1.0 INTRODUCTION

HSIIDC is a nodal agency of State Govt. of Haryana to develop industries in the industrial estates. This will help to generate employment and revenue for the state. Haryana primarily an agrarian state can be converted into an industrial in course of time.

IMT Rohtak lies in the south east of Haryana state located 30 km west of New Delhi and 250 km of the south of the Chandigarh at the NH-10. Land is acquired as per the provision of section 4 and section 6 of the Land Acquisition Act, 1984.

IMT Rohtak phase- III land was awarded to HSIIDC as per award no. 17, 18, 19, 20 dated 03-01-2013, 03-01-2013, 04-01-2013, 04-01-2013 respectively. R & R packages were dispersed to the project affected people as per R & R policy of the HSIIDC.

Land will be allotted to successful entrepreneurs to develop industries among the list of industries recommended by the HSIIDC, Govt. of Haryana. The infrastructure such as road, drainage network, water supply and power linkage will be provided by HSIIDC.

Successful entrepreneurs will comply by environment conditions of the industrial estate and conditions apply based on the type of industries operated. Highlights of the project features are given as follows:

Table 1: Salient Features of Project

S.No.	Project - Parameters	Details
1.	**Project Name**	Industrial Model Township Phase- III at Rohtak, Haryana
	Connectivity	**Nearest Town**: Kharwar, 2.45 km, South **Nearest City**: Rohtak, 9.52 km, North West. **District Headquarters**: Rohtak **Nearest Railway Station**: Kharawar 2.52 km, South **Nearest Airport** –Indira Gandhi International Airport 54 km, South east The site has good connectivity with the road network; NH-10 and NH-71A are just adjacent to the project site.

	Site - Seismic status	The project falls under seismic active Zone - III indicating moderate damage risk zone.
	Ground water depth	The depth of ground water: 1-3 mbgl below the ground level.
2.	**Project status as per EIA notification, 2006 and amendments**	7 (c), Group – A
3	**Land in acres**	923.82 Acres
4.	**Water Details in MLD**	21.74 MLD. Source:- Jawahar Lal Nehru Canal Bhalot Sub Branch.
5	**Power Demand & Backup**	75.44 MW, (94.3 MVA) 1x125, 1x62.5, 1x140, 2x725 Capacity
6	**Solid waste in T/day**	25.2 MT
7.	**Plantation**	The landscaping will be developed with plants species recommended by forest department/State Pollution Control Board. Local species with a few ornamental varieties of flora those are well suited to the local conditions like *Delonix, Ficus, Alstonia schoaris* etc. No alien species has been introduced in the area.

Industrial Estate will comply the Environment Conditions and take Consent to Establish and six monthly compliance reports to Regional Office of MoEF and State Pollution Control Board as per MoEF notification – 2006 and amendments. Individual entrepreneur will take separate Environment Clearance (EC) and complies Consent to Establish and Consent to operate.

2.0 INTRODUCTION

2.1 About HSIIDC

In the pursuit of prosperity in Haryana, pioneering role has been played by the Haryana State Industrial and Infrastructure Development Corporation Limited (HSIIDC). One of the leading contributors to the well being and progress of the state, HSIIDC has been instrumental in bringing about a major change in the people of Haryana over the years. The pioneering zeal of HSIIDC has facilitated the transformations of Haryana from a primarily agrarian society to one of the most highly industrialized states of modern India.

HSIIDC was setup in 1967 for promoting medium and large-scale industries so as to ensure balanced regional development of Haryana by acting as an Institutional Entrepreneur and a

financial institution. HSIIDC serves as the single most important platform for providing services in the following areas:

- HSIIDC is nodal agency of Government of Haryana to develop industries at the industrial estates after necessary infrastructure developments such as road & drainage network, water supply and power linkage for the industrial estate.
- Providing financial assistance in terms of terms loans, equipment, finance/ leasing and working capital.
- Infrastructural development in the state of Haryana.
- Performing agency functions on behalf of the state Government.
- Performing agency functions for entrepreneurs and established industries for enhancement of capacity/modernization.
- Success entrepreneurs will take separate linkage as per the requirement of industry and environment clearance.

HSIIDC is a Public Limited Company wholly owned by the Government of Haryana, set up as a catalyst for promoting and accelerating the pace of industrialization in the State. The corporation provides a wide spectrum of financial services under one roof – the concept being "Total Financial Support" for its clientele. Being an intrinsically customer – oriented organization, HSIIDC has often gone beyond in helping to shape to the destiny and vision of thousands of entrepreneurs. It has generally taken on the role of a trusted friends and guide, providing crucial support and most important of all, created an environment where nascent projects are able to attain their function and become vibrant industries.

As the project area is for IMT Phase-III (923.82 acres). As per EIA Notification 2006 and its amendment, the project is listed as 7(c) category.

2.2 Brief Description of the nature of the project

The HSIIDC would continue to be nodal agency of the state for development of industrial infrastructure. The corporation has successfully developed a number of Industrial Model Township & Industrial Estate at strategic location in the state and plans to develop such projects at new sites.

The development will be of required standards with provision of power, water supply, roads, sewerage, and effluents disposal system with treatment, storm water disposal and solid waste management to enable enterprises to function in a state of development environment. Industries of varying capacity will be provided to be setup the building on plots planned in the Industrial Estate. The type of Industries would be small scale industries like automobiles, mechanical, manufacturing industries etc. Any Industry, either Cat "A" or Cat "B" of any schedule as per the EIA notification 2006 and its further amendments and /or any industry, whose builtup area will be 20,000 sqm of above will seeks its individual Environmental Clearance.

The project is being developed on priority to meet the demand of industrial units. The plot has been divided into different land uses like, Industrial Plots, Residential Area, and Commercial, Amenities, Utilities and Institutional area. The area statement for Phase-III is given in the table below:

Table 1: Area Statement

S. No	Description	
1	**Total area under acquisition**	**923.82**
2	Area to be planned later	124.77
3	**Net planned area**	**799.05**
4	Area under roads, green belt, drains, labour chowk and open spaces	325.67
5	Area reserved for industrial plots, biotechnology units	364.14
6	Area under schools	-----
7	Area under institutional and commercial use	22.65
8	Area under R&R residential plots	84.80
9	Area reserved for godowns	-------
10	Area under informal sector and dhaba sites	-------
11	Area under community center	------
12	Area under fire station	------
13	Area under police station	-----
14	Area reserved for electric sub station	----
15	Area reserved for dispensary/hospital	----
16	Area reserved for religious site	----
17	Area reserved for multilevel parking and utilities etc.	1.79

The site layout plan showing breakup of the land use has been attached as ***Annexure- I.***

2.3 Need for the project

An Industrial Estate can be defined as a tract of land developed and sub divided into plots, according to a comprehensive plan with provision for roads, transport and public utilities with or without built up factories, sometimes with common facilities and sometimes without them, for the use of a group of industrialists. Industrial Estate is an important tool for stimulating industrial growth, providing cost-effective infrastructure and communal services.

Contributions of Industrial Estate to Economic and Industrial Development:

a) To promote more rapid industrialization of the country
b) To increase national and local employment
c) To attract private investment both national and foreign
d) To promote the development of small and medium industries
e) To encourage more effective use or resources through the development of industrial complexes, including diversified industries of all sizes.
f) To bring industries and industrial employments to rural areas
g) To train labors and increase its productivity

As part of urban and regional planning, Industrial Estate serves:

a) To achieve economies in the provisions of urban services and utilities
b) To increase the economic, productive and employment base of regional communities
c) To promote decentralization by preventing or checking excessive concentration in or growth of single urban areas, especially large metropolitan areas
d) To minimize distance to work and to reduce load on the transport system
e) To maximize efficient land usage and reduce the cost of land and land development.

India is primarily an agrarian state. Agriculture is primary source of livelihood. Industries are not in good shape due to poor infrastructure, technology and finance. In Industrial Estate is torch bearer for development. HSIIDC will provide infrastructures to successful entrepreneurs to develop industries under the safety & securities of the State Govt. people will get employment from the region and will be facilitated by production from the industrial estate. State Govt. will get revenue in terms of various taxes and duties that will have impact on local market and wholesale market of the country.

3.0 PROJECT DESCRIPTION

The HSIIDC is nodal agency of the state for development of industrial infrastructure to encourage industries and employment for state. The corporation has successfully developed a number of Industrial Model Township & Industrial Estate at strategic location in the state and plans to develop such projects at new sites. Industrial Estate at Rohtak is among them. Plots will be allotted to successful entrepreneurs for development of industries among the list of industries of HSIIDC, Govt. of Haryana. They will get environment clearance separately based on type of industry operated by them.

3.1 Types of Project

Industries are among the list of non-polluting industries recommended by the HSIIDC. They are general manufacturing, automobiles, mechanical and R and D industries etc and will be developed by the successful entrepreneurs.

3.2 Location

Project site is located just adjacent to the Phase-I and Phase-II IMT Rohtak. Rohtak district lies in the south east of Haryana state located 30 km west of New delhi. The Co-ordinates of the project site are 28°51'9.52" N 76°40'39.27"E. Google image showing project site & surroundings within 500 m and toposheet map of 10 km are enclosed as ***Annexure II.***

The site is well connected to the rail and road network. IMT Rohtak is 9.52 km far in North West direction. Nearest towns are Kharwar that is 2.45 km in south direction. The site has good connectivity with the road network.

3.3 Site Selection

Site selection is an important criterion for development of any project. As this is an Industrial Estate project, identification of suitable site is based on various considerations.

- Physical Infrastructure
- Environment consideration (land use, air pollution, water pollution sensitivities)
- Socio economic consideration

The site has been acquired on the basis of its connectivity to the major cities through the National Highway-10 which is adjacent to the project site. The area would be planned for the following facilities as mentioned below:

3.4 Water Requirement

Water requirement for the expansion area (phase-III) will be 21.74 MLD. Ground water cannot be used for drinking purpose its saline in nature. So, water will be taken from the Jawahar Lal Nehru Bahlut Sub Branch. The raw water collected in the tank from the canal is transferred for water purification. It includes three steps:

- Clarification
- Filtration
- Disinfection

Table 3: Water Requirement For Industrial Estate Phase-III

S.No.	Land use	Water supply demand in MLD	Fresh water demand	Recycled water demand
1	Residential including workers demand	5.15	3.89	1.26
2	Commercial/institutional	0.489	0.34	0.149
3	Industrial area including unplanned area	13.46	8.97	4.49
Sub Total		**19.10**	**13.20**	**5.89**
4.	**Horticultural Demand**	2.64	-----	2.64
Total water demand		**21.74**	**13.20**	**8.54**

Total Water Demand for phase - III will be 21.74 MLD. The source of water supply will be from the Jawahar Lal Nehru Canal Bhalot Sub Branch. Waste water generated will be treated in the CETP of the project and will be re-cycled for use after conform to the standards and surplus water will be discharged into sewage after conform to the standards.

3.5 Common Effluent Treatment Plant

To treat the Industrial effluent a common effluent treatment plant is proposed to be constructed on the acquired piece of land for this purpose. Therefore construction of CETP of 16 MLD is proposed for the Phase III of industrial estate, Rohtak, Haryana.

Treatment Options

The methods for treatment of sewer effluent ranges form physico- chemicals to biological as depicted below:

Physico- Chemicals

I) Screen & grit removal
II) Sedimentation
III) Sludge Thickeners
IV) Vacuum Filters
V) Centrifuges

Biological
Anaerobic

a) Contact beds
b) UASB
c) Sludge Digesters
d) Anaerobic Ponds

Aerobic

a) Attached

i) Moving bed bio reactor
ii) Plasma treatment

b) Suspended

i) Activated Sludge
ii) Extended Aeration
iii) Aerated Lagoons
iv) Waste Stabilization Ponds (WSP)

Evaluation of Treatment Processes

The following alternatives of sewage treatment have been considered for evaluation of performance characteristics, land requirement, energy input, equipment requirement and operational characteristics.

1. Membrane Biological Reactor Process
2. FAB/MBBR technology
3. Sequential Batch Reactor (SBR)
4. Extended Aeration

The advantages and disadvantages of various processes are as under:-

a) Membrane Biological Reactor Process

Advantages

Less area is required; it is about 0.33 to 0.5 times the space over a conventional system.

- Low operating costs.
- No dependence on sludge recirculation
- Excess sludge production is very low and it is fully digested
- Operating power consumption cost is 0.3 kWh /cum for filtration.
- Very efficient in removal of total Coliform; of the order of 99.999 %.
- Near-drinking water quality is achieved
- Option of removal of N and P is available

Disadvantages

- High initial capital cost.
- Periodical cleaning of membranes with chemicals to prevent clogging of membranes. Membranes also require replacement every 4-5 years.

b) Moving Bed Bio film Reactor (MBBR)

Advantages

- Sensitivity to small power breakdowns is low
- Sludge re-circulation not needed and the system is self sustaining.
- Very small area around 1/10th of conventional system is required.
- Low power consumption
- Higher degree of treatment.

- High degree of coliform removal
- Less chlorine dosing required.

Disadvantages

- Installation cost is slightly higher

c) Sequential Batch Reactor (SBR)

Advantages

- Over all footprint area is less.
- Fully automatic system makes it very easy for operation & maintenance.
- Variable loads can be treated in batches.
- No synthetic media is required for treatment.
- No recommissioning is required once its stabilised.
- Effective BOD removal along with Nitrogen and phosphorus removal due to nitrification –
- Denitrification process accuring within the system.

Disadvantages

- Installation cost is higher
- Skilled manpower is required to run the plant.

d) Extended Aeration

Advantage

- High degree of treatment-Efficiency 95 to 98% BOD removal
- The excess sludge does not require separate digestion and can be directly dried on beds.
- Excess sludge production is minimum.

Disadvantage

- Low organic loading
- Long aeration time
- Higher power consumption
- Less F/M ratio

Observation

Table 4: Techno-economic comparison of the treatment alternatives

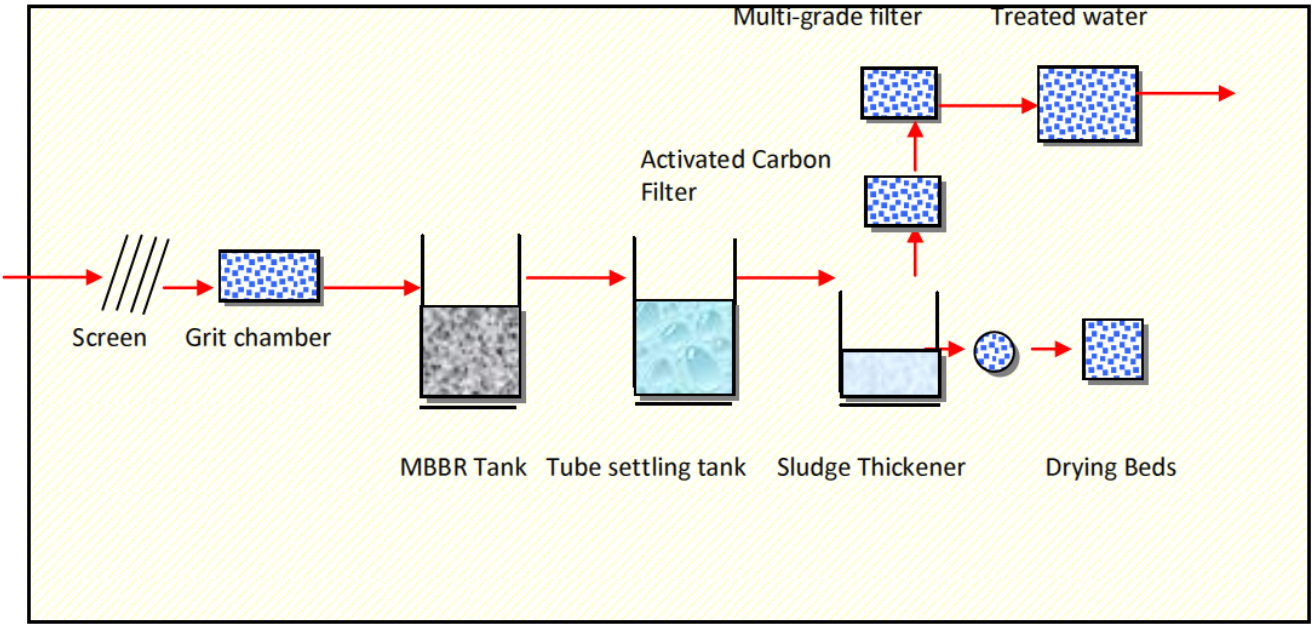
Sl. No.	Item/Parameter	Extended Aeration	MBR	MBBR	SBR
1	Overall HRT (Whole System)	12 - 14 hrs	8 hrs	4-6 hrs	8 hrs
2	Out let BOD mg/l	<50	< 5	<30	<30
3	Out let COD mg/l	80 - 90	< 10	<100	<70
4	TSS Removal, %	85 - 90	< 1	<100	<70
5	Faecal coliform Removal, log unit	Up to 3<4	Up to 6 < 7	Up to 2<4	Up to 5<6
6	Average Area required (m^2/mld)	1600	760	1100	850
7	Capital Cost, Rs. Lacs per MLD	140	400	190	250
8	Total Annual O & M Cost, Rs. Lacs per MLD	50.4	48.2	41.9	40
9	Life cycle cost for 15 yrs, Rs. in Lakhs	612.6	835.6	568.3	602.62
10	Energy efficiency rate	1.95	2.8	2.5	------

With respect to treated water quality MBR is most efficient technology. Extended aeration, and MBBR technology with tertiary treatment give acceptable quality for prescribed usage. SBR is a technology that is developed for batch wise treatment i.e. where flow is largly varied. The performance of the vendor is however subject to demonstration. The cost of Extended aeration is lowest followed by MBBR but Extended Aeration requires more area as compared to the MBBR. **Hence, MBBR technology based CETP has been proposed**.

CETP capacity

CETP of 16 MLD is to be constructed based on Moving bed biofilm reactor technology for Ph-III. In MBBR process, a non clogging biofilm reactor with special grade plastic media having density close to that of water is used. This plastic media has more surface area and biofilm grows on these media, which move along with the water in the reactor. This movement within the reactor is generated by providing aeration with the help of diffuser placed at the bottom of aerobic reactor. The thin biofilm on the elements enables the bacteria to act upon the biodegradable matter in sewage and reduce BOD/COD content in the presence of oxygen present

in air. Area requirement for this process is 1/10 of space required for conventional sewage treatment plant. Power requirements are low. This can take shock load and can withstand variation in characteristics of sewage.



3.6 Energy Requirement

The power supply shall be supplied by Haryana Vidyut Parsaran Nigam Ltd. (HVPNL). The connected load will be approx 94.3 MVA.

3.7 Waste Generation

Industrial revolution followed by the advances in information technology during the last century has radically changed people's lifestyle. Although this development has helped the human race, mismanagement has led to new problems of contamination and pollution. The technical processes evolved during the last century have posed a new challenge for managing of wastes.

Following would be the major sources of generation of solid waste,

- Residents/house holds.
- Commercial centers and vegetable markets

- Hotels and Restaurants
- Domestic and stray animals.
- Street sweepings.
- Others

Total amount of solid waste that will be generated from the Phase-III of IMT rohtak will be 25.2 MT. The detail solid waste calculation is given in Table 5:

Table 5: Solid waste generation

Sr. No	Land use	SW in KG per capita	Residential/workers /visitors	In Metric Tonnes
1	Residential	0.4	24,540	9.8
	Workers in Residential area	0.2	2,454	0.5
2	Industrial including non - planned (Population @ 100 persons per	0.2	49,354	9.9
3	Commercial	0.2	25,244	5.0
	Total			**25.2**

3.7.1 Storage of Solid Waste at the Source of Generation

Scientific and systematic storage of waste at source is to be assured by providing a desirable system of storage of waste at source and educating the people.

Primary Collection of Solid Waste

The systematic and scientific system of primary collection of waste should be introduced. The primary collection of waste is effected through depositing wastes by the waste producers and by the sanitary workers appointed by the local body into the open areas.

Process of Primary Collection

Development of primary collection system by introducing door-to-door collection with public private participation system would be the best collection system of municipal solid waste. The sanitary worker would collect the solid waste from the source on a daily basis.

Street Cleaning

Street sweeping and drain cleaning are done on regular basis. The solid waste generated in the town shall be collected and removed by the sanitary workers of the maintenance Public Health Division.

Temporary Storage of Wastes

Community bins shall be provided at certain locations for collection of municipal waste. The transportation vehicles shall transfer the waste from these community bins to disposal site.

3.7.2 Transportation of Wastes

A scientific, hygienic, and efficient transportation system shall be developed so that the waste can be transported to the treatment/disposal site hygienically on daily basis.

3.7.3 Treatment and Disposal of Wastes

The waste shall be segregated at site and waste that can be reused shall be sent for recycling. Manure from compost can be used for enriching and renewing the vast green spaces. Remaining quantity of the waste shall be transported to the solid waste-dumping site. The following alternatives of treatment have been considered for treatment of solid waste. The alternatives of composing are discussed below.

1. Composting
2. Vermicomposting
3. Waste will be collected and disposed for treatment by some private agency.

Waste will be collected and disposed for treatment by the municipal corporation of Rohtak. An area of 1.25 acres near the CETP are proposed to collect and segregate the waste generated from the IMT Rohtak.

3.8 Land Form, Land-ownership

The entire site has been acquired for development of the Industrial Estate. A map showing land use pattern is attached as an ***Annexure-III***. This land is owned and operated by HSIIDC, Govt.

of Haryana for industrial development. R & R packages as per govt. of Haryana are paid to the affected people as per policy of the Govt. of Haryana.

3.9 Topography

The topography represents a flat surface gently sloping from north-east to south-west as sown in ***Annexure-IV***.

Land form, land use, ownership

The site was mainly barren land of the nearby villages. Now, The entire area has been designated for the development of Industrial Estate as per the master plan approved by Dept. of Town & Country Planning, Haryana. The HSIIDC acquired the land from these villages and the details of land acquisition from villages are given below:

Table 6: Land Details

Sr. No.	Name of village	Area as per award/possession with HSIIDC			Date of notification u/s - 4	Date of notification u/s - 6	Award no. & dated
		A	K	M			
1	IMT, Rohtak, Phase-3 Vill.- Kharawar	313	2	5	11/01/2010	10/01/2011	19/4-1-2013
2	IMT, Rohtak, Phase-3 Vill.- Kheri-Sadh	309	6	8	11/01/2010	10/01/2011	18/3-1-2013
3	IMT, Rohtak, Phase-3 Vill.- Baliyana	295	0	8	11/01/2010	10/01/2011	20/4-1-2013
4	IMT, Rohtak, Phase-3 Vill.- Nonanad	5	5	11	11/01/2010	10/01/2011	17/3-1-2013

The Land use pattern of the Rohtak district of the year 2010 is given below:

Category	2010	
	Area in Km^2	Percent Area
Agricultural Land	44.46	44.21
Public & Semipublic Area	8.29	8.24
Residential Area	20.56	20.44

Vacant Land	3.47	3.45
Plotted Land	8.82	8.77
Rural Settlement	2.89	2.88
Transportation & Communication Area	2.07	2.06
Water Body	2.45	2.44
Forest	0.00	0.00
Recreational Area	1.72	1.71
Wasteland	3.19	3.17
Commercial Area	0.95	0.94
Industrial Area	1.69	1.68
Total	**100.57**	**100**

3.10 Infrastructure Facilities

The physical infrastructure developed in the site includes the developed National Highway and the State highway. The water supply lines will be lay for phase-III. Strom water drains will be laid with recharge pits for proper rain water management. A CETP will be developed to treat the Effluents and will conform to the standards before proper drains as per required standards. Fire Hydrants with pipe line connecting the fire tank will be provided for protection from fire safety.

3.11 Physiographic and Soil

There are no significant physiographic features seen in the project sites and surroundings. Industrial Estates project is located at Rohtak, Haryana admeasuring the land of 1,893 acres. The entire area is monotonously flat. It lies in 28°52'24.68" N 76°39'46.55"E. Google image (500 m) of site & toposheet map within 10 km showing project site & surroundings are enclosed as ***Annexure II***. The site plan is enclosed as ***Annexure I.*** The contour plan of the study area is enclosed as ***Annexure IV.***

Rohtak is part of Trans Gangetic Plain. The areas falling under this zone have plain topography consisting of mainly medium and light soils. The region has high irrigation and cropping intensity. Soils in the area are Sandy Soils. The hot weather season starts from mid March to last week of the June followed by the south west monsoon season which lasts upto September.

3.12 Climate

The climate of Rohtak can be classified as subtropical monsoon, mild & dry winter, hot summer and sub-humid which is mainly dry with hot summer and cold winter except during monsoon season when moist air of oceanic origin penetrates into the district. There are four seasons in a year. The hot weather season starts from mid March to last week of the June followed by the southwest monsoon, which lasts up to September. The transition period from September to November forms the post monsoon season. The winter season starts late in November and remains up to second week of March.

Rainfall

The normal annual rainfall of the district is 592 mm, which is unevenly distributed over the area in 23 days. The southwest monsoon sets in the last week of June and withdraws in end of September, contributed about 84% of annual rainfall. July and August are the wettest months. Rest 16% rainfall is received during non-monsoon period in the wake of western disturbances and thunderstorms.

Normal Annual Rainfall: 592 mm

Normal Monsoon Rainfall: 499 mm

Temperature

Mean Maximum: 40.5°C (May &June)

Mean Minimum: 7°C (January)\

4. PLANNING

4.1 Planning Concept

The proposed phase (Phase III) will be developed on an area of 923.82 acres. The area includes Industrial plots, Commercial and Institutional areas and utilities. The type of Industries would be small scale industries like pharmaceuticals, packaging industries, manufacturing of scientific instruments, etc. The following facilities will be provided within this project.

S.No	Major Land Use	Area In acres
1	Industrial	364.14
2	Commercial and Institutional	22.65
3	Area reserved for R & R Residential plots	84.80
4	Utilities, and parking	1.79

The Site plan has been attached as ***Annexure – I.***

4.2 Population

Population density proposed for Phase III is 52,239 persons

Residential population (worker and resident) = 26,994 Nos.

Commercial area population (visitor and worker) = 23,073 Nos.

Institutional area population (visitor and workers) = 2,172 Nos.

Total Workers = a + b + c + d =2454+ 2098 + 197= 4,749 (Nos)

Total Visitors = 20975+1975 = 22,950 Nos.

4.3 Proposed Land use Planning

The proposed land use of the area has been given the tables below.

Table 5: Area Statement of Total Area of Phase III

S.No	Description	Area In acres
1	Area to be Planned Later	124.77
2	Net Planned area	799.05
Total Plot Area		**923.82**

4.4 Assessment of Infrastructure Demand & Amenities

Industrial Estate comprises of Industrial Plots, Institutional area, Commercial area, fire station as well as some areas reserved under the R & R policy, multilevel parking are provided. As per policy of State Govt., HSIIDC will provide basic facilities like allocation of land, road and drainage net-work, water supply and CETP facility and power linkage to all successful entrepreneurs. They will comply Environment Clearance conditions of the industrial estate and conditions apply as per type of industry operated by them separately.

The construction of water works, disposal works consisting of common effluent treatment plant, storm water pump house and re-circulation pump house etc. have also been included. Store-rooms were constructed for the storage of raw materials. Green areas and green belt are provided as per standards. Water will be treated in house of ETP of each industry and conform to the standards before discharge into CETP of the project.

4.5 Social Infrastructure

For the benefit of the people working and residing in the Industrial Growth Center the following social infrastructure facilities are developed namely, institutional and commercial area (22.65 Acres) will be provided.

4.6 Connectivity

The site enjoys excellent connectivity with the State capital (Chandigarh), National Capital (Delhi) and other important cities of the region. The site has good connectivity with the road network. The nearest national highway is NH 73 which is 0.76 km (W) away from project site, state highway is SH-1 which is 6.31 km (ESE) away from project site and village to road Toka is 1.44 km (NNW) away from project site. The nearest railway station is Chandigarh Railway Station which is approx. 16.72 km (North West) from the project site. Nearest Airport is Chandigarh International Airport is 16.45 km (North West) from the project site.

5.0 REHABILITATION & RESETTLEMENT (R& R) PLAN

There are 4 Nos. villages namely Kheri sadh, Baliyana, Kharawar, Nonand which are to be affected by way of development of the area of IMT,Rohtak (Phase-III). An approximately 3000– persons are likely to be affected on account of acquisition of land in IMT, Rohtak (Phase-III). Govt., of Haryana has formulated a policy for rehabilitation and resettlement of land owners –land acquisition oustees. The silent feature of the policy is given as under:-

I. Annuity:

i) The land owners will be paid annuity for 33 years over and above the usual land compensation. The amount of annuity will be Rs. 15,000/- per acre per annum.

ii) Annuity of Rs. 15,000/- will be increased by a fixed sum of Rs. 500/- every year.

iii) In respect of land acquired in terms of land acquisition policy for settling up of Special Economic Zone/Technology cities, Technology Parks in addition to rehabilitation and resettlement package notified by Industries and commerce Department vide No.49/48/2006-41BL dated 4th May, 2006, a sum of Rs. 30,000/- per acre annual will be paid for a period of 33 years by private developers and this annuity will be increased by Rs. 1,000/- every year.

iv) The policy by paying annuity will be applicable to all cases of land acquisition by Govt., except land acquired for defense purpose.

II. Allotment of plots by Haryana Urban Development Authority and Haryana State Industrial Infrastructure Development Corporation Limited.

i) The allotment will be made to each co-sharer depending upon his share in the land acquired for Haryana Urban Development Authority and Haryana State Industrial Infrastructure Development Corporation Limited as per scale mentioned in the entitlement.

ii) Plots under this policy would be offered if the land proposed to be acquired is under the ownership of oustees on the date of publication under section-4 of Land Acquisition Act and if 75% or more of the total land owned by the owner in that Urban estate is acquired. Only one time benefit of this policy will be given to the land owners whose land is acquired in pocket at different times. In case, the land owner becomes entitled for a bigger size plot due to subsequent acquisition of his land then differential of the plot already allotted to him shall be allowed to him.

iii) This benefit will not be allowed to the applicant whose land has been released and he will not make such request to the Government for release of his land.

iv) No litigation should be pending except that of enhanced compensation in any Court.

v) The maximum size of the plot to be allotted will be restricted to 350 sq. yards. Since livelihood of the farmers predominantly depends upon his agriculture income and shops, in order to provide the affected land owners/farmers a long term sustainable source of income, In addition to the residential plot, commercial sites, measuring 2.75 x 2.75 mtr., may be allotted in Haryana Urban Development Authority sectors. Such allotment shall be made to each co-sharer provided his share exceeds 2.5 acres. Otherwise all the co-shares will be allotted a single site. Director, Town & Country Planning, Haryana will allow additional component of commercial use in the Sector if the booths are separately provided. In respect of Haryana State Industrial Infrastructure Development Corporation Limited, mixed land use of residential and commercial will be allowed for which detailed scheme shall be worked out by Haryana State Industrial Infrastructure Development Corporation Limited.

vi) In case the land is acquired for purposes other than residential sector, the plots as mentioned in para (v) above will be allotted in the residential sector to be developed in that urban estate.

vii) The development agency will earmark a separate chunk of land preferably close to the village as part of the Toshi Abadi, Area in the close vicinity of the village will be set apart not only for rehabilitation but also for necessary village social infrastructure.

viii) The land required for social infrastructure could either be exchanged with the land if village Panchayat or the land acquired in continuity of the village can be transferred to village Panchayat together with the infrastructure development thereon for its day to day management.

ix) The sale price of residential plots will be kept as the issue price of the respective plot. In the case of commercial area of kiosks i.e.2.75 mtr. x 2.75 mtr., the sale price will be 3 times of the nodal price of the residential plot.

x) The Rehabilitation Policy will also be applicable to those land owners whose residential structures/houses/dwelling units fall within alignment of essential Infrastructure services and is acquired under urgency clause.

xi) The plot sizes for allotment are given as under

(a) In case where only land is acquired

Land/are acquired (each allotment)	Size of residential plot to be allotted
100 to500 sq.yd.	3 marla
501 to 1000 sq.yd.	4 marla
1001 sq. yd. to ½ acre	6 marla
Above ½ acre to ½ acre	8 mara
Above ¾ acre to 1 acre	10 marla
One acre and above	14 marla

(b) In case of constructed residential structures acquired the plots sizes will be as under

Size of the residential house acquired	Size of residential plot to be allotted
Up-to 100 sq.yd.	50 sq.yd.
Above 100 sq.yd and upto 200 sq.yd	100 sq.yd
Above 200 sq.yd and upto 300 sq.yd	150 sq.yd.
Above 300 sq.yd. and upto 400 sq.yd.	200 sq.yd
Above 400 sq.yd. and upto 500 sq.yd.	250 sq.yd.
Above 500 sq.yd.	350 sq.yd.

Oustees will have choice to opt for either (a) or (b) above which he will have to communicate to concerned Land Acquisition Officer 30 days of the announcement of award otherwise it will be decided by the concerned agency.

III. Haryana State Industrial Infrastructure Development Corporation Limited and Haryana Urban Development Authority would take steps for creation of social infrastructure and /or employment in the villages falling within the acquired land under their policy.

IV. The policy for allotment of plots will be applicable only for lands acquired for-Haryana Urban Development Authority and Haryana State Industrial Infrastructure Development Corporation Limited.

6 PROJECT COST ESTIMATES

Total project cost is 764.59 crores that includes the land and development cost.

Land cost = Rs. 5,05,70,91,683
Development cost = Rs. 2,58,88,59,625

7 ANALYSIS OF PROPOSAL

The available empirical material allows the followings broad conclusions to be drawn on the impact of Industrial Estate on industrial, urban and regional development plans:

- In our country, it has been observed that only a small proportion of the industrial enterprises and of the labour force operates in industrial estates, and consequently any improvements effected by estates are per se limited.
- For, industrial estate to make significant contribution to industrial development they must be supported by financial, training and incentive policies.
- Industrial estate play an essential part in urban and regional developments, provided the estates are successful in other aspects, and can be of great help in reducing the environmental impact of industry.
- Industrial estates can be very effective in providing accommodation for relocated establishments.
- Industrial Estate has success in attracting industry to semi-urban and rural areas.
- Industrial estates can help industrial entrepreneurs to make considerable savings on financial resources, but estate do not by themselves result in more efficient use of capital and labour.

8 PROJECT BENEFITS

The project aims at development of Industrial Model Township phase III at Village Kherisadh, Kharwar, Nonand, Baliyana Tehsil Sampla, District Rohtak. This will help in creation state-of-the-art industrial infrastructure in the district. The project will facilitate in creation of employment opportunities both direct & indirect for local population. The project will help in the urban development by creating all essential amenities and hence the projects will hence immense benefits for social upliftment. The project also aims at development of better landscaping in the

vicinity as well as creation of green belt in the area which would eventually helps in the improvement of visual and aesthetic quality of the area. With the implementation of the project, other utilities would also be created like development of road network, sewerage network, augmentation of water supply system & waste water treatment, solid waste collection facility, educational and health facilities etc. in nutshell, project aims at amelioration of the socio-economy of the areas as well as providing basic amenities to people.