

Pre-Feasibility Report
(As per MoEF Letter No. J011013/41/2006-IA.II (I) dated 30th December 2010)

1. Executive Summary:

Project	:	Chopan limestone mine
Project proponent	:	RCCPL Private Ltd. (formerly Reliance Cementation Private Ltd.)
Village	:	Chopan (159.70 Ha) Chanai Khurd (87.68 Ha)
Tehsil	:	Korpana
District	:	Chandrapur
State	:	Maharashtra
i	Proposed production, Mining Lease Area & ownership	Proposed production of limestone: 1.0 Million TPA (MTPA) Mine lease area: 247.38 Ha Ownership: RCCPL Private Ltd. (formerly Reliance Cementation Private Ltd) Letter of Intent issued by Govt. of Maharashtra vide No. MMN-1010/CR.3339/ind-9 dated 13.06.2018 Enclosed: Annexure-1 :Letter of Intent
ii	Geographical co-ordinates	Geographic coordinates given in following Annexure-3A : Geographic coordinate list Annexure-3B : Google imagery
iii	Name of Rivers/ Nallahs/ Tanks/ Spring/ Lakes etc.	Penganga river- 1.1 km N A seasonal nallah is flowing through South-Eastern part of lease. However, nallah will not be disturbed as it is falling under non-mineralized zone.
iv	Name of Reserve Forest(s), Wild life Sanctuary/ National parks etc.	There are no national parks, wild life sanctuaries and eco-sensitive zones in the proposed study area. However, 204.92 Ha. Of ML area is falling under Pardi Reserve Forest, while five reserve forests (RF) and one protected forest (PF) exist within 5km., and threeRFs exist within 5 – 10 km distance from the boundary of proposed mining area.
v	Topography of ML area	The topography is almost flat with gentle undulation. Highest and lowest elevation are 223 and 204 AMSL respectively.
vi	Project Proposal	Limestone: 1.0Million Ton Per Annum (MTPA) Waste/reject: 0.026 MTPA Topsoil: 0.017 MTPA Total excavation: 1.043 MTPA
vii	Name of Mineral mined	Limestone
viii	Mineral Reserve in Million Tons	UNFC Code Qty in Million T 122 34.74 (Mineable Reserves) 222 4.67 (Blocked under statutory barriers) 333 15.52 (Inferred resources)
ix	Life of mine	38 years
x	Drilling/ Blasting	Yes
xi	Mining method	Opencast mechanized

xii	Water requirement & Source	170 KLD for dust suppression, washing of mining machinery, plantation and domestic purpose, initially from ground water.
xiii	Solid waste/Tailings	Soil / Reject: ~ 3600 t/month
xiv	Cost of Project	Total Rs11,500 Lakh (including cost of land, machinery, pollution control measures, construction of mines office, weighbridge, man power etc.)
xv	Any Other (specify)	None

2) Introduction of the Project / Background Information

(i) Identification of Project and Project Proponent

Name of the Project:	Chopan Limestone Mine
Mine Lease Area:	247.38 Ha.
Location:	Villages: Chopan and Chanai Khurd Tehsil: Korpana District: Chandrapur State: Maharashtra
Project Proponent:	RCCPL Private Limited (formerly Reliance Cementation Private Ltd.) 2nd Floor, Industry House 159 Churchgate Reclamation, Churchgate Mumbai – 400020 E-mail: ashok.k.singh@birlacorp.com Landline: 022 43435403 / 4343 5400 Mobile: 9323488618

(ii) Brief Description of the Nature of the Project.

The proposal is for limestone opencast mechanized mining from Chopan limestone mine lease area spread over an area of 247.38 Ha at villages Chopan and Chanai Khurd, Tehsil: Korpana, District: Chandrapur, State: Maharashtra.

It is proposed to produce 1.0 Million TPA of limestone by opencast mechanized method of mining. During the production of limestone, waste / reject of 0.026 MTPA and topsoil of 0.017 MTPA will also be generated. Thus total excavation will be 1.043 MTPA. Drilling, blasting, loading, transporting and crushing is proposed.

Please refer **Annexure – 5** for surface plan and **Annexure-6** for geological plan.

(iii) Need of the Project and its importance to the Country and Region

The Indian cement industry is the second largest market after China. It had a total cement production capacity of about 425 MT as of September 2017. Cement is a cyclical commodity with a high correlation with GDP. Cement demand is closely linked to the overall economic growth of country, particularly the housing and infrastructure sector. Cement demand in real estate sector is spread across rural housing (40%), urban housing (25%) and construction/infrastructure/industrial activities (25%). While the rest 10% demand is contributed by commercial real estate sector.

Limestone is the main raw material for manufacturing of cement usually makes up around 65 percent of the final product. The mining and associated activities in the mineral bearing areas will bring about gains in gross domestic product, i.e. there is though a minor

contribution by the proposed project but will add to the gains in the G.D.P. The applicable royalty, taxes, DMF, NEMT paid by applicant will thereby contribute to the regional revenue. The cement demand is expected to increase at 6-7% Compound Average Growth Rate (CAGR) led by revival in government spending in housing (especially affordable housing), marginal uptick in private housing, and fast growth in infrastructure spends. At regional level, eastern states followed by central and north regions would see healthier growth in demand over a low base as the state governments sharpen focus on development.

RCCPL Private Ltd. is executing a cement plant with production capacity of 2.9 MTPA clinker, 4.8 MTPA cement at Mukutban village, Yavatmal district, Maharashtra.

To meet limestone requirement of cement plant, RCCPL Private Limited applied for mining leases in various part of Chandrapur District of Maharashtra and has obtained Letter of Intent (LoI) for ML area in Chopan and Chanai Khurd villages (total ML area 247.38 Ha) of Tehsil: Korpana, District: Chandrapur from Govt. of Maharashtra vide No. MMN-1010/CR.3339/ind-9 dated 13.06.2018. Limestone which will be mined from this area will be used as captive sources for cement plant of RCCPL Private Ltd. in Mukutban.

To convert LoI into mining lease grant preparation of mining plan is already on process and now applying for ToR for obtaining EC for above mentioned mining lease.

Enclosed **Annexure-1**: Letter of Intent

(iv) Demand Supply Gap

Cement demand is expected to reach 550-600 MTPA by 2025. To meet the rise in demand, cement companies are expected to add 56 MT capacity over the next three years. The per capita consumption of cement in India still remains substantially low at less than 200 kg when compared with the world average which stands about 500 kg. In case of China, it is over 1,000 kg per head. This underlines the tremendous scope for growth in the Indian cement industry in the long term. The production during the year was 280 million tonnes against the capacity of over 375 million tonnes resulting in an average capacity utilization of around 75%. According to Department of Industrial Policy and Promotion (DIPP) reports. There is large gap between demand & supply of raw material (Limestone) for the production of cement. The proposed project aims to fill the demand –supply gap through optimum allocation and excavation of natural resources required to meet the demand effectively.

(v) Imports Vs Indigenous Production

Imports of limestone is not envisaged.

(vi) Export possibility

No export of limestone is proposed. The limestone produced from proposed mine shall be sent to the captive end use plant.

(vii) Domestic / Export Markets

The limestone produced from proposed mine is proposed for captive use in the cement plant. There is no proposal for export.

(viii) Employment Generation (Direct and Indirect) Due to Project

During development phase ~ 15 direct & 50 indirect employees

During operational phase ~ 16 direct and 82 indirect employees

3)Project Description

(i) Type of Project (including interlinked and interdependent project, if any)

This is an opencast mechanized mining project linked to RCCPL Private Limited's cement plant under execution at Village Mukutban, Yavatmal District, Maharashtra. The proposed production capacity (for captive use only) from Chopan mine is 1.0 Million TPA.

(ii) Location (map showing general location, specific location and project boundary & project site specific layout) with coordinates.

The deposit is situated in Chopan and Chanai Khurd villages within Survey of India Toposheet No.: E44 A14 (old 56-I-14)

Geographical coordinates: Please refer -

Annexure – 3A: List of Geographic coordinates

Annexure - 3B: Google imagery

Annexure – 4: Study area in Toposheet

Detail of survey numbers

Sr.No.	Name of village	Survey No.	Area (Ha.)
1	Chopan	29, 30, 31, 34, 84, 86, 87, 88, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104/1, 104/2	159.70
2	Chanai Khurd	80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 96	87.68

Total Lease Area: 247.38 Ha

(iii) Details of alternate sites considered and the basis of selecting the proposed site, particularly the environmental considerations gone into should be highlighted.

Not applicable. This is a site specific project.

(iv) Size or Magnitude of operation.

It is proposed to produce 1.0 Million TPA of limestone by opencast mechanized method of mining. During the production of limestone, waste / reject of 0.026 MTPA and topsoil of 0.017 MTPA will also be generated. Thus total excavation will be 1.043 MTPA. Drilling, blasting, loading, transporting and crushing is proposed.

(v) Project Description with Process details (a schematic diagram/ Flow chart showing the project layout, components of the project etc. should be given.

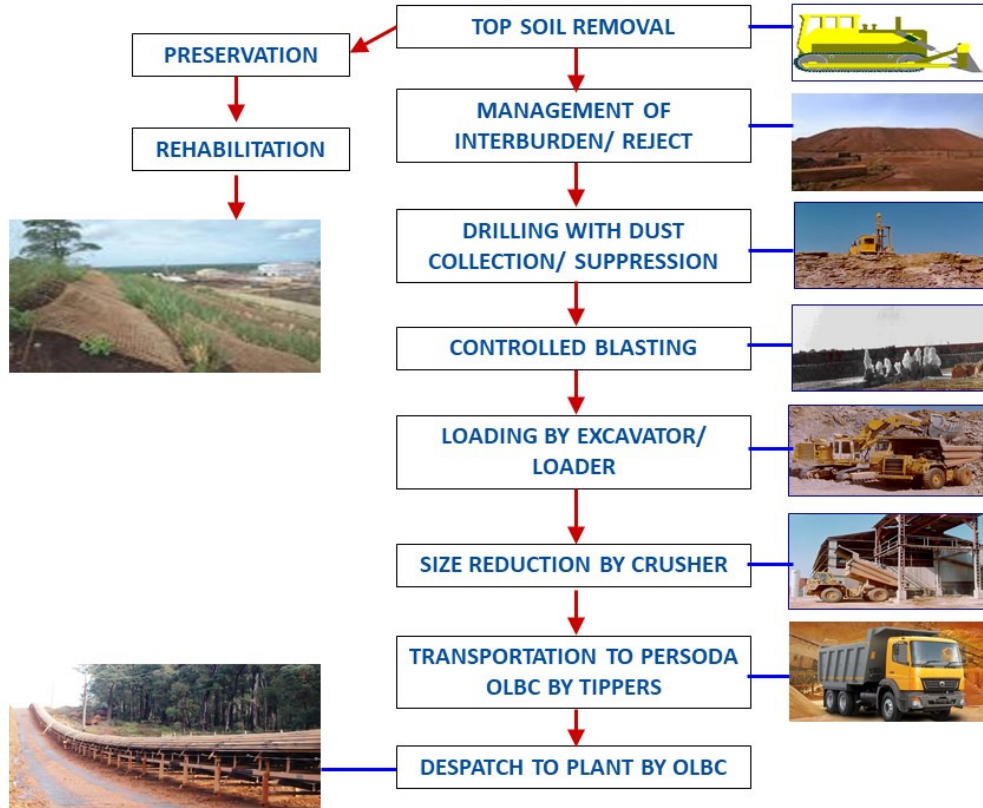
Fully mechanized opencast method of mining will be adopted. All operations of mining will be done by deployment of heavy earth moving machinery for deep hole drilling, excavation, loading & transportation. Various mining activities such as drilling, blasting, loading and transportation will be undertaken so as to ensure maximum mineral conservation and minimum environmental degradation. While planning, quality parameter of the deposit has been taken care of so as to have maximum blending ratio. Following measures will be taken for protection of nearby habitation.

- Drilling with dust collector / dust suppression
- Regular water sprinkling on haul roads
- Dust collector and water spraying at crusher
- Controlled blasting to minimize impact of noise and vibration

Application for obtaining Terms of Reference (ToR) for Environmental Clearance for Chopanlimestone mine, Tehsil: Korpana, District: Chandrapur, State: Maharashtra

- Detailed vibration study will be carried out
- Periodic maintenance of mining machinery to control noise and emission within permissible limit
- Adequate safety barriers from habitation, road etc. as per statutory guidelines
- Creation of garland drain and settling pond for protecting water environment
- No mining operation during night shift

The main activities involved will be:



Mine will be operated in two shifts with working of 8 hours each. Systematic working will be done by formation of benches. All applicable laws such as MMR, Mines Act, MMDR, MCR, MCDR, explosive rules and other applicable acts, rules & regulations will be followed for safe, scientific & systematic working to follow the principles of safety & human health and conservation of mineral.

Site will be cleared with the help of dozer / loader and top soil will be utilized for plantation or stacked separately for future use. Removal of over burden will be done by loader / excavator. Drilling in hard strata will be done by DTH drills of hole dia. 115 mm. For blasting, explosives such as ANFO, slurry / emulsion explosives, Nonel detonator, Electric detonator etc. will be used.

Blasted limestone will be loaded in to the dumpers by loaders/ excavators. These materials will be transported to the crushing plant. The over burden will be loaded by loaders/ excavators and transported to the dumping yard/backfilling site by dumpers / tippers. Mining of limestone and handling of waste rock will be done by adequate size of mining machinery as per approved mining plan. The mine will be operated under the control of mines manager, who will be reporting to the agent of mine.

Land use status at conceptual stage / at the end of mine life is given under point no.5 (iii).

(vi) Raw material required along with estimated quantity, likely source, marketing area of final product/s, Mode of transportation of raw material and Finished Product.

The area around Chopan etc. is a part of Peninsular India. It consists of Proterozoic sedimentary rocks which are represented by Shales, Limestones, Dolomite and Sandstone known as Penganga beds. The overlying Gondwana sedimentary formations which are deposited in the linear faulted troughs within Penganga beds are represented by Talchir, coal bearing Barakars, Moturs and Kamthi Formation. They are overlain by Lametas comprising of clays and siliceous limestone. All the older Formations are overlain by Deccan Traps of basaltic lava flows.

The Stratigraphic succession of the area is given in Stratigraphic Succession of Area

Formation	Lithology	Geological Age
Soil	Clay, Sand etc. forms as river sediment	Recent
Deccan Trap	Basaltic lava flow	Lower Eocene to upper cretaceous
Unconformity		
Lametas	Siliceous, calcareous, beds	Infratrapian
Unconformity		
Lower Gondwana Formation	Sandstone, shale carbonaceous beds	Carboniferous
Unconformity		
Penganga beds	Purple shale, grey shale, limestone, dolomite, sandstone	Proterozoic
Unconformity		
Basement formation	Metamorphic	Archean

Description of local geology:

The area comprises purple Shale, Shaly limestone, marginal to sub grade grey limestone and dolomite belonging to Panganga Group. Detailed prospecting operation revealed that the limestone of PL area invariably occurs with thin bands of shale thereby deteriorating the overall quality of limestone. The bands of argillaceous and siliceous materials are non-separable. As depth increases, amount of Shale also increases and gradually turns in to shaly limestone and ultimately Shale. Shale is exposed in the eastern and southern part of PL area.

Major part of the area is covered by soil. The local geological succession established based on prospecting operations is as under:

Recent: Soil/ Alluvium

Penganga beds: Marginal to sub grade Limestone/ shaly Limestone / Purple Brown Shale

The various litho-units observed in the area are briefly described below:

Soil: The ML area is almost plain terrain with some undulation. Major part of the area is covered by soil and detritus material derived from underlying litho-units. Soil is brownish black in colour. The thickness of Soil varies from 0.18 mto 2.0m. with average thickness is 0.46 m.

Limestone/ Shaly Limestone: The limestone is uniformly grayish to bluish grey in colour, fine grained, hard, compact and thinly bedded. The limestone of ML area invariably occurs with Shale thereby deteriorating in the quality. As depth increases, amount of Shale also increases and gradually turns in to shaly limestone. The shaly limestone is underlain by purple to brown shale. The general strike of limestone is NNW- SSE to NNE-SSW and dips 5° to 18° due west. Beds dipping towards east are also observed.

Limestone in the ML area is marginal to sub grade. Limestone having > 44% CaO has been encountered in only one borehole. Marginal to sub grade limestone has been encountered in 23 boreholes in the ML area. The maximum and minimum thickness of marginal to sub grade limestone encountered is 31 m. & 2 m. respectively. Exposures of marginal grade Limestone / shaly limestone can be seen along Adilabad road and near Chopan village.

Purple Shale: The purple shale represents the oldest rock units of Penganga beds. Exposures of purple shale can be seen in the nala cuttings near road to the NNW of Chanai Khurd village, and near Khadki village. The general strike is NNW- SSE and dips 6° to 12° towards west in the eastern part of the area while towards east in the western part. They are fine grained, purple to brown in colour, thinly bedded, and soft in nature.

Overburden comprises of top soil & detritus material derived from parent rocks. Average thickness of soil is about 0.46mtrs.

Chemical analysis of limestone in proposed mining lease:
Clean Core Quality of limestone at is as under:

CaO%	Fe2O3%	Al2O3%	MgO%	SiO2%	LOI%
37.97	1.81	3.88	1.88	21.91	31.50

Description of reserves

Cross-sectional method was adopted for reserves calculation using CAD software. Geological cross sections were drawn within potential area along the dip direction using geological plan at every 200m grid interval.

These sections were utilized to calculate the sectional areas of overburden and marginal to sub grade limestone separately. The sectional areas were then multiplied by the mean influence distance of sections to arrive at the volume for the individual sections. Thus, the volume so determined was multiplied by tonnage conversion factor to arrive at gross tonnage. The tonnage conversion factor of marginal to sub grade limestone was taken as 2.5 tonne per m³. The tonnage conversion factor for overburden was taken as 1.6 tonne per m³. Gross geological reserves were reduced by 20% to account for geological uncertainties and estimation errors.

Mineable reserves were calculated taking into consideration statutory safety distance of 7.5m from the boundary, 50m on either side of the public road, 300 m from village, slope angle of benches and ultimate pit slope, etc. The methodology employed for calculation of mineable reserves was same as that of geological reserves. Summary of reserves is given in Table below.

Summary of Limestone Reserves& Resources (in million tonne)

UNFC Code	UNFC Category	Quantity of Limestone	Quantity of overburden*
122	Probable mineral reserve (Mineable)	34.74	1.63
222	Pre-feasibility mineral resource	4.67	1.88
333	Inferred mineral resource	15.52	

(vii) Resource Optimization /Recycling and Reuse envisaged in the Project

There is no processing of mineral. There is no process effluent generation in the mine. Hence there is no possibility of any recycling and reuse.

Solid Waste like overburden reject etc. produced during mining activity will be utilized for back filling in the worked-out pit simultaneously. Top soil generated will be used for plantation activity.

(viii) Availability of water its source, Energy/Power requirement and source

Purpose	Water requirement,KLD	Source
Dust suppression at mine	128	Initially from groundwater
Dust suppression at crusher	10	
Green belt	22	
Domestic	5	
Workshop	5	
Total	170	

After five years of operation, considering the development of mines and filling of mine pit by rain water, fresh water requirement will be reduced considerably. The detail study will be carried out for proper water management.

Power Requirement

The power requirement for the mines will be ~1.2MWand the same will be metthrough grid power.One DG set (250 KVA) will be installed to meet the demand required during the emergency period for lighting and pumping purposes.

(ix) Quantity of wastes to be generated (liquid and solid) and scheme for their management / disposal.

Reject and Soil: ~0.043MTPA

Overburden etc. produced during mining activity will be utilized for back filling in the worked-out pit. Top soil generated will be used for plantation activity.

Wastewater

There will not be any process effluent generation from the mine lease area, however effluent generated from mine workshop will be treated using oil-grease separator and reused. Only domestic waste water will be generated and will be treated in septic tank/soak pits.

x) Schematic representation of the feasibility drawing which give information of EIA purpose.

The mine is categorized under category A (>100 ha) under schedule 1(a) of Gazette Notification dated Sep 14th, 2006 and subsequent amendments.

4) Site Analysis

(i) Connectivity

The area is approachable by State Highway No. 236 from Korpana (Tehsil head quarter in Chandrapur district). Chopan is ~4km. from Korpana and ~ 75Km.by road from Chandrapur, District Headquarter. These villages are very well connected by metalled and /or Kuccha roads. The nearest railway stations are Kayar in Yavatmal district on the northern side of the Penganga River and Rajura in Chandrapur district.

(ii) Land Form, Land use and Land Ownership

65% of the total land is under private ownership, while 35% land is Govt. land. The present land uses in private land is agriculture.

(iii) Topography along with maps

The mine lease area is almost flat with gentle undulation. The highest ground level in the ML area is 204 AMSL and lowest elevation is 223 AMSL in ML area.

Please refer **Annexure-4, Annexure-5, Annexure-6** for Toposheet, surface plan and geological plan respectively.

(iv) Existing land use pattern (agriculture, non-agriculture, forest, water bodies (including area under CRZ)), shortest distance from the periphery of the project to periphery of the forests, eco sensitive areas, water bodies (distance from the HFL of the river), CRZ.

Land Use Pattern:

Govt. Waste land: 78.37 Ha.
Govt. Gayran land: 8.53 Ha.
Agricultural land: 160.48 Ha.

Land Use Classification:

Forest land – 204.92 Ha.
Non-forest land – 42.46 Ha.

Distance of Forest, National Park, Water Bodies etc. from the Project Site

There are no national parks, wild life sanctuaries and eco-sensitive zones in the proposed study area. However, 204.92 Ha. Of ML area is falling under Pardi Reserve Forest, while five reserve forests (RF) and one protected forest (PF) exist within 5 km., and three RFs exist within 5 – 10 km distance from the boundary of proposed mining area.

Penganga river is located at a distance of 1.1km., at northern side of the proposed area. One seasonal nallah is flowing through SE part of ML area.

v) Existing infrastructure

Detailed demographic survey will be carried out and data will be collected during EIA study. Villages have primary infrastructure like primary school for children, drinking water and other basic amenities like village road and electricity etc.

vi) Soil classification:

The ML area is almost plain terrain with some undulation ranging from 204 – 223 m AMSL. Major part of the area is covered by soil. Soil is brownish black in colour. The thickness of Soil varies from 0.18 m to 2 m with average thickness is 0.46 m.

vii) Climatic data from secondary sources:

The climate of the area is typically tropical. It is very hot in summer while winter is moderately cool and pleasant. Maximum summer temperature reaches up to 47 °C usually in the month of May while in winter it lowers down to 10 °C in December. The average rainfall is about 1250 mm is mainly precipitated during June to September. (Source: IMD, Chandrapur)

viii) Social infrastructure available:

The following infrastructure facilities are available in the nearby villages of ML area

- Drinking water availability by open wells/bore wells
- Village roads
- Primary / secondary schools
- Primary health care facilities
- Public buildings / community halls
- Communication/ transportation facilities

5. Planning brief

i) Planning Concept (type of industries, facilities, transportation, etc), town and country, planning/development authority Classification

The proposed project is to set up 1.0 MTPA captive limestone mine at Chopan and Chanai Khurd villages. Opencast mechanized mining will be followed for raising the limestone. Limestone will be supplied to the plant through belt conveyor.

ii) Population Projection:

The proposed mining project is envisaged to employ 16 direct and 82 indirect employees during operational phase which will not have any significant increase in population increase.

iii) Land use planning (breakup along with green belt etc.):

Land use planning in beginning and end of life of mine is as follows:

Sr. No.	Land Use Category	Pre-Operational	Operational	Post-Operational
		(Present)	(At the end of 1 st 5 year plan)	(At the end of Life of Mine)
1	Soil Dump	0	0.28	0
2	Bund and Drain	0	0.59	0
3	Waste Dump	0	1.16	0

Sr. No.	Land Use Category	Pre-Operational	Operational	Post-Operational
		(Present)	(At the end of 1 st 5 year plan)	(At the end of Life of Mine)
4	Excavation including protective bund	0	8.80	133.78
5	Area reclaimed with Backfilling and rehabilitated with plantation	0	0	5.82
6	Area rehabilitated with water reservoir	0	0	127.48
7	Plantation on protective bund between water reservoir and backfilled area	0	0	0.47
8	Road, mine road etc.	0	2.3	0
9	Infrastructure	0	4.11	1.10
10	Built-up area (village)	0.65	0.65	0.65
11	Mineral Storage (Sub-grade/mineral)	0	0	0
12	Plantation & Greenbelt on safety barriers, along lease, road, powerline and other areas	0	6.50	61.29
13	Undisturbed area	246.73	222.99	50.56
	(excluding Sr.No.5,6 and 7, which are included in Sr.No.4)	247.38	247.38	247.38

iv) Assessment of Infrastructure Demand (Physical & Social)

Detail assessment of infrastructure demand will be covered in EIA study.

v) Amenities/Facilities

Basic amenities / facilities will be studied during EIA.

6. Proposed infrastructure

i) Industrial area (processing area)

At mines the following infrastructure facilities will be created

- Administrative office with training facilities
- Garage and Workshop for Heavy earth moving equipment
- Canteen and other amenities
- Dewatering pumps for mine pits
- Approach road to mines office/crusher area and roads for dumper movement
- Diesel storage and pumping facility
- Explosive Magazine room

ii) Residential Area (Non-processing area)

Construction of residential complex has not been envisaged.

(iii) Green Belt

The main objective of the green belt is to provide a barrier between the mining activity and the surrounding areas. The green belt helps to capture the fugitive emissions and attenuate the noise generated apart from improving the aesthetics of the proposed mine lease area.

Plantation is proposed in mine premises i.e. along the internal roads, on storage yards and dump yards in mine areas and along the administrative buildings.

Plantation will be done as per the CPCB guidelines and as per IBM approved mining plan. Local forest department shall also be contacted for finalization of plant species.

(iv) Social Infrastructure

The key areas will be as follows:

- Health & Sanitation
- Infrastructure development
- Education support programme
- Horticulture and Agriculture
- Employability
- Environment and Energy

(v) Connectivity (traffic and transportation road/Rail/Metro/water ways, etc)

The existing transportation infrastructure is sufficient to cater the traffic from the mine.

vi) Drinking water management (Source & Supply of water)

It is proposed to source the domestic water for proposed mines through groundwater after obtaining necessary clearances from the concerned authorities.

vii) Sewerage system

The domestic waste water from the mines will be treated in the septic tank/soak pits.

viii) Industrial waste management

No industrial wastes will be generated from the mine.

viii) Solid waste management

Solid waste like soil and overburden from mines will be managed as per the IBM approved mining plan. The top soil will be stored at appropriate place, which will be utilized for plantation purpose.

The overburden like dolomite and subgrade minerals will be stored separately for future use if any. While reject material will be used for backfilling.

ix) Power requirement and supply/source

The power requirement for the mines will be ~ 1.2 MW and the same will be met through grid power. One DG set will also be installed to meet the demand required during the emergency period for lighting and pumping purposes.

7. Rehabilitation & Resettlement (R&R Plan)

Rehabilitation and resettlement is not envisaged

8. Project Schedule and Cost estimates

Project schedule:

During 1st year of mining operation, land purchasing, permissions for operations of mines, development of mines will be undertaken.

From 2nd year onwards, production will start in a phased manner and rated capacity of 1.0 MTPA will be achieved from 5th year onwards.

Project cost:

The capital cost for the proposed mining works out to Rs.115croresincluding environment management, pollution control measures and community development.

9. Analysis of proposal (Final Recommendations)

Financial and social benefits with special emphasis on the benefit to the local people in terms of integrated development of villages falling in project area.

Financial benefits: Direct benefits to the National and State Exchequer:

- Royalty,
- DMF
- NMET
- Income by way of registration of vehicles
- Income tax from individual as well as corporate taxes by the cement company and ancillary units developed due to proposed industry.
- Inflow of money to the local market/economy due to exchange of money earned by direct and indirect employees.

Social Benefits:

The proposed mining project will generate new employment opportunity, which will have beneficial impact on the economy. Transportation facility and awareness towards the environment in the region will improve considerably. Socio-economic status of the region will definitely improve due to the project. The social welfare activities will be planned and implemented as per need assessment carried out by company's CSR team in the following areas:

- Medical assistance
- Education
- Agriculture improvement
- Vocational training
- Assistance in utilizing Government programme
- Assistance for generation livelihood opportunities
- Health and sanitation
- Creation of SHG
- Animal husbandry