कार्यालय कार्यपालन यंत्री लोक निर्माण विभाग राष्ट्रीय राजमार्ग (पुरानी तहसीली के पास) संभाग सागर (म.प्र.)

Email:- eepwdnhsagar768@gmail.com

पत्र क्रमांक 2655 / कार्य / 2025–26, सागर, दिनांक 31/12/.2025

प्रति,

वन मण्डलाधिकारी
सामान्य वन मण्डल
जिला–छतरपुर (म0प्र0)

विषयः– छतरपुर जिले में प्रस्तावित राष्ट्रीय राजमार्ग क्रमांक–43 एक्सटेंशन गुलगंज–अमानगंज–पवई– कटनी मार्ग के चौड़ीकरण / निर्माण हेतु 30.426 हेक्टेयर संरक्षित वनभूमि कार्यपालन यंत्री लोक निर्माण विभाग, राष्ट्रीय राजमार्ग संभाग, सागर को उपयोग पर देने बावत् । प्रस्ताव क्रमांक–FP/MP/ROAD/30762/2017 ।

सन्दर्भः– 1–भारत सरकार पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय क्षेत्रीय कार्यालय भोपाल का पत्र क्र0–6–एमपीस 026 / 2019–बीएचओ / दिनांक 23.09.2025
2–कार्यालय प्रधान मुख्य वन संरक्षक एवं वन बल प्रमुख मध्य प्रदेश भोपाल का पत्र क्र एफ–5 / 865 / 2019 / 10–11 / 2424 भोपाल दिनांक 25.09.2025
3– कार्या. सामान्य वन मण्डल म0प्र0 का पत्र क्र / तक / 2025 / 4715 छतरपुर दिनांक 30.09.2025
4– अनुविभागीय अधिकारी लो0नि0वि0रा0रा0 उपंसभाग छतरपुर का पत्र क्र0–891 / तक0 / 2025–26 दिनांक 29.12.2025

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उपरोक्त विषयान्तर्गत लेख है कि संदर्भित पत्र क्र0–1 के द्वारा विषयांकित कार्य के लिये भारत सरकार पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भोपाल ने विषयांकित प्रकरण की प्रथम चरण सैद्धांतिक अनुमति सर्शत प्रदान की गई है । संदर्भित पत्रों के माध्यम से सैद्धांतिक स्वीकृति मे अधिरोपित समस्त शर्तो का शर्तवार पालन प्रतिवेदन प्रस्तुत करने का लेख किया गया है ।

अतः समस्त शर्तो का शर्तवार पालन प्रतिवेदन निम्नानुसार प्रस्तुत हैः–

Compliance	User Agency Reply
A. Conditions which need to be complied prior to handing over of forest land by theState Forest Department	
1. The cost of compensatory afforestation on the CA land 61.00 ha degraded-forest land at the prevailing wage rates as per compensatory afforestation scheme (including the cost of survey, demarcation and erection of permanent pillars etc. as required forsecuring the land against encroachment) shall be deposited in advance with the StateForest Department by the project authority. The CA will be maintained for 10 years. The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years.	**Agreed & complied** The User Agency has deposited an amount of **Rs. 19102448.00** against CA Amount in CAMPA. Wide UTR No. CNRBR52025122973537211 ***(The copy of Deposit Details enclosed.)***
2. The State Government shall charge the Net Present Value (NPV) for the 30.426 Ha, forest area to be diverted under this proposal from the User Agency as per the orders of the Hon'ble Supreme Court of India dated 30/10/2002, 01/08/2003, 28/03 / 2008 , 24/04/2008 and 09/05/2008 in IA No. 566 in WP (C) No. 202/1995 and as per the guidelines issued by the Ministry vide letters No. 5-1/1998-FC (Pt.II) dated 18/09/2003, as well as letter No. 5-2/2006-FC dated 03/10/2006, 5-3/2007-FC dated 05/02/2009 & 5-3/2011-FC(vol-1) dated 06/10/2022 in this regard.	**Agreed & complied** The User Agency has deposited an amount of **Rs. 29141415.00** against NPV Amount in CAMPA wide As UTR No. CNRBR52025122973537211 ***(The copy of Deposit Details enclosed.)***
3. All the funds received from the user agency under the project shall be transferred/ deposited to CAMPA fund only through e-portal (https://parivesh.nic.in/).	**Agreed & complied**

	The User Agency has deposited an amount of Rs. 66401950.00 the same amount the CAMPA. As UTR No. CNRBR52025122973537211 & Inspection Fees **Rs. 3726054.00** deposited by Challan No. 051/9999999 /0406/12/25/004316 dt. 26-12-2025. ***(The copy of Deposit Details enclosed.)***
4. Complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector.	**Agreed & complied** The User Agency has already submitted the FRA-2006 Certificate to the Forest Department. ***(The copy of FRA - 2006 enclosed.)***
5. The left-out portions where green field alignment and curve improvement is being proposed in the alignment shall be reinstated to its original form and reclaimed at the cost of the project by the project proponent under the supervision of Forest Department. The same shall be surrendered to the Forest Department after completion of the projects. The detailed site improvement plan shall be submitted before submitting proposal for Stage-II approval.	**Agreed** The User Agency is agreed to the left-out portions where green field alignment and curve improvement is being proposed in the alignment shall be reinstated to its original form and reclaimed at the cost of the project by the project proponent under the supervision of Forest Department. The same shall be surrendered to the supervision of Forest Department.
6. The acoustic noise barrier system/ crash barrier system may be installed/ executed as per specification of IRC SP130-2022 and IRC-2015 wherever required during the construction of proposed road in consultation with the concern DFO.	**Agreed**
7. The State Govt. Has clarified that the diverted area in not passing through the any protected area but movement of wildlife is seen in the area, therefore as per the specification and suggestions given in the WII report for "Eco-friendly measure to mitigate impacts of linear infrastructure on Wildlife" shall be incorporated after consultation with the concerned DFO during the construction at the cost of project by the project proponent.	**Agreed**
8. The User Agency shall submit a detailed layout plan for the construction of 02 major bridges and 31 culverts/Minor Bridges, prior to the grant of Stage-II approval.	**Agreed , Layout Plan enclosed**
9. The road side plantation shall be carried out by the State Forest Department as per Scheme submitted and the requisite fund shall be deposited in CAMPA by the Project Proponent.	**Agreed & complied** The User Agency has deposited an amount of Rs. **18158087.00** in CAMPA wide UTR No. **CNRBR52025122973537211** ***(The copy of Deposit Details enclosed.)***
10. The User Agency shall submit an undertaking that no muck shall be disposed of in forest land.	**Agreed** The User Agency has agreed to No Muck will be disposed inside the Protected or Forest Areas.
11. The KML files of Diverted and CA area shall be uploaded on the e.Green watch portal with all requisite details prior to Stage-II Approval.	The condition is related to Forest Department, and The User Agency has ensured that the KML files of Diverted and CA area has been provided to the Forest Department.

12. Violation of any these Condition will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of Comprehensive Guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019.	**Agreed** The User Agency has ensured that the violation of Forest (Conservation) Act, 1980 will never occurred in any Protected or Forest Areas.
13. The compliance report shall be uploaded on e-portal (https://parivesh.nic.in/).	**Agreed** The User Agency has ensured that The compliance report will be uploaded on e-portal (https://parivesh.nic.in/)
14. In case working permission is granted by the State Forest Department, a copy of the same shall be submitted with compliance report of Stage-I approval.	**Agreed**
B. Conditions which need to be strictly complied on field after handing over of forest land to the User Agency by the State Forest Department but the compliance in form of undertaking shall be submitted prior to Stage-II approvals:	
1. Legal Status of the forest land shall remain unchanged.	**Agreed**
2. Compensatory afforestation shall be taken up by the Forest Department over 61.00 Ha degraded Forest Land, Compartment No. P-712, Piprihar, Forest Range – Luvkushnagar Forest Division-Chhatarpur at the cost of the user agency. As far as possible, a mixture of local native species shall be planted and monoculture of any species, especially non-native species should be avoided.	**Agreed** The User Agency has deposited the same amount **Rs. 29141415.00** the CAMPA. As UTR No. CNRBR52025122973537211 ***(The copy of Deposit Details enclosed.)***
3. Additional amount of the NPV of the diverted Forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the Expert Committee, shall also be charged by the State Government from the User Agency. The User Agency shall furnish an undertaking to this effect.	**Agreed** Under Taking enclosed.
4. The User Agency shall restrict felling of trees to the enumerated 1883 numbers/minimum number in the diverted forest land and the trees shall be felled under the strict supervision of the State Forest Department or the cost of felling of trees shall be deposited by the User Agency with the State Forest Department and State Forest Department shall undertake the fellings..	**Agreed** The User Agency has agreed to felling of Trees inside the Protect and Forest Area will be minimum or as per the minimum requirement of Project.
5. Boundary of the diverted forest land shall be suitably demarcated on ground at the project cost.	**Agreed** The User Agency has agreed to Boundary of the diverted forest land shall be suitably demarcated on ground at the project cost
6. Speed regulating signages will be erected all along the road at regular intervals in the Protected Areas/ Forest Areas.	**Agreed**
7. Layout plan of the proposal shall not be changes without prior approval of Central Government.	**Agreed**
8. No Labour camp shall be established on the forest land.	**Agreed**
9. The User Agency shall provide alternate fuels preferably LPG to the labourers and staff working at the site so as to prevent any damage and pressure on the nearby forests.	**Agreed**

10. No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.	Agreed
11. The period of diversion under this approval shall be co-terminus with the project life.	Agreed
12. The Forest land shall not be used for any purpose other than that specified in the project proposal.	Agreed
13. The User Agency and the State Government shall ensure compliance to provisions of all the Acts, Rules, Regulations, Guidelines, Hon'ble Court Order(s) and National Green Tribunal Order(s) pertaining to this project, if any for the time being in force, as applicable to the project.	Agreed
14. The forest land proposed to be diverted shall under no circumstance be transferred to any other agencies, department or person without prior approval of central Government.	Agreed
15. Any other condition that the Ministry of Environment, Forest & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forest & wildlife.	Agreed

Encl:- As Above.

(पंकज व्यास)
कार्यपालन यंत्री
लो.नि.वि.रा.रा.,संभाग सागर

पृ. क्रमांक 2656 / कार्य / 2025–26, सागर, दिनांक 31/12 .2025

प्रतिलिपिः–

1– मुख्य अभियंता लो.नि.वि.रा.रा. परिक्षेत्र, निर्माण भवन भोपाल की ओर उक्त शर्तो के परिपालन में आने वाली संभावित लागत में वृद्धि के संबंध में सूचनार्थ एवं आवश्यक कार्यवाही हेतु संप्रेषित।

2– क्षेत्रीय अधिकारी, एम.ओ.आर.टी.एण्ड.एच. भोपाल की ओर सूचनार्थ संप्रेषित।

3– अनुविभागीय अधिकारी लो0नि0वि0रा0रा0 उपसंभाग छतरपुर की ओर कडाई से पालनार्थ प्रेषित।

कार्यपालन यंत्री
लो.नि.वि.रा.रा.,संभाग सागर

कार्यालय कार्यपालन यंत्री, लोक निर्माण विभाग रा0रा0 संभाग सागर (म0प्र0)

पत्र क्र0 2654 /कार्य/2025–26 सागर दिनांक 31/12/25

Undertakings

विषयः– छतरपुर जिले में प्रस्तावित राष्ट्रीय राजमार्ग क्रमांक–43 एक्सटेंशन गुलगंज–अमानगंज–पवई–कटनी मार्ग के चौड़ीकरण/निर्माण हेतु 30.426 हेक्टेयर संरक्षित वनभूमि कार्यपालन यंत्री लोक निर्माण विभाग, राष्ट्रीय राजमार्ग संभाग, सागर को उपयोग पर देने बावत् ।
(ऑनलाईन प्रकरण क्रमांक –FP/MP/ROAD/30762/2017)

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उपरोक्त विषयान्तर्गत लेख है कि विषयांकित कार्य के लिये प्रथम चरण की सैद्धांतिक स्वीकृति प्रदान की गई है। सैद्धांतिक स्वीकृति में लगाई गई शर्तो के पालन का वचन पत्र निम्नानुसार प्रस्तुत है:–

1– सैद्धांतिक स्वीकृति की शर्त क्र0–(A-10) का पालन किया जाता है:–
प्रभावित वन क्षेत्र में किसी भी प्रकार का कूड़ा–कर्कट (MUCK) इकट्ठा नही किया जायेगा जिसके पालन हेतु आवेदक संस्थान वचनबद्ध रहेगा ।

2– सैद्धांतिक स्वीकृति में लगाई गई शर्त क्रमांक (B–3) का पालन किया जाता है–
सैद्धांतिक स्वीकृति में एक वचन पत्र के लिये लेख किया गया है कि एक्सपर्ट कमेटी से रिपोर्ट मिलने और माननीय सुप्रीम कोर्ट द्वारा उसे फाइनल करने के बाद, अगर डायवर्टेड फॉरेस्ट लैंड के नुकसान के लिए कोई एक्स्ट्रा रकम देनी होगी, तो यूजर एजेंसी वह रकम भी राज्य सरकार के CAMPA अकाउंट में जमा करेगी। यूजर एजेंसी इसके लिए वचन बद्ध है।

3– योजना में प्रभावित वन भूमि के बदले क्षतिपूर्ति वृक्षारोपण कार्य के अवधि में अतिरिक्त राशि की मांग किये जाने पर अंतर की राशि जमा करने हेतु आवेदक संस्थान वचन बद्ध रहेगा ।

उपयंत्री,
लो0नि0वि0रा0रा0
उपसंभाग छतरपुर

अनुविभागीय अधिकारी,
लो0नि0वि0रा0रा0
उपसंभाग छतरपुर

कार्यपालन यंत्री
लो0नि0वि0रा0रा0
संभाग सागर (म0प्र0)

कार्यालय कार्यपालन यंत्री लोक निर्माण विभाग राष्ट्रीय राजमार्ग संभाग, तहसील कैम्पस सागर म.प्र.
दूरभाष 07582-222206 E mail eepwdnhsagar@mp.nic.in

ज्ञाप क्र0 /रा.रा./व.ले.लि./ सागर दिनांक 29/12/25
प्रति, 2631

वन मण्डलाधिकारी
सामान्य वनमण्डल छतरपुर
छतरपुर (म0प्र0)

विषयः– छतरपुर जिले में प्रस्तावित राष्ट्रीय राजमार्ग क्र–43 विस्तार गुलगंज–अमानगंज–पवई–कटनी मार्ग के चौड़ीकरण/निर्माण हेतु 30.426 हेक्टेयर वनभूमि कार्यपालन यंत्री लोक निर्माण विभाग राष्ट्रीय राजमार्ग संभाग को उपयोग पर देने बावत । क्षतिपूर्ति वैकल्पिक वृक्षारोपण एवं एन.पी.व्ही की राशि मार्ग किनारे रोपण योजना की राशि जमा करने बावत ।

संदर्भ :– कार्यालय, सामान्य, वनमण्डल छतरपुर म.प्र. का पत्र कमांक तकनीकी/2025/2991 छतरपुर दिनांक 22.12.2025

उपरोक्त विषयांतर्गत लेख है कि यह मार्ग इस कार्यालय के कार्यक्षेत्र में प्रस्तावित है। संदर्भित पत्र के द्वारा विषयांकित कार्य प्रथम चरण की सैद्धांतिक स्वीकृति सशर्त प्रदान की गई है । पत्र में वर्णित अनुसार सैद्धांतिक स्वीकृति में रोपित शर्त कमांक–(A)1 के अनुसार में प्रभावित वनभूमि रकवा 30.426 हेक्टेयर के एवज में दुगने बिगडे वनों के सुधार हेतु रकवा 61.00 हेक्टेयर की क्षतिपूर्ति वनीकरण की राशि 1,91,02,448.00, शर्त कमांक –(A)2 के अनुसार नेट प्रजेन्ट वेल्यू (एनपीव्ही) की राशि 957780X30.426 = 2,91,41,415.00 एवं (A)9 के अनुसार प्रकरण में मार्ग के किनारे–किनारे रोपण योजना राशि रू. 1,81,58,087.00 इस प्रकार वनभूमि की नेट प्रजेन्ट वैल्यू की कुल राशि रू. 6,64,01,950.00 केम्पा मद में जमा की गई Campa fund राशि का विवरण निम्नानुसार है:–

Campa fund में challan द्वारा भेजी गई राशि	क्षतिपूर्ति वैकल्पिक वृक्षारोपण राशि	1,91,02,448.00
	एन.पी.व्ही की राशि	2,91,41,415.00
	मार्ग किनारे रोपण योजना की कुल वयय की राशि	1,81,58,087.00
	Total	6,64,01,950.00
Challan date – 23-12-2025 Application No. 6130762145 Beneficiary Branch and code: Proposal No. 6-MPC026/2019-BHO Beneficiary A/C No. 150766130762145 UTR No:-~~UBIN0996335~~ CNRBR52025122973537211		
क्षतिपूर्ति वनीकरण की राशि 1,91,02,448.00 रूपये का 10 प्रतिशत पर्यवेक्षण शुल्क 1910245.00		1910245.00
मार्ग के किनारे–किनारे किये जाने वाले वृक्षारोपण की राशि रू 1,81,58,087.00 रूपये का 10 प्रतिशत पर्यवेक्षण शुल्क1815809.00		1815809.00
	Total	3726054.00
राशि रू. 3726054.00 का चालान कमांक 051/9999999/0406/12/25/004316 दिनांक 26.12.2025 को जमा किया गया है		

अतः आपसे निवेदन है कि मार्ग के कार्य में वन भूमि के व्यपवर्तन हेतु द्वितीय स्टेज की अनुमति प्रदान करने हेतु आवश्यक कार्यवाही करने का कष्ट करे।

सहपत्रः– Campa fund
में किए गए भुगतान प्रति एवं चालान की प्रति

कार्यपालन यंत्री
लो.नि.वि.रा.रा.संभाग सागर

पृ. क्र0 2632 रा.रा./व.ले.लि./ सागर दिनांक 29/12/25
प्रतिलिपिः–

1. अपर प्रधान वन संरक्षक (भ–प्रबंध) सतपुडा भवन भोपाल की ओर सूचनार्थ संप्रेषित।
2. मुख्य अभियंता क्षेत्रीय अधिकारी सड़क परिवहन एवं राजमार्ग मंत्रालय, निर्माण भवन भोपाल की ओर सूचनार्थ संप्रेषित।
3. मुख्य अभियंता लो.नि.वि.रा.रा. परिक्षेत्र, निर्माण भवन भोपाल की ओर सूचनार्थ संप्रेषित।
4. मुख्य वन संरक्षक वन वृत्त छतरपुर की ओर सूचनार्थ संप्रेषित।
5. कलेक्टर जिला छतरपुर की ओर सूचनार्थ संप्रेषित।
6. अनुविभागीय अधिकारी लो.नि.वि.रा.रा. उपसंभाग छतरपुर की ओर सूचनार्थ प्रेषित।

सहपत्रः– शून्य

कार्यपालन यंत्री
लो.नि.वि.रा.रा.संभाग सागर

वनमण्डलाधिकारी
वनमण्डल-छतरपुर (म.प्र.)

AGENCY COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 23-12-2025

Agency Name.	NHMP
Application No.	6130762145
MoEF/SG File No.	6-MPC026/2019-BHO
Location.	MADHYA PRADESH
Address.	MPRDC, 45A,Arera Hills BhopalBhopal
Amount(in Rs)	66401950/-

Amount in Words :Six Crore Sixty-Four Lakh One Thousand Nine Hundred and Fifty Rupees Only

NEFT/RTGS to be made as per following details;

Beneficiary Name:	MADHYA PRADESH CAMPA
IFSC Code:	UBIN0996335
Pay to Account No.	150766130762145 Valid only for this challan amount.
Bank Name & Address:	Union Bank Of India FCS Centre,21/1, III Floor, Jelitta Towers, Mission Road, Bengaluru-560027

- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

BANK COPY

यूनियन बैंक Union Bank of India

NEFT / RTGS CHALLAN for CAMPA Funds

Date : 23-12-2025

Agency Name.	NHMP
Application No.	6130762145
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- This Challan is strictly to be used for making payment to CAMPA by NEFT/RTGS only

Note:After making the required payment through challan, if the payment status has not been updated even after 7 working days, then kindly mail a copy of your challan with transaction date and reference id to Email: fcsblr@unionbankofindia.bank , epurse@unionbankofindia.bank, ubin0903710@unionbankofindia.bank

Print Back

Department of Finance , Government of Madhya Pradesh
Acknowledgement Receipt for Online Tax Payment
to M.P. State Government

TIN (Tax payment Identification Number) / Enrollment / Registration No.	-
Depositor/Dealer Name	Ram Raja construction company
Address	Jer bhawan , PRITHVIPUR, Niwari, Madhya Pradesh - 472336
District selected for Payment	Chhatarpur
Unique Registration Number (URN)	MPTURN261220250010418
Department and Office Name	Common Challan Entry, Forest
Challan Payment Period	2025-2026

Purpose Details

CRN	Assessment/ Concerning Period	Head of Account	Challan Identification Number (CIN)	Challan No.	Amount(Rs.)
MPT040626122025000183	2025-12-26 to 2026-01-10	0406-01-800-0229 (Other Receipts-Miscellaneous receipts)	CNRB00020730406261220255091 76	051/9999999/0406/12/25/004316	3726054.00

Total Amount(in figures)	37,26,054.00
Total Amount(in words)	Thirty Seven Lakh Twenty Six Thousand Fifty Four Rupees Only
Name and Code of the Bank	CANARA BANK (15)
Bank Reference Number	207326122025672951
Scroll No	20251226
Scroll Date	26/12/2025
Date of Transaction / Time of Transaction (HH24:mm:ss)	26/12/2025 17:11:57
Transaction Status	Success

कार्यालय कलेक्टर, (जन जातीय कार्य विभाग) जिला छतरपुर म.प्र.

क्र./वन अधिकार/2022–23/10688

छतरपुर दिनांक 26/10/022

प्रति,

कार्यपालन यंत्री.,
लोक निर्माण विभाग(रा.रा.)
सागर संभाग सागर

विषय :– वन अधिकार अधिनियम 2006 अंतर्गत प्रपत्र–1 प्रदाय करने बावत्।

संदर्भ :– आपका कार्यालयीन पत्र क्रमांक /366/कार्य/2020–21/सागर दिनांक 01.02.2021 प्राप्ति दिनांक 30.07.2021

—00—

विषयांतर्गत सन्दर्भित पत्र का अवलोकन करने का कष्ट करें, जिसके माध्यम से राष्ट्रीय राजमार्ग 43 (विस्तार) गुलगंज–अमानगंज–पवई–कटनी मार्ग के खण्ड किमी. 0+00 से किमी. 43+00 तक (ग्राम गुलगंज से बराना नदी.ग्राम कुपी) चौड़ीकरण एवं एकरेखड़ सुधार कार्य में वन मण्डल छतरपुर के वन परिक्षेत्र बिजावर के क्षेतांतर्गत वन अधिकार अधिनियम 2006 के तहत विनिश्चय प्रमाण–पत्र चाहा गया है, उक्त के संबंध में अधिनियम में दिये गये प्रावधानों के अनुसार अनुविभागीय अधिकारी (राजस्व) बिजावर को सम्पूर्ण प्रकरण भेजा जाकर प्रस्ताव में वन अधिकार समिति, ग्राम सभा, एवं उपखण्ड स्तरीय समिति से नियमानुसार प्रस्ताव चाहा गया था जो कि उनके पत्र कमांक/984/वन.मा.अधि./वनाधिकार/2022 दिनांक 29.07.2022 प्राप्त हो चुका है।

उपखण्ड स्तरीय समिति का प्रस्ताव प्रमाण–पत्र, पत्र दिनांक 04.05.2022 उपखण्ड स्तरीय वन अधिकार समिति का ठहराव (विनिश्चय) दिनांक 11.01.2022, ग्राम सभा का कार्यवाही रजिस्टर दिनांक 11.01.2022, के आधार पर वन अधिकारों की मान्यता अधिनियम 2006 एवं नियम 2008 के अन्तर्गत कार्यपालन यंत्री लोक निर्माण विभाग(रा.रा.) सागर संभाग सागर के सन्दर्भित आवेदन पर ग्राम सभा पहाड़ी बावन के ग्राम सपौहां तहसील राजनगर के कम्पार्टमेन्ट कक्ष क्रमांक पी–00683 रकवा 8.212 हे0 के विनिश्चिय प्रमाण–पत्र देने के संबंध में विचारोपरान्त निर्णय लिया गया कि उक्त कक्ष क्रमांक के आस–पास स्थित ग्रामों में रहने वाले स्थानीय ग्रामीण परिवारों को जंगल से प्राप्त होने वाली आय अकास्ठीय लघु वनोपज (N.T.F.P.) एवं अन्य तेदूपत्ता संग्रहण जो कि कम्पनी द्वारा एवं म0प्र0 शासन तथा भारत शासन के वर्तमान एवं इस संबंध में भविष्य के निर्णय के अनुसार एवं मुआवजा/कार्यवाही विधि अनुसार संपादित की जावेगी।

अतः पत्र के साथ संलग्न प्रमाणित कार्यवाही विवरण उपखण्ड स्तरीय समिति का प्रस्ताव प्रमाण–पत्र दिनांक 04.05.2022, उपखण्ड स्तरीय वन अधिकार समिति का ठहराव (विनिश्चय) दिनांक 11.01.2022, ग्राम सभा का कार्यवाही रजिस्टर दिनांक 11.01.2022, के आधार पर जिला स्तरीय वन अधिकार समिति द्वारा प्राप्त प्रस्ताव में लिये गये निर्णय के अनुसार ही विनिश्चय प्रमाण–पत्र जारी किया जा रहा है।

उपरोक्त संलग्न निर्णयों के अनुसार ही कार्यवाही सम्पादित की जाना अनिवार्य होगा। पत्र के साथ विश्चिय प्रमाण पत्र तथा अन्य सहपत्र संलग्न कर आवश्यक कार्यवाही हेतु सम्प्रेषित है।

संलग्न – उपरोक्तानुसार।

जिला संयोजक
जनजातीय कार्य विभाग
छतरपुर म.प्र.

छतरपुर दिनांक 26/10/022

पृ.क्र./वन अधिकार/2022–23/10689

प्रतिलिपि :–

1– वन मण्डलाधिकारी सामान्य वन मण्डल छतरपुर म0प्र0 की ओर आवश्यक कार्यवाही हेतु।
2– खनिज अधिकारी जिला छतरपुर की ओर आवश्यक कार्यवाही हेतु।
3– अनुविभागीय अधिकारी (राजस्व) बिजावर जिला छतरपुर की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु।

जिला संयोजक
जनजातीय कार्य विभाग
छतरपुर म.प्र.

FORM –I
(For projects linear projects)

Government of M.P.
Office of the District Collector, Chhatarpur

...../FRA/Tribal/2022-23 10693

Chhatarpur Date 26/10/22

TO WHOMSOEVER IT MAY CONCERN

In compliance of the Ministry of Environment and Forests (MOEF) Government of India's letter No.11-9/98-FC(pt.) dated 3rd August 2009 wherein the MOEF issued guidelines on submission of evidences for having initiated and completed the process of settlement of rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 ('FRA' for short) on the forest land proposed to be diverted For Non Forest purpose read with MOEF's letter dated 5th February 2013 wherein MOEF issued certain relaxation in respect of linear projects, it is certified that total area 30.426 hec. Hectares in Compartment No P-71,321,322,323,347,370,3-69,374,368,371,373,428,429,427,432 Forest Land and in favour of MPPWD Sagar (MP) for a part of Gulganj-Amanganj-Pawai-Katni Road NH-43 Ext.Details are given below.

It is further certified that :

(a) The complete process for identification and settlement of rights under the FRA has been carried out for the entire 30.426 in Compartment No P-71,321,322,323,347,370,3-69,374,368,371,373,428,429,427,432 of forest land A copy of records of all consultation and meetings of the Forest Rights Committee (s), Gram Sabha (s), Sub-Division Level Committee (s) and the District Level Committee are enclosed as Annexure —to-- Annexure.

(b) The diversion of forest land and Revenue forest for facilities managed by the Government as required under section 3 (2) of the FRA have been completed and the Gram Sabhas have given their consent to it.

(c) The proposal does not involve recognized rights of Primitive Tribal Groups and pre-agricultural communities.

Collector
Distt. Chhatarpur
जिला छतरपुर (म. प्र.)

Rank As above

MP Forest Department

कार्यालय सामान्य, वन मंडल छतरपुर म. प्र.

जयाहर रोड, छतरपुर (म.प्र.) 471001☎ 07682-245316 (O.), 245316 (Fax)
E-mail: dfotchtpur@mp.gov.in

क्रमांक/तकनीकी/2025/4715 छतरपुर, दिनांक 30/09/25

प्रति,

वन परिक्षेत्राधिकारी
परिक्षेत्राधिकारी बिजावर

विषय :– छतरपुर जिले में प्रस्तावित राष्ट्रीय राजमार्ग क्रमांक–43 एक्सटेंशन गुलगंज–अमानगंज–पवई–कटनी मार्ग के चौड़ीकरण/निर्माण हेतु 30.426 हेक्टेयर वनभूमि कार्यपालन यंत्री, लोक निर्माण विभाग, राष्ट्रीय राजमार्ग संभाग को उपयोग पर देने बावत्।
(Proposal No. FP/MP/ROAD/30762/2017)

संदर्भ :– अपर प्रधान मुख्य वन संरक्षक (भू–प्रबंध) भोपाल का पत्र क्रमांक/एफ–5/865/2019/10–11/2424 भोपाल दिनांक 05.09.2025

विषयांतर्गत संदर्भित पत्र द्वारा छतरपुर जिले में प्रस्तावित राष्ट्रीय राजमार्ग क्रमांक–43 एक्सटेंशन गुलगंज–अमानगंज– पवई–कटनी मार्ग के चौड़ीकरण/निर्माण हेतु 30.426 हेक्टेयर वनभूमि के प्रकरण में निर्धारित शर्तो के अधीन सैद्धांतिक स्वीकृति जारी की गई है।

प्रकरण में रोपित शर्त क्रमांक (A) 9 के अनुसार प्रकरण में मार्ग के किनारे–किनारे रोपण योजना तैयार की जानी है। अतः आपको निर्देशित किया जाता है कि प्रकरण में मार्ग के किनारे–किनारे रोपणं योजना तैयारकर 04 प्रतियों में इस कार्यालय को उपलब्ध करवायें, ताकि रोपित शर्त की पूर्ति की जा सके।

वन मण्डलाधिकारी
सा. वनमण्डल छतरपुर

पृष्ठां. क्रमांक/तकनीकी/2025/4716 छतरपुर, दिनांक 30/09/25

प्रतिलिपि :– कार्य पालन यंत्री, लोक निर्माण विभाग, राष्ट्रीय राजमार्ग संभाग–सागर की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

वन मण्डलाधिकारी
सा. वनमण्डल छतरपुर

Scanned with OKEN Scanner

कार्यालय अनुविभागीय अधिकारी लोक निर्माण विभाग रा0रा0 उपसंभाग छतरपुर (म0प्र0)

क्र0 / **891** / तक0 / 2025–26 / छतरपुर दिनांक **29.12.2025**

प्रति,

कार्यपालन यंत्री,
लोक निर्माण विभाग रा0रा0
संभाग सागर (म0प्र0)

विषयः– छतरपुर जिले में प्रस्तावित राष्ट्रीय राजमार्ग क्रमांक–43 एक्सटेंशन गुलगंज–अमानगंज–पवई–कटनी मार्ग के चौड़ीकरण / निर्माण हेतु 30.426 हेक्टेयर संरक्षित वनभूमि कार्यपालन यंत्री लोक निर्माण विभाग, राष्ट्रीय राजमार्ग संभाग, सागर को उपयोग पर देने बावत् । प्रस्ताव क्रमांक–FP/MP/ROAD/30762/2017 ।

सन्दर्भः– 1– भारत सरकार पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय क्षेत्रीय कार्यालय भोपाल का पत्र क्र0–6–एमपीस 026 / 2019–बीएचओ / दिनांक 23.09.2025
2–कार्यालय प्रधान मुख्य वन संरक्षक एवं वन बल प्रमुख मध्य प्रदेश भोपाल का पत्र क्र.– एफ–5 / 865 / 2019 / 10–11 / 2424 भोपाल दिनांक 25.09.2025
3– कार्यालय सामान्य वन मण्डल म0प्र0 का पत्र क्र / तकनीकी / 2025 / 4715 छतरपुर दिनांक 30.09.2025

–––––00–––––

उपरोक्त विषयान्तर्गत लेख है कि संदर्भित पत्र क्र0–1 के द्वारा विषयांकित कार्य के लिये भारत सरकार पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भोपाल ने विषयांकित प्रकरण की प्रथम चरण सैद्धांतिक अनुमति सर्शत प्रदान की गई है । संदर्भित पत्रों के माध्यम से सैद्धांतिक स्वीकृति मे अधिरोपित समस्त शर्तो का शर्तवार पालन प्रतिवेदन प्रस्तुत करने का लेख किया गया है ।

अतः समस्त शर्तो का शर्तवार पालन प्रतिवेदन निम्नानुसार प्रस्तुत हैः–

Compliance	User Agency Reply
A. Conditions which need to be complied prior to handing over of forest land by theState Forest Department	
1. The cost of compensatory afforestation on the CA land 61.00 ha degraded-forest land at the prevailing wage rates as per compensatory afforestation scheme (including the cost of survey, demarcation and erection of permanent pillars etc. as required forsecuring the land against encroachment) shall be deposited in advance with the State Forest Department by the project authority. The CA will be maintained for 10 years. The scheme may include appropriate provision for anticipated cost increase for works scheduled for subsequent years.	**Agreed & complied** The Executive Engineer, Division – Sagar, MPPWD (NH), has deposited an amount of Rs. 19102448.00 against CA Amount in CAMPA. Wide UTR No. CNRBR52025122973537211 ***(The copy of Deposit Details enclosed.)***
2. The State Government shall charge the Net Present Value (NPV) for the 30.426 Ha, forest area to be diverted under this proposal from	**Agreed & complied** The Executive Engineer, Division – Sagar,

the User Agency as per the orders of the Hon'ble Supreme Court of India dated 30/10/2002, 01/08/2003, 28/03 / 2008 , 24/04/2008 and 09/05/2008 in IA No. 566 in WP (C) No. 202/1995 and as per the guidelines issued by the Ministry vide letters No. 5-1/1998-FC (Pt.II) dated 18/09/2003, as well as letter No. 5-2/2006-FC dated 03/10/2006, 5-3/2007-FC dated 05/02/2009 & 5-3/2011-FC(vol-1) dated 06/10/2022 in this regard.	MPPWD (NH), has deposited an amount of Rs. 29141415.00 against NPV amount in CAMPA. Wide UTR No. CNRBR52025122973537211 ***(The copy of Deposit Details enclosed.)***
3. All the funds received from the user agency under the project shall be transferred/ deposited to CAMPA fund only through e-portal (https://parivesh.nic.in/).	**Agreed & complied** The Executive Engineer, Division – Sagar, MPPWD (NH), has deposited an amount of Rs. 66401950.00 in the CAMPA. Wide UTR No. CNRBR52025122973537211 ***(The copy of Deposit Details enclosed.)***
4. Complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector.	**Agreed & complied** The Executive Engineer, Division – Sagar, MPPWD (NH), has already submitted the FRA-2006 Certificate to the Forest Department. ***(The copy of FRA - 2006 enclosed.)***
5. The left-out portions where green field alignment and curve improvement is being proposed in the alignment shall be reinstated to its original form and reclaimed at the cost of the project by the project proponent under the supervision of Forest Department. The same shall be surrendered to the Forest Department after completion of the projects. The detailed site improvement plan shall be submitted before submitting proposal for Stage-II approval.	**Agreed** The User Agency is agreed to the left-out portions where green field alignment and curve improvement is being proposed in the alignment shall be reinstated to its original form and reclaimed at the cost of the project by the project proponent under the supervision of Forest Department. The same shall be surrendered to the supervision of Forest Department.
6. The acoustic noise barrier system/ crash barrier system may be installed/ executed as per specification of IRC SP130-2022 and IRC-2015 wherever required during the construction of proposed road in consultation with the concern DFO.	**Agreed**
7. The State Govt. Has clarified that the diverted area in not passing through the any protected area but movement of wildlife is seen in the area, therefore as per the specification and suggestions given in the WII report for "Eco-friendly measure to mitigate impacts of linear	**Agreed**

infrastructure on Wildlife" shall be incorporated after consultation with the concerned DFO during the construction at the cost of project by the project proponent.	
8. The User Agency shall submit a detailed layout plan for the construction of 02 major bridges and 31 culverts/Minor Bridges, prior to the grant of Stage-II approval.	**Agreed**
9. The road side plantation shall be carried out by the State Forest Department as per Scheme submitted and the requisite fund shall be deposited in CAMPA by the Project Proponent.	**Agreed & complied** The Executive Engineer, Division – Sagar, MPPWD (NH), has deposited an amount of Rs. 18158087.00 in CAMPA wide UTR No. CNRBR52025122973537211 ***(The copy of Deposit Details enclosed.)***
10. The User Agency shall submit an undertaking that no muck shall be disposed of in forest land.	**Agreed** The User Agency has agreed to No Muck will be disposed inside the Protected or Forest Areas.
11. The KML files of Diverted and CA area shall be uploaded on the e.Green watch portal with all requisite details prior to Stage-II Approval.	The condition is related to Forest Department, and The User Agency has ensured that the KML files of Diverted and CA area has been provided to the Forest Department.
12. Violation of any these Condition will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as prescribed in para 1.21 of Chapter 1 of the Handbook of Comprehensive Guidelines of Forest (Conservation) Act, 1980 as issued by this Ministry's letter No. 5-2/2017-FC dated 28.03.2019.	**Agreed** The User Agency has ensured that the violation of Forest (Conservation) Act, 1980 will never occurred in any Protected or Forest Areas.
13. The compliance report shall be uploaded on e-portal (https://parivesh.nic.in/).	**Agreed** The User Agency has ensured that The compliance report will be uploaded on e-portal (https://parivesh.nic.in/)
14. In case working permission is granted by the State Forest Department, a copy of the same shall be submitted with compliance report of Stage-I approval.	**Agreed**
B. Conditions which need to be strictly complied on field after handing over of forest land	

to the User Agency by the State Forest Department but the compliance in form of undertaking shall be submitted prior to Stage-II approvals:	
1. Legal Status of the forest land shall remain unchanged.	**Agreed**
2. Compensatory afforestation shall be taken up by the Forest Department over 61.00 Ha degraded Forest Land, Compartment No. P-712, Piprihar, Forest Range – Luvkushnagar Forest Division-Chhatarpur at the cost of the user agency. As far as possible, a mixture of local native species shall be planted and monoculture of any species, especially non-native species should be avoided.	**Agreed** The Executive Engineer, Division – Sagar, MPPWD (NH), has deposited the same amount the CAMPA. As UTR No. CNRBR52025122973537211 ***(The copy of Deposit Details enclosed.)***
3. Additional amount of the NPV of the diverted Forest land, if any, becoming due after finalization of the same by the Hon'ble Supreme Court of India on receipt of the report from the Expert Committee, shall also be charged by the State Government from the User Agency. The User Agency shall furnish an undertaking to this effect.	**Agreed** Under Taking enclosed.
4. The User Agency shall restrict felling of trees to the enumerated 1883 numbers/minimum number in the diverted forest land and the trees shall be felled under the strict supervision of the State Forest Department or the cost of felling of trees shall be deposited by the User Agency with the State Forest Department and State Forest Department shall undertake the fellings..	**Agreed** The User Agency has agreed to felling of Trees inside the Protect and Forest Area will be minimum or as per the minimum requirement of Project.
5. Boundary of the diverted forest land shall be suitably demarcated on ground at the project cost.	**Agreed** The User Agency has agreed to Boundary of the diverted forest land shall be suitably demarcated on ground at the project cost
6. Speed regulating signages will be erected all along the road at regular intervals in the Protected Areas/ Forest Areas.	**Agreed**
7. Layout plan of the proposal shall not be changes without prior approval of Central Government.	**Agreed**
8. No Labour camp shall be established on the forest land.	**Agreed**
9. The User Agency shall provide alternate fuels preferably LPG to the labourers and staff working at the site so as to prevent any damage and pressure on the nearby forests.	**Agreed**

10. No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.	**Agreed**
11. The period of diversion under this approval shall be co-terminus with the project life.	**Agreed**
12. The Forest land shall not be used for any purpose other than that specified in the project proposal.	**Agreed**
13. The User Agency and the State Government shall ensure compliance to provisions of all the Acts, Rules, Regulations, Guidelines, Hon'ble Court Order(s) and National Green Tribunal Order(s) pertaining to this project, if any for the time being in force, as applicable to the project.	**Agreed**
14. The forest land proposed to be diverted shall under no circumstance be transferred to any other agencies, department or person without prior approval of central Government.	**Agreed**
15. Any other condition that the Ministry of Environment, Forest & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forest & wildlife.	**Agreed**

Encl:- As Above.

अनुविभागीय अधिकारी,
लोक निर्माण विभाग रा०रा०
उपसंभाग छतरपुर (म०प्र०)

Client:-

Madhya Pradeh Public Works Department (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

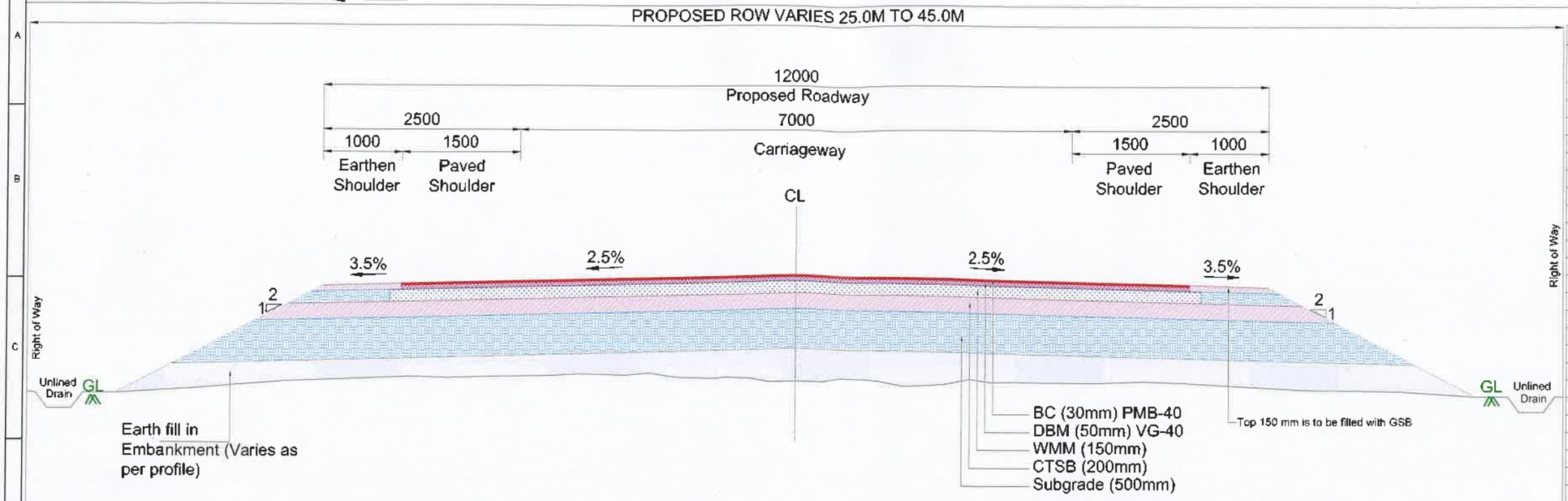
PROJECT:-

REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVED SHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 EXT. IN THE STATE OF MADHYA PRADESH ON EPC MODE

A & A CONSULTING ENGINEER BHOPAL

Design Consultant:
A & A Consulting Engineer
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:-+91 (755) 2997600

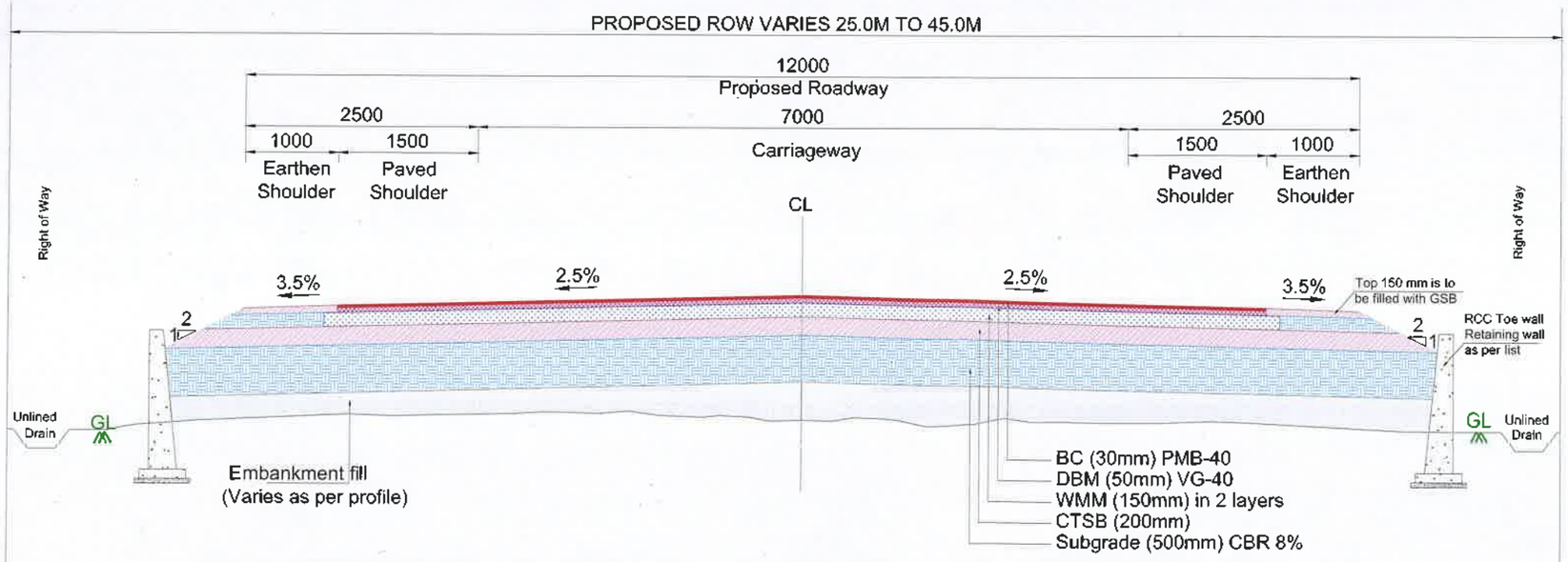
EPC Contractor:
M/s Ramraja Construction Company,
Jer Bhavan, Prithvipur



TCS-I-A: NEW CONSTRUCTION OF 2-LANE CARRIAGEWAY WITH PAVED SHOULDERS FLEXIBLE PAVEMENT ON REALIGNMENTS

ALL DIMENSIONS ARE IN MM

TCS- I-A				
Sl No.	Chainage From	Chainage To	"Lengh (K.M.)"	Remark
1	0.600	0.750	0.150	
2	1.000	1.450	0.450	
3	6.650	6.850	0.200	
4	12.200	12.500	0.300	
5	12.700	12.800	0.100	
6	13.950	14.850	0.900	
7	16.400	17.650	1.250	
8	18.400	18.800	0.400	
9	21.250	21.450	0.200	
10	22.200	22.650	0.450	
11	23.100	23.600	0.500	
12	23.950	24.100	0.150	
13	25.000	25.200	0.200	
14	26.150	26.350	0.200	
15	28.000	28.850	0.850	
16	29.650	29.800	0.150	
17	32.100	32.200	0.100	
18	32.650	32.850	0.200	
19	33.250	34.150	0.900	
20	35.700	36.200	0.500	
21	36.850	37.170	0.320	
22	37.300	37.500	0.200	
23	38.750	39.000	0.250	
24	39.400	39.600	0.200	
25	40.850	40.950	0.100	
26	42.150	42.300	0.150	
Total			9.370	



TCS-I-B: NEW CONSTRUCTION OF 2-LANE WITH PAVED SHOULDERS FLEXIBLE PAVEMENT IN OPEN COUNTRY

(PROVISION OF TOE WALL/ RETAINING WALL TO RESTRICT TOE LINE)

ALL DIMENSIONS ARE IN MM

TCS- I-B				
Sl No.	Chainage From	Chainage To	"Lengh (K.M.)"	Remark
1	6.150	6.650	0.500	
2	12.500	12.700	0.200	
3	22.650	22.850	0.200	
4	38.550	38.750	0.200	
Total			1.100	

REV.	DESCRIPTION OF REVISIONS	DATE
R 0	FOR APPROVAL ONLY	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin - 462004

EPC CONTRACTOR: M/s. Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire Near shahpura Police Station Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: MARGO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.) 462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, S 1403 Valley View Estate Gurugram Faridabad Road Gurugram Haryana-122003, Ph-+91-9818858396, Email - khannagoyaldesigners@gmail.com — AUTHORIZED SIGNATURE

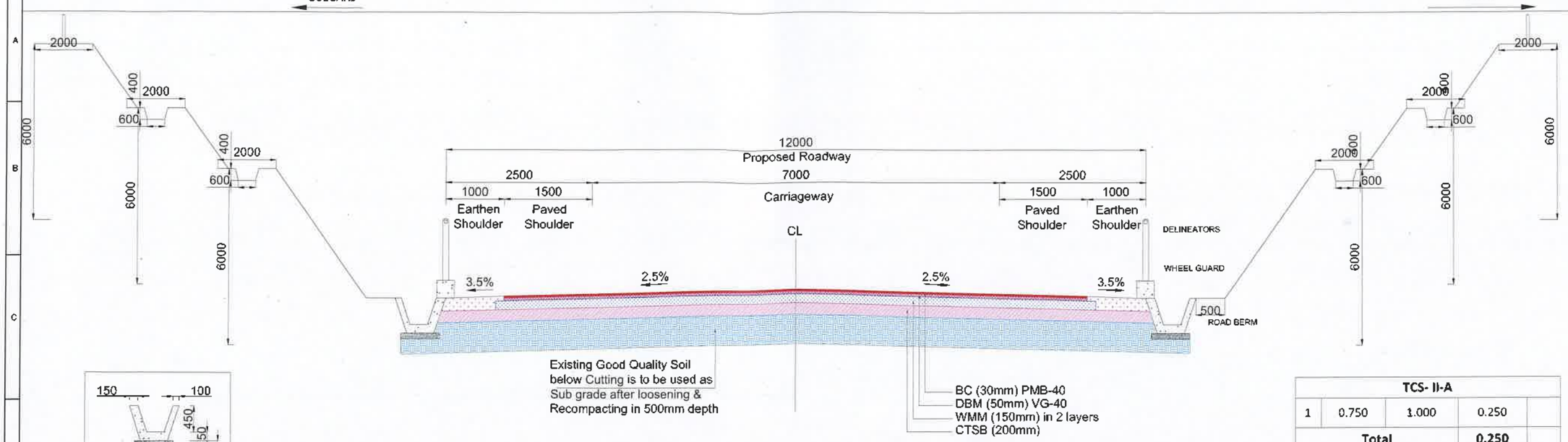
AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

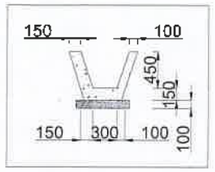
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: TYPICAL CROSS SECTION | Chainage

ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 01 TO 06 | REV. 00

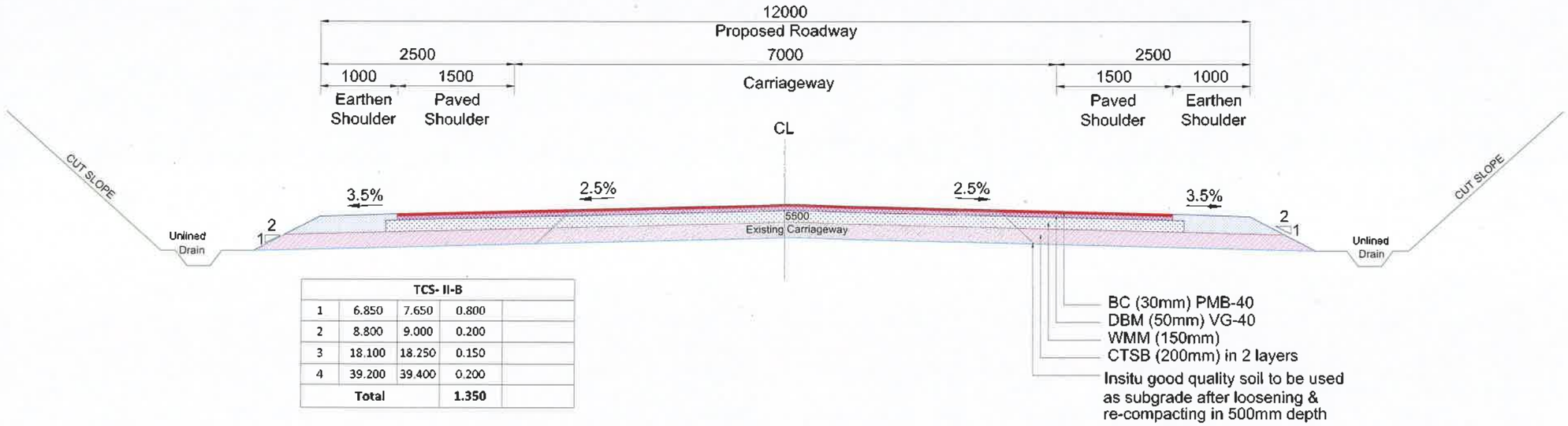




TCS- II-A				
1	0.750	1.000	0.250	
Total			0.250	

TCS-II-A: NEW CONSTRUCTION OF (IN CUTTING) OF 2-LANE CARRIAGEWAY WITH PAVED SHOULDERS FLEXIBLE PAVEMENT ON REALIGNMENTS IN HILLY (CUTTING DEPTH VARIES AS PER PROFILE)

ALL DIMENSIONS ARE IN MM



TCS- II-B				
1	6.850	7.650	0.800	
2	8.800	9.000	0.200	
3	18.100	18.250	0.150	
4	39.200	39.400	0.200	
Total			1.350	

TCS-II-B: RECONSTRUCTION OF 2-LANE WITH PAVED SHOULDERS FLEXIBLE PAVEMENT IN OPEN COUNTRY (IN CUTTING)

ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED

REV.	DESCRIPTION OF REVISIONS	DATE
R 0	FOR APPROVAL ONLY	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Niyman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin - 462001

EPC CONTRACTOR: M/s Ramraja Construction Company, Ger Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 57, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Goyal Design Planners LLP, Plot No. 1403 Valley View Estate, Gurgram Faridabad Road, Gurugram, Haryana-122001, Mob. 9873458396, Email: goyaldesignplanners@gmail.com — AUTHORIZED SIGNATURE

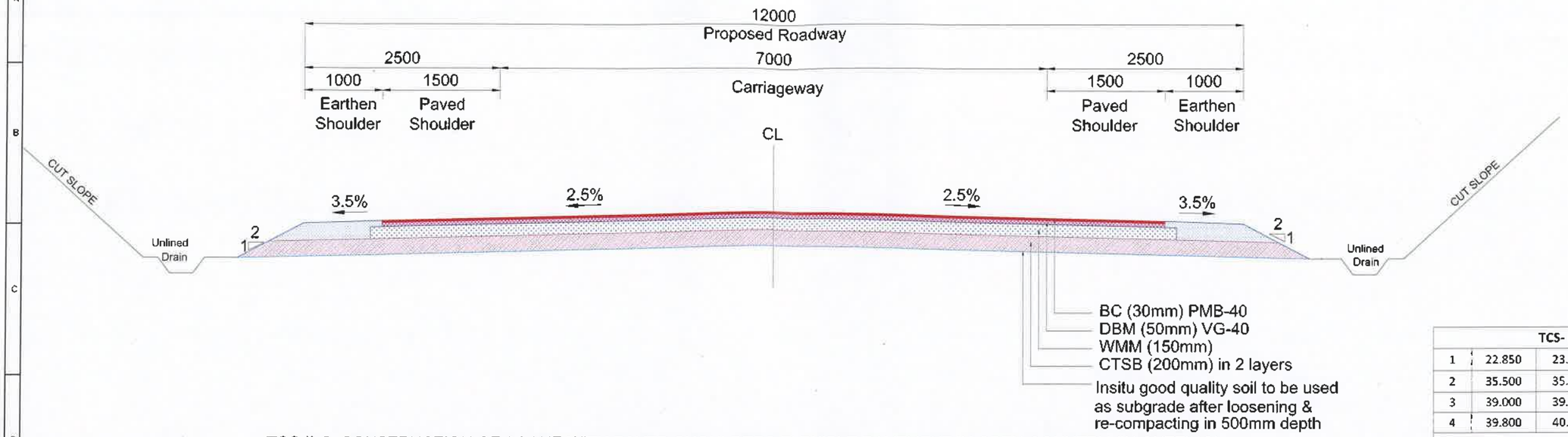
AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM. ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: TYPICAL CROSS SECTION | Chainage

ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

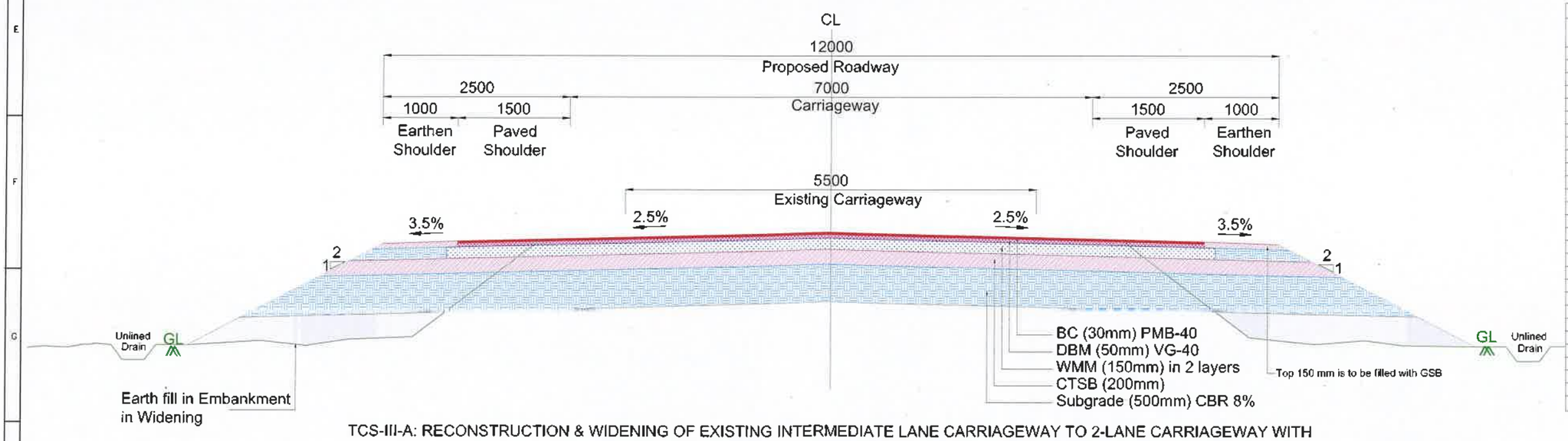
DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 02 TO 06 | REV. 00



TCS- II-C			
1	22.850	23.100	0.250
2	35.500	35.700	0.200
3	39.000	39.200	0.200
4	39.800	40.250	0.450
Total			1.100

TCS-II-C: CONSTRUCTION OF 2-LANE WITH PAVED SHOULDERS FLEXIBLE PAVEMENT IN OPEN COUNTRY (IN CUTTING)

ALL DIMENSIONS ARE IN MM



TCS- III-A				
Sl No.	Chainage From	Chainage To	"Lengh (K.M.)"	Remark
1	1.450	2.050	0.600	
2	2.450	5.700	3.250	
3	7.650	8.800	1.150	
4	9.050	9.720	0.670	
5	10.350	12.200	1.850	
6	12.800	13.950	1.150	
7	17.650	18.100	0.450	
8	18.250	18.400	0.150	
9	18.800	21.250	2.450	
10	21.450	22.200	0.750	
11	23.600	23.950	0.350	
12	24.100	25.000	0.900	
13	25.200	26.150	0.950	
14	26.350	28.000	1.650	
15	28.850	29.650	0.800	
16	29.800	29.950	0.150	
17	30.200	32.100	1.900	
18	32.200	32.650	0.450	
19	32.850	33.250	0.400	
20	34.450	35.500	1.050	
21	36.200	36.830	0.630	
22	37.170	37.300	0.130	
23	37.750	38.200	0.450	
24	39.600	39.800	0.200	
25	40.250	40.850	0.600	
26	41.350	42.150	0.800	
27	42.300	43.000	0.700	
Total			24.600	

TCS-III-A: RECONSTRUCTION & WIDENING OF EXISTING INTERMEDIATE LANE CARRIAGEWAY TO 2-LANE CARRIAGEWAY WITH PAVED SHOULDERS FLEXIBLE PAVEMENT IN OPEN COUNTRY

ALL DIMENSIONS ARE IN MM

REV.	DESCRIPTION OF REVISIONS	DATE
R 0	FOR APPROVAL ONLY	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin - 462011

EPC CONTRACTOR: M/s Ramraja Construction Company, Nar Bhawan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shohputo Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2987600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-A, First Floor, Noble Plaza, M.P. Nagar Zone-I, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T-5, 1403 Valley View Estate, Gurugram Faridabad Road, Gurugram Haryana-122001, M.+8875888588, Email: khannadesigners@gmail.com — AUTHORIZED SIGNATURE

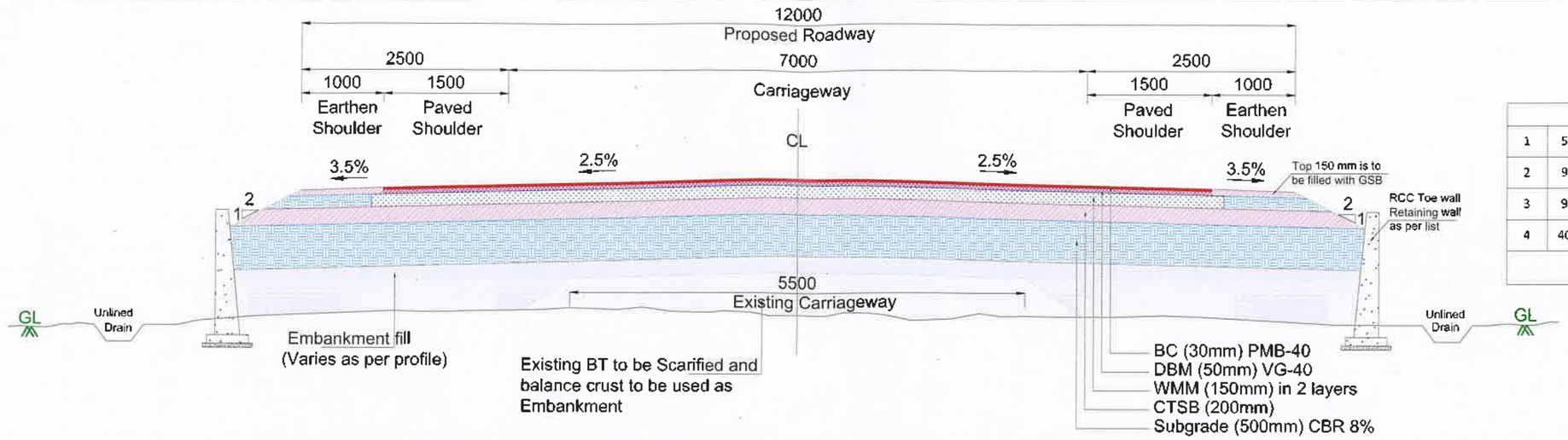
AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM. ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE: TYPICAL CROSS SECTION | Chainage

ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

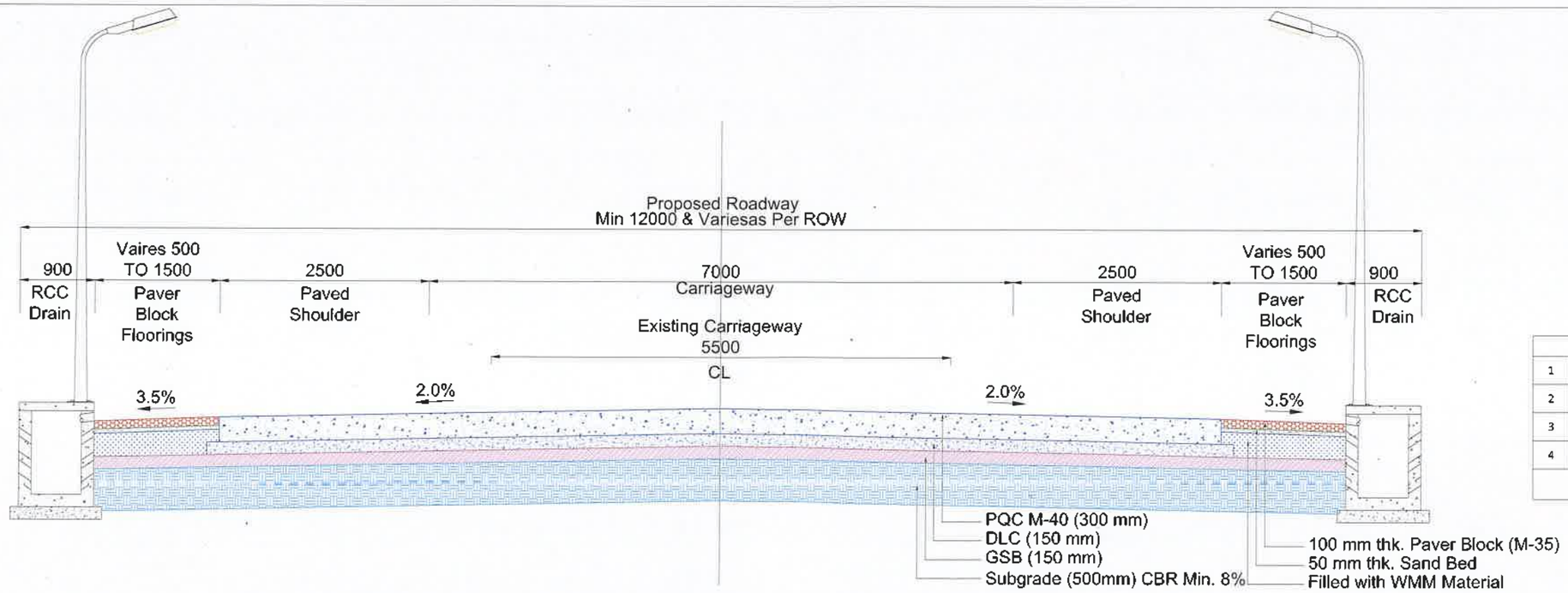
DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 03 TO 06 | REV. 00



TCS- III-B				
1	5.700	6.000	0.300	
2	9.720	9.850	0.130	
3	9.000	9.050	0.050	
4	40.950	41.350	0.400	
Total			0.880	

TCS-III-B: RECONSTRUCTION & WIDENING (WITH PROFILE RAISING) OF EXISTING INTERMEDIATE LANE TO 2-LANE WITH PAVED SHOULDER FLEXIBLE PAVEMENT IN OPEN COUNTRY (PROVISION OF TOE WALL/RETAINING WALL TO RESTRICT TOE LINE)

ALL DIMENSIONS ARE IN MM



TCS- IV				
1	2.050	2.450	0.400	
2	9.850	10.350	0.500	
3	29.950	30.200	0.250	
4	34.150	34.450	0.300	
Total			1.450	

TCS-IV: RECONSTRUCTION & WIDENING OF EXISTING INTERMEDIATE LANE ROAD TO 2-LANE PAVED SHOULDER RIGID PAVEMENT INCLUDING PAVER BLOCK FLOORINGS & RCC DRAINS IN BUILT UPS

ALL DIMENSIONS ARE IN MM

REV.	DESCRIPTION OF REVISIONS	DATE
R 0	FOR APPROVAL ONLY	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Niyman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin - 462011

EPC CONTRACTOR: M/s Ramraja Construction Company, Ser Bhawan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire Near shahpura Police Station Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: EMARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-3, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T-5, 4th Floor, Valley View Estate, Gurugram - Manesar Road, Gurugram, Haryana - 122003, M-9873858396, Email: khannagesigners@gmail.com — AUTHORIZED SIGNATURE

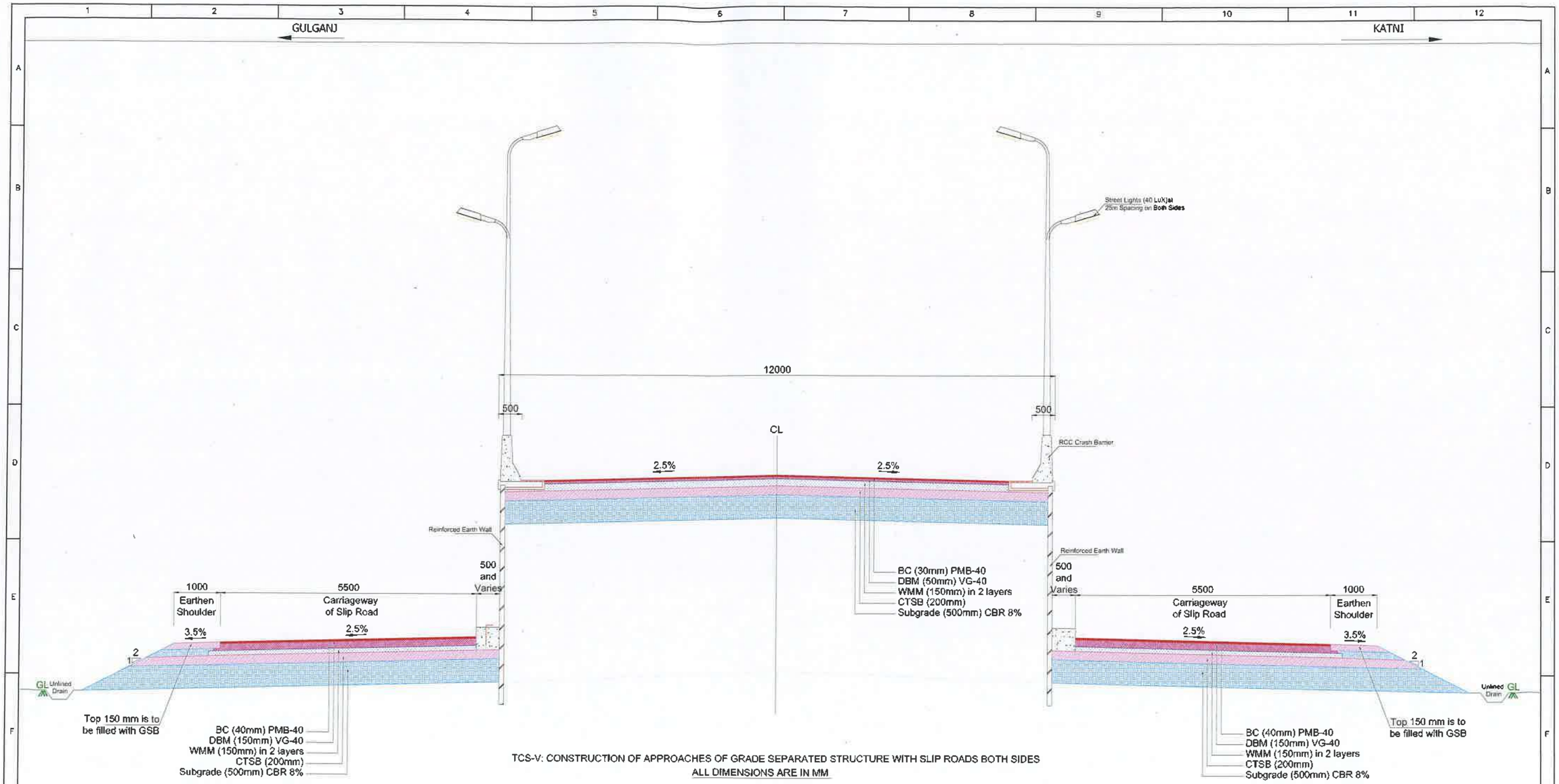
AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ - AMANGANJ - PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE: TYPICAL CROSS SECTION | Chainage

ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 04 TO 06 | REV. 00



TCS-V: CONSTRUCTION OF APPROACHES OF GRADE SEPARATED STRUCTURE WITH SLIP ROADS BOTH SIDES

ALL DIMENSIONS ARE IN MM

TCS- V				
1	14.850	16.400	1.550	
Total			1.550	

REV.	DESCRIPTION OF REVISIONS	DATE
R 0	FOR APPROVAL ONLY	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin - 462001

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

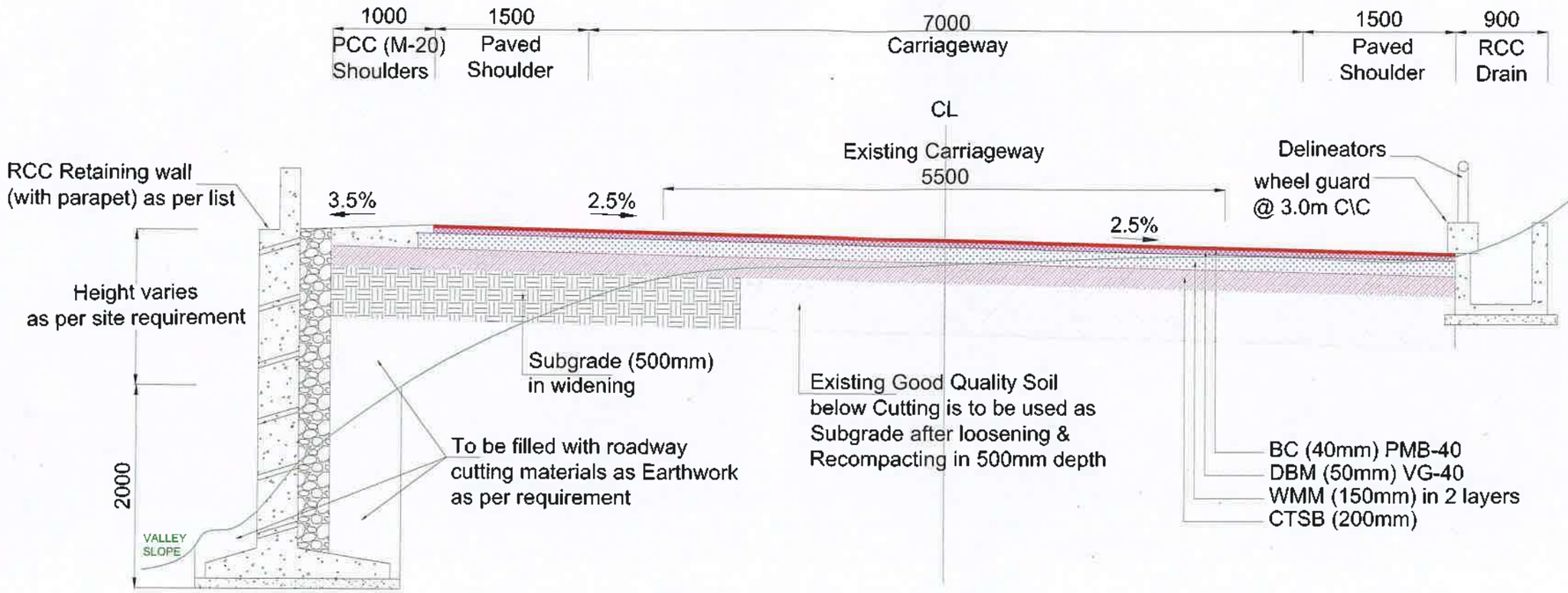
PROOF CONSULTANTS: MATCO ENGINEERING PRIVATE LIMITED, Plot No. 2, M-2, First floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.) 462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T-5 1443 Vedic View Estate Gurgaon-Faridabad Road Gurugram Haryana - 122006 M-9873618396 Email: khannagoydesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.500 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

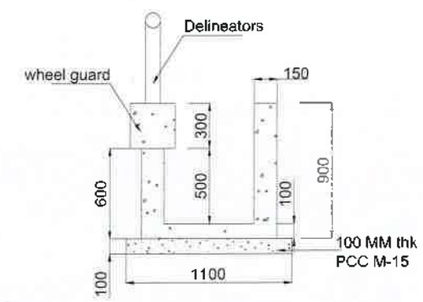
TITLE:	TYPICAL CROSS SECTION	Chainage	
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec-2024	SCALE:	DRAWING NO.:	SHEET NO.: 05 TO 06 — REV. 00



TCS-VI: RECONSTRUCTION & WIDENING OF EXISTING INTERMEDIATE LANE CARRIAGEWAY TO 2-LANE CARRIAGEWAY WITH PAVED SHOULDERS FLEXIBLE PAVEMENT IN GHAT SECTIONS

ALL DIMENSIONS ARE IN MM

TCS- VI				
1	37.500	37.750	0.250	
2	38.200	38.550	0.350	
Total			0.600	



MINIMUM SECTION OF RCC OPEN DRAIN

REV.	DESCRIPTION OF REVISIONS	DATE
R0	FOR APPROVAL ONLY	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin - 462004

EPC CONTRACTOR: M/s Ramraja Construction company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire Near shahpura Police Station Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENVIROTECH ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Mother Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T-5, Near Palika Vihar Estate Gurugram Nathupur Road Gurugram Haryana-122003 M-9570858396 Email - khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE:	TYPICAL CROSS SECTION	Chainage		
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION			
DATE: Dec-2024	SCALE:	DRAWING NO.:	SHEET NO.: 06 TO 08	REV. 00

Horizontal Alignment Report

HIP/Curve No.	HIP		Deflection	Element	Start			End			Length	Chord Length	Bearing	Radius	Extra Wideing	Hand Of Arc
	Easting	Northing			Chainage	Easting	Northing	Chainage	Easting	Northing						
				Straight	0+600	334385.956	2730620.827	1+138	334922.177	2730663.038	537.881		N 85° 29' 56.2371" E			
				Transition	1+138	334922.177	2730663.038	1+193	334977.081	2730666.096	55	54.988				
1	335108.865	2730667.389	36° 28' 18.3293"	Arc	1+193	334977.081	2730666.096	1+448	335215.608	2730590.092	254.621			400	0	RIGHT
				Transition	1+448	335215.608	2730590.092	1+503	335258.621	2730555.834	55	54.988				
				Straight	1+503	335258.621	2730555.834	2+093	335712.219	2730177.254	590.825		S 50° 09' 04.0227" E			
				Transition	2+093	335712.219	2730177.254	2+153	335759.347	2730140.152	60	59.98				
2	335791.901	2730117.41	12° 56' 46.4507"	Arc	2+153	335759.347	2730140.152	2+232	335828.723	2730102.539	79.084			350	0	LEFT
				Transition	2+232	335828.723	2730102.539	2+292	335885.531	2730083.292	60	59.98				
				Straight	2+292	335885.531	2730083.292	2+640	336217.589	2729981.261	347.379		S 72° 55' 10.1546" E			
				Transition	2+640	336217.589	2729981.261	2+700	336275.155	2729964.357	60	59.996				
3	336306.823	2729955.912	04° 41' 31.3347"	Arc	2+700	336275.155	2729964.357	2+765	336339.076	2729950.086	65.513			800	0	LEFT
				Transition	2+765	336339.076	2729950.086	2+825	336398.365	2729940.899	60	59.996				
				Straight	2+825	336398.365	2729940.899	2+916	336488.393	2729928.1	90.933		S 81° 54' 31.3498" E			
4	336600.589	2729912.15	07° 12' 17.8919"	Arc	2+916	336488.393	2729928.1	3+143	336713.901	2729910.397	226.351			1800	0	LEFT
				Straight	3+143	336713.901	2729910.397	3+425	336996.027	2729906.032	282.16		S 89° 06' 49.2416" E			
5	337021.483	2729905.639	01° 12' 55.9533"	Arc	3+425	336996.027	2729906.032	3+476	337046.925	2729904.705	50.917			2400	0	RIGHT
				Straight	3+476	337046.925	2729904.705	3+754	337324.742	2729894.509	278.004		S 87° 53' 53.2884" E			
				Transition	3+754	337324.742	2729894.509	3+809	337379.362	2729888.91	55	54.906				
6	337398.599	2729884.343	16° 04' 38.5180"	Arc	3+809	337379.362	2729888.91	3+848	337415.819	2729874.626	39.284			140	0.6	RIGHT
				Transition	3+848	337415.819	2729874.626	3+903	337459.705	2729841.631	55	54.906				
				Straight	3+903	337459.705	2729841.631	4+520	337927.801	2729439.171	617.323		S 49° 18' 42.1679" E			
7	337993.638	2729382.565	04° 58' 17.9915"	Arc	4+520	337927.801	2729439.171	4+694	338064.134	2729331.878	173.544			2000	0	LEFT
				Straight	4+694	338064.134	2729331.878	4+969	338287.576	2729171.22	275.204		S 54° 17' 00.1594" E			
8	338315.058	2729151.46	01° 17' 34.3191"	Arc	4+969	338287.576	2729171.22	5+037	338342.979	2729132.325	67.694			3000	0	LEFT
				Straight	5+037	338342.979	2729132.325	5+221	338494.739	2729028.321	183.978		S 55° 34' 34.4785" E			
				Transition	5+221	338494.739	2729028.321	5+266	338532.199	2729003.392	45	44.997				

M/s Ram Rahim Construction Co. Chhatarpur (M.P.)

A&A CONSULTING ENGINEER AACE BHOPAL

18	342575.965	2727612.868	01° 50' 48.6756"	Arc	9+558	342556.657	2727614.02	9+597	342595.3	2727612.34	38.68			1200	0	LEFT
				Transition	9+597	342595.3	2727612.34	9+637	342635.294	2727611.692	40	40				
				Straight	9+637	342635.294	2727611.692	9+669	342667.318	2727611.351	32.026		S 89° 23' 22.7414" E			
				Transition	9+669	342667.318	2727611.351	9+704	342702.31	2727610.664	35	34.999				
19	342736.776	2727609.368	06° 04' 29.4771"	Arc	9+704	342702.31	2727610.664	9+772	342770.912	2727604.432	68.917			650	0	RIGHT
				Transition	9+772	342770.912	2727604.432	9+807	342805.455	2727598.803	35	34.999				
				Straight	9+807	342805.455	2727598.803	9+940	342935.716	2727576.372	132.178		S 80° 13' 46.6978" E			
				Transition	9+940	342935.716	2727576.372	9+970	342965.158	2727570.641	30	29.994				
20	342980.684	2727566.911	07° 56' 34.1766"	Arc	9+970	342965.158	2727570.641	10+002	342995.546	2727561.072	31.885			230	0.6	RIGHT
				Transition	10+002	342995.546	2727561.072	10+032	343022.96	2727548.9	30	29.994				
				Straight	10+032	343022.96	2727548.9	10+054	343043.379	2727539.298	22.564		S 64° 48' 48.4160" E			
				Transition	10+054	343043.379	2727539.298	10+079	343066.046	2727528.753	25	25				
21	343107.509	2727509.883	05° 12' 59.7217"	Arc	10+079	343066.046	2727528.753	10+170	343150.516	2727494.861	91.047			1000	0	LEFT
				Transition	10+170	343150.516	2727494.861	10+195	343174.185	2727486.814	25	25				
				Straight	10+195	343174.185	2727486.814	10+342	343313.458	2727440.113	146.894		S 71° 27' 44.7579" E			
22	343527.935	2727368.193	06° 59' 50.2981"	Arc	10+342	343313.458	2727440.113	10+794	343732.054	2727270.681	451.866			3700	0	RIGHT
				Straight	10+794	343732.054	2727270.681	11+169	344070.673	2727108.915	375.276		S 64° 27' 54.4598" E			
23	344117.168	2727086.704	00° 59' 02.6547"	Arc	11+169	344070.673	2727108.915	11+272	344163.273	2727063.697	103.052			6000	0	RIGHT
				Straight	11+272	344163.273	2727063.697	11+525	344389.239	2726950.941	252.536		S 63° 28' 51.8051" E			
24	344443.326	2726923.952	00° 51' 56.9324"	Arc	11+525	344389.239	2726950.941	11+646	344497.814	2726897.784	120.891			8000	0	LEFT
				Straight	11+646	344497.814	2726897.784	12+184	344982.936	2726664.799	538.168		S 64° 20' 48.7375" E			
				Transition	12+184	344982.936	2726664.799	12+239	345032.236	2726640.423	55	54.997				
25	345062.77	2726624.445	04° 55' 59.7309"	Arc	12+239	345032.236	2726640.423	12+308	345091.817	2726605.9	68.881			800	0	RIGHT
				Transition	12+308	345091.817	2726605.9	12+363	345137.482	2726575.251	55	54.997				
				Straight	12+363	345137.482	2726575.251	12+751	345457.423	2726355.151	388.338		S 55° 28' 28.3012" E			
				Transition	12+751	345457.423	2726355.151	12+806	345503.088	2726324.502	55	54.997				
26	345524.268	2726310.98	03° 35' 53.4461"	Arc	12+806	345503.088	2726324.502	12+856	345546.255	2726298.813	50.24			800	0	LEFT
				Transition	12+856	345546.255	2726298.813	12+911	345594.974	2726273.295	55	54.997				
				Straight	12+911	345594.974	2726273.295	13+102	345764.851	2726186.783	190.638		S 63° 00' 42.4528" E			
27	345802.836	2726167.438	01° 57' 13.3954"	Arc	13+102	345764.851	2726186.783	13+187	345840.14	2726146.809	85.247			2500	0	RIGHT

M/s Ranjeela Construction Co. (M.P.) Chhatarpur

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				Straight	19+918	350410.381	2722770.354	19+999	350490.794	2722761.477	80.902		S 83° 42' 01.7879" E			
				Transition	19+999	350490.794	2722761.477	20+039	350530.527	2722756.867	40	40				
37	350600.215	2722747.996	06° 42' 02.5439"	Arc	20+039	350530.527	2722756.867	20+179	350668.391	2722731.055	140.339			1200	0	RIGHT
				Transition	20+179	350668.391	2722731.055	20+219	350707.1	2722720.977	40	40				
				Straight	20+219	350707.1	2722720.977	21+226	351680.599	2722461.766	1007.418		S 75° 05' 23.7505" E			
				Transition	21+226	351680.599	2722461.766	21+271	351724.396	2722451.501	45	44.984				
38	351825.362	2722434.145	44° 33' 58.0137"	Arc	21+271	351724.396	2722451.501	21+466	351909.472	2722492.631	194.456			250	0.6	LEFT
				Transition	21+466	351909.472	2722492.631	21+511	351944.798	2722520.481	45	44.984				
				Straight	21+511	351944.798	2722520.481	22+180	352457.759	2722950.438	669.322		N 50° 01' 50.5707" E			
				Transition	22+180	352457.759	2722950.438	22+235	352500.7	2722984.786	55	54.988				
39	352646.448	2723090.796	48° 30' 31.6853"	Arc	22+235	352500.7	2722984.786	22+574	352822.415	2723051.854	338.655			400	0	RIGHT
				Transition	22+574	352822.415	2723051.854	22+629	352875.503	2723037.525	55	54.988				
				Straight	22+629	352875.503	2723037.525	22+960	353193.643	2722943.785	331.663		S 73° 34' 56.3331" E			
				Transition	22+960	353193.643	2722943.785	23+060	353290.493	2722919.105	100	99.945				
40	353306.97	2722916.185	04° 15' 33.4138"	Arc	23+060	353290.493	2722919.105	23+094	353323.619	2722914.496	33.452			450	0	LEFT
				Transition	23+094	353323.619	2722914.496	23+194	353423.528	2722911.796	100	99.945				
				Straight	23+194	353423.528	2722911.796	23+696	353925.887	2722916.829	502.384		N 89° 25' 33.6295" E			
41	353981.165	2722917.383	03° 09' 59.6281"	Arc	23+696	353925.887	2722916.829	23+807	354036.389	2722914.882	110.534			2000	0	RIGHT
				Straight	23+807	354036.389	2722914.882	23+928	354157.588	2722909.395	121.323		S 87° 24' 26.7424" E			
				Transition	23+928	354157.588	2722909.395	24+003	354232.259	2722902.94	75	74.95				
42	354284.378	2722894.09	19° 39' 58.8526"	Arc	24+003	354232.259	2722902.94	24+108	354330.478	2722868.216	104.689			305	0	RIGHT
				Transition	24+108	354330.478	2722868.216	24+183	354392.613	2722826.305	75	74.95				
				Straight	24+183	354392.613	2722826.305	24+321	354503.893	2722744.418	138.161		S 53° 39' 07.0358" E			
				Transition	24+321	354503.893	2722744.418	24+366	354539.308	2722716.682	45	44.984				
43	354553.004	2722704.563	08° 22' 03.7438"	Arc	24+366	354539.308	2722716.682	24+402	354564.791	2722690.58	36.511			250	0.6	RIGHT
				Transition	24+402	354564.791	2722690.58	24+447	354591.668	2722654.508	45	44.984				
				Straight	24+447	354591.668	2722654.508	24+462	354600.201	2722642.308	14.888		S 34° 58' 15.6269" E			
				Transition	24+462	354600.201	2722642.308	24+522	354636.912	2722594.922	60	59.943				
44	354653.284	2722577.582	13° 16' 14.4147"	Arc	24+522	354636.912	2722594.922	24+570	354673.199	2722564.464	47.481			205	0.6	LEFT
				Transition	24+570	354673.199	2722564.464	24+630	354726.231	2722536.523	60	59.943				

M/s Construction Co. (M.P.) Jnd. Chhatarpur

A & A CONSULTING ENGINEER AACE BHOPAL

54	358615.199	2720132.522	03° 30' 02.5853"	Arc	29+418	358584.71	2720130.447	29+480	358645.757	2720132.733	61.099			1000	0	RIGHT
				Transition	29+480	358645.757	2720132.733	29+505	358670.757	2720132.696	25	25				
				Straight	29+505	358670.757	2720132.696	29+679	358844.741	2720131.719	173.987		S 89° 40' 41.1212" E			
				Transition	29+679	358844.741	2720131.719	29+729	358894.564	2720128.469	50	49.929				
55	358908.379	2720125.896	11° 27' 50.5209"	Arc	29+729	358894.564	2720128.469	29+757	358921.407	2720120.627	28.012			140	0.6	RIGHT
				Transition	29+757	358921.407	2720120.627	29+807	358965.144	2720096.544	50	49.929				
				Straight	29+807	358965.144	2720096.544	29+820	358976.115	2720089.622	12.972		S 57° 45' 04.5981" E			
				Transition	29+820	358976.115	2720089.622	29+880	359027.252	2720058.245	60	59.996				
56	359058.168	2720040.324	05° 06' 54.3887"	Arc	29+880	359027.252	2720058.245	29+951	359090.557	2720025.231	71.42			800	0	LEFT
				Transition	29+951	359090.557	2720025.231	30+011	359145.556	2720001.257	60	59.996				
				Straight	30+011	359145.556	2720001.257	30+058	359188.52	2719983.164	46.618		S 67° 09' 48.8473" E			
				Transition	30+058	359188.52	2719983.164	30+093	359221.139	2719970.508	35	34.989				
57	359253.529	2719960.018	18° 51' 32.1508"	Arc	30+093	359221.139	2719970.508	30+160	359287.57	2719960.561	67.476			205	0.6	LEFT
				Transition	30+093	359287.57	2719960.561	30+160	359322.466	2719963.108	35	34.989				
				Straight	30+093	359322.466	2719963.108	30+160	359763.275	2720007.92	443.081		N 84° 11' 43.0594" E			

M/s Raja Construction Co. Chhatarpur (M.P.)

A&A CONSULTING ENGINEER BHOPAL AACE

Vertical Alignment Report

PVI No.	PVI		Element	Start		End		Length	Grade In	Type
	Chainage	RL		Chainage	RL	Chainage	RL			
				0+600	293.501					
1	+880	307.044	Curve	0+830	304.624	0+930	305.825	100		Summit
			Grade	0+930	305.825	1+190	299.485	260.156	-2.44%	
2	1+250	298.023	Curve	1+190	299.485	1+310	297.79	120		Valley
			Grade	1+310	297.79	1+473	297.158	162.81	-0.39%	
3	1+610	296.625	Curve	1+473	297.158	1+747	297.126	274.379		Valley
			Grade	1+747	297.126	1+945	297.849	198.121	0.37%	
4	1+975	297.958	Curve	1+945	297.849	2+005	298.234	60		Valley
			Grade	2+005	298.234	2+160	299.658	154.754	0.92%	
5	2+220	300.21	Curve	2+160	299.658	2+280	299.824	120		Summit
			Grade	2+280	299.824	2+383	299.16	103.415	-0.64%	
6	2+443	298.775	Curve	2+383	299.16	2+503	298.606	120		Valley
			Grade	2+503	298.606	2+719	297.999	215.694	-0.28%	
7	2+919	297.435	Curve	2+719	297.999	3+119	298.037	400		Valley
			Grade	3+119	298.037	3+375	298.807	255.616	0.30%	
8	3+435	298.987	Curve	3+375	298.807	3+495	298.274	120		Summit
			Grade	3+495	298.274	3+810	294.523	315.211	-1.19%	
9	3+870	293.81	Curve	3+810	294.523	3+930	294.634	120		Valley
			Grade	3+930	294.634	4+230	298.756	300	1.37%	
10	4+290	299.58	Curve	4+230	298.756	4+350	299.781	120		Summit
			Grade	4+350	299.781	4+580	300.551	230	0.34%	
11	4+620	300.685	Curve	4+580	300.551	4+660	300.982	80		Valley
			Grade	4+660	300.982	4+755	301.687	94.999	0.74%	
12	4+830	302.244	Curve	4+755	301.687	4+905	302.485	150		Summit
			Grade	4+905	302.485	5+320	303.818	415.001	0.32%	
13	5+370	303.979	Curve	5+320	303.818	5+420	303.652	100		Summit
			Grade	5+420	303.652	5+495	303.163	75	-0.65%	
14	5+545	302.836	Curve	5+495	303.163	5+595	303.299	100		Valley
			Grade	5+595	303.299	5+800	305.195	204.712	0.93%	
15	5+860	305.751	Curve	5+800	305.195	5+920	307.166	120		Valley
			Grade	5+920	307.166	6+010	309.295	90.288	2.36%	
16	6+070	310.71	Curve	6+010	309.295	6+130	313.087	120		Valley
			Grade	6+130	313.087	6+380	322.983	249.786	3.96%	
17	6+440	325.36	Curve	6+380	322.983	6+500	328.052	120		Valley
			Grade	6+500	328.052	7+310	364.392	810.132	4.49%	
18	7+480	372.018	Curve	7+310	364.392	7+650	370.544	340		Summit
			Grade	7+650	370.544	7+900	368.375	250.082	-0.87%	
19	7+960	367.855	Curve	7+900	368.375	8+020	366.769	120		Summit
			Grade	8+020	366.769	8+128	364.809	108.27	-1.81%	
20	8+166	364.13	Curve	8+128	364.809	8+203	364.316	75		Valley
			Grade	8+203	364.316	8+257	364.582	53.888	0.50%	

M/s Ram Pahle Construction Co. Pvt. Ltd. Chhatarpur

AAC CONSULTING ENGINEERS BHOPAL

			Grade	18+285	363.952	18+793	353.333	507.929	-2.09%	
44	18+883	351.452	Curve	18+793	353.333	18+973	351.154	180		Valley
			Grade	18+973	351.154	19+133	350.626	159.577	-0.33%	
45	19+173	350.494	Curve	19+133	350.626	19+213	350.034	80		Summit
			Grade	19+213	350.034	19+280	349.259	67.464	-1.15%	
46	19+320	348.799	Curve	19+280	349.259	19+360	349.184	80		Valley
			Grade	19+360	349.184	19+400	349.568	40.057	0.96%	
47	19+450	350.049	Curve	19+400	349.568	19+500	349.58	100		Summit
			Grade	19+500	349.58	19+563	348.987	63.217	-0.94%	
48	19+603	348.611	Curve	19+563	348.987	19+643	348.347	80		Valley
			Grade	19+643	348.347	20+007	345.947	363.96	-0.66%	
49	20+082	345.453	Curve	20+007	345.947	20+157	344.733	150		Summit
			Grade	20+157	344.733	20+296	343.396	139.116	-0.96%	
50	20+346	342.916	Curve	20+296	343.396	20+396	342.752	100		Valley
			Grade	20+396	342.752	20+900	341.097	503.686	-0.33%	
51	20+950	340.932	Curve	20+900	341.097	21+000	340.608	100		Summit
			Grade	21+000	340.608	21+068	340.168	67.991	-0.65%	
52	21+118	339.844	Curve	21+068	340.168	21+168	340.625	100		Valley
			Grade	21+168	340.625	21+253	341.949	84.674	1.56%	
53	21+328	343.121	Curve	21+253	341.949	21+403	342.87	150		Summit
			Grade	21+403	342.87	21+614	342.166	211.279	-0.33%	
54	21+864	341.332	Curve	21+614	342.166	22+114	347.535	500		Valley
			Grade	22+114	347.535	22+150	348.434	36.225	2.48%	
55	22+240	350.667	Curve	22+150	348.434	22+330	350.972	180		Summit
			Grade	22+330	350.972	22+526	351.637	196.175	0.34%	
56	22+651	352.06	Curve	22+526	351.637	22+776	356.424	250		Valley
			Grade	22+776	356.424	23+051	366.019	274.88	3.49%	
57	23+201	371.255	Curve	23+051	366.019	23+351	370.747	300		Summit
			Grade	23+351	370.747	23+741	369.429	389.897	-0.34%	
58	23+841	369.09	Curve	23+741	369.429	23+941	367.218	200		Summit
			Grade	23+941	367.218	24+099	364.261	157.986	-1.87%	
59	24+224	361.921	Curve	24+099	364.261	24+349	360.427	250		Valley
			Grade	24+349	360.427	24+511	358.488	162.215	-1.20%	
60	24+661	356.696	Curve	24+511	358.488	24+811	354.166	300		Summit
			Grade	24+811	354.166	25+003	350.94	191.254	-1.69%	
61	25+078	349.675	Curve	25+003	350.94	25+153	349.326	150		Valley
			Grade	25+153	349.326	25+430	348.031	277.425	-0.47%	
62	25+530	347.565	Curve	25+430	348.031	25+630	346.733	200		Summit
			Grade	25+630	346.733	25+830	345.069	200.006	-0.83%	
63	25+955	344.029	Curve	25+830	345.069	26+080	343.346	250		Valley
			Grade	26+080	343.346	26+703	339.936	623.344	-0.55%	
64	26+878	338.979	Curve	26+703	339.936	27+053	337.044	350		Summit
			Grade	27+053	337.044	27+248	334.89	194.6[illegible]	-1.1[illegible]	
65	27+308	334.227	Curve	27+248	334.89	27+368	333.97	120		Valley
			Grade	27+368	333.97	27+454	333.601	86.288	0.43%	

Ram Raja Construction Co. Chhatarpur (M.P.)

A.A.C. CONSULTING ENGINEER BHOPAL

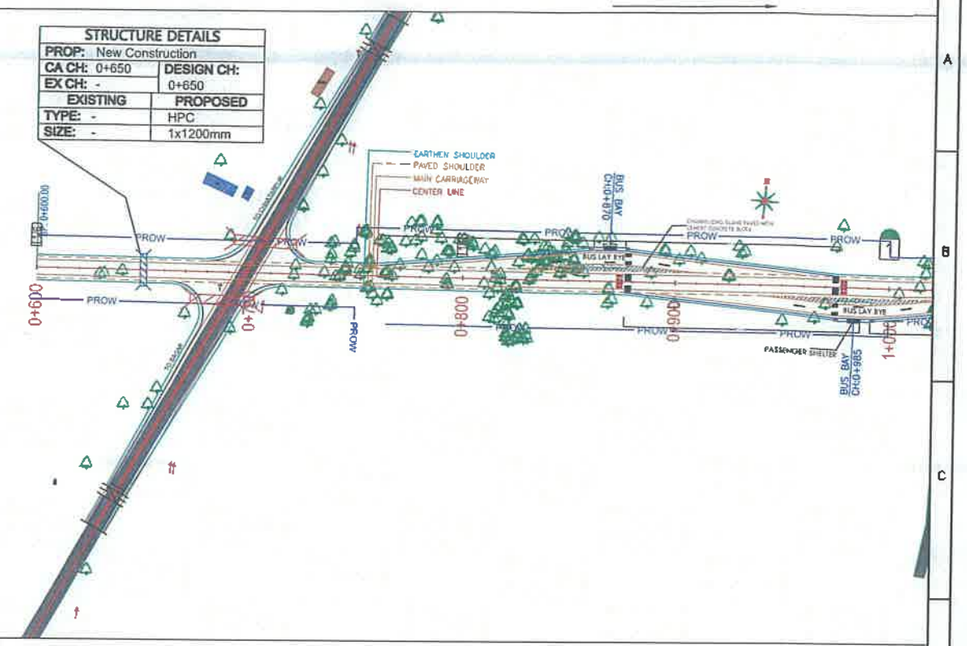
GULGANJ

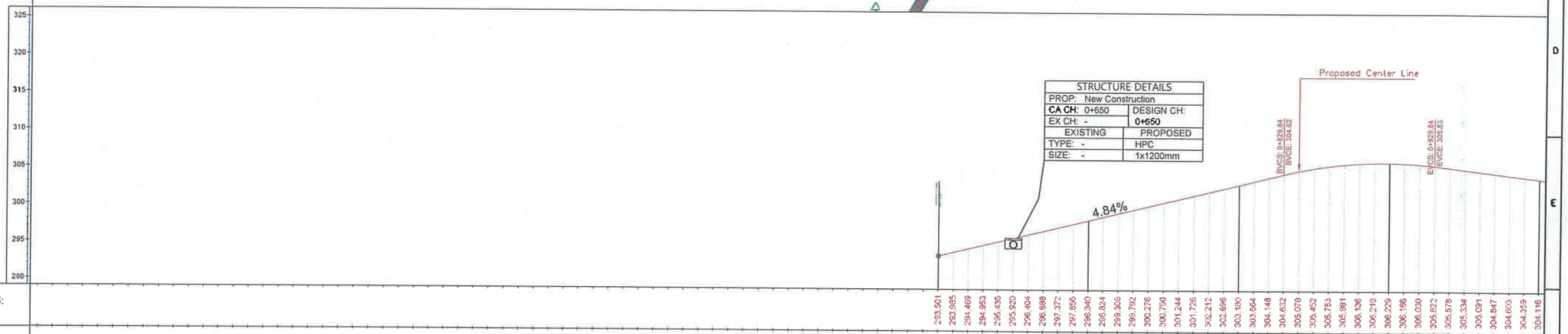
KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 0+650	DESIGN CH: 0+650
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm





Proposed:

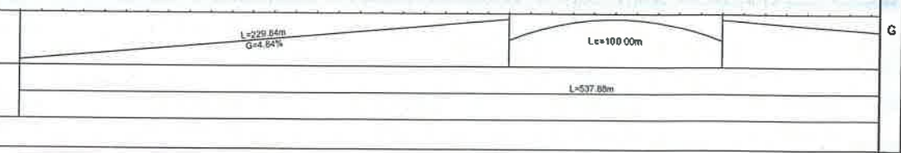
Ground Level:

Lvl Diff (+/-):

Ground Level Left @ 9.0m

Ground Level Right @ 9.0m

Vertical Alignment:



Horizontal Alignment:

Superelevation:

Chainage:

0+000 0+010 0+020 0+030 0+040 0+050 0+060 0+070 0+080 0+090 0+100 0+110 0+120 0+130 0+140 0+150 0+160 0+170 0+180 0+190 0+200 0+210 0+220 0+230 0+240 0+250 0+260 0+270 0+280 0+290 0+300 0+310 0+320 0+330 0+340 0+350 0+360 0+370 0+380 0+390 0+400 0+410 0+420 0+430 0+440 0+450 0+460 0+470 0+480 0+490 0+500 0+510 0+520 0+530 0+540 0+550 0+560 0+570 0+580 0+590 0+600 0+610 0+620 0+630 0+640 0+650 0+660 0+670 0+680 0+690 0+700 0+710 0+720 0+730 0+740 0+750 0+760 0+770 0+780 0+790 0+800 0+810 0+820 0+830 0+840 0+850 0+860 0+870 0+880 0+890 0+900 0+910 0+920 0+930 0+940 0+950 0+960 0+970 0+980 0+990 1+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills,
Bhopal, Madhya Pradesh
Pin-462004

EPC CONTRACTOR:
M/s Ramraja Construction Company,
Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:-+91 (755) 2987600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M-2, First Floor,
Noble Plaza, M.P. Nagar Zone-II,
Bhopal (M.P.)-462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Royal Designers LLP
1403 Valley View Estate
Gurugram-Faridabad Road Gurugram
Haryana-122003 M-9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 0+600 TO 1+000

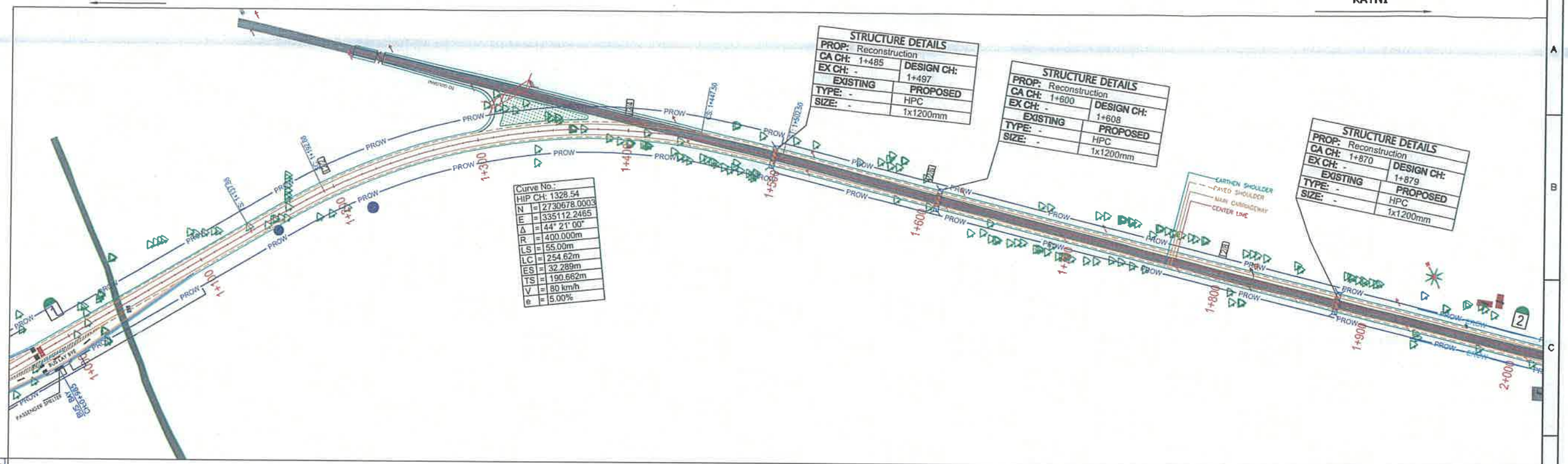
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: Dec 2024 | SCALE: | DRAWING NO.: | SHEET NO.: 01 TO 42 | REV. 01

GULGANJ → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	

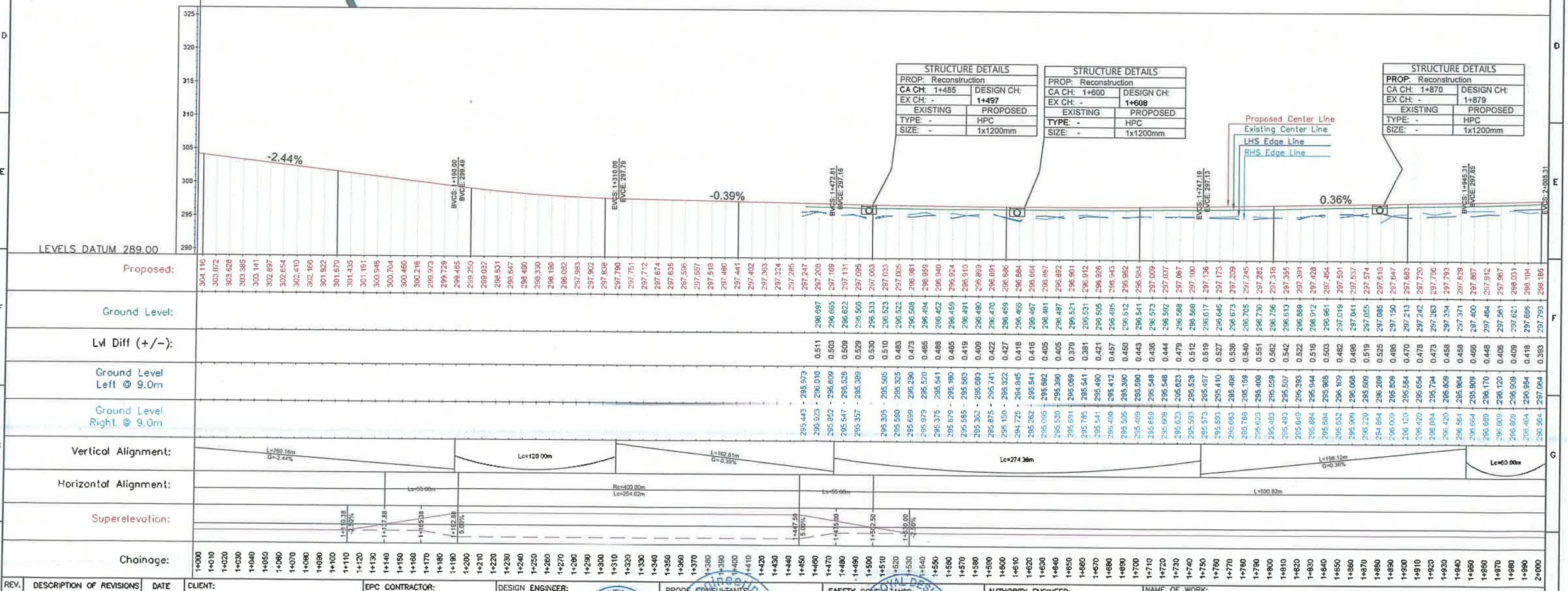


STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 1+485	DESIGN CH: 1+497
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 1+600	DESIGN CH: 1+608
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 1+870	DESIGN CH: 1+879
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

Curve No.:	
HIP CH: 1328.54	
N	= 2730678.0003
E	= 335112.2465
Δ	= 44° 21' 00"
R	= 400.000m
LS	= 55.00m
LC	= 254.62m
ES	= 32.289m
TS	= 190.662m
V	= 80 km/h
e	= 5.00%



REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Channa Royal Designers LLP, 1151 1403, Valley View Estate, Gurugram-Faridabad Road, Gurugram, Haryana-122003, M-9873958396, Email – [illegible]@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

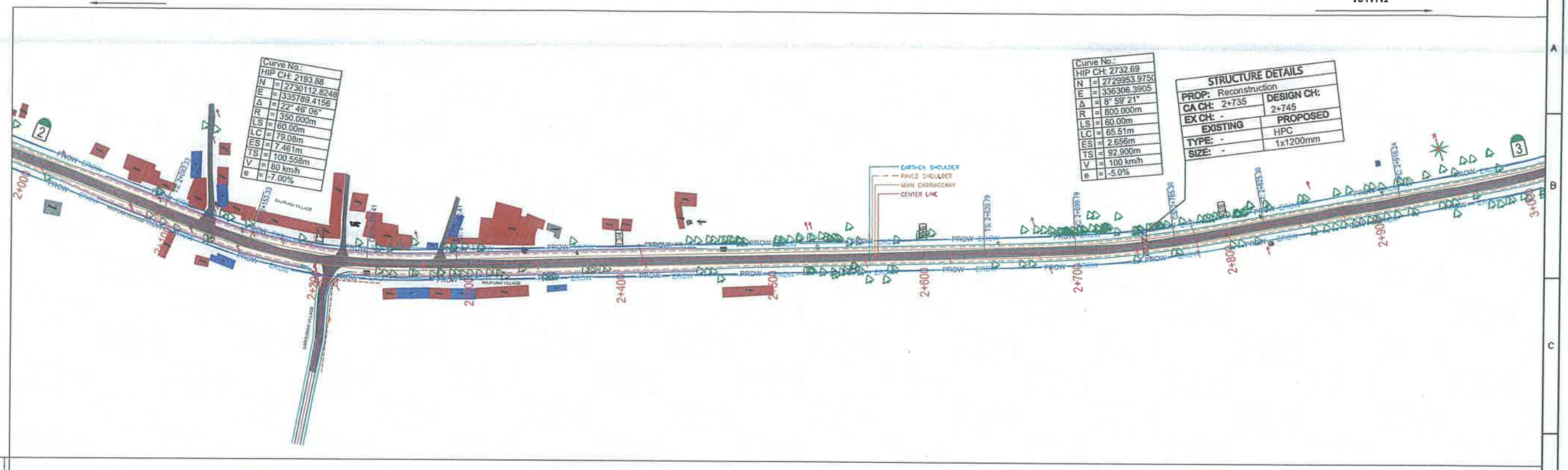
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

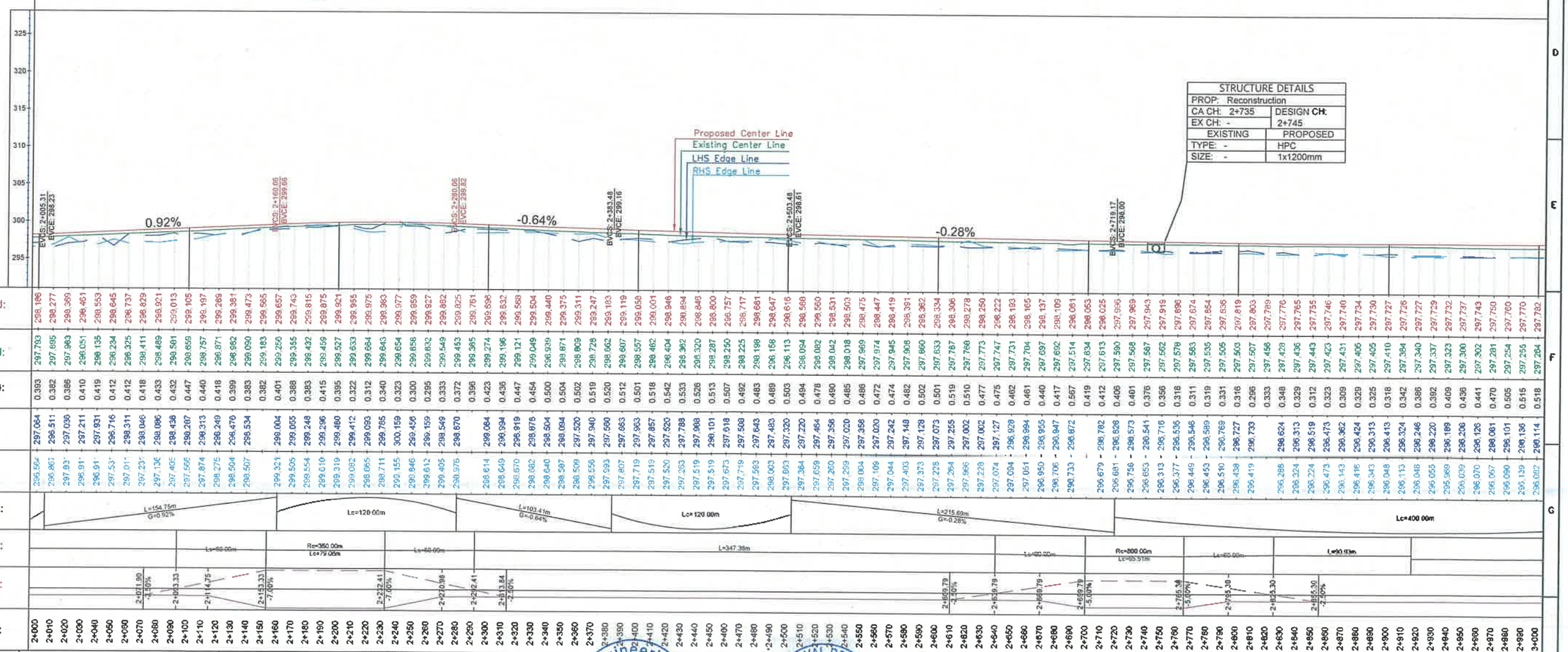
TITLE:	PLAN & PROFILE	Chainage	1+000 TO 2+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec 2024	SCALE:	DRAWING NO.:	SHEET NO.: 02 TO 42 — REV. 01

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	





REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2587600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Royal Designers LLP, F-15 1408 Valley View Estate, Gurugram Faridabad Road, Gurugram, Haryana-122003, M-9873858396, Email – khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	2+000 TO 3+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec 2024	SCALE:	DRAWING NO.:	SHEET NO.: 03 TO 42 — REV. 01

GULGANJ → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed RHS Edge	
Proposed LHS Edge	
Proposed Design Edge	
Existing ROW Line	
PROW	

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 3+180	DESIGN CH:
EX CH: -	3+192
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 3+315	DESIGN CH:
EX CH: -	3+322
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1x1200mm

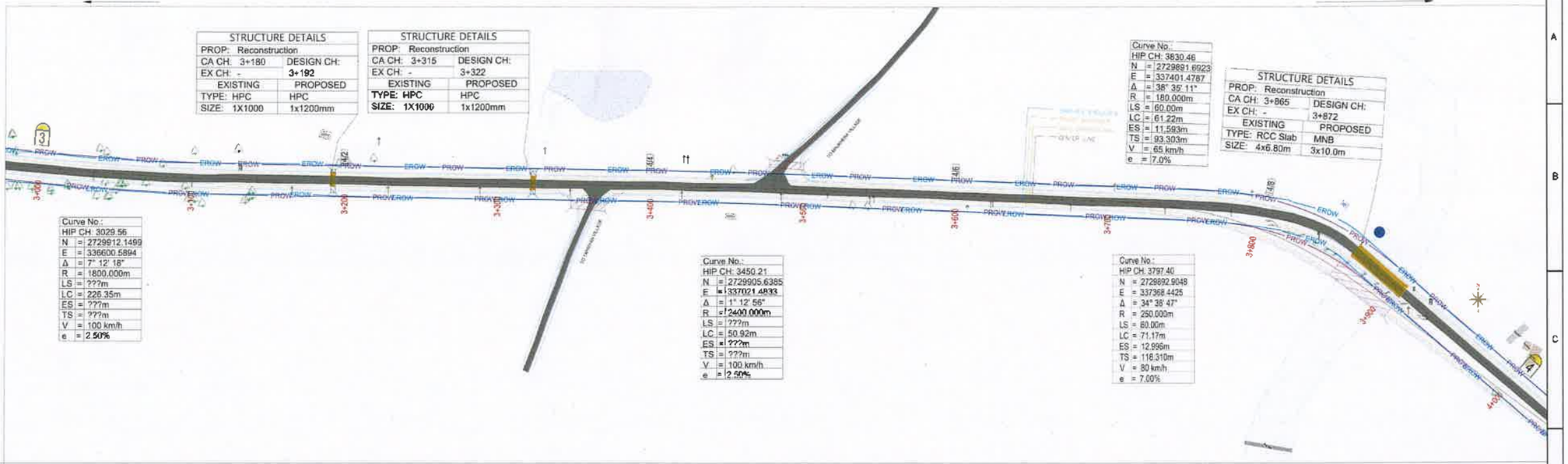
STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 3+865	DESIGN CH:
EX CH: -	3+872
EXISTING	PROPOSED
TYPE: RCC Slab	MNB
SIZE: 4x6.80m	3x10.0m

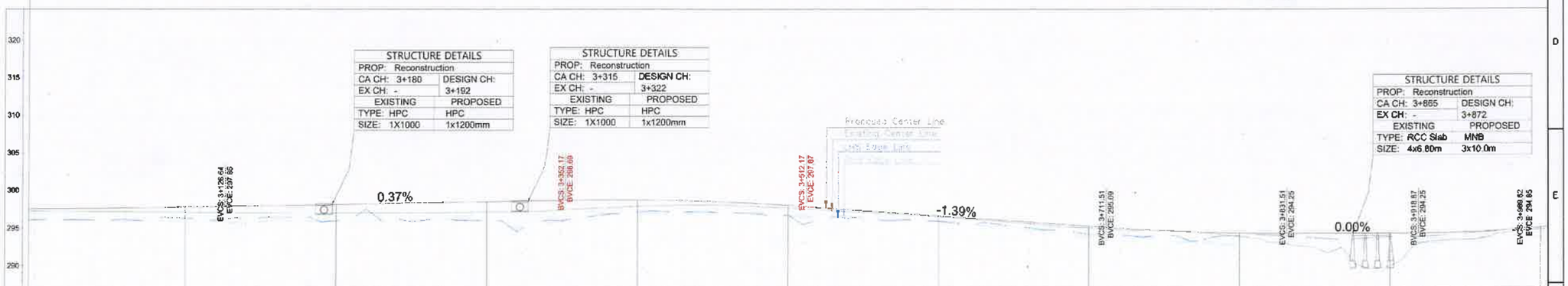
Curve No.:	
HIP CH: 3029.56	
N	= 2729912.1499
E	= 336600.5894
Δ	= 7° 12' 18"
R	= 1800.000m
LS	= ???m
LC	= 226.35m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= 2.50%

Curve No.:	
HIP CH: 3450.21	
N	= 2729905.6385
E	= 337021.4833
Δ	= 1° 12' 56"
R	= 2400.000m
LS	= ???m
LC	= 50.92m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= 2.50%

Curve No.:	
HIP CH: 3830.46	
N	= 2729891.6923
E	= 337401.4787
Δ	= 38° 35' 11"
R	= 180.000m
LS	= 60.00m
LC	= 61.22m
ES	= 11.593m
TS	= 93.303m
V	= 65 km/h
e	= 7.0%

Curve No.:	
HIP CH: 3797.40	
N	= 2729892.9048
E	= 337368.4425
Δ	= 34° 38' 47"
R	= 250.000m
LS	= 60.00m
LC	= 71.17m
ES	= 12.996m
TS	= 118.310m
V	= 80 km/h
e	= 7.00%





Chainage:	Proposed:	Ground Level:	Lvl Diff (+/-):	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
3+000	297.538	297.267	0.271	298.114	296.302
3+010	297.553	297.252	0.301	298.130	295.950
3+020	297.570	297.221	0.349	298.138	296.140
3+030	297.589	297.195	0.394	298.118	296.103
3+040	297.609	297.177	0.433	298.074	296.063
3+050	297.632	297.177	0.455	298.064	295.574
3+060	297.656	297.176	0.480	298.162	295.564
3+070	297.682	297.142	0.540	298.006	296.065
3+080	297.709	297.127	0.583	296.314	296.031
3+090	297.739	297.097	0.642	296.365	295.943
3+000	297.770	297.097	0.673	295.296	295.665
3+100	297.803	297.067	0.736	296.209	295.874
3+110	297.838	297.062	0.776	296.094	295.869
3+120	297.874	297.047	0.827	296.269	295.742
3+130	297.911	297.042	0.869	296.374	295.624
3+140	297.948	297.045	0.903	296.383	295.531
3+150	297.985	297.014	0.971	296.481	296.090
3+160	298.022	297.002	1.020	296.481	296.129
3+170	298.058	296.985	1.073	296.661	296.124
3+180	298.095	296.999	1.096	295.868	295.941
3+190	298.132	297.024	1.108	295.994	295.958
3+200	298.169	297.050	1.119	296.190	297.194
3+210	298.206	297.044	1.162	297.524	295.915
3+220	298.243	297.029	1.214	296.078	295.829
3+230	298.280	297.054	1.226	296.279	295.678
3+240	298.316	297.049	1.267	295.679	295.678
3+250	298.353	297.054	1.299	296.108	296.063
3+260	298.390	297.069	1.321	296.379	296.051
3+270	298.427	297.074	1.353	296.090	296.059
3+280	298.464	297.102	1.362	295.990	295.990
3+290	298.501	297.112	1.389	296.054	296.054
3+300	298.537	297.129	1.408	296.054	294.528
3+310	298.574	297.170	1.404	294.528	295.616
3+320	298.611	297.227	1.384	295.616	296.068
3+330	298.648	297.311	1.337	296.068	296.012
3+340	298.685	297.426	1.259	296.012	296.308
3+350	298.716	297.530	1.186	296.308	296.572
3+360	298.741	297.632	1.109	296.572	296.698
3+370	298.753	297.732	1.021	296.698	296.968
3+380	298.753	297.840	0.913	296.968	205.525
3+390	298.722	297.912	0.831	297.168	297.332
3+400	298.689	297.997	0.725	297.332	297.168
3+410	298.646	298.032	0.657	297.168	297.163
3+420	298.646	298.070	0.576	297.163	297.208
3+430	298.591	298.090	0.502	297.208	297.129
3+440	298.526	298.066	0.460	297.129	298.014
3+450	298.449	298.057	0.393	297.014	296.931
3+460	298.362	298.000	0.362	296.931	296.920
3+470	298.263	297.880	0.383	296.920	296.638
3+480	298.154	297.779	0.375	296.638	296.766
3+490	298.033	297.701	0.332	296.766	205.525
3+500	297.902	297.581	0.321	205.525	296.088
3+510	297.703	297.405	0.297	296.088	296.477
3+520	297.623	297.345	0.278	296.477	296.384
3+530	297.484	297.241	0.243	296.384	296.483
3+540	297.344	297.155	0.189	296.483	296.130
3+550	297.205	297.027	0.177	296.130	296.047
3+560	297.065	296.916	0.149	296.047	296.132
3+570	296.926	296.798	0.128	296.132	295.665
3+580	296.786	296.689	0.098	295.665	295.652
3+590	296.647	296.551	0.096	295.652	295.697
3+600	296.507	296.387	0.120	295.697	295.354
3+610	296.368	296.230	0.138	295.354	295.795
3+620	296.229	296.076	0.152	295.795	295.532
3+630	296.089	295.935	0.154	295.532	295.239
3+640	295.950	295.788	0.162	295.239	295.075
3+650	295.810	295.615	0.196	295.075	294.819
3+660	295.671	295.442	0.229	294.819	294.605
3+670	295.531	295.289	0.242	294.605	294.519
3+680	295.392	295.143	0.249	294.519	294.236
3+690	295.252	295.045	0.208	294.236	294.190
3+700	295.113	294.931	0.182	294.190	294.185
3+710	294.978	294.831	0.147	294.185	293.845
3+720	294.854	294.739	0.115	293.845	293.620
3+730	294.742	294.701	0.041	293.620	294.132
3+740	294.641	294.658	-0.017	294.132	293.844
3+750	294.552	294.589	-0.036	293.844	293.294
3+760	294.475	294.475	0.000	293.294	293.724
3+770	294.409	294.305	0.104	293.724	293.958
3+780	294.355	294.098	0.257	293.958	294.033
3+790	294.313	293.878	0.435	294.033	294.107
3+800	294.282	293.657	0.625	294.107	294.073
3+810	294.263	293.117	1.146	294.073	293.900
3+820	294.255	292.968	1.287	293.900	293.854
3+830	294.255	292.600	1.655	293.854	293.657
3+840	294.255	292.346	1.909	293.657	293.556
3+850	294.255	291.819	2.436	293.556	293.542
3+860	294.255	291.848	2.407	293.542	293.578
3+870	294.255	289.944	4.311	293.578	293.716
3+880	294.255	289.583	4.672	293.716	293.774
3+890	294.255	289.942	4.313	293.774	
3+900	294.255	291.277	2.978		
3+910	294.255	292.927	1.328	293.814	293.039
3+920	294.270	293.244	1.025	293.912	293.765
3+930	294.308	293.354	0.954	294.055	293.541
3+940	294.370	293.416	0.954	294.215	293.328
3+950	294.458	293.567	0.890	294.389	293.570
3+960	294.568	294.098	0.469	294.498	293.785
3+970	294.700	294.418	0.281	294.700	293.914
3+980	294.657	294.521	0.137	294.657	293.592
4+000	295.026	294.927	0.099	294.748	293.373

Vertical Alignment: L=225.53m G=0.37% | Lc=160.00m | L=199.34m G=-1.39% | Lc=120.00m | L=87.35m G=0.07% | Lc=70.78m

Horizontal Alignment: Rc=1800.00m Lc=226.35m | L=279.55m | Rc=2400.00m Lc=50.92m | L=297.66m | Ls=90.00m | Rc=250.00m Lc=47.68m | Ls=90.00m | L=99.30m

Superelevation: 3+712.80 -2.50% | 3+746.08 | 3+775.94 7.00% | 3+823.62 7.00% | 3+852.48 | 3+886.76 -2.50% | 3+951.54 -2.50%

REV.	DESCRIPTION OF REVISIONS	DATE
R 3	AS PER CENTER LINE CHANG	18-02-2025
R 2	AS PER CENTER LINE CHANG	07-01-2025
R 1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Nirman Bhawan, Pratapgarh — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar, Zone-II, Bhopal, (M.P.) 462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Chartered Infrastructure Designers LLP, G-5, Ansal Celebrity View Estate, Gurugram Faridabad Road, Gurugram Haryana - 122003, M-9873368396, Email: cidgurgaon@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERVENING LANE TO 2 LANE WITH PAVED SHOULDERS FROM KM 0.000 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER) LENGTH 42.442 KM ON GULGANJ- MANDSAUR- PAWA-KATNI NH-43 IN THE STATE OF MADHYA PRADESH (MI EPC MODE)

TITLE: PLAN & PROFILE — Chainage 3+000 TO 4+000

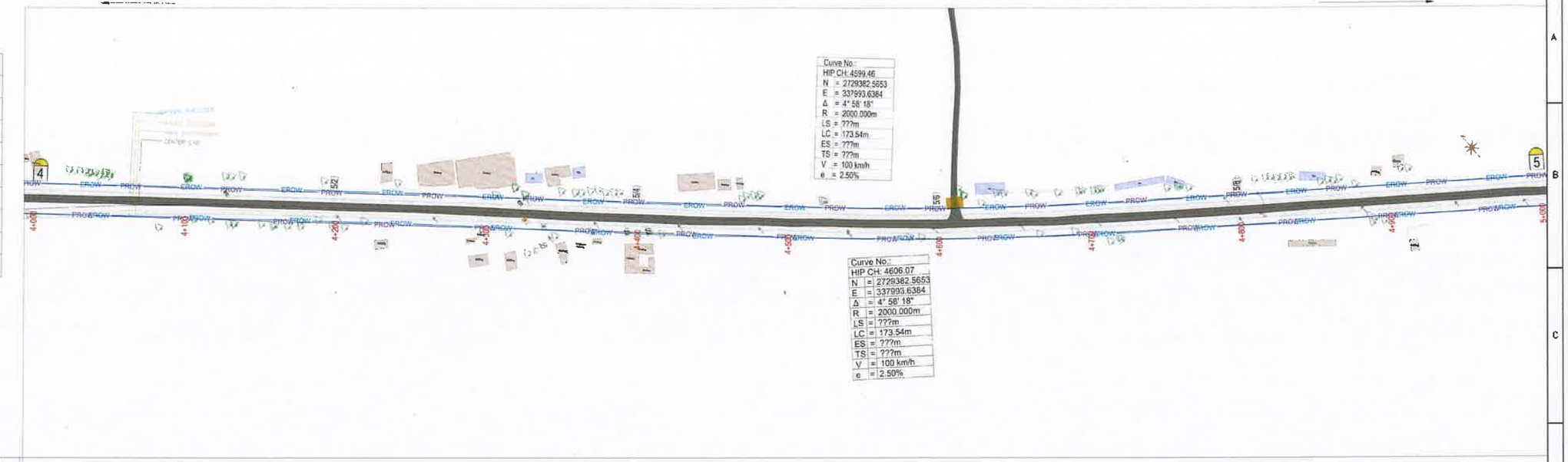
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

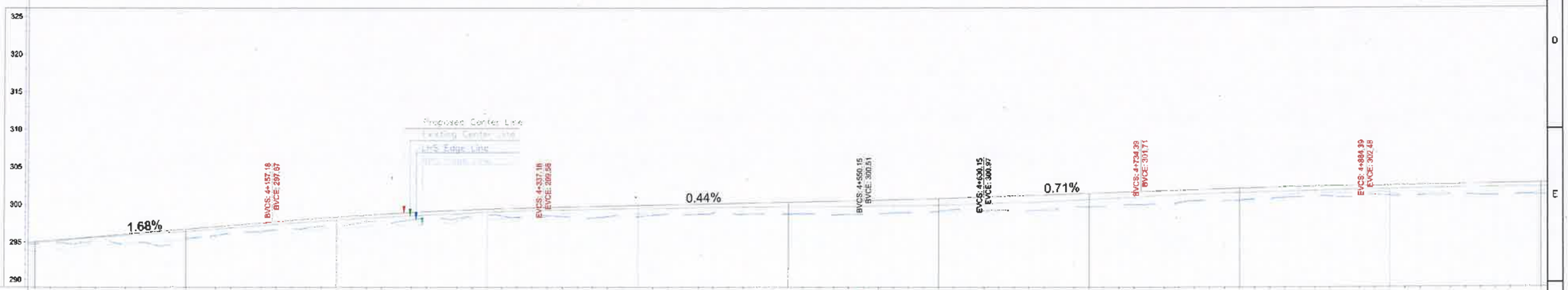
DATE: Dec 2024 | SCALE: | DRAWING NO.: | SHEET NO.: 04 OF 43 | REV. 02

GULGANJ → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Proposed Shoulder Edge	
Proposed Toe/Drain Edge	
Existing ROW Line	
PROW	





Proposed:

Chainage	Proposed
4+000	295.026
4+010	295.104
4+020	295.363
4+030	295.531
4+040	295.700
4+050	295.868
4+060	296.037
4+070	296.205
4+080	296.374
4+090	296.542
4+100	296.710
4+110	296.879
4+120	297.047
4+130	297.216
4+140	297.384
4+150	297.553
4+160	297.721
4+170	297.884
4+180	298.043
4+190	298.189
4+200	298.332
4+210	298.467
4+220	298.595
4+230	298.717
4+240	298.837
4+250	298.939
4+260	299.039
4+270	299.133
4+280	299.220
4+290	299.299
4+300	299.372
4+310	299.439
4+320	299.497
4+330	299.549
4+340	299.595
4+350	299.639
4+360	299.682
4+370	299.725
4+380	299.769
4+390	299.812
4+400	299.856
4+410	299.900
4+420	299.943
4+430	299.987
4+440	300.030
4+450	300.074
4+460	300.117
4+470	300.161
4+480	300.205
4+490	300.249
4+500	300.292
4+510	300.335
4+520	300.379
4+530	300.423
4+540	300.466
4+550	300.510
4+560	300.555
4+570	300.604
4+580	300.655
4+590	300.711
4+600	300.770
4+610	300.833
4+620	300.899
4+630	300.968
4+640	301.039
4+650	301.110
4+660	301.182
4+670	301.253
4+680	301.324
4+690	301.395
4+700	301.468
4+710	301.537
4+720	301.608
4+730	301.673
4+740	301.750
4+750	301.818
4+760	301.884
4+770	301.947
4+780	302.007
4+790	302.065
4+800	302.120
4+810	302.173
4+820	302.222
4+830	302.269
4+840	302.314
4+850	302.358
4+860	302.395
4+870	302.431
4+880	302.465
4+890	302.496
4+900	302.528
4+910	302.559
4+920	302.590
4+930	302.622
4+940	302.653
4+950	302.684
4+960	302.716
4+970	302.747
4+980	302.778
4+990	302.810
5+000	302.841

Ground Level:

Chainage	Ground Level
4+000	294.927
4+010	295.078
4+020	295.281
4+030	295.479
4+040	295.770
4+050	295.896
4+060	296.037
4+070	296.156
4+080	296.277
4+090	296.430
4+100	296.588
4+110	296.739
4+120	296.900
4+130	297.052
4+140	297.222
4+150	297.391
4+160	297.536
4+170	297.663
4+180	297.787
4+190	297.933
4+200	298.062
4+210	298.196
4+220	298.314
4+230	298.390
4+240	298.498
4+250	298.594
4+260	298.681
4+270	298.767
4+280	298.877
4+290	298.984
4+300	299.139
4+310	299.219
4+320	299.250
4+330	299.263
4+340	299.301
4+350	299.353
4+360	299.394
4+370	299.420
4+380	299.460
4+390	299.499
4+400	299.535
4+410	299.586
4+420	299.617
4+430	299.624
4+440	299.649
4+450	299.667
4+460	299.688
4+470	299.690
4+480	299.732
4+490	299.741
4+500	299.768
4+510	299.798
4+520	299.819
4+530	299.836
4+540	299.860
4+550	299.898
4+560	299.949
4+570	300.009
4+580	300.078
4+590	300.165
4+600	300.220
4+610	300.259
4+620	300.342
4+630	300.449
4+640	300.552
4+650	300.647
4+660	300.753
4+670	300.846
4+680	300.957
4+690	301.067
4+700	301.195
4+710	301.293
4+720	301.371
4+730	301.441
4+740	301.512
4+750	301.563
4+760	301.607
4+770	301.659
4+780	301.721
4+790	301.772
4+800	301.812
4+810	301.872
4+820	301.927
4+830	301.987
4+840	302.037
4+850	302.093
4+860	302.159
4+870	302.178
4+880	302.243
4+890	302.277
4+900	302.294
4+910	302.303
4+920	302.322
4+930	302.341
4+940	302.360
4+950	302.378
4+960	302.397
4+970	302.416
4+980	302.435
4+990	302.454
5+000	302.473

Lvl. Diff (+/-):

Chainage	Lvl. Diff
4+000	0.099
4+010	0.116
4+020	0.082
4+030	0.052
4+040	0.060
4+050	0.098
4+060	0.141
4+070	0.168
4+080	0.217
4+090	0.265
4+100	0.281
4+110	0.290
4+120	0.306
4+130	0.316
4+140	0.322
4+150	0.322
4+160	0.331
4+170	0.330
4+180	0.348
4+190	0.377
4+200	0.392
4+210	0.398
4+220	0.404
4+230	0.397
4+240	0.403
4+250	0.432
4+260	0.432
4+270	0.442
4+280	0.445
4+290	0.452
4+300	0.452
4+310	0.423
4+320	0.389
4+330	0.389
4+340	0.375
4+350	0.358
4+360	0.330
4+370	0.345
4+380	0.375
4+390	0.380
4+400	0.373
4+410	0.375
4+420	0.393
4+430	0.358
4+440	0.417
4+450	0.445
4+460	0.451
4+470	0.445
4+480	0.457
4+490	0.493
4+500	0.512
4+510	0.547
4+520	0.581
4+530	0.603
4+540	0.637
4+550	0.663
4+560	0.691
4+570	0.725
4+580	0.742
4+590	0.757
4+600	0.765
4+610	0.820
4+620	0.851
4+630	0.872
4+640	0.884
4+650	0.890
4+660	0.890
4+670	0.874
4+680	0.860
4+690	0.922
4+700	0.910
4+710	0.875
4+720	0.843
4+730	0.819
4+740	0.784
4+750	0.762
4+760	0.733
4+770	0.683
4+780	0.623
4+790	0.591
4+800	0.576
4+810	0.566
4+820	0.553
4+830	0.557
4+840	0.566
4+850	0.548
4+860	0.542
4+870	0.543
4+880	0.523
4+890	0.504
4+900	0.498
4+910	0.497
4+920	0.474
4+930	0.465
4+940	0.457
4+950	0.477
4+960	0.473
4+970	0.470
4+980	0.484
4+990	0.506
5+000	0.519

Ground Level Left @ 9.0m:

Chainage	Ground Level Left @ 9.0m
4+000	294.748
4+010	294.863
4+020	294.874
4+030	294.930
4+040	295.081
4+050	294.836
4+060	294.930
4+070	294.608
4+080	294.646
4+090	295.515
4+100	295.687
4+110	295.943
4+120	296.153
4+130	296.321
4+140	296.468
4+150	296.673
4+160	296.804
4+170	296.904
4+180	297.150
4+190	297.272
4+200	297.383
4+210	297.783
4+220	297.573
4+230	297.696
4+240	297.986
4+250	298.196
4+260	298.177
4+270	298.128
4+280	299.460
4+290	298.588
4+300	299.321
4+310	299.492
4+320	299.487
4+330	299.516
4+340	298.392
4+350	299.283
4+360	299.213
4+370	299.404
4+380	298.510
4+390	298.380
4+400	298.564
4+410	298.768
4+420	298.693
4+430	298.732
4+440	298.890
4+450	299.963
4+460	299.729
4+470	299.729
4+480	299.750
4+490	299.740
4+500	299.750
4+510	299.679
4+520	299.603
4+530	299.732
4+540	299.741
4+550	299.768
4+560	299.798
4+570	299.819
4+580	299.835
4+590	299.860
4+600	299.893
4+610	299.949
4+620	300.009
4+630	300.078
4+640	300.165
4+650	300.220
4+660	300.259
4+670	300.342
4+680	300.449
4+690	300.552
4+700	300.647
4+710	300.753
4+720	300.846
4+730	300.957
4+740	301.067
4+750	301.195
4+760	301.293
4+770	301.371
4+780	301.441
4+790	301.512
4+800	301.563
4+810	301.607
4+820	301.659
4+830	301.721
4+840	301.772
4+850	301.812
4+860	301.872
4+870	301.927
4+880	301.987
4+890	302.037
4+900	302.093
4+910	302.159
4+920	302.178
4+930	302.243
4+940	302.277
4+950	302.294
4+960	302.303
4+970	302.322
4+980	302.341
4+990	302.360
5+000	302.378

Vertical Alignment: L=167.56m G=1.68% | Lc=180.00m | L=212.97m G=0.44% | Lc=80.00m | L=104.24m G=0.71% | Lc=150.00m

Horizontal Alignment: Ls=25.00m | Rc=1000.00m Lc=52.80m | Ls=25.00m | L=374.72m | Rc=2000.00m Lc=182.78m | L=288.29m | Rc=3000.00 Lc=69.17

Superelevation: 4+007.92 | 4+039.99 2.50% | 4+050.71 4.00% | 4+130.71 | 4+147.08 -2.50%

REV.	DESCRIPTION OF REVISIONS	DATE
R 3	AS PER CENTER LINE CHANG	18-02-2025
R 2	AS PER CENTER LINE CHANG	07-01-2025
R 1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jai Bhawan, Bhilwara — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Flat No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, 15-5 Ansal Villas, Sector Estate, Gurugram-Kotkapura Road, Gurugram, Haryana-122006, M-98/38/8396, Email-khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVED SHOULDERS FROM KM 0.000 (GULGANJ BYPASS ON NH-343) TO KM 43.000 (BARNA RIVER) LENGTH 42.400 KM ON GULGANJ - AMANGANJ - PARAJ - HATTA NH-43 IN THE STATE OF MADHYA PRADESH (MP EPC MODE)

TITLE: PLAN & PROFILE Chainage 4+000 TO 5+000

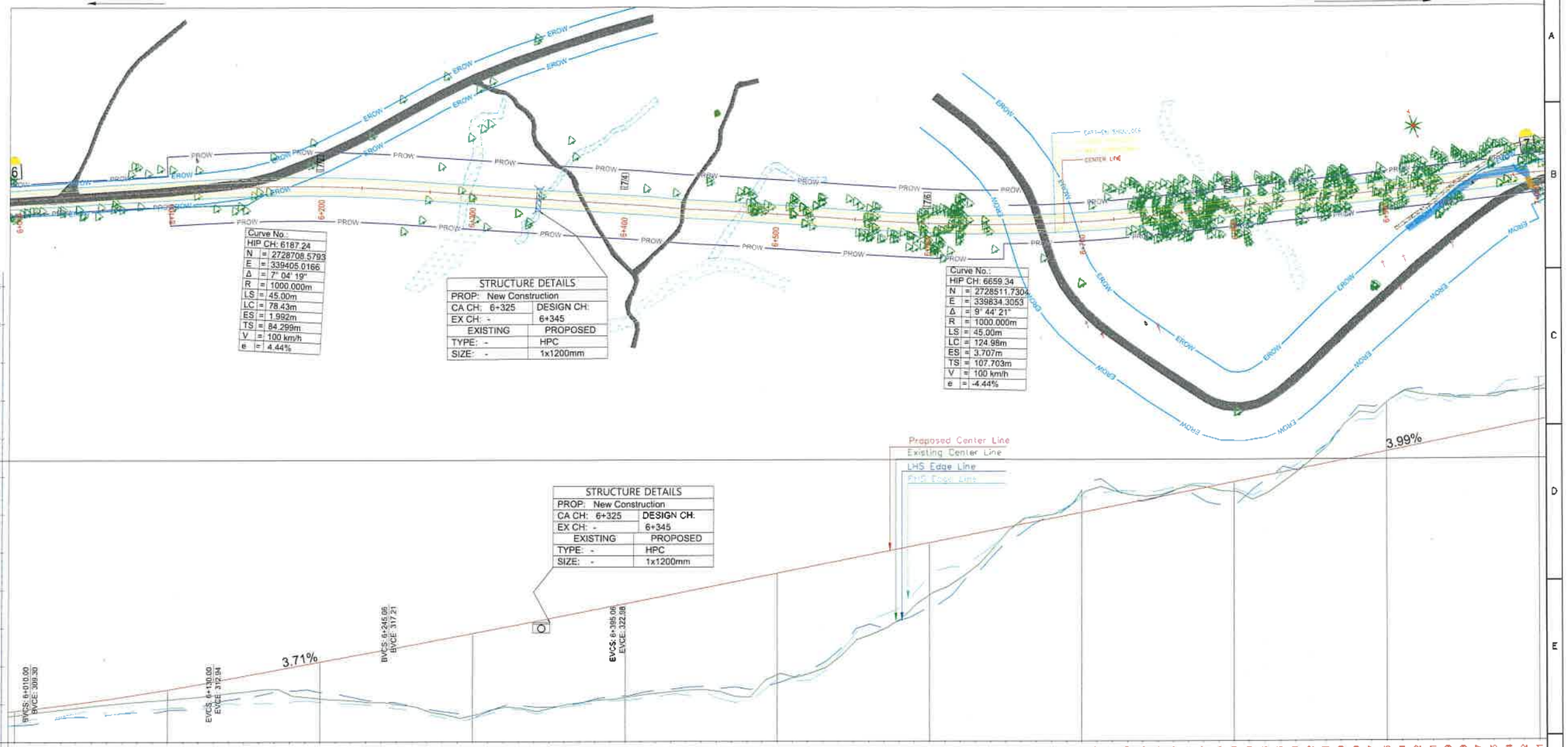
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: Dec 2024 | SCALE: | DRAWING NO.: | SHEET NO.: 06 OF 42 | REV. 02

GULGANJ → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	



Curve No.:	
HIP CH: 6187.24	
N	= 2728708.5793
E	= 339405.0166
Δ	= 7° 04' 19"
R	= 1000.000m
LS	= 45.00m
LC	= 78.43m
ES	= 1.992m
TS	= 84.299m
V	= 100 km/h
e	= 4.44%

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 6+325	DESIGN CH:
EX CH: -	6+345
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

Curve No.:	
HIP CH: 6659.34	
N	= 2728511.7304
E	= 339834.3053
Δ	= 9° 44' 21"
R	= 1000.000m
LS	= 45.00m
LC	= 124.98m
ES	= 3.707m
TS	= 107.703m
V	= 100 km/h
e	= -4.44%

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 6+325	DESIGN CH:
EX CH: -	6+345
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
6+000	309.060	308.480	0.579	307.194	307.271
6+010	309.295	308.748	0.548	307.314	307.983
6+020	309.537	309.006	0.531	307.734	308.248
6+030	309.790	309.253	0.536	308.147	308.784
6+040	310.054	309.491	0.562	308.310	309.207
6+050	310.329	309.697	0.632	308.287	308.754
6+060	310.616	309.903	0.712	308.563	308.820
6+070	310.913	310.105	0.808	308.792	308.820
6+080	311.222	310.268	0.955	308.936	309.067
6+090	311.543	310.409	1.134	308.899	309.306
6+100	311.874	310.571	1.303	309.153	309.461
6+110	312.217	310.746	1.472	309.260	309.370
6+120	312.571	310.931	1.641	309.526	309.370
6+130	312.937	311.156	1.780	310.279	310.279
6+140	313.308	311.403	1.905	310.544	310.544
6+150	313.679	311.614	2.065	311.445	310.884
6+160	314.050	311.858	2.192	311.597	310.990
6+170	314.421	311.968	2.453	311.748	310.995
6+180	314.792	311.253	3.540	311.893	311.211
6+190	315.163	310.919	4.244	311.636	311.218
6+200	315.534	310.700	4.835	311.371	310.987
6+210	315.905	310.558	5.347	310.937	310.947
6+220	316.277	310.447	5.829	310.530	310.884
6+230	316.648	310.243	6.404	310.273	310.163
6+240	317.019	310.196	6.823	310.196	309.956
6+250	317.390	309.956	7.434	309.956	309.697
6+260	317.763	309.697	8.066	309.697	309.091
6+270	318.138	309.091	9.046	309.091	308.651
6+280	318.514	308.651	9.863	309.022	308.210
6+290	318.893	308.210	10.683	308.742	308.459
6+300	319.273	308.459	10.814	308.372	309.076
6+310	319.655	309.076	10.579	308.970	309.499
6+320	320.039	309.499	10.540	309.691	309.442
6+330	320.424	309.442	10.983	309.780	309.080
6+340	320.812	309.080	11.732	309.574	309.360
6+350	321.201	309.360	11.841	309.555	309.804
6+360	321.593	309.804	11.789	309.749	310.084
6+370	321.986	310.111	11.875	310.084	310.571
6+380	322.381	310.411	11.969	310.571	310.920
6+390	322.777	310.553	12.224	310.920	311.012
6+400	323.176	310.820	12.356	311.012	311.410
6+410	323.574	311.109	12.466	311.410	311.750
6+420	323.973	311.338	12.635	311.750	311.893
6+430	324.372	311.549	12.822	311.893	312.117
6+440	324.770	311.743	13.027	312.117	312.222
6+450	325.169	311.818	13.351	312.222	312.046
6+460	325.567	311.644	13.923	312.046	312.134
6+470	325.966	311.077	14.889	312.134	311.902
6+480	326.364	310.857	15.507	311.902	312.171
6+490	326.763	312.596	14.167	312.171	312.678
6+500	327.162	313.769	13.393	312.678	313.360
6+510	327.560	313.518	14.043	313.360	314.260
6+520	327.959	313.878	14.081	314.260	315.333
6+530	328.357	314.597	13.771	315.333	316.932
6+540	328.755	315.962	12.794	316.932	319.372
6+550	329.153	317.916	11.239	319.372	320.372
6+560	329.552	318.920	10.633	320.372	319.974
6+570	329.952	319.778	10.173	319.974	320.865
6+580	330.350	320.954	9.397	320.865	321.592
6+590	330.749	322.751	7.988	321.592	
6+600	331.148	324.248	6.899		323.575
6+610	331.546	325.213	6.333		325.523
6+620	331.945	326.447	5.499		327.078
6+630	332.343	327.944	4.400		329.091
6+640	332.742	329.984	2.757		331.166
6+650	333.140	332.293	0.847		332.341
6+660	333.539	334.019	-0.480		333.751
6+670	333.936	334.523	-0.586		334.653
6+680	334.336	334.843	-0.507		335.702
6+690	334.735	335.703	-0.968		336.099
6+700	335.133	337.468	-2.335		339.459
6+710	335.532	338.390	-2.859		338.491
6+720	335.931	339.059	-2.128		337.110
6+730	336.329	337.553	-1.223		337.903
6+740	336.728	337.303	-0.576		337.131
6+750	337.126	337.410	-0.284		337.924
6+760	337.525	338.006	-0.481		
6+770	337.924	338.585	-0.661		336.782
6+780	338.322	338.499	-0.177		336.738
6+790	338.721	338.039	0.682		336.133
6+800	339.119	337.860	1.259		336.228
6+810	339.518	337.018	2.500		337.716
6+820	339.916	337.518	2.398		339.279
6+830	340.315	338.819	1.497		340.805
6+840	340.714	340.249	0.464		340.720
6+850	341.112	341.879	-0.767		342.258
6+860	341.511	343.543	-2.032		343.835
6+870	341.909	346.052	-4.152		346.235
6+880	342.308	347.944	-5.636		348.599
6+890	342.707	348.145	-5.439		348.982
6+900	343.105	349.488	-6.383		349.823
6+910	343.504	350.757	-7.253		350.811
6+920	343.902	350.681	-6.779		351.280
6+930	344.301	350.398	-6.097		350.691
6+940	344.699	350.174	-5.474		350.448
6+950	345.098	350.224	-5.126		350.061
6+960	345.497	350.219	-4.723		350.191
6+970	345.895	350.172	-4.277		350.512
6+980	346.294	350.739	-4.445		350.769
6+990	346.692	350.978	-4.286		
7+000	347.091	351.382	-4.291		351.019

Vertical Alignment: Lc=120.00m; L=116.06m G=3.71%; Lc=150.00m; L=1034.28m G=3.99%

Horizontal Alignment: Ls=45.00m; Rc=1000.00m Lc=78.43m; Ls=45.00m; L=280.27m; Ls=45.00m; Rc=1000.00m Lc=124.98m; Ls=45.00m; L=180.13m; Ls=40.00m

Superelevation: 6+077.63 -2.50%; 6+102.94; 6+128.26; 6+147.94 4.44%; 6+226.37 4.44%; 6+246.06; 6+271.37; 6+296.69 -2.50%; 6+556.33 -2.50%; 6+581.64; 6+606.96; 6+626.64 -4.44%; 6+721.62 -4.44%; 6+741.31; 6+766.62; 6+791.94 -2.50%; 6+916.76 -2.50%; 6+946.76; 6+973.75; 6+998.76 -2.50%

REV.	DESCRIPTION OF REVISIONS	DATE
R 2	AS PER CENTER LINE CHANG	07-01-2025
R 1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin–462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755)-2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Unit No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.) 462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Dhawan Goyal Designers LLP, 5-GDF, Goyal View Estate, Gurugram Faridabad road, Gurugram, Haryana-122003, M-9873558396, Email: dhawandesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage 6+000 TO 7+000	
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec 2024	SCALE:	DRAWING NO.:	SHEET NO.: 07 TO 42 — REV. 02

GULGANJ ← → KATNI

LINE LEGEND

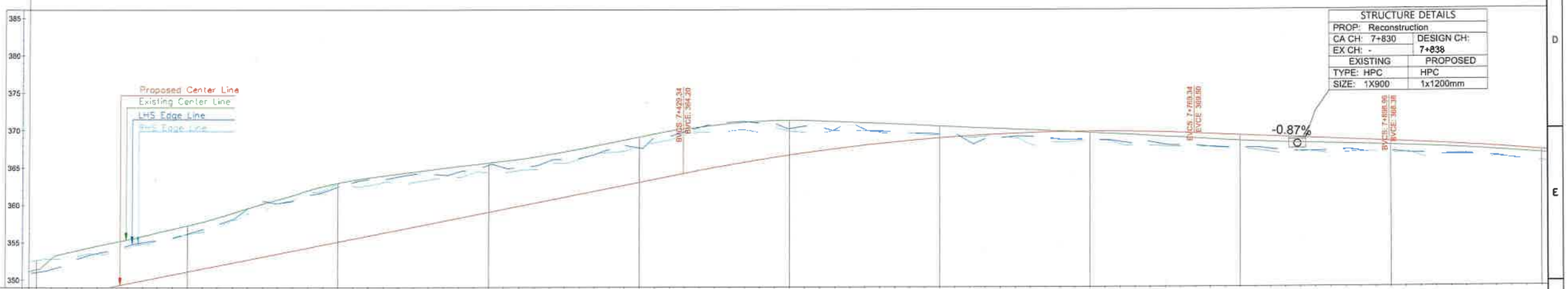
Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 7+830	DESIGN CH: 7+838
EX CH: -	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X900	1x1200mm

Curve No.:	
HIP CH: 7078.22	
N	= 2728403.9534
E	= 340239.5201
Δ	= 10° 36' 48"
R	= 1200.000m
LS	= 40.00m
LC	= 182.28m
ES	= 5.221m
TS	= 131.465m
V	= 100 km/h
e	= -3.70%

Curve No.:	
HIP CH: 7452.95	
N	= 2728375.9311
E	= 340613.8460
Δ	= 20° 21' 38"
R	= 305.000m
LS	= 75.00m
LC	= 33.38m
ES	= 5.659m
TS	= 92.407m
V	= 80 km/h
e	= 7.00%

Curve No.:	
HIP CH: 7797.32	
N	= 2728231.7654
E	= 340928.1274
Δ	= 2° 16' 51"
R	= 3000.000m
LS	= 77m
LC	= 119.42m
ES	= 77m
TS	= 77m
V	= 100 km/h
e	= 2.50%



STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 7+830	DESIGN CH: 7+838
EX CH: -	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X900	1x1200mm

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
7+000	347.091	351.382	-4.291	351.019	[illegible]
7+010	347.490	352.866	-5.376	351.426	[illegible]
7+020	347.888	353.616	-5.728	352.185	[illegible]
7+030	348.287	354.092	-5.806	353.015	[illegible]
7+040	348.695	354.539	-5.853	353.557	[illegible]
7+050	349.084	354.948	-5.864	353.961	[illegible]
7+060	349.483	355.374	-5.892	354.557	[illegible]
7+070	349.881	355.822	-5.941	354.998	[illegible]
7+080	350.280	356.320	-6.040	355.319	[illegible]
7+090	350.678	356.796	-6.118	355.606	[illegible]
7+100	351.077	357.260	-6.183	356.161	[illegible]
7+110	351.475	357.747	-6.271	356.739	[illegible]
7+120	351.874	358.308	-6.434	357.421	[illegible]
7+130	352.273	358.936	-6.663	358.091	[illegible]
7+140	352.671	359.574	-6.903	358.671	[illegible]
7+150	353.070	360.189	-7.119	359.563	[illegible]
7+160	353.469	360.720	-7.251	360.551	[illegible]
7+170	353.867	361.307	-7.440	360.220	[illegible]
7+180	354.266	361.947	-7.681	360.574	[illegible]
7+190	354.664	362.484	-7.819	361.269	[illegible]
7+200	355.063	362.945	-7.882	361.704	[illegible]
7+210	355.461	363.313	-7.852	362.436	[illegible]
7+220	355.860	363.635	-7.775	363.031	[illegible]
7+230	356.259	363.907	-7.649	363.432	[illegible]
7+240	356.657	364.173	-7.516	363.504	[illegible]
7+250	357.056	364.427	-7.371	363.804	[illegible]
7+260	357.454	364.683	-7.229	364.133	[illegible]
7+270	357.853	364.940	-7.087	364.150	[illegible]
7+280	358.251	365.183	-6.931	364.036	[illegible]
7+290	358.650	365.412	-6.762	364.452	[illegible]
7+300	359.049	365.645	-6.596	364.727	[illegible]
7+310	359.447	365.876	-6.431	365.349	[illegible]
7+320	359.846	366.113	-6.268	365.023	[illegible]
7+330	360.244	366.414	-6.170	365.035	[illegible]
7+340	360.643	366.743	-6.100	365.240	[illegible]
7+350	361.042	367.118	-6.076	365.913	[illegible]
7+360	361.440	367.489	-6.049	366.122	[illegible]
7+370	361.839	367.891	-6.052	366.254	[illegible]
7+380	362.237	368.297	-6.060	366.756	[illegible]
7+390	362.636	368.690	-6.054	367.413	[illegible]
7+400	363.035	369.102	-6.067	367.906	[illegible]
7+410	363.433	369.508	-6.075	367.653	[illegible]
7+420	363.832	369.892	-6.060	368.972	[illegible]
7+430	364.230	370.205	-5.975	369.203	[illegible]
7+440	364.621	370.414	-5.793	369.798	[illegible]
7+450	364.997	370.658	-5.661	370.376	[illegible]
7+460	365.359	370.884	-5.526	370.879	[illegible]
7+470	365.707	371.052	-5.346	371.056	[illegible]
7+480	366.040	371.181	-5.141	370.974	[illegible]
7+490	366.359	371.272	-4.913	370.845	[illegible]
7+500	366.664	371.302	-4.638	370.199	[illegible]
7+510	366.954	371.285	-4.331	370.545	[illegible]
7+520	367.231	371.213	-3.992	370.400	[illegible]
7+530	367.493	371.128	-3.635	370.029	[illegible]
7+540	367.740	371.042	-3.301	370.091	[illegible]
7+550	367.974	370.956	-2.981	369.836	[illegible]
7+560	368.193	370.890	-2.697	369.594	[illegible]
7+570	368.398	370.797	-2.399	369.711	[illegible]
7+580	368.589	370.704	-2.115	369.594	[illegible]
7+590	368.765	370.614	-1.849	369.559	[illegible]
7+600	368.927	370.506	-1.579	369.420	[illegible]
7+610	369.075	370.417	-1.342	369.302	[illegible]
7+620	369.208	370.326	-1.118	368.347	[illegible]
7+630	369.327	370.242	-0.915	368.789	[illegible]
7+640	369.432	370.159	-0.727	368.977	[illegible]
7+650	369.523	370.062	-0.539	369.127	[illegible]
7+660	369.599	369.990	-0.391	369.097	[illegible]
7+670	369.661	369.895	-0.235	368.919	[illegible]
7+680	369.703	369.799	-0.096	368.686	[illegible]
7+690	369.743	369.782	0.039	368.693	[illegible]
7+700	369.762	369.602	0.160	368.651	[illegible]
7+710	369.767	369.502	0.264	368.629	[illegible]
7+720	369.758	369.414	0.344	368.372	[illegible]
7+730	369.734	369.304	0.430	368.136	[illegible]
7+740	369.696	369.182	0.514	368.355	[illegible]
7+750	369.644	369.064	0.580	367.993	[illegible]
7+760	369.577	368.960	0.618	367.922	[illegible]
7+770	369.497	368.842	0.655	367.893	[illegible]
7+780	369.410	368.710	0.700	367.693	[illegible]
7+790	369.323	368.596	0.727	367.572	[illegible]
7+800	369.236	368.491	0.745	367.514	[illegible]
7+810	369.149	368.400	0.749	367.651	[illegible]
7+820	369.062	368.313	0.749	367.377	[illegible]
7+830	368.975	368.238	0.737	367.165	[illegible]
7+840	368.888	368.188	0.701	367.054	[illegible]
7+850	368.802	368.143	0.659	367.077	[illegible]
7+860	368.715	368.092	0.623	367.099	[illegible]
7+870	368.628	368.041	0.587	367.241	[illegible]
7+880	368.541	367.992	0.549	367.042	[illegible]
7+890	368.454	367.929	0.525	366.993	[illegible]
7+900	368.367	367.851	0.516	367.012	[illegible]
7+910	368.275	367.766	0.510	366.851	[illegible]
7+920	368.176	367.693	0.483	366.781	[illegible]
7+930	368.069	367.609	0.460	368.614	[illegible]
7+940	367.953	367.504	0.450	366.573	[illegible]
7+950	367.830	367.396	0.434	366.560	[illegible]
7+960	367.700	367.278	0.421	366.419	[illegible]
7+970	367.561	367.133	0.428	366.303	[illegible]
7+980	367.414	366.995	0.419	366.027	[illegible]
7+990	367.260	366.833	0.427	365.819	[illegible]
8+000	367.088	366.680	0.408	365.654	[illegible]

Vertical Alignment: Lc=340.00m; L=129.82m G=-0.87%; Lc=120.00m

Horizontal Alignment: R=1200.00m Lc=182.28m; Ls=40.00m; L=161.52m; Ls=75.00m; R=305.00m Lc=33.38m; Ls=72.00m; L=193.66m; R=3000.00m Lc=119.42m; L=261.42m

Superelevation: 7+169.04 -3.70%; 7+182.04; 7+200.04; 7+236.04 -2.50%; 7+330.77 -2.50%; 7+360.56; 7+387.34; 7+435.96 7.00%; 7+468.94 7.00%; 7+517.16; 7+549.94; 7+570.73 -2.50%

Chainage: 7+000 … 8+000

REV.	DESCRIPTION OF REVISIONS	DATE
R.2	AS PER CENTER LINE CHANG	07-01-2025
R.3	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 23, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.) 462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, F-5 1403 Valley View Estate, Gurugram Faridabad Road Gurugram Haryana 122002, M-9873658396, Email - khannagoyaldesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

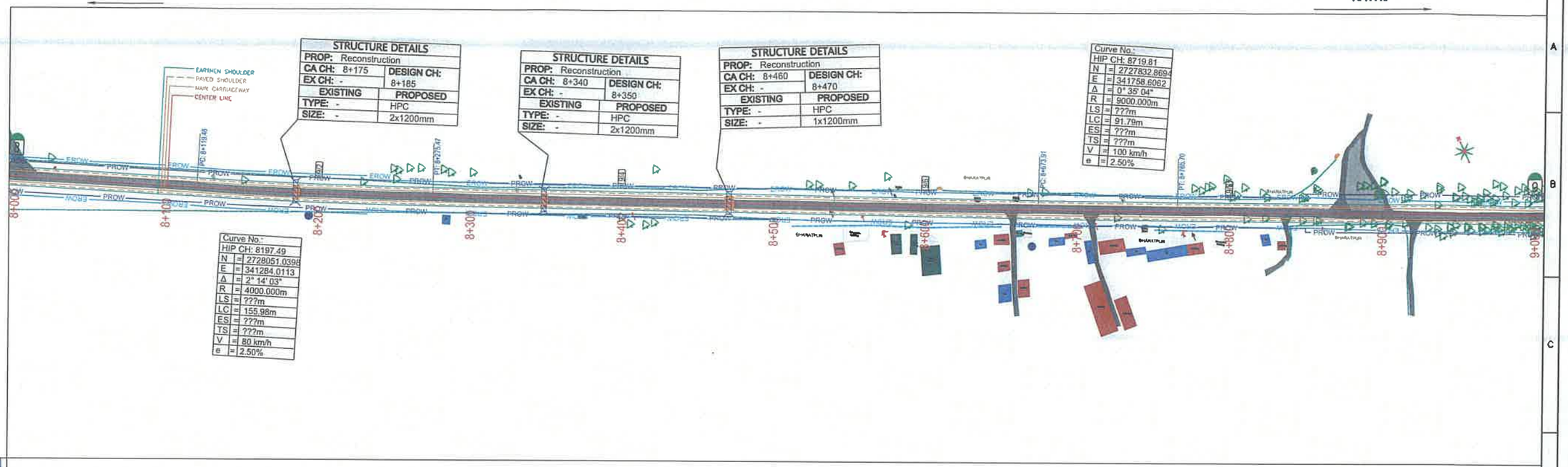
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	7+000 TO 8+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec 2024	SCALE:	DRAWING NO.:	SHEET NO.: 08 TO 42 — REV. 02

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	



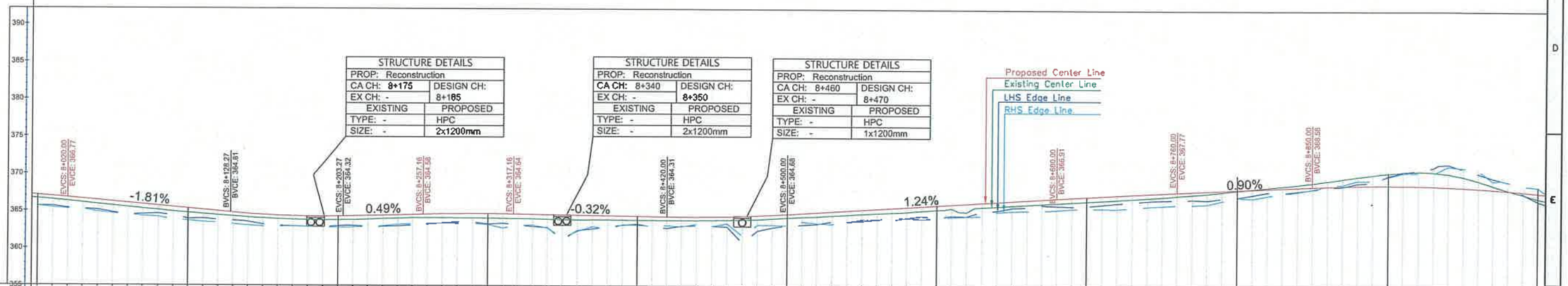
STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 8+175	DESIGN CH: 8+185
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 8+340	DESIGN CH: 8+350
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 8+460	DESIGN CH: 8+470
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

Curve No.:	
HIP CH: 8719.81	
N	= 2727832.8694
E	= 341758.6062
Δ	= 0° 35' 04"
R	= 9000.000m
LS	= ???m
LC	= 91.79m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= 2.50%

Curve No.:	
HIP CH: 8197.49	
N	= 2728051.0398
E	= 341284.0113
Δ	= 2° 14' 03"
R	= 4000.000m
LS	= ???m
LC	= 155.98m
ES	= ???m
TS	= ???m
V	= 80 km/h
e	= 2.50%



STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 8+175	DESIGN CH: 8+185
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 8+340	DESIGN CH: 8+350
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 8+460	DESIGN CH: 8+470
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

LEVELS DATUM 355.00

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
8+000	367.115	366.642	0.473	365.618	365.618
8+010	366.946	366.481	0.464	365.618	365.407
8+020	366.769	366.287	0.482	365.336	365.236
8+030	366.588	366.082	0.506	365.236	365.185
8+040	366.407	365.880	0.527	365.120	364.827
8+050	366.226	365.680	0.546	364.738	364.627
8+060	366.045	365.471	0.573	364.485	364.475
8+070	365.864	365.286	0.578	364.523	364.274
8+080	365.683	365.102	0.580	364.630	364.191
8+090	365.502	364.901	0.600	364.331	363.791
8+100	365.321	364.740	0.580	363.930	363.693
8+110	365.140	364.582	0.558	363.956	363.506
8+120	364.959	364.430	0.529	363.794	363.389
8+130	364.778	364.295	0.483	363.691	363.204
8+140	364.618	364.125	0.493	363.523	363.041
8+150	364.469	364.023	0.465	363.215	362.925
8+160	364.369	363.923	0.466	363.034	362.907
8+170	364.321	363.852	0.469	362.942	362.959
8+180	364.284	363.789	0.495	362.889	362.683
8+190	364.277	363.764	0.513	362.862	362.797
8+200	364.301	363.799	0.502	362.903	362.791
8+210	364.349	363.815	0.534	363.019	362.813
8+220	364.399	363.887	0.512	362.920	362.860
8+230	364.448	363.984	0.464	362.932	363.023
8+240	364.499	364.039	0.459	363.003	363.206
8+250	364.547	364.101	0.446	363.129	363.284
8+260	364.596	364.113	0.483	363.263	363.348
8+270	364.635	364.102	0.533	363.416	363.391
8+280	364.660	364.098	0.562	363.567	363.320
8+290	364.672	364.093	0.579	363.538	363.320
8+300	364.671	364.063	0.608	363.288	363.196
8+310	364.655	364.039	0.616	363.383	362.737
8+320	364.627	364.005	0.622	363.149	363.138
8+330	364.596	363.985	0.610	362.949	363.149
8+340	364.564	363.932	0.632	362.822	362.762
8+350	364.533	363.891	0.642	362.842	361.442
8+360	364.501	363.869	0.632	362.442	362.342
8+370	364.470	363.884	0.586	362.681	362.977
8+380	364.438	363.879	0.559	362.944	362.854
8+390	364.407	363.857	0.550	363.170	363.217
8+400	364.375	363.835	0.540	363.314	363.177
8+410	364.344	363.834	0.510	362.964	363.073
8+420	364.312	363.822	0.490	362.773	363.137
8+430	364.290	363.812	0.479	363.062	362.977
8+440	364.288	363.820	0.468	363.121	363.337
8+450	364.305	363.845	0.460	363.062	363.050
8+460	364.342	363.875	0.467	362.973	363.411
8+470	364.398	363.900	0.498	360.842	361.765
8+480	364.473	363.961	0.512	362.437	363.221
8+490	364.568	364.075	0.493	362.873	363.221
8+500	364.682	364.205	0.478	363.142	363.142
8+510	364.806	364.298	0.509	363.243	363.665
8+520	364.930	364.384	0.546	363.370	363.465
8+530	365.054	364.495	0.560	363.710	363.365
8+540	365.178	364.622	0.557	363.705	363.710
8+550	365.302	364.745	0.557	363.813	364.010
8+560	365.426	364.844	0.582	364.010	364.021
8+570	365.550	364.936	0.613	363.965	364.312
8+580	365.674	365.040	0.634	364.269	364.203
8+590	365.798	365.217	0.581	364.510	364.103
8+600	365.922	365.347	0.576	364.300	364.203
8+610	366.046	365.546	0.500	364.545	364.395
8+620	366.170	365.077	1.094	364.509	364.470
8+630	366.291	365.722	0.573	365.139	364.521
8+640	366.410	365.834	0.584	365.259	365.070
8+650	366.542	365.953	0.590	365.659	365.199
8+660	366.669	366.072	0.595	365.724	365.252
8+670	366.790	366.203	0.588	366.048	365.308
8+680	366.914	366.319	0.595	365.939	365.386
8+690	367.036	366.427	0.609	365.890	365.522
8+700	367.154	366.552	0.601	365.919	365.607
8+710	367.257	366.647	0.610	366.114	365.581
8+720	367.376	366.772	0.604	366.309	365.556
8+730	367.481	366.905	0.577	366.477	365.722
8+740	367.582	367.047	0.535	366.645	365.685
8+750	367.679	367.165	0.513	366.719	365.994
8+760	367.771	367.332	0.439	366.757	366.091
8+770	367.861	367.480	0.382	366.820	366.125
8+780	367.951	367.645	0.306	366.765	366.220
8+790	368.041	367.861	0.180	367.014	366.677
8+800	368.132	368.085	0.047	367.140	367.114
8+810	368.222	368.267	-0.045	367.477	367.025
8+820	368.312	368.472	-0.159	367.845	367.400
8+830	368.402	368.657	-0.255	367.756	367.938
8+840	368.492	368.880	-0.388	368.000	367.938
8+850	368.583	369.108	-0.525	369.237	368.277
8+860	368.654	369.370	-0.716	369.556	368.720
8+870	368.726	369.668	-0.942	369.845	369.445
8+880	368.789	369.949	-1.180	369.075	369.457
8+890	368.794	370.212	-1.418	369.220	369.984
8+900	368.800	370.455	-1.654	370.077	370.490
8+910	368.787	370.611	-1.823	370.620	370.445
8+920	368.706	370.700	-1.944	370.500	371.404
8+930	368.637	370.818	-1.911	371.220	371.194
8+940	368.550	370.393	-1.756	371.638	370.694
8+950	368.444	370.002	-1.452	371.030	369.464
8+960	368.319	369.464	-1.020	370.423	369.312
8+970	368.224	368.837	-0.518	369.816	369.331
8+980	368.175	368.224	-0.049	368.273	368.812
8+990	368.014	367.676	0.338	367.736	367.642
9+000	367.833	367.125	0.708	367.787	368.642

Vertical Alignment: L=108.27m G=1.81% | Lc=75.00m | L=63.89m G=0.49% | Lc=60.00m | L=102.84m G=0.32% | Lc=50.00m | L=180.00m G=1.24% | Lc=80.00m | L=90.00m G=0.90% | Lc=160.00m

Horizontal Alignment: Rc=4000.00m Lc=155.98m | L=398.44m | Rc=9000.00m Lc=91.79m | L=293.71m

Superelevation: 9+091.91

Chainage: 8+000 … 9+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Kamaja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-8, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Royal Designers LLP, F-5 1483 Valley View Estate, Gurugram Faridabad Road, Gurugram Haryana-122003, M-9873658396, Email – khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

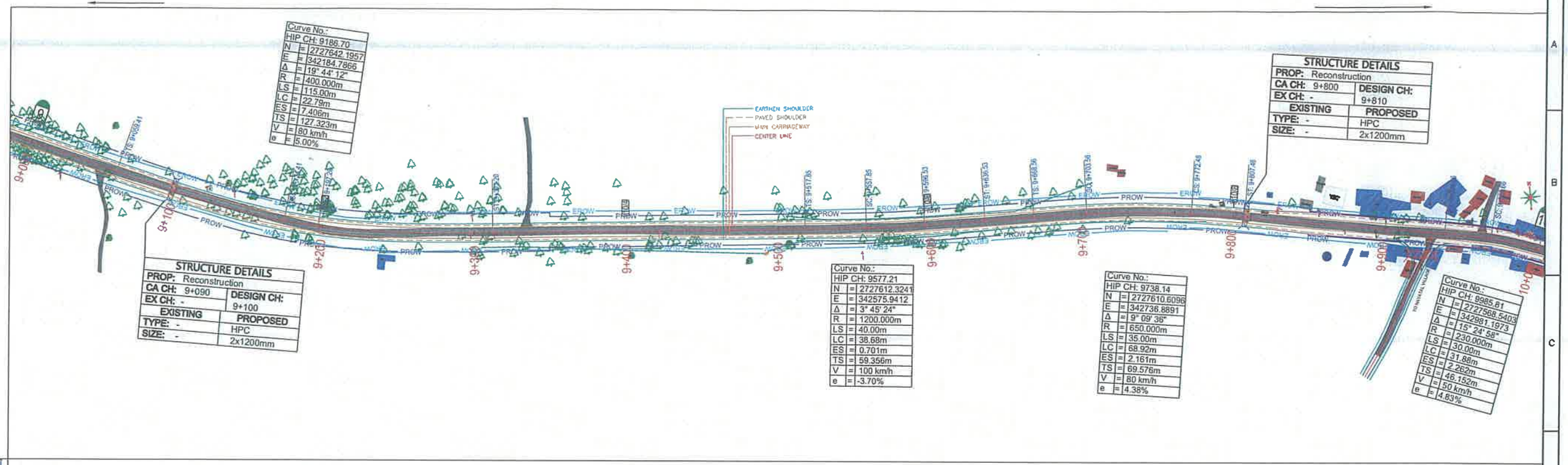
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE:	PLAN & PROFILE	Chainage	8+000 TO 9+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec 2024	SCALE:	DRAWING NO.:	SHEET NO.: 09 TO 42 — REV. 01

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	



Curve No.:	
HIP CH: 9186.70	
N	= 2727642.1957
E	= 342184.7866
Δ	= 19° 44' 12"
R	= 400.000m
LS	= 115.00m
LC	= 22.79m
ES	= 7.406m
TS	= 127.323m
V	= 80 km/h
e	= 5.00%

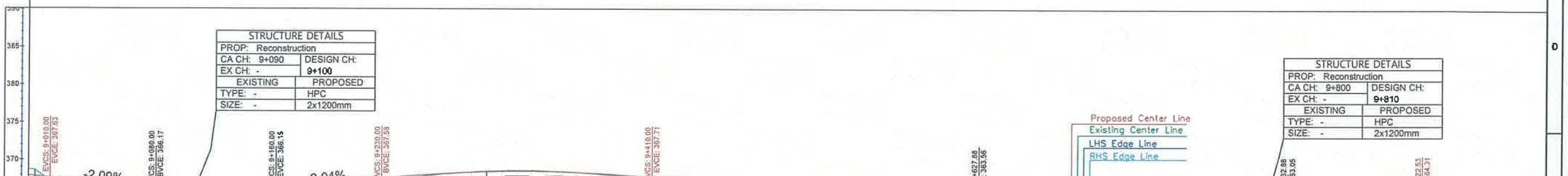
STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 9+090	DESIGN CH: 9+100
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2x1200mm

Curve No.:	
HIP CH: 9577.21	
N	= 2727612.3241
E	= 342575.9412
Δ	= 3° 45' 24"
R	= 1200.000m
LS	= 40.00m
LC	= 38.68m
ES	= 0.701m
TS	= 59.356m
V	= 100 km/h
e	= -3.70%

Curve No.:	
HIP CH: 9738.14	
N	= 2727610.6096
E	= 342738.8891
Δ	= 9° 09' 36"
R	= 650.000m
LS	= 35.00m
LC	= 68.92m
ES	= 2.161m
TS	= 69.576m
V	= 80 km/h
e	= 4.38%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 9+800	DESIGN CH: 9+810
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2x1200mm

Curve No.:	
HIP CH: 9985.81	
N	= 2727568.5403
E	= 342981.1973
Δ	= 15° 24' 58"
R	= 230.000m
LS	= 30.00m
LC	= 31.88m
ES	= 2.268m
TS	= 46.152m
V	= 50 km/h
e	= 4.63%



STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 9+090	DESIGN CH: 9+100
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 9+800	DESIGN CH: 9+810
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2x1200mm

LEVELS DATUM 353.00

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
9+000	367.833	367.125	0.708	366.797	368.642
9+010	367.633	366.608	1.025	366.062	367.162
9+020	367.425	366.132	1.293	365.487	366.436
9+030	367.216	365.702	1.514	365.467	365.542
9+040	367.007	365.316	1.691	365.532	365.336
9+050	366.798	364.981	1.816	364.655	364.653
9+060	366.589	364.747	1.842	363.658	364.351
9+070	366.380	364.529	1.852	363.081	363.224
9+080	366.171	364.387	1.785	362.721	362.675
9+090	365.968	364.300	1.669	362.471	362.567
9+100	365.857	364.334	1.523	362.627	362.611
9+110	365.777	364.427	1.351	363.374	362.839
9+120	365.749	364.569	1.180	363.723	362.771
9+130	365.773	364.744	1.029	364.018	362.938
9+140	365.846	365.002	0.846	364.313	363.064
9+150	365.975	365.282	0.693	364.504	363.525
9+160	366.153	365.506	0.647	364.706	364.494
9+170	366.358	365.753	0.605	364.802	365.509
9+180	366.562	365.991	0.571	364.913	365.957
9+190	366.766	366.226	0.541	365.128	366.201
9+200	366.971	366.479	0.492	365.412	366.395
9+210	367.175	366.706	0.469	365.397	366.809
9+220	367.380	366.873	0.507	365.622	366.993
9+230	367.584	367.171	0.412	366.148	367.118
9+240	367.777	367.450	0.327	366.541	367.204
9+250	367.949	367.728	0.221	367.016	367.309
9+260	368.096	368.162	0.064	367.291	367.212
9+270	368.226	368.305	0.027	367.568	367.210
9+280	368.331	368.440	-0.024	367.631	367.462
9+290	368.415	368.477	-0.053		
9+300	368.517	368.596	-0.079	367.901	367.807
9+310	368.534	368.633	-0.099	367.804	367.907
9+320	368.530	368.631	-0.101	367.802	367.902
9+330	368.504	368.559	-0.055	367.602	367.907
9+340	368.456	368.473	-0.017	367.454	367.354
9+350	368.387	368.372	0.015	367.476	367.476
9+360	368.295	368.235	0.059	368.754	367.223
9+370	368.181	368.071	0.110	367.254	366.993
9+380	368.045	367.900	0.145	366.933	366.998
9+390	367.858	367.715	0.172	366.728	366.698
9+400	367.708	367.488	0.220	366.698	366.718
9+410	367.577	367.280	0.238	366.518	366.592
9+420	367.327	367.089	0.238	365.998	366.151
9+430	367.138	366.883	0.253	365.691	365.943
9+440	366.946	366.675	0.270	365.633	365.692
9+450	366.755	366.448	0.307	365.292	365.592
9+460	366.565	366.238	0.326	365.010	365.255
9+470	366.374	366.019	0.355	364.568	365.204
9+480	366.184	365.825	0.359	364.592	364.904
9+490	365.993	365.635	0.358	364.255	364.667
9+500	365.803	365.227	0.385	364.110	364.469
9+510	365.612	364.993	0.428	363.640	364.325
9+520	365.422	364.762	0.469	363.581	363.912
9+530	365.231	364.541	0.499	363.531	
9+540	365.040	364.524	0.516		363.308
9+550	364.850	364.334	0.516	363.202	362.926
9+560	364.659	364.128	0.532	363.090	362.794
9+570	364.469	363.953	0.516	362.698	362.669
9+580	364.278	363.740	0.538	362.474	362.391
9+590	364.088	363.542	0.546	362.271	362.275
9+600	363.897	363.363	0.534	362.136	362.119
9+610	363.707	363.617	0.090	361.994	
9+620	363.517	363.060	0.457		361.898
9+630	363.337	362.938	0.399	361.570	361.543
9+640	363.175	362.820	0.354	361.538	361.797
9+650	363.028	362.708	0.319	361.287	361.391
9+660	362.897	362.621	0.276	361.051	361.286
9+670	362.783	362.544	0.239	361.188	361.253
9+680	362.685	362.499	0.187	360.889	361.125
9+690	362.603	362.454	0.150	360.698	
9+700		362.300	0.154		360.724
9+710	362.537	362.346	0.190	360.525	360.461
9+720	362.488	362.254	0.234	360.323	360.674
9+730	362.454	362.146	0.308	360.190	360.551
9+740	362.437	362.129	0.308	360.530	360.271
9+750	362.436	362.040	0.396	360.640	360.319
9+760	362.462	361.953	0.509	360.665	360.306
9+770	362.530	361.928	0.602	360.620	360.545
9+780	362.593	361.753	0.840	360.717	360.731
9+790	362.673	361.655	1.018	360.731	
9+800	362.759	361.625	1.144	360.623	360.250
9+810	362.881	361.661	1.221	360.698	360.479
9+820	363.010	361.690	1.320	360.483	360.728
9+830	363.150	361.746	1.405	360.723	360.728
9+840	363.291	361.810	1.482	360.900	360.920
9+850	363.432	361.890	1.542	361.480	360.973
9+860	363.573	361.975	1.598	360.717	361.016
9+870	363.714	362.115	1.599	361.070	361.661
9+880	363.855	362.320	1.536	361.217	361.963
9+890	363.996	362.649	1.347	361.365	361.638
9+900	364.138	363.126	1.012	361.317	362.938
9+910	364.279	363.628	0.651	361.753	363.521
9+920	364.413	364.132	0.281	364.244	363.836
9+930	364.524	364.502	0.022	362.725	363.978
9+940	364.611	364.771	-0.160	363.072	364.623
9+950	364.674	364.960	-0.286	364.123	364.884
9+960	364.714	365.040	-0.326	364.870	364.895
9+970	364.729	364.906	-0.177	364.582	364.860
9+980	364.720	364.752	-0.033	364.130	364.861
9+990	364.687	364.608	0.079	363.740	364.664
10+000					

Vertical Alignment: L=70.00m G=-2.09% | Lc=60.00m | L=70.00m G=2.04% | Lc=180.00m | L=217.88m G=-1.91% | Lc=205.00m | L=89.66m G=1.41% | Lc=150.0

Horizontal Alignment: Lc=115.00m | Rc=400.00m Lc=22.79m | Lc=115.00m | L=205.85m | Lc=40.00m | Rc=1200.00m Lc=38.68m | Lc=40.00m | L=32.03m | Lc=35.00m | Rc=650.00m Lc=68.92m | Lc=30.00m | L=132.18m | Lc=30.00m | Rc=230.00m Lc=31.88m

Superelevation: 9+001.91 -2.50% | 9+059.41 | 9+111.91 | 9+174.41 -5.00% | 9+197.29 -5.00% | 9+224.70 | 9+312.20 | 9+369.70 -2.50% | 9+460.86 -2.50% | 9+517.85 | 9+564.85 | 9+577.85 -3.70% | 9+566.53 -3.70% | 9+703.95 -4.38% | 9+772.48 4.38% | 9+747.48 | 9+807.48 | 9+877.47 -2.50% | 9+954.13 -2.50% | 9+939.69 | 9+995.18 | 9+999.69 4.63% | 10+001.54

Chainage: 9+000 … 10+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Hamraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, S 1403 Valley View Estate, Gurugram-Faridabad Road, Gurugram, Haryana-122003, M-9873858396, Email khannagoyalgmail@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

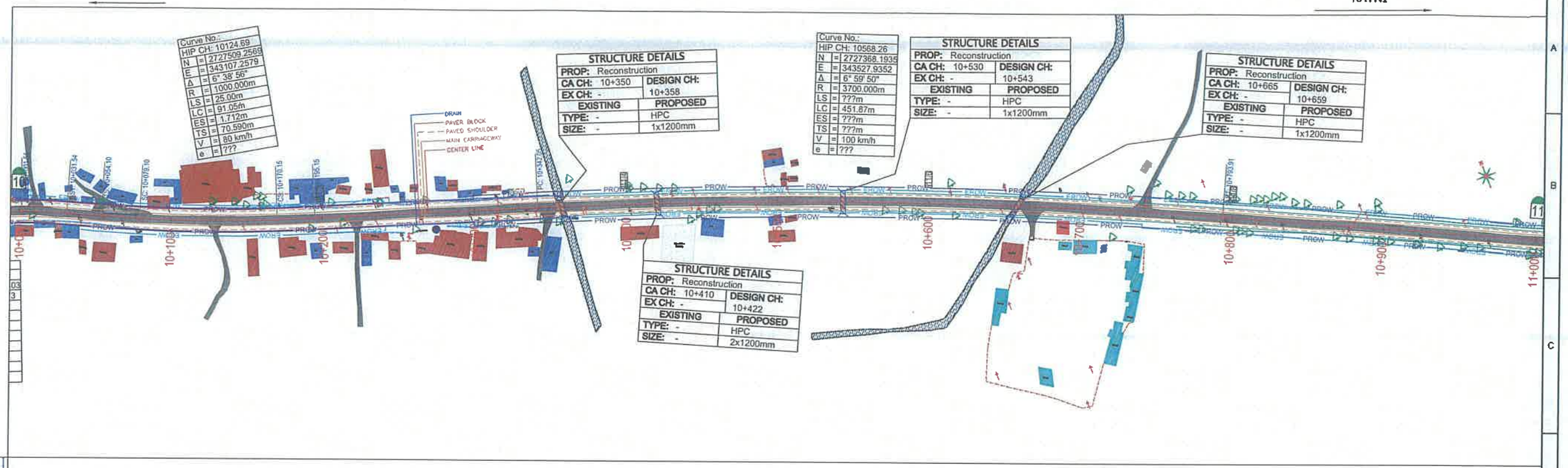
TITLE:	PLAN & PROFILE	Chainage	9+000 TO 10+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec 2024	SCALE:	DRAWING NO.:	SHEET NO.: 10 TO 42 — REV. 01

GULGANJ

KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	



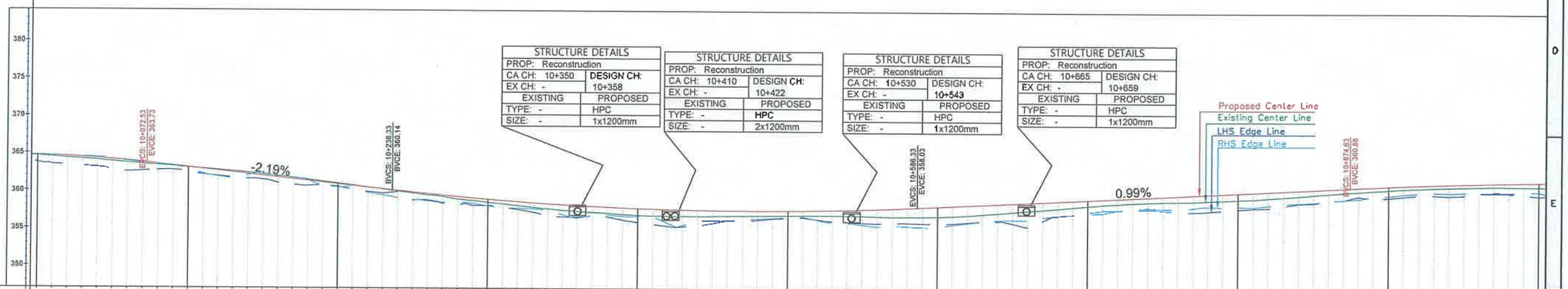
STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 10+350 | DESIGN CH: 10+358
EX CH: -
EXISTING: TYPE: - | SIZE: -
PROPOSED: HPC | 1x1200mm

STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 10+410 | DESIGN CH: 10+422
EX CH: -
EXISTING: TYPE: - | SIZE: -
PROPOSED: HPC | 2x1200mm

Curve No.:
HIP CH: 10568.26
N = 2727368.1935
E = 343527.9352
Δ = 6° 59' 50"
R = 3700.000m
LS = ???m
LC = 451.87m
ES = ???m
TS = ???m
V = 100 km/h
e = ???

STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 10+530 | DESIGN CH: 10+543
EX CH: -
EXISTING: TYPE: - | SIZE: -
PROPOSED: HPC | 1x1200mm

STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 10+665 | DESIGN CH: 10+659
EX CH: -
EXISTING: TYPE: - | SIZE: -
PROPOSED: HPC | 1x1200mm



STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 10+350 | DESIGN CH: 10+358
EX CH: -
EXISTING: TYPE: - | SIZE: -
PROPOSED: HPC | 1x1200mm

STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 10+410 | DESIGN CH: 10+422
EX CH: -
EXISTING: TYPE: - | SIZE: -
PROPOSED: HPC | 2x1200mm

STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 10+530 | DESIGN CH: 10+543
EX CH: -
EXISTING: TYPE: - | SIZE: -
PROPOSED: HPC | 1x1200mm

STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 10+665 | DESIGN CH: 10+659
EX CH: -
EXISTING: TYPE: - | SIZE: -
PROPOSED: HPC | 1x1200mm

Proposed: 364.687 364.630 364.549 364.444 364.315 364.162 363.985 363.784 363.566 363.347 363.128 362.909 362.690 362.471 362.252 362.033 361.814 361.595 361.376 361.156 360.937 360.718 360.499 360.280 360.062 359.851 359.649 359.464 359.272 359.098 358.931 358.774 358.627 358.489 358.358 358.238 358.127 358.024 357.931 357.847 357.772 357.706 357.649 357.601 357.563 357.533 357.512 357.501 357.490 357.505 357.521 357.545 357.579 357.622 357.674 357.735 357.805 357.873 357.948 358.070 358.198 358.267 358.385 358.464 358.503 358.661 358.760 358.858 358.957 359.056 359.154 359.253 359.351 359.450 359.548 359.647 359.746 359.844 359.943 360.041 360.140 360.239 360.337 360.435 360.534 360.633 360.731 360.830 360.928 361.021 361.109 361.192 361.270 361.342 361.409 361.471 361.526 361.580 361.627 361.668 361.704

Ground Level: 364.606 364.489 364.338 364.206 364.066 363.872 363.712 363.546 363.414 363.262 363.091 362.920 362.770 362.604 362.431 362.213 361.996 361.772 361.514 361.264 361.010 360.757 360.507 360.243 359.972 359.721 359.464 359.272 359.098 358.931 358.816 358.100 357.878 357.699 357.496 357.358 357.231 357.114 356.984 356.836 356.917 356.928 356.932 356.879 356.826 356.789 356.792 356.835 356.902 357.030 357.185 357.339 357.508 357.673 357.841 358.012 358.187 358.366 358.531 358.673 358.797 358.892 358.944 358.907 359.014 359.095 359.179 359.273 359.353 359.484 359.643 359.784 359.947 360.114 360.253 360.380 360.518 360.646 360.776 360.936 360.999 361.055 361.116 361.150 361.143 361.135 361.122

Lw Diff (+/-): 0.079 0.141 0.211 0.239 0.255 0.290 0.273 0.238 0.152 0.085 0.037 -0.011 -0.060 -0.133 -0.179 -0.180 -0.182 -0.177 -0.139 -0.108 -0.073 -0.039 -0.006 0.037 0.089 0.129 0.185 0.183 0.333 0.366 0.405 0.458 0.526 0.609 0.669 0.742 0.769 0.793 0.817 0.863 0.899 0.905 0.857 0.818 0.752 0.704 0.662 0.647 0.648 0.624 0.628 0.653 0.690 0.771 0.656 0.979 1.099 1.183 1.278 1.333 1.364 1.338 1.279 1.223 1.153 1.086 1.017 0.945 0.868 0.788 0.721 0.678 0.653 0.657 0.703 0.779 0.830 0.848 0.883 0.867 0.896 0.854 0.793 0.751 0.688 0.617 0.578 0.545 0.503 0.464 0.416 0.404 0.407 0.414 0.417 0.413 0.430 0.464 0.532 0.582

Ground Level Left @ 9.0m: 363.740 363.461 353.124 352.544 352.528 352.619 352.735 352.745 352.402 352.159 351.952 351.747 351.603 351.481 351.044 350.799 350.592 350.591 350.141 349.891 349.685 349.893 359.766 356.702 358.366 358.211 358.101 358.083 357.871 357.501 357.231 356.798 358.620 358.622 358.732 358.619 358.232 358.931 358.658 355.413 355.350 355.530 355.841 356.169 356.203 356.292 356.459 356.567 356.682 356.633 356.380 358.176 356.052 355.969 355.720 355.907 355.955 355.908 355.912 355.942 356.099 356.221 358.276 355.978 355.501 356.383 357.035 357.214 357.446 357.708 357.754 357.799 357.851 357.755 357.905 357.671 357.693 357.839 357.978 358.140 358.178 358.471 358.814 358.855 359.179 359.276 359.445 359.773 359.453 359.592 360.065 360.752 359.963 359.865 360.333 360.264 360.106 359.852 360.504

Ground Level Right @ 9.0m: 364.564 364.842 353.400 352.295 352.926 352.555 352.316 352.646 352.282 351.893 351.714 352.120 352.253 351.909 351.716 351.411 350.476 350.583 359.731 359.426 359.092 358.811 358.866 358.476 358.502 358.351 358.041 357.611 357.756 357.695 357.521 356.927 358.474 358.810 356.910 356.727 356.739 356.697 355.830 355.545 355.040 356.189 355.477 355.368 355.509 355.759 356.001 356.219 356.392 356.450 356.451 356.794 357.067 357.196 357.276 357.329 357.727 358.018 358.042 357.905 358.166 358.345 358.280 358.375 358.298 358.530 358.775 358.857 358.945 359.165 359.297 359.445 359.739 359.853 360.065 360.333 360.264 360.433 360.364 360.333 360.504

Vertical Alignment: 0.00m | L=183.79m G=-2.19% | Lc=350.00m | L=268.30m G=0.99% | Lc=250

Horizontal Alignment: L=30.00m | L=22.56m | Ls=26.00m | Rc=1000.00m Lc=91.05m | Ls=25.00m | L=146.89m | Rc=3700.00m Lc=451.87m | L=375.26m

Superelevation: 10+001.54 4.48% | 10+079.10 2.44% | 10+170.15 | 10+216.48 | 10+255.15 | 10+317.13 2.50%

Chainage: 10+000 10+010 10+020 10+030 10+040 10+050 10+060 10+070 10+080 10+090 10+100 10+110 10+120 10+130 10+140 10+150 10+160 10+170 10+180 10+190 10+200 10+210 10+220 10+230 10+240 10+250 10+260 10+270 10+280 10+290 10+300 10+310 10+320 10+330 10+340 10+350 10+360 10+370 10+380 10+390 10+400 10+410 10+420 10+430 10+440 10+450 10+460 10+470 10+480 10+490 10+500 10+510 10+520 10+530 10+540 10+550 10+560 10+570 10+580 10+590 10+600 10+610 10+620 10+630 10+640 10+650 10+660 10+670 10+680 10+690 10+700 10+710 10+720 10+730 10+740 10+750 10+760 10+770 10+780 10+790 10+800 10+810 10+820 10+830 10+840 10+850 10+860 10+870 10+880 10+890 10+900 10+910 10+920 10+930 10+940 10+950 10+960 10+970 10+980 10+990 11+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin-462004

EPC CONTRACTOR:
M/s Ramraja Construction Company,
Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:-+91 (755) 2697600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Royal Designers LLP
H-5 1403 Valley View Estate
Gurugram Faridabad Road, Gurugram Haryana-122003 M-9873858396
Email - khannaroyaldesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE: PLAN & PROFILE | Chainage 10+000 TO 11+000

ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: Dec 2024 | SCALE: | DRAWING NO.: | SHEET NO.: 11 TO 42 | REV. 01

GULGANJ ← | → KATNI

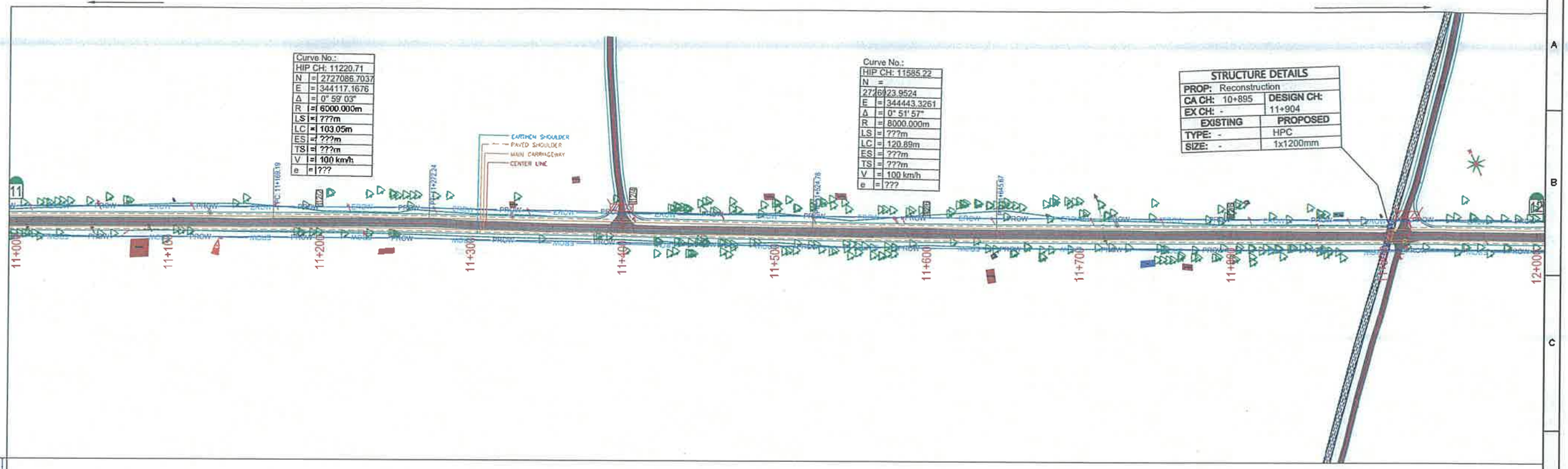
LINE LEGEND

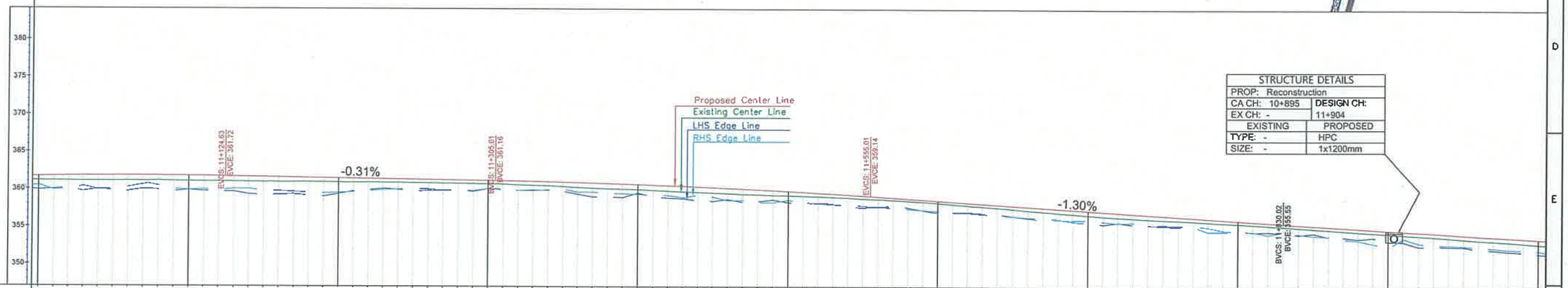
Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	

Curve No.:	
HIP CH: 11220.71	
N	= 2727086.7037
E	= 344117.1676
Δ	= 0° 59' 03"
R	= 6000.000m
LS	= ???m
LC	= 103.05m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= ???

Curve No.:	
HIP CH: 11585.22	
N	= 2726923.9524
E	= 344443.3261
Δ	= 0° 51' 57"
R	= 8000.000m
LS	= ???m
LC	= 120.89m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= ???

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 10+895	DESIGN CH: 11+904
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm





STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 10+895	DESIGN CH: 11+904
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
11+000	361.704	361.122	0.582	359.892	360.504
11+010	361.735	361.104	0.631	359.985	359.868
11+020	361.761	361.102	0.658	360.109	359.971
11+030	361.782	361.086	0.695	360.092	360.343
11+040	361.797	361.083	0.714	359.978	359.784
11+050	361.807	361.091	0.717	359.931	360.231
11+060	361.812	361.102	0.711	359.694	360.604
11+070	361.812	361.097	0.715	360.011	360.431
11+080	361.807	361.123	0.684	359.901	359.998
11+090	361.796	361.089	0.707	359.694	359.894
11+100	361.781	361.051	0.730	359.694	359.955
11+110	361.760	361.043	0.717	359.735	359.838
11+120	361.734	361.027	0.707	359.649	359.838
11+130	361.703	361.021	0.683	359.668	360.030
11+140	361.672	360.992	0.680	359.316	360.040
11+150	361.641	360.974	0.667	359.252	359.742
11+160	361.610	360.974	0.636	359.252	359.762
11+170	361.579	360.970	0.609	359.340	359.653
11+180	361.546	360.981	0.567	359.190	359.557
11+190	361.517	360.961	0.556	359.031	359.464
11+200	361.486	360.948	0.538	359.391	359.545
11+210	361.455	360.909	0.546	359.750	359.627
11+220	361.424	360.932	0.492	359.925	359.773
11+230	361.393	360.924	0.469	360.093	359.922
11+240	361.362	360.909	0.453	359.968	360.011
11+250	361.331	360.883	0.448	359.810	360.029
11+260	361.300	360.852	0.448	359.804	360.029
11+270	361.269	360.808	0.461	359.828	359.937
11+280	361.237	360.802	0.435	359.893	359.866
11+290	361.206	360.763	0.443	359.716	359.656
11+300	361.175	360.741	0.434	360.070	360.090
11+310	361.144	360.691	0.453	360.013	359.942
11+320	361.109	360.607	0.501	359.650	359.850
11+330	361.070	360.546	0.523	359.800	359.960
11+340	361.027	360.495	0.531	359.940	359.860
11+350	360.980	360.401	0.578	359.770	360.050
11+360	360.929	360.276	0.653	359.362	359.654
11+370	360.874	359.989	0.885	359.037	359.654
11+380	360.815	360.169	0.646	359.030	359.464
11+390	360.752	360.113	0.702	358.964	359.464
11+400	360.685	360.045	0.707	358.935	359.364
11+410	360.615	360.007	0.679	359.064	359.254
11+420	360.540	359.921	0.694	358.874	359.222
11+430	360.461	359.804	0.735	358.807	358.884
11+440	360.378	359.716	0.745	358.528	358.293
11+450	360.292	359.640	0.738	358.473	358.065
11+460	360.201	359.572	0.719	358.722	358.574
11+470	360.106	359.500	0.700	358.364	358.597
11+480	360.007	359.405	0.701	358.437	358.285
11+490	359.905	359.337	0.670	358.660	358.290
11+500	359.798	359.257	0.647	358.317	358.649
11+510	359.688	359.172	0.516	358.260	358.380
11+520	359.573	359.104	0.469	358.194	358.140
11+530	359.455	359.028	0.427	358.099	358.053
11+540	359.332	358.946	0.386	357.978	357.847
11+550	359.205	358.828	0.377	357.841	357.894
11+560	359.075	358.751	0.324	357.746	357.736
11+570	358.945	358.639	0.306	357.851	357.582
11+580	358.815	358.535	0.280	357.648	357.454
11+590	358.684	358.409	0.275	357.303	357.337
11+600	358.554	358.291	0.273	357.046	357.216
11+610	358.423	358.105	0.318	357.035	357.080
11+620	358.293	357.957	0.335	357.022	356.944
11+630	358.162	357.803	0.360	356.892	356.794
11+640	358.032	357.657	0.374	356.742	356.642
11+650	357.901	357.495	0.406	356.535	356.535
11+660	357.771	357.299	0.471	356.336	356.003
11+670	357.640	357.133	0.507	356.298	356.042
11+680	357.510	356.978	0.532	356.132	355.985
11+690	357.379	356.819	0.560	355.807	356.002
11+700	357.249	356.666	0.583	355.652	355.642
11+710	357.118	356.516	0.602	355.452	355.642
11+720	356.989	356.395	0.593	355.705	355.705
11+730	356.857	356.283	0.574	355.442	355.298
11+740	356.727	356.169	0.557	355.358	355.395
11+750	356.596	356.075	0.521	355.252	355.295
11+760	356.466	355.988	0.477	355.132	355.342
11+770	356.335	355.885	0.450	355.165	355.093
11+780	356.205	355.766	0.439	354.508	354.695
11+790	356.074	355.645	0.429	354.494	354.481
11+800	355.944	355.544	0.399	354.631	354.510
11+810	355.813	355.438	0.375	354.464	354.401
11+820	355.683	355.313	0.369	354.465	354.477
11+830	355.552	355.177	0.375	354.331	354.217
11+840	355.422	355.043	0.379	354.121	353.987
11+850	355.294	354.899	0.394	354.316	353.876
11+860	355.167	354.766	0.400	353.821	353.521
11+870	355.041	354.625	0.416	353.787	353.330
11+880	354.917	354.470	0.447	353.559	352.925
11+890	354.793	354.352	0.441	353.739	352.459
11+900	354.672	354.215	0.457	353.249	353.613
11+910	354.551	354.082	0.469	353.155	352.972
11+920	354.432	353.959	0.473	352.541	352.782
11+930	354.314	353.830	0.484	352.612	352.730
11+940	354.198	353.701	0.497	352.552	352.698
11+950	354.083	353.545	0.537	352.212	352.445
11+960	353.969	353.395	0.574	352.155	352.405
11+970	353.857	353.299	0.558	352.175	352.175
11+980	353.745	353.178	0.567	351.922	352.160
11+990	353.636	353.021	0.615	351.859	352.035
12+000	353.527	352.884	0.643	351.649	

Vertical Alignment: 50.00m | L=180.38m G=-0.31% | Lc=250.00m | L=275.02m G=-1.30% | Lc=250.00m

Horizontal Alignment: Rc=6000.00m Lc=103.05m | L=252.54m | Rc=8000.00m Lc=120.89m | L=538.17m

Superelevation:

Chainage: 11+000 … 12+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Amraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2987600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENAACO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, F-6, 1003 Valley View Estate, Gurugram Faridabad Road, Gurugram, Haryana-122013, M: 9873858396, Email: khannabesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

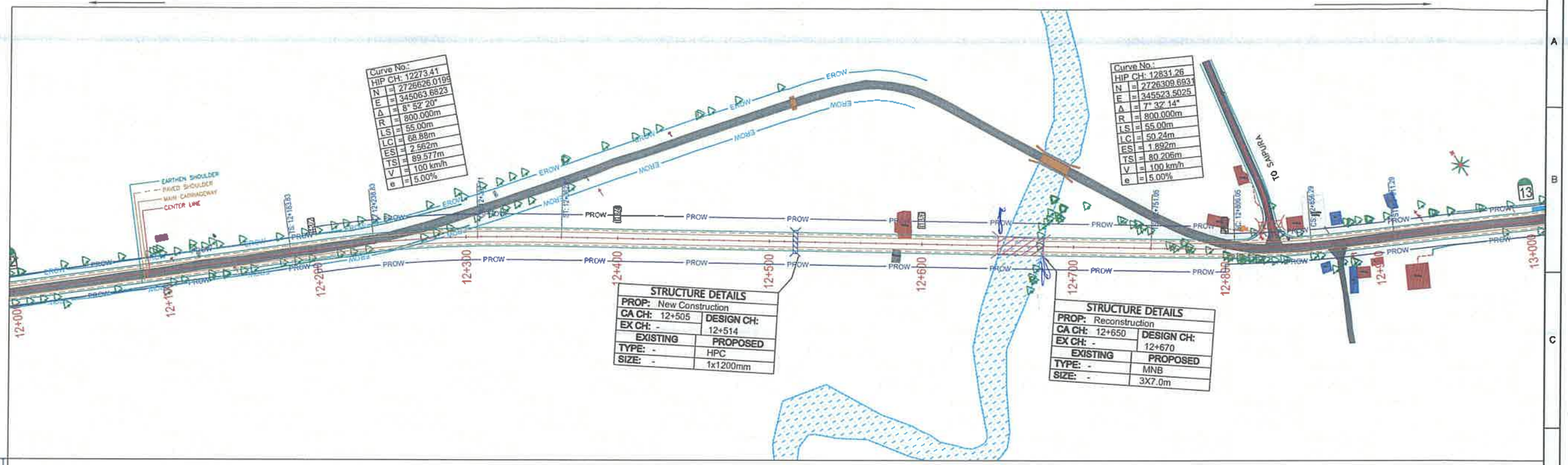
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	11+000 TO 12+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec 2024	SCALE:	DRAWING NO.:	SHEET NO.: 12 TO 42 — REV. 01

GULGANJ → KATNI

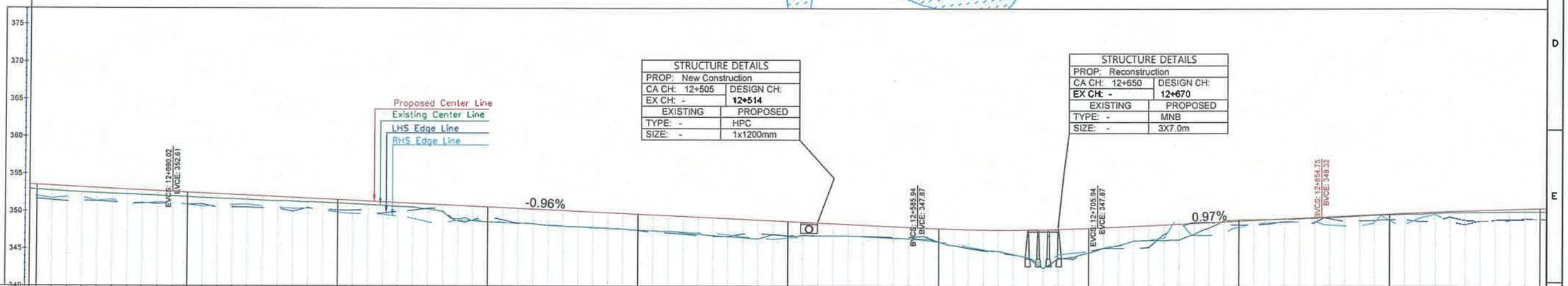
LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW LIne	
PROW	



STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 12+505	DESIGN CH: 12+514
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 12+650	DESIGN CH: 12+670
EX CH: -	
EXISTING	PROPOSED
TYPE: -	MNB
SIZE: -	3X7.0m



STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 12+505	DESIGN CH: 12+514
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 12+650	DESIGN CH: 12+670
EX CH: -	
EXISTING	PROPOSED
TYPE: -	MNB
SIZE: -	3X7.0m

LEVELS DATUM 340.00

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
12+000	353.527	352.884	0.643	351.649	352.035
12+010	353.420	352.752	0.668	351.462	351.712
12+020	353.315	352.633	0.681	351.325	351.915
12+030	353.210	352.525	0.685	351.383	351.845
12+040	353.107	352.417	0.690	351.349	351.410
12+050	353.005	352.364	0.641	351.240	351.549
12+060	352.905	352.180	0.628	351.080	350.945
12+070	352.806	352.090	0.618	351.104	351.004
12+080	352.706	352.099	0.607	350.994	351.204
12+090	352.612	352.004	0.608	351.118	351.194
12+100	352.516	351.904	0.612	350.907	350.894
12+110	352.421	351.803	0.618	350.829	350.635
12+120	352.325	351.725	0.600	350.514	350.760
12+130	352.229	351.638	0.591	350.554	350.850
12+140	352.134	351.545	0.589	350.512	350.903
12+150	352.038	351.453	0.584	350.414	350.659
12+160	351.942	351.370	0.572	350.404	350.495
12+170	351.847	351.332	0.515	349.944	350.367
12+180	351.751	351.236	0.515	350.497	350.404
12+190	351.655	351.177	0.479	350.249	350.143
12+200	351.559	351.085	0.474	350.147	349.864
12+210	351.464	350.990	0.474	350.134	349.684
12+220	351.368	350.884	0.484	350.053	349.645
12+230	351.272	350.783	0.489	349.757	349.567
12+240	351.177	350.617	0.560	350.147	348.019
12+250	351.081	350.559	0.522	350.379	348.543
12+260	350.985	350.301	0.685	350.279	348.405
12+270	350.890	349.978	0.912	348.796	348.778
12+280	350.794	348.966	1.828	348.865	348.816
12+290	350.698	348.729	1.969	349.238	348.777
12+300	350.603	348.596	2.007	348.878	348.549
12+310	350.507	348.498	2.009	348.454	348.377
12+320	350.411	348.456	1.955	348.338	348.450
12+330	350.316	348.361	1.954	348.173	348.116
12+340	350.220	348.133	2.087	348.051	348.024
12+350	350.124	348.014	2.110		
12+360	350.029	347.952	2.077		
12+370	349.933	347.868	2.065	347.832	347.862
12+380	349.837	347.763	2.074	347.747	347.728
12+390	349.742	347.642	2.100	347.673	347.643
12+400	349.646	347.494	2.151	347.473	347.532
12+410	349.550	347.430	2.120	347.241	347.461
12+420	349.455	347.353	2.101	347.133	347.380
12+430	349.359	347.132	2.226	346.976	347.273
12+440	349.263	346.980	2.283	346.793	347.150
12+450	349.167	346.793	2.374	346.683	347.060
12+460	349.072	346.630	2.442	346.669	346.898
12+470	348.976	346.490	2.486	347.012	346.623
12+480	348.880	346.344	2.536	347.036	346.394
12+490	348.785	346.974	1.811	346.910	346.310
12+500	348.689	346.672	2.017	346.781	346.478
12+510	348.593	346.817	1.777	346.795	346.005
12+520	348.498	346.738	1.760	346.783	346.741
12+530	348.402	346.738	1.664	346.783	346.741
12+540	348.306	346.774	1.533	346.768	346.638
12+550	348.211	346.706	1.504	346.712	346.562
12+560	348.115	346.622	1.493	346.672	346.456
12+570	348.019	346.510	1.510	346.628	346.372
12+580	347.924	346.404	1.519	346.558	346.207
12+590	347.829	346.367	1.462	346.742	345.937
12+600	347.748	346.020	1.728	345.952	345.819
12+610	347.683	345.488	2.198	345.865	345.342
12+620	347.634	345.174	2.460	345.123	344.982
12+630	347.601	344.914	2.687	344.819	344.549
12+640	347.584	344.752	2.832	344.583	344.304
12+650	347.583	344.336	3.247	344.273	343.969
12+660	347.598	343.934	3.664	343.945	343.969
12+670	347.630	342.481	5.149	342.270	342.980
12+680	347.677	343.774	3.903	343.845	344.320
12+690	347.740	343.975	3.765	343.708	344.540
12+700	347.819	344.531	3.288	344.781	344.728
12+710	347.914	345.167	2.727	345.160	345.237
12+720	348.010	345.484	2.526	345.153	345.537
12+730	348.107	348.124	1.984	345.156	346.110
12+740	348.204	348.228	1.976	345.280	346.310
12+750	348.301	348.218	2.083	347.033	346.490
12+760	348.399	348.292	2.106	348.017	348.878
12+770	348.495	347.056	1.440	348.595	346.911
12+780	348.592	347.887	0.705	348.633	346.911
12+790	348.689	348.670	-0.181	348.859	347.093
12+800	348.786	349.976	-0.190	348.291	347.994
12+810	348.883	348.984	-0.101		
12+820	348.980	349.006	-0.026	348.404	348.602
12+830	349.077	349.094	-0.018	348.682	348.628
12+840	349.174	349.104	0.069	348.649	348.702
12+850	349.270	349.185	0.086	348.632	348.806
12+860	349.367	349.264	0.103	349.115	348.277
12+870	349.461	349.360	0.101	348.838	348.167
12+880	349.553	349.469	0.084	349.468	348.128
12+890	349.642	349.572	0.070	348.870	348.656
12+900	349.726	349.630	0.096	348.964	348.911
12+910	349.812	349.703	0.109		
12+920	349.894	349.745	0.149	348.735	349.226
12+930	349.972	349.832	0.140	348.710	349.666
12+940	350.048	349.899	0.149	349.264	349.720
12+950	350.122	349.926	0.196	348.844	348.764
12+960	350.193	349.949	0.244	348.690	348.734
12+970	350.261	349.974	0.288	348.850	348.817
12+980	350.327	350.013	0.314	348.954	349.054
12+990	350.390	350.004	0.386	348.897	348.920
13+000	350.450	350.020	0.430	349.017	

Vertical Alignment: L=495.92m G=-0.96% | Lc=120.00m | L=146.81m G=0.97%

Horizontal Alignment: Ls=55.00m | Rc=600.00m Lc=68.88m | Ls=55.00m | L=386.34m | Ls=55.00m | Rc=800.00m Lc=50.24m | Ls=55.00m | L=1

Superelevation: 12+146.33 -2.50% | 12+213.83 | 12+231.33 | 12+248.83 5.00% | 12+337.71 5.00% | 12+349.21 -2.50% | 12+362.71 | 12+390.21 -2.50% | 12+723.55 -2.50% | 12+751.05 | 12+778.55 | 12+816.05 -5.00% | 12+836.29 -5.00% | 12+863.79 | 12+891.29 | 12+918.79 -2.50%

Chainage: 12+000 … 13+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004 — AUTHORIZED SIGNATURE

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 16 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2687600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T-5, 1403 Valley View Estate, Gurugram, Faridabad Road, Gurugram, Haryana-122003, M.-9873858396, Email - khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	12+000 TO 13+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec 2024	SCALE:	DRAWING NO.:	SHEET NO.: 13 TO 42 — REV. 01

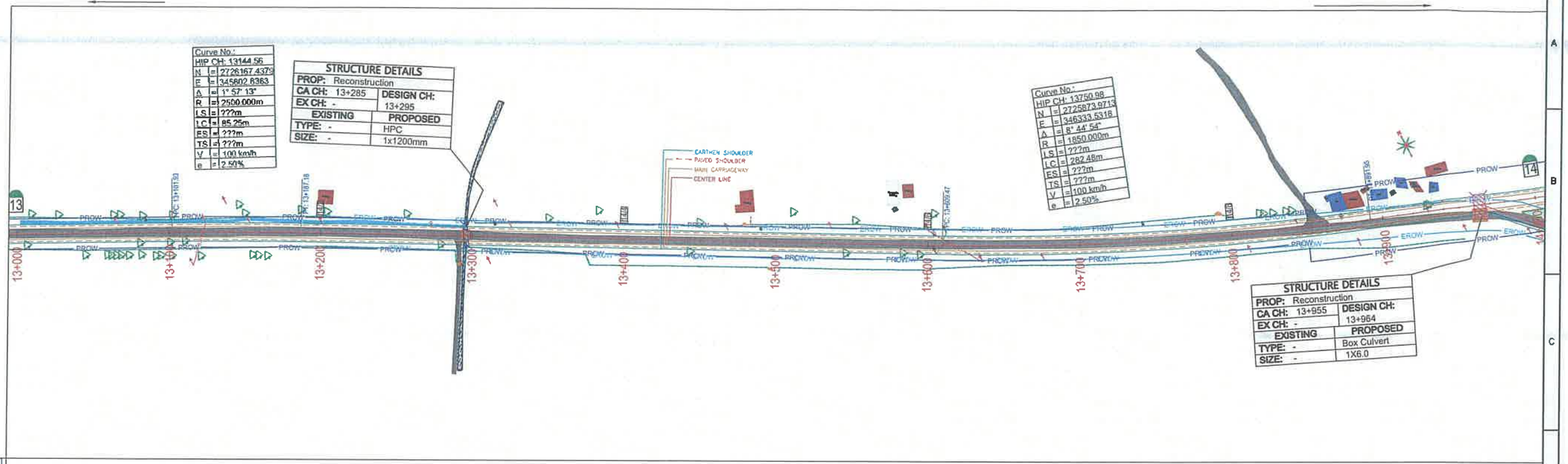
GULGANJ ← | → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	

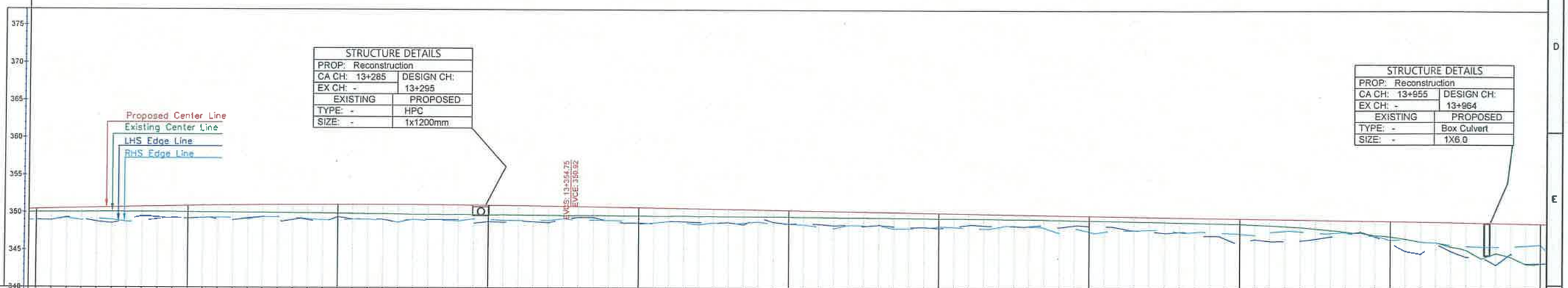
Curve No.:	
HIP CH: 13144.56	
N	= 2726167.4379
E	= 345602.8363
Δ	= 1° 57' 13"
R	= 2500.000m
LS	= ???m
LC	= 85.25m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= 2.50%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 13+285	DESIGN CH: 13+295
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm



Curve No.:	
HIP CH: 13750.98	
N	= 2725873.9713
E	= 346333.5316
Δ	= 8° 44' 54"
R	= 1850.000m
LS	= ???m
LC	= 282.46m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= 2.50%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 13+955	DESIGN CH: 13+964
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X6.0



LEVELS DATUM 340.00

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
13+000	350.450	350.020	0.430	349.017	348.920
13+010	350.508	350.036	0.472	348.954	349.014
13+020	350.564	350.050	0.514	349.358	349.25
13+030	350.616	350.067	0.549	349.154	348.96
13+040	350.666	350.092	0.575	348.790	349.18
13+050	350.714	350.105	0.609	348.587	349.05
13+060	350.759	350.086	0.673	349.044	348.75
13+070	350.801	350.099	0.702	349.544	348.84
13+080	350.841	350.095	0.746	349.419	349.15
13+090	350.878	350.103	0.775	349.154	349.33
13+100	350.913	350.079	0.834	349.234	349.22
13+110	350.944	350.065	0.879	349.318	349.32
13+120	350.974	350.047	0.927	349.131	349.35
13+130	351.001	350.038	0.963	349.000	349.20
13+140	351.025	350.042	0.983	349.288	349.14
13+150	351.046	350.022	1.024	349.484	349.43
13+160	351.065	350.012	1.053	349.012	349.45
13+170	351.082	349.975	1.107	349.090	349.35
13+180	351.095	349.983	1.113	349.077	349.20
13+190	351.106	349.965	1.141	349.709	349.05
13+200	351.115	349.938	1.177	349.459	349.03
13+210	351.121	349.910	1.211	349.155	349.19
13+220	351.124	349.895	1.229	349.249	349.15
13+230	351.125	349.888	1.237	349.135	348.99
13+240	351.123	349.855	1.268	348.759	348.79
13+250	351.119	349.818	1.300	349.249	349.13
13+260	351.112	349.809	1.303	349.132	348.98
13+270	351.102	349.788	1.314	349.136	349.13
13+280	351.090	349.803	1.288	349.135	348.99
13+290	351.075	349.778	1.297	348.654	349.22
13+300	351.058	349.771	1.286	348.865	349.14
13+310	351.038	349.778	1.260	348.769	349.05
13+320	351.015	349.754	1.261	348.983	349.02
13+330	350.990	349.729	1.261	348.847	349.03
13+340	350.962	349.726	1.236	348.721	349.27
13+350	350.932	349.696	1.236	349.241	349.05
13+360	350.899	349.705	1.195	349.431	349.08
13+370	350.866	349.716	1.150	349.443	349.04
13+380	350.834	349.697	1.136	348.949	349.03
13+390	350.801	349.671	1.130	348.720	349.03
13+400	350.768	349.665	1.103	348.743	348.57
13+410	350.735	349.646	1.089	348.841	348.74
13+420	350.702	349.653	1.049	348.943	348.93
13+430	350.669	349.656	1.013	348.901	348.75
13+440	350.636	349.602	1.034	348.811	348.51
13+450	350.603	349.624	0.979	348.737	348.79
13+460	350.570	349.582	0.988	348.811	348.56
13+470	350.537	349.587	0.951	348.502	348.75
13+480	350.504	349.581	0.923	349.477	349.91
13+490	350.471	349.598	0.873	348.864	348.58
13+500	350.439	349.556	0.883	348.847	348.61
13+510	350.406	349.544	0.861	348.711	348.53
13+520	350.373	349.530	0.843	348.609	348.28
13+530	350.340	349.506	0.834	348.431	348.07
13+540	350.307	349.499	0.808	348.532	348.46
13+550	350.274	349.487	0.787	348.344	348.47
13+560	350.241	349.471	0.770	348.512	348.42
13+570	350.208	349.445	0.763	348.308	348.01
13+580	350.175	349.440	0.735	348.202	348.05
13+590	350.142	349.415	0.727	348.245	348.10
13+600	350.109	349.381	0.728	348.086	348.34
13+610	350.076	349.398	0.679	348.304	348.25
13+620	350.044	349.367	0.677	348.556	348.12
13+630	350.011	349.380	0.631	348.481	348.06
13+640	349.978	349.342	0.636	348.455	348.29
13+650	349.945	349.318	0.627	348.411	348.42
13+660	349.912	349.315	0.597	348.405	348.34
13+670	349.879	349.281	0.598	348.506	348.17
13+680	349.846	349.237	0.608	348.258	347.52
13+690	349.813	349.202	0.611	348.510	347.98
13+700	349.780	349.154	0.626	348.450	347.69
13+710	349.747	349.127	0.621	348.399	347.68
13+720	349.714	349.093	0.621	348.213	347.84
13+730	349.681	349.053	0.628	347.891	347.84
13+740	349.649	349.022	0.627	347.750	347.04
13+750	349.616	348.983	0.633	347.542	347.93
13+760	349.583	348.923	0.660	347.671	347.62
13+770	349.550	348.882	0.668	347.349	347.65
13+780	349.517	348.832	0.685	347.140	347.65
13+790	349.484	348.793	0.691	346.796	347.54
13+800	349.451	348.733	0.718	346.237	347.41
13+810	349.418	348.634	0.784	346.660	347.28
13+820	349.385	348.550	0.835	346.447	347.63
13+830	349.352	348.423	0.929	346.449	347.80
13+840	349.319	348.309	1.010	346.538	347.46
13+850	349.286	348.123	1.164	346.761	347.59
13+860	349.254	347.933	1.321	347.060	347.53
13+870	349.221	347.717	1.503	347.393	347.50
13+880	349.188	347.551	1.636	347.725	347.25
13+890	349.155	347.270	1.885	347.053	347.11
13+900	349.122	347.072	2.050	346.254	346.62
13+910	349.089	346.764	2.324	345.146	346.74
13+920	349.056	346.379	2.677	344.774	346.37
13+930	349.023	346.292	2.731	346.136	346.28
13+940	348.990	345.726	3.264	345.133	345.93
13+950	348.957	345.292	3.665	344.362	345.81
13+960	348.924	344.741	4.183	344.435	345.74
13+970	348.891	344.896	3.993	343.322	345.75
13+980	348.859	344.362	4.497	344.814	345.75
13+990	348.826	343.441	5.385	343.508	345.69
14+000	348.793	343.522	5.271	343.535	346.04

Vertical Alignment: Lc=500.00m

Horizontal Alignment: L=190.64m | Rc=2500.00m Lc=85.25m | L=422.29m | Rc=1850.00m Lc=282.46m | L=192.59m

Superelevation:

Chainage: 13+000 … 14+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Kamraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2987600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: (P) ENMARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, F-5, 1403 Valley View Estate, Gurugram, Faridabad Road, Gurugram, Haryana-122003, M-9873858396, Email-khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE:	PLAN & PROFILE	Chainage	13+000 TO 14+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec 2024	SCALE:	DRAWING NO.:	SHEET NO.: 14 TO 42 — REV. 01

GULGANJ → KATNI

LINE LEGEND

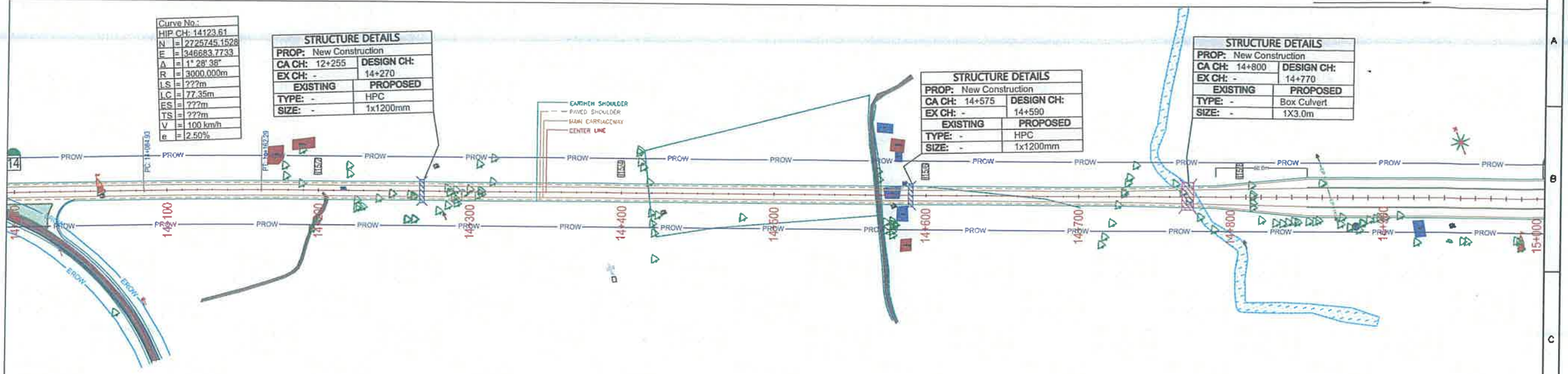
Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	

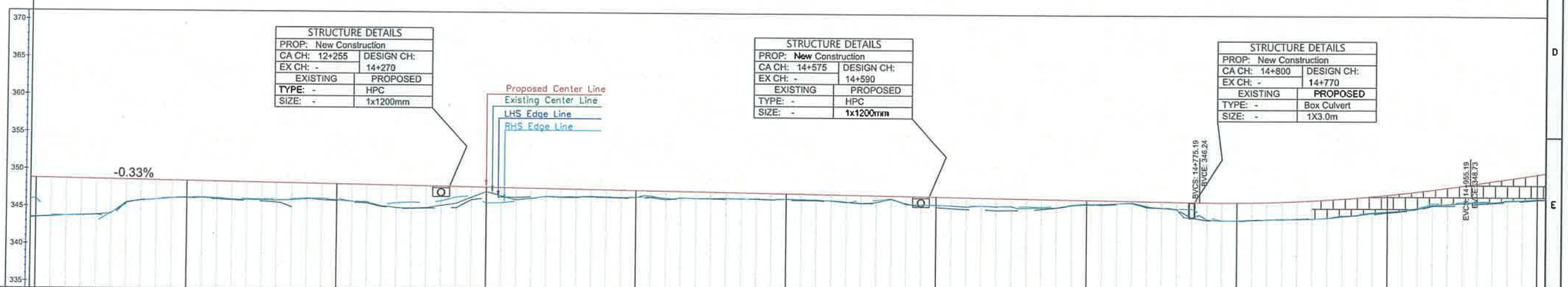
Curve No.:	
HIP CH:	14123.61
N	= 2725745.1528
E	= 346683.7733
Δ	= 1° 28' 38"
R	= 3000.000m
LS	= ???m
LC	= 77.35m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= 2.50%

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 12+255	DESIGN CH: 14+270
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 14+575	DESIGN CH: 14+590
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 14+800	DESIGN CH: 14+770
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X3.0m





LEVELS DATUM 334.00

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
14+000	348.793	343.522	5.271	343.535	346.046
14+010	348.760	343.624	5.135	343.624	343.774
14+020	348.727	343.724	5.003	343.730	343.734
14+030	348.694	343.796	4.898	343.781	343.821
14+040	348.661	343.877	4.784	343.868	342.946
14+050	348.628	344.035	4.593	343.621	344.119
14+060	348.595	345.522	3.073	345.480	345.309
14+070	348.562	345.807	2.755	345.845	345.778
14+080	348.529	345.948	2.582	345.995	345.945
14+090	348.496	346.147	2.349	346.132	346.102
14+100	348.464	346.189	2.275	346.187	346.239
14+110	348.431	346.192	2.239	346.114	346.255
14+120	348.398	346.099	2.299	345.996	346.207
14+130	348.365	346.019	2.346	345.997	346.146
14+140	348.332	345.966	2.366	345.924	346.085
14+150	348.299	345.935	2.364	345.767	346.055
14+160	348.266	345.917	2.349	345.835	346.074
14+170	348.233	345.976	2.258	345.904	346.130
14+180	348.200	346.090	2.111	346.179	346.205
14+190	348.167	346.206	1.961	345.962	346.160
14+200	348.134	345.997	2.137	345.866	346.185
14+210	348.102	345.795	2.306	345.690	345.816
14+220	348.069	345.788	2.301	345.604	345.675
14+230	348.036	345.240	2.796	345.142	345.430
14+240	348.003	344.997	3.016	344.867	345.639
14+250	347.970	344.956	3.014	344.923	345.750
14+260	347.937	345.024	2.913	344.962	345.703
14+270	347.904	345.345	2.559	345.009	345.941
14+280	347.871	345.626	2.245	345.035	346.446
14+290	347.838	346.425	1.414	346.123	346.658
14+300	347.805	347.179	0.626	346.391	346.083
14+310	347.772	346.642	1.130	346.504	346.755
14+320	347.739	346.139	1.600	346.461	345.967
14+330	347.707	346.367	1.340	346.281	346.557
14+340	347.674	346.604	1.070	346.646	346.557
14+350	347.641	346.552	1.088	346.501	346.621
14+360	347.608	346.576	1.032	346.514	346.672
14+370	347.575	346.572	1.003	346.541	346.637
14+380	347.542	346.575	0.967	346.533	346.624
14+390	347.509	346.546	0.963	346.452	346.595
14+400	347.476	346.529	0.947	346.411	346.624
14+410	347.443	346.768	0.676	346.524	346.330
14+420	347.410	346.455	0.955	346.274	346.539
14+430	347.377	346.485	0.892	346.408	346.453
14+440	347.344	346.456	0.889	346.420	346.508
14+450	347.312	346.456	0.856	346.428	346.445
14+460	347.279	346.496	0.783	346.366	346.395
14+470	347.246	346.443	0.802	346.429	346.478
14+480	347.213	346.422	0.791	346.406	346.424
14+490	347.180	346.368	0.813	346.329	346.418
14+500	347.147	346.406	0.741	346.298	346.419
14+510	347.114	346.350	0.764	346.264	346.378
14+520	347.081	346.378	0.703	346.269	346.213
14+530	347.048	346.262	0.786	346.095	346.014
14+540	347.015	346.114	0.901	346.068	346.392
14+550	346.982	345.961	1.021	345.906	346.332
14+560	346.949	346.056	0.893	345.926	346.572
14+570	346.917	346.502	0.415	346.527	345.908
14+580	346.884	345.818	1.066	345.908	345.779
14+590	346.851	345.785	1.066	345.469	345.716
14+600	346.818	345.749	1.069	345.444	345.689
14+610	346.785	345.674	1.110	345.295	345.669
14+620	346.752	345.548	1.203	345.195	345.660
14+630	346.719	345.668	1.052	345.174	345.610
14+640	346.686	345.584	1.102	345.085	345.504
14+650	346.653	345.629	1.025	345.106	345.615
14+660	346.620	345.406	1.214	345.100	345.579
14+670	346.587	345.399	1.188	345.260	345.686
14+680	346.554	345.501	1.053	345.450	345.860
14+690	346.522	345.789	0.733	345.747	346.035
14+700	346.489	345.917	0.572	345.917	345.812
14+710	346.456	345.985	0.471	345.866	346.049
14+720	346.423	346.071	0.352	345.972	346.211
14+730	346.390	346.120	0.270	346.232	345.707
14+740	346.357	346.677	0.679	345.554	345.647
14+750	346.324	346.492	0.832	345.500	345.383
14+760	346.291	345.294	0.997	345.316	345.376
14+770	346.258	344.223	2.035	344.192	344.322
14+780	346.226	343.945	2.283	343.850	343.799
14+790	346.213	343.831	2.382	343.840	343.752
14+800	346.218	343.803	2.415	343.844	343.994
14+810	346.242	343.897	2.345	343.932	343.992
14+820	346.284	343.979	2.306	343.998	344.102
14+830	346.346	344.000	2.346	344.029	344.083
14+840	346.427	344.042	2.385	344.077	344.210
14+850	346.526	344.103	2.424	344.158	344.222
14+860	346.645	344.210	2.435	344.222	344.583
14+870	346.783	344.503	2.280	344.451	344.773
14+880	346.939	344.625	2.314	344.603	344.977
14+890	347.115	344.851	2.265	344.700	345.097
14+900	347.310	345.032	2.278	344.963	345.347
14+910	347.523	345.275	2.248	345.137	345.590
14+920	347.756	345.418	2.338	345.347	346.220
14+930	348.006	345.024	1.984	345.869	346.218
14+940	348.278	346.096	2.182	345.654	345.410
14+950	348.568	346.222	2.346	346.002	346.480
14+960	348.874	346.414	2.769	346.279	346.529
14+970	349.163	346.574	2.919	346.419	346.649
14+980	349.492	346.648	3.153	346.573	346.709
14+990	349.801	346.631	3.280	346.734	346.860
15+000	350.110				

Vertical Alignment: L=1420.44m, G=-0.33%; Lc=180.00m

Horizontal Alignment: R=3000.00m, Lc=77.35m; L=1594.27m

Superelevation:

Chainage: 14+000 … 15+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	23-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Kamraja Construction Company, Jeri Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2967600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO-ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Royal Designers LLP, T-5, 1403, Valley View Estate, Gurugram Faridabad Road, Gurugram, Haryana-122003, M-9873858396, Email:- khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

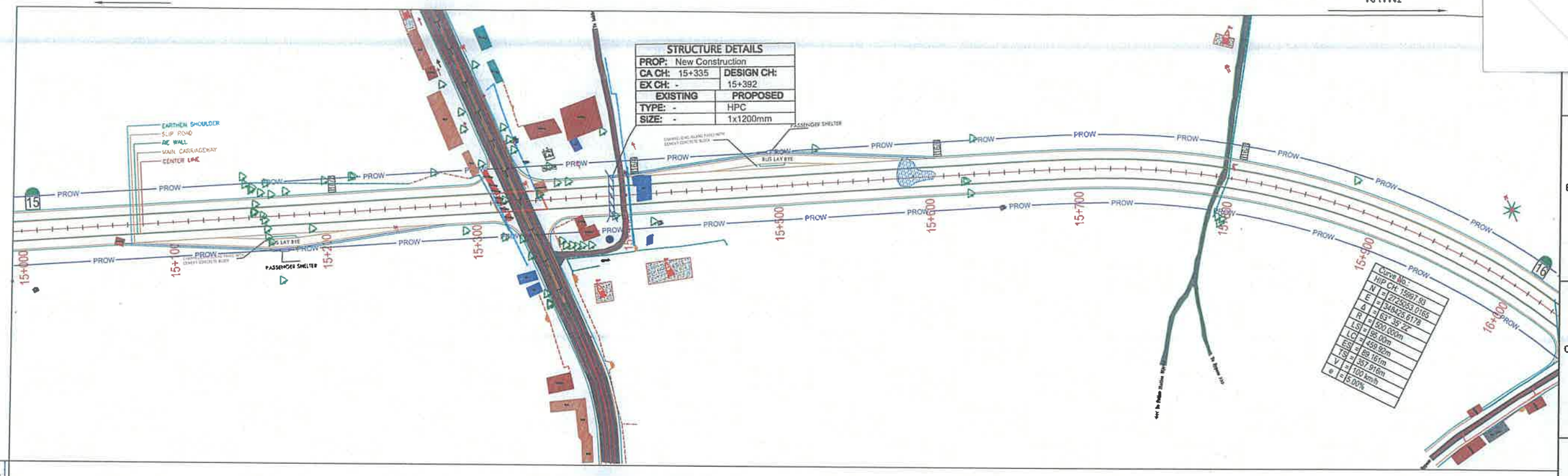
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

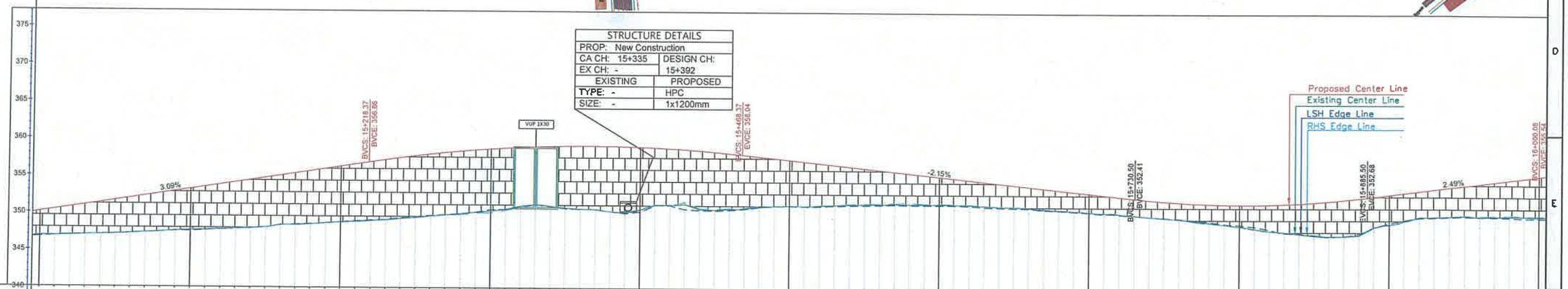
TITLE:	PLAN & PROFILE	Chainage	14+000 TO 15+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec 2024	SCALE:	DRAWING NO.:	SHEET NO.: 15 TO 42 — REV. 01

GULGANJ ← | → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	





LEVELS DATUM 340.00

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
15+000	350.110	346.831	3.280	346.734	346.809
15+010	350.419	346.850	3.570	346.851	346.916
15+020	350.728	346.907	3.820	346.968	346.979
15+030	351.037	347.077	4.050	347.013	347.077
15+040	351.346	347.077	4.269	347.053	347.103
15+050	351.655	347.134	4.521	347.096	347.168
15+060	351.964	347.211	4.752	347.198	347.326
15+070	352.273	347.333	4.940	347.320	347.386
15+080	352.582	347.434	5.148	347.399	347.465
15+090	352.891	347.536	5.355	347.558	347.654
15+100	353.200	347.666	5.534	347.540	347.724
15+110	353.509	347.666	5.843	347.698	347.816
15+120	353.818	347.773	6.045	347.745	347.835
15+130	354.127	347.826	6.301	347.821	348.015
15+140	354.436	347.930	6.505	347.955	348.095
15+150	354.745	348.063	6.682	348.050	348.407
15+160	355.053	348.414	6.639	348.379	348.401
15+170	355.362	348.395	6.967	348.458	348.475
15+180	355.671	348.508	7.163	348.568	348.709
15+190	355.980	348.671	7.309	348.840	348.755
15+200	356.289	348.783	7.506	348.902	348.838
15+210	356.596	348.910	7.688	348.943	348.952
15+220	356.907	349.013	7.894	349.076	349.083
15+230	357.202	349.128	8.074	349.138	349.237
15+240	357.476	349.265	8.211	349.378	349.385
15+250	357.729	349.424	8.305	349.538	349.622
15+260	357.962	349.640	8.322	349.715	349.746
15+270	358.173	349.785	8.388	349.826	349.834
15+280	358.363	349.977	8.386	349.994	350.039
15+290	358.533	350.146	8.387	350.199	350.114
15+300	358.681	350.352	8.329	350.546	350.447
15+310	358.809	350.589	8.220	350.581	350.851
15+320	358.915	351.038	7.878	350.989	351.206
15+330	359.001	351.255	7.746	351.245	351.029
15+340	359.066	351.072	7.994	350.991	350.744
15+350	359.109	350.807	8.302	350.708	350.728
15+360	359.132	350.670	8.462	350.651	350.591
15+370	359.134	350.628	8.506	350.652	350.300
15+380	359.115	350.344	8.772	350.350	350.297
15+390	359.075	350.192	8.883	350.115	350.661
15+400	359.014	350.029	8.985	350.334	351.203
15+410	358.932	351.275	7.657	351.198	351.203
15+420	358.829	351.275	7.554	351.198	351.654
15+430	358.706	351.367	7.339	350.704	350.832
15+440	358.561	350.700	7.861	350.566	350.753
15+450	358.395	350.632	7.763	350.528	350.853
15+460	358.209	350.736	7.472	350.607	350.926
15+470	358.001	350.818	7.183	350.757	351.103
15+480	357.767	351.036	6.748	351.036	351.161
15+490	357.572	351.203	6.369	351.158	351.257
15+500	357.358	351.205	6.152	351.198	351.167
15+510	357.143	351.196	5.947	351.133	351.328
15+520	356.928	351.261	5.667	351.153	351.388
15+530	356.714	351.326	5.387	351.260	351.535
15+540	356.499	351.436	5.061	351.294	351.582
15+550	356.285	351.467	4.818	351.340	351.610
15+560	356.070	351.483	4.587	351.396	351.670
15+570	355.855	351.542	4.313	351.449	351.704
15+580	355.641	351.401	4.127	351.401	351.616
15+590	355.426	351.512	3.914	351.402	351.595
15+600	355.212	351.518	3.694	351.399	351.587
15+610	354.997	351.477	3.520	351.394	351.525
15+620	354.782	351.454	3.328	351.335	351.392
15+630	354.566	351.348	3.220	351.181	351.292
15+640	354.353	351.254	3.099	351.110	351.234
15+650	354.139	351.212	2.927	351.075	351.163
15+660	353.924	351.100	2.824	351.025	350.985
15+670	353.709	350.895	2.815	350.847	350.856
15+680	353.495	350.810	2.685	350.788	350.742
15+690	353.280	350.722	2.558	350.649	350.583
15+700	353.066	350.565	2.501	350.508	350.471
15+710	352.851	350.440	2.412	350.370	350.369
15+720	352.636	350.342	2.294	350.299	-
15+730	352.422	350.154	2.268	-	349.990
15+740	352.221	349.969	2.252	349.977	349.810
15+750	352.050	349.825	2.225	349.862	349.659
15+760	351.908	349.668	2.240	349.726	349.375
15+770	351.797	349.473	2.324	349.559	349.032
15+780	351.716	349.233	2.483	349.358	349.102
15+790	351.664	348.984	2.680	349.089	348.879
15+800	351.643	348.739	2.903	348.929	348.343
15+810	351.651	348.431	3.220	348.713	348.150
15+820	351.689	348.130	3.560	348.329	347.993
15+830	351.759	347.987	3.771	347.897	347.875
15+840	351.856	347.753	4.103	347.638	347.685
15+850	351.964	347.542	4.442	347.571	347.473
15+860	352.142	347.465	4.677	347.422	347.506
15+870	352.330	347.463	4.867	347.536	347.821
15+880	352.548	347.633	4.915	347.858	348.684
15+890	352.793	347.700	4.092	348.690	349.078
15+900	353.042	349.055	3.987	349.235	349.462
15+910	353.291	349.541	3.750	349.679	350.102
15+920	353.541	349.977	3.436	350.105	350.139
15+930	353.790	350.088	3.702	350.026	350.206
15+940	354.039	350.165	3.874	350.090	350.307
15+950	354.289	350.246	4.040	350.158	350.262
15+960	354.537	350.135	4.403	350.123	350.267
15+970	354.787	350.185	4.602	350.105	350.322
15+980	355.037	350.183	4.854	350.040	350.260
15+990	355.286	350.199	5.087	349.963	349.948
16+000	355.535	350.123	5.413	349.946	350.260

Vertical Alignment: L=263.18m G=3.09% | Lc=250.00m | L=262.13m G=-2.15% | Lc=155.00m | L=114.58m G=2.49%

Horizontal Alignment: L=840.03m | Ls=95.00m | Rc=500.00m Lc=459.92m

Superelevation: 15+592.53 2.50% | 15+640.03 | 15+687.53 | 15+735.03 5.00%

Chainage: 15+000 … 16+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, F-5 1403 Valley View Estate, Gurugram Faridabad Road Gurugram Haryana-122003, M-9873858396, Email: khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 15+000 TO 16+000

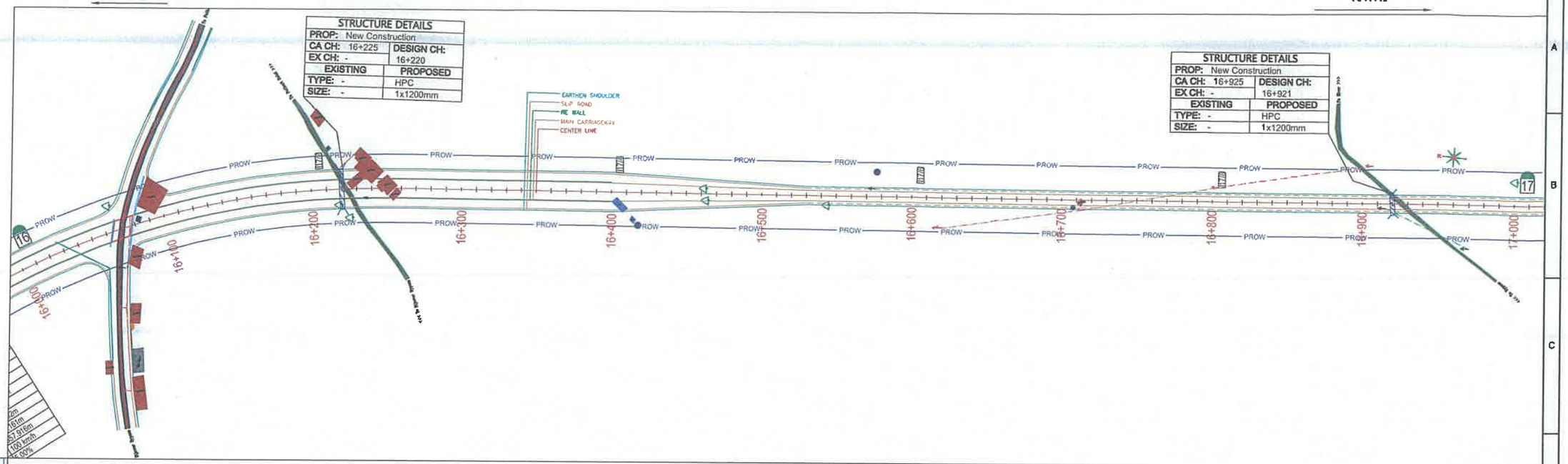
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

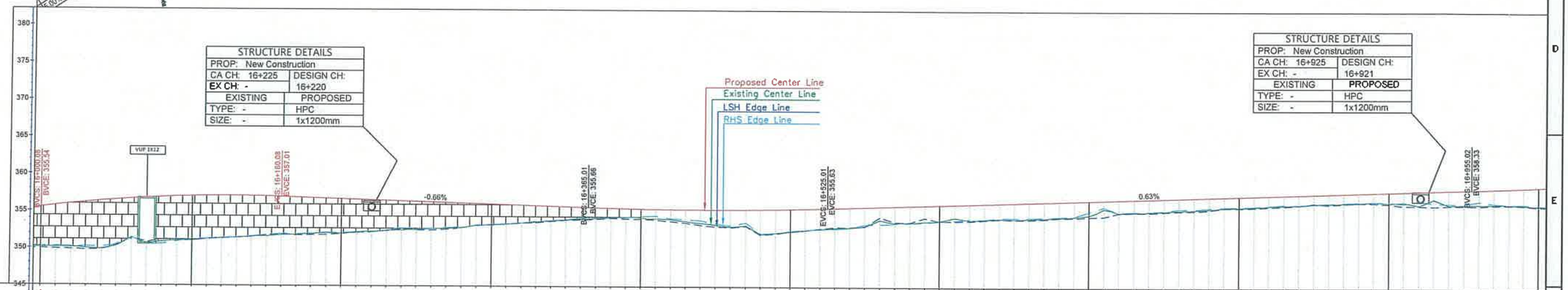
DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 16 TO 42 | REV. 01

GULGANJ ← | → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	





LEVELS DATUM 345.00

Proposed: 355.535, 355.775, 355.985, 356.195, 356.376, 356.538, 356.676, 356.799, 356.903, 356.907, 356.901, 356.903, 357.045, 357.066, 357.085, 357.111, 357.114, 357.098, 357.062, 357.006, 356.940, 356.875, 356.809, 356.743, 356.677, 356.612, 356.546, 356.480, 356.414, 356.348, 356.283, 356.217, 356.151, 356.085, 356.020, 355.954, 355.888, 355.822, 355.757, 355.691, 355.626, 355.560, 355.519, 355.477, 355.443, 355.418, 355.400, 355.390, 355.389, 355.395, 355.410, 355.432, 355.463, 355.502, 355.546, 355.603, 355.665, 355.727, 355.790, 355.853, 355.915, 355.978, 356.041, 356.104, 356.166, 356.229, 356.292, 356.354, 356.417, 356.480, 356.543, 356.605, 356.668, 356.731, 356.793, 356.856, 356.919, 356.981, 357.044, 357.107, 357.170, 357.232, 357.295, 357.358, 357.420, 357.483, 357.546, 357.609, 357.671, 357.734, 357.797, 357.859, 357.922, 357.985, 358.047, 358.110, 358.173, 358.236, 358.298, 358.362, 358.433, 358.511, 358.556, 358.692

Ground Level: 350.123, 350.141, 350.118, 349.985, 349.376, 350.280, 350.438, 350.535, 350.907, 351.006, 351.041, 351.285, 351.402, 351.483, 351.620, 351.673, 351.857, 351.876, 352.004, 352.132, 352.083, 352.257, 352.346, 352.484, 352.538, 352.620, 352.732, 352.783, 352.881, 353.212, 353.284, 353.372, 353.532, 353.681, 353.842, 353.990, 354.066, 354.173, 354.273, 354.310, 354.295, 354.179, 354.073, 353.827, 353.580, 353.338, 353.099, 353.261, 352.118, 352.292, 352.470, 352.685, 352.844, 352.989, 353.017, 353.051, 353.212, 353.701, 353.879, 353.987, 354.431, 354.093, 354.177, 354.297, 354.244, 354.294, 354.376, 354.491, 354.586, 354.784, 355.671, 355.138, 355.204, 355.247, 355.382, 355.509, 355.678, 355.904, 355.997, 356.127, 356.192, 356.242, 356.407, 356.438, 356.512, 356.554, 356.895, 356.945, 356.985, 356.648, 356.244, 356.110, 356.236, 356.298, 356.341, 356.361, 356.404, 356.376, 356.316, 356.167

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Ground Level Left @ 9.0m: 349.948, 349.676, 349.842, 349.197, 349.629, 350.359, 351.197, 350.636, 351.155, 351.163, 351.094, 351.249, 351.308, 351.353, 351.461, 351.580, 351.836, 351.898, 351.821, 351.860, 351.890, 352.014, 352.215, 352.258, 352.459, 352.657, 352.596, 352.546, 352.685, 353.212, 353.275, 353.395, 353.529, 353.781, 353.937, 353.982, 354.242, 354.212, 354.132, 354.097, 354.018, 353.798, 353.624, 353.308, 353.113, 353.013, 353.213, 352.043, 352.180, 352.557, 352.649, 352.910, 353.113, 353.210, 354.477, 353.821, 354.398, 353.941, 352.962, 353.280, 353.984, 354.109, 354.279, 354.168, 354.189, 354.279, 354.444, 354.462, 354.564, 354.645, 355.116, 355.174, 355.180, 355.376, 355.421, 355.553, 355.839, 355.844, 355.893, 355.990, 356.095, 356.233, 356.469, 356.319, 356.461, 356.579, 356.528, 356.407, 356.198, 356.121, 356.189, 356.219, 356.191, 356.294, 356.309, 356.256, 356.376, 356.311, 356.404, 356.433, 356.511, 356.556, 356.692

Ground Level Right @ 9.0m: 350.200, 350.249, 350.201, 350.197, 350.206, 350.521, 351.325, 350.645, 350.579, 350.859, 351.160, 351.308, 351.413, 351.506, 351.659, 351.843, 351.991, 351.982, 352.075, 352.186, 352.164, 352.180, 352.248, 352.494, 352.802, 352.744, 352.733, 352.874, 353.128, 353.320, 353.425, 353.545, 353.781, 353.877, 354.027, 354.218, 354.292, 354.360, 354.460, 354.546, 354.201, 354.073, 353.949, 353.529, 353.673, 352.193, 352.306, 352.551, 352.753, 352.810, 352.860, 353.017, 353.477, 353.520, 353.617, 353.686, 353.798, 353.924, 354.039, 354.252, 354.222, 354.455, 354.411, 354.445, 354.519, 354.601, 354.601, 355.251, 355.916, 355.215, 355.236, 355.330, 355.472, 355.692, 355.694, 355.833, 355.969, 356.008, 356.176, 356.316, 356.276, 356.469, 356.501, 356.601, 356.645, 356.607, 356.678, 356.490, 356.605, 356.519, 356.468, 356.467, 356.788, 356.543, 356.414, 356.424, 356.249

Vertical Alignment: Lc=160.00m | L=204.93m G=-0.66% | Lc=160.00m | L=430.02m G=0.63%

Horizontal Alignment: Lc=95.66m | L=872.82m

Superelevation: 16+184.95 5.00% | 16+242.45 | 16+259.95 | 16+317.45 2.00%

Chainage: 16+000, 16+010, 16+020, 16+030, 16+040, 16+050, 16+060, 16+070, 16+080, 16+090, 16+100, 16+110, 16+120, 16+130, 16+140, 16+150, 16+160, 16+170, 16+180, 16+190, 16+200, 16+210, 16+220, 16+230, 16+240, 16+250, 16+260, 16+270, 16+280, 16+290, 16+300, 16+310, 16+320, 16+330, 16+340, 16+350, 16+360, 16+370, 16+380, 16+390, 16+400, 16+410, 16+420, 16+430, 16+440, 16+450, 16+460, 16+470, 16+480, 16+490, 16+500, 16+510, 16+520, 16+530, 16+540, 16+550, 16+560, 16+570, 16+580, 16+590, 16+600, 16+610, 16+620, 16+630, 16+640, 16+650, 16+660, 16+670, 16+680, 16+690, 16+700, 16+710, 16+720, 16+730, 16+740, 16+750, 16+760, 16+770, 16+780, 16+790, 16+800, 16+810, 16+820, 16+830, 16+840, 16+850, 16+860, 16+870, 16+880, 16+890, 16+900, 16+910, 16+920, 16+930, 16+940, 16+950, 16+960, 16+970, 16+980, 16+990, 17+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 2	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-21, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, S 1403 Valley View Estate, Gurugram Faridabad Road Gurugram Haryana-122003, M-9873858396, Email:- khannagoyaldesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

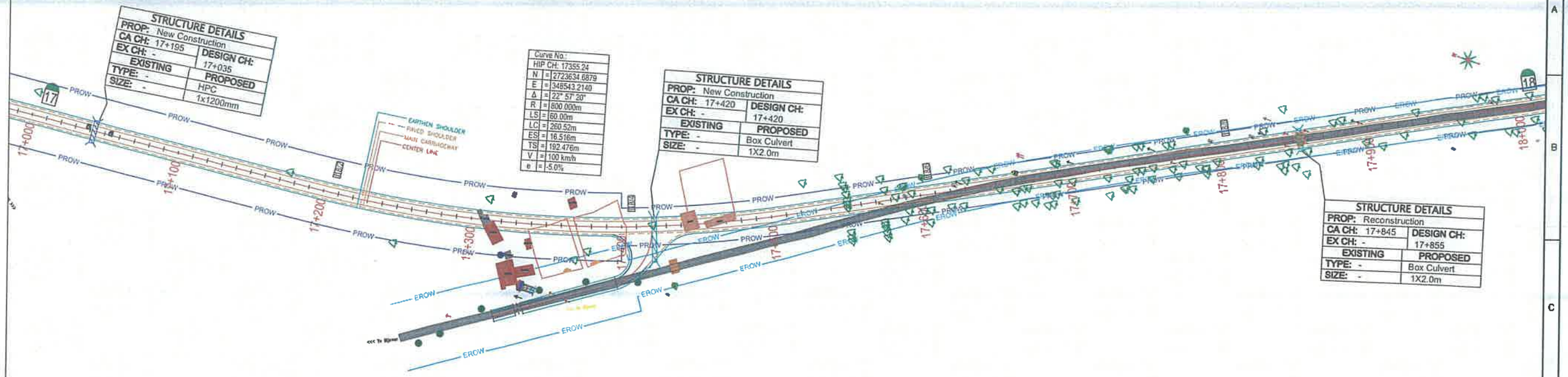
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	16+000 TO 17+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec-2024	SCALE:	DRAWING NO.:	SHEET NO.: 17 TO 42 — REV. 01

GULGANJ ← | → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	



STRUCTURE DETAILS

PROP: New Construction	
CA CH: 17+195	DESIGN CH: 17+035
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

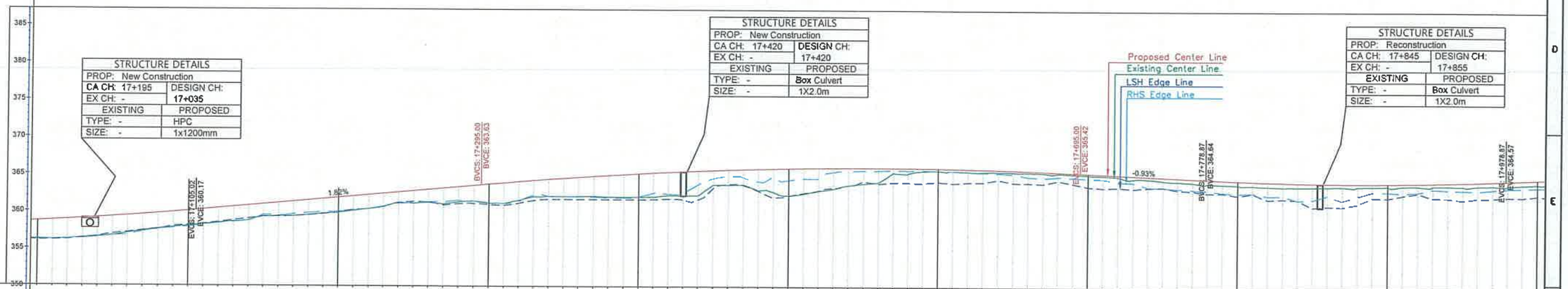
Curve No.:	
HIP CH:	17355.24
N	= 2723634.6879
E	= 348543.2140
Δ	= 22° 57' 20"
R	= 800.000m
LS	= 60.00m
LC	= 260.52m
ES	= 16.516m
TS	= 192.476m
V	= 100 km/h
e	= -5.0%

STRUCTURE DETAILS

PROP: New Construction	
CA CH: 17+420	DESIGN CH: 17+420
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

STRUCTURE DETAILS

PROP: Reconstruction	
CA CH: 17+845	DESIGN CH: 17+855
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m



STRUCTURE DETAILS

PROP: New Construction	
CA CH: 17+195	DESIGN CH: 17+035
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

STRUCTURE DETAILS

PROP: New Construction	
CA CH: 17+420	DESIGN CH: 17+420
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

STRUCTURE DETAILS

PROP: Reconstruction	
CA CH: 17+845	DESIGN CH: 17+855
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

LEVELS DATUM 350.00

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
17+000	358.682	358.157	2.525	356.079	356.249
17+010	358.795	358.159	2.637	356.113	356.169
17+020	358.906	358.247	2.659	356.166	356.215
17+030	359.024	356.343	2.682	356.405	356.583
17+040	359.151	356.494	2.657	356.412	356.736
17+050	359.285	356.710	2.575	356.615	356.945
17+060	359.427	357.042	2.385	356.945	357.149
17+070	359.578	357.335	2.242	357.149	357.265
17+080	359.736	357.664	2.072	357.415	357.595
17+090	359.903	357.860	2.043	357.559	357.735
17+100	360.077	358.057	2.019	358.019	357.895
17+110	360.258	358.255	2.003	358.155	358.173
17+120	360.441	358.500	1.941	358.295	358.420
17+130	360.623	358.649	1.974	358.832	358.592
17+140	360.805	358.766	2.020	359.045	358.759
17+150	360.988	359.316	1.672	359.346	359.374
17+160	361.170	359.417	1.753	359.336	359.473
17+170	361.352	359.400	1.952	359.396	359.655
17+180	361.535	359.548	1.987	359.523	359.833
17+190	361.717	359.742	1.975	359.693	359.940
17+200	361.899	359.859	2.040	359.903	360.016
17+210	362.081	360.114	1.968	360.224	360.199
17+220	362.264	360.385	1.878		
17+230	362.446	360.614	1.832	360.709	360.721
17+240	362.628	361.243	1.386	361.185	361.061
17+250	362.811	361.112	1.699	361.345	361.203
17+260	362.993	361.221	1.772	361.272	361.326
17+270	363.175	361.046	2.129	360.908	361.312
17+280	363.358	361.312	2.046	361.067	361.500
17+290	363.540	361.440	2.100	361.115	361.430
17+300	363.722	361.130	2.592	360.960	361.246
17+310	363.897	361.145	2.752	360.893	361.132
17+320	364.069	361.553	2.513	361.174	361.427
17+330	364.227	361.036	2.192	361.530	362.226
17+340	364.382	362.121	2.261	361.892	362.111
17+350	364.530	362.086	2.444	361.703	362.056
17+360	364.671	362.106	2.565	361.703	362.055
17+370	364.805	362.143	2.662	361.703	362.035
17+380	364.932	362.041	2.891	361.703	361.954
17+390	365.053	362.041	3.012	361.703	361.947
17+400	365.166	362.041	3.125	361.703	362.106
17+410	365.273	362.075	3.197	361.720	362.579
17+420	365.372	362.292	3.080	361.806	362.454
17+430	365.465	362.245	3.220	361.672	362.838
17+440	365.551	362.271	3.280	361.731	363.735
17+450	365.630	363.709	1.921	363.253	364.519
17+460	365.702	363.683	2.019	363.799	364.805
17+470	365.766	363.725	2.043	363.682	364.668
17+480	365.820	362.963	2.863	362.873	364.153
17+490	365.878	362.741	3.138	362.049	364.672
17+500	365.922	362.275	3.647	362.253	364.338
17+510	365.960	362.525	3.435	362.631	364.568
17+520	365.991	362.944	3.047	362.964	364.639
17+530	366.015	363.392	2.623	363.322	365.463
17+540	366.032	363.884	2.348	364.684	366.689
17+550	366.042	363.898	2.144	364.235	365.608
17+560	366.046	364.072	1.974	363.906	365.658
17+570	366.042	365.388	0.654	364.106	365.725
17+580	366.032	365.322	0.710	364.055	365.661
17+590	366.014	365.612	0.402	364.000	365.772
17+600	365.990	365.681	0.309	364.178	365.648
17+610	365.959	365.648	0.311	364.002	365.637
17+620	365.921	365.566	0.355	364.138	365.502
17+630	365.876	365.546	0.330	364.158	365.482
17+640	365.824	365.550	0.274	364.512	365.392
17+650	365.766	365.520	0.245	364.088	365.278
17+660	365.700	365.490	0.210	364.092	364.898
17+670	365.628	365.441	0.187	363.990	364.770
17+680	365.549	365.388	0.161	364.416	364.943
17+690	365.462	365.302	0.160	364.026	364.841
17+700	365.370	365.207	0.164	363.610	364.743
17+710	365.277	365.108	0.168	363.488	364.611
17+720	365.184	364.981	0.203	363.533	364.276
17+730	365.091	364.684	0.407	363.365	364.190
17+740	364.998	364.665	0.333	363.519	363.610
17+750	364.905	364.500	0.405	363.591	363.539
17+760	364.812	364.348	0.464	363.211	363.413
17+770	364.719	364.211	0.508	363.103	363.268
17+780	364.626	364.096	0.530	362.820	363.156
17+790	364.538	363.977	0.561	362.836	362.919
17+800	364.460	363.875	0.584	362.503	362.774
17+810	364.390	363.817	0.573	362.765	362.851
17+820	364.329	363.724	0.605	361.979	362.445
17+830	364.278	363.668	0.609	362.065	362.495
17+840	364.235	363.668	0.567	361.951	361.889
17+850	364.201	363.688	0.513	360.965	362.000
17+860	364.176	363.712	0.464	361.122	362.574
17+870	364.160	363.730	0.431	361.022	361.895
17+880	364.153	363.743	0.411	361.423	362.474
17+890	364.155	363.746	0.409	362.289	363.055
17+900	364.168	363.797	0.370	362.225	363.045
17+910	364.186	363.835	0.351	362.610	362.897
17+920	364.215	363.861	0.354	362.925	363.038
17+930	364.253	363.873	0.380	362.296	363.456
17+940	364.299	363.872	0.427	362.258	363.358
17+950	364.355	363.865	0.490	362.005	363.311
17+960	364.419	363.917	0.503	362.265	363.278
17+970	364.493	363.956	0.538	362.304	363.440
17+980	364.576	363.991	0.585	362.422	363.607
18+000	364.661	364.081	0.581	362.401	363.639
18+000	364.747	364.186	0.562	362.623	363.721

Vertical Alignment: Lc=150.00m | L=183.99m G=1.82% | Lc=400.00m | L=83.87m G=-0.93% | Lc=200.00m

Horizontal Alignment: Lc=60.00m | Rc=800.00m Lc=260.52m | Lc=60.00m | L=509.29m

Superelevation: 17+132.77 2.50% | 17+192.77 | 17+192.77 | 17+252.77 -5.00% | 17+483.29 -5.00% | 17+513.29 | 17+543.29 | 17+573.29 -2.50%

Chainage: 17+000 … 18+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s. Ramniwas Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.)-462039, Phone:-+91 (755) 2597600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, U-5 1403 Valley View Estate, Gurugram Faridabad Road, Gurugram, Haryana-122003, M-9873858396, Email-khannagoyalnfers@gmail.com — AUTHORIZED SIGNATURE

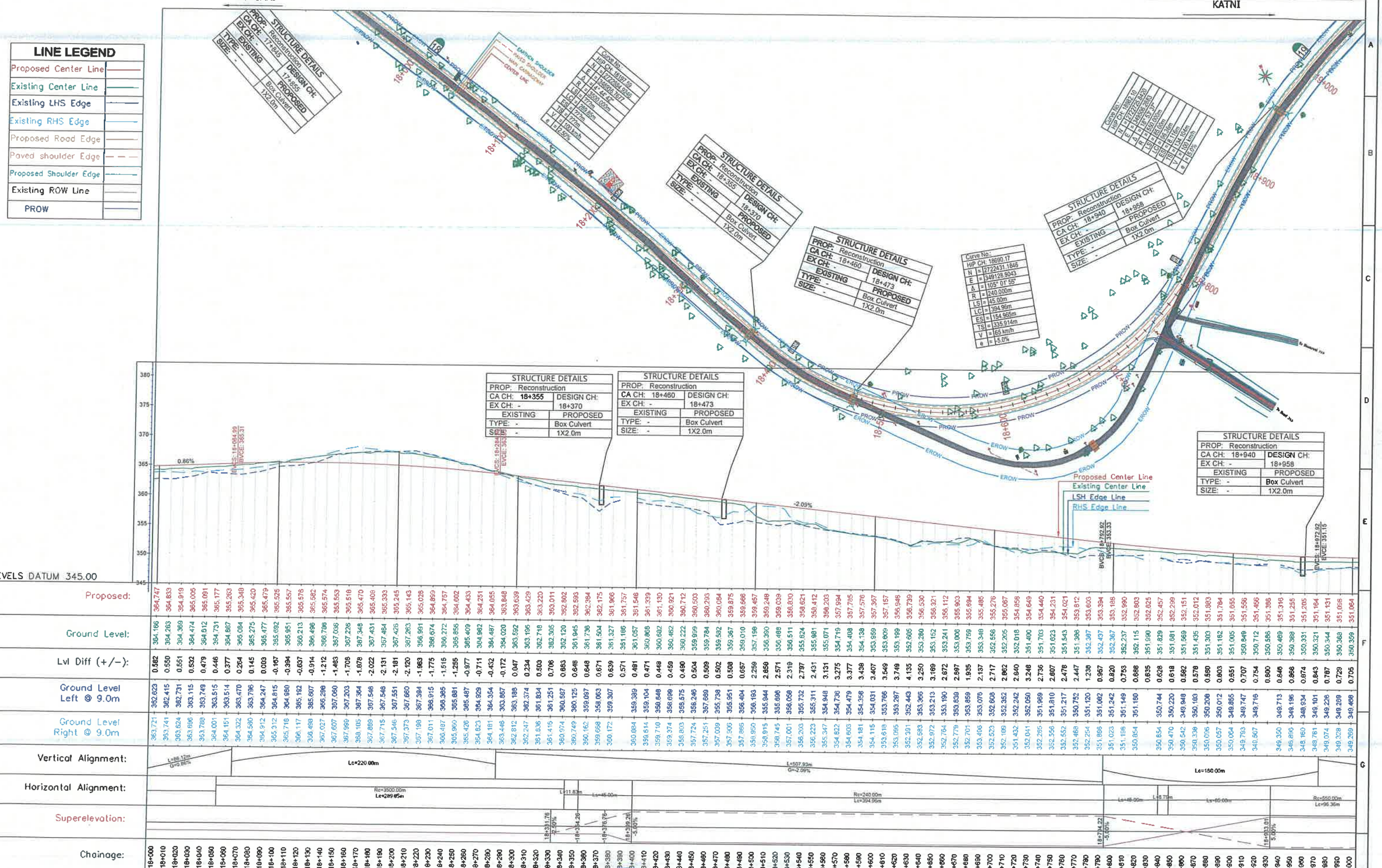
AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 17+000 TO 18+000

ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 18 TO 42 | REV. 01



REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills,
Bhopal, Madhya Pradesh
Pin-462004

EPC CONTRACTOR:
M/s Ramraja Construction Company,
Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:-+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M-2, First Floor,
Noble Plaza, M.P. Nagar Zone-II,
Bhopal (M.P.)-462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
E-5, 1st Floor Valley View Estate
Gurugram Faridabad Road Gurugram
Haryana - 122003 M-9873858396
Email - (khannadesigners@gmail.com)
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 18+000 TO 19+000

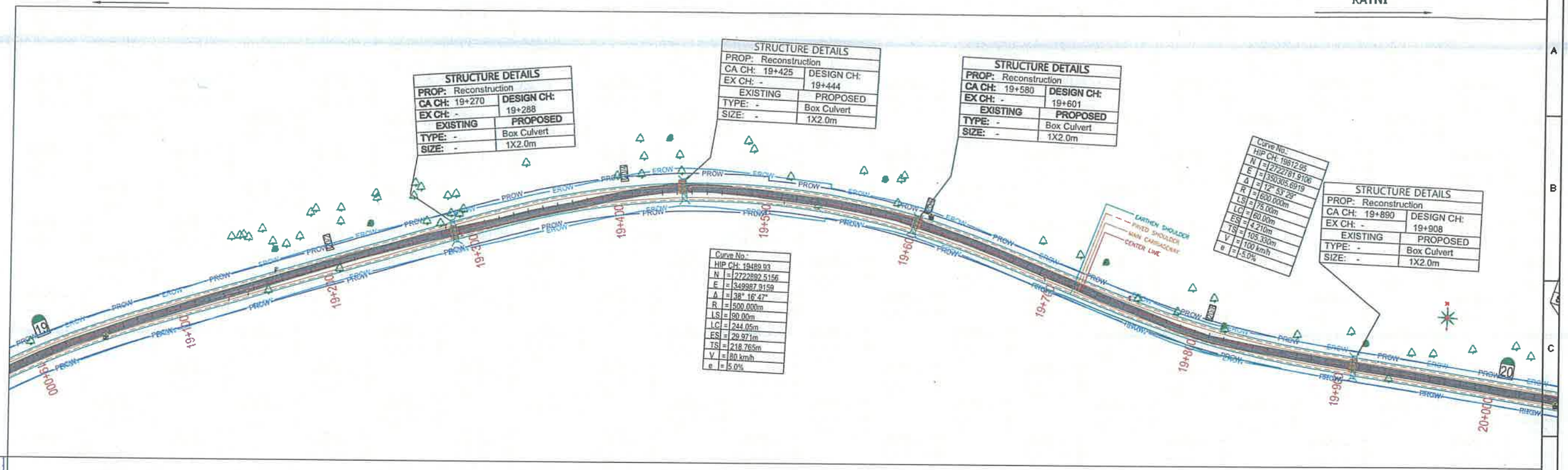
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

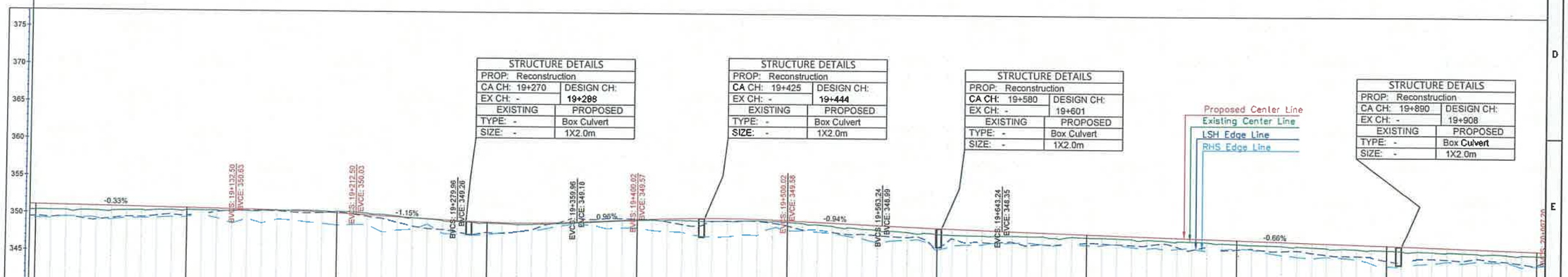
DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 19 TO 42 | REV. 01

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	





LEVELS DATUM 340.00

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
19+000	351.064	350.359	0.705	349.468	349.269
19+010	351.031	350.337	0.695	349.354	349.218
19+020	350.998	350.330	0.668	349.479	349.442
19+030	350.965	350.329	0.636	349.247	349.362
19+040	350.932	350.302	0.630	349.070	349.301
19+050	350.899	350.309	0.591	349.293	349.109
19+060	350.866	350.347	0.519	349.500	349.325
19+070	350.833	350.387	0.446	349.477	349.315
19+080	350.800	350.422	0.378	349.660	349.410
19+090	350.767	350.445	0.321	349.831	349.493
19+100	350.734	350.454	0.280	349.732	349.569
19+110	350.701	350.433	0.267		
19+120	350.668	350.420	0.248	350.257	349.372
19+130	350.635	350.391	0.244	350.413	348.717
19+140	350.599	350.400	0.199	350.423	349.323
19+150	350.553	350.436	0.117	350.458	348.717
19+160	350.497	350.461	0.036	350.389	349.250
19+170	350.431	350.498	-0.067	350.233	349.140
19+180	350.354	350.486	-0.132	350.137	348.907
19+190	350.267	350.408	-0.141	350.163	348.723
19+200	350.170	350.372	-0.201	350.323	348.507
19+210	350.063	350.295	-0.232	350.044	348.607
19+220	349.948	350.166	-0.218	349.737	348.604
19+230	349.833	350.005	-0.172	349.463	347.602
19+240	349.718	349.817	-0.099	348.914	347.904
19+250	349.603	349.614	-0.010	348.468	348.047
19+260	349.488	349.439	0.050	348.147	348.732
19+270	349.374	349.282	0.092	348.047	347.529
19+280	349.259	349.152	0.107	347.719	347.403
19+290	349.157	349.046	0.111	347.399	347.308
19+300	349.062	348.962	0.120	347.693	347.413
19+310	349.033	348.911	0.122	347.626	347.669
19+320	349.010	348.799	0.211	347.785	347.643
19+330	349.044	348.843	0.171	348.097	347.947
19+340	349.101	348.914	0.130	348.840	348.313
19+350	349.184	348.993	0.108	349.225	348.691
19+360	349.284	349.104	0.080		
19+370	349.280	349.202	0.078	349.547	348.732
19+380	349.376	349.302	0.074	349.682	349.009
19+390	349.472	349.397	0.075	349.687	348.445
19+400	349.568	349.472	0.096	349.042	348.436
19+410	349.655	349.533	0.122	349.530	348.119
19+420	349.722	349.551	0.172	349.304	348.010
19+430	349.771	349.513	0.258	348.964	347.995
19+440	349.801	349.433	0.368	348.784	347.464
19+450	349.811	349.431	0.380	348.401	347.331
19+460	349.803	349.414	0.390	349.458	347.362
19+470	349.776	349.452	0.323	349.500	347.588
19+480	349.729	349.539	0.190	349.457	347.542
19+490	349.664	349.478	0.187	349.220	348.540
19+500	349.580	349.357	0.223	348.881	348.186
19+510	349.486	349.207	0.279	348.372	348.259
19+520	349.392	349.052	0.340	348.324	348.068
19+530	349.298	348.885	0.414	348.047	348.119
19+540	349.205	348.707	0.498	347.814	347.550
19+550	349.111	348.491	0.620	347.819	347.205
19+560	349.017	348.397	0.620	347.683	346.751
19+570	348.924	348.275	0.649	347.544	346.986
19+580	348.834	348.124	0.710	347.448	347.062
19+590	348.749	348.040	0.709	347.329	346.981
19+600	348.665	347.909	0.756	348.051	345.847
19+610	348.586	347.782	0.804	347.328	346.401
19+620	348.510	347.742	0.768	346.777	346.495
19+630	348.438	347.739	0.698	346.838	346.550
19+640	348.369	347.724	0.645	346.819	346.756
19+650	348.303	347.719	0.583	346.938	346.765
19+660	348.237	347.682	0.555	346.456	346.651
19+670	348.171	347.673	0.498	346.591	346.636
19+680	348.105	347.490	0.616	346.590	346.514
19+690	348.039	347.625	0.414		
19+700	347.973	347.554	0.419	346.871	346.561
19+710	347.907	347.516	0.392	346.785	346.539
19+720	347.841	347.465	0.377	346.670	346.619
19+730	347.775	347.385	0.391	346.578	346.323
19+740	347.709	347.294	0.415	346.564	346.148
19+750	347.643	347.212	0.431	346.796	346.688
19+760	347.578	347.128	0.450	346.371	346.112
19+770	347.512	347.073	0.439	345.993	346.159
19+780	347.446	347.009	0.437		
19+790	347.380	346.873	0.507	345.976	346.096
19+800	347.314	346.784	0.530	346.072	346.196
19+810	347.248	346.682	0.566	346.200	346.118
19+820	347.182	346.631	0.550	345.932	345.680
19+830	347.116	346.569	0.546	345.671	345.347
19+840	347.050	346.503	0.547	345.924	345.146
19+850	346.994	346.413	0.571	345.848	344.964
19+860	346.918	346.316	0.603	345.416	345.145
19+870	346.852	346.239	0.613	345.283	345.044
19+880	346.786	346.175	0.611	345.257	344.836
19+890	346.720	346.097	0.624	345.085	344.305
19+900	346.654	346.025	0.629	344.873	343.928
19+910	346.588	345.965	0.623		
19+920	346.522	345.886	0.634	344.880	344.216
19+930	346.456	345.825	0.631	344.950	344.296
19+940	346.391	345.798	0.593	344.851	344.594
19+950	346.325	345.799	0.526	344.694	344.361
19+960	346.259	345.673	0.586	345.012	344.641
19+970	346.193	345.627	0.566	344.751	344.497
19+980	346.127	345.539	0.588	344.614	344.561
19+990	346.061	345.474	0.587	344.351	343.692
20+000	345.995	345.415	0.579	344.190	344.004

Vertical Alignment: L=159.58m G=-0.33%; Lc=80.00m; L=67.46m G=-1.15%; Lc=80.00m; L=40.08m G=0.96%; Lc=100.00m; L=63.20m G=0.94%; Lc=80.00m; L=363.98m G=-0.66%

Horizontal Alignment: Ls=80.00m; L=156.80m; Ls=90.00m; Rc=500.00m Lc=244.05m; Ls=90.00m; L=12.40m; Ls=75.00m; Rc=600.00m Lc=60.00m; Ls=75.00m; L=80.90m

Superelevation: 19+059.37 5.00%; 19+071.87; 19+114.37; 19+158.87 2.50%; 19+208.17 2.50%; 19+271.17; 19+316.17; 19+351.17 5.00%; 19+605.23 5.00%; 19+782.63 -5.00%; 19+812.62 -5.00%; 19+830.82; 19+917.62; 19+955.12 2.50%; 19+971.53 2.50%; 19+998.53

Chainage: 19+000 … 20+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Ramnia Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.)-462039, Phone:-+91 (755) 2687600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENAMCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T-2/1403 Valley View Estate, Gurugram-Faridabad Road, Gurugram, Haryana-122003, M-8673858396, Email-khannagoyaldesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE: PLAN & PROFILE — Chainage 19+000 TO 20+000

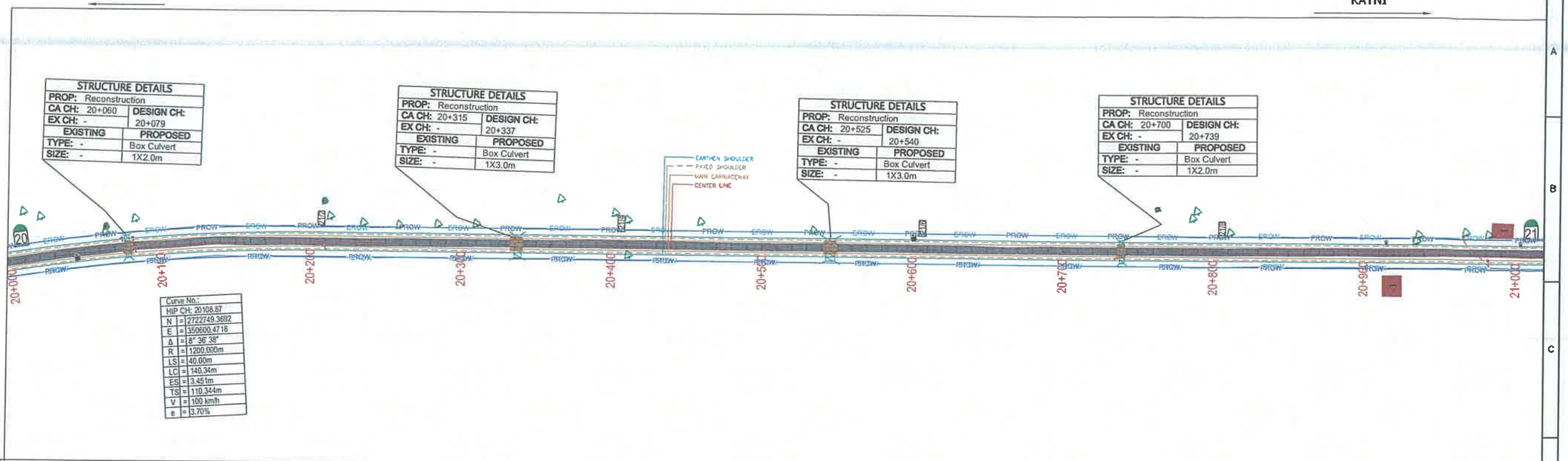
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 20 TO 42 | REV. 01

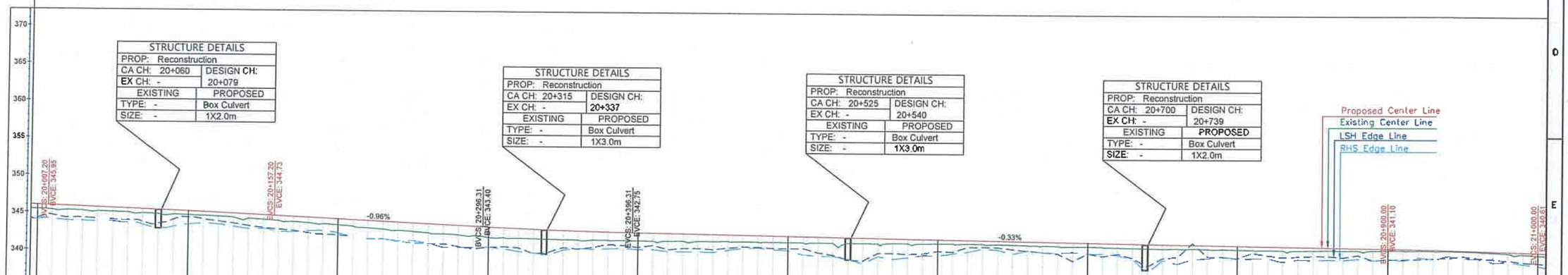
GULGANJ → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	



Curve No.:	
HIP CH: 20108.87	
N	= 2722749.3692
E	= 350600.4718
Δ	= 8° 36' 38"
R	= 1200.000m
LS	= 40.00m
LC	= 140.34m
ES	= 3.451m
TS	= 110.344m
V	= 100 km/h
e	= 3.70%



LEVELS DATUM 335.00

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
20+000	345.995	345.415	0.579	344.190	344.064
20+010	345.929	345.339	0.589	344.605	344.085
20+020	345.861	345.291	0.570	344.276	343.894
20+030	345.792	345.230	0.562	344.283	343.653
20+040	345.720	345.147	0.573	344.063	343.813
20+050	345.647	345.097	0.550	343.958	343.641
20+060	345.571	345.017	0.555	343.775	343.385
20+070	345.494	344.929	0.565	343.541	342.961
20+080	345.414	344.837	0.577	344.095	343.147
20+090	345.333	344.782	0.551	344.418	343.470
20+100	345.249	344.717	0.532	344.184	343.581
20+110	345.163	344.656	0.507	343.898	343.485
20+120	345.076	344.568	0.508	343.639	343.197
20+130	344.986	344.441	0.545	343.326	342.920
20+140	344.895	344.317	0.578	343.062	342.957
20+150	344.801	344.187	0.614	342.856	342.600
20+160	344.706	344.055	0.651	342.721	342.550
20+170	344.610	343.920	0.689	342.449	342.710
20+180	344.514	343.789	0.725	342.243	342.690
20+190	344.416	343.656	0.760	342.150	342.435
20+200	344.321	343.521	0.800	341.642	341.639
20+210	344.225	343.344	0.881	341.635	341.625
20+220	344.129	343.144	0.985	341.345	341.435
20+230	344.033	342.989	1.044	341.135	341.435
20+240	343.937	342.849	1.089	341.078	341.145
20+250	343.841	342.691	1.150	341.078	340.615
20+260	343.745	342.528	1.217	341.078	340.635
20+270	343.649	342.401	1.248	340.725	340.625
20+280	343.553	342.273	1.280	340.435	340.655
20+290	343.457	342.187	1.270	340.645	340.435
20+300	343.362	341.929	1.432	340.725	340.133
20+310	343.271	341.971	1.300	340.625	339.919
20+320	343.187	341.881	1.306	340.059	339.673
20+330	343.109	341.846	1.263	339.835	339.419
20+340	343.037	341.800	1.237	340.696	340.363
20+350	342.972	341.749	1.223	340.496	340.596
20+360	342.913	341.727	1.186	340.496	340.496
20+370	342.860	341.729	1.131	340.753	340.567
20+380	342.814	341.715	1.099	341.153	341.053
20+390	342.774	341.694	1.080	341.033	340.663
20+400	342.740	341.676	1.064	340.796	340.496
20+410	342.707	341.652	1.055	341.053	340.496
20+420	342.674	341.654	1.020	340.496	340.263
20+430	342.641	341.659	0.982	340.898	340.253
20+440	342.608	341.636	0.972	340.893	340.253
20+450	342.576	341.654	0.922	340.553	340.196
20+460	342.543	341.658	0.885	340.763	340.496
20+470	342.510	341.646	0.864	340.963	340.763
20+480	342.477	341.619	0.858	340.896	340.814
20+490	342.444	341.588	0.856	340.763	340.596
20+500	342.411	341.569	0.852	340.753	340.496
20+510	342.378	341.567	0.811	340.780	339.933
20+520	342.345	341.546	0.799	340.233	339.700
20+530	342.313	341.533	0.780	339.933	339.700
20+540	342.280	341.528	0.752	339.300	339.400
20+550	342.247	341.509	0.738	339.166	338.816
20+560	342.214	341.500	0.714	340.223	339.789
20+570	342.181	341.546	0.635	340.232	339.432
20+580	342.115	341.530	0.585	340.099	339.652
20+590	342.083	341.555	0.528	340.232	339.979
20+600	342.050	341.542	0.508	340.532	339.929
20+610	342.017	341.540	0.477	340.452	340.232
20+620	341.984	341.530	0.454	341.125	340.452
20+630	341.951	341.492	0.459	341.085	340.895
20+640	341.918	341.442	0.476	340.840	340.753
20+650	341.885	341.406	0.477	340.845	340.232
20+660	341.853	341.350	0.503	340.455	340.699
20+670	341.820	341.309	0.511	340.335	340.432
20+680	341.787	341.258	0.529	339.322	340.432
20+690	341.754	341.245	0.509	340.322	340.522
20+700	341.721	341.218	0.503	339.965	340.322
20+710	341.688	341.148	0.540	340.312	340.132
20+720	341.655	341.075	0.580	339.765	339.632
20+730	341.622	341.052	0.570	338.650	337.835
20+740	341.590	341.016	0.574	339.765	339.522
20+750	341.557	341.040	0.517	339.922	339.022
20+760	341.524	341.022	0.502	341.765	339.612
20+770	341.491	340.985	0.506	339.932	339.765
20+780	341.458	340.951	0.507	339.932	339.992
20+790	341.425	340.913	0.512	339.765	339.968
20+800	341.392	340.883	0.509	340.512	339.768
20+810	341.360	340.863	0.497	340.168	339.816
20+820	341.327	340.839	0.488	339.932	339.632
20+830	341.294	340.815	0.479	340.022	339.632
20+840	341.261	340.825	0.436	340.128	339.574
20+850	341.228	340.849	0.379	340.085	339.616
20+860	341.195	340.839	0.356	339.935	339.574
20+870	341.162	340.854	0.308	340.244	339.728
20+880	341.129	340.865	0.264	339.571	339.571
20+890	341.097	340.871	0.226	339.671	339.739
20+900	341.062	340.895	0.167	339.671	339.071
20+910	341.025	340.884	0.141	339.738	339.738
20+920	340.984	340.861	0.123	339.828	339.738
20+930	340.940	340.839	0.101	339.900	340.208
20+940	340.892	340.803	0.089	340.151	339.905
20+950	340.842	340.752	0.090	339.895	339.808
20+960	340.789	340.661	0.127	339.751	339.351
20+970	340.732	340.542	0.190	339.596	339.451
20+980	340.672	340.410	0.262	339.351	339.113
20+990	340.608	340.299	0.309	339.218	338.988
21+000					

Vertical Alignment: Lc=150.00m; L=139.12m G=-0.96%; Lc=100.00m; L=503.69m G=-0.33%; Lc=100.00m

Horizontal Alignment: Ls=40.00m; R=1200.00m Lc=140.34m; Ls=40.00m; L=1007.42m

Superelevation: -19+998.53; -20+005.50; -20+038.53 3.70%; 20+178.87 3.70%; -20+191.87; -20+28.87; 20+245.86 2.40%

Chainage: 20+000 … 21+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhovan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, F-5, 1403 Valley View Estate, Gurugram Faridabad Road, Gurugram, Haryana-122003, M: 9873858396, Email: khannagoyaldesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

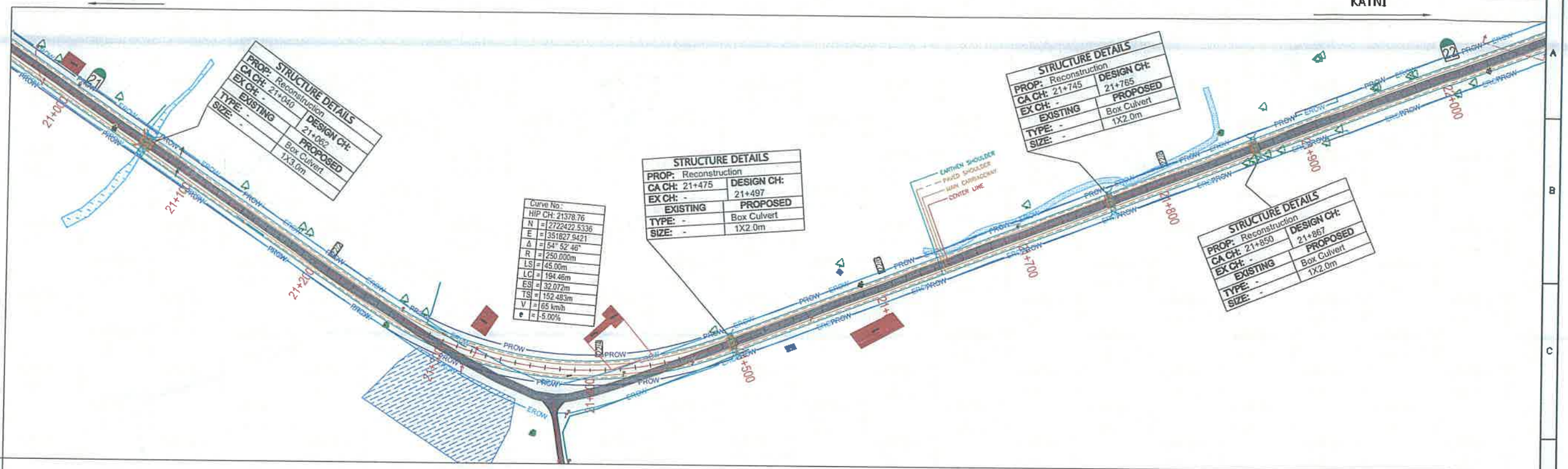
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE:	PLAN & PROFILE	Chainage	20+000 TO 21+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec-2024	SCALE:	DRAWING NO.:	SHEET NO.: 21 TO 42 — REV. 01

GULGANJ → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	



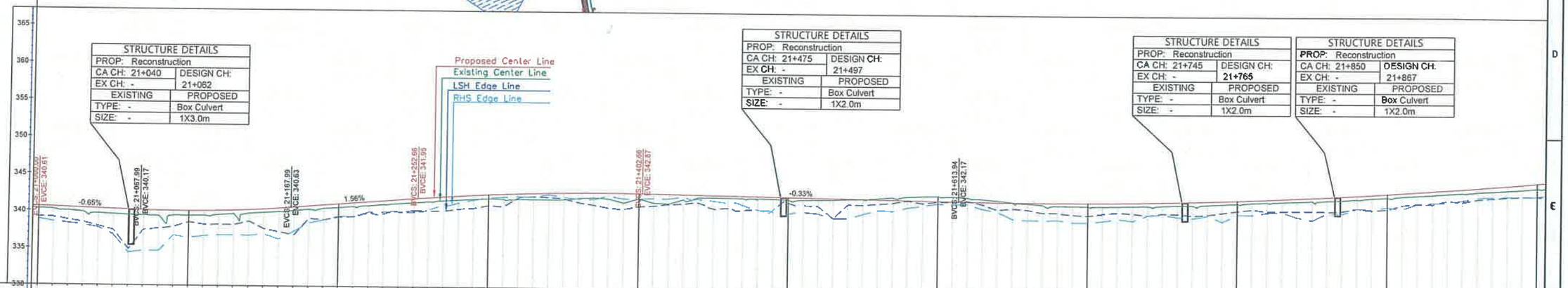
STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 21+040 | DESIGN CH: 21+062
EX CH: -
EXISTING | PROPOSED
TYPE: - | Box Culvert
SIZE: - | 1X3.0m

STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 21+475 | DESIGN CH: 21+497
EX CH: -
EXISTING | PROPOSED
TYPE: - | Box Culvert
SIZE: - | 1X2.0m

STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 21+745 | DESIGN CH: 21+765
EX CH: -
EXISTING | PROPOSED
TYPE: - | Box Culvert
SIZE: - | 1X2.0m

STRUCTURE DETAILS
PROP: Reconstruction
CA CH: 21+850 | DESIGN CH: 21+867
EX CH: -
EXISTING | PROPOSED
TYPE: - | Box Culvert
SIZE: - | 1X2.0m

Curve No.:
HIP CH: 21378.76
N = 2722422.5336
E = 351827.9421
Δ = 54° 52' 46"
R = 250.000m
LS = 45.00m
LC = 194.46m
ES = 32.072m
TS = 152.483m
V = 65 km/h
e = 5.00%



Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
21+000	340.608	340.299	0.309	339.218	338.898
21+010	340.544	340.213	0.331	339.129	338.518
21+020	340.479	340.027	0.452	338.756	338.316
21+030	340.414	339.857	0.557	338.451	338.113
21+040	340.349	339.691	0.658	337.951	337.741
21+050	340.284	339.584	0.700	337.451	336.798
21+060	340.220	339.475	0.745	337.451	334.425
21+070	340.155	339.444	0.711	337.468	334.668
21+080	340.106	339.398	0.708	337.671	334.568
21+090	340.079	339.454	0.625	337.915	336.782
21+100	340.074	339.445	0.629	338.565	338.453
21+110	340.091	339.490	0.601	338.225	336.725
21+120	340.130	339.591	0.539	338.275	336.835
21+130	340.191	339.697	0.494	338.246	336.035
21+140	340.275	339.798	0.477	338.735	336.825
21+150	340.380	339.934	0.446	337.725	337.025
21+160	340.508	340.058	0.450	337.315	336.362
21+170	340.657	340.206	0.451	336.835	337.462
21+180	340.813	340.385	0.428	339.168	338.568
21+190	340.969	340.521	0.448	339.005	338.999
21+200	341.126	340.644	0.482	339.368	339.462
21+210	341.282	340.801	0.481	339.425	339.466
21+220	341.438	340.941	0.497	339.865	340.066
21+230	341.594	341.091	0.503	339.834	340.070
21+240	341.751	341.245	0.506	340.060	340.196
21+250	341.907	341.374	0.533	340.057	340.265
21+260	342.060	341.520	0.540	340.266	340.448
21+270	342.200	341.662	0.538	340.560	341.364
21+280	342.328	341.789	0.540	340.678	341.785
21+290	342.444	341.895	0.549	341.032	342.115
21+300	342.547	342.009	0.537	341.097	342.222
21+310	342.637	341.957	0.680	342.150	342.321
21+320	342.714	341.965	0.749	342.328	342.296
21+330	342.779	341.933	0.846	342.249	342.612
21+340	342.831	341.925	0.906	342.070	342.293
21+350	342.871	341.948	0.923	341.598	342.092
21+360	342.896	342.173	0.725	341.267	342.032
21+370	342.912	342.266	0.645	340.691	342.502
21+380	342.914	342.114	0.799	340.753	342.166
21+390	342.903	341.600	1.303	341.118	342.202
21+400	342.879	342.201	0.678	341.248	342.237
21+410	342.846	341.616	1.230	341.445	342.232
21+420	342.813	341.550	1.263	341.526	342.375
21+430	342.779	342.109	0.670	341.695	342.168
21+440	342.746	342.393	0.353	340.948	341.960
21+450	342.713	342.409	0.304	341.009	341.710
21+460	342.679	342.375	0.304	340.751	341.376
21+470	342.646	342.357	0.299	340.839	340.765
21+480	342.613	342.335	0.278	340.834	340.601
21+490	342.579	342.284	0.295	341.792	340.259
21+500	342.546	342.217	0.329	341.364	340.364
21+510	342.513	342.214	0.299	339.764	339.754
21+520	342.479	342.237	0.242	339.587	339.748
21+530	342.446	342.251	0.195	341.597	340.364
21+540	342.412	342.317	0.095	341.597	340.900
21+550	342.379	342.344	0.035	341.734	340.797
21+560	342.346	342.485	-0.139	341.900	341.264
21+570	342.312	342.637	-0.325	342.220	341.559
21+580	342.279	342.747	-0.468	341.897	341.830
21+590	342.246	342.824	-0.578	342.097	341.797
21+600	342.212	342.860	-0.648	342.097	341.620
21+610	342.179	342.809	-0.630	342.240	341.195
21+620	342.147	342.695	-0.548	341.797	340.824
21+630	342.120	342.504	-0.384	341.091	339.881
21+640	342.098	342.320	-0.222	341.281	339.727
21+650	342.082	342.107	-0.025	341.124	339.724
21+660	342.072	341.947	0.125	340.724	339.781
21+670	342.057	341.776	0.281	340.724	339.491
21+680	342.066	341.696	0.362	340.461	339.481
21+690	342.075	341.672	0.403	340.381	339.681
21+700	342.087	341.646	0.441	340.624	339.561
21+710	342.105	341.652	0.453	340.824	339.727
21+720	342.129	341.675	0.454	340.727	339.491
21+730	342.158	341.704	0.454	340.481	340.571
21+740	342.193	341.737	0.456	340.724	340.281
21+750	342.233	341.797	0.436	340.691	340.134
21+760	342.273	341.850	0.429	340.501	340.491
21+770	342.331	341.867	0.464	340.601	339.691
21+780	342.388	341.941	0.447	340.881	340.634
21+790	342.451	342.034	0.417	341.134	340.801
21+800	342.520	342.101	0.419	341.337	341.001
21+810	342.594	342.217	0.377	341.127	341.322
21+820	342.674	342.294	0.380	341.127	339.881
21+830	342.759	342.375	0.384	341.161	340.826
21+840	342.850	342.434	0.416	341.137	341.525
21+850	342.947	342.517	0.430	341.061	341.425
21+860	343.049	342.563	0.485	341.192	341.728
21+870	343.157	342.647	0.510	341.522	341.478
21+880	343.271	342.790	0.481	341.282	342.162
21+890	343.390	342.912	0.478	341.457	342.326
21+900	343.515	343.033	0.482	342.002	342.425
21+910	343.646	343.185	0.461	343.185	343.104
21+920	343.762	343.308	0.474	342.182	343.224
21+930	343.923	343.421	0.502	342.125	343.294
21+940	344.071	343.568	0.503	342.625	343.337
21+950	344.224	343.707	0.517	342.462	0.000
21+960	344.362	343.838	0.524	342.894	0.000
21+970	344.547	343.960	0.587	343.031	0.000
21+980	344.717	344.105	0.612	343.204	0.000
21+990	344.892	344.246	0.646	343.294	0.000
22+000	345.073	344.421	0.652	343.337	0.000

Vertical Alignment: L=67.99m G=-0.65% | Lc=100.00m | L=84.67m G=1.56% | Lc=150.00m | L=211.26m G=-0.33% | Lc=500.00m

Horizontal Alignment: Ls=45.00m | Rc=250.00m Lc=194.46m | Ls=45.00m | L=669.32m

Superelevation: 21+203.78 2.40% | 21+226.28 | 21+248.78 | 21+271.28 -5.00% | 21+455.74 -5.00% | 21+478.24 | 21+510.74 | 21+533.24 -2.26%

Chainage: 21+000 … 22+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin-462004

EPC CONTRACTOR:
M/s Bannala Construction Company,
Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:-+91 (755) 2987600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M-2, First Floor,
Noble Plaza, M.P. Nagar Zone-II,
Bhopal (M.P.)-462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
1403 Valley View Estate
Gurugram-Faridabad Road, Gurugram
Haryana-122003 M-9873858396
Email - khannabadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

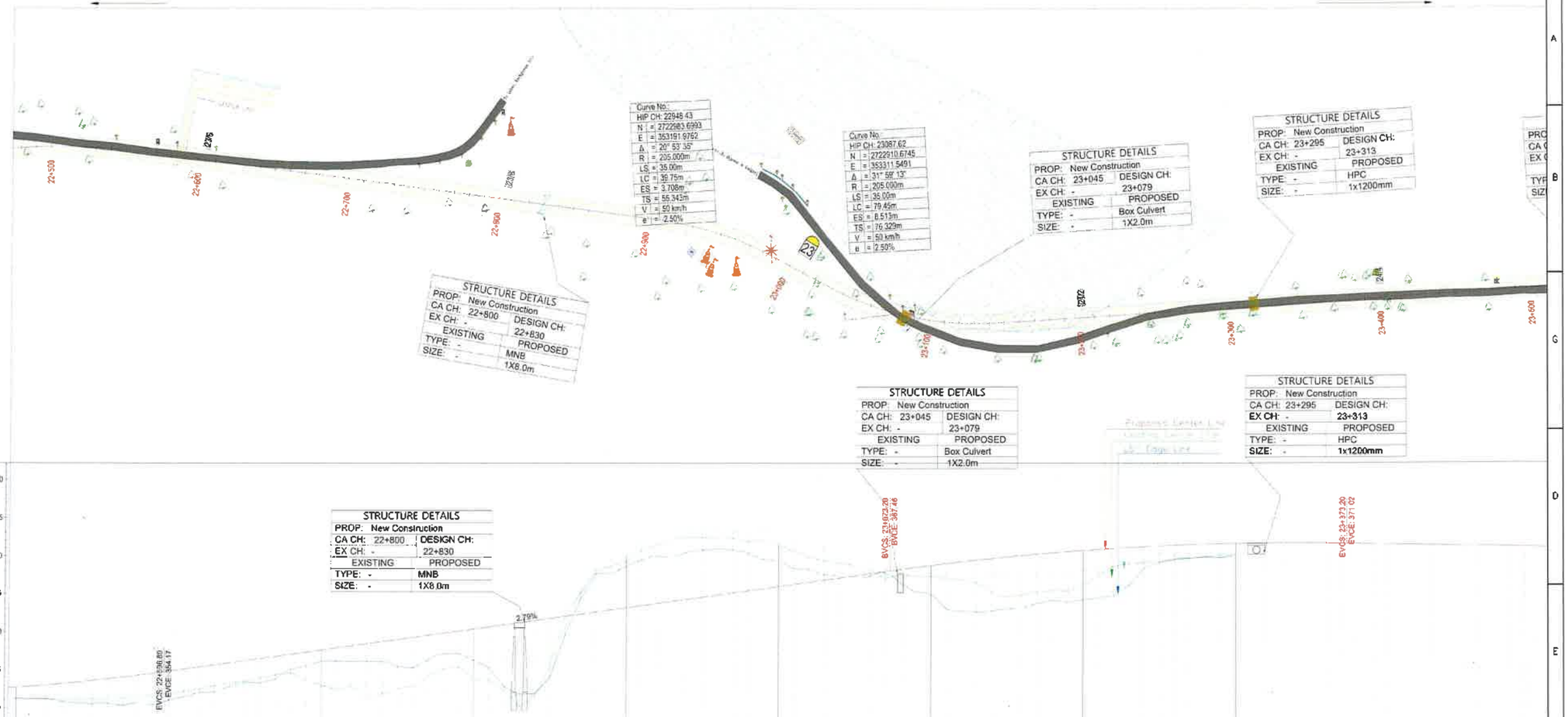
NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE:	PLAN & PROFILE	Chainage	21+000 TO 22+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec-2024	SCALE:	DRAWING NO.:	SHEET NO.: 22 TO 42 / REV. 01

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing ROW Line	
PROW	



REV.	DESCRIPTION OF REVISIONS	DATE
R 1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills,
Bhopal, Madhya Pradesh
Pin-462004

EPC CONTRACTOR:
M/s Ramraja Construction Company,
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:-+91 (755) 2987600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Kanwal Goyal Designers LLP
1403 Valley View Estate
Gurugram Pandwala Road, Gurugram
Haryana-122003
Email: info@kgdesigners.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVED SHOULDERS FROM KM 0.000 (GULGANJ BYPASS JN. NH-34) TO KM 43.000 (BARNA RIVER) LENGTH 43.000 KM ON GULGANJ - BAMHORI - BARNA - KATNI ROAD IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE: PLAN & PROFILE — Chainage

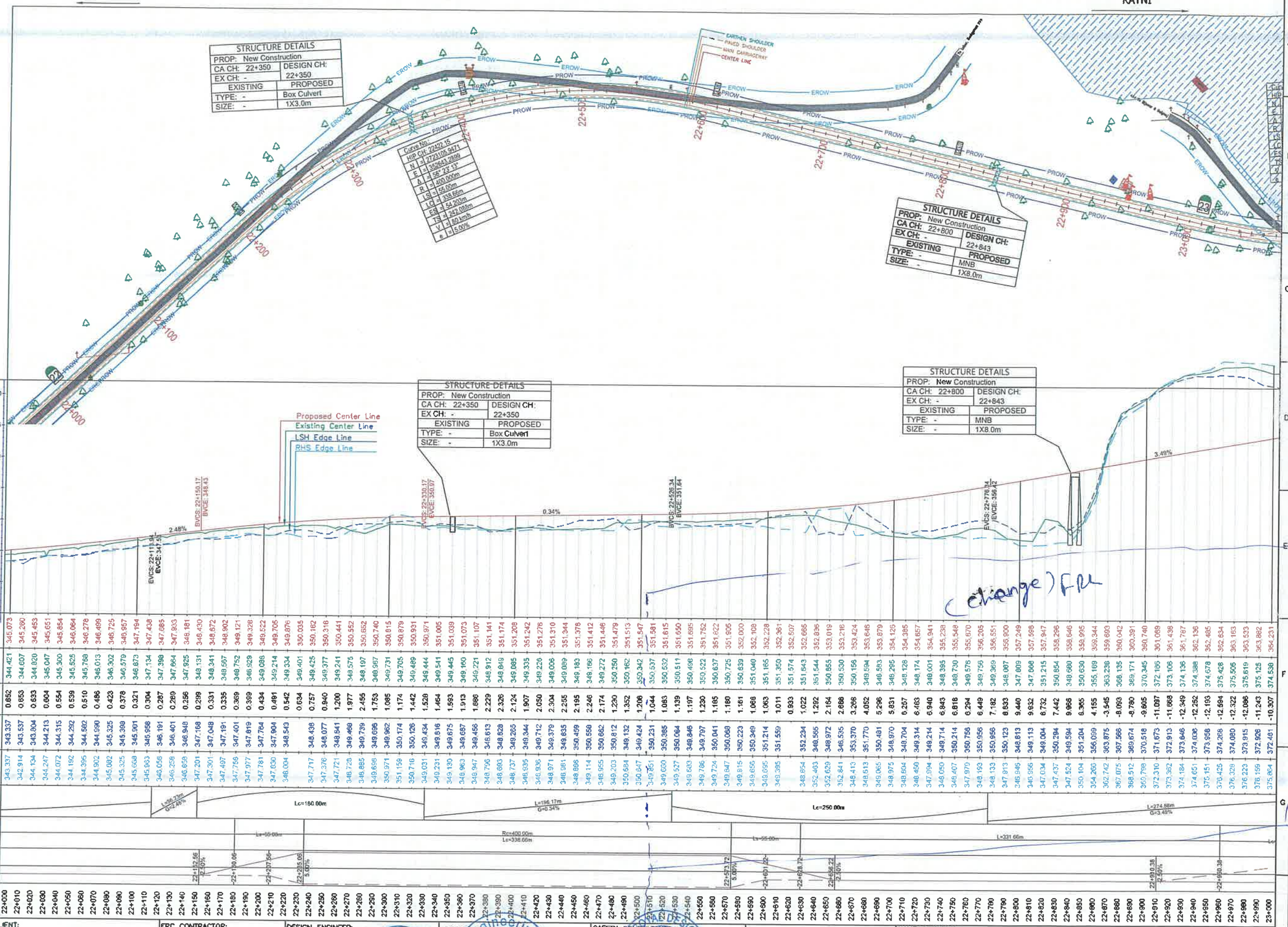
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: | REV. 01

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	



REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENAMCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, F-5 1403 Valley View Estate, Gurugram Faridabad Road Gurugram Haryana-122003, M-9873858396, Email - khannagoyaldesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM. ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 22+000 TO 23+000

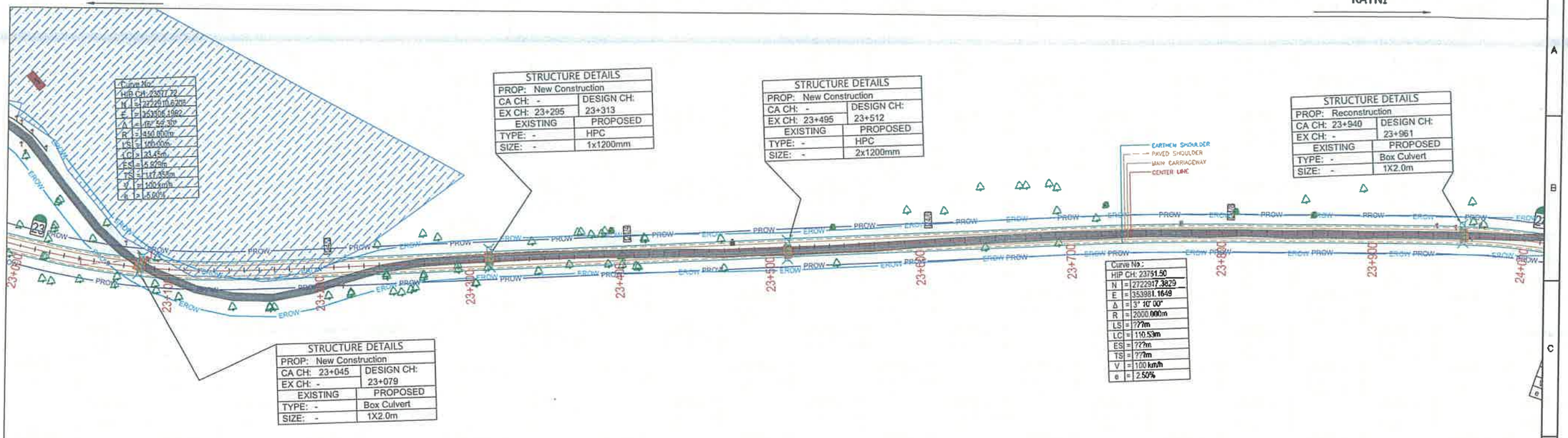
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 23 TO 42 | REV. 01

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	

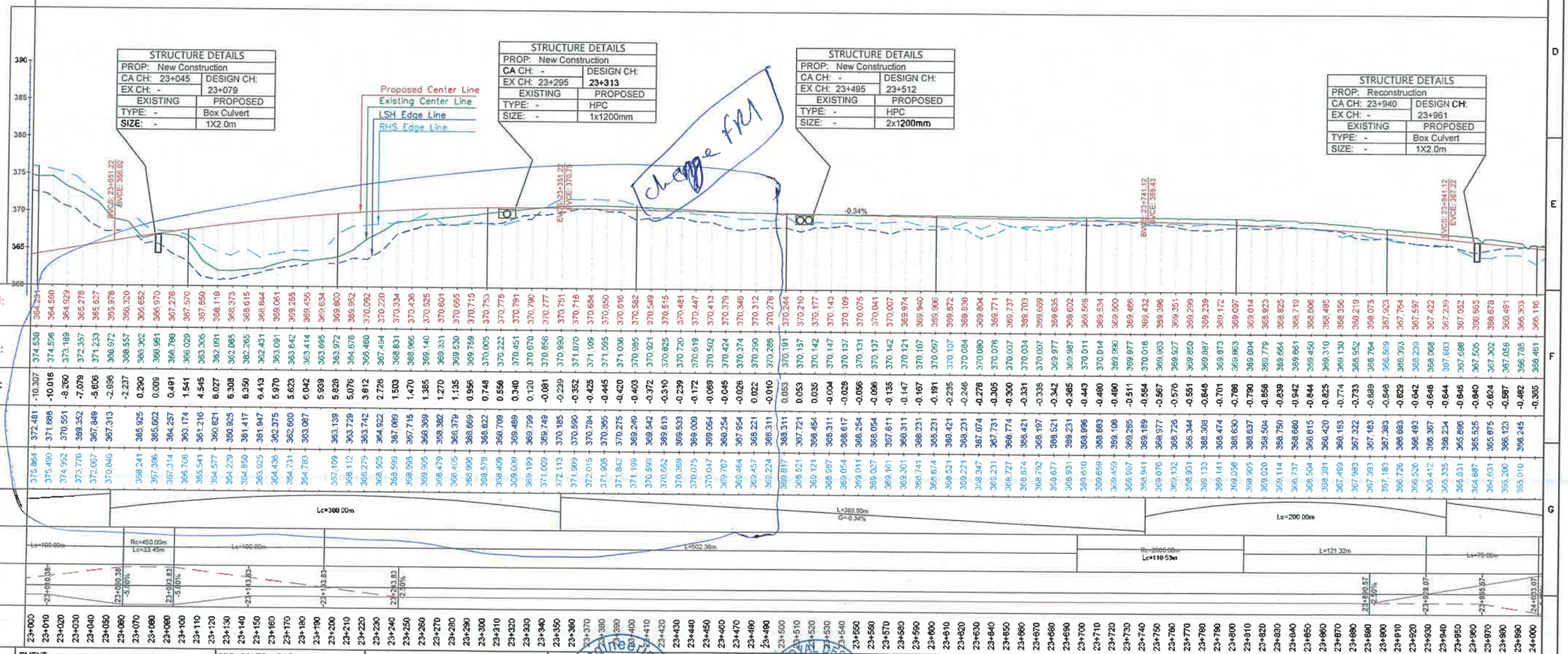


STRUCTURE DETAILS	
PROP: New Construction	
CA CH: -	DESIGN CH: 23+079
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: -	DESIGN CH: 23+313
EX CH: 23+295	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: -	DESIGN CH: 23+512
EX CH: 23+495	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 23+940	DESIGN CH: 23+961
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m



REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Rajpaja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:- +91 (755) 2987600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T-5 3403 Valley View Estate, Gurugram Faridabad Road, Gurugram Haryana-122003, M-9873858396, Email - khannagoyaldesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

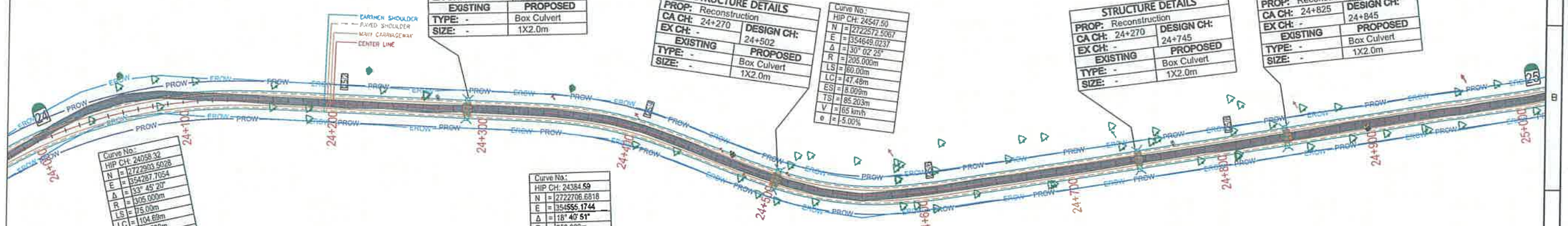
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE:	PLAN & PROFILE	Chainage	23+000 TO 24+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec-2024	SCALE:	DRAWING NO.:	SHEET NO.: 24 TO 42 — REV. 01

GULGANJ ← | → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	



STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 24+270	DESIGN CH: 24+290
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 24+270	DESIGN CH: 24+502
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

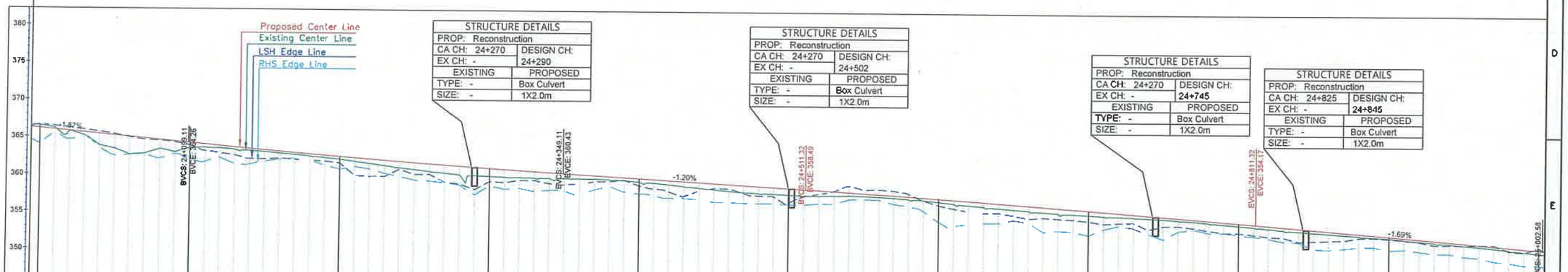
Curve No.:	
HIP CH: 24547.50	
N	= 2722572.5067
E	= 354649.0237
Δ	= 30° 02' 25"
R	= 205.000m
LS	= 60.00m
LC	= 147.48m
ES	= 8.009m
TS	= 85.203m
V	= 65 km/h
e	= 5.00%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 24+270	DESIGN CH: 24+745
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 24+825	DESIGN CH: 24+845
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

Curve No.:	
HIP CH: 24058.32	
N	= 2722903.5028
E	= 354267.7054
Δ	= 33° 45' 20"
R	= 305.000m
LS	= 75.00m
LC	= 104.69m
ES	= 14.532m
TS	= 130.270m
V	= 80 km/h
e	= 5.00%

Curve No.:	
HIP CH: 24384.59	
N	= 2722706.6818
E	= 354555.1744
Δ	= 18° 40' 51"
R	= 250.000m
LS	= 45.00m
LC	= 36.51m
ES	= 3.701m
TS	= 63.676m
V	= 65 km/h
e	= 5.00%



LEVELS DATUM 345.00

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
24+000	366.116	366.481	-0.365	368.382	365.226
24+010	365.929	366.120	-0.191	366.172	364.615
24+020	365.742	365.739	0.002	365.910	363.002
24+030	365.555	365.110	0.444	363.640	363.515
24+040	365.367	363.810	1.557	363.322	362.488
24+050	365.180	363.357	1.823	364.945	362.574
24+060	364.993	362.618	2.375	364.609	362.571
24+070	364.806	362.758	2.046	364.506	362.158
24+080	364.619	363.393	1.226	364.305	362.703
24+090	364.431	362.949	1.483	363.868	362.008
24+100	364.244	363.550	0.695	363.163	361.749
24+110	364.059	363.602	0.457	363.163	362.228
24+120	363.875	363.525	0.351	362.882	361.427
24+130	363.696	363.368	0.328	362.614	361.410
24+140	363.518	363.228	0.290	362.152	361.828
24+150	363.343	363.079	0.264	362.116	361.101
24+160	363.171	362.908	0.263	362.242	362.160
24+170	363.002	362.740	0.262	362.075	
24+180	362.835	362.530	0.305		361.307
24+190	362.671	362.337	0.334	361.664	360.823
24+200	362.510	362.128	0.382	361.644	361.154
24+210	362.351	361.874	0.477	359.964	360.654
24+220	362.196	361.593	0.603	359.864	360.307
24+230	362.043	361.329	0.714	359.684	359.864
24+240	361.892	361.070	0.822	360.894	359.420
24+250	361.744	360.817	0.927	360.174	359.307
24+260	361.599	360.590	1.009	360.197	359.064
24+270	361.457	360.365	1.092	359.164	358.600
24+280	361.318	360.185	1.133	358.943	357.500
24+290	361.181	360.072	1.109	358.200	356.743
24+300	361.047	359.972	1.075	359.000	358.290
24+310	360.915	359.906	1.009	359.190	358.390
24+320	360.786	359.854	0.932	359.490	359.013
24+330	360.660	359.812	0.848	359.487	358.207
24+340	360.537	359.796	0.741	359.091	358.102
24+350	360.416	359.761	0.655	358.937	
24+360	360.297	359.756	0.541		359.290
24+370	360.177	359.742	0.435	359.386	358.741
24+380	360.058	359.658	0.400	359.412	359.033
24+390	359.938	359.533	0.405	359.575	357.806
24+400	359.819	359.376	0.443	358.882	357.561
24+410	359.699	359.219	0.480	358.474	357.257
24+420	359.580	359.032	0.548	358.076	357.210
24+430	359.460	358.811	0.649	357.483	
24+440	359.341	358.602	0.739		356.719
24+450	359.221	358.408	0.813	358.614	356.719
24+460	359.102	358.214	0.888	358.519	356.629
24+470	358.982	358.060	0.922	357.937	356.605
24+480	358.863	357.954	0.909	357.629	356.598
24+490	358.743	357.868	0.877	357.536	356.477
24+500	358.624	357.775	0.849	357.585	356.471
24+510	358.504	357.669	0.835		
24+520	358.384	357.646	0.738		356.614
24+530	358.262	357.686	0.576	358.300	357.201
24+540	358.139	357.704	0.435	358.566	357.239
24+550	358.014	357.655	0.359	358.495	357.173
24+560	357.887	357.576	0.311	358.556	356.642
24+570	357.759	357.450	0.309	358.399	356.355
24+580	357.629	357.296	0.333	358.004	355.695
24+590	357.497	357.155	0.342	357.169	354.303
24+600	357.364	356.964	0.400	356.509	353.757
24+610	357.229	356.741	0.488	356.096	
24+620	357.093	356.541	0.552	356.521	354.176
24+630	356.955	356.361	0.594	355.550	354.212
24+640	356.815	356.173	0.642	355.213	354.583
24+650	356.673	356.016	0.657	354.836	354.312
24+660	356.530	355.860	0.670	354.961	353.096
24+670	356.386	355.684	0.702	354.636	353.213
24+680	356.239	355.544	0.695	354.731	353.112
24+690	356.091	355.461	0.630	354.550	352.891
24+700	355.942	355.351	0.591	354.201	353.481
24+710	355.791	355.224	0.567	354.312	353.971
24+720	355.638	355.156	0.482	354.371	353.056
24+730	355.483	355.090	0.393	353.502	352.903
24+740	355.327	354.971	0.356	353.921	352.191
24+750	355.169	354.656	0.313	353.952	353.236
24+760	355.010	354.726	0.284	353.714	353.540
24+770	354.849	354.587	0.262	353.363	353.071
24+780	354.686	354.404	0.282	353.106	352.851
24+790	354.522	354.221	0.301	353.081	352.602
24+800	354.356	354.040	0.316	352.840	352.371
24+810	354.186	353.881	0.307	352.603	351.940
24+820	354.019	353.674	0.345	352.491	351.978
24+830	353.851	353.466	0.385	351.935	350.968
24+840	353.682	353.312	0.370	352.034	350.898
24+850	353.513	353.166	0.347	352.096	351.072
24+860	353.345	353.018	0.327	352.182	351.272
24+870	353.176	352.866	0.310	352.503	351.278
24+880	352.996	352.746	0.262	352.503	350.878
24+890	352.839	352.585	0.254	352.378	350.978
24+900	352.670	352.453	0.217	352.252	350.978
24+910	352.502	352.266	0.236	352.066	350.723
24+920	352.333	352.068	0.265	352.022	350.434
24+930	352.164	351.908	0.256	351.575	350.456
24+940	351.996	351.748	0.248	351.605	350.083
24+950	351.827	351.566	0.261	351.578	349.916
24+960	351.658	351.410	0.248	351.654	349.485
24+970	351.490	351.210	0.280	351.690	349.305
24+980	351.321	350.985	0.336	350.880	348.965
24+990	351.152	350.766	0.386	350.720	348.089
25+000	350.984	350.554	0.430	351.280	

Vertical Alignment: L=157.89m G=-1.87% | Lc=250.00m | L=182.21m G=-1.20% | Lc=300.00m | L=191.25m G=-1.69%

Horizontal Alignment: Rc=305.00m Lc=104.69m | Ls=75.00m | L=136.16m | Ls=45.00m | Rc=250.00m Lc=36.51m | Ls=45.00m | L=14.89m | Ls=60.00m | Rc=205.00m Lc=147.48m | Ls=60.00m | L=376.46m

Superelevation: 24+013.07 5.00% | 24+117.76 5.00% | 24+215.26 | 24+232.76 | 24+270.26 2.50% | 24+288.42 2.50% | 24+320.92 | 24+343.42 | 24+365.92 5.00% | 24+402.43 5.00% | 24+522.32 -5.00% | 24+559.80 -5.00% | 24+599.80 | 24+628.80 | 24+659.80 2.50% | 24+978.76 2.50%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 24+270	DESIGN CH: 24+290
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 24+270	DESIGN CH: 24+502
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 24+270	DESIGN CH: 24+745
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 24+825	DESIGN CH: 24+845
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Ramala Construction Company, Jer Bhavon, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, 135 1403 Valley View Estate, Gurugram Faridabad Road, Gurugram Haryana-122003, M-9873858396, Email: khannagoyaldesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ-- AMANGANJ-- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 24+000 TO 25+000

ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

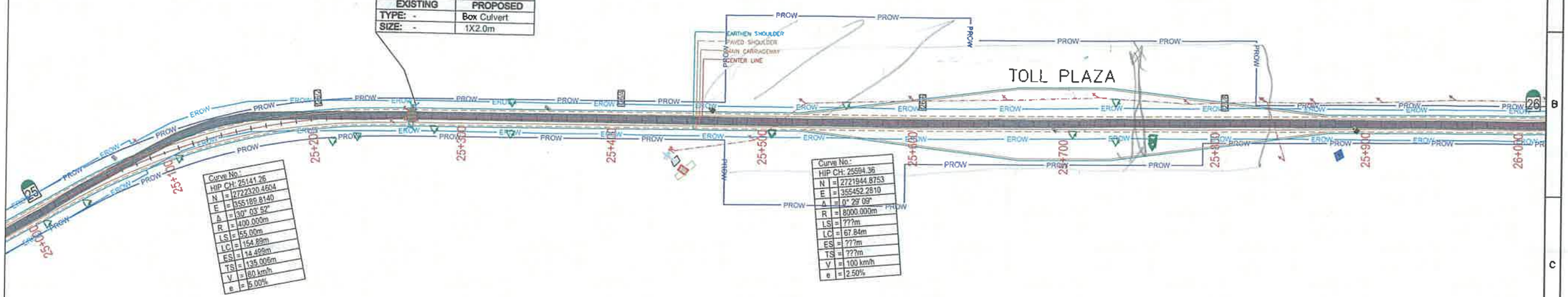
DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 25 TO 42 | REV. 01

GULGANJ → KATNI

LINE LEGEND

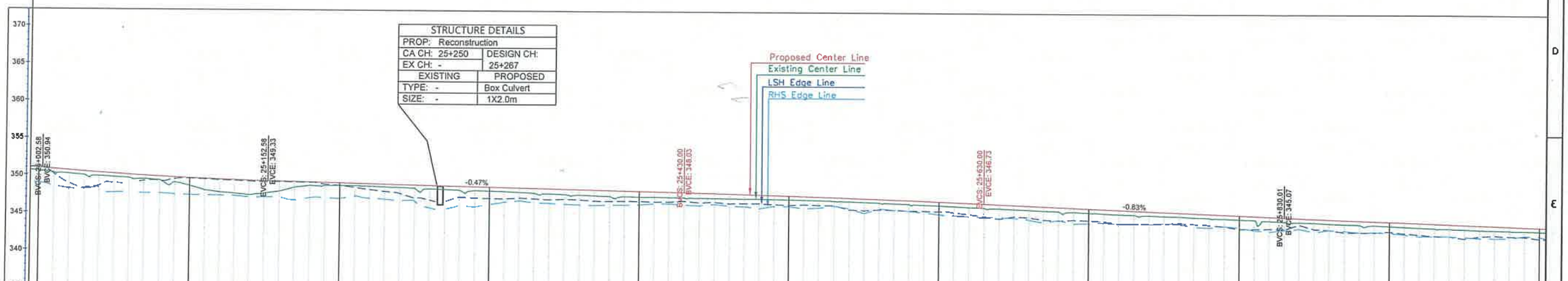
Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 25+250	DESIGN CH: 25+267
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m



Curve No.:
HIP CH: 25141.26
N = 2722320.4604
E = 355189.8140
Δ = 30° 03' 52"
R = 400.000m
LS = 55.00m
LC = 154.89m
ES = 14.499m
TS = 135.006m
V = 80 km/h
e = 5.00%

Curve No.:
HIP CH: 25594.36
N = 2721944.8753
E = 355452.2810
Δ = 0° 29' 09"
R = 8000.000m
LS = ???m
LC = 67.84m
ES = ???m
TS = ???m
V = 100 km/h
e = 2.50%



LEVELS DATUM 335.00

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
25+000	350.984	350.554	0.430	351.280	348.985
25+010	350.817	350.345	0.472	350.163	348.554
25+020	350.659	350.170	0.489	348.892	348.167
25+030	350.508	350.020	0.488	348.260	348.115
25+040	350.366	349.890	0.476	348.572	348.285
25+050	350.232	349.755	0.477	348.960	347.715
25+060	350.106	349.660	0.446		347.644
25+070	349.996	349.534	0.454	349.286	347.636
25+080	349.878	349.389	0.489	349.315	347.505
25+090	349.777	349.118	0.659	349.554	347.424
25+100	349.683	348.657	1.026	349.627	347.399
25+110	349.598	348.061	1.536	349.552	347.380
25+120	349.521	347.787	1.734	349.428	347.339
25+130	349.452	347.652	1.800	349.358	347.145
25+140	349.391	347.443	1.948	349.282	347.167
25+150	349.338	347.659	1.679	349.192	347.099
25+160	349.291	347.938	1.353	349.215	346.737
25+170	349.244	348.471	0.773	349.160	347.081
25+180	349.198	348.717	0.480	349.150	347.122
25+190	349.151	348.728	0.423	348.915	346.993
25+200	349.104	348.716	0.388	348.753	347.395
25+210	349.058	348.713	0.345	348.468	347.054
25+220	349.011	348.660	0.351	348.214	346.938
25+230	348.964	348.595	0.369	347.967	346.778
25+240	348.916	348.520	0.396	347.730	346.700
25+250	348.871	348.438	0.433	347.163	345.818
25+260	348.824	348.366	0.458	346.683	
25+270	348.778	348.306	0.472		345.113
25+280	348.731	348.223	0.508	347.293	345.968
25+290	348.685	348.158	0.527	347.124	345.968
25+300	348.638	348.115	0.523	347.124	346.324
25+310	348.591	348.067	0.524	347.087	346.647
25+320	348.545	347.962	0.583	347.205	346.641
25+330	348.498	347.867	0.631	347.102	346.603
25+340	348.451	347.802	0.649	347.007	346.522
25+350	348.405	347.733	0.672	347.077	346.412
25+360	348.358	347.650	0.708	347.034	346.341
25+370	348.311	347.567	0.744	346.855	346.292
25+380	348.265	347.511	0.754	346.841	346.347
25+390	348.218	347.485	0.733	346.876	346.347
25+400	348.171	347.462	0.709	346.847	346.391
25+410	348.125	347.427	0.698	346.772	346.547
25+420	348.078	347.387	0.691	346.792	346.551
25+430	348.031	347.355	0.676	346.897	346.392
25+440	347.984	347.295	0.689	346.703	346.303
25+450	347.935	347.282	0.653	346.777	346.503
25+460	347.883	347.257	0.626	346.604	346.287
25+470	347.830	347.235	0.595	346.624	346.203
25+480	347.775	347.228	0.547	346.609	345.971
25+490	347.719	347.193	0.526	346.509	346.271
25+500	347.660	347.160	0.500	346.415	346.260
25+510	347.600	347.122	0.478	346.501	345.975
25+520	347.538	347.060	0.478	346.435	345.980
25+530	347.474	347.019	0.455	346.410	346.340
25+540	347.408	346.933	0.475	346.019	345.871
25+550	347.340	346.872	0.468	345.760	345.389
25+560	347.271	346.811	0.460	345.890	346.013
25+570	347.199	346.721	0.478	345.638	345.863
25+580	347.126	346.642	0.484	345.775	345.712
25+590	347.051	346.550	0.501	345.728	345.519
25+600	346.974	346.490	0.484	345.687	345.306
25+610	346.896	346.365	0.531	345.551	345.135
25+620	346.815	346.265	0.550	345.293	345.020
25+630	346.733	346.200	0.533	345.040	344.915
25+640	346.650	346.130	0.520	344.749	344.971
25+650	346.567	346.035	0.532	344.071	344.871
25+660	346.484	345.950	0.534	344.971	344.309
25+670	346.400	345.865	0.535	344.659	344.636
25+680	346.317	345.802	0.515	344.556	344.159
25+690	346.234	345.716	0.518	344.659	344.227
25+700	346.151	345.627	0.524	344.579	344.259
25+710	346.068	345.530	0.538	344.447	344.137
25+720	345.984	345.432	0.552	344.158	344.158
25+730	345.901	345.366	0.535	344.112	344.096
25+740	345.818	345.292	0.526	344.158	344.227
25+750	345.735	345.202	0.533	344.158	344.227
25+760	345.652	345.147	0.505	344.276	343.807
25+770	345.568	345.040	0.528	344.127	343.682
25+780	345.485	344.969	0.516	344.012	343.876
25+790	345.402	344.870	0.532	343.877	343.727
25+800	345.319	344.785	0.524	343.522	343.339
25+810	345.236	344.730	0.506	343.532	343.192
25+820	345.152	344.610	0.542	343.552	343.382
25+830	345.069	344.517	0.552	343.538	343.382
25+840	344.987	344.432	0.555	344.132	343.582
25+850	344.905	344.382	0.523	343.538	343.127
25+860	344.825	344.272	0.553	343.438	343.438
25+870	344.746	344.207	0.539	343.127	343.302
25+880	344.668	344.142	0.526	343.127	343.147
25+890	344.591	344.062	0.529	343.127	343.157
25+900	344.515	344.069	0.546	343.228	343.065
25+910	344.440	343.885	0.555	343.969	342.847
25+920	344.367	343.768	0.599	342.847	342.636
25+930	344.294	343.714	0.580	342.869	342.091
25+940	344.223	343.644	0.579	342.644	342.649
25+950	344.153	343.575	0.578	342.366	342.571
25+960	344.054	343.466	0.588	342.848	342.436
25+970	344.016	343.446	0.570	342.748	342.411
25+980	343.950	343.409	0.541	342.638	342.436
25+990	343.884	343.366	0.518	342.636	342.747
26+000	343.820	343.304	0.516	342.366	342.636

Vertical Alignment: Lc=150.00m; L=277.42m G=-0.47%; Lc=200.00m; L=200.01m G=-0.83%; Lc=250.00m

Horizontal Alignment: Ls=55.00m; Rc=400.00m Lc=154.89m; Ls=55.00m; L=289.29m; Rc=8000.00m Lc=67.84m; L=405.99m

Superelevation: 25+016.26; 25+053.76; 25+071.26 5.00%; 25+216.15 5.00%; 25+253.65; 25+271.15; 25+288.65 2.00%; 25+404.27

Chainage: 25+000 … 26+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Ramkrishna Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2987600 — AUTHORIZED SIGNATURE

PROJ. CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Kharina Goyal Designers LLP, F-5 1403 Valley View Estate, Gurugram Faridabad Road Gurugram Haryana-122003, M-9873858396, Email – kgdesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

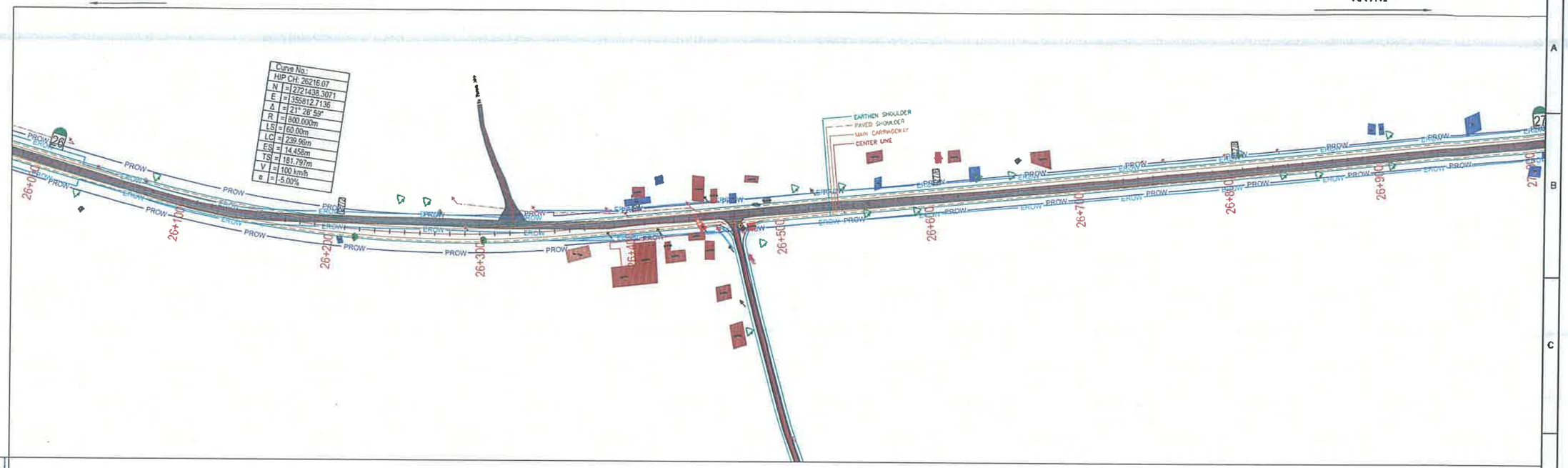
TITLE:	PLAN & PROFILE	Chainage	25+000 TO 26+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec-2024	SCALE:	DRAWING NO.:	SHEET NO.: 26 TO 42 — REV. 01

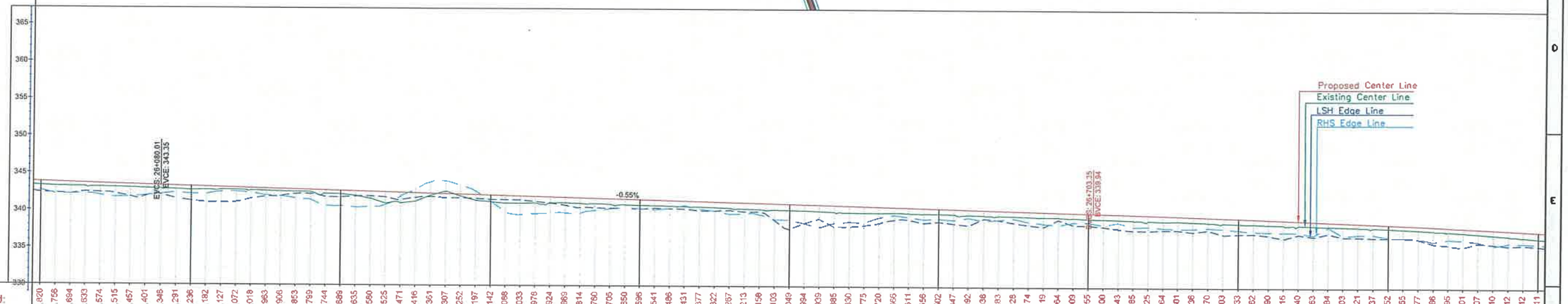
GULGANJ — KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	

Curve No.:	
HIP CH. 26216.07	
N	= 2721438.3071
E	= 355812.7136
Δ	= 21° 28' 59"
R	= 800.000m
LS	= 60.00m
LC	= 239.96m
ES	= 14.456m
TS	= 181.797m
V	= 100 km/h
e	= -5.00%





LEVELS DATUM 330.00

Chainage	Proposed	Ground Level	Lvl Diff (+/-)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
26+000	343.820	343.304	0.516	342.366	342.636
26+010	343.756	343.201	0.555	342.266	342.148
26+020	343.694	343.171	0.523	342.188	342.175
26+030	343.633	343.161	0.472	342.459	342.216
26+040	343.574	343.114	0.460	342.353	341.984
26+050	343.515	343.061	0.454	342.209	341.764
26+060	343.457	343.016	0.441	341.815	341.803
26+070	343.401	342.954	0.447	341.883	341.977
26+080	343.346	342.891	0.455	342.085	342.184
26+090	343.291	342.814	0.477		
26+100	343.236	342.724	0.513	341.298	342.217
26+110	343.182	342.754	0.428	341.076	342.176
26+120	343.127	342.785	0.342	341.049	342.486
26+130	343.072	342.769	0.303	341.129	342.521
26+140	343.018	342.696	0.321	341.547	342.373
26+150	342.963	342.641	0.322	341.679	342.053
26+160	342.906	342.571	0.337	341.959	341.990
26+170	342.853	342.541	0.312	342.222	341.690
26+180	342.799	342.511	0.287	342.232	341.441
26+190	342.744	342.255	0.489	341.855	340.705
26+200	342.686	342.241	0.449	341.819	340.630
26+210	342.635	342.014	0.621	341.937	340.441
26+220	342.580	341.632	0.948	341.954	340.538
26+230	342.525	340.985	1.540	341.832	340.822
26+240	342.471	341.047	1.424	341.492	341.947
26+250	342.416	341.275	1.141	341.771	342.852
26+260	342.361	342.095	0.266	341.893	343.943
26+270	342.307	342.650	-0.343	341.741	343.997
26+280	342.252	341.988	0.264	341.751	343.417
26+290	342.197	341.416	0.779	341.675	342.644
26+300	342.142	341.243	0.899	341.509	341.308
26+310	342.088	341.053	1.034	341.518	339.862
26+320	342.033	341.062	0.971	341.472	339.512
26+330	341.978	341.119	0.859	341.298	339.651
26+340	341.924	341.138	0.786	341.080	339.754
26+350	341.869	341.128	0.741	340.796	339.771
26+360	341.814	341.048	0.766	340.490	339.748
26+370	341.760	341.048	0.712	340.494	340.134
26+380	341.705	340.966	0.739	340.448	340.341
26+390	341.650	340.893	0.757		
26+400	341.596	340.818	0.778	340.325	340.403
26+410	341.541	340.796	0.745	340.441	340.228
26+420	341.485	340.751	0.735	340.393	340.439
26+430	341.431	340.699	0.732	340.357	340.832
26+440	341.377	340.638	0.739	340.137	340.357
26+450	341.322	340.576	0.746	340.139	340.103
26+460	341.267	340.497	0.770	340.209	339.702
26+470	341.213	340.402	0.811	340.017	339.765
26+480	341.158	340.332	0.826	340.012	339.628
26+490	341.103	340.271	0.832	338.875	338.971
26+500	341.049	340.231	0.818	338.965	338.465
26+510	340.994	340.204	0.790	338.475	337.918
26+520	340.939	340.111	0.828	339.091	338.516
26+530	340.885	340.019	0.866	338.051	338.696
26+540	340.830	339.931	0.899	338.027	338.598
26+550	340.775	339.906	0.869	338.218	338.266
26+560	340.720	339.925	0.795	338.506	339.632
26+570	340.666	339.949	0.717	338.984	339.372
26+580	340.611	339.909	0.702	339.017	339.069
26+590	340.556	339.850	0.706	338.597	339.166
26+600	340.502	339.807	0.695	338.772	339.017
26+610	340.447	339.762	0.685	338.517	339.337
26+620	340.392	339.687	0.705	338.292	338.910
26+630	340.336	339.645	0.693	339.206	339.078
26+640	340.283	339.591	0.692	339.030	339.234
26+650	340.228	339.540	0.688	338.674	338.797
26+660	340.174	339.477	0.697	338.374	338.574
26+670	340.119	339.432	0.687	338.154	338.387
26+680	340.064	339.411	0.653	339.096	338.764
26+690	340.009	339.344	0.665	338.360	338.764
26+700	339.955	339.230	0.725	338.374	338.407
26+710	339.900	339.185	0.715	338.174	338.727
26+720	339.843	339.125	0.718	337.885	338.174
26+730	339.785	339.044	0.741	337.674	338.207
26+740	339.725	339.013	0.712	337.764	338.054
26+750	339.664	338.911	0.753	337.674	337.854
26+760	339.601	338.924	0.677	337.764	337.966
26+770	338.536	338.869	0.667	337.521	338.068
26+780	338.470	338.787	0.683	337.778	337.966
26+790	338.403	338.714	0.689	337.178	337.778
26+800	338.333	338.636	0.695	337.288	337.586
26+810	338.262	338.588	0.674	337.288	337.543
26+820	338.190	338.521	0.669	337.088	337.478
26+830	338.116	338.474	0.642	336.688	337.478
26+840	338.040	338.428	0.612	337.211	337.124
26+850	338.963	338.369	0.594	336.918	336.211
26+860	338.884	338.311	0.573	337.388	337.068
26+870	338.803	338.250	0.553	338.911	337.222
26+880	338.721	338.188	0.533	336.878	336.798
26+890	338.637	338.121	0.516	336.798	337.221
26+900	338.552	338.043	0.509	336.776	336.861
26+910	338.465	337.953	0.512	336.770	336.770
26+920	338.377	337.851	0.526	336.827	336.770
26+930	338.286	337.723	0.563	336.017	336.270
26+940	338.195	337.647	0.548	335.827	336.597
26+950	338.101	337.516	0.585	335.570	336.517
26+960	338.007	337.357	0.650	336.127	336.317
26+970	337.910	337.207	0.703	335.970	335.770
26+980	337.812	337.068	0.744	335.770	336.127
26+990	337.712	336.893	0.819	336.867	336.127
27+000	337.611	336.739	0.872	335.726	335.973

Vertical Alignment: L=623.34m, G=-0.55% — Lc=350.00m

Horizontal Alignment: Ls=60.00m — Rc=800.00m, Lc=239.96m — Ls=60.00m — L=737.72m

Superelevation: 26+004.27 2.40% — 26+084.27 -5.00% — 26+094.27 -5.00% — 26+354.23 -5.00% — 26+394.23 -5.00% — 26+424.23 2.40%

Chainage: 26+000 26+010 26+020 26+030 26+040 26+050 26+060 26+070 26+080 26+090 26+100 26+110 26+120 26+130 26+140 26+150 26+160 26+170 26+180 26+190 26+200 26+210 26+220 26+230 26+240 26+250 26+260 26+270 26+280 26+290 26+300 26+310 26+320 26+330 26+340 26+350 26+360 26+370 26+380 26+390 26+400 26+410 26+420 26+430 26+440 26+450 26+460 26+470 26+480 26+490 26+500 26+510 26+520 26+530 26+540 26+550 26+560 26+570 26+580 26+590 26+600 26+610 26+620 26+630 26+640 26+650 26+660 26+670 26+680 26+690 26+700 26+710 26+720 26+730 26+740 26+750 26+760 26+770 26+780 26+790 26+800 26+810 26+820 26+830 26+840 26+850 26+860 26+870 26+880 26+890 26+900 26+910 26+920 26+930 26+940 26+950 26+960 26+970 26+980 26+990 27+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Rathnaja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2987600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No.121, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Royal Designers LLP, 1403 Valley View Estate, Gurugram Faridabad Road, Gurugram, Haryana-122603, M-9873658396, Email-khannaroyaldesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM. ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE — Chainage 26+000 TO 27+000

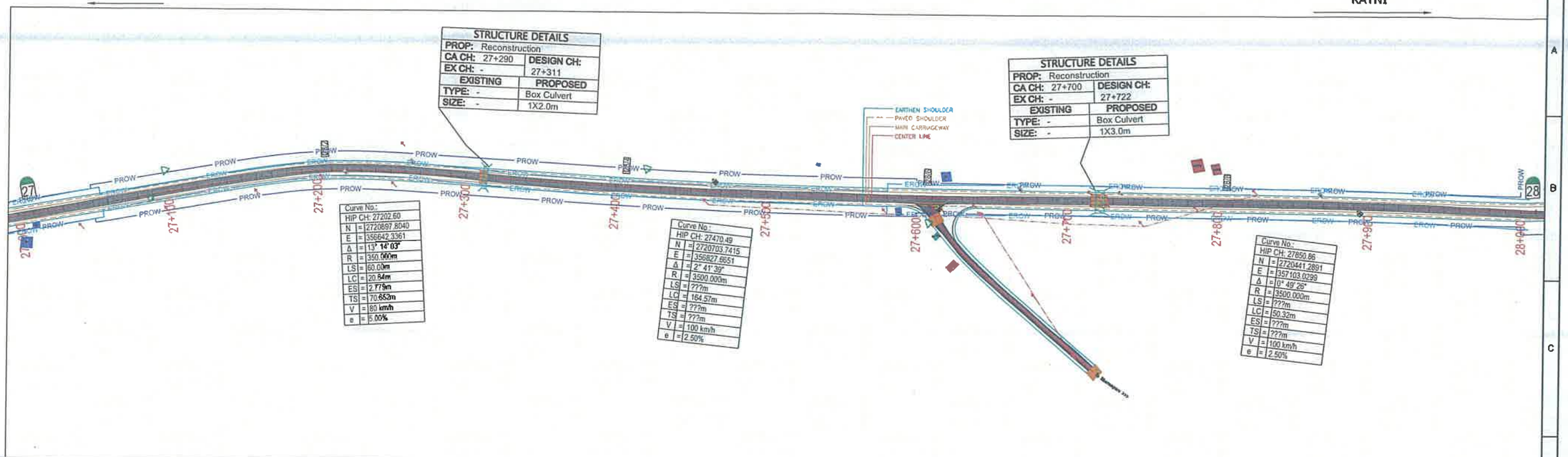
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: Dec-2024 — SCALE: — DRAWING NO.: — SHEET NO.: 27 TO 42 — REV. 01

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	



STRUCTURE DETAILS

PROP: Reconstruction	
CA CH: 27+290	DESIGN CH: 27+311
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

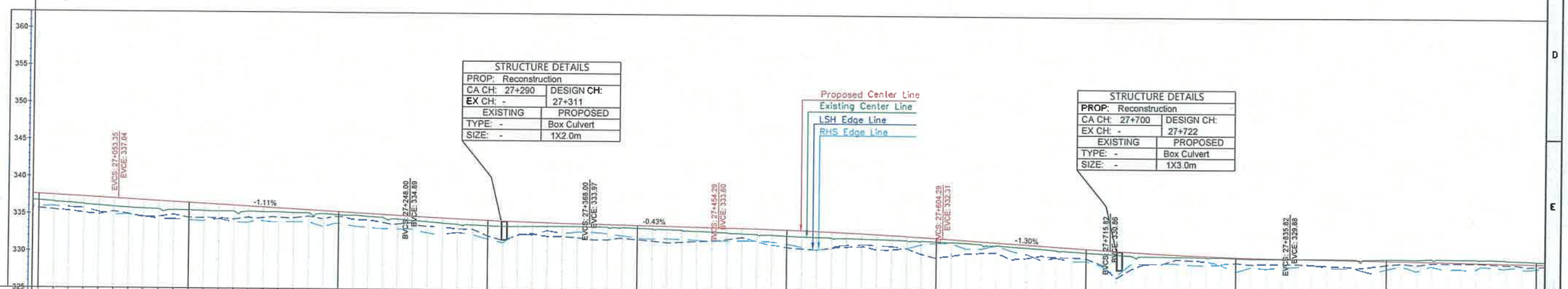
STRUCTURE DETAILS

PROP: Reconstruction	
CA CH: 27+700	DESIGN CH: 27+722
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X3.0m

Curve No.:	
HIP CH: 27202.60	
N	= 2720897.8040
E	= 356642.3361
Δ	= 13° 14' 03"
R	= 350.000m
LS	= 60.00m
LC	= 20.84m
ES	= 2.779m
TS	= 70.652m
V	= 80 km/h
e	= 5.00%

Curve No.:	
HIP CH: 27470.49	
N	= 2720703.7415
E	= 356827.6651
Δ	= 2° 41' 39"
R	= 3500.000m
LS	= ???m
LC	= 164.57m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= 2.50%

Curve No.:	
HIP CH: 27850.86	
N	= 2720441.2891
E	= 357103.0299
Δ	= 0° 49' 26"
R	= 3500.000m
LS	= ???m
LC	= 50.32m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= 2.50%



STRUCTURE DETAILS

PROP: Reconstruction	
CA CH: 27+290	DESIGN CH: 27+311
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X2.0m

STRUCTURE DETAILS

PROP: Reconstruction	
CA CH: 27+700	DESIGN CH: 27+722
EX CH: -	
EXISTING	PROPOSED
TYPE: -	Box Culvert
SIZE: -	1X3.0m

LEVELS DATUM 325.00

Proposed: 337.611, 337.508, 337.404, 337.297, 337.190, 337.081, 336.970, 336.859, 336.749, 336.638, 336.528, 336.417, 336.306, 336.195, 336.085, 335.974, 335.864, 335.753, 335.643, 335.532, 335.421, 335.311, 335.200, 335.090, 334.979, 334.868, 334.752, 334.681, 334.565, 334.476, 334.392, 334.313, 334.241, 334.173, 334.112, 334.056, 334.006, 333.961, 333.919, 333.876, 333.833, 333.790, 333.747, 333.704, 333.662, 333.619, 333.575, 333.526, 333.471, 333.411, 333.272, 333.194, 333.110, 333.021, 332.926, 332.824, 332.716, 332.605, 332.486, 332.362, 332.233, 332.103, 331.974, 331.844, 331.714, 331.585, 331.455, 331.326, 331.196, 331.066, 330.937, 330.808, 330.685, 330.571, 330.465, 330.366, 330.276, 330.194, 330.120, 330.053, 329.995, 329.945, 329.903, 329.866, 329.834, 329.803, 329.768, 329.733, 329.700, 329.666, 329.632, 329.599, 329.565, 329.532, 329.498, 329.464, 329.431, 329.397, 329.364, 329.330

Ground Level: 336.739, 336.599, 336.454, 336.279, 336.123, 335.944, 335.816, 335.726, 335.636, 335.555, 335.499, 335.456, 335.407, 335.396, 335.363, 335.333, 335.324, 335.234, 335.226, 335.123, 335.007, 334.964, 334.752, 334.693, 334.466, 334.294, 334.868, 334.159, 333.978, 333.830, 333.760, 333.655, 333.592, 333.577, 333.624, 333.637, 333.647, 333.634, 333.623, 333.582, 333.537, 333.465, 333.394, 333.333, 333.257, 333.113, 333.020, 332.927, 332.820, 332.729, 332.649, 332.544, 332.446, 332.382, 332.341, 332.266, 332.218, 332.164, 332.117, 332.044, 332.001, 331.910, 331.861, 331.756, 331.598, 331.481, 331.321, 331.194, 331.055, 330.867, 330.721, 330.577, 330.449, 330.324, 330.184, 330.119, 330.118, 330.068, 330.061, 330.031, 330.049, 329.951, 329.870, 329.871, 329.866, 329.874, 329.894, 329.888, 329.864, 329.835, 329.767, 329.840, 329.827, 329.856, 329.858, 329.821, 329.599, 329.565, 329.532, 329.498, 329.499, 329.464, 329.431, 329.397, 329.810, 329.723, 329.629, 329.330

Lvl Diff (+/-): 0.872, 0.909, 0.950, 1.016, 1.067, 1.137, 1.154, 1.133, 1.113, 1.083, 1.029, 0.961, 0.899, 0.800, 0.702, 0.642, 0.540, 0.519, 0.417, 0.409, 0.328, 0.418, 0.397, 0.513, 0.574, 0.603, 0.683, 0.725, 0.716, 0.737, 0.721, 0.664, 0.549, 0.549, 0.475, 0.409, 0.372, 0.354, 0.337, 0.339, 0.360, 0.395, 0.414, 0.448, 0.549, 0.599, 0.648, 0.706, 0.742, 0.782, 0.800, 0.828, 0.812, 0.770, 0.735, 0.708, 0.660, 0.601, 0.561, 0.485, 0.446, 0.372, 0.347, 0.347, 0.376, 0.363, 0.393, 0.391, 0.404, 0.459, 0.475, 0.489, 0.488, 0.484, 0.501, 0.452, 0.347, 0.298, 0.215, 0.163, 0.071, 0.102, 0.125, 0.074, 0.037, -0.006, -0.060, -0.087, -0.097, -0.115, -0.127, -0.192, -0.236, -0.222, -0.399, -0.388, -0.401, -0.429, -0.450, -0.413, -0.359, -0.299

Ground Level Left @ 9.0m: 335.728, 335.516, 335.326, 335.083, 335.173, 334.883, 334.903, 334.623, 334.293, 334.273, 334.173, 334.083, 334.326, 333.903, 333.687, 334.065, 333.969, 334.014, 334.000, 333.852, 333.496, 333.346, 333.153, 333.119, 333.104, 332.659, 332.683, 332.426, 332.681, 331.387, 332.614, 332.414, 332.034, 332.671, 332.697, 332.674, 332.714, 332.422, 332.162, 332.053, 332.074, 331.997, 331.913, 331.847, 331.829, 331.843, 331.807, 331.696, 331.423, 331.062, 330.669, 330.704, 330.840, 331.101, 331.409, 331.295, 331.206, 330.985, 331.405, 331.756, 331.673, 330.995, 330.985, 331.485, 330.738, 329.621, 329.821, 329.421, 329.421, 328.621, 327.544, 329.178, 328.998, 329.178, 329.168, 329.015, 328.948, 329.015, 328.748, 328.548, 328.705, 328.625, 329.044, 328.761, 328.629, 328.551, 328.015, 328.548, 328.948, 328.295, 328.035, 328.498, 328.579, 328.608, 328.650, 328.747, 328.683, 328.705

Ground Level Right @ 9.0m: 335.973, 335.993, 335.796, 335.173, 334.883, 334.903, 334.623, 334.293, 334.273, 334.173, 334.083, 334.326, 333.903, 333.687, 334.065, 333.969, 334.014, 334.000, 333.852, 333.496, 333.346, 333.153, 333.119, 333.104, 332.659, 332.683, 332.426, 332.681, 331.387, 332.614, 332.414, 332.034, 332.671, 332.697, 332.674, 332.714, 332.422, 332.162, 332.053, 332.074, 331.997, 331.913, 331.847, 331.829, 331.843, 331.807, 331.696, 331.423, 331.062, 330.669, 330.704, 330.840, 331.101, 331.409, 331.295, 331.206, 330.985, 331.405, 331.756, 331.673, 330.995, 330.985, 331.485, 330.738, 329.621, 329.821, 329.421, 329.421, 328.621, 327.544, 329.178, 328.998, 329.178, 329.168, 329.015, 328.948, 329.015, 328.748, 328.548, 328.705, 328.625, 329.044, 328.761, 328.629, 328.551, 328.015, 328.548, 328.948, 328.295, 328.035, 328.498, 328.579, 328.608, 328.650, 328.747, 328.683, 328.705, 328.569

Vertical Alignment: L=194.60m G=-1.11% | Lc=120.00m | L=88.20m G=-0.43% | Lc=150.00m | L=111.82m G=-1.30% | Lc=120.00m

Horizontal Alignment: Ls=60.00m | R=350.00m Lc=20.84m | Ls=60.00m | L=115.40m | R=3500.00m Lc=164.57m | L=272.94m | R=3500.00m Lc=50.32m | Lc=72.11m | Ls=75.00m

Superelevation: 27+191.85 2.50% | 27+191.85 | 27+191.85 5.00% | 27+212.79 5.00% | 27+212.79 | 27+272.79 | 27+302.79 2.50% | 27+910.63 2.50% | 27+918.13 | 27+985.63

Chainage: 27+000, 27+010, 27+020, 27+030, 27+040, 27+050, 27+060, 27+070, 27+080, 27+090, 27+100, 27+110, 27+120, 27+130, 27+140, 27+150, 27+160, 27+170, 27+180, 27+190, 27+200, 27+210, 27+220, 27+230, 27+240, 27+250, 27+260, 27+270, 27+280, 27+290, 27+300, 27+310, 27+320, 27+330, 27+340, 27+350, 27+360, 27+370, 27+380, 27+390, 27+400, 27+410, 27+420, 27+430, 27+440, 27+450, 27+460, 27+470, 27+480, 27+490, 27+500, 27+510, 27+520, 27+530, 27+540, 27+550, 27+560, 27+570, 27+580, 27+590, 27+600, 27+610, 27+620, 27+630, 27+640, 27+650, 27+660, 27+670, 27+680, 27+690, 27+700, 27+710, 27+720, 27+730, 27+740, 27+750, 27+760, 27+770, 27+780, 27+790, 27+800, 27+810, 27+820, 27+830, 27+840, 27+850, 27+860, 27+870, 27+880, 27+890, 27+900, 27+910, 27+920, 27+930, 27+940, 27+950, 27+960, 27+970, 27+980, 27+990, 28+000

REV.	DESCRIPTION OF REVISIONS	DATE
R1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh, Pin-462004

EPC CONTRACTOR: M/s Ramraj Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Flat No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, 1403 Valley View Estate, Gurugram Faridabad Road, Gurugram Haryana-122003, M-9873858396, Email - khannagoyaldesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE

TITLE:	PLAN & PROFILE	Chainage	27+000 TO 28+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: Dec-2024	SCALE:	DRAWING NO.:	SHEET NO.: 28 TO 42 — REV. 01

GULGANJ

KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Proposed Road Edge	
Proposed Shoulder Edge	
Proposed Slope Line	
Existing ROW Line	
PROW	

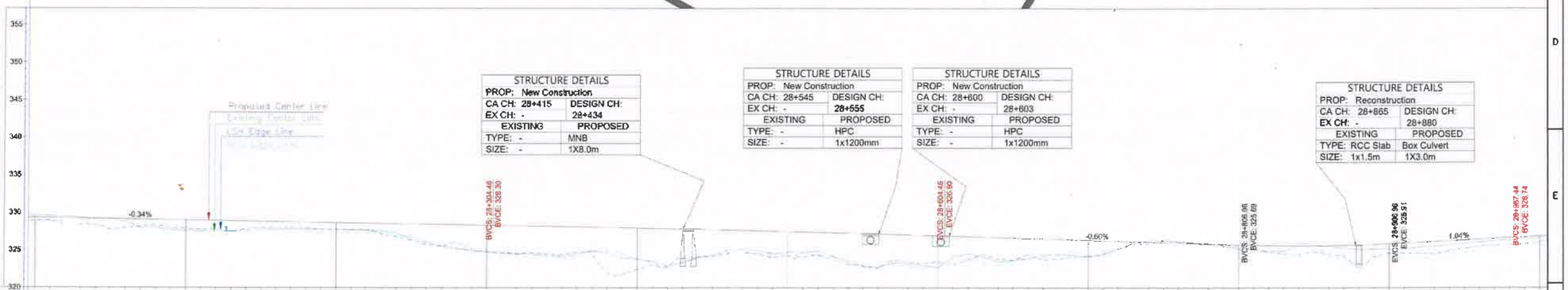
Curve No.	
HIP CH:	28220.84
N	= 2720181.4817
E	= 357367.8882
Δ	= 42° 57' 29"
R	= 600.000m
LS	= 75.00m
LC	= 374.86m
ES	= 45.199m
TS	= 273.746m
V	= 100 km/h
e	= 5.00%

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 28+415	DESIGN CH: 28+434
EX CH: -	
EXISTING	PROPOSED
TYPE: -	MNB
SIZE: -	1X8.0m

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 28+545	DESIGN CH: 28+555
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 28+600	DESIGN CH: 28+603
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1x1200mm

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 28+865	DESIGN CH: 28+880
EX CH: -	
EXISTING	PROPOSED
TYPE: RCC Slab	Box Culvert
SIZE: 1x1.5m	1X3.0m



Chainage	Proposed	Ground Level	Ground Level left @ 9.0m	Vertical Alignment	Horizontal Alignment	Superelevation
28+000	329.327	329.629	328.880			
28+010	329.293	329.558	328.912			
28+020	329.259	329.469	329.004	L=469.67m G=-0.34%		28+022.10 -5.00%
28+030	329.226	329.303	328.364			
28+040	329.192	329.227	328.333			
28+050	329.159	329.113	327.731			
28+060	329.125	328.816	327.975			
28+070	329.091	328.986	328.122			
28+080	329.058	327.898	328.251			
28+090	329.024	327.683	327.674			
28+100	328.991	327.616	327.658			
28+110	328.957	327.520	327.777			
28+120	328.923	327.493	327.792			
28+130	328.890	327.545	327.541			
28+140	328.856	327.713	327.665			
28+150	328.822	327.727	327.933			
28+160	328.789	327.791	328.068			
28+170	328.755	327.838	328.042			
28+180	328.722	327.798	327.939			
28+190	328.688	327.735	327.800			
28+200	328.654	327.730	327.805			
28+210	328.621	327.673	327.744			
28+220	328.587	327.684	327.722			
28+230	328.554	327.560	327.192			
28+240	328.520	327.253	326.821			
28+250	328.486	326.607	326.340			
28+260	328.453	326.013	325.775			
28+270	328.419	325.550	325.558			
28+280	328.386	325.190	326.066			
28+290	328.352	324.957	325.221			
28+300	328.318	324.755	324.676			
28+310	328.285	324.618	324.703			
28+320	328.250	324.530	324.587			
28+330	328.215	324.485	324.649			
28+340	328.179	324.280	324.499			
28+350	328.141	324.139	324.447			
28+360	328.103	324.465	324.714			
28+370	328.064	324.957	324.606			
28+380	328.025	324.659	324.108			
28+390	327.984	324.011	322.109			
28+400	327.943	323.838	321.792			
28+410	327.900	323.514	322.443			
28+420	327.857	322.934	322.896			
28+430	327.813	323.391	324.004			
28+440	327.768	324.029	324.114			
28+450	327.722	324.350	324.226			
28+460	327.675	324.975	324.570			
28+470	327.627	325.085	2.542			
28+480	327.579	325.049	324.531			
28+490	327.530	324.486	324.054			
28+500	327.479	324.783	324.297			
28+510	327.428	324.673	324.143			
28+520	327.376	324.913	324.383			
28+530	327.323	324.173	323.691			
28+540	327.269	323.550	323.173			
28+550	327.216	322.877	322.940			
28+560	327.159	322.773	322.632			
28+570	327.103	323.383	323.740			
28+580	327.046	323.223	323.397			
28+590	326.987	322.954	323.240			
28+600	326.928	322.772	323.477			
28+610	326.869	324.153	323.777			
28+620	326.809	324.566	324.443			
28+630	326.749	324.109	323.993			
28+640	326.689	323.541	323.146			
28+650	326.629	323.656	323.656			
28+660	326.570	323.893	324.456			
28+670	326.510	324.363	323.766			
28+680	326.450	324.516	323.946			
28+690	326.390	324.339	324.101			
28+700	326.330	324.176	324.203			
28+710	326.270	324.366	324.537			
28+720	326.210	325.146	325.220			
28+730	326.151	326.001	325.620			
28+740	326.091	326.197	326.942			
28+750	326.031	326.292	326.382			
28+760	325.971	326.123	326.226			
28+770	325.911	325.997	326.032			
28+780	325.851	325.969	325.969			
28+790	325.792	325.775	325.782			
28+800	325.732	325.559	325.527			
28+810	325.673	325.284	325.192			
28+820	325.626	325.845	324.737			
28+830	325.595	324.932	324.561			
28+840	325.582	325.996	324.373			
28+850	325.584	325.734	324.834			
28+860	325.603	325.494	324.454			
28+870	325.638	325.257	324.221			
28+880	325.689	325.132	322.648			
28+890	325.757	325.152	324.131			
28+900	325.841	325.213	324.064			
28+910	325.941	325.258	324.597			
28+920	326.044	325.398	324.590			
28+930	326.148	325.523	324.551			
28+940	326.251	325.648	324.891			
28+950	326.355	325.912	325.292			
28+960	326.459	326.115	325.538			
28+970	326.562	326.269	325.658			
28+980	326.666	326.403	325.865			
28+990	326.769	326.527	326.138			
29+000	326.868	326.692				

Vertical Alignment: L=469.67m G=-0.34; Lc=300.00m; L=202.50m G=-0.60%; Lc=100.00m; L=100.00m G=1.04%

Horizontal Alignment: R=600.00m Lc=374.86m; Ls=75.00m; L=429.52m

REV.	DESCRIPTION OF REVISIONS	DATE
R 2	AS PER CENTER LINE CHANG	18-02-2025
R 1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jai Bhawani, Rajnandgaon — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANT: Engineering Consultants Private Limited, Plot No. 2, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.) 462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANT: Khanna Goyal Designers LLP, T-3, 1403 Valley View Estate, Gurugram (Haryana) Road, Gurugram, Haryana-122001, M-9873858396, EMail - khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

NAME OF WORK: "REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.000 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE Chainage 28+000 TO 29+000

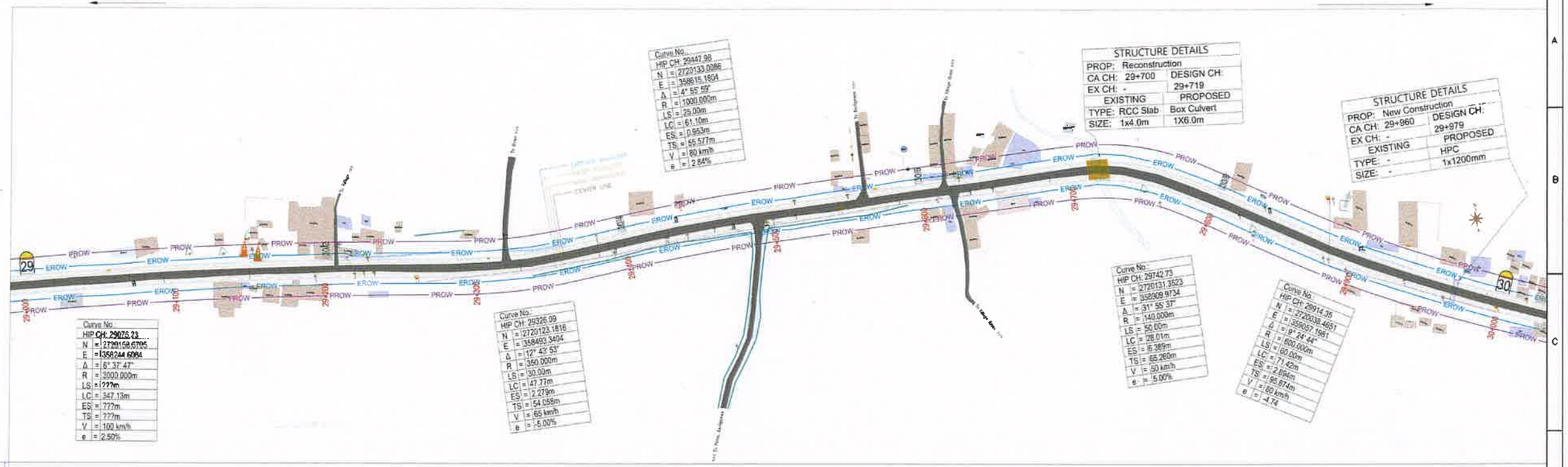
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

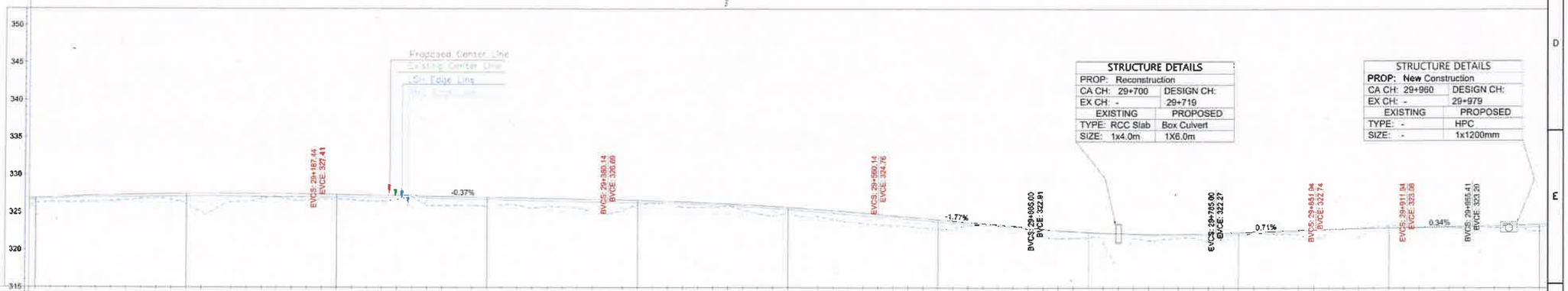
DATE: Dec-2024 | SCALE: | DRAWING NO.: | SHEET NO.: 29 TO 42 | REV. 01

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Lower Edge	
Paved Shoulder Edge	
Proposed Shoulder Edge	
Existing ROW Line	
PROW	





REV.	DESCRIPTION OF REVISIONS	DATE
R 2	AS PER CENTER LINE CHANG	18-02-2025
R 1	AS PER GENERAL COMMENTS	13-12-2024

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin-462004

EPC CONTRACTOR:
M/S Rathraja Construction Company,
Jai Bhawan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEERS
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:-+91 (755) 2997600
AUTHORIZED SIGNATURE

PROJECT CONSULTANTS:
M/S ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M-2, First floor, Noida Plaza, M-Nagar, Zone-II, Bhopal (M.P.)-462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T-5, 1403 Valley View Estate
Gurugram Faridabad Road, Gurugram
Haryana-122003 M-9873685196
Email - khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

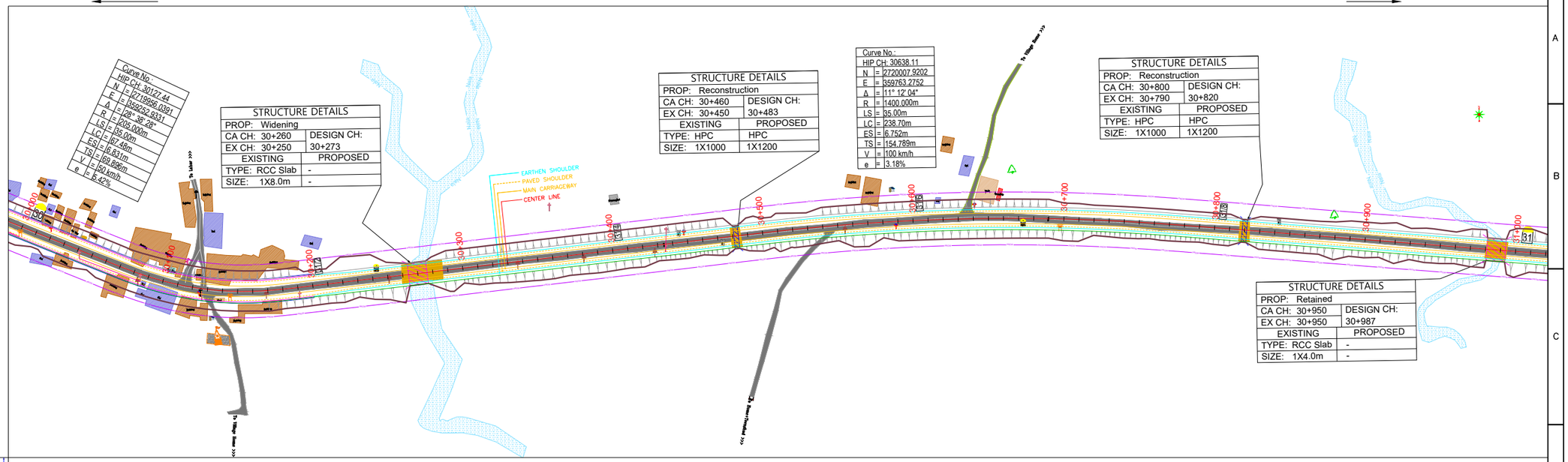
NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.000 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE Chainage 29+000 TO 30+000
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION
DATE: Dec-2024
SCALE:
DRAWING NO.:
SHEET NO.: 30 TO 42
REV. 01

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



Curve No.:
HIP CH: 30127.44
N = 2719956.0391
E = 359252.9331
Δ = 28° 39' 28"
R = 205.000m
LS = 55.0m
LC = 97.46m
ES = 6.831m
TS = 89.986m
V = 60 km/h
e = 6.42%

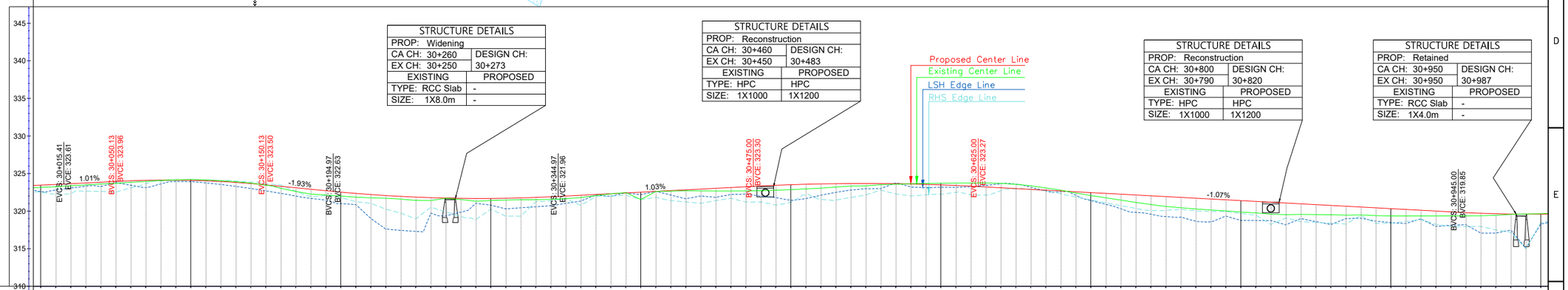
STRUCTURE DETAILS	
PROP: Widening	
CA CH: 30+260	DESIGN CH: 30+273
EX CH: 30+250	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X8.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 30+460	DESIGN CH: 30+483
EX CH: 30+450	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

Curve No.:
HIP CH: 30638.11
N = 2720007.9202
E = 359763.2752
Δ = 11° 12' 04"
R = 1400.000m
LS = 35.00m
LC = 238.70m
ES = 6.752m
TS = 154.789m
V = 100 km/h
e = 3.18%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 30+800	DESIGN CH: 30+820
EX CH: 30+790	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

STRUCTURE DETAILS	
PROP: Retained	
CA CH: 30+950	DESIGN CH: 30+987
EX CH: 30+950	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X4.0m	-



STRUCTURE DETAILS	
PROP: Widening	
CA CH: 30+260	DESIGN CH: 30+273
EX CH: 30+250	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X8.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 30+460	DESIGN CH: 30+483
EX CH: 30+450	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 30+800	DESIGN CH: 30+820
EX CH: 30+790	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

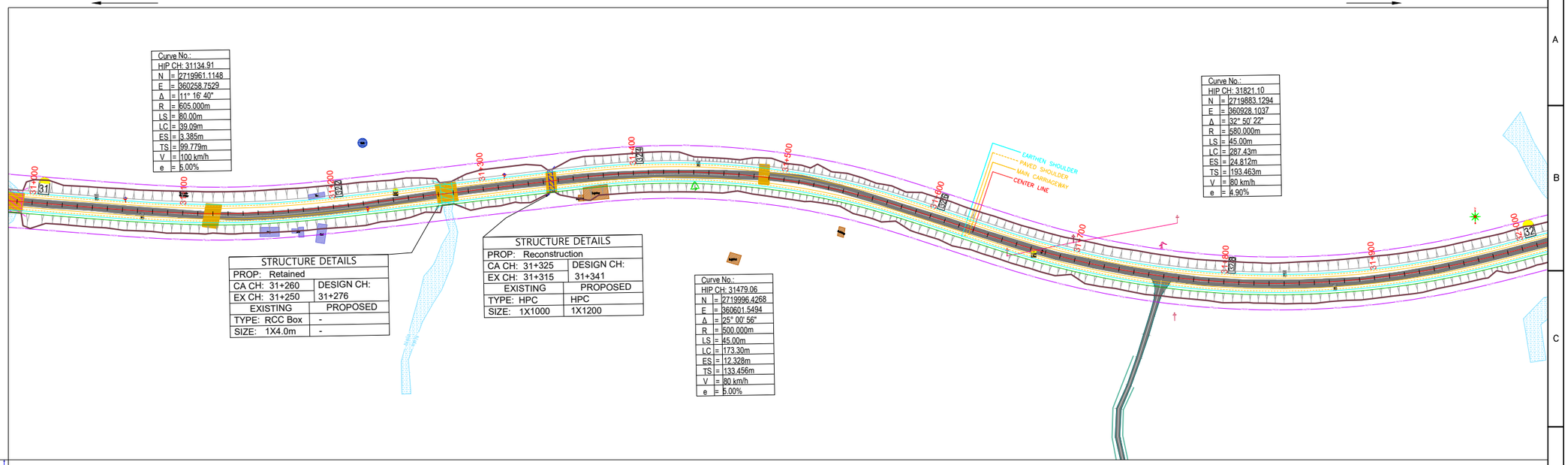
STRUCTURE DETAILS	
PROP: Retained	
CA CH: 30+950	DESIGN CH: 30+987
EX CH: 30+950	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X4.0m	-

| | | |

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



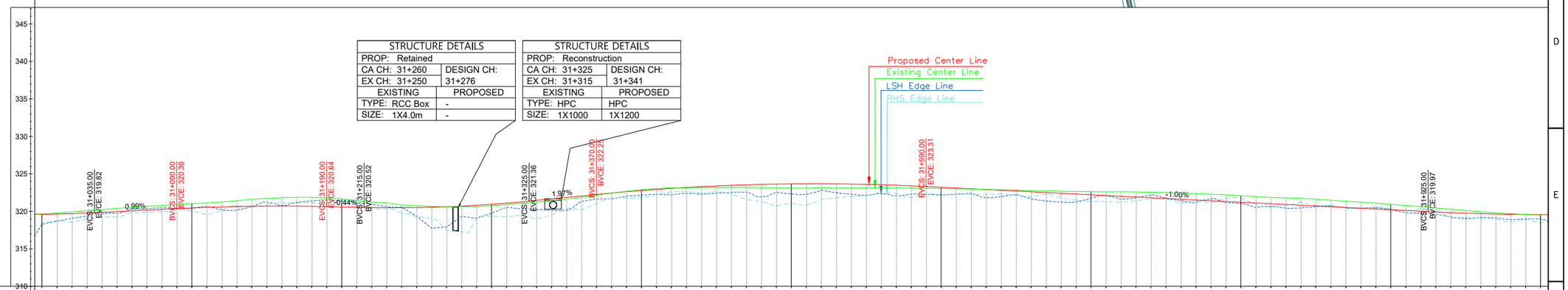
Curve No.:
HIP CH: 31134.91
N = 2719961.1148
E = 360258.7529
Δ = 11° 16' 40"
R = 605.000m
LS = 80.00m
LC = 39.09m
ES = 3.385m
TS = 99.779m
V = 100 km/h
e = 5.00%

Curve No.:
HIP CH: 31821.10
N = 2719883.1294
E = 360928.1037
Δ = 32° 50' 22"
R = 580.000m
LS = 45.00m
LC = 287.43m
ES = 24.812m
TS = 193.463m
V = 80 km/h
e = 4.90%

Curve No.:
HIP CH: 31479.06
N = 2719996.4268
E = 360601.5494
Δ = 25° 00' 56"
R = 500.000m
LS = 45.00m
LC = 173.30m
ES = 12.328m
TS = 133.456m
V = 80 km/h
e = 5.00%

STRUCTURE DETAILS	
PROP: Retained	
CA CH: 31+260	DESIGN CH:
EX CH: 31+250	31+276
EXISTING	PROPOSED
TYPE: RCC Box	-
SIZE: 1X4.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 31+325	DESIGN CH:
EX CH: 31+315	31+341
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200



LEVELS DATUM 310.00

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
31+000	319.610	319.652	-0.042	318.278	318.479
31+010	319.640	319.765	-0.125	318.684	318.747
31+020	319.693	319.915	-0.222	319.076	318.597
31+030	319.770	320.085	-0.315	319.361	318.980
31+040	319.866	320.231	-0.365	319.725	319.228
31+050	319.965	320.409	-0.444	319.728	319.273
31+060	320.065	320.533	-0.468	319.833	319.840
31+070	320.164	320.669	-0.505	320.355	319.941
31+080	320.263	320.789	-0.526	320.457	320.103
31+090	320.362	320.909	-0.547	320.365	320.055
31+100	320.454	321.039	-0.585	320.396	319.636
31+110	320.532	321.133	-0.601	320.635	320.152
31+120	320.595	321.239	-0.643	320.205	320.737
31+130	320.644	321.411	-0.767	320.185	320.185
31+140	320.679	321.604	-0.925	320.650	320.544
31+150	320.699	321.724	-1.025	321.192	320.845
31+160	320.705	321.819	-1.114	320.790	321.125
31+170	320.696	321.869	-1.173	321.199	321.119
31+180	320.673	321.872	-1.199	321.397	321.144
31+190	320.636	321.789	-1.153	321.478	321.009
31+200	320.591	321.656	-1.065	321.391	321.308
31+210	320.547	321.449	-0.902	321.136	321.280
31+220	320.505	321.224	-0.719	320.944	320.337
31+230	320.483	321.124	-0.641	320.637	320.302
31+240	320.482	320.850	-0.368	320.554	319.754
31+250	320.503	320.736	-0.233	319.354	319.340
31+260	320.546	320.654	-0.108	317.752	319.064
31+270	320.611	320.597	0.014	317.917	317.474
31+280	320.698	320.653	0.045	319.335	317.263
31+290	320.807	320.618	0.189	319.064	319.289
31+300	320.938	320.753	0.185	319.770	319.967
31+310	321.091	320.911	0.180	320.550	319.247
31+320	321.266	321.098	0.168	320.325	319.548
31+330	321.460	321.220	0.240	320.252	318.938
31+340	321.656	321.409	0.247	320.147	319.538
31+350	321.853	321.621	0.232	320.139	320.330
31+360	322.049	321.870	0.179	321.302	320.221
31+370	322.246	322.146	0.100	321.629	321.053
31+380	322.436	322.431	0.005	321.686	321.725
31+390	322.612	322.666	-0.054	322.025	321.764
31+400	322.775	322.871	-0.096	322.154	321.841
31+410	322.924	323.041	-0.116	322.271	322.256
31+420	323.060	323.139	-0.079	322.221	322.581
31+430	323.183	323.123	0.060	322.404	322.636
31+440	323.292	323.189	0.103	322.275	322.428
31+450	323.387	323.180	0.208	322.427	322.605
31+460	323.470	323.207	0.262	322.519	322.279
31+470	323.538	323.207	0.331	322.555	321.617
31+480	323.593	323.139	0.455	321.959	321.275
31+490	323.635	323.107	0.528	322.532	320.721
31+500	323.663	323.106	0.557	322.322	321.034
31+510	323.678	323.087	0.591	322.288	320.849
31+520	323.679	323.127	0.552	322.768	321.561
31+530	323.667	323.097	0.570	322.490	322.581
31+540	323.641	323.121	0.520	322.274	321.967
31+550	323.602	323.139	0.463	322.147	322.118
31+560	323.549	323.112	0.438	322.362	322.365
31+570	323.483	323.094	0.376	322.068	321.856
31+580	323.404	323.076	0.310	322.270	322.326
31+590	323.311	323.048	0.235	322.268	322.270
31+600	323.211	323.163	0.101	322.171	322.272
31+610	323.111	323.087	0.024	322.270	322.272
31+620	323.011	323.032	-0.021	322.412	322.256
31+630	322.912	322.933	-0.055	321.849	322.323
31+640	322.812	322.867	-0.055	321.981	322.176
31+650	322.712	322.843	-0.131	322.238	321.998
31+660	322.612	322.768	-0.156	321.669	322.264
31+670	322.512	322.722	-0.210	321.382	321.795
31+680	322.413	322.680	-0.267	321.247	321.500
31+690	322.313	322.653	-0.340	321.273	321.315
31+700	322.213	322.624	-0.411	321.767	321.298
31+710	322.113	322.598	-0.485	322.061	321.217
31+720	322.013	322.618	-0.605	321.606	321.418
31+730	321.914	322.590	-0.676	321.822	321.675
31+740	321.814	322.563	-0.749	322.182	321.071
31+750	321.714	322.512	-0.798	321.779	321.631
31+760	321.614	322.432	-0.818	321.408	321.376
31+770	321.514	322.376	-0.861	321.214	321.128
31+780	321.415	322.282	-0.867	321.662	321.702
31+790	321.315	322.212	-0.897	321.164	321.800
31+800	321.215	322.082	-0.867	321.033	320.914
31+810	321.115	321.977	-0.862	320.534	320.519
31+820	321.016	321.852	-0.836	320.651	320.763
31+830	320.916	321.806	-0.890	320.417	320.206
31+840	320.816	321.737	-0.921	320.454	320.814
31+850	320.716	321.612	-0.896	320.616	320.807
31+860	320.616	321.489	-0.873	320.720	320.480
31+870	320.517	321.362	-0.845	320.456	320.420
31+880	320.417	321.232	-0.815	320.424	320.583
31+890	320.317	321.092	-0.775	320.468	320.321
31+900	320.217	320.937	-0.720	320.225	320.106
31+910	320.117	320.777	-0.660	319.834	320.360
31+920	320.018	320.642	-0.624	319.750	320.096
31+930	319.919	320.447	-0.528	319.603	319.094
31+940	319.832	320.292	-0.460	319.256	319.196
31+950	319.757	320.107	-0.350	319.047	319.068
31+960	319.694	319.964	-0.270	319.200	319.077
31+970	319.643	319.804	-0.161	319.129	318.594
31+980	319.604	319.684	-0.080	318.919	318.911
31+990	319.578	319.608	-0.030	318.994	318.480
32+000	319.564	319.516	0.048	318.958	

Vertical Alignment: 0m; L=55.00m G=0.99%; Lc=100.00m; L=25.00m G=-0.44%; Lc=110.00m; L=45.00m G=1.97%; Lc=220.00m; L=335.00m G=-1.00%

Horizontal Alignment: Ls=80.00m; Rc=605.00m Lc=39.09m; Ls=80.00m; L=111.38m; Ls=45.00m; Rc=500.00m Lc=173.30m; Ls=45.00m; L=18.73m; Ls=45.00m; Rc=580.00m Lc=287.43m; Ls=45.00m

Superelevation: 31+095.14; 31+115.14 5.00%; 31+154.22; 31+174.22 5.00%; 31+284.22; 31+323.10; 31+343.10 5.00%; 31+390.60; 31+410.60 5.00%; 31+553.61; 31+573.61 5.00%; 31+672.84; 31+692.84 4.90%; 31+960.07; 31+980.07 4.90%; 32+000.07

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company, Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE — Chainage 31+000 TO 32+000

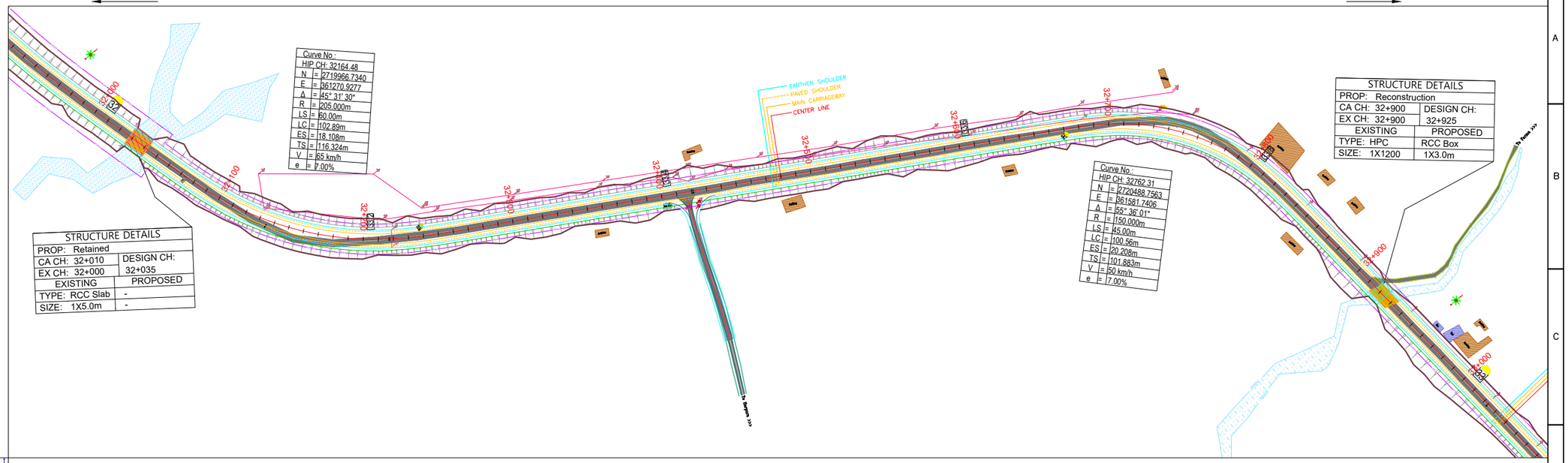
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: MAY–2025 | SCALE: | DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–32 | SHEET NO.: 32 TO 42 | REV. 04

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	

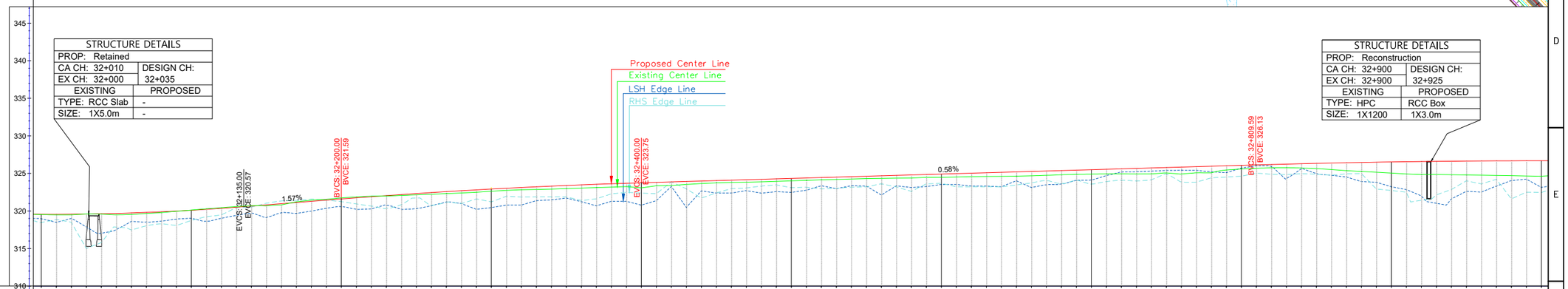


Curve No.: HIP CH: 32164.48	
N	= 2719966.7340
E	= 861270.9277
Δ	= 45° 31' 30"
R	= 205.000m
LS	= 60.00m
LC	= 102.89m
ES	= 18.108m
TS	= 116.324m
V	= 65 km/h
e	= 7.00%

Curve No.: HIP CH: 32762.31	
N	= 2720488.7563
E	= 861581.7406
Δ	= 55° 36' 01"
R	= 150.000m
LS	= 45.00m
LC	= 100.56m
ES	= 20.208m
TS	= 101.883m
V	= 50 km/h
e	= 7.00%

STRUCTURE DETAILS	
PROP: Retained	
CA CH: 32+010	DESIGN CH: 32+035
EX CH: 32+000	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X5.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 32+900	DESIGN CH: 32+925
EX CH: 32+900	
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 1X1200	1X3.0m



STRUCTURE DETAILS	
PROP: Retained	
CA CH: 32+010	DESIGN CH: 32+035
EX CH: 32+000	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X5.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 32+900	DESIGN CH: 32+925
EX CH: 32+900	
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 1X1200	1X3.0m

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
32+000	319.564	319.516	0.048	318.958	318.486
32+010	319.562	319.488	0.074	318.485	318.875
32+020	319.572	319.485	0.087	318.498	318.006
32+030	319.595	319.608	-0.013	317.868	315.798
32+040	319.630	319.579	0.051	317.030	317.854
32+050	319.677	319.482	0.195	317.527	317.475
32+060	319.736	319.531	0.205	318.608	318.011
32+070	319.808	319.660	0.148	318.514	318.290
32+080	319.892	319.785	0.107	318.645	318.097
32+090	319.988	319.952	0.036	318.915	318.736
32+100	320.096	320.122	-0.026	318.997	319.223
32+110	320.217	320.285	-0.068	318.634	319.491
32+120	320.350	320.432	-0.082	319.029	320.384
32+130	320.495	320.583	-0.088	319.403	320.537
32+140	320.651	320.693	-0.042	319.694	321.031
32+150	320.808	320.688	0.120	319.140	321.336
32+160	320.965	320.800	0.166	319.740	321.408
32+170	321.123	321.217	-0.094	319.669	321.562
32+180	321.280	321.446	-0.165	319.985	321.461
32+190	321.438	321.539	-0.102	320.362	321.249
32+200	321.595	321.747	-0.152	320.579	320.935
32+210	321.750	321.868	-0.118	320.238	320.656
32+220	321.900	321.978	-0.078	320.274	320.332
32+230	322.045	321.988	0.057	320.765	320.836
32+240	322.185	322.068	0.117	320.240	321.723
32+250	322.320	322.145	0.175	320.330	320.767
32+260	322.450	322.221	0.229	320.698	321.143
32+270	322.575	322.315	0.260	321.186	321.606
32+280	322.695	322.396	0.299	320.988	321.216
32+290	322.810	322.496	0.314	320.219	321.959
32+300	322.920	322.631	0.289	320.449	321.863
32+310	323.025	322.734	0.291	320.783	321.883
32+320	323.126	322.822	0.304	320.785	321.883
32+330	323.221	322.864	0.357	321.377	321.386
32+340	323.311	322.915	0.396	321.473	321.619
32+350	323.397	322.976	-0.094	321.720	322.276
32+360	323.477	323.044	0.433	321.230	322.486
32+370	323.552	323.115	0.437	320.689	322.376
32+380	323.623	323.166	0.457	321.286	322.300
32+390	323.688	323.245	-0.152	321.286	323.065
32+400	323.749	323.070	0.679	320.443	322.951
32+410	323.807	323.356	0.451	320.773	321.709
32+420	323.865	323.394	0.471	321.373	322.416
32+430	323.923	323.526	0.397	323.255	322.973
32+440	323.981	323.657	0.324	320.480	323.057
32+450	324.039	323.742	0.297	322.676	323.319
32+460	324.097	323.801	0.296	322.376	323.479
32+470	324.155	323.830	0.325	322.380	323.098
32+480	324.213	323.874	0.339	322.711	323.161
32+490	324.271	323.941	0.330	322.572	322.938
32+500	324.329	324.010	0.319	322.476	323.010
32+510	324.387	324.076	0.311	322.763	323.165
32+520	324.445	324.151	0.294	323.363	323.220
32+530	324.504	324.196	0.308	322.975	323.618
32+540	324.562	324.246	0.316	323.365	323.209
32+550	324.620	324.308	0.312	323.317	322.610
32+560	324.678	324.340	0.338	322.117	323.612
32+570	324.736	324.358	0.378	323.352	323.679
32+580	324.794	324.389	0.405	323.124	323.217
32+590	324.852	324.477	0.375	323.255	323.220
32+600	324.910	324.482	0.428	323.530	323.220
32+610	324.968	324.526	0.442	323.968	323.217
32+620	325.026	324.575	0.451	323.324	323.452
32+630	325.084	324.600	0.484	323.324	323.735
32+640	325.142	324.608	0.534	323.220	324.020
32+650	325.200	324.636	0.564	324.020	323.120
32+660	325.258	324.679	0.579	323.120	323.486
32+670	325.316	324.745	0.571	323.486	323.591
32+680	325.374	324.822	0.552	323.591	324.069
32+690	325.432	324.877	0.556	324.069	324.135
32+700	325.490	324.910	0.580	324.135	324.714
32+710	325.548	324.932	0.616	324.714	325.168
32+720	325.607	324.945	0.662	325.168	325.221
32+730	325.665	324.921	0.744	325.221	325.304
32+740	325.723	324.927	0.795	325.304	325.398
32+750	325.781	325.066	0.715	325.398	325.418
32+760	325.839	324.912	0.927	325.418	325.397
32+770	325.897	325.082	0.815	325.397	325.218
32+780	325.955	325.090	0.865	325.218	325.115
32+790	326.013	325.454	0.559	325.115	324.646
32+800	326.071	325.590	0.481	325.692	325.029
32+810	326.129	325.678	0.451	326.004	324.891
32+820	326.185	325.747	0.438	325.914	324.843
32+830	326.239	325.761	0.478	324.317	324.961
32+840	326.289	325.717	0.572	325.623	324.896
32+850	326.337	325.644	0.693	324.981	324.750
32+860	326.381	325.519	0.862	324.750	324.947
32+870	326.423	325.367	1.055	324.523	324.987
32+880	326.461	325.257	1.204	323.917	322.922
32+890	326.496	325.154	1.342	323.822	322.722
32+900	326.529	325.042	1.487	323.222	322.505
32+910	326.558	324.930	1.628	322.851	321.419
32+920	326.585	324.860	1.725	322.005	322.140
32+930	326.608	324.859	1.750	321.021	322.852
32+940	326.629	324.834	1.795	321.602	324.015
32+950	326.646	324.791	1.855	322.617	323.607
32+960	326.661	324.762	1.899	322.512	324.217
32+970	326.672	324.727	1.945	323.312	323.312
32+980	326.681	324.707	1.974	324.050	321.605
32+990	326.686	324.651	2.035	324.240	322.507
33+000	326.689	324.630	2.059	323.138	322.470

Vertical Alignment: Lc=210.00m; L=65.00m G=1.57%; Lc=200.00m; L=409.59m G=0.58%; Lc=300.00m

Horizontal Alignment: L=43.11m; Ls=60.00m; Rc=205.00m Lc=102.89m; Ls=60.00m; L=389.38m; Ls=45.00m; Rc=150.00m Lc=100.56m; Ls=45.00m

Superelevation: 32+100.07; 32+200.46; 32+206.75; 32+300.18; 32+318.18 7.00%; 32+211.06 7.00%; 32+211.06; 32+492.49; 32+617.58; 32+655.44; 32+705.44 7.00%; 32+809.00 7.00%; 32+898.00; 32+877.86

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin–462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:–+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T–5 1403 Valley View Estate, Gurugram Faridabad Road Gurugram Haryana–122003 M–9873858396, Email – khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

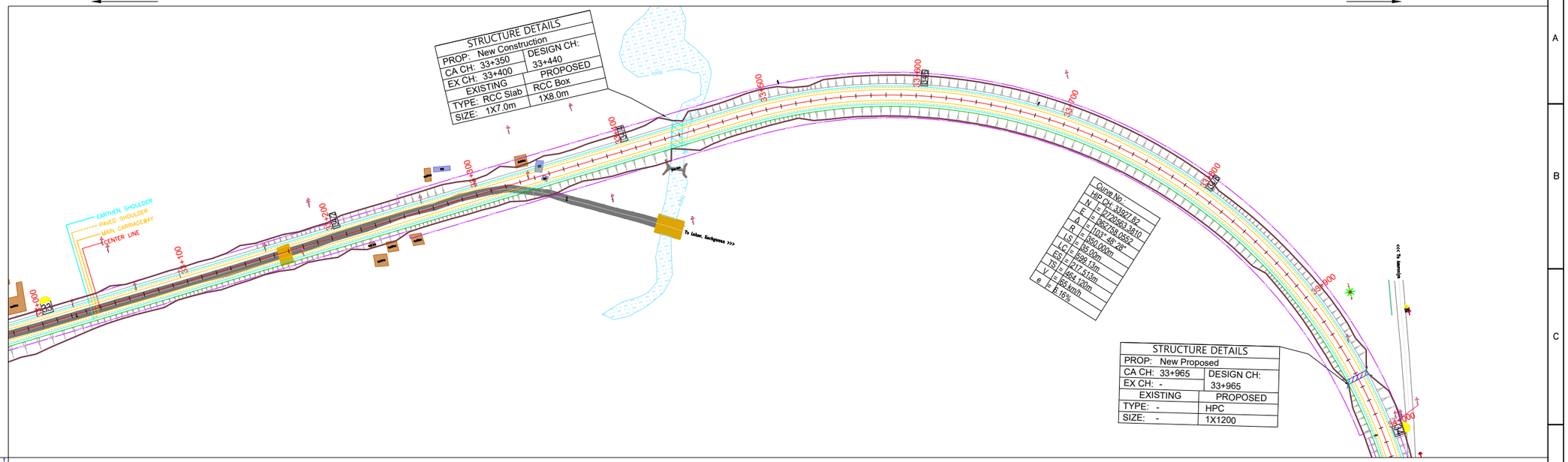
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	32+000 TO 33+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: MAY–2025	SCALE:	DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–33	SHEET NO.: 33 TO 42
			REV. 04

GULGANJ ← → KATNI

LINE LEGEND

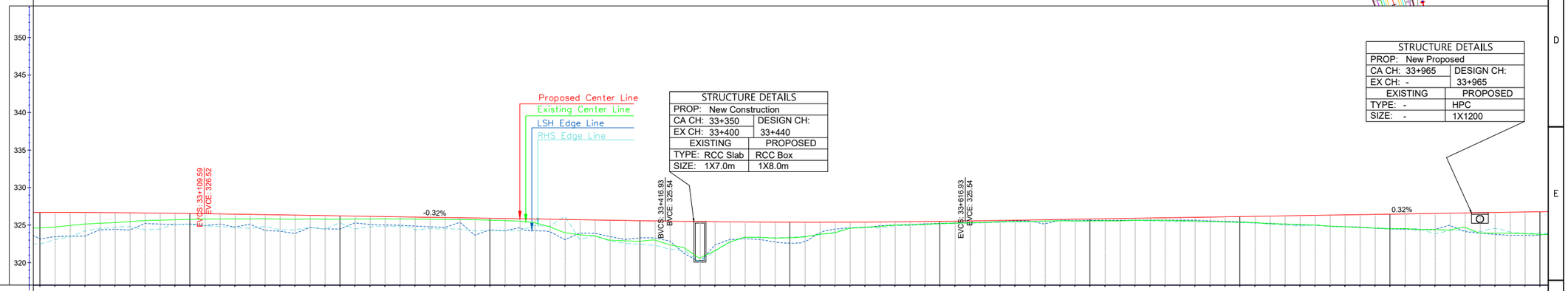
Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 33+350	DESIGN CH: 33+440
EX CH: 33+400	
EXISTING	PROPOSED
TYPE: RCC Slab	RCC Box
SIZE: 1X7.0m	1X8.0m

Curve No.	
HIP CH.	33927.82
N	8725963.3810
E	882756.0852
Δ	103° 48' 28"
R	350.00m
LS	65.0m
LC	599.13m
ES	217.53m
TS	864.13m
V	65 km/h
e	6.16%

STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 33+965	DESIGN CH: 33+965
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1X1200



STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 33+350	DESIGN CH: 33+440
EX CH: 33+400	
EXISTING	PROPOSED
TYPE: RCC Slab	RCC Box
SIZE: 1X7.0m	1X8.0m

STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 33+965	DESIGN CH: 33+965
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1X1200

Proposed: 326.689, 326.688, 326.684, 326.678, 326.668, 326.656, 326.640, 326.622, 326.600, 326.576, 326.548, 326.518, 326.486, 326.454, 326.427, 326.422, 326.390, 326.358, 326.326, 326.295, 326.263, 326.231, 326.199, 326.167, 326.135, 326.103, 326.071, 326.039, 326.007, 325.976, 325.944, 325.912, 325.880, 325.848, 325.816, 325.784, 325.752, 325.720, 325.689, 325.657, 325.625, 325.593, 325.561, 325.529, 325.500, 325.474, 325.451, 325.431, 325.415, 325.401, 325.391, 325.384, 325.381, 325.380, 325.389, 325.398, 325.410, 325.426, 325.445, 325.467, 325.492, 325.520, 325.551, 325.584, 325.616, 325.648, 325.680, 325.712, 325.744, 325.776, 325.809, 325.841, 325.873, 325.905, 325.937, 325.969, 326.002, 326.034, 326.066, 326.098, 326.130, 326.162, 326.194, 326.227, 326.259, 326.291, 326.323, 326.355, 326.387, 326.419, 326.452, 326.484, 326.516, 326.548, 326.580, 326.612, 326.645, 326.677, 326.709, 326.741, 326.773

Ground Level: 324.630, 324.742, 324.955, 325.128, 325.251, 325.337, 325.472, 325.615, 325.664, 325.712, 325.761, 325.791, 325.819, 325.827, 325.817, 325.849, 325.797, 325.789, 325.804, 325.782, 325.782, 325.803, 325.812, 325.817, 325.813, 325.813, 325.796, 325.785, 325.756, 325.741, 325.723, 325.672, 325.604, 325.513, 325.305, 324.760, 323.998, 323.712, 323.545, 322.996, 322.904, 322.845, 323.006, 322.382, 321.912, 320.647, 321.589, 322.753, 323.373, 323.364, 323.269, 323.307, 323.426, 323.785, 323.971, 324.568, 324.701, 324.813, 325.007, 325.055, 325.107, 325.216, 325.274, 325.312, 325.363, 325.474, 325.421, 325.371, 325.338, 325.195, 325.137, 325.066, 325.007, 324.871, 324.778, 324.692, 324.616, 324.500, 324.527, 324.408, 324.415, 324.548, 324.352, 324.704, 323.955, 323.928, 323.857, 323.767

Lvl Diff (+/−): 2.059, 1.946, 1.729, 1.550, 1.417, 1.319, 1.169, 1.007, 0.937, 0.864, 0.788, 0.726, 0.667, 0.627, 0.605, 0.541, 0.562, 0.538, 0.491, 0.481, 0.449, 0.396, 0.355, 0.318, 0.290, 0.275, 0.254, 0.251, 0.234, 0.220, 0.239, 0.276, 0.276, 0.335, 0.511, 1.024, 1.755, 2.008, 2.144, 2.661, 2.721, 2.748, 2.555, 3.147, 3.588, 4.826, 3.862, 2.678, 2.042, 2.038, 2.122, 2.078, 1.955, 1.595, 1.412, 0.821, 0.697, 0.598, 0.419, 0.390, 0.360, 0.276, 0.246, 0.240, 0.221, 0.592, 0.677, 0.759, 0.824, 0.999, 1.089, 1.193, 1.284, 1.452, 1.578, 1.695, 1.803, 1.951, 1.957, 2.108, 2.133, 2.228, 1.909, 2.690, 2.747, 2.781, 2.884, 3.006

Ground Level Left @ 9.0m: 323.138, 323.470, 323.440, 323.533, 324.368, 324.440, 324.803, 325.224, 325.133, 325.068, 325.138, 324.938, 325.138, 324.738, 325.121, 324.281, 324.197, 323.881, 324.681, 324.481, 324.481, 325.298, 325.081, 325.011, 324.976, 324.874, 324.781, 324.681, 325.371, 323.658, 324.364, 324.245, 324.665, 324.263, 324.126, 323.066, 323.936, 323.908, 323.479, 323.084, 322.587, 322.837, 323.952, 324.451, 324.623, 324.681, 324.907, 325.015, 325.057, 325.164, 325.240, 325.277, 325.327, 325.330, 325.469, 325.554, 325.525, 325.217, 325.607, 325.603, 325.647, 325.629, 325.648, 325.672, 325.672, 325.669, 325.671, 325.654, 325.567, 325.497, 325.434, 325.287, 325.241, 325.118, 325.013, 325.010, 324.847, 324.789, 324.731, 324.584, 324.610, 324.566, 324.528, 324.479, 324.392, 323.834, 324.456, 324.934, 324.129, 323.944, 323.760, 323.654, 323.634, 323.679

Ground Level Right @ 9.0m: 322.470, 323.069, 323.240, 324.540, 324.735, 324.803, 324.371, 324.468, 325.128, 325.068, 324.903, 324.803, 324.654, 324.738, 324.564, 324.836, 324.381, 324.377, 324.681, 324.481, 325.301, 324.481, 325.298, 325.781, 324.832, 324.826, 324.381, 324.505, 324.511, 324.481, 324.238, 324.265, 324.248, 324.265, 324.946, 324.826, 323.077, 323.614, 322.879, 322.581, 322.441, 323.314, 321.784, 321.554, 320.078, 321.529, 323.365, 323.365, 323.318, 323.385, 323.508, 323.728, 324.099, 324.650, 324.743, 324.630, 324.889, 324.957, 325.046, 325.138, 325.202, 325.257, 325.321, 325.362, 325.401, 325.435, 325.509, 325.627, 325.513, 325.536, 325.537, 325.573, 325.600, 325.565, 325.514, 325.480, 325.462, 325.462, 325.402, 325.338, 325.277, 325.138, 324.994, 324.893, 324.984, 324.829, 324.771, 324.674, 324.610, 324.566, 324.528, 324.479, 323.834, 324.285, 324.281, 324.154, 324.533, 324.098, 323.928, 323.915

Vertical Alignment: L=307.34m G=-0.32% | Lc=200.00m | L=582.45m G=0.32%

Horizontal Alignment: L=612.69m | Ls=35.00m | Rc=350.00m Lc=599.13m

Superelevation: 33+442.46 | 33+458.70 | 33+598.70 6.16%

Chainage: 33+000, 33+010, 33+020, 33+030, 33+040, 33+050, 33+060, 33+070, 33+080, 33+090, 33+100, 33+110, 33+120, 33+130, 33+140, 33+150, 33+160, 33+170, 33+180, 33+190, 33+200, 33+210, 33+220, 33+230, 33+240, 33+250, 33+260, 33+270, 33+280, 33+290, 33+300, 33+310, 33+320, 33+330, 33+340, 33+350, 33+360, 33+370, 33+380, 33+390, 33+400, 33+410, 33+420, 33+430, 33+440, 33+450, 33+460, 33+470, 33+480, 33+490, 33+500, 33+510, 33+520, 33+530, 33+540, 33+550, 33+560, 33+570, 33+580, 33+590, 33+600, 33+610, 33+620, 33+630, 33+640, 33+650, 33+660, 33+670, 33+680, 33+690, 33+700, 33+710, 33+720, 33+730, 33+740, 33+750, 33+760, 33+770, 33+780, 33+790, 33+800, 33+810, 33+820, 33+830, 33+840, 33+850, 33+860, 33+870, 33+880, 33+890, 33+900, 33+910, 33+920, 33+930, 33+940, 33+950, 33+960, 33+970, 33+980, 33+990, 34+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company, Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram
Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	33+000 TO 34+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: MAY–2025	SCALE:	DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–34	SHEET NO.: 34 TO 42
			REV. 04

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	

Curve No.:	
HIP CH: 34231.08	
N	= 2720009.8521
E	= 362658.6810
Δ	= 8° 22' 23"
R	= 1200.000m
LS	= ???m
LC	= 175.37m
ES	= ???m
TS	= ???m
V	= 80 km/h
e	= 2.50%

Curve No.:	
HIP CH: 34437.33	
N	= 2719814.0209
E	= 362592.9634
Δ	= 4° 05' 06"
R	= 2500.000m
LS	= ???m
LC	= 178.24m
ES	= ???m
TS	= ???m
V	= 80 km/h
e	= 2.50%

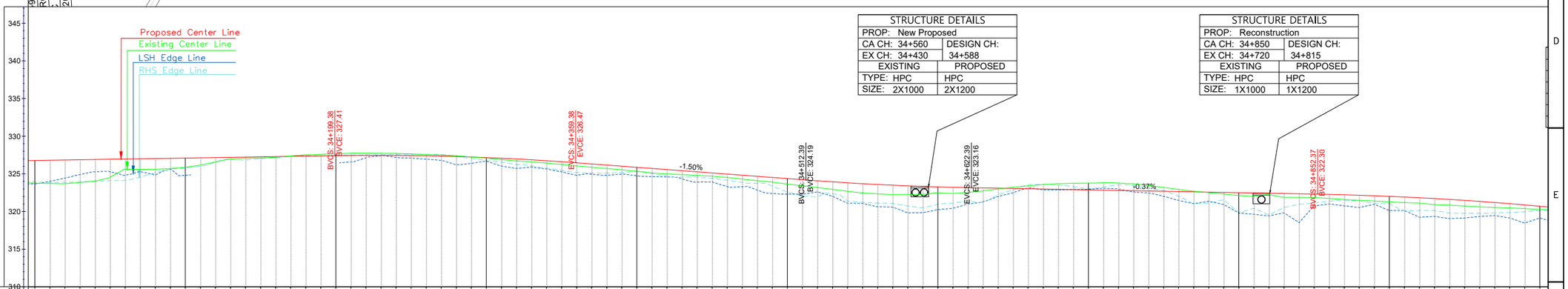
STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 34+560	DESIGN CH: 34+588
EX CH: 34+430	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 2X1000	2X1200

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 34+850	DESIGN CH: 34+815
EX CH: 34+720	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

EARTHEN SHOULDER
PAVED SHOULDER
MAIN CARRIAGEWAY
CENTER LINE

Curve No.:	
HIP CH: 34636.85	
N	= 2719620.7606
E	= 362543.1065
Δ	= 17° 23' 53"
R	= 250.000m
LS	= 30.00m
LC	= 45.91m
ES	= 3.061m
TS	= 53.274m
V	= 50 km/h
e	= 4.44%

Curve No.:	
HIP CH: 34749.35	
N	= 2719524.6789
E	= 362483.3837
Δ	= 11° 42' 14"
R	= 305.000m
LS	= 20.00m
LC	= 42.30m
ES	= 1.653m
TS	= 41.266m
V	= 50 km/h
e	= 3.64%



STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 34+560	DESIGN CH: 34+588
EX CH: 34+430	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 2X1000	2X1200

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 34+850	DESIGN CH: 34+815
EX CH: 34+720	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
34+000	326.773	323.767	3.006	323.679	323.915
34+010	326.805	323.726	3.079	324.015	323.851
34+020	326.837	323.703	3.134	324.437	323.880
34+030	326.870	323.849	3.020	324.909	323.959
34+040	326.902	324.039	2.863	325.276	323.985
34+050	326.934	324.556	2.378	325.277	324.106
34+060	326.966	325.605	1.361	324.826	324.152
34+070	326.998	325.585	1.413	325.292	324.568
34+080	327.030	325.606	1.424	324.850	325.130
34+090	327.063	325.705	1.357	325.605	325.628
34+100	327.095	325.872	1.223	324.805	325.800
34+110	327.127	326.167	0.959		326.009
34+120	327.159	326.587	0.572		326.547
34+130	327.191	327.178	0.213		326.881
34+140	327.223	327.088	0.135		326.833
34+150	327.255	327.115	0.141		327.021
34+160	327.288	327.201	0.087		327.160
34+170	327.320	327.368	-0.048		327.348
34+180	327.352	327.531	-0.179		327.428
34+190	327.384	327.596	-0.212		327.419
34+200	327.416	327.662	-0.245		327.443
34+210	327.442	327.733	-0.291	326.597	327.478
34+220	327.456	327.741	-0.284	327.127	327.511
34+230	327.459	327.721	-0.262	327.405	327.538
34+240	327.451	327.704	-0.253	327.188	327.564
34+250	327.431	327.645	-0.213	327.095	327.585
34+260	327.400	327.562	-0.162	326.947	327.602
34+270	327.358	327.484	-0.126	326.796	327.601
34+280	327.304	327.394	-0.089	326.205	327.328
34+290	327.239	327.229	0.010	326.387	327.043
34+300	327.163	327.098	0.064	326.690	326.769
34+310	327.075	326.884	0.191	326.035	326.557
34+320	326.976	326.723	0.253	325.716	326.226
34+330	326.865	326.592	0.273	325.902	326.061
34+340	326.743	326.434	0.310	325.642	325.764
34+350	326.610	326.254	0.357	325.266	325.473
34+360	326.466	326.056	0.410	324.809	325.181
34+370	326.316	325.883	0.433	324.954	325.113
34+380	326.167	325.706	0.461	324.801	325.093
34+390	326.017	325.530	0.487	324.978	325.192
34+400	325.867	325.339	0.529	324.741	325.320
34+410	325.718	325.123	0.595	324.644	325.051
34+420	325.568	325.006	0.562	324.594	324.713
34+430	325.419	324.909	0.510	324.343	324.553
34+440	325.269	324.781	0.488	323.906	324.564
34+450	325.120	324.695	0.425	323.921	324.404
34+460		324.525	0.445	323.311	324.150
34+470		324.970	0.775	323.299	323.858
34+480		324.821	0.816	322.853	323.762
34+490		324.671	0.636	322.399	323.381
34+500		324.521	0.399	322.372	322.624
34+510		324.372	0.100	322.308	322.079
34+520		324.222	-0.170	322.297	321.922
34+530		324.076	-0.388	322.609	322.351
34+540		323.939	-0.584	322.022	321.388
34+550		323.812	-0.747	322.941	321.222
34+560		323.696	-0.841	323.181	321.079
34+570		323.590	-0.908	322.679	320.732
34+580		323.494	-0.994	322.469	319.822
34+590		323.409	-0.990	322.346	320.504
34+600		323.333	-0.915	322.247	320.960
34+610		323.268	-0.729	322.262	321.126
34+620		323.213	-0.518	322.257	321.382
34+630		323.168	-0.288	322.396	321.249
34+640		323.130	-0.083	322.532	322.233
34+650		323.093	0.059	322.731	322.866
34+660		323.056	0.214	323.093	323.537
34+670		323.018	0.366	323.225	323.609
34+680		323.406	0.438	323.406	323.517
34+690		323.565	0.489	323.565	323.300
34+700		323.691	0.480	323.691	323.042
34+710		323.748	0.462	323.748	323.239
34+720		323.777	0.531	323.777	323.568
34+730		323.826	0.611	323.826	323.440
34+740		323.765	0.677	323.765	323.121
34+750		323.672	0.696	323.672	322.765
34+760		323.448	0.726	323.448	322.042
34+770		323.200	0.740	323.200	321.048
34+780		322.682	0.720	322.682	321.124
34+790		322.645	0.714	322.645	321.559
34+800		322.608	0.649	322.608	319.829
34+810		322.570	0.619	322.570	320.429
34+820		322.511	0.572	322.511	319.529
34+830		322.320	0.489	322.320	320.960
34+840		322.496	0.416	322.496	321.129
34+850		322.459	0.366	322.459	321.375
34+860		322.421	0.438	322.421	321.465
34+870		322.384	0.489	322.384	321.440
34+880		322.347	0.480	322.347	321.067
34+890		322.309	0.462	322.309	321.057
34+900		322.269	0.531	321.738	320.744
34+910		322.220	0.611	321.609	320.994
34+920		322.161	0.677	321.484	320.757
34+930		322.092	0.696	321.396	320.524
34+940		322.014	0.726	321.288	320.960
34+950		321.926	0.740	321.185	320.129
34+960		321.828	0.720	321.108	320.139
34+970		321.721	0.714	320.920	320.239
34+980		321.604	0.649	320.846	319.339
34+990		321.478	0.572	320.723	319.069
35+000		321.341	0.489	320.622	319.139
		321.196	0.416	320.547	319.339
		321.040		320.468	319.470
		320.876		320.387	319.649
		320.701		320.285	319.572
					319.489
					319.139

Vertical Alignment: Lc=160.00m; L=153.01m G=-1.50%; Lc=110.00m; L=229.99m G=-0.37%; Lc=180.00m

Horizontal Alignment: Ls=35.00m; L=10.42m; Rc=1200.00m Lc=175.37m; L=29.57m; Rc=2500.00m Lc=178.24m; L=57.16m; Ls=30.00m; Rc=250.00m Lc=45.91m; Ls=30.00m; L=18.59m; Ls=20.00m; Rc=305.00m Lc=42.30m; Ls=20.00m; L=244.75m

Superelevation: 34+097.82 6.85%; 34+107.82; 34+134.06; 34+574.51; 34+598.57; 34+613.57 4.44%; 34+659.49 4.44%; 34+728.08 3.64%; 34+770.38 3.64%; 34+795.38; 34+812.55; 34+907.64

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company,
Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
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Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

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Plot No. 27, M–2, First Floor,
Noble Plaza, M.P. Nagar Zone–II,
Bhopal (M.P.)–462011
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Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

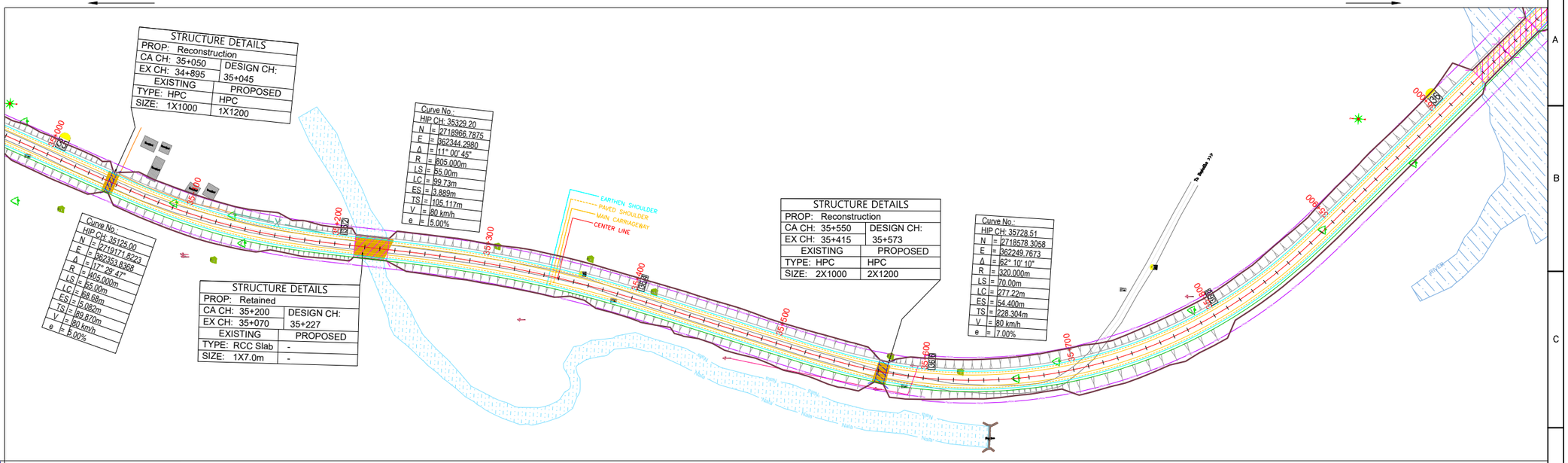
NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	34+000 TO 35+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: MAY–2025	SCALE:	DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–35	SHEET NO.: 35 TO 42
REV. 04			

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 35+050	DESIGN CH: 35+045
EX CH: 34+895	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

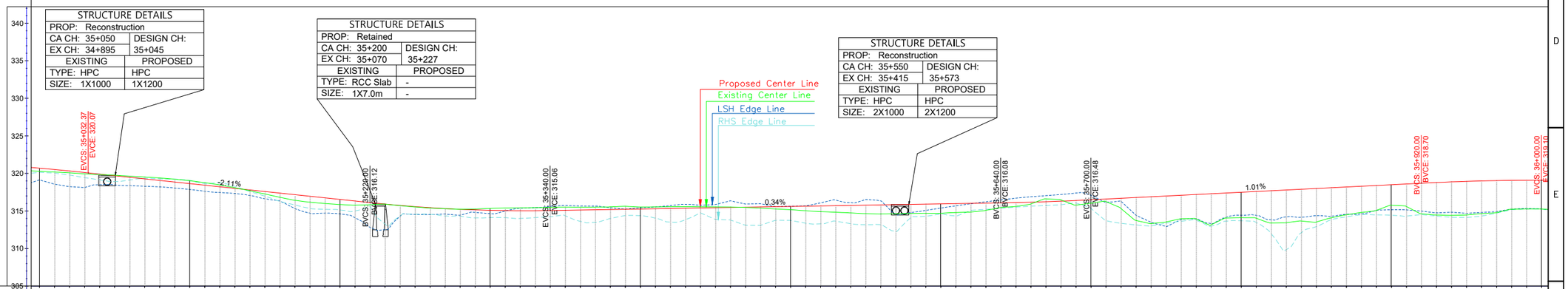
Curve No.:	
HIP CH: 35329.20	
N	= 2718966.7875
E	= 362344.2980
Δ	= 11° 00' 45"
R	= 805.000m
LS	= 55.00m
LC	= 99.73m
ES	= 3.889m
TS	= 105.117m
V	= 80 km/h
e	= 5.00%

Curve No.:	
HIP CH: 35126.00	
N	= 2719171.8223
E	= 362353.8368
Δ	= 17° 29' 47"
R	= 405.000m
LS	= 65.00m
LC	= 68.68m
ES	= 5.082m
TS	= 99.870m
V	= 80 km/h
e	= 5.00%

STRUCTURE DETAILS	
PROP: Retained	
CA CH: 35+200	DESIGN CH: 35+227
EX CH: 35+070	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X7.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 35+550	DESIGN CH: 35+573
EX CH: 35+415	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 2X1000	2X1200

Curve No.:	
HIP CH: 35728.51	
N	= 2718578.3058
E	= 362249.7673
Δ	= 62° 10' 10"
R	= 320.000m
LS	= 70.00m
LC	= 277.22m
ES	= 54.400m
TS	= 228.304m
V	= 80 km/h
e	= 7.00%



Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
35+000	320.701	320.285	0.416	319.139	320.140
35+010	320.517	320.187	0.329	318.569	320.045
35+020	320.323	320.081	0.242	318.239	319.785
35+030	320.120	319.953	0.167	318.191	319.449
35+040	319.909	319.851	0.059	318.491	319.141
35+050	319.699	319.757	-0.058	318.471	318.915
35+060	319.488	319.638	-0.149	318.369	319.128
35+070	319.278	319.521	-0.243	318.301	319.347
35+080	319.067	319.394	-0.327	318.210	319.276
35+090	318.857	319.238	-0.381	318.060	319.250
35+100	318.646	319.036	-0.390	317.867	319.062
35+110	318.436	318.775	-0.340	317.631	318.630
35+120	318.225	318.469	-0.243	317.459	318.753
35+130	318.015	318.100	-0.085	317.325	318.276
35+140	317.804	317.705	0.099	317.069	317.595
35+150	317.594	317.260	0.334	316.631	316.977
35+160	317.383	316.824	0.559	316.326	316.276
35+170	317.173	316.419	0.753	315.327	315.807
35+180	316.962	316.166	0.796	314.706	315.349
35+190	316.752	315.998	0.754	314.709	315.222
35+200	316.541	315.856	0.685	314.610	315.137
35+210	316.331	315.775	0.555	314.113	315.006
35+220	316.120	315.834	0.286	312.810	315.668
35+230	315.920	315.911	0.008	312.516	313.259
35+240	315.710	315.740	0.030	314.281	314.343
35+250	315.580	315.532	0.048	314.542	314.573
35+260	315.441	315.391	0.050	314.524	314.566
35+270	315.322	315.302	0.020	314.581	314.339
35+280	315.224	315.232	-0.009	314.432	314.311
35+290	315.146	315.257	-0.111	314.808	314.087
35+300	315.088	315.348	-0.260	314.642	314.119
35+310	315.051	315.398	-0.348	314.996	313.996
35+320	315.034	315.419	-0.385	315.368	314.121
35+330	315.037	315.445	-0.408	315.437	314.235
35+340	315.061	315.486	-0.425	315.615	314.376
35+350	315.095	315.515	-0.420	315.731	313.623
35+360	315.129	315.497	-0.368	315.674	313.488
35+370	315.163	315.503	-0.340	315.645	313.998
35+380	315.197	315.539	-0.342	315.431	314.391
35+390	315.231	315.620	-0.389	315.269	314.374
35+400	315.265	315.527	-0.262	315.419	314.047
35+410	315.299	315.534	-0.235	315.539	313.518
35+420	315.333	315.558	-0.225	315.720	313.833
35+430	315.367	315.566	-0.199	315.879	314.756
35+440	315.401	315.549	-0.148	315.756	313.866
35+450	315.435	315.537	-0.102	315.856	313.802
35+460	315.469	315.523	-0.054	316.356	313.096
35+470	315.503	315.465	0.038	315.926	313.091
35+480	315.537	315.376	0.161	315.966	313.766
35+490	315.571	315.268	0.302	315.575	313.756
35+500	315.605	315.174	0.431	315.626	313.369
35+510	315.639	315.031	0.608	315.686	313.298
35+520	315.673	314.913	0.760	316.077	313.650
35+530	315.707	314.840	0.867	316.450	313.317
35+540	315.741	314.742	0.999	316.102	313.168
35+550	315.775	314.643	1.132	316.506	313.182
35+560	315.809	314.600	1.209	316.340	312.300
35+570	315.843	314.629	1.214	314.574	314.104
35+580	315.877	314.674	1.203	314.769	314.288
35+590	315.911	314.696	1.215	315.075	314.610
35+600	315.945	314.687	1.258	315.384	314.329
35+610	315.979	314.794	1.185	315.679	315.053
35+620	316.013	314.860	1.152	315.958	315.215
35+630	316.047	315.073	0.974	316.221	315.386
35+640	316.081	315.452	0.629	316.468	315.502
35+650	316.120	315.608	0.512	316.699	315.648
35+660	316.171	315.930	0.241	316.889	315.733
35+670	316.233	316.616	-0.383	317.037	315.826
35+680	316.306	316.473	-0.167	317.190	316.066
35+690	316.390	315.787	0.602	317.386	315.361
35+700	316.485	316.037	0.448	317.095	313.721
35+710	316.585	316.258	0.327	316.157	313.361
35+720	316.686	315.343	1.343	316.300	313.145
35+730	316.786	313.744	3.042	314.445	313.011
35+740	316.887	313.330	3.557	313.508	313.383
35+750	316.988	312.955	3.458	313.529	313.629
35+760	317.088	313.949	3.140	313.844	313.775
35+770	317.189	313.941	3.248	313.923	312.975
35+780	317.289	313.157	4.133	313.338	313.644
35+790	317.390	314.061	3.329	314.172	313.700
35+800	317.491	314.110	3.381	314.432	313.483
35+810	317.591	314.046	3.545	314.421	311.990
35+820	317.692	313.395	4.296	313.818	309.836
35+830	317.792	313.434	4.358	314.208	312.087
35+840	317.893	313.666	4.227	314.166	312.912
35+850	317.994	313.531	4.463	314.374	313.826
35+860	318.094	314.088	4.006	314.312	314.220
35+870	318.195	314.492	3.702	314.556	314.495
35+880	318.295	314.797	3.498	314.616	314.481
35+890	318.396	315.070	3.326	315.090	314.436
35+900	318.496	315.156	2.727	315.069	314.314
35+910	318.597	315.603	2.994	315.140	314.533
35+920	318.698	314.626	4.072	314.988	314.318
35+930	318.792	314.465	4.327	314.738	314.152
35+940	318.874	314.417	4.457	314.838	314.135
35+950	318.943	314.474	4.469	314.688	314.296
35+960	318.999	314.637	4.363	314.798	314.713
35+970	319.043	314.782	4.261	314.915	315.158
35+980	319.075	315.226	3.849	315.252	315.248
35+990	319.094	315.278	3.816	315.338	315.258
36+000	319.100	315.263	3.837	315.258	315.258

Vertical Alignment: L=187.63m G=-2.11% | Lc=120.00m | L=300.00m G=0.34% | Lc=60.00m | L=220.00m G=1.01% | Lc=80.00m

Horizontal Alignment: Ls=55.00m | Rc=405.00m Lc=68.68m | Ls=55.00m | L=10.21m | Ls=55.00m | Rc=805.00m Lc=99.73m | Ls=55.00m | L=66.41m | Ls=70.00m | Rc=320.00m Lc=277.22m | Ls=70.00m

Superelevation: 35+037.64 | 35+085.14 | 35+190.14 5.00% | 35+188.81 5.00% | 35+279.09 5.00% | 35+378.81 5.00% | 35+488.81 | 35+488.81 | 35+475.22 | 35+500.22 | 35+570.22 7.00% | 35+987.44 7.00% | 35+997.44 | 35+992.44

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company, Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

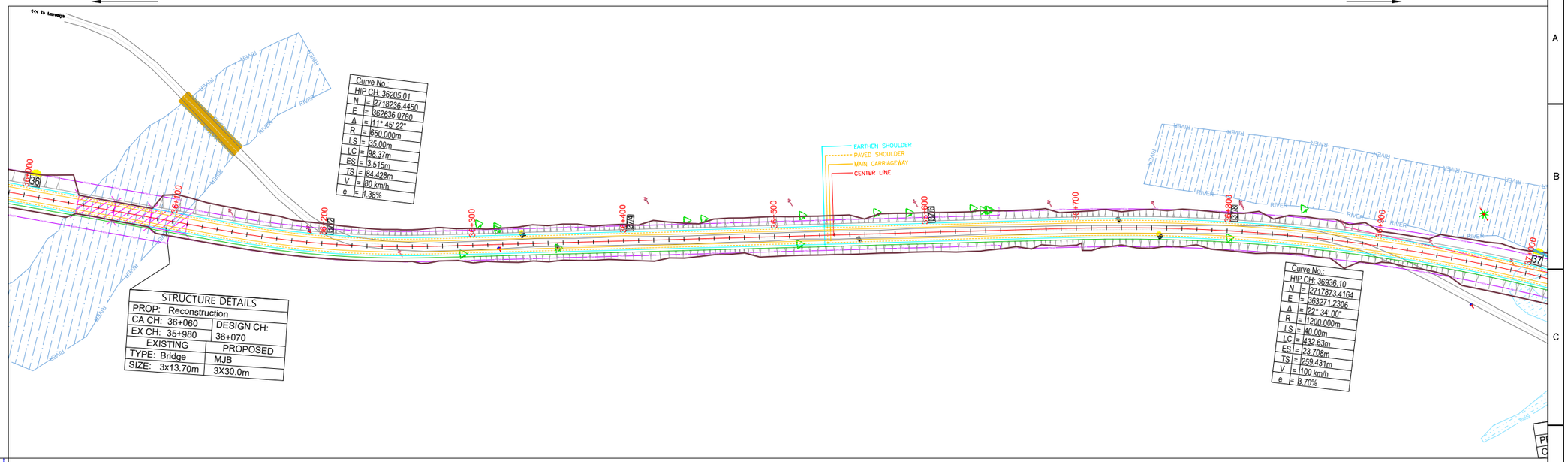
NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

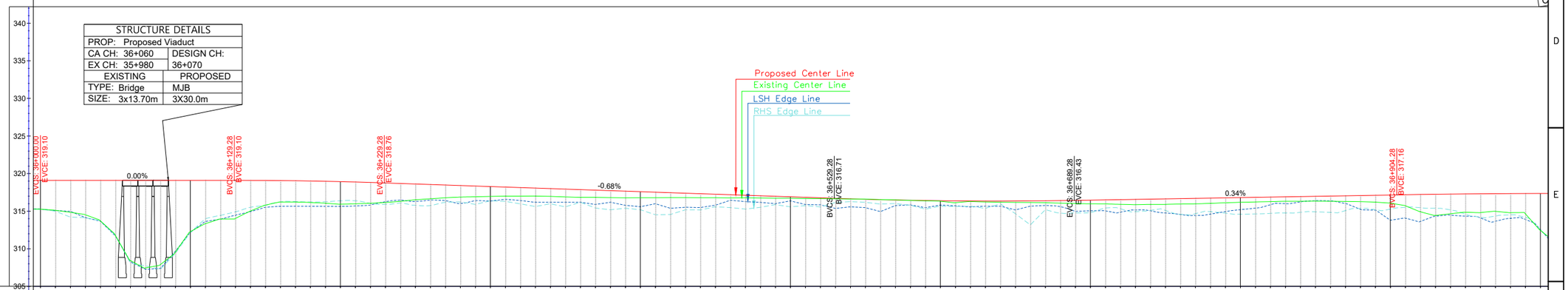
TITLE: PLAN & PROFILE		Chainage 35+000 TO 36+000	
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION			
DATE: MAY–2025	SCALE:	DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–36	SHEET NO.: 36 TO 42
REV. 04			

GULGANJ ⟵ ⟶ KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	





Proposed: 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.096 319.085 319.068 319.043 319.012 318.974 318.929 318.877 318.819 318.754 318.685 318.617 318.549 318.480 318.412 318.344 318.275 318.207 318.139 318.070 318.002 317.934 317.865 317.797 317.729 317.660 317.592 317.524 317.456 317.387 317.319 317.251 317.182 317.114 317.046 316.977 316.909 316.841 316.772 316.704 316.639 316.581 316.529 316.484 316.445 316.412 316.386 316.366 316.352 316.345 316.344 316.350 316.362 316.381 316.405 316.471 316.504 316.538 316.572 316.606 316.640 316.674 316.708 316.742 316.776 316.810 316.844 316.878 316.912 316.946 316.980 317.014 317.048 317.082 317.116 317.150 317.183 317.214 317.242 317.267 317.290 317.309 317.326 317.339 317.350 317.358

Ground Level: 315.263 315.113 315.243 314.525 313.715 311.765 307.443 307.896 309.528 312.283 313.327 313.945 314.031 315.018 315.806 316.214 316.217 316.155 316.060 315.925 315.981 316.055 316.150 316.305 316.515 316.648 316.776 316.872 316.918 316.969 317.002 317.000 317.004 316.970 316.893 316.836 316.839 316.796 316.778 316.793 316.788 316.797 316.794 316.787 316.790 316.812 316.772 316.751 316.729 316.720 316.682 316.673 316.651 316.610 316.603 316.540 316.502 316.429 316.374 316.322 316.291 316.231 316.168 316.158 316.122 316.067 316.016 315.980 315.967 315.906 315.867 315.896 315.905 315.951 315.969 316.036 316.115 316.183 316.223 316.273 316.316 316.337 316.319 316.294 316.268 316.197 316.057 315.111 314.922 314.439 314.648 314.857 314.984 314.800 314.655 312.443

Lvl Diff (+/−): 3.837 3.987 4.253 4.575 5.385 7.335 10.668 11.657 11.204 9.572 6.817 5.773 5.155 5.069 4.079 3.280 2.853 2.827 2.857 2.914 3.004 2.896 2.763 2.604 2.381 2.102 1.900 1.704 1.540 1.426 1.307 1.205 1.139 1.067 1.032 1.041 1.029 0.958 0.932 0.882 0.800 0.736 0.659 0.593 0.532 0.460 0.415 0.342 0.294 0.248 0.189 0.158 0.100 0.053 0.030 -0.022 -0.011 -0.018 0.016 0.038 0.064 0.240 0.061 0.115 0.148 0.182 0.205 0.258 0.338 0.420 0.490 0.538 0.632 0.706 0.710 0.736 0.723 0.739 0.707 0.661 0.627 0.622 0.605 0.596 0.630 0.643 0.695 0.753 0.814 0.919 1.093 1.473 2.292 2.804 2.432 2.619 2.432 2.497 2.342 2.540 2.695 4.916

Ground Level Left @ 9.0m: 315.258 315.081 314.978 314.137 313.667 311.707 307.257 307.382 312.182 313.638 313.934 314.465 314.934 315.498 315.640 315.661 315.652 315.640 315.631 315.690 315.816 316.261 316.474 316.296 316.467 316.384 316.028 316.413 316.346 316.576 316.419 316.176 316.181 316.181 316.181 315.891 316.181 315.781 315.591 315.991 315.381 315.521 315.481 315.792 316.452 316.272 316.168 316.372 315.882 315.841 315.368 315.577 315.472 314.945 315.744 315.837 315.457 315.712 315.560 315.665 315.148 315.165 315.665 315.586 314.973 315.051 314.860 315.155 315.046 314.761 314.562 314.426 314.607 314.941 315.199 315.402 315.854 316.000 316.234 316.390 316.370 316.009 315.252 315.125 313.794 314.080 313.632 314.325 314.479 314.334 314.110 313.651 314.048 313.901 312.557

Ground Level Right @ 9.0m: 315.258 314.998 314.208 314.137 313.707 311.797 308.087 307.717 307.272 309.387 312.167 314.019 314.444 314.913 315.510 315.784 316.226 316.228 316.255 316.382 316.384 316.030 315.897 316.102 316.474 316.778 315.757 316.169 316.213 315.903 316.383 316.304 315.976 315.621 315.981 315.574 316.181 315.419 315.181 315.391 315.191 314.521 314.560 315.181 315.171 315.581 315.481 316.281 315.507 315.881 315.572 315.743 315.572 316.153 316.272 316.177 315.952 316.012 315.781 315.272 315.678 315.612 315.665 315.374 315.965 314.665 313.176 315.196 314.750 314.771 314.834 315.427 315.318 314.927 315.106 315.099 314.593 314.664 314.933 314.736 314.596 314.630 314.707 314.759 314.844 314.918 314.832 315.077 315.363 315.197 315.274 315.508 315.457 315.383 315.170 314.604 314.194 314.352 314.507 314.175 312.524

Vertical Alignment: L=129.28m G=0.00% | Lc=100.00m | L=300.00m G=-0.68% | Lc=160.00m | L=215.00m G=0.34%

Horizontal Alignment: L=203.14m | Ls=35.00m | Rc=650.00m Lc=98.37m | Ls=35.00m | L=387.72m | Ls=40.00m | Rc=1200.00m Lc=432.63m

Superelevation: 36+100.58 | 36+120.58 | 36+155.58 4.38% | 36+213.95 4.38% | 36+239.95 | 36+309.94 | 36+618.67 | 36+646.67 | 36+716.67 3.70%

Chainage: 36+000 36+010 36+020 36+030 36+040 36+050 36+060 36+070 36+080 36+090 36+100 36+110 36+120 36+130 36+140 36+150 36+160 36+170 36+180 36+190 36+200 36+210 36+220 36+230 36+240 36+250 36+260 36+270 36+280 36+290 36+300 36+310 36+320 36+330 36+340 36+350 36+360 36+370 36+380 36+390 36+400 36+410 36+420 36+430 36+440 36+450 36+460 36+470 36+480 36+490 36+500 36+510 36+520 36+530 36+540 36+550 36+560 36+570 36+580 36+590 36+600 36+610 36+620 36+630 36+640 36+650 36+660 36+670 36+680 36+690 36+700 36+710 36+720 36+730 36+740 36+750 36+760 36+770 36+780 36+790 36+800 36+810 36+820 36+830 36+840 36+850 36+860 36+870 36+880 36+890 36+900 36+910 36+920 36+930 36+940 36+950 36+960 36+970 36+980 36+990 37+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills,
Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company,
Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor,
Noble Plaza, M.P. Nagar Zone–II,
Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram
Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 36+000 TO 37+000

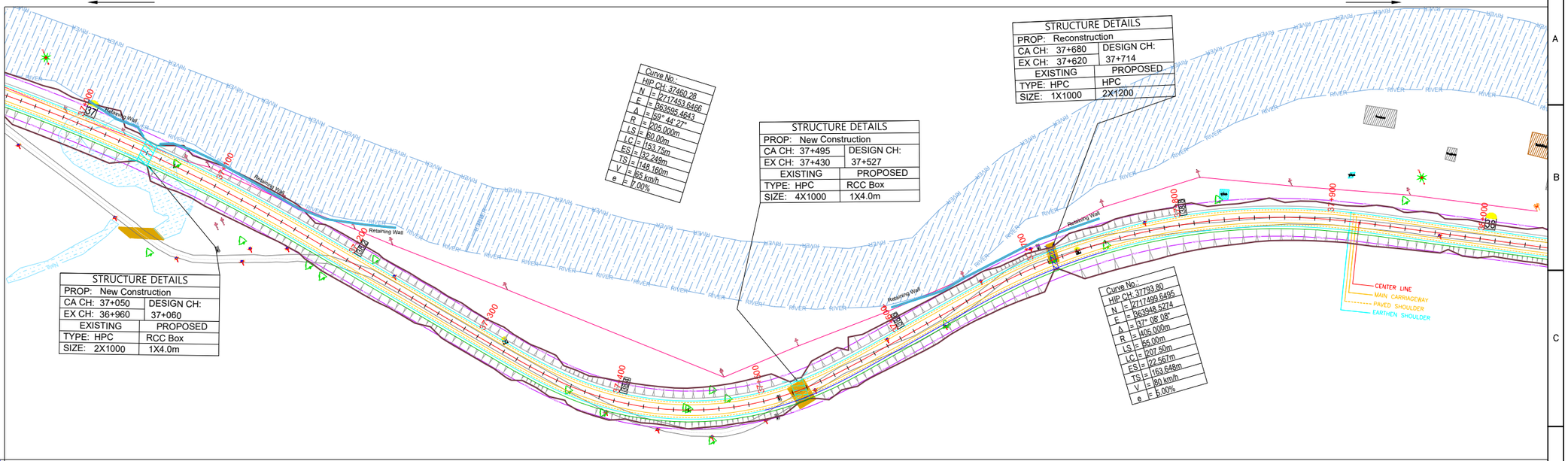
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: MAY–2025 | SCALE: | DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–37 | SHEET NO.: 37 TO 42 | REV. 04

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



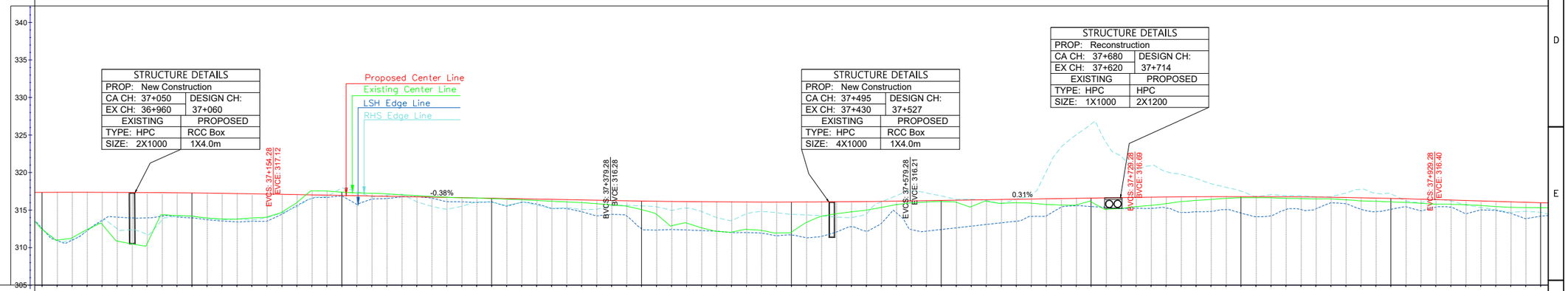
STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 37+050	DESIGN CH:
EX CH: 36+960	37+060
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 2X1000	1X4.0m

Curve No.:	
HIP CH: 37460.28	
N	= 2717453.6466
E	= 663595.4643
Δ	= 59° 44' 27"
R	= 205.000m
LS	= 60.00m
LC	= 153.75m
ES	= 32.248m
TS	= 146.160m
V	= 65 km/h
e	= 7.00%

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 37+495	DESIGN CH:
EX CH: 37+430	37+527
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 4X1000	1X4.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 37+680	DESIGN CH:
EX CH: 37+620	37+714
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	2X1200

Curve No.:	
HIP CH: 37793.80	
N	= 2717499.6495
E	= 663949.5274
Δ	= 37° 08' 08"
R	= 405.000m
LS	= 55.00m
LC	= 207.50m
ES	= 22.567m
TS	= 163.648m
V	= 80 km/h
e	= 6.00%



STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 37+050	DESIGN CH:
EX CH: 36+960	37+060
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 2X1000	1X4.0m

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 37+495	DESIGN CH:
EX CH: 37+430	37+527
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 4X1000	1X4.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 37+680	DESIGN CH:
EX CH: 37+620	37+714
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	2X1200

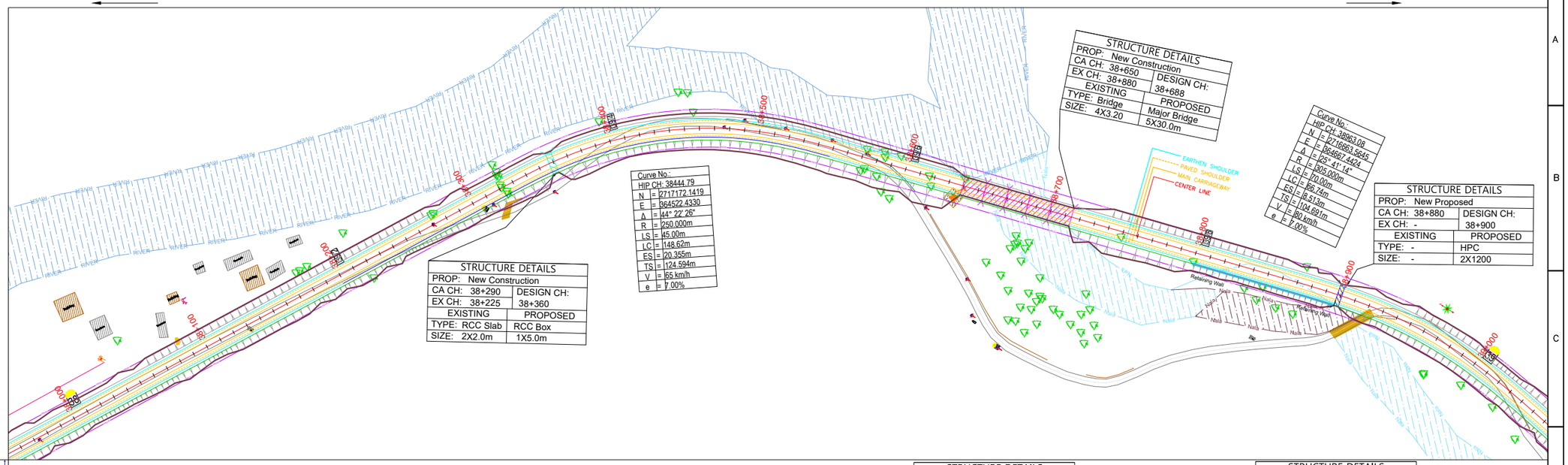
Proposed:

| | | |

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



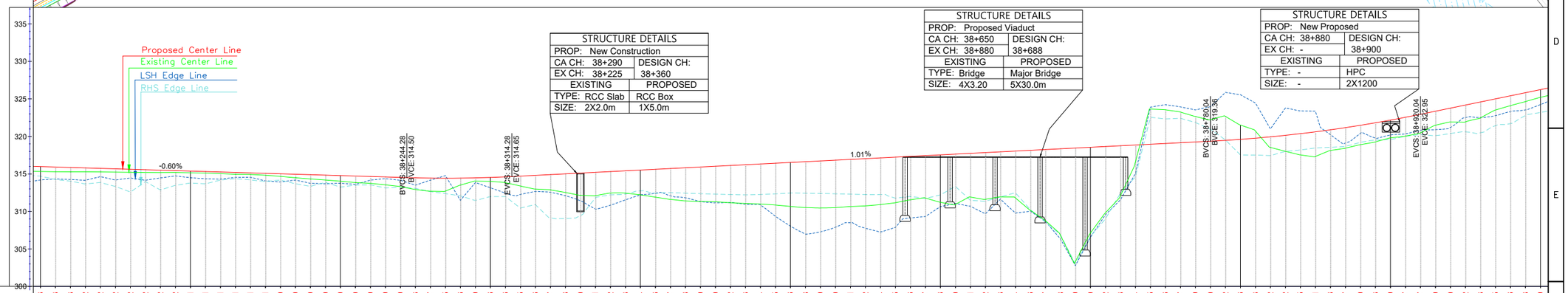
STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 38+650	DESIGN CH: 38+688
EX CH: 38+880	
EXISTING	PROPOSED
TYPE: Bridge	Major Bridge
SIZE: 4X3.20	5X30.0m

Curve No.:	
HIP CH: 38963.08	
N	= 2716863.5645
E	= 364467.4424
Δ	= 25° 41' 14"
R	= 905.000m
LS	= 70.00m
LC	= 66.74m
ES	= 8.513m
TS	= 104.681m
V	= 80 km/h
e	= 7.00%

STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 38+880	DESIGN CH: 38+900
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2X1200

Curve No.:	
HIP CH: 38444.79	
N	= 2717172.1419
E	= 364522.4330
Δ	= 44° 22' 26"
R	= 250.000m
LS	= 45.00m
LC	= 148.62m
ES	= 20.355m
TS	= 124.594m
V	= 65 km/h
e	= 7.00%

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 38+290	DESIGN CH: 38+360
EX CH: 38+225	
EXISTING	PROPOSED
TYPE: RCC Slab	RCC Box
SIZE: 2X2.0m	1X5.0m



STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 38+290	DESIGN CH: 38+360
EX CH: 38+225	
EXISTING	PROPOSED
TYPE: RCC Slab	RCC Box
SIZE: 2X2.0m	1X5.0m

STRUCTURE DETAILS	
PROP: Proposed Viaduct	
CA CH: 38+650	DESIGN CH: 38+688
EX CH: 38+880	
EXISTING	PROPOSED
TYPE: Bridge	Major Bridge
SIZE: 4X3.20	5X30.0m

STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 38+880	DESIGN CH: 38+900
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2X1200

LEVELS DATUM 300.00

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
38+000	315.973	315.323	0.649	314.200	314.702
38+010	315.913	315.290	0.623	314.325	314.259
38+020	315.853	315.278	0.574	314.254	314.039
38+030	315.792	315.270	0.522	314.154	313.654
38+040	315.732	315.261	0.472	314.635	313.854
38+050	315.672	315.240	0.432	314.186	313.325
38+060	315.612	315.216	0.396	314.454	312.583
38+070	315.552	315.195	0.357	314.154	313.963
38+080	315.492	315.180	0.311	314.463	312.854
38+090	315.432	315.183	0.248	314.733	313.477
38+100	315.371	315.155	0.217	314.488	313.787
38+110	315.311	315.107	0.205	314.351	313.677
38+120	315.251	315.030	0.221	314.298	314.177
38+130	315.191	314.953	0.238	314.533	314.358
38+140	315.131	314.925	0.206	314.548	314.198
38+150	315.071	314.823	0.248	314.077	313.977
38+160	315.010	314.674	0.336	313.917	314.190
38+170	314.950	314.481	0.469	314.183	313.683
38+180	314.890	314.329	0.561	313.744	313.344
38+190	314.830	314.183	0.647	313.689	313.874
38+200	314.770	314.025	0.745	313.754	313.234
38+210	314.710	313.850	0.859	313.603	313.508
38+220	314.649	313.737	0.912	314.173	313.540
38+230	314.589	313.543	1.046	314.373	313.128
38+240	314.529	313.310	1.219	314.152	313.251
38+250	314.473	312.915	1.558	313.493	313.079
38+260	314.437	312.687	1.750	314.173	312.644
38+270	314.425	312.718	1.707	314.773	312.374
38+280	314.436	312.515	1.921	311.473	312.078
38+290	314.469	314.037	0.433	313.853	311.439
38+300	314.526	314.007	0.519	313.148	311.979
38+310	314.606	313.839	0.767	312.443	311.967
38+320	314.705	313.388	1.317	312.269	310.439
38+330	314.806	312.979	1.827	312.665	310.893
38+340	314.907	312.873	2.034	312.540	309.142
38+350	315.008	312.524	2.484	312.085	309.055
38+360	315.110	312.154	2.955	311.411	309.448
38+370	315.211	312.103	3.107	310.320	311.787
38+380	315.312	312.446	2.866	310.826	312.202
38+390	315.413	312.436	2.978	311.531	312.313
38+400	315.514	312.206	3.308	312.190	312.742
38+410	315.616	311.897	3.719	312.429	312.425
38+420	315.717	311.603	4.114	312.088	312.499
38+430	315.818	311.397	4.421	311.808	312.435
38+440	315.919	311.325	4.595	311.306	312.365
38+450	316.020	311.286	4.735	311.151	312.301
38+460	316.122	311.160	4.961	311.176	312.246
38+470	316.223	311.058	5.165	310.965	312.205
38+480	316.324	310.983	5.341	310.870	312.259
38+490	316.425	310.849	5.576	309.357	312.340
38+500	316.526	310.666	5.860	308.046	312.448
38+510	316.628	310.504	6.124	306.976	312.428
38+520	316.729	310.453	6.276	307.278	312.390
38+530	316.830	310.501	6.329	307.888	312.348
38+540	316.931	310.651	6.280	308.488	312.300
38+550	317.032	310.736	6.297	307.762	312.251
38+560	317.134	310.914	6.220	307.238	312.242
38+570	317.235	311.162	6.072	307.859	311.763
38+580	317.336	311.550	5.786	309.125	311.997
38+590	317.437	311.785	5.653	309.319	311.723
38+600	317.538	311.210	6.329	310.638	312.207
38+610	317.640	310.936	6.703	311.059	313.332
38+620	317.741	311.911	5.830	310.676	311.472
38+630	317.842	311.610	6.232	309.681	311.344
38+640	317.943	311.931	6.012	311.635	311.934
38+650	318.044	311.800	6.244	309.781	312.482
38+660	318.146	310.129	8.017	310.022	310.225
38+670	318.247	308.761	9.486	308.666	308.555
38+680	318.348	306.835	11.513	306.333	306.888
38+690	318.449	303.325	15.124	302.775	302.998
38+700	318.550	307.104	11.446	306.555	306.666
38+710	318.652	309.807	8.845	309.555	308.996
38+720	318.753	312.098	6.655	311.536	312.427
38+730	318.854	316.580	2.273	315.054	314.602
38+740	318.955	323.645	-4.690	323.901	322.544
38+750	319.056	323.545	-4.489	324.234	322.333
38+760	319.157	323.241	-4.084	323.939	322.414
38+770	319.259	322.652	-3.393	323.532	321.855
38+780	319.360	322.238	-2.879	323.966	320.965
38+790	319.472	322.663	-3.191	325.865	319.535
38+800	319.606	321.511	-1.905	325.554	317.529
38+810	319.763	320.714	-0.951	324.455	317.516
38+820	319.942	318.530	1.411	320.998	317.441
38+830	320.142	318.011	2.132	323.788	318.008
38+840	320.365	317.534	2.831	323.392	318.186
38+850	320.611	317.323	3.287	323.367	318.461
38+860	320.878	318.122	2.756	320.233	318.550
38+870	321.167	318.435	2.732	319.104	318.699
38+880	321.479	318.899	2.580	320.412	319.201
38+890	321.813	319.266	2.547	319.784	319.499
38+900	322.169	319.794	2.375	320.185	319.595
38+910	322.547	320.034	2.513	320.348	320.009
38+920	322.947	320.470	2.477	320.811	320.221
38+930	323.359	320.490	1.868	320.894	320.108
38+940	323.770	321.919	1.852	321.194	320.387
38+950	324.182	321.937	2.245	322.510	320.606
38+960	324.593	322.474	2.119	322.520	320.482
38+970	325.005	323.513	1.491	322.771	321.433
38+980	325.416	324.097	1.320	323.311	321.706
38+990	325.828	324.645	1.182	323.530	322.783
39+000	326.239	325.209	1.030	324.237	323.188

Vertical Alignment: L=315.00m G=-0.60% | Lc=70.00m | L=465.76m G=1.01% | Lc=140.00m

Horizontal Alignment: L=372.55m | Ls=45.00m | Rc=250.00m Lc=148.62m | Ls=45.00m | L=299.58m | Ls=70.00m | Rc=305.00m Lc=66.74m

Superelevation: 38+297.34 | 38+315.20 | 38+355.20 7.00% | 38+513.82 7.00% | 38+533.82 | 38+551.67 | 38+836.61 | 38+853.40 | 38+938.40 7.00% | 38+955.14 7.00%

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T-5 1403 Valley View Estate, Gurugram Faridabad Road Gurugram Haryana-122003 M-9873858396, Email – khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE — Chainage 38+000 TO 39+000

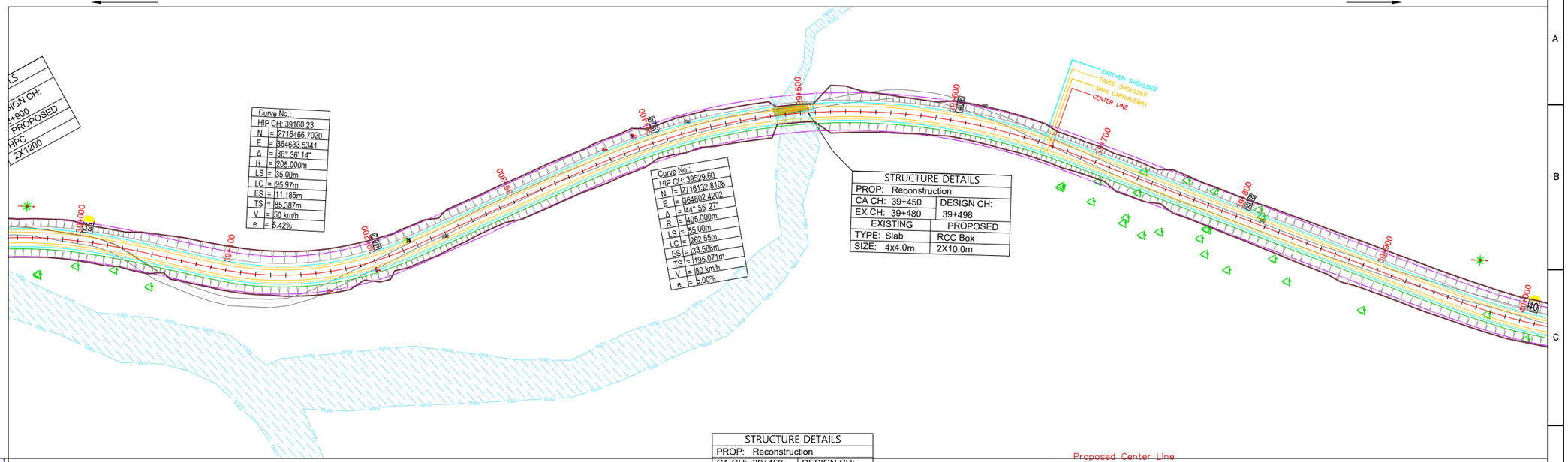
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: MAY-2025 | SCALE: | DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P-39 | SHEET NO.: 39 TO 42 | REV. 04

GULGANJ ← | → KATNI

LINE LEGEND

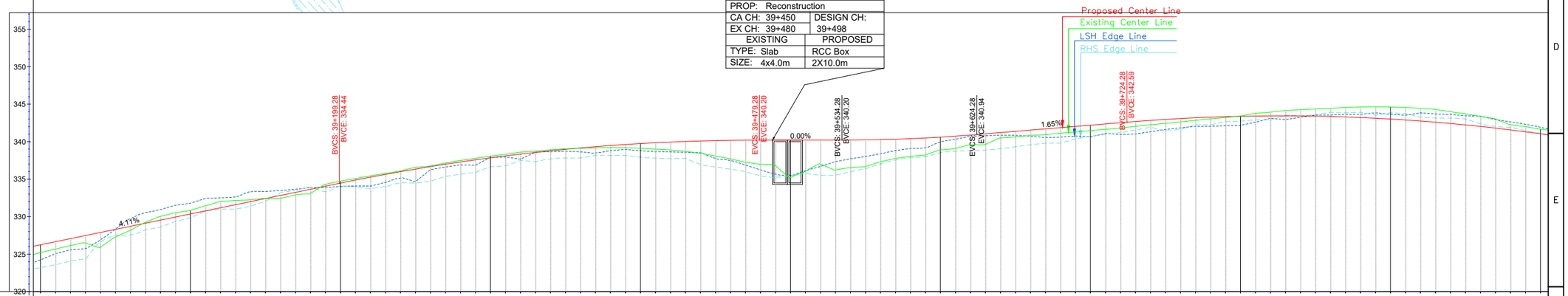
Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



Curve No.:
HIP CH: 39160.23
N = 2716466.7020
E = 864633.5341
Δ = 36° 36' 14"
R = 205.000m
LS = 35.00m
LC = 95.97m
ES = 11.185m
TS = 85.387m
V = 50 km/h
e = 5.42%

Curve No.:
HIP CH: 39529.60
N = 2716132.8108
E = 864802.4202
Δ = 44° 55' 27"
R = 405.000m
LS = 55.00m
LC = 262.55m
ES = 33.586m
TS = 195.071m
V = 80 km/h
e = 5.00%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 39+450	DESIGN CH: 39+498
EX CH: 39+480	
EXISTING	PROPOSED
TYPE: Slab	RCC Box
SIZE: 4x4.0m	2X10.0m



Chainage	Proposed:	Ground Level:	Lvl Diff (+/−):	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
39+000	326.239	325.209	1.030	324.237	323.188
39+010	326.651	325.671	0.980	325.046	323.582
39+020	327.062	326.138	0.924	325.574	324.077
39+030	327.474	326.492	0.982	325.732	324.379
39+040	327.885	325.936	1.949	326.902	326.592
39+050	328.297	327.276	1.021	328.342	327.437
39+060	328.708	328.191	0.517	329.723	327.562
39+070	329.120	329.246	-0.127	330.515	328.244
39+080	329.531	330.035	-0.503	330.937	328.597
39+090	329.943	330.521	-0.578	331.510	329.362
39+100	330.354	330.838	-0.484	331.792	329.856
39+110	330.765	331.443	-0.678	332.407	330.693
39+120	331.177	332.012	-0.835	332.505	330.979
39+130	331.588	332.160	-0.571	332.619	331.003
39+140	332.000	332.242	-0.242	333.303	331.412
39+150	332.411	332.430	-0.019	333.366	332.068
39+160	332.823	332.431	0.392	333.477	333.149
39+170	333.234	332.897	0.337	333.649	333.551
39+180	333.646	333.095	0.550	333.854	333.929
39+190	334.057	334.301	-0.244	333.872	333.341
39+200	334.469	334.737	-0.268	334.016	334.052
39+210	334.872	335.073	-0.201	334.081	333.950
39+220	335.260	335.437	-0.177	334.083	333.761
39+230	335.634	335.757	-0.123	334.568	334.011
39+240	335.993	336.095	-0.102	335.127	334.489
39+250	336.337	336.562	-0.224	334.653	334.469
39+260	336.667	336.751	-0.084	336.261	334.719
39+270	336.982	337.130	-0.148	336.611	335.362
39+280	337.282	337.487	-0.205	336.901	335.662
39+290	337.567	337.776	-0.208	336.847	335.891
39+300	337.838	338.071	-0.232	337.898	336.653
39+310	338.094	338.307	-0.213	337.951	336.775
39+320	338.336	338.593	-0.257	337.661	337.482
39+330	338.563	338.724	-0.161	338.580	337.326
39+340	338.775	338.901	-0.127	338.670	337.695
39+350	338.972	339.038	-0.066	338.703	337.799
39+360	339.155	339.111	0.043	338.626	337.837
39+370	339.322	339.159	0.164	338.495	338.132
39+380	339.476	339.190	0.285	338.794	338.154
39+390	339.614	339.177	0.437	338.957	338.150
39+400	339.738	339.113	0.625	338.785	337.934
39+410	339.847	338.998	0.849	338.680	337.765
39+420	339.942	338.888	1.053	338.633	337.730
39+430	340.022	338.707	1.315	338.569	337.757
39+440	340.087	338.430	1.656	338.516	336.965
39+450	340.137	338.079	2.058	337.760	336.609
39+460	340.173	337.699	2.474	337.476	336.329
39+470	340.194	337.258	2.935	337.328	335.992
39+480	340.200	336.979	3.221	336.878	335.455
39+490	340.200	336.793	3.407	336.234	335.251
39+500	340.200	335.216	4.984	335.519	335.643
39+510	340.200	336.035	4.165	336.115	335.488
39+520	340.200	336.995	3.205	336.691	335.524
39+530	340.200	336.227	3.973	337.328	335.558
39+540	340.200	336.534	3.669	337.708	335.982
39+550	340.203	336.681	3.542	338.021	336.390
39+560	340.223	337.308	2.953	338.387	337.025
39+570	340.261	337.755	2.562	338.794	337.559
39+580	340.317	338.040	2.351	339.080	337.873
39+590	340.391	338.235	2.249	339.192	337.976
39+600	340.484	338.888	1.707	339.937	338.528
39+610	340.595	339.092	1.633	340.315	338.714
39+620	340.725	339.573	1.300	340.696	338.795
39+630	340.872	339.632	1.403	340.793	338.880
39+640	341.035	340.490	0.710	340.843	339.031
39+650	341.200	340.629	0.735	340.836	339.322
39+660	341.365	340.825	0.705	340.717	339.579
39+670	341.529	340.932	0.762	340.564	339.782
39+680	341.694	341.117	0.742	340.594	339.801
39+690	341.859	341.288	0.736	340.729	340.345
39+700	342.024	341.474	0.714	340.651	340.719
39+710	342.188	341.629	0.724	340.976	340.976
39+720	342.353	341.819	0.698	340.939	341.193
39+730	342.518	342.043	0.636	341.018	341.539
39+740	342.680	342.243	0.584	341.318	341.924
39+750	342.827	342.438	0.521	341.618	341.418
39+760	342.959	342.633	0.441	341.838	341.633
39+770	343.074	342.829	0.345	342.038	342.247
39+780	343.174	343.038	0.219	342.038	342.238
39+790	343.257	343.213	0.112	342.114	342.669
39+800	343.325	343.420	-0.043	342.170	342.723
39+810	343.376	343.763	-0.351	342.579	342.909
39+820	343.412	343.935	-0.504	343.117	342.876
39+830	343.431	344.136	-0.701	342.933	343.538
39+840	343.435	344.256	-0.834	343.247	343.426
39+850	343.422	344.350	-0.957	343.547	343.603
39+860	343.393	344.440	-1.092	343.538	343.923
39+870	343.349	344.541	-1.253	343.638	343.843
39+880	343.288	344.642	-1.400	343.638	343.923
39+890	343.211	344.611	-1.523	343.838	343.538
39+900	343.119	344.619	-1.609	343.633	343.833
39+910	343.010	344.533	-1.648	343.519	343.742
39+920	342.885	344.447	-1.702	343.834	343.262
39+930	342.745	344.287	-1.699	343.687	343.142
39+940	342.588	344.163	-1.575	343.598	343.137
39+950	342.415	343.991	-1.476	343.457	342.999
39+960	342.227	343.703	-1.348	343.374	342.376
39+970	342.022	343.370	-1.210	343.011	342.020
39+980	341.801	342.950	-0.695	342.634	341.865
39+990	341.564	342.259	-0.678	342.314	341.477
40+000	341.311	341.990	-0.631	341.916	341.120
	341.043	341.674			

Vertical Alignment: L=279.24m G=4.11% | Lc=280.00m | L=56.00m G=0.00% | Lc=90.00m | L=100.00m G=1.65% | Lc=390.00m

Horizontal Alignment: Ls=70.00m | L=9.70m | Lc=35.00m | Rc=205.00m Lc=95.97m | Lc=35.00m | L=93.72m | Ls=55.00m | Rc=405.00m Lc=262.55m | Ls=55.00m | L=222.21m | Ls=95.00m

Superelevation: 7.00% | 39+179.84 5.42% | 39+225.81 5.42% | 39+240.81 | 39+258.95 | 39+317.03 | 39+364.53 | 39+389.53 5.00% | 39+632.08 5.00% | 39+707.08 | 39+754.58 | 39+912.15 | 39+964.30

Chainage: 39+000 … 40+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company,
Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) –462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor,
Noble Plaza, M.P. Nagar Zone–II,
Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram
Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 39+000 TO 40+000

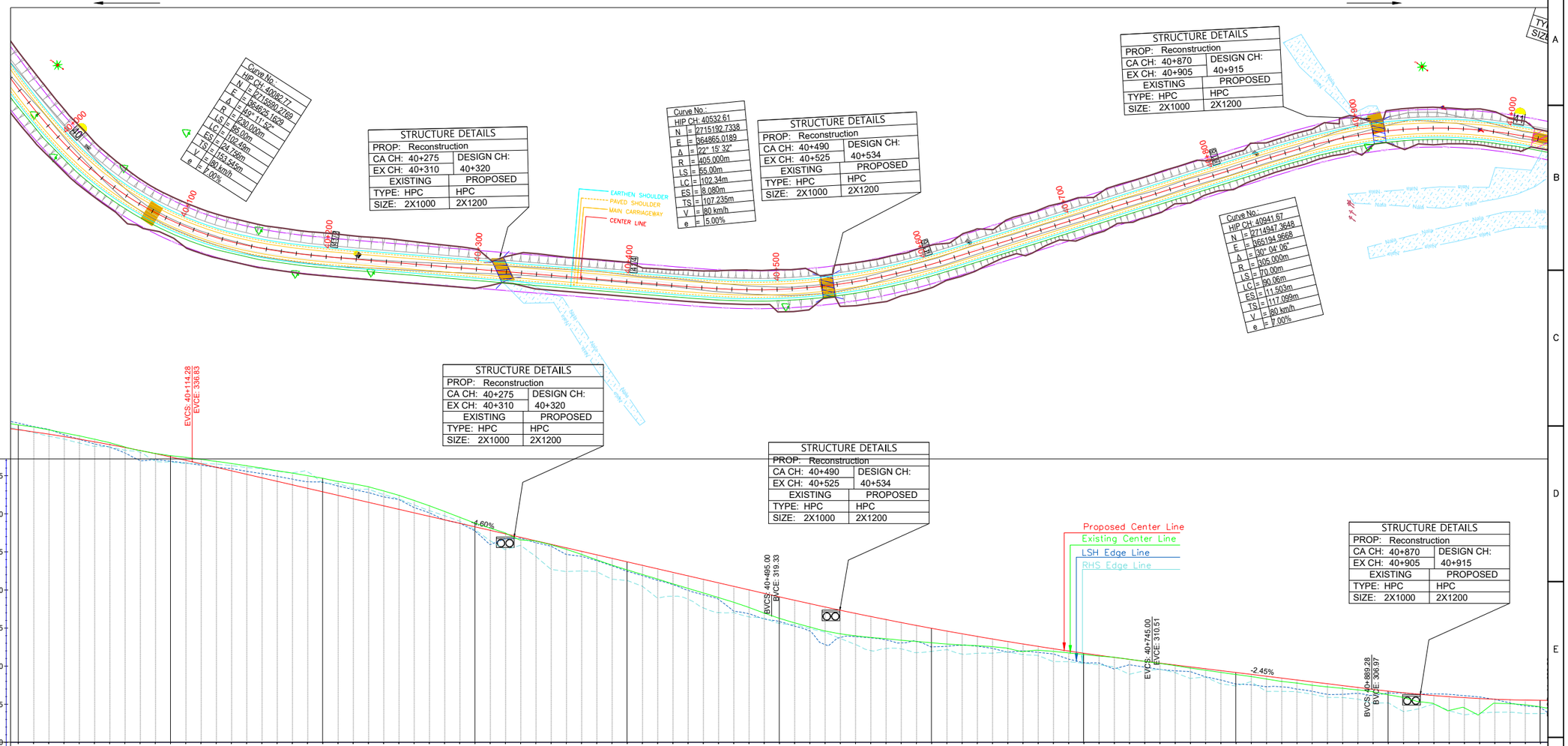
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: MAY–2025 | SCALE: | DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–40 | SHEET NO.: 40 TO 42 | REV. 04

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
40+000	341.043	341.674	-0.631	341.916	341.120
40+010	340.758	341.402	-0.645	341.452	340.637
40+020	340.457	341.037	-0.580	341.076	340.202
40+030	340.140	340.618	-0.478	340.387	339.604
40+040	339.807	340.232	-0.425	339.786	339.303
40+050	339.458	339.800	-0.341	339.180	338.851
40+060	339.093	339.338	-0.245	338.752	338.755
40+070	338.712	338.779	-0.067	337.983	338.347
40+080	338.316	338.306	0.009	337.003	338.076
40+090	337.903	337.931	-0.029	337.084	336.908
40+100	337.474	337.632	-0.158	336.907	336.785
40+110	337.029	337.413	-0.384	336.667	336.619
40+120	336.570	337.160	-0.590	336.397	336.624
40+130	336.111	336.885	-0.775	336.119	336.531
40+140	335.651	336.609	-0.959	335.935	336.355
40+150	335.191	336.307	-1.116	335.582	336.089
40+160	334.731	335.998	-1.267	335.283	335.921
40+170	334.271	335.655	-1.384	334.921	335.597
40+180	333.811	335.346	-1.534	334.554	335.384
40+190	333.352	335.006	-1.655	334.211	335.513
40+200	332.892	334.667	-1.775	334.123	334.194
40+210	332.432	334.249	-1.817	333.662	333.984
40+220	331.972	333.940	-1.968	333.200	333.361
40+230	331.512	333.551	-2.038	332.795	333.227
40+240	331.052	333.000	-1.948	332.531	332.531
40+250	330.593	332.423	-1.831	331.883	331.951
40+260	330.133	331.760	-1.627	330.835	331.173
40+270	329.673	331.058	-1.385	330.144	330.426
40+280	329.213	330.319	-1.106	329.185	329.755
40+290	328.753	329.544	-0.790	328.773	329.040
40+300	328.293	328.791	-0.498	327.773	327.943
40+310	327.834	328.120	-0.286	326.854	326.464
40+320	327.374	327.470	-0.096	326.732	325.949
40+330	326.914	326.571	0.342	326.790	325.275
40+340	326.454	326.426	0.028	326.216	324.864
40+350	325.994	325.929	0.065	325.759	324.414
40+360	325.534	325.343	0.191	324.659	322.715
40+370	325.075	324.672	0.403	324.421	322.405
40+380	324.615	323.961	0.654	323.861	322.505
40+390	324.155	323.270	0.884	323.186	322.405
40+400	323.695	322.639	1.056	322.464	321.247
40+410	323.235	322.037	1.198	321.884	320.496
40+420	322.775	321.437	1.339	321.264	318.928
40+430	322.316	320.811	1.505	320.710	319.168
40+440	321.856	320.214	1.642	319.957	318.782
40+450	321.396	319.615	1.780	319.382	317.662
40+460	320.936	319.009	1.927	318.775	317.020
40+470	320.476	318.391	2.086	317.238	317.019
40+480	320.016	317.714	2.302	316.875	316.482
40+490	319.557	316.970	2.587	316.219	316.249
40+500	319.098	316.282	2.816	315.854	315.621
40+510	318.647	315.688	2.958	315.241	315.432
40+520	318.204	315.136	3.068	314.618	314.936
40+530	317.770	314.622	3.148	314.045	313.638
40+540	317.344	314.245	3.100	313.750	312.842
40+550	316.927	313.979	2.948	313.871	312.054
40+560	316.519	313.772	2.747	313.726	312.293
40+570	316.119	313.599	2.521	313.450	312.270
40+580	315.728	313.401	2.327	313.047	311.786
40+590	315.345	313.240	2.106	313.280	311.931
40+600	314.971	313.069	1.903	312.525	312.151
40+610	314.606	312.903	1.703	312.603	311.579
40+620	314.249	312.771	1.478	312.762	311.686
40+630	313.901	312.680	1.221	312.619	311.700
40+640	313.561	312.557	1.004	312.343	311.877
40+650	313.230	312.339	0.891	311.828	311.503
40+660	312.907	312.017	0.990	312.013	311.413
40+670	312.593	312.087	0.506	311.803	310.603
40+680	312.288	311.934	0.354	311.613	310.587
40+690	311.991	311.739	0.252	310.933	310.377
40+700	311.703	311.544	0.159	310.443	310.187
40+710	311.423	311.326	0.097	310.420	309.691
40+720	311.152	311.162	-0.010	309.627	308.927
40+730	310.890	310.899	-0.010	310.178	309.391
40+740	310.636	310.637	-0.001	309.882	309.591
40+750	310.389	310.355	0.035	309.563	309.153
40+760	310.144	310.070	0.074	309.382	308.391
40+770	309.899	309.757	0.142	309.289	308.561
40+780	309.653	309.463	0.191	308.601	307.682
40+790	309.408	309.178	0.230	308.182	307.391
40+800	309.163	308.899	0.264	307.649	307.961
40+810	308.917	308.630	0.287	307.561	306.676
40+820	308.672	308.313	0.359	307.300	306.676
40+830	308.427	307.993	0.434	307.276	306.629
40+840	308.181	307.777	0.404	306.996	306.305
40+850	307.936	307.497	0.439	306.693	305.914
40+860	307.690	307.273	0.418	306.296	305.869
40+870	307.445	307.088	0.357	306.293	305.655
40+880	307.200	306.881	0.319	306.412	305.176
40+890	306.954	306.644	0.310	306.172	305.165
40+900	306.721	306.232	0.489	306.482	304.059
40+910	306.508	305.879	0.628	306.478	304.384
40+920	306.315	305.338	0.977	306.330	305.024
40+930	306.143	305.054	1.089	306.359	304.174
40+940	305.991	304.169	1.822	306.291	303.628
40+950	305.859	304.534	1.325	306.122	303.838
40+960	305.748	303.682	2.066	305.940	303.942
40+970	305.658	305.115	0.543	305.632	303.964
40+980	305.588	305.070	0.518	305.182	303.787
40+990	305.538	304.928	0.610	304.790	303.771
41+000	305.509	304.656	0.853	304.567	303.771

Vertical Alignment: L=380.72m G=-4.60% | Lc=250.00m | L=144.28m G=-2.45% | Lc=120.00m

Horizontal Alignment: Rc=230.00m Lc=102.49m | Ls=95.00m | L=203.59m | Ls=55.00m | Rc=405.00m Lc=102.34m | Ls=55.00m | L=186.87m | Ls=70.00m | Rc=305.00m Lc=90.06m

Superelevation: 40+024.30 7.00% | 40+135.79 7.00% | 40+215.79 | 40+248.53 | 40+397.88 | 40+425.38 | 40+490.38 5.00% | 40+592.72 5.00% | 40+687.72 | 40+735.22 | 40+792.80 | 40+816.58 | 40+934.58 7.00% | 40+984.64 7.00%

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company, Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 40+000 TO 41+000

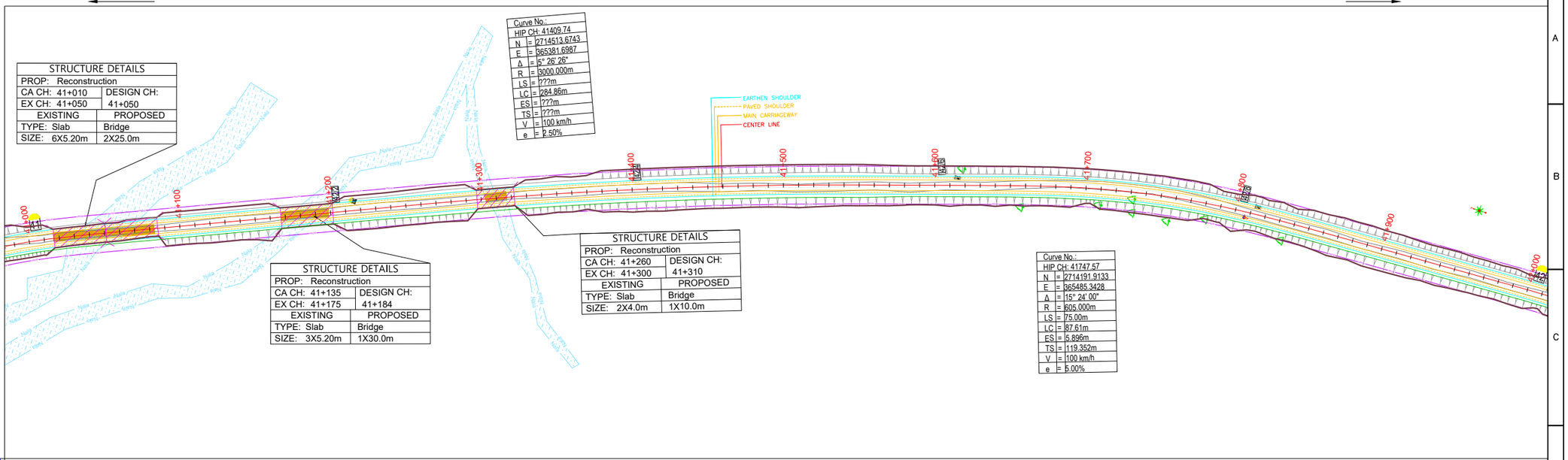
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: MAY–2025 | SCALE: | DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–41 | SHEET NO.: 41 TO 42 | REV. 04

GULGANJ ← | → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



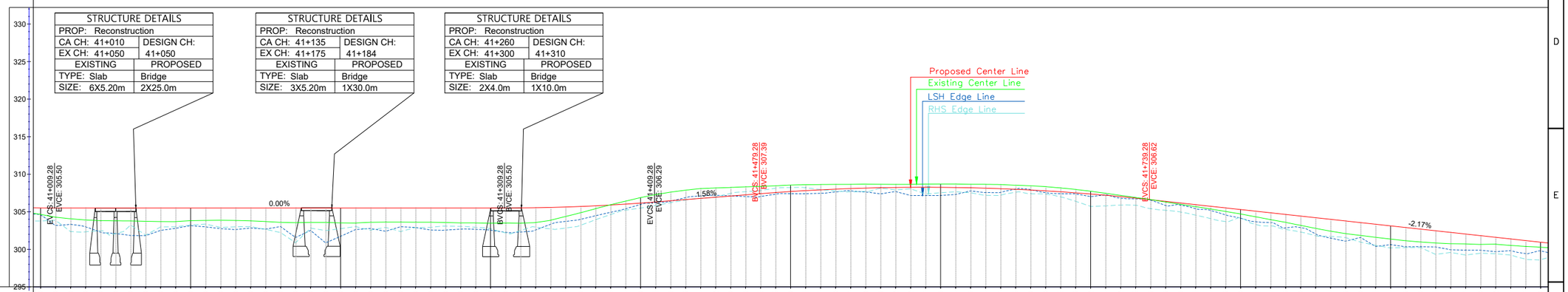
STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+010	DESIGN CH: 41+050
EX CH: 41+050	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 6X5.20m	2X25.0m

Curve No.:	
HIP CH: 41409.74	
N	= 2714513.6743
E	= 365381.6987
Δ	= 5° 26' 26"
R	= 3000.000m
LS	= ???m
LC	= 284.86m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= 2.50%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+135	DESIGN CH: 41+184
EX CH: 41+175	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 3X5.20m	1X30.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+260	DESIGN CH: 41+310
EX CH: 41+300	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 2X4.0m	1X10.0m

Curve No.:	
HIP CH: 41747.57	
N	= 2714191.9133
E	= 365485.3428
Δ	= 15° 24' 00"
R	= 605.000m
LS	= 75.00m
LC	= 87.61m
ES	= 5.896m
TS	= 119.352m
V	= 100 km/h
e	= 5.00%



LEVELS DATUM 295.00

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+010	DESIGN CH: 41+050
EX CH: 41+050	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 6X5.20m	2X25.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+135	DESIGN CH: 41+184
EX CH: 41+175	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 3X5.20m	1X30.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+260	DESIGN CH: 41+310
EX CH: 41+300	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 2X4.0m	1X10.0m

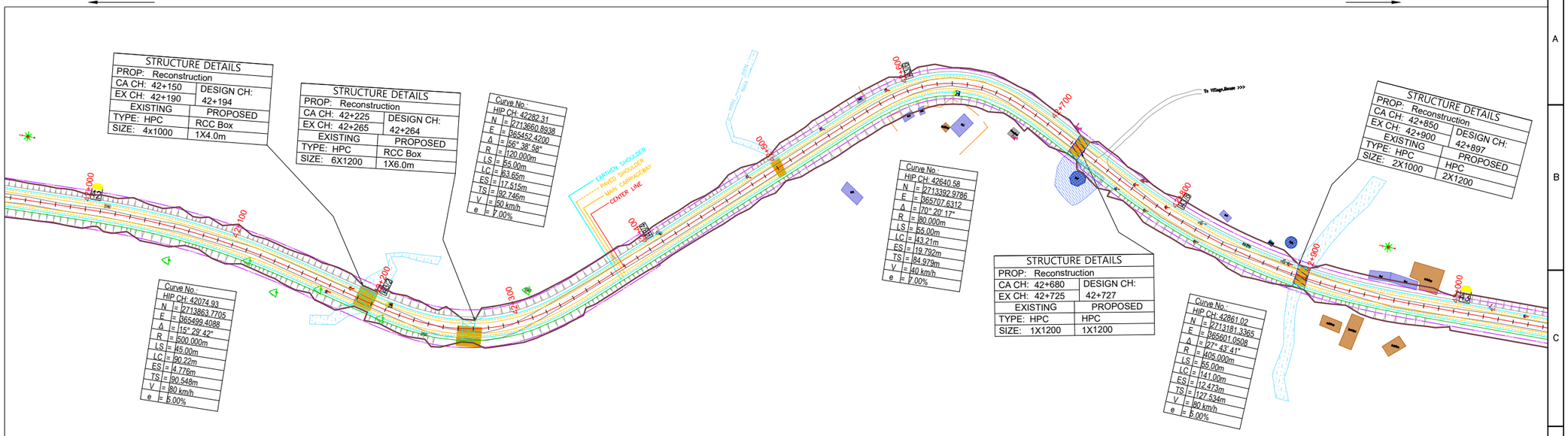
Proposed:

| | | |

GULGANJ ← | → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 42+150	DESIGN CH: 42+194
EX CH: 42+190	
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 4x1000	1X4.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 42+225	DESIGN CH: 42+264
EX CH: 42+265	
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 6X1200	1X6.0m

Curve No.:
HIP CH: 42282.31
N = 2713660.8938
E = 965452.4200
Δ = 56° 38' 58"
R = 120.000m
LS = 55.00m
LC = 63.65m
ES = 17.515m
TS = 92.746m
V = 50 km/h
e = 7.00%

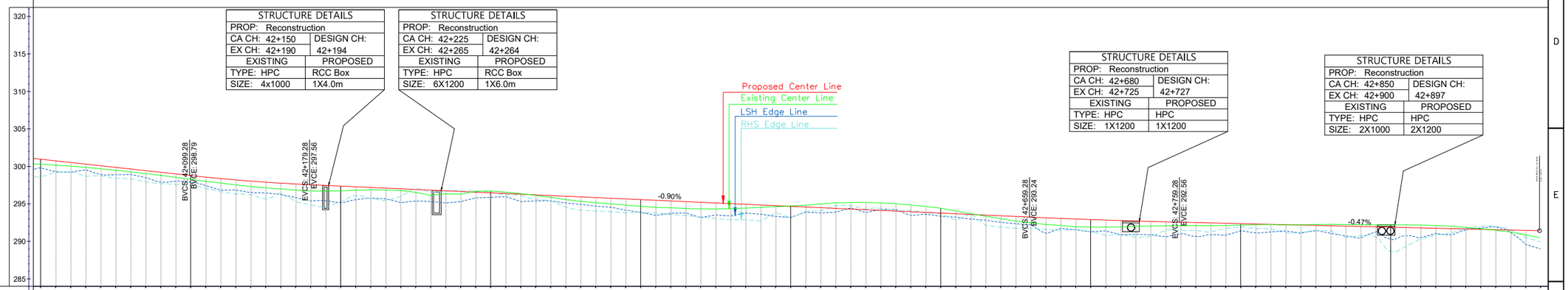
Curve No.:
HIP CH: 42074.93
N = 2713863.7705
E = 965499.4088
Δ = 15° 29' 42"
R = 500.000m
LS = 45.00m
LC = 90.22m
ES = 4.776m
TS = 90.548m
V = 80 km/h
e = 5.00%

Curve No.:
HIP CH: 42640.58
N = 2713392.9786
E = 965707.6312
Δ = 170° 20' 17"
R = 80.000m
LS = 55.00m
LC = 43.21m
ES = 19.792m
TS = 84.979m
V = 40 km/h
e = 7.00%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 42+680	DESIGN CH: 42+727
EX CH: 42+725	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1200	1X1200

Curve No.:
HIP CH: 42861.02
N = 2713181.3365
E = 965601.0508
Δ = 27° 43' 41"
R = 405.000m
LS = 55.00m
LC = 141.00m
ES = 12.473m
TS = 127.534m
V = 80 km/h
e = 5.00%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 42+850	DESIGN CH: 42+897
EX CH: 42+900	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 2X1000	2X1200



LEVELS DATUM 284.00

Chainage	Proposed Level	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
42+000	300.949	300.282	0.667	299.770	298.629
42+010	300.732	300.156	0.576	299.308	299.165
42+020	300.514	300.030	0.484	299.249	299.260
42+030	300.297	299.876	0.421	299.550	298.684
42+040	300.079	299.678	0.401	298.935	298.719
42+050	299.862	299.482	0.380	298.882	298.426
42+060	299.644	299.268	0.376	298.919	298.378
42+070	299.427	299.035	0.392	298.492	297.933
42+080	299.209	298.799	0.411	297.915	297.715
42+090	298.992	298.546	0.446	298.026	297.596
42+100	298.774	298.283	0.492	297.921	297.450
42+110	298.566	298.016	0.550	297.446	297.086
42+120	298.374	297.771	0.603	296.838	296.632
42+130	298.197	297.531	0.666	296.852	296.335
42+140	298.037	297.310	0.726	296.530	296.219
42+150	297.892	297.136	0.756	296.449	295.655
42+160	297.763	296.999	0.764	296.252	296.356
42+170	297.651	296.838	0.813	295.844	295.297
42+180	297.554	296.729	0.824	295.404	294.867
42+190	297.464	296.711	0.752	295.444	294.474
42+200	297.374	296.737	0.637	295.170	295.309
42+210	297.284	296.817	0.466	295.548	296.098
42+220	297.194	296.873	0.321	295.755	295.731
42+230	297.104	296.837	0.267	295.654	295.445
42+240	297.014	296.766	0.248	295.989	295.170
42+250	296.924	296.533	0.391	295.366	297.023
42+260	296.834	296.143	0.691	295.308	296.580
42+270	296.744	296.311	0.434	295.144	296.666
42+280	296.654	296.303	0.351	295.307	296.785
42+290	296.564	296.662	-0.098	295.786	296.766
42+300	296.474	296.703	-0.228	295.870	296.553
42+310	296.384	296.562	-0.178	295.926	296.242
42+320	296.294	296.363	-0.069	295.300	296.136
42+330	296.204	296.130	0.074	295.390	295.597
42+340	296.114	295.869	0.246	295.397	295.403
42+350	296.024	295.577	0.448	295.126	294.583
42+360	295.934	295.341	0.594	294.930	294.183
42+370	295.844	295.160	0.684	294.693	294.060
42+380	295.754	294.995	0.760	294.558	293.964
42+390	295.665	294.834	0.830	294.164	293.790
42+400	295.575	294.671	0.904	293.868	293.890
42+410	295.485	294.536	0.949	293.458	293.769
42+420	295.395	294.467	0.928	293.741	293.599
42+430	295.305	294.395	0.910	293.790	293.430
42+440	295.215	294.337	0.877	293.170	293.260
42+450	295.125	294.322	0.803	293.520	293.030
42+460	295.035	294.373	0.662	293.390	292.892
42+470	294.945	294.445	0.499	293.770	292.866
42+480	294.855	294.523	0.332	293.620	292.730
42+490	294.765	294.628	0.137	293.322	293.820
42+500	294.675	294.721	-0.047	293.195	293.125
42+510	294.585	294.817	-0.232	293.890	293.990
42+520	294.495	294.989	-0.494	293.790	294.090
42+530	294.405	295.134	-0.729	293.890	294.790
42+540	294.315	295.176	-0.861	294.463	294.774
42+550	294.225	295.187	-0.962	293.842	294.293
42+560	294.135	295.129	-0.994	294.182	294.417
42+570	294.045	295.008	-0.963	294.226	294.005
42+580	293.955	294.848	-0.893	294.504	294.117
42+590	293.865	294.665	-0.799	293.615	293.825
42+600	293.775	294.418	-0.643	293.369	293.676
42+610	293.685	294.065	-0.380	293.233	292.914
42+620	293.595	293.692	-0.096	292.993	293.607
42+630	293.505	293.361	0.144	292.831	292.146
42+640	293.415	293.025	0.391	292.554	291.930
42+650	293.325	292.713	0.612	292.362	291.743
42+660	293.235	292.458	0.778	292.228	291.763
42+670	293.148	292.260	0.888	291.107	291.592
42+680	293.065	292.116	0.949	291.704	291.463
42+690	292.986	291.954	1.032	291.562	291.577
42+700	292.911	291.908	1.002	291.293	291.280
42+710	292.840	291.901	0.940	291.401	290.825
42+720	292.774	291.926	0.848	290.885	290.885
42+730	292.712	292.003	0.709	290.917	290.524
42+740	292.655	292.043	0.611	290.876	290.654
42+750	292.601	292.073	0.528	290.636	291.469
42+760	292.552	292.098	0.454	291.008	291.474
42+770	292.505	292.110	0.394	290.674	291.430
42+780	292.457	292.099	0.358	290.881	291.302
42+790	292.410	292.118	0.292	290.835	291.727
42+800	292.363	292.175	0.188	291.392	291.952
42+810	292.315	292.221	0.094	291.144	291.724
42+820	292.268	292.231	0.036	291.252	291.636
42+830	292.221	292.200	0.021	291.368	291.174
42+840	292.173	292.214	-0.041	291.087	291.211
42+850	292.126	292.243	-0.118	291.405	291.472
42+860	292.079	292.270	-0.191	291.074	291.392
42+870	292.031	292.241	-0.210	290.728	290.544
42+880	291.984	292.225	-0.241	290.477	290.765
42+890	291.936	292.202	-0.266	290.563	290.563
42+900	291.889	292.212	-0.323	290.319	288.702
42+910	291.842	292.212	-0.370	290.726	289.296
42+920	291.794	292.179	-0.385	290.518	290.284
42+930	291.747	292.109	-0.362	291.057	290.836
42+940	291.700	292.014	-0.314	290.878	291.117
42+950	291.652	291.867	-0.214	291.521	291.723
42+960	291.605	291.680	-0.075	291.795	292.023
42+970	291.558	291.485	0.073	291.896	292.007
42+980	291.510	291.238	0.272	291.200	291.538
42+990	291.463	290.862	0.601	289.613	290.529
43+000				288.982	289.913

Vertical Alignment: Lc=80.00m | L=480.00m G=-0.90% | Lc=100.00m | L=240.00m G=-0.47%

Horizontal Alignment: Ls=45.00m | Rc=500.00m Lc=90.22m | Ls=45.00m | L=25.00m | Ls=55.00m | Rc=120.00m Lc=63.65m | Ls=55.00m | L=192.45m | Ls=55.00m | Rc=80.00m Lc=43.21m | Ls=55.00m | L=24.57m | Ls=55.00m | Rc=405.00m Lc=141.00m | Ls=55.00m

Superelevation: 42+099.39 5.00% | 42+119.81 5.00% | 42+244.61 7.00% | 42+338.26 7.00% | 42+393.26 | 42+452.90 | 42+536.07 | 42+553.71 | 42+610.74 7.00% | 42+653.92 7.00% | 42+788.49 5.00% | 42+920.48 5.00% | 42+994.48

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company, Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

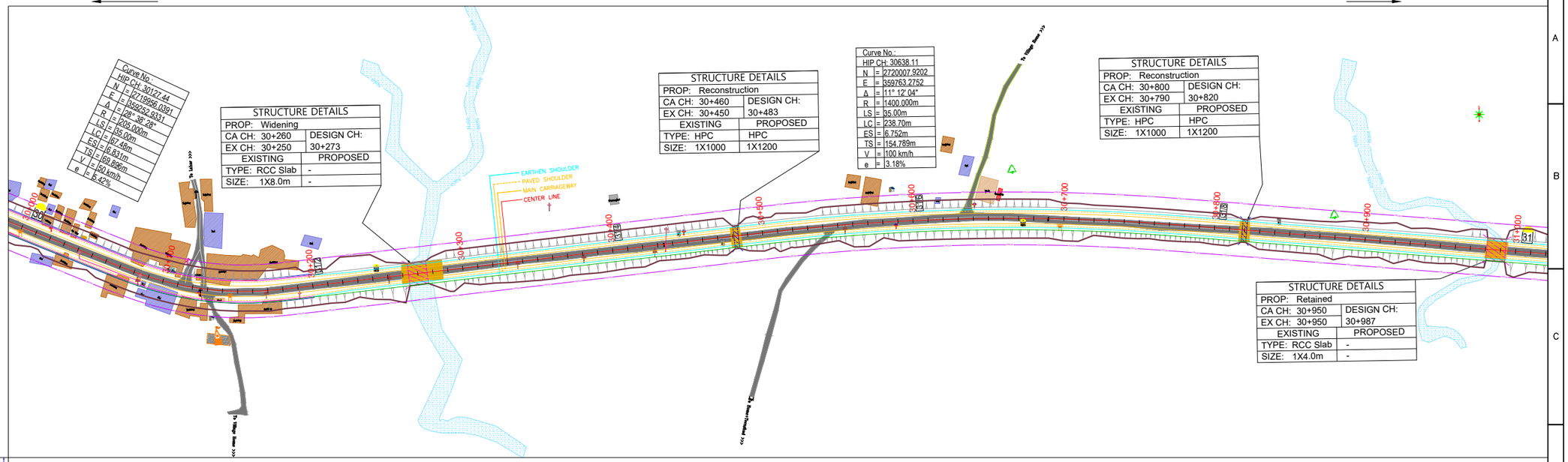
NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	42+000 TO 43+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: MAY–2025	SCALE:	DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–42	SHEET NO.: 42 TO 42 / REV. 04

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



Curve No.:
HIP CH: 30127.44
N = 2719956.0391
E = 359252.9331
Δ = 28° 39' 28"
R = 205.000m
LS = 55.0m
LC = 97.46m
ES = 6.831m
TS = 89.986m
V = 60 km/h
e = 6.42%

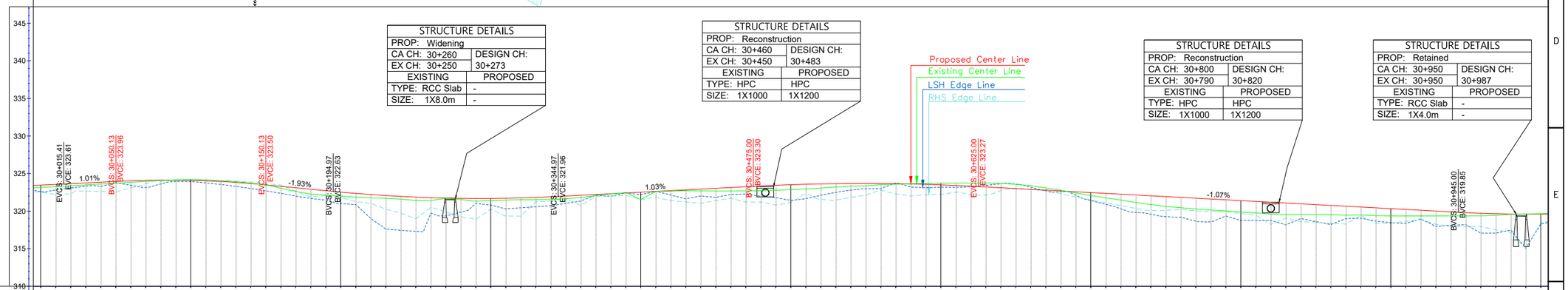
STRUCTURE DETAILS	
PROP: Widening	
CA CH: 30+260	DESIGN CH: 30+273
EX CH: 30+250	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X8.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 30+460	DESIGN CH: 30+483
EX CH: 30+450	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

Curve No.:
HIP CH: 30638.11
N = 2720007.9202
E = 359763.2752
Δ = 11° 12' 04"
R = 1400.000m
LS = 35.00m
LC = 238.70m
ES = 6.752m
TS = 154.789m
V = 100 km/h
e = 3.18%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 30+800	DESIGN CH: 30+820
EX CH: 30+790	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

STRUCTURE DETAILS	
PROP: Retained	
CA CH: 30+950	DESIGN CH: 30+987
EX CH: 30+950	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X4.0m	-



STRUCTURE DETAILS	
PROP: Widening	
CA CH: 30+260	DESIGN CH: 30+273
EX CH: 30+250	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X8.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 30+460	DESIGN CH: 30+483
EX CH: 30+450	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 30+800	DESIGN CH: 30+820
EX CH: 30+790	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

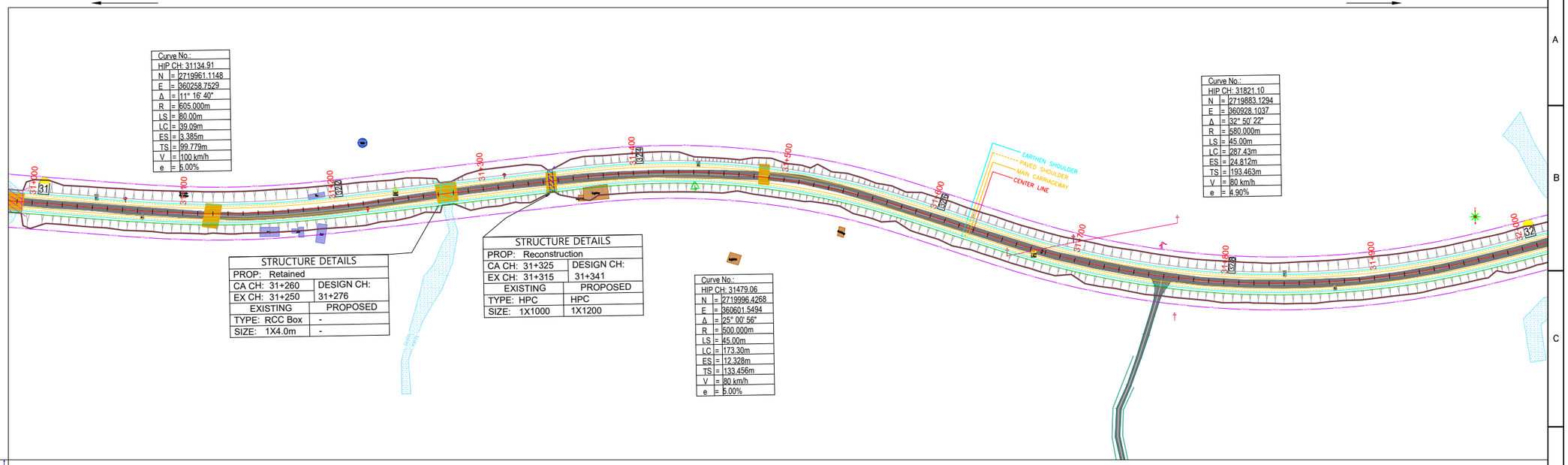
STRUCTURE DETAILS	
PROP: Retained	
CA CH: 30+950	DESIGN CH: 30+987
EX CH: 30+950	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X4.0m	-

| | | |

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



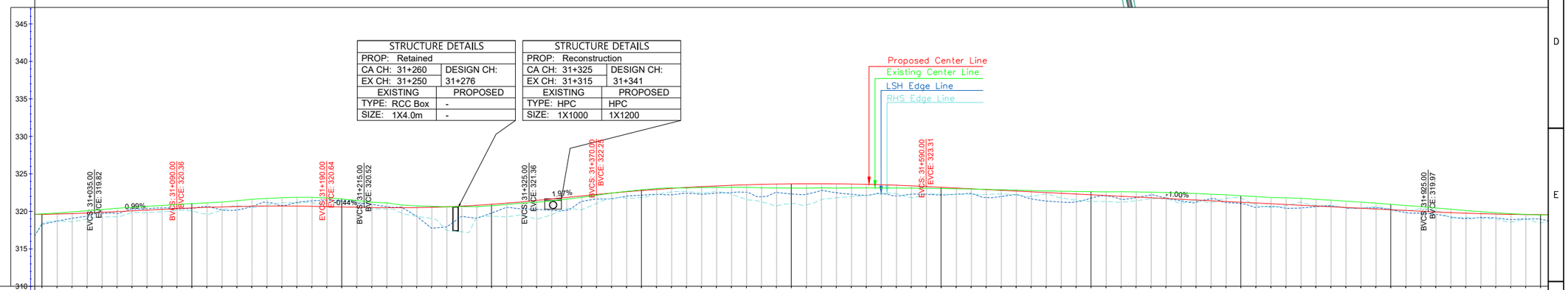
Curve No.:
HIP CH: 31134.91
N = 2719961.1148
E = 360258.7529
Δ = 11° 16' 40"
R = 605.000m
LS = 80.00m
LC = 39.09m
ES = 3.385m
TS = 99.779m
V = 100 km/h
e = 5.00%

Curve No.:
HIP CH: 31821.10
N = 2719883.1294
E = 360928.1037
Δ = 32° 50' 22"
R = 580.000m
LS = 45.00m
LC = 287.43m
ES = 24.812m
TS = 193.463m
V = 80 km/h
e = 4.90%

Curve No.:
HIP CH: 31479.06
N = 2719996.4268
E = 360601.5494
Δ = 25° 00' 56"
R = 500.000m
LS = 45.00m
LC = 173.30m
ES = 12.328m
TS = 133.456m
V = 80 km/h
e = 5.00%

STRUCTURE DETAILS	
PROP: Retained	
CA CH: 31+260	DESIGN CH:
EX CH: 31+250	31+276
EXISTING	PROPOSED
TYPE: RCC Box	-
SIZE: 1X4.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 31+325	DESIGN CH:
EX CH: 31+315	31+341
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200



LEVELS DATUM 310.00

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
31+000	319.610	319.652	-0.042	318.278	318.479
31+010	319.640	319.765	-0.125	318.684	318.747
31+020	319.693	319.915	-0.222	319.076	318.597
31+030	319.770	320.085	-0.315	319.361	318.980
31+040	319.866	320.231	-0.365	319.725	319.228
31+050	319.965	320.409	-0.444	319.728	319.273
31+060	320.065	320.533	-0.468	319.833	319.840
31+070	320.164	320.669	-0.505	320.355	319.941
31+080	320.263	320.789	-0.526	320.457	320.103
31+090	320.362	320.909	-0.547	320.365	320.055
31+100	320.454	321.039	-0.585	320.396	319.636
31+110	320.532	321.133	-0.601	320.635	320.152
31+120	320.595	321.239	-0.643	320.205	320.737
31+130	320.644	321.411	-0.767	320.185	320.185
31+140	320.679	321.604	-0.925	320.650	320.544
31+150	320.699	321.724	-1.025	321.192	320.845
31+160	320.705	321.819	-1.114	320.790	321.125
31+170	320.696	321.869	-1.173	321.199	321.119
31+180	320.673	321.872	-1.199	321.397	321.144
31+190	320.636	321.789	-1.153	321.478	321.009
31+200	320.591	321.656	-1.065	321.391	321.308
31+210	320.547	321.449	-0.902	321.136	321.280
31+220	320.505	321.224	-0.719	320.944	320.337
31+230	320.483	321.124	-0.641	320.637	320.302
31+240	320.482	320.850	-0.368	320.554	319.754
31+250	320.503	320.736	-0.233	319.354	319.340
31+260	320.546	320.654	-0.108	317.752	319.064
31+270	320.611	320.597	0.014	317.917	317.474
31+280	320.698	320.653	0.045	319.335	317.263
31+290	320.807	320.618	0.189	319.064	319.289
31+300	320.938	320.753	0.185	319.770	319.967
31+310	321.091	320.911	0.180	320.550	319.247
31+320	321.266	321.098	0.168	320.325	319.548
31+330	321.460	321.220	0.240	320.252	318.938
31+340	321.656	321.409	0.247	320.147	319.538
31+350	321.853	321.621	0.232	320.139	320.330
31+360	322.049	321.870	0.179	321.302	320.221
31+370	322.246	322.146	0.100	321.629	321.053
31+380	322.436	322.431	0.005	321.686	321.725
31+390	322.612	322.666	-0.054	322.025	321.764
31+400	322.775	322.871	-0.096	322.154	321.841
31+410	322.924	323.041	-0.116	322.271	322.256
31+420	323.060	323.139	-0.079	322.221	322.581
31+430	323.183	323.123	0.060	322.404	322.636
31+440	323.292	323.189	0.103	322.275	322.428
31+450	323.387	323.180	0.208	322.427	322.605
31+460	323.470	323.207	0.262	322.519	322.279
31+470	323.538	323.207	0.331	322.555	321.617
31+480	323.593	323.139	0.455	321.959	321.275
31+490	323.635	323.107	0.528	322.532	320.721
31+500	323.663	323.106	0.557	322.322	321.034
31+510	323.678	323.087	0.591	322.288	320.849
31+520	323.679	323.127	0.552	322.768	321.561
31+530	323.667	323.097	0.570	322.490	322.581
31+540	323.641	323.121	0.520	322.274	321.967
31+550	323.602	323.139	0.463	322.147	322.118
31+560	323.549	323.112	0.438	322.362	322.365
31+570	323.483	323.094	0.376	322.068	321.856
31+580	323.404	323.076	0.310	322.270	322.326
31+590	323.311	323.048	0.235	322.268	322.270
31+600	323.211	323.163	0.101	322.171	322.272
31+610	323.111	323.087	0.024	322.270	322.272
31+620	323.011	323.032	-0.021	322.412	322.256
31+630	322.912	322.933	-0.055	321.849	322.323
31+640	322.812	322.867	-0.055	321.981	322.176
31+650	322.712	322.843	-0.131	322.238	321.998
31+660	322.612	322.768	-0.156	321.669	322.264
31+670	322.512	322.722	-0.210	321.382	321.795
31+680	322.413	322.680	-0.267	321.247	321.500
31+690	322.313	322.653	-0.340	321.273	321.315
31+700	322.213	322.624	-0.411	321.767	321.298
31+710	322.113	322.598	-0.485	322.061	321.217
31+720	322.013	322.618	-0.605	321.606	321.418
31+730	321.914	322.590	-0.676	321.822	321.675
31+740	321.814	322.563	-0.749	322.182	321.071
31+750	321.714	322.512	-0.798	321.779	321.631
31+760	321.614	322.432	-0.818	321.408	321.376
31+770	321.514	322.376	-0.861	321.214	321.128
31+780	321.415	322.282	-0.867	321.662	321.702
31+790	321.315	322.212	-0.897	321.164	321.800
31+800	321.215	322.082	-0.867	321.033	320.914
31+810	321.115	321.977	-0.862	320.534	320.519
31+820	321.016	321.852	-0.836	320.651	320.763
31+830	320.916	321.806	-0.890	320.417	320.206
31+840	320.816	321.737	-0.921	320.454	320.814
31+850	320.716	321.612	-0.896	320.616	320.807
31+860	320.616	321.489	-0.873	320.720	320.480
31+870	320.517	321.362	-0.845	320.456	320.420
31+880	320.417	321.232	-0.815	320.424	320.583
31+890	320.317	321.092	-0.775	320.468	320.321
31+900	320.217	320.937	-0.720	320.225	320.106
31+910	320.117	320.777	-0.660	319.834	320.360
31+920	320.018	320.642	-0.624	319.750	320.096
31+930	319.919	320.447	-0.528	319.603	319.094
31+940	319.832	320.292	-0.460	319.256	319.196
31+950	319.757	320.107	-0.350	319.047	319.068
31+960	319.694	319.964	-0.270	319.200	319.077
31+970	319.643	319.804	-0.161	319.129	318.594
31+980	319.604	319.684	-0.080	318.919	318.911
31+990	319.578	319.608	-0.030	318.994	318.480
32+000	319.564	319.516	0.048	318.958	

Vertical Alignment: 0m; L=55.00m G=0.99%; Lc=100.00m; L=25.00m G=-0.44%; Lc=110.00m; L=45.00m G=1.97%; Lc=220.00m; L=335.00m G=-1.00%

Horizontal Alignment: Ls=80.00m; Rc=605.00m Lc=39.09m; Ls=80.00m; L=111.38m; Ls=45.00m; Rc=500.00m Lc=173.30m; Ls=45.00m; L=18.73m; Ls=45.00m; Rc=580.00m Lc=287.43m; Ls=45.00m

Superelevation: 31+095.14; 31+115.14 5.00%; 31+154.22; 31+174.22 5.00%; 31+284.22; 31+323.10; 31+343.10 5.00%; 31+390.60; 31+410.60 5.00%; 31+553.61; 31+573.61 5.00%; 31+672.84; 31+692.84 4.90%; 31+960.07; 31+980.07 4.90%; 32+000.07

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company, Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE — Chainage 31+000 TO 32+000

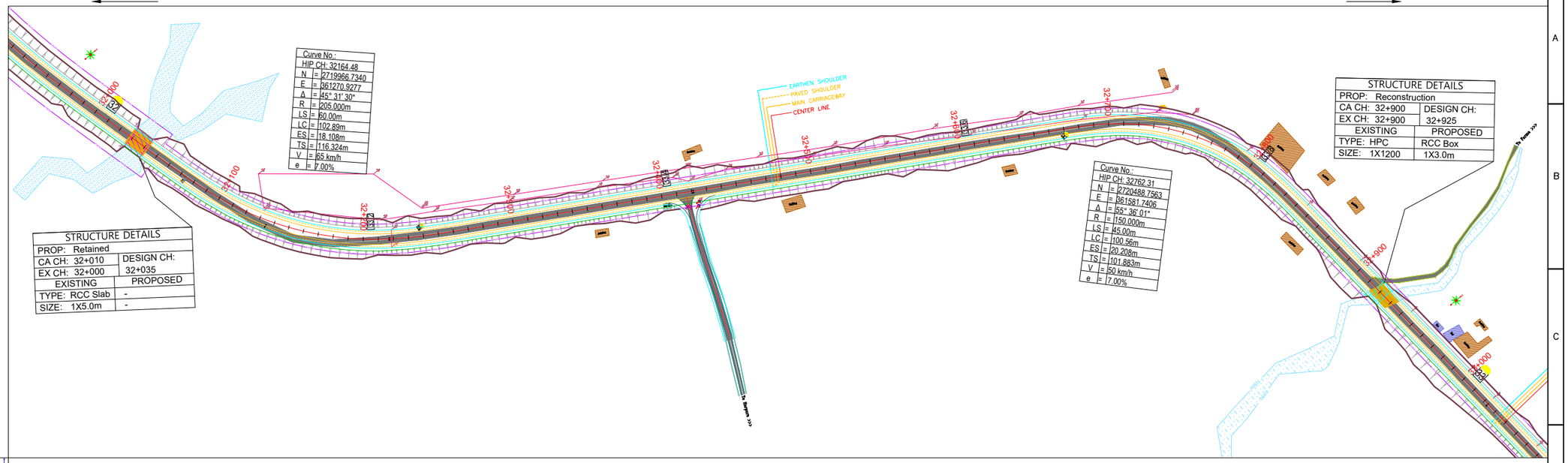
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: MAY–2025 | SCALE: | DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–32 | SHEET NO.: 32 TO 42 | REV. 04

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	

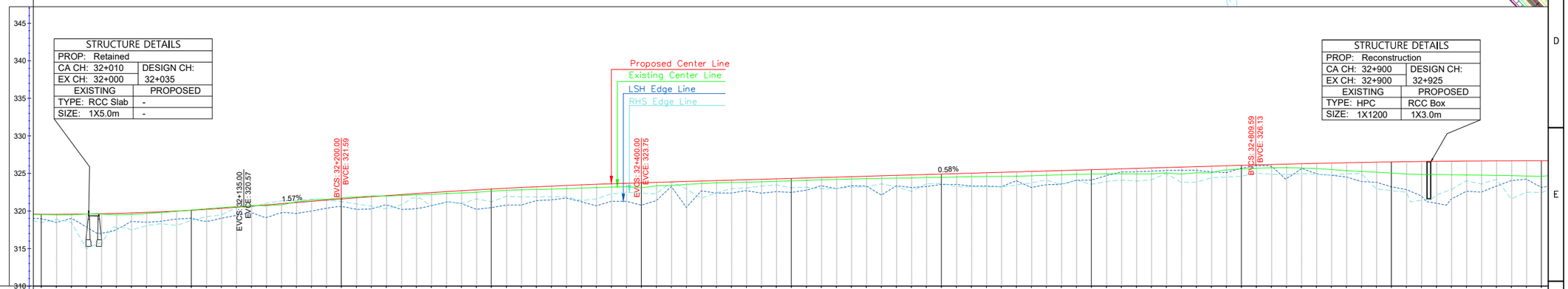


Curve No.: HIP CH: 32164.48	
N	= 2719966.7340
E	= 861270.9277
Δ	= 45° 31' 30"
R	= 205.000m
LS	= 60.00m
LC	= 102.89m
ES	= 18.108m
TS	= 116.324m
V	= 65 km/h
e	= 7.00%

Curve No.: HIP CH: 32762.31	
N	= 2720488.7563
E	= 861581.7406
Δ	= 55° 36' 01"
R	= 150.000m
LS	= 45.00m
LC	= 100.56m
ES	= 20.208m
TS	= 101.883m
V	= 50 km/h
e	= 7.00%

STRUCTURE DETAILS	
PROP: Retained	
CA CH: 32+010	DESIGN CH: 32+035
EX CH: 32+000	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X5.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 32+900	DESIGN CH: 32+925
EX CH: 32+900	
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 1X1200	1X3.0m



STRUCTURE DETAILS	
PROP: Retained	
CA CH: 32+010	DESIGN CH: 32+035
EX CH: 32+000	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X5.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 32+900	DESIGN CH: 32+925
EX CH: 32+900	
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 1X1200	1X3.0m

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
32+000	319.564	319.516	0.048	318.958	318.486
32+010	319.562	319.488	0.074	318.485	318.875
32+020	319.572	319.485	0.087	318.498	318.006
32+030	319.595	319.608	-0.013	317.868	315.798
32+040	319.630	319.579	0.051	317.030	317.854
32+050	319.677	319.482	0.195	317.527	317.475
32+060	319.736	319.531	0.205	318.608	318.011
32+070	319.808	319.660	0.148	318.514	318.290
32+080	319.892	319.785	0.107	318.645	318.097
32+090	319.988	319.952	0.036	318.915	318.736
32+100	320.096	320.122	-0.026	318.997	319.223
32+110	320.217	320.285	-0.068	318.634	319.491
32+120	320.350	320.432	-0.082	319.029	320.384
32+130	320.495	320.583	-0.088	319.403	320.537
32+140	320.651	320.693	-0.042	319.694	321.031
32+150	320.808	320.688	0.120	319.140	321.336
32+160	320.965	320.800	0.166	319.740	321.408
32+170	321.123	321.217	-0.094	319.669	321.562
32+180	321.280	321.446	-0.165	319.985	321.461
32+190	321.438	321.539	-0.102	320.362	321.249
32+200	321.595	321.747	-0.152	320.579	320.935
32+210	321.750	321.868	-0.118	320.238	320.656
32+220	321.900	321.978	-0.078	320.274	320.332
32+230	322.045	321.988	0.057	320.765	320.836
32+240	322.185	322.068	0.117	320.240	321.723
32+250	322.320	322.145	0.175	320.330	320.767
32+260	322.450	322.221	0.229	320.698	321.143
32+270	322.575	322.315	0.260	321.186	321.606
32+280	322.695	322.396	0.299	320.988	321.216
32+290	322.810	322.496	0.314	320.219	321.959
32+300	322.920	322.631	0.289	320.449	321.863
32+310	323.025	322.734	0.291	320.783	321.883
32+320	323.126	322.822	0.304	320.785	321.883
32+330	323.221	322.864	0.357	321.377	321.386
32+340	323.311	322.915	0.396	321.473	321.619
32+350	323.397	322.976	-0.094	321.720	322.276
32+360	323.477	323.044	0.433	321.230	322.486
32+370	323.552	323.115	0.437	320.689	322.376
32+380	323.623	323.166	0.457	321.286	322.300
32+390	323.688	323.245	-0.152	321.286	323.065
32+400	323.749	323.070	0.679	320.443	322.951
32+410	323.807	323.356	0.451	320.773	321.709
32+420	323.865	323.394	0.471	321.373	322.416
32+430	323.923	323.526	0.397	323.255	322.973
32+440	323.981	323.657	0.324	320.480	323.057
32+450	324.039	323.742	0.297	322.676	323.319
32+460	324.097	323.801	0.296	322.376	323.479
32+470	324.155	323.830	0.325	322.380	323.098
32+480	324.213	323.874	0.339	322.711	323.161
32+490	324.271	323.941	0.330	322.572	322.938
32+500	324.329	324.010	0.319	322.476	323.010
32+510	324.387	324.076	0.311	322.763	323.165
32+520	324.445	324.151	0.294	323.363	323.220
32+530	324.504	324.196	0.308	322.975	323.618
32+540	324.562	324.246	0.316	323.365	323.209
32+550	324.620	324.308	0.312	323.317	322.610
32+560	324.678	324.340	0.338	322.117	323.612
32+570	324.736	324.358	0.378	323.352	323.679
32+580	324.794	324.389	0.405	323.124	323.217
32+590	324.852	324.477	0.375	323.255	323.220
32+600	324.910	324.482	0.428	323.530	323.220
32+610	324.968	324.526	0.442	323.968	323.217
32+620	325.026	324.575	0.451	323.324	323.452
32+630	325.084	324.600	0.484	323.324	323.735
32+640	325.142	324.608	0.534	323.220	324.020
32+650	325.200	324.636	0.564	324.020	323.120
32+660	325.258	324.679	0.579	323.120	323.486
32+670	325.316	324.745	0.571	323.486	323.591
32+680	325.374	324.822	0.552	323.591	324.069
32+690	325.432	324.877	0.556	324.069	324.135
32+700	325.490	324.910	0.580	324.135	324.714
32+710	325.548	324.932	0.616	324.714	325.168
32+720	325.607	324.945	0.662	325.168	325.221
32+730	325.665	324.921	0.744	325.221	325.304
32+740	325.723	324.927	0.795	325.304	325.398
32+750	325.781	325.066	0.715	325.398	325.418
32+760	325.839	324.912	0.927	325.418	325.397
32+770	325.897	325.082	0.815	325.397	325.218
32+780	325.955	325.090	0.865	325.218	325.115
32+790	326.013	325.454	0.559	325.115	324.646
32+800	326.071	325.590	0.481	325.692	325.029
32+810	326.129	325.678	0.451	326.004	324.891
32+820	326.185	325.747	0.438	325.914	324.843
32+830	326.239	325.761	0.478	324.317	324.961
32+840	326.289	325.717	0.572	325.623	324.896
32+850	326.337	325.644	0.693	324.981	324.750
32+860	326.381	325.519	0.862	324.750	324.947
32+870	326.423	325.367	1.055	324.523	324.987
32+880	326.461	325.257	1.204	323.917	322.922
32+890	326.496	325.154	1.342	323.822	322.722
32+900	326.529	325.042	1.487	323.222	322.505
32+910	326.558	324.930	1.628	322.851	321.419
32+920	326.585	324.860	1.725	322.005	322.140
32+930	326.608	324.859	1.750	321.021	322.852
32+940	326.629	324.834	1.795	321.602	324.015
32+950	326.646	324.791	1.855	322.617	323.607
32+960	326.661	324.762	1.899	322.512	324.217
32+970	326.672	324.727	1.945	323.312	323.312
32+980	326.681	324.707	1.974	324.050	321.605
32+990	326.686	324.651	2.035	324.240	322.507
33+000	326.689	324.630	2.059	323.138	322.470

Vertical Alignment: Lc=210.00m; L=65.00m G=1.57%; Lc=200.00m; L=409.59m G=0.58%; Lc=300.00m

Horizontal Alignment: L=43.11m; Ls=60.00m; Rc=205.00m Lc=102.89m; Ls=60.00m; L=389.38m; Ls=45.00m; Rc=150.00m Lc=100.56m; Ls=45.00m

Superelevation: 32+100.07; 32+200.46; 32+206.75; 32+300.18; 32+318.18 7.00%; 32+211.06 7.00%; 32+211.06; 32+492.49; 32+617.58; 32+655.44; 32+705.44 7.00%; 32+809.00 7.00%; 32+898.00; 32+877.86

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL) Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin–462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:–+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T–5 1403 Valley View Estate, Gurugram Faridabad Road Gurugram Haryana–122003 M–9873858396, Email – khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: AUTHORIZED SIGNATURE

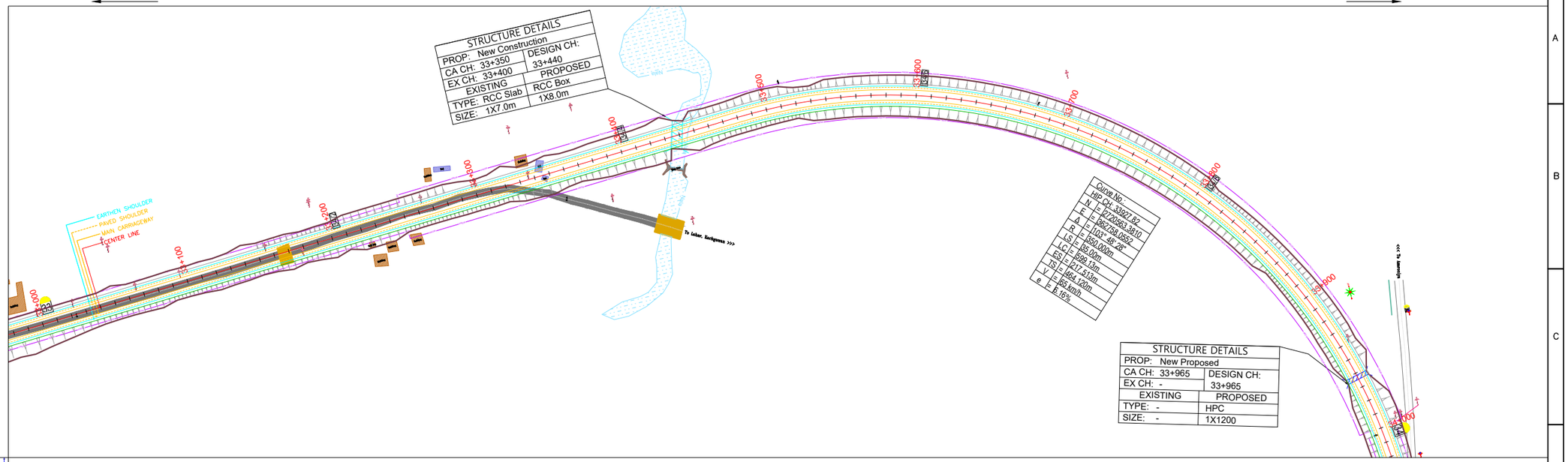
NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	32+000 TO 33+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: MAY–2025	SCALE:	DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–33	SHEET NO.: 33 TO 42
			REV. 04

GULGANJ ← → KATNI

LINE LEGEND

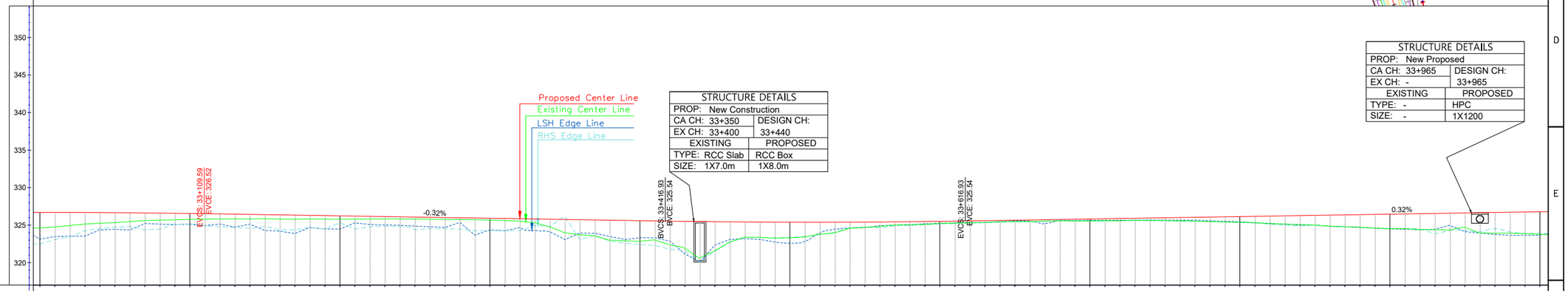
Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 33+350	DESIGN CH: 33+440
EX CH: 33+400	
EXISTING	PROPOSED
TYPE: RCC Slab	RCC Box
SIZE: 1X7.0m	1X8.0m

Curve No.	
HIP CH.	33927.82
N	8725963.3810
E	882756.0852
Δ	103° 48' 28"
R	350.00m
LS	65.0m
LC	599.13m
ES	217.53m
TS	864.13m
V	65 km/h
e	6.16%

STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 33+965	DESIGN CH: 33+965
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1X1200



STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 33+350	DESIGN CH: 33+440
EX CH: 33+400	
EXISTING	PROPOSED
TYPE: RCC Slab	RCC Box
SIZE: 1X7.0m	1X8.0m

STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 33+965	DESIGN CH: 33+965
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	1X1200

Proposed: 326.689, 326.688, 326.684, 326.678, 326.668, 326.656, 326.640, 326.622, 326.600, 326.576, 326.548, 326.518, 326.486, 326.454, 326.427, 326.422, 326.390, 326.358, 326.326, 326.295, 326.263, 326.231, 326.199, 326.167, 326.135, 326.103, 326.071, 326.039, 326.007, 325.976, 325.944, 325.912, 325.880, 325.848, 325.816, 325.784, 325.752, 325.720, 325.689, 325.657, 325.625, 325.593, 325.561, 325.529, 325.500, 325.474, 325.451, 325.431, 325.415, 325.401, 325.391, 325.384, 325.381, 325.380, 325.389, 325.398, 325.410, 325.426, 325.445, 325.467, 325.492, 325.520, 325.551, 325.584, 325.616, 325.648, 325.680, 325.712, 325.744, 325.776, 325.809, 325.841, 325.873, 325.905, 325.937, 325.969, 326.002, 326.034, 326.066, 326.098, 326.130, 326.162, 326.194, 326.227, 326.259, 326.291, 326.323, 326.355, 326.387, 326.419, 326.452, 326.484, 326.516, 326.548, 326.580, 326.612, 326.645, 326.677, 326.709, 326.741, 326.773

Ground Level: 324.630, 324.742, 324.955, 325.128, 325.251, 325.337, 325.472, 325.615, 325.664, 325.712, 325.761, 325.791, 325.819, 325.827, 325.817, 325.849, 325.797, 325.789, 325.804, 325.782, 325.782, 325.803, 325.812, 325.817, 325.813, 325.813, 325.796, 325.785, 325.756, 325.741, 325.723, 325.672, 325.604, 325.513, 325.305, 324.760, 323.998, 323.712, 323.545, 322.996, 322.904, 322.845, 323.006, 322.382, 321.912, 320.647, 321.589, 322.753, 323.373, 323.364, 323.269, 323.307, 323.426, 323.785, 323.971, 324.568, 324.701, 324.813, 325.007, 325.055, 325.107, 325.216, 325.274, 325.312, 325.363, 325.474, 325.421, 325.371, 325.338, 325.195, 325.137, 325.066, 325.007, 324.871, 324.778, 324.692, 324.616, 324.500, 324.527, 324.408, 324.415, 324.548, 324.352, 324.704, 323.955, 323.928, 323.857, 323.767

Lvl Diff (+/−): 2.059, 1.946, 1.729, 1.550, 1.417, 1.319, 1.169, 1.007, 0.937, 0.864, 0.788, 0.726, 0.667, 0.627, 0.605, 0.541, 0.562, 0.538, 0.491, 0.481, 0.449, 0.396, 0.355, 0.318, 0.290, 0.275, 0.254, 0.251, 0.234, 0.220, 0.239, 0.276, 0.276, 0.335, 0.511, 1.024, 1.755, 2.008, 2.144, 2.661, 2.721, 2.748, 2.555, 3.147, 3.588, 4.826, 3.862, 2.678, 2.042, 2.038, 2.122, 2.078, 1.955, 1.595, 1.412, 0.821, 0.697, 0.598, 0.419, 0.390, 0.360, 0.276, 0.246, 0.240, 0.221, 0.592, 0.677, 0.759, 0.824, 0.999, 1.089, 1.193, 1.284, 1.452, 1.578, 1.695, 1.803, 1.951, 1.957, 2.108, 2.133, 2.228, 1.909, 2.690, 2.747, 2.781, 2.884, 3.006

Ground Level Left @ 9.0m: 323.138, 323.470, 323.440, 323.533, 324.368, 324.440, 324.803, 325.224, 325.133, 325.068, 325.138, 324.938, 325.138, 324.738, 325.121, 324.281, 324.197, 323.881, 324.681, 324.481, 324.481, 325.298, 325.081, 325.011, 324.976, 324.874, 324.781, 324.681, 325.371, 323.658, 324.364, 324.245, 324.665, 324.263, 324.126, 323.066, 323.936, 323.908, 323.479, 323.084, 322.587, 322.837, 323.952, 324.451, 324.623, 324.681, 324.907, 325.015, 325.057, 325.164, 325.240, 325.277, 325.327, 325.330, 325.469, 325.554, 325.525, 325.217, 325.607, 325.603, 325.647, 325.629, 325.648, 325.672, 325.672, 325.669, 325.671, 325.654, 325.567, 325.497, 325.434, 325.287, 325.241, 325.118, 325.013, 325.010, 324.847, 324.789, 324.731, 324.584, 324.610, 324.566, 324.528, 324.479, 324.392, 323.834, 324.456, 324.934, 324.129, 323.944, 323.760, 323.654, 323.634, 323.679

Ground Level Right @ 9.0m: 322.470, 323.069, 323.240, 324.540, 324.735, 324.803, 324.371, 324.468, 325.128, 325.068, 324.903, 324.803, 324.654, 324.738, 324.564, 324.836, 324.381, 324.377, 324.681, 324.481, 325.301, 324.481, 325.298, 325.781, 324.832, 324.826, 324.381, 324.505, 324.511, 324.481, 324.238, 324.265, 324.248, 324.265, 324.946, 324.826, 323.077, 323.614, 322.879, 322.581, 322.441, 323.314, 321.784, 321.554, 320.078, 321.529, 323.365, 323.365, 323.318, 323.385, 323.508, 323.728, 324.099, 324.650, 324.743, 324.630, 324.889, 324.957, 325.046, 325.138, 325.202, 325.257, 325.321, 325.362, 325.401, 325.435, 325.509, 325.627, 325.513, 325.536, 325.537, 325.573, 325.600, 325.565, 325.514, 325.480, 325.462, 325.462, 325.402, 325.338, 325.277, 325.138, 324.994, 324.893, 324.984, 324.829, 324.771, 324.674, 324.610, 324.566, 324.528, 324.479, 323.834, 324.285, 324.281, 324.154, 324.533, 324.098, 323.928, 323.915

Vertical Alignment: L=307.34m G=-0.32% | Lc=200.00m | L=582.45m G=0.32%

Horizontal Alignment: L=612.69m | Ls=35.00m | Rc=350.00m Lc=599.13m

Superelevation: 33+442.46 | 33+458.70 | 33+598.70 6.16%

Chainage: 33+000, 33+010, 33+020, 33+030, 33+040, 33+050, 33+060, 33+070, 33+080, 33+090, 33+100, 33+110, 33+120, 33+130, 33+140, 33+150, 33+160, 33+170, 33+180, 33+190, 33+200, 33+210, 33+220, 33+230, 33+240, 33+250, 33+260, 33+270, 33+280, 33+290, 33+300, 33+310, 33+320, 33+330, 33+340, 33+350, 33+360, 33+370, 33+380, 33+390, 33+400, 33+410, 33+420, 33+430, 33+440, 33+450, 33+460, 33+470, 33+480, 33+490, 33+500, 33+510, 33+520, 33+530, 33+540, 33+550, 33+560, 33+570, 33+580, 33+590, 33+600, 33+610, 33+620, 33+630, 33+640, 33+650, 33+660, 33+670, 33+680, 33+690, 33+700, 33+710, 33+720, 33+730, 33+740, 33+750, 33+760, 33+770, 33+780, 33+790, 33+800, 33+810, 33+820, 33+830, 33+840, 33+850, 33+860, 33+870, 33+880, 33+890, 33+900, 33+910, 33+920, 33+930, 33+940, 33+950, 33+960, 33+970, 33+980, 33+990, 34+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company, Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram
Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	33+000 TO 34+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: MAY–2025	SCALE:	DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–34	SHEET NO.: 34 TO 42
			REV. 04

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	

Curve No.:	
HIP CH: 34231.08	
N	= 2720009.8521
E	= 362658.6810
Δ	= 8° 22' 23"
R	= 1200.000m
LS	= ???m
LC	= 175.37m
ES	= ???m
TS	= ???m
V	= 80 km/h
e	= 2.50%

Curve No.:	
HIP CH: 34437.33	
N	= 2719814.0209
E	= 362592.9634
Δ	= 4° 05' 06"
R	= 2500.000m
LS	= ???m
LC	= 178.24m
ES	= ???m
TS	= ???m
V	= 80 km/h
e	= 2.50%

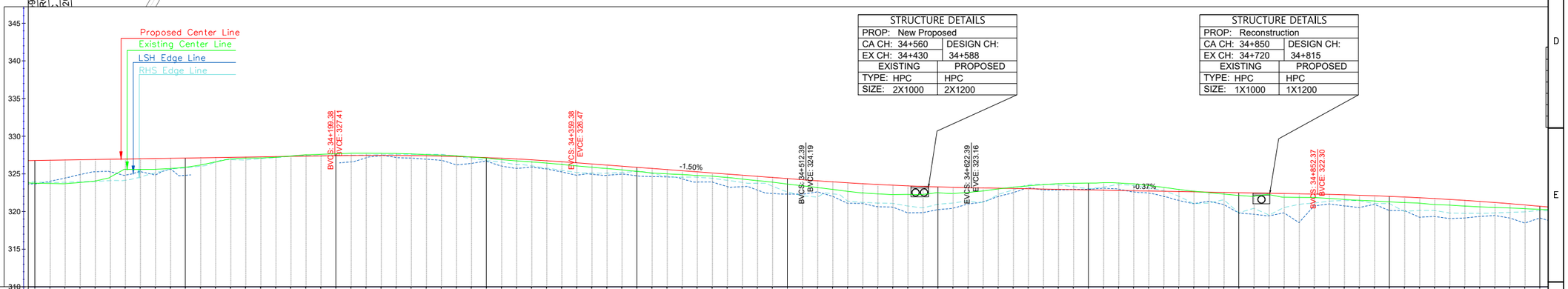
STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 34+560	DESIGN CH: 34+588
EX CH: 34+430	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 2X1000	2X1200

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 34+850	DESIGN CH: 34+815
EX CH: 34+720	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

EARTHEN SHOULDER
PAVED SHOULDER
MAIN CARRIAGEWAY
CENTER LINE

Curve No.:	
HIP CH: 34636.85	
N	= 2719620.7606
E	= 362543.1065
Δ	= 17° 23' 53"
R	= 250.000m
LS	= 30.00m
LC	= 45.91m
ES	= 3.061m
TS	= 53.274m
V	= 50 km/h
e	= 4.44%

Curve No.:	
HIP CH: 34749.35	
N	= 2719524.6789
E	= 362483.3837
Δ	= 11° 42' 14"
R	= 305.000m
LS	= 20.00m
LC	= 42.30m
ES	= 1.653m
TS	= 41.266m
V	= 50 km/h
e	= 3.64%



STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 34+560	DESIGN CH: 34+588
EX CH: 34+430	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 2X1000	2X1200

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 34+850	DESIGN CH: 34+815
EX CH: 34+720	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
34+000	326.773	323.767	3.006	323.679	323.915
34+010	326.805	323.726	3.079	324.015	323.851
34+020	326.837	323.703	3.134	324.437	323.880
34+030	326.870	323.849	3.020	324.909	323.959
34+040	326.902	324.039	2.863	325.276	323.985
34+050	326.934	324.556	2.378	325.277	324.106
34+060	326.966	325.605	1.361	324.826	324.152
34+070	326.998	325.585	1.413	325.292	324.568
34+080	327.030	325.606	1.424	324.850	325.130
34+090	327.063	325.705	1.357	325.605	325.628
34+100	327.095	325.872	1.223	324.805	325.800
34+110	327.127	326.167	0.959		326.009
34+120	327.159	326.587	0.572		326.547
34+130	327.191	327.178	0.213		326.881
34+140	327.223	327.088	0.135		326.833
34+150	327.255	327.115	0.141		327.021
34+160	327.288	327.201	0.087		327.160
34+170	327.320	327.368	-0.048		327.348
34+180	327.352	327.531	-0.179		327.428
34+190	327.384	327.596	-0.212		327.419
34+200	327.416	327.662	-0.245		327.443
34+210	327.442	327.733	-0.291	326.597	327.478
34+220	327.456	327.741	-0.284	327.127	327.511
34+230	327.459	327.721	-0.262	327.405	327.538
34+240	327.451	327.704	-0.253	327.188	327.564
34+250	327.431	327.645	-0.213	327.095	327.585
34+260	327.400	327.562	-0.162	326.947	327.602
34+270	327.358	327.484	-0.126	326.796	327.601
34+280	327.304	327.394	-0.089	326.205	327.328
34+290	327.239	327.229	0.010	326.387	327.043
34+300	327.163	327.098	0.064	326.690	326.769
34+310	327.075	326.884	0.191	326.035	326.557
34+320	326.976	326.723	0.253	325.716	326.226
34+330	326.865	326.592	0.273	325.902	326.061
34+340	326.743	326.434	0.310	325.642	325.764
34+350	326.610	326.254	0.357	325.266	325.473
34+360	326.466	326.056	0.410	324.809	325.181
34+370	326.316	325.883	0.433	324.954	325.113
34+380	326.167	325.706	0.461	324.801	325.093
34+390	326.017	325.530	0.487	324.978	325.192
34+400	325.867	325.339	0.529	324.741	325.320
34+410	325.718	325.123	0.595	324.644	325.051
34+420	325.568	325.006	0.562	324.594	324.713
34+430	325.419	324.909	0.510	324.343	324.553
34+440	325.269	324.781	0.488	323.906	324.564
34+450	325.120	324.695	0.425	323.921	324.404
34+460		324.525	0.445	323.311	324.150
34+470		324.970	0.775	323.299	323.858
34+480		324.821	0.816	322.853	323.762
34+490		324.671	0.636	322.399	323.381
34+500		324.521	0.399	322.372	322.624
34+510		324.372	0.100	322.308	322.079
34+520		324.222	-0.170	322.297	321.922
34+530		324.076	-0.388	322.609	322.351
34+540		323.939	-0.584	322.022	321.388
34+550		323.812	-0.747	322.941	321.222
34+560		323.696	-0.841	323.181	321.079
34+570		323.590	-0.908	322.679	320.732
34+580		323.494	-0.994	322.469	319.822
34+590		323.409	-0.990	322.346	320.504
34+600		323.333	-0.915	322.247	320.960
34+610		323.268	-0.729	322.262	321.126
34+620		323.213	-0.518	322.257	321.382
34+630		323.168	-0.288	322.396	321.249
34+640		323.130	-0.083	322.532	322.233
34+650		323.093	0.059	322.731	322.866
34+660		323.056	0.214	323.093	323.537
34+670		323.018	0.366	323.225	323.609
34+680		323.406	0.438	323.406	323.517
34+690		323.565	0.489	323.565	323.300
34+700		323.691	0.480	323.691	323.042
34+710		323.748	0.462	323.748	323.239
34+720		323.777	0.531	323.777	323.568
34+730		323.826	0.611	323.826	323.440
34+740		323.765	0.677	323.765	323.121
34+750		323.672	0.696	323.672	322.765
34+760		323.448	0.726	323.448	322.042
34+770		323.200	0.740	323.200	321.048
34+780		322.682	0.720	322.682	321.124
34+790		322.645	0.714	322.645	321.559
34+800		322.608	0.649	322.608	319.829
34+810		322.570	0.619	322.570	320.429
34+820		322.511	0.572	322.511	319.529
34+830		322.320	0.489	322.320	320.960
34+840		322.496	0.416	322.496	321.129
34+850		322.459	0.366	322.459	321.375
34+860		322.421	0.438	322.421	321.465
34+870		322.384	0.489	322.384	321.440
34+880		322.347	0.480	322.347	321.067
34+890		322.309	0.462	322.309	321.057
34+900		322.269	0.531	321.738	320.744
34+910		322.220	0.611	321.609	320.994
34+920		322.161	0.677	321.484	320.757
34+930		322.092	0.696	321.396	320.524
34+940		322.014	0.726	321.288	320.960
34+950		321.926	0.740	321.185	320.129
34+960		321.828	0.720	321.108	320.139
34+970		321.721	0.714	320.920	320.239
34+980		321.604	0.649	320.846	319.339
34+990		321.478	0.572	320.723	319.069
35+000		321.341	0.489	320.622	319.139
		321.196	0.416	320.547	319.339
		321.040		320.468	319.470
		320.876		320.387	319.649
		320.701		320.285	319.572
					319.489
					319.139

Vertical Alignment: Lc=160.00m; L=153.01m G=-1.50%; Lc=110.00m; L=229.99m G=-0.37%; Lc=180.00m

Horizontal Alignment: Ls=35.00m; L=10.42m; Rc=1200.00m Lc=175.37m; L=29.57m; Rc=2500.00m Lc=178.24m; L=57.16m; Ls=30.00m; Rc=250.00m Lc=45.91m; Ls=30.00m; L=18.59m; Ls=20.00m; Rc=305.00m Lc=42.30m; Ls=20.00m; L=244.75m

Superelevation: 34+097.82 6.85%; 34+107.82; 34+134.06; 34+574.51; 34+598.57; 34+613.57 4.44%; 34+659.49 4.44%; 34+728.08 3.64%; 34+770.38 3.64%; 34+795.38; 34+812.55; 34+907.64

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company,
Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor,
Noble Plaza, M.P. Nagar Zone–II,
Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram
Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

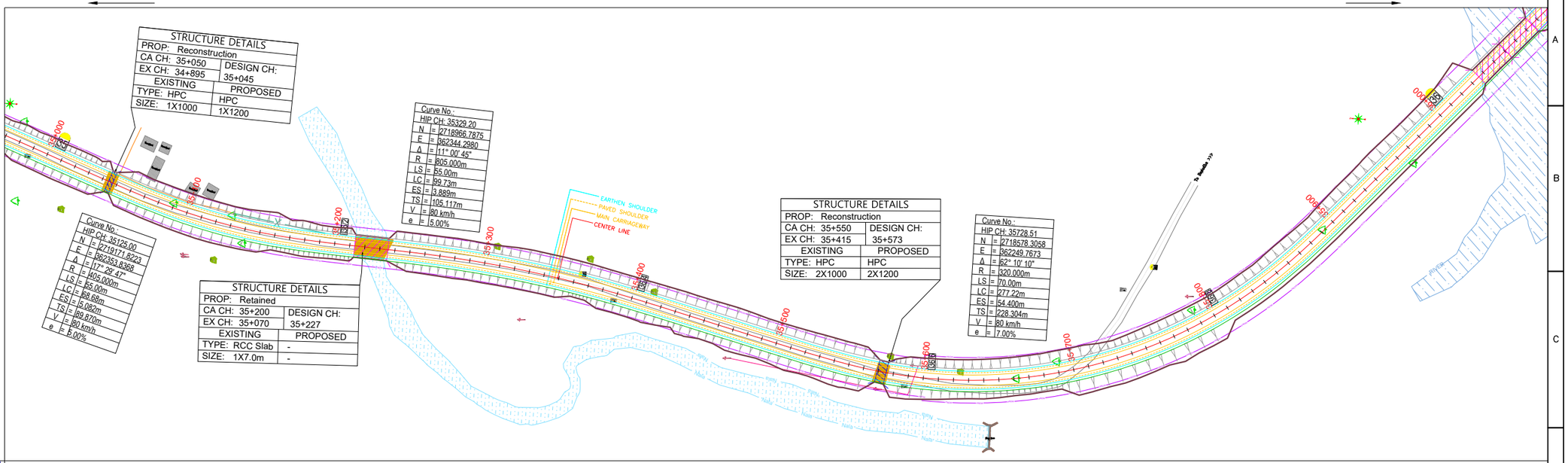
NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	34+000 TO 35+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: MAY–2025	SCALE:	DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–35	SHEET NO.: 35 TO 42
REV. 04			

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 35+050	DESIGN CH: 35+045
EX CH: 34+895	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	1X1200

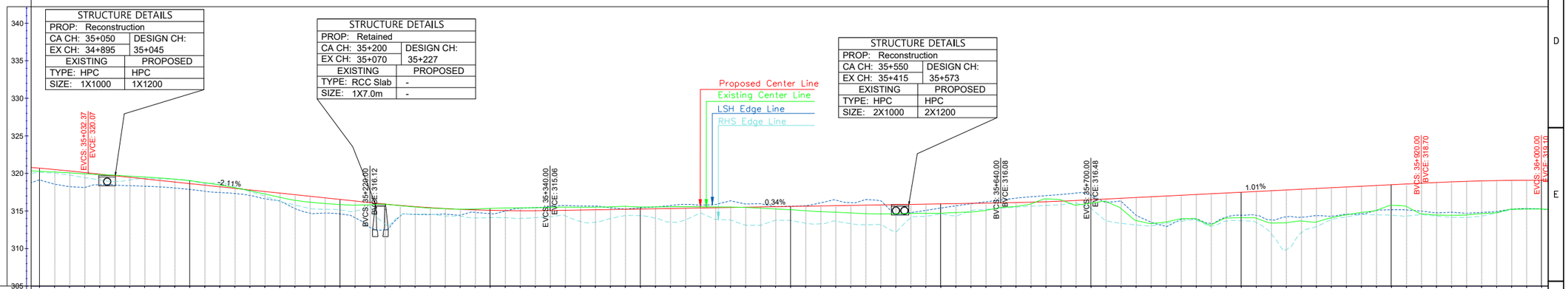
Curve No.:	
HIP CH: 35329.20	
N	= 2718966.7875
E	= 362344.2980
Δ	= 11° 00' 45"
R	= 805.000m
LS	= 55.00m
LC	= 99.73m
ES	= 3.889m
TS	= 105.117m
V	= 80 km/h
e	= 5.00%

Curve No.:	
HIP CH: 35126.00	
N	= 2719171.8223
E	= 362353.8368
Δ	= 17° 29' 47"
R	= 405.000m
LS	= 65.00m
LC	= 68.68m
ES	= 5.082m
TS	= 99.870m
V	= 80 km/h
e	= 5.00%

STRUCTURE DETAILS	
PROP: Retained	
CA CH: 35+200	DESIGN CH: 35+227
EX CH: 35+070	
EXISTING	PROPOSED
TYPE: RCC Slab	-
SIZE: 1X7.0m	-

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 35+550	DESIGN CH: 35+573
EX CH: 35+415	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 2X1000	2X1200

Curve No.:	
HIP CH: 35728.51	
N	= 2718578.3058
E	= 362249.7673
Δ	= 62° 10' 10"
R	= 320.000m
LS	= 70.00m
LC	= 277.22m
ES	= 54.400m
TS	= 228.304m
V	= 80 km/h
e	= 7.00%



Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
35+000	320.701	320.285	0.416	319.139	320.140
35+010	320.517	320.187	0.329	318.569	320.045
35+020	320.323	320.081	0.242	318.239	319.785
35+030	320.120	319.953	0.167	318.191	319.449
35+040	319.909	319.851	0.059	318.491	319.141
35+050	319.699	319.757	-0.058	318.471	318.915
35+060	319.488	319.638	-0.149	318.369	319.128
35+070	319.278	319.521	-0.243	318.301	319.347
35+080	319.067	319.394	-0.327	318.210	319.276
35+090	318.857	319.238	-0.381	318.060	319.250
35+100	318.646	319.036	-0.390	317.867	319.062
35+110	318.436	318.775	-0.340	317.631	318.630
35+120	318.225	318.469	-0.243	317.459	318.753
35+130	318.015	318.100	-0.085	317.325	318.276
35+140	317.804	317.705	0.099	317.069	317.595
35+150	317.594	317.260	0.334	316.631	316.977
35+160	317.383	316.824	0.559	316.326	316.276
35+170	317.173	316.419	0.753	315.327	315.807
35+180	316.962	316.166	0.796	314.706	315.349
35+190	316.752	315.998	0.754	314.709	315.222
35+200	316.541	315.856	0.685	314.610	315.137
35+210	316.331	315.775	0.555	314.113	315.006
35+220	316.120	315.834	0.286	312.810	315.668
35+230	315.920	315.911	0.008	312.516	313.259
35+240	315.710	315.740	0.030	314.281	314.343
35+250	315.580	315.532	0.048	314.542	314.573
35+260	315.441	315.391	0.050	314.524	314.566
35+270	315.322	315.302	0.020	314.581	314.339
35+280	315.224	315.232	-0.009	314.432	314.311
35+290	315.146	315.257	-0.111	314.808	314.087
35+300	315.088	315.348	-0.260	314.642	314.119
35+310	315.051	315.398	-0.348	314.996	313.996
35+320	315.034	315.419	-0.385	315.368	314.121
35+330	315.037	315.445	-0.408	315.437	314.235
35+340	315.061	315.486	-0.425	315.615	314.376
35+350	315.095	315.515	-0.420	315.731	313.623
35+360	315.129	315.497	-0.368	315.674	313.488
35+370	315.163	315.503	-0.340	315.645	313.998
35+380	315.197	315.539	-0.342	315.431	314.391
35+390	315.231	315.620	-0.389	315.269	314.374
35+400	315.265	315.527	-0.262	315.419	314.047
35+410	315.299	315.534	-0.235	315.539	313.518
35+420	315.333	315.558	-0.225	315.720	313.833
35+430	315.367	315.566	-0.199	315.879	314.756
35+440	315.401	315.549	-0.148	315.756	313.866
35+450	315.435	315.537	-0.102	315.856	313.802
35+460	315.469	315.523	-0.054	316.356	313.096
35+470	315.503	315.465	0.038	315.926	313.091
35+480	315.537	315.376	0.161	315.966	313.766
35+490	315.571	315.268	0.302	315.575	313.756
35+500	315.605	315.174	0.431	315.626	313.369
35+510	315.639	315.031	0.608	315.686	313.298
35+520	315.673	314.913	0.760	316.077	313.650
35+530	315.707	314.840	0.867	316.450	313.317
35+540	315.741	314.742	0.999	316.102	313.168
35+550	315.775	314.643	1.132	316.506	313.182
35+560	315.809	314.600	1.209	316.340	312.300
35+570	315.843	314.629	1.214	314.574	314.104
35+580	315.877	314.674	1.203	314.769	314.288
35+590	315.911	314.696	1.215	315.075	314.610
35+600	315.945	314.687	1.258	315.384	314.329
35+610	315.979	314.794	1.185	315.679	315.053
35+620	316.013	314.860	1.152	315.958	315.215
35+630	316.047	315.073	0.974	316.221	315.386
35+640	316.081	315.452	0.629	316.468	315.502
35+650	316.120	315.608	0.512	316.699	315.648
35+660	316.171	315.930	0.241	316.889	315.733
35+670	316.233	316.616	-0.383	317.037	315.826
35+680	316.306	316.473	-0.167	317.190	316.066
35+690	316.390	315.787	0.602	317.386	315.361
35+700	316.485	316.037	0.448	317.095	313.721
35+710	316.585	316.258	0.327	316.157	313.361
35+720	316.686	315.343	1.343	316.300	313.145
35+730	316.786	313.744	3.042	314.445	313.011
35+740	316.887	313.330	3.557	313.508	313.383
35+750	316.988	312.955	3.458	313.529	313.629
35+760	317.088	313.949	3.140	313.844	313.775
35+770	317.189	313.941	3.248	313.923	312.975
35+780	317.289	313.157	4.133	313.338	313.644
35+790	317.390	314.061	3.329	314.172	313.700
35+800	317.491	314.110	3.381	314.432	313.483
35+810	317.591	314.046	3.545	314.421	311.990
35+820	317.692	313.395	4.296	313.818	309.836
35+830	317.792	313.434	4.358	314.208	312.087
35+840	317.893	313.666	4.227	314.166	312.912
35+850	317.994	313.531	4.463	314.374	313.826
35+860	318.094	314.088	4.006	314.312	314.220
35+870	318.195	314.492	3.702	314.556	314.495
35+880	318.295	314.797	3.498	314.616	314.481
35+890	318.396	315.070	3.326	315.090	314.436
35+900	318.496	315.156	2.727	315.069	314.314
35+910	318.597	315.603	2.994	315.140	314.533
35+920	318.698	314.626	4.072	314.988	314.318
35+930	318.792	314.465	4.327	314.738	314.152
35+940	318.874	314.417	4.457	314.838	314.135
35+950	318.943	314.474	4.469	314.688	314.296
35+960	318.999	314.637	4.363	314.798	314.713
35+970	319.043	314.782	4.261	314.915	315.158
35+980	319.075	315.226	3.849	315.252	315.248
35+990	319.094	315.278	3.816	315.338	315.258
36+000	319.100	315.263	3.837	315.258	315.258

Vertical Alignment: L=187.63m G=-2.11% | Lc=120.00m | L=300.00m G=0.34% | Lc=60.00m | L=220.00m G=1.01% | Lc=80.00m

Horizontal Alignment: Ls=55.00m | Rc=405.00m Lc=68.68m | Ls=55.00m | L=10.21m | Ls=55.00m | Rc=805.00m Lc=99.73m | Ls=55.00m | L=66.41m | Ls=70.00m | Rc=320.00m Lc=277.22m | Ls=70.00m

Superelevation: 35+037.64 | 35+085.14 | 35+190.14 5.00% | 35+188.81 5.00% | 35+279.09 5.00% | 35+378.81 5.00% | 35+488.81 | 35+488.81 | 35+475.22 | 35+500.22 | 35+570.22 7.00% | 35+987.44 7.00% | 35+997.44 | 35+992.44

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company, Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
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Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

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AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
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T–5 1403 Valley View Estate
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Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

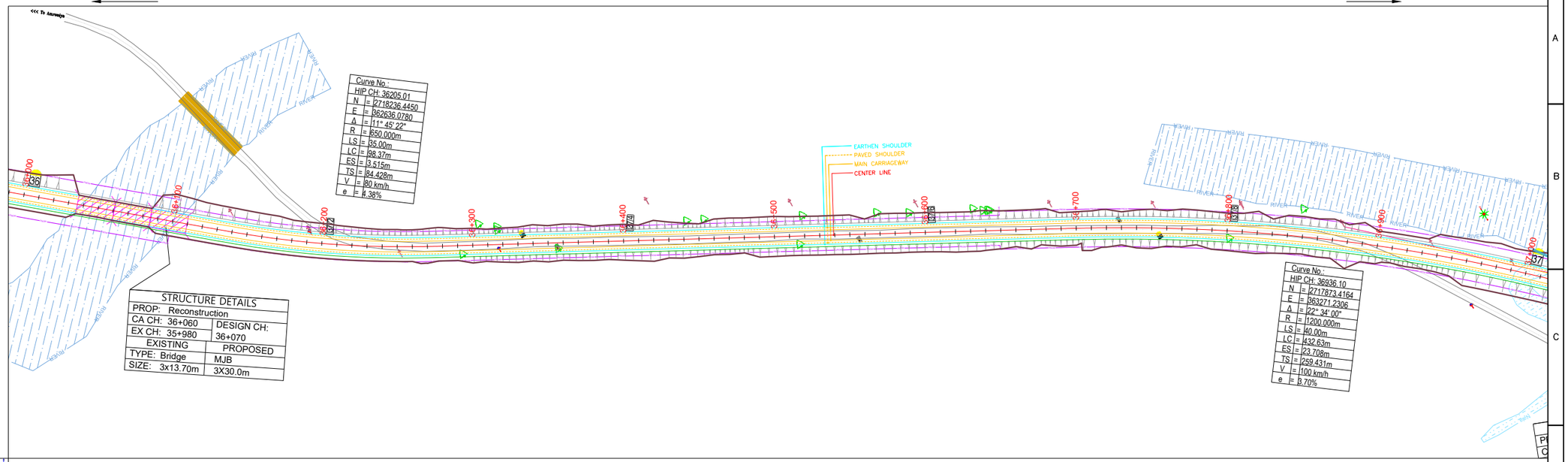
NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

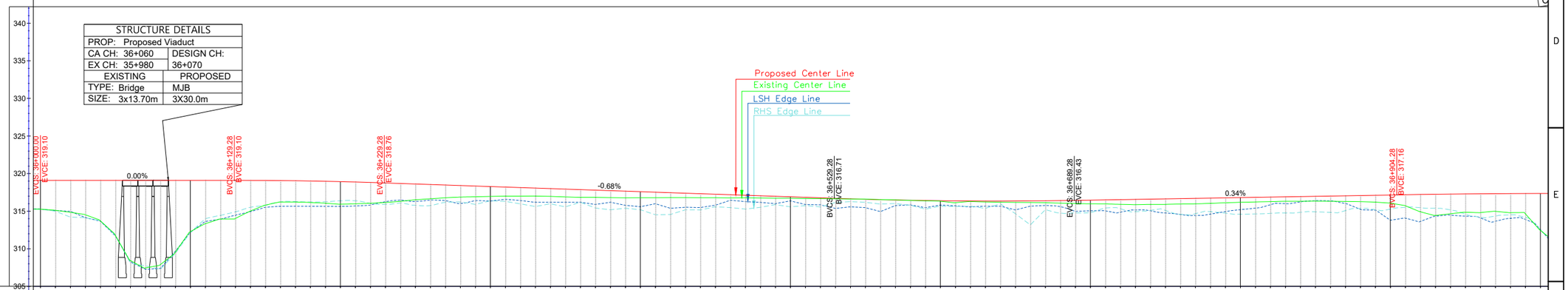
TITLE: PLAN & PROFILE		Chainage 35+000 TO 36+000	
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION			
DATE: MAY–2025	SCALE:	DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–36	SHEET NO.: 36 TO 42
REV. 04			

GULGANJ ⟵ ⟶ KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	





Proposed: 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.100 319.096 319.085 319.068 319.043 319.012 318.974 318.929 318.877 318.819 318.754 318.685 318.617 318.549 318.480 318.412 318.344 318.275 318.207 318.139 318.070 318.002 317.934 317.865 317.797 317.729 317.660 317.592 317.524 317.456 317.387 317.319 317.251 317.182 317.114 317.046 316.977 316.909 316.841 316.772 316.704 316.639 316.581 316.529 316.484 316.445 316.412 316.386 316.366 316.352 316.345 316.344 316.350 316.362 316.381 316.405 316.471 316.504 316.538 316.572 316.606 316.640 316.674 316.708 316.742 316.776 316.810 316.844 316.878 316.912 316.946 316.980 317.014 317.048 317.082 317.116 317.150 317.183 317.214 317.242 317.267 317.290 317.309 317.326 317.339 317.350 317.358

Ground Level: 315.263 315.113 315.243 314.525 313.715 311.765 307.443 307.896 309.528 312.283 313.327 313.945 314.031 315.018 315.806 316.214 316.217 316.155 316.060 315.925 315.981 316.055 316.150 316.305 316.515 316.648 316.776 316.872 316.918 316.969 317.002 317.000 317.004 316.970 316.893 316.836 316.839 316.796 316.778 316.793 316.788 316.797 316.794 316.787 316.790 316.812 316.772 316.751 316.729 316.720 316.682 316.673 316.651 316.610 316.603 316.540 316.502 316.429 316.374 316.322 316.291 316.231 316.168 316.158 316.122 316.067 316.016 315.980 315.967 315.906 315.867 315.896 315.905 315.951 315.969 316.036 316.115 316.183 316.223 316.273 316.316 316.337 316.319 316.294 316.268 316.197 316.057 315.111 314.922 314.439 314.648 314.857 314.984 314.800 314.655 312.443

Lvl Diff (+/−): 3.837 3.987 4.253 4.575 5.385 7.335 10.668 11.657 11.204 9.572 6.817 5.773 5.155 5.069 4.079 3.280 2.853 2.827 2.857 2.914 3.004 2.896 2.763 2.604 2.381 2.102 1.900 1.704 1.540 1.426 1.307 1.205 1.139 1.067 1.032 1.041 1.029 0.958 0.932 0.882 0.800 0.736 0.659 0.593 0.532 0.460 0.415 0.342 0.294 0.248 0.189 0.158 0.100 0.053 0.030 -0.022 -0.011 -0.018 0.016 0.038 0.064 0.240 0.061 0.115 0.148 0.182 0.205 0.258 0.338 0.420 0.490 0.538 0.632 0.706 0.710 0.736 0.723 0.739 0.707 0.661 0.627 0.622 0.605 0.596 0.630 0.643 0.695 0.753 0.814 0.919 1.093 1.473 2.292 2.804 2.432 2.619 2.432 2.497 2.342 2.540 2.695 4.916

Ground Level Left @ 9.0m: 315.258 315.081 314.978 314.137 313.667 311.707 307.257 307.382 312.182 313.638 313.934 314.465 314.934 315.498 315.640 315.661 315.652 315.640 315.631 315.690 315.816 316.261 316.474 316.296 316.467 316.384 316.028 316.413 316.346 316.576 316.419 316.176 316.181 316.181 316.181 315.891 316.181 315.781 315.591 315.991 315.381 315.521 315.481 315.792 316.452 316.272 316.168 316.372 315.882 315.841 315.368 315.577 315.472 314.945 315.744 315.837 315.457 315.712 315.560 315.665 315.148 315.165 315.665 315.586 314.973 315.051 314.860 315.155 315.046 314.761 314.562 314.426 314.607 314.941 315.199 315.402 315.854 316.000 316.234 316.390 316.370 316.009 315.252 315.125 313.794 314.080 313.632 314.325 314.479 314.334 314.110 313.651 314.048 313.901 312.557

Ground Level Right @ 9.0m: 315.258 314.998 314.208 314.137 313.707 311.797 308.087 307.717 307.272 309.387 312.167 314.019 314.444 314.913 315.510 315.784 316.226 316.228 316.255 316.382 316.384 316.030 315.897 316.102 316.474 316.778 315.757 316.169 316.213 315.903 316.383 316.304 315.976 315.621 315.981 315.574 316.181 315.419 315.181 315.391 315.191 314.521 314.560 315.181 315.171 315.581 315.481 316.281 315.507 315.881 315.572 315.743 315.572 316.153 316.272 316.177 315.952 316.012 315.781 315.272 315.678 315.612 315.665 315.374 315.965 314.665 313.176 315.196 314.750 314.771 314.834 315.427 315.318 314.927 315.106 315.099 314.593 314.664 314.933 314.736 314.596 314.630 314.707 314.759 314.844 314.918 314.832 315.077 315.363 315.197 315.274 315.508 315.457 315.383 315.170 314.604 314.194 314.352 314.507 314.175 312.524

Vertical Alignment: L=129.28m G=0.00% | Lc=100.00m | L=300.00m G=-0.68% | Lc=160.00m | L=215.00m G=0.34%

Horizontal Alignment: L=203.14m | Ls=35.00m | Rc=650.00m Lc=98.37m | Ls=35.00m | L=387.72m | Ls=40.00m | Rc=1200.00m Lc=432.63m

Superelevation: 36+100.58 | 36+120.58 | 36+155.58 4.38% | 36+213.95 4.38% | 36+239.95 | 36+309.94 | 36+618.67 | 36+646.67 | 36+716.67 3.70%

Chainage: 36+000 36+010 36+020 36+030 36+040 36+050 36+060 36+070 36+080 36+090 36+100 36+110 36+120 36+130 36+140 36+150 36+160 36+170 36+180 36+190 36+200 36+210 36+220 36+230 36+240 36+250 36+260 36+270 36+280 36+290 36+300 36+310 36+320 36+330 36+340 36+350 36+360 36+370 36+380 36+390 36+400 36+410 36+420 36+430 36+440 36+450 36+460 36+470 36+480 36+490 36+500 36+510 36+520 36+530 36+540 36+550 36+560 36+570 36+580 36+590 36+600 36+610 36+620 36+630 36+640 36+650 36+660 36+670 36+680 36+690 36+700 36+710 36+720 36+730 36+740 36+750 36+760 36+770 36+780 36+790 36+800 36+810 36+820 36+830 36+840 36+850 36+860 36+870 36+880 36+890 36+900 36+910 36+920 36+930 36+940 36+950 36+960 36+970 36+980 36+990 37+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills,
Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company,
Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor,
Noble Plaza, M.P. Nagar Zone–II,
Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram
Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 36+000 TO 37+000

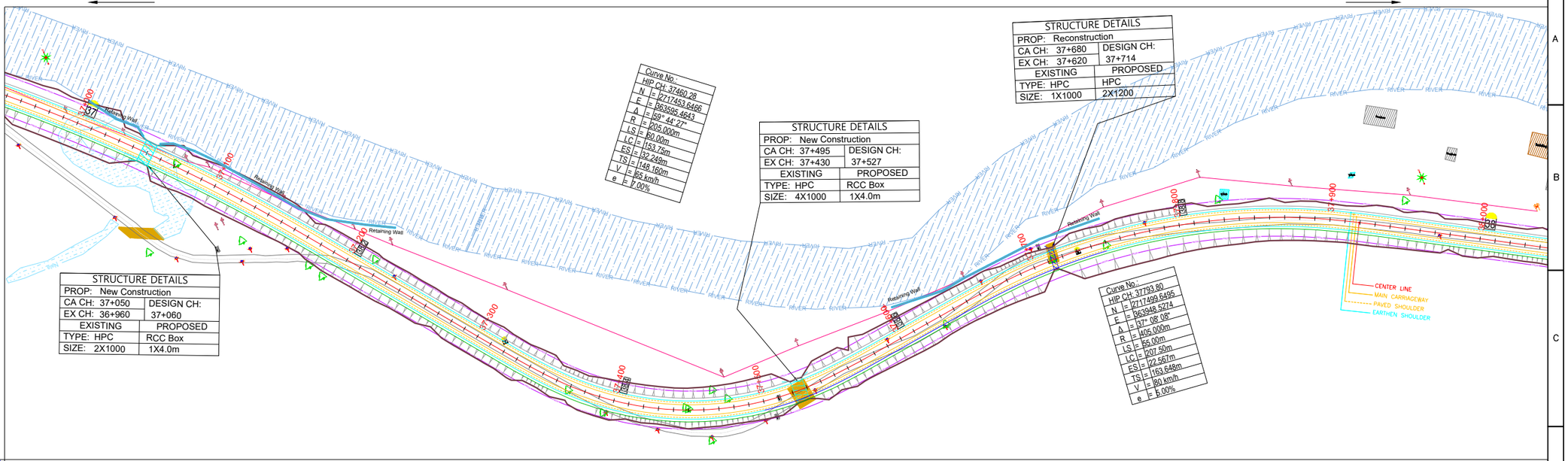
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: MAY–2025 | SCALE: | DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–37 | SHEET NO.: 37 TO 42 | REV. 04

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



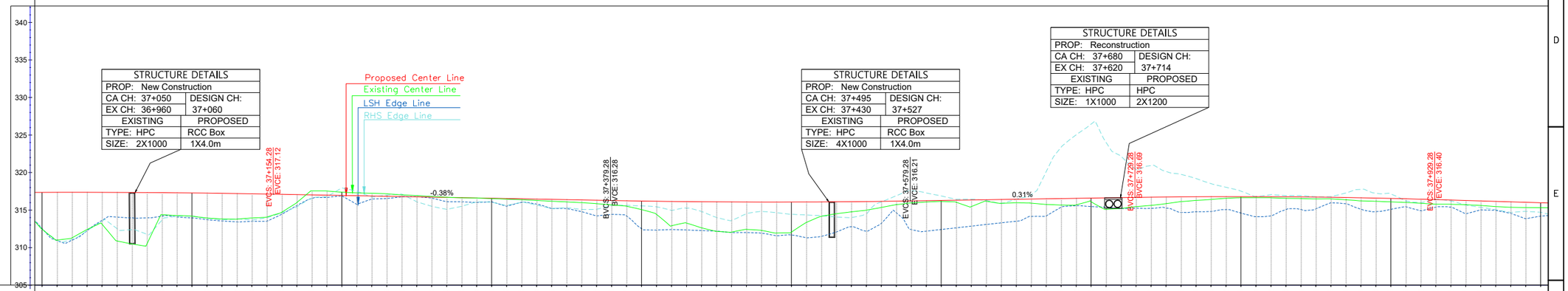
STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 37+050	DESIGN CH:
EX CH: 36+960	37+060
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 2X1000	1X4.0m

Curve No.:	
HIP CH: 37460.28	
N	= 2717453.6466
E	= 663595.4643
Δ	= 59° 44' 27"
R	= 205.000m
LS	= 60.00m
LC	= 153.75m
ES	= 32.248m
TS	= 146.160m
V	= 65 km/h
e	= 7.00%

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 37+495	DESIGN CH:
EX CH: 37+430	37+527
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 4X1000	1X4.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 37+680	DESIGN CH:
EX CH: 37+620	37+714
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	2X1200

Curve No.:	
HIP CH: 37793.80	
N	= 2717499.6495
E	= 663949.5274
Δ	= 37° 08' 08"
R	= 405.000m
LS	= 55.00m
LC	= 207.50m
ES	= 22.567m
TS	= 163.648m
V	= 80 km/h
e	= 6.00%



STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 37+050	DESIGN CH:
EX CH: 36+960	37+060
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 2X1000	1X4.0m

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 37+495	DESIGN CH:
EX CH: 37+430	37+527
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 4X1000	1X4.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 37+680	DESIGN CH:
EX CH: 37+620	37+714
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1000	2X1200

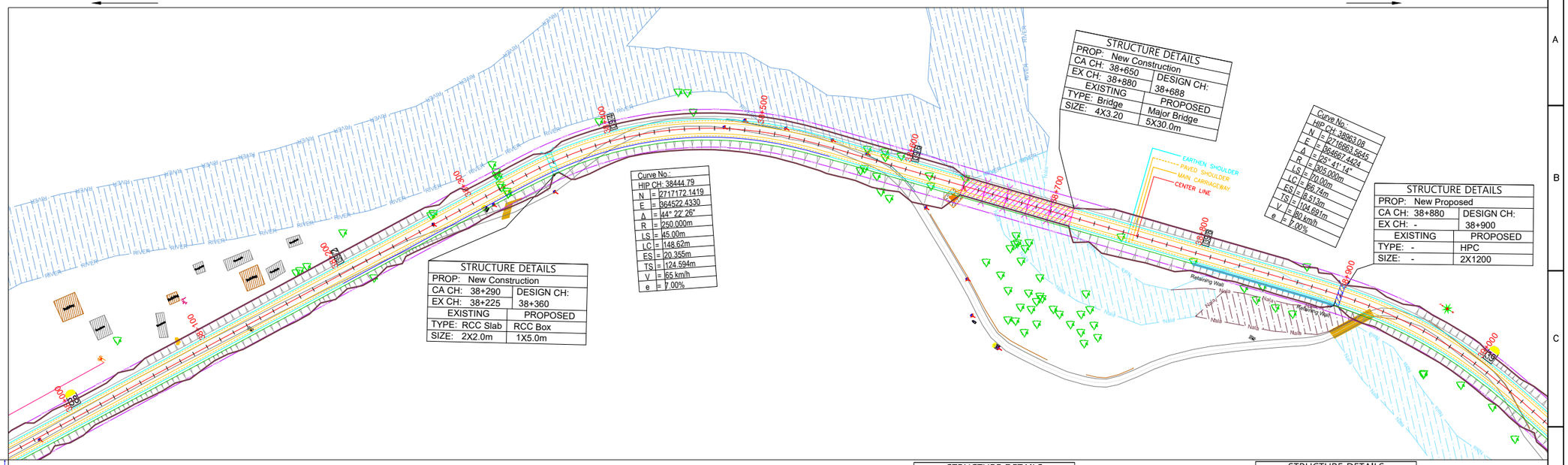
Proposed:

| | | |

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



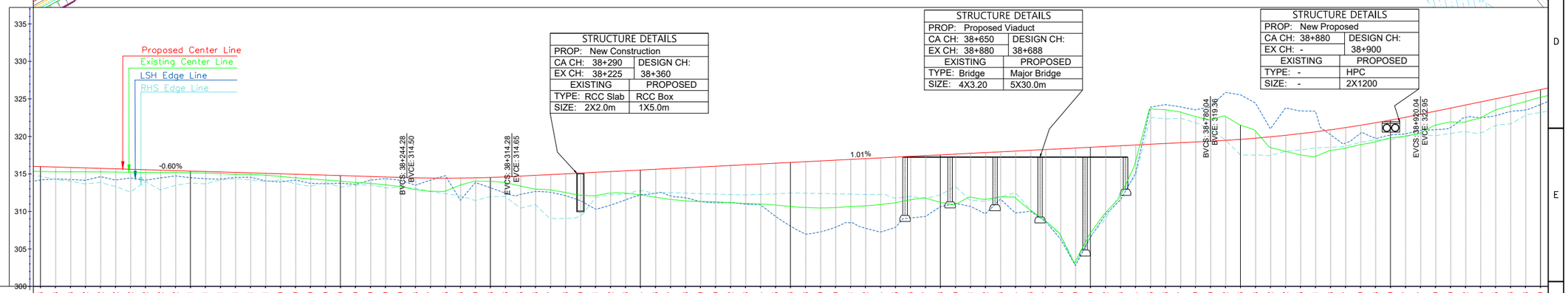
STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 38+650	DESIGN CH: 38+688
EX CH: 38+880	
EXISTING	PROPOSED
TYPE: Bridge	Major Bridge
SIZE: 4X3.20	5X30.0m

Curve No.:	
HIP CH: 38963.08	
N	= 2716863.5645
E	= 364467.4424
Δ	= 25° 41' 14"
R	= 905.000m
LS	= 70.00m
LC	= 66.74m
ES	= 8.513m
TS	= 104.681m
V	= 80 km/h
e	= 7.00%

STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 38+880	DESIGN CH: 38+900
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2X1200

Curve No.:	
HIP CH: 38444.79	
N	= 2717172.1419
E	= 364522.4330
Δ	= 44° 22' 26"
R	= 250.000m
LS	= 45.00m
LC	= 148.62m
ES	= 20.355m
TS	= 124.594m
V	= 65 km/h
e	= 7.00%

STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 38+290	DESIGN CH: 38+360
EX CH: 38+225	
EXISTING	PROPOSED
TYPE: RCC Slab	RCC Box
SIZE: 2X2.0m	1X5.0m



STRUCTURE DETAILS	
PROP: New Construction	
CA CH: 38+290	DESIGN CH: 38+360
EX CH: 38+225	
EXISTING	PROPOSED
TYPE: RCC Slab	RCC Box
SIZE: 2X2.0m	1X5.0m

STRUCTURE DETAILS	
PROP: Proposed Viaduct	
CA CH: 38+650	DESIGN CH: 38+688
EX CH: 38+880	
EXISTING	PROPOSED
TYPE: Bridge	Major Bridge
SIZE: 4X3.20	5X30.0m

STRUCTURE DETAILS	
PROP: New Proposed	
CA CH: 38+880	DESIGN CH: 38+900
EX CH: -	
EXISTING	PROPOSED
TYPE: -	HPC
SIZE: -	2X1200

LEVELS DATUM 300.00

Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
38+000	315.973	315.323	0.649	314.200	314.702
38+010	315.913	315.290	0.623	314.325	314.259
38+020	315.853	315.278	0.574	314.254	314.039
38+030	315.792	315.270	0.522	314.154	313.654
38+040	315.732	315.261	0.472	314.635	313.854
38+050	315.672	315.240	0.432	314.186	313.325
38+060	315.612	315.216	0.396	314.454	312.583
38+070	315.552	315.195	0.357	314.154	313.963
38+080	315.492	315.180	0.311	314.463	312.854
38+090	315.432	315.183	0.248	314.733	313.477
38+100	315.371	315.155	0.217	314.488	313.787
38+110	315.311	315.107	0.205	314.351	313.677
38+120	315.251	315.030	0.221	314.298	314.177
38+130	315.191	314.953	0.238	314.533	314.358
38+140	315.131	314.925	0.206	314.548	314.198
38+150	315.071	314.823	0.248	314.077	313.977
38+160	315.010	314.674	0.336	313.917	314.190
38+170	314.950	314.481	0.469	314.183	313.683
38+180	314.890	314.329	0.561	313.744	313.344
38+190	314.830	314.183	0.647	313.689	313.874
38+200	314.770	314.025	0.745	313.754	313.234
38+210	314.710	313.850	0.859	313.603	313.508
38+220	314.649	313.737	0.912	314.173	313.540
38+230	314.589	313.543	1.046	314.373	313.128
38+240	314.529	313.310	1.219	314.152	313.251
38+250	314.473	312.915	1.558	313.493	313.079
38+260	314.437	312.687	1.750	314.173	312.644
38+270	314.425	312.718	1.707	314.773	312.374
38+280	314.436	312.515	1.921	311.473	312.078
38+290	314.469	314.037	0.433	313.853	311.439
38+300	314.526	314.007	0.519	313.148	311.979
38+310	314.606	313.839	0.767	312.443	311.967
38+320	314.705	313.388	1.317	312.269	310.439
38+330	314.806	312.979	1.827	312.665	310.893
38+340	314.907	312.873	2.034	312.540	309.142
38+350	315.008	312.524	2.484	312.085	309.055
38+360	315.110	312.154	2.955	311.411	309.448
38+370	315.211	312.103	3.107	310.320	311.787
38+380	315.312	312.446	2.866	310.826	312.202
38+390	315.413	312.436	2.978	311.531	312.313
38+400	315.514	312.206	3.308	312.190	312.742
38+410	315.616	311.897	3.719	312.429	312.425
38+420	315.717	311.603	4.114	312.088	312.499
38+430	315.818	311.397	4.421	311.808	312.435
38+440	315.919	311.325	4.595	311.306	312.365
38+450	316.020	311.286	4.735	311.151	312.301
38+460	316.122	311.160	4.961	311.176	312.246
38+470	316.223	311.058	5.165	310.965	312.205
38+480	316.324	310.983	5.341	310.870	312.259
38+490	316.425	310.849	5.576	309.357	312.340
38+500	316.526	310.666	5.860	308.046	312.448
38+510	316.628	310.504	6.124	306.976	312.428
38+520	316.729	310.453	6.276	307.278	312.390
38+530	316.830	310.501	6.329	307.888	312.348
38+540	316.931	310.651	6.280	308.488	312.300
38+550	317.032	310.736	6.297	307.762	312.251
38+560	317.134	310.914	6.220	307.238	312.242
38+570	317.235	311.162	6.072	307.859	311.763
38+580	317.336	311.550	5.786	309.125	311.997
38+590	317.437	311.785	5.653	309.319	311.723
38+600	317.538	311.210	6.329	310.638	312.207
38+610	317.640	310.936	6.703	311.059	313.332
38+620	317.741	311.911	5.830	310.676	311.472
38+630	317.842	311.610	6.232	309.681	311.344
38+640	317.943	311.931	6.012	311.635	311.934
38+650	318.044	311.800	6.244	309.781	312.482
38+660	318.146	310.129	8.017	310.022	310.225
38+670	318.247	308.761	9.486	308.666	308.555
38+680	318.348	306.835	11.513	306.333	306.888
38+690	318.449	303.325	15.124	302.775	302.998
38+700	318.550	307.104	11.446	306.555	306.666
38+710	318.652	309.807	8.845	309.555	308.996
38+720	318.753	312.098	6.655	311.536	312.427
38+730	318.854	316.580	2.273	315.054	314.602
38+740	318.955	323.645	-4.690	323.901	322.544
38+750	319.056	323.545	-4.489	324.234	322.333
38+760	319.157	323.241	-4.084	323.939	322.414
38+770	319.259	322.652	-3.393	323.532	321.855
38+780	319.360	322.238	-2.879	323.966	320.965
38+790	319.472	322.663	-3.191	325.865	319.535
38+800	319.606	321.511	-1.905	325.554	317.529
38+810	319.763	320.714	-0.951	324.455	317.516
38+820	319.942	318.530	1.411	320.998	317.441
38+830	320.142	318.011	2.132	323.788	318.008
38+840	320.365	317.534	2.831	323.392	318.186
38+850	320.611	317.323	3.287	323.367	318.461
38+860	320.878	318.122	2.756	320.233	318.550
38+870	321.167	318.435	2.732	319.104	318.699
38+880	321.479	318.899	2.580	320.412	319.201
38+890	321.813	319.266	2.547	319.784	319.499
38+900	322.169	319.794	2.375	320.185	319.595
38+910	322.547	320.034	2.513	320.348	320.009
38+920	322.947	320.470	2.477	320.811	320.221
38+930	323.359	320.490	1.868	320.894	320.108
38+940	323.770	321.919	1.852	321.194	320.387
38+950	324.182	321.937	2.245	322.510	320.606
38+960	324.593	322.474	2.119	322.520	320.482
38+970	325.005	323.513	1.491	322.771	321.433
38+980	325.416	324.097	1.320	323.311	321.706
38+990	325.828	324.645	1.182	323.530	322.783
39+000	326.239	325.209	1.030	324.237	323.188

Vertical Alignment: L=315.00m G=-0.60% | Lc=70.00m | L=465.76m G=1.01% | Lc=140.00m

Horizontal Alignment: L=372.55m | Ls=45.00m | Rc=250.00m Lc=148.62m | Ls=45.00m | L=299.58m | Ls=70.00m | Rc=305.00m Lc=66.74m

Superelevation: 38+297.34 | 38+315.20 | 38+355.20 7.00% | 38+513.82 7.00% | 38+533.82 | 38+551.67 | 38+836.61 | 38+853.40 | 38+938.40 7.00% | 38+955.14 7.00%

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT: MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL), Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh Pin-462004

EPC CONTRACTOR: M/s Ramraja Construction Company, Jer Bhavan, Prithvipur — AUTHORIZED SIGNATURE

DESIGN ENGINEER: A & A CONSULTING ENGINEER, 18 Indus Empire, Near shahpura Police Station, Bhopal (M.P.) 462039, Phone:-+91 (755) 2997600 — AUTHORIZED SIGNATURE

PROOF CONSULTANTS: ENARCO ENGINEERING PRIVATE LIMITED, Plot No. 27, M-2, First Floor, Noble Plaza, M.P. Nagar Zone-II, Bhopal (M.P.)-462011 — AUTHORIZED SIGNATURE

SAFETY CONSULTANTS: Khanna Goyal Designers LLP, T-5 1403 Valley View Estate, Gurugram Faridabad Road Gurugram Haryana-122003 M-9873858396, Email – khannadesigners@gmail.com — AUTHORIZED SIGNATURE

AUTHORITY ENGINEER: — AUTHORIZED SIGNATURE

NAME OF WORK: REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH-34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ- AMANGANJ- PAWAI-KATNI NH-43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE — Chainage 38+000 TO 39+000

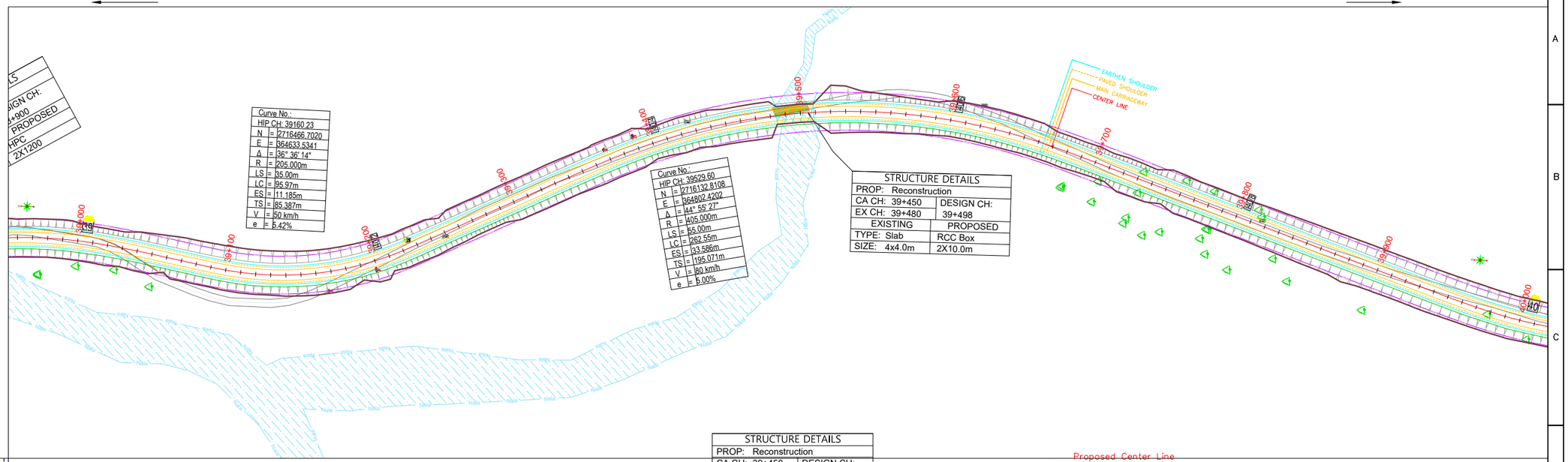
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: MAY-2025 | SCALE: | DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P-39 | SHEET NO.: 39 TO 42 | REV. 04

GULGANJ ← | → KATNI

LINE LEGEND

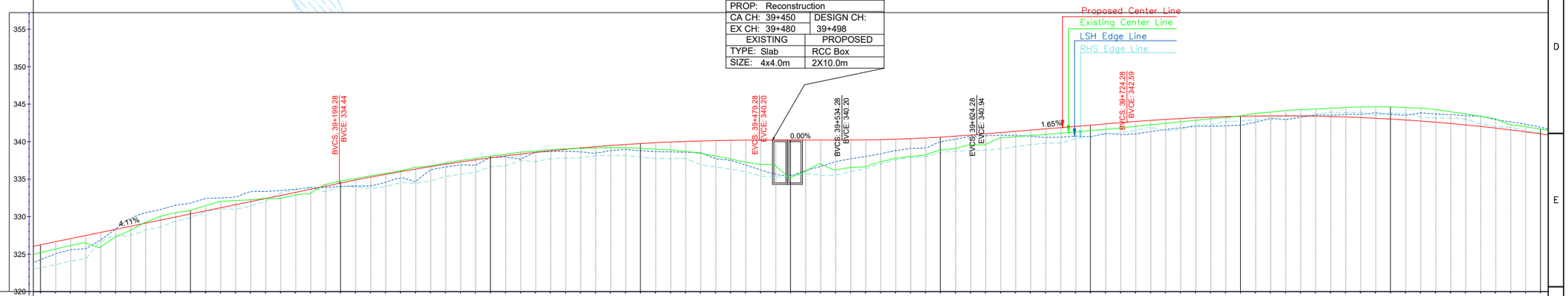
Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



Curve No.:
HIP CH: 39160.23
N = 2716466.7020
E = 864633.5341
Δ = 36° 36' 14"
R = 205.000m
LS = 35.00m
LC = 95.97m
ES = 11.185m
TS = 85.387m
V = 50 km/h
e = 5.42%

Curve No.:
HIP CH: 39529.60
N = 2716132.8108
E = 864802.4202
Δ = 44° 55' 27"
R = 405.000m
LS = 55.00m
LC = 262.55m
ES = 33.586m
TS = 195.071m
V = 80 km/h
e = 5.00%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 39+450	DESIGN CH: 39+498
EX CH: 39+480	
EXISTING	PROPOSED
TYPE: Slab	RCC Box
SIZE: 4x4.0m	2X10.0m



Chainage	Proposed:	Ground Level:	Lvl Diff (+/−):	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
39+000	326.239	325.209	1.030	324.237	323.188
39+010	326.651	325.671	0.980	325.046	323.582
39+020	327.062	326.138	0.924	325.574	324.077
39+030	327.474	326.492	0.982	325.732	324.379
39+040	327.885	325.936	1.949	326.902	326.592
39+050	328.297	327.276	1.021	328.342	327.437
39+060	328.708	328.191	0.517	329.723	327.562
39+070	329.120	329.246	-0.127	330.515	328.244
39+080	329.531	330.035	-0.503	330.937	328.597
39+090	329.943	330.521	-0.578	331.510	329.362
39+100	330.354	330.838	-0.484	331.792	329.856
39+110	330.765	331.443	-0.678	332.407	330.693
39+120	331.177	332.012	-0.835	332.505	330.979
39+130	331.588	332.160	-0.571	332.619	331.003
39+140	332.000	332.242	-0.242	333.303	331.412
39+150	332.411	332.430	-0.019	333.366	332.068
39+160	332.823	332.431	0.392	333.477	333.149
39+170	333.234	332.897	0.337	333.649	333.551
39+180	333.646	333.095	0.550	333.854	333.929
39+190	334.057	334.301	-0.244	333.872	333.341
39+200	334.469	334.737	-0.268	334.016	334.052
39+210	334.872	335.073	-0.201	334.081	333.950
39+220	335.260	335.437	-0.177	334.083	333.761
39+230	335.634	335.757	-0.123	334.568	334.011
39+240	335.993	336.095	-0.102	335.127	334.489
39+250	336.337	336.562	-0.224	334.653	334.469
39+260	336.667	336.751	-0.084	336.261	334.719
39+270	336.982	337.130	-0.148	336.611	335.362
39+280	337.282	337.487	-0.205	336.901	335.662
39+290	337.567	337.776	-0.208	336.847	335.891
39+300	337.838	338.071	-0.232	337.898	336.653
39+310	338.094	338.307	-0.213	337.951	336.775
39+320	338.336	338.593	-0.257	337.661	337.482
39+330	338.563	338.724	-0.161	338.580	337.326
39+340	338.775	338.901	-0.127	338.670	337.695
39+350	338.972	339.038	-0.066	338.703	337.799
39+360	339.155	339.111	0.043	338.626	337.837
39+370	339.322	339.159	0.164	338.495	338.132
39+380	339.476	339.190	0.285	338.794	338.154
39+390	339.614	339.177	0.437	338.957	338.150
39+400	339.738	339.113	0.625	338.785	337.934
39+410	339.847	338.998	0.849	338.680	337.765
39+420	339.942	338.888	1.053	338.633	337.730
39+430	340.022	338.707	1.315	338.569	337.757
39+440	340.087	338.430	1.656	338.516	336.965
39+450	340.137	338.079	2.058	337.760	336.609
39+460	340.173	337.699	2.474	337.476	336.329
39+470	340.194	337.258	2.935	337.328	335.992
39+480	340.200	336.979	3.221	336.878	335.455
39+490	340.200	336.793	3.407	336.234	335.251
39+500	340.200	335.216	4.984	335.519	335.643
39+510	340.200	336.035	4.165	336.115	335.488
39+520	340.200	336.995	3.205	336.691	335.524
39+530	340.200	336.227	3.973	337.328	335.558
39+540	340.200	336.534	3.669	337.708	335.982
39+550	340.203	336.681	3.542	338.021	336.390
39+560	340.223	337.308	2.953	338.387	337.025
39+570	340.261	337.755	2.562	338.794	337.559
39+580	340.317	338.040	2.351	339.080	337.873
39+590	340.391	338.235	2.249	339.192	337.976
39+600	340.484	338.888	1.707	339.937	338.528
39+610	340.595	339.092	1.633	340.315	338.714
39+620	340.725	339.573	1.300	340.696	338.795
39+630	340.872	339.632	1.403	340.793	338.880
39+640	341.035	340.490	0.710	340.843	339.031
39+650	341.200	340.629	0.735	340.836	339.322
39+660	341.365	340.825	0.705	340.717	339.579
39+670	341.529	340.932	0.762	340.564	339.782
39+680	341.694	341.117	0.742	340.594	339.801
39+690	341.859	341.288	0.736	340.729	340.345
39+700	342.024	341.474	0.714	340.651	340.719
39+710	342.188	341.629	0.724	340.976	340.976
39+720	342.353	341.819	0.698	340.939	341.193
39+730	342.518	342.043	0.636	341.018	341.539
39+740	342.680	342.243	0.584	341.318	341.924
39+750	342.827	342.438	0.521	341.618	341.418
39+760	342.959	342.633	0.441	341.838	341.633
39+770	343.074	342.829	0.345	342.038	342.247
39+780	343.174	343.038	0.219	342.038	342.238
39+790	343.257	343.213	0.112	342.114	342.669
39+800	343.325	343.420	-0.043	342.170	342.723
39+810	343.376	343.763	-0.351	342.579	342.909
39+820	343.412	343.935	-0.504	343.117	342.876
39+830	343.431	344.136	-0.701	342.933	343.538
39+840	343.435	344.256	-0.834	343.247	343.426
39+850	343.422	344.350	-0.957	343.547	343.603
39+860	343.393	344.440	-1.092	343.538	343.923
39+870	343.349	344.541	-1.253	343.638	343.843
39+880	343.288	344.642	-1.400	343.638	343.923
39+890	343.211	344.611	-1.523	343.838	343.538
39+900	343.119	344.619	-1.609	343.633	343.833
39+910	343.010	344.533	-1.648	343.519	343.742
39+920	342.885	344.447	-1.702	343.834	343.262
39+930	342.745	344.287	-1.699	343.687	343.142
39+940	342.588	344.163	-1.575	343.598	343.137
39+950	342.415	343.991	-1.476	343.457	342.999
39+960	342.227	343.703	-1.348	343.374	342.376
39+970	342.022	343.370	-1.210	343.011	342.020
39+980	341.801	342.950	-0.695	342.634	341.865
39+990	341.564	342.259	-0.678	342.314	341.477
40+000	341.311	341.990	-0.631	341.916	341.120
	341.043	341.674			

Vertical Alignment: L=279.24m G=4.11% | Lc=280.00m | L=56.00m G=0.00% | Lc=90.00m | L=100.00m G=1.65% | Lc=390.00m

Horizontal Alignment: Ls=70.00m | L=9.70m | Lc=35.00m | Rc=205.00m Lc=95.97m | Lc=35.00m | L=93.72m | Ls=55.00m | Rc=405.00m Lc=262.55m | Ls=55.00m | L=222.21m | Ls=95.00m

Superelevation: 7.00% | 39+179.84 5.42% | 39+225.81 5.42% | 39+240.81 | 39+258.95 | 39+317.03 | 39+364.53 | 39+389.53 5.00% | 39+632.08 5.00% | 39+707.08 | 39+754.58 | 39+912.15 | 39+964.30

Chainage: 39+000 … 40+000

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company,
Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) –462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor,
Noble Plaza, M.P. Nagar Zone–II,
Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram
Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 39+000 TO 40+000

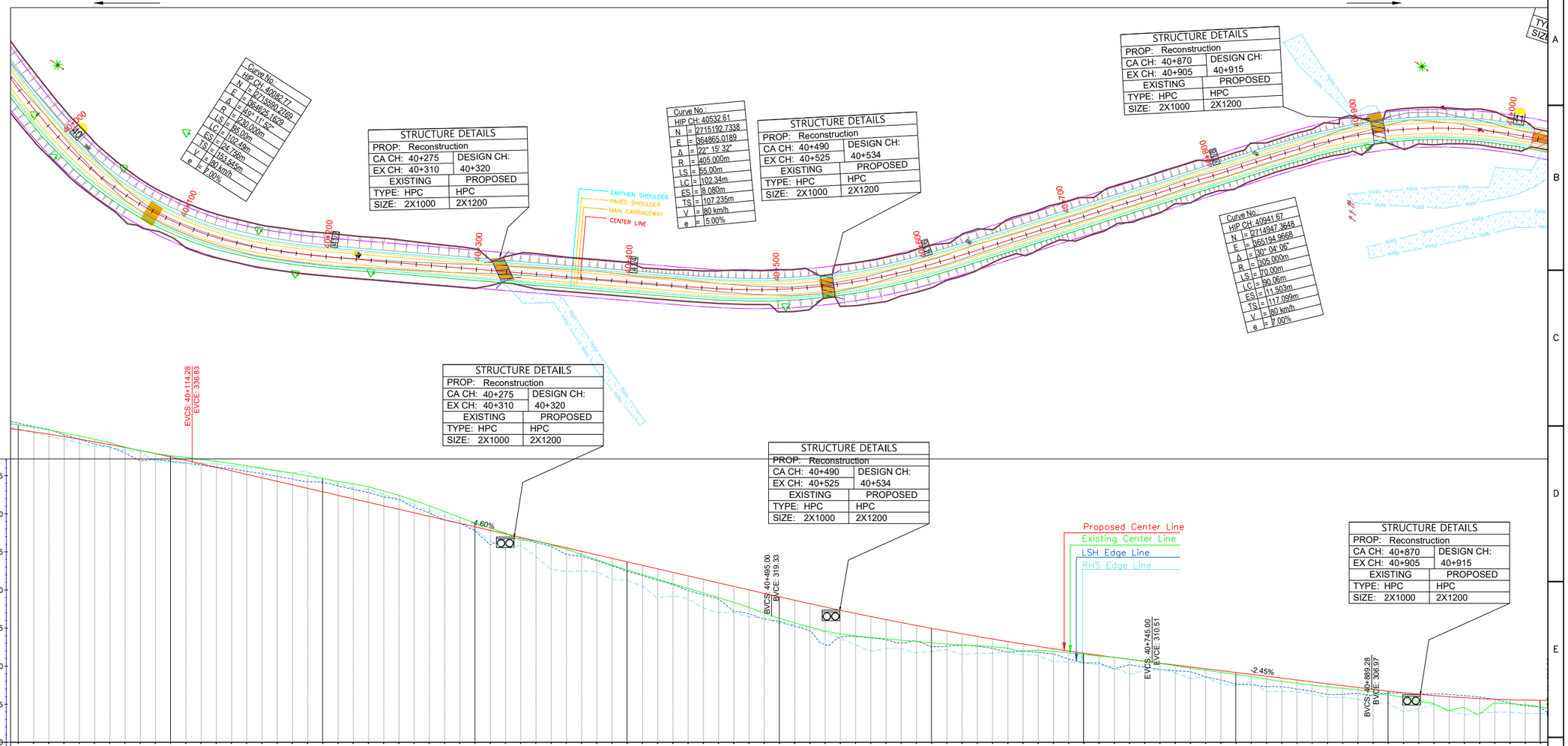
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: MAY–2025 | SCALE: | DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–40 | SHEET NO.: 40 TO 42 | REV. 04

GULGANJ ← → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



Chainage	Proposed	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
40+000	341.043	341.674	-0.631	341.916	341.120
40+010	340.758	341.402	-0.645	341.452	340.637
40+020	340.457	341.037	-0.580	341.076	340.202
40+030	340.140	340.618	-0.478	340.387	339.604
40+040	339.807	340.232	-0.425	339.786	339.303
40+050	339.458	339.800	-0.341	339.180	338.851
40+060	339.093	339.338	-0.245	338.752	338.755
40+070	338.712	338.779	-0.067	337.983	338.347
40+080	338.316	338.306	0.009	337.003	338.076
40+090	337.903	337.931	-0.029	337.084	336.908
40+100	337.474	337.632	-0.158	336.907	336.785
40+110	337.029	337.413	-0.384	336.667	336.619
40+120	336.570	337.160	-0.590	336.397	336.624
40+130	336.111	336.885	-0.775	336.119	336.531
40+140	335.651	336.609	-0.959	335.935	336.355
40+150	335.191	336.307	-1.116	335.582	336.089
40+160	334.731	335.998	-1.267	335.283	335.921
40+170	334.271	335.655	-1.384	334.921	335.597
40+180	333.811	335.346	-1.534	334.554	335.384
40+190	333.352	335.006	-1.655	334.211	335.513
40+200	332.892	334.667	-1.775	334.123	334.194
40+210	332.432	334.249	-1.817	333.662	333.984
40+220	331.972	333.940	-1.968	333.200	333.361
40+230	331.512	333.551	-2.038	332.795	333.227
40+240	331.052	333.000	-1.948	332.531	332.531
40+250	330.593	332.423	-1.831	331.883	331.951
40+260	330.133	331.760	-1.627	330.835	331.173
40+270	329.673	331.058	-1.385	330.144	330.426
40+280	329.213	330.319	-1.106	329.185	329.755
40+290	328.753	329.544	-0.790	328.773	329.040
40+300	328.293	328.791	-0.498	327.773	327.943
40+310	327.834	328.120	-0.286	326.854	326.464
40+320	327.374	327.470	-0.096	326.732	325.949
40+330	326.914	326.571	0.342	326.790	325.275
40+340	326.454	326.426	0.028	326.216	324.864
40+350	325.994	325.929	0.065	325.759	324.414
40+360	325.534	325.343	0.191	324.659	322.715
40+370	325.075	324.672	0.403	324.421	322.405
40+380	324.615	323.961	0.654	323.861	322.505
40+390	324.155	323.270	0.884	323.186	322.405
40+400	323.695	322.639	1.056	322.464	321.247
40+410	323.235	322.037	1.198	321.884	320.496
40+420	322.775	321.437	1.339	321.264	318.928
40+430	322.316	320.811	1.505	320.710	319.168
40+440	321.856	320.214	1.642	319.957	318.782
40+450	321.396	319.615	1.780	319.382	317.662
40+460	320.936	319.009	1.927	318.775	317.020
40+470	320.476	318.391	2.086	317.238	317.019
40+480	320.016	317.714	2.302	316.875	316.482
40+490	319.557	316.970	2.587	316.219	316.249
40+500	319.098	316.282	2.816	315.854	315.621
40+510	318.647	315.688	2.958	315.241	315.432
40+520	318.204	315.136	3.068	314.618	314.936
40+530	317.770	314.622	3.148	314.045	313.638
40+540	317.344	314.245	3.100	313.750	312.842
40+550	316.927	313.979	2.948	313.871	312.054
40+560	316.519	313.772	2.747	313.726	312.293
40+570	316.119	313.599	2.521	313.450	312.270
40+580	315.728	313.401	2.327	313.047	311.786
40+590	315.345	313.240	2.106	313.280	311.931
40+600	314.971	313.069	1.903	312.525	312.151
40+610	314.606	312.903	1.703	312.603	311.579
40+620	314.249	312.771	1.478	312.762	311.686
40+630	313.901	312.680	1.221	312.619	311.700
40+640	313.561	312.557	1.004	312.343	311.877
40+650	313.230	312.339	0.891	311.828	311.503
40+660	312.907	312.017	0.990	312.013	311.413
40+670	312.593	312.087	0.506	311.803	310.603
40+680	312.288	311.934	0.354	311.613	310.587
40+690	311.991	311.739	0.252	310.933	310.377
40+700	311.703	311.544	0.159	310.443	310.187
40+710	311.423	311.326	0.097	310.420	309.691
40+720	311.152	311.162	-0.010	309.627	308.927
40+730	310.890	310.899	-0.010	310.178	309.391
40+740	310.636	310.637	-0.001	309.882	309.591
40+750	310.389	310.355	0.035	309.563	309.153
40+760	310.144	310.070	0.074	309.382	308.391
40+770	309.899	309.757	0.142	309.289	308.561
40+780	309.653	309.463	0.191	308.601	307.682
40+790	309.408	309.178	0.230	308.182	307.391
40+800	309.163	308.899	0.264	307.649	307.961
40+810	308.917	308.630	0.287	307.561	306.676
40+820	308.672	308.313	0.359	307.300	306.676
40+830	308.427	307.993	0.434	307.276	306.629
40+840	308.181	307.777	0.404	306.996	306.305
40+850	307.936	307.497	0.439	306.693	305.914
40+860	307.690	307.273	0.418	306.296	305.869
40+870	307.445	307.088	0.357	306.293	305.655
40+880	307.200	306.881	0.319	306.412	305.176
40+890	306.954	306.644	0.310	306.172	305.165
40+900	306.721	306.232	0.489	306.482	304.059
40+910	306.508	305.879	0.628	306.478	304.384
40+920	306.315	305.338	0.977	306.330	305.024
40+930	306.143	305.054	1.089	306.359	304.174
40+940	305.991	304.169	1.822	306.291	303.628
40+950	305.859	304.534	1.325	306.122	303.838
40+960	305.748	303.682	2.066	305.940	303.942
40+970	305.658	305.115	0.543	305.632	303.964
40+980	305.588	305.070	0.518	305.182	303.787
40+990	305.538	304.928	0.610	304.790	303.771
41+000	305.509	304.656	0.853	304.567	303.771

Vertical Alignment: L=380.72m G=-4.60% | Lc=250.00m | L=144.28m G=-2.45% | Lc=120.00m

Horizontal Alignment: Rc=230.00m Lc=102.49m | Ls=95.00m | L=203.59m | Ls=55.00m | Rc=405.00m Lc=102.34m | Ls=55.00m | L=186.87m | Ls=70.00m | Rc=305.00m Lc=90.06m

Superelevation: 40+024.30 7.00% | 40+135.79 7.00% | 40+215.79 | 40+248.53 | 40+397.88 | 40+425.38 | 40+490.38 5.00% | 40+592.72 5.00% | 40+687.72 | 40+735.22 | 40+792.80 | 40+816.58 | 40+934.58 7.00% | 40+984.64 7.00%

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company, Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE: PLAN & PROFILE | Chainage 40+000 TO 41+000

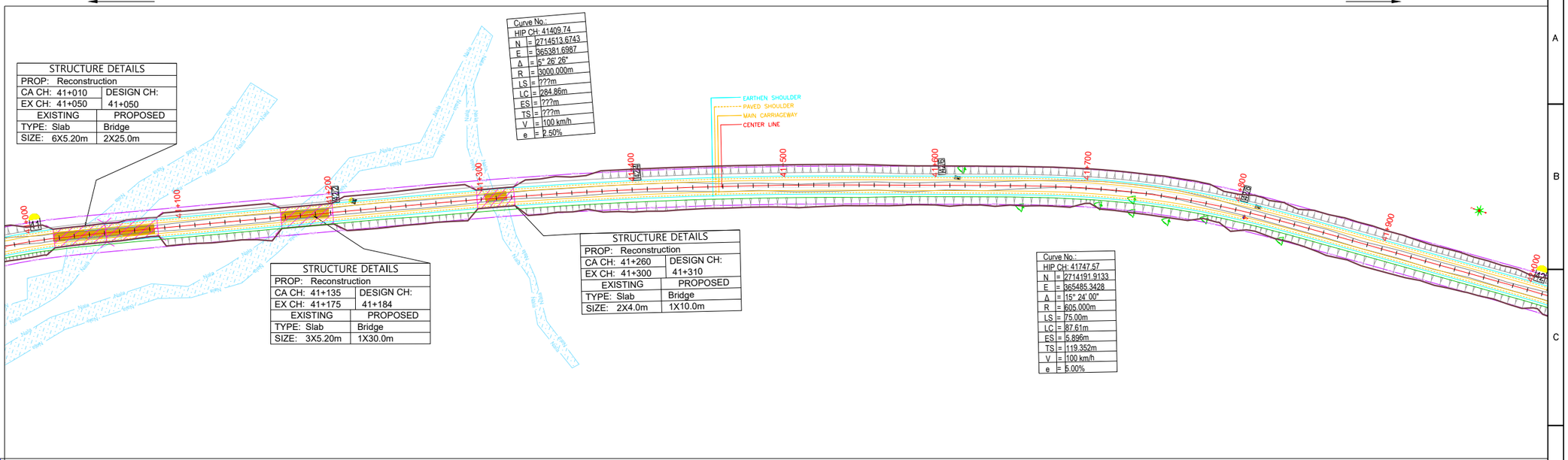
ROAD NAME: GULGANJ TO BARNA RIVER (NH-43) EXTENSION

DATE: MAY–2025 | SCALE: | DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–41 | SHEET NO.: 41 TO 42 | REV. 04

GULGANJ ← | → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



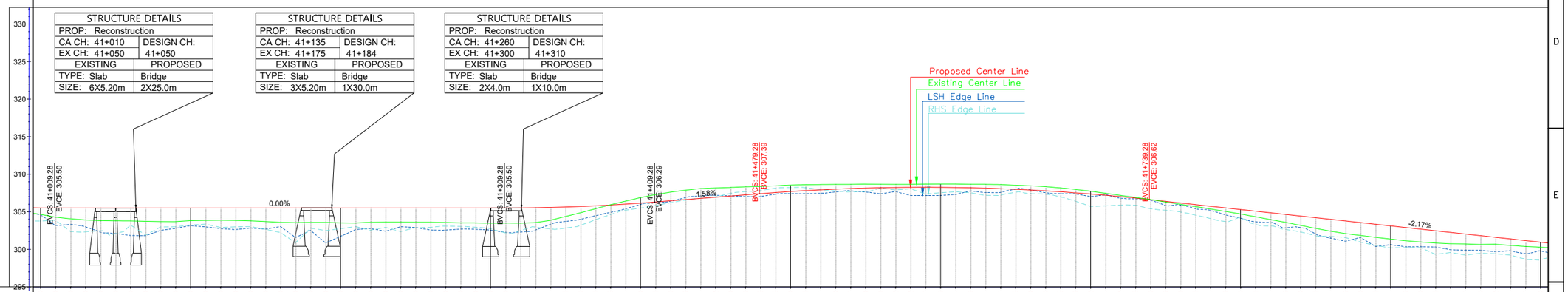
STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+010	DESIGN CH: 41+050
EX CH: 41+050	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 6X5.20m	2X25.0m

Curve No.:	
HIP CH: 41409.74	
N	= 2714513.6743
E	= 365381.6987
Δ	= 5° 26' 26"
R	= 3000.000m
LS	= ???m
LC	= 284.86m
ES	= ???m
TS	= ???m
V	= 100 km/h
e	= 2.50%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+135	DESIGN CH: 41+184
EX CH: 41+175	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 3X5.20m	1X30.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+260	DESIGN CH: 41+310
EX CH: 41+300	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 2X4.0m	1X10.0m

Curve No.:	
HIP CH: 41747.57	
N	= 2714191.9133
E	= 365485.3428
Δ	= 15° 24' 00"
R	= 605.000m
LS	= 75.00m
LC	= 87.61m
ES	= 5.896m
TS	= 119.352m
V	= 100 km/h
e	= 5.00%



LEVELS DATUM 295.00

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+010	DESIGN CH: 41+050
EX CH: 41+050	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 6X5.20m	2X25.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+135	DESIGN CH: 41+184
EX CH: 41+175	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 3X5.20m	1X30.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 41+260	DESIGN CH: 41+310
EX CH: 41+300	
EXISTING	PROPOSED
TYPE: Slab	Bridge
SIZE: 2X4.0m	1X10.0m

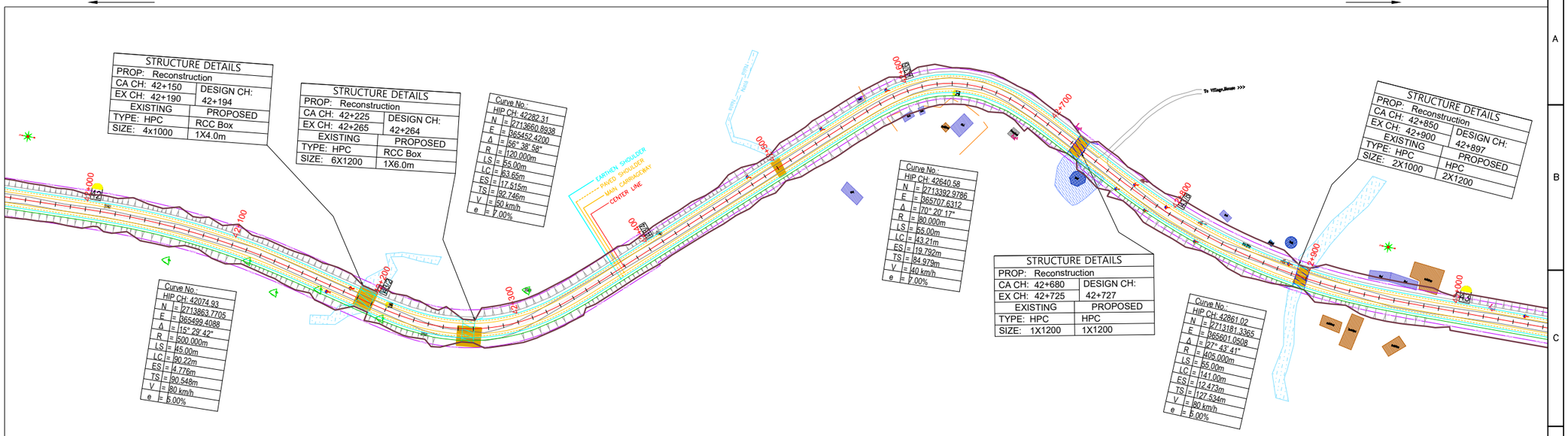
Proposed:

| | | |

GULGANJ ← | → KATNI

LINE LEGEND

Proposed Center Line	
Existing Center Line	
Existing LHS Edge	
Existing RHS Edge	
Proposed Road Edge	
Paved shoulder Edge	
Proposed Shoulder Edge	
Drain	
RE Wall	
Existing ROW LIne	
PROW	



STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 42+150	DESIGN CH: 42+194
EX CH: 42+190	
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 4x1000	1X4.0m

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 42+225	DESIGN CH: 42+264
EX CH: 42+265	
EXISTING	PROPOSED
TYPE: HPC	RCC Box
SIZE: 6X1200	1X6.0m

Curve No.:
HIP CH: 42282.31
N = 2713660.8938
E = 965452.4200
Δ = 56° 38' 58"
R = 120.000m
LS = 55.00m
LC = 63.65m
ES = 17.515m
TS = 92.746m
V = 50 km/h
e = 7.00%

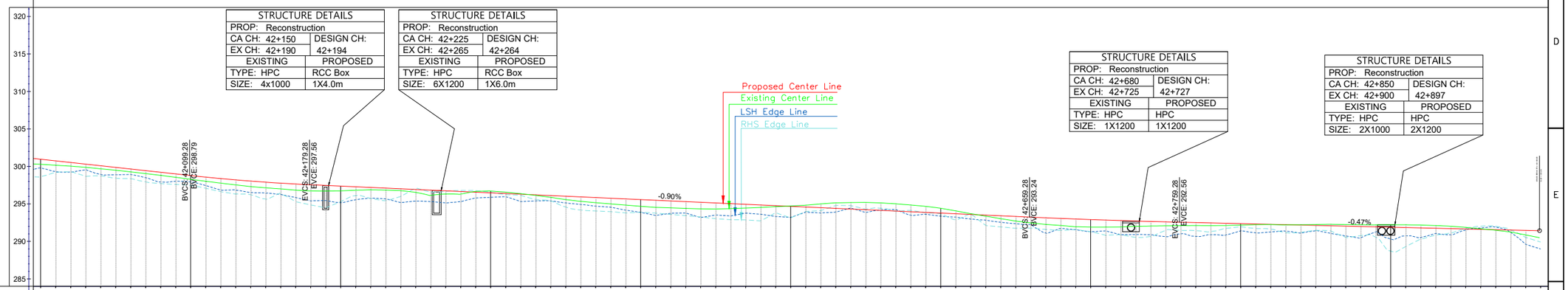
Curve No.:
HIP CH: 42074.93
N = 2713863.7705
E = 965499.4088
Δ = 15° 29' 42"
R = 500.000m
LS = 45.00m
LC = 90.22m
ES = 4.776m
TS = 90.548m
V = 80 km/h
e = 5.00%

Curve No.:
HIP CH: 42640.58
N = 2713392.9786
E = 965707.6312
Δ = 170° 20' 17"
R = 80.000m
LS = 55.00m
LC = 43.21m
ES = 19.792m
TS = 84.979m
V = 40 km/h
e = 7.00%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 42+680	DESIGN CH: 42+727
EX CH: 42+725	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 1X1200	1X1200

Curve No.:
HIP CH: 42861.02
N = 2713181.3365
E = 965601.0508
Δ = 27° 43' 41"
R = 405.000m
LS = 55.00m
LC = 141.00m
ES = 12.473m
TS = 127.534m
V = 80 km/h
e = 5.00%

STRUCTURE DETAILS	
PROP: Reconstruction	
CA CH: 42+850	DESIGN CH: 42+897
EX CH: 42+900	
EXISTING	PROPOSED
TYPE: HPC	HPC
SIZE: 2X1000	2X1200



LEVELS DATUM 284.00

Chainage	Proposed Level	Ground Level	Lvl Diff (+/−)	Ground Level Left @ 9.0m	Ground Level Right @ 9.0m
42+000	300.949	300.282	0.667	299.770	298.629
42+010	300.732	300.156	0.576	299.308	299.165
42+020	300.514	300.030	0.484	299.249	299.260
42+030	300.297	299.876	0.421	299.550	298.684
42+040	300.079	299.678	0.401	298.935	298.719
42+050	299.862	299.482	0.380	298.882	298.426
42+060	299.644	299.268	0.376	298.919	298.378
42+070	299.427	299.035	0.392	298.492	297.933
42+080	299.209	298.799	0.411	297.915	297.715
42+090	298.992	298.546	0.446	298.026	297.596
42+100	298.774	298.283	0.492	297.921	297.450
42+110	298.566	298.016	0.550	297.446	297.086
42+120	298.374	297.771	0.603	296.838	296.632
42+130	298.197	297.531	0.666	296.852	296.335
42+140	298.037	297.310	0.726	296.530	296.219
42+150	297.892	297.136	0.756	296.449	295.655
42+160	297.763	296.999	0.764	296.252	296.356
42+170	297.651	296.838	0.813	295.844	295.297
42+180	297.554	296.729	0.824	295.404	294.867
42+190	297.464	296.711	0.752	295.444	294.474
42+200	297.374	296.737	0.637	295.170	295.309
42+210	297.284	296.817	0.466	295.548	296.098
42+220	297.194	296.873	0.321	295.755	295.731
42+230	297.104	296.837	0.267	295.654	295.445
42+240	297.014	296.766	0.248	295.989	295.170
42+250	296.924	296.533	0.391	295.366	297.023
42+260	296.834	296.143	0.691	295.308	296.580
42+270	296.744	296.311	0.434	295.144	296.666
42+280	296.654	296.303	0.351	295.307	296.785
42+290	296.564	296.662	-0.098	295.786	296.766
42+300	296.474	296.703	-0.228	295.870	296.553
42+310	296.384	296.562	-0.178	295.926	296.242
42+320	296.294	296.363	-0.069	295.300	296.136
42+330	296.204	296.130	0.074	295.390	295.597
42+340	296.114	295.869	0.246	295.397	295.403
42+350	296.024	295.577	0.448	295.126	294.583
42+360	295.934	295.341	0.594	294.930	294.183
42+370	295.844	295.160	0.684	294.693	294.060
42+380	295.754	294.995	0.760	294.558	293.964
42+390	295.665	294.834	0.830	294.164	293.790
42+400	295.575	294.671	0.904	293.868	293.890
42+410	295.485	294.536	0.949	293.458	293.769
42+420	295.395	294.467	0.928	293.741	293.599
42+430	295.305	294.395	0.910	293.790	293.430
42+440	295.215	294.337	0.877	293.170	293.260
42+450	295.125	294.322	0.803	293.520	293.030
42+460	295.035	294.373	0.662	293.390	292.892
42+470	294.945	294.445	0.499	293.770	292.866
42+480	294.855	294.523	0.332	293.620	292.730
42+490	294.765	294.628	0.137	293.322	293.820
42+500	294.675	294.721	-0.047	293.195	293.125
42+510	294.585	294.817	-0.232	293.890	293.990
42+520	294.495	294.989	-0.494	293.790	294.090
42+530	294.405	295.134	-0.729	293.890	294.790
42+540	294.315	295.176	-0.861	294.463	294.774
42+550	294.225	295.187	-0.962	293.842	294.293
42+560	294.135	295.129	-0.994	294.182	294.417
42+570	294.045	295.008	-0.963	294.226	294.005
42+580	293.955	294.848	-0.893	294.504	294.117
42+590	293.865	294.665	-0.799	293.615	293.825
42+600	293.775	294.418	-0.643	293.369	293.676
42+610	293.685	294.065	-0.380	293.233	292.914
42+620	293.595	293.692	-0.096	292.993	293.607
42+630	293.505	293.361	0.144	292.831	292.146
42+640	293.415	293.025	0.391	292.554	291.930
42+650	293.325	292.713	0.612	292.362	291.743
42+660	293.235	292.458	0.778	292.228	291.763
42+670	293.148	292.260	0.888	291.107	291.592
42+680	293.065	292.116	0.949	291.704	291.463
42+690	292.986	291.954	1.032	291.562	291.577
42+700	292.911	291.908	1.002	291.293	291.280
42+710	292.840	291.901	0.940	291.401	290.825
42+720	292.774	291.926	0.848	290.885	290.885
42+730	292.712	292.003	0.709	290.917	290.524
42+740	292.655	292.043	0.611	290.876	290.654
42+750	292.601	292.073	0.528	290.636	291.469
42+760	292.552	292.098	0.454	291.008	291.474
42+770	292.505	292.110	0.394	290.674	291.430
42+780	292.457	292.099	0.358	290.881	291.302
42+790	292.410	292.118	0.292	290.835	291.727
42+800	292.363	292.175	0.188	291.392	291.952
42+810	292.315	292.221	0.094	291.144	291.724
42+820	292.268	292.231	0.036	291.252	291.636
42+830	292.221	292.200	0.021	291.368	291.174
42+840	292.173	292.214	-0.041	291.087	291.211
42+850	292.126	292.243	-0.118	291.405	291.472
42+860	292.079	292.270	-0.191	291.074	291.392
42+870	292.031	292.241	-0.210	290.728	290.544
42+880	291.984	292.225	-0.241	290.477	290.765
42+890	291.936	292.202	-0.266	290.563	290.563
42+900	291.889	292.212	-0.323	290.319	288.702
42+910	291.842	292.212	-0.370	290.726	289.296
42+920	291.794	292.179	-0.385	290.518	290.284
42+930	291.747	292.109	-0.362	291.057	290.836
42+940	291.700	292.014	-0.314	290.878	291.117
42+950	291.652	291.867	-0.214	291.521	291.723
42+960	291.605	291.680	-0.075	291.795	292.023
42+970	291.558	291.485	0.073	291.896	292.007
42+980	291.510	291.238	0.272	291.200	291.538
42+990	291.463	290.862	0.601	289.613	290.529
43+000				288.982	289.913

Vertical Alignment: Lc=80.00m | L=480.00m G=-0.90% | Lc=100.00m | L=240.00m G=-0.47%

Horizontal Alignment: Ls=45.00m | Rc=500.00m Lc=90.22m | Ls=45.00m | L=25.00m | Ls=55.00m | Rc=120.00m Lc=63.65m | Ls=55.00m | L=192.45m | Ls=55.00m | Rc=80.00m Lc=43.21m | Ls=55.00m | L=24.57m | Ls=55.00m | Rc=405.00m Lc=141.00m | Ls=55.00m

Superelevation: 42+099.39 5.00% | 42+119.81 5.00% | 42+244.61 7.00% | 42+338.26 7.00% | 42+393.26 | 42+452.90 | 42+536.07 | 42+553.71 | 42+610.74 7.00% | 42+653.92 7.00% | 42+788.49 5.00% | 42+920.48 5.00% | 42+994.48

REV.	DESCRIPTION OF REVISIONS	DATE
R 4	ACCORDING TO THE PROOF CONSULTANTS	30-05-2025
R 3	AS PER GENERAL COMMENTS	19-05-2025
R 2	AS PER GENERAL COMMENTS	16-05-2025
R 1	AS PER GENERAL COMMENTS	08-05-2025
R 0	FOR REVIEW & APPROVAL	04-04-2025

CLIENT:
MADHYA PRADESH PUBLIC WORKS DEPARTMENT (NH ZONE BHOPAL)
Nirman Bhawan, Arera Hills, Bhopal, Madhya Pradesh
Pin–462004

EPC CONTRACTOR:
M/s Ramraja Construction Company, Jer Bhavan, Prithvipur
AUTHORIZED SIGNATURE

DESIGN ENGINEER:
A & A CONSULTING ENGINEER
18 Indus Empire
Near shahpura Police Station
Bhopal (M.P.) 462039
Phone:–+91 (755) 2997600
AUTHORIZED SIGNATURE

PROOF CONSULTANTS:
ENARCO ENGINEERING PRIVATE LIMITED
Plot No. 27, M–2, First Floor, Noble Plaza, M.P. Nagar Zone–II, Bhopal (M.P.)–462011
AUTHORIZED SIGNATURE

SAFETY CONSULTANTS:
Khanna Goyal Designers LLP
T–5 1403 Valley View Estate
Gurugram Faridabad Road Gurugram Haryana–122003 M–9873858396
Email – khannadesigners@gmail.com
AUTHORIZED SIGNATURE

AUTHORITY ENGINEER:
AUTHORIZED SIGNATURE

NAME OF WORK:
REHABILITATION & UPGRADATION OF EXISTING INTERMEDIATE LANE TO 2 LANE WITH PAVEDSHOULDERS FROM KM 0.600 (GULGANJ BYPASS ON NH–34) TO KM 43.000 (BARNA RIVER), LENGTH 42.400 KM ON GULGANJ– AMANGANJ– PAWAI–KATNI NH–43 IN THE STATE OF MADHYA PRADESH ON EPC MODE"

TITLE:	PLAN & PROFILE	Chainage	42+000 TO 43+000
ROAD NAME:	GULGANJ TO BARNA RIVER (NH-43) EXTENSION		
DATE: MAY–2025	SCALE:	DRW NO.: MPPWD(NH)/RRCC/AACE/EEPL/KGDLLP/P&P–42	SHEET NO.: 42 TO 42 / REV. 04