DETAILED TECHNO-ECONOMIC CUM PRE-INVESTMENT PROJECT REPORT

(SHER – E – KASHMIR EMPLOYMENT AND WELFARE PROGRAMME FOR THE YOUTH (SKEWPY)

ON

(AUTOCAD CENTRE)

FOR

M/S CENTRE AUTOCADD

(**TRIKUTA NAGAR JAMMU**)

PROP: JYOTI KAUL D/O VIJAY KAUL

R/O HOUSE NO. 98, SECTOR 6, TRIKUTA NAGAR JAMMU

APRIL. 2011

INTRODUCTION

AUTO CAD

AutoCAD is a CAD (Computer Aided Design or Computer Aided Drafting) software applicationfor 2D and 3D design and drafting. It is developed and sold by Autodesk, Inc. First released in December 1982, AutoCAD was one of the first CAD programs to run on personal computers, notably the IBM PC. At that time, most other CAD programs ran on mainframe computers or mini-computers which were connected to a graphics computer terminal for each user.

Early releases of AutoCAD used primitive entities — lines, polylines, circles, arcs, and text — to construct more complex objects. Since the mid-1990s, AutoCAD has supported custom objects through its C++ Application Programming Interface (API). Modern AutoCAD includes a full set of basic solid modeling and 3D tools. With the release of AutoCAD 2007 came improved 3D modeling, which meant better navigation when working in 3D. Moreover, it became easier to edit 3D models. The mental ray engine was included in rendering, it was now possible to do quality renderings. AutoCAD 2010 introduced parametric functionality and mesh modeling.

AutoCAD supports a number of APIs for customization and automation. These include Auto LISP, Visual LISP, VBA, .NET and Object ARX. Object ARX is a C++ class library, which was also the base for products extending AutoCAD functionality to specific fields, to create products such as AutoCAD Architecture, AutoCAD Electrical, AutoCAD Civil 3D, or third-party AutoCAD-based applications.

AutoCAD and AutoCAD LT are available for English, German, French, Italian, Spanish, Japanese, Korean, Chinese Simplified, Chinese Traditional, Russian, Czech, Polish, Hungarian, Brazilian Portuguese, Danish, Dutch, Swedish, Finnish, Norwegian, and Vietnamese. The extent of localization varies from full translation of the product to documentation only. The AutoCAD command set is localized as a part of the software localization.

AutoCAD origin

AutoCAD was derived from a program called Interact, which was written in a proprietary language (SPL) and ran on the Marinchip Systems 9900 computer (Marinchip was owned by Autodesk co-founders John Walker and Dan Drake.)

When Marinchip Software Partners (later to be renamed Autodesk) was formed, they decided to re-code Interact in C and PL/1 -- C, because it seemed to be the biggest upcoming language. In the end, the PL/1 version was unsuccessful. The C version was, at the time, one of the most complex programs in that language to date. Autodesk even had to work with the compiler developer (Lattice) to fix certain limitations to get AutoCAD to run.[1]

AutoCAD LT

AutoCAD LT is a lower cost version of AutoCAD with reduced capabilities first released in November 1993. AutoCAD LT, priced at $495, became the first product in the company's history priced below $1000 to bear the name "AutoCAD". In addition to being sold directly by Autodesk, it can also be purchased at computer stores, unlike the full version of AutoCAD which must be purchased from official Autodesk dealers. Autodesk developed AutoCAD LT so that they would have an entry-level CAD package to compete in the lower price level.

As of the 2011 release the AutoCAD LT MSRP has risen to $1200. While there are hundreds of small differences between the full AutoCAD package and AutoCAD LT, currently there are a few recognized major differences[2] in the software's features:

- 3D Capabilities: AutoCAD LT lacks the ability to create, visualize and render 3D models as well as 3D printing.
- Network Licensing: AutoCAD LT cannot be used on multiple machines over a network.
- Customization: AutoCAD LT does not support customization with LISP, ARX, and VBA.
- Management and automation capabilities with Sheet Set Manager and Action Recorder.
- CAD standards management tools.

AutoCAD Freestyle

Built on the AutoCAD platform, AutoCAD Freestyle is a simplified, low-cost (US$149) application that makes it easy to create accurate, professional-looking 2D drawings and sketches. This software has been discontinued by Autodesk.

Vertical programs

Autodesk has also developed a few vertical programs, for discipline-specific enhancements.AutoCAD Architecture (formerly Architectural Desktop), for example, permits architectural designers to draw 3D objects such as walls, doors and windows, with more intelligent data associated with them, rather than simple objects such as lines and circles. The data can be programmed to represent specific architectural products sold in the construction industry, or extracted into a data file for pricing, materials estimation, and other values related to the objects represented. Additional tools allow designers to generate standard 2D drawings, such as elevations and sections, from a 3D architectural model. Similarly, Civil Design, Civil Design 3D, and Civil Design Professional allow data-specific objects to be used, allowing standard civil engineering calculations to be made and represented easily. AutoCAD Electrical, AutoCAD Civil 3D, AutoCAD Map 3D, AutoCAD Mechanical, AutoCAD MEP, AutoCAD P&ID, AutoCAD Plant 3D and AutoCAD Structural Detailing are other examples of industry-specific CAD applications built on the AutoCAD platform.

File formats

AutoCAD's native file format, DWG, and to a lesser extent, its interchange file format, DXF, have become de facto standards for CAD data interoperability. AutoCAD in recent years has included support for DWF, a format developed and promoted by Autodesk for publishing CAD data. In 2006, Autodesk estimated the number of active DWG files to be in excess of one billion.

In the past, Autodesk has estimated the total number of DWG files in existence to be more than three billion.[4]

Official Name	Version	Release	Date of release	Comments
AutoCAD Version 1.0	1.0	1	1982, December	DWG R1.0 file format introduced.
AutoCAD Version 1.2	1.2	2	1983, April	DWG R1.2 file format introduced.

AutoCAD Version 1.3	1.3	3	1983, August	DWG R1.3 file format introduced.
AutoCAD Version 1.4	1.4	4	1983, October	DWG R1.4 file format introduced.
AutoCAD Version 2.0	2.0	5	1984, October	DWG R2.05 file format introduced.
AutoCAD Version 2.1	2.1	6	1985, May	DWG R2.1 file format introduced.
AutoCAD Version 2.5	2.5	7	1986, June	DWG R2.5 file format introduced.
AutoCAD Version 2.6	2.6	8	1987, April	DWG R2.6 file format introduced. Last version to run without a math co-processor.
AutoCAD Release 9	9.0	9	1987, September	DWG R9 file format introduced.
AutoCAD Release 10	10.0	10	1988, October	DWG R10 file format introduced.
AutoCAD Release 11	11.0	11	1990, October	DWG R11 file format introduced.
AutoCAD Release 12	12.0	12	1992, June	DWG R11/R12 file format introduced. Last release forApple Macintosh till 2010.
AutoCAD Release 13	13.0	13	1994, November	DWG R13 file format introduced. Last release for Unix, MS-DOS and Windows

				3.11.
AutoCAD Release 14	14.0	14	1997, February	DWG R14 file format introduced.
AutoCAD 2000	15.0	15	1999, March	DWG 2000 file format introduced.
AutoCAD 2000i	15.1	16	2000, July	
AutoCAD 2002	15.6	17	2001, June	
AutoCAD 2004	16.0	18	2003, March	DWG 2004 file format introduced.
AutoCAD 2005	16.1	19	2004, March	
AutoCAD 2006	16.2	20	2005, March	
AutoCAD 2007	17.0	21	2006, March	DWG 2007 file format introduced.
AutoCAD 2008	17.1	22	2007, March	Annotative Objects introduced. First release for the x86-64versions of Windows XP and Vista.
AutoCAD 2009	17.2	23	2008, March	Revisions to the user interface including the option of a Microsoft Office 2007-like tabbed ribbon.

AutoCAD 2010	18.0	24	2009, March 24	DWG 2010 file format introduced. Parametrics introduced. Mesh 3D solid modeling introduced. Both 32-bit and 64-bit versions of AutoCAD 2010 and AutoCAD LT 2010 are compatible with and supported under Microsoft Windows 7.
AutoCAD 2011	18.1	25	2010, March 25	Surface Modeling, Surface Analysis and Object Transparency introduced. October 15, 2010 AutoCAD 2011 for Mac was released. Are compatible with and supported under Microsoft Windows 7
AutoCAD 2012	18.2	26	2011, March 22	Associative Array, Model Documentation

MARKET FOR AUTO CAD CENTRE

AutoCAD is a generic design & documentation tool, and as such it is used across a large number of industries including, architecture, interior design, shop fit-outs, construction, engineering, landscape design, product design and manufacture, naval and aeronautical design, piping and cabling, just to name a few. Anyone that needs to produce, accurate plans and sections of a design, can utilize AutoCAD for this task. While AutoCAD is extremely poplar, there are other CAD packages which people use, such as Microstation, FormZ and ArchiCAD.

BACKGROUND OF THE PROJECT

M/S CENTRE AUTOCADD is a Proprietorship concern of Miss. JYOTI KAUL D/O Sh. VIJAY KAUL R/o HOUSE NO. 98, SECTOR 6, TRIKUTA NAGAR JAMMU. The promoter are young person with a qualification, Post Graduation with enthusiasm and energy to excel and a sound support from the family to run the business efficiently.

The promoters will be the overall incharge of the unit. The promoters are assisted by trained technicians/managerial persons in carrying out the day to day activities of the concern. The promoter has been brought up in Kashmir Valley from their early childhood and is fully aware of nature, culture and social economic background of Kashmir. Keeping this into consideration the promoter will not face any difficulty for successful running of the unit. The promoter has been very keen in starting their independent business since past many years and has therefore studied and surveyed many options and avenues with the objective in their minds. Finding that the demands for AUTOCAD CENTRE is increasing at a faster rate and there exists a gap in the demand and supply curve therefore the promoter has found tremendous potential on concentrating on the proposed activity and has conceived the present project as envisaged herein after.

The promoter belongs to cultured family with sound background. He has the financial strength and capability to withstand the unforeseen streams of promoting an industrial venture.

The unit is working on single shift basis of 8 hours day for 300 working days in a year.

Depending upon the efficiency of the promoter and his marketing ability the unit will be able to operate at higher production level than what has been envisaged in the report.

PROJECT HIGHLIGHTS

S.No	PARTICULARS	DESCRIPTION
1	NAME OF THE BUSINESS ESTABLISHMENT	M/S CENTRE AUTOCADD
2	LINE OF ACTIVITY	AUTOCAD CENTRE
3	LOCATION	TRIKUTA NAGAR JAMMU
4	CONSTITUTION	PROPRIETORSHIP
5	NAME OF PROMOTER	JYOTI KAUL
6	PARENTAGE	VIJAY KAUL
7	RESIDENT OF	HOUSE NO. 98, SECTOR 6, TRIKUTA NAGAR JAMMU
8	AGE	35 YEARS
9	DATE OF BIRTH	11-02-1976
10	QALIFICATION	(POST GRADUATE)
11	ANY KIND OF SUBSIDY AVAILED	NIL
12	JKEDI TRAINING DATE	17-08-2010
13	SCREENING COMMITTEE ACTIVITY ALLOTTED	AUTOCAD CENTRE
14	SEED CAPITAL	RS. 3.00 LACS
15	CATEGORY	GENERAL BUSINESS UNDER SEED CAPITAL SCHEME

S.No	PARTICULARS	DESCRIPTION
1	NAME OF THE BUSINESS ESTABLISHMENT	M/S CENTRE AUTOCADD
2	PRIMARY SECURITY	HYPOTHECATION OF ASSETS CREATED OUT OF BANK FINANCE
3	COLLATERAL SECURITY	GUARANTEE COVER UNDER CREDIT GUARANTEE SCHEME OF CGFTMSE
4	MAXIMUM REPAYMENT SCHEME	6 YEARS
5	MORATORIUM PERIOD	1 YEAR
6	*TOTAL PROJECT COST*	8.00 LACS
7	*TOTAL FIXED INVESTMENT*	6.65 LACS
8	EQUITY	2.80 LACS
9	BANK LOAN (TERM)	4.32 LACS
10	WORKING CAPITAL REQUIREMENT	1.35 LACS
11	MANPOWER REQUIREMENT	5
12	BREAK EVEN POINT	44.28 % IN THIRD YEAR
13	DETAILED DEBT SERVICE COVERAGE:	7.86 : 1
14	PAY BACK PERIOD	1 YEARS 10 MONTHS APPROX.

PROJECT COST SUMMARY			
S.NO	**PARTICULARS**		**AMOUNT(LACS)**
1	LAND		NIL
2	Civil Works		NIL
3	Plant & Machinery		4.70
4	Miscellaneous Fixed Assets		1.45
5	Preliminary & Preoperative expenses		0.50
6	Working Capital Requirement		1.35
			8.00
MEANS OF FINANCE			
1	Seed Capital		2.80
2	Loan from Bank (65 %)		5.20
DETAILS OF LOANS			
A	**Long Term Investment**		**6.65**
1	Seed Money/PC		2.33
2	Term Loan From Bank		4.32
B	**Working Capital Requirement**		**1.35**
1	Seed Money/PC		0.47
2	Working Capital Finance From Bank		0.88

POLLUTION NORMS

The Govt. accords utmost importance to control environmental pollution. The small-scale entrepreneurs should have an environmental friendly attitude and adopt pollution control measures by process modification and technology substitution. India having acceded to the Montreal Protocol in Sept. 1992, the production and use of Ozone Depleting Substances (ODS) like Chlorofluoro Carbon (CFC), Carbon Tetrachloride, Halons and Methyl Chloroform etc. need to be phased out immediately with alternative chemicals/solvents. A notification for detailed Rules to regulate ODS phase out under the Environment Protection Act, 1986 have been put in place.

1: Apart from the other recommendations, the promoter has agreed in principle that he will strictly adhere pollution norms as and when shall be implemented and shall use all possible devices to prevent pollution measures.

2: The machines provided in the project report shall be housed in acoustic proof room and shall be provided with anti –vibration mounting/pads in order to reduce the pitch of the noise within the prescribed norms, therefore, the promoters are advised to purchase machinery from the approved manufacture having BIS certifications both for quality as well as safety measures, while as the captive power i.e. D'G set as and when installed shall be provided with canopies and other certified equipment's, which would reduce the emission level within the prescribed norms, therefore, the cost to be incurred for such equipment's has been worked out and is provided under Misc.fixed head of the project report.

3: Adequate provisions of toilets, septic and soakage pit has been made to take care of human wastage and the waste water before discharging in the main drainage system, hence, there is no effluents discharged in the form of solid, liquid and gaseous and the plant, thus is considered free from the pollution aspects.

Energy Conservation

With the growing energy needs and shortage coupled with rising energy cost, a greater thrust in energy efficiency in industrial sector has been given by the Govt. of India since 1980s. The Energy Conservation Act, 2001 has been enacted on 18th August 2001, which provides for efficient use of energy, its conservation and capacity building of Bureau of Energy Efficiency created under the Act.

The following steps may help for conservation of electrical energy:

i) Adoption of energy conserving technologies, production aids and testing facilities.

ii) Efficient management of process/ manufacturing machineries and systems, QC and testing equipments for yielding maximum Energy Conservation.

stations.

iv) Periodical maintenance of motors, compressors etc.

v) Use of power factor correction capacitors. Proper selection and layout of lighting system; timely

switching on-off of the lights; use of compact fluorescent lamps wherever possible etc.

Manpower

The category wise break-up manpower including salary as shown at Annexure. A Manager who would be assisted by his selected staff member to look after accounts as well as procurement of raw material and sale of the product would look after the operations of the factory. Regarding technical staff, the production function would be looked after by a production foreman/supervisor who would be assisted by machine and other skilled operators to look after various jobs. The unit would provide employment opportunities to 5 number of persons including those required under administrative categories. The break up of requirement, monthly salary, annual salary as well as total cost on manpower. Necessary provision of perks and annual increase in salaries made in the estimates. It may be mentioned that except for the technical staff all the manpower will be recruited from local sources, if need arises, the same could be recruited form the neighboring states.

NAME, STYLE & STATUS

The venture shall be set-up under the name and style of **M/S CENTRE AUTOCADD**. **It** will be provided will all possible facilities in order to check the emissions and particulate matters within the prescribed norms.

BACK GROUND OF THE PROMOTER

M/S " CENTRE AUTOCADD" a Proprietorship concern of Shri: JYOTI KAUL D/O VIJAY KAUL R/o HOUSE NO. 98, SECTOR 6, TRIKUTA NAGAR JAMMU. The promoter is a potential entrepreneur having business background and is a POST Graduate and has set his own mark in this field in the Valley. At present, SHE has an experience of at least 5 years, now associated with relevant venture. Having gained a vast experience cultivated in this business in terms of the transitions and interactions with the various departments. The promoter has gained in-depth knowledge of AUTOCAD CENTRE Industry. Being enterprising, experienced, enthusiastic, believer of self-made personality.. The reasons behind his successful entrepreneurship, as he believes in determination, will, singleness of a purpose and hard work. As one of the key factors to any industrial venture for its success is its marketing cell and a well-planned and organized marketing division of a particular industrial unit makes it rise and shine. The promoter has gained a lot of experience in the field of marketing, decided to manufacture the Quality products and exploit his own experience to fetch institutional market. The idea for undertaking proposed AUTOCAD CENTRE venture was conceived after undergoing into the details of the market potential and its growing demand in the Domestic market, the entrepreneur intends to give a new dimension to the proposed venture with modern facilities available at present in the valley and to bring the product cost effective, marketable, therefore, the proposed products would be taken over by the modern technology to increase the production quantitatively as well as qualitatively with minimum processing losses . On the other hand, for the production of the proposed item, he will be assisted by trained technical / managerial and skilled work force to be recruited to give the quality produce. He also believes in strong teams by selecting talented people, providing coaching and feed back, empowerment / growth assignments, learning and self development. Owing to the above facts, his venture into the above said field is justified and hence recommended. Finding that the demand for AUTOCAD CENTRE is increasing at a faster rate and their exists few such unit in the State, therefore, the promoter has found tremendous potential on concentrating on the proposed activity, therefore conceived the present project as envisaged herein after. The financial strength and capability of the promoters are expected to be encouraged by the financial institutions to provide the quantum of financial assistance as worked out in the project report for undertaking the proposed program.

BACKGROUND OF THE PROJECT

M/S CENTRE AUTOCADD is in process of setting up a small-scale unit OF AUTOCAD CENTRE. The unit is proposed to be located at TRIKUTA NAGAR JAMMU, IN RENTED SPACE ON A MONTHLY RENT OF RS. 5000.00, Where all the basic infrastructural facilities viz.: water distribution network with overhead tank, main and internal link roads, power distribution network with all electrical peripherals etc has already been provided by J&K Govt.. The proposed project as such would not face any difficulty for its smooth operation, The requirement of land for the envisaged program could be worked out on the basis of covered area besides marginal area for future expansions and internal infrastructural facilities to ensure the proposed venture to operate prompt and smoothly, therefore, the available land and building is sufficient for carrying out the proposed line of activity.

DETAILS OF PRELIMMINARY & PRE-OPERATIVE EXPENSES			
S.NO	**PARTICULARS**		**AMOUNT(LACS)**
1	Traveling & Conveyance		0.03
2	Printing & Stationary		0.02
3	Professional Charges		0.03
4	Legal & Mortgage Expenses		0.03
5	Interest during Moratorium Period		0.39
	TOTAL		0.50

DETAILS OF MISCELLANEOUS FIXED ASSETS			
		QNT	
S.NO	**PARTICULARS**		**AMOUNT(LACS)**
1	Furniture and Cabins	L S	0.60
2	FIRE EXTINGUISHER	2	0.10
3	Generators @ 40000.00	1	0.50
4	Electrical Fittings and Net Working	LS	0.25
	TOTAL		**1.45**

DETAILS AND ESTIMATED COST ON PLANT AND MACHINERY

While arriving at the requirement of various types of equipment and machinery required for the plant, due consideration has been given to the following points.

- Minimum wastage.
- High productivity.
- Maximum flexibility in operation.
- Adequate stand by provision where ever necessary.

The production plant and equipment proposed have been selected for the envisaged production capacity and incorporates features that permit smooth operation of the plant. After making a preliminary study of the source of supply of such equipment it has been identified that all the equipments will be available indigenously and no imports will be necessary.

The concern is expected to purchase the requisite machinery from reputed authorized dealer, who would also assist in the installation of plant and machinery. For estimating the cost on plant and machinery the quotations provided to us by the promoter has been taken into account.

The details of plant & machinery is as follows: –

SR	DESCRIPTION	QTY	PRICE	AMOUNT
1	Multimedia Desktop Computer Including all accessories	3	0.30	0.90
2	LAP TOP (BRANDED)	1	0.55	0.55
3	Laser Scanner/printer/copier A 3 Size HP makeColour Printer	1	1.50	1.50
4	Fax machine	1	0.06	0.06
5	Auto cad Software Latest version	1	1.30	1.30
6	Spiral Binding Machine	1	0.04	0.04
7	AC 1.50 Ton	1	0.35	0.35
	Total			4.70

RAW MATERIAL REQUIREMENT AND EXPENDITURE

S.NO	PARTICULARS		RATE (RS.)	AMOUNT IN RS. LACS
1	Telephone and Internet Connection Charges	L.s	5000 per Month	0.60
2	Paper of various sizes	132 reams	200 reams	0.27
3	Film Rolls for Lamination and fax rolls	200 rolls of various sizes	30.00	0.06
4	Cartridges/Tonner	LS	500	0.50
	TOTAL			1.43

EXPECTED SALES OF THE UNIT WITH AN INCREASE EVERY YEAR

1	Year of operation	1st	2nd	3rd	4th	5th	6th	7th	8th
2	Sales realization IN LACS	9.00	9.90	10.80	11.70	12.60	13.50	14.40	14.40

STATEMENT OF CALCULATION OF MANPOWER REQUIREMENT & THEIR REMUNERATION				
S.NO	**PARTICULARS**	**Nos**	**Salary Per Month**	**Total Per Annum**
1	Manager (SELF)	1	10000	1.20
2	Operators	3	8000	2.88
3	Orderly	1	3000	0.36
		4		**4.44**

ESTIMATED COST OF UTILITIES PER ANNUM

The main utilities for running the unit successfully are water and electricity.

- **Power**
- **Water**

1	Total connected load	= 5 hp or 3.75 KW
2.	Total power load after taking load factor (0.89)	= 3.33 KW
3.	Power consumption per annum	= 8010 Kwhr
4.	From PDD (80%) @ 2.50 Kwhr	= Rs 16020 /
5.	From own generator	= Rs 9612 /
	Total	**= Rs 25632/**

B) Water

The PHE departmental supply shall mostly be utilized for drinking and sanitation purposes, which is available at cheaper rates from P.H.E Department. However under certain unfavorable conditions Rs 500 / annum has been kept on account of water

Total cost on Utilities (A + B) Rs 26132 / Say Rs 0.26 Lacs

REPAIRS AND MAINTENANCE PER ANNUM.

On the basis of norms available from similar plants in actual operation provision has been made for annual cost of maintenance and repairs for the proposed items of fixed out lay. It has been taken as 2%, 3%, 4%, 5%, 5%, 6%, 6% and 6% for 1st, 2nd, 3rd, 4th, 5th, 6th, 7thand 8th year to keep the fixed assets in working conditions.

REPAIRS AND MAINTENANCE PER ANNUM.

Year	Percentage	Building	P&M	MFA	Total	R & M
1st	2%	0.00	4.70	1.45	6.15	0.12
2nd	3%	0.00	4.70	1.45	6.15	0.18
3rd	4%	0.00	4.70	1.45	6.15	0.25
4th	5%	0.00	4.70	1.45	6.15	0.31
5th	5%	0.00	4.70	1.45	6.15	0.31
6th	6%	0.00	4.70	1.45	6.15	0.37
7th	6%	0.00	4.70	1.45	6.15	0.37
8th	6%	0.00	4.70	1.45	6.15	0.37

DETAILS OF ADMINISTRATIVE EXPENSES PER ANNUM

It is taken as 1% of net sales in every year which includes printing, traveling, telegraph, petty expenses, audit fee, telephone bills, legal fee, bank charges and other sundry expenses both for the basic program shall be worked out as:

Year	Sales	%	-
1st	9.00	0.5	**0.05**
2nd	9.90	0.5	**0.05**
3rd	10.80	0.5	**0.05**
4th	11.70	0.5	**0.06**
5th	12.60	0.5	**0.06**
6th	13.50	0.5	**0.07**
7th	14.40	0.5	**0.07**
8th	14.40	0.5	**0.07**

DETAILS OF SELLING EXPENSES PER ANNUM

It is taken as 7 % of net sales in every year, which includes sales promotion expenses, advertising expenses, commission to intermediaries, carriage outwards, discount, brokerage etc. and annual rent.

Year	Sales	%	Selling expenses/annum	
1st	9.00	7	**0.63**	
2nd	9.90	7	**0.69**	
3rd	10.80	7	**0.76**	
4th	11.70	7	**0.82**	
5th	12.60	7	**0.88**	
6th	13.50	7	**0.95**	
7th	14.40	7	**1.01**	
8th	14.40	7	**1.01**	

DETAILS OF WORKING CAPITAL REQUIREMENT AT DIFFERENT LEVELS.

YEAR	SAL/WAG	PURCHASE (Lacs)	UTILITIES	SALES (lacs)	Repair Maint.	Admn. Expen.	Selling Expen.	WIP	F.Goods
1ST	2.22	0.72	0.13	9.00	0.12	0.05	0.63	3.07	3.74
2ND	2.44	0.79	0.14	9.90	0.18	0.05	0.69	3.37	4.11
3RD	2.66	0.86	0.16	10.80	0.25	0.05	0.76	3.68	4.49

S.no	Particulars	Days	Margin	Ist Year Amount	Margin	2nd year Amount	Margin	3rd year Amount	Margin
1	Stock of Raw Material	30	0%	0.07	0.00	0.08	0.00	0.09	0.00
2	Stock of work in progress	2	0%	0.02	0.00	0.02	0.00	0.02	0.00
3	Stock of finished goods	3	0%	0.04	0.00	0.04	0.00	0.04	0.00
4	Sundry debtors	40	0%	1.20	0.00	1.32	0.00	1.44	0.00
5	Working expenses	30	100%	0.02	0.02	0.02	0.02	0.02	0.02
6	Sundry Creditors	0	0%	**0.00**		**0.00**		**0.00**	
7	Working capital requirement			**1.35**		**1.48**		**1.62**	
8	Margin money				**0.47**		**0.47**		**0.47**
9	Working capital limit			**0.88**		**1.01**		**1.15**	

FUNDING OF CAPITAL EXPENDITURE

The total capital investment cost of the project is estimated at Rs.8.00 Lakhs, which shall be financed for term loan as per the projections made in the report subject to furnishing of latest cost comparative quotations from the authorized dealers besides contribution from the promoters during the implementation of the project, the specific details interalia as:

S.no	Particulars	Amt.(Lacs)
1	Seed Capital	2.80
2	Promoters Contribution	0.00
3	Long term borrowings	4.32

A: Equity

The share capital of the unit has been fixed at Rs.2.80 Lakhs comprising 35 % of the total project cost .The unit has to raise share capital within this limit.

B: Term loan

Term loan requirement to the extent of Rs. 4.32 Lakhs for the purpose of purchases of plant & machinery and misc. fixed assets shall be made available from the financial institutions or commercial banks well operating in the valley on the basis that the unit being proven technically feasible and financially viable. As the policies are liberal for such type of ventures to avail packages/incentives to encourage the entrepreneurs to promote industrial culture in the backward area of the country. The state Govt. is equally eager to give all possible support to the development of industry in the area, where the unit is being established more so when the Seed Capital is about 35% of the capital formulation, which is higher than the normal requirement of funding, insisted upon by the bankers.

INTEREST CALCULATION

It is proposed to raise the sum of Rs 4.32 Lacs as long term loans from financial institutions to meet the capital cost of the project. For the purpose of calculating the interest on long-term loans an interest rate of 9.00% per annum is taken into consideration in the project report.

A: Interest on long term loan

S.no	Particulars	Amt.(Lacs)
		4.32
01.	Long term borrowings	
02.	Rate of interest	**9.00%**
03.	Installment	0.72 Lacs
04	Moratorium Period	12 months
04.	Repayment schedule	6 years

YEAR	INT T/Loan	T.Loan Payment	Decrease Term Loan	Yr.Term Loan Paym.	Rem. Term Loan
1	0.39	0.00	0.00	0.00	4.32
2	0.39	0.72	0.72	0.72	3.60
3	0.32	0.72	1.44	0.72	2.88
4	0.26	0.72	2.16	0.72	2.16
5	0.19	0.72	2.88	0.72	1.44
6	0.13	0.72	3.60	0.72	0.72
7	0.06	0.72	4.32	0.72	0.00

B: INTEREST ON WORKING CAPITAL LIMIT

To meet the working capital requirements of the project, the promoters will have to make arrangements for cash credit facilities with the nationalized bank.

RATE OF INTEREST	**9.00%**

YEAR	INT W/C	Increase w/ Cap	Increase Curr. Asse	Current Assets	Working Capital
1	0.08	0.88	1.35	1.35	0.88
2	0.09	0.13	0.13	1.48	1.01
3	0.10	0.13	0.13	1.62	1.15
4	0.10	0.00	0.00	1.62	1.15
5	0.10	0.00	0.00	1.62	1.15
6	0.10	0.00	0.00	1.62	1.15
7	0.10	0.00	0.00	1.62	1.15
8	0.10	0.00	0.00	1.62	1.15

COMPUTATION OF DEPRECIATION CALCULATION

For the purpose of claiming extra depreciation and amortization, the preoperative expenses and contingencies will be capitalized with the cost of fixed assets. The distribution of pre-operative expenses and contingencies has been done approximately in proportion to the cost of all the fixed assets (except land and site development). In the estimation of cost of sales and in books of accounts of the firm the normally adopted practice is to depreciate the various assets by straight-line method.

For income tax purposes, the depreciation of depreciable assets (all fixed assets except land and site development) is carried out by written down value method.

COMPUTATION OF DEPRICIATION

S.no	Particulars	Building	P&M	MFA	Total
1	Cost Price	0.00	4.70	1.45	6.15
2	Preliminary & Preoperative exp.	0.00	0.38	0.12	0.50
	Total	0.00	5.08	1.57	6.65

Depreciation under WDV method — **BUILDING**

Rate of depreciation — **6.25%**

		Cost	Dep	WDV
1st	Year	0.00	0.00	0.00
2nd	Year	0.00	0.00	0.00
3rd	Year	0.00	0.00	0.00
4th	Year	0.00	0.00	0.00
5th	Year	0.00	0.00	0.00
6th	Year	0.00	0.00	0.00
7th	Year	0.00	0.00	0.00
8th	Year	0.00	0.00	0.00

Depreciation under WDV method — **Plant & Machinery**

Rate of depreciation — **10%**

		Cost	Dep	WDV
1st	Year	5.08	0.51	4.57
2nd	year	4.57	0.46	4.12
3rd	Year	4.12	0.41	3.70
4th	Year	3.70	0.37	3.33
5th	Year	3.33	0.33	3.00
6th	Year	3.00	0.30	2.70
7th	Year	2.70	0.27	2.43
8th	Year	2.43	0.24	2.19

Depreciation under WDV method — **Misc. Fixed Assets**

	Rate of depreciation		**15%**	
		Cost	**Dep**	**WDV**
1st	Year	1.57	0.24	1.33
2nd	Year	1.33	0.20	1.13
3rd	Year	1.13	0.17	0.96
4th	Year	0.96	0.14	0.82
5th	Year	0.82	0.12	0.70
6th	Year	0.70	0.10	0.59
7th	Year	0.59	0.09	0.50
8th	Year	0.50	0.08	0.43

Depreciation under WDV method

		Building	**P&M**	**M F A**	**Total**
	Rate of depreciation	**6.25%**	**10%**	**15%**	
1st	Year	0.00	0.51	0.24	0.74
2nd	Year	0.00	0.46	0.20	0.66
3rd	Year	0.00	0.41	0.17	0.58
4th	Year	0.00	0.37	0.14	0.51
5th	Year	0.00	0.33	0.12	0.46
6th	Year	0.00	0.30	0.10	0.40
7th	Year	0.00	0.27	0.09	0.36
8th	Year	0.00	0.24	0.08	0.32

Depreciation under SL Method

Rate of depreciation	5.00%	10%	10%	Total
Amount of depreciation	0.00	0.51	0.16	0.67

Projected Profitability Statement

The annual cost of sales and profitability during the first eight years of operation of the plant is estimated in the following table.

S.no	Particulars	Operating Years							
1	Year of operation	1st	2nd	3rd	4th	5th	6th	7th	8th
2	Sales realization	9.00	9.90	10.80	11.70	12.60	13.50	14.40	14.40
A:									
1	Purchases	0.72	0.79	0.86	0.93	1.00	1.07	1.14	1.14
2	Salary & wages	2.22	2.44	2.66	2.89	3.11	3.33	3.55	3.55
3	Utilities	0.13	0.14	0.16	0.17	0.18	0.20	0.21	0.21
4	Repairs & Maintenance	0.12	0.18	0.25	0.31	0.31	0.37	0.37	0.37
5	Administrative expenses	0.05	0.05	0.05	0.06	0.06	0.07	0.07	0.07
6	Selling expenses/Rent	0.63	0.69	0.76	0.82	0.88	0.95	1.01	1.01
7	Total	3.86	4.30	4.73	5.17	5.54	5.98	6.35	6.35
8	Gross profit	5.14	5.60	6.07	6.53	7.06	7.52	8.05	8.05
B:	**Financial expenses**								
1	Interest on term loan	0.39	0.39	0.32	0.26	0.19	0.13	0.06	0.00
2	Interest on WCL	0.08	0.09	0.10	0.10	0.10	0.10	0.10	0.10
3	Depreciation (SLM)	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
4	Total	1.13	1.14	1.09	1.03	0.96	0.90	0.83	0.77
5	Profit before tax	4.00	4.46	4.97	5.50	6.09	6.62	7.21	7.28
6	Taxation	0.00	0.00	0.00	0.00	0.00	0.66	0.72	1.46
7	Profit after tax	4.00	4.46	4.97	5.50	6.09	5.96	6.49	5.82
8	Withdrawals	**0.00**	0.00	0.00	0.50	**1.00**	1.00	2.00	2.00
9	Profit carried to B/S	4.00	4.46	4.97	5.00	5.09	4.96	4.49	3.82
10	Cumulative profit	4.00	8.46	13.43	18.44	23.53	28.49	32.99	36.81
11	Add back depreciation	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
12	**Total cash surplus**	4.67	9.13	14.10	19.10	24.20	29.16	33.65	37.47
C:	**Less payment**								
1	Term Loan	0.00	0.72	0.72	0.72	0.72	0.72	0.72	0.00
2	Withdrawals	0.00	0.00	0.00	0.50	1.00	1.00	2.00	2.00
3	Total payments	0.00	0.72	0.72	1.22	1.72	1.72	2.72	2.00
4	Net Cash accruals	4.67	8.41	13.38	17.88	22.48	27.44	30.93	35.47

PAY BACK PERIOD

Pay back period is the length of time in which, the unit recovers its initial investment. It may also be defined as the number of months or years required for the unit to generate commutative gross operating surplus equal to the fixed capital investment in the project. The payback period of the unit is estimated in the following table.

Year	**CFAT**	**Cumulative Cash inflow**	
1st	4.67		4.67
2nd	5.12		9.79
3rd	5.64		15.43
4th	6.17		21.60
5th	6.76		28.36
6th	6.63		34.98
7th	7.16		42.14
8th	6.49		48.63
1 year	**+**	**10**	**Months**

DETAILED DEBT SERVICE COVERAGE:

The debt service coverage ratio shows the ability of the unit to repay interest and principal amount of composite loans.

S.no	**Particulars**		1st	2nd	3rd	4th	5th	6th	7th
A	**Source of funds**								
1	Profit after tax		4.00	4.46	4.97	5.50	6.09	5.96	6.49
2	Depreciation		0.67	0.67	0.67	0.67	0.67	0.67	0.67
3	Interest on term loan		0.39	0.39	0.32	0.26	0.19	0.13	0.06
	Total A		**5.06**	**5.51**	**5.96**	**6.43**	**6.95**	**6.76**	**7.22**
B	**Disposition of funds**								
4	Repayment of term loan		0.00	0.72	0.72	0.72	0.72	0.72	0.72
	Total B (3+4)		0.39	1.11	1.04	0.98	0.91	0.85	0.78
C	Debt service coverage ratio		13.01	4.97	5.71	6.56	7.60	7.95	9.20
D	**Average DSCR**	**7.86**							

BREAK EVEN ANALYSIS

The break even point analysis of the plant is developed from the assumed plant efficiency, fixed cost of sales, variable cost of sales and sales revenue.

BREAK EVEN ANALYSIS **3 rd year**

S.no	**Particulars**	**Amount.(Lacs)**
A	Sales realization	10.80
B	**Variable cost**	
1	Raw material	0.86
2	Utilities	0.16
3	Selling expenses	0.76
4	Interest on WCL	0.10
	Total	1.87
C	Contribution (A-B)	8.93
D	**Semi-variable/ fixed costs**	
1	Salary & wages	2.66
2	Repairs & maintenance	0.25
3	Administrative expenses	0.05
4	Interest on term loan	0.32
5	Depreciation	0.67
	Total	3.95
	B. E. P. **%**	**44.28**

PROJECTED CASH FLOW STATEMENT

The following table gives the cash flow analysis of 8 years of operation of the plant. A cash flow statement is basically an analysis of sources of availability of funds, extent of the utilization and availability of surplus funds or their deficit at the end of each year of operation.

S.no	Particulars	Const period	1st	2nd	3rd	4th	5th	6th	7th	8th
	Capacity utilization (%)		50.00	55.00	60.00	65.00	70.00	75.00	80.00	80.00
A	Source of funds									
1	Profit before interest, tax but after depn.		4.47	4.94	5.40	5.87	6.39	6.86	7.38	7.38
2	Depreciation		0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
3	Increase in Share Capital	2.80								
4	Increase in Term loan	4.32								
5	Increase in WCL		0.88	0.13	0.13	0.00	0.00	0.00	0.00	0.00
	Total (A)	7.12	6.02	5.73	6.20	6.53	7.06	7.52	8.05	8.05
B	Application of funds									
1	Capital expenditure	6.65								
2	Prelim / Pre-operative expenses									
3	Increase in current assets		1.35	0.13	0.13	0.00	0.00	0.00	0.00	0.00
4	Decrease in term loan		0.00	0.72	0.72	0.72	0.72	0.72	0.72	0.00
5	Interest on term loan		0.39	0.39	0.32	0.26	0.19	0.13	0.06	0.00
5a	Interest on WCL		0.08	0.09	0.10	0.10	0.10	0.10	0.10	0.10
6	Taxation		0.00	0.00	0.00	0.00	0.00	0.66	0.72	1.46
7	Withdrawal		0.00	0.00	0.00	0.50	1.00	1.00	2.00	2.00
	Total (B)	6.65	1.82	1.33	1.28	1.58	2.02	2.62	3.61	3.56
C	Opening Balance		0.47	4.67	9.07	13.99	18.94	23.98	28.88	33.32
D	Net Surplus	0.47	4.20	4.40	4.92	4.95	5.04	4.91	4.44	4.49
E	Closing Balance	0.47	4.67	9.07	13.99	18.94	23.98	28.88	33.32	37.81

PROJECTED BALANCE SHEET

The balance sheet of a unit is a very important feature of the working of the unit. In a healthy unit, there is always a growth in total assets and liabilities every year. In a projected balance sheet on the liabilities side the reserves and surplus and on the assets side the cash and bank balances should show healthy growth.

S.no	Particulars	Year	1st	2nd	3rd	4th	5th	6th	7th	8th
A:	**Liabilities**									
1	Seed Capital		2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80
2	Reserves & Surplus		4.00	8.46	13.43	18.44	23.53	28.49	32.99	36.81
3	Term Loan		4.32	3.60	2.88	2.16	1.44	0.72	0.00	0.00
4	WCL		0.88	1.01	1.15	1.15	1.15	1.15	1.15	1.15
	Total		**12.00**	**15.87**	**20.26**	**24.54**	**28.92**	**33.16**	**36.93**	**40.75**
B:	**Assets**									
1	Gross Block		6.65	5.99	5.32	4.66	3.99	3.33	2.66	2.00
2	Depreciation		0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
3	Net Block		5.99	5.32	4.66	3.99	3.33	2.66	2.00	1.33
4	Current Assets		1.35	1.48	1.62	1.62	1.62	1.62	1.62	1.62
5	Cash and bank balance		4.67	9.07	13.99	18.94	23.98	28.88	33.32	37.81
	Total		**12.00**	**15.87**	**20.26**	**24.54**	**28.92**	**33.16**	**36.93**	**40.75**