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Proposal for Village Development Plan of Utrane village, Taluka Satana, District Nashik

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Abstract: ***Rural development in general refers to the process of improving the quality of life and economic condition of people living in rural and scarified populated areas. Former President of India - Dr. A.P.J Abdul Kalam- suggested the concept of PURA (Providing urban amenities for Rural areas) to make villages self contained with new era of India regeneration. Villages accordingly need to be planned, developed and managed in a proper manner to provide quality of life, employment and basic amenities of human living.***
The government of India has set many programmes as the Adarsh gram yojana, Swacch gram yojana, Sansad Adarsh gram yojana to boost rural development in India. It provides an alternative source of livelihood which will have an impact on reducing migration, restricting child labour, alleviating poverty, and making villages self-sustaining through productive assets creation such as road construction, providing clean treated water, soil and water conservation works and many more.
This study outlines the proposal for village development plan of Utrane village in Satana Taluka of Nashik district. In this paperI have focused on improved resource use efficiency, local self-governance, access to assure basic amenities and responsible individual and Community behaviour to establish happy society using Participatory Rural appraisal (PRA)
The village faces lack of basic Physical infrastructure like Internal village Roads, Public, Street lights, Water supply treatment plant, Waste water and Solid waste management plant, a well equipped Public health centre, Community latrines and Promote use of Green (Solar) energy.
The village faces lack of basic Social infrastructure like Tree plantation- open space development, Library for students, Sanitary Pad vending machine, Filter or R.O. Water ATM. To promote good governance like Local self governance, Corruption free transparent rule, Making villages a "financial hub"- to attract resources for development, engaging all sections of the community in the task of village development, Making Village self-reliant, self-sustaining in Energy/resources, Krishi Vigyan Kendra to assist farmers for sale of essential agricultural inputs, seeds, latest information about prices of agricultural produce, new options for diversification in agriculture.
The motto of the study is to fulfil the above Physical and Social infrastructure according to URDPFI, RADPFI, ICDS guidelines and per the needs of the local residents.
Keywords: Proposal, Basic amenities, Infrastructure, Agriculture aided industry, Smart village.

I. INTRODUCTION

The rural development generally refers to the process of improving the quality of life and economic well being of the people living in the village.
The three important sectors contributing a lot to the growth of India economy are agriculture, industry and tourism. Agriculture and industry being the most important are given least importance in rural India.
Agriculture is the most Important Sector for Indian Economy. According to census 2011, In India, out of total population of 121 crores, 83.3 crores live in rural areas. Thus, nearly about 70% of the India's population lives in rural areas and 61.5% population of India is depends on Agriculture.
These rural populations can be characterized by mass poverty, low levels of literacy and income, high level of unemployment, and poor nutrition and health status. All the Farmers are part of Rural/village area of India which makes clear the Impact of Rural Activities on Overall Economy of India.
In India, Nasik is one of the holiest Pilgrimage cities, largest producer of Onion and Grapes. Satana Taluka is also major producer of Onion and Pomegranates. The eastern and northern side of the Taluka is drought area while western and southern part is rich in water source leading to agriculture produce and economy.
An attempt has been made to understand the development effort to rebuild the rural life and livelihood based on infrastructure and economic opportunities.

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II. TERMINOLOGY

Planning is the process of systematically finding the best ways to solve a problem achieve some desired goal, create some required object.

Village development planning (VDP) is the process of identifying the pressing problems in a village and finding the best ways to solve them.

Participatory rural appraisal (PRA) is done by interacting with local community to understand their needs and to find out ways to cater to those needs with the help of the community itself.

It is a process which enables the local community to participate in their own development planning process.

III. PROBLEM DEFINITION

The village Utrane having a moderate population of 2839, falls under class VI village but is connected to adjoining villages and wasti's. Therefore the amenities provided are insufficient to access. The village needs to self contain Physical and Social infrastructure followed by good governance.

IV. NECESSITY OF THE STUDY

Need for Village Planning is very Critical for scripting growth and development of India. In the words of Mahatma Gandhi- Father of nation- 'India lives in villages. India will prosper if villages prosper, India will perish if villages perish"

Villages accordingly need to be planned, developed and managed in a holistic manner to ensure appropriate quality of life, employment and basic amenities of human living.

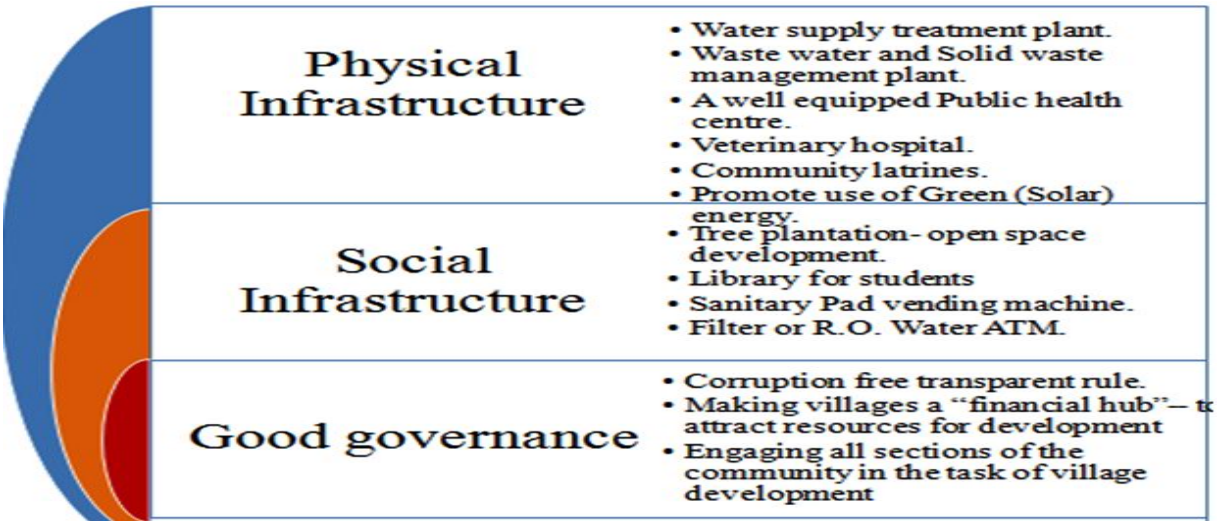

Chart 1 Necessity Of The Study

V. OBJECTIVE OF THE STUDY

A. To study different Government policies and Schemes for development of rural area.
B. To study with major emphasis on Physical and Social infrastructure of the village.
C. To provide physical infrastructure like
1) Water supply treatment plant.
2) Waste water and Solid waste management plant.
3) A well equipped Public health centre.
4) Community latrines.
5) LED street lights.
D. To provide Social infrastructure like
1) Tree plantation- open space development.
2) Library for students
3) Filter or R.O. Water ATM.

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VI. METHODOLOGY

There are eight steps in village development planning

A. Identifying the problems needs of the community.
B. What are the objectives we want to achieve?
C. Select the study area we want work on.
D. Studying a detailed Literature review, Identifying the various ways in which the problems can be solved, needs met, or objectives achieved.
E. Collection of data by visiting to the village, meeting and discussing with the local residents, collecting census and other needful data from the Gram panchayat officials, shooting photographs of the current scenario and carrying out a detailed survey.
F. Analysis of the data obtained using URDPFI, RADPFI and ICDS guidelines, preparing gap analysis and Finding the most suitable and commonly acceptable ways of solving the problem, meeting needs or achieving the objectives.
G. Preparing of base and social map using software's like Google earth and AutoCAD to define existing infrastructure and various amenities to be provided.
H. Detailing the solution including the detailed design, budget, technical inputs required, how it is to be constructed or undertaken. Preparing a detailed proposal Report.

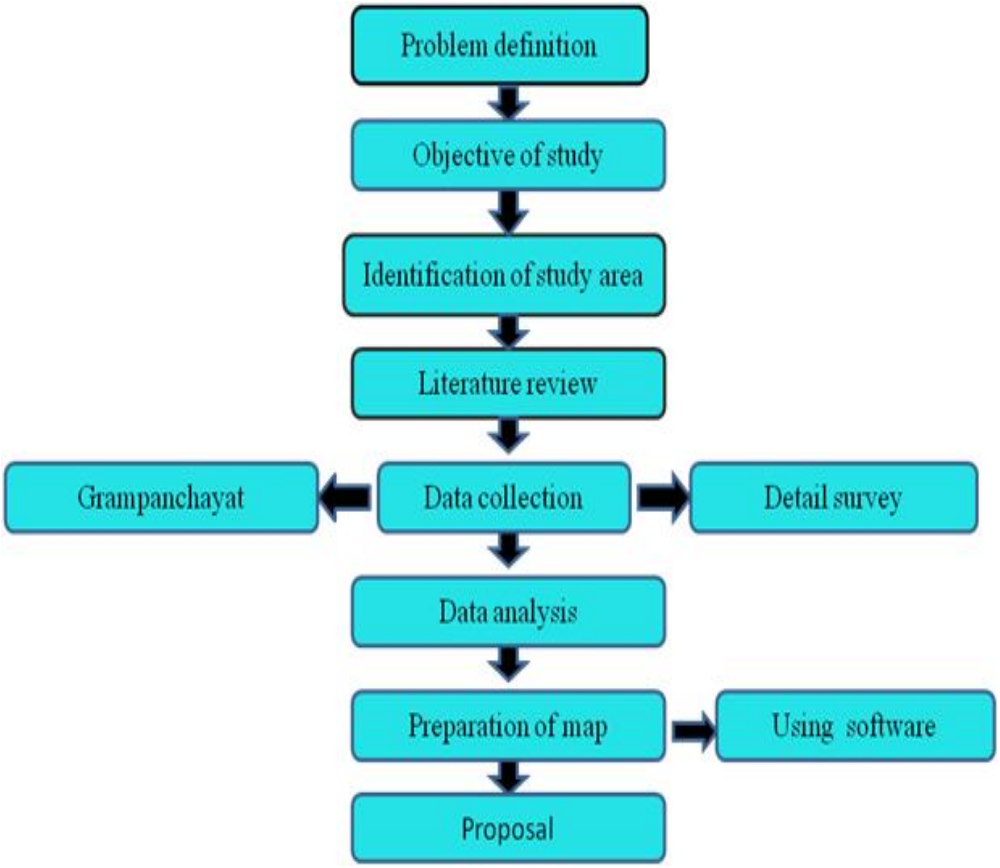

Chart 2 Methodology

VII.STUDY AREA PROFILE

The village Utrane is located in Satana Taluka of Nashik district of Maharashtra, India. It's Distance from District centre (Nashik) is 132 kms. Distance from District sub centre (Malegaon) is 41 kms. Distance from Taluka centre (Satana) is 27 kms.It is located at North latitude and 73 ° 2854 and the 20º 7739 'eastern longitude. The maximum temperature in summer is 44 ° C and minimum temperature in winter falls upto 5.0 ° C. The average rainfall intensity is 424.70 mm. The main occupation of the local residents is farming upto a certain extent agriculture based business.

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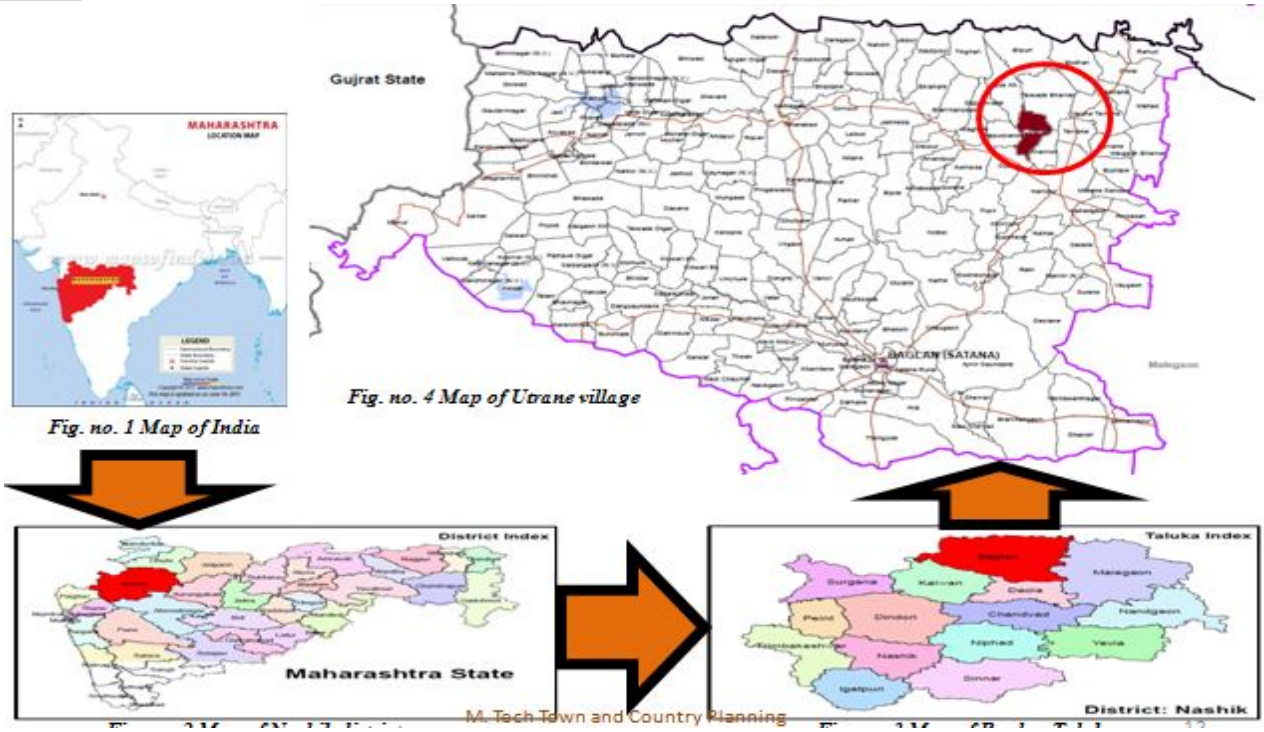

Map 1 Location Of Utrane Village

Table 1 Population Details Of Utrane Village

Sr. No.	Description.	Details.
1	Population.	2839
2	Male	1508 (53.12%)
3	Female	1331 (46.88%)
4	Child(0-6) population by 2011	361 (12.72%)
5	Total no of houses	649
6	Total no of Pucca houses	586
7	Total no of Kutcha houses	63
8	Concrete road area covered	3482 m²
9	Concrete gutter length	830 m
10	Total no of Toilets	540
11	Sex ratio	883
12	Literacy rate	84.63%

Table 2 Land Use Pattern Of Utrane Village

Sr. No.	Description.	Details.
1	District	Nashik
2	Taluka	Satana
3	Village	Utrane
4	Area of village	1564.17 acres.
5	Gaothan area	14.82 acres.
6	Open or Grazing land	16 acres.
7	Area of forest	4.94 acres.
8	Area of agricultural land	1528.41 acres.
9	Area of non agricultural land	35.76 acres.

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VIII. DATA COLLECTION AND GAP ANALYSIS

At present condition village have the following infrastructure facilities or lack of facilities as below:

A. Social Infrastructure

1) Health

TABLE 3
Public Health Sub Centre Data

Sr. no	Description	Population	Existing	Required	Proposed
1	Population	2839	4 bedded	6 bedded	2 beds
2	Doctor Quarter	2839	0	1	1

As per RADPFI norms, 6 bedded upto 5000 population (PHSC code 6906)

2) Education

TABLE 4
School Data

Sr. no	Description	Population	Existing	Required	Proposed
1	Anganwadi	2839	3	4	1
2	Primary & Secondary school	393	20	30	10

As per ICDS norms 1 Anganwadi for every 800 population
Minimum Built up area for Anganwadi should be 600 sq. Ft. And 1 computer per 10 students

B. Physical Infrastructure

1) Roads

TABLE 5
Road Condition Data

Sr. no	Activity in Plan	Type	Approx length	Details
1	New roads needed	Farm roads	9 kms (3 m. width)	Approach road to farms
2	Up gradation/widening of roads	ODR	7 kms (4.50 m. width) 6 kms (4.50 m. width)	For easy access to agricultural markets
3	Repairs of existing roads	ODR, MDR	3.5 kms (5.50 m. width)	Surface repairing
4	Internal roads	Concrete roads	950 m.(4.50 m. width)	New Gully road

Proposed as per demand of the local residents

2) Public library

TABLE 6
Public Library Data

Sr. no	Description	Population	Existing	Required	Proposed
1	Public library	2839	0	1	1

As per norms of the URDPFI guidelines 1 upto 5000 population

3) Jogging Track And Green Gym At Open Place

TABLE 7
Jogging Track And Open Gym Data

Sr. no	Description	Population	Existing	Required	Proposed
1	Jogging track	2839	0	1	1

Proposed as per demand of the local residents.

4) Led street lights

TABLE 8
Street Light Data

Sr. no	Description	Population	Existing	Required	Proposed
1	Street light 1000 m/20 m = 50 lt	2839	40	50	10

Proposed as per demand of the local residents

5) Drainage System

TABLE 9
Drainage Condition Data

Sr. no	Description	Population	Existing length	Required length	Proposed length
1	Concrete gutters	2839	1430	3080	1650
2	Waste water treatment plant	1800	0	100 liter/day/head	25 KLD
3	Solid waste collection Van	1800	0 Vans	2 Vans	2 Vans

Proposed as per demand of the local residents

6) Sanitation

TABLE 10
Community Toilet Data

Sr. no	Description	Population	Existing Blocks	Required Blocks	Proposed Blocks
1	Male latrines	566	8	16	8
2	Female latrines	513	8	20	8
3	Male Urinals	566	2	3	1
4	Female Urinals	513	2	3	1

W.C per 35 males and 1 W.C per 25 females
1 urinal per 200 males and 1 urinal per 250 females
As per Swacch Bharat Mission guidelines 2014

7) Drinking water plant

TABLE 11
WATER SUPPLY DATA

Sr. no	Description	Population	Existing	Required	Proposed
1	Water Supply Treatment Plant	1800	0	0.18 MLD	0.50 MLD

780 * 100 LPCD = 178000 LPD i.e. 0.18 MLD

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IX. PLANNING PROPOSAL

A. Social infrastructure:-

1) Health- PHSC Extension and Doctor Quarter

Map 2 Proposed Area For Phsc & Doctor Quarter Extension

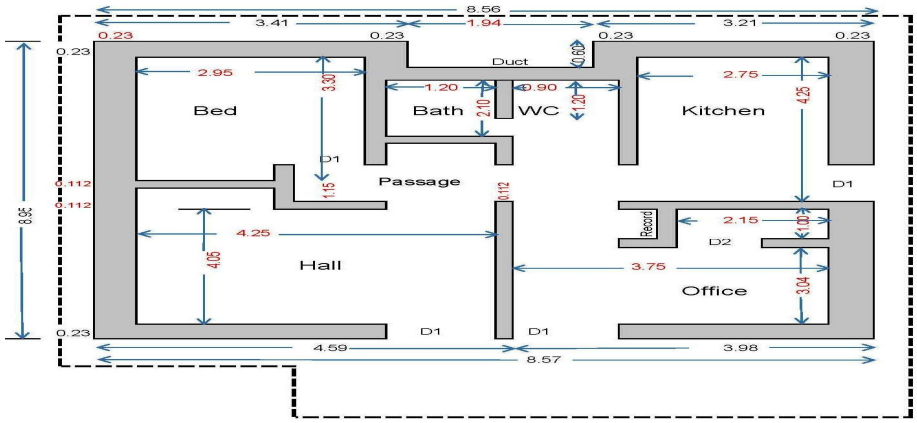


Fig 1 Proposed Plan For Doctors Quarter

The above work is proposed under National Rural Health Mission scheme of the Government. An area of 15.00 sq.ft. as per type plan is proposed at an approximate estimated cost of 7 lakh for the extension. An area of 825.00 sq.ft. as per type plan is proposed at an approximate estimated cost of 19 lakh.

2) Education

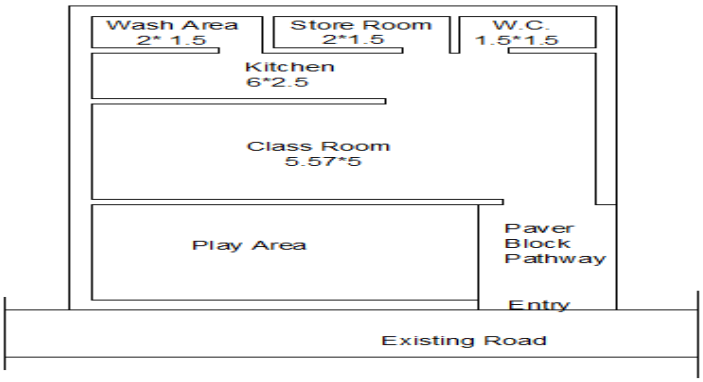


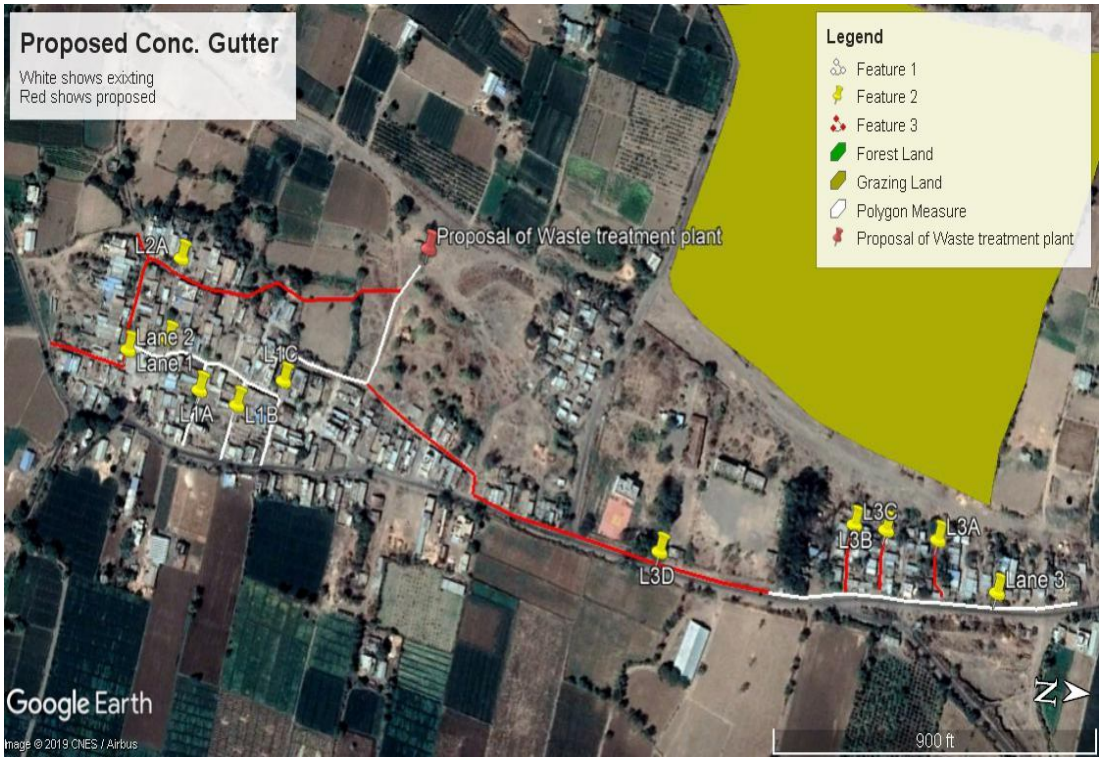
Fig 2 Type Plan For Anganwadi

Fig 3 Typical Anganwadi

The above work is proposed under Sarva Siksha Abhiyan, Education department fund of the Zilha parishad. An area of 60.00 sq.ft. Including nutrition meal cooking room and attached toilet as per type plan is proposed at an approximate estimated cost of 6 lakh.

B. Physical Infrastructure

1) Roads



Map 3 Proposed Roads

The above work is proposed under rural development Fund (Gramvikas-2515) of Zilha parishad. Four roads Lane 3A of 500.00 m X 4.50 m, 3B, 3C and 3D of 150.00 m X 4.50 m width each as per type plan is proposed at an approximate estimated cost of 30 lakh.

2) Public Library

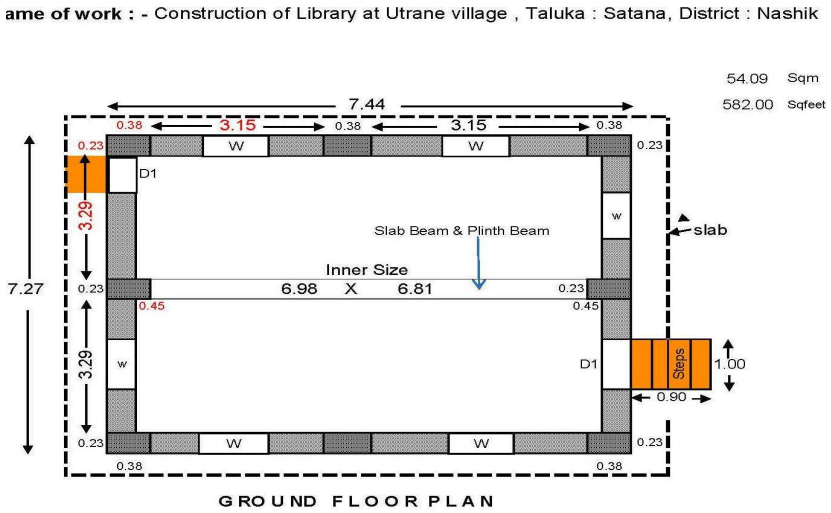


Fig 4 Type Plan For Public Library

The above work is proposed under development Fund (Gramvikas-2515) of Zilha parishad. An area of 582.00 sq.ft. Including attached toilet as per type plan is proposed at an approximate estimated cost of 10 lakh.

3) Led Street Lights

Map 4 Proposed Led Street Lights

Fig 5 Typical Led Street Lights

The above work is proposed under 14th Pay Commission fund (14 Vitta Aayog) of the Grampanchayat. A total of 10 lamps including poles as per type plan is proposed at an approximate estimated cost of 5 lakh.

4) Drainage System

a) Concrete Gutter

Map 4 Proposed Concrete Roads

The above work is proposed under rural development Fund (Gramvikas-2515) of Zilha parishad. Four roads Lane 3A of 500.00 m X 0.6 m, 3B, 3C and 3D of 150.00 m X 0.60 m width each as per type plan is proposed at an approximate estimated cost of 15 lakh.

5) Waste Water Treatment Plant

Fig 6 Waste Water Treatment Plant

The Waste water treatment plan is proposed under 14th Pay Commission fund (14 Vitta Aayog) with special permission of the Grampanchayat in Gram Sabha as per quotation received for 250.00m3 per day at an estimated cost of 15.00 lakh.

6) Waste Collection Van

Fig 7 Waste Collection Van

The Waste collection van is proposed under Grampanchayat fund collected by Revenue taxes received (Gram Nidhi) with special permission of the Grampanchayat in Gram Sabha as per quotation received at an cost of 8.00 lakh for 2 vans.

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7) Sanitation (Public toilets)

Map 5 Proposed Community Toilets

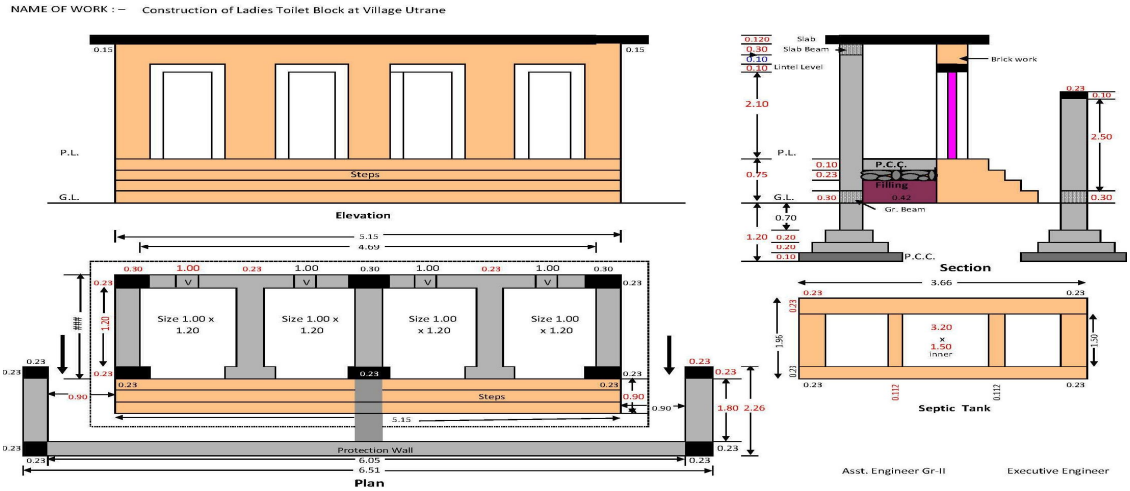

Fig 8 Typical Plan For Community Toilets

The above work is proposed under B & C fund (ZP Cess) of Zilha parishad. Total 4 Blocks, 2 for Gents and 2 for ladies having 4 units each of WC with septic tank with an area of 95.00 sq.ft. as per type plan at an approximate estimated cost of 20.00 lakh for 4 blocks. 2 urinals as per type plan are proposed at an approximate estimated cost of 1.5 lakh per unit.

X. CONCLUSIONS

In the data and gap analysis various issues were identified. The major issue is quality and quantity of water supplied to the villagers. Again the used water is discharged on open land which may lead to growth in flies and rodents ultimately causing diseases.

The public health sub centre needs to be extended by space for 2 beds. There is no residential quarter for the doctor who shall be available 24X7 for the public help. According to the ICDS norms for the village population there is deficiency of 1 Anganwadi in the upper village which would be easily accessible for the pupils. In the primary as well secondary school, the number of computers at present are insufficient to use. Physical infrastructure facilities like internal concrete roads need to be constructed to avoid dust in summers and clay rains. Jogging track is proposed for the senior citizens as well as Open Gymnasium for the Youth for exercise to gain healthy fitness. LED Street lights are absent from village entrance upto Cremation centre and Water supply well as there is necessity due to sometimes operation at night. Concrete gutters need to constructed in various lanes for the collection the collection of waste water and conveying upto the proposed waste treatment plant. Waste collection vans are also absent for the collection of dry Solid waste which is thrown on open lands. There is a huge lack of Community toilets as there is lack of space due to encroachment for construction of toilet under SWB mission and secondly poverty level of the people to build toilet by self expense.

Finally infrastructure facilities relating Health, education, drainage, sanitation have been proposed and other measures have been suggested for improvement and efficient functioning.

XI. ACKNOWLEDGMENT

I acknowledge to Grampanchayat, Utrane village and Panchayat Samiti Satana, Zilha Parishad Nashik and Public works department Malegaon for giving me the valuable data and estimates about Anganwadi, School and Health centre's for providing necessary data. I earnestly wish to express heartfelt thanks and a sense of gratitude to Mr. Abhishek Singh, Assistant Professor Town and Country Planning, Prof. Dr. R. S. Talikoti Head of Civil Engineering Department, Sandip University, Nashik.

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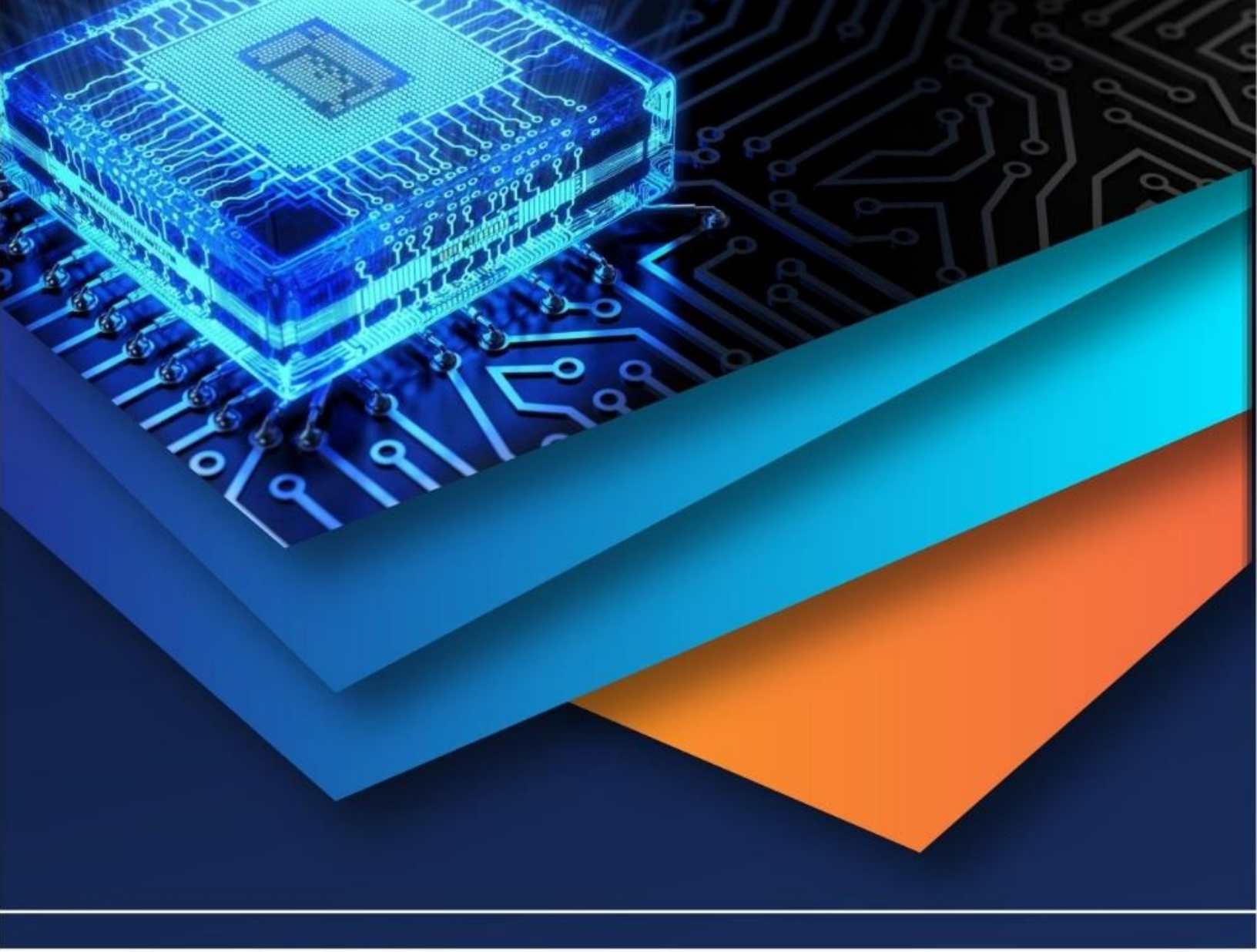

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