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Dated: 11<sup>th</sup> November 2022

## 5<sup>th</sup> PROJECT LIE REPORT (FOR QUARTER ENDING SEP 2022)

### OF

## INTEGRATED CEMENT PLANT UNIT (IU) AND CLINKER GRINDING UNIT (GU)

INTEGRATED UNIT SITUATED AT

VILLAGES HARDUWA KEN, PURAINA, MADDIAN AND SOTIPURA, TEHSIL  
AMANGANJ, DISTRICT PANNA, MADHYA PRADESH

GRINDING UNIT SITUATED AT

DISTRICT HAMIRPUR, UTTAR PRADESH

IMPLEMENTED BY

JAYKAYCEM (CENTRAL) LIMITED SUBSIDIARY OF



REPORT PREPARED FOR

BANK OF BARODA, INTERNATIONAL BUSINESS BRANCH, THE MALL,  
KANPUR-208 001

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CORPORATE OFFICE:

D-39, 2nd floor, Sector 2, Noida-201301

Ph - +91-0120-4110117, 4324647, +91 - 9958632707

E-mail - valuers@rkassociates.org | Website: www.rkassociates.org

**TABLE OF CONTENTS**

| <b>SR. NO.</b> | <b>DESCRIPTION</b>   | <b>PAGE NO.</b> |
|----------------|--|-----------------|
| <b>PART A</b>  | <b>Report Summary</b>  | <b>03</b>       |
| <b>PART B</b>  | <b>Introduction</b>  | <b>06</b>       |
|                | 1. The Project   | <b>06</b>       |
|                | 2. About the Borrower  | <b>07</b>       |
|                | 3. Location of the Project   | <b>08</b>       |
|                | 4. Project Overview  | <b>10</b>       |
|                | 5. Scope of the Project During Project Duration                                  | <b>15</b>       |
|                | 6. Purpose of the Report   | <b>16</b>       |
|                | 7. Methodology Adopted   | <b>16</b>       |
| <b>PART C</b>  | <b>Plant Infrastructure Sections &amp; Facility Details with Actual Progress</b> | <b>17</b>       |
|                | 1. Land Details  | <b>17</b>       |
|                | 2. Building and Structure Details  | <b>19</b>       |
|                | 3. Plant Machinery and Equipment   | <b>32</b>       |
| <b>PART D</b>  | <b>Project Consultants, Contractors &amp; Suppliers</b>                          | <b>46</b>       |
|                | 1. List of Contractors and Agreements  | <b>46</b>       |
| <b>PART E</b>  | <b>Project Cost and Means of Finance</b>   | <b>49</b>       |
|                | 1. Cost of Project   | <b>49</b>       |
|                | 2. Current Status and Total Expenditure Incurred Till Date                       | <b>50</b>       |
|                | 3. Sources of Finance & Utilization of Funds                                     | <b>53</b>       |
| <b>PART F</b>  | <b>Statutory &amp; Regulatory Approvals, Clearances &amp; NOC</b>                | <b>54</b>       |
| <b>PART G</b>  | <b>Project Schedule &amp; Current Status</b>                                     | <b>57</b>       |
|                | 1. Project Schedule Chart  | <b>58 - 59</b>  |
| <b>PART H</b>  | <b>Observations and Comments</b>   | <b>60</b>       |
| <b>PART I</b>  | <b>Disclaimer</b>  | <b>63</b>       |





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**PART A**

**REPORT SUMMARY**

- 1. Name of Project:**  
**Project 1-** To Set Up a Greenfield Integrated Cement Plant of Capacity 8000 TPD Clinker and 2MI. TPA Cement Capacity which includes setting up of Waste Heat recovery System (WHRS) with estimated capacity of 22 MW  
**Project 2-** To Set Up A Greenfield Clinker Grinding Unit (GU) of 2.0 MI. TPA Cement Production Capacity.
- 2. Project Location:**  
**Project 1:** Villages Harduwa Ken, Puraina, Maddian and Sotipura, Tehsil Amanganj, District Panna, Madhya Pradesh  
**Project 2:** District Hamirpur, Uttar Pradesh
- 3. Name of the Borrower:** M/s. Jaykaycem (Central) Limited a wholly owned subsidiary of JK Cement Limited
- 4. Director's**  
Mr. Madhavkrishna Sighania  
Shri Ajay Kumar Saraogi  
Shri Anil Kumar Agarwal  
Shri Krishna Behari Agarwal
- 5. Prepared for Bank:** Bank of Baroda, International Banking Branch, Kanpur
- 6. LIE Consultant Firm:** M/s. R.K. Associates Valuers & Techno Engineering Consultants (P) Ltd.
- 7. Date of Survey:** 08<sup>th</sup> November 2022 (Grinding unit) and 09<sup>th</sup> November 2022 (Integrated Unit)
- 8. Date of Report:** 11/11/2022





- 9. Purpose of the Report:** To provide fair detailed analysis report to the Bank based on the "in-scope points" mentioned below for facilitating them to take appropriate credit decision on the Project.
- 10. Scope of the work provided by the Lender:**
- a. To conduct site reviews, document reviews and study progress reports on continuous basis specially vis-à-vis Original timelines to avoid sudden shocks of overrun.
  - b. To determine the progress achieved and appropriateness of related transactions. The consultant shall also flag any issue which is resulting in Nonperformance/ under performance by the contractor. All payments to related parties should be closely monitored and highlighted to the consortium.
  - c. Deviations in project progress vis-à-vis timelines and amount disbursed. High value payment/ dues to be clearly monitored and highlighted to the consortium.
  - d. Periodical review of invoices and submission of exception report to the consortium.
  - e. Fortnightly review of production/ supplies (quantities of works certified) vi-a-vis inventory consumption records, cash flow to contractor, sub-contractor and vendors, wastages, extent of work and quality non conformities raised by borrower and highlight exceptions. A single review report will be released each fortnight for invoices raised and inventory consumed in that period.
  - f. Suggestions, if any for improving the project management practices.



- g. Perform such other services as request by the lenders and mutually agreed to by the party and lenders.

**11. Documents perused for Proposal:**

- a. Techno economic feasibility report
- b. Pending Project Statutory approvals
- c. CA certificate
- d. List of contractors/Suppliers
- e. Purchase orders/Copies of Invoices

**12. Annexure with the report:**

1. Pending Project Statutory approvals
2. CA Certificate
3. List of Contractors/ Suppliers
4. List of PO



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**PART B**

**INTRODUCTION**

**1. THE PROJECT:**

**Jaykaycem (Central) Limited (JCL)** is setting up a Greenfield Integrated Cement Plant (IU) of 8,000 TPD clinker and 2.0 million output TPA cement capacity at village Devra, Hardua, Puraina, Sotipura and Madaiyan, tehsil Amanganj, district Panna, Madhya Pradesh with a Split located Grinding Unit (GU) of 2 million TPA capacity in district Hamirpur, Uttar Pradesh. The project also envisages setting up of Waste Heat Recovery System (WHRS) based power plant, along with the integrated cement plant. A part of Clinker produced shall be consumed at integrated cement plant and balance shall be supplied to **JCL's** Grinding Unit (GU) in Hamirpur, Uttar Pradesh.







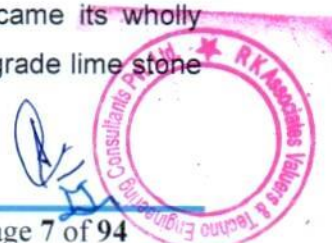
## 2. ABOUT THE BORROWER:

**Jaykaycem (Central) Limited (JCL)** is a wholly owned subsidiary of JK Cement Limited, which in turn, is the Cement vertical of the industrial conglomerate JK Organisation. **JCL**, thus, is an affiliate of the flagship JK Organisation. The primary set of directors of JCL as on date are:

- Mr. Madhavkrishna Singhania;
- Shri Ajay Kumar Saraogi
- Shri Anil Kumar Agarwal
- Dr. Krishna Behari Agarwal

**JCL** is setting up a Greenfield grey cement manufacturing unit of 8,000 TPD clinker capacity in Panna district of Madhya Pradesh, and a Greenfield split grinding unit in Hamirpur district of Uttar Pradesh.

'Jaykaycem' is an affiliate of the multi-disciplinary industrial conglomerate- JK organisation. JK Cement limited acquired 100 Percent shares, whereupon Jaykaycem became its wholly owned subsidiary. Jaykaycem is being granted the mining lease of cement grade lime stone





in Panna District of Madhya Pradesh state and letter of intent in this regard has already been issued by Madhya Pradesh government. It started the process of acquisition from villagers falling under mining and under plant area. It has plans to set up grey cement manufacturing unit of appropriate capacity in phased within the periphery of mining area.

JK cement deals in production of grey cement, white cement, wall putty, gypsum plaster, tile adhesives and grouts and wood finishes.

JK Cement is having following units

1. JK Cement works, Nimbahera
2. JK White cement works, Gotan
3. JK Cement works, Muddapur
4. JK cement works, Mangrol
5. JK cement works, Jhajjar
6. JK cement works, Aligarh
7. JK Cement works, Balasinor
8. JK White, Katni
9. Besides above listed plants, JK Cement is also having a step down subsidiary in UAE i.e. J.K. Cement works (Fujairah) FZA.

### 3. PROJECT LOCATION:

#### 3.1 LOCATION OF INTEGRATED UNIT (IU)

Details of Location of Integrated unit is as below:

| Particulars                 | Description  |
|-----------------------------|--|
| Latitude                    | N 24° 19' 14"  |
| Longitude                   | E 79° 58' 40"  |
| <b>Connectivity Systems</b> |  |
| Road                        | <p>The project site of the subject under construction plant is well connected by road network and is on State Highway 49. The Project site is on Village Road leading to Amanganj town and Nagar panchayat which is can be easily accessed via State Highway SH-49 towards panna national park. It is around 53 Km from main district Panna. District Panna is around 285 Km far away from Lucknow State Capital.</p> <p>The project site can be approached from by traveling on National Highway – 75 (NH-75) up to Panna and then traveling on Madhya Pradesh State Highway SH-49 towards Damoh. The approximate distance of the site from NH-75 is about 48 km and about 12 km from Amanganj.</p> |



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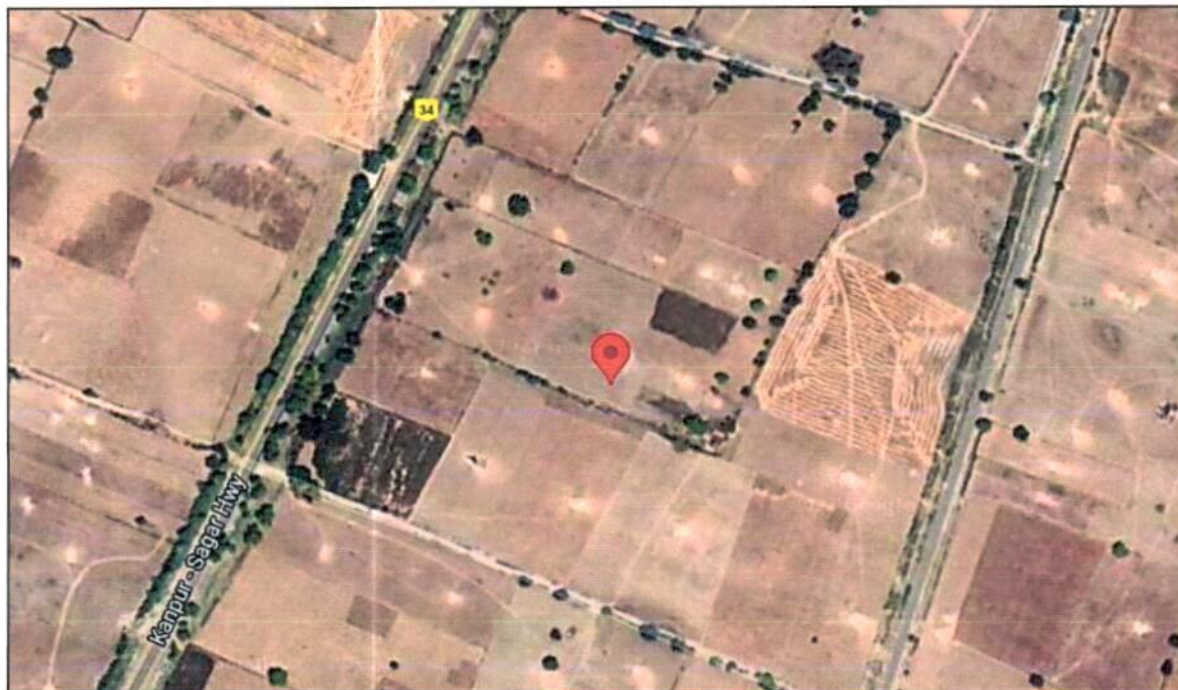
### 3.2 LOCATION OF GRINDING UNIT

| Particulars                 | Description   |
|-----------------------------|---|
| Latitude                    | N 25° 46' 16"   |
| Longitude                   | E 80° 07' 40"   |
| <b>Connectivity Systems</b> |   |
| Road                        | The considered location of the cement manufacturing unit is well connected with major cities and town, and the markets of interest. The approximate road distances of the project site from the major towns and cities are:<br>Kanpur : 85 km, Lucknow : 170 km, Prayagraj : 220 km, Panna (Amanganj) : 240 km, Varanasi : 350 km |
| Rail                        | The nearest railway station from the plant site is at Ingotha at a distance of about 2.5 km. The other nearest railway station is at Bharuwa Sumerpur located about 9 km from the site.   |





|     |  |
|-----|--|
| Air | The nearest domestic airport is at Kanpur at a distance of about 90 km from the under construction cement manufacturing unit. The nearest international airport is at Lucknow at a distance of about 157 km from the project site. |
|-----|--|



**Figure 2: Project Location of Grinding Unit**

#### **4. PROJECT OVERVIEW:**

**Jaykaycem (Central) Limited (JCL)** a wholly owned subsidiary of JK Cement Limited is setting up a Greenfield Integrated Cement Plant (IU) of 2.64 MTPA (8,000 TPD) of clinker and 2.0 Million output TPA of cement at village Devra, Hardua, Puraina, Sotipura and Madaiyan, tehsil Amanganj, district Panna, Madhya Pradesh with a Split located Grinding Unit (GU) of 2 Million TPA capacity at district Hamirpur, Uttar Pradesh.

The total proposed Project cost sums approx. Rs.2970 crores out of which Rs.2187.50 cr. is proposed for Integrated Cement Plant (IU) at Panna, MP and Rs.322.98 cr. at Hamirpur, Uttar Pradesh for Grinding Unit. In addition to this Rs.459.82 cr. is proposed for common expenses taken in Total Project Cost for pre-operative, IDC and finance expenses.

The proposed completion date for the Project and both these Plants are envisaged by 30<sup>th</sup> April, 2023 as per BOB Sanction Letter. As per TEFR, 24 months' period is envisaged for





Integrated Unit and 18 months for Grinding Unit from the date of start of the construction. As per the site inspection and information provided by the borrower, construction at IU, Panna started on July, 2021 and at GU, Hamirpur from September, 2021. Presently as per our site inspection in November, the construction work is going on in full swing at both the sites.

The borrower has appointed reputed and well established contractors/Suppliers for completing this project. As per the information available in public domain for these suppliers/Contractors they are having good track record in completion such type of works.

#### **4.1 INTEGRATED CEMENT PLANT OF CAPACITY 8000 TPD CLINKER AND 2 MILLION OUTPUT TPA CEMENT CAPACITY AT PANNA, MP.**

Integrated Cement Plant of Capacity 2.64 MTPA (8000 TPD) of Clinker and 2 Million output TPA of Cement is located at Villages Harduwa Ken, Puraina, Maddian and Sotipura, Tehsil Amanganj, District Panna, Madhya Pradesh. This project is proposed on about total land area about 480 acres and the same is also approved in Environment clearance.

As per Environment Clearance from Ministry of Environment, Forest and Climate Change and Industrial Entrepreneur Memorandum from Ministry of Commerce & Industry, Integrated unit situated at Panna is having approval for setting up of 5.28 MTPA of clinker unit and 6.0 MTPA of Cement Unit having 2 units each in clinker and cement production. However as per present plan borrower has decided to setup single unit each in clinker and cement units with production capacity of 2.64 million output TPA (8000 TPD) of Clinker production and 2 Million output TPA of Cement production which will be around 50% & approx. 33.33% of clinker and cement unit respectively of the approved capacities. In addition to this, borrower also has approval for setting up CPP of 80 MW and WHRS of 30 MW out of which borrower has currently planned to setup only 22 MW WHRS. Presently in the subject project, borrower has not planned Captive Power Plant (CPP) and Railway siding at both the locations.

The under-construction plant will be sustained through Kakra-Panna Limestone mining lease admeasuring 1594.34 Hectare out of which 75.754 ha. Is Govt. leased land and 1518.586 ha is private land planned to be obtained by JKL. The northern boundary of proposed site of the plant adjoins the southern boundary of granted Limestone mining lease.

As per TEFR prepared by HOLTEC, JCL has estimated that Kakra mine area has about 237.27 million output ton of cement grade limestone, 58.20 million output ton of blend able grade





limestone, and 27.32 million output ton inferior grade probable limestone reserves which shall meet the requirement of clinkerisation plant for about 80 years for the envisaged production capacity of 2.64 million output TPA clinker.

In this regard out of the total available capacity, borrower has got Consent to Establish from M.P Pollution Control Board for mining at following capacities:

| Activity/Product               | Quantity/Year    |
|--------------------------------|------------------|
| Mining of Limestone            | 4.08 Million TPA |
| Mine Waste                     | 0.18 Million TPA |
| Mining of Sub Grade Lime stone | 0.58 Million TPA |
| Mining of Inter Burden         | 1.51 Million TPA |
| Mining of Soil/Alluvium        | 1.26 Million TPA |

In Cement unit, JCL has proposed to produce OPC and PPC as per relevant BIS Standards:

| Sr. No. | Product Type | Proportion | Cement Volume | Relevant IS   |
|---------|--------------|------------|---------------|---------------|
| 1.      | OPC          | 40%        | 2424 TPD      | IS 12269-1987 |
| 2.      | PPC          | 60%        | 3636 TPD      | IS 1489-1991  |

In the subject Plant borrower has opted clinker dry process kiln system of 8,000 TPD capacity. This process will include limestone Crushing and transport, correctives & additive crushing, transport, pre-blending stockpiles, Closed Circuit Roller Press (CCRP) for raw material grinding, a vertical roller mill for coal grinding, 6-stage double string preheater with in line calciner, Waste Heat Recovery System (WHRS), coal fired rotary kiln with 3 roller stations, storing & dozing of fuel, clinker cooler, clinker storage silo, clinker extraction system, Vertical Roller Mill (VRM) for clinker grinding, clinker bulk loading via trucks, cement silos, packing and loading equipment.

A part of clinker produced at Panna Plant shall be consumed at integrated cement Plant and balance shall be supplied to JCL's Grinding unit in Hamirpur, Uttar Pradesh.

In addition to above clinkerisation process, JCL has planned setting up pyro processing section with 8,000 tpd nominal capacity and 10,000 tpd potential capacity to produce 2 Million output TPA of Cement.



**Main machineries to be installed in integrated Cement unit is as below:**

- i. Limestone Crusher
- ii. Corrective/Additive Crusher
- iii. Coal Crusher
- iv. Raw material Grinding
- v. Kiln
- vi. Cooler
- vii. Coal mill
- viii. Cement Grinding
- ix. Packing machine

The water requirement for plant, colony and WHRS has been estimated as about 2500 m<sup>3</sup>/Day. As per the TEFR. Details of water requirement is as below:

- **Cement Plant:** 2,100 m<sup>3</sup>/Day
- **Drinking, Sanitation and Plantation:** 100 m<sup>3</sup>/Days
- **Mines:** 150 m<sup>3</sup>/Day
- **Waste heat Recovery System (WHRS):** 150 m<sup>3</sup>/Day

Water requirement is envisaged to be primarily met from mines pits, check dams, rain harvesting etc. beside Ken River. For domestic purposes, water requirement may be augmented by utilizing underground sources.

The maximum power demand for the under construction plant and mines has been estimated as about 34MW which is proposed to be met through a combination of Grid and Waste heat recovery system (WHRS) based thermal power plant.

#### **4.2CLINKER GRINDING UNIT (GU) OF 2 Million Output TPA CEMENT PRODUCTION CAPACITY AT HAMIRPUR, UP.**

Grinding unit of Capacity 2 Million output TPA of Cement is located at District Hamirpur, Uttar Pradesh. As estimated by JCL, the under construction project will require about 27 Acres which translates to approx. 11 Hectares of land for the purpose of setting up the under construction Grinding unit. The same area is also approved as per environment clearance.





Clinker grinding unit (GU) is located at Hamirpur district, Uttar Pradesh. The district falls under Chitrakoot Division. **As per the product mix details provided by the borrower, they have planned to manufacture 100% Portland Pozzolona Cement (PPC).** The plant technical concept conceptualizes use of modern energy efficient and environment friendly material transport, handling, storage, grinding, packing and dispatch systems. The core grinding circuit is envisaged to constitute of inbound material unloading and handling through bulk receiving units with truck tipping systems; optimized and just sufficient material storages; vertical roller mill for grinding; rotary packing machines with truck & bulk loading systems, and a suitable hot gas generator for moisture mitigation and mill operations. The plant technical concept envisages to have suitable and adequate infrastructure along with stipulated green belt provisions.

**Main machineries envisaged for the project area:**

- i. Cement grinding mill
- ii. Cement Mill hoppers
- iii. Cement dispatch packing machine and loading machines
- iv. Hot air generator

As per Environment clearance (EC) issued to the project by Ministry of Environment, Forest and Climate Change (MoEFCC) and Industrial Entrepreneur Memorandum (IEM) from Ministry of Commerce & Industry the project has been granted approval for manufacturing of 2 million TPA of PPC. In addition to the environment clearance the project has also obtained Consent to Establish (CTE) from UP Pollution Control Board for Production of PPC up to 1,50,000 MT per month which translates to 1.8 Million TPA, OPC up to 16,600 MT per month which translates to 0.2 Million TPA apart from other products like PSC (16,600 MT per month) and Cement composites (16,600 MT per month).

The total water requirement for the project is envisaged to be about 300m<sup>3</sup>/Day, which is planned to be met from underground sources and secondary sources like rainwater harvesting etc.

The total maximum power demand for the under construction plant has been estimated as about 12MW, which is envisaged to be met from the sumerpur grid substation of UP Power transmission corporation limited (UPPTCL) located at about 6Km from the under construction plant.

**Geographical Conditions on the site:**

- i. The terrain of the location/area is generally flat and The Plant site area falls at the cusp of Seismic Zone II and Seismic Zone III.
- ii. The average annual temperature is about 25 Degree Celsius. The average minimum and maximum temperature recorded in the past few decades has been 18 Degree Celsius and 32 Degree Celsius respectively while the record minimum and maximum temperatures have been 0 Degree Celsius and 47 Degree Celsius.
- iii. The area witnesses a dry winter Humid Subtropical Climate.

**5. SCOPE OF WORK OF THIS REPORT:**

- I. To Conduct Site reviews, document reviews and study progress reports on continuous basis specially vis-à-vis Original timelines to avoid sudden shocks of overrun.
- II. To determine progress achieved and appropriateness of related transactions. The consultant shall also flag any issue which is resulting in Non-performance/ under performance by the contractor. All payments to related parties should be closely monitored and highlighted to the consortium.
- III. Deviations in project progress vis-à-vis timelines and amount disbursed. High value payment/dues to be clearly monitored and highlighted to the consortium.
- IV. Periodical review of invoices and submission of exception report to the consortium.

**Note:**

1. The scope of work is for the complete duration and not for a specific report.
2. Carrying out the scope of work will depend on the details/ information/ data provided to us by the borrower from time to time.
3. As per our discussion with the lead lender during meeting on 08th November 2022, it has been informed that the lender is taking proper due diligence measures for all the parties involved in construction works of integrated unit as well as grinding unit. The payment process of the lender was also physically verified during the meeting.



**6. PURPOSE OF THE REPORT:** To provide fair detailed analysis report to the Bank based on the "in-scope points" mentioned above for facilitating them to take appropriate credit decision on the Project.

**7. METHODOLOGY ADOPTED:**

- a. Study of Project Planning documents/ reports to know about the Project.
- b. Additional information, data, documents collection the borrower.
- c. Study and analysis of the documents and information obtained from the borrower.
- d. Research about the Project/ sector from the sources in the public domain.
- e. Correlation of the provided information against Industry/ sector benchmarks/ trend.
- f. Information compilation, analysis and reporting.



**PART C**

**PLANT INFRASTRUCTURE SECTIONS & FACILITY DETAILS WITH  
 ACTUAL PROGRESS**

**1. LAND DETAILS:**

**1.1 PROJECT 1: INTEGRATED UNIT (IU) AT PANNA, MP:**

As per TEFRR of the project, the borrower has proposed an expenditure amounting to Rs.474.95 Crore towards land and site development. Breakup of Rs.474.95 Crore is below:

(Amount in Rs. Crore)

| Sr. No. | Particular   | Amount        |
|---------|--|---------------|
| 1.      | Land cost for Plant (Govt. Land)                                 | 424.20        |
| 2.      | Land cost for plant (Private Land)                               |               |
| 3.      | Land cost for mining area (Govt land)                            |               |
| 4.      | Land cost for mining area (Private Land)                         |               |
| 5.      | Mines development expenses                                       | 1.24          |
| 6.      | Site preparation, levelling and grading                          | 1.50          |
| 7.      | Geo technical, hydrological investigation and topographic survey | 0.60          |
| 8.      | Boundary wall  | 7.33          |
| 9.      | Gates, security pickets etc.                                     | 0.30          |
| 10.     | Approach road  | 6.27          |
| 11.     | Plant internal roads   | 13.41         |
| 12.     | Truck parking, logistics offices and other semi paved areas      | 11.09         |
| 13.     | Plant drainage   | 8.61          |
| 14.     | Landscaping and provision of green belt                          | 0.40          |
|         | <b>Grand total</b>   | <b>474.95</b> |

As per TEFRR Prepared by HOLTEC, Jaykaycem (Central) Limited planned to acquire about 1540 acre of land inter-alia including plant land 480 acres of land and mining land 1060 acres. As against this, the Company had already acquired 2189 acres of land including 353.92 acres of plant land already mortgaged with consortium and 1835 acres of mining land for setting up of the integrated cement plant. The Land area acquired is more than sufficient for setting up the Integrated Plant as informed to the lenders by the company. We have been provided with the Memorandum of Entries (MOE) by the Bank during our meeting on 8th November 2022 having 353.92 acres purchased in 176 deeds. Moreover, the Title deeds and TIR's for the land acquired were submitted to the Bank of Baroda, Kanpur by the company and as the deed were in huge numbers so, we have randomly verified few deeds at the BOB, Kanpur during our visit on 8th Nov 2022 which was found to be in-line with the information mentioned in the MOE regarding the Land Area and Deed number, therefore MOE is relied upon in regard to Panna, MP land.





In this regard deed wise transaction amount with stamp duty and processing fees paid in registration in a consolidated sheet was also sought. However in the absence of the same for the cost incurred on the land we have only relied upon the CA Certificate.

As per present status based on information, the actual land which is 2189 acres was observed to be in possession of the company since no encroachment information came to our knowledge during the site visit.

The borrower has already obtained Environment clearance from Ministry of Environment, Forest and Climate for 1594.34 Hectare (3938 Acres) located at Villages Kakra, Kamtana, Saptai, Judi, Devri, Purohit & Devra, Tehsil Amanganj, District Panna of State Madhya Pradesh. Additionally, the company has also obtained the Environment Clearance for Land Parcel of 3095.23 ha from the Ministry of Environment located in the village(s)-Koni, Boda, Gudha, Maharajganj, Ganiyari, Vanbhai, Simariya, Devri, Pagra& Kuluwa, Tehsil- Simariya, District Panna, M.P. Accordingly, the company has informed that this area is majorly for mining functions only and the same will be acquired step by step based on raw material requirement.

## 1.2 PROJECT 2: GRINDING UNIT (GU) AT HAMIRPUR, UP:

As per TEFR of the project the borrower has proposed an expenditure amounting to Rs.22.70 Crore towards Land and Site Development. Breakup of Rs.22.70 Crore is as below:

(Amount in Rs. Crore)

| Sr. No. | Particular  | Amount       |
|---------|---|--------------|
| 1.1     | Capital Cost of procured land for setting up the plant                    | 9.00         |
| 1.2     | Site preparation & development  | 0.50         |
| 1.3     | Site enabling investigations (Topographical, Geotechnical & Hydrological) | 0.50         |
| 1.4     | Boundary Wall   | 1.25         |
| 1.5     | Gates, Security Pickets, etc.   | 0.30         |
| 1.6     | Approach Road to Plant  | 1.90         |
| 1.7     | Plant Internal Roads  | 4.00         |
| 1.8     | Truck Parking & Logistics Office  | 3.70         |
| 1.9     | Plant Drainage  | 1.35         |
| 1.10    | Landscaping and Provision of Green Belt                                   | 0.20         |
|         | <b>Sub-total (1.0)</b>  | <b>22.70</b> |

As per TEFR JCL was in process of procuring a land patch of about 27 Acres area for the purpose of setting up of grinding unit at the time of TEFR preparation. Similar area

admeasuring 26.33 acres is also approved by Ministry of Environment, Forest and Climate Change. Fresh update on status of purchase of land was sought from the borrower. Accordingly, the borrower has informed that they have already acquired 29 acres of the land required for construction of grinding unit. We have been provided with the MOE by the lenders during our meeting on 8<sup>th</sup> November 2022. Moreover, the Title deeds and TIR's for the land acquired were submitted to the Bank of Baroda, Kanpur by the company which is verified by us during the visit and copies of the same were provided to us. As per present status based on our site inspection, the actual project land was observed to be in possession of the company since no encroachment information came to our knowledge during site visit.

As per CA certificate dated 18<sup>th</sup> November 2022 with UDIN. 22424004BDLVVN3063 total cost incurred for purchase of land and land development is Rs.353.5 crore which has been relied upon.

## 2. BUILDING & STRUCTURAL DETAILS:

### 2.1 PROJECT 1: INTEGRATED UNIT (IU) AT PANNA, MP:

JCL has planned following Building/ structures as per the requirement of the Plant:

| STRUCTURE OF EQUIPMENTS                         | CAPACITY OF STRUCTURES  |
|---|---|
| Lime stone Crusher                              | Crusher Capacity: 1300 TPH (Proposed)<br>Wobbler Feeder capacity: 1600 TPH (Proposed)   |
| Limestone pre blending stockpile                | Storage Capacity: 2 X 40,000 t (Proposed)<br>Limestone stacker capacity: 1600 TPH (Proposed)<br>Limestone reclaimer capacity: 900 TPH (Proposed)  |
| Corrective/Additive crushing                    | Capacity: 1 X 300 TPH (Proposed)  |
| Corrective/Additive & Blending Material storage | Bauxite Corrective storage: 7500 t (Proposed)<br>Iron Ore Corrective storage: 7500 t (Proposed)<br>Gypsum storage: 2100 t (Proposed)<br>Limestone Storage: 1000 t (Proposed)<br>Pond ash: 5000 t (Proposed) |
| Fuel handling, storage and transport            | Fuel storage: 2 X 10,000 t (Indian coal) (Proposed) and 2 X 3000 t (Pet Coke) (Proposed)<br>Fuel stacker: 1 X 300 TPH (Proposed)  |



|  |  |
|--|--|
|  | Fuel side scraper: 1 X 200 TPH (Proposed)                        |
| Fuel crushing and transport                        | Capacity: 1 X 300 TPH (Proposed)                                 |
| Fuel drying and grinding                           | -  |
| Raw material drying and Grinding                   | Closed Circuit Ball mill capacity: 2 X 375 TPH (Proposed)        |
| Raw material Blending and Kiln Feed                | Raw mill blending silo capacity: 10000 t (Proposed)              |
| Waste heat recovery System (WHRS)                  | 22 MW  |
| Cement Grinding system                             | Vertical Raw mill (VRM) capacity: 300 TPH@3600 Blaine (Proposed) |
| Cement storage                                     | Cement storage capacity: 3 X 5000 t (Proposed)                   |
| Cement packing and dispatch:                       | Capacity: 2 X 240 TPH (Proposed)                                 |
| Preheater, Pre-Calcliner, Kiln and Cooler          | -  |
| Fuel firing system                                 | -  |
| Limestone handling and transportation to stockpile | -  |

As per HOLTEC report, for development of above listed sections, JCL has estimated Rs.378.63 Crore in Building/ structures out of total project cost amounting to Rs.2970.29 Crore. Bifurcation of Rs.378.63 Crore is as below:

| (Amount in Rs. Crore) |  |               |
|-----------------------|--|---------------|
| Sr. No.               | Particular   | Amount        |
| 1.                    | Main factory Buildings   | 85.65         |
| 2.                    | Silos, Hoppers, Storages, Covered Gantry etc.  | 69.45         |
| 3.                    | Auxiliary services   | 28.64         |
| 4.                    | Office/Non factory buildings and mine building   | 7.52          |
| 5.                    | Residential Colony   | 64.05         |
| 6.                    | Equipment foundations cost   | 29.85         |
| 7.                    | Deep foundations cost provisioning on account of possibility of weaker soil bearing capacity | 33.40         |
| 8.                    | Indicative GST on Civil works  | 60.07         |
|                       | <b>Total</b>   | <b>378.63</b> |



→ Detailed breakup of above building sections is below:

(Amount in Rs. Crore)

| Sr. No.   | Description  | Building Cost | Equipment foundation Cost out of Building Cost |
|---|--|---------------|--|
| <b>1. Main Factory Building</b>                         |  |               |  |
| 1.1   | Limestone crusher complex (including retaining wall, ramp, stone pitching, etc.)         | 10.90         | 1.35   |
| 1.2   | Correctives & Additive crusher house (including short ramp, pitching, etc.)              | 1.00          | 0.25   |
| 1.3   | Raw mills complex  | 10.40         | 2.10   |
| 1.4   | Raw mill bag house & stack support structure   | 7.20          | 0.90   |
| 1.5   | Preheater tower (Six stage, Double string)   | 24.15         | 0.35   |
| 1.6   | Rotary Kiln Piers, Walkways, TA duct support   | 1.85          | 4.10   |
| 1.7   | Clinker cooler house (including De-dusting structures & Stack supporting structure)      | 7.70          | 1.80   |
| 1.8   | Coal Crusher House (incl. short retaining wall, ramp, stone pitching, etc.)              | 0.60          | 0.35   |
| 1.9   | Coal mill house  | 7.45          | 2.05   |
| 1.1   | HAG supporting structure   | 2.25          | 0.25   |
| 1.11  | Cement mill house (including De-dusting structures & Stack supporting structure)         | 6.75          | 2.25   |
| 1.12  | Packing plant, truck & bulk loading, bags godown   | 5.40          | 0.05   |
|   | <b>SUB TOTAL (1.0)</b>   | <b>85.65</b>  | <b>15.80</b>                                   |
| <b>2. Silos, Hoppers, Storages, Covered Gantry etc.</b> |  |               |  |
| 2.1   | Limestone pre blending stockpile (linear, covered, with S/R foundations)                 | 3.50          | 4.50   |
| 2.2   | Correctives storage (linear, covered, with S/R foundations)                              | 1.55          | 1.95   |
| 2.3   | Solid fuel storage (linear, covered, with S/R foundations)                               | 1.85          | 4.65   |
| 2.4   | Raw mill hoppers & building  | 3.40          | 0.10   |
| 2.5   | Blending (Raw Meal) silo   | 6.30          | 0.20   |
| 2.6   | Clinker silo & transport supporting structure  | 21.75         | 0.20   |
| 2.8   | Clinker load-out silos (4nos.)   | 2.95          | 0.15   |
| 2.9   | Gypsum, pond ash and sweetener storage (linear, covered)                                 | 2.90          | 0.00   |
| 2.10  | Cement mill hoppers & building   | 3.40          | 0.10   |
| 2.11  | Fly ash silo   | 4.00          | 0.10   |
| 2.12  | Cement silos   | 13.85         | 0.15   |
| 2.13  | AFR Storage  | 4.00          | 0.15   |
|   | <b>SUB TOTAL (2.0)</b>   | <b>69.45</b>  | <b>12.25</b>                                   |
| <b>3. Auxiliary Services</b>                            |  |               |  |
| 3.1   | Switch yard  | 0.45          | 0.61   |
| 3.2   | Main indoor substation   | 1.45          | 0.20   |
| 3.3   | CCR, including Lab, Technical Offices, etc.  | 5.42          | 0.05   |
| 3.4   | Load centres & MCC rooms   | 5.30          | 0.20   |
| 3.5   | Electrical/ Mechanical Workshop & Yard   | 0.72          | 0.10   |
| 3.6   | Compressor house & rooms   | 0.75          | 0.11   |
| 3.8   | Belt conveyors, TTs, etc. (plant internal; partly with gallery & partly locally covered) | 7.15          | 0.00   |
| 3.9   | Water Storage (UG+OH)  | 2.65          | 0.05   |





|   |  |               |              |
|---|--|---------------|--------------|
| 3.10  | Weigh Bridges & Weigh Rooms  | 0.35          | 0.25         |
| 3.11  | Overhead cable galleries   | 2.50          | 0.00         |
| 3.12  | Dump hoppers & Truck tippler foundations   | 1.30          | 0.20         |
| 3.13  | Cable Tunnels, Trenches, etc.  | 0.60          | 0.00         |
|   | <b>SUB TOTAL (3.0)</b>   | <b>28.64</b>  | <b>1.77</b>  |
| <b>4. Office/ Non factory buildings, etc.</b>       |  |               |              |
| 4.1   | Administrative & Services building   | 2.10          | 0.00         |
| 4.2   | Gate house, Time & Security office   | 0.30          |              |
| 4.3   | Sales, Dispatch & Logistics offices  | 0.45          |              |
| 4.4   | General store & yard   | 0.95          |              |
| 4.5   | Canteens (Executive, Workers, Truckers, etc.)  | 0.35          |              |
| 4.6   | Shift units/ washrooms (in general/common areas)   | 0.40          |              |
|   | <b>SUB TOTAL (4.0)</b>   | <b>4.55</b>   |              |
| <b>5. Mines offices, buildings, services, etc.</b>  |  |               |              |
| 5.1   | Mines offices & basic workshop (Basic provisioning only)   | 2.17          | 0.00         |
| 5.2   | Mines load centre  | 0.35          | 0.05         |
| 5.3   | Magazine building  | 0.40          | 0.00         |
|   | <b>SUB TOTAL (5.0)</b>   | <b>2.92</b>   | <b>0.05</b>  |
| <b>6. Residential Colony &amp; Social Amenities</b> |  |               |              |
| 7.1   | Unit Head's Villa - 1 no. of ~250 sqm  | 0.65          | 0.00         |
| 7.2   | TH/CH House - 02 nos of ~225 sqm   | 1.10          |              |
| 7.3   | Type A Quarters - 8 nos. of ~200 sqm each  | 3.25          |              |
| 7.4   | Type B Quarters - 16 nos. of ~150 sqm each (Multi Storey)  | 4.75          |              |
| 7.5   | Type C Quarters - 32 nos. of ~125 sqm each (Multi Storey)  | 9.00          |              |
| 7.6   | Type D Quarters - 40 nos. of ~100 sqm each (Multi Storey)  | 8.00          |              |
| 7.7   | Type E Quarters - 120 nos. of ~80 sqm each (Multi Storey)  | 0.00          |              |
| 7.8   | Bachelor Executives' Hostel - 1 no.  | 1.75          |              |
| 7.9   | Workers' Dormitories - 2 nos.  | 0.70          |              |
| 7.10  | Occupational Health Centre   | .80           |              |
| 7.11  | Temple complex   | 2.50          |              |
| 7.12  | Community hall, playground, shops, etc.  | 1.50          |              |
| 7.13  | Guest house  | 4.00          |              |
| 7.14  | Club, gymnasium, recreation, etc   | 1.25          |              |
| 7.15  | School building & allied facilities  | 10.00         |              |
| 7.16  | Other services (STP, WTP, roads, drains, water supply, green areas, etc.)  | 14.80         |              |
|   | <b>SUB TOTAL (7.0)</b>   | <b>64.05</b>  | <b>0.00</b>  |
| 8.  | <b>Total (1.0+2.0+3.0+4.0+5.0+7.0)</b>   | <b>255.26</b> | <b>29.89</b> |
| 9.  | Deep foundations cost-provisioning (Indicative 10% lumpsum provisioning considered as Geotechnical investigations at proposed plant site, are at preliminary level only) | 30.40         | 3.00         |
| 10.   | Indicative GST component on Civil works (average approx.18% of total civil cost considered for TEFR formulation purpose)   | 54.70         | 5.37         |
| 11.   | <b>Total Civil Works Cost (7.0+8.0+9.0)</b>  | <b>340.36</b> | <b>38.26</b> |
|   | <b>Grand Total</b>   | <b>378.63</b> |              |

Source: TEFR prepared by HOLTEC Consultancy

**Notes:**

1. The above estimation of cost is as per the TEFR prepared by HOLTEC consultancy. HOLTEC consultancy is very well-established consultancy for such type of works and have greatly established themselves in this sphere.
2. Building Plans have been prepared by HOLTEC consultancy only.
3. The Map is sanctioned on 13/05/2022 and is valid till 13/05/2025.
4. The concerned building plans and HOLTEC consultancy TEFR provided to us doesn't have individual measurements of various structures but consists of estimated Cost to be incurred for the individual buildings and same is considered as basis to analysis the building and structures.

**As per Approved Map for the integrated unit is provided by the Borrower following buildings are proposed:**

| S.NO. | GENERAL PLANT DESCRIPTION      |
|-------|--------------------------------|
| 1.    | IMESTONE CRUSHER               |
| 2.    | GRU FOR CORRECTIVE             |
| 3.    | IMESTONE STOCKPILE             |
| 4.    | IRON ORE STOCKPILE             |
| 5.    | HAUKITE STOCKPILE              |
| 6.    | GRU FOR COAL/PETCOKE           |
| 7A.   | RAW MATERIAL HOPPERS I         |
| 7B.   | RAW MATERIAL HOPPERS II        |
| 8A.   | RAW MILL HOUSE I               |
| 8B.   | RAW MILL HOUSE II              |
| 9.    | RAW MILL HEAD HOUSE AND LC-103 |
| 10.   | CLENDING SLO                   |
| 11.   | REHEATER & COMPRESSOR HOUSE    |
| 12.   | GRN & TA DUCT                  |
| 13.   | COOLER                         |
| 14.   | COOLER ESP                     |
| 15.   | COB & LAB                      |
| 16.   | LINKER SLO                     |
| 17.   | LINKER TRUCK LOADING           |
| 18.   | WEDTIVE SHED                   |







**Progress of Building and Civil Structures as per site visit dated 09<sup>th</sup> November 2022 of Integrated Unit.:**

| DESCRIPTION  | June 2022 Building Progress (%) | September 2022 Building Progress (%) | June 2022 Foundation Progress (%) | September 2022 Foundation Progress (%) |
|--|---------------------------------|--------------------------------------|-----------------------------------|--|
| <b>Main Factory Building</b>   |                                 |                                      |                                   |  |
| Limestone crusher complex (including retaining wall, ramp, stone pitching, etc.)         | 35%                             | 85%                                  | 60%                               | 95%                                    |
| Correctives & Additive crusher house (including short ramp, pitching, etc.)              | 25%                             | 30%                                  | 45%                               | 50%                                    |
| Raw mills complex  | 90%                             | 95%                                  | 90%                               | 95%                                    |
| Raw mill bag house & stack support structure   | 90%                             | 95%                                  | 90%                               | 95%                                    |
| Preheater tower (Six stage, Double string)   | 90%                             | 95%                                  | 90%                               | 95%                                    |
| Rotary Kiln Piers, Walkways, TA duct support   | 90%                             | 95%                                  | 90%                               | 95%                                    |
| Clinker cooler house (including Dedusting structures & Stack supporting structure)       | 75%                             | 90%                                  | 90%                               | 95%                                    |
| Coal Crusher House (incl. short retaining wall, ramp, stone pitching, etc.)              | 85%                             | 90%                                  | 90%                               | 95%                                    |
| Coal mill house  | 90%                             | 95%                                  | 90%                               | 95%                                    |
| HAG supporting structure   | 95%                             | 95%                                  | 95%                               | 95%                                    |
| Cement mill house (Including Dedusting structures & Stack supporting structure)          | 90%                             | 95%                                  | 95%                               | 95%                                    |
| Packing plant, truck & bulk loading, bags godown   | 95%                             | 95%                                  | 95%                               | 95%                                    |
| <b>Silos, Hoppers, Storages, Covered Gantry, etc.</b>                                    |                                 |                                      |                                   |  |
| Limestone preblending stockpile (linear, covered, with S/R foundations)                  | 50%                             | 50%                                  | 70%                               | 70%                                    |
| Correctives storage (linear, covered, with S/R foundations)                              | 0%                              | 50%                                  | 0%                                | 60%                                    |
| Solid fuel storage (linear, covered, with S/R foundations)                               | 50%                             | 50%                                  | 60%                               | 60%                                    |
| Raw mill hoppers & building  | 90%                             | 95%                                  | 90%                               | 95%                                    |
| Blending (Raw Meal) silo   | 95%                             | 95%                                  | 95%                               | 95%                                    |
| Clinker silo & transport supporting structure  | 90%                             | 95%                                  | 90%                               | 95%                                    |
| Clinker load-out silos (4 nos.)  | 95%                             | 95%                                  | 95%                               | 95%                                    |
| Gypsum, pond ash storage (linear, covered)   | 80%                             | 95%                                  | 80%                               | 95%                                    |
| Cement mill hoppers & building   | 95%                             | 95%                                  | 95%                               | 95%                                    |
| Flyash silo  | 95%                             | 95%                                  | 95%                               | 95%                                    |
| Cement silos   | 95%                             | 95%                                  | 95%                               | 95%                                    |
| AFR Storage  | 40%                             | 40%                                  | 60%                               | 60%                                    |
| <b>Auxiliary Services</b>  |                                 |                                      |                                   |  |
| Switch yard  | 95%                             | 95%                                  | 95%                               | 95%                                    |
| Main indoor substation   | 70%                             | 70%                                  | 80%                               | 80%                                    |
| CCR, including Lab, Technical Offices, etc.  | 95%                             | 95%                                  | 95%                               | 95%                                    |
| Load centres & MCC rooms   | 80%                             | 90%                                  | 80%                               | 90%                                    |
| Electrical/ Mechanical Workshop & Yard   | 90%                             | 90%                                  | 90%                               | 90%                                    |
| Belt conveyors, TTs, etc. (plant internal; partly with gallery & partly locally covered) | 90%                             | 90%                                  | 90%                               | 90%                                    |
| Water Storage (UG+OH)  | 90%                             | 90%                                  | 90%                               | 90%                                    |
| Weigh Bridges & Weigh Rooms  | 80%                             | 90%                                  | 40%                               | 90%                                    |
| Overhead cable galleries   | 60%                             | 85%                                  | 40%                               | 80%                                    |
| Dump hoppers & Truck tippler foundations   | 0%                              | 20%                                  | 0%                                | 20%                                    |
| Cable Tunnels, Trenches, etc.  | 40%                             | 50%                                  | 40%                               | 50%                                    |
| <b>Office/ Non factory buildings, etc</b>  |                                 |                                      |                                   |  |
| Administrative & Services building   | 90%                             | 95%                                  | 90%                               | 95%                                    |
| Gate house, Time & Security office   | 95%                             | 95%                                  | 95%                               | 95%                                    |
| Sales, Dispatch & Logistics offices  | 0%                              | 80%                                  | 0%                                | 90%                                    |
| General store & yard   | 90%                             | 95%                                  | 90%                               | 95%                                    |
| Canteens (Executive, Workers, Truckers, etc.)  | 95%                             | 95%                                  | 95%                               | 95%                                    |
| Shift units/ washrooms (in general/common areas)   | 0%                              | 0%                                   | 10%                               | 10%                                    |





| Mines offices, buildings, services, etc.                                  |     |     |     |     |
|---|-----|-----|-----|-----|
| Mines offices & basic workshop (Basic provisioning only)                  | 20% | 20% | 40% | 40% |
| Mines load centre   | 50% | 90% | 70% | 95% |
| Magazine building   | 0%  | 0%  | 0%  | 0%  |
| Mines garage (Future)   | 0%  | 0%  | 0%  | 0%  |
| Residential Colony & Social Amenities                                     |     |     |     |     |
| Unit Head's Villa - 1 no. of ~250 sqm                                     | 0%  | 0%  | 0%  | 0%  |
| TH/CH House - 02 nos of ~225 sqm  | 0%  | 0%  | 0%  | 0%  |
| Type A Quarters - 8 nos. of ~200 sqm each                                 | 0%  | 0%  | 0%  | 0%  |
| Type B Quarters - 16 nos. of ~150 sqm each (Multi Storey)                 | 0%  | 0%  | 0%  | 0%  |
| Type C Quarters - 32 nos. of ~125 sqm each (Multi Storey)                 | 0%  | 0%  | 0%  | 0%  |
| Type D Quarters - 40 nos. of ~100 sqm each (Multi Storey)                 | 0%  | 0%  | 0%  | 0%  |
| Type E Quarters - 120 nos. of ~80 sqm each (Multi Storey)                 | 0%  | 0%  | 0%  | 0%  |
| Bachelor Executives' Hostel - 1 no.                                       | 95% | 95% | 95% | 95% |
| Workers' Dormitories - 2 nos.   | 95% | 95% | 95% | 95% |
| Occupational Health Centre  | 0%  | 0%  | 0%  | 0%  |
| Temple complex  | 0%  | 0%  | 0%  | 0%  |
| Community hall, playground, shops, etc.                                   | 0%  | 0%  | 0%  | 0%  |
| Guest house   | 95% | 95% | 95% | 95% |
| Club, gymnasium, recreation, etc  | 95% | 95% | 95% | 95% |
| School building & allied facilities                                       | 0%  | 0%  | 0%  | 0%  |
| Other services (STP, WTP, roads, drains, water supply, green areas, etc.) | 35% | 35% | 40% | 40% |

**Note:**

1. Nomenclature of June 2022 and September 2022 is mentioned for the Quarter period for which report is prepared.
2. Actual site visits for June, 2022 was conducted in July, 2022 and September 2022 quarter report in November 2022.
3. The Physical progress captured in the above table is based on approximate observations of status of structures constructed on site during our site inspection and our subsequent discussions held with the engineers/ company representatives with whom the site visit was conducted. No site measurements were carried out during our visit. Thus, the above progress is on approximate basis which may vary from 5%-10%.
4. As per our discussion with the lender at the Bank of Baroda, Kanpur Branch, they are monitoring all the payments being made to various suppliers in this project by the company. We have also been provided with the summary record of the payments till 30/09/2022 from the Bank, which state an amount of Rs.1379.29 cr. toward the expenditure, for both the units. The difference in this summary sheet and the actual expenditure is due to the fact that this summary sheet only captures major payments. Additionally, a Chartered Accountant is also





appointed by the company to report all the financial progress to the lenders. During our 5th site visit, copies of some major PO's and invoices against which the payments have been made to the suppliers have been provided to us by the bank on our request, which were not provided earlier in earlier reports.

5. The project was working on full swing and satisfactory progress was observed during site visit and the project. The Grinding section of the Plant was found to in Operation during the visit. The Grinding unit has achieved the COD on 02<sup>nd</sup> November 2022. However as per our discussion with the company they have also started the commercial production of Clinker unit on 3<sup>rd</sup> December 2022. We have been provided by the borrower with the letter intimating BSE and NSE about the Commencement of the Commercial operation for both the Clinker and Grinding Production unit. Work that will be started after starting commercial operations include site development works, works of ancillary structure, finishing works of structures, painting works etc.

## 1.2 PROJECT 2: GRINDING UNIT (IU)

JCL Envisages setting up of below mentioned units/Sections in the Project:

| STRUCTURE OF MACHINERIES                                 | CAPACITY OF MACHINERIES       |
|--|-------------------------------|
| Clinker, Gypsum and Coal/Handling, Transport and Storage | Storage Capacity: 300 TPH     |
| Fly ash and pond ash/Handling, Transport and storage     | Storage Capacity: 5000 t      |
| Cement grinding system                                   | Cement mill capacity: 300 TPH |
| Hot Air generator  | -                             |
| Cement storage   | Silos Capacity: 2 X 5000 t    |
| Cement packing, loading and dispatch                     | Packing capacity: 2 X 240 TPH |
| Clinker, Gypsum and Coal/Handling, Transport and Storage | -                             |

For setting up/ development of above listed sections, JCL has estimated Rs.82.05 Crore out of Total project cost amounting to Rs.2970.29 Crore. Bifurcation of Rs.82.05 Crore is as below:

(Amount in Rs. Crore)

| Sr. No. | Particulars                                    | Amount |
|---------|--|--------|
| 1.      | Main factory buildings                         | 17.85  |
| 2.      | Silos, Hoppers, Storages, Covered Gantry etc.  | 31.00  |
| 3.      | Auxiliary services                             | 12.20  |
| 4.      | Office/Non factory buildings and mine building | 2.50   |





|    |  |              |
|----|--|--------------|
| 5. | Deep foundations cost provisioning on account of possibility of weaker soil bearing capacity | 4.00         |
| 6. | Indicative GST on Civil works  | 14.50        |
|    | <b>Total</b>   | <b>82.05</b> |

→ Details of Rs.82.05 Crore is as below:

| (Amount in Rs. Crore)                                    |   |               |  |
|--|---|---------------|--|
| Sr. No.  | Description   | Building Cost | Equipment foundation Cost out of Building Cost |
| <b>1. Main Factory Building</b>                          |   |               |  |
| 1.1  | HAG supporting structure  | 2.20          | 0.30   |
| 1.2  | Cement mill house & De-dusting building   | 10.25         | 2.25   |
| 1.3  | Packing plant, truck loading, bags god own  | 5.40          | 0.05   |
|  | <b>SUB TOTAL (1.0)</b>  | <b>17.85</b>  | <b>2.60</b>                                    |
| <b>2. Silos, Hoppers, Storages, Covered Gantry, etc.</b> |   |               |  |
| 2.1  | Foundation network for linear & covered storage sheds for Gypsum, Pond ash & Coal | 1.10          | 0.00   |
| 2.2  | Clinker silo & transport supporting infrastructure                                | 13.65         | 0.20   |
| 2.3  | Support structure for cement mill hoppers (hoppers excluded)                      | 2.10          | 0.10   |
| 2.4  | Dry Fly ash silo  | 4.60          | 0.10   |
| 2.5  | Cement silos (2nos. RCC silos)  | 8.50          | 0.10   |
| 2.6  | Cement silo (1no. Steel silo)   | 1.05          | 0.05   |
|  | <b>SUB TOTAL (2.0)</b>  | <b>31.00</b>  | <b>0.55</b>                                    |
| <b>3. Auxiliary Services</b>                             |   |               |  |
| 3.1  | Switchyard & Main receiving substation  | 0.90          | 0.30   |
| 3.2  | CCR, Technical office, Laboratory, etc.   | 3.80          | 0.00   |
| 3.3  | MCC rooms & Load centres  | 2.10          | 0.10   |
| 3.5  | Compressor house  | 0.45          | 0.08   |
| 3.6  | Foundations & pedestals for belt conveyor galleries & transfer towers             | 1.50          | 0.00   |
| 3.7  | Water storage (UG+OH) & Water treatment plant                                     | 1.10          | 0.10   |
| 3.8  | Weigh bridges & Weigh rooms   | 0.05          | 0.15   |
| 3.9  | BRU & truck tippler foundations with common ramp for receiving clinker & gypsum   | 1.65          | 0.35   |
| 3.1  | Foundations & pedestals for Overhead cable galleries                              | 0.45          | 0.00   |
| 3.11   | Cable tunnels & trenches, etc.  | 0.20          | 0.00   |
|  | <b>SUB TOTAL (3.0)</b>  | <b>12.20</b>  | <b>1.08</b>                                    |
| <b>4. Office/ Non factory Buildings, etc.</b>            |   |               |  |
| 4.1  | Administration & services office block  | 0.65          | 0.00   |
| 4.2  | Time, security & dispatch offices block   | 0.20          |  |
| 4.3  | Executives' & workers' canteens   | 0.65          |  |



|     |  |              |              |
|-----|--|--------------|--------------|
| 4.4 | General store & yard   | 0.80         |              |
| 4.5 | Shift units/ washrooms (in general/common areas)   | 0.20         |              |
|     | <b>SUB TOTAL (4.0)</b>   | <b>2.50</b>  | <b>0.00</b>  |
| 7.  | <b>Total civil cost (1.0+2.0+3.0+4.0)</b>  | <b>63.55</b> | <b>4.23</b>  |
| 8.  | Deep foundations cost-provisioning (Indicative 5% lumpsum provisioning considered; Geotechnical investigations at proposed plant site not carried out yet) | 3.80         | 0.20         |
| 9.  | Indicative GST component on Civil works (average approx.18% of total civil cost considered for TEFR formulation purpose)                                   | 13.75        | 0.75         |
| 10. | <b>Total Civil Works Cost (7.0+8.0+9.0)</b>  | <b>81.10</b> | <b>0.95</b>  |
|     | <b>Grand Total</b>   |              | <b>82.05</b> |

**Notes:**

1. The above estimation of cost is as per the TEFR prepared by HOLTEC consultancy. HOLTEC consultancy is very well-established consultancy for such type of works and have greatly established themselves in this sphere.
2. Building Plans have been prepared by HOLTEC consultancy only.
3. The Borrower has obtained the Building Plan approval and the fire NOC from the concern authorities. However, we have not been provided with the approved Building Plan for the Grinding Unit and only the building plan approval Letter is produced to us.
4. The concerned building plans and HOLTEC consultancy TEFR provided to us doesn't have individual measurements of various structures but consists of estimated Cost to be incurred for the individual buildings and same is considered as basis to analysis the building and structures.





As per Layout Plan provided by the borrower following buildings are proposed to be constructed at site:

| LEGEND |   |                                    | IF IN DOUBT ASK |
|--------|---|------------------------------------|-----------------|
| S.NO.  | GENERAL PLANT DESCRIPTION                 | ±0.000M FFL CORRESPONDS TO (METER) | REMARKS         |
| 1.     | BOX FEEDER FOR CLINKER                    | 120.800M                           |                 |
| 2.     | CLINKER SILO                              | 120.800M                           |                 |
| 3.     | STORAGE SHED                              | 120.800M                           |                 |
| 4.     | CEMENT MILL HOPPERS                       | 120.800M                           |                 |
| 5.     | CEMENT MILL BUILDING                      | 120.800M                           |                 |
| 6.     | CEMENT MILL BAGHOUSE                      | 120.800M                           |                 |
| 7.     | COAL DUMP HOPPERS AND CRUSHER             | 120.800M                           |                 |
| 8.     | SPARE                                     | -----                              |                 |
| 9.     | HAG BUILDING                              | 120.800M                           |                 |
| 10.    | FLYASH SILO                               | 120.800M                           |                 |
| 11.    | CEMENT SILOS                              | 120.800M                           |                 |
| 12.    | PACKING PLANT                             | 120.800M                           |                 |
| 13.    | EMPTY BAGS GODOWN                         | 120.800M                           |                 |
| 14.    | TRUCK LOADING PLATFORM                    | 120.800M                           |                 |
| 15.    | CCR + LOAD CENTER + LAB + ADMIN BLDG.     | 120.800M                           |                 |
| 16.    | DOZER ENTRY                               | 120.800M                           |                 |
| 17.    | EMERGENCY DUMP HOPPER                     | 120.800M                           |                 |
| 18.    | GATE HOUSE                                | 120.800M                           |                 |
| 19.    | ROAD WEIGH BRIDGE                         | 120.800M                           |                 |
| 20.    | WEIGH BRIDGE CABIN                        | 120.800M                           |                 |
| 21.    | WEIGH BRIDGE MATERIAL HANDING             | 120.800M                           |                 |
| 22.    | SEB RECEIVING SUB STATION & METERING ROOM | 120.800M                           |                 |
| 23.    | COMP. ROOM BELOW CM BAG HOUSE             | 120.800M                           |                 |
| 24.    | AIR QUALITY MONITORING                    | 120.800M                           |                 |
| 25.    | STORE                                     | 120.800M                           |                 |
| 26.    | SANITARY BLOCK                            | 120.800M                           |                 |
| 27.    | CALCINED CLAY PLANT                       | 120.800M                           |                 |
| 28.    | OIL STORAGE TANK                          | 120.800M                           |                 |
| 29.    | GROUND WATER RECHARGING POINT             | 120.800M                           |                 |
| 30.    | WATER TANK AND PUMP ROOM                  | 120.800M                           |                 |
| 31.    | PROJECT OFFICE                            | 120.800M                           |                 |
| 32.    | OUTGOING LOGISTIC OFFICE                  | 120.800M                           |                 |
| 33.    | TARPAULIN SHED PACKING PLANT              | 120.800M                           |                 |
| 34.    | TRUCK PARKING                             | 120.800M                           |                 |
| 35.    | TRANSPORTER OFFICE                        | 120.800M                           |                 |
| 36.    | DRIVERS CANTEEN AND REST ROOM             | 120.800M                           |                 |
| 37.    | SPACE FOR DG                              | 120.800M                           |                 |

**Progress of Building and Civil Structures as per site visit dated 08<sup>th</sup> November 2022 to Grinding Unit at Hamirpur:**

| Description   | June '22<br>Building<br>Progress % | September '2<br>2 Building<br>progress % | June '22<br>Foundation<br>Progress % | September '22<br>Foundation<br>progress % |
|---|------------------------------------|--|--------------------------------------|---|
| <b>Main Factory Building</b>  |                                    |  |                                      |   |
| HAG supporting structure  | 0%                                 | 60%                                      | 90%                                  | 90%                                       |
| Cement mill house & dedusting building  | 80%                                | 90%                                      | 90%                                  | 90%                                       |
| Packing plant, truck loading, bags godown                                       | 90%                                | 90%                                      | 90%                                  | 90%                                       |
| <b>Silos, Hoppers, Storages, Covered Gantry, etc.</b>                           |                                    |  |                                      |   |
| linear & covered storage sheds for Gypsum, Pond ash & Coal                      | 60%                                | 90%                                      | 90%                                  | 90%                                       |
| Clinker silo & transport supporting infrastructure                              | 85%                                | 90%                                      | 100%                                 | 100%                                      |
| Support structure for cement mill hoppers (hoppers excluded)                    | 90%                                | 95%                                      | 95%                                  | 95%                                       |
| Dry Flyash silo   | 90%                                | 95%                                      | 100%                                 | 100%                                      |
| Cement silos (2nos. RCC silos)  | 85%                                | 95%                                      | 90%                                  | 90%                                       |
| Cement silo (1no. Steel silo)   | 0.00                               | 0.00                                     | 0%                                   | 0%  |
| <b>Auxiliary Services</b>   |                                    |  |                                      |   |
| Switchyard & Main receiving substation  | 60%                                | 85%                                      | 70%                                  | 85%                                       |
| CCR, Technical office, Laboratory, etc.   | 85%                                | 90%                                      | 95%                                  | 95%                                       |
| MCC rooms & Load centres  | 70%                                | 85%                                      | 90%                                  | 90%                                       |
| Compressor house  | 90%                                | 90%                                      | 90%                                  | 90%                                       |
| Foundations & pedestals for belt conveyor galleries & transfer towers           | 80%                                | 90%                                      | 85%                                  | 90%                                       |
| Water storage (UG+OH) & Water treatment plant                                   | 75%                                | 90%                                      | 90%                                  | 90%                                       |
| Weigh bridges & weigh rooms   | 90%                                | 90%                                      | 90%                                  | 90%                                       |
| BRU & truck tippler foundations with common ramp for receiving clinker & gypsum | 70%                                | 95%                                      | 90%                                  | 95%                                       |
| Foundations & pedestals for Overhead cable galleries                            | 75%                                | 85%                                      | 90%                                  | 90%                                       |
| Cable tunnels & trenches, etc.  | 60%                                | 75%                                      | 60%                                  | 75%                                       |
| <b>Office/ Non factory Buildings, etc</b>                                       |                                    |  |                                      |   |
| Administration & services office block  | 0%                                 | 0%                                       | 0%                                   | 0%  |
| Time, security & dispatch offices block   | 0%                                 | 50%                                      | 0%                                   | 50%                                       |
| Executives' & workers' canteens   | 0%                                 | 0%                                       | 0%                                   | 0%  |
| General store & yard  | 0%                                 | 0%                                       | 0%                                   | 0%  |
| Shift units/ washrooms (in general/common areas)                                | 0%                                 | 0%                                       | 0%                                   | 0%  |

**Note:**

1. Nomenclature of June 2022 and September 2022 is mentioned for the Quarter period for which report is prepared.
2. The Physical progress captured in above table is based on approximate observations of status of structures constructed on site during our site inspection and our subsequent discussions held with the engineers with which the site visit was conducted. Thus, the above progress is on approximate basis which may vary from 5%-10%.
3. To summarise, the project construction work was going on full swing and satisfactory progress was observed during site visit and the project is anticipated to start the commercial operations by end





of the November 2022. However as per our discussion with the company they have already started the commercial production of grinding unit on 25<sup>th</sup> November 2022. To support the fact we have been provided by the borrower with the letter intimating BSE and NSE about the Commencement of the Commercial operation. As per the strategy informed by the accompanying engineers during site visit, all the major works related to commercial production will be completed by the end of November 2022. Work that will be started after starting commercial operations include site development works, works of ancillary structure, finishing works of structures, painting works etc.

## 2. PLANT MACHINERY & EQUIPMENT:

### 2.1 PROJECT 1: INTEGRATED UNIT (IU)

JCL proposes to install below mentioned machineries/Equipment at the project site:

- Crushers
- Stockpile stackers and reclaimers
- Clinker extraction system
- Steel for duct/chute/hoppers/chimneys
- Plant belt conveyors
- 4 nos of passenger lifts
- Compressors and dries
- HT motors
- LT motors
- Fire detection system
- Air conditioning
- Misc. electrical

For installing above listed machinery/Equipment, JCL has estimated Rs.1,285.24 Crore out of total project cost amounting to Rs.2970.29 Crore. Bifurcation of Rs.1,285.24 Crore is as below:

(Amount in Rs. Crore)

| Details of Mechanical and Electrical Equipment's |   |                |
|--|---|----------------|
| Sr. No.  | Description   | F.O.B.         |
| 1.   | Total Cost of Mechanical and electrical equipment's | 895.11         |
| 2.   | Equipment for distribution of Power                 | 148.63         |
| 3.   | Waste heat recovery system (WHRS) based power plant | 200.00         |
| 4.   | Mining Machinery                                    | 41.50          |
|  | <b>Total</b>  | <b>1285.24</b> |



Detailed breakup of **Mechanical and Electrical equipment's and Equipment for Distribution of power** is as below:

(Amount in Rs. Crore)

| Details of Mechanical and Electrical Equipment's |   |              |               |
|--|---|--------------|---------------|
| Sr. No.  | Description   | F.O.B.       | F.O.R.        |
| <b>1.0</b>                                       | <b>Mechanical Equipment</b>   |              |               |
| 1.1  | Crushers  |              |               |
| 1.1.1  | Limestone crushing and wobbler  | -            | 20.00         |
| 1.1.2  | Coal Crushing   | -            | 1.00          |
| 1.1.3  | Additive/ Corrective Crusher  | -            | 1.50          |
| 1.2  | Stockpiles stackers & Reclaimers including the following:   |              |               |
| 1.2.1  | Limestone Storage, Stacker & Reclaimer including shed   | -            | 26.66         |
| 1.2.2  | Corrective Storage Stacker & Reclaimer including shed   | -            | 17.01         |
| 1.2.3  | Coal storage stacker and reclaimer including shed   | -            | 15.73         |
| 1.3  | Material Grinding and Pyro Processing including the following:  |              |               |
| 1.3.1  | Raw Material and Coal Drying and Grinding including Baghouse  | 23.15        | 92.60         |
| 1.3.2  | Blending Silo feed B/Ele, Silo, kiln feed, Clinkerisation (upto clinker silo extraction), Fine coal firing from silo extraction including ESP | 25.00        | 100.00        |
| 1.3.3  | Clinker transport to mill through DPC, Clinker drying & grinding (Up to cement silo feed B/E) including Bag house                             | 28.00        | 42.00         |
| 1.4  | Cement Silo's and packing plant   |              |               |
| 1.4.1  | Clinker extraction system   | -            | 1.50          |
| 1.4.2  | Cement extraction from cement silo up to rotary packers including steel cement silo   |              | 7.64          |
| 1.4.3  | Packing, truck loaders and bulk loading.  |              | 8.60          |
| 1.4.4  | Clinker loading to trucks   |              | 2.50          |
| 1.4.5  | AFR system with Shed  |              | 20.77         |
| 1.4.6  | Fly ash Silo  | -            | 1.50          |
|  | <b>Sub-total of Main Machinery (1.0)</b>  | <b>76.15</b> | <b>359.01</b> |
| <b>2.0</b>                                       | <b>MECHANICAL AUXILIARY EQUIPMENT(S)</b>  |              |               |
| 2.1  | Steel for Duct/ Chute/hoppers/chimneys 8,000 t @ Rs.46200/ t  | -            | 36.96         |
| 2.2  | Plant belt conveyors including belting 3,500 m @ Rs.45,000/ m   | -            | 15.75         |
| 2.3  | Over Land belt conveyor (OLBC) 000 m @ Rs.55,000/ m   | -            |               |
| 2.5  | Refractory & Castable 8,000 t @ Rs.5,000/ t   | -            | 28.00         |
| 2.6  | Insulation 70,000 m2 @ Rs.1130/ sq. m   | -            | 7.91          |
| 2.7  | Lubricants  | -            | 1.60          |
| 2.8  | Passenger Lifts (4 nos)   | -            | 1.50          |
| 2.9  | Roots Blowers   | -            |               |
| 2.10   | Compressors & Driers including piping   | -            | 3.50          |
| 2.11   | Misc. items like Water Tank, Water Pump, Water Piping, Compressed Air Piping, etc.  | -            | 4.62          |
| 2.12   | BRU & Truck Tippler (4 nos.)  | -            | 2.80          |
| 2.13   | Cranes/Hoists and other misc. items including HAG, N2 system etc.   |              | 6.50          |



|            |  |              |               |
|------------|--|--------------|---------------|
|            | <b>Sub-total of Mechanical Auxiliary Equipment (2.0)</b>                 | <b>0</b>     | <b>109.14</b> |
|            | <b>Total of Mechanical Equipment (1.0 + 2.0)</b>                         | <b>76.15</b> | <b>468.15</b> |
| <b>3.0</b> | <b>Electrical and Instrumentation</b>                                    |              |               |
| 3.1        | HT Motors  | -            | 9.60          |
| 3.2        | LV & MV AC variable Speed Drives   | -            | 15.05         |
| 3.3        | LT Motors  | -            | 6.27          |
| 3.4        | Cross Belt Analyser, XRF, XRD, etc                                       | 2.50         | 4.81          |
| 3.5        | Control & Automation and Field Instruments & Robo Lab                    | -            | 24.57         |
|            | <b>Total Electrical and Instrumentation (3.0)</b>                        | <b>2.50</b>  | <b>60.30</b>  |
|            | <b>Total Mechanical and Electrical equipment (1.0+2.0+3.0)</b>           | <b>78.65</b> | <b>528.45</b> |
| <b>4.0</b> | <b>Landed cost of equipment</b>  |              |               |
| 4.1        | Imported equipment   |              |               |
| 4.1.1      | F.O.B Cost   |              | 78.65         |
| 4.1.2      | Ocean Freight, Insurance, etc. @ 6 % of (4.1.1)                          |              | 4.72          |
| 4.1.3      | Basic import duty @ 7.5 % of (4.1.1 + 4.1.2)                             |              | 6.25          |
| 4.1.4      | IGST @ 18 % of (4.1.1 to 4.1.3)  |              | 16.13         |
| 4.1.5      | Clearing/ Loading/ Inland freight, etc. @ 5 % of (4.1.1 + 4.1.2)         |              | 4.17          |
|            | <b>Sub-total of imported equipment (4.1)</b>                             |              | <b>109.92</b> |
| 4.2        | Indigenous Equipment   |              |               |
| 4.2.1      | F.O.R cost   |              | 528.45        |
| 4.2.2      | GST @ 18 % on F.O.R.   |              | 95.1201       |
| 4.2.3      | Freight, handling, insurance, etc. @ 5 % of 4.2.1                        |              | 26.42         |
|            | <b>Sub-total of indigenous equipment (4.2)</b>                           |              | <b>649.99</b> |
|            | <b>Total landed cost of equipment (4.1 + 4.2)</b>                        |              | <b>759.91</b> |
| 5.0        | Spare parts @ 5 % of F.O.B. + F.O.R.                                     |              | 30.35         |
| 6.0        | Fabrication of Duct/ Chute/hoppers/chimneys 8,000 t @ Rs 20,000/ t       |              | 16.00         |
| 7.0        | Erection, commissioning & supervision charges @ 12 % of (F.O.R. + F.O.B) |              | 72.85         |
| 8.0        | GST @18% on (6.0+7.0)  |              | 15.99         |
|            | <b>Total cost of Mechanical and Electrical equipment</b>                 |              | <b>895.11</b> |
|            | <b>TOTAL COST OF EQUIPMENT (4.1+ 4.2+5.0+6.0+7.0+8.0)</b>                |              | <b>895.11</b> |



(Amount in Rs. Crore)

| Equipment's for Distribution of Power |   |               |
|---------------------------------------|---|---------------|
| Sr. No.                               | DESCRIPTION   | F.O.R.        |
| <b>1.</b>                             | <b>Power distribution equipment</b>                           |               |
| 1.1                                   | 132 kV Transmission line ~45 Km                               | 22.50         |
| 1.2                                   | 132 kV yard at sub-station                                    | 1.00          |
| 1.3                                   | Development charges/Security deposit                          | 4.90          |
| 1.4                                   | Supervision charges SEB (10% of line cost)                    | 2.25          |
| 1.5                                   | Incomer switchyard and power transformer                      | 5.87          |
| 1.6                                   | 11 KV Switch board with Capacitor Bank                        | 6.61          |
| 1.7                                   | 11/0.433 kV , Distribution transformer with bus duct          | 5.44          |
| 1.8                                   | LT switchboards and bus trunkings                             | 4.45          |
| 1.9                                   | MCC & Push button Station                                     | 7.09          |
| 1.10                                  | LV Capacitor  | 1.80          |
| 1.1                                   | Capacitor and Reactor for 11 KV HT motors                     | 1.80          |
| 1.12                                  | LRS/GRR/GRS   | 1.80          |
| 1.13                                  | Earthing, cable trays & Erection hardware                     | 6.00          |
| 1.14                                  | Cables - Power, Control & Instrumentation                     | 18.18         |
| 1.15                                  | Plant Illumination with LDB                                   | 3.72          |
| 1.16                                  | Battery and Battery Charger with LRS                          | 0.83          |
| 1.17                                  | Ventilation System for Electrical Building                    | 1.43          |
| 1.18                                  | Air Conditioning  | 1.85          |
| 1.2                                   | Fire Detection System   | 0.74          |
| 1.2                                   | PA system for intercom and Telephone exchange                 | 0.45          |
| 1.2                                   | Mine Power Distribution                                       | 0.00          |
| 1.2                                   | DG Sets for Construction (2 MW)                               | 1.13          |
| 1.2                                   | Construction Power  | 2.61          |
| 1.24                                  | EMS/Synchronisation/load shedding                             | 0.75          |
| 1.25                                  | Non-plant buildings electrification                           | 0.85          |
| 1.26                                  | Misc. Electricals   | 0.50          |
|                                       | <b>Sub total</b>  | <b>104.55</b> |
| <b>2.0</b>                            | <b>Landed cost of equipment</b>                               |               |
| 2.1                                   | F.O.R cost  | 104.55        |
| 2.2                                   | GST @ 18 % on F.O.R.  | 18.82         |
| 2.5                                   | Freight, handling, insurance, etc. @ 5 % of 4.2.1             | 5.23          |
|                                       | <b>Total landed cost of equipment</b>                         | <b>128.60</b> |
| 3.0                                   | Spare parts @ 5 % of FOR cost                                 | 5.23          |
| 4.0                                   | Erection, commissioning & supervision charges @ 12% of F.O.R. | 12.55         |
| 5.0                                   | GST @18% of 4.0   | 2.26          |
|                                       | <b>Total cost of power distribution equipment</b>             | <b>148.63</b> |

Apart from the above expenditure the borrower has also envisaged Waste heat recovery system (WHRS) amounting to Rs.200.00 Crore and mining machineries amounting to Rs.41.50 Crore.





**Physical Progress of Plant and Machineries as per site visit dated 09<sup>th</sup> November 2022 to Integrated Unit.:**

1. Grinding Section of the integrated unit has started commercial operations and clinker manufacturing section was in the final stage of starting commercial operations. All the major essential works in clinker manufacturing unit were finish and as informed by the borrower they have already started the Commercial Operation of the clinker section as on 3<sup>rd</sup> December 2022. Grinding unit commercial operations were verified during site visit and it was observed to be manufacturing cement under the brand name of JK super cement. Supporting photographs and information available in public domain for the same are attached below with this report.

Copies of Product dispatch invoices are yet to be provided by the company. The same will be incorporated in the final LIE Report. Apart from this, we have also analyzed the Clinker manufacturing unit project status and the subject unit appears to be in its final stage and is being readied for commissioning.

2. All the major machineries required for effective running of grinding unit and subsequent manufacturing of cement like VRM (Vertical Roller mill), HAG (Hot Air Gas unit), Cement Hoppers, Cement Silos, fly ash silo, Conveyor belt, Switchyard and Packing Plant were physically verified at the site and were found to be in a working condition.
3. We have received the copies of some major Purchase orders and invoices based on which the lender has made payments to the suppliers of various machineries installed in various location at project site. This is a very large-scale project with high quantity of major machines already installed at site and some are yet to be installed and covered in casings. Therefore, physical verification of every machine installed at site is not possible as some machineries were being charged since the project is now in Final commissioning stage with grinding section already found to be commissioned as on date of site visit.

To the best of our efforts, we have done the Sample verification of major machineries listed in those copies of PO provided to us by the bank which are essential for clinker production in Clinker unit. List of the essential major machineries verified at site is as below:



- i. Roller Unit (Polycom)-001 by Thyssenkrupp Industries Pvt. Ltd. (Invoice No. - 712737622)
- ii. Roller Unit (Polycom)-002 by Thyssenkrupp Industries Pvt. Ltd. (Invoice No. - 712736781)
- iii. Kobelco Crawler Crane-CKL 2600i (Invoice No.202122DOM/057)
- iv. ONAN Power Transformer 132/11.5 KVA (Tax Invoice No.1195008371)
- v. Distribution transformer 11/0.433 KV (Tax Invoice No.1195008378)
- vi. RoboLab for Sample Testing by Insmart systems (PO. No. 6700000618-Dated: 06/11/2021)
- vii. Silos and Packing & Loading Package Design, Eng., and Supply of Silos and Packing and Loading System for 8000 TPD Integrated Cement Plant at Panna (M.P.)
- viii. P&V System by Pioneer Pollution control & air systems Pvt. Ltd. (PO. No. 6700000821 Dated: 21/12/2021)
- ix. Clinker Cooler Fans by IKN Engineering (I) Pvt. Ltd. (PO. No. 6700000050 Dated: 11/05/2021)
- x. Control & Relay Panel by Schneider Electric India Private Limited (PO. No. 6700000905 Dated: 10/01/2022)
- xi. Turbine & Generator by Siemens Limited (PO. No. 6700000178 Dated: 14/06/2021)
- xii. Limestone, Coal & Corrective Stacker-Reclaimer by TAKRAF India Private Limited (PO. No. 6700000003 Dated: 12/04/2021)
- xiii. Dump Truck by VE Commercial Vehicles Limited (PO. No. 6700000939 Dated: - 18/01/2022)
- xiv. Rotary Pneumatic Cut Off Gate by Beumer India Pvt. Ltd. (PO. No. 6700000001 Dated: 12/04/2021)
- xv. Belt Bucket Elevator by Thyssenkrupp Industries Pvt. Ltd. (PO. No. 6700000004 Dated: 15/04/2021)
- xvi. Limestone Crusher by Larsen & Toubro Ltd. (PO. No. 6700000009 Dated: 17/04/2021)
- xvii. Truck Tippler (CAP. 100 T) by Larsen & Toubro Ltd. (PO. No. 6700000009 Dated: 17/04/2021)
- xviii. BRU - Drive Module by Larsen & Toubro Ltd. (PO. No. 6700000009 Dated: 17/04/2021)
- xix. Main Drives and Motors by Bharat Heavy Electricals Ltd. (PO. No. 6700000265 Dated: 20/07/2021)
- xx. Cement Mill and Coal Mill by Loesche India Pvt Limited (PO. No. 6700000556 Dated: 22/10/2021)





xxi. Chain elevators by Mahindra Tsubaki Conveyor Systems Pvt. Ltd. (PO. No. 6700000369 Dated: -26/08/2021)

4. The physical progress of the machineries has been tracked as per random verification of machineries based on the package material (PM) number also as mentioned in the list of machineries delivered to the site provided by the borrower. However, during site visit we have verified the erection of major Machineries at the site in both the units which is also discussed above. Therefore, Physical progress captured is based on approximate visual observations only and taking reference from the list of machineries provided by the borrower and our subsequent discussions held with the engineers with whom the site visit was conducted. Thus, the above progress may vary from 5%-10%.

Note: -

Snapshots of the machineries verified at the site through the PO and Invoices are attached in the Annexure-"01" of the Report.

5. Apart from the machineries listed above, below listed essential machineries were also observed during site visit to integrated unit.

- Bulk Loading Bin/Hoppers
- Base frame
- Kiln Shell cooling fans for Kiln
- Girth Gears for Kiln
- Burner for Kiln
- EOT Crane in Raw mills
- Air compressors for raw mill
- Bag filter fans for raw mill
- Cooling air fans for raw mill
- Chain conveyors and rollers at various location
- Tons of ducts and chutes
- Small motors at various locations
- Gearbox in raw mills
- Parts of cement machineries
- Induction motor in raw mills
- Lift in CCR building
- Air combustions chambers
- Electrical and automation works
- Robolab equipment's for testing samples
- SCADA System in CCR building
- Data servers in server room in CCR building
- Turbine in TG building
- Impeller fans in ESP building
- Weigh bridges of 100 t capacities.
- HAG Furnace in Cement mill building
- Hot air generator system in cement mill building
- Tubes in Air cooled condenser building
- A Frames for ACC building

- Discharge hoods at multiple locations
- Feed bins manual trolley
- Fans for cooler building
- Coal mill stacking
- Terminal boxes
- Lab equipment's
- Stability chambers in laboratories
- Pumps and motors in Water treatment plant
- Hot air generator system in Cement mill
- Cyclone separator in cement mill
- Interconnecting chutes in cement mill
- Nitrogen storage tank in coal mill
- Cranes at various locations
- Stacker and reclaimers
- EOT cranes
- Rails for Stacker reclaimers movement
- Other small and miscellaneous machineries.

## **2.2 PROJECT 2: GRINDING UNIT (GU)**

JCL proposes to install below mentioned Machineries/Equipment:

- Material conveying system
- Material receiving system
- Passenger lifts
- Compressors and dryers
- HT Motors
- LT motors
- Auxiliary bag filters
- LT Switchboard and trunking
- UPS, Battery and Battery charger
- Air conditioning system
- DG Set
- Other misc. electrical

For installing above listed machineries/Equipment, JCL has estimated Rs.211.63 Crore out of total project cost amounting to Rs.2970.29 Crore. Bifurcation of Rs.211.63 Crore is as below:



(Amount in Rs. Crore)

| Details of Mechanical and Electrical Equipment's |  |               |
|--|--|---------------|
| Sr. No.  | Description  | F.O.B.        |
| 1.   | Total Cost of Mechanical and Electrical equipment (Net of GST) | 149.30        |
| 2.   | GST Component on P&M   | 24.50         |
| 3.   | Equipment for Distribution of Power (Net of GST)               | 25.60         |
| 4.   | GST component on power distribution equipment                  | 4.20          |
| 5.   | Equipment foundations  | 4.23          |
| 6.   | <b>Secondary equipment</b>                                     |               |
| 6.1  | Laboratory equipment and Setup                                 | 0.85          |
| 6.2  | Firefighting equipment and hydrant system                      | 0.40          |
| 6.3  | Water treatment system   | 0.50          |
| 6.4.   | Multi utility equipment  | 1.30          |
| 6.5  | Weighbridges   | 0.75          |
|  | <b>Grand Total</b>   | <b>211.63</b> |

Detailed breakup of **Mechanical and Electrical equipment's** and **Equipment for Distribution of power** is as below:

(Amount in Rs. Crore)

| Details of Mechanical and Electrical Equipment's |   |              |              |
|--|---|--------------|--------------|
| Sr. no.  | Description   | F.O.B.       | F.O.R.       |
| <b>1.0</b>                                       | <b>Mechanical Equipment</b>   |              |              |
| 1.1  | Gypsum & Pond ash handling, storage and transport to mill feed hoppers                              | -            | 0.75         |
| 1.2  | Dry Fly Ash handling, transport, storage & feeding to mill  | -            | 1.50         |
| 1.3  | Coal handling, storage, feeding and transport (including HAG system)                                | -            | 2.05         |
| 1.4  | Clinker transport, handling, storage, extraction & feeding system                                   | -            | 2.25         |
| 1.5  | Clinker grinding circuit & feeding to cement silos  | 24.00        | 36.00        |
| 1.6  | Cement mill de-dusting  | -            | 6.00         |
| 1.7  | Cement extraction from silos up to packers  | -            | 3.10         |
| 1.8  | Packing, loading & dispatch (2 packers, 6 truck loaders and 1 bulk loader)                          |              | 8.10         |
|  | <b>Sub-total of Main Machinery (1.0)</b>  | <b>24.00</b> | <b>59.75</b> |
| <b>2.0</b>                                       | <b>MECHANICAL AUXILIARY EQUIPMENT(S)</b>  |              |              |
| 2.1  | Structural Steel for sheds, hoppers, conveyors, ducts, chutes, etc. (approx. 2,250 t @Rs.50,000/ t) | -            | 11.25        |
| 2.2  | Material conveying system (approx.1200m @Rs.40,000/ m)  | -            | 4.80         |
| 2.3  | Insulation (approx.8,500sqm @Rs.1000/ sqm)  | -            | 0.85         |
| 2.4  | Auxiliary bag filters (approx. 12nos.)  | -            | 0.60         |
| 2.5  | Lubricants  | -            | 0.15         |
| 2.6  | Material receiving system (Bulk receiving units with truck tippler facility, 2 nos.)                |              | 2.10         |



|            |   |               |              |
|------------|---|---------------|--------------|
| 2.7        | Passenger lift (for CCR)  | -             | 0.25         |
| 2.8        | Roots blowers   | -             | 0.35         |
| 2.9        | Compressors & dryers  | -             | 0.60         |
| 2.10       | Misc. items like water pump & pipeline, compressed air piping, etc.             | -             | 0.60         |
| 2.11       | Cranes/Hoists and other miscellaneous items, etc.                               | -             | 1.00         |
|            | <b>Sub-total of Mechanical Auxiliary Equipment (2.0)</b>                        | <b>0.00</b>   | <b>22.55</b> |
|            | <b>Total of Mechanical Equipment (1.0 + 2.0)</b>                                | <b>24.00</b>  | <b>82.30</b> |
| <b>3.0</b> | <b>Electrical and Instrumentation</b>   |               |              |
| 3.1        | HT motors   | -             | 2.35         |
| 3.2        | LV & MV AC variable Speed Drives  | -             | 1.65         |
| 3.3        | LT motors   | -             | 1.05         |
| 3.4        | Table-top XRF   | -             | 0.70         |
| 3.5        | Control & Automation  | -             | 2.60         |
|            | <b>Total Electrical and Instrumentation (3.0)</b>                               | <b>0.00</b>   | <b>8.35</b>  |
|            | <b>Total Mechanical and Electrical equipment (1.0+2.0+3.0)</b>                  | <b>24.00</b>  | <b>90.65</b> |
| <b>4.0</b> | <b>Landed cost of equipment</b>   |               |              |
| <b>4.1</b> | <b>Imported Equipment</b>   |               |              |
| 4.1.1      | F.O.B. Cost   | 24.00         |              |
| 4.1.2      | Provisioning for Ocean Freight, Insurance, etc. (approx.@6% of 4.1.1)           | 1.45          |              |
| 4.1.3      | Basic Import Duty provision (approx. @7.5% of 4.1.1 & 4.1.2)                    | 1.90          |              |
| 4.1.4      | GST (all taxes assumed to be clubbed under GST, approx.@18% of 4.1.1 to 4.1.3)  | 4.90          |              |
| 4.1.5      | Clearing/ Loading/ Inland Freight, etc. (approx.@5% of 4.1.1 + 4.1.2)           | 1.25          |              |
|            | <b>Sub-total of Imported Equipment (4.1)</b>                                    | <b>33.50</b>  |              |
| <b>4.2</b> | <b>Indigenous Equipment</b>   |               |              |
| 4.2.1      | F.O.R. cost   | 90.65         |              |
| 4.2.2      | GST provisioning on F.O.R. cost (@18% of 4.2.1)                                 | 16.30         |              |
| 4.2.3      | Provisioning for freight, handling, insurance, etc. (approx.@5% of 4.2.1)       | 4.55          |              |
|            | <b>Sub-total of Indigenous Equipment (4.2)</b>                                  | <b>111.50</b> |              |
|            | <b>Total Landed Cost of Equipment (4.1 + 4.2)</b>                               | <b>145.00</b> |              |
| 5.0        | Provisioning for Spares (approx. @5% of F.O.B. & F.O.R. landed cost)            | 7.25          |              |
| 6.0        | Fabrication of Str. Steel as in 2.1 above (2,250 t @Rs.20,000/ t)               | 4.50          |              |
| 7.0        | Erection, Commissioning & Supervision Charges (approx.@12 % of F.O.R. + F.O.B.) | 13.75         |              |
| 8.0        | GST on Fabrication, erection & supervision charges (approx.@18% on (6.0+7.0))   | 3.30          |              |
|            | <b>Total cost of Mechanical and Electrical equipment</b>                        | <b>173.80</b> |              |
| A          | <b>Total landed cost of equipment</b>   | <b>173.80</b> |              |
| C          | <b>GST component on Plant &amp; Machinery (approx. provisioning)</b>            | <b>24.50</b>  |              |
| B          | <b>Total landed cost of equipment (Net of GST)</b>                              | <b>149.30</b> |              |





(Amount in Rs. Crore)

| (Details of Power Distribution Equipment's) |  |          |              |
|---|--|----------|--------------|
| Sr. no.                                     | Description  | F.O.B.   | F.O.R.       |
| <b>1.</b>                                   | <b>Power distribution equipment</b>  |          |              |
| 1.1   | Transmission line from Grid substation (33kV, approx.6 km)                     | -        | 3.60         |
| 1.2   | Incomer switchyard & power transformer   | -        | 2.00         |
| 1.3   | 6.6 kV switchboard   | -        | 1.80         |
| 1.4   | 6.6 /0.433 kV distribution transformer   | -        | 1.00         |
| 1.5   | LT switchboard & trunking  | -        | 1.20         |
| 1.6   | MCC & push button Station  | -        | 2.10         |
| 1.7   | LV capacitors & control panel  | -        | 0.35         |
| 1.8   | Lighting transformer & main lighting distribution board                        | -        | 0.60         |
| 1.9   | Cables (Power, Control & Instrumentation)                                      | -        | 3.75         |
| 1.10  | Construction power cables  | -        | 0.35         |
| 1.11  | Earthing, lighting protection & erection hardware                              |          | 1.50         |
| 1.12  | Plant Illumination   | -        | 0.15         |
| 1.13  | UPS, battery & battery charger   | -        | 0.25         |
| 1.14  | Ventilation system for electrical buildings                                    | -        | 0.20         |
| 1.15  | Air conditioning   | -        | 0.20         |
| 1.16  | PA system for intercom   | -        | 0.05         |
| 1.17  | Fire detection system  | -        | 0.15         |
| 1.18  | DG set for construction & emergency power supply                               | -        | 1.25         |
| 1.19  | Miscellaneous electrical   | -        | 0.25         |
|   | <b>Sub-total (1.0)</b>   | <b>-</b> | <b>20.75</b> |
| <b>2.0</b>                                  | <b>Landed cost of equipment</b>  |          |              |
| <b>2.1</b>                                  | <b>Imported Equipment</b>  |          |              |
| 2.1.1                                       | F.O.B. Cost  |          | 0.00         |
| 2.1.2                                       | Ocean Freight, Insurance, etc. (approx.@6% of 2.1.1)                           |          | 0.00         |
| 2.1.3                                       | Basic Import Duty (@7.5% of 2.1.1 & 2.1.2)                                     |          | 0.00         |
| 2.1.4                                       | GST (all taxes assumed to be clubbed under GST, approx.@18% of 2.1.1 to 2.1.3) |          | 0.00         |
| 2.1.5                                       | Clearing/ Loading/ Inland Freight, etc. (approx.@5% of 2.1.1 + 2.1.2)          |          | 0.00         |
|   | <b>Sub-total of Imported Equipment (2.1)</b>                                   |          | <b>0.00</b>  |
| <b>2.2</b>                                  | <b>Indigenous Equipment</b>  |          |              |
| 2.2.1                                       | F.O.R. cost  |          | 20.75        |
| 2.2.2                                       | GST provisioning on F.O.R. cost (@18% of 2.2.1)                                |          | 3.75         |
| 2.2.3                                       | Provisioning for freight, handling, insurance, etc. (approx.@5% of 2.2.1)      |          | 1.05         |
|   | <b>Sub-Total (2.0)</b>   |          | <b>25.55</b> |
|   | <b>Total Landed Cost of Equipment (2.1 + 2.2)</b>                              |          | <b>25.55</b> |
| 3.0   | Provisioning for Spares (approx. @5% of total landed cost)                     |          | 1.30         |
| 4.0   | Erection, Commissioning & Supervision Charges (approx.@12 % of 2.1.1 + 2.2.1)  |          | 2.50         |
| 5.0   | GST on erection & supervision charges (approx.@18% of 4.0)                     |          | 0.45         |





|    |   |       |
|----|---|-------|
| A. | Total landed cost of Power Distribution Equipment (2.0+3.0+4.0+5.0) | 29.80 |
| B. | GST component on Power distribution (approx. provisioning)          | 4.20  |
| C. | Total landed cost of Power Distribution Equipment (Net of GST)      | 25.60 |

**Note:** We have verified some major contracts signed by Borrower at Bank of Baroda located in Kanpur during our site visit dated 08<sup>th</sup> November 2022. Copies of the same have been provided to us. To the best of our efforts, we have verified the delivery status of those machines on sample basis and as per our observations they were found to be delivered to the project site and some were also in functioning state since grinding section of Integrated unit is already commissioned. Details regarding the same is also captured above in this report in the Machinery progress Section.

**Progress of Plant and Machineries as per site visit dated 08th November 2022 to Grinding Unit.:**

1. Grinding unit (Hamirpur) was in the final stage of starting commercial operations. All the major essential works in the unit were at the finishing stage. Supporting photographs are attached below with this report. As per latest information by the borrower they have started the commercial operation of the grinding unit situated at Hamirpur, U.P. on 25<sup>th</sup> November 2022.
2. All the major machineries required for effective running of grinding unit and subsequent manufacturing of cement like VRM (Vertical Roller mill), HAG (Hot Air Gas unit), Cement Hoppers, Cement Silos, fly ash silo, Conveyor belt, Switchyard and Packing Plant were physically verified at the site and were found to be installed. Final fitting works and gate closing works of various machines was under progress.
3. The Switchyard of this unit is charged with electricity for trial run of machines as the project is being readied for commercial productions.
4. We have received the copies of some major Purchase orders and invoices from the lender based on which the lender has made payments to the suppliers of various machineries installed in various location at project site. This is a very large-scale project with high quantity of major machines already installed at site. Therefore, physical verification of





every machine installed at site is not possible as some machineries were being charged since the project is now in Final commissioning stage.

To the best of our efforts, we have done the Sample verification of major machineries listed in those copies of PO/Invoices provided to us by the bank which are essential for cement production in grinding unit. List of the essential major machineries verified at site is as below:

- i. Gearbox with Soul Plate and Foundation BO LT Equipment's by Losche Mill (IGM No. 2320614/30/08/2022).
- ii. Motor Control Center by Schneider Electric India Private Limited (Tax Invoice No.: 1195008909).
- iii. 2500KVA Distribution transformers by Schneider Electric India Private Limited (Tax Invoice No. 1195008378).
- iv. 18/20 MVA Power transformer by Schneider Electric India Private Limited (Tax Invoice No. 1195008449).

*Note: Snapshots of the machineries verified at the site through the PO and Invoices are attached in the Annexure-"02" of the Report.*

5. Apart from the machineries listed above below listed essential machineries were also observed during site visit to integrated unit.

- |  |                                   |
|--|-----------------------------------|
| • Laboratory equipment's in CCR/<br>Technical building, SCADA, UPS | • Hot Gas generators              |
| • Conveyor belt at multiple location                               | • Filter carbon and dosing system |
| • Bag filters  | • Pumps in water treatment plant  |
| • ID fans  | • Bag filters                     |
| • Spiral Chutes  | • Cement mill foundation frame    |
| • Axial flow fans  | • Clinker mill frame              |
| • Bulk loading equipment's   | • Clinker mill hood               |
| • Truck loading machines   | • Bucket elevators                |
| • High pressure fans   | • Cement mill fans                |
| • Electric hoist at various locations                              | • Vent dedusting piping           |
| • Air receivers and compressors                                    | • Gear box in cement mill         |
| • Packing plant equipment's  | • Passenger lifts in CCR building |
|  | • Weighbridges                    |

- VFD panels at various locations
- Induction Motors
- Cement mill motor
- Firefighting equipment's
- Sewage treatment plants
- Distribution transformers
- Transformer mounting rails
- Main power transformer
- Control panel and switches
- Other small and Misc. equip.





**PART D PROJECT CONSULTANTS, CONTRACTORS & SUPPLIERS**

The borrower has provided the list of Contractors hired in the project for project site at Hamirpur, Uttar Pradesh and Project site at Panna, Madhya Pradesh. As per the list of contractors provided to us the borrower has signed agreements amounting to Approx. Rs.1066 Crore which includes agreements signed for Hamirpur project amounting to approx. Rs.89 Crore and agreements signed for Panna project amounting to Rs.977 Crore. Details of vendors is as below:

(Amount in Rs. Crore)

| AGREEMENTS FOR GRINDING UNIT AT HAMIRPUR, UTTAR PRADESH       |  |                  |
|---|--|------------------|
| Description   | Vendor   | Agreement Amount |
| LOI For environment Clearance for GU at Hamirpur              | Environment and technical Research centre, Lucknow | 0.09             |
| Preparation of TEFR for Under construction GU At Hamirpur, UP | Holtec consulting Pvt. Ltd.                        | 0.08             |
| Engg. Consultancy   | Holtec consulting Pvt. Ltd.                        | 1.55             |
| Raw mill and Cement mill for Hamirpur                         | Loesche (India Part)                               | 39.38            |
| Raw mill and Cement mill for Hamirpur                         | Loesche (Foreign Part)                             | 28.91            |
| Boundary wall construction                                    | M/s Vishal Enterprises                             | 1.45             |
| Packing plant for Hamirpur                                    | Beumer   | 14.91            |
| Engg. Services  | Loesche, India                                     | 2.94             |
| <b>Grand Total as During 1<sup>st</sup> LIE Report</b>        |  | <b>89.31</b>     |

(Amount in Rs. Crore)

| AGREEMENTS FOR INTEGRATED UNIT AT PANNA, MADHYA PRADESH                                      |  |                  |
|--|--|------------------|
| Description  | Vendor                                   | Agreement Amount |
| Boundary wall construction   | Apex Precast                             | 0.74             |
| Topographical Wall Construction  | RK Consultants and Contractors           | 0.24             |
| Consultancy for Water lifting from ken river   | Vexl Environ Project private limited     | 0.43             |
| Master plan , architectural , landscape design and interior design services for panna colony | R+D Studio                               | 0.61             |
| 3.15 MVA 33.0.433 KVA Transformer  | Voltamp                                  | 0.32             |
| Supply of TMT Bar  | TATA Steel                               | 1.69             |
| 500 KVA DG Set   | Sudhir Power limited                     | 0.29             |
| Brick masonry Boundary wall work at panna site   | Jay shree mahakal contractor             | 0.60             |
| Crushing system  | L&T                                      | 23.64            |
| WHRS   | Thermax                                  | 99.50            |
| ESP and Bag hOuse  | Himenviro                                | 21.25            |
| Crushing system 2 years spare  | L&T                                      | 0.96             |
| Weigh Bridge 100 MT-4Nos.  | Rice lake weighing systems India Limited | 0.56             |



|  |   |        |
|--|---|--------|
| Engg. services   | Loesche                                       | 4.07   |
| Civil stacker, reclaimers, Pyro, blending and clinker silo, mech. Stacker reclaimers           | KEC International limited                     | 97.71  |
| TMT supply-4000MT/PMC Services   | KEC International limited                     | 20.64  |
| Mechanical fabrication erection for Pyro   | Hajee AP Bava                                 | 53.50  |
| PMC services   | Hajee AP Bava                                 | 1.50   |
| Civil and structural work, WHRS, Cement Mill, packing plant, Cement mill silo and Fly ash silo | Buildwell roject india pvt. Limited           | 29.99  |
| Site grading and levelling work at panna   | Karni Construction                            | 2.27   |
| Civil consultancy order  | SecMec  | 2.75   |
| Road and Drainage work   | Karni construction                            | 12.83  |
| Mech. & E&I Consultancy  | Holtec  | 6.15   |
| Civil work for workshop, Project office and Weighbridge  | Shree ram associates                          | 2.53   |
| Piling works   | Parul foundation                              | 2.66   |
| Pre-Cast Boundary wall work at panna site  | Tirupati Cement articles                      | 0.89   |
| Cooler for Pyro  | IKN engineering India Pvt. Ltd.               | 28.95  |
| Raw mill and pyro  | Thyssen                                       | 143.81 |
| Raw mill and cement mill for Panna   | loesche (India Part)                          | 73.13  |
| Raw mill and cement mill for Panna   | loesche (Foreign Part)                        | 25.97  |
| Packing plant for Panna  | Beumer  | 21.99  |
| Pre-cast boundary wall work at panna site  | RKB Enterprise                                | 0.81   |
| Precast boundary wall  | Maharishi parashar Buildtech LLP              | 0.44   |
| Precast boundary wall  | Mohira precast Narsingpur                     | 0.45   |
| stacker and reclaimers   | Takraf  | 34.55  |
| Precast boundary wall  | Tiranag precast                               | 0.34   |
| Construction cable   | Havells india Limited                         | 0.57   |
| Construction of guest house and hostel block   | M/s Asiatic                                   | 4.59   |
| Civil piling work  | M/s KEC                                       | 97.71  |
| Mineral exploration in Kakra block   | M/s GDS India                                 | 1.97   |
| Procurement of steel   | SAIL Jabalpur                                 | 15.22  |
| Boundary wall construction   | Amit singh Construction Borrower              | 0.50   |
| BLS type ambulance   | CK Motor                                      | 0.18   |
| Water lifting arrangement from ken river   | M/s aanjana pump services                     | 3.15   |
| hiring of hydraulic drilling rig   | M/s National infra projects                   | 0.27   |
| Hiring of 2nd Hydraulic drilling rig   | M/s National infra projects                   | 0.27   |
| Supply of 28mm TMT   | JSPL  | 2.64   |
| Supply of MS Plate   | Shakti steel                                  | 0.79   |
| Oxygen/Nitrogen plant capacity 80 Cu. M  | Sanghi organisation, Mumbai                   | 1.02   |
| Rain protection cover  | M/s ARDEE engineering                         | 40.00  |
| Service contract for steel procurement   | Shree Ganpatlal omkarlal agarwal and borrower | 1.95   |
| Supply of Dry Fly Ash  | Ramesh chand grover                           | 0.43   |



|   |                             |               |
|---|-----------------------------|---------------|
| Civil structural work-Plant buildings                       | M.s kamal Builders          | 15.25         |
| Civil structural work-Crusher section                       | M/s Karni                   | 9.23          |
| Bought out items  | Beumer                      | 8.31          |
| Bought out items  | Mahindra tsubaki            | 5.65          |
| Bought out items  | Tsubaki                     | 2.32          |
| Bought out items  | Beumer Germany              | 4.83          |
| 132 KV Transmission line                                    | Suresh techno (India) LLP   | 21.00         |
| Turbine for WHRS  | Siemens                     | 12.90         |
| Steel supply  | SAIL Indore                 | 3.37          |
| Site grading and levelling works                            | M/s Amit singh construction | 0.70          |
| Construction of Service road                                | M/s Amit singh construction | 0.43          |
| Supply and installation for pre-fabricated security barrack | M/s tinny Craft             | 0.63          |
| Security services   | SIS                         | 1.98          |
| <b>Grand Total as During 1<sup>st</sup> LIE Report</b>      |                             | <b>976.60</b> |

**Note:**

The above list in respect of agreements was provided to us during our first LIE report. Also, as informed by the borrower, they have not signed any major agreement after the first LIE Report.

The above information has been incorporated on the basis of details provided by the borrower. However, this is a very large-scale project with high quantity of major machines already installed at site. Therefore, physical verification of every machine installed at site is not possible as some machineries were being charged since the project is now in Final commissioning stage.

We have received the copies of some major Purchase orders and invoices from the lender during our visit for the September'22 quarter based on which the lender has made payments to the suppliers of various machineries installed in various location at project site. The List of PO's provided to us by the Borrower is attached as Annexure-"3" in the later part of the Report. During our visit to the Plant for the September quarter we have verified the Machineries randomly on the basis of these PO and agreement provided.



**PART E**

**PROJECT COST & MEANS OF FINANCE**

- 1. TOTAL PROJECT COST:** Jaykaycem (Central) Limited has estimated the Total Project Cost amounting to Rs.2970.29 Crore which has been proposed to be funded in DER of 1.30 i.e. approx. 43% Equity and 57% Debt. Details of Rs.2970.29 Crore is as below:

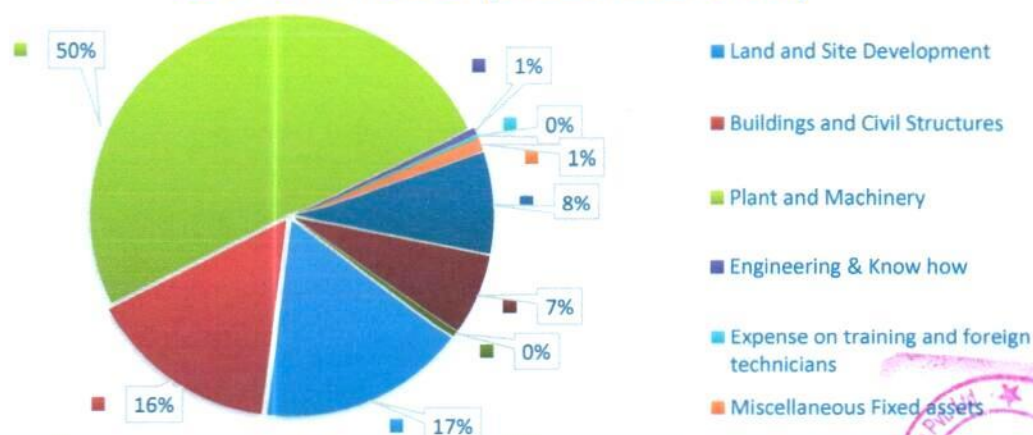
(Amount in Rs. Crore)

| Sr. No. | Particulars                                 | Integrated Unit | Grinding Unit | Common expenses | Amount         |
|---------|---|-----------------|---------------|-----------------|----------------|
| 1.      | Land and Site Development                   | 474.95          | 22.70         | -               | 497.65         |
| 2.      | Buildings and Civil Structures              | 378.63          | 82.05         | -               | 460.68         |
| 3.      | Plant and Machinery                         | 1285.24         | 211.63        | -               | 1496.87        |
| 4.      | Engineering & know how                      | 11.00           | 4.00          | -               | 15.00          |
| 5.      | Expense on training and foreign technicians | 7.50            | 0.50          | -               | 8.00           |
| 6.      | Miscellaneous Fixed assets                  | 30.17           | 2.10          | -               | 32.27          |
| 7.      | Pre-operative expenses including during IDC | -               | -             | 247.78          | 247.78         |
| 8.      | Contingency@7.5%                            | -               | -             | 197.10          | 197.10         |
| 9.      | Margin money for working capital            | -               | -             | 14.94           | 14.94          |
|         | <b>Total Project Cost</b>                   | <b>2187.50</b>  | <b>322.98</b> | <b>459.82</b>   | <b>2970.29</b> |

**Observations & Comments:**

- The basis of the above estimated cost of Project is as per the estimates provided by the Jaykaycem (Central) Limited and TEFr prepared by HOLTEC Consultancy.
- Details of Project cost are covered in PART C of this report.

**COST OF PROJECT (Rs. 2970.29 Crore)**





**2. CURRENT STATUS & TOTAL EXPENDITURE INCURRED TILL DATE:** Details of the expenditure in the Table below is recorded for the expenditure incurred up to 30<sup>th</sup> September 2022.

| SR. NO. | PARTICULARS                 | TOTAL ESTIMATED COST                        | INCURRED TILL 30.09.2022 | CURRENT STATUS OF WORK AND REMARKS  |
|---------|-----------------------------|---|--------------------------|---|
|         |                             | (All figures in cr.)                        |                          |   |
| 1.      | Land & Site Development     | Allocated Amount                            | 497.65                   | As per CA certificate dated 18 <sup>th</sup> November 2022 with UDIN. 22424004BDLVVN3063 the borrower has shown an expenditure amounting to Rs.353.5 Crore towards land and site development which has been relied upon as explained above in section 1.06 Part C of the report.  |
|         |                             | Expenses incurred up to last LIE report     | 316.26                   |   |
|         |                             | Incurred up to period ending September 2022 | 353.50                   |   |
|         |                             | Expenditure approved under his head         | NA                       |   |
| 2.      | Building & Civil Structures | Allocated Amount                            | 460.68                   | As per the breakup of expenditure mentioned in CA certificate dated 18 <sup>th</sup> November 2022 with UDIN. 22424004BDLVVN3063, a lumpsum expenditure has been shown towards Building and Civil structures and Plant and Machineries together as single line item. Therefore, we have relied on the expenditure given by CA for the expenditure incurred towards Building & civil cost and purchase/Fabrication of machineries. |
|         |                             | Expenses incurred up to last LIE report     | 1663.14                  |   |
|         |                             | Incurred up to period ending September 2022 | 1992.26                  |   |
|         |                             | Expenditure approved under his head         | NA                       |   |
| 3.      | Plant and Machinery         | Allocated Amount                            | 1496.87                  | As per CA certificate and our subsequent discussion with the borrower the cost incurred towards plant and machinery has been clubbed in Building and civil structures only as shown above.  |
|         |                             | Expenses incurred up to last LIE report     | NA                       |   |
|         |                             | Incurred up to period ending September 2022 | NA                       |   |
|         |                             | Expenditure approved under this head        | NA                       |   |



|    |  |   |        |  |
|----|--|---|--------|--|
| 4. | <b>Engineering and Now How</b>                     | Allocated Amount                            | 15.00  | As per CA certificate dated 18 <sup>th</sup> November 2022 with UDIN. 22424004BDLVVN3063 the borrower has incurred Rs.96.53 Crore towards engineering know how which also includes expenses towards training and foreign technicians. The same is considered as per CA Certificate only. |
|    |  | Expenses incurred up to last LIE report     | 74.95  |  |
|    |  | Incurred up to period ending September 2022 | 96.53  |  |
|    |  | Expenditure approved under his head         | NA     |  |
| 5. | <b>Expense on training and foreign technicians</b> | Allocated Amount                            | 8.00   | The expenditure towards the same is already included in expenses shown towards engineering know how.   |
|    |  | Expenses incurred up to last LIE report     | NA     |  |
|    |  | Incurred up to period ending September 2022 | NA     |  |
|    |  | Expenditure approved under his head         | NA     |  |
| 6. | <b>Miscellaneous Fixed assets</b>                  | Allocated Amount                            | 32.27  | The expenditure towards the same is already included in expenses shown towards Building and civil cost.  |
|    |  | Expenses incurred up to last LIE report     | NA     |  |
|    |  | Incurred up to period ending September 2022 | NA     |  |
|    |  | Expenditure approved under his head         | NA     |  |
| 7. | <b>Pre-operative expenses including during IDC</b> | Allocated Amount                            | 247.78 | The expenditure towards preoperative expense is already included in expenses shown towards engineering know how. However as per CA certificate the borrower has paid Rs.37.02 Crore towards Interest During Construction in the quarter ending September 2022.                           |
|    |  | Expenses incurred up to last LIE report     | 18.05  |  |
|    |  | Incurred up to period ending September 2022 | 37.02  |  |
|    |  | Expenditure approved under his head         | NA     |  |
|    |  | Allocated Amount                            | 197.10 |  |





|    |                                  |   |          |   |
|----|----------------------------------|---|----------|---|
| 8. | Contingency@<br>7.5%             | Expenses incurred up to last LIE report     | NA       | No expenditure has been incurred towards this head.   |
|    |                                  | Incurred up to period ending September 2022 | NA       |   |
|    |                                  | Expenditure approved under his head         | NA       |   |
| 9. | Margin money for working capital | Allocated Amount                            | 14.94    | No expenditure has been incurred towards this head.   |
|    |                                  | Expenses incurred up to last LIE report     | NA       |   |
|    |                                  | Incurred up to period ending September 2022 | NA       |   |
|    |                                  | Expenditure approved under his head         | NA       |   |
| 5. | Total                            | Allocated Amount                            | 2970.29  | In this table, we have given a general overview of the project based on the expenses shown by chartered accountant in their CA certificate dated 18 <sup>th</sup> November 2022 with UDIN. 22424004BDLVVN3063 and construction progress observed during site visit. In regard to approving the expenditure, LIE has not specifically commented due to certain limitation as already mentioned above in the report.<br><br>Based on construction progress observed during site visit the project was progressing in full swing with good progress. Sufficient number of Labours were observed to be working during site visit and as per latest information both the units have achieved the Commercial operation. |
|    |                                  | Expenses incurred up to last LIE report     | 2,072.40 |   |
|    |                                  | Incurred up to period ending September 2022 | 2479.71  |   |
|    |                                  | Expenditure Approved                        | NA       |   |

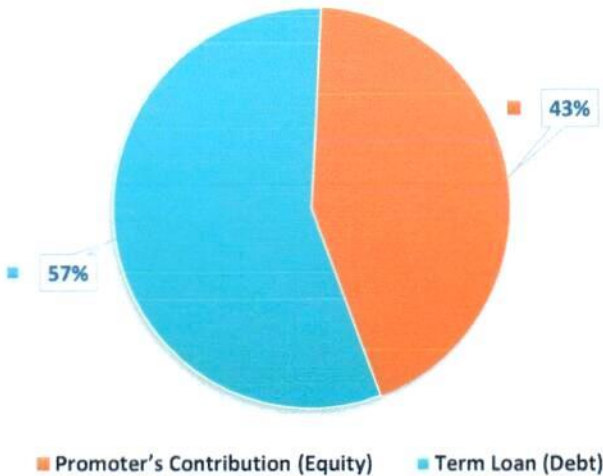


3. SOURCES OF FINANCE & UTILIZATION OF FUNDS: The Project cost mentioned above has been planned to be covered from following resources:

(Amount in Rs. Crore)

| PARTICULARS                      | ENVISAGED MEANS OF FINANCE |
|----------------------------------|----------------------------|
| Promoter's Contribution (Equity) | 1,290.29                   |
| Term Loan (Debt)                 | 1,680.00                   |
| TOTAL                            | 2,970.29                   |

MEANS OF FINANCE (Rs.2970.29 Crore)



(Amount in Rs. Crore)

| PARTICULARS                     | PLANNED AMOUNT | AMOUNT INFUSED UP TO 30.09.2022 | BALANCE |
|---------------------------------|----------------|---------------------------------|---------|
| Promoter's Equity               | 1,290.29       | 1167.09                         | 123.2   |
| Term Loan from Bank             | 1,680.00       | 1217.50                         | 462.5   |
| SUB-TOTAL                       | 2,970.29       | 2384.59                         | 585.41  |
| Less: (Balance in Bank Account) | -              | 39.66                           | 39.66   |
| Net Total                       | 2,970.29       | 2344.93                         | 625.36  |
| Others (Project Creditors)      | -              | 134.78                          | -134.78 |
| Grand Total                     | 2,970.29       | 2479.71                         | 490.58  |

Source: As per CA Certificate dated 18th November 2022 with UDIN: 22424004BDLVVN3063

Comments:

As per CA Certificate the borrower has made an expenditure on the project amounting to Rs.2479.71 Crore on the project till 30<sup>th</sup> September 2022 which includes Project creditors amounting to Rs. 134.78 Crore.





**PART F**

**STATUTORY & REGULATORY APPROVALS, CLEARANCES & NOC**

**INTEGRATED UNIT (IU) PROJECT SITE, PANNA, MADHYA PRADESH**

| Sr. No. | NAME OF LICENSE/ REGISTRATION                      | PURPOSE   | DATE OF ISSUE                       | Current Status  |
|---------|--|---|-------------------------------------|---|
|         | ISSUING AUTHORITY                                  |   | LICENCE NO.                         |   |
| 1.      | Building Plan Approval Letter                      | Approval of building plans                                    | 13/05/2022                          | Approval for the Building Plan is obtained by the Company from the competent Authority.   |
|         | State PWD  |   | -                                   |   |
| 2.      | Environment Clearance                              | Approval as per environment guidelines in the area            | 14/10/2020                          | As on date the clearance is valid and will be valid up to 13/10/2027  |
|         | Ministry of Environment, Forest and Climate Change |   | F. No. IA-J-11011/224/2016-IA.II(I) |   |
| 3.      | Environment Clearance                              | Approval as per environment guidelines in the area            | 01/11/2021                          | As on date the clearance is valid   |
|         | Ministry of Environment, Forest and Climate Change |   | J-11015/80/2020/IA.II(M)            |   |
| 3.      | Consent to Establish                               | Approval as per Pollution norms applicable in that area       | 17/12/2020                          | As on date the clearance is valid and will be valid up to 30/09/2025  |
|         | MP State Pollution control board                   |   | CTE-52637                           |   |
| 4.      | Provisional Fire NOC                               | Approval of fire protection technique in the project          | 20/07/2022                          | Provisional Fire NOC already obtained by the Company.   |
|         | State Fire authority                               |   | Registration No. 6100006190         |   |
| 5.      | Groundwater Abstraction Clearance                  | Approval for groundwater abstraction for construction purpose | 05/02/2020                          | As on date of CA certificate the NOC is active and was valid up to 30/01/2022. The company has applied for the renewal of approval vide application No. 21-4/863/MP/IND/2019. |
|         | Central Groundwater Authority                      |   | CGWA/NOC/IND/ORIG/2020/7350         |   |

|    |                                   |                               |                   |   |
|----|-----------------------------------|-------------------------------|-------------------|---|
| 6. | IEM Certificate                   | Industrial                    | 05/08/2021        | As on date IEM Certificate is valid.    |
|    | Ministry of Commerce and Industry | Entrepreneurs memorandum      | 1407/SIA/IMO/2016 |   |
| 7. | Power Connection                  | Approval for Power connection | -                 | 35MVA of power supply has been started. |
|    | State Power Authority             |                               | -                 |   |

**Observations & Comments:**

1. Company has obtained majority of the important Approvals

**GRINDING UNIT (GU) PROJECT SITE, HAMIRPUR, UTTAR PRADESH**

| Sr. No. | NAME OF LICENSE/ REGISTRATION                      | PURPOSE   | DATE OF ISSUE                                   | CURRENT STATUS   |
|---------|--|---|---|--|
|         | ISSUING AUTHORITY                                  |   | LICENCE NO.                                     |  |
| 1.      | Building Plan Approval Letter                      | Approval of building plans                              | 28/02/2022                                      | As informed by the borrower and the document Provided to us. The borrower has obtained the Building Plan approval from the assistant director of Factories, U.P. |
|         | Assistant director of Factories, U.P.              |   | Site Plan No. PBP00000185                       |  |
| 2.      | Environment Clearance                              | Approval as per environment guidelines in the area      | 29/09/2021                                      | As on date the clearance is valid and will expire on 28/07/2028  |
|         | Ministry of Environment, Forest and Climate change |   | 202/Parya/SEIAA/6109/2021                       |  |
| 4.      | Consent to Establish                               | Approval as per Pollution norms applicable in that area | 01/09/2021                                      | As on date the NOC is valid and will expire on 29/08/26.   |
|         | UP State pollution control board                   |   | 133698/UPPCB/Banda (UPPCBRO) /CTE/Hamirpur/2021 |  |
| 3.      | Provisional Fire NOC                               |   | 20-04-2022                                      |  |



|    |                                   |   |                                     |  |
|----|-----------------------------------|---|-------------------------------------|--|
|    | State fire Authority              | Approval of fire protection technique in the project          | UPFS/2022/48495/HRP/HAMIRPUR/78/CFO | The Company has obtained the Provisional Fire NOC from the competent Authority |
| 4. | Groundwater Abstraction Clearance | Approval for groundwater abstraction for construction purpose | Dated 08/01/2022                    | As on date the NOC is active and will be valid up to 15/12/2026                |
|    | Central Groundwater Authority     |   | NOC No.: NOC031442                  |  |
| 5. | IEM Certificate                   | Industrial  | 13/01/2021                          | As on date the IEM Certificate is valid  |
|    | Ministry of Commerce and Industry | Entrepreneurs memorandum                                      | 54/SIA/IMO/2021                     |  |
| 6. | Power Connection                  | Power connection for construction works                       | 13/04/2021                          | Borrower has obtained Power connection for 24 MVA load.                        |
|    | State Power Authority             |   | -                                   |  |

**Observations & Comments:**

1. Project is compliant with the majority of the important Approvals.



**PART G**

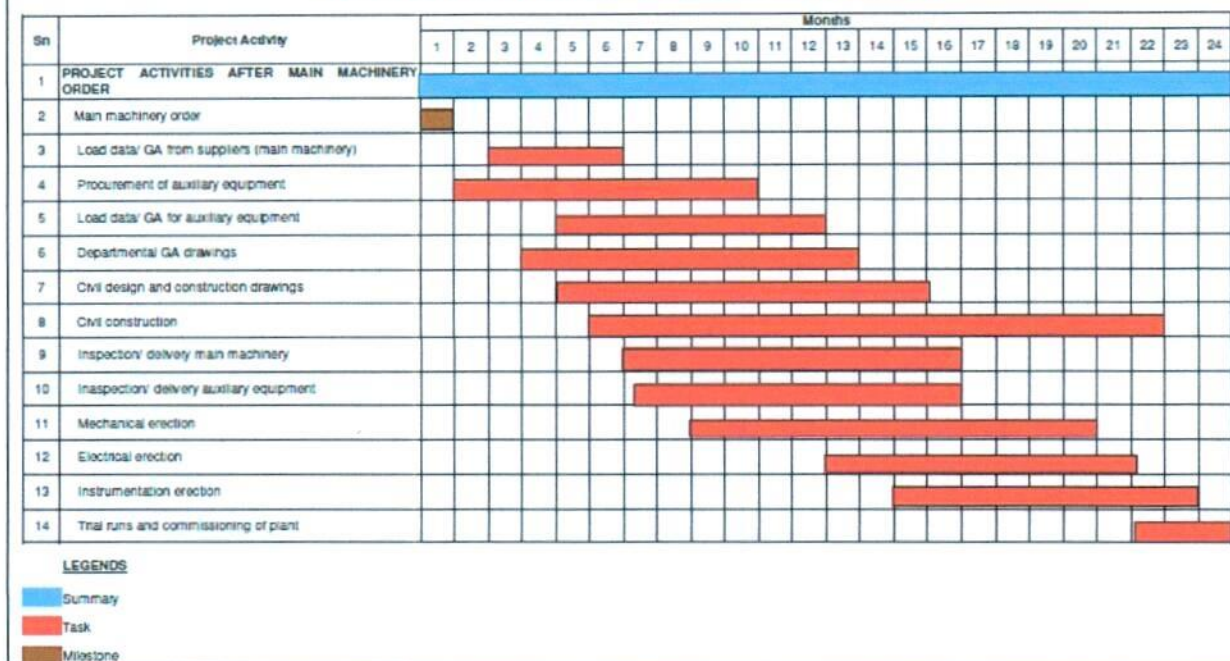
**PROJECT SCHEDULE & CURRENT STATUS**

| <b>IMPLEMENTATION SCHEDULE OF INTEGRATED UNIT (IU), PANNA, MADHYA PRADESH</b> |                                       |                       |            |  |
|---|---------------------------------------|-----------------------|------------|--|
| <b>Sr. No.</b>  | <b>Particulars</b>                    | <b>Start</b>          | <b>End</b> | <b>Current Status</b>  |
| 1.  | Land and Site Development             | Land allotment done   |            | Completed  |
| 2.  | Project Statutory Approvals           | During Project tenure |            | Majority of preliminary statutory approvals are in place latest included Approved Plan in this Quarter.  |
| 3.  | Building and Civil works              | Sep-21                | Feb-23     | Essential Building and civil works for the Production are majorly complete and few left are anticipated to be completed by December'22 end. Building wise site progress is already shown above and as per visual observation site progress was good and project was progressing in full swing. |
| 4.  | Order of Plant and Machinery          | Apr-21                | May-21     | As per our discussion with the borrower, they have already ordered the major machineries required for the project. The list of PO provided to us are summarised and is attached as Annexure-03.  |
| 5.  | Delivery of Machineries               | Oct-21                | Jul-22     | Most of the machineries are already delivered to the site of the project.  |
| 6.  | Installation of Machinery             | Dec-21                | Mar-23     | Essential machineries for the Production are installed and the installation of ancillary machineries and the machineries for the Clinker Production unit were in Progress in the project.  |
| 7.  | Trial runs and Commissioning of Plant | Feb-23                | Apr-23     | Both the Plants have achieved the COD as per information by the Borrower, supported by the letter of intimation to BSE & NSE issued by the Borrower.   |





**IMPLEMENTATION SCHEDULE - IU**  
**PROJECT ACTIVITIES AFTER MAIN MACHINERY ORDER PLACEMENT**



**IMPLEMENTATION SCHEDULE OF GRINDING UNIT (GU), HAMIRPUR, UTTAR PRADESH**

| Particulars                           | Start                 | End    | Current Status  |
|---------------------------------------|-----------------------|--------|---|
| Land and Site Development             | Land allotment done   |        | Achieved.   |
| Project Statutory Approvals           | During Project tenure |        | Majority of statutory approvals are in place.   |
| Building and Civil works              | Sep-21                | May-22 | Essential Building and civil works for the Production are majorly complete but Building and civil works for the ancillary services of the Plant are currently in progress and are anticipated to complete by Feb 2022.                |
| Order of Plant and Machinery          | Apr-21                | May-21 | As per our discussion with the borrower, they have already ordered the major machineries required for the project. However, we have been Provided with the copies of purchase orders on sample Bases as attached in the "Annexure-3". |
| Delivery of Machineries               | Sep-21                | May-22 | Majority of the machineries were delivered at the site.   |
| Installation of Machinery             | Oct-21                | Jul-22 | Essential machineries for the Production are installed and the installation of ancillary machineries are in Progress.   |
| Trial runs and Commissioning of Plant | Feb-23                | Apr-23 | Both the Plants have achieved the COD as per information by the Borrower, supported by the letter of intimation to BSE & NSE issued by the Borrower.  |

**INDICATIVE PROJECT IMPLEMENTATION SCHEDULE  
 (PROJECT ACTIVITIES AFTER MAIN MACHINERY ORDER PLACEMENT)**

| Sn | Project Activity  | Months |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
|----|---|--------|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|    |   | M1     | M2 | M3 | M4 | M5 | M6 | M7 | M8 | M9 | M10 | M11 | M12 | M13 | M14 | M15 | M16 | M17 | M18 |
| 1  | PROJECT ACTIVITIES AFTER MAIN MACHINERY ORDER                   |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 2  | Main plant and machinery order                                  |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 3  | Load data/ GA drawing from suppliers (main plant and machinery) |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 4  | Procurement of auxiliary equipment                              |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 5  | Load data/ GA drawing for auxiliary equipment                   |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 6  | Departmental GA drawings  |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 7  | Civil design and construction drawings                          |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 8  | Civil construction  |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 9  | Inspection/ delivery of main plant and machinery                |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 10 | Inspection/ delivery of auxiliary equipment                     |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 11 | Mechanical erection   |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 12 | Electrical erection   |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 13 | Instrumentation erection  |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
| 14 | Trial runs and commissioning of plant                           |        |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |

 Summary  
 Task  
 Milestone





**PART H**

**OBSERVATIONS & COMMENTS**

1. Based on visual observation and subsequent discussions held with the engineers from the company accompanying our team during 5th site visit, it appears that approximately 90% construction of the essential civil structures like (Preheater building, Cooler Building, Raw mills, Coal mill building, Cement mill building, Switchyard control room, CCR Building, Clinker Silo, fly ash silos, Cement silos, packing plant in Integrated unit {IU} and Packing plant, Bag house & De dusting building, Cement recirculation building, Fly ash silo, CCR, Cement hopper building, Clinker silo, Additive shed, Bulk reception unit and switchyard in Grinding unit {GU}) is completed and around 85% of essential machineries required for commercial production were installed at both the locations as per the our observation during the site visit.

However overall project's progress may vary due to ancillary works and site development works which are yet to take shape & commence. Therefore, physical progress of those works can't be accurately ascertained due to vastness of the project.

2. The company has informed us that in the process of assessment of progress of various works in percentage they also consider the progress of soft works like consultancy Ordering and Tendering and progress of machineries delivered to the site but not erected. Therefore, we can't assess the physical progress of consultancy, ordering and tendering and machineries delivered to the site but not installed due to very high numbers of machineries at site and type of project. Thus, only general progress analysis is covered in our assessment.
3. As per our discussion with the lender, they are monitoring all the payments being made to various suppliers in this project by the company. Additionally, a Chartered accountant is also appointed by the company to report all the financial progress to the lenders. During our 5th site visit, copies of some major PO's and invoices against which the payments have been made to the suppliers have been provided to us by the bank on our request.
4. To the best of our efforts, we have verified the delivery status of those machines on sample basis and as per our observations they were found to be delivered to the project site and some were also in operation since grinding section of Integrated unit is already commissioned. Details regarding the same is also captured above in this report.
5. The physical progress of the machineries has been tracked as per random verification of machineries based on the package material (PM) number mentioned in the list of machineries delivered to the site provided by the borrower. However, during site visit we have verified the





erection of major Machineries at the site in both the units which is also discussed above. Therefore, Physical progress captured is based on approximate visual observations only and taking reference from the list of machineries provided by the borrower and our subsequent discussions held with engineers with whom the site visit was conducted. Thus, the above progress may vary from 5%-10% as shown in the report.

6. As per CA certificate dated 18<sup>th</sup> November 2022 with UDIN. 22424004BDLVVN3063 the borrower has made an expenditure on the project amounting to Rs.2,479.71 Crore, showing Plant & Machinery, Building & Civil works and Miscellaneous fixed assets under single line item without breakup.
7. As this is a very large scale project with high quantity of major machines already installed at site. Therefore, physical verification of every machine installed at site by the PO and invoices provided by the bank is not possible.
8. As per our discussion with the lender at the Bank of Baroda, Kanpur Branch, they are monitoring all the payments being made to various suppliers in this project by the company. We have also been provided with the summary record of the payments till 30/09/2022 from the Bank, which state an amount of Rs.1379.29 cr. toward the expenditure, for both the units. The difference in this summary sheet and the actual expenditure is due to the fact that this summary sheet only captures major payments. Additionally, a Chartered Accountant is also appointed by the company to report all the financial progress to the lenders. During our 5th site visit, copies of some major PO's amounting to Rs.937.02 crores against which the payments have been made to the suppliers were provided to us by the bank on our request.
9. During this visit, our engineers have verified the major machineries against the provided PO's which is already mentioned in the report above. In addition to the verified machines as mentioned in the report above, some machines were still in casings and some machineries were being charged since the project is now in Final commissioning stage and it was essential to maintain safe distance from them for which detailed inspection couldn't be done due to logistical issues.
10. Due to limited details available to us, project expense shown by chartered accountant in their CA certificate dated 18<sup>th</sup> November 2022 with UDIN. 22424004BDLVVN3063 amounting of Rs.2479.41 has been relied upon.
11. However, based on construction progress and the machineries installed observed during site visit the project is progressing in full swing with good progress. Sufficient number of labours





were also observed to be working during site visit and as per the latest information by the Borrower, both the units have started the commercial production.

12. This is the 5<sup>th</sup> LIE Report of the project and as per CA certificate showing expenditure in the project up to 30<sup>th</sup> September 2022, Term loan amounting to Rs.1217.50 Crore has been disbursed by the lender up to 30<sup>th</sup> September 2022.
13. As per the Schedule Stipulated by the bank the Project was anticipated to start the Commercial operations in 30<sup>th</sup> April 2023. However, the Company has achieved the commercial operation around 4.5 months prior to the stipulated schedule.
14. During site visit it was observed that the company has started commercial operations of grinding section in integrated unit located at Panna, Madhya Pradesh which was also physically verified by our team during the site visit. Commercial product invoice was sought from the company. However, the same is yet to be provided by the them. Although Company has provided us with the letter intimating to BSE and NSE about the Commencement of commercial production/operations of the grinding section of the Integrated Plant, Panna.
15. As per the latest information by the lender the Commercial production of the Grinding unit situated in Hamirpur has commenced the Commercial operation from 25<sup>th</sup> November 2022 and the Clinker Production unit situated at Panna has commenced the production from 03<sup>rd</sup> December 2022. To support the fact the lender has provided us with the letter intimating to BSE and NSE about the Commencement of commercial production/operations for both the units.
16. Detailed physical progress of both the grinding unit as well as integrated unit section wise is covered in Clause 2.1 and Clause 3.2 of the report. Overall progress of the project including machinery erection may vary since the machinery can't be physically counted and verified due to the vastness of the project.



**PART I**

**DISCLAIMER**

1. No employee or member of R.K Associates has any direct/ indirect interest in the Project.
2. This report is prepared based on the copies of the documents/ information which the Bank/ Borrower has provided to us out of the standard checklist of documents sought from them and further based on our assumptions and limiting conditions. The client/owner and its management/representatives warranted to us that the information they supplied was complete, accurate and true and correct to the best of their knowledge. All such information provided to us has been relied upon in good faith and we have assumed that it is true and correct in all respect. I/We shall not be liable for any loss, damages, cost or expenses arising from fraudulent acts, misrepresentations, or wilful default on part of the owner, borrower, its directors, employee, representative or agents. Verification or cross checking of the documents provided to us from the originals or from any Govt. departments/ Record of Registrar has not been done at our end since this is beyond the scope of our work. If at any time in future, it is found or came to our knowledge that misrepresentation of facts or incomplete or distorted information has been provided to us then this report shall automatically become null & void.
3. Legal aspects for eg. investigation of title, ownership rights, lien, charge, mortgage, lease, sanctioned maps, verification of documents, etc. have not been done at our end and same has to be taken care by legal expert/ Advocate. It is assumed that the concerned Lender/ Financial Institution has satisfied them with the authenticity of the documents, information given to us and for which the legal verification has been already taken and cleared by the competent Advocate before requesting for this report. I/ We assume no responsibility for the legal matters including, but not limited to, legal or title concerns.
4. This report is a general analysis of the project based on the scope mentioned in the report. This is not an Audit report, Design document, DPR or Techno feasibility study. All the information gathered is based on the facts seen on the site during survey, verbal discussion & documentary evidence provided by the client and is believed that information given by the borrower is true best of their knowledge.
5. All observations mentioned in the report is only based on the visual observation and the documents/ data/ information provided by the client. No mechanical/ technical tests, measurements or any design review have been performed or carried out from our side during Project assessment.
6. This report doesn't claim any quality assurance of the Products and the material being used in the Project.





7. Bank/FII should ONLY take this report as an Advisory document from the Financial/ Chartered Engineering firm and its specifically advised to the creditor to cross verify the original documents for the facts mentioned in the report which can be availed from the borrowing borrower directly.
8. In case of any default in loans or the credit facility extended to the borrowing borrower, R.K Associates shall not be held responsible for whatsoever reason may be and any request for seeking any explanation from the employee/s of R.K Associates will not be entertained at any instance or situation.
9. The documents, information, data provided to us during the course of this assessment by the client is reviewed only up to the extent required in relation to the scope of the work. No document has been reviewed beyond the scope of the work.
10. This report only contains general assessment & opinion as per the scope of work evaluated as per the information given in the copy of documents, information, data provided to us and/ and confirmed by the owner/ owner representative to us at site which has been relied upon in good faith. It doesn't contain any other recommendations of any sort including but not limited to express of any opinion on the suitability or otherwise of entering into any transaction with the borrower.
11. We have relied on data from third party, external sources & information available on public domain also to conclude this report. These sources are believed to be reliable and therefore, we assume no liability for the truth or accuracy of any data, opinions or estimates furnished by others that have been used in this analysis. Where we have relied on data, opinions or estimates from external sources, reasonable care has been taken to ensure that such data has been correctly extracted from those sources and /or reproduced in its proper form and context, however still we can't vouch its authenticity, correctness or accuracy.
12. This Report is prepared by our competent technical team which includes Engineers and financial experts & analysts.
13. This is just an opinion report and doesn't hold any binding on anyone. It is requested from the concerned Financial Institution which is using this report for taking financial decision on the project that they should consider all the different associated relevant & related factors also before taking any business decision based on the content of this report.
14. All Pages of the report including annexures are signed and stamped from our office. In case any paper in the report is without stamp & signature then this should not be considered a valid paper issued from this office.
15. Though adequate care has been taken while preparing this report as per its scope, but still we can't rule out typing, human errors, over sightedness of any information or any other mistakes. Therefore, the concerned organization is advised to satisfy themselves that the report is complete & satisfactory in all respect. Intimation regarding any discrepancy shall be brought



into our notice immediately. If no intimation is received within 15 (Fifteen) days in writing from the date of issuance of the report, to rectify these timely, then it shall be considered that the report is complete in all respect and has been accepted by the client up to their satisfaction & use and further to which R.K Associates shall not be held responsible in any manner.

16. Defect Liability Period is **15 DAYS**. We request the concerned authorized reader of this report to check the contents, data and calculations in the report within this period and intimate us in writing if any corrections are required or in case of any other concern with the contents or opinion mentioned in the report. Corrections only related to typographical, calculation, spelling mistakes, incorrect data/ figures/ statement will be entertained within the defect liability period. Any new changes for any additional information in already approved report will be regarded as additional work for which additional fees may be charged. No request for any illegitimate change in regard to any facts & figures will be entertained.
17. R.K Associates encourages its customers to give feedback or inform concerns over its services through proper channel at [valuers@rkassociates.org](mailto:valuers@rkassociates.org) in writing within 15 days of report delivery. After this period no concern/ complaint/ proceedings in connection with the Financial Feasibility Study Services will be entertained due to possible change in situation and condition of the subject Project.
18. Our Data retention policy is of **ONE YEAR**. After this period, we remove all the concerned records related to the assignment from our repository. No clarification or query can be answered after this period due to unavailability of the data.
19. This Lender's Independent Engineer report is governed by our (1) Internal Policies, Processes & Standard Operating Procedures, (2) Information/ Data/ Inputs given to us by the client and (3) Information/ Data/ Facts given to us by our field/ office technical team. Management of R.K Associates never gives acceptance to any unethical or unprofessional practice which may affect fair, correct & impartial assessment and which is against any prevailing law. In case of any indication of any negligence, default, incorrect, misleading, misrepresentation or distortion of facts in the report then it is the responsibility of the user of this report to immediately or at least within the defect liability period bring all such act into notice of R.K Associates management so that corrective measures can be taken instantly.
20. R.K Associates never releases any report doing alterations or modifications from pen. In case any information/ figure of this report is found altered with pen then this report will automatically become null & void.





**SURVEYED BY**

Er. Abhishek Sharma and Er. Tejas Bharadwaj

**PREPARED BY**

Er. Abhishek Sharma

**REVIEWED BY**

HOD Valuation

**Date:** 08<sup>th</sup> November 2022 and 09<sup>th</sup> November 2022

**Date:** 11<sup>th</sup> November 2022

**Date:** 15<sup>th</sup> December 2022

**DEFECT LIABILITY PERIOD** - In case of any query/ issue or escalation you may please contact Incident Manager by writing at [valuers@rkassociates.org](mailto:valuers@rkassociates.org). We ensure 100% accuracy in the Calculations done, Rates adopted and various other data points & information mentioned in the report but still can't rule out typing, human errors or any other mistakes. In case you find any mistake, variation, discrepancy or inaccuracy in any data point of the report, please help us by bringing all such points into our notice in writing at [valuers@rkassociates.org](mailto:valuers@rkassociates.org) within 30 days of the report delivery, to get these rectified timely, failing which R.K Associates Valuers Techno Engineering Consultants (P) Ltd. won't be held responsible for any inaccuracy in any manner. Also, if we will not hear back anything from you within 30 days, we will assume that report is correct in all respect and no further claim of any sort will be entertained thereafter. We would welcome and appreciate your feedback & suggestions in order to improve our services.

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**ENCLOSURE 1: CA CERTIFICATE DATED 18<sup>th</sup> November 2022**

**R. K. PARMARTHI & CO.**  
CHARTERED ACCOUNTANTS



518, "Kalpana Plaza", Bithana Road, Kanpur - 208 001  
(M) 9839085297, 9415126481  
E-mail: parmarthidurgesh@gmail.com  
parmarthidurgesh@yahoo.co.in

**The Board of Directors**  
**Jaykaycem (Central) Limited**  
**Kamla Tower**  
**Kanpur**

We, M/s. R.K. Parmarthi & Co., Chartered Accountants have been requested by M/s. Jaykaycem (Central) Ltd. ("Company") to certify infusion of promoters' equity, disbursement of loans (fund based and non-fund based) from Lenders, utilization of funds and debt to equity ratio in respect of 4.0 Mn.tpa. Grey Cement Project at Panna and Hamirpur as mentioned in Common Loan Agreement dated 18<sup>th</sup> November, 2021.

18. Based on our examination of books of accounts of the Company and other records produced before us, we hereby certify the source of funds and utilization of funds till 30<sup>th</sup> Sep, 2022 is as follows:

**C. Source of Funds:**

| S.N. | Particulars                | Rs. in Crores   |
|------|----------------------------|-----------------|
| 1    | Promoters' Contribution    | 1,167.09        |
| 2    | Loan Disbursement          | 1,217.50        |
| 3    | <b>Total (1) + (2)</b>     | <b>2,384.59</b> |
| 4    | Balance available          | 39.66           |
| 5    | <b>Total (3) - (4)</b>     | <b>2,344.93</b> |
| 6    | Others (Project Creditors) | 134.78          |
|      | <b>Total (5) + (6)</b>     | <b>2,479.71</b> |

**D. Utilization of Funds / Total Investment cost (Rs in Crore):**

| Item   | Expenses incurred | Estimated Project Cost as per Holtec Report |
|--|-------------------|---|
| Land and Site Development  | 353.50            | 497.65                                      |
| Plant & Machinery / Building & Civil Structures / Miscellaneous Fixed Assets including contingency | 1,992.26          | 2,186.93                                    |
| Pre-Operative Expenses / Engineering & Knowhow / Training & Foreign Technician Expenses            | 96.53             | 140.46                                      |
| Interest during Construction Period  | 37.42             | 130.31                                      |
| Margin Money for Working Capital   | -                 | 14.94                                       |
| <b>Total Cost</b>  | <b>2,479.71</b>   | <b>2,970.29</b>                             |





**R. K. PARMARTHI & CO.**  
CHARTERED ACCOUNTANTS



51B, "Kalyana Plaza", Birhana Road, Kanpur - 208 001  
(M) 9829685297, 9415126481  
E-mail : parmardurgesh@gmail.com  
parmardurgesh@yahoo.co.in

19. We hereby confirm that Debt Equity Ratio is as under (considering funds infused by the Company till 30<sup>th</sup> Sep, 2022):

| Particulars         | Amount<br>(Rs. / Crores) |
|---------------------|--------------------------|
| Debt                | 1,217.50                 |
| Equity contribution | 1,167.09                 |
| Debt Equity Ratio   | 1.04                     |

We further confirm that the aforesaid Promoters' Contribution has been utilized by the Company towards setting up the Project mentioned in Common Loan Agreement dated 18<sup>th</sup> Nov, 2021.

For R.K. Parmarthi & Co.  
Chartered Accountants  
Firm Regn. No. 001121C

(Arvind Awasthi)  
Partner  
(Membership No. 424004)

Date: 18.11.2022  
Place: Kanpur

UDIN: 22424004BDLVVN3063



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#### DOCUMENT DETAILS

|   |   |
|---|---|
| Verification Date/Time:                       | 09-12-2022 06:21:54   |
| UDIN Generation Date/Time:                    | 18-11-2022   11:56:27   |
| Unique Document Identification Number (UDIN): | 22424004BDLVVN3063  |
| Member Details:                               | ARVIND AWASTHI (424004)   |
| Firm Details:                                 | 001121C   |
| Document Type:                                | Certificates  |
| Type of Certificate:                          | Others  |
| Date of signing of Document:                  | 18-11-2022  |
| Figures/Particulars:                          | 1. Source & Utilisation of Funds upto 30.09.2022: Rs. 2479.71 Crs<br>2. ---<br>3. --- |
| Document Description:                         | As per records and information provided   |
| Status:                                       | Active  |



## SNAPSHOT OF NEWS FOR INTEGRATED UNIT COMMERCIAL PRODUCTION COMMENCEMENT

The screenshot shows a news article on the Business Standard website. The article is titled "J K Cements' unit commences operations at new facility at Panna, MP" and is dated November 2, 2022. The article text states that J K Cements announced that Jaykaycem (Central), the wholly owned subsidiary of the Company, has successfully commenced cement grinding capacity of 2 MntPA today i.e. 2 November 2022 at its newly set up cement manufacturing facilities situated at Panna, Madhya Pradesh. It also mentions that the clinkerisation is at advanced stage and would be commissioned shortly. The article includes a section titled "ALSO READ" with links to other news items. The website interface includes a navigation bar with links to HOME, MARKETS, COMPANIES, and a sidebar with a "Keep abreast of the latest in business" notification and a "Market" section.

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**Market**

**J K Cements' unit commences operations at new facility at Panna, MP**

Capita Market  
Last Updated on November 2, 2022 19:21:57

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India Cements divest stake in Springway Mining for Rs 477 crore

Gravita's Ghana unit commences waste rubber recycling plant

The clinkerisation is at advanced stage and would be commissioned shortly.

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# JK Cements' unit commences operations at new facility

04 Nov 2022 CW Team

JK Cements announced that Jaykaycem (Central), the wholly owned subsidiary of the company has successfully commenced a cement grinding capacity of 2 MTPA on November 2, 2022, at its newly set up cement manufacturing facilities situated at Panna, Madhya Pradesh. The clinkerisation is at an advanced stage and would be commissioned shortly.

CW/GOLD

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Ep4: Technology used in Constructi...

Brick

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B



## SITE PHOTOGRAPHS

### INTEGRATED PLANT AT PANNA, M.P.

BUILDING STATUS JUNE 2022



BUILDING STATUS SEPTEMBER 2022

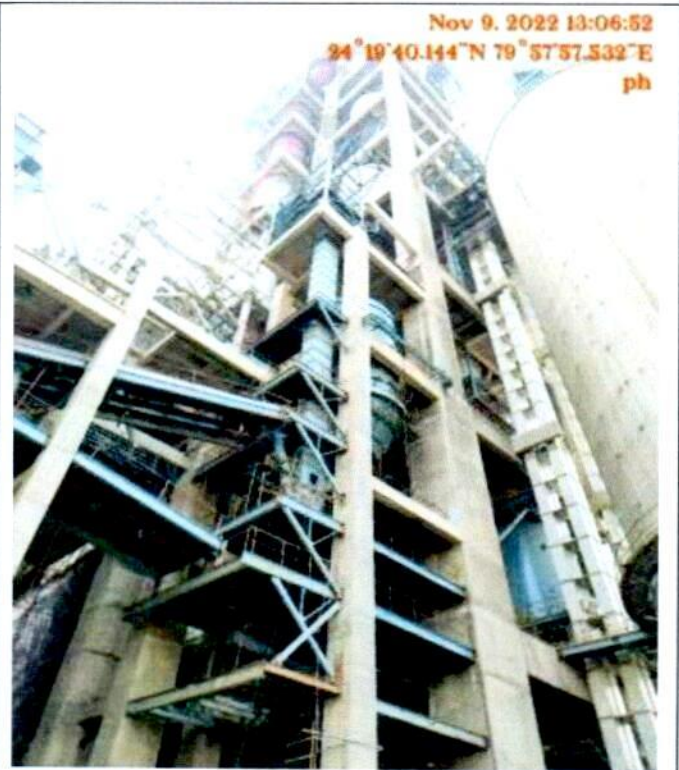


### CLINKER SILO

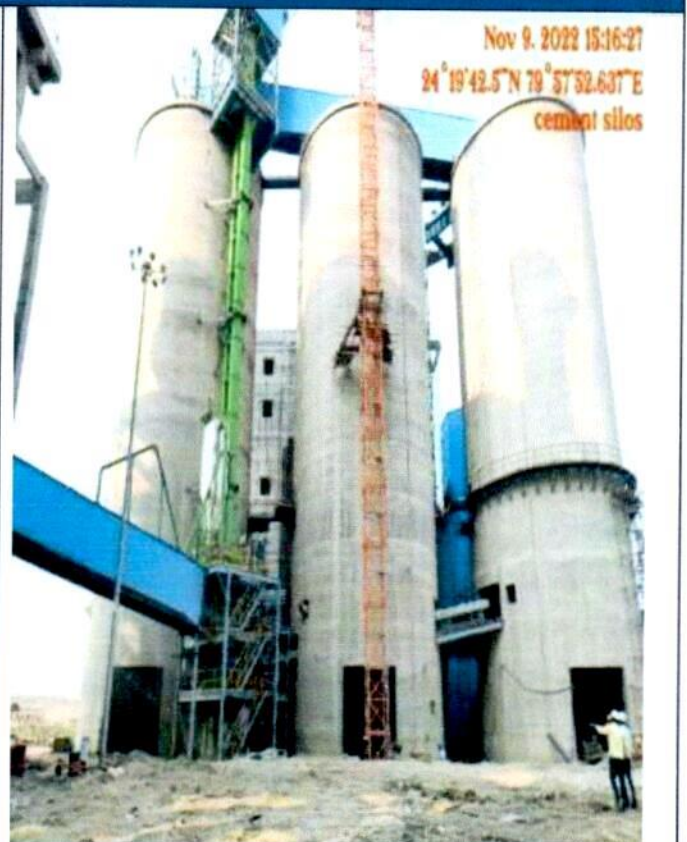


### CEMENT MILL HOPPER BUILDING





PREHEATER BUILDING



CEMENT SILOS



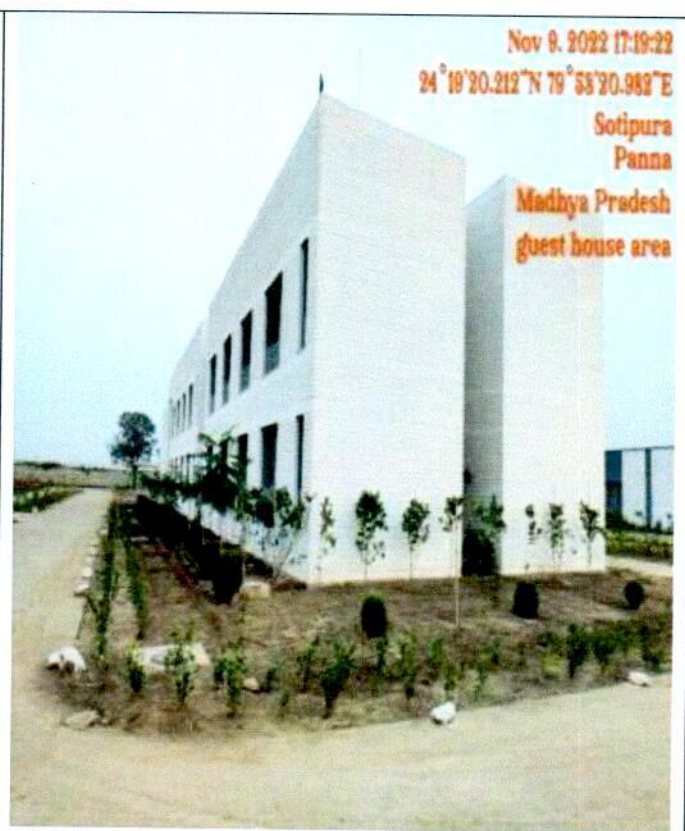


KILN AND TA DUCTS

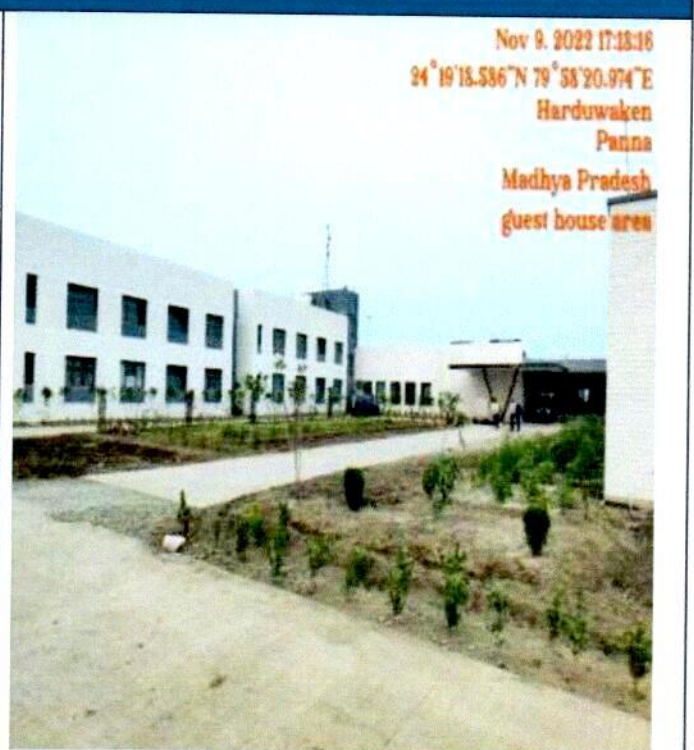


CCR AND ROBOLAB BUILDING





CANTEEN AND GUEST HOUSE

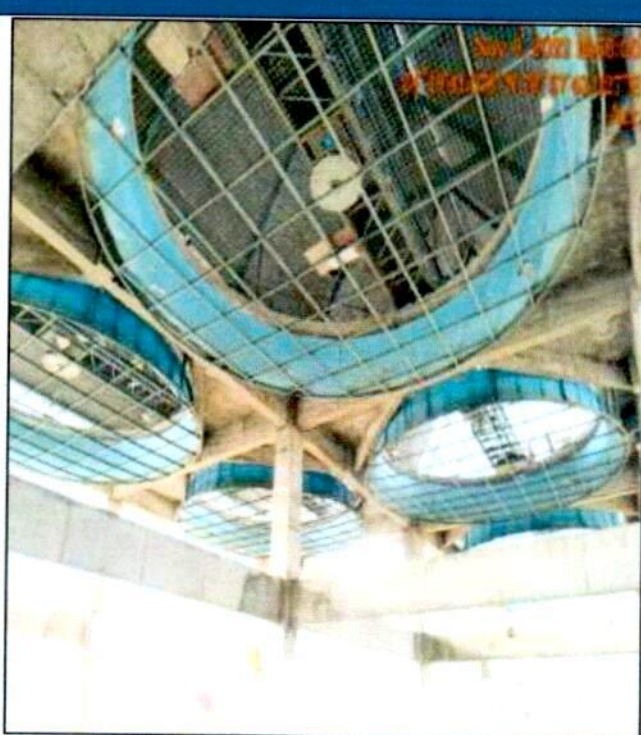


BACHELOR'S HOSTEL AND BACKSIDE OF GUEST HOUSE



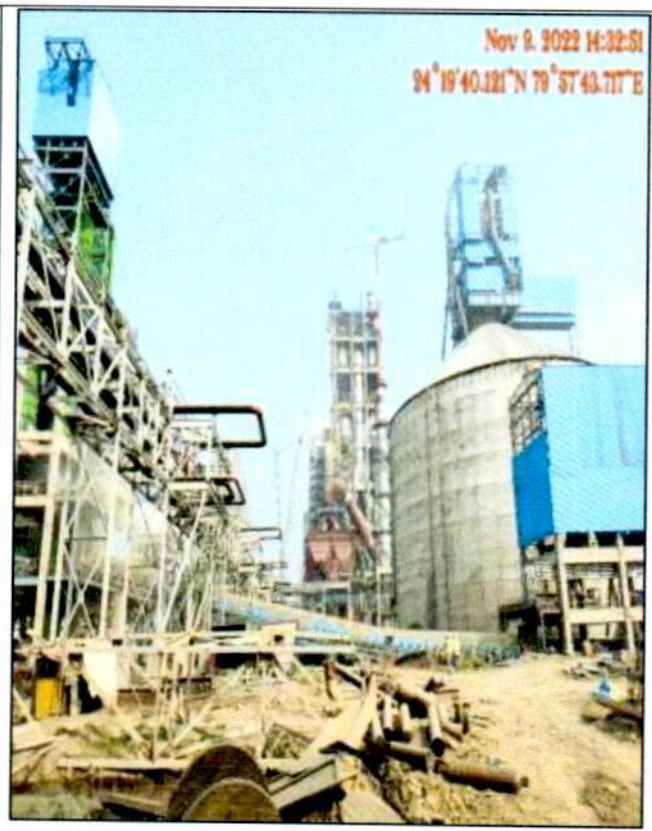


ESP

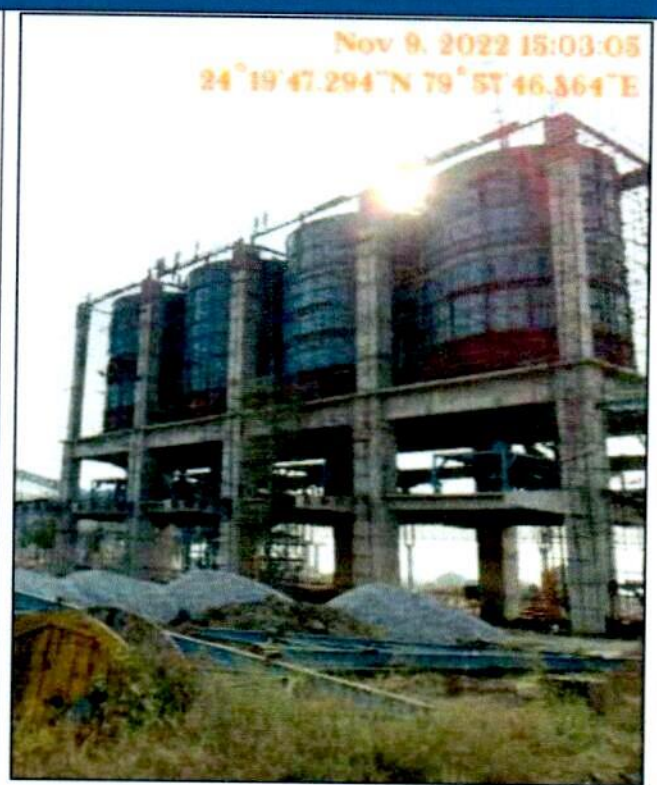


ACC BUILDING





HOT AIR PIPELINE AND CABLE GALLERIES

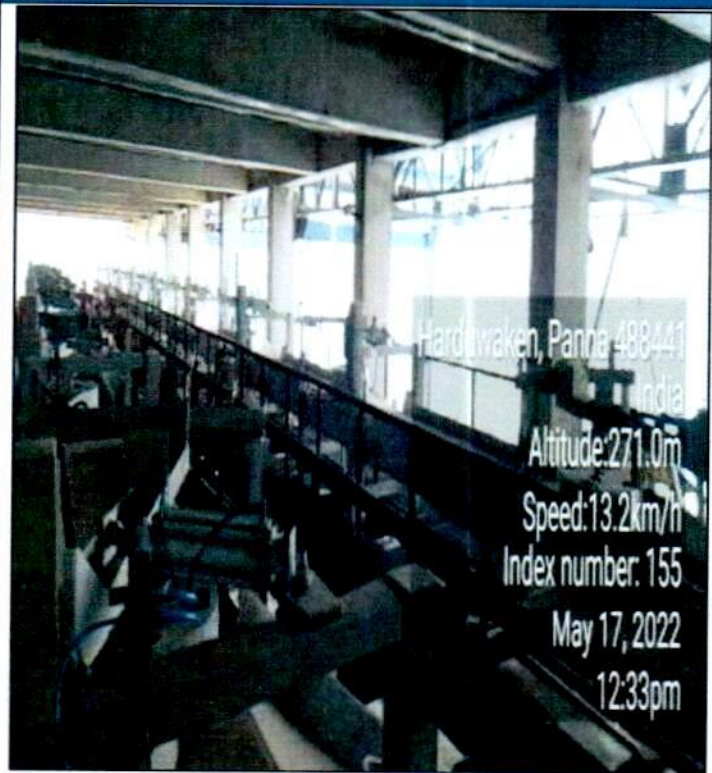


CLINKER BULK LOADING SILO



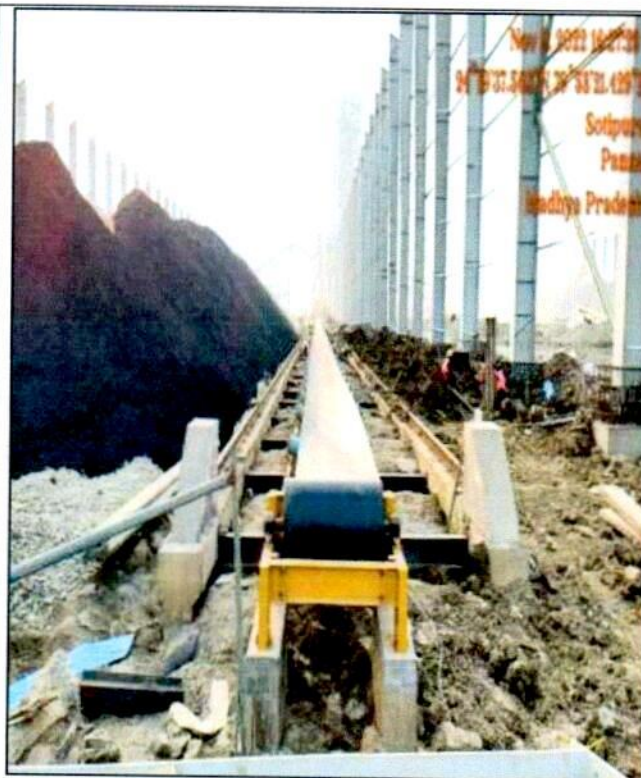


HAG

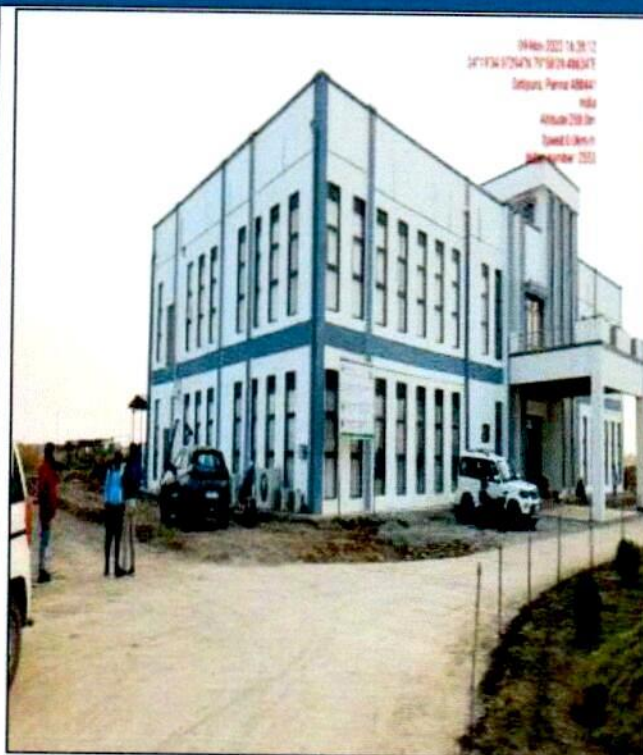
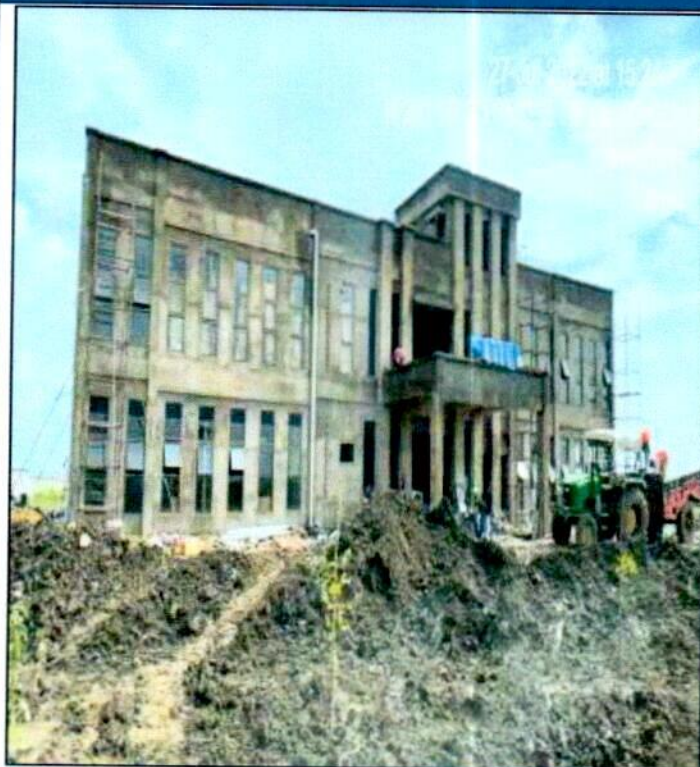


PACKAGING PLANT



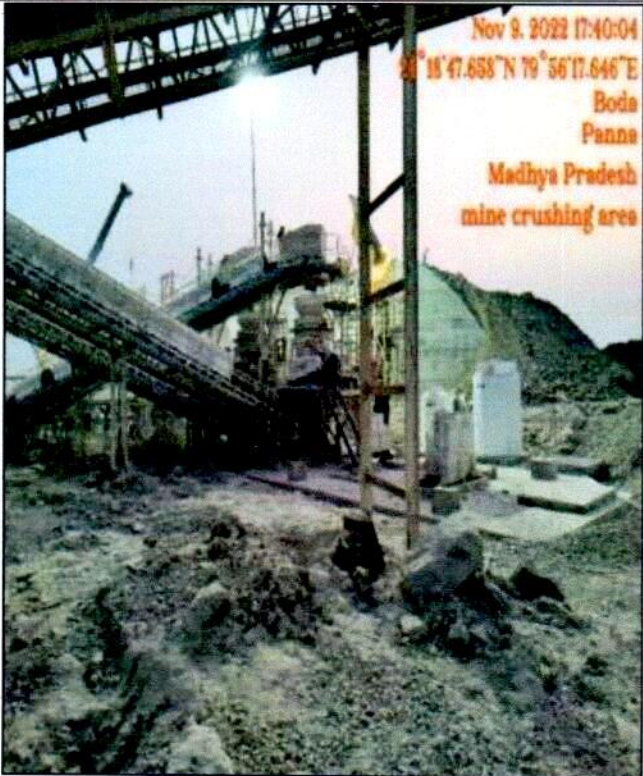
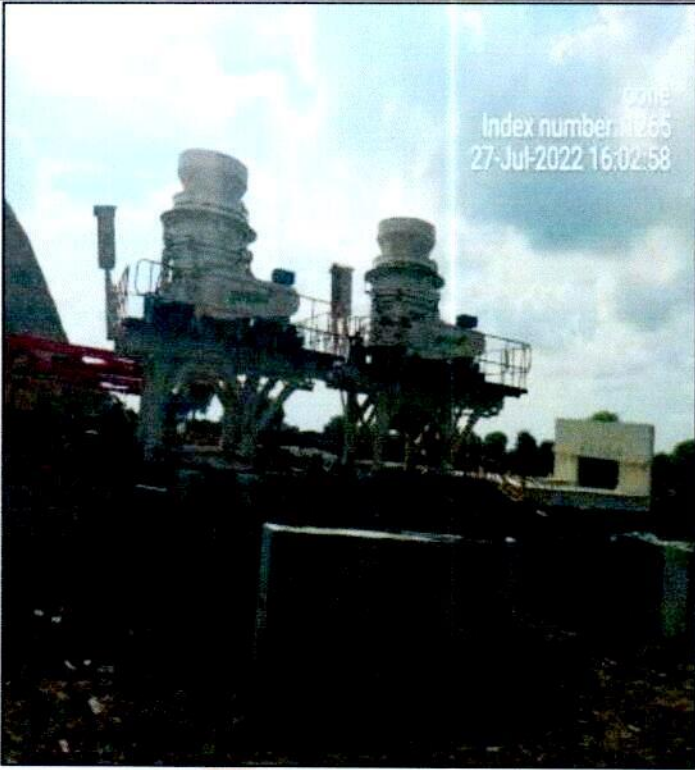


**COAL STORAGE**

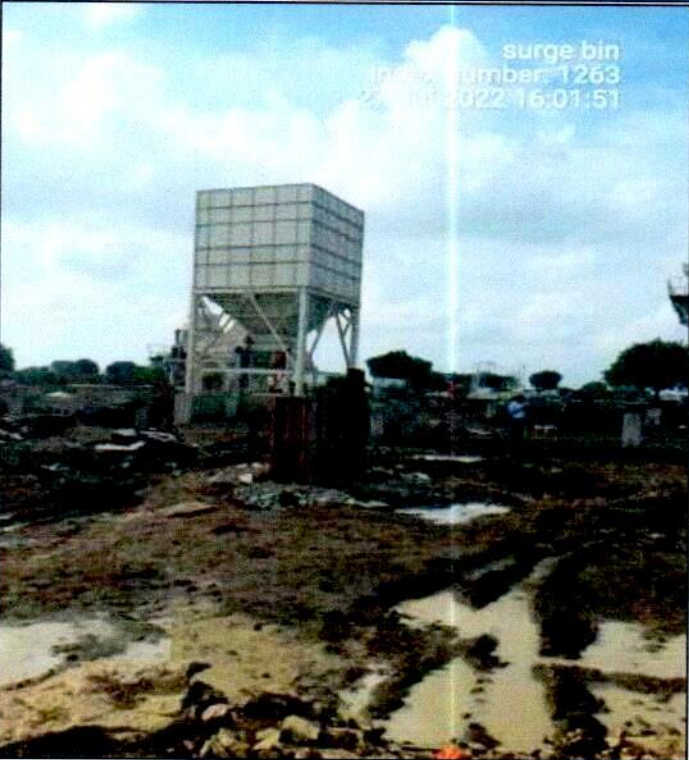


**ADMIN BUILDING**





CONE



SECONDARY SCREENER





AQC BOILER





**ANNEXURE-01 (INTEGRATED UNIT MACHINERY PHOTOGRAPH'S)**

|  |  |
|--|--|
| <p><b>Roller Unit (Polycom)-001</b></p>          | <p><b>Roller Unit (Polycom)-002</b></p>  |
| <p><b>Kobelco Crawler Crane-CKL 2600i</b></p>  | <p><b>ONAN Power Transformer</b></p>   |



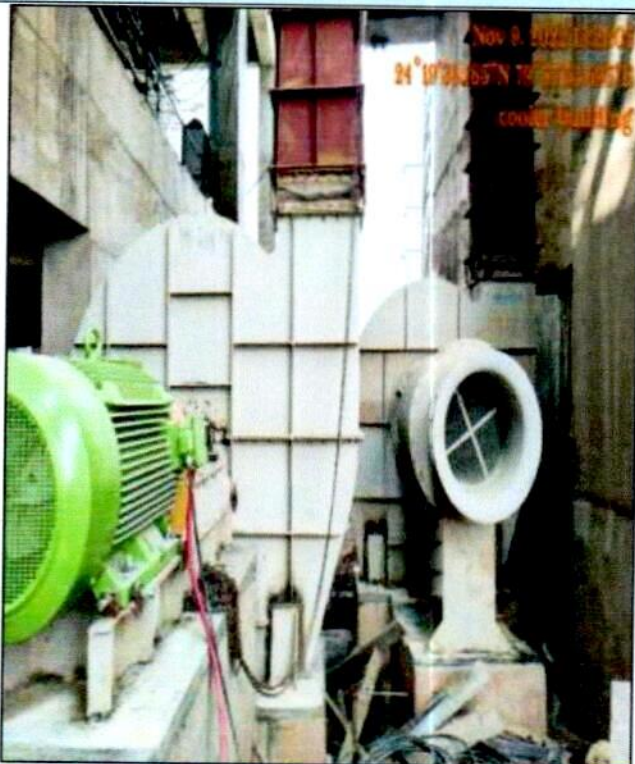
Distribution transformer



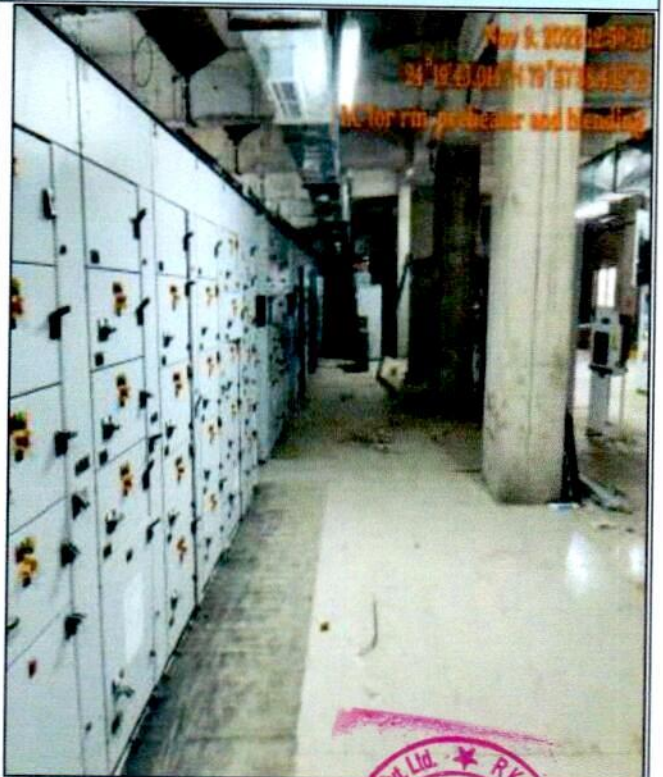
RoboLab for Sample Testing by Insmart systems



Clinker Cooler Fans

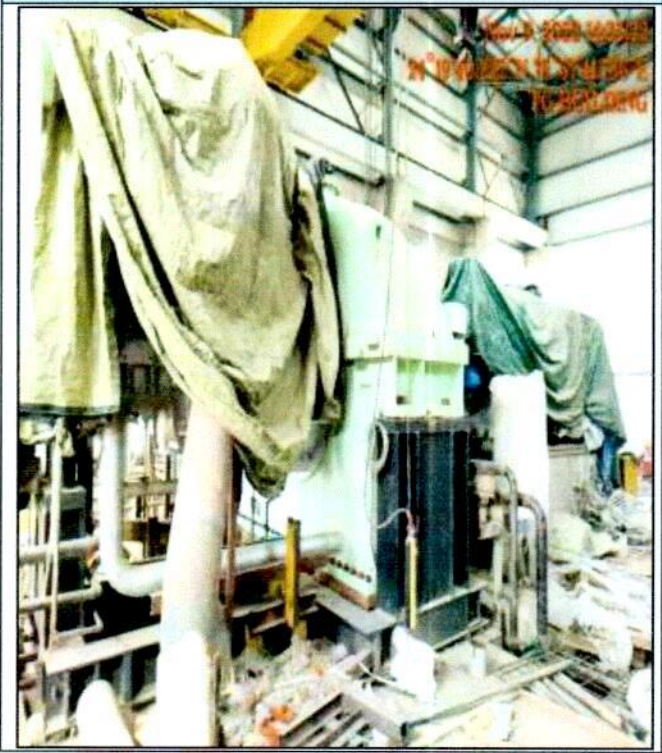


Control & Relay Panel by Schneider Electric India Private Limited

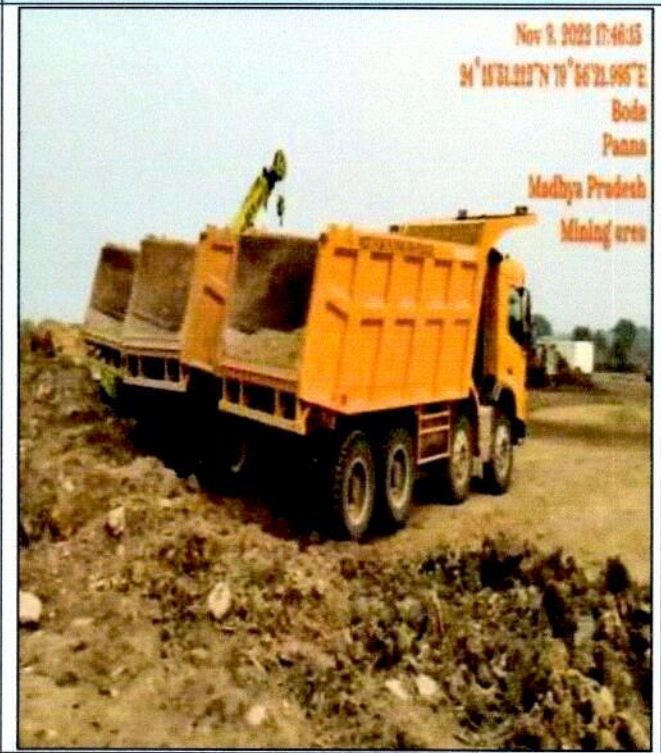




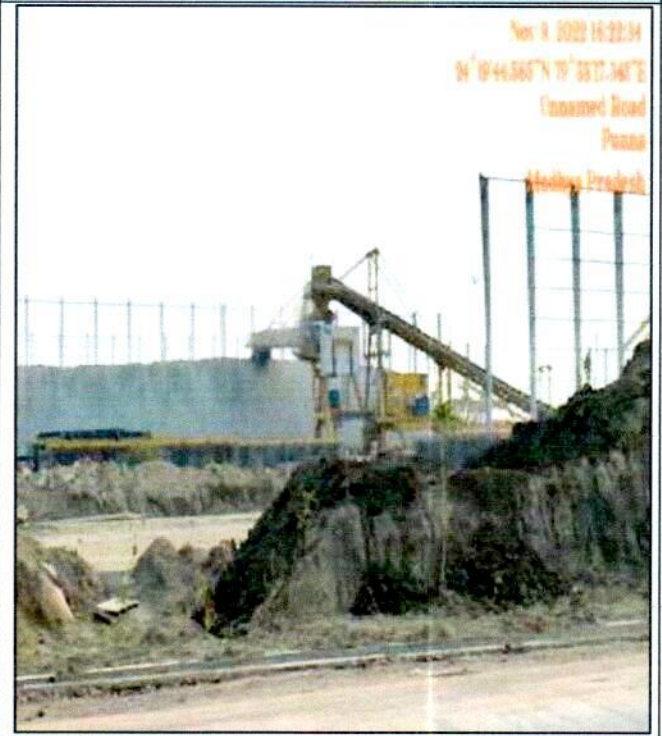
Turbine & Generator by Siemens Limited



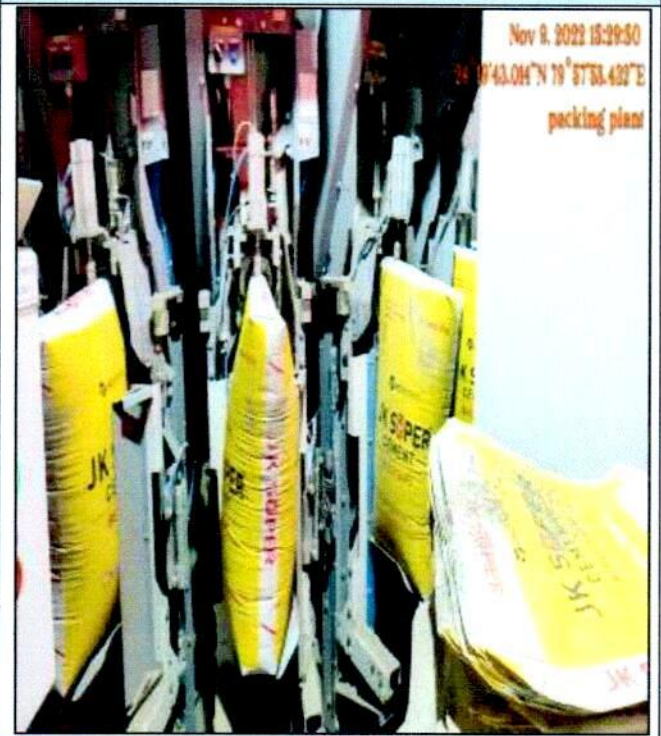
Dump Truck by VE Commercial Vehicles Limited



Limestone, Coal & Corrective Stacker-Reclaimer by TAKRAF India Private Limited

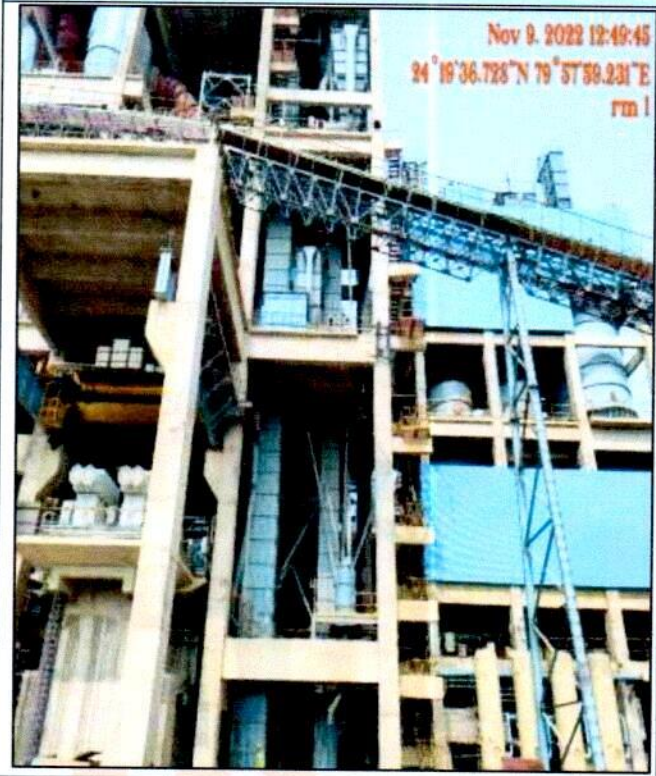


Rotary Pneumatic Cut Off Gate by Beumer India Pvt. Ltd.

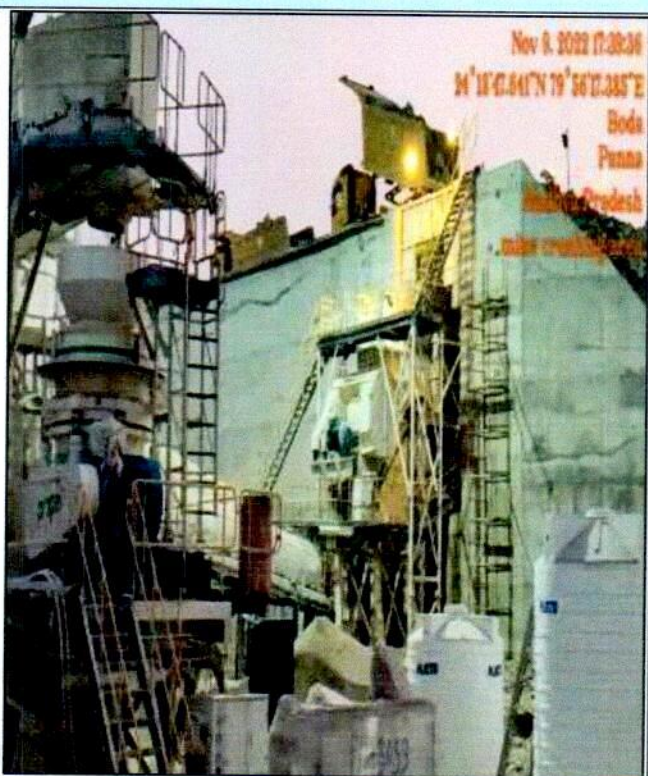




Belt Bucket Elevator by thyssenkrupp Industries Pvt. Ltd.



Limestone Crusher and BRU - Drive Module by Larsen & Toubro Ltd.



Main Drives and Motors by Bharat Heavy Electricals Ltd.

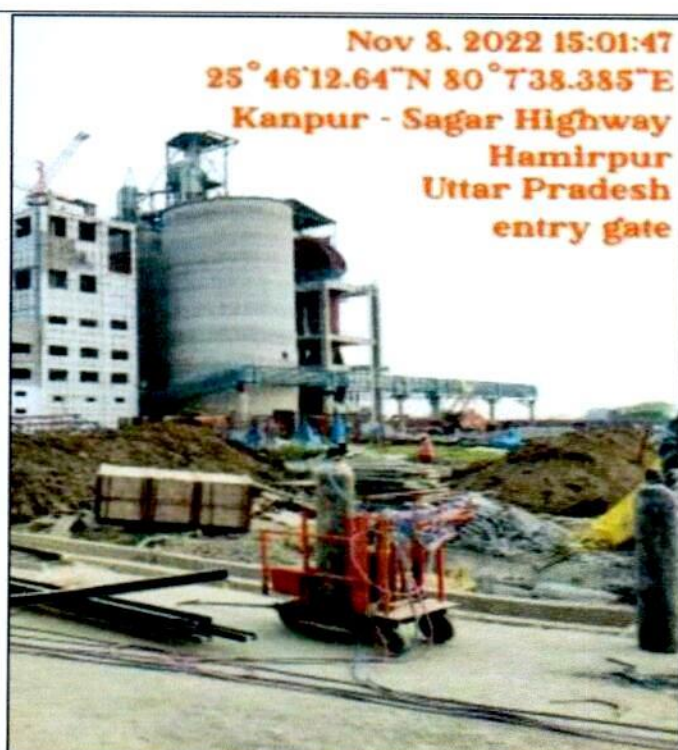
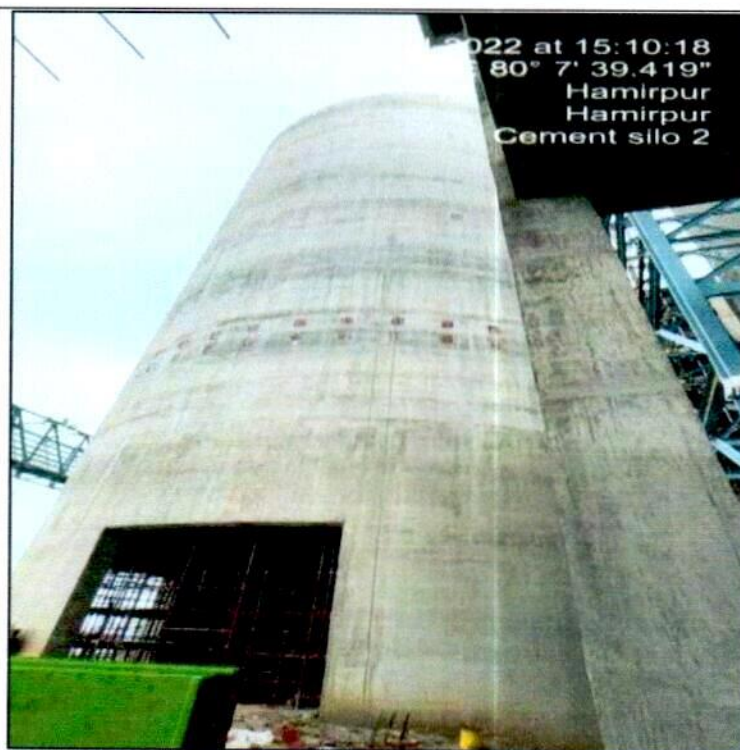


Cement Mill

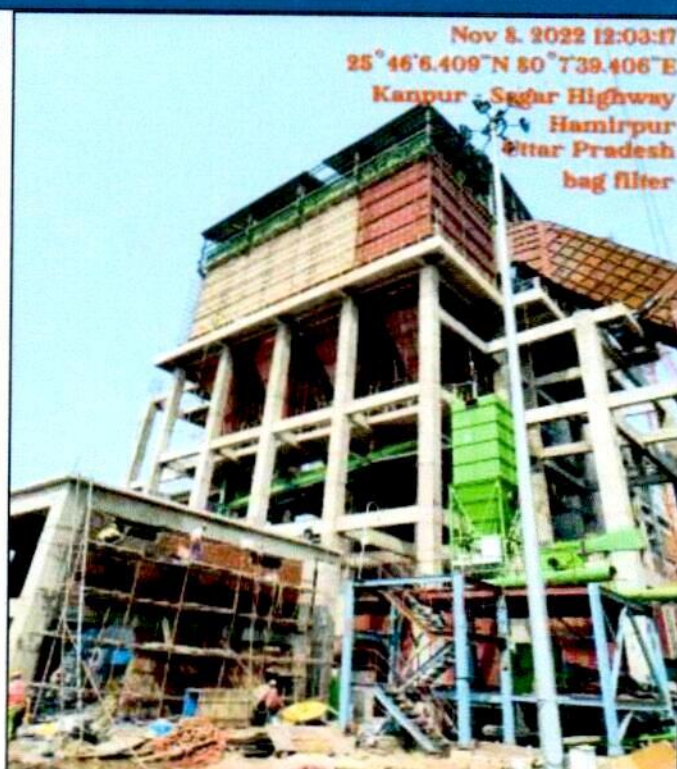




**GRINDING UNIT AT HAMIRPUR, U.P.**

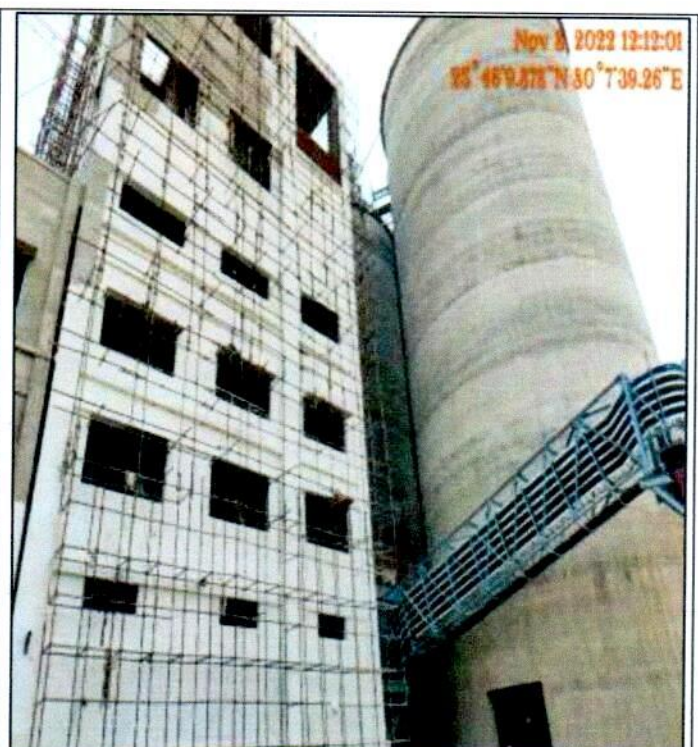
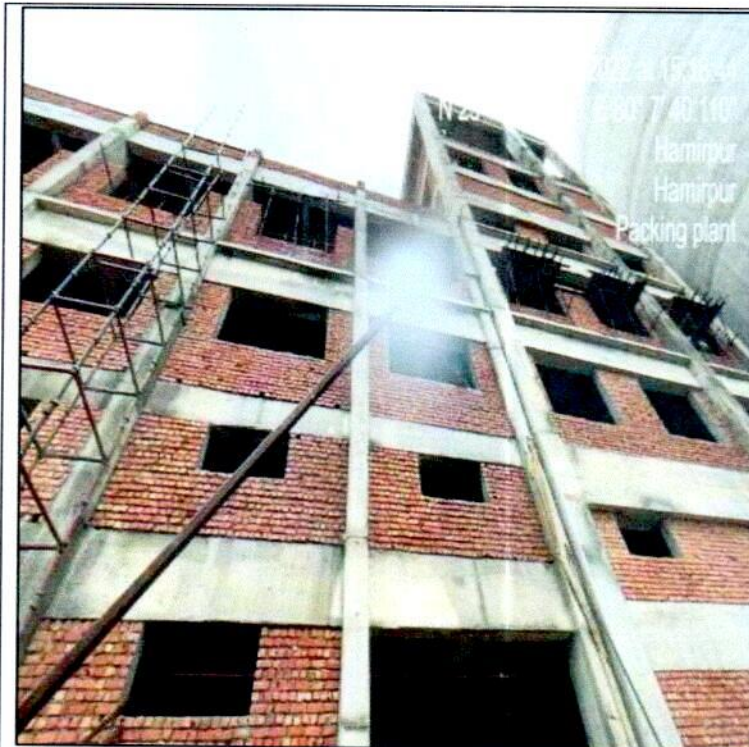


**CEMENT SILO**



**BAG HOUSE**





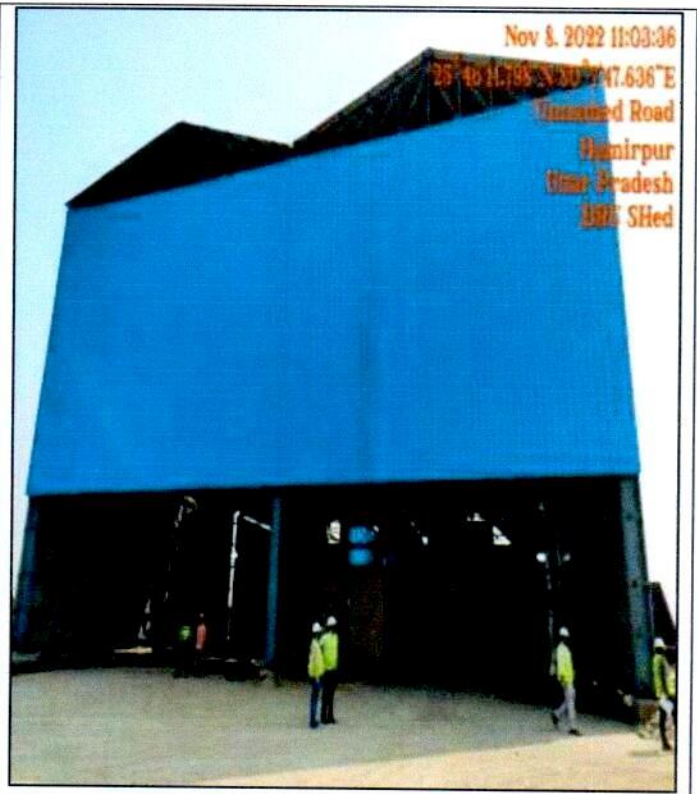
PACKAGING PLANT



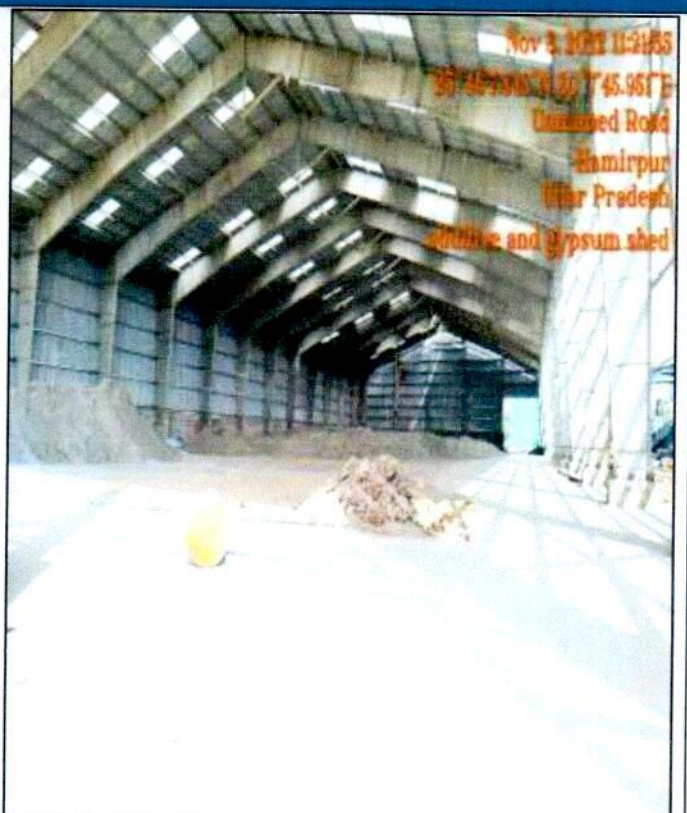
CEMENT MILL





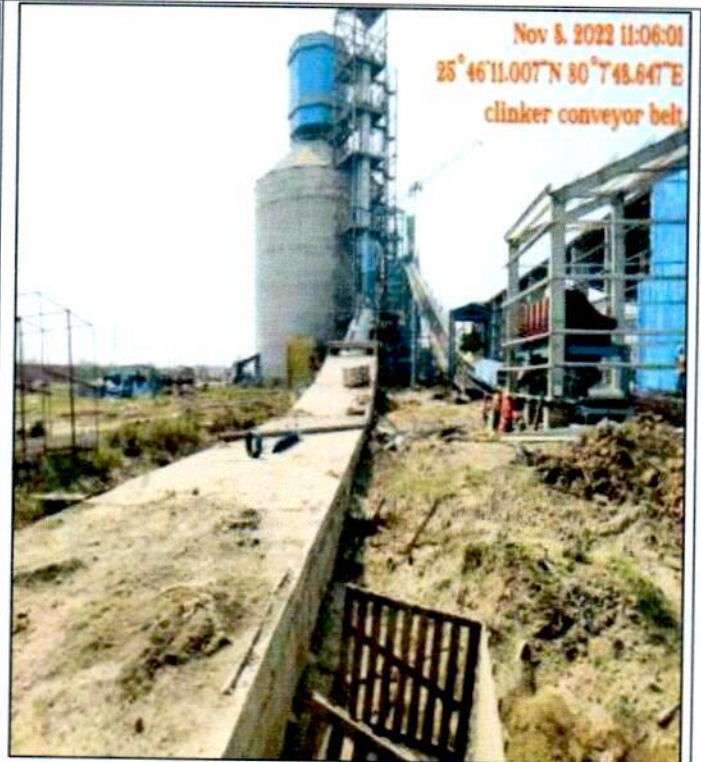


BULK RECEPTION UNIT

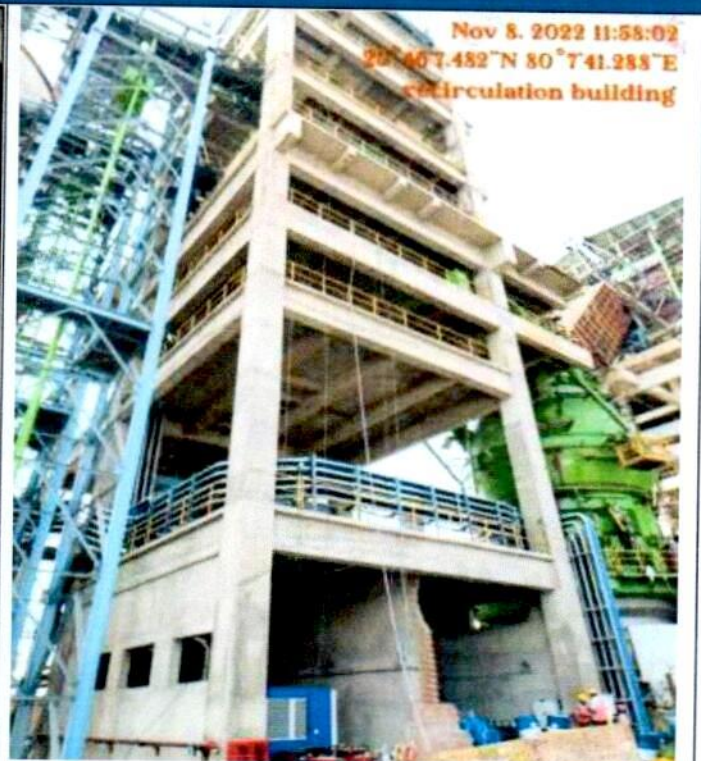


GYPSUM STORAGE SHED



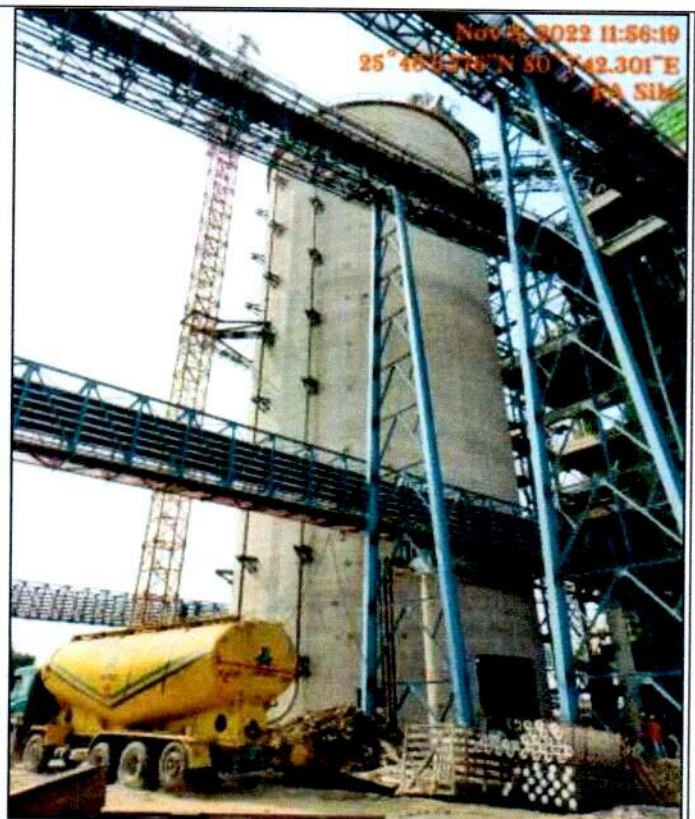


CLINKER SILO

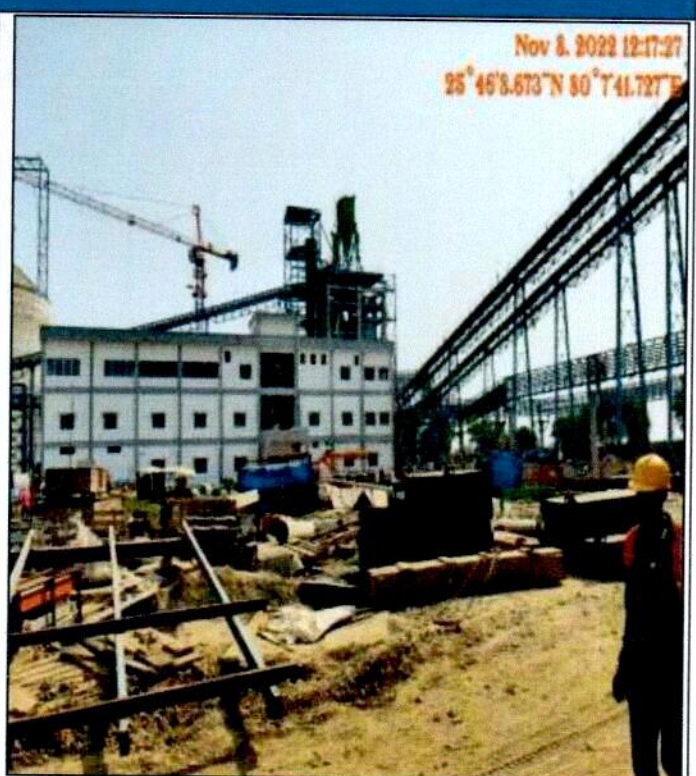


CEMENT RECIRCULATION BUILDING





FLY ASH SILO



CCR BUILDING



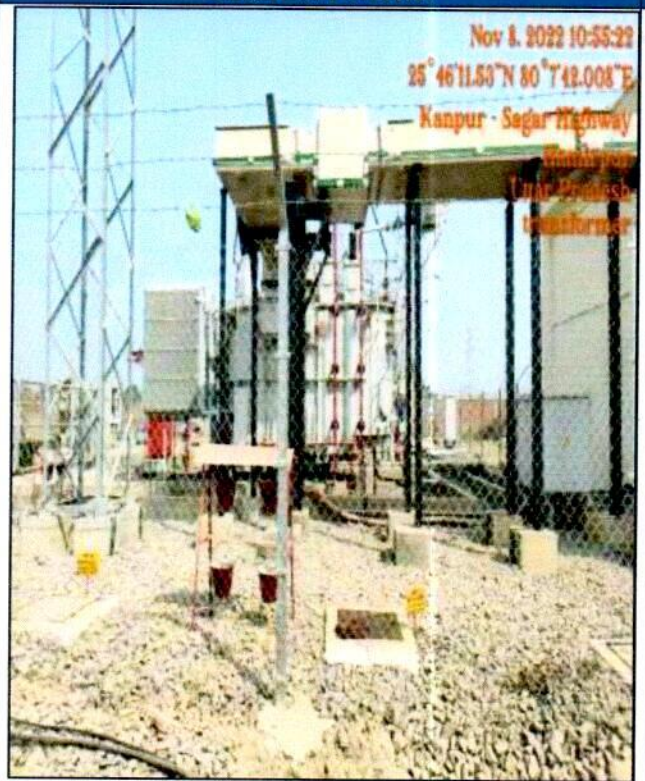
ANNEXURE-02 (MACHINERIES PHOTOS AT SITE-HAMIRPUR)



CEMENT MILL



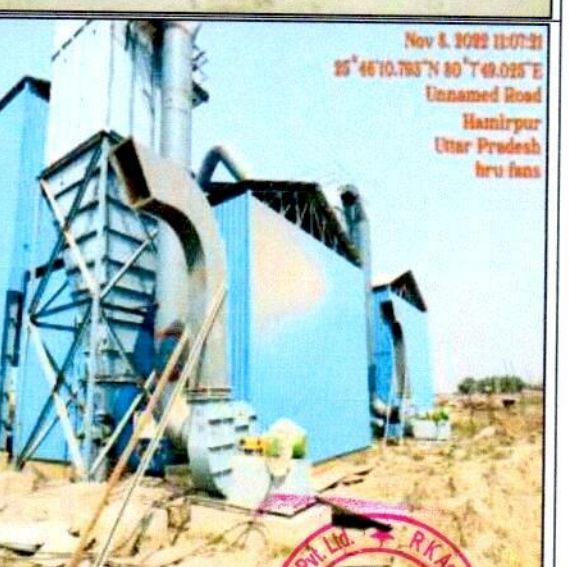
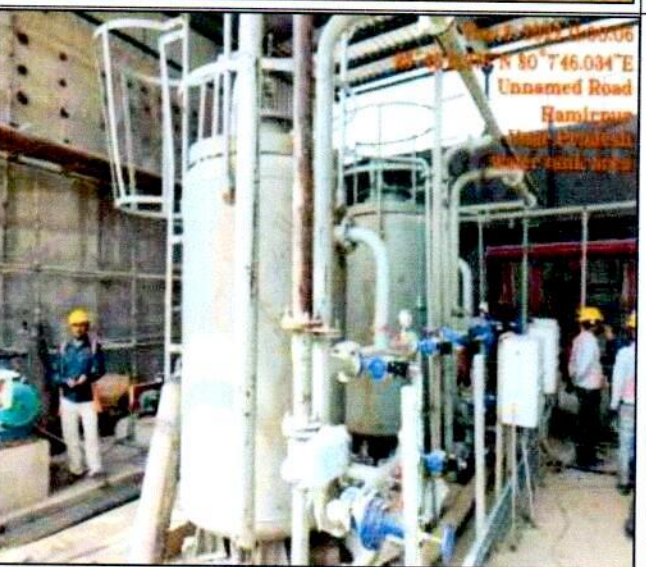
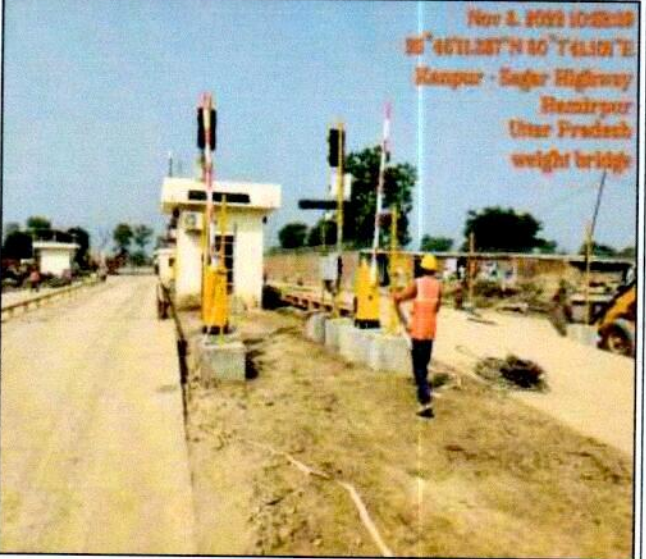
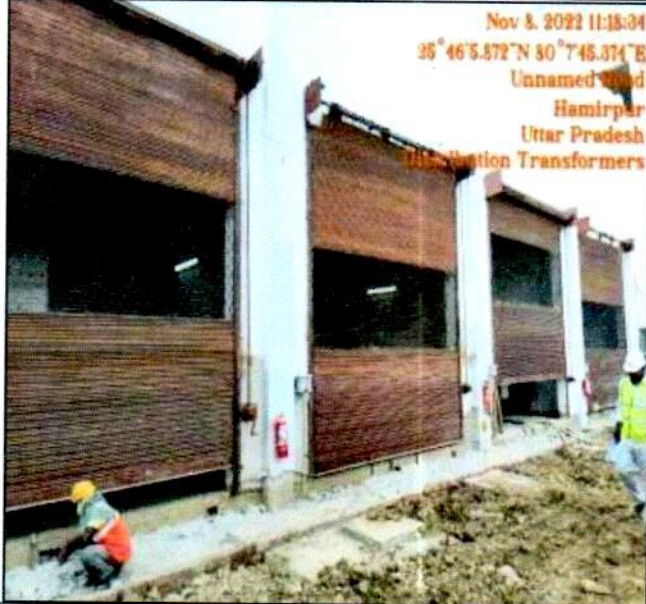
Control Panel



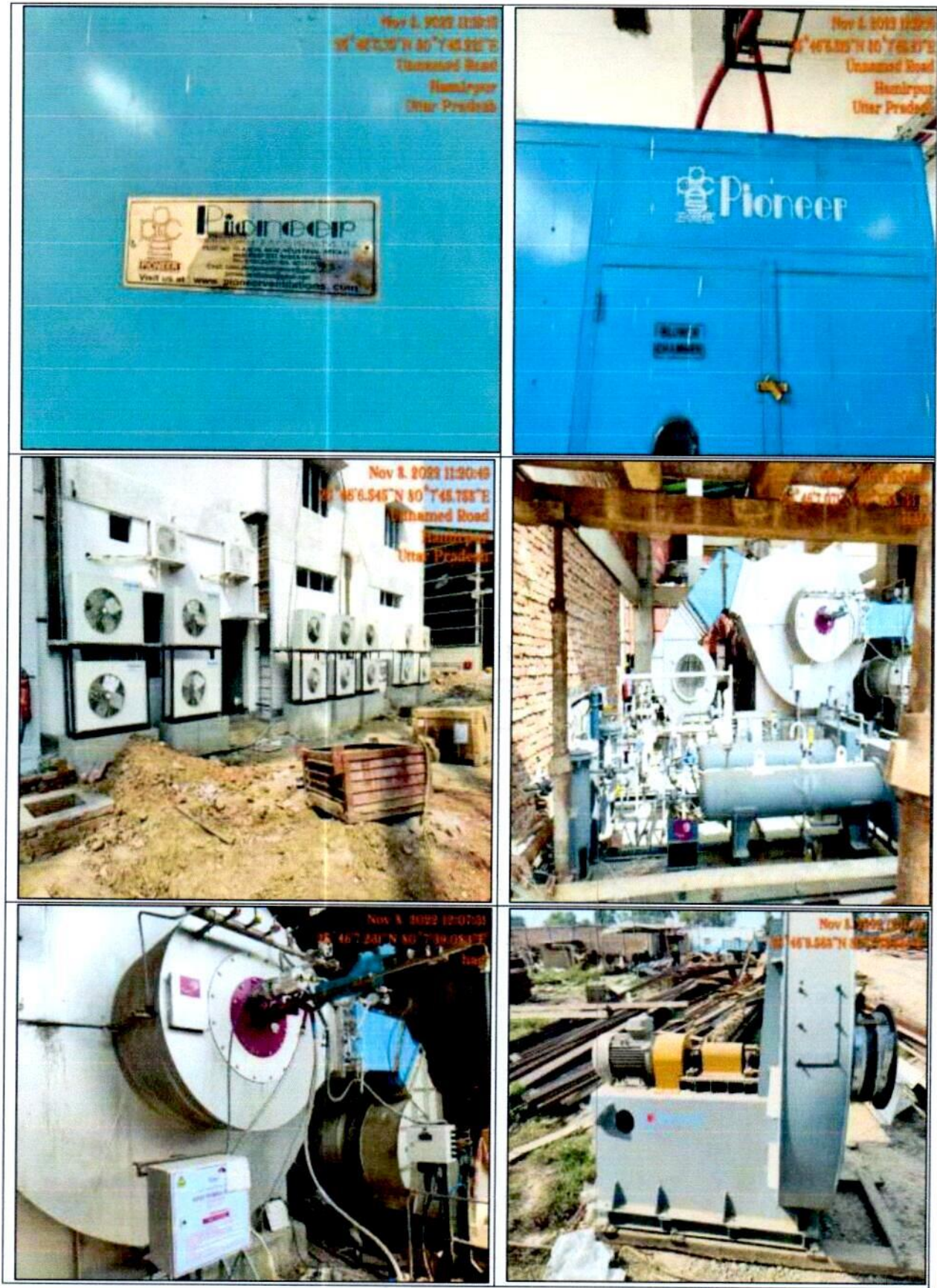
Transformer



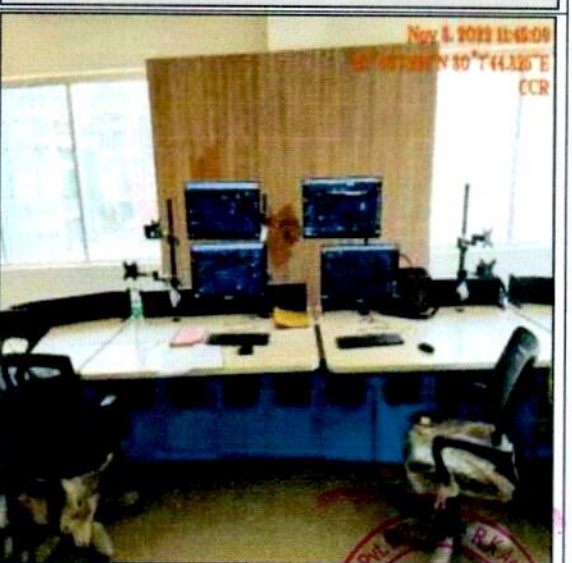
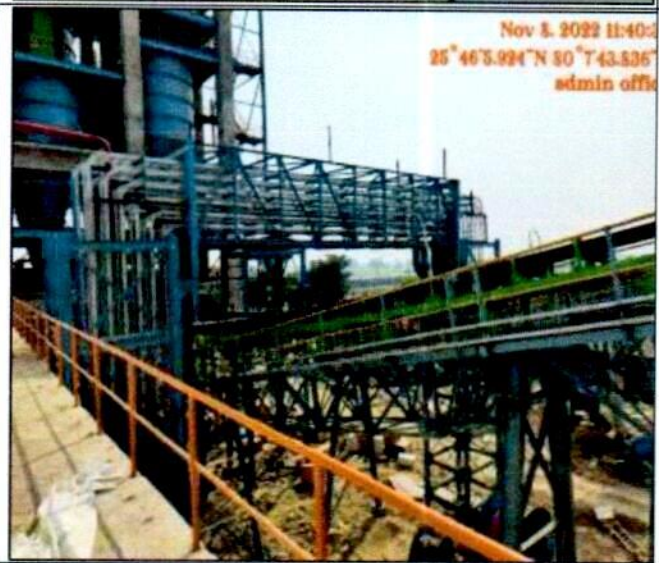
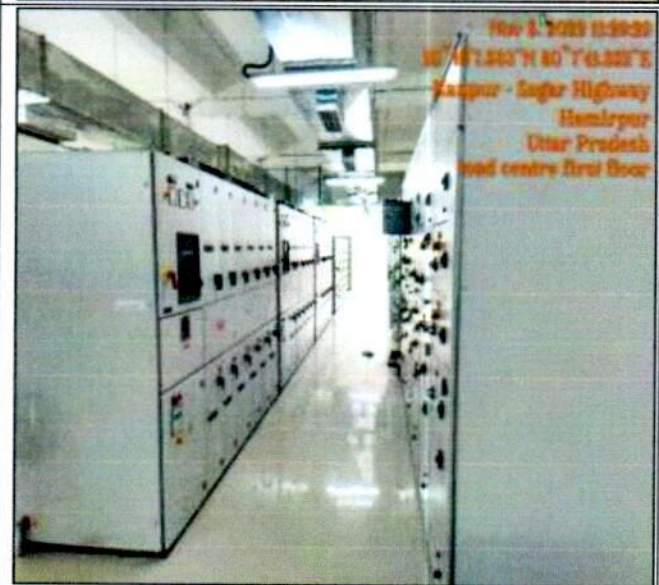
OTHER MACHINERIES VERIFIED AT HAMIRPUR SITE













**ANNEXURE-3 (CONSOLIDATED LIST OF PO'S PROVIDED)**

| S.No. | Supplier Name   | Amount            |
|-------|---|-------------------|
| 1     | AANJANA PUMP SERVICES                                   | 3,27,26,485.52    |
| 2     | ABB   | 5,21,93,376.50    |
| 3     | ARDEE ENGINEERING PRIVATE LIMITED                       | 40,11,99,999.05   |
| 4     | Asiatic Buildwell                                       | 6,99,05,943.51    |
| 5     | BEUMER INDIA PVT. LTD.                                  | 9,99,52,106.50    |
| 6     | BUILDWELL PROJECTS INDIA PRIVATE LIMITED                | 38,56,77,733.52   |
| 7     | CALDERYS INDIA REFRACTORIES LIMITED                     | 16,73,78,303.00   |
| 8     | CALDERYS INDIA REFRACTORIES LIMITED                     | 4,30,98,920.34    |
| 9     | ENEXIO Power Cooling Solutions India Pvt                | 25,90,69,000.01   |
| 10    | GLOBE ENGINEERING AND CONSTRUCTION                      | 11,28,07,731.39   |
| 11    | GND ISPAT PVT.LTD.                                      | 51,47,632.00      |
| 12    | HAJEE A P BAVA & COMPANY CONSTRUCTIONS PRIVATE LIMITED. | 64,51,74,145.00   |
| 13    | HIMENVIRO ENVIRONMENTAL ENGG. COMPANY PVT. LTD.         | 25,07,50,000.01   |
| 14    | Holtech Consultancy                                     | 7,25,70,000.00    |
| 15    | IKN ENGINEERING (I) PVT. LTD.                           | 9,44,00,000.01    |
| 16    | Insmart   | 11,21,98,989.85   |
| 17    | Interspace  | 80,76,256.00      |
| 18    | J.K. CEMENT WORKS MANGROL                               | 3,01,77,805.06    |
| 19    | JINDAL STEEL & POWER LTD                                | 9,83,04,620.00    |
| 20    | Kamal Builders  | 9,46,50,632.00    |
| 21    | Karni Design  | 29,89,29,960.22   |
| 22    | KARNI DESIGN & CONSTRUCTION PVT. LTD.                   | 5,35,86,750.00    |
| 23    | KEC INTERNATIONAL LIMITED                               | 83,26,35,704.97   |
| 24    | KOBELCO CONSTRUCTION EQUIPMENT INDIA PVT.LTD.           | 15,94,41,600.00   |
| 25    | LARSEN & TOUBRO LTD.                                    | 27,88,93,000.02   |
| 26    | Loesche India Pvt Limited                               | 42,14,07,264.00   |
| 27    | MAHINDRA TSUBAKI CONVEYOR SYSTEMS PVT.LTD.              | 6,66,52,300.00    |
| 28    | Modtech Material Handling                               | 1,51,04,000.00    |
| 29    | Modtech Material HandlingProjects P. Ltd                | 1,51,04,000.00    |
| 30    | MONOMARK ENGINEERING (I) PRIVATE LIMITED                | 20,05,52,977.00   |
| 31    | Pioneer Pollution                                       | 4,96,80,029.00    |
| 32    | Propel Industries                                       | 13,09,80,000.00   |
| 33    | SANJAY STEEL CORPORATION                                | 1,10,59,196.00    |
| 34    | SCHNEIDER ELECTRIC INDIA PRIVATE LIMITED                | 52,64,13,699.90   |
| 35    | SHAKTI STEEL TRADERS                                    | 1,89,81,450.50    |
| 36    | SIEMENS LIMITED   | 15,78,41,520.01   |
| 37    | STEEL AUTHORITY OF INDIA LIMITED.                       | 4,16,48,100.00    |
| 38    | SURESH TECHNO ELECTRO (INDIA) LPP                       | 15,66,22,522.47   |
| 39    | TAKRAF INDIA PRIVATE LIMITED                            | 40,76,90,000.01   |
| 40    | TATA PROJECTS LIMITED                                   | 14,33,700.00      |
| 41    | TC Communication Pvt. Ltd.                              | 9,34,28,813.33    |
| 42    | THERMAX BABCOCK & WILCOX ENERGY SOLUTION PVT LTD        | 98,17,59,995.34   |
| 43    | Thyssenkrupp Industries India Pvt Ltd.                  | 81,58,40,000.00   |
| 44    | UNIVERSAL CABLES LIMITED                                | 4,43,35,671.20    |
| 45    | VE COMMERCIAL VEHICLES LIMITED                          | 38,22,88,896.00   |
| 46    | ZETWERK MANUFACTURING BUSINESS PRIVATE LIMITED          | 17,24,67,030.00   |
| Total |   | 9,37,02,37,859.24 |