August 2022

EXECUTIVE SUMMARY

DEVELOPMENT OF INDUSTRIAL CITY OVER AN AREA OF 93.85

HA (231.9084 ACRES)

AT SHENDRA, MIDC, AURANGABAD, MAHARASHTRA

BY M/S INSPIRA INFRA (AURANGABAD) LTD.

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EXECUTIVE SUMMARY

I. Project Name & Location

Inspira Industrial City <u>(IIC)</u> is located at MIDC Shendra at Aurangabad. This city is planned for multi-functional industrial units available to small industries as well as medium industries. The total area of th<u>ise</u> INDUSTRIAL CITY is about 93.85 Ha on plots no C-21, C23, C23/1 and C-23/2, within Five Star Industrial Area of MIDC, Shendra, Aurangabad, Maharashtra. The project is bounded by Latitude between 19° 54' 20.95" N & 19°53'39.64"N and Longitude between 75° 28' 51.74" E & 75°29'42.34"E. The Aurangabad Industrial Area is adjacent to the South boundary of the project area. The surrounding area is industrial in nature. The nearest city is at Aurangabad. It lies on an altitude of 613 m. Above M.S.L.

II. Size & Magnitude

The project includes 231.9084 Acer land, which allows 80% area to be utilized for Processing (Industrial area and 20% for the support services including Residential, Commercial, Recreational, Utilities and Amenities. The project land distribution will be as mandated by the MIDC and IIA (Integrated Industrial Area) Development Control Regulations, approved by Government of Maharashtra. Thus the project is being designed on the concept of Walk to Work culture. Land use/Land cover of site in tabular form is as follows:

Sr No	Land Use/Land Cover	Proposed Land Use		
		Area (ha)	%	
1	Industrial Area	62.21	66.29	
2	Residential Area	3.42	3.64	
3	Commercial Area	1.14	1.21	
4	Green Space	10.02	10.68	
5	Roads / Utility Area	17.06	18.18	
	Total	93.85		

III. (A) Requirement of Land

The total project area is 231.9084 Acres (93.85 Ha.)of land requirement for the project.

(B) Major Construction Phase

The major Construction Infrastructure are divided into four categories viz. Road, Water Lines, Power Lines and Other works being developed in phases.

(C) Material used for Construction

The proposed project being area development project raw material is required only during Construction Phase. Construction material will be transported from local vendors to reduce transportation costs, Local excavated material may be used for earthwork of road and land development, wherever possible. Sand-18,150 MT; Metal- 37,875 MT Cement- 1,560 MT Rubble 45,000 MT steel-245 MT Murom- 1,19,500 CuM which will be sourced from Local Market / Project Areas.

The transportation of raw materials will be the responsibility of Civil Contract awardees through Commercial vehicles. Construction material will be stored in Covered area. Water will be sprinkled regularly on the haul road to minimize the fugitive emissions. During Operation Phase Individual plot owner/ tenant will transport personnel and materials as per their requirement. The man & material transportation for individual units within the Industrial Complex will use the State Highway and enter the complex through main gate and use the internal developed road to the respective locations.

(D) Water_Supply

The total water supply to Shendra Five Star Industrial Area is 15 MLD through the MIDC MBR (Master boosting reservoir) and the total fresh water demand for the INDUSTRIAL CITY is estimated at 2.461 MLD which can be supplied by MIDC through its ESR, located at the south-east corner adjacent to the site-

(E) Power Supply

Power will be distributed to INSPIRA INDUSTRIAL CITY (herein after referred as IIC) by The Maharashtra State Electricity Distribution Company Limited (MSEDCL) through the 220 KV substation within the MIDC area.

The Main Receiving Sub-Station estimated Net Load at MRSS is 30 MVA and it can be fed from two or three incoming feeders of 33KV system Voltage. So, main receiving sub-station [MRSS] shall have 132 KV /33 KV /11 KV built up. Backup Source - DG sets are proposed in case of power failure for common utilities like street lights, water pumps, sump pumps, etc. There will be provision for 2 no of 125 KV DG set for utilities for stand by purpose.

(F) Fuel

The oil will be stored on the site as a reserved stock, and it will be stored in drum/tank with proper identification mark/labels in an identified area. All fire and safety measures will be taken as per the guidelines from the concerned authorities. Necessary permissions would be obtained before storing hazardous substances like HSD, etc.

IV Solid Waste Management

Solid waste management System has been planned and will be in place as per the provisions of the MSW (M&H) rules 2000.

Every Industry, household, shops establishments, market etc., generate solid waste on day-to-day basis. The waste should normally be stored at the source of waste generation till collected for disposal.

A systematic approach is proposed for efficient waste storage and its collection and at the same time to comply with the Municipal Solid Waste Management Rules 2000. The proposed system has been arrived by studying the various generators of waste and they have been categorized as follows:

Industrial Areas	Garden Waste
Residential Areas	Bio- medical waste (Municipal)
Commercial Waste	 Street sweeping waste
Institutional Waste	Bio degradable

Waste Generation and Composition

Generation: Every establishment generates solid waste on day-to-day basis. A systematic approach is proposed for efficient waste storage and its collection and at the same time complies with the Municipal Solid Waste Management Rules, 2000. Different types of waste considered along with their waste generation rates are as follows:

DOMESTIC SOLID WASTE							
	Population		Solid Waste generation				
			Gram/Day	MT/Day			
PROCESSING AREA	12,766						
Industrial Area							
Domestic Use (Fixed)	10149	425gm/capita/day	43,13,478				
Floating	1979	225gm/capita/day	4,45,231				
Utility (Fixed)	638	425gm/capita/day	2,71,288				
Total for PA	12766		50,29,997	5.03			
NON PROCESSING AREA	6,963						
Residential and							
Commercial							
Fixed	5932	425gm/capita/day	25,21,242				
Floating	1030	225gm/capita/day	2,31,862				
Total for NPA	6963		27,53,104	2.75			
TOTAL (PA+NPA)				7.78			

Estimated Quantity of Total Municipal Solid Waste in IIA

The total amount of domestic solid waste generated from the proposed IIA project is around 7.78 MT/day. The domestic solid waste generated will be about 7.78 MT/day which constitute of 50 % of the Bio- Degradable waste (Organic in Nature), while 50 % of waste will be non-biodegradable.

V. Baseline Data

The various parameters surveyed and studied for the baseline study are as follows:

- Physical Environment
- Air Environment
- Noise Environment
- Traffic Pattern and Density
- Water Environment
- Land Environment
- Biological Environment
- Socio-Economic Environment

The lands proposed are barren, uncultivable and non-irrigated. The topography is undulating with low soil depth. The soil shows low humus content and soil moisture. The site is in the rain shadow belt the winter season is from December to about the middle of February followed by summer season which last up to May. June to September is the south-west monsoon season, whereas October and

November constitute the post-monsoon season. The temperature varies between 10.8 ^oC to 43.3 ^oC for the whole year with average annual rainfall of 760mm.

Eight Air quality-monitoring stations were set up in and around and four new stations are proposed for project site. PM10, PM2.5, SO₂, NOx parameters are analyzed, which are within the NAAQ Norms. The ambient air quality results of core zone and buffer zone are ranging from in PM10 52.8-75 μ g/M³, for PM2.5 is of 15-32 μ g/M³, SOx varies from 9.8-19.7 μ g/M³, NOx range is 11.7-22.4 μ g/M³, CO varies from 0.5 to 1.7.

Noise monitoring was conducted at 8 locations within the impact zone wherever possible including the project site, sensitive and residential areas. The maximum noise levels are 70 dB(A) in night time and 75 dB (A) in day time around the Industrial Area.

Traffic counts were carried out for 6 locations, to provide background values of traffic density, and correlate such data to the levels of air pollution along the road. The predicted traffic density will be well within 1500 PCUs/Hr for 2 lane two-way as per IRC Norms.

Water sampled from both surface water as well as ground water sources locations were collected in the vicinity of project site. Surface Water are analyzed as per IS 2296 & Ground Water are analyzed as per IS 10500.

Soil quality analysis has been done at around project site. The soil is brownish Silty Clay of alkaline type with bulk density varying between 1.28 to 1.35 having more than 45% porosity.

The biological study is carried out to understand the ecological pattern and biodiversity aspects of the area. Though large patches of forest lands are geographically distributed within the 10 km of project site, none has been included in the project area.

VI. Socio Economic

Hence considering the maximum influence due to the project eight villages of the buffer zone is been considered for the assessment. The socio-economic data through 8 villages are surveyed. Socio-Economic of the project area covers eight

villages are Shendraban, Sultanpur, Fattepur, Hirapur, Kubhephal, Pirwadi, Wadkha & Warzadi.

The socio-economic profile of the study area is presented based the data of Census 2011.

- Population: The total 8 villages HHs is 2294 with population of 11324 out of which male population is 5906 and female population are 5418.
- Sex Ratio: The sex ratio (nos. of female per thousand males) is
 917 which are lower than Maharashtra state average 929.
- The total SC population 2038 out of which male population are 1032 and female are 1006, ST population are 258 out of which male are 137 and female are 121.
- ***** Literacy: The literacy rate is 69.09%.
- Occupational Pattern: The workers in the study area comprised of 23.46% main workers, 21.83% marginal workers and 54.71% non-workers. The main workers mainly comprise of - Civil workers, cultivators and agricultural labors.
- Infrastructural Facilities: In the study area has facilities of educational, health care, drinking water, post office, police station, market and bus stoppage all the facilities available within study area.
- * Electricity: In all the villages' electricity facilities available.
- Cropping Pattern: The crops of the area are Wheat,-Maize, Bajra, Cotton, Soyabeans, Groundnut, Orchad & Green Vegetables.
- The larger population depending on Industrial labor. The two distinct housing patterns are visible, one with concrete house with concrete roof and the other with metal roofing. The housing pattern is all along the internal roads within the village. All the internal roads are almost perpendicular to each other and have street lights.
- For the drinking water people depends upon pipe water connection,

VII. Measures of Mitigating the impact on the environment and mode of discharge or disposal

The primary function of an environmental impact assessment study is to predict and quantify potential impacts, assess and evaluate the magnitude. The impact assessment forms the basis for development of Environmental Management Plan. Environmental impacts could be positive or negative, direct or indirect, local or regional and also reversible or irreversible. Impact Assessment Study was carried out during both construction as well as operational phase of following parameter such as Land Environment, Water Resources, Air Environment, Noise Environment, Transport Linkage, Socio Economic Environment, and Biological Environment.

VIII. Alternative Site

This is an existing industrial area belonging for MIDC which was in the name of M/s Ajanta Projects (India) Ltd. and changed to M/s Inspira Infra (Aurangabad) Ltd. The project site selection was a strategic decision that involves several criteria with consideration for technical, economic, social, environmental, and political issues. The site was selected considering different indicators, expressed in quantitative and qualitative ways with some possible uncertainty. Hence no alternative site is suggested.

IX. Environment Monitoring Plan

For the effective and consistent functioning of the site, an Environmental Management System (EMS) should be established at the site. To evaluate the effectiveness of implementation of Environmental Management Plan (EMP) by periodically monitoring the important environmental parameters within the impact area, so that any adverse effects are detected and timely action can be taken.

X. Project Cost of the Project & Estimated time of Completion

Total Cost of the project is Rs. 421.28 crore. As per an initial estimate, around 8 to 10 Years will be needed for implementation of the project from the starting date i.e. from the date of receiving all the statutory clearances for starting the project.

XI. Emergency Preparedness Plan

To planning and delegating responsibilities to the identified key persons, the site must also be adequately equipped in terms of safety equipment and facilities in order to be completely prepared for combating emergencies. Therefore, essential safety devices after selection of process technology must be incorporated in the

site design. At IIC, while selecting these devices, suitability and reliability of equipment/ instruments has been ensured. Human and material resources like firefighting facilities, protective equipment, and health services are part and parcel of safety measures. Casualties in a number of on-site accidents in such installations could easily be minimized/avoided, if resources for the safety measures are judiciously selected and properly maintained. The following discussion relates to the emergency preparedness facilities available in the site that can be utilized during an emergency.

XII. Post Project Monitoring Plan

The AAQ shall be regularly monitored during the period of Construction. The Local GW quality, Surface Water Quality, Soil Quality and Noise levels shall be monitored quarterly for any impact due to the project, so that appropriate mitigation measures shall be undertaken further. The individual units shall be guided by the EC & CFO terms and conditions. The EC conditions shall be imposed on individual units for necessary compliances.

XIII. Environmental Management Plan

The Environmental Management Plan (EMP) is a site-specific plan developed to ensure that the project is implemented in an environmental sustainable manner where all contractors and subcontractors, including consultants, understand the potential environmental risks arising from the proposed project and take appropriate actions to properly manage that risk. EMP also ensures that the project implementation is carried out in accordance with the design by taking appropriate mitigative actions to reduce adverse environmental impacts during its life cycle. The plan outlines existing and potential problems that may adversely impact the environment and recommends corrective measures where required. Also, the plan outlines roles and responsibility of the key personnel and contractors who are charged with the responsibility to manage the Industrial Area project site.

The EMP is generally:

- Prepared in accordance with rules and requirements of the MOEF and the MPCB;
- To ensure that the component of facility is operated in accordance with the design;
- A process that confirms proper operation through supervision and monitoring;

- A system that addresses public complaints during construction and operation of the facility; and
- A plan that ensures remedial measures is implemented immediately.

The key benefits of the EMP are that it provides the organization with means of managing its environmental performance thereby allowing it to contribute to improved environmental quality.

XIV. PROJECT BENEFIT

The Environmental Management Plan will focus on the reduce, recover, recycling/reuse of treated waste water achieving a zero-discharge standard, the maximum reuse of solid waste, adequate air pollution control measures so as to keep the resultant of the ground level concentration well within the NAAQS norms and the adequate green belt cover in one third of the project area for enhancement of the local ecology. IIC has already implementing its Zero Liquid Discharge for its proposed units and continue to same principle by insisting all its upcoming industries to achieve Zero Liquid Discharge. All these achievements will obviously neutralize the adverse impacts of the pollution caused due to operation. Then the beneficial impacts like the employment opportunity, improvement in infrastructure facilities, improved business opportunity etc. will obviously improve the socio-economic conditions of the locality.

- Infrastructure development.
- Direct & indirect Employment opportunity
- Revenue generation to central & state government.
- Under CSR activities 2% of profit after sustainable running of project to spent towards development of locality as per guide line of section 135 of Companies Act 2013.