



# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन एवं राजमार्ग मंत्रालय, भारत सरकार)

## NATIONAL HIGHWAYS AUTHORITY OF INDIA

(Ministry of Road Transport and Highways, Govt. of India)

### क्षेत्रीय कार्यालय / REGIONAL OFFICE

ई-6/47, स्मृति परिसर, साईबोर्ड के पास, अरेरा कॉलोनी, भोपाल (म.प्र.)-462016

E-6/47, Smriti Parisar, Near Sai Board, Arera Colony, Bhopal (M.P.)-462016

दूरभाष/Phone: 0755-2426638, फैक्स/Fax: 0755-2426698, ई-मेल/E-mail ID: robhopal@nhai.org



NHAI/RO-MP/PIU-Katni/Katni-Bypass/NH43/Geology & Mining/2024/52564 20.12.2024

### Invitation of Public Comments

**Sub:** Request for proposal of permission for installation of I-Check Gate AI Based system to curb illegal transportation of minerals- reg.

Ref: PD, PIU Katni e-file no. 267583.

1. PD, PIU Katni, NHAI vide e-file no. 267583 has submitted the proposal for installation of Installation of I-checkgate at the section of NH-43 from Km 0/0 to KM. 7+950 (Katni Bypass) & from Km 4/600 to Km 68/400 (Design length 69.100 km) to NH-78 (New NH -43) (Katni-Umaria) in the State of Madhya Pradesh," & "Shahdol- Anuppur at Madhya Pradesh/ Chhatisgarh Border Section from design chainage km 142.200 to km 234.000 of NH 78 (New NH No 43) in the State of MP.

2. As per Ministry vide OM No. RW/NH-33044 S&R (R) dated 22.11.2016, the application shall be put out in public domain for 30 days for seeking claims and objections (on ground of public inconvenience, safety and general public interest).

3. Accordingly, the public comments are hereby invited on the above proposal (copy of application enclosed) for seeking claims and objections within 30 days (i.e. by 19.01.2025) on public portal {i.e. website of MoRTH ([www.morth.nic.in](http://www.morth.nic.in))} beyond which no comments will be considered. The address of comments inviting authority is as under:

The Highway Administrator  
O/o Regional Officer,  
National Highways Authority of India  
E-6/47, Smriti Parisar, Near Sai Board  
Arera Colony, Bhopal (MP) - 462016  
E-mail ID: robhopal@nhai.org

4. This is being issued with the approval of Regional Officer cum Highway Administration.

  
(Ramvilas Patel)  
Manager (T)  
RO - Bhopal

### Copy to:

- Web Admin, NHAI-HQ-with request for uploading on the NHAI website.
- The Senior Technical Director, NIC, Transport Bhawan, New Delhi-110001 for uploading on Ministry's Website.
- The Project Director, NHAI, PIU- Katni (M.P.) for information.
- Directorate of Geology & Mining, Bhopal (MP) (Email: dirgeomn@nic.in).

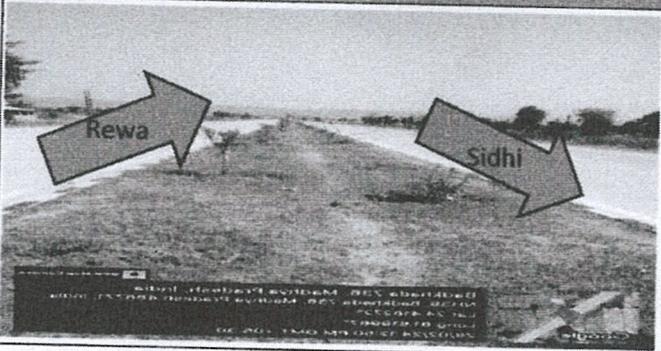


# SURVEY REPORT

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## **AI-Based Smart Enforcement System to Curb Illegal Transportation of Minerals**

The survey covered various aspects, including structural integrity, equipment functionality, safety measures, and Soil bearing capacity. Through on-site inspections, interviews with relevant stakeholders, and the examination of technical specifications, the report provides a detailed overview of the surveyed areas.

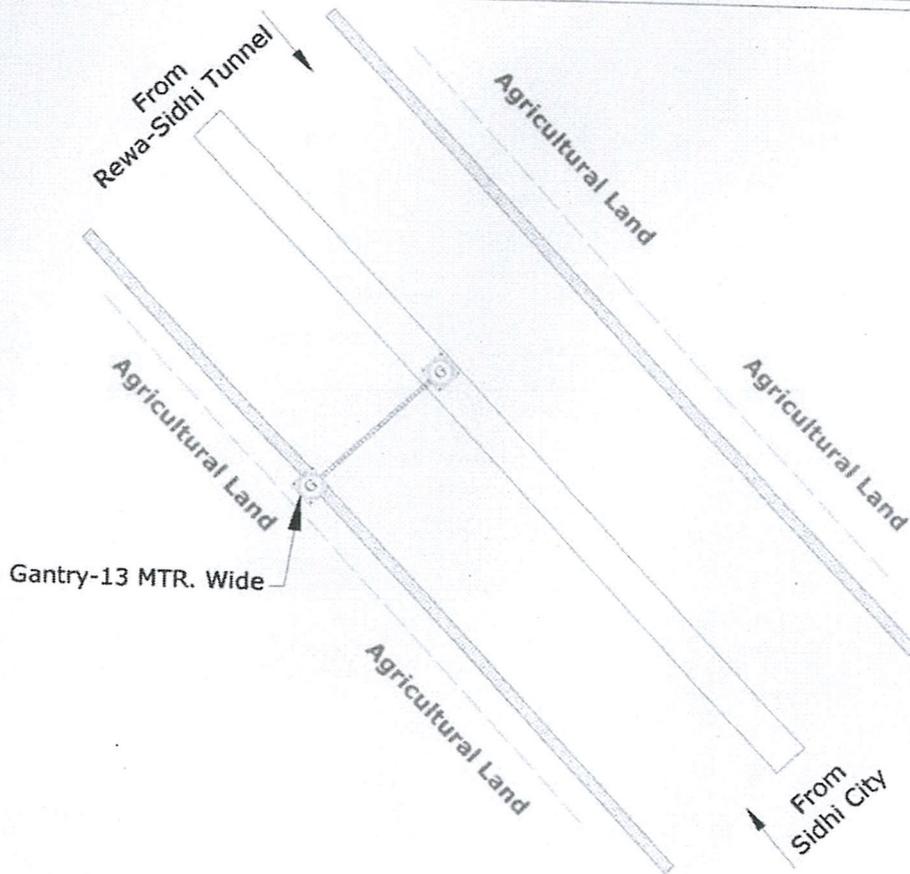
<b>Site Name</b>	KoshthaKothar, Sidhi		
<b>Address/Location</b>	KoshthaKothar, NH 39 Sidhi Madhya Pradesh		
<b>District</b>	Sidhi	<b>Tehsil</b>	KoshthaKothar
<b>Site Visit Date</b>	28-02-2024	<b>Survey Number</b>	04
<b>Latitude</b>	24.416283	<b>Longitude</b>	81.619961
<b>Lane Type</b>	4 Lane	<b>Nearby Outpost/Toll Plaza</b>	Koshtha Police Station and Sonawarsa Toll
<b>Internet Connectivity</b>	Yes	<b>Electricity Connectivity</b>	Need Permission from Govt. Officer
<b>Temperature Condition</b>	24 °c	<b>Dust Condition</b>	Normal
<b>Wind Condition</b>	11KM/H	<b>Rain Condition</b>	60% humidity
<b>Survey Point</b>			
<b>Sr. No.</b>	<b>Particular</b>		
#1	NH_39_4 Lane		
#2	Normal Vehicle Traffic		
#3	Average Speed 50-60KM/H		
#4	13 Meter		
<b>Attachment/Photo</b>			
<b>Photo 1</b>		<b>Photo 2</b>	
			

Dist.- Sidhi

Tehsil-Churhat

Junction Name- Koshtha Kothar.

LAT LONG:24.4165,81.63206



LEGEND	ITEM	QTY
	ANPR CAMERA	
	SURVEILLANCE CAMERA	
	PTZ CAMERA	
	JUNCTION BOX	
	SWITCH	
	STABILIZER	
	STRAIGHT POLE	
	GANTRY	
	FASTENING	
	CAT-6 CABLE	
	POWER CABLE	
	Rfid READER	
	LRU	
	INVR	
	SOLAR PANEL & BATTERIES	

MSE: RAILTEL CORPORATION INDIA LIMITED.

PROJECT: Sheet No. **A3**  
 TITLE: ANCHOR LAYOUT  
 DRAWN BY: DRAWING NO. 01  
 CHECK BY: DATE:   
 APPROVED BY: DATE:

*Bansal*

*Sigal*

*[Signature]*  
**कार्यालय प्रमुख**  
**संचालनालय भौतिकी तथा खनिकर्म**  
**मध्यप्रदेश, भोपाल**

**NOTES:**

- ALL DIMENSIONS ARE IN M.M. WRITTEN DIMENSION SHOULD ONLY BE FOLLOWED.
- ALL WORKS SHALL BE CARRIED OUT AS PER IS 800-2013.
- FILLET WELD HAVING THROAT THICKNESS 6MM SHALL BE USED.
- PIPE IN THE DRAWING FOR SIZE OF PIPES INDICATE INTERNAL NOMINAL BORE ( ) DIAMETER FOR LIGHT, MEDIUM AND HEAVY SECTIONS.
- STEEL TUBES FOR STRUCTURAL PURPOSES SHALL BE USED AS PER IS-1961:1998.
- HAVING AXIAL STRESS IN TENSION SHALL BE USED.
- THROAT THICKNESS OF FILLET WELD SHALL BE 5 MM.
- ALL PIPE SHALL BE CONNECTED DIRECTLY BY WELDING WITHOUT USING GUSSET PLATE.
- J-HOOKS SHALL BE FITTED SNUGLY LEAST THE COVERING SHEETS BLOWN OFF DURING STORM.
- CLEAR COVER OF FOUNDATION SHOULD BE 50MM AND GRADE SHOULD BE M20 AND Fe500 AS PER IS 456.
- WIND LOAD IS CALCULATED AS PER IS 875 PART 3:1987. BASIC WIND SPEED IS TAKEN AS 150 KMPH.
- STEEL STRUCTURE IS DESIGNED AS PER IS 800:2007.
- THE GRADE OF STEEL FOR ALL THE SECTIONS SHALL BE YS1 250.
- SOIL BEARING CAPACITY IS TAKEN AS 100 KN/MSQ AS PER SOIL REPORT.
- POLES & GANTRY SHOULD BE HOT DIP GALVANIZED WITH 86 MICRON SILVER COATING AS PER IS: 2620.
- POLE IS DESIGNED FOR 6 NOS TYPICAL CAMERA OF WEIGHT NOT MORE THAN 70 KG AND USED TO HANG SOLAR PANELS

**CLIENT RailTel Corporation India Limited**

**MANUFACTURE BY - SENSECURE INTEGRATED SOLUTIONS PVT. LTD.**

**TITLE Gantry Design for MP.**

**Drawing Prepared By- ER. LOMESH N TAUNK**

*(Signature)*  
**ER. LOMESH NARENDRA TAUNK :**  
 M. Tech (Structure),  
 Chartered Engineer, BE (Civil)  
 Lic No.-SE0/0471/STR/037/2021  
 TNCP ER No.-11/20  
 Mob. - 9467844401

**Engineer**

**Date**

**ER. LOMESH N TAUNK**

**20/02/2024**

**Drawing Approved By:-**

**Engineer**

**Date**

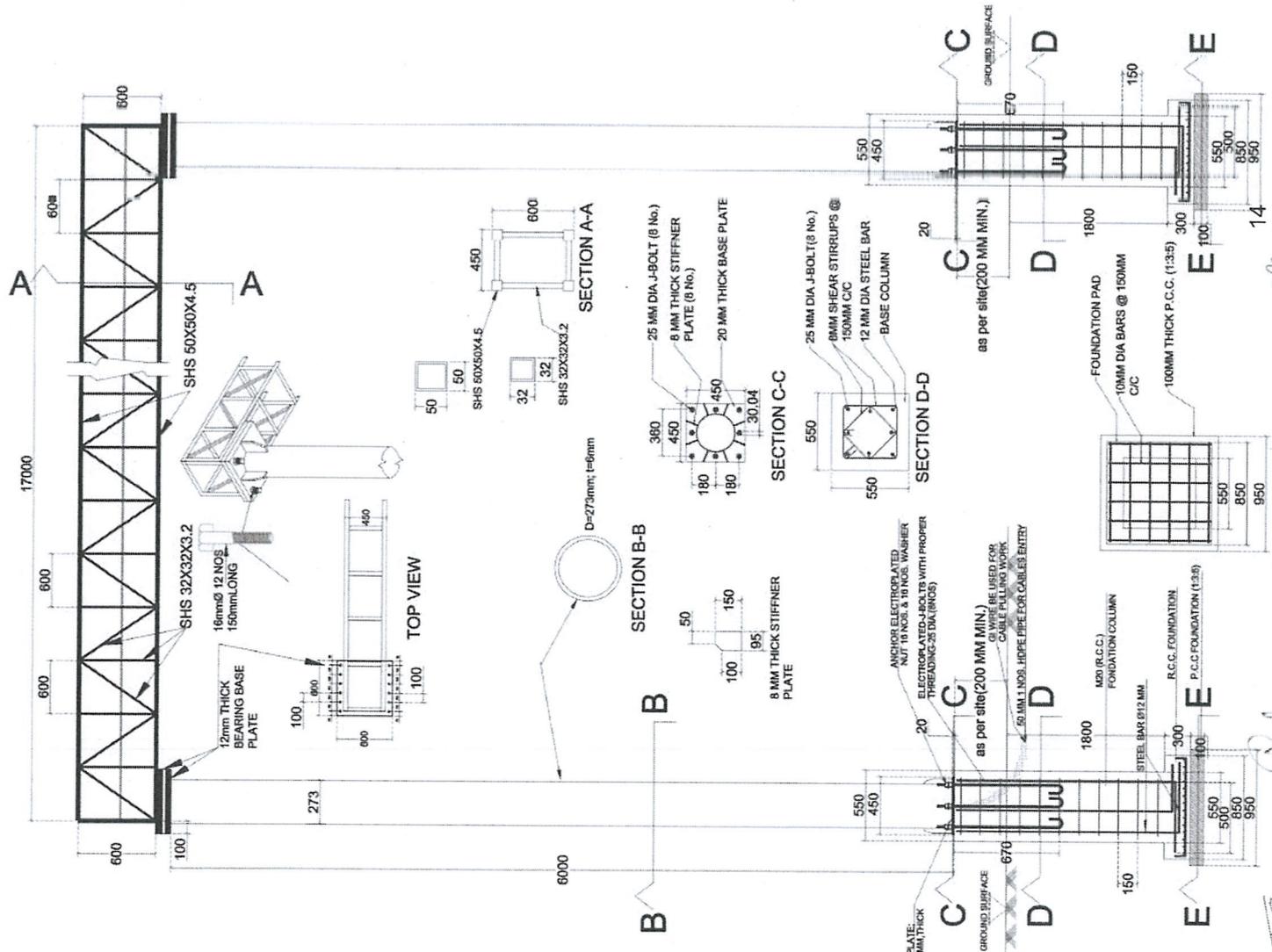
**MA**

**Signature**

**DWG. NO.**

**GDA/GAT/17/REV01**

**Scale:- NTS**



ALL DIMENSIONS IN. MM.  
 Computer No. 20240333  
 (Signature)

## Check List - Sidhi - Churhat - Koshtha Kothar - Madhya Pradesh

### Project - AI Based system to curb illegal transportation of Minerals

Sr No	Description	As per Site	Remarks
1	State Highway No	NH-39	
2	Crossing Name	Koshtha Kothar	
3	System of supply (i.e. Volatage) frquesncy, no of phases wheather	2 kilo watts	
4	Position of Tower	Latitude-24.416283,Longitude-81.619961	
5	Normal / Basic Span of gantry	13 Mtr	
6	Maximum Sag at Normal Span of gantry	18 Mtr	2.5 Mtr both side will be spared from the shoulder of the road. ( As per MORTH Norms )
7	Crossing Span of gantry	Single Side of Road	
8	Preceding Span with LOC	Single Side of Road	
9	Successing Span With LOC	Single Side of Road	
10	Height of structure above ground and Below Ground Separately	Above=7mtr & Below=2.30 mtr	both sides of gantry structure
11	gantry height & weidrh	hoight= 6.5 mtr & weidrh=18 mtr	
12	Clearance Over Road	7.0 mtr	
13	Hegiht of lower base / founduatiion of gantry	2.65 mtr	
14	Height / Difference of Lower foundation from level of NH at LOC	2.65 mtr	
15	Angle of Road crossing	90 degree	with respect to ground
16	Distance from NH Boundry from center of tower/ gantry	500 mtr	Location comes under NHAJ jurisdiction
17	Perndicular distance from center of Tower to Center of Road	6.5 mtr	
18	Protection of gantry	GI with 86 micron	
19	Foundation Type	square foundation with M-25 grade	
20	No of Stay required	NA	
21	Minimum factor of Safety	2	
22	Two legs of Toweer earthend	Yes as per specification	
23	Plain paper digram	profile enclosed	
24	Earthing	Pipe Type	
25	Praposal to lay underground electrical cable/OFC/Water-Pipeline	Yes as per specification	
25A	Left side from central line towards increasing chainage/km direction.	NA	
25B	Right side from centre line towards increasing chainage/km direction	NA	
26	Proposal to aquire Land		
26A	Left side from centre Line	9 Mtr	Includes 2.5 meters from shoulder of road as spare
26B	Right side from centre line	9 Mtr	Includes 2.5 meters from shoulder of road as spare
27	Whether proposal is in the same side where land is not to be acquired	Yes as per specification	
27 A	if not then where to lay the cable	NA	
28	Details of already laid services, if any, along with the proposed route	NA	
29	Number of Existing Lanes ( 2/4/6/8 Lanes )	4 Lane	
30	Proposed number of Lanes ( 2 Lanes with paved shouldered/4/6/8 lanes )	NA	
31	Service road existing or not	NA	
	if yes then which side	NA	
31A	Left side from centre line	NA	
31B	Right side of centre line	NA	
32	Proposed service road	NA	
32A	Left side from centre line	NA	
32B	Right side of centre line	NA	
33	Whether proposal to lay water pipeline is after the service roador between the service road or main carriageway	NA	

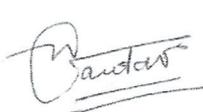
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*[Signature]*

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कार्यालय प्रमुख  
जनसंचालन भौतिकी तथा खनिकर्म  
(म.प्र.)

34	Whether carrying of sewage / water pipeline has been proposed on highway bridges, if yes then mention the methodology proposed for same	NA	
35	Whether carrying of sewage / water pipeline has been proposed on the parapet/any part of the bridges, if yes then mention the methodology proposed for the same	NA	
36	if crossing of the road involved	Yes	
37	if yes it shall be either encased in pipes or through structure or conduits specially built for that purpose at the expenses of the agency owning the line	Yes as per specification	
38	whether existing drainage structure are allowed to carry sewage / water pipeline	NA	
39	is it on a line Normal to NH	Yes	
40	What is the distance of crossing the sewage /water pipeline from the existing structures, shall not be too near the existing structure on the national highway, the minimum distance being 15 meters.	NA	
41	the casing pipe ( or conduit pipe in the case of electric / OFC cable ) carrying the utility line shall be of steel. Cast iron or reinforced cement concrete and have adequate strength and be large enough to permit ready withdrawal of the carrier pipe/cable, Mention type of casing	Yes	
42	Ends of the casing conduit pipe shall be sealed from the outside so that it does not act as a drainage path	Yes	
43	the casing/conduit pipe should be at least 1.2 meter below the surface of the road subject to being atleast 0.3 meter below the drain inverts, Mention the proposed details	Yes as per specification	
44	Mention the methodology proposed for crossing of road for the proposed water pipeline crossing shall be by boring method ( Trench-less technology ) especially where the existing road Pavement is of cement concrete or dense bituminous concrete type	NA	
45	The casing /conduit pipe shall be installed with an even bearing throughout its length and in such a manner as to prevent the formation of a waterway along it.	Yes	
46	Document / Drawing to be enclosed with the proposal	Yes , Enclosed	
47	gross section showing the size of trench for open trenching method ( is it normal size of 1.2 m deep X 0.3m wide	Yes	
48	Should not be greater than 60cm wider than the outer diameter of the pipe	Yes as per specification	
49	Located as close to the extreme edge of the right of way as possible but not less than 10meters from the centrelines of the nearest carriageway	Yes as per specification	
50	shall not be permitted to run along the national highways when the road formation is situated in double cutting nor shall these be laid over the existing culverts and bridges	NA	
51	These should be so laid that their top is atleast 0.6 meter below the ground level so as not to obstruct drainage of the road land	Yes as per specification	
52	Cross section showing the size of pit and location of cable for HDD method	Yes as per specification	
53	Strip plan / route plan showing water pipeline chainage width of ROW, distance of Proposed water pipeline with OFC from the edge of ROW important milestone intersection, cross drainage works etc	Yes as per enclosed Drawing	
54	Methodology for laying of water pipeline	NA	
55	open trenching method ( may be allowed in utility corridor only where pavement is neither cement concrete nor dense bituminous concrete type if yes what is the methodology of refilling of trench	NA	
56	The trench width should be at least 30cm but not more than 60cm wider than the outer diameter of the pipe	NA	




07/05/24  
 कायांलिप प्रमुख  
 प्रबालनालय मॉडिफिकी तथा सभिकर्त  
 कोनाल (प.प.)

57	for filling of the trench, bedding shall be to a depth of not less than 30cm it shall consist of granular material free of lumps, clods and cobbles and graded to yield a firm surface without sudden change in the bearing value, unsuitable soil and rock edged should be excavated and replaced by selected material	NA	
58	the backfill shall be completed in two stages 1) side fill to the level of the top to the pipe and 2) overfill to the bottom of the road crust	Yes as per enclosed Drawing	
59	the side fill shall consist of granular material laid in 15cm layers each consolidated by mechanical tampering and controlled addition of moisture to 95% of the proctors density, over fill shall be compacted to the same density as the material that had been removed, consolidation by saluration of pending will not be permitted	Yes as per enclosed Drawing	
60	The road crust shall be built to the same strength as the existing crust on either side of the trench, care shall be taken to avoid the formation of dip at the trench	Yes	
61	The excavation shall be protected by flagman signs and barricades and red light during night hours	Yes as per specification	

*Cautar*

*Agal*

*Chandella*  
PD, Katni

*Om Prakash*  
कार्यालय प्रमुख  
संचालनालय भौमिकी तथा खनिकर्म  
भोपाल (म.प्र.)

**Directorate of Geology and Mining, Madhya Pradesh**

29-A, Khanij Bhawan, Arera Hills Bhopal

Phone & Fax: 0755-2551795, Email: dirgeomn@nic.in

To: NHAI, Project Director

Mg AT/ AT/ 10<sup>2</sup>  
d  
25.11

Date: 25/11/2024

Title: Document Submission Receiving "Koshtha Kothar Churhat"  
Sidhi

Department/Organization: NHAI

Address: Plot No. 170, Mahanagar Colony, Jhunjhori, Katni

**Subject:** Submission of G&M Project Documents- AI Based system to curb illegal transportation of minerals for Approval from your Concern/Esteemed department/Organization

I am writing to formally submit G&M Project - AI Based system to curb illegal transportation of minerals for your review and approval. Please find the details below:

- **Document Title:** AI Based system to curb illegal transportation of minerals
- **Document Type:** Original Hard Copies
- **Purpose of Submission:** Required NOC certificate for installation of Check gate at site Koshtha-Kothar Churhat - Sidhi

**Enclosures:**

1. Agreement on Stamp of Rupees 500
2. Undertaking on Stamp of Rupees 100
3. Bank guaranty / Fixed Deposit Calculation Sheet ( Demand Note )
4. Check-List Document
5. Detailed Survey report along with Site Photographs
6. Working Drawing - A2
7. 3D Design of gantry with all specifications - A2
8. Receipt of online application submitted in MoRTH Portal
9. Letter of NHAI
10. Signing Authority Letter
11. Cover Letter
12. Soil Report

