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AN OVERVIEW 1/

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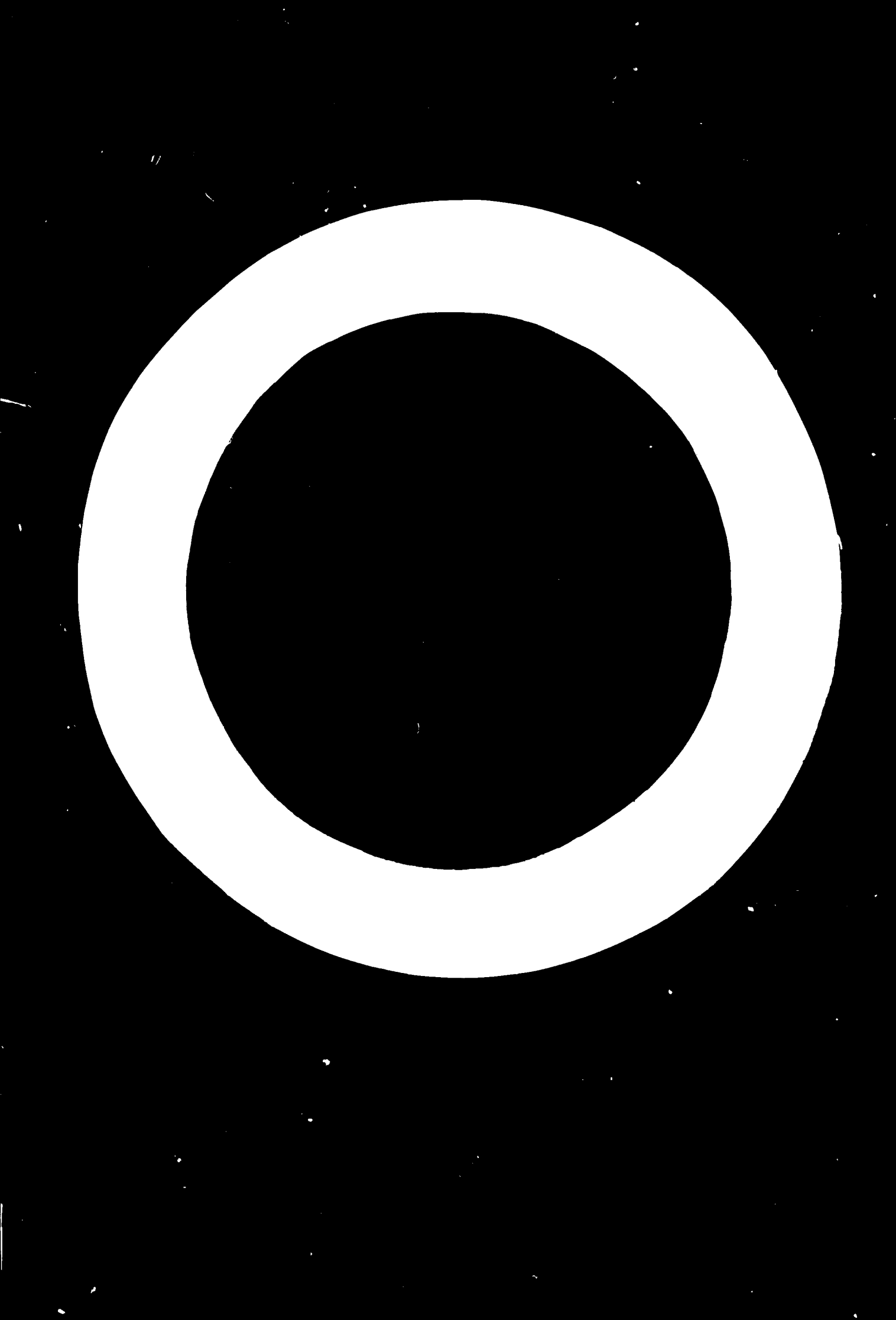


INDUSTRIAL ESTATE - GAZIANTEP (TURKEY)

AN OVERVIEW

Gaziantep city with a population of about 250,000 occupies a prominent position in South East and Eastern Turkey. It is situated at a distance of about 700 kms. from the capital city, Ankara and is well connected by rail and road with the other parts of the country. An airport is now being built at Gaziantep and is expected to be ready for operations in about 18 months time. The nearest airport now is Adana situated at a distance of 220 km.

About a third of the population of the city depend on small scale manufacturing and repair activities and productivity in this sector in the city is higher than the Turkish national average. The rapid improvement of roads in recent years and the consequent development of road transport has further added to the importance of the city. The population of the city which was barely 50,000 in 1935 increased to over 165,000 by 1965 and to 250,000 by 1970, thus giving a five-fold increase over a period of 35 years. Weather and climatic conditions are considered to be quite favourable for development, particularly industrial development. The annual rainfall averages about 550 mm while average temperature varies from 3°C to 28°C.

Though there are a few large scale and medium sized industries, it is small scale manufacturing and repairing that predominates in the industrial sector in the city. It is reported that there are over 3600 small scale units of which nearly 1200 are in the auto repair, mechanical engineering and wood working copper smithy and blacksmithy groups of industries. The other important industry groups are textiles (Kilim and towel weaving), shoe making and tanning. The 1200 small industrialists mentioned above have voluntarily come together, through their respective Associations, to start a cooperative Industrial Estate Construction Society. Any other industrialist can

join the Society provided he has a factory and his application is certified and forwarded by the concerned Association.

OBJECTIVES

The purpose of the industrial estate is to facilitate, within the frame work of the national economic development programme and as a part of the small industry development programme, the development of small scale industries: in particular,

i) to accommodate existing small industries from the overcrowded areas in the city and to provide them with better and larger worksheds with better working conditions and facilities;

ii) to provide general purpose factory buildings for prospective entrepreneurs to establish modern, viable small scale manufacturing industries;

iii) to provide space for common services and facilities - technical and infra structure - which would facilitate the rapid growth of modern small scale industries in the region.

The Gaziantep industrial estate differs significantly from the others already established or being established in Turkey in two respects, viz.

i) It is being planned to provide adequate space for future expansion of the transferred units and avoid congestion in the industrial area in the foreseeable future, and,

ii) it is planned to construct as part of the industrial estate a 'model' estate consisting of about 50 standard factories for allotment to prospective manufacturers in selected industries. The estate will also accommodate the Small Industry Development Centre (KUSGEM) and a common facilities centre with technical laboratories, etc.

S I T E

An area of nearly 300 hectares has already been acquired and paid for, to site the Industrial Estate. It lies at a distance of about 4 Kms. east of the city proper and has the main road on two sides and the railway line from Gaziantop to eastern part of Turkey by its side.

The site is reasonably level and part of the land has rocky surface and the rest has clay of varying depth. As a whole the site is conveniently located but service and utility development requires a considerable amount of capital outlay.

SITE PLANNING

Owing to the irregular shape of the site and necessary set back from the highway and railway, about 68% of the acquired land i.e. 176 hectares can be effectively utilized for the Estate under which the following approximate land use proportion has been worked out in the site layout plan.

Item	Approximate area in hectares	Percent
1. Roads	38	21%
2. Common buildings, parking and space for future expansion	20	11%
3. Industrial Plots	104	60%
4. Open space and recreation	14	8%
Total	176	100%

The Estate is planned primarily for small industries. Four industrial neighborhoods viz., metal work industry, wood working industry and miscellaneous industry have been provided for the accomodation of the existing small industries from over-crowded parts of the city. As at present there are about 1,200 such small industrialists who have already applied for a unit in the Estate.

The plan provides for approximately 1,850 units in the four neighborhoods in order to meet the future requirements.

Within the Estate there will be another separate industrial neighborhood with a total area of about 28 hectares for prospective entrepreneurs to establish selected new industries. The plots in this area are set at 2,160 M^2 to allow the construction larger general purpose factory units.

However they are planned in such a manner that if required, the plots can either be sub-divided or grouped together to form smaller or bigger units.

In addition to the industrial neighborhoods, there is a complex which includes the Administrative building, Common Facilities Workshops, Conference Hall, Cafeteria, Bank, PTT, Police Post, First Aid Station etc., located near the major road in the central part of the Estate. These facilities are intended to provide assistance not only to the factory units in the Estate but also to other small units in Gaziantep region. As such the location of the complex has been planned as to be easily accessable both from inside as also from outside. Close to the complex enough area has been set aside for the establishment of additional common services at a future date.

The rentable warehouses are located at one end of the major road near the railway station. Shops, parking areas, green and recreation grounds, petrol station and bus terminal are planned at convenient locations.

The total land used by the various industrial neighborhoods and common services under the plan would be of the following figures.

Neighborhood	Approximate land area in hectares
1. Common services	30
2. New industry	28
3. Metal work industry	34

4. Auto repair industry	39
5. Wood working industry	31
6. Miscellaneous industry	14
Total	176

STANDARD FACTORY UNITS

i) Units for existing industries

Based on the Status Survey of Small Industries and in consultation with the Industrial Estate Construction Society, it has been planned to set up 1,205 factory units of various sizes in the first stage to enable the existing small industry from the over-crowded areas to move to the Estate. The sizes of these units are grouped in seven different types.

Type	No.of units	Approx.initial building in M^2	Provision for extension of building in M^2	Approx. Plot area required in M^2 per unit
No.1	111	40	20	120
No.2	393	80	40	200
No.3	103	120	60	300
No.4	280	160	80	400
No.5	189	240	120	630
No.6	64	320	160	900
No.7	45	480	240	1,500

As would be seen from the above, all units are provided with a possible future extension of building of 50%. While most of the industries would conform to the seven standard designs, a few cases of some special industries may have to be specially provided in consultation with the units. These will be decided later.

ii) Units for new industries

A larger size standard factory, i.e. type 8, having initial building area of approximately 800 M^2 with a possible future extension of 50 per cent has been planned for the new industry Neighborhood. The number of units required in the first stage is estimated at 50 and they are to be built in accordance with demand. Smaller or larger units can be obtained by adjusting the size of the plot.

iii) Factory design

All factory units in the Estate are planned to be built by reinforced concrete because they are more economical than steel construction in Gaziantep. The units are based on a 6.3 x 6.3 meters module and they may be erected by prefabrication if found economical.

The smaller units (types 1.2 and 4) are planned in rows while medium size units (types 3.5 and 6) are in super blocks with four units each. The larger two types (types 7 and 8) are in individual plots and they can be built semi-detached or detached according to requirements.

Considering the local climatic condition saw-tooth type roof glazed to the north east has been adopted in factory design. Eaves clearance is 3.4 meters for small units and 4.4 meters for the larger ones. Production area doors are of sliding type with clear opening of 2.8 & 4.2 m. respectively.

All factory units are provided with at least one water closet, one wash-hand basin and a sink; for larger units additional sanitary equipment like urinals, showers and lockers; hot water boiler and tea room are included. Common showers are planned for the use of the workers from small units. A mezzanine is designed to house the office

and stores in the larger units and they can also apply to medium size units if required.

COMMON SERVICE BUILDINGS

The common buildings included in the first stage are:

1. Administrative Building.

This building is the operational center of the Estate housing the Small Industry Development Center (SIDC) from where the extension services would operate. Facilities for conducting training programme, holding seminars and conferences are also provided. It is planned to have a total building area of about 2,200 M^2 providing space of offices, exhibition, library, training class rooms, audio-visual laboratory and other normal items for an office building.

2. Common facilities workshops.

This workshop is the place to offer, interalia, facilities for product and process development, maintenance services, design and manufacture of tools and other aids to production, and industrial laboratory capable of carrying out the normal services required by the local small industry.

The workshop includes a tool room with space for the installation and operation of various items of machineries and equipment. Testing laboratory capable for metallurgical, mechanical, chemical and sand testing and space for heat treatment, forging, welding, metal finishing together with offices, stores etc. are also provided. The first stage building area is about 2,100 M^2 and it could be easily extended in the future.

3. Other Buildings.

Close to the administrative building, a conference hall capable accommodating about 600 persons has been incorporated in the plan. In addition space is provided for bank, PTT, First Aid and Police Post etc. These would occupy a space of about 1300 M^2. A cafeteria to serve about 300 persons at a time, office for Cooperative Societies, private shops of various sizes, rentable warehouses, petrol station, bus terminal and space for a mosque are also envisaged.

SERVICES AND UTILITIES

Services and utilities on the Estate include:

1. Roads.

An internal road system is provided to meet the requirement of the site. When the Estate is fully developed and occupied it will have approximately 30 Kms. of Estate Road and their dimensions are planned to give the following width:

Type of Road	Paved Width M.	Verge & Footpath M.	Total Road Width M.
a. Major road	18.90	7.65	26.25
b. Access Road	12.60	4.20	16.80
c. Main internal R.	9.45	6.30	15.75
d. Internal Road (1)	6.30	6.30	12.60
e. " " (2)	6.30	2.10	8.40

2. Drainage and sewerage:

Separate system to take care of the storm water drainage and waste water disposal will be used. The sewerage system is intended to accept normal sanitary sewerage only and industrial effluent of abnoxious character would be treated by the factory concerned before discharging to the system.

3. Water System.

Gaziantep City is faced with a serious shortage of public water supply at present and no immediate expansion is being considered. Therefore the Estate is planned to have an independent water supply system at least for the beginning. The entire system is to include wells, pumping station, storage reservoir, treatment if necessary and distribution system. Due to the limited water source in this area, the water consumption of 100 liters per person per day is considered in the design. However, the supply system can be expanded when the per capital consumption is increased in the future.

4. Electricity Supply.

Electricity supply to the Estate is to be provided by by the Iller Bank, a central government agency responsible for electrification. It is to be made through a tapping from the main station about 3 kms from the site. The system will include H.T. transmission lines, sub-station and distribution lines. It is anticipated that a capacity of about 1 KW per 10 M^2 of building area would be made available to the Estate.

5. Others.

Telephones and street lighting system are to be provided in the Estate.

WORK SCHEDULE -
DEVELOPMENT COST AND SOURCE OF FINANCE

1. Schedule:

The design work of the Estate is being undertaken. It is programmed to commence the construction of the administrative building, common facilities workshops,

conference hall, cafeteria etc. In the third quarter of 1971 and followed by factory units. The common service buildings are expected to be completed before the end of 1972 and factory units by 1973. Services and utilities are scheduled to progress with the buildings.

2. Cost.

According to a preliminary estimate the first stage overall development cost including land acquisition, buildings, and infrastructure would be about TL 150,000,000 equivalent to US $10,000,000.

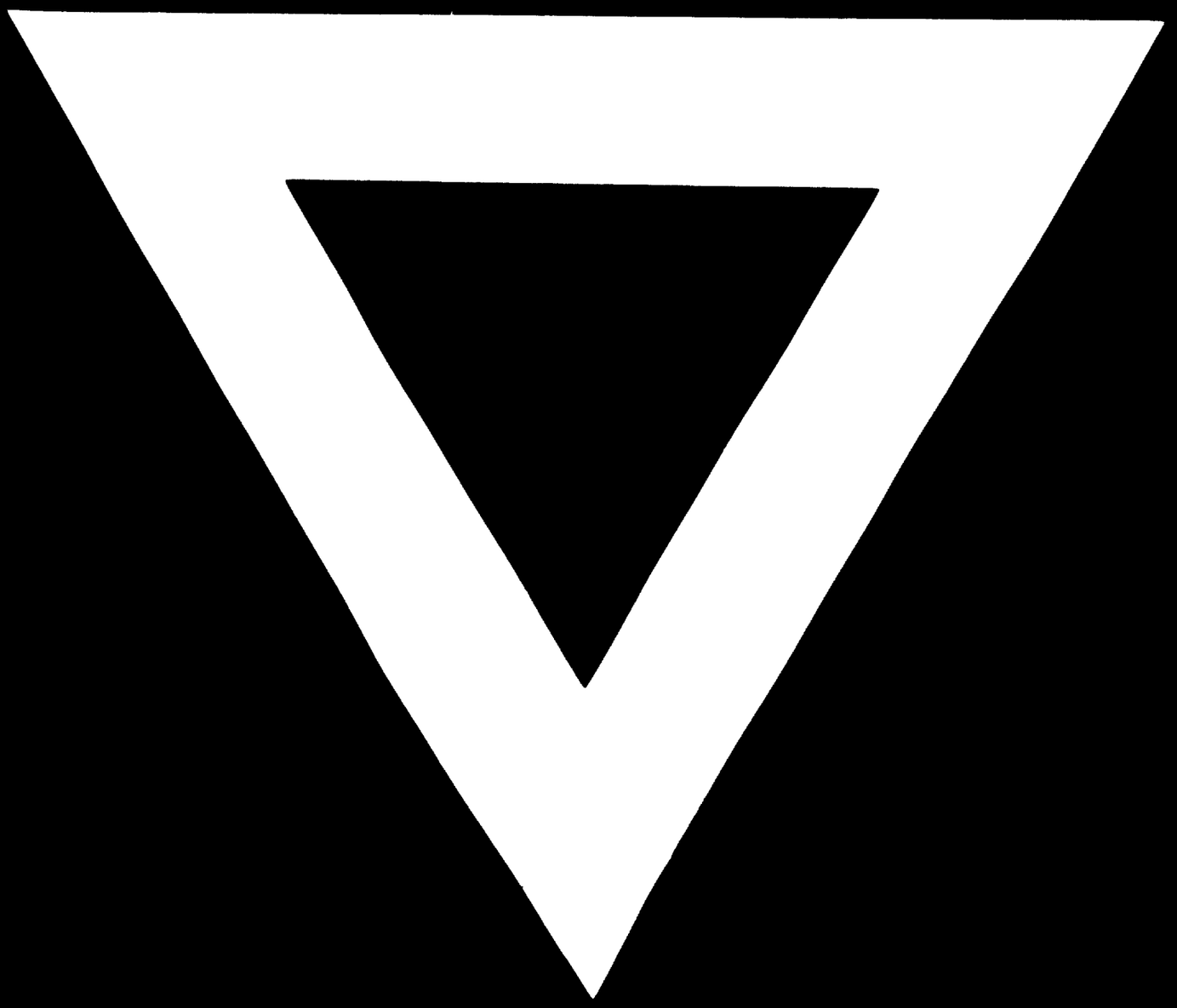
3. Finance.

The cost of land and 30% of the factory building is to be provided by the small industrialists from their own resource. This would amount to nearly 35 million TL. The Cooperative Industrial Estate Construction Society is collecting the required amount from its members.

The entire cost of the Administrative building, Common Facilities Workshops, Conference Hall and Cafeteria and 70% of the cost of the factory buildings is to be initially provided by the Government. The 70% of the factory costs will be made available through the Halk Bank and would be treated as a loan to the Cooperative Society, at an annual interest rate of 3% recoverable over a period of 10 years commencing 5 years after the completion of the Estate. Thus the Government's initial share of expenditure would be about TL 95 million.

The infrastructure facilities are to be provided by the local municipality. The amount involved would be of the order of TL 21 million. This does not include the amount required for the service facilities outside the Estate area.

The Gaziantep Industrial Estate is a major shift in the industrial estates policy and programme of Turkey. The pace of transformation of small industry from the predominantly repair activity to manufacturing depends, to a large extent, on the success of the new industry neighborhood in the industrial estate. It is hoped success of this industrial estate would lead to the forerunner of many similar estates in other parts of the country.



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