with w-beam Metal crash barrier. The existing Riding surface of the Pavement was poor due to Asphalt Oxidation and now provided with 70mm thick DBM and 30mm thick BC for the whole carriageway as well as on the widened portion of the road.

3. Project Details: The Project details of the sub-project have been summarized as follows:

Terrain	Hilly
Land Use Pattern	Mixed Land use between open and built up.
Formation width	9.0m to 12.0m
Right of Way	15.0m (av.)
Design CBR	7% for first 5km & 7.2% upto km 18.290
Flexible Pavement (New)	DBM = 70mm BC = 30mm

Contract Detail

1	Contract Title	Upgradation of Sidhra to Surinsar Road upto km 18.290.
2	Project Implementation Unit (PIU).	J&K Economic Reconstruction Agency
3	Project Management Unit (PMU)	JHELM TAWI FLOOD RECOVERY PROJECT (JTFRP)
4	Contracting Agency	M/S SRM – RAJINDRA PROJECTS (JV)
5	Design Consultants	EPTISA
6	Audit Consultants	LEA ASSOCIATES SOUTH ASIA PVT LTD. (TAQAC)
7	Funding Agency	World Bank
8	Contract Price	16.71 cr.
9	Variation	(-) 0.04 cr.
10	Revised Contract Price	16.67cr.

4. Results:

- **Deliverables:** The Project completed upto km 18.290 as per scope of work, inaugurated by L.G of UT of J&K on 08.6.2022 and handed over to PWD (R&B) Deptt. after Defect Liability Period.

- **Performance Metrics:** The Project Completed within allotted cost (Rs.16.67 cr.)
- **Quality Assurance:** Regular Inspections and adherence to construction best practices ensured high quality outcomes.

5. **Lessons Learnt:**

- **Successes:** With effective communication with PWD (R&B) Authority, Forest deptt., Local Public representative & Distt. Administration work could be completed within approved extension of time.

6. **Area of Improvement:** Besides giving access to the villages captioned above, it completes the pilgrimage tourist circuit from Purmandal, Mansar, Utterbani, Devak and connecting Vaishno Devi Shrine and PeharDevta Temple.

- **Summary:** Work completed as per scope of work, within allotted cost and approved extension of time.
- **Impact:** Besides increasing the Tourist activities in the area. Long term impacts of the Projects in terms of improved access and better riding quality and connectivity will bring lasting economic benefits.

Fig 1: Map showing location of the proposed road of "Sidhra Sumrisar road upto Km 18+450" in Jammu District







Jammu - Surinsar - Mansar Rd, Chilah, 180017

Latitude
32.7748032 N
Local 04:14:47 PM
GMT 10:44:47 AM

Longitude
74.9919241 E
Altitude 0 meters
Tuesday, 03-08-2021



NH 44, Sidhra, Jammu, 180019

Latitude
32.76119009 N
Local 01:12:57 PM
GMT 07:42:57 AM

Longitude
74.9170095 E
Altitude 359.97 meters
Thursday, 17-06-2021





- **Name of the Project:** Upgradation of Chirala Link Road, Distt. Doda.

1. **Executive Summary:**

- **Objective:** The Project Objective is to upgrade the road upto B.T Status from Ch.0.00 to km 10.00.
- **Summary of Achievement:** The road upgraded from single lane to standard single lane upto B.T Status from Ch.0.00km to 10.00 kms and include the widening at the narrow curves & zigs point, drainage crossings, protection work, GSB, WBM, Pacca Drain, Painting & Signage as per scope of work.

2. **Introduction, Location & Background:** The Road take off from km 61 of BatoteKishtwar National Highway – 244 and end 10th km of the alignment near village Puneja. From Puneja, Chirala – Puneja PMGSY road starts of length 10 kms to give connectivity to village Chirala. From connectivity point of view the sub project has high importance as through this alignment people of Chirala, Gosti, Rukali via Ponchai connects with District Head Quarter Doda. Before taken up by JTFRP, this road was of fair weather status and in a very dilapidated condition. Due steep slope & non existence of line drain and protection work, sliding continued from km 2.00 to km 2.40 km, km 5.4 to 6.5 and km 7.1 to 7.7 km. The road was upgraded from Chainage % km to 10 km by way of opening blind covers and Narrow stretch by providing Protection work, Pacca Drain throughout and construction of Drainage crossings. The Pavement of the road has been designed on the basis of av CBR and IRC.SP-72-2015.

3. **Project Details:**

Road Length	9.265 kms (Actual)
Location	Latitude 33°7'33.57"N 33°6'19.94N Longitude 75°37'39.14"E 75°41'39.28"E
Road Configuration	Upgraded from single lane to Standard single lane with carriage way of 3.75m and extra widening on the curves.
Design CBR	8.50%(av)
Traffic Drainage	T ₉ (15ESAL to 20EASL)
Cross Drainage	1.20m Dia NP ₄ Hume pipe
Structures Completed	Culvert = 9 no's
Retaining Wall Breast Wall Edge Wall Drain	RCC Slab Culvert = 2 no's 3130 RM 2828.3 RM 8395 RM
Pavement (Flexible) Completed	OGPC = 25 mm BM = 50 mm WBM-III = 75mm WBM-II = 150 mm GSB-II = 150mm Total = 425 mm

Road Delineators	750 no's (Installed)
Sign Boards	107 no's (Fixed)
Convex Mirrors	4 no's (Fixed)

Contract Deatil:

1	Contract Title	Upgradation of Chirala Link Road.
2	Project Implementation Unit (PIU).	J&K Economic Reconstruction Agency
3	Project Management Unit (PMU)	JHEUM TAWI FLOOD RECOVERY PROJECT (JTFRP)
4	Contracting Agency	M/S JavidIqbalWani.
5	Design Consultants	EPTISA
6	Audit Consultants	LEA ASSOCIATES SOUTH ASIA PVT LTD. (TAQAC)
7	Funding Agency	World Bank
8	Contract Price	19.70 cr.
9	Variation	1.005 cr.
10	Revised Contract Price	20.705 cr.

4. Results:

- **Delieverables:** Upgradation of Chirala Link Road upto B.T Status including Earth Work at the narrow stretches, Protection work, Pavement as per design, Drain, Painting & Signage.
- **Performance Metrics:** Project completed with all respect as per scope of work and within final approved variationi.e Rs.20.705 cr. and met all safety and quality standard.

- **Quality Assurance:** Regular Inspections and adherence to construction best practices ensured high quality outcomes.

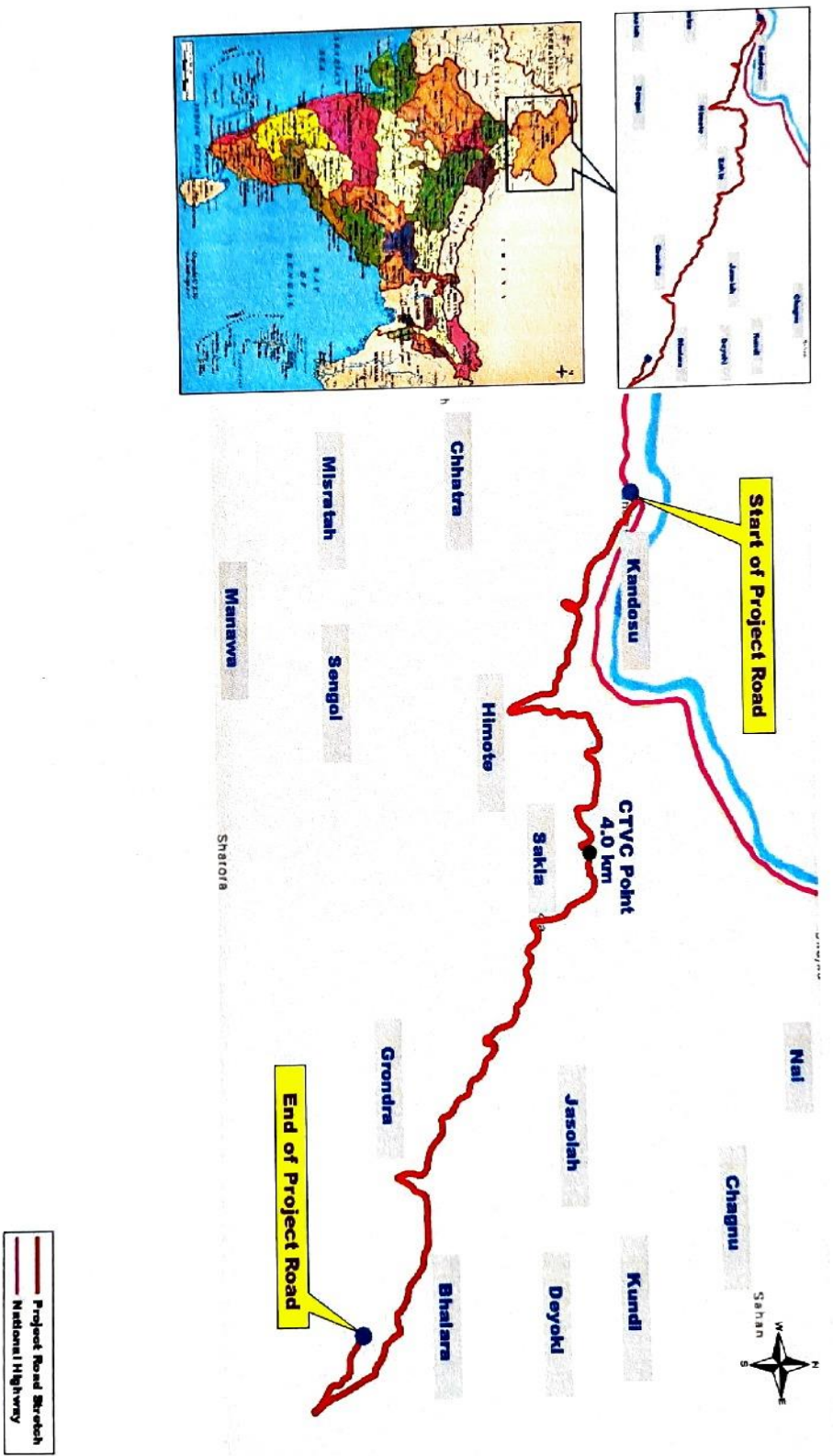
5. **Lessons Learnt:**

- **Successes:** Effective communication among the Distt. Administration, PWD (R&B) Deptt. & local Public representatives, the work could be completed.

6. **Area of Improvement:** By upgrading 10.00 kms road from Sui Gwari to Chiralupto Standard single lane (3.75m carriageway), the socio economic conditions of all the adjoining villages like Chirala, Puneja, Gosti, Rukali, via Ponchai.

- **Summary:** Work completed as per allotted scope of work and with safety measure and specification adopted as per MORTH Specification.
- **Impact:** This Road acts as an alternate road connecting Bhaderwah with the DodaKishtwar National Highway at Sui Gwari.

Fig 1: Map showing location of the proposed road of Chiralla Link Road including link road" in Doda District







➤ **Name of the Project:**Upgradation of Road from Malaini to Chakarbatti, Distt. Doda.

1. Executive Summary:

- **Objective:** The Project Objective is to upgrade the road upto B.T Status from Ch.0.00 to km 10.00.
- **Summary of Achievement:** The road upgraded from single lane to standard single lane upto B.T Status from Ch.0.00km to 10.00 kms and include the widening at the narrow curves & zigs point, drainage crossings, protection work, GSB WBM, Pacca Drain, Painting & Signage as per scope of work.

2. **Introduction, Location & Background:** The sub-project take off from km 7th of Pul-Doda – Bhaderwah Road and end at village Sundra. From connectivity point of view, this particular Road has high importance as through this alignment people of several villages namely Malaini, Jahnana, Dranga, Pendku, GhambeerMuglian, Mehrada and connect it with district town Doda and Bhaderwah town. Before taking up the work by JTFRP, the road was of fair weather status with non-existence of Drain, Drainage crossings and Protection work, the road was in a very dilapidated condition, which was upgraded by improving the Geometry of the road at 12 no's Hair pin bands and narrow stretches and providing protection work, Drainage crossings, Pacca Drain, Pavement as per Design and Road Signage from Chainage km % to 10.00 km & upgrading it from single lane to standard single lane with carriage way of 3.75m. The Pavement of the road has been designed on the basis of av. CBR and equivalent standard axial loading as per IRC SP/72-2015.

3. Project Details:

Road Length (Actual Completed)	10.00 kms
Location	33°5'31.95"N (start of sub-project)
Latitude	33°5'56.10"N (End Point)
Longitude	75°35'16.95"E (Start Point) 75°36'4.38"E (End Point)
Design CBR	8.50 (av.)
Traffic	T₉ (15EASL - 20EASL)
Cross Drainage	1.20m dia NP₄ Hume pipe Culvert. = 7 no's
Structure (Completed)	RCC Slab Culvert 6m Span = 1 no. 2m Span = 2 no's 1.5m Span = 1 no. Box culvert 1.0mx1.0m = 2 no's Total = 6 no's
Pavement	OGPC = 25mm BM = 50mm WBM-(II&III) = 225mm GSB = 20mm
Protection Work Completed	
Retaining Wall	2019.85 RM
Breast Wall	2641.70 RM
Edge Wall	711.0 RM
Drain	6558 RM
Road Signage (Completed)	
Delineators	1140 no's
Sign Boards	156 no's
Convex Mirror	14no's

Contract Deatil:

1	Contract Title	Upgradation of Road from Malaini to Chakarbatti Road, Distt. Doda.
2	Project Implementation Unit (PIU).	J&K Economic Reconstruction Agency
3	Project Management Unit (PMU)	JHELM TAWI FLOOD RECOVERY PROJECT (JTFRP)
4	Contracting Agency	M/S JavidIqbalWani.
5	Design Consultants	EPTISA
6	Audit Consultants	LEA ASSOCIATES SOUTH ASIA PVT LTD. (TAQAC)
7	Funding Agency	World Bank
8	Contract Price	19.98 cr.
9	Variation	1.03 cr..
10	Revised Contract Price	20.01cr.

4 Results:

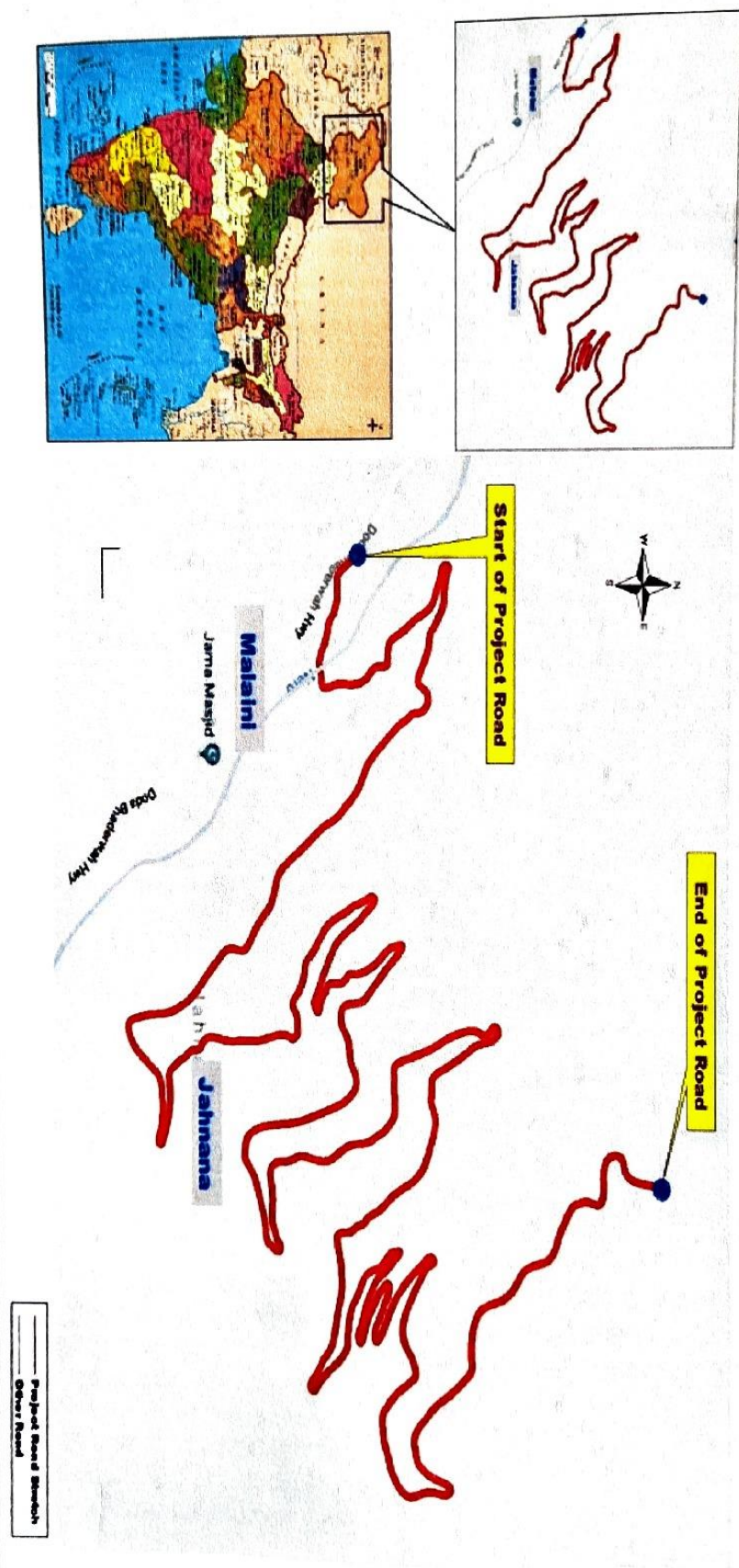
- **Delieverables:** Upgradation of Road from Malaini to Chakarbatti (10.00 kms) upto B.T Status including Earth Work at the narrow stretches, Protection work, Pavement as per design, Drain, Painting & Signage.
- **Performance Metrics:** Project completed with all respect as per scope of work and within allotted cost including increase in service tax i.e Rs.20.011 cr. and met all safety and quality standard.

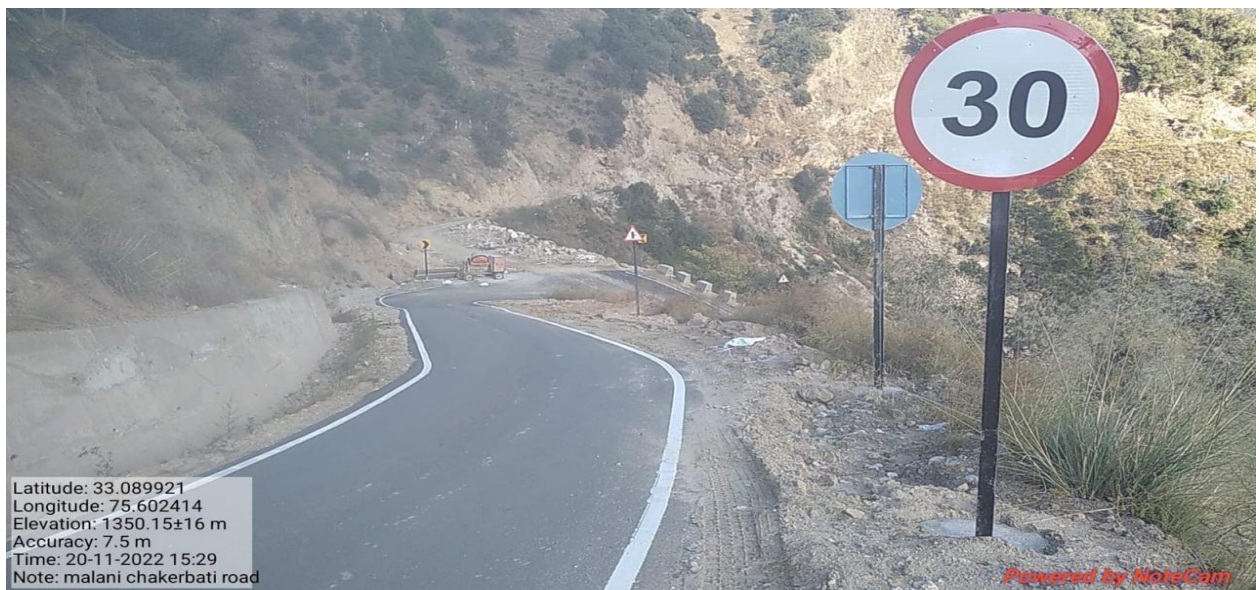
- **Quality Assurance:** Regular Inspections and adherence to construction best practices ensured high quality outcomes.

5. **Lessons Learnt:**

- **Successes:** Effective communication among the Distt. Administration, PWD (R&B) Deptt. & local Public representatives, the work could be completed.
6. **Area of Improvement:** By upgrading 10.00 kms road from Malaini to Chakarbatti upto Standard single lane (3.75m carriageway), the socio economic conditions of all the adjoining villages like Malaini, Jahnana, Dranga, Pendku, GhambirMugliyan, Mehrada&Chakarbatti improves many fold.
- **Summary:** Work completed as per allotted scope of work and with safety measure and specification adopted as per MORTH Specification.
 - **Impact:** With the upgradation of the Project, it acts as an alternative route linking Bhaderwah with Doda, Kishtwar national highway at Sui-Gwari&Prem Nagar.

Fig 1: Map showing location of the proposed road of "Malaini to Chakrabatti" in Doda District











- **Name of the Project:** Upgradation of Road from Anji to Panasa & Deva Mai to Ohli Mandir Road. (Length = 4.20km + 4.99 kms = 9.19 kms) Package no. 04.

1. **Executive Summary:**

- **Objective:** Upgradation of Road from:
 1. Anji to Panasa upto B.T status from single lane to standard single lane.
 2. Deva Mai to Ohli Mandir upto B.T status from single lane to standard single lane.
- **Summary of Achievement:** Both the sub-projects were allotted to the Contractor M/S New Jhelum Construction Co. under One Package-04 and successfully completed as per allotted scope of work and approved extension of time.

- ## 2. **Introduction, Location & Background:** Upgradation of Road from Anji to Panasa: The Road takes off from km 20th of Katra Reasi Road near Ikhar Nallah and 100m short of Anji Nallah and end at Panasa Village. Length of this road is 4.256 kms. The Geographical coordinates of the proposed road are: Start point Lat- 33° 4'11.22"N, Long-74°50'5.40"E, end point Lat 33°3'46.07"N, Long- 74°48'8.07"E. From connectivity point of view, this particular road have high importance as it is well connected with Major District road and this road connects people of several villages namely Seela, Panasa, Dassanu & Pabbar with District town. It is also significant from the Commercial Traffic point of view, as the road passes through agricultural hub of Reasi District. The existing road was in worsed condition and was full of pot holes. Due to non existence of drain, Pavement was badly damaged and slope eroded at several locations. It was single lane which was upgraded upto standard single lane of 3.75m carriage way with the following Design parameter.

Upgradation of Road from Deva Mai to Ohli Mandir: This Road comprising a total length of 4.99 kms upgraded under JTFRP is the extension of Nomain Deva Mai single lane road under PWD (R&B) division Katra (3.3kms). The

road from Chainage 0 km to 2.85 kms of this road was constructed by PWD (R&B) upto fair weather status. The Road from Chainage km 2.85 to km 4.99 was new construction. The Geographical Coordinates of the Proposed Road are Latitude : 32°58'14.18"N (At Deva Mai RD 0+000) 32°57'42.89"N (At OhliMandir – RD-4+990 kms) Longitude: 74°53'46.85"E (At Deva Mai – RD 0+000) 74°53'27.94"E (At OhliMandir – RD 4+990). The Road from Bamyal to OhliMandir (5.5km) has been completed by PWD (R&B) Division Nagotra, which is the down going stretch of the same alignment, this completed the alternate corridor, Nagotra, Bamyal – OhliMandir- Katra and benefitted a large population residing in village Bamyal, Kotli, Mathwar, Rabita, Prade and Town of Akhnoor&Nagotra. The whole road passes through steep slopes and slope eroded at several locations. It was a single lane which was upgraded upto standard single lane with carriage way of 3.75m and formation width of 6.5 kms.

3. Project Details:Anjito Panasa Road:

Terrain	Hilly
Land use Pattern	Mixed Land use between open, built up and Agriculture.
CBR	8.2% at Both percentile.
Traffic	ADT – 447, CVPD = 123, Traffic Growth = 6%, MSA = 1.91
Pavement Thickness	BC = 30mm DBM=50mm WMM = 150mm GSB = 150mm
Culverts	1.20m Dia NP₄Hume pipe culverts.

Project Details:Deva Mai to OhliMandir Road:

Terrain	Hilly
Land use Pattern	Open and Agricultural Land.
CBR	5.54% (av)
Traffic	T₉ (15 ESAL to 20 EASL) as per IRC-Sp72-2015

Pavement	OGPC = 20mm BM = 50mm WBM = (150mm + 75mm)= 225mm GSB = 200 mm
Cross Drainage	9 no's 1.20m Dia- NP ₄ Hume pipe Culvert.

Total Quantity Executed at the site of work of both the Roads as One Package:

Bill No.	Description of the Works	Units	Qty.
1	(a) Dismantling	Sq.m	14995.00
	(b) Scarification	Sq.m	3826.00
2	<u>Earth Work</u>		
	(a) Cutting in Ordinary Soil (Complete item)	Cu.m	29986.95
	(b) Embankment (Complete)	Cu.m	
	(c) Unpaved Shoulders (Complete)	Cu.m	6478.06
3	<u>Pavement Work</u>		
	(a) <u>Subgrade (Complete)</u>	Cu.m	2463.06
	(b) <u>GSB-II (Complete Item)</u>	Cu.m	6319.00
	(c) <u>WMM (Complete)</u>	Cu.m	2615.89
	(d) <u>WBM (II + III) (Complete Job)</u>	Cu.m	4493.37
	(e) <u>Prime Cost</u>	Sq.m	37788.84
	(f) <u>Tack coat with 0.25 kg/sq.m)</u>	Sq.m	39727.70
	(g) <u>Tack coat with 0.4 kgs/sq.m with Bituminous emulsion.</u>	Sq.m	19187.03
	(h) <u>B.C</u>	Cu.m	508.44
	(i) <u>DBM</u>	Cu.m	863.39
	(j) <u>Seal Coat</u>	Sq.m	21138
	(k) <u>2.5 cm Premix Carpet</u>	Sq.m	22870.38
	(l) <u>B.M</u>	Cu.m	1031.89
4	<u>Culverts</u>		
	(a) E/W	Cu.m	2032.72
	(b) Back Filling	Cu.m	1512.46

	(c) M15 (Foundation)	Cu.m	162.75
	(d) M25(Super Structure)	Cu.m	32.27
	(e) Steel		
	• Foundation	MT	4.69
	• Sub-structure	MT	5.15
	• Super-structure	MT	0.90
	(f) 1.20m dia NP ₄ Hume Pipe	RM	307.45
	(g) Grangular Materials	Cu.m	51.75
	(h) M20 (Head Wall)	Cu.m	41.74
	<u>Drain</u>	Cu.m	3245.38
	Earth Work		
	M15	Cu.m	2686.97
6	<u>Traffic Signage & Road Marking</u>		
	Traffic Sign Board	No.'s	40
	Road Marking	Sq.m	1784
	Stones	No.	24
	Delinator	No.	1148
	Metal Crash Barrier	RM	3392
7	<u>Protection Work</u>		
	E/W	Cu.m	7170
	M15	Cu.m	11704.68
	Weep Holes	No.	2513
	Main Board	No.	2

Contract Details:

1	Contract Title	Upgradation of Road from Anji to Panasa& Deva Mai to OhliMandir.
2	Project Implementation Unit (PIU).	J&K Economic Reconstruction Agency
3	Project Management Unit (PMU)	JHELM TAWI FLOOD RECOVERY PROJECT (JTFRP)
4	Contracting Agency	M/S New Jhelum Construction Co.

5	Design Consultants	EPTISA
6	Audit Consultants	LEA ASSOCIATES SOUTH ASIA PVT LTD. (TAQAC)
7	Funding Agency	World Bank
8	Contract Price	16.04 cr.
9	Variation	(-) 3.407 cr.
10	Revised Contract Price	12.633 cr.

4. **Results:**

- **Deliverables:** Upgradation of:
 1. AnjiPanasa Road upto B.T status.
 2. Deva Mai to OhliMandir upto B.T status.
- **Performance Metrics:** Project completed for an amount of Rs.12.633 cr. and partially handed over to PWD (R&B) Deptt. Jammu. (Part-a)
- **Quality Assurance:** Regular Inspections and adherence to construction best practices ensured high quality outcomes.

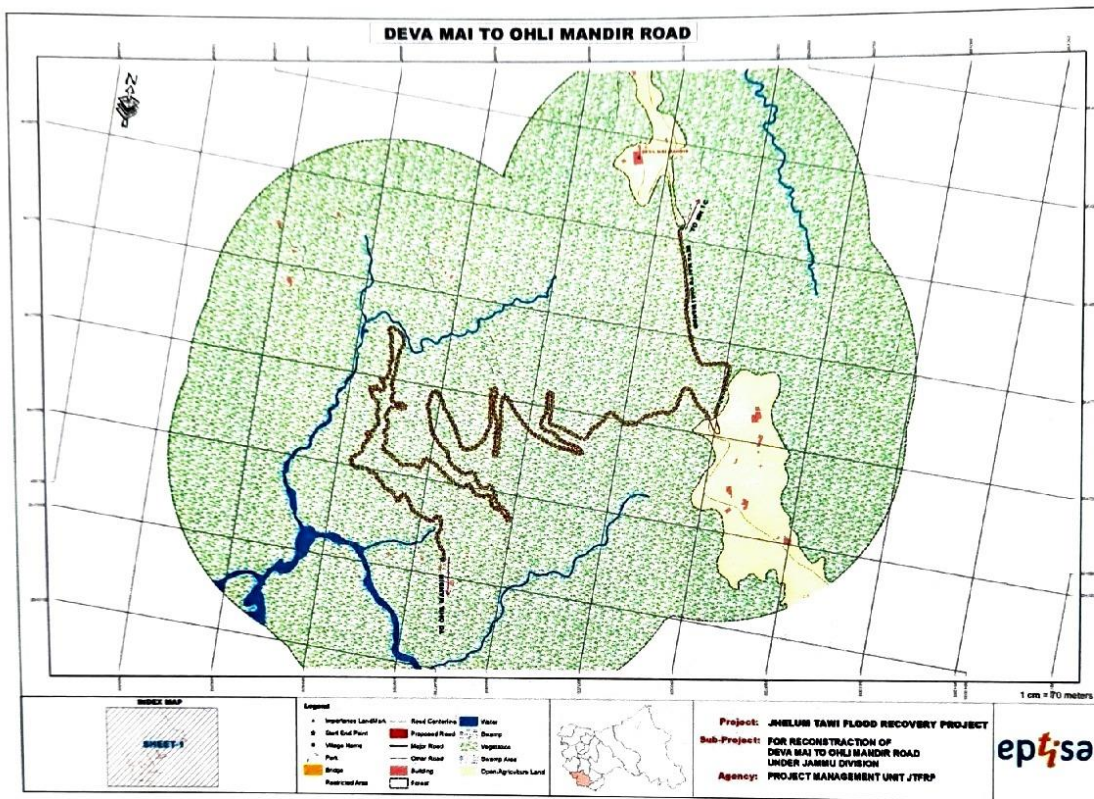
5. **Lessons Learnt:**

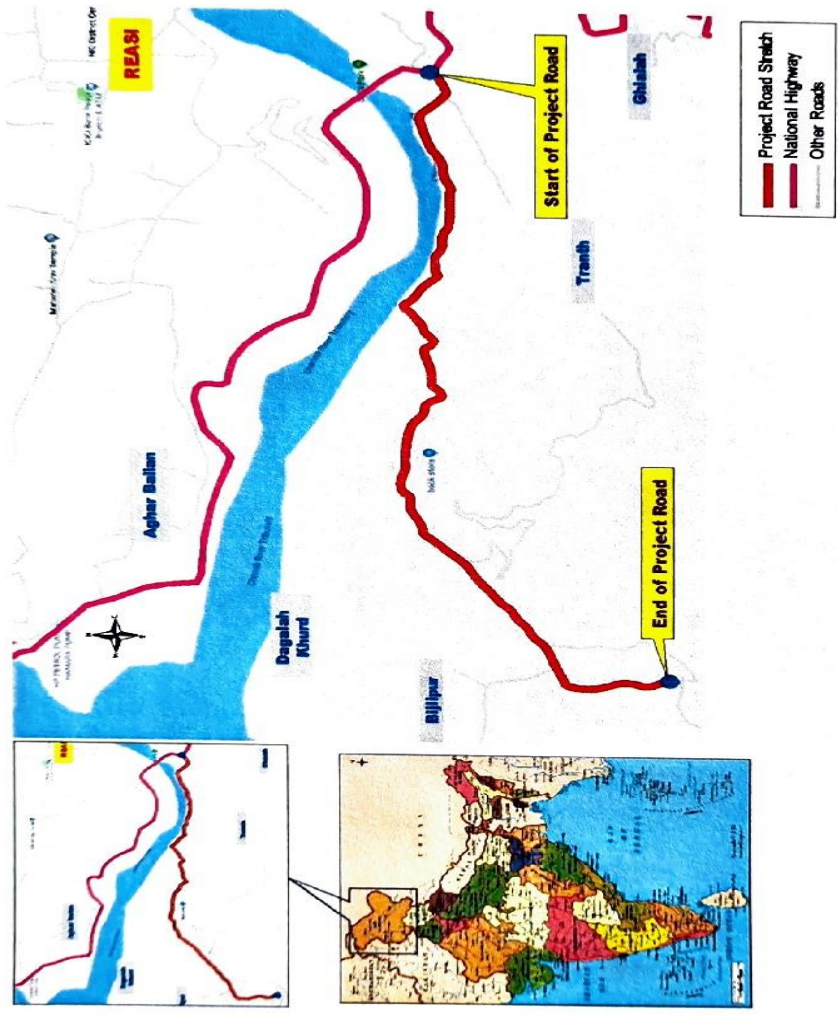
- **Successes:** Effective communication among the Distt. Administration, PWD (R&B) Deptt. & local Public representatives, the work could be completed.
6. **Area of Improvement:** By upgradation of this road from Single lane to Standard single lane upto B.T Status, the socio economic condition of the adjoining villages like Bamyal, Kotli, Mathwar, Rabita, Prade, Showe Mata & town of Akhnoor improves manifold.

- **Summary:** The Project completed within the allotted cost and approve EOT with all safety measure and the latest specification issued by MORTH from time to time.
- **Impact:** By Improving this project upto single standard lane width and upto B.T Status, it acts as alternative route to Katra from Nagrota via Bamyal.

Jhelum and Tawi Flood Recovery Project (JTFRP)- World Bank Project

Appendix-4: GIS Map of the Proposed Sub-project of Improvement & Up-Gradation of Deva Mai to Ohli Mandir District Reasi









Note cam

Address : Reasi, Reasi, 182311,

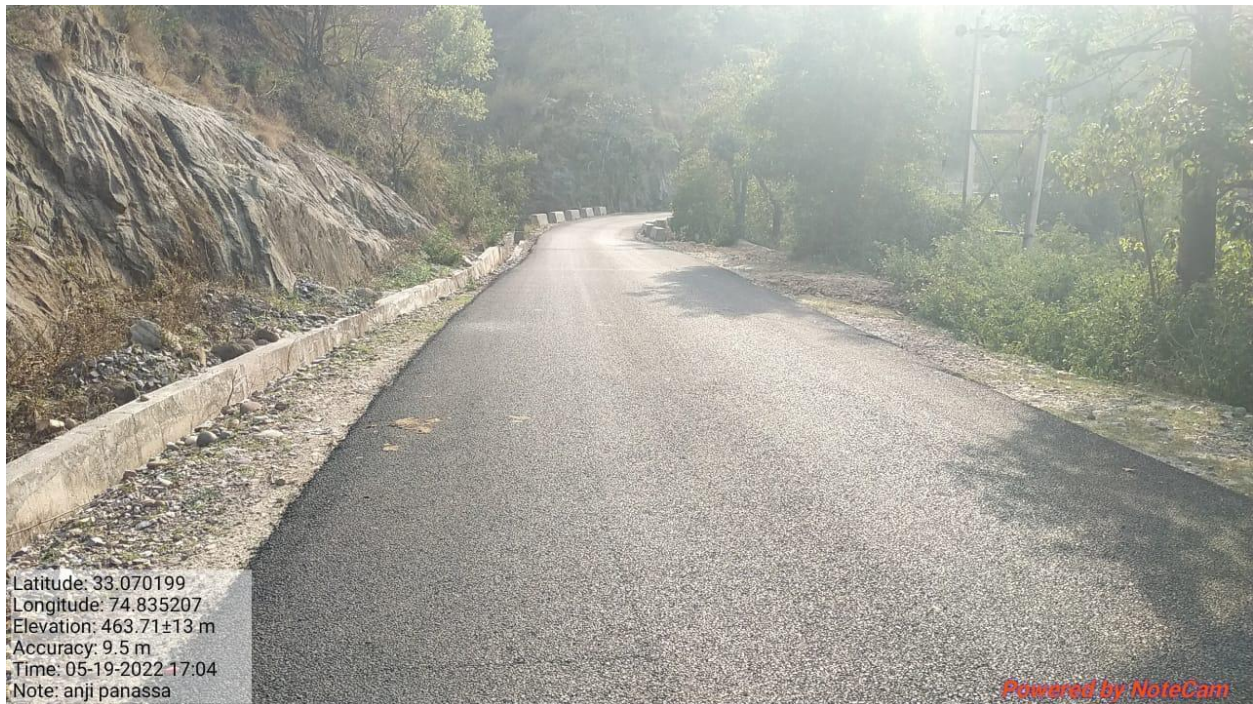
Latitude : 33°4'14"N

Longitude : 74°50'1"E

Altitude : 437.66 meters

Date : 02/08/2022 12:48 PM

Note : ANJI panasa road







- **Name of the Project:** Design & Construction of 43m (Revised 51m) span Steel Decked Truss Type Foot Bridge (1.80m width) over AnjiNallah at SukhalGhati (Complete job) in Distt. Reasi.

1. Executive Summary:

- **Objective:** The Project objective is to connect the villages Ladda&Sukhal comprising a population of more than 500 souls, which were disconnected from the district Head Quarter Reasi because of washed away of Steel foot bridge in the monsoon of 2014.
- **Summary of Achievement:** Completed the 51m Span Steel Truss Bridge with steel decking & railing with carriage way of 1.80m with necessary approaches and connected the inhabitants of villages Ladda&Sukhal with distt. Reasi.

2. Introduction, Location & Background: Good Transport system are life line to the area they serve. Road connectivity brings all-around development in the region, be it in the sphere of movement of people and goods, agriculture, commerce, education, health and social welfare or even maintenance of Law, order and Security. The necessity of the foot bridge came up when during the devastating rain in Sept.2014, the existing foot bridge constructed by PWD (R&B) Division Reasi got washed away by heavy flood in the AnjiNallah. This sub-project was shortlisted by PWD (R&B) Department and the span was 43.0m. The Sub-project taken over by JTFRP for the construction, Funded by World Bank under Component-II i.e. **“Reconstruction of Roads & Bridges”**. During the detailed survey of the Project by the Engineer of PIU JKERA/JTFRP, the actual span was found 51.0m. Accordingly the Tender was floated on EPC mode and allotted to the Contractor M/S SGF Infra Pvt Ltd. Jammu for an amount of Rs.1.22 cr. for the complete job. The Bridge along with the approaches has been completed within the stipulated time of completion and thrown open to the public of the area after its Inauguration by Lt. Governor of UT of J&K on 08.06.2022. After the construction of the Foot Bridge 400 people of Village Ladda and Sukhal are directly benefitted and this connectivity facilitates locals producing milk products to be supplied to nearby Pilgrim Katra town & Shri.

Mata Vaishno Devi Shrine and Distt. Head Quarter of ReasiDistt. andUdhampurDistt. For sale, ameliorating their financial condition.Besides there is a Higher Secondary School & Hospital at Tote. The foot bridge will provide connectivity for the Higher Secondary School and Hospital at Tote to get education and health care facility.

3. **Project Details:**

Sub Structure: Construction of 2 no's Abutments Left & Right (3mx2.5m) in RCC after 1.5m deep Earth work in Hard rock by checking and placing 4 no's bearings on the pedestal made on the cap of Abutments. 2 no's Free Bearings are placed on left side cap and 2 no's fixed bearings on the Right cap. Footing has been designed on the basis of 30.7/M², bearing capacity of the Rock structure.

Super Structure: Superstructure is of Structural steel built up section comprising of different section of ISMC, Angels and Plates conforming to IS 2062-1992 and all type of Bolts used conforming to IS : 3640. The Project has been completed as per the Design vetted by GCET Jammu duly scrutinized by the design consultant of LEA Associates South Asia Pvt Ltd. (TAQAC).

Contract Title:

1	Contract Title	Design & Construction of 43m (Revised 51m) span Steel Decked Truss Type Foot Bridge (1.80m width) over AnjiNallah at SukhalGhati (Complete job) in Distt. Reasi.
2	Project Implementation Unit (PIU).	J&K Economic Reconstruction Agency
3	Project Management Unit (PMU)	JHELM TAWI FLOOD RECOVERY PROJECT (JTFRP)
4	Contracting Agency	M/S SGF Infra. Pvt Ltd.
5	Design Consultants	O.P Sharma & Associates Engineer & Structure

		Consultant, Jammu.
6	Audit Consultants	LEA ASSOCIATES SOUTH ASIA PVT LTD. (TAQAC)
7	Funding Agency	World Bank
8	Contract Price	1.22 cr.
9	Variation	Nil.
10	Revised Contract Price	1.22 cr.

4. **Results:**

- **Deliverables:** Design & Construction of 43m (Revised 51m) span Steel Decked Truss Type Foot Bridge (1.80m width) over AnjiNallah at SukhalGhati (Complete job) in Distt. Reasi.
- **Performance Metrics:** The Project Completed within allotted cost (Rs.1.22 cr.)
- **Quality Assurance:** Regular Inspections and adherence to construction best practices ensured high quality outcomes.

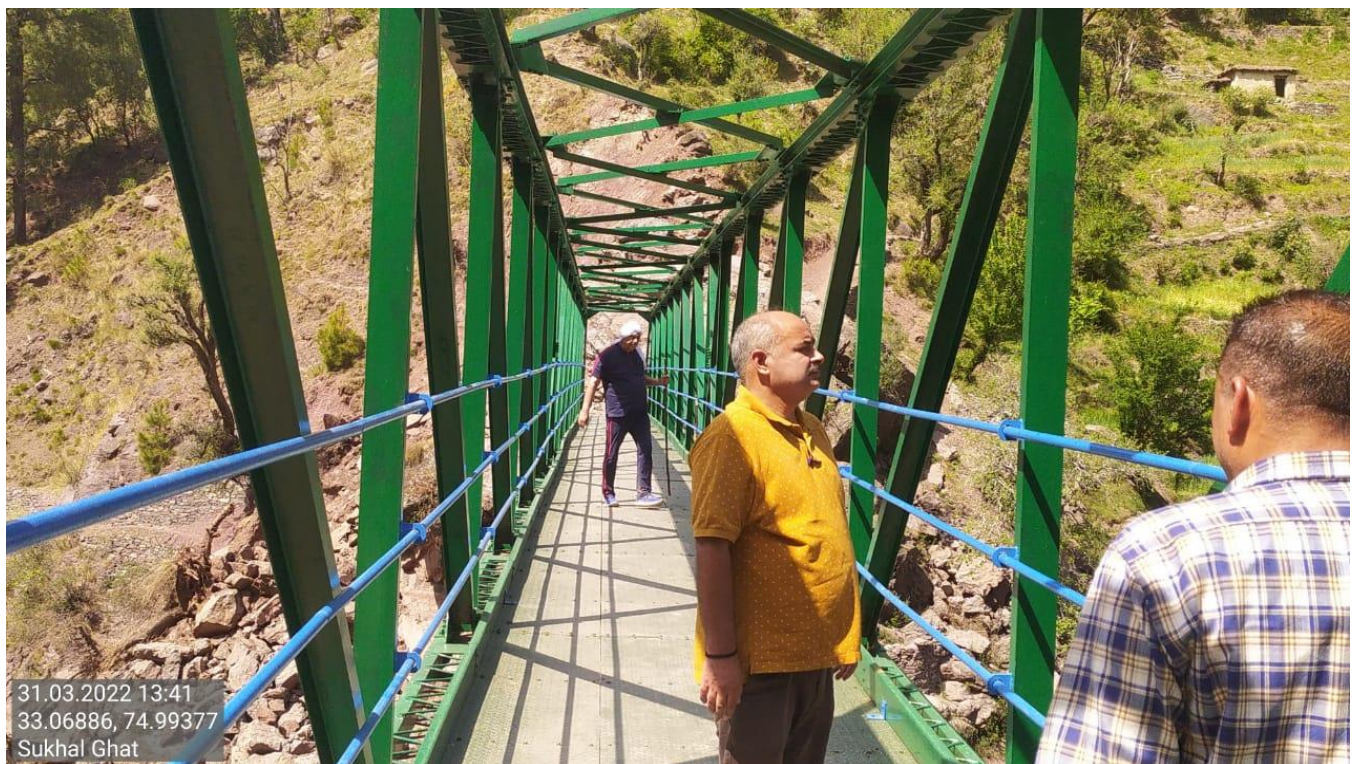
5. **Lessons Learnt:**

- **Successes:** Effective Communication among the Public Representative (PWD, (R&B), Deptt., Revenue Deptt., Forest Deptt., and Distt. Administration. The work could be completed within stipulated time.

6. **Area of Improvement:** Village Ladda&Sukhal comprising population of more than 500 connected with the main stream.

- **Summary:** Work completed within allotted cost and time.

- **Impact:** By constructing the Foot Bridge, the village Ladda&Sukhal is connected with the Distt. H.Q, Reasi.







- **Name of the Project:** Design & Construction of 165m span (3x55m) Double Lane with footpath, Steel Truss Motorable Bridge over BetarNallah including approach roads of 350m (Complete job) at Dalhan, Poonch.

1. **Executive Summary:**

- **Objective:** The Project Objective is to connect unconnected area of village DigwarMuldayala, Noorkate, Nakarkoti, Tagulu and Potli with distt. H.Q Poonch Havelli.
- **Summary of Achievement:** Project completed within allotted cost and approved Extension of time and the population of village DigwarMuldyala, Noorkate, Nakarkoti, Tagulu and Potli are connected with Distt.Head Quarter Poonch Havelli.

2. **Introduction, Location & Background:** Good Transportation system are life line to the area they serve. Road bring about all around development in the region. A good network helps in the success of all developmental activities, be it in the sphere of movement of people and goods, agriculture,

commerce, education, health and social welfare are even maintenance of Law, order and security. Poonch is a hilly district of Union Territory of Jammu & Kashmir, India. Its Head Quarter located at Poonch Town, the city is bounded by the line of Control (Boundry between India and Pakistan administrated Kashmir) are three sides (North, West and South). The Dalhan Bridge Project is located in Tehsil Havelli of District Poonch. The village and adjoining habitations were connected with the main district with a walk way Steel rope bridge at the proposed site, which got washed away with flash floods in September 2014. In the wet season, the villages gets disconnected with other habitations and people of the area especially students, Patients face lot of difficulties in absence of Connectivity over BetarNallah during episodes of precipitations as well as during shelling across the border. To redress the demand of Public 165m span (3x55m) motorable double lane bridge with footpath on bot sides and approach roads of 350m upto B.T status at 33⁰.25to 34⁰.01 North Altitude & 73⁰.58 to 74⁰.35'E Logitude is now constructed by JTFRP Funded by World Bank at the cost of Rs.18.00 cr. and thrown open to the Traffic after Load testing as per MORTH Specifications.

3. **Project Details:** The Work was allotted to the Contractor M/S A.K Engineer & Contractor for the complete job including investigation and design. After soil investigation by Drilling bore logs at different locations and collection of Hydraulic Data, the bridge was design and vetted by IIT Bombay, which were also scrutinized by the design consultant of LEA Associates South Asia P. Ltd (TAQAC) as per the Contract Agreement. The sub-structure of the bridge comprising of 2 no's circular piers and 2 no's Abutments with caps, 12 no's POT PTFE bearing were fixed on the cap, 2 no's each on the Abutments and four no's each on the pier cap.

The Super Structure comprising of Steel built up section and Deck is of RCC with foot path of 1.5m on each side in M35 mix. Railing of the bridge is of steel pipes. The left and right approach of the bridge comprising of aggregate length of 350m has been constructed upto B.T level.

Contract Details:

1	Contract Title	Design & Construction of 165m span (3x55m) Double Lane with footpath, Steel Truss
---	-----------------------	--

		Motorable Bridge over BetarNallah including approach roads of 350m (Complete job) at Dalhan, Poonch.
2	Project Implementation Unit (PIU).	J&K Economic Reconstruction Agency
3	Project Management Unit (PMU)	JHEUM TAWI FLOOD RECOVERY PROJECT (JTFRP)
4	Contracting Agency	M/S A.K Engineer & Contractor.
5	Design Consultants	M/S Force Structural Engineers Pvt Ltd vetted by IIT Bombay.
6	Audit Consultants	LEA ASSOCIATES SOUTH ASIA PVT LTD. (TAQAC)
7	Funding Agency	World Bank
8	Contract Price	18.0 cr.
9	Variation	0.24 cr.
10	Revised Contract Price	18.24 cr.

4. **Results:**

- **Deliverables:** Design & Construction of 165m span (3x55m) Double Lane with footpath, Steel Truss Motorable Bridge over BetarNallah including approach roads of 350m (Complete job) at Dalhan, Poonch.
- **Performance Metrics:** The Project Completed within allotted cost (Rs.18.24cr.)
- **Quality Assurance:** Regular Inspections and adherence to construction best practices ensured high quality outcomes.

5. **Lessons Learnt:**

- **Successes:** Effective Communication among the Public Representative (PWD, (R&B), Deptt., Revenue Deptt., and Distt. Administration. The work could be completed within stipulated time.

6. **Area of Improvement:** The population of village DigwarMuldyala, Noorkate, Nakarkoti, Tagulu and Potli are connected with Distt.Head Quarter Poonch Havelli.

- **Summary:** Work completed within allotted cost and time.
- **Impact:** By constructing this Project, the villages connected i.e DigwarMuldyala, Noorkate, Nakarkoti, Tagulu and Potli comprising a population of more than 25000 including the Army residing in the INDO-PAK Border are connected with the District Head Quarter Poonch Havelli.





- **Name of the Project:** Design & Construction of 58m span (2-lane) Girder Bridge over KatheelGanjoo to Barsoa over GhordiNallah& 50m span (2-lane) Steel Girder Bridge over BarmeenNallah along with approach roads (Complete Job) in Ramnagar, District Udhampur.

1. **Executive Summary:**

- **Objective:** The Project Objective is to design & Construction of 58m span (2-lane) Girder Bridge over KatheelGanjoo to Barsoa over GhordiNallah& 50m span (2-lane) Steel Girder Bridge over BarmeenNallah along with approach roads (Complete Job) in Ramnagar, District Udhampur.
- **Summary of Achievement:** Work completed in all respect and inaugurated by Prime Minister of India on 20.2.2024 and handed over to the PWD (R&B) Deptt. after Defect Liability Period. By Constructing this bridge along with approaches, the unconnected villages Patri, Barsoa, KatheelGanjoo and adjoining areas comprising a population of 30,000 are benefitted.

2. **Introduction, Location & Background:** During Heavy Rains from 2nd Sept.2014 to 6th Sept.2014, major rivers including Chenab, Jhelum &Tawi along with other streams/tributaries rose above Danger Marks causing landslides and major flooding. After this devastating floods of Sept.2014 in the state of Jammu & Kashmir, Govt. of India envisaged an emergency project namely Jhelum Tawi Flood Recovery Project which will support the recovery and increase disaster resilience in Flood prime area and increase the capacity of the Project implementing entity to respond promptly and effectively to an eligible crisis or emergency. The Project's Objective was to concentrate on restoring critical infrastructure using International best practice on resilient infrastructure. The infrastructure was designed with upgraded resilient features keeping in view the Regions Vulnerability to both floods and earthquakes and any future disaster events. In 2014, floods village Patri, KatheelGanjoo and Barsoa in RamnagarDistt. Udhampur remained isolated from rest of population for many days for want of Bridge connectivity. Under the scheme two bridges namely 58m span Double lane Steel Girder Bridge on GhordiNallah and 50m Span double lane Steel Girder Bridge on BarmeenNallah with right approach of 1.0km and left approach of 2.0kms has been constructed at Location start point Patri, Latitude 32°49'37"N, Longitude 75°11'55"E and end point Bari, Latitude 32°49'37"N Longitude 75°12'43"E. With the Construction of this sub-project, the villages directly

benefitted are Patri, Barsoa having a population of more than 50,000. After Load Testing, both the bridges were open to all type of Traffic.

3. **Project Details: (a)** 50m Span centre to centre double lane steel motorable bridge over BarmeenNallah, Ramnagar including right approach of 1 km length.

- **Sub Structure:** 2 no's RCC Abutments along with cap and Dirt wall constructed. 3 no's Rock and Rollers are placed on each cap of the Abutments as per the approved design and drawings.
- **Super Structure:** Structural Steel Girder Truss of Structural Steel of built up section has been provided in the Super Structure. Rcc Decking slab in M35 Mix is provided with both side foot paths with Steel pipe Railing. Approach road has been completed upto B.T level including protection work and drainage crossings.

(b) Design & Construction of 58m span (2-lane) Girder Bridge over KatheelGanjoo to Barsoa over GhordiNallah including left approach of 2 km length.

- **Sub Structure:** 2 no's RCC Abutments along with cap and Dirt wall constructed. 3 no's Rock and Rollers are placed on each cap of the Abutments as per the approved design and drawings.
- **Super Structure:** Structural Steel Girder Truss of Structural Steel of built up section has been provided in the Super Structure. Rcc Decking slab in M35 Mix is provided with both side foot paths with Steel pipe Railing. Approach road has been completed upto B.T level including protection work and drainage crossings.

Contract Details:

1	Contract Title	Design & Construction of 58m span (2-lane) Girder Bridge over KatheelGanjoo to Barsoa over GhordiNallah& 50m span (2-lane) Steel Girder Bridge over
---	-----------------------	--

		BarmeenNallah along with approach roads (Complete Job) in Ramnagar, District Udhampur.
2	Project Implementation Unit (PIU).	J&K Economic Reconstruction Agency
3	Project Management Unit (PMU)	JHEUM TAWI FLOOD RECOVERY PROJECT (JTFRP)
4	Contracting Agency	M/S SRM Contractors Pvt Ltd.
5	Design Consultants	M/S O.P Sharma & Associates Engineer & Structure Consultant. Proofed checked by IIT Jammu.
6	Audit Consultants	LEA ASSOCIATES SOUTH ASIA PVT LTD. (TAQAC)
7	Funding Agency	World Bank
8	Contract Price	13.24 cr.
9	Variation	0.36 cr.
10	Revised Contract Price	13.60 cr.

4. **Results:**

- **Deliverables:** Design & Construction of 58m span (2-lane) Girder Bridge over KatheelGanjoo to Barsoa over GhordiNallah& 50m span (2-lane) Steel Girder Bridge over BarmeenNallah along with approach roads (Complete Job) in Ramnagar, District Udhampur.
- **Performance Metrics:** The Project Completed at (Rs.13.60cr.) and met all safety and quality standards.
- **Quality Assurance:** Regular Inspections and adherence to construction best practices ensured high quality outcomes.

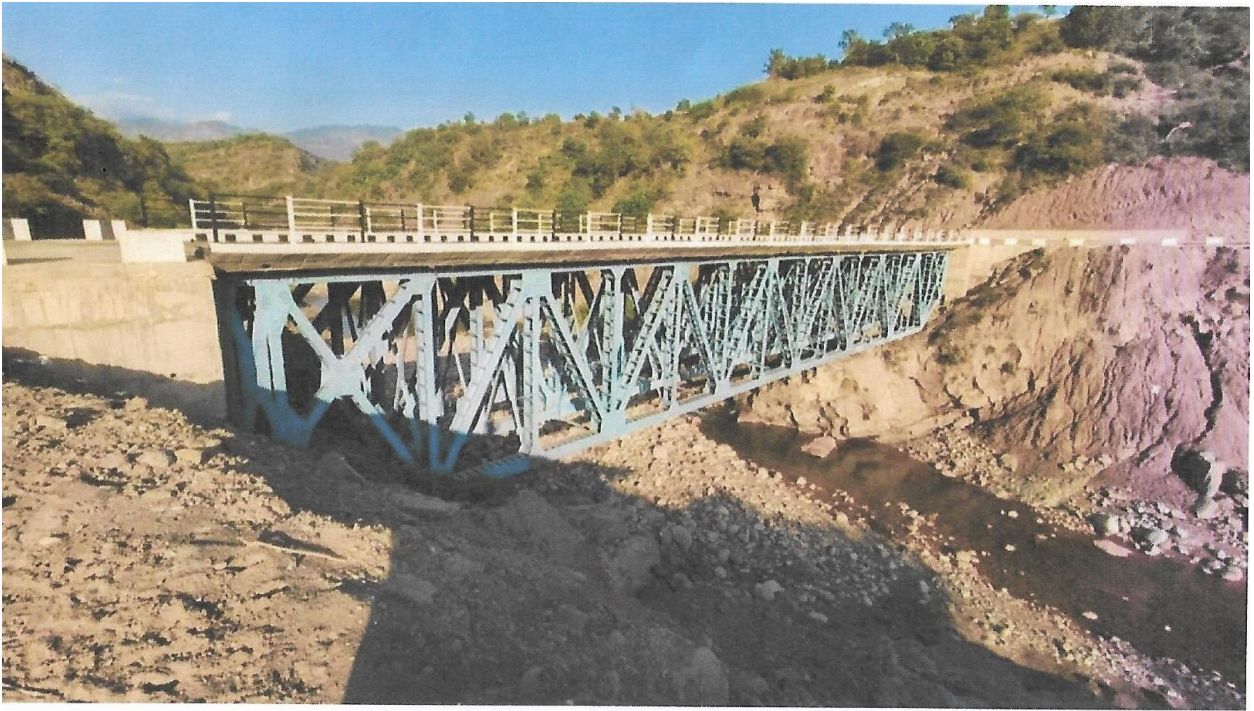
5. Lessons Learnt:

- **Successes:** Effective Communication among the Public Representative (PWD, (R&B), Deptt., Revenue Deptt., and Distt. Administration. The work could be completed within stipulated time.

6. **Area of Improvement:** By constructing 50m Span Steel Girder Bridge over BarmeenNallah along with 1.0km right approach and construction of 58m Span Steel Girder Bridge over GordhiNallah along with 2.0 km left approach, the unconnected villages like KatheelGanjoo&Barsoa and adjoining areas comprising a population of 30,000 are benefitted.

- **Summary:** Work completed within allotted cost and time.
- **Impact:**By constructing 50m Span Steel Girder Bridge over BarmeenNallah along with 1.0km right approach and construction of 58m Span Steel Girder Bridge over GordhiNallah along with 2.0 km left approach, the unconnected villages like KatheelGanjoo&Barsoa and adjoining areas comprising a population of 30,000 are benefitted.





Component – 6 :

Contingent Emergency Response

Due to Covi-19 Pandemic, Govt. of India envisaged an emergency Project under component-6 i.e (CER) to provide Oxygen facility in the Govt. Hospitals to support the recovery and increase disaster resilience in the targeted areas of the state and increase the capacity of the State entities to respond promptly and effectively in an emergency. As maximum of Deaths of Covid-19 wave followed by the same wave in 2020 was occurred due to the shortage of Oxygen in the Govt. Hospitals. To meet out such shortage in Govt. Hospitals, JTFRP with the approval of World Bank decided to install 30 no's of Oxygen Generation Plants with manifolds at different Govt. Health institutions under CER Components of JTFRP. 15 no's such Hospitals identified by the Health Department for Jammu region and 15 no's for Kashmir region. The list of these Hospitals was provided by Health & Medical Education Department J&K through JKMSCL. In Jammu division, the work was divided into two parts.

- (A) Supply Installation Testing & Commissioning of Electrical items and construction of Oxygen Plant Room for 15 no's Govt. Hospitals in Jammu division.
- (B) Supply, Installation, Testing and Commissioning of Oxygen Generation Plants, Medical Gas Pipeline system with manifolds and servo stabilizer for 15 no's Govt. Hospitals in Jammu Division.

Due to the limited time and expected occurrence of future emergency, the work of the above mentioned items/particulars were allotted to the following Agency/Suppliers under Direct Contracting System with the approval of World Bank.

M/S J& Sons Construction Pvt Ltd. (J&K). (For Civil & Electrical Works) for Rs.8.956 cr.

M/S Vitrag Infra Projects LLP Mumbai. (For Oxygen Generation Equipments & Allied Items.) for Rs.25.265 cr.

A detailed estimate for Civil & Electrical amounting to Rs.19.868 lacs for civil works Rs.49.46 lacs for Electrical works (500 LPM) and Rs.35.027 lacs (for 300 LPM) were prepared by PMU on a sample drawings on the basis of which the work was allotted to the firm under Direct Contracting System. It is not out of place to mention here that the cost of Civil & Electrical work varies as per the site condition. During the execution of civil works variation (v₁) approved by the Competent Authority vide no. JKERA/PMH/OGP/J/152-156 dated 24.04.2023 amounting to Rs.958, 45189.60 i.e Rs.120, 55,331.60 above the original cost. After the completion of the Project, the Contractor again submitted the variation (v₂) on account of increase in the length of all dia. (core) of copper cables in all the Hospitals and increase in service tax @ 6% as per the Contract clause, which were submitted to the Director Technical, JTFRP JKERA/JTFRP by Project Manager (Hydraulic) ERA/Jammu vide his Letter no.ERA/PM/OGP/J/2024/25-28 dated 20.03.2024 for an amount of Rs.10.068 cr. but the approval is yet awaited from the Higher Authority. Variation (v₁) also approved in favor of the Contractor M/S Vitrag Infra Projects LLP Mumbai amounting to Rs.24.32 cr. after the completion of the Project, there is savings of Rs.0.942 cr. Till date the agency never submitted variation (v₂) on account of increase in 6% Service Tax as per Contract clause. Thus Rs.24.32 cr. presumed to be the final cost of the Project.

CONTINGENT EMERGENCY RESPONSE (COMPONENT-6):

1. Executive Summary:

- **Objective:** The Projective Objective under this Component is to provide Oxygen facility in the Govt. Hospitals to support the recovery & increase disaster resilience in the Target areas of the Jammu region & increase the capacity of the State entities to respond promptly and effectively in an emergency.

- **Summary of Achievement : Constructed 15 no's separate Oxygen Plant Buildings in short listed Govt. Hospital Buildings with complete commissioning of Oxygen Generation Equipments, Medical Gas Pipelines ith manifolds, Transformer and Servo Stabilizer in all the 15 no's Govt. Hospitals with the following details :**

S.no	Description/Location	M/S J & Sons Construction pvt ltd Jammu (Civil & Electrical works)	M/S Vitrag Infra Projects LLP Mumbai. (Oxygen Generation Equipments& allied items.)
	LOA NO.	JTFRP/PMU/2021/Oxy/2858-65 Dated 25.5.2021	JTFRP/PMU/2021/Oxy/3089-3095
1.	CHC Akhnoor (500 LPM)	Completed & Handed over to the Health Deptt. after DLP.	Completed & Handed over to the Health Deptt. after DLP.
2.	CHC Gundoh (500 LPM)	----do---	----do---
3.	CHC Sunderbani (500 LPM)	----do---	----do---
4.	CHC Chennani (500 LPM)	----do---	----do---
5.	CHC Mendhar (500 LPM)	----do---	----do---
6.	CHC Surankote (300 LPM)	----do---	----do---
7.	GEH Batote (300 LPM)	----do---	----do---
8.	CHC Basohli (300 LPM)	----do---	----do---
9.	CHC Hiranagar (300 LPM)	----do---	----do---
10.	GAH Gaghwai (300 LPM)	----do---	----do---
11.	CHC Ramgarh (300 LPM)	----do---	----do---
12.	GAH ChowkiChoura (300 LPM)	----do---	----do---
13.	CHC Katra (300 LPM)	----do---	----do---
14.	CHC Bani (300 LPM)	----do---	----do---
15.	CHC Banihal	----do---	----do---

2. Introduction, Location& Background: Due to Covi-19 Pandemic, Govt. of India envisaged an emergency Project under component-6 i.e (CER) to provide Oxygen facility in the Govt. Hospitals to support the recovery and increase disaster resilience in the targeted areas of the state and increase the capacity of the State entities to respond promptly and effectively in an emergency. As maximum of Deaths of Covid-19 wave followed by the same wave in 2020 was occurred due to the shortage of Oxygen in the Govt. Hospitals. To meet out such shortage in Govt. Hospitals, JTFRP with the approval of World Bank decided to install 30 no's of Oxygen Generation Plants with manifolds at different Govt. Health institutions under CER Components of JTFRP. 15 no's such Hospitals identified by the Health Department for Jammu region and 15 no's for Kashmir region. The list of these Hospitals was provided by Health & Medical Education Department J&K through JKMSCL. In Jammu division, the work was divided into two parts.

- (C) Supply Installation Testing & Commissioning of Electrical items and construction of Oxygen Plant Room for 15 no's Govt. Hospitals in Jammu division.
- (D) Supply, Installation, Testing and Commissioning of Oxygen Generation Plants, Medical Gas Pipeline system with manifolds and servo stabilizer for 15 no's Govt. Hospitals in Jammu Division.

Due to the limited time and expected occurrence of future emergency, the work of the above mentioned items/particulars were allotted to the following Agency/Suppliers under Direct Contracting System with the approval of World Bank.

M/S J& Sons Construction Pvt Ltd. (J&K). (For Civil & Electrical Works) for Rs.8.956 cr.

M/S Vitrag Infra Projects LLP Mumbai. (For Oxygen Generation Equipments & Allied Items.) for Rs.25.265 cr.

3. Project Details:

(A) Building: (a) Load bearing walls in Brick Masonry with internal dimension of 22'-0" x 45'-0" and average height of 14'-0" from floor to ceiling are constructed with average size of footing (4'-0" x 2'-0") below ground level and 2'-0" above ground level. RCC band in M20 is provided at Footing Level, Lintel Level and Truss Level. RCC flooring is provided with bearing on the end walls and roof is provided with Steel Truss with color coated sheets of 0.50mm thickness with 2'.6" wide soffit on all the sides. All internal and external electrical fitting are of ISI mark and provided as per the Design parameters.

(B) Supply, Installation, Testing & Commissioning of:

- i. Distribution of Transformer/sub-station.
 - a) 160 kva (01 no's)
 - b) 250 kva (5 no's)
- ii. Diesel Generators
 - a) 125 kva (10 no's)
 - b) 250 kva (5 no.)
- iii. LT Distribution Panel, APFC Panel.
- iv. HT/LT Cabling Work.

(C) Oxygen Generation Plant: (500 LPM) Oxygen Generation Plant (500 LPM) include Supply, Installation & Commissioning of PSA Technology based (Pressure swing absorption) Continuous duty Oxygen Generation Plant of 500 LPM Capacity (30NM³/hr.) of having 93 ± 3% Purity at NTP with all allied equipments.

- a) Main Oxygen Concentrator (delivering $93 \pm 3\%$) purity Oxygen at 5.0 bars pressure.
- b) Air Compressor (2 no.) @ 10kg/cm² (Sound proof)
- c) Air Receiver Tank (300 ltrs capacity) having working pressure of 12 kg/cm²)
- d) Filtration System (Operating pressure range 3-13 kg/cm²)
- e) Air Dryers Pressure range 4-12 kg/cm²
- f) Oxygen Receiver Tank (2000 litres capacity)
- g) Automatic Control pannel
- h) Electric Copper cables of different core.
- i) Servo Stabilizer of 250Kva.
- j) Medical Grade Oxygen Gas storage cylinders D-type – 7m³ capacity.
Medical Grade Oxygen Gas storage cylinders trolly mounted B-type – 1.5m³ capacity.
Oxygen manifold 8+8 cylinder.
Emergency Oxygen Manifold 3+3 cylinder.

(D) Oxygen Generation Plant (300 LPM) : Supply, Installation, Testing & commissioning of PSA Technology based Oxygen Generation Plant of 300 LPM Capacity (18NM³/hr) of having $93 \pm 3\%$ purity at NTP will following all allied equipments.

- a) Main Oxygen Concentrated delivering $93 \pm 3\%$ purity oxygen gas at 5.0 bars pressure.
- b) Air Compressor (2no's) to Generate 300 LPM of Oxygen @ 10 kgs/cm².
- c) Air Receiver Tank 2000 litres capacity having a working pressure of 12kgs/ cm².
- d) Filtration System: For supply of Medical grade air having operating pressure range of (4-13) kg/cm².
- e) Air Dryers: Operating Pressure Range of (4 to 12.5) kg/cm².
- f) Oxygen Receiver Tank: 150 litres capacity.
- g) Automatic Control Panel
- h) Servo Stabilizer – 150 KVA.
- i) Medical Grade Oxygen Gas storage cylinders D-type – 7 m³ Capacity.

Medical Grade Oxygen Gas storage cylinder B-type – 1.5m³ capacity.

Oxygen Manifold (8+8) Cylinder.

Emergency Oxygen Manifold (3+3) Cylinder.

Contract Details

1	Contract Title	Construction of 15 no's Oxygen Generation Plants in Govt. Hospitals in Jammu Region.
2	Project Implementation Unit (PIU).	J&K Economic Reconstruction Agency
3	Project Management Unit (PMU)	JHELM TAWI FLOOD RECOVERY PROJECT (JTFRP)
4	Contracting Agency	(a) M/S J & Sons Construction Pvt Ltd. (Rs.8095 cr.) (b) M/S Vitrag Infra Projects LLP Mumbai (Rs.25.26 cr.)
5	Audit Consultants	LEA ASSOCIATES SOUTH ASIA PVT LTD. (TAQAC)
6	Funding Agency	World Bank
7	Contract Price	34.21 cr.
8	Variation	(-) 0.31 cr.
9	Revised Contract Price	33.90r.

4. **Results:**

- **Deliverables:** Construction of 15 no's Oxygen Generation Plants in Govt. Hospitals in Jammu region.
- **Performance Metrics:** Project Completed at 33.90 cr. and met all safety and quality standards.
- **Quality Assurance:** Regular Inspections and adherence to construction best practices ensured high quality outcomes.

5. **Lessons Learnt:**

- **Successes:** Effective Communication among Distt. Administration, Health Deptt. Through their Nodal Office, the work could be completed within stipulated time and proactive problem solving minimized project delays.
- **Areas for Improvement:** 15 no's Govt. Hospitals in Distt. Samba, Kathua, Udhampur, Reasi, Doda, Ramban, Rajouri, Poonch & Distt. Jammu.

6. **Conclusion:**

- **Summary:** 15 no's of Oxygen Generation Plants in Govt. Hospitals were successfully completed. By Constructing 15 no's Oxygen Generation Plants based on PSA Technology of Worldwide standard and creation of oxygen bank in the Govt. Hospitals through Oxygen Manifolds & Emergency Oxygen Manifold. The strength of patients in Distt. Govt. Hospitals increases & there is improvement in the recovery rate also. The Migration of the patients to the Jammu Hospitals decreases.
- **Impact:** By Constructing 15 no's (5 No's 500 LPM + 10 no's 300 LPM). Oxygen Generation Plants based on PSA Technology of Worldwide Renowned standard and creation of Oxygen in the Govt. Hospitals, the strength of the patients in the District Govt. Hospitals increases and

there is improvement in the recovery rate also. The migration of patients to the Jammu based city hospitals decreases.











Unnamed Road, Mendhar

Latitude

33.604112°

Longitude

74.142163°

LOCAL 12:06:29

GMT 06:36:29

WEDNESDAY 12.21.2022

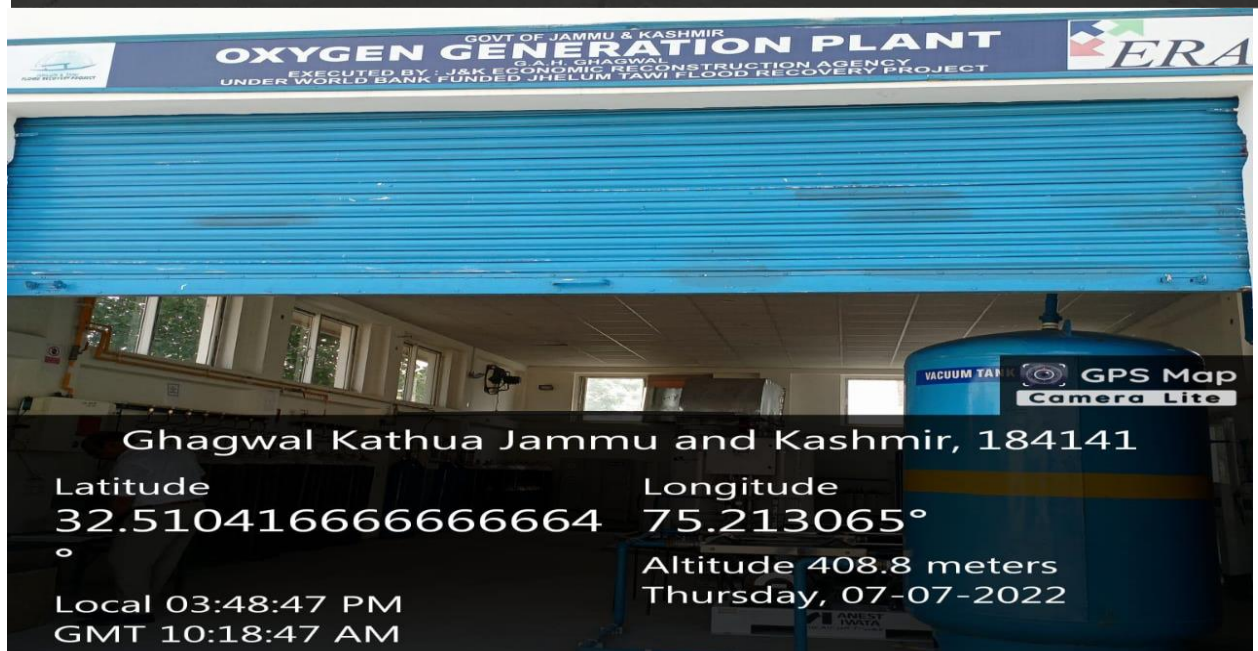
ALTITUDE 0 METER

















COMPLETION CERTIFICATE ISSUED

Component	Name of Project	Firm/Contractor	Issued By
I Reconstruction & Strengthening of critical Infrastructure.	Constt. Of 24 no's School Buildings in Jammu Division.	Distt. Jammu = 3 Kathua = 1 Udhampur = 2 Rajouri = 3 Poonch = 1	To be issued by PWD (R&B) Jammu as PIU.
II Reconstruction of Roads & Bridges.	1. Upgradation of SidhraSurinsar Road. 2. Upgradation of Tuta di Khui to KhadaMadana Road. 3. Upgradation of Chirala Link Road. 4. Upgradation of MalainiChakarbatti Road. 5. Upgradation of Gulati to ShahdraShrief Road. 6. Upgradation of AnjiPanasa Road & Deva Mai to OhliMandir Road. 7. 43m Span Steel Truss Foot Bridge at SukhalGhati Bridge, Reasi. 8. 165m Span (2-lane) Steel Truss Motorable Bridge over BetarNallah, Poonch. 9. Design & Construction of 58m Span (2-lane) Steel Motorable Bridge at GhordiNallah. Design & Construction of 50.0m Span (2-lane) Motorable Bridge over BarmeenNallah in Ramnagar.	M/S SRM Rajindra Projects (JV). M/S SRM Rajindra Projects (JV). M/S JavidIqbalWani (JV). M/S JavidIqbalWani (JV). M/S SRM Rajindra Projects (JV). M/S New Jhelum Construction Co. M/S SGF Infra Pvt Ltd. M/S A.K Engineers & Contractors. M/S SRM Contractors Pvt Ltd.	PMT/ERA/2023/6 40 Dtd. 16.12.2023. In Progress. PMT/ERA/2024/5 0-51 Dtd. 23.1.24. PMT/ERA/2024/4 8-49 Dtd. 23.1.24. In Progress. PMT/ERA/2024/1 07-109 Dtd. 27.2.24. PMT/ERA/2022/1 502-1505 Dtd. 20.9.22. PMT/ERA/2024/6 5-66(A) Dtd. 2.2.2024. PMT/ERA/2023/5 56-558 Dtd. 14.11.23.
VI	Constt. Of 15 no's Oxygen	M/S J&SONS	JKERA/PMH/OGP

Contingent Emergency Response.	Generation Plants in Jammu Division.	Construction Pvt Ltd. M/S Vitrag Infra Projects LLP Mumbai.	/J/2023/101-07 Dtd. 16.2.23. JKERA/PMH/OGP /J/2023/79-85 Dtd. 14.2.23.
---------------------------------------	---	--	---