

**FORM-I, PRE-FEASIBILITY REPORT &
EMP**

FOR

ENVIRONMENTAL CLEARANCE

FOR

SOIL/ORDINARY EARTH MINING

AREA: 2.140 ha/5.290 Acres

PROPOSED CAPACITY: 40460Cum/year or

72828Tonnes/Year

AT

Village – Binsa, Thana- Karai Parsurai,

District – Nalanda, State- Bihar

APPLICANT

M/S H.S. ENGINEERS & ASSOCIATES – VELJI RATNA

SORATHIAN INFRA PVT LTD. JV

Address- 120, Block A, Areocity,

Airport Road, Mohali (PB)

PROJECT: SOIL/ORDINARY EARTH MINING (2.140 ha. or 5.290 Acres)

FORM 1

APPLICANT: M/S H.S. ENGINEERS & ASSOCIATES – VELJI RATNA SORATHIAN INFRA PVT LTD. JV

FORM I

(I) Basic Information

S.No.	Item	Details
1.	Name of the project/s	Soil/Ordinary Earth Mining
2.	S. No. in the schedule	S. No. 1(a)
3.	Proposed capacity /area /length /tonnage to be handled/command area/lease area/number of wells to be drilled	Proposed Capacity- 40460Cum/year or 72828Tonnes/Year Area – 2.140 ha/5.290 Acres
4.	New/Expansion/Modernization	New
5.	Existing Capacity/Area etc.	Area – 2.140 ha/5.290 Acres
6.	Category of Project i.e. 'A' or 'B'	Category 'B2'
7.	Does it attract the general condition? If yes, please specify.	No
8.	Does it attract the specific condition? If yes, please specify.	No
9.	Location Plot/Survey/Khasra No. Village- Thana - District- State-	Latitude N25° 23' 48.331" to N25° 23' 43.686" Longitude - E85° 11' 26.608" to E85° 11' 25.576" Thana no.- 117 Khata no.- 77,28, 65,23,38 Khasra no.- 546, 514, 553, 556, 507,519 Binsa Karai Parsurai Nalanda Bihar
10.	Nearest railway station/airport along with distance in kms.	Fazalchak Railway Station at a distance of 5.12 km towards NW direction from site. Jaiprakash Narayan International Airport, Patna at a distance of 23.95 km in NNW direction from mine site.
11.	Nearest Town, city, District Headquarters along with distance in	Nearest Town- Dhanarua, approx. 6.57 km towards WSW direction.

	kms.	District Headquarters- Nalanda, approx. 38.10 km towards SE direction.
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Village – Binsa Thana - Karai Parsurai District- Nalanda State- Bihar
13.	Name of applicant	M/s H.S. Engineers & Associates – Velji Ratna Sorathian Infra Pvt Ltd. JV
14.	Registered Address	M/s H.S. Engineers & Associates – Velji Ratna Sorathian Infra Pvt Ltd. JV Address- 120, Block A, Areocity, Airport Road, Mohali (PB)
15.	Address for correspondence	
	Name	M/s H.S. Engineers & Associates – Velji Ratna Sorathian Infra Pvt Ltd. JV
	Designation (Owner/Partner/CEO)	Project Manager
	Address	M/s H.S. Engineers & Associates – Velji Ratna Sorathian Infra Pvt Ltd. JV Address- 120, Block A, Areocity, Airport Road, Mohali (PB)
	Pin Code	-
	E-mail	-
	Telephone No.	-
	Fax No.	-
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a toposheet.	The mineral is site specific. Thus no alternative site was examined.
17.	Interlinked Projects	No
18.	Whether separate application of interlinked project has been submitted?	No
19.	If yes, date of submission	No

20.	If no, reason	NA
21.	Whether the proposal involves approval/ clearance under: if yes, details of the same and their status to be given. (a)The forest (Conservation) act, 1980? (b) The wildlife (Protection) act, 1972? (C) The C.R.Z Notification, 1991?	No No No
22.	Whether there is any Government Order/Policy relevant/relating to the site?	No
23.	Forest land involved (hectares)	No
24.	Whether there is any litigation pending against the project and /or land in which the project is propose to be set up? (a) Name of the Court (b) Case No. (c) Orders/directions of the Court, if any and its relevance with the proposed project.	No

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No	This is agricultural land and the top soil shall be scraped and preserved to spread it after mining activity is completed to restore the fertility of land. The ultimate land use of the mine lease area will not be changed.
1.2	Clearance of existing land, vegetation and buildings?	No	There is no vegetation and building. Hence, no clearance of any vegetation, building and

			land will be required.
1.3	Creation of new land uses?	No	The mining activity will be confined to the lease area; there will be no creation of new land uses.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	No	Not required.
1.5	Construction works?	No	No construction work is required for the proposed activity except for temporary rest shelter. All the laborers involved in mining will be from the nearby villages.
1.6	Demolition works?	No	No demolition is involved during the project.
1.7	Temporary sites used for construction works or housing of construction workers?	No	There will be no construction works or housing for construction workers. However temporary rest shelter will be constructed at the mine site. Soil will be loaded directly into trucks, dumper etc. for this purpose local people will be hired, and hence no temporary sites for housing will be required.
1.8	Above ground buildings, structures or Earth works including linear structures, cut and fill or excavations	No	The work involves excavation of soil from off stream.
1.9	Underground works including mining or tunneling?	No	No Underground work will involve.
1.10	Reclamation works?	No	The mining will be done in plan period in depth of 1.5 m from surface level and after plan period the top soil shall be scraped and preserved to spread it after mining activity is completed to restore the fertility of land. The ultimate land use of the mine lease area will not be changed.

1.11	Dredging?	No	The work involves only excavation of soil from off stream and as such no dredging will be done.
1.12	Offshore structures?	No	Not Applicable.
1.13	Production and manufacturing processes?	No	Production: 40460Cum/year or 72828Tonnes/Year Process: Opencast manual mining using hand tool only.
1.14	Facilities for storage of goods or materials?	No	Soil will be loaded directly into trucks, dumper etc. hence no storage facility will be required.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	No	No waste shall be generated during mining activities; hence, no proposal has been envisaged for its separate dumping at mine site.
1.16	Facilities for long term housing of operational workers?	No	Workers will be employed from local villages. Hence no long term housing is proposed.
1.17	New road, rail or sea traffic during construction or operation	Yes	There will be an increase in traffic because of few trucks/tippers for transportation of minerals.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	No new construction takes place as the available facilities are sufficient enough.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	There would be no closure or diversion of existing routes, which would change the traffic movements.
1.20	New or diverted transmission lines or pipelines?	No	Not required.
1.21	Impoundment, damming, culverting, realignment or other changes to the	No	No impoundment or damming is involved in the project.

	hydrology of watercourses or aquifers?		
1.22	Stream crossings?	No	There is no stream crossing through the ML area.
1.23	Abstraction or transfers of water from ground or surface waters?	Yes	About 0.15 KLD will be required for drinking for 15 workers and 3.33 KLD for dust suppression and approx. 1.21 KLD will be required for green belt development. Total requirement will be 4.69 ~ 4.70 KLD. Water will be supplied by Pvt. / Govt. tankers from nearby villages.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	There is no tank, water reservoir or any nalla in the lease area. Due to small extent of mining, no adverse impact to surface drainage is expected. Since there is no other water course in the lease area, diversion will not be required.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Soil will be excavated and loaded by Shovels, Hoe and Pans and transportation to local markets.
1.26	Long-term dismantling or decommissioning or restoration works?	Yes	Plantation will be raised along both sides of roads and civic amenities in consultation with the local authorities.
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Being opencast manual excavation process no decommissioning would be there which could have any impact on environment.
1.28	Influx of people to an area in either temporarily or permanently?	No	Only local people will be employed for mining operations.
1.29	Introduction of alien species?	No	No such introduction of alien species is foreseen.
1.30	Loss of native species or genetic diversity?	No	No loss of native species or genetic diversity is expected.
1.31	Any other actions?	No	No other actions would be involved for the

			excavation of the minerals.
2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):			
S.No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	The Mine agreement area is agricultural private land.
2.2	Water (expected source & competing users) unit: KLD	Yes	About 4.69 ~ 4.70 KLD water will be required for the proposed mining project for domestic and dust suppression & plantation purpose.
2.3	Minerals (MT)	No	No minerals are required for this project.
2.4	Construction material – stone, aggregates, sand/Moran / soil (expected source – MT)	No	No construction material is required for this project. On the other hand, construction material will be produced.
2.5	Forests and timber (source – MT)	No	Not required for this project.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	No	No power will be required as mining will be done from sunrise to sunset.
2.7	Any other natural resources (use appropriate standard units)	No	No other natural resources will be used.
3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.			
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and Water supplies)	No	This project operation will not involve any hazardous materials.

3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	If proper hygienic environment will not be maintained, there may be chances of water borne diseases.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	This project will provide livelihood to the workforce during the operation which help in improving the living conditions.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.	No	This project will not affect the vulnerable groups of people.
3.5	Any other causes	No	Transportation is one of the major activities during the project. Accidents may occur, which could be avoided by taking due care and precautions.

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	No overburden will be generated due to the operation.
4.2	Municipal waste (domestic and or commercial wastes)	No	There will not be any municipal waste generation during operation of this project.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	No	No hazardous wastes are envisaged.
4.4	Other industrial process wastes	No	No industrial process waste is envisaged.
4.5	Surplus product	No	No surplus products are expected as all production will be lifted side by side.
4.6	Sewage sludge or other sludge from effluent treatment	No	Only 15 persons as man-power is required at mine site. The toilet waste will be attached to soak pit, when removed used as fertilizer in plantation.

4.7	Construction or demolition wastes	No	No construction or demolition wastes are expected.
4.8	Redundant machinery or equipment	No	No redundant machinery or equipment is involved.
4.9	Contaminated soils or other materials	No	No contaminated soils are generated.
4.10	Agricultural wastes	No	No agricultural wastes are produced.
4.11	Other solid wastes	No	No other solid wastes are generated.
5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)			
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources.	Yes	During operational phase there may be emissions by movement of vehicles (vehicular exhaust) which will be minimized by using only PUC certified & Bharat IV stage vehicles in the mining lease area.
5.2	Emissions from production processes.	No	No emissions from the production process.
5.3	Emissions from materials handling including storage or transport	Yes	There will be emission dust during the transportation of soil from source to the market. Effective water sprinkling on haul road will be done to reduce haul road dust emissions. Also the truck will be covered by polythene sheet during transportation.
5.4	Emissions from construction activities including plant and equipment	No	No construction activity will be done.
5.5	Dust or odors from handling of materials including construction materials, sewage and waste	No	Dust emission is expected during handling of minerals i.e. during loading of minerals. This can be minimized by sprinkling water.
5.6	Emissions from incineration of waste.	No	No such waste will be generated which requires incineration.

5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	No burning of waste is done, hence no emission is expected.
5.8	Emissions from any other sources	No	There is no other source of emission.

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	No	Although Open cast Manual Method is used. Service/maintenance of equipment or machinery is done on regularly basis, so no noise and vibrations are envisaged.
6.2	From industrial or similar processes	No	No such processes are involved
6.3	From construction or demolition	No	No construction work is proposed.
6.4	From blasting or piling	No	Blasting and piling is not proposed for the mining process.
6.5	From construction or operational traffic	Yes	Noise will be generated from vehicular movement. PUC certified vehicles will be deployed for the operations.
6.6	From lighting or cooling systems	No	Mining will be carried during day time and in open area. Thus there is no need for lighting and cooling systems.
6.7	From any other sources	No	There will not be any other sources which generate noise and vibration.

7. Risks of contamination of land or water from release of pollutants into ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	Since no hazardous material will be used or produced at the site, no risk of contamination

			of land or water envisaged.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	No discharge of sewage or other effluents will be there.
7.3	By deposition of pollutants emitted to air into the land or into water	No	Adequate measures to suppress dust and not to allow dust to become airborne are provided.
7.4	From any other sources	No	Not envisaged.
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	Scraping of accumulated dust build-up on road will be done frequently to keep the road in good order, thus avoiding any risk to environment.
8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment			
S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	No hazardous substance will be used or produced during the proposed mining operations.
8.2	From any other causes	Yes	Accidents are possible during loading and unloading of material. First aid facilities will be provided the site.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, Earthquakes, landslides, cloudburst etc)?	No	The mine lease area lies in Seismic Zone V. This zone is classified as low to moderate hazard risk.
9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality			

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting facilities ancillary development or development stimulated by the project which could have impact on the environment e.g.: • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • Housing development • Extractive industries • Supply industries • Other	Yes	With improvement in availability of employment living standard of the people will raise which itself may lead to building activity. These are positive impacts.
9.2	Lead to after-use of the site, which could have an impact on the environment	No	The site will not be used for any other purpose since it is the off stream.
9.3	Set a precedent for later developments	No	Proposed mining activity can set a precedent for increase in infrastructure developmental activity.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	--

(III) Environmental Sensitivity

S.No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	Nil	None

2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests.	Falgu River	Approx. 6.18 km East direction.
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Nil	--
4	Inland, coastal, marine or underground waters	Nil	--
5	State, National boundaries	Nil	--
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	SH-1	Approx. 2.83 km towards WNW direction.
7	Defense installations	Nil	--
8	Densely populated or built-up area	Dhanarua	Approx. 6.57 km towards WSW direction.
9	Areas occupied by sensitive man-made land uses (<i>hospitals, schools, places of worship, community facilities</i>)	<u>Nearest hospitals</u> Bie Emergency Hospital <u>Nearest school</u> Primary School, Kaji Bigha	Approx. 7.45 km towards SW direction. Approx. 0.72 km towards NW direction.
10	Areas containing important, high quality or scarce resources (<i>ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>)	Nil	--
11	Areas already subjected to pollution or environmental damage. (<i>those where existing legal environmental standards are</i>	Nil	--

	<i>exceeded)</i>		
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (<i>Earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions</i>)	Nil	Seismic Zone IV

UNDERTAKING

“I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance give, if any to the project will be our risk and cost”.

Date: 14-05-2024

Place: Nalanda



M/s H.S. Engineers & Associates
– Velji Ratna Sorathian Infra Pvt Ltd. JV
Rajan Sharma
(Project Manager)

NOTE:

1. The Projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a C.R.Z map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z. (at the stage of TOR) and the recommendations of the state Coastal Zone management Authority (at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z. Notification, 1991 for the activities to be located in the CRZ.
2. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon (at the stage of EC).”
3. All correspondence with the Ministry of Environment & Forests including submission of application for TOR/ Environmental Clearance, subsequent clarifications, as may be required from time to time, participation in the EAC Meeting on behalf of the project proponent shall be made by the authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized signatory for the specific project”.

PROJECT: SOIL/ORDINARY EARTH MINING (2.140 ha. or 5.290 Acres)

PRE FEASIBILITY REPORT

APPLICANT: M/S H.S. ENGINEERS & ASSOCIATES – VELJI RATNA SORATHIAN INFRA PVT LTD. JV

PRE-FEASIBILITY REPORT

1.0 EXECUTIVE SUMMARY

1.1 Introduction

The proposed Soil/Ordinary Earth Mining is situated at Thana no.- 117, Khata no.- 77,28, 65,23,38, Khasra no.- 546, 514, 553, 556, 507,519, near Village – Binsa, Thana - Karai Parsurai, District- Nalanda, State- Bihar over an area of 5.290 Acres or 2.140 Hectare. Proposed mining of Soil is permitted to the M/s H.S. Engineers & Associates – Velji Ratna Sorathian Infra Pvt Ltd. JV, Address- 120, Block A, Areocity, Airport Road, Mohali (PB). The estimated project cost is Rs 42 Lakhs.

1.2 Salient Features of the Project

Environmental setting	
Project Name	Soil/Ordinary Earth Mining
Location of mine	Village – Binsa Thana - Karai Parsurai District- Nalanda State- Bihar
Site co-ordinate	Latitude N25° 23' 48.331" to N25° 23' 43.686" Longitude - E85° 11' 26.608" to E85° 11' 25.576"
Toposheet number	72G/3
Land use	2.140 ha/5.290 Acres
Minerals of mine	Soil
Total Mineable reserves	40460Cum or 72828Tonnes.
Total Geological reserves	42800Cum or 77040Tonnes.
Production of mine	40460Cum/year or 72828Tonnes/Year
Method of mining	Open Cast manual method
No of working days	225 days
Water demand	4.69 ~ 4.70 KLD
Sources of water	Water will be taken from Private tanker.
Man power	15
Nearest State Highway/ National Highway	SH-1, Approx. 2.83 km towards WNW direction.

Nearest Railway Station	Fazalchak Railway Station at a distance of 5.12 km towards NW direction from site.
Nearest Airport	Jaiprakash Narayan International Airport, Patna at a distance of 23.95 km in NNW direction from mine site.
Seismic Zone	Zone- IV

1.3 Proposed Planning

Mining method	- Open Cast Manual Method
Project cost	- 42 lakhs
Production	- 40460Cum/year or 72828Tonnes/Year.

1.4 Conclusion

Soil is used as a raw material in all type of construction and infrastructure project. The need of ordinary Soil is in all fields are very essential as it is a compulsory for all types of construction, and industries fields. Proposed production of Soil is contributing enhancing state production of ordinary Soil. Mine will be provide employments to the local labour in rural area, thus the villagers of nearby villages have more employment opportunities.

2. INTRODUCTION OF THE PROJECT/ BACKGROUND INFORMATION

2.1 Identification of project and project proponent

The proposed Soil/Ordinary Earth Mining is situated at Thana no.- 117, Khata no.- 77,28, 65,23,38, Khasra no.- 546, 514, 553, 556, 507,519, near Village – Binsa, Thana - Karai Parsurai, District- Nalanda, State- Bihar over an area of 5.290 Acres or 2.140 Hectare. Proposed mining of Soil is permitted to the M/s H.S. Engineers & Associates – Velji Ratna Sorathian Infra Pvt Ltd. JV, Address- 120, Block A, Areocity, Airport Road, Mohali (PB).

2.2 Brief Information about the Project

The lease area is 2.140 ha/5.290 Acres. The total mineable reserves available are 40460Cum or 72828Tonnes of Soil.

2.3 Need for the project and its importance to the country or region

Soil is used as a raw material in all type of construction and infrastructure project. The need of ordinary Soil is in all fields are very essential as it is a compulsory for all types of construction, and industries fields. Proposed production of Soil is contributing enhancing state production of ordinary Soil. Mine will be provide employments to the local labor in rural area, thus the villagers of nearby villages have more employment opportunities.

2.4 Demands-Supply Gap

The soil deposit mine is supplier to open market.

2.5 Imports vs. Indigenous Production

There will be no import of Soil.

2.6 Export Possibility

There is no proposal to export the Soil.

2.7 Domestic/ Export Markets

Domestic Market

The proponent is supplier of Soil to open market.

Export Market

The proposed mining activity is for indigenous consumption only for brick making.

2.8 Employment Generation

Manpower detail

Post Category	No of Post
1 Mine man	01
Semi Skilled	
Time Keeper	01
Un-Skilled	
Piece rated worker	13
Total	15

3. PROJECT DESCRIPTION

3.1 Type of Project Including Interlinked and Interdependent Projects, If Any.

The project is of Soil mining. It is an independent project it is not interlinked with other project. This mining project falls under Category “B2” Project or activity 1(a) as per EIA Notifications 2006 & its subsequent amendments so far.

3.1 Location

The proposed Soil/Ordinary Earth Mining is situated at Thana no.- 117, Khata no.- 77,28, 65,23,38, Khasra no.- 546, 514, 553, 556, 507,519, near Village – Binsa, Thana - Karai Parsurai, District- Nalanda, State- Bihar over an area of 5.290 Acres or 2.140 Hectare. The mining lease area falls in Survey of India, Toposheet number is mentioned below.

Sheet Details

Toposheet No.: 72G/3

Site Co-Ordinates:

S. No.	Latitude	Longitude
A	N25° 23' 48.331"	E85° 11' 26.608"
B	N25° 23' 49.263"	E85° 11' 33.213"
C	N25° 23' 47.923"	E85° 11' 33.216"
D	N25° 23' 44.120"	E85° 11' 28.640"
E	N25° 23' 43.686"	E85° 11' 25.576"

3.3 Details of Alternate Sites

Not Applicable.

3.4 Size or Magnitude of Operation

3.4.1 Geomorphology:

Bihar, nestled in the eastern part of India, showcases a rich tapestry of geomorphological features molded over millennia by intricate geological processes. Dominating its landscape are the expansive Gangetic Plains, testament to the relentless deposition of sediment carried by the Ganges River and its tributaries. These plains, renowned for their fertility, serve as the agricultural heartland of the state, sustaining its economy and livelihoods.

The river systems of Bihar, including the mighty Ganges, Gandak, Sone, and Kosi, crisscross the terrain, sculpting it through erosion, deposition, and meandering. Along their banks lie extensive floodplains, periodically inundated during monsoon seasons, enriching the soil with fertile alluvium and supporting bountiful agriculture. Rising from the northern horizon, the Himalayan foothills bestow Bihar with rugged terrain, hills, valleys, and plateaus. Here, the bhabar and tarai regions unfurl-a narrow belt of gravelly soil at the foothills' base, transitioning into marshy, fertile plains further downstream.

Southern Bihar offers a different landscape, adorned with plateaus and uplands, cloaked in verdant forests and dotted with lakes, providing habitats for diverse flora and fauna. Man-made reservoirs like the Ghora Katora Lake and natural sanctuaries like the Kanwar Lake Bird Sanctuary add to the state's ecological wealth.

Throughout Bihar's geomorphology, the marks of time are etched-terraces along riverbanks narrate ancient floodplains, while tectonic activity leaves subtle imprints on its topography. It's a story of resilience and adaptation, where nature's forces have shaped a land of immense beauty and bounty, defining the lives and aspirations of its people for generations.

Source- Mine Plan

3.4.2. Regional Geology

Bihar's regional geology showcases a diverse landscape shaped by ancient crystalline rocks in the south, such as granite and gneiss from the Pre-Cambrian era. The Gondwana Formation in the southern regions reveals Permian and Triassic sedimentary rocks like sandstone and coal deposits. The Gangetic Alluvial Plains dominate the majority of Bihar, featuring fertile layers of Quaternary alluvium brought down by rivers like the Ganges. Along these rivers, Quaternary

deposits, including floodplain sediments and river terraces, illustrate ongoing fluvial processes. In the northwest, Tertiary sedimentary rocks like sandstone and limestone indicate past marine and terrestrial environments. The Himalayan foothills in the north bordering Nepal exhibit folded sedimentary rocks and active tectonic activity, with associated mineral resources like coal and limestone contributing to Bihar's industrial growth. Understanding Bihar's regional geology is pivotal for sustainable development and resource management in the state.

Source- Mine Plan

3.4.3. Production Parameters

The mine will be worked on the day shift only. The average number of working days in the year would be 225 days.

Year	Excavated Volume (M³)	Depth (M)
1 st	40460	1.5

The one year Production will be 40460Cubic meter.

3.5 Project Description with Process Details

3.5.1 Method of Mining

The proposed project is to mine Clay/Soil from Khasra(s) under agreement sustainably and scientifically. Mining will be opencast manual mining using hand tools like shovel, spade, sieve etc. only in the allotted Khasra keeping the nearby plot(s) unaffected.

Following geo-scientific methods are proposed to carry out the activity:

- Mining will be confined to the allotted Khasra(s) only up to a maximum depth of 1.5 m from the surface in 1m. High and > 10m wide working bench parameters & provision of MCR-1972 and MMR 1972 will be followed strictly.
- The mining shall be done during daytime only in order to avoid environmental pollution or any accidental hazards.
- No mining activity will be undertaken during the monsoon season.
- Only 225 working days in a year have been assumed for calculation purpose.

- Topsoil up to 20-centimetre depth shall be scraped & preserved to spread it after mining activity is completed to restore the fertility of land.
- The width and height of final benches shall be 1m x 1m.
- 3m wide haul road shall be made at 1: 16 gradient to the next level.
- No drilling and blasting is proposed.
- The operation will remain manual, using tools like shovel, spade, sieve etc.
- During the agreement period, the deposit will be worked from the top surface up to a maximum depth 1.80 m.
- Total reserve is estimated 42800 cum' from all the Khasras whereas; minable reserve is calculated 40460Cum' for the period of One Years.
- 15labourers will be required for the proposed project.
- In order to avoid environmental pollution or any accidental hazards, the mining activity will be restricted to daytime only.
- Soil mining shall strictly be undertaken as per rules & regulation/ permissions obtained from District Administration/ Mining Department.

3.5.2 Blasting & Drilling

There is no use of any drilling and blasting for the soil mining, as proposed mining method is manual method.

3.5.3 Depth of mining:

Mining will be confined to the allotted Khasra(s) only up to a maximum depth of 1.5 m from the surface .

3.6 Raw Material Required Along With Estimated Quantity, Likely Source, Marketing Area of Final Product/S, Mode of Transport of Raw Material and Finished Product

No raw material will be required.

3.7 Resource Optimization/ Recycling and Reuse

Not envisaged.

3.8 Availability of Water Its Source, Energy/ Power Requirement and Source

3.8.1 Water Requirement

Water for drinking and operations is required to be 4.69 ~ 4.70 KLD. It is proposed to obtain water for drinking and operations from Nearby Villages.

3.8.2 Power

No power required as the work done in day time.

3.9 Quantity of Wastes to Be Generated (Liquid and Solid) and Scheme for Their Management/ Disposal

3.9.1 Solid Waste Generation & its Disposal

No proposal has been given for disposal of waste stacking.

3.9.2 Liquid Effluent

The domestic and service building effluents are collected by a sewerage system and biological treatments is adopted by means of septic tanks and soak pits.

SITE ANALYSIS

4.1 Connectivity

The mine site is well connected via approach road of approx. 555 m which connects metallic road which further connects to SH-1, Approx. 2.83 km towards WNW direction. Fazalchak Railway Station at a distance of 5.12 km towards NW direction from site. Jaiprakash Narayan International Airport, Patna at a distance of 23.95 km in NNW direction from mine site

4.2 Landform, Land use and Land Ownership

4.2.1 Landform

The mine agreement area is agricultural private land.

4.2.2 Land Use

The existing land use pattern of the area is agricultural.

4.2.3 Land Ownership

Village	Thana No.	Khata No.	Khasra No.	Area
Binsa	117	77,28, 65,23,38	546, 514, 553, 556, 507,519	2.140 ha/5.290 Acres

Land Use Pattern:

4.3 Land Use Pattern

The applied soil area does not include any forest land. The land of proposal soil mine is covered by soil.

Existing Land use Pattern

Land Use Pattern	Existing land use (Ha)
Mining Pits Quarry	Nil
Approach Road	-
Dumps	Nil
Office Rest shelter etc.	Nil
Balance Undisturbed Land	2.140
Total	2.140

Land Utilization during mining

Category	Area (Ha)
Area Left in Berm and Top soil	0.117
Quarrying	2.023
Total	2.140

4.4 Existing Infrastructure

The existing infrastructural facilities available such as roads, aerial ropeways, conveyer belts, railways, power lines, buildings & structures, transport, water supply sources in the area etc and their future utilization should be evaluated on case-to-case basis. If retained, the measures to be taken for their physical stability and maintenance should be described. If decommissioning proposed, dismantling and disposal of building structures, support facilities and other infrastructure like electric transmission line, telephone cables, underground tanks, transportation infrastructure like roads, rail, bridges, culverts etc, electrical equipments and infrastructures like electrical cables, transformers to be described in connection with restoring land for further use.

4.5 Soil Classification

Nalanda district is characterized by four types of soil viz. Clay loam, fine loam, loam and course loam, mainly derived from alluvial deposit of southern Ganga Plain.

Source: https://www.cgwb.gov.in/old_website/District_Profile/Bihar/Nalanda.pdf

4.6 Rainfall & Climate

The average annual rainfall of district is 1002.2 mm. About 92.55 % of the rainfall is received during June to October by south-west monsoon (Fig- 2). The climate of the district is sub-tropical to sub-humid in nature. The district experiences severe cold during winter whereas on the other hand in summer it is very hot.

Source: https://www.cgwb.gov.in/old_website/District_Profile/Bihar/Nalanda.pdf

5. PLANNING BRIEF

5.1 Planning Concept

Proposed method of mining is opencast Manual.

5.2 Land use Planning

The land of the mine lease area is applied area and there will not be charged in land use after operation. The top soil shall be scraped and preserved to spread it after mining activity is completed to restore the fertility of land. The ultimate land use of the mine lease area will not be changed. The workers will be hired locally and temporarily, no housing facility will be required.

5.3 Assessment of Infrastructure Demand (Physical & Social)

On the basis of the preliminary site visit, the infrastructure demand in the villages was assessed on the basis of need and priority.

5.4 Amenities/Facilities

Mines Office, Workshop etc.

Proper site services such as First Aid, Canteen / Rest Shelter, Drinking Water, Maintenance Workshop, etc. will be provided to the mine workers.

It is proposed to construct two rooms for office & rest shelter.

6. PROPOSED INFRASTRUCTURE

6.1 Industrial Area (Processing Area)

No infrastructure is proposed.

6.2 Residential Area (Non Processing Area)

As the local person will be given employment, no residential area/ housing is proposed.

6.3 Green Belt:

Plantation will be done along both sides of the approach road. Plantation will be done in consultation with the government body/local authorities and plants suggested by local villagers will be planted.

About **555 plants** will be planted along both sides of the approach road and about **50 plants** will be distributed with consultation of gram panchayat. Hence total **605 plants** to be planted.

6.4 Social Infrastructure

Considerable peripheral development activity as below has been taken up by company for the past years. First aid training has been regularly imparted to trainees from the neighboring villages. The Company also distributes saplings to the local villagers as a part of social forestry.

6.5 Connectivity

The mine site is well connected via approach road of approx. 555 m which connects metallic road which further connects to SH-1, Approx. 2.83 km towards WNW direction. Fazalchak Railway Station at a distance of 5.12 km towards NW direction from site. Jaiprakash Narayan International Airport, Patna at a distance of 23.95 km in NNW direction from mine site

6.6 Drinking Water Management

Water for drinking and operations will be 4.69 ~ 4.70 KLD.

Activity	Calculation	Round off Figure in KLD
Drinking	@ 10 lpcd per labor $10 \times 15 / 1000 = 0.15 \text{ KLD}$	0.15 KLD
Dust Suppression	Total approach road to be water sprinkled = 555 m $555 \text{ m} \times 6 \text{ m} \times 0.5 \times 2 \text{ times} / 1000 = 3.33 \text{ KLD}$	3.33 KLD
Plantation	605 plant @ 2 L/per plant = $605 \times 2 \text{ times} = 1210 / 1000 = 1.21 \text{ KLD}$	1.21 KLD
Total		4.69 ~ 4.70 KLD

6.7 Sewerage System

Domestic waste water will be treated into septic tank followed by soak pit.

6.8 Industrial Waste Management

Not applicable.

6.9 Solid Waste management

No Waste shall be generated during mining activities. Hence, No proposal has been envisaged for its separate dumping at mine site.

6.10 Soil management

As stated earlier that All the Khasras having Ordinary clay cover with topsoil. The topsoil 1942Cum shall be scraped & preserved for short period on the berm to spread it after mining activity is completed to restore the fertility of land. All quantities of ordinary clay to be exploited shall be used in filling the soil bed of the Rail line. Therefore, generation of waste shall be nil &

no proposal has been envisaged for its separate dumping at mine side. Therefore, waste, sub grade mineral rejects shall not be generated during the course of mining.

6.11 Power Requirement & Supply/ Source

If any, as per as requirement

7. REHABILITATION AND RESETTLEMENT (R&R) PLAN

Not Applicable.

8. PROJECT SCHEDULE & COST ESTIMATES

8.1 Likely Date of Start of Construction and Likely Date of Completion

NA

8.2 Estimated Project Cost Along With Analysis In Terms of Economic Viability of the Project

The Applicant shall spend some amount of project cost for the development of the area as per the local needs i.e. treatment of poor, schools, temples and other social work. The estimated project cost is Rs 42 Lakhs.

Budget Allotted for the Environmental Management Plan:-

Sl. No	Description	Capital Cost (lakh)	Recurring Cost (lakh)
1	Pollution Control & Dust Suppression	Nil	2,00,000
2	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	14,000 (4 samples) 8,000 (2 GW & 2 SW) 8,000 (2 samples) 7,000 (2 samples)
3	Plantation	1,21,000	1,00,000
4	Construction and maintenance of haul road	1,38,750	67,500
TOTAL		2,59,750	4,04,500

Note: *605 plants * 200 Rs (for each plants including hedges) = 1,21,000/-

*Salary of Labor for haul road maintenance 2 labor*150 =300 per day*

300 225 = 67,500/-*

** 2.5 lakh per kilometer (2,50,000 *0.555 km haul road) = 1,38,750 /-*

ANALYSIS OF PROPOSAL (FINAL RECOMMENDATIONS)

Financial and Social Benefits with Special Emphasis on the Benefit to the Local People Including Tribal Population, If Any, In the Area

The project will prove beneficial to the people as the company has already made the infrastructural facilities for the local people like Educational facilities, Transportation facilities etc. as well the local people especially tribal population will be taken as employers which will improve the socioeconomic environment of the area.
