

# Action Plan for Heritage Conservation and Environment Improvement of Erangal Precinct

## Stage 2 Part 1: Detailed Condition Assessment Major Findings and Inferences

August 2010

*Submitted to:*



Mumbai Metropolitan Region - Heritage Conservation Society  
(MMR-HCS)

*Prepared by:*



HCP Design and Project Management Pvt. Ltd.  
(HCPDPM)

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MMRDA, Bandra Kurla Complex, Bandra (East), Mumbai 400 051

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 Mr. Pravin Mhatre, Vice-President, Saishav Kshatriya Bhandari Samaj  
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 Mr. Victor Koli, Boat Owner, Bhattigaon  
 Mr. Srinu, Fisherman working with Mr. Victor Koli  
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## ACRONYMS

MMRHCS      Mumbai Metropolitan Region Heritage Conservation Society  
SKBS          Saishav Kshatriya Bhandari Samaj

# 1 Introduction

## 1.1 Background to the Project

Mumbai has about 189 gaothans today interspersed in its modern urban fabric. These gaothans are small enclaves engulfed or surrounded by a built fabric that is in total contrast in terms of the pattern, scale etc. These gaothans, which were once an indelible part of Mumbai's landscape, are now struggling to exist due development pressures. The issues facing these settlements are – insufficient infrastructure, inappropriate development guidelines & regulations, crowding, incongruent redevelopments, destruction of the historic structures, changes in the economic base, which affects the physical fabric and high real estate development pressures.

The Mumbai Metropolitan Region Heritage Conservation Society (MMRHCS) has been set up to spearhead efforts in the area of heritage conservation. It has already undertaken the tasks of heritage listing for Greater Mumbai and has initiated the same task for the rest of MMR. MMR HCS is taking a step further by undertaking a pilot project to “Prepare an Action Plan for Conservation of Heritage Precincts in Mumbai Metropolitan Region”. In the pilot project, the following five precincts are being taken up as separate tasks:

Table 1: List of Precincts

No	Task No.	Name of the Precinct	Location
1	Task – I	Erangal Village Precinct	Mumbai-Western Suburbs
2	Task – II	Chembur Precinct (3 Sub Precincts Chembur Gaothan Old Chembur St. Anthony's Society)	Mumbai-Eastern Suburbs
3	Task – III	Deulwadi Precinct	Uran (Navi Mumbai Notified Area)
4	Task – IV	Jama Masjid Road Precincts	Kalyan City
5	Task – V	Agashi Talav Precinct	Vasai-Virar Sub-Region

Among the five precincts taken up as a part of the pilot project, Task I - Preparation of action plan for Heritage Conservation and Environmental Improvement of Erangal Precinct” was assigned to HCP Design and Project Management (HCPDPM).

The work for each task is being carried out in the following stages:

Stage 1: Review of Available Data and Inception Report

Stage 2: Detailed Condition Assessment

Stage 3: Evaluation of Significance

Stage 4: Identification of Issues

Stage 5: Preparation of Action Plan

Stage 1 is complete. This is Stage 2: Detailed Condition Assessment. It involves a detailed condition assessment of the precinct in consultation with the community.

## 1.2 Objectives

The objective of this stage is to:

1. To evaluate the existing condition of the precinct through detailed documentation and consultation with the local community.
2. Identify heritage characteristics (elements and structures).
3. Establish common characteristics, features and elements in the precinct.

## 1.3 Scope of Work

The scope of work for this stage includes four main activities. It includes undertaking detailed precinct level assessments, individual structure level assessments, establishing common characteristics, features and elements and preparing a detailed condition assessment report.

### Activity 1 Precinct Level Assessments

- 1 Location and Connectivity
  - Location of the precinct and mapping of access to it.
- 2 Road Network
  - Mapping of road network within the precinct with supporting data and inferences
- 3 Built Fabric and Settlement Pattern
  - Mapping of built/open spaces with supporting data and inferences on the structure/pattern
- 4 Demographic Characteristics
  - Review of demographics of inhabitants
- 5 Occupational Pattern
  - Mapping of occupations with supporting data and inferences
- 6 Income Levels
  - Mapping of various income levels with supporting data and inferences
- 7 Land Ownership
  - Mapping properties owned by public, private, institutions, with supporting data and inferences on land ownership patterns and status.
- 8 Land Prices and Property Taxes
  - Land prices and property taxes in the settlement and analysis
- 9 Land Use
  - Mapping of land use by structure/plot with supporting data and inferences on the land use pattern
- 10 Status of Development Plan Proposals
  - Review of existing DP proposals such as zoning, reservations, roads and applicable regulations including coastal regulation zones
- 11 Intensity of Development
  - Mapping the number of floors to gauge FSI utilization
- 12 Occupied and Vacant Structures
  - Mapping structures that are in use and disused with supporting data and inferences

13 Community Pattern

- Mapping of types of communities with supporting data and inferences

14 Landmarks and Public Spaces

- Mapping key land marks and major open spaces (including elements) in the settlement

15 Historical Significance of Structures

- Mapping of structures with heritage value with supporting data and reviewing their historical significance

16 Water Supply

- Mapping of water supply network and status on water supply

17 Sewerage and Storm Water Drainage

- Mapping of sewerage and storm water network and status

18 Solid Waste Management

- Mapping of solid waste management – collection, route, dumping and status of services provided

19 Social Amenities

- Mapping of amenities like education and health and status of amenities

20 Cultural Practices

- Review of socio-cultural traditions

**Activity 2 Individual Structure Level Assessments**

1 Typology of Individual Structures

- Mapping and analysis of individual structures in terms of plan types in the precinct with supporting data, drawings, photographs and axonometric views

2 Transformation of Structures

- Recording of changes in the structures with supporting data and inferences

3 Condition Assessment of Structures

- Recording of structural condition of structures with supporting data and inferences

4 Documentation of Heritage Structures and elements

- Mapping and analysis of structures and typical elements with heritage value in the precinct with supporting data, drawings, photographs and axonometric views

**Activity 3 Establish common characteristics, features and elements**

- Common characteristics, features and elements will be identified and documented, in order to establish a coherent pattern, typical to the entire precinct.

**Activity 4 Prepare Condition Assessment Report**

A detailed assessment report will be prepared and submitted as an output of this stage and will include:

- Overview, methodology and findings
- Base Map
- Precinct level maps showing the existing landmarks, infrastructure, demographic characteristics, level of transformation and condition of structures in the precinct
- Architectural drawings of housing typologies, landmarks and public spaces

- Photo plates of individual structures
- Proformas, photo plates, sketches and views of structures with heritage potential
- Master List of Structures

#### **1.4 Deliverables**

The deliverable for this stage is the Condition Assessment Report. The Condition Assessment Report is organized in 3 parts:

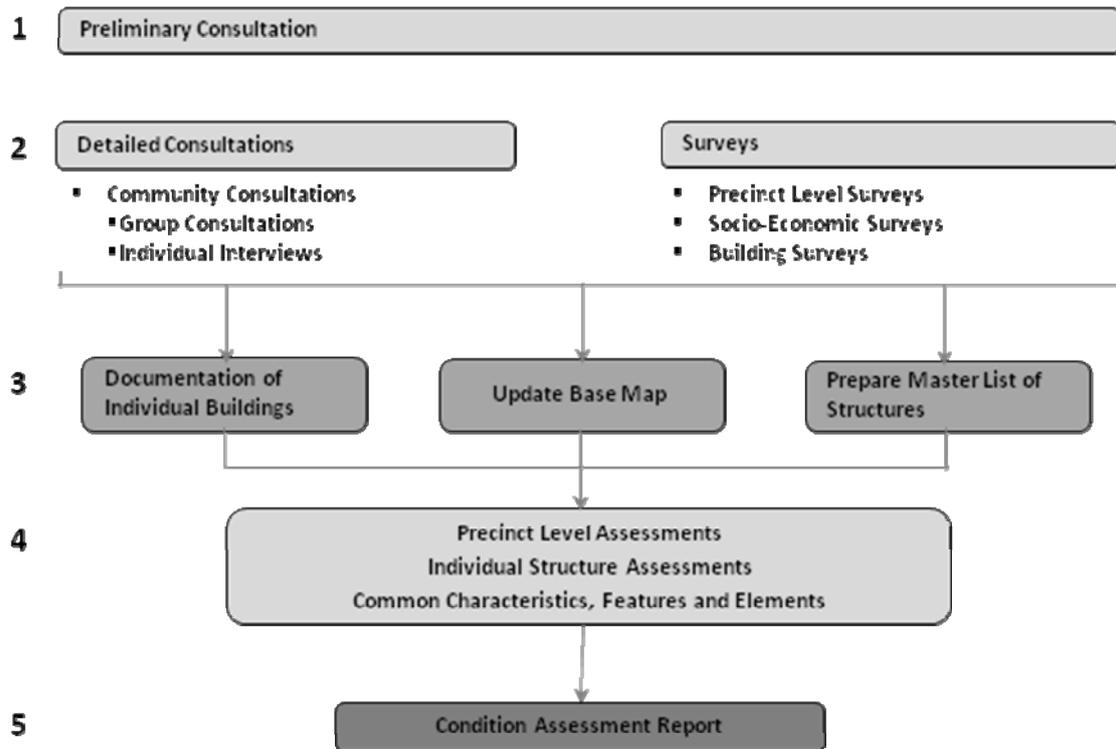
Part 1 – Detailed Condition Assessment: Major Findings and Inferences

Part 2 – Master List of Households: Ownership, Structure & Infrastructure Details and Socio-Economic Profile

Part 3 – Photo plates of Individual Structures

## 2 Methodology

The methodology for carrying out the tasks outlined in the previous section is illustrated below:



### 2.1 Preliminary Consultation (Appendix 1)

A preliminary consultation was initiated with the President, Saishav Kshatriya Bhandari Samaj (SKBS) on 25<sup>th</sup> May 2010. SKBS is a charitable trust formed to organize religious and social functions in the village and presents the needs of the community to elected representatives. It has a Committee of 8 members, which organizes a village meeting at regular intervals and a working meeting every Sunday. It was essential to develop a rapport with the Samaj and the Committee as it is the voice of the community. The President, Mr. Dilip Mhatre was approached to enlist his support and set up a meeting with the Committee by explaining the project background, goals and objectives.

### 2.2 Detailed Consultations

Detailed community consultations were undertaken to seek opinion and build consensus on a plan for the precinct. The inception stage established initial contact with the residents and identified the key community organizations in the precinct. The goal of the consultations in this stage was to enlist the support of the community organizations; ensure that each household was aware of the project background, goals and objectives; and establish a two-way flow of information and opinion exchange. In order to achieve this, an outreach strategy was evolved at three levels: 1) community; 2) group and 3) individual households.

#### 2.2.1 Community Consultation (Appendix 2)

A meeting was organized with the Committee of the Saishav Kshatriya Bhandari Samaj (SKBS) to establish trust with the Committee, to build awareness and consensus around

the projects, to shape the project to suit the community's needs and requirements. It was also important to seek the community's cooperation to document and collect relevant information for the project.

A meeting was organized with the Committee on 14th June 2010. It was attended by the President, Vice-President, Secretary, Treasurer and a resident of the village, a representative from MMR-HCS and 8 members of HCPDPM planning team.

The Base Map of the precinct, prepared in the Inception Stage was presented to the Committee. The background, significance and objectives of the project were explained. The history of the precinct, demographic composition, community spaces, issues facing the precinct and possible solutions were discussed. The members of the Committee took the group through the settlement and identified the important places of the settlement and sites for potential projects.

It is also proposed to run the findings of the condition assessment and schematic projects with the community as a whole in the next stage.

### **2.2.2 Group Consultations (Appendix 3)**

The group consultations were used as a strategy to engage residents informally, and without the interviewer-interviewee barrier. The objective was to make each member of the community aware of the project and ensure that they would be receptive to the documentation process and forthcoming about their views and perceptions.

A series of informal consultations and qualitative interviews were held with the residents in different parts of the settlement at different times of the day while the survey team went about the assessments at the settlement and individual structure levels. The residents were eager to express their opinions and concerns on more than one occasion to the members of HCP DPM as they went about the surveys.

### **2.2.3 Individual Interviews (Appendix 4)**

While the individual structure condition assessments were being done, each household was interviewed to not only get the required details but to gain an understanding of the issues at the settlement level and the relevance of the project's objectives.

## 2.3 Surveys

The consultations were supplemented by a detailed physical and socio-economic survey of the precinct. The surveys were conducted at the precinct level, household level and for each structure.

### 2.3.1 Precinct Level Surveys

The precinct level survey was a physical survey to evaluate and map the infrastructure in the settlement, landmarks and public spaces. The following networks were mapped:

1. Road network: Hierarchy of roads, paved and unpaved areas, street furniture (benches, junction boxes and street lights) and trees.
2. Water Supply network: Main, secondary and individual household water lines
3. Sewerage network: Open and covered storm water drain network and gutter covers (either grated or closed).
4. Solid waste management: Garbage bins, collection and disposal points.
5. Landmarks and public spaces in the precinct.

### 2.3.2 Socio-Economic Surveys (Appendix 5)

Socio-economic surveys were undertaken to obtain demographic information for every household in the precinct and to get an assessment of services. The survey had 3 sections. The first section documented the details of the interview.

#### 1. Details of Interview

- a. Name and surname of the household member
- b. Name of the interviewer
- c. Date of the interview
- d. Structure number

The second section documented the socio-economic details of each family member.

#### 2. Household and Family Member Details

- a. Name of the person
- b. Sex: The sex was documented as Male / Female.
- c. Age
- d. Education: It included the following
  - i. Level of Education
  - ii. Location of Education Facility
- e. Occupation
  - i. Type of Occupation
  - ii. Location
- f. Monthly income of each member
- g. Monthly household income, which was divided in the following ranges: 0-2500; 2501-5000; 5001-10,000; 10,001-20,000; 20,001-30,000; 30,001-50,000; 50,001-70,000.
- h. Community

The third section documented the services and utilities supplied, issues faced by the residents and potential solutions or projects.

#### 3. Services, Utilities and Charges

- a. Water Supply
  - i. How is water supplied for drinking and other purposes?  
It was documented under Tap / Government Well / Bore Well / Private Tankers / Others
  - ii. What is the time and duration of supply?

- iii. Are there water meters and what are the monthly charges?  
It was documented as Yes or No and the charges were noted.
- b. Sewerage System
  - i. How is sewerage disposed?  
It was documented under Soak Pit / Sewerage Network / Open drains / Others
  - ii. What are the sewerage charges?
- c. Solid Waste System
  - i. How is solid waste disposed?
  - ii. Are there any charges? If yes, how much?  
It was documented as Yes or No and the charges were noted.
- d. Electricity
  - i. How is electricity supplied?
  - ii. Are there meters?  
It was documented as Yes or No
- e. Social Amenities
  - i. Where are the closest medical facilities and emergency services located?  
The information was collected for facilities like dispensary, maternity clinic, hospital and emergency services (fire station). The location, distance and commute time were noted.
  - ii. Accessibility: How accessible are the education and health facilities?
- f. Property Taxes
  - i. Do you pay property taxes? If yes, how much?
- g. Issues and Possible Solutions/ Projects
  - i. Issues: What are the problems with the current services? What do you think are the current issues with the settlement?
  - ii. Possible Solutions: How do you think they can be improved or addressed?

### 2.3.3. Structure Surveys (Appendix 6)

- a. Structure Details
  - i. Year built
  - ii. Ownership Pattern: It was documented under Present and Past Ownership
  - iii. Use: It was documented under Present and Past Use
  - iv. Renovation: When and what kind of renovation was undertaken? Why?
  - v. Quality of Natural Light: It was documented under Well Lit / Fairly Lit / Poorly Lit / No Natural Light
  - vi. Ventilation : It was documented under Well Ventilated / Fairly Ventilated / Poor Ventilation / No Ventilation
- b. Construction Details: The system, material and finish were documented for each part of the structure
  - i. Plinth
  - ii. Walls
  - iii. Floor
  - iv. Stairs
  - v. Openings
  - vi. Roofing
  - vii. Chajjas
  - viii. Elements (Railings, brackets etc)
  - ix. Interiors
  - x. Outbuildings / Landscape etc.
- c. Condition Details
  - i. Plinth
  - ii. Walls
  - iii. Floor
  - iv. Stairs

- v. Openings
  - vi. Roofing
  - vii. Chajjas
  - viii. Elements (Railings, brackets etc)
  - ix. Outbuildings / Landscape etc.
- d. Transformation: This documented the transformation in the structure, elements and finishes
- i. Structure
  - ii. Elements (Railings, brackets)
  - iii. Finishes

Further each structure was paced, approximate dimensions were noted, plans of each floor were drawn and exterior and interior photographs were taken. Where entry or interior photographs were not permitted, only exterior photographs were taken.

## 2.4 Documentation Methodology

After the information was collected, a methodology was evolved to document individual structures and the precinct.

### 2.4.1 Documentation of Individual Structures

Each structure has been documented in detail - floor plans of each structure were drafted in CAD which included walls, openings, roofs, internal or external staircases, overhangs, external wash areas and tulsi planters. The digitized footprint of each structure in the city survey sheet, which was prepared in the Inception Stage, was taken as a reference to draft the new plan. A revised footprint of the structure was drawn. In case of locked or vacant structures or those where entry was not permitted, the exterior walls and openings were drafted from photographs and the interiors were not detailed.

Photo plates have been made for each structure; generally there are 3 plates for each. Plate A consists of a ground floor plan and external photographs; Plate B consists of internal photographs and Plate C consists of details or elements. In case the structures are small, there are only one or two photo plates. (Part 3 – Photo plates of Individual Structures)

In case if the individual structure had a heritage value additional information regarding the following was obtained:

- Architecture description and details
- Historical importance

### 2.4.2 Preparation of an Updated Base Map (Map No. 01)

As the plan of each structure was being drafted using the city survey footprint as a reference, it was observed that there was significant transformation in the footprint of structures. Thus, the Base Map had to be updated to reflect the existing footprints. The revised footprint of each structure was placed on the Base Map prepared during the Inception Stage, using the city survey footprint as a reference. It was then realigned taking the satellite image and adjoining structures and elements (trees or tulsi planters) as a reference.

Two updated Base Maps have been prepared:

1. Base Map (Map No. 01): It is a map of the revised footprints of all the structures. It includes the following key layers:
  - Revised precinct boundary

- Precinct boundary, 2005
  - Gaothan boundary
  - City survey plots
  - Road
  - Wells
  - Updated structure numbers
  - Updated structure footprints
  - Internal footprints of each household
2. Base Map with Building Layouts (Map No. 02): It is a map of the layout of the ground floor plans of all the structures. It includes the following key layers
- Revised precinct boundary
  - Precinct boundary, 2005
  - Gaothan boundary
  - City survey plots
  - Road
  - Wells
  - Updated structure numbers
  - Updated structure footprints
  - Internal footprints of each household
  - Walls
  - Openings
  - Roofs
  - Trees

**2.4.3 Preparation of a Master List of Structures** (Refer Part -2: Master List of Households – Ownership, Structure & Infrastructure Details and Socio-Economic Profile) Each household and structure has been compiled in a tabular format in MS Excel. The data is compiled under the following headings.

#### **A. Structure Details**

- Column 1 Structure Number: Structure numbers have been assigned to each structure.
- Column 2 Sub-structure Numbers: These were given to the ancillary structures of each structure such as toilet or utility blocks. These have been numbered with a roman numeral in small case. For example, the ancillary structure of structure no. 1 is numbered as 1/i
- Column 3 Household Number: The numbers of households in each structure were enumerated since multiple subdivisions were observed. A household was counted on the basis of a separate kitchen. Where separate kitchens were not observed, they were counted on the basis of a separate kitchen platform. Each household within a structure is numbered with an alphabet. For example two households in structure no. 1 are numbered as 1/a and 1/b. The demographic details and internal condition is entered separately.
- Column 4 City Survey Number: The city survey number of the structures was obtained from the property cards on mahabhulekh<sup>1</sup>. Where no city survey number is listed, NA is entered.

#### **B. Ownership**

- Column 5 Property Card: This includes the ownership from the property card. They were obtained from mahabhulekh.<sup>2</sup>

<sup>1</sup> [www.mahabhulekh.mumbai.nic.in](http://www.mahabhulekh.mumbai.nic.in)

<sup>2</sup> [www.mahabhulekh.mumbai.nic.in](http://www.mahabhulekh.mumbai.nic.in)

- Column 6 Site Survey: The names of the current residents were obtained from the site survey to know if there had been a change in the ownership and an immigration or outmigration of certain communities.
- Column 7 Status: The status of ownership is marked as Owners / Tenants.
- Column 8 Type: The type of ownership of land and structures is recorded as Public / Private / Institutional.

### C. Demography.

- Column 9 Serial Number: This enumerates the number of persons in each household
- Column 10 Name and surname of the household member
- Column 11 Gender: It is recorded as Male / Female
- Column 12 Age: Age of each member is recorded
- Column 13 Level: The level of education is entered
- Column 14 Location: The location of the educational facility is recorded.
- Column 15 Type: Type of occupation for each member is recorded.
- Column 16 Place of Work: The place of work for each member is recorded
- Column 17 Monthly Income of each member is recorded
- Column 18 Monthly Income of Household is recorded

### D. Height

- Column 19 The height of the structures is recorded by number of storeys as G / G+1 / G+2.

### E. Built Up Area

The total built up area and of each floor has been tabulated under

- Column 20 Ground Floor
- Column 21 First Floor
- Column 22 Second Floor
- Column 23 Total

### F. Use

- Column 24 Past Use: The past uses are obtained from the household survey and is recorded as Residential, Commercial, Religious, Educational and Residential + Commercial
- Column 25 Present Use: The present use of the structure is obtained from the site survey. It is tabulated as Residential, Commercial, Religious, Educational and Residential + Commercial.
- Column 26 Notes: This includes notes or comments.

### G. Occupancy

- Column 27 The occupancy is tabulated as Vacant / Occupied. The ancillary structures such as storage, utility blocks or cowsheds if in use are tabulated as occupied.

### H. Transformation

The typology and transformation of structures is tabulated in the following columns.

- Column 28 Plan Typology: The plan types of residential structures are tabulated as Linear Single Bay / Linear Double Bay / Square or Linear + Square and New.
- Linear Type, Single Bay  
Plans that are linear with narrow side facing the street, with a single bay is one clear type that emerges. The spaces are arranged from front to back, with a verandah/balcony facing the street and the service areas at the back.
- Linear Type, Double Bay  
Plans that are linear with narrow side facing the street, with a double bay is the second clear type that emerges. The spaces are arranged from front to

back, with a verandah/balcony facing the street and the service areas at the back.

#### Square Type

The plans have almost a square proportion with either 4 or 9 rooms/spaces. The spaces are organized linearly or laterally. However, these are also characterized by a verandah/balcony facing the street.

#### Linear and Square Combined Type

A structure under this type is a combination of the linear type and the square type.

- Column 29 Category: The structures are categorized as 1) Original; 2) Transformed; 3) Redeveloped and 4) New. Original implies that there has been no transformation to the original structure. Transformed implies that the structure has been transformed either by renovation, addition or extensions to the original structure; Redeveloped implies that the structure has been demolished a new structure has been constructed over the same footprint and in a similar manner in terms of the spatial organization; New implies that a new structure has been added to the precinct in the last 10 years and does not confirm to the original plan typology or form & scale.
- Column 30 Transformation Type: The type of transformation is marked as either Major / Minor. Major transformation includes change in the structural system, roof, and addition of storeys, enclosure of balconies or verandah and extensions to the house. Minor transformation includes change of floor or wall finishes and painting.
- Column 31 Transformation details: The details of renovations undertaken are detailed.

### I. Construction Details:

The construction system, materials and finish of the different parts of the structure and its ancillary structures are recorded.

Column 32 Plinth System: The construction system and material are entered.

Column 33 Plinth Finish

Column 34 Wall System: The construction system and material are entered

Column 35 Wall Finish

Column 36 Floor: The construction, material and finish of each floor are recorded in separate rows.

Column 37 Roof: The construction, material and finish of the roof are recorded.

Column 38 Verandah / Balcony: The construction, material and finish of the verandah / balcony are entered.

Column 39 Stairs: The construction, material and finish of the staircases and their location, whether interior or exterior is entered.

Column 40 Openings: The construction, material and finish of the openings are entered.

Column 41 Chajjas: The construction, material and finish of the chajjas are entered.

Column 42 Overhangs: The construction, material and finish of the overhangs are entered.

Column 43 Architectural Elements: The material and finish of the architectural elements are entered.

Column 44 Interiors: The finish and furniture of the structure is recorded.

Column 45 Edge Condition: It is marked as fence, compound wall, or no edge.

Column 46 Outbuildings: The outbuildings include tulsi planters and ancillary structures such as service, storage and utility blocks.

### J. Structural Condition Assessment:

The overall condition of the structure and its parts are analyzed under Good / Fair / Poor and Very Poor. Good implies that the structure is in very good structural condition, with no perceived damage or faults in major elements such as walls, roof, beams etc.; Fair implies that the structure shows no or very minor structural issues which can be fixed/corrected.

These include leakages, crack etc.; Poor implies the structure shows signs of clear structural damage which may or may not be possible to fix; Very Poor implies that the structure shows signs of severe structural damage and can collapse. The following are categorized:

- Column 47 Plinth
- Column 48 Wall
- Column 49 Floor
- Column 50 Roof
- Column 51 Verandah/Balcony
- Column 52 Stairs
- Column 53 Openings
- Column 54 Chajjas
- Column 55 Overhangs
- Column 56 Finishes
- Column 57 Outbuildings
- Column 58 Details: Comments on the condition of any of the above
- Column 59 Overall Conditions
- Column 60 Maintenance Level: This is characterized as Well Maintained / Fairly Maintained / Poorly Maintained / Unmaintained and entered in relation with the overall condition of the structures. Well Maintained implies that the structure is regularly maintained & repaired and appears new. Fairly Maintained implies that the structure is not maintained regularly and the structure may have leaks, cracks etc.; Poorly maintained implies that the structure is rarely maintained; and Unmaintained implies that the structure is not maintained at all and is in a dilapidated state.
- Column 61 Quality of Natural Light: This is characterized as Good / Fair / Poor / Very Poor and is based on the perception of the recorder. The number and size of fenestrations on each wall are used as reference.
- Column 62 Quality of Natural Ventilation: This is characterized as Good / Fair / Poor / Very Poor and is based on the perception of the recorder. The number and size of fenestrations on each wall are used as reference.

#### **K. Water Supply System**

- Column 63 Source: The source of water supply is tabulated under MCGM, Government Wells, Bore Wells, Private Tankers and Others.
- Column 64 Supply Time: The time of water supply is recorded.
- Column 65 Supply Duration: The duration of supply is calculated from the supply times.
- Column 66 Metered: Whether the water supply is metered or not metered. It is entered as Y (Yes) and N (No).
- Column 67 Charges: The water charges are entered. These are for every three months.

#### **L. Sewerage System**

- Column 68 Toilet: Whether the household has a toilet. It is entered as Y (Yes) and N (No).
- Column 69 Bathroom: Whether the household has a bathroom. It is entered as Y (Yes) and N (No).
- Column 70 Sewerage Disposal: The system of sewage disposal is entered under the four categories: Soak pits, Sewerage Network, Open Drains and Others.
- Column 71 Sullage Disposal: The system of sullage disposal is entered under three categories: Gutter, Soak pit and Open Land.

#### **M. Solid Waste System**

- Column 72 Solid Waste Disposal: The system of solid waste disposal is entered under four categories: Self, MCGM, Community and Others.

Column 73 Charges: Whether charges are paid is entered. It is entered as Y (Yes) and N (No).

**N. Electricity**

Column 74 Supply: The agency responsible for providing electricity is entered.

Column 75 Metered: Whether the water supply is metered or not metered. It is entered as Y (Yes) and N (No).

Column 76 Charges: The electricity charges are entered. These are for every three months.

**O. Social Amenities**

Column 77A Dispensary Location: The location of the nearest dispensary is entered.

Column 77B Time taken: The time taken to travel to the nearest dispensary is entered.

Column 78A Maternity Clinic Location: The location of the nearest clinic is entered.

Column 78B Time taken: The time taken to travel to the nearest maternity clinic is entered.

Column 79A Hospital Location: The location of the nearest hospital is entered.

Column 79B Time taken: The time taken to travel to the nearest hospital is entered.

Column 80A Emergency Service Location: The location of the nearest emergency service is entered.

Column 80B Time taken: The time taken to travel to the nearest emergency service is entered.

**P. Property Taxes**

Column 81 Property Tax: Whether the household pays property taxes or not. It is entered as Y (Yes) and N (No).

Column 82 Charges: The property taxes for every 6 months are entered.

**Q. Issues**

Column 83 The issues faced by the households are entered.

**R. Possible Projects/ Solutions**

Column 84 The possible projects and solutions to address the issues are entered.

**S. Remarks**

Column 85 Additional remarks or notes about the household are entered.

### 3 Detailed Condition Assessments

Erangal is one of the small old settlements located on the western coast of Mumbai. Its history can be traced since 1530's (Portuguese times) and has several references in the history of Mumbai. However, the history of the built fabric is much recent. The settlement was completely evacuated and razed to the ground during the World War II (1939). After 7 years, the residents rebuilt the settlement on the same parcel of land. Hence, the character of the settlement appears like an organic village settlement but lacks richness in terms of architectural elements, which may have been in the past. However, the nature of the built fabric, open spaces etc do display a certain value for which the area was listed as precinct along with the historical significance and the fact that it is a pocket dominated by a particular community and reflects its culture. Further, the area has undergone many transformations over the years, which are evident from the new structures within and around the precinct and extensive addition, remodeling to the existing structures and at times rebuilding. To better understand the historical, physical and cultural significance of Erangal precinct and the changes it is going through, a detailed condition assessment of the precincts was carried out through consultations and primary surveys.

The precinct (3.89 ha) consists of a gaathan (1.05 ha), revenue area outside the gaathan (2.19 ha) and a portion of Erangal beach (0.65 ha). The residents in the precinct belong predominantly to the Bhandari community. There are in all 119 main structures. In several structures there have been additions such as toilet/bath blocks, external storage areas etc, which have been enumerated as sub-structures. Some of the basic details of the precinct are given below:

No	Details	
1	Total Area of the Precinct	3.89 ha
	(i) Gaathan = 1.05 ha	
	(ii) Revenue area = 2.19 ha	
	(iii) Beach area = 0.65 ha	
2	Total No. of Main Structures	119
3	Total No. of Sub-Structures	47
4	Total No. of Households	138
5	Total No. of Persons	668
6	Density (Persons/ha)	171

### 3.1 Precinct Level Assessments

#### 3.1.1 Location and Connectivity (Map No. 03)

The precinct is located in Erangal village, on a peninsula off the western coast of suburban Mumbai. Erangal is situated between Marve and Madh, off Madh-Marve Road. Madh-Marve Road is the only road connecting the precinct to the mainland. To the north, this road connects the precinct to Malad. To the south, it connects the precinct to Madh Jetty. The ferry service between Versova and Madh jetty is another way to access the precincts.

The settlement is accessed by BEST buses, auto rickshaws and other vehicles. There is a bus stop on the main Madh-Marve road just outside the precincts. Two BEST buses (261 and 270), ply from Madh to Malad Station.

#### 3.1.2 Road Network (Map No. 04 and 05)

##### Primary Street

Khale Gali is the primary/main street running through the precinct. It is called so because when agriculture was the primary occupation of the residents, after harvest, the rice grain was beaten along the street to remove the khal (husk).

Khale Gali connects Madh-Marve road to Erangal beach. It is a tar road and its width varies from 4-6m. The road witnesses significant vehicular traffic accessing Erangal and Danapani beaches and the nearby farmhouses used for film and serial shoots. There are a number of small retail shops on the ground floor of structures along the street. It is flanked by G+1 to G+2 storey residential structures. As the road approaches the beach, it is flanked by institutions like St. Bonaventure Church and the Municipal School. The road is defined by structure edges in most cases (Map No. 6). There are three north-south secondary streets, which branch off from Khale Gali.

##### Secondary Streets

There are 3 secondary roads in the settlement. These are as follows:

##### 1. Electra Street

The road branching off from Khale Gali leading to Electra is a secondary road, which branches off from Khale Gali to Danapani beach along the western edge of the settlement. It is a tar road and its width varies from 3-4 m. It witnesses vehicular traffic going to Danapani beach and the nearby farmhouses used for shooting. The street is defined by G+1 storey houses on one side and St. Bonaventure Church on the other. The service areas of the houses flank the street. As a result, a part of the street is used for water storage and washing utensils. The street has been encroached along St. Bonaventure Church and used for storage etc. A covered gutter runs along the street (Map No. 06).

##### 2. Holi Maidan Street

Holi Maidan Street is a secondary road, which branches off from Khale Gali to Danapani beach through the settlement. Its width varies from 2 to 3 m. The road surface has a patchwork of stone paving and cement concrete. It is accessible by vehicles. The road is defined by G to G+1 storey residences with their verandahs facing the street. It is intersected by a number of by lanes. Holi Maidan, one of the major public spaces of the settlement, situated along the street. A covered gutter runs along a part of the street (Map No. 06). The development outside the precinct is observed along this street towards Danapani beach where many new residences are built by the residents of Erangal. The road edge is marked by twig, wire fencing and vegetation.

### 3. Hiradevi Temple Street

Hiradevi Temple Street is a secondary road, which branches off from Khale Gali along the eastern edge of the settlement. Its width varies from 2 to 3 m. The road surface has a patchwork of stone paving and cement concrete. It is flanked by G to G+1 storey residences on one side and pastoral and agricultural land on the other. The road edge is marked by twig, wire fencing and vegetation (Map No. 07).

#### Tertiary Streets (Map No. 07)

The tertiary streets are predominantly pedestrian linkages branching off from the main road and connecting the secondary streets. These are either paved or surfaced with cement concrete. They do not have a consistent width.

#### **3.1.3. Built Fabric and Settlement Pattern (Map No. 08)**

The precinct is an organic, low rise settlement off Madh-Marve Road. It consists of the gaothan and structures around it. The settlement has developed along and between Khale Gali, Holi Maidan Street and Hiradevi Temple street. The settlement is slowly developing on agricultural lands towards Danapani beach to the north and towards the south east along the approach road to the precinct.

Within the gaothan, the streets have been defined by the structures and therefore vary in width and alignment. There are incidental open spaces within the settlement, which act as public interaction places. The settlement is predominantly residential in character with a few retail shops along Khale Gali. The built footprint constitutes 35% and road constitutes 16% of the total area of the precinct. Approximately 50% is under beach, vegetation and open land. St. Bonaventure Church is a prominent 16th century structure facing the sea. It is the oldest structure in the settlement.

#### **3.1.4. Demographic Characteristics**

There are 138 households in the precinct with 668 persons. The density is of the precinct is 171 persons/ha. The average family size is 5. The following are analyzed in this section:

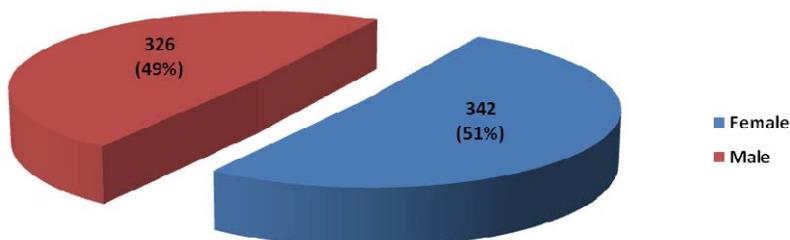
##### a) Sex Ratio

Here the sex ratio within the precinct is analyzed. The details are given in the table below:

Table 2: Sex Ratio

No	Sex	No of Persons	% of Total	Sex Ratio
1	Male	326	48.80	0.95
2	Female	342	51.20	
	<b>Total</b>	<b>668</b>	<b>100.00</b>	

Figure 1: Sex Ratio



The male to female ratio is 0.95. It is quite balanced, not suggestive of any in or out migration.

b) Age Groups

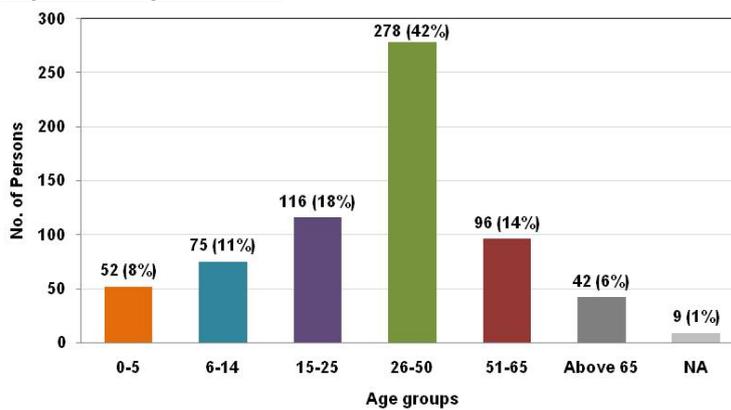
Here the age profile of the residents in the precinct is analyzed. The details are given in the table below:

Table 3: Age Groups

No	Age Groups	No of Persons	% of Total
1	0-5 years	52	7.78
2	6-14 years	75	11.23
3	15-25 years	116	17.37
4	26-50 years	278	41.62
5	51-65 years	96	14.37
6	Above 65 years	42	6.29
7	NA*	9	1.35
	<b>Total</b>	<b>668</b>	<b>100.00</b>

Note: \* NA includes persons for whom information could not be obtained

Figure 2: Age Groups



The precinct has a young age profile. About 73% (490) of the population is in the working age group between 15-65 years old, with 42% (278) within the age group 26-50 years, 18% (116) within the age group 15-25 years and 14% (96) within the age group 51-65 years.

c) Education Levels

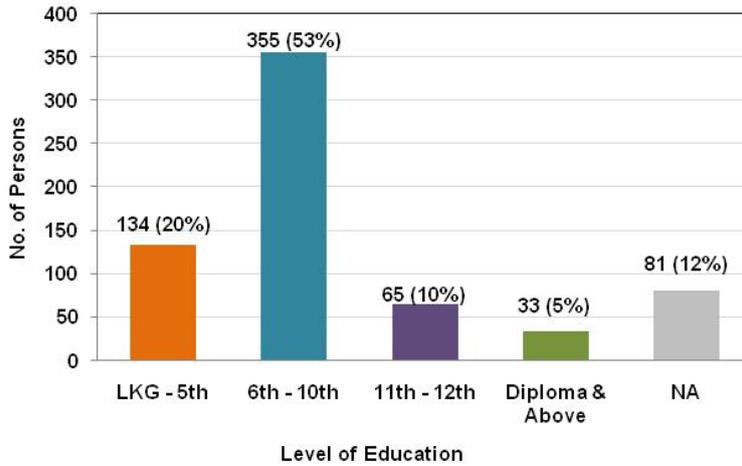
Here the educational qualification of all the members in every household is recorded. The details are given in the table below:

Table 4: Level of Education

No	Level of Education	No of Persons	% of Total
1	LKG - 5th	134	20.06
2	6th - 10th	355	53.14
3	11th - 12th	65	9.73
4	Diploma & Above	33	4.94
5	NA*	81	12.13
	<b>Total</b>	<b>668</b>	<b>100.00</b>

Note: \* NA includes persons whose information could not be obtained and those in the age group of 0-5 years (31)

**Figure 3: Education Levels**



Majority of the residents of the precinct have basic level of education with around 83% (544) residents educated until the 12th standard. Approximately 53% (355) have an education between 6 to 10th standard and 20% (134) between LKG to 5th standard. This is due to the presence of the Municipal School abutting the precincts. For higher secondary education, they have to either go to go to Uttan or Malad. Only a small percentage of people in the precinct have obtained a diploma or an undergraduate degree (5% - 33).

**3.1.5. Income Levels**

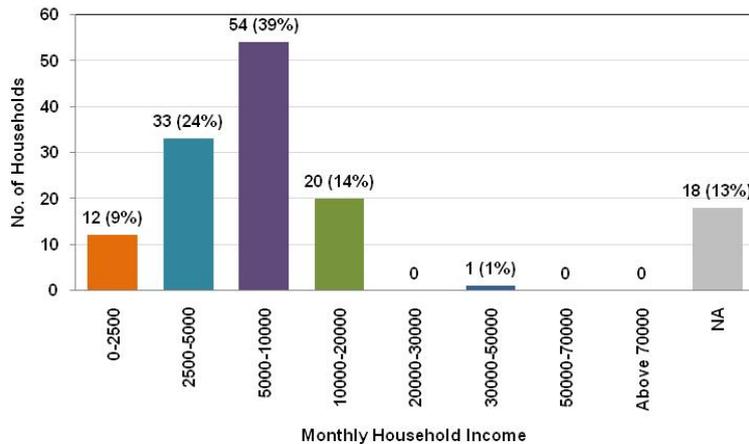
Here the monthly household income of each household in the precinct is recorded. The details are given in the table below:

**Table 5: Monthly Household Income**

No	Monthly Household Income	No of Households	% of Total
1	0-2500	12	8.70
2	2500-5000	33	23.91
3	5000-10000	54	39.13
4	10000-20000	20	14.49
5	20000-30000	0	0.00
6	30000-50000	1	0.73
7	50000-70000	0	0.00
8	Above 70000	0	0.00
9	NA*	18	13.04
	<b>Total</b>	<b>138</b>	<b>100.00</b>

Note: \* NA indicates that the household income was not revealed

**Figure 4: Monthly Household Income**



The current monthly income is mostly received in form of salaries and wages. Some households receive income for business, agriculture, rent etc. About 86% (119) of the households have a monthly income of less than Rs. 20,000. Around 60% (87) of the households have a monthly income between Rs. 2500-10,000. The low education level of the residents i.e. 83% until 12<sup>th</sup> standard indicates access to low skilled and less paying jobs

**3.1.6. Occupational Pattern**

The occupational pattern is analyzed to understand the ratio of employed to unemployed persons and the type of employment i.e. whether they are in government or private firms) or self employed.

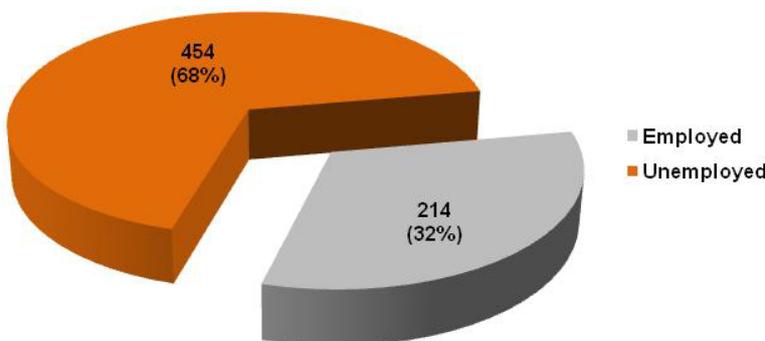
**a) Employment**

Here the employment status of the residents in the precinct is analyzed. The table below gives the details:

**Table 6: Employment Status**

No	Employment Status	No of Persons	% of Total
1	Employed	214	32.04
2	Unemployed	454	67.96
	<b>Total</b>	<b>668</b>	<b>100.00</b>

**Figure 5: Percentage of Employed and Unemployed persons**



Approximately 32% (214) of the people in the settlement are employed and 68% (454) are unemployed. Of the unemployed, approximately 54% are the dependent persons who include toddlers, students, housewives and old persons.

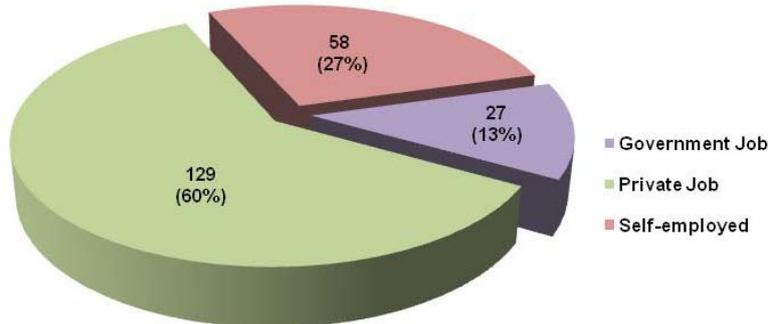
b) Type of Employment

Here the type of employment that the residents of the precincts are engaged in is analyzed. The details are given in the table below:

Table 7: Type of Employment

No	Employment Type	No of Persons	% of Total
1	Government Job	27	12.62
2	Private Job	129	60.28
3	Self-employed	58	27.10
	<b>Total</b>	<b>214</b>	<b>100.00</b>

Figure 6: Type of Employment



The residents in the precinct are employed mostly in the tertiary sector. Majority are employed in private sector (60%) followed by self employed (27%) and government job (13%). Of the 32% (214) employed persons, 19% (129) work in private firms as compounders, gardeners, peons, watchmen, clerks and in hotels and packaging companies etc; 4% (27) work in government organizations as BEST drivers and 9% (58) are self-employed as auto-rickshaw drivers, farmers, electricians, shop owners, etc. The women in the precinct generally do not work, as there are not many job opportunities in the nearby area. Taking up job in the main land poses commuting problems as the BEST is infrequent and autos are a costly alternative.

### 3.1.7. Existing Land Use (Map No. 09)

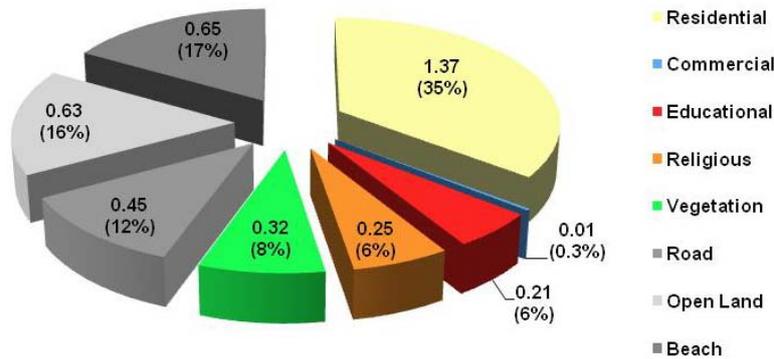
A 100% land use is carried out for the precinct. The details are given in the table below:

Table 8: Existing Land Use

No	Land Use	Area (Sqm)	Area (Ha)	% of Total
1	Residential	13749	1.37	35.30
2	Commercial	99	0.01	0.25
3	Educational	2148	0.21	5.51
4	Religious	2461	0.25	6.32
5	Vegetation	3174	0.32	8.15
6	Road	4498	0.45	11.55
7	Open Land	6291	0.63	16.15
8	Beach	6528	0.65	16.76
	<b>Total</b>	<b>38947</b>	<b>3.89</b>	<b>100.00</b>

Note: Open Land includes area under wells

**Figure 7: Existing Land Use**



The precinct is predominantly residential. Approximately 35% (1.37 Ha) of the land is under residential use; 17% (0.65 Ha) under beach and 16% is open land (0.63 Ha), about 12% under institutions (St. Bonaventure Church, Hiradevi Temple and a Municipal School), 12% under roads and 0.3% under commercial use. The commercial use consists of ground storey retail shops, which have predominantly developed along Khale Gali. There is significant land (24%) in the precinct under vegetation and open spaces.

**3.1.8. Land Ownership (Map No. 10)**

Here the type and status of land ownership within the precinct is analyzed.

Land Ownership

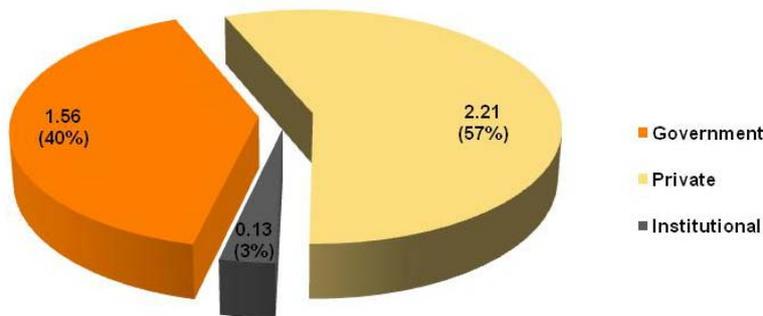
The details of land owned by the government, private and institutions are given below:

**Table 9: Land Ownership**

No	Land Ownership	Area (Sqm)	Area (Ha)	% of Total
1	Government	15637.2	1.56	40.15
2	Private	22055.7	2.21	56.63
3	Institutional	1254.4	0.13	3.22
	<b>Total</b>	<b>38947.3</b>	<b>3.89</b>	<b>100.00</b>

Source: [www.mahabhulekh.mumbai.nic.in](http://www.mahabhulekh.mumbai.nic.in)

**Figure 8: Land Ownership**



Approximately 40% (1.56 ha) of land is owned by the government, 57% (2.21 ha) is under private ownership. Many households have extended the structures into government land and have constructed their toilets, storage sheds etc in the government land. Remaining 3% land is under religious institutions (0.13 ha). In various parts of the precinct, government land is laying unutilized.

### Status of Property Ownership

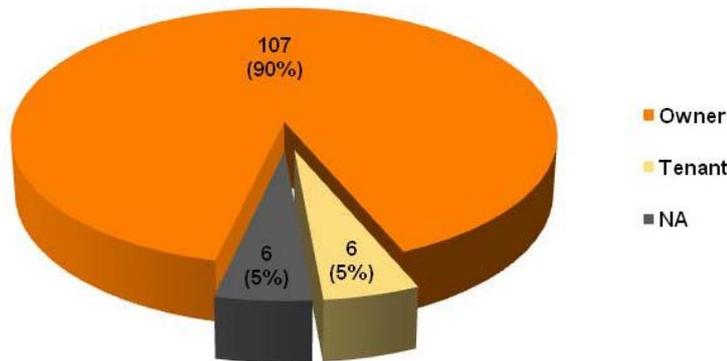
The table below gives the details of the status of property ownership in the precinct:

Table 10: Status of the Property Ownership

No	Status	No of Structures	% of Total
1	Owner	107	89.92
2	Tenant	6	5.04
3	NA*	6	5.04
	<b>Total</b>	<b>119</b>	<b>100.00</b>

Note: \* Information was not provided during survey

Figure 9: Status of Property Ownership



Almost 90% (107) of the properties in the precinct are owner occupied and only 5% (6) is tenanted. These are houses rented by people who either have moved out of the precincts or have rented it for their financial support. A reason for such a strong base of owner occupied properties is that the resident community has been very stringent in permitting transfer of ownership to other castes and communities.

### **3.1.9 Land Prices and Property Taxes**

The current land prices in the precinct are around Rs. 8000-10,000/ sq.yd.<sup>3</sup> All the households in the precinct pay property taxes. The taxes are paid every 6 months. The taxes vary with the degree of renovation. For example, households in the new or redeveloped structures pay highest property taxes followed by those where a new storey has been added.

### **3.1.10 Development Plan Proposals**

#### A Zoning (Map No. 11).

As per the DP, the precinct lies in CRZ II and III. The detailed breakup of the land uses in the proposed DP is as follows:

Table 11: Proposed Land Use Zones in the MCGM DP

No	Zones	Area (Sqm)	Area (Ha)	% of Total
1	CRZ II (including reservations for School and Play ground)	29063	2.91	74.62
2	CRZ III	2520	0.25	6.5
3	Roads	836	0.08	2.15
	<b>Sub-Total</b>	<b>32419</b>	<b>3.24</b>	<b>83.24</b>
4	Beach (not part of zoning in the DP)	6528	0.65	16.76
	<b>Total</b>	<b>38947</b>	<b>3.89</b>	<b>100.00</b>

<sup>3</sup> Interview with Mr. Kamlakar Patil

Most of the precinct (75% - 2.91 ha) falls under CRZ II. The north-west and south-east part of the precinct is under CRZ III (6% - 0.25 ha) and 2% (0.08 ha) is under proposed roads.

CRZ II includes areas that have already developed (gaothans) up to or close to the shore-line, in municipal limits or legally designated urban area and have been provided infrastructure. Under CRZ II, building is permitted on the landward side of existing or proposed road and existing authorized structures within are subject to Town and Country Planning Regulations including FSI/FAR.

The reconstruction of authorized structures is permitted within existing FSI/FAR without changes in existing use. The design and construction is to be consistent with the surrounding landscape and local architectural style. No structure is permitted on the seaward side of existing or proposed road (under CZMP of the area).

CRZ – III includes areas relatively undisturbed (coastal zones in rural areas whether developed or undeveloped, also areas within municipal units or other legally designated urban areas) and do not belong to category – II or I.

Under CRZ III, within 0 to 200 m from HTL on landward side, repair of existing authorized structures not exceeding existing FSI, plinth and density is permitted. Further agriculture, horticulture, gardens, pastures, parks, play fields, forestry and salt manufacturing from seawater is also permitted. The FSI should not exceed 0.33.

#### B Reservations (Map No. 12).

There are two DP reservations within the precinct.

Table 12: List of DP Reservations

No	Reservation	City Survey and Revenue No	Area (Sq m)	Ownership
1	Primary School	1372	3137	Private
		part of 1373		Public
		1373/1		Unknown
		1375		Public
2	Playground	1376	2695	Public

#### C Road Proposals (Map No. 12).

The DP has proposed a 13.40m DP road around the precinct. ,

#### D Status of Development Plan Proposals (Map No. 13)

##### Zones

For the precinct area in the CRZ II, there has been significant transformation of structures. There are unauthorized extensions, addition of storeys, and new structures have been built. A few ground storey retail commercial stores have come up. In the precinct area under CRZ III, land has been converted from agricultural use to residential use and structures have been built.

##### Reservations:

The Municipal School is proposed over plot numbers 1372, 1373/1, 1375 and a part of 1373. A primary cum secondary school has been built over majority of the area of 1375. A part of it is used as a road to provide access to a residential plot behind. The plots with city survey numbers 1372 and 1373/1 have not been acquired and are under residential use. The plot with city survey number 1373 is owned by the Government of Maharashtra.

A part of it becomes an extension of Khale Gali and is observed to be under residential use.

The proposed playground behind the Municipal School has not been developed and a portion of it is observed under residential use. Some of the residents of the precinct defecate here. During the monsoons, boats are parked over some of its area.

**Roads**

None of the DP road proposals in the precinct and around the precinct have been implemented.

**3.1.11. Intensity of Development (Map No. 14)**

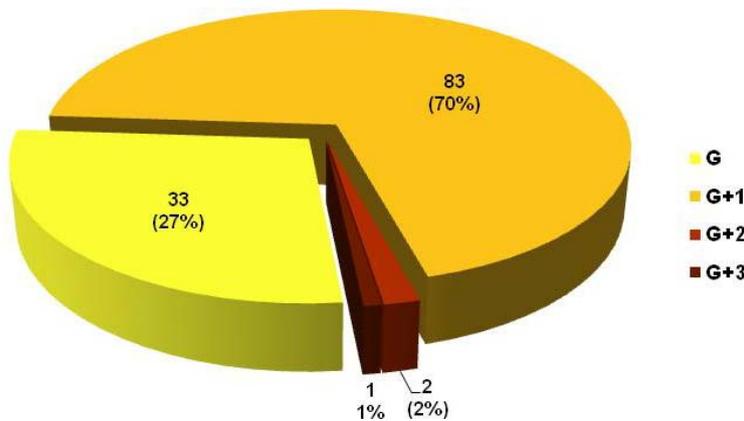
The intensity of development is an indicator of how intensively the land is used (FSI consumption). While undertaking the land use survey, the number of floors for each structure was also surveyed. The table below gives the details:

**Table 13: No of Floors**

No	No of Floors	No of Structures	% of Total
1	G	33	27.73
2	G+1	83	69.75
3	G+2	2	1.68
4	G+3	1	0.84
	<b>Total</b>	<b>119</b>	<b>100.00</b>

Note: Sub Structures not included.

**Figure 10: No of Floors**



Majority of the structures are G + 1 storeys 70% (83) followed by 27% (33) of G storey structures and 2% (2) G+2 storey structures. St. Bonaventure Church is the tallest structure in the precinct with G+3 storeys.

The FSI consumption is calculated for the entire precinct, excluding the beach. It includes both the main and sub structures. It is calculated separately for the portions of the precinct within the gaathan boundary and outside the gaathan. The overall FSI within the precinct is 0.49 (excluding the beach), with the gaathan is 0.82 and outside the gaathan 0.33.

### 3.1.12. Occupied and Vacant Structures (Map No. 15)

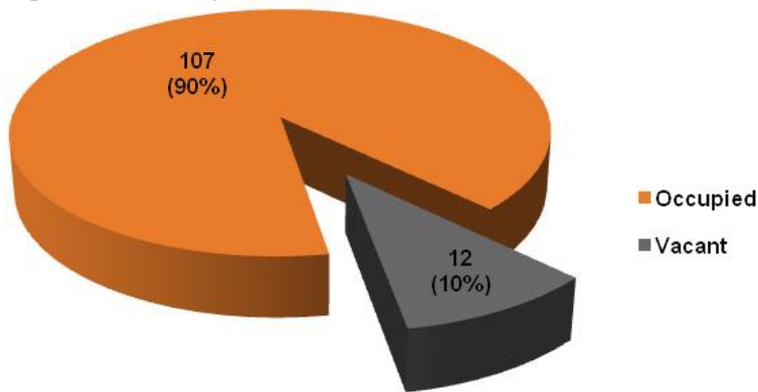
Here the number of occupied and vacant structures has been analyzed. The table below gives the details:

Table 14: Occupied and Vacant Structures

No	Occupancy Status	No of Structures	% of Total
1	Occupied	107	89.92
2	Vacant	12	10.08
	<b>Total</b>	<b>119</b>	<b>100</b>

Note: Sub Structures not included.

Figure 11: Occupied and Vacant Structures



Around 90% (107) of the structures are occupied and 10% (12) are vacant structures interspersed in the precinct. During the interviews and group consultation, it was revealed that some of the families had moved out and built new houses in the adjoining agricultural lands.

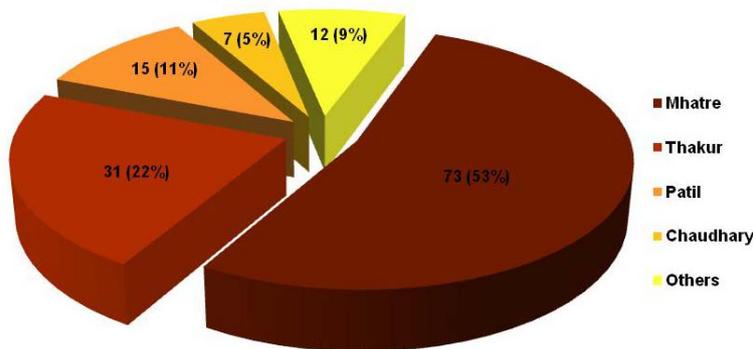
### 3.1.13. Community Pattern (Map No. 16)

Here the community pattern in the precinct is analyzed. The table below gives the details:

Table 15: Community Pattern

No	Community	No of Households	% of Total
1	Mhatre	73	52.90
2	Thakur	31	22.46
3	Patil	15	10.87
4	Chaudhary	7	5.07
5	Others	12	8.70
	<b>Total</b>	<b>138</b>	<b>100.00</b>

Figure 12: Community Pattern



The residents in the precinct belong predominantly to the Bhandari community. There are 13 sub-communities living in the precinct. These are Bhakriye, Bhate, Bohir, Chaudhary, Goulov, Dhuri, Gorte, Mhatre, Thakur, Patil, Vaghe, Velnekar, and Walge. Of these, 4 constitute 91% (126) of the households. These are Mhatres, Thakurs, Chaudharys and Patils. More than half the households (53% - 73) are Mhatres, followed by the Thakurs (22% - 31), and Patils (11% - 15).

Spatially, the Mhatres are scattered through the settlement. However, a spatial clustering is observed for other communities. The Patils are observed in two clusters; the Thakurs are predominantly along Holi Maidan street and the Chaudharys are observed in the south-eastern part of the settlement. The number of Thakur households has reduced and that of Mhatres has increased.

### 3.1.14. Landmarks, Public Spaces and Historically Significant Structures (Map No. 17)

#### A Landmarks and Historically Significant Structures

A landmark is an element, structure that is important not only to the people of the local community but also to the city, region, state or country. There are three landmarks in the precinct. These are as follows:

##### 1. St. Bonaventure Church

It is a sixteenth century structure built by the Portuguese. It is important to the East Indian community, which though marginally present in the precinct is spread over Malad, rest of Mumbai and abroad. The Baravi Fair and Festival is celebrated from 31st December to the second Sunday of every year.

The Church is the only historically significant structure in the settlement. It is the oldest structure dating back more than 400 years. The Church was used both as a religious place and as a fortress. The entire settlement except the Church was set on fire during the Second World War. The residents were moved to Orlem during that time and were given their land back on return. Therefore, the other structures do not date back more than 55 years; and are not so significant from a historical point of view.

##### 2. Hiradevi Temple

The Bhandaris believe in 3 goddesses: Vajreshwar Devi, Kalbadevi and Hiradevi. Hiradevi also known as Harbadevi. The temple is important to the Bhandari community not only in the precinct but also in Akse and Vasai.

### 3. Municipal School

The Municipal School is considered as a landmark as it is an important social amenity for the residents of other settlements like Madh and Marve. A significant number of children from Madh come to the Municipal School for primary and secondary education. The residents claim that there are more students from outside the settlement than from within.

### B Public Spaces

The public spaces of the settlement include those used for daily activities and for special occasions. Though the streets are used for numerous individual and group activities like vegetable cutting, utensil washing and for children to play cricket or board games, the major community open spaces have been focused upon. There are three major open spaces:

#### 1. Badamwadi (Map No.18).

Badamwadi is the smallest public space in the precinct. It is a paved open space along Khale Gali. Badamwadi is known so due to the presence of the Badam tree, which is the central element in the open space. There is a well next to the tree and a seating area (chabutra) around it. This is a socializing place for the residents in the precincts, and a space for children to play. Badamwadi is surrounded by G and G+1 storey residential structures with ground floor shops along Khale Gali.

#### 2. Holi Maidan

Holi Maidan is the second largest open space in the precinct. It is a concrete open space located along Holi Maidan street. It is known so, as, every year this open space is used as the communal gathering space for the residents of the precincts to celebrate Holi. The major social functions and festivals of the settlement like marriages, Holi and Handi are celebrated here. It is around 18m in width and length and 220 sqm in area. It is surrounded by G and G+1 residential structures. A part of the Maidan has been encroached and fenced off.

#### 3. Open Space in front of St. Bonaventure Church (Map No. 19)

This is the largest open space in the precinct between the beach and St. Bonaventure Church, at the tail end of Khale Gali. It is owned by the Government of Maharashtra. It is around 40m in width and length, 2000sqm in area and is the largest open space in the settlement. There is a Mahadev Temple and a cross in the open space. It is used for a variety of purposes: for parking vehicles going to Erangal beach and the farmhouses; as a playground for children and during social functions and festivals. Every day, women from the village use the Temple and the space outside to sell snacks and sweets to the children in the Municipal School. The children also use the space during the lunch break.

The festivals related to the Church spill over onto the open space. It is filled with people attending the mass in the Church from 31st December to the second Sunday of January every year. The second Sunday is a festive day and as a part of the celebrations, a fair is organized and villagers put up stalls for selling food items, flowers etc. Further, 15th July is also celebrated as Smriti Din and it is believed to be the day when St. Bonaventure was buried. Every May, an event (which consists of performances, plays, etc.) is organized here after the school results are declared.

The open space is partly occupied by boats during the monsoon months from June to August. The boats are owned by the fishermen from Bhattigaon and currently do not pay any charges for parking the boats here. The open space is not shaded nor is any seating provided for school children. It is unmaintained and a part of it is encroached by a residential structure next to the Church.

### 3.1.15. Water Supply System (Map No. 20)

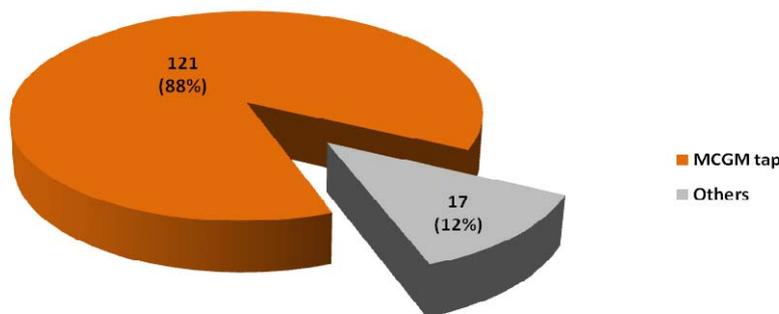
The water in the precinct is supplied by Municipal Corporation of Greater Mumbai. There are two government wells, which are mainly used for washing and cleaning purposes as the water is believed to be contaminated by the adjoining soak pits. The water from the well is also used for irrigation in the adjoining areas. There is one well within the St. Bonaventure Church complex and 4 private wells around the precinct. The water pipeline network within the precinct is not a planned one. It has been randomly put by the residents.

The precinct gets water from a main water line along Madh-Marve Road. From here there is a 4 inch main water line, which runs along Khale Gali. There are four 1 inch secondary lines that branch off from it. There are two fire hydrants at the end of two secondary lines along Holi Maidan street and the road leading to Electra. There was a third hydrant at the end of the main water line along Khale Gali, which has been removed. There were varied answers on the time and duration of water supply. The residents get water on a daily basis from 5pm-10pm. The water connections are metered and the charges are collected every three months.

Table 16: Water Supply Distribution

No	Water Supply	No of Households	% of Total
1	MCGM tap	121	87.68
2	Others	17	12.32
	<b>Total</b>	<b>138</b>	<b>100.00</b>

Figure 13: Water Supply Distribution



12% (17) households do not have a municipal connection. They either borrow or purchase water from their neighbours. The pipeline currently follows the storm and waste water drain and is either above or below the drain creating conditions for contamination. Each household has taken an individual connection either from the main line or the secondary line as the settlement has grown or with subdivision of structures. This has resulted in low water pressure particularly towards the interior of the settlement. The SKBS Committee said that a 6 inch water line that was required to increase the supply and the pressure.

### 3.1.16. Sewerage and Storm Water Drainage System (Map No. 21)

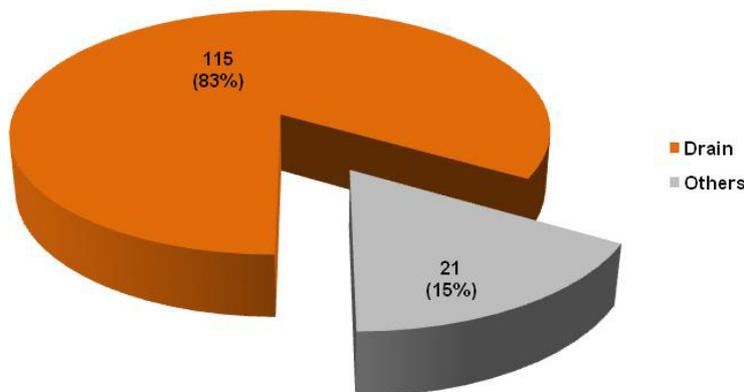
#### Waste Water and Storm Water Disposal

There is a network of surface storm water drains in the precinct, which over the years were partly covered. Presently the precinct has a network of open and covered surface drains, which are in use for disposal of waste water and storm water in the precinct. The covered parts of the drains have steel grated and cement concrete covers at regular intervals.

Table 17: Waste Water Disposal

No	Waste Water Disposal	No of Households	% of Total
1	Storm Water Drain	115	83.33
2	Others	23	16.67
	<b>Total</b>	<b>138</b>	<b>100.00</b>

Figure 14: Waste Water Disposal



Most of the households are connected to this main network of drains to dispose of waste water. The waste water is let out in the open field to the east of the precinct. There are about 15% (21) households, which are not connected to the storm water drains. These are towards the north, west and south-east of the settlement. The waste water is disposed either in their plot or let out in adjoining agricultural fields. There is water logging and backflow of waste water into the streets during the monsoons as the drain fills with sand.

According to the residents, an open drain was first built in the 1984. A pipe was laid and it was covered by Mr. Ganesh Bhandari, the Corporator then. Initially the waste water from the settlement was released into the creek nearby. It was stopped when many animals started falling into the mouth of the open drain near the creek. The waste water was then released into the lake next to the Ganesh temple, east of the settlement. This was discontinued as the lake was being polluted and due to the religious importance of the lake to the community.

A main gutter line connecting Khale Gali to Madh-Malad road was constructed with funds from the Corporator. The settlement is lower than the road. Since the contractor did not take this into account and built the drain along the slope of the road, this resulted in the backflow of the water. Therefore the drain was filled and closed.

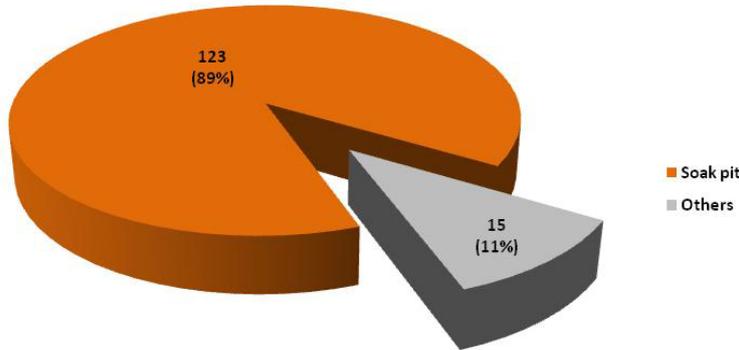
#### Sewerage Disposal

There is no underground sewerage network in the precinct. Individual households have constructed soak pits for sewerage disposal.

Table 18: Sewerage Disposal

No	Sewerage Disposal	No of Households	% of Total
1	Soak pit	123	89.13
2	Others	15	10.87
	<b>Total</b>	<b>138</b>	<b>100.00</b>

Figure 15: Sewerage Disposal



Around 89% (123) of the households have individual toilets and baths with soak pits. The remaining 11% (15) of the households practice open defecation and let out the household waste water into the nearby open fields. Many of the households have newly built external toilet and bath blocks as ancillary structures.

### 3.1.17. Solid Waste Management

There is door to door solid waste collection by two MCGM employees on a daily basis. It is disposed in a garbage bin at the entrance of the settlement. The MCGM has commenced a scheme to clean the beach, whereby two collectors clean the beach on a daily basis. Their working hours are from 8.30am to 5.30pm. The waste is dumped in a bin on the beach. The garbage is collected by a MCGM truck once in 4-8 days. There are no collection charges. About 6% (8) of the households dispose their solid waste by themselves.

Due to the irregular pick up of garbage by the MCGM vehicle, the solid waste is strewn around the bins both at the entrance of the settlement and on the beach creating an unpleasant experience. The sea washes the bin on the beach thereby spreading the waste, which pollutes the water.

### 3.1.18. Electricity

All the households in the settlement are provided with electricity by Reliance Energy and the connections are metered. There is a distribution centre at the entrance of the settlement. There are no electricity poles and there are underground wires. They follow the storm water drain. Electrical junction boxes have been placed at various places in the settlement.

### 3.1.19 Street Lights

There are 15 street lights in the precinct. The lane leading to Electra does not have street lights and feels unsafe during the night.

### 3.1.20. Social Amenities

There is one Marathi medium primary and secondary Municipal School in the precinct. However a majority of the children in the precinct go to an English medium St. Anthony's School in Malavani. The Municipal School has insufficient teachers. Since most of the teachers are from Vasai, they find the daily commute to Erangal very cumbersome. There are no higher educational facilities close to the settlement and limited connectivity to the mainland. Therefore, the residents are hesitant to send girls for higher education.

The closest dispensary is located in Madh and takes about 10-15 minutes to commute. The residents generally go to two maternity clinics: one in Malavani, which is about 20-30 minutes commute, and the one in Malad, which is about 60 minutes commute. There is a government hospital in Borivali, which is about 45min commute.

### 3.1.21. Cultural Practices

Some of the cultural practices of the settlement are reflected in the built form. These are described below:

- Most of the households have Tulsi planters in front of their houses as it is considered sacred. It is known as Tulsivrundavan. Every day, the Tulsi is watered and the verandah is washed. The women draw rangolis in front of their house with traditional symbols like Swastika, Padchinha etc.
- There is a tradition is to place a metal tortoise in water at the main entrance of house. The tortoise is considered as one of the avatars of Lord Vishnu. The residents believe that the tortoise protects the family and it also increases wealth. It is also drawn in the rangolis.
- There are no inter-caste marriages. Marriages happen in the same cast - mostly in the village itself or nearby villages such as Akse or Vasai. After marriage, two holy coconuts, which are considered as a God and Goddess, are tied to the branch of a mango tree in front of the house and kept for one year. This is done to convey that a marriage ceremony has happened in their house.

The following festivals are also celebrated:

- A mass is conducted from 31st December to the second Sunday of January every year. The second Sunday is a festive day and is celebrated by locals and a large number of visitors. As part of the celebrations, a fair is organized on the beach and villagers put up their stalls for selling food items, flowers etc. 15th July is celebrated as the Smriti Din and it is believed to be the day when St. Bonaventure was buried.
- Every year, sometime before Diwali, there is an Utsav / Urus (festival) in Hiradevi Temple. During Navratri festival, there is Ghatasthapana in the Hiradevi Temple. The residents celebrate all Hindu festivals including Holi, Diwali, Vatapurnima, Ramnavami, Hanuman Jayanti etc.
- Every May, an event (which consists of performances, plays, etc.) is organized in the open space abutting St. Bonaventure Church after the school results are declared.

### 3.2 Structure Level Assessments

There are 119 main structures in the precinct. They are individually analyzed to understand:

- Typology
- Transformations
- Physical condition / maintenance levels
- Heritage value

#### 3.2.1 Typology of Residential Structures (Map No. 22)

There are in all 119 main structures of which 112 are residential and the remaining 7 are institutional and commercial. Excluding the institutional and commercial structures, an attempt was made to identify the predominant typology of the structures by analyzing the plans and disposition of living spaces.

To start, of the 112, two structures are completely new, i.e., the original structure was destroyed and new structures were constructed which conform to the modern house types or it could be said that they are completely different from the typical house forms found in the precinct. These were categorized as 'new'.

The remaining 110 residential structures within the precinct display similar organization of spaces in plans and construction systems. The ground floor of the houses generally has a verandah facing the street, followed by the living room, bedrooms and / or puja rooms. The service areas such as toilets, kitchen and wash areas are towards the rear. The first floor has a balcony facing the street and maybe used as a bedroom or storage area. If they are occupied by another household, then they may have the same organization of plan as the ground floor. Each house has a tulsi planter outside.

Four distinct types of structures have been classified based on their plan and form. They are:

##### 1. Linear Type, Single Bay (Map No. 23)

Plans that are linear with narrow side facing the street, with a single bay is one clear type that emerges. The spaces are arranged from front to back, with a verandah/balcony facing the street and the service areas at the back. Around 62% (69) of the residential structures belong to this type.

##### 2. Linear Type, Double Bay (Map No. 24)

Plans that are linear with narrow side facing the street, with a double bay is the second clear type that emerges. The spaces are arranged from front to back, with a verandah/balcony facing the street and the service areas at the back. Around 13% (14) of the structures belong to this type.

##### 3. Square Type (Map No. 25)

The plans have almost a square proportion with either 4 or 9 rooms/spaces. The spaces are organized linearly or laterally. However, these are also characterized by a verandah/balcony facing the street. Around 21% (24) of the structures are of this type.

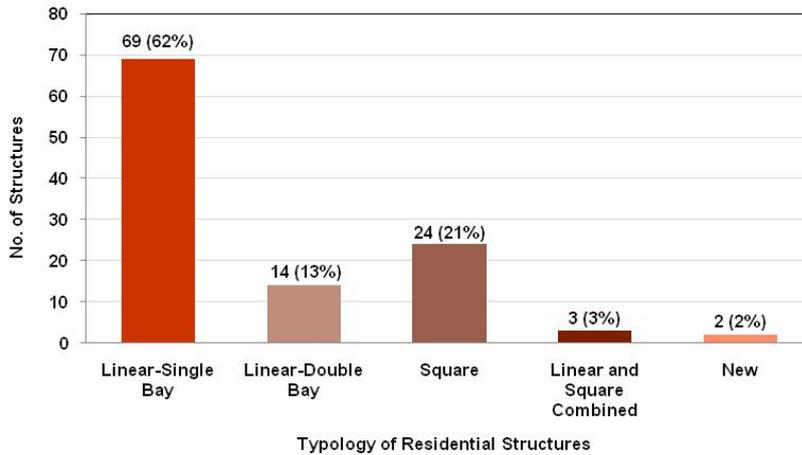
##### 4. Linear and Square Combined Type (Map No. 26)

A structure under this type is a combination of the linear type and the square type. There are only three structures (3%) in the precinct of this type.

Table 19: Typology of Residential Structures

No	Typology of Residential Structures	No of Structures	% of Total
1	Linear-Single Bay	69	61.61
2	Linear-Double Bay	14	12.50
3	Square	24	21.43
4	Linear and Square Combined	3	2.68
5	New	2	1.79
	<b>Total</b>	<b>112</b>	<b>100.00</b>

Figure 16: Typology of Residential Structures



### 3.2.2. Transformation of Structures (Map No. 27)

#### Status of Transformation

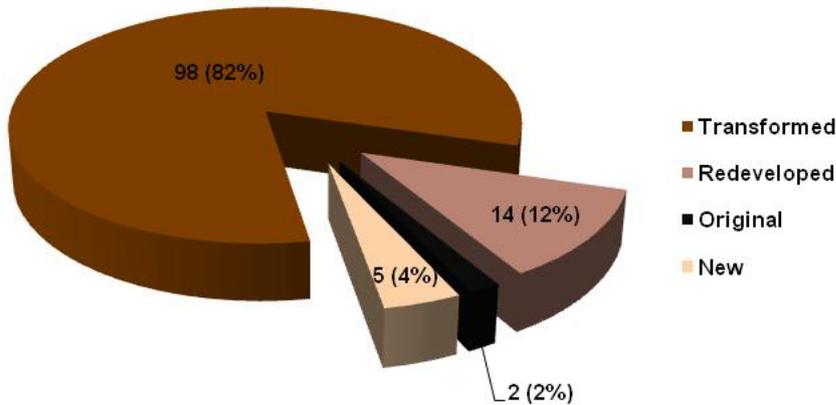
There are in all 119 main structures of which 112 are residential and the remaining 7 are institutional and commercial. There have been transformations in the structures over a period. The structures are categorized as 1) Original; 2) Transformed; 3) Redeveloped and 4) New. Original implies that there has been no transformation to the original structure. Transformed implies that the structure has been transformed either by renovation, addition or extensions to the original structure; Redeveloped implies that the structure has been demolished a new structure has been constructed over the same footprint and in a similar manner in terms of the spatial organization; New implies that a new structure has been added to the precinct in the last 10 years and does not conform to the original plan typology or form & scale.

Table 20: Transformation of Structures

No	Transformation	No of Structures	% of Total
1	Transformed	98	82.35
2	Redeveloped	14	11.76
3	Original	2	1.68
4	New	5	4.20
	<b>Total</b>	<b>119</b>	<b>100.00</b>

There are only 2 structures in the settlement, which have retained their original condition. Around 94% (112) of the structures have been either transformed or redeveloped. Of these around 82% (98) have been transformed and 12% (14) have been redeveloped. One of the redeveloped structures (No. 17) does not reflect or respect the typology of the precinct. Around 4% (5) of the structures are new:

**Figure 17: Transformation of Structures**



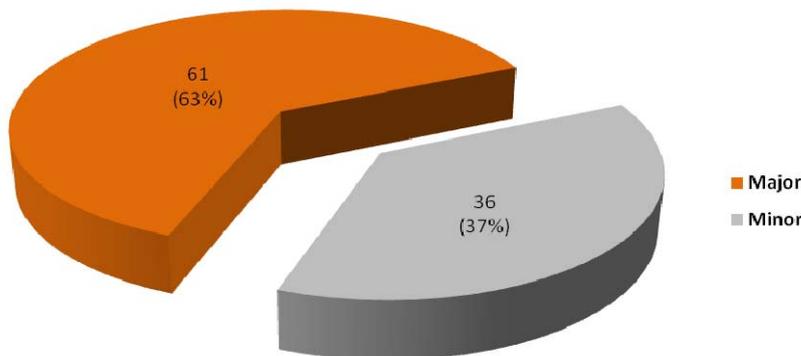
**Extent of Transformation**

The extent of transformation is analyzed as major or minor. Major transformation includes change in the floor structure, roof structure and material, extension of the house, or addition of a storey. Minor transformation includes change in the floor and wall finishes, addition of false ceilings, addition of overhangs and painting of the house. The details are given below:

**Table 21: Extent of Transformation**

No	Extent of Transformation	No of Structures	% of Total
1	Major	62	63.27
2	Minor	36	36.73
	<b>Total</b>	<b>98</b>	<b>100.00</b>

**Figure 18: Extent of Transformation**



Of the transformed structures, around 63% (62) have undergone major transformation. Around 37% (36) have undergone minor transformation. The purpose of the renovation is both functional and social i.e. it addresses the need for increased space requirements, represents their socio-economic position and reflects their aspirations to modernize. These are manifested through different typologies, new materials, colours and elements, some of which are detrimentally affecting the character of the settlement. For example, flat roofs, doors with cartoon characters etc.

### 3.2.3 Structural Condition Assessment and Maintenance

#### Structural Condition

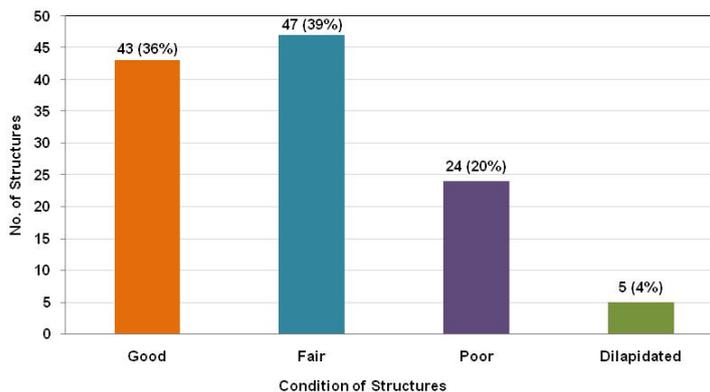
The structural condition of the structures is analyzed as Good; Fair; Poor; and Very Poor as follows:

No	Condition	Description
1	Good	No perceived structural damage or faults in major elements such as walls, roof, beams etc.
2	Fair	No or minimal structural damage which can be fixed / corrected. Some effects such as leakages, cracks etc. are observed.
3	Poor	Significant structural failure in beams, columns, walls etc., which can / cannot be repaired.
4	Very Poor	Severe structure fault/damage and the structure can collapse.

Table 22: Condition of Structures

No	Condition	No of Structures	% of Total
1	Good	43	36.13
2	Fair	47	39.50
3	Poor	24	20.17
4	Very Poor	5	4.20
	<b>Total</b>	<b>119</b>	<b>100.00</b>

Figure 19: Condition of Structures



Approximately 75% (90) of the structures are in good or fair condition. Around 25% (29) of the structures in the precinct are in poor or dilapidated condition. The structures in the precinct are generally characterized by poor quality of natural light. This is particularly applicable to structures with common walls and a linear typology.

#### Maintenance Level

The maintenance level of the structures is analyzed as Well Maintained; Fairly Maintained; Poorly Maintained; Unmaintained and recorded in relation with the overall condition of the structures.

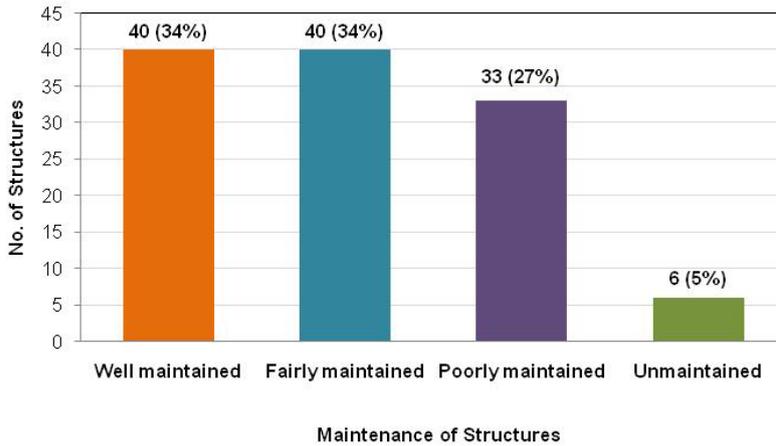
No	Maintenance Level	Description
1	Well Maintained	Regularly maintained and repaired. Appears new.
2	Fairly Maintained	Irregularly maintained. Structure shows signs of wear and tear – leaks, cracks etc.
3	Poorly Maintained	Rarely maintained or repaired.

4	Unmaintained	Not maintained at all. Dilapidated.
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**Table 23: Maintenance Level of Structures**

No	Maintenance Level	No of Structures	% of Total
1	Well maintained	40	33.61
2	Fairly maintained	40	33.61
3	Poorly maintained	33	28.00
4	Unmaintained	6	5.04
	<b>Total</b>	<b>119</b>	<b>100.27</b>

**Figure 20: Maintenance Level of Structures**



Approximately 68% (80) of the structures are well maintained or maintained. Around 1/3rd structures in the precinct are either poorly maintained or unmaintained.

**3.2.4 Heritage Structures** (Appendix 7 to 10)

There are four structures in the precinct with potential heritage value. These are St. Bonaventure Church, Hiradevi Temple, Structure No. 11 and Structure No. 13. A proforma has been prepared for each structure along with views and photographs showing their volume, elements and materials. Hiradevi Temple demonstrates heritage value because of its importance to the community and as a cultural landmark.

### 3.3 Common Characteristics, Features and Elements (Map No. 28 and 29)

Even though the precinct has undergone significant transformation and has lost architectural details and elements, certain characteristics, features and elements attribute its “special character” and tie the precinct together. These have been identified below:

***The precinct has a consistent scale and street edge.***

The precinct has a consistent scale and street edge even though no specific regulations are framed to determine the structure margins, setbacks and heights. A continuous street edge is maintained as the structures generally abut the street, there are no compound walls or fences, minimal or no side margins especially in the gaothan.

Though the structure heights vary from G to G+2 storeys, the floor heights are generally consistent around 3m. Though the widths of the structures vary, each bay is generally broken into modules of 3m creating a uniform yet varied street frontage. Though a majority of the structures has undergone transformation, they have retained pitched roofs. The materials have generally changed from mangalore tiles to AC sheets.

***The boundary between the public and the private spaces are blurred, as streets are perceived as an extension of the house.***

The household elements and activities spill over onto the street. The *tulsivrundavan*, an important element of each house is located outside the house. It is considered sacred and prayed to daily. Rangolis are drawn on the streets in front of the house and / or in the verandahs. The domestic activities spill over on the streets abutting the house. The streets are used as a playground for children. The children are observed cycling in the streets, playing carom and cricket. The women wash utensils, cut vegetables and daily clean the streets adjoining their houses.

***The structures have a similar organization of spaces.***

The ground floor of the houses generally has a verandah facing the street, followed by the living room, bedrooms and / or puja rooms. The service areas such as toilets, kitchen and wash areas are towards the rear. The first floor has a balcony facing the street and maybe used as a bedroom or storage area. The houses have extended with the addition of new toilet and bath blocks. Due to the shortage of water supply, each household has an external Sintex tank above the toilet block generally.

***The structures display common elements and construction systems***

Plinth

The plinths are constructed in brick or random rubble masonry with cement or mud mortar and plain cement concrete. They are generally finished with cement plaster. A number of steps approach the plinth and its height varies from 0.1m to 0.75m above ground level.

Verandah

Each house has a verandah facing the street. They generally span the entire width of the structure. The depth of the verandah varies from 1.3m to 2.6m. Though the depth of the verandahs varies across structures, they have certain common features. They are defined by wooden or concrete columns, which are square or round in shape. They have inbuilt seating and a wooden swing called *chaupala* which facilitate social interaction. Overhangs have been projected from the verandah to protect it from the rains. These are made from asbestos sheets and supported by mild steel pipes. The verandahs are generally covered by the balcony in G+1 structures. In ground storey structures, they are covered by Mangalore tiles or asbestos sheets. The residents are seen talking in the

verandah, undertaking daily activities like men shaving their beards or women seaving through their grains or talking to each other.

#### Balcony

In G+1 structures, first floor is extended above the verandah to form the balcony. The balcony is generally defined by concrete columns and metal or concrete railing and it has a pitched roof, which is separate from the main roof. The roof is made from mild steel tubes and asbestos sheets with PVC gutters.

#### Walls and Openings

The structures are constructed in load bearing brick masonry with lime or cement mortar and finished with cement plaster or tiles. The external walls are generally one and a half or two brick thick. The internal walls are generally 0.23m. The windows have wooden or glazed aluminum shutters and frames.

#### Floors

The ground floor is finished with plain cement concrete, stone or vitrified tiles. The first floor is constructed with wooden rafters or mild steel I-sections and finished with wooden boards or stone slabs.

#### Roof

A majority of the structures in the precinct have pitched roofs. They are constructed with wooden or mild steel rafters with mangalore tiles or asbestos sheet roofs. The structures with flat roofs are constructed with mild steel rafters with stone slabs.

#### Staircases

The houses have internal or external staircases. The original were wooden and have been replaced either with mild steel staircases or with wooden ladders.

#### ***Though this is a Hindu community, there is a shared reverence for St. Bonaventure Church***

The community celebrates Hindu festivals and actively participates in the Church festivals. A resident, Annapurna Mhatre claimed: "Though they (meaning the British, Portuguese or Christians) kept the God, the God watches us".

# APPENDICES

## Appendix 1

<b>MMR-HCS</b>	Data Collection Meetings	Consultation Meetings	Field Notes	<b>01</b>
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### Meeting with Mr. Dilip Mhatre in Erangal Village

VENUE: Shop, Erangal Village. DATE: 25 May 2010, TIME: 10.30 am to 11.30 am

#### Attended By:

Mr. Dilip Mhatre	Chairman, Saishav Kshatriya Bhandari Samaj, Erangal Village
Ms. Shirley Ballaney	Senior Principal Planner, HCPDPM
Ms. Bindu Nair	Principal Planner, HCPDPM
Ms. Sonal Shah	Project Associate, HCPDPM

This was the first meeting with Mr. Dilip Mhatre, Chairman of SKBS. The aim of the meeting was to familiarize him with the project, its objectives and goals, establish a rapport with him and schedule a meeting with the Committee of Saishav Kshatriya Bhandari Samaj.

Initially, Mr. Mhatre was reluctant to communicate with the team. The team explained him the details of the project, HCPDPM's role in the project. It also showed the letters from MMR-HCS which stated that such a project is being undertaken by MMR-HCS. Mr. Mhatre was convinced and agreed to help and to setup a kick off meeting with the Saishav Kshatriya Bhandari Samaj.

The following emerged in the meeting:

- There is a water shortage in the village due to irregular and unpredictable supply timings. Most of the households have individual tap connections and depend on municipal water supply. There are wells in the settlement but the water is only used for washing and cleaning purposes only as all the water is believed to be contaminated.
- There is a shortage of teachers in the Municipal school. The teachers come from areas like Borivali and Vasai. Since it is a long commute, they apply for transfers to other schools. One BA teacher is expected to teach all classes from 5-10th standard. Further, the secondary school in Madh is only until the 7th standard. Therefore students come to the Municipal School in Erangal from 8th-10th grades leading to overcrowding of classrooms. They do not have any teachers to operate or teach computers in the school.
- The traditional occupation of the community is agriculture. Many are still engaged in agriculture. Slowly many have taken up private and government jobs.
- Though Mr. Mhatre is not clear about the history of the village, he said that it is at least 32 years old. They were moved to a private plot in Malad Chowky, next to Orlem by the British Government during the Second World War. Their houses in Erangal were destroyed/damaged and they were compensated for the damages.
- Mr. Mhatre informed that he is associated with the Congress Party. He mentioned that Ms. Renuka is the Nagar Sevak; Mr. Sanjay Nirupam is a MP and Mr. Aslam Sheikh is the MLA. They have undertaken some work in gutter repair in the village and building of roads.
- Mr. PU Mehta was the MLA previously and has been a mentor to the village.
- A registered trust known as the Shri Saishav Kshatriya Bhandari Samaj was founded, the office of which is located in Worli.
- The Temple Trust has a committee of 8 members. There are two advisory members; a Senior Chairman and Chairman, Treasurer and Assistant Treasurer, Secretary and Assistant Secretary. They have a weekly meeting in the Temple on Saturdays at 8pm.

The committee is reelected every three years and it will be up for reelection after August 15th 2010. Its responsibilities include renovation of the Temple and organizing village ceremonies. The trust organize these events from peoples contributions and from the money it collects form the film shooting units which shoot at various locations in the village.

- There are approximately 800-900 people within the village. The traditional type of structure is known as the cowl house.
- The residents go to a private dispensary in Madh and to Borivali Bhagwati Hospital in Borivali (East). Previously there was a government dispensary in Chowky, behind the Fire Brigade Station in Malavani.
- There is an old bastion located close to the Danapani beach. This land abutting the bastion is has been taken over by the INS Hamla. The security was increased after the Kargil war and it has been enclosed by a compound wall.
- Some projects suggested by Mr. Mhatre could be undertaken in the village are:
  - Testing and cleaning of water in the wells in the settlement
  - Ensure regular supply of water in the settlement
  - Development of the lake outside the precinct
  - Recruitment of teachers for the schools

## Appendix 2

<b>MMR-HCS</b>	Data Collection Meetings	Consultation Meetings	Field Notes	<b>02</b>
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### Meeting with the Committee of Saishav Kshatriya Bhandari Samaj in Erangal

VENUE: Hiradevi Temple, Erangal Village. DATE: 13 June 2010, TIME: 12.30 pm to 2 pm

#### Attended By:

Mr. Dilip Mhatre	President, Saishav Kshatriya Bhandari Samaj
Mr. Pravin Mhatre	Vice-President, Saishav Kshatriya Bhandari Samaj
Mr. Chetan Patil	Secretary, Saishav Kshatriya Bhandari Samaj
Mr. Sunil Mhatre	Treasurer, Saishav Kshatriya Bhandari Samaj
Mr. Ramesh Thakur	Resident, Erangal Village
Ms. Shriya Bhatia	MMR-HCS
Ms. Shirley Ballaney	Senior Principal Planner, HCPDPM
Ms. Bindu Nair	Principal Planner, HCPDPM
Ms. Sonal Shah	Project Associate, HCPDPM
Mr. Ananth Eyunni	Project Associate, HCPDPM
Mr. Suryakant Varma	Project Associate, HCPDPM
Ms. Krupa Bhardwaj	Project Associate, HCPDPM
Mr. Sandip Dhiman	Project Associate, HCPDPM
Mr. Saurabh Khan	Project Associate, HCPDPM
Ms. Rashmita Jadav	Project Associate, HCPDPM
Mr. Harshad Raison	Project Associate, HCPDPM

The meeting started with showing the map prepared for the Erangal precinct to all the members of the SKBS. This was followed by explaining all the members about the project. The members were asked to express their opinion about the project and discuss relevant issues. The following emerged during the meeting:

- The first issue brought out by the Committee in the meeting was the water supply related problems. The committee informed that there is a water shortage and the diameter of the water supply pipe needs to be increased from 4 inches to 6 inches. Presently, they get water supply for approximately 1-1.5 hours. Further the water in the wells is not clean because of the adjoining septic tanks, which contaminate the ground water. Since the wells pull water from the adjoining areas, the water is contaminated by sludge and unsafe for drinking. Hence the residents use it only for cleaning purposes and not for drinking.
- A sewerage system is a topmost priority for the village as there is no sewerage network currently. Approximately 10% of the households do not have toilets and the family members defecate in the open on the beach. They were told by the Corporator that public toilets would be built on the site behind the Municipal School. However the project is yet to materialize.
- The existing gutter / drains in the village also functions as a storm water drain. It is connected to the gutter running from the entrance of the village to Madh-Malad Road. Initially, the waste water was let out into the creek. However, the gutter was not laid properly i.e. the pipe sloped towards the village, instead of away from it and therefore it was closed.
- After this, the gutter was routed to let out the water into a talav close to the village. The sewage began polluting the talav. Since the talav is considered sacred because of a Ganesh Temple next to it, the waste water is now let out into private agricultural land, behind Hiradevi Temple. This is a cause of disagreement in the village as the waste water contaminates the agricultural land. A concern for the Committee was that the

waste water and the sewerage should be disposed outside the village and not in anyone's property.

- When asked about how the settlement is growing and since when the new development come around the village, the Committee informed that the village is growing towards Danapani beach. This slow expansion has happened in the last 10 years. Previously, the land was under agricultural use. In recent years some people have sold their land to outsiders due to financial problems. The existing land prices outside the gaathan are Rs. 8000-9000 / sqft.
- According to the Committee, the residents generally sell land to people within the settlement or in the same community. Owners renting their property try to rent it out to people of their community. However, when asked about a new "modern" structure within the village, which indicated that an outsider had bought the property, we were told that the previous resident, Mr. Soni was in "financial trouble" and had to pay property taxes dating back to 1962. Therefore he had to sell his property to an outsider.
- The Committee is concerned with people outside their community moving in adjoining areas of the settlement. However, they said that they could accept "apartment buildings and bungalows but not slums." Though not stated explicitly, there might be a concern that their settlement may become unsafe with the in migration of lower income households. As an example, Bhattigaon was also mentioned as having been established recently within the last twenty five years (1975) by koli fishermen moving from Madh village.
- Electra, also known as Tata's bungalow, which adjoins the settlement, was built in 1975 as a guest house and is generally used on the weekends for their guests. Another such abutting property is Bougainville has been redeveloped in the last 4 years and is rented out for film and serial shooting since the last 3 years. The shooting currently generates nominal revenue for the residents. The inappropriate behavior of outsiders (especially young couples) and the danger imposed by strangers who could also be potential terrorists seem to be the major reasons for the Committee's reluctance in capitalizing on outsiders as a source of revenue.
- When asked about having noticed significant subdivision and expansion of the houses, the Committee mentioned that the MCGM does not permit construction of G+1 floors inside the gaathan whereas it is permitted outside the gaathan, in the land under the Collector or gaucharan land even though the area falls under no development zone. Since last year, the residents have built without permission. Secondly, the old buildings (built before MCGM was formed) pay a property tax of around Rs. 50. If a new storey is added, then there is a marginal increase (Rs. 50-75). However, if a new building is constructed, then the property tax increases significantly, which has led to significant subdivision and renovation.
- When asked about demography of the settlement, it was told that going by voter cards there are approximately 2200 households in the settlement. The average income of the residents varies from Rs. 3000-4000 per month. They are either farmers, vegetable/flower sellers, small shop owners (40-50%), BEST employees (15-20%) or salaried (10-15%). Approximately 10-20% of the households have a monthly income between Rs. 20,000-30,000 per month. A majority of the children go to English medium schools.
- Currently the development work in the village is predominantly undertaken by the Corporator. The Corporator is responsible for providing services such as drainage, solid waste management and water supply. The area under her jurisdiction is from Madh to Malavani 5 (Chickoowadi). Whenever a new project for the settlement is to be taken up, the village write letter to the Corporator / MLA / MP. It takes almost a year for the project proposal to get approved, after which a contractor is appointed to undertake the civil work. These works are funded from the 1 crore annual grant with the Corporator.
- In order to assess the community's rapport with the Corporator, Ms. Shriya Bhatia (MMR-HCS representative) asked how approachable was the Corporator and whether they had interacted with the MCGM. The Committee replied that the Corporator was

approachable and that the current Corporator, Ms. Renuka Dive had given her cell phone number so that she would be easily accessible to them. Though the Committee did not interact with the MCGM to present their settlement infrastructure needs, they had coordinated with the MCGM on the cremation ground issue.

- Committee further explained the role of SKBS. It is a charitable trust formed to organize religious and social functions in the village and to present the needs of the community to elected representatives. It has a Committee of 8 members, which organizes a village meeting at regular intervals and a working meeting every Sunday. Anybody from the settlement can become the member of the society by paying a nominal annual fee of Rs. 100.
- The Committee is elected every 3 years based on a majority vote. It has the following positions:
  - 1 President
  - 1 Vice-President
  - 1 Secretary
  - 1 Vice-Secretary
  - 1 Treasurer
  - 1 Vice-Treasurer
  - 2 Advisors
- The Samaj generates some revenue by charging the film shooting units. There used to be a demand for cowl houses earlier, which has reduced since most structures have been redeveloped. The revenues are mainly used for the maintenance of Hiradevi Temple and organizing cultural events for the residents. According to Mr. Patil, the Samaj is a cultural organization, whose role is to organize cultural and social events and is/should not be responsible for administration of the village.
- The SKBS has a cremation ground of 10 gunthas in Bhattigaon, which was built by their ancestors. Initially there were only few houses near the cremation ground with fish drying grounds around. Over a period of time, the number of houses increased and developed into what is now known as Bhattigaon. An agreement between the SKBS and the Bhattigaon was made to not to develop anything within the 40 feet of the cremation grounds. However the koli fishermen have constructed roads abutting the cremation area to get tempos to the coast to transport fish. The Committee has complained to the Collector and the MCGM.
- The committee was asked if the residents would be willing to contribute for development of the infrastructure and other development projects in the settlement. The committee felt that none of the residents will be inclined to contribute as the income levels of the residents are low and moreover it is the responsibility of the government to provide infrastructure. On the other hand, Mr. Sunil Mhatre seemed open to the idea of the residents contributing for infrastructure.
- While discussing funding sources, questions regarding parking revenues were posed. It was told that the cars parked in front of the St. Bonaventure Church pay to the church. The fishermen of Bhattigaon park their boats on the beach for three months during monsoons but presently no charges are collected from them.
- Mr. Dilip Mhatre stated that the committee strongly resists redevelopment of property in the settlement by builders and renting of rooms and houses to outsiders.
- Some of the projects that the Committee suggested for the development of Erangal settlement are listed below:
  - Comprehensive drainage (sewerage and waste water/storm water network) – This is the topmost priority for the Committee
  - Building public toilets behind the Municipal School
  - Replacing the 4 inch water supply pipeline with a 6 inch pipeline to increase the supply of water
  - Extension of municipal services to the gaothan expansion area and development of roads
  - Cleaning of the Talav and developing it for recreation

- Redevelopment of Holi Maidan as the functions of the settlement like Holi, Ganpati, Handi, marriage ceremonies are organized here.
- Renovation/Redevelopment of Badamwadi
- Redevelopment of Khale Gali (main street from beginning of settlement to the sea): It is called Khale Gali because after harvest, the rice was beaten along the street to remove the khal (husk).
- Cleaning of wells
- Recreation areas (parks) for adults and children
- Redevelopment of Shankar Mahadev Temple
- Revision of existing development control regulations – Though this was not explicitly mentioned, the current regulation permitting only ground floor development was posed as a serious constraint to the expansion of families and houses.
- Hospital or a college could be built on the government land in the village to generate income for the residents.

## Appendix 3

<b>MMR-HCS</b>	Data Collection Meetings	Consultation Meetings	Field Notes	<b>03</b>
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### Group Consultation 1

**Date:** 11<sup>th</sup> June 2010

**Attended By:**

Mr. Harichandra Thakur	Resident, Erangal Precinct
Mr. Sampada Thakur	Resident, Erangal Precinct
Ms. Nandani Thakur	Resident, Erangal Precinct
Mr. Ananth Eyunni	Project Associate, HCPDPM
Ms. Sonal Shah	Project Associate, HCPDPM

The residents of Holi Maidan street were briefed about the project, its background and objectives. The following issues regarding infrastructure in the precinct were discussed:

- The drain in front of their houses is laid with a wrong slope, which results in stagnation of water. During monsoons, the gutter clogs with sand blown by the sea breeze. This compounds the water stagnation, breeds mosquitoes and creates an unhygienic environment. This is compounded by irregular cleaning and maintenance of the drain by MCGM.
- The water is supplied only for 1 hour every day and even that comes at a low pressure.

### Group Consultation 2

**Date:** 11<sup>th</sup> June 2010

**Attended By:**

Mr. Victor Koli	Boat Owner, Bhattigaon
Mr. Srinu	Fisherman working with Mr. Victor Koli
Mr. Ananth Eyunni	Project Associate, HCPDPM
Ms. Sonal Shah	Project Associate, HCPDPM

Mr. Victor Koli is a resident of Bhattigaon. He owns fishing boats, which were parked on the beach and in the open space abutting St. Bonaventure Church.

- The fishing boats are parked in the monsoon from June-August, during which time they are repaired. Mr. Koli does not pay any parking charges.
- None of the residents in Erangal precinct are fishermen or repair boats.
- Each boat earns up to Rs. 20 lakh per fishing season.
- All boat owners are registered with Bhati Fishing Society. The essential resources like fuel, ice etc. are supplied through the society. It issues ID cards to members and approvals for boats to enter the sea.
- The fuel is supplied by Indian Oil Corporation.
- The fishermen and boat repairing men come from as far as Vishakhapatnam in the south for short periods.

### Group Consultation 3

**Date:** 11<sup>th</sup> June 2010

**Attended By:**

Mr. Naresh Thakur Precinct	Resident and Ex-Committee Member of SKBS, Erangal
Mr. Thakur	Resident, Erangal Precinct
Mr. Kishori Thakur	Resident, Erangal Precinct
Mr. Ananth Eyunni	Project Associate, HCPDPM
Ms. Sonal Shah	Project Associate, HCPDPM
Ms. Krupa Bhardwaj	Project Associate, HCPDPM
Mr. Sandip Dhiman	Project Associate, HCPDPM

The following emerged from the discussions:

#### History

- During Second World War, residents of coastal settlements like Erangal and Akse were shifted to Valnai and Malavani Church respectively. Erangal became a base for the British Navy and Air Force. The residents moved back to the settlement after independence. Most of the structures were destroyed; and were reconstructed on the same plots by the residents.

#### Community pattern and festivals:

- The majority of the residents belong to the Mhatre caste followed by the Thakurs and the Patils. People from other castes are not allowed to buy property or houses in Erangal.
- Holi is an important festival in Erangal. On the day preceding Holi, all the residents gather at Hiradevi Temple, burn Holi and there is a celebration in the night. They gather at Holi Maidan on the next day and play holi.
- Handika is also celebrated in Holi Maidan.
- The Saishav Kshatriya Bhandari Samaj (SKBS) organizes all the cultural programs in the settlement.

#### Issues and concerns:

- The water line has been laid under the gutter, which can lead to contamination.
- Their waste water is drained into a septic tank, as they are not connected to the main storm cum waste water drain.
- There is no higher education facility in the precinct. The families are hesitant to permit girls to pursue higher studies as the Municipal School in the precinct is only up to the 10<sup>th</sup> standard and the higher education facilities are located far away.
- There are a few street lights in settlement but they do not work properly. The road abutting Electra's compound wall has no street lights and Mr. Naresh Thakur has installed a street light within his compound wall.
- There are no medical facilities in Erangal and medical facilities are required close by especially during emergencies.
- The road abutting Electra's compound wall has been encroached and is used as storage space.

The following suggestion was given:

- The beach near Erangal can be developed for tourist activities with the support of the residents. The tourist activities will generate jobs for the residents.
- Picnic spots can be created and lifeguards should be appointed.

## Group Consultation 4

**Date:** 11<sup>th</sup> June 2010

**Attended By:**

Ms. Gauri Gorte	Resident, Erangal Precinct
Ms. Sumati Mhatre	Resident, Erangal Precinct
Ms. Renuka Thakur	Resident, Erangal Precinct
Mr. Harshad Raisonni	Project Associate, HCPDPM

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The women gave information on the customs and traditions of the villagers:

- There are no inter-caste marriages in the settlement. The marriages are arranged either within the settlement itself or in Bhandari community in Akse or Vasai.
- After marriage, two coconuts, which are considered as a God and Goddess, are tied to a branch of a mango tree in front of the house and kept for one year. This is done to convey that marriage ceremony has taken place in their house. The coconuts are covered with an umbrella for protection.
- Festivals like Holi, Dussera, Diwali and Christmas become an occasion for family gatherings.
- The Bhandari community does not belong to the fishermen caste and therefore no one in the settlement is engaged in fishing.
- Most of the people have a Tulsi planter in front of their houses as it is considered sacred. The Tulsi is watered and the verandah is washed daily. The women draw rangolis in front of their houses with symbols like *swastika*, *padchinha* etc.
- There is a tradition to place a metal tortoise in a small plate with water at the main entrance of house. The tortoise is considered as one of the avatars of Lord Vishnu. The villagers believe that the tortoise protects the family and increases wealth.

## Group Consultation 5

**Date:** 11<sup>th</sup> June 2010

**Attended By:**

Mr. Praful Mhatre	Resident, Erangal Precinct
Mr. Gajanan Mhatre	Resident, Erangal Precinct
Mr. Kamlakar Patil	Resident, Erangal Precinct
Ms. Pushpa Mhatre	Resident, Erangal Precinct
Mr. Ananth Eyunni	Project Associate, HCPDPM
Ms. Sonal Shah	Project Associate, HCPDPM

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Mr. Praful Mhatre is a resident and owns a shop along Khale Gali. Both Mr. Praful Mhatre and Gajan Mhatre were interviewed at the shop. The following information was given about the precinct:

- An open storm water drain was built in 1984 by Mr. Brito, a Nagar Sevak from Mid-Chowky. Mr. Ganesh Bhandari, the previous Nagar Sevak, had initiated the repair of the storm water drain by laying a storm water pipe and covering the drain. Ms. Renuka Dive, the current Nagar Sevak, completed the repair work. However, the drain is choked during the monsoons because of which the roads get flooded.
- A storm water drain was laid from the south-east entrance of the village to Madh-Malad road. However, it was higher than the rest of the network in the village. A pump was proposed to siphon out the water but the idea was later dropped since no one wanted to take the responsibility for doing so.
- The Nagar Sevak had promised to build public toilets in the precinct. However, these are yet to be built.
- When asked about the water supply, they replied that the water from the government well near the main road is used for daily washing of clothes, utensils etc. Most of the residents get tap water from MCGM. The main water line comes from Madh-Malad road and is laid up till Electra.
- There was a small shrine dedicated to Hiradevi, which was later made into a small temple and then renovated again.

The following suggestions were given:

- A school vehicle is required to pick and drop the children coming to the Municipal School.
- Khale Gali should not be widened to make way for big vehicles. An alternative route to the beach should be provided.

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## Group Consultation 6

**Date:** 12<sup>th</sup> June 2010

**Attended By:**

Mr. Chandra Thakur	Resident, Erangal Precinct
Mr. Satish Thakur	Resident, Erangal Precinct
Mr. Naresh Mhatre	Resident, Erangal Precinct
Mr. Manohar Thakur	Resident, Erangal Precinct
Mr. Ananth Eyunni	Project Associate, HCPDPM

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The following information was given regarding the sewage and storm water system:

- The residents live outside the gaathan in the northern part of the village. Since they are not connected to the main storm water line, the waste water from the kitchen and bathroom is let out into the banana plantations behind their houses via smaller channels.
- The sewage is let out into septic tanks. The water from the septic tanks is absorbed into the adjacent wells and it contaminates the well water.
- The septic tank needs to be cleaned once every 20 years, but it got full last monsoon and had to be cleaned.

## Group Consultation 7

**Date:** 12<sup>th</sup> June 2010

**Attended By:**

Mr. Chandrashekhar Mhatre	Resident and Ex-Committee Member of SKBS, Erangal Precinct
Mr. Jagdish Mhatre	Resident, Erangal Precinct
Mr. Laxman Mhatre	Resident, Erangal Precinct
Mr. Nandkumar Mhatre	Resident, Erangal Precinct
Mr. Satish Thakur	Resident, Erangal Precinct
Mr. Suryakant Verma	Project Associate, HCPDPM
Mr. Ananth Eyunni	Project Associate, HCPDPM

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The following issues were discussed:

- There are neither government financial schemes nor a rural banking system whereby the residents can obtain a loan.
- The agricultural land around the settlement is sold during marriages to meet the cost of the function. Further, many plots/ agricultural lands in and around the settlement, which had direct access from the main road were subdivided and sold. As a result, those plots, which did not have direct access to the road, were also sold off.
- Since the settlement falls under no-development zone, G+1 storey structures are not permitted.
- The settlement is overcrowded and it should be developed. However, its heritage should be preserved and the existing “village” character of the settlement should be maintained; it should not turn into a “town”.
- When asked about the social amenities in the settlement, they replied that there is a dearth of teachers in the Municipal School.

## Group Consultation 8

**Date:** 13<sup>th</sup> June 2010

**Attended By:**

Mr. Pravin Mhatre	Resident, Erangal Precinct
Mr. Praful Mhatre	Resident, Erangal Precinct
Mr. Jagnesh Mhatre	Resident, Erangal Precinct
Mr. Harshad Raisonni	Project Associate, HCPDPM

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The residents gave an overview of the history of the community and the precinct.

- The residents consider themselves as successors of *Mavlas*. *Mavlas* were soldiers in Chhatrapati Shivaji's army. During the Peshwa rule, they fought under Chimaji Appa, who was the military commander of the Peshwas. About 350-400 years ago, the Peshwas captured Vasai Fort and constructed a temple there. They also captured Madh Fort and settled in nearby areas, one of which is Erangal.
- During World War II (1942), when the British ruled Bombay, the settlements along the coast were moved to set up check posts to protect the coast.
- The residents were moved to Mid-Chowky temporarily. In 1947, when India got independence, they shifted back to their respective settlements. They found that most of the houses were broken and thus rebuilt their houses.

## Group Consultation 9

**Date:** 13<sup>th</sup> June 2010

**Attended By:**

Mr. Sunil Atmaram	Resident, Erangal Precinct
Mr. Chandrakant Tukaram	Resident, Erangal Precinct
Mr. Harshad Raisonni	Project Associate, HCPDPM

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The following information was given regarding issues facing the settlement:

- There is no periodic maintenance of the drains by the MCGM. The residents clean the roads and drain themselves.
- The water lines are laid below the drainage lines in most parts of the precinct. Therefore, there is a great chance of contamination.
- The storm water drains are choked and overflow during the monsoons.
- There are no playgrounds and libraries for children.
- The residents do not want people from outside their community to settle in the settlement. They are concerned it will create a nuisance for the community.
- There are no regular and affordable modes of transport, such that families feel secure in allowing the women to seek employment and pursue higher studies.

The following suggestion was given:

- The residents are willing to develop the lake. The effluents from the drains can be treated and the waste water can be discharged into the lake. Thus, the lake will have water throughout the year.

## Appendix 4

<b>MMR-HCS</b>	Data Collection Meetings	Consultation Meetings	Field Notes	<b>04</b>
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### Individual Interviews with the Residents in Erangal Village

VENUE: Erangal Village. DATE: 10-14 June 2010, TIME: Varies

#### Attended By:

Ms. Bindu Nair	Principal Planner, HCPDPM
Ms. Sonal Shah	Project Associate, HCPDPM
Ms. Krupa Bhardwaj	Project Associate, HCPDPM
Mr. Ananth Eyunni	Project Associate, HCPDPM
Mr. Sandip Dhiman	Project Associate, HCPDPM
Mr. Suryakant Varma	Project Associate, HCPDPM
Mr. Saurabh Khan	Project Associate, HCPDPM
Ms. Rashmita Jadav	Project Associate, HCPDPM
Mr. Harshad Raisoni	Project Associate, HCPDPM

The following table is a summary of the issues that the residents in the precinct discussed with HCPDPM members during the socio-economic survey.

Structure No.	Name of the Interviewee	Comments
1	Mr. Mani Thakur	<ul style="list-style-type: none"> <li>• Market, dispensary, medical stores are not available.</li> <li>• Open drains</li> <li>• Reliance Energy transformer behind the house may pose a danger</li> </ul>
2	Mr. Ashok Mhatre	<ul style="list-style-type: none"> <li>• Lack of medical facilities and police station</li> </ul>
4	Mr. Jain Mhatre	<ul style="list-style-type: none"> <li>• Lack of medical facility</li> <li>• Blockage in drains</li> </ul>
5	Mrs. Bhanumati Aishwan Mhatre	<ul style="list-style-type: none"> <li>• Medical facilities, playgrounds</li> <li>• Pond maintenance</li> </ul>
6	Mr. Kashinath Mhatre	<ul style="list-style-type: none"> <li>• Higher education facility</li> <li>• Choking of drains</li> <li>• No Market</li> </ul>
7	Mr. Praful Mhatre	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No marriage hall</li> <li>• No market</li> </ul>
9	Mr. P H Mhatre	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No marriage hall</li> <li>• No market closeby</li> </ul>
10	Mrs. Pushpa Mhatre	<ul style="list-style-type: none"> <li>• No market close by</li> <li>• No hospital close by</li> <li>• Insufficient water supply</li> <li>• Gutter opens in agriculture land</li> </ul>
11	Mrs. Sarubai Mhatre	<ul style="list-style-type: none"> <li>• No market facility</li> <li>• No health care facilities</li> </ul>
13	Mrs. Kamlabai T Mhatre	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No marriage hall</li> </ul>
14	Mr. Sudhakar Namdeo Mhatre	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No marriage hall</li> </ul>
17	Mr. Sunil Damodar Thakur	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No marriage hall</li> <li>• No market</li> </ul>

Structure No.	Name of the Interviewee	Comments
21	Mr. Naresh Shyam Thakur	<ul style="list-style-type: none"> <li>• No grocery shop</li> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• Choked drains</li> <li>• Water logging during rains</li> </ul>
22	Mrs. Vaishali Vasant Mhatre	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads and no street lights</li> </ul>
23	Mr. Harichandra Thakur	<ul style="list-style-type: none"> <li>• Closed drain overflows during rain</li> <li>• No street lights</li> <li>• No medical facilities</li> </ul>
24	Mr. Subhash Gajanan Thakur	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• No drainage line</li> </ul>
25	Mrs. Sarita Praful Bhate	<ul style="list-style-type: none"> <li>• Street lights required</li> <li>• No teachers in school</li> <li>• Roads are not good</li> </ul>
26	Mr. Ramesh Atmarambhou Thakur	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• No drainage line</li> </ul>
27	Mr. Sainath P Thakur	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• No drainage line</li> </ul>
29	Mr. Jagdish Krishna Thakur	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• No drainage line</li> </ul>
31	Mr. Bharat Shayamrao Thakur	<ul style="list-style-type: none"> <li>• No grocery shop</li> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• Choked drains and water logging during rains</li> </ul>
32	Mr. Jaywant Balkrishna Thakur	<ul style="list-style-type: none"> <li>• No grocery shop</li> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• Choked drains</li> <li>• Water logging during rains</li> </ul>
33-39	Mr. Madhukar Thakur Mr. Govind Rambhau Thakur Mr. Uttam Annaji Thakur Mr. Motiram Rambhau Thakur	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• No drainage line</li> </ul>
40	Mr. Dilip Narayan Mhatre	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• No drainage line</li> <li>• Less teachers in school</li> </ul>
42	Mr. Chandra Thakur	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No closed storm water drainage</li> <li>• No vegetable market</li> <li>• No library</li> <li>• No play ground</li> </ul>
43	Mr. Harishchandra Mhatre	<ul style="list-style-type: none"> <li>• No ration shop</li> <li>• No clinic</li> <li>• No drainage maintenance</li> <li>• No common toilets</li> </ul>
44	Mr. Babunath Thakur	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• Water logging problem</li> </ul>

Structure No.	Name of the Interviewee	Comments
		<ul style="list-style-type: none"> <li>• Drains get choked up</li> <li>• Low water pressure</li> <li>• No common toilets</li> <li>• No maintenance for drains</li> <li>• Pond development should be done</li> <li>• No gardens/parks</li> </ul>
45	Mrs. Nirmala Kashinath Thakur	<ul style="list-style-type: none"> <li>• No common toilets</li> <li>• No Market</li> </ul>
46	Mrs. Shashikala Mhatre	<ul style="list-style-type: none"> <li>• No grocery shop</li> <li>• No vegetable market</li> <li>• No health care facilities</li> <li>• Low water pressure</li> </ul>
47	Mr. Sunil Aatmaram Mhatre	<ul style="list-style-type: none"> <li>• No regular collection of solid waste</li> <li>• No health care facilities</li> <li>• No vegetable market</li> <li>• No college</li> <li>• No common toilets</li> <li>• Complaints for permission of new construction</li> </ul>
48	Mr. Dilip Patil	<ul style="list-style-type: none"> <li>• No grocery shop</li> <li>• No maintenance of drains</li> <li>• No tar roads</li> </ul>
49-52	Mr. Subhash Patil Mr. Devanand Mhatre Mr. Kishore Moreshwar Mhatre Mrs. Pramila Balaram Mhatre	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• No street lights</li> </ul>
53	Mr. Rajendra Mhatre	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• No drainage line</li> <li>• No grocery shop</li> <li>• No vegetable market</li> </ul>
54	Mr. Dilip Mhatre	<ul style="list-style-type: none"> <li>• Water logging</li> <li>• No street Lights</li> </ul>
56	Mr. Motiram Sukhram Mhatre	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads and no street lights</li> </ul>
57	Mr. Gajanan Moreshwar Mhatre	<ul style="list-style-type: none"> <li>• No street lights</li> <li>• No roads</li> </ul>
58-59	Mrs. Sakubai Narayan Mhatre Mr. Thaksen Sitaram Mhatre	<ul style="list-style-type: none"> <li>• No maintenance of drains</li> <li>• No tar roads</li> <li>• No maintenance of roads</li> </ul>
62	Mr. Vivek Kisan Thakur	<ul style="list-style-type: none"> <li>• Low water pressure</li> <li>• No closed storm water drainage</li> <li>• No common toilets</li> <li>• No vegetable market</li> <li>• No grocery shop</li> <li>• No health care facilities</li> </ul>
63-64	Mr. Nagesh Patil Mr. Kamalakar Vasudev Thakur	<ul style="list-style-type: none"> <li>• No common toilets</li> <li>• No vegetable market</li> <li>• No closed storm water drainage</li> </ul>
65-66	Mr. Manohar Dhanaji Patil Mrs. Hirabai Patil	<ul style="list-style-type: none"> <li>• No market</li> <li>• No health care facilities</li> </ul>
67	Mrs. Devyani Bhalchandra Patil	<ul style="list-style-type: none"> <li>• No maintenance for drains</li> <li>• No common toilets</li> </ul>

Structure No.	Name of the Interviewee	Comments
		<ul style="list-style-type: none"> <li>• No vegetable market</li> </ul>
68	Mrs. Vandana Patil	<ul style="list-style-type: none"> <li>• No health care facilities</li> </ul>
69	Mrs. Sushila Pandurang Patil	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No common toilets</li> </ul>
71	Mrs. Neelam Dilip Mhatre	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No closed storm water drainage</li> <li>• No vegetable market</li> </ul>
72	Mr. Shankar Mhatre	<ul style="list-style-type: none"> <li>• No closed storm water drainage</li> <li>• No rationing shop</li> </ul>
75	Mr. Sadashiv Nana Mhatre	<ul style="list-style-type: none"> <li>• Problem with solid waste disposal</li> </ul>
77	Mr. Prabhakar Mhatre	<ul style="list-style-type: none"> <li>• No sewer lines</li> <li>• No common toilets</li> <li>• No maintenance of drains</li> <li>• No regular water supply</li> </ul>
79	Mrs. Manisha Dilip Patil	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No vegetable market</li> <li>• No bank</li> </ul>
80	Mr. Kisan Bhau Mhatre	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No common toilets</li> </ul>
82	Mr. Sundar Mhatre	<ul style="list-style-type: none"> <li>• No grocery shop</li> <li>• No health care facilities</li> <li>• No common toilets</li> </ul>
84	Mr. Kamlakar Patil	<ul style="list-style-type: none"> <li>• No closed storm water drainage</li> <li>• No health care facilities</li> </ul>
85	Mrs. Kamalabai Shankar Vaghe	<ul style="list-style-type: none"> <li>• No closed storm water drainage</li> <li>• No health care facilities</li> <li>• No maintenance for drains</li> <li>• Transport facility less accessible</li> </ul>
86	Mr. Ramchandra H Patil	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No closed storm water drainage</li> </ul>
87	Mr. Devendra Mhatre	<ul style="list-style-type: none"> <li>• No closed storm water drainage</li> </ul>
88	Mr. Vaman S Chaudhary	<ul style="list-style-type: none"> <li>• No closed storm water drainage</li> <li>• No health care facilities</li> </ul>
89	Mr. Premnath Mhatre	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• Transport facility less accessible</li> </ul>
90	Mr. Namdev Govind Mhatre	<ul style="list-style-type: none"> <li>• No closed storm water drainage</li> <li>• No health care facilities,</li> <li>• Insufficient water supply</li> </ul>
91	Mrs. Yamuna Shashikant Mhatre	<ul style="list-style-type: none"> <li>• No closed storm water drainage</li> <li>• No health care facilities,</li> <li>• Insufficient water supply</li> </ul>
92	Mr. Ramesh R Gorte	<ul style="list-style-type: none"> <li>• No electricity/telephone bill payment counter</li> <li>• No market</li> <li>• No higher education facility nearby</li> </ul>
94	Mr. Shyam Raman Mhatre	<ul style="list-style-type: none"> <li>• No health care facilities</li> </ul>
95	Mr. Sanjay Namdev Mhatre	<ul style="list-style-type: none"> <li>• No health care facilities</li> <li>• No maintenance for drains</li> <li>• Transport facility less accessible</li> <li>• No common toilets</li> </ul>
96	Mrs. Sumita Navnath Mhatre	<ul style="list-style-type: none"> <li>• No market, ration shop, clinic close by</li> </ul>
97	Mrs. Savita Ramesh Mhatre	<ul style="list-style-type: none"> <li>• Common toilets not available</li> <li>• Church fest is a problem</li> <li>• Lake redevelopment should be done</li> <li>• Bank required</li> </ul>

Structure No.	Name of the Interviewee	Comments
		<ul style="list-style-type: none"> <li>• Gym required</li> <li>• Playground required</li> </ul>
98	Mr. Suresh	<ul style="list-style-type: none"> <li>• Common toilet</li> <li>• Grocery shop</li> </ul>
105	Mrs. Manda Nilkanth Mhatre	<ul style="list-style-type: none"> <li>• No water connection</li> </ul>
106	Mrs. Pavitra Vikas Chaudhary	<ul style="list-style-type: none"> <li>• No hospital nearby</li> </ul>
107	Mrs. Gita Prakash Mhatre	<ul style="list-style-type: none"> <li>• No vegetable market</li> <li>• No clinic</li> </ul>
108	Mrs. Pushpa Vijay Mhatre	<ul style="list-style-type: none"> <li>• Pond development</li> <li>• No vegetable market</li> <li>• No clinic</li> <li>• No drainage line</li> </ul>
109	Mrs. Sumati Mhatre	<ul style="list-style-type: none"> <li>• No English medium school</li> <li>• No vegetable market</li> </ul>
110	Mr. Gaurakshan Chaudhary	<ul style="list-style-type: none"> <li>• No common toilets</li> <li>• No clinic</li> <li>• No drainage line</li> </ul>
111	Mr. Eknath M. Chaudhary	<ul style="list-style-type: none"> <li>• No common toilets</li> <li>• No clinic</li> <li>• No drainage line</li> </ul>
112	Mr. Nilesh P Chaudhary	<ul style="list-style-type: none"> <li>• No hospital</li> <li>• No market for vegetables &amp; fish</li> </ul>
113	Mrs. Rekha Mangesh Chaudhary	<ul style="list-style-type: none"> <li>• No vegetable market</li> <li>• No water connection</li> </ul>
114	Mrs. Surekha Eknath Walge	<ul style="list-style-type: none"> <li>• No ration shop, vegetable market</li> <li>• No clinic</li> <li>• No sweepers</li> <li>• No light poles</li> </ul>
115	Mrs. Bhagyashri Chandan Mhatre	<ul style="list-style-type: none"> <li>• No hospital</li> </ul>
116	Mrs. Asha Vilas Bohir	<ul style="list-style-type: none"> <li>• No water connection and common toilets</li> <li>• No grocery shop</li> </ul>
118	Mrs. Indumati	<ul style="list-style-type: none"> <li>• No hospital, clinic,</li> <li>• No vegetable market and big grocery shop</li> </ul>

**Appendix 5 Socio-Economic Survey**

**1. DETAILS OF INTERVIEW**

a	Name & surname of person	
b	Name of Interviewer	
c	Date of interview	
d	Structure No	

**2. HOUSEHOLD AND FAMILY MEMBER DETAILS**

N o	A. Name	B. Male/ Female	C. Age	D. Education		E. Occupation		F. Monthly Income
				i. Level	ii. Location	i. Type	ii. Location	
1								
2								
3								
4								
5								
6								
7								
8								
9								
1								
1								

Total number of persons in household:

<b>G. Monthly Household Income:</b>	
1	0 – 2,500
2	2,500 – 5,000
3	5,000 – 10,000
4	10,000 – 20,000
5	20,000 – 30,000
6	30,000 – 50,000
7	50,000 – 70,000
8	Above 70,000

**H. Community:**

### 3. SERVICES, UTILITIES AND CHARGES

<b>a WATER SUPPLY</b>					
i	How is water supplied for drinking and other purposes?	Tap_____, Government Wells_____, Bore well_____ Private Tankers_____, Others_____			
ii	What is the time and duration of supply?				
iii	Are there water meters and what are the monthly charges?	Yes_____, No_____ Charges (If any):_____			
<b>b SEWERAGE SYSTEM</b>					
i	How is sewerage disposed?	Soak pit_____, Sewerage Network_____, Open drains_____ Others_____			
ii	What are the sewerage charges?				
<b>c SOLID WASTE SYSTEM</b>					
i	How is solid waste disposed?				
ii	Are there any charges? If yes, how much?	Yes_____, No_____ Charges (If any):_____			
<b>d ELECTRICITY</b>					
i	How is electricity supplied?				
ii	Are there meters?	Yes_____, No_____			
<b>e SOCIAL AMENITIES</b>					
i	Where are the closest medical facilities and emergency services located?	<b>Medical Service</b>	<b>Location</b>	<b>Distance</b>	<b>Commute Time</b>
		Dispensary			
		Maternity Clinic			
		Hospital			
ii	Accessibility (How accessible are the education and health facilities?)				
<b>f PROPERTY TAXES</b>					
i	Do you pay property taxes? If yes, how much?	Yes_____, No_____ Property Tax (If any):_____			
<b>g ISSUES AND POSSIBLE SOLUTIONS / PROJECTS</b>					
i	Issues What are the problems with the current services? What do you think are the current issues with the settlement?				
ii	Possible Solutions How do you think they can be improved or addressed?				

**Appendix 6 Structure Survey**

<b>a STRUCTURE DETAILS</b>		
i	Year built	
ii	Ownership Pattern	Present:
		Past:
iii	Use	Past:
iv	Renovation: (When and what kind of renovation was undertaken? Why?)	
v	Quality of Natural Light	Well Lit ____, Fairly Lit ____, Poorly Lit ____, No Natural Light ____
vi	Ventilation	Well Ventilated / Fairly Ventilated / Poor Ventilation / No Ventilation
<b>b CONSTRUCTION DETAILS</b>		
i	Plinth	Finish
ii	Walls	Finish
iii	Floor	Finish
iv	Stairs	
v	Openings	
vi	Roofing	Finish
vii	Chajjas	
viii	Elements (Railings/ brackets etc.)	
ix	Interiors	
x	Outbuildings / Landscape etc	
<b>c CONDITION DETAILS</b>		
i	Plinth	
ii	Walls	
iii	Floor	
iv	Stairs	
v	Openings	
vi	Roofing	
vii	Chajjas	
viii	Elements (Railings/ brackets etc.)	
ix	Outbuildings / Landscape etc	
<b>d TRANSFORMATIONS</b>		
i	Structure (System, columns, Beams etc.)	
ii	Elements (Railings, brackets)	
iii	Finishes	

**Appendix 7 Heritage Proforma of Structure No 11**

<b>11</b>				
	STRUCTURE NO	11		
	WARD	P/N		
	CS NO.	1365, 1367		
	PLOT AREA	204.61		
	BU AREA	386.45 Sqm		
	FSI	1.88		
	DATE	12/06/2010		
	RECORDED BY	Suryakant		
	REVIEWED BY			
	INTERNAL	Sonal		
PHOTOPLATE REFERENCE	PART-3 PLATE NO 11		 <p>Not to Scale</p>	
<b>1.0 NAME OF THE PROPERTY</b>				
1.1	NAME OF THE PREMISE	NA.		
1.2	EARLIER NAME	NA.		
1.3	BUILT-IN	1949.		EXTENSION (if any): A kitchen, a store room and 2 toilets are added to the rear.
<b>2.0 ACCESS</b>				
2.1	MAIN	Khale Gali.		
2.2	SUBSIDIARY	None.		
<b>3.0 OWNERSHIP PATTERN</b>				
3.1	PRESENT	The structure is subdivided into three households. They are numbered as 11A, 11B and 11C. Though the present owner as per the property card is Motiram Chimaji Mhatre, the current occupants as per the site survey are as follows: 11A - Pramod Mhatre 11B - Namdeo Mhatre 11C - Gajanan Mhatre		
3.2	PAST	Motiram Chimaji Mhatre.		
3.3	STATUS	Owner.		
<b>4.0 HEIGHT</b>				
4.1	FLOORS	G+1.		
<b>5.0 USE</b>				
5.1	PRESENT	Residential.		
5.2	PAST	Residential.		
5.3	USAGE ON ALL FLOORS	Residential.		
<b>6.0 OCCUPANCY STATUS</b>				
6.1	VACANT/OCCUPIED	Occupied.		
<b>7.0 BACKGROUND AND CONTEXT</b>				
7.1	HISTORY AND IMPORTANCE	The structure was originally built in 1871. During the Second World War, the precinct was one of many locations used by the British to watch and protect the coast, and therefore it was evacuated and the residents were moved to Mid-Chowky. After independence, the residents moved back to the precinct. Most of the structures were destroyed and the houses were rebuilt. The structure was rebuilt in 1949, though there is a plaque with the original date on the front façade.		

7.2	TOWNSCAPE	The house is located in the southern edge of the precinct along Khale Gali. It is located in the gaathan, at the intersection of Khale Gali and Holi Maidan street. The structure is surrounded by predominantly G+ 1 residential structures, which have grown organically over a period. It has one of the largest footprints in the precinct and commands a presence in terms of bulk/massing. A 1m high wooden fence encloses the open area in front of the house. It has a large backyard with trees.	
<b>11</b>			
<b>8.0 ARCHITECTURAL DESCRIPTION</b>			
	<p><u>The Plan and Features</u> The house has a square shaped plan form with three bays. Two bays are occupied by households 11A and 11B on the ground and first floor respectively. Household 11C occupies one bay. The organization of functions is similar in all the three households. The structure has a deep verandah towards the front of the house followed by living rooms, puja room and bedroom and the kitchen, toilets and a store room towards the rear.</p> <p>The house is spanned by wooden beams and rafters supported on lead bearing walls. The verandah and the balcony stand out as two distinct elements from the street whereas the rest of the structure is simple. The verandah has inbuilt seating and is defined by square shaped wooden columns. The external walls facing it have relief stucco work. An overhang made of wooden rafters, brackets and mangalore tiles protects the verandah. The balcony is also covered by a similar system. In addition, it also has a wooden fascia board. The external doors and the windows though square in shape have arched lintels and add detail to the house.</p>		
<b>9.0 CONSTRUCTION</b>			
9.1	PLINTH	Stone masonry in lime mortar.	FINISH: Exposed.
9.2	WALLS	Load bearing stone masonry in lime mortar.	FINISH: Cement plastered, painted.
9.3	FLOOR	Ground: PCC. First: Wooden beams and rafters.	FINISH: Kota stone. FINISH: Kota stone.
9.4	STAIRS	<p>There are three staircases.</p> <ul style="list-style-type: none"> <li>- External, single flight RCC staircase with MS Railings in the verandah.</li> <li>- Internal MS staircase with MS railings towards the rear.</li> <li>- Internal wooden staircase without railings in 11C.</li> </ul>	
9.5	OPENINGS	<p><u>Doors:</u> Painted, wooden shutters in wooden frames. The external doors have arched lintels.</p> <p><u>Windows:</u> Painted, wooden shutters in wooden frames with vertical iron bars and arched lintels. The first floor windows have a ventilator with stained glass.</p>	
9.6	ROOFING	<p>Main roof: Pitched roof, MS rafters with AC sheets and mangalore tiles Balcony roof: Wooden rafters with mangalore tiles, fascia board and PVC gutter Verandah overhang: Wooden rafters supported by wooden brackets and columns, covered with mangalore tiles.</p>	
9.7	ELEMENTS	<ul style="list-style-type: none"> <li>- Wooden decorative brackets supporting the verandah overhang.</li> <li>- -- Side wall with arched opening and inbuilt seating in verandah.</li> <li>- The brick parapet on the first floor balcony has a rhythmic pattern of square openings.</li> <li>- Wooden fascia board on the balcony roof.</li> <li>- Arched lintels for windows and external doors.</li> <li>- Tulsi planter in front of the house.</li> </ul>	
9.9	INTERIORS	The interiors are simple and recently renovated. There is a central decorative column in the first floor hall, old utensils and inbuilt storage.	
9.10	EDGE CONDITION	Wooden fence around the front open space of the structure.	
9.11	CURTILAGE / UNBUILT SPACE / LANDSCAPE OUTBUILDINGS	The front open space is covered with cement concrete and has a Tulsi planter.	
<b>10.0 SERVICES &amp; UTILITIES</b>			
10.1	LIGHTING	Well Lit.	
10.2	VENTILATION	Well Ventilated.	
10.3	ELECTRICITY	Reliance Energy.	
10.4	WATER SUPPLY	Tap.	
10.5	DRAINAGE	Gutter.	

10.6	FIRE PRECAUTION	NA.		
10.7	HVAC/ BMS/ SECURITY SYS	NA.		
<b>11.0 CONDITION</b>				
11.1	PLINTH	Good – Well maintained.		
11.2	WALLS	Good – Well maintained.		
11.3	FLOOR	Good – Well maintained.		
11.4	STAIRS	Good – Well maintained.		
11.5	OPENINGS	Good – Well maintained.		
11.6	ROOFING	Good – Well maintained.		
<b>11</b>				
11.7	ELEMENTS	Good – Well maintained.		
11.8	SERVICES	Good – Well maintained.		
11.9	OUTBUILDINGS	Good – Well maintained.		
11.10	OVERALL CONDITION	Good.	MAINTENANCE LEVEL	Well Maintained.
<b>12.0 TRANSFORMATION</b>				
12.1	FORM	<ul style="list-style-type: none"> <li>- A store room, kitchen and two toilets were added on the ground floor and the first floor.</li> <li>- The wooden-mangalore tile roof was replaced with MS rafters and AC sheets.</li> <li>- The staircase in 11A was removed from the living room and constructed in the verandah.</li> </ul>		
12.2	STRUCTURE	None		
12.3	ELEMENTS & FINISHES	Renovation 8 yrs ago <ul style="list-style-type: none"> <li>- Cow-dung flooring changed to kota flooring</li> <li>- False ceiling for kitchen added.</li> <li>- Walls were repainted.</li> </ul>		
13.0	DP REMARKS / PERCEIVED THREATS	NA.		
14.0	ADDITIONAL NOTES	NA.		



ELEVATION



VIEW



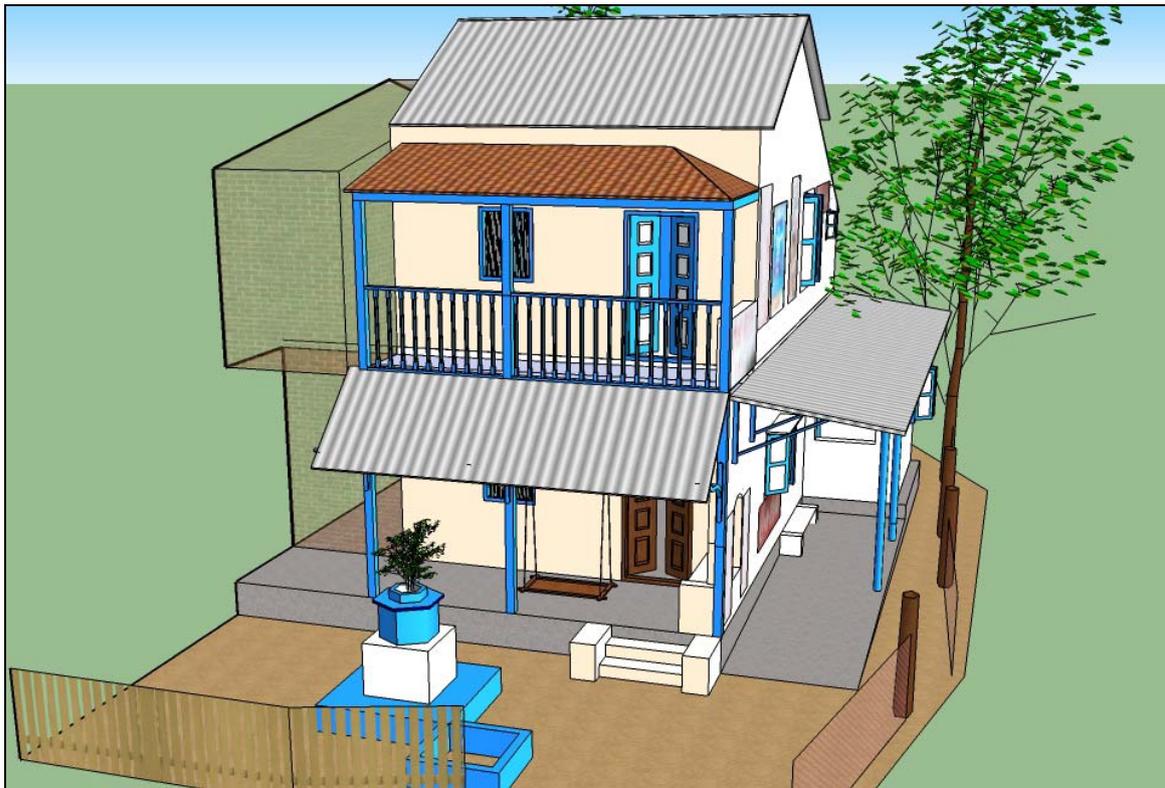
VIEW OF THE VERANDAH

### Appendix 8 Heritage Proforma of Structure No. 14

<b>14</b>			
	STRUCTURE NO	14	 <p style="text-align: center;">Not to Scale</p>
	WARD	P/N	
	CS NO.	1353	
	PLOT AREA	62.7 Sqm	
	BU AREA	125.4 Sqm	
	FSI	2	
	DATE	NA	
	RECORDED BY	Suryakant	
	REVIEWED BY		
	INTERNAL	Sonal	
PHOTOPLATE REFERENCE	PART 3 PLATE NO 14		
<b>1.0 NAME OF THE PROPERTY</b>			
1.1	NAME OF THE PREMISE	NA.	
1.2	EARLIER NAME	NA.	
1.3	BUILT-IN	NA.	EXTENSION (if any): A bath and toilet have been added towards the rear.
<b>2.0 ACCESS</b>			
2.1	MAIN	Khale Gali	
2.2	SUBSIDIARY	NA.	
<b>3.0 OWNERSHIP PATTERN</b>			
3.1	PRESENT	Though Namdeo Krishna Mhatre is the present owner as per the property card, the current occupant is Sudhakar Namdeo Mhatre as per the site survey.	
3.2	PAST	Namdeo Krishna Mhatre.	
3.3	STATUS	Owner.	
<b>4.0 HEIGHT</b>			
4.1	FLOORS	G+1.	
<b>5.0 USE</b>			
5.1	PRESENT	Residential + Commercial.	
5.2	PAST	Residential.	
5.3	USAGE ON ALL FLOORS	Ground Floor: Residential + Commercial First Floor: Residential	
<b>6.0 OCCUPANCY STATUS</b>			
6.1	VACANT/OCCUPIED	Occupied	
<b>7.0 BACKGROUND AND CONTEXT</b>			
7.1	HISTORY AND IMPORTANCE	During the Second World War, the precinct was one of many locations used by the British to watch and protect the coast, and therefore it was evacuated and the residents were moved to Mid-Chowky. After independence, the residents moved back to the precinct. Most of the structures were destroyed and the houses were rebuilt. The date of the original and reconstructed structure is not known, though the residents claim that it is more than 50 years old.	
7.2	TOWNSCAPE	The house is located in the southern edge of the precinct along Khale Gali. It is located outside the gaathan, at the intersection of Khale Gali and Holi Maidan street. The structure is surrounded by predominantly G+ 1 residential structures, which have grown organically over a period. A 1m high twig fence encloses the open area in front of the house. It shares a wall with another structure and has open space on the other three sides.	

14			
<b>8.0 ARCHITECTURAL DESCRIPTION</b>			
	<p><u>The Plan and Features</u> The house has linear plan form with a single bay. The functions are organized from front to back. It shares a verandah and a common wall with the neighbouring structure. The verandah is followed by the living room, bedroom or common room and kitchen, bath and toilets at the rear. There is a ground floor retail store on the side of the house facing St. Bonaventure Church. The structure has a front open space which is surrounded by a wooden fence and a large back yard enclosed by temporary AC sheets. There is a tulsi planter in the front. The area in front of the shop is covered with AC sheets and has seating.</p> <p>The house is spanned by wooden beams and rafters supported on lead bearing walls. There is inbuilt storage. The verandah and the balcony stand out as two distinct elements from the street whereas the rest of the structure is simple and not well maintained.</p>		
<b>9.0 CONSTRUCTION</b>			
9.1	PLINTH	Stone masonry in cement mortar.	FINISH : Cement plaster
9.2	WALLS	Load bearing brick masonry in cement mortar.	FINISH: Cement plaster, painted.
9.3	FLOOR	Ground: Mosaic tiles and kota stone on PCC. First: Wooden boards on wooden joists	FINISH: Kota stone. FINISH: Wooden boards
9.4	STAIRS	Internal wooden stairs, painted	
9.5	OPENINGS	<p><u>Doors:</u> Painted, wooden shutters in wooden frames. The external door has a wooden shelf to keep portraits of idols.</p> <p><u>Windows:</u> Painted, wooden shutters in wooden frames with iron bars.</p>	
9.6	ROOFING	<p>Main roof: Pitched roof, MS rafters with AC sheets.</p> <p>Balcony roof: Wooden rafters with mangalore tiles.</p> <p>Verandah overhang: Wooden rafters supported by wooden brackets and columns, covered with AC sheets.</p>	
9.7	ELEMENTS	<ul style="list-style-type: none"> <li>- Wooden decorative brackets supporting the verandah overhang.</li> <li>- Side wall with arched opening and inbuilt seating in verandah.</li> <li>- Traditional swing in the verandah.</li> <li>- Floor of the verandah has a small depression to grind rice.</li> <li>- Painted wooden railing in the balcony.</li> <li>- Tulsi planter in front of the house.</li> </ul>	
9.9	INTERIORS	The interiors are simple. There is in built storage and simple wooden furniture. The toilet and kitchen have ceramic dado.	
9.10	EDGE CONDITION	<ul style="list-style-type: none"> <li>- Twig fence around the front open space.</li> <li>- AC sheets around the backyard.</li> </ul>	
9.11	CURTILAGE / UNBUILT SPACE / LANDSCAPE OUTBUILDINGS	The front open space is paved and has a Tulsi planter.	
<b>10.0 SERVICES &amp; UTILITIES</b>			
10.1	LIGHTING	Fairly Lit. There roof has a skylight and the first floor is punctured for additional light on the ground floor.	
10.2	VENTILATION	Fairly Ventilated.	
10.3	ELECTRICITY	Reliance Energy.	
10.4	WATER SUPPLY	Tap.	
10.5	DRAINAGE	Gutter.	
10.6	FIRE PRECAUTION	NA.	
10.7	HVAC/ BMS/ SECURITY SYS	NA.	
<b>11.0 CONDITION</b>			
11.1	PLINTH	Fair.	
11.2	WALLS	Fair.	
11.3	FLOOR	Fair.	
11.4	STAIRS	Fair.	
11.5	OPENINGS	Fair.	
11.6	ROOFING	Fair.	
11.7	ELEMENTS	Fair.	
11.8	SERVICES	Fair.	

<b>14</b>			
11.9	OUTBUILDINGS	NA.	
11.10	OVERALL CONDITION	Fair.	MAINTENANCE LEVEL Poorly maintained.
<b>12.0 TRANSFORMATION</b>			
12.1	FORM	<p>There have been incremental renovations over the years.</p> <ol style="list-style-type: none"> <li>1. Renovation 30 yrs ago <ul style="list-style-type: none"> <li>- Finishes of plinth changed from mud to cement koba</li> </ul> </li> <li>2. Renovation 20 yrs ago <ul style="list-style-type: none"> <li>- Toilet and kitchen added</li> </ul> </li> <li>3. Renovation 10 yrs ago <ul style="list-style-type: none"> <li>- Shop added</li> </ul> </li> <li>4. Renovation 2 yrs ago <ul style="list-style-type: none"> <li>- Roof material partially changed from mangalore tiles to AC sheets.</li> </ul> </li> </ol>	
12.2	STRUCTURE	NA.	
12.3	ELEMENTS & FINISHES	Ceramic dado in the toilet and the kitchen.	
13.0	DP REMARKS / PERCEIVED THREATS	NA.	
14.0	ADDITIONAL NOTES	The exterior side walls have advertisements for soft drinks, which are detrimental to the aesthetic of the structure.	



FRONT VIEW



SIDE ELEVATION



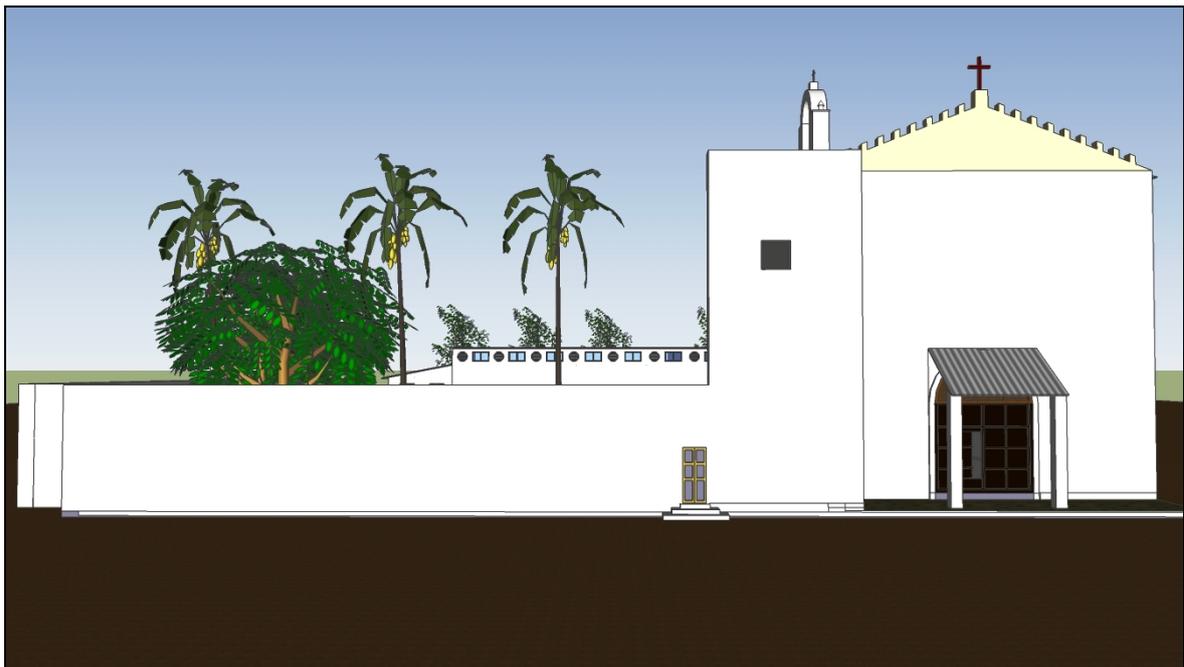
VIEW

### Appendix 9 Heritage Proforma of St. Bonaventure Church

20 A, B, C		ST. BONAVENTURE CHURCH	
	STRUCTURE NO	20 A,B, C	
	WARD	P/N	
	CS NO.	734,1374	
	PLOT AREA	2373.76	
	BU AREA	703.39	
	FSI	0.30	
	DATE	13/06/2010	
	RECORDED BY	Suryakant	
	REVIEWED BY		
	INTERNAL	Sonal	
PHOTOPLATE REFERENCE	PART-3 PLATE NO	20	
 <p>Not to Scale</p>			
<b>1.0 NAME OF THE PROPERTY</b>			
1.1	NAME OF THE PREMISE	St. Bonaventure Catholic Church.	
1.2	EARLIER NAME	St. Bonaventure Catholic Church.	
1.3	BUILT-IN	1575/1599.	EXTENSION (if any): Kitchen, picnic room and toilet block.
<b>2.0 ACCESS</b>			
2.1	MAIN	Off Khale Gali.	
2.2	SUBSIDIARY	Electra street.	
<b>3.0 OWNERSHIP PATTERN</b>			
3.1	PRESENT	Louisa John Niklav, Victor Niklav, Leo Niklav, Rosinald Niklav, Walter Niklav Our Lady of Sea Church.	
3.2	PAST	NA.	
3.3	STATUS	Owner.	
<b>4.0 HEIGHT</b>			
4.1	FLOORS	G (3 storeys high).	
<b>5.0 USE</b>			
5.1	PRESENT	Religious.	
5.2	PAST	Religious.	
5.3	USAGE ON ALL FLOORS	Religious.	
<b>7.0 OCCUPANCY STATUS</b>			
7.1	VACANT/OCCUPIED	Occupied.	
<b>8.0 BACKGROUND AND CONTEXT</b>			
8.1	HISTORY AND IMPORTANCE	<p>This was the first Church to be built on Madh island in Erangal Village (Yarangal) some 2 kilometers from Our Lady of Sea, Madh at the northern end of the island. Erangal village was acquired by the Franciscans from 1554-57 as an investment for the upkeep of a school at Mt. Poinzur. They built a church, in honour of St. Bonaventure in 1599 for the people of the surrounding villages. "This date is certain," says Fr. Meeran (1971:205) "notwithstanding the recent marble slab with year 1575 inscribed on it and inserted in the arch which separates the nave from the sanctuary". The Franciscans cared for this parish until the Maratha invasion in 1739, after which it passed into the care of the Vicars of Versova until around 1839 (Humbert, II: 36).</p> <p>Fr. Humbert states (II: 65) that "with the structure of the Church of St. Antonio of Malavani (in 1835), St. Bonaventure of Erangal was abandoned and a small church was built at Aldeamar for Catholics of Madh island". It is said that when the Church at Malavani was erected across the creek in 1835, the Church of Ol of Sea at the southern end was developed while the Church of St. Bonaventure at the northern end was abandoned. Till recently, the Church of St. Bonaventure was in ruins. In 1976, through the efforts of Peter Bombacha, Assistant at Madh, this ruined Church, measuring 98 ft by 30 ft was repaired and brought into</p>	

20 A, B, C		ST. BONAVENTURE CHURCH	
		<p>use. Each year on the Sunday after Epiphany, the feast of this Church is celebrated and is attended by many. A statue of St. Bonaventure has been standing on the high altar for years. At one time, Erangal may have had a large number of Catholic families but today there is only one.</p> <p>The stone plaque on the door of the Church has inscription in Marathi and English, which states the following: "This imposing church was built in 1575. The regular Catholic activity was carried out over here till the time of the Maratha invasion in 1739. The annual celebrations called Baravi were held at these abandoned ruins for generations. In 1976, the parish priest of Madh Church got these dilapidated ruins repaired and renovated. Once again, the Catholic activity was reintroduced by Rev Fr. Joseph, January 1987".</p>	
8.2	TOWNSCAPE	<p>The Church is located along the sea-coast near the Municipal school in Erangal precinct. It is accessed by Khale Gali, the main road in the precinct. It is surrounded by G+1 residential structures. Since it is G+3 storeys high, it is the tallest structure in the precinct. It is painted in white and faces the sea; the pure white façade against a blue sky creates a dramatic impact. The Church is placed in a large plot with a huge foreground that gently slopes towards the sea. The backyard is used for cultivation.</p>	
<b>9.0 ARCHITECTURAL DESCRIPTION</b>			
	<p><u>The Plan and Features</u> The plan is elementary / simple and consists of the main hall / nave and the apse / altar. The plan is symmetrical along the central axis. The main hall is huge and has a high volume. Steel trusses roof it and windows on the left wall with stained glass illuminate the space. The main entry leads to the hall; a porch has been recently added to the front / main door. The altar is at the other end and has a barrel vault roof. St. Bonaventure Church seems to be a unique example of a simple hall type church that has no stylistic references. It is an example of an unaltered early Portuguese architecture in this part of India.</p>		
<b>10.0 CONSTRUCTION</b>			
10.1	PLINTH	Stone masonry.	FINISH: Lime wash.
10.2	WALLS	Random rubble stone masonry, load bearing. (3-5 feet thick).	FINISH: Rough cement plaster, painted.
10.3	FLOOR	Kota stone.	FINISH: Shahabad flooring. The aisle is painted and defined by white thick lines.
10.4	STAIRS	NA.	
10.5	OPENINGS	<p><u>Doors</u> – The main door has semicircular arched lintel. The door is large and has 2 divisions – ventilators with wooden louvers at the top and paneled shutters. There is a small door left of the main entrance to the Church.</p> <p><u>Windows</u> – 5 rectangular openings with splayed edges on the right side wall of the church, of which one is closed and the remaining 4 are fixed with stained glass.</p>	
10.6	ROOFING	<p>The original roof has been lost. The Church has a pitched roof, except at the apse, which has a masonry barrel vault. The nave is spanned by steel trusses, with steel purlins running between the trusses. The purlins are covered with AC sheets.</p>	
10.7	ELEMENTS	Marble altar	
10.9	INTERIORS	<p>There is an old statue of St. Bonaventure in the altar.</p> <p>The walls are covered with ceramic tiles up to a height of 3.0m.</p>	
10.10	EDGE CONDITION	<p>There are stone compound walls on three sides - the rear, left and front side of the plot. There are four entry points into the plot – the gate in the front provides access into the open courtyard, one along Khale Gali, one near the well. The fourth gate is the main the entry to the church.</p>	
10.11	CURTILAGE / UNBUILT SPACE / LANDSCAPE OUTBUILDINGS	<p>The compound has a well at the rear, two toilet blocks on the rear left corner of the plot. The caretaker's house is on the front left corner abutting the stone compound wall. Another structure consisting of changing rooms, picnic rooms and a kitchen abut the church perpendicularly. It gives the open area a definition of a courtyard. There is a cement dais near the left wall of the church. The courtyard has numerous palm trees. There is a paved pathway from the main door. Most of the compound has loose soil.</p>	

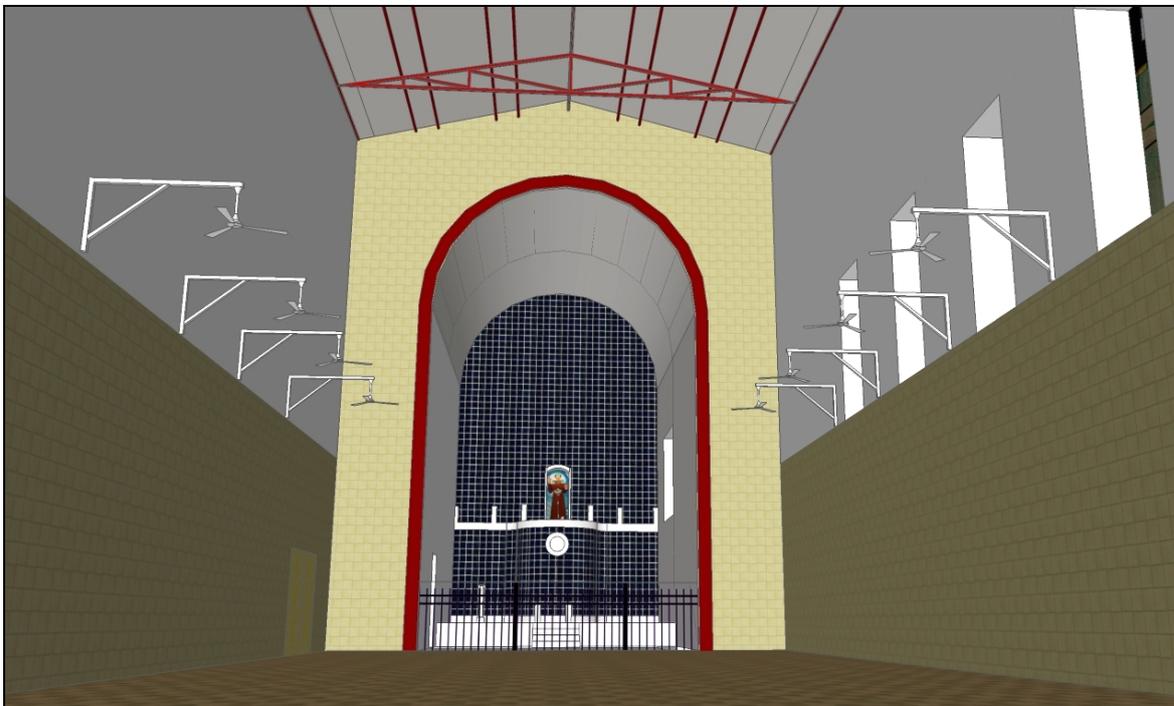
20 A, B, C		ST. BONAVENTURE CHURCH	
<b>11.0 SERVICES &amp; UTILITIES</b>			
11.1	LIGHTING	Fairly lit.	
11.2	VENTILATION	Fairly ventilated.	
11.3	ELECTRICITY	Reliance Energy.	
11.4	WATER SUPPLY	Tap, well.	
11.5	DRAINAGE	NA.	
11.6	FIRE PRECAUTION	NA.	
11.7	HVAC/ BMS/ SECURITY SYS	NA.	
<b>12.0 CONDITION</b>			
12.1	PLINTH	Good.	FINISH: Good.
12.2	WALLS	Fair.	FINISH: Fair.
12.3	FLOOR	Good.	FINISH: Good.
12.4	STAIRS	NA.	
12.5	OPENINGS	Fair.	
12.6	ROOFING	Good.	FINISH: Good.
12.7	ELEMENTS	Good.	
12.8	SERVICES	Good.	
12.9	OUTBUILDINGS	Good.	
12.10	OVERALL CONDITION	Fair.	MAINTENANCE LEVEL Fairly maintained.
<b>13.0 TRANSFORMATION</b>			
13.1	FORM	Addition of kitchen and picnic room.	
13.2	STRUCTURE	Trusses from stone to steel.	
13.3	ELEMENTS & FINISHES	1st renovation 1976 - New AC sheet roof. - Restoration of walls. 2nd renovation 2004 - Kota stone flooring. - Marble finishing of the altar. - Ceramic tile cladding on walls.	
14.0	DP REMARKS / PERCEIVED THREATS		
15.0	ADDITIONAL NOTES		



FRONT ELEVATION

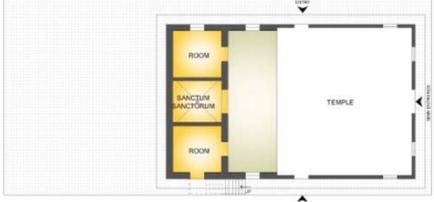


VIEW



INTERIOR VIEW

### Appendix 10 Heritage Proforma of Hiradevi Temple

99		HIRADEVI TEMPLE	
	STRUCTURE NO	99	 <p>Not to Scale</p>
	WARD	P/N	
	CS NO.	1230, 1231	
	PLOT AREA	283.89	
	BU AREA	283.89	
	FSI	1	
	DATE	13/06/2010	
	RECORDED BY	Suryakant	
	REVIEWED BY		
	INTERNAL	Sonal	
PHOTO PLATE REFERENCE	PART-3 PLATE NO 99		
<b>1.0 NAME OF THE PROPERTY</b>			
1.1	NAME OF THE PREMISE	Hiradevi Temple.	
1.2	EARLIER NAME	Hiradevi Temple.	
1.3	BUILT-IN	NA.	EXTENSION (if any): NA
<b>2.0 ACCESS</b>			
2.1	MAIN	Bylane off Hiradevi Temple Street.	
2.2	SUBSIDIARY	NA.	
<b>3.0 OWNERSHIP PATTERN</b>			
3.1	PRESENT	Hiradevi Temple Trust.	
3.2	PAST	NA.	
3.3	STATUS	Owner.	
<b>4.0 HEIGHT</b>			
4.1	FLOORS	G+1.	
<b>5.0 USE</b>			
5.1	PRESENT	Religious.	
5.2	PAST	Religious.	
5.3	USAGE ON ALL FLOORS	Religious.	
<b>6.0 OCCUPANCY STATUS</b>			
6.1	VACANT/OCCUPIED	Occupied.	
<b>7.0 BACKGROUND AND CONTEXT</b>			
7.1	HISTORY AND IMPORTANCE	Initially there was a shrine of Hiradevi in the same location. A small temple was built around the shrine and was later rebuilt to its current scale. It is maintained by the Saishav Kshatriya Bhandari Samaj, a community organization in the precinct. According to the community, the Mhatres believe in Vajreshwar Devi, Thakurs believe in Kalbadevi and the Patils believe in Hiradevi. It is the centre of all religious and cultural activities and festivals in the precinct. Every year, a holi is burnt outside the Temple on the day preceding the festival. There is an Utsav / Urus (festival) in the Hiradevi Temple before Diwali and during Navratri, there is Ghatasthapana in the Temple.	

7.2	TOWNSCAPE	The temple is located on the eastern edge of the precinct. It is accessed from a bylane off Hiradevi Temple street. It is located part inside and outside the gaothan. The structure is surrounded by G to G+1 residential structures on one side and agricultural land on the other.		
<b>99</b>		<b>HIRADEVI TEMPLE</b>		
<b>8.0 ARCHITECTURAL DESCRIPTION</b>				
	Hiradevi Temple is a rectilinear G+1 structure, with the main entrance on the east. The temple has a main large hall where people in a large number can gather. There is a sanctum at the end of the hall with one room on either side. There is an MS staircase outside the temple from where the first floor can be accessed. The first floor has a terrace with a parapet and a storage area.			
<b>9.0 CONSTRUCTION</b>				
9.1	PLINTH	Stone masonry in cement mortar.	FINISH: Cement plastered.	
9.2	WALLS	Load bearing rubble masonry in cement mortar.	FINISH: Cement plastered, painted.	
9.3	FLOOR	Ground: PCC. First: RCC.	FINISH: Granite. FINISH: China mosaic.	
9.4	STAIRS	External MS staircase.		
9.5	OPENINGS	<u>Doors:</u> There are four doors, three of which provide access to the Temple. They have a ventilator and glazed shutters in wooden frames. <u>Windows:</u> There are seven windows on the ground floor with wooden shutters in wooden frame. The first floor has one window with glazed shutters in a wooden frame and iron bars.		
9.6	ROOFING	Ground: Flat, RCC roof with a pyramidal shikhara. It is cement plastered and painted. First: Steel purlins with AC sheets.		
9.7	ELEMENTS	Statue of Hiradevi goddess in the sanctum facing the east.		
9.9	INTERIORS	The interiors are simple, with 1m high granite dado, a wooden cupboard and storage.		
9.10	EDGE CONDITION	No edge.		
9.11	CURTILAGE / UNBUILT SPACE / LANDSCAPE OUTBUILDINGS	There is a temporary AC sheet shed in the open space abutting the Temple.		
<b>10.0 SERVICES &amp; UTILITIES</b>				
10.1	LIGHTING	Well Lit.		
10.2	VENTILATION	Fairly Ventilated.		
10.3	ELECTRICITY	Reliance Energy.		
10.4	WATER SUPPLY	MCGM.		
10.5	DRAINAGE	NA.		
10.6	FIRE PRECAUTION	NA.		
10.7	HVAC/ BMS/ SECURITY SYS	NA.		
<b>11.0 CONDITION</b>				
11.1	PLINTH	Good.	FINISH: Good.	
11.2	WALLS	Good.	FINISH: Good.	
11.3	FLOOR	Good.	FINISH: Good.	
11.4	STAIRS	Good.		
11.5	OPENINGS	Good.		
11.6	ROOFING	Good.	FINISH: Good.	
11.7	ELEMENTS	NA.		
11.8	SERVICES	NA.		
11.9	OUTBUILDINGS	NA.		
11.10	OVERALL CONDITION	Good.	MAINTENANCE LEVEL	Well maintained.
<b>12.0 TRANSFORMATION</b>				

12.1	FORM	NA.
12.2	STRUCTURE	NA.
12.3	ELEMENTS & FINISHES	NA.
<b>13.0</b>	<b>DP REMARKS / PERCEIVED THREATS</b>	NA.
<b>14.0</b>	<b>ADDITIONAL NOTES</b>	NA.