150 YEARS OF CELEBRATING THE MAHATMA

सत्यमेव जयते

स्वच्छ भारत
एक कदम स्वच्छता की ओर

Government of India
Ministry of Housing & Urban Affairs
Central Public Works Department







CPWD

CONSERVATION AND AUDIT OF HERITAGE BUILDINGS

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September 2019

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PRABHAKAR SINGH
Director General

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भारत सरकार
Government of India

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FOREWORD

As development pressures increase in our cities, more heritage buildings are being reused. The adaptation of heritage buildings presents a genuine challenge to architects and designers to find innovative solutions to produce some excellent examples of creative designs that retain heritage significance.

Over the past several years, CPWD is maintaining the Heritage buildings like President Estate, Hyderabad House, Parliament House, New Delhi, Victoria Memorial Kolkata, Mayo College Ajmer etc. National CPWD Academy at Ghaziabad is imparting training on "Conservation of Heritage Buildings precincts and Environments" to bring awareness among the Architects and Engineers of CPWD about the conservation and restoration of the Heritage Buildings. Heritage Conservation Cell has also been created in the Directorate to render advice to the Ministry of Housing and Urban Affairs, other ministries and the field units of CPWD on Heritage issues.

The creation of this Manual brings an overview about the conservation of Heritage buildings to the Architects & Engineers and would be a very useful ready reckoner for them.

I look forward to feedbacks and experiences on use of this Handbook.

(Prabhakar Singh)



Rajesh K. Kaushal
Additional Director General
(Region Hyderabad)

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The idea to have a publication namely **"Conservation and Audit of Heritage Buildings"** originated during the discussions held with DG, CPWD, Shri Prabhakar Singh.

This book also consist of case studies handled by CPWD namely Conservation of President's Estate, Conservation Audit of North and South Block, Conservation and Restoration of Gorton Castle at Shimla and Heritage Impact Assessment Report of Residential Quarter of EPFO at Malviya Nagar.

I would also like to acknowledge the sincere efforts and hard work put in by the technical advisory team comprising of Architects Shri. Tusar Kanta Giri, Shri M. S. Sridhar and Deputy Architects Shri. Davis Kime and Shri.Gem George Jacob, Assistant Architects Shri. Kamal Passi and Smt. Nazera Mohuiddin. The team members closely interacted with each other and helped to bring out this publication to be used by professionals like Architects & Engineers.

Over and above, our thanks are due to all individuals who helped to get the booklet published electronically.

I wish that the book reaches the masses and enlighten the professionals about the value and integrity of the Heritage Sites.

I would like to thank the Director General, CPWD for agreeing to release the publication so that the **Conservation and Audit of Heritage Buildings** may benefit the professionals and practitioners in this country.

Rajesh K. Kaushal

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PREAMBLE

India is a country of vast Cultural Heritage. Heritage is any tangible or intangible values which is passed on to us from the past. There are various significances like economic, political, cultural, spiritual, Aesthetic, emotional, Associational, Historical, Scientific/Technological, Educational, Environmental and Archeological which defines the heritage. Conservation is the process of maintaining and managing change to a heritage asset in a way that sustains a where appropriately enhances its significance.

Heritage is deemed to mean those buildings, artefacts, structures, areas and precincts that are of historic, aesthetic, architectural or cultural significance and should include natural features within such areas or precincts of environmental significance or scenic beauty such as sacred groves, hills, hillocks, water bodies (and the areas adjoining the same), open areas, wooded areas, etc. It must be recognized that the 'cultural landscape' around a heritage site is critical for the interpretation of the site and its built heritage and thus is very much its integral part.

The conservation of built heritage is generally perceived to be in the long term interest of society. This can be better understood if categorized under 'economic', 'cultural', and 'environmental', although they are not mutually exclusive and, indeed, they are often interlocked.

Most buildings are capable of beneficial use, whether for their original purpose or for some other use. Buildings and their precincts need to be used in order to survive and such use can be made into an economically viable enterprise.

Heritage comprises archaeological sites, remains, ruins, and monuments protected by the Archaeological Survey of India (ASI) and their counterparts in the States, and also a large number of unprotected buildings, groups of buildings, neighborhoods, and public spaces including landscapes and natural features which provide character and distinctive identity to cities. Conservation plans and projects for cities must take into account both the protected and unprotected components of the heritage.

PROCESS OF IDENTIFYING HERITAGE

The process of identification of Heritage is determined by three key concepts namely Significance, Integrity and Context.



SIGNIFICANCE

- Cultural significance is the importance of a property to the history, architecture, archaeology, engineering or culture of a community, region or nation. In selecting a building as a heritage structure, particular attention should be paid to the following:
- Association with events, activities or patterns (like Parliament House in New Delhi or Gandhi Ashram in Ahmedabad)
- Association with important persons or representing work of a master (like tombs, city of Jaipur & Chandigarh)
- Distinctive physical characteristics of architectural style, design, construction or form (like forts & palaces)
- Potential to yield important information, such as illustrating architectural, social or economic history. For e.g.: Havelis, Railway stations, town halls, clubs, markets, water works etc.
- Technological innovations in construction or building typologies viz., dams, bridges, etc.
- Town planning features like squares, streets avenues, etc. E.g.: Rajpath in Lutyens' New Delhi.

INTEGRITY

Historic integrity is the property's historic identity, evidenced by the survival of physical characteristics and significant elements that existed during the property's historic period.

Historic integrity enables a property to illustrate significant aspects of its past. Not only must a property resemble its historic appearance, but it must also retain original materials, design features and aspects of construction dating from the period when it attained significance.

CONTEXT

Historic context is information about historic trends and properties grouped by an important theme in the history of a community, region or nation during a particular period of time.

Knowledge of historic context enables a recorder to understand a historic property as a product of its time.

HERITAGE TYPOLOGIES

Our heritage comprises our cultural resources and our common assets which provide us with our Identity and distinction. Heritage not only includes monuments but can include, buildings, artefacts, historic precincts, archaeological sites and monuments, natural heritage such us sacred groves, hills, water bodies, vistas, forests, hills, open

ground, garden, cultural landscapes, and also Cultural practices, rituals fairs, traditional arts & crafts.

Following categories and typologies of heritage sites can be identified and listed in a historic place:

HISTORIC BUILDINGS & SITES



HISTORIC & TRADITIONAL SETTLEMENTS & AREAS

- Industrial & Technological & Transportation Sites.
- Heritage Villages





- Craft Centres



- Urban Precincts, street-scapes & Bazaars



- Historic & trade Routes

CULTURAL LANDSCAPE FEATURES

- Cultural Landscapes
- Landscape Features
- Scenic Sites
- Sacred Groves
- Water bodies

Types of Heritage Buildings which should be listed based on their significance are:

- **Residential** - Palaces, Havelis, Bungalows, Town Houses, Forts, Shikargahs
- **Commercial** - Factories, Warehouses, Shops, Bazaars, Garages, Ports, etc.
- **Community** -Schools/Colleges, Railway Stations, Post Offices, Police Stations, Libraries, Courts etc.
- **Religious** - Temples, Mosques, Dargahs, Gurudwaras, Churches, Shrines etc.
- **Memorials** - Samadhis, Tombs, Chatris, Head-stones, Historic inscriptions

CONSTITUTIONAL PROVISIONS FOR CONSERVATION

Conservation and Indian Constitutional Provisions

By incorporating Article 49 in the Directive principles of State Policy, the framers of the Constitution made it obligatory for the state to protect every monument of National Importance. Article 49 states that It shall be the obligation of the State to protect every monument or place or object of artistic or historical interest, declared by or under law made by the Parliament to be of national importance, from spoliation, disfigurement, destruction, removal, disposal or export, as the case may be. **Article 51(A)(f)**

The Constitution of India imposes a duty on every citizen to protect and preserve the rich heritage of our country. Article 51(A)(f) which deals with Fundamental Duties specifically imposes such a duty. Article 51(A)(f) is extracted herein:

"It shall be the duty of every citizens of India: - (f) To value and preserve the rich heritage of our composite culture;"

Article 49

By incorporating Article 49 in the Directive principles of State Policy, the framers of the Constitution made it obligatory for the state to protect every monument of National Importance. Article 49 of the Constitution of India mandates the State Government to protect monuments and places and objects of national importance, which reads as follows:

"49. Protection of monuments and places and objects of national importance.

It shall be the obligation of the State to protect very monument or place or object of artistic or historic interest, declared by or under law made by Parliament to be of national importance, from spoilation, disfigurement, destruction, removal, disposal or export, as the case may be".

Article 253

Article 253 of the Constitution of India, enables Parliament to legislate for the implementation of any treaty, agreement or convention with any other country or countries, or any decision, made at any international conference, association or other body.

Any such legislation can be enacted even if the subject matter of the legislation is an item in the State List of the Constitution of India. We should be aware of the International Conventions that are relevant to the protection and conservation of art and cultural heritage and to which India is a signatory.

History of Legislation of Conservation of Monuments & Sites

i. Ancient Monuments Preservation Act, 1904

ii. Ancient and Historical Monuments and Archeological Sites and Remains (Declaration of National Importance)Act, 1951

iii. Ancient Monuments and Archeological Sites and Remains Act, 1958

iv. AMASR Rules 1959

v. AMASR (Amendment and Validation) Act, 2010

vi. National Monument Authority Rules, 2011

vii. AMASR (Framing of Heritage Bye laws and other Functions of Competant Authority) Rules, 2011

viii. The Ancient Monuments and Archaeological Sites and Remains(amendment) bill, 2018

It is Lord Curzon who was the first one to realise the importance of preservation of ancient monuments. With that objective, he was instrumental in the enactment of Ancient Monuments Preservation Act, 1904. After independence, the Government of India realising the utmost necessity to protect the ancient monuments has introduced the Ancient Monuments and Archaeological Sites and Remains Act, 1958.

Heritage Legislation in India

It is important to be aware of the international conventions and the national and state laws relevant to the protection and conservation of the art and the cultural heritage of a country. A reference to the provisions in the relevant laws has been made in Guidelines for Chapters at appropriate places. This chapter is divided into three sections, the first dealing with the International Conventions and Agreements, the secon d with the National (Indian) Laws, and the third with the laws of the various states and union territories.

Some National Laws in force

The Ancient Monuments and Archaeological sites and Remains Act,1958 (as amended In 2010)- The Ancient Monuments and Archaeological Sites and Remains Act, 1958, requires special mention as it has recently been amended in 2010 with strict rules in place for building and renovation activity in the vicinity of protected monuments. The Act states that no building activity is allowed in the 'prohibited zone' which is within 100 meters from the notified limits of the monument. Two hundred meters further from the borders of the 100 meter prohibited zone is the 'regulated area'. Here some building, repair and restoration activity is allowed with permission from the Competent Authority who forwards it to the National Monuments Authority for their expert opinion. The Ancient Monument and Archaeological Site and Remains (Framing of Heritage Bye-laws and Other Functions of the Competent Authority) Rules, 2011, are available at asi.nic.in, the website of the Archaeological Survey of India. Rules 6 to 8 contain the relevant details of the categories for which permission is required from the Competent Authority. The format for the application is also provided in these rules. Should detailed clarifications be required, the Chapter may contact the Superintending Archaeologist of the Archaeological Survey of India of the relevant area. For easy reference, Rules 6 to 8 and the relevant format for application for construction, renovation, repairs, etc., have been provided

- The Antiquities and Art Treasures Act,1972
- The Environment Protection Act,1986

State Acts

State Acts Protecting Monuments which are of relevance to the state.

- Jammu and Kashmir Heritage Conservation and Preservation Act, 2010.

Protection for Non-Monument built and natural heritage

Draft Model Regulations circulated by the Environment Ministry to all states

Only some states have enacted these

Late Mr. Shyam Chainani advocated insertion of regulations/byelaws etc. in already existing Municipal and Town Planning Laws

Not always necessary to amend these laws to insert the heritage byelaws but Punjab and Maharashtra did so.

How regulations/byelaws are made

- Constitution
- Act: Made By Parliament / State Assembly within the parameters of the Constitution
- Subordinate Legislation i.e. Rules, Regulations, Byelaws Made by the authorized government agency within the parameters prescribed by the ACT.
- Public Interest Litigation (PIL)

Some important guidelines laid out by the Supreme Court are:

Substantial public interest should be involved PIL should be aimed at redresses of genuine public harm or public injury.

There should be no personal gain, private motive or oblique motive before filing the PIL Petitions filed by "busybodies" for extraneous and ulterior motives must be discouraged by imposing exemplary costs.

The Chapters Division circulates amongst the Chapters the texts of the various laws from time-to-time. These copies should be kept in the Chapter library for study, reference and use.

The State Convener should draw up a list of all such laws and circulate the copies among the Chapters of the state who should keep them in the Chapter library for study, reference and use. The particular laws that are most important for the conservation of art and cultural heritage are the 'laws for protection and conservation of monuments, archaeological sites and remains', 'town and country planning laws', the laws regulating 'land use' and the laws prescribing the 'duties and responsibilities of the State agencies, particularly the Panchayati Raj Institutions (PRIs) in the rural areas and the Urban Local Bodies in the urban areas'.

ANCIENT MONUMENTS AND ARCHAEOLOGICAL SITES AND REMAINS (AMASR) ACT – 1958 (AMENDMENT 2010)

Salient Features

1. The Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010 hereinafter referred to as the Amendment Act has been enacted to amend the Ancient monuments and Archaeological Sites and Remains Act, 1958 and to make provision for validation of certain actions taken by the Central Government under the said Act.

2. The limits of prohibited area and regulated area around the monuments, archaeological sites and remains declared by the Central Government as protected have been specified in the principal Act as 100 m and 200 m, respectively. The limits so fixed may be further extended on the basis of gradation and classification of the monuments, archaeological sites and remains to be done by the National Monument Authority, which is to be constituted by the Central Government by virtue of the Amendment in the principal Act.

3. The Authority shall have a full time Chairperson and five full time and five part-time members having proven experience and expertise from the fields of archaeology, town and country planning, architecture, heritage, conservation architecture or law with a tenure of three years.

4. Henceforth, **no permission for construction of any public projects or any other nature shall be granted in the prohibited areas of the protected monument and protected area**. However, permission for repair and renovation could be granted by the Competent Authority, to be specified by the Central Government, on the recommendation of the National Monument Authority, subject to condition that the building or structure is pre-1992 or permission for construction or reconstruction of such building or structure had been granted by the Archaeological Survey of India.

5. The Amendment Act defines 'construction' which means any erection of a structure or a building, including any addition or extension thereto either vertically or horizontally, but does not include, any re-construction, repair and renovation of any existing structure or building, or construction, maintenance and cleansing of drains and drainage works and of public latrines, urinals and similar conveniences, or the construction and maintenance of works meant for providing supply of water for public, or the construction or maintenance, extension, management for supply and distribution of electricity to the public; or provision for similar faculties for publicity. **[Section 2(dc)]**

   Similarly, 'reconstruction' has also been defined as any erection of a structure or building to its pre-existing structure, having the same horizontal or vertical limits. **[Section 2 (k)]**

To avoid any ambiguity in interpretation, the Act has defined the term 'repair' and 'renovation' which means alteration to a pre-existing structure or building, but shall not include 'construction' or 'reconstruction'. **[Section 2 (m)]**

6. There is also a provision in the Act to further **extend the prohibited area beyond 100 meters** having regard to the classification of any protected monument or protected area on the recommendation of 'National Monument Authority' by the Central Government. **[Section 2 (ha) and 20A]**

   With this definition, the prohibited area has extent not only horizontally but also vertically and covers even below the surface.

7. The regulated area, according to the Amendment Act means every area, beginning at the limit of prohibited area in respect of every ancient monument and archaeological site and remains, extending to a distance of 200 hundred meters in all directions. **This 200 meters regulated area could further be extended** having regard to the classification of any protected monument or protected area on the recommendation of 'National Monument Authority' by the Central Government. **[Section 2(I) and 20B]**

   With this definition, the regulated area has extent not only horizontally but also vertically and covers even below the surface.

8. The Act provides for undertaking survey of all prohibited areas and regulated areas by the ASI for the purpose of preparing detailed site plans within a time limit to be specified by the Central Government. Responsibility has also been given to the ASI to identify all construction of whatever nature made on and after 16th June, 1992 in all prohibited and regulated areas and to submit a report from time to time to the Central Government. **The ASI has been given authority under the Act to call for information from the local bodies and other authorities**.

9. **The Amendment Act provides that none other than an archaeological officer can carry out any construction in any prohibited area**. This provision means that no construction activity can be taken up in the prohibited areas of the protected monuments and protected areas. The authority for undertaking construction activities in the prohibited area has been given to the archaeological officer keeping in view the requirements to enhance the visitor's experience, which may require erection of structures like toilets, sculpture shed, museum, interpretations centre, publication counter, ticket book office, water kiosk, small cafeteria, etc.

10. The Act provides that no permission, including carrying out any public work or project essential to the public or other constructions, shall be granted in any prohibited area on and after the date on which the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act 2010 comes into force. After the enforcement of the Act, 2010, public work or project essential to the public or other constructions cannot be carried out in the prohibited area. This provision, however, does not include cleansing of drains and drainage works and of public latrines, urinals and similar conveniences, or, the construction and maintenance of

works meant for providing for supply of water for public, or the construction or the maintenance, extension, management for supply and distribution of electricity to the public or provision for similar facilities for public **[Section 2(I) and 20B]. This provision has barred all construction activities in the prohibited area to be taken up by all public bodies even if the purpose is related to public works or project essential to the public. There is no provision for grant of any relaxation in this regard by any authority.**

11. Any person, who owns any building or structure, which existed in a prohibited area before the 16th day of June, 1992, or, which had been subsequently constructed with the approval of Director General and desires to carry out any repair or renovation of such building or structure, may make an application to the Competent Authority for carrying out such repair or renovation, as the case may be **[Section 20C(1)]**

    After the enforcement of the Amendment Act, no owner or possessor of any building or structure or land falling in the prohibited area could be permitted for undertaking any construction or reconstruction. He may, however, undertake repair or renovation of the building or structure which existed prior to 16th June, 1992 or which had been constructed on the basis of permission granted by the Director General.

12. The Act provides for carrying out construction or re-construction or repair or renovation of such building or structure on such land, as the case may be, by any person, who owns or possesses any building or structure or land in any regulated area. **The owner or possessor of any building or structure or land may make an application to the Competent Authority for carrying out construction or re-construction or repair or renovation, as the case may be. [Section 20C(2)]**

13. The permission for construction granted by the ASI after the 16th day of June, 1992 but ending before the date on which the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act 2010 has come into force, in the regulated area in respect of such protected monument, shall be deemed to have been validly granted in accordance with the provision of this Act **[Section 20B] . As per this provision the constructions carried out by any person in the regulated area without obtaining prior permission from the Director General is illegal and not valid.**

14. The permissions for construction granted by the ASI after the 16th day of June, 1992 but ending before the date on which the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010, in the prohibited area on the basis of the recommendation of the Expert Advisory Committee, **shall be deemed to have been validly granted in accordance with the provisions of this Act [Section 20A(3)].**

15. The Act, however, provides that the permission for construction or re-construction of any building or structure granted in any prohibited area subsequent to the completion of construction or re-construction of any building or structure.

[Section 20A(3)]. This provision has not validated the permissions granted by the Director General ex-post-facto, which means **that the buildings and structures so constructed un-authorized but regularized later would be treated as unauthorized and illegal**

16. The Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010 provides that the Central Government may specify, by notification in the official Gazette, **an officer not below the rank of Director of the Competent Authority to perform functions under the Act.** The Central Government has the powers to specify different Competent Authorities for the purpose of Sections 20C, 20D and 20E. **[Section 2(db)]**

17. Henceforth, **the authority to receive application for grant of permission** for construction, reconstruction, repair or renovation in the prohibited areas or regulated areas has been **vested with the Competent Authority,** who shall be specified by the Central Government through a Gazette notification to discharge his functions as defined in the Act.

18. The applications for grant of permission for repair or renovation of buildings or structures which **existed in a prohibited area before 16th of June 1992,** or which had been subsequently constructed with the approval of Director General **may be made to the Competent Authority by the owner or the possessor** in such manner as may be prescribed (as per the rule to be notified). **[Section 20D(1)]**

19. The applications for grant of permission for construction or reconstruction or repair or renovation of any building or structure or land **in a regulated area my be made to the Competent Authority by the owner or the possessor** in such manner as may be prescribed (as per the rules to be notified). **[Section 20D(1)]**

20. **The Competent Authority shall forward the applications so received within 15 days the National Monument Authority** to consider and intimate impact of such construction (including the impact of large scale development project, public project and project essential to the public) in accordance with heritage bye-laws to be framed for the concerned protected monument or protected area. **[Section 20D (2)]**

21. **The Central Government may prescribe the category of applications in respect of which the permission may be granted** under sub section 20D(2) and the applications which shall be referred to the National Monument Authority for recommendations. **[Section 20D (2)]**

22. **The National Monument Authority shall intimate within two months after the receipt of the application to the Competent Authority impact of such construction** (including the large scale development project, public project and project essential to the public). **[[Section 20D (3)]**

23. The Competent Authority shall **either grant permission or convey refusal to the applicant within one month** of receipt of the recommendation of the National Monument Authority. **[Section 20D (4)]**

24. The recommendation of the National Monument Authority shall be final. [Section 20D(5)]

25. In case of refusal of the permission, the Competent Authority shall by order in writing and after giving an opportunity to the concerned person intimate such refusal **within three months from the date of receipt of application to the applicant,** the Central Government and the National Monument Authority. **[Section 20D (6)]**

26. The Competent Authority is empowered **to refer the permission so granted for carrying out of repair or renovation work or reconstruction of building or construction of National Monument Authority,** in case, it is found that such repair or renovation or reconstruction or construction is likely to cause an adverse impact on the preservation, safety, security or access to the monument considerably for recommendation, and if so, recommended by the Authority, the Competent Authority may withdraw the permission granted. **[Section 20D (7)]**

27. The proviso to Section 20D (7) authorizes the Competent Authority, in exceptional circumstances and with the approval of the National Monument Authority, to consider grant of permission for repair/renovation/construction/reconstruction, etc., even before the heritage bye-laws are approved /notified. **[Section 20D (7)]**

28. The Central Government or the Director General shall have to exhibit on website all the permissions granted or refused **[Section 20D(8)]**

29. The Competent Authority in consultation with the Indian National Trust For Art and Cultural Heritage or such other expert heritage bodies, as may be notified by the Central Government, shall prepare heritage bye-laws in respect of each protected monument and protected area. **[Section 20E(1)]**

30. The heritage bye-laws shall specify heritage controls such as elevation, façade, drainage system, road and service infrastructure (including electric poles, water and sewer pipelines) in addition to such matters as may be prescribed (to be detailed out in the rules to be framed). **[Section 20E (2)]**

31. The Central Government shall specify, by rules (to be framed), the manner of preparation of detailed site plans in respect of each protected monument or protected area, or prohibited area or regulated area, the time within which such heritage bye-laws shall be prepared and particulars to be included in each such heritage bye-laws. **[Section 20E (3)]**

32. The preparation of heritage bye-laws in respect of each protected monument or protected area shall be governed by the ground conditions and nature of the monument for which it has been found essential to undertake detailed documentation of the protected area, prohibited area and regulated area in each case.

33. The Competent Authority has been authorized to appoint experts or consultants for preparation of detailed site plans and heritage bye-laws. **[Section 20E (4)]**

34. The heritage bye-laws which shall eventually be prepared by the Competent Authority with the help of outside experts and consultants shall be got approved by the National Monument Authority, which is proposed to heave the Chairperson and members of excellence in the relevant areas like archaeology, country and town planning, architecture, conservation architecture or law. **[Section 20E (5)]**

35. The heritage bye-laws in respect of each protected monument or protected area shall be laid on the table of each House of Parliament. **[Section 20E (6)]**The heritage bye-laws therefore shall have to be published in the Official Gazette to make them available to public.

36. The heritage bye-laws shall be exhibited by the Competent Authority on the website after tabling the same in each House of Parliament. [Section 20E (7)] This provision has been made to make the system transparent and to avoid any undue inconvenience or harassment to the public.

37. Penalty under section 30 of the Principal Act has been enhanced from three months to two years and fine of rupees five thousand to one lakh or with both in respect of violation sub- section (1)

    WHOEVER –

    i) Destroys, removes, inquires, alters, defaces, imperils or misuse a protected monument, or

    ii) Being the owner or occupier of a protected monument, contravenes an order made under sub-section (1) of section 9 or under sub-section (1) of section 10, or

    iii) Removes from a protected monument any sculpture, carving, image, bas-relief, inscription, or other like object, or Does any act in contravention of sub-section(1) of section 19, shall be punishable with imprisonment which may extend to two years, or with fine which may extend to one lakh rupees, or with both, Similar to sub-section (1) the penalty for violation of sub-section (2) of section 30 has also been enhanced.

        1) Any person who moves any antiquity in contravention of a notification issued under sub-section (1) of section 25 shall be punishable with imprisonment which may extend to two years or with fine which may extend to one lakh rupees or with both; and the court conviction a person of any such contravention may by order direct such person to restore the antiquity to the place from which it was moved.

38. In respect of unauthorized constructions in the prohibited and regulated area of the protected monument and protected area, the penalty has been incorporated now by the Amendment Act. The penalty provision is as under –

    i) Whoever raises, on and after the date on which the Ancient Monuments and Archaeological sites and Remains (Amendment and Validation) Act 2010, any construction in the prohibited area, shall be punishable with imprisonment not exceeding two years or with fine which may extend to one lakh rupees or with both. **[Section 30A]**

ii) Whoever raises, on and after the date on which the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010, any construction in the regulated area without previous permission of the competent authority or in contravention of the permission granted by the competent authority, shall be punishable with imprisonment not exceeding two years or with fine which may extend to one lakh rupees or with both. **[Section 30B]**

iii) If any officer of the central Government enters into or acquiesces in any agreement to do, abstains from doing, permits, conceals or connives at any act or thing whereby any construction or reconstruction takes place in a prohibited area or regulated area, shall be punishable with imprisonment for a term which may extend to three years or with fine, or both **[Section 30C]**

39. The penalty has been enhanced to ensure that it acts a deterrent and none dares to indulge in unauthorized and illegal activities as per the Act. Provision for severe punishment has also been made for the officers of the Central Government who are found indulged in any act which is illegal or unauthorized as per the Act. This will make sure that the Central Government officers discharge their functions with utmost sincerity and as per the Act.

40. The Director General of the Archaeological Survey of India has been made responsible to conduct a survey or cause survey to be conducted in respect of all prohibited area regulated areas of the protected monuments and protected areas for the purpose of preparing detailed site plans within a period which may be specified by the central government. A report on the survey to be conducted shall be submitted by the Director General to the Central Government and the Authority. **[Section 35A(1) and (2)]**

    This exercise is essential to document the existing ground conditions in the prohibited areas and regulated areas so that it is easy to find out if someone has undertaken construction activities without obtaining permission from the Competent Authority. The preparation of detailed site plans in respect of each protected monument or protected area is also essential for preparation of heritage bye-laws. The Director General has to complete exercise within a time to be specified by the Central Government.

41. Responsibility has been entrusted upon the Director General of the Archaeological Survey of India to identify or cause to be identified, all construction (of whatever nature) made on and after the 16th day of June, 1992 in **all prohibited areas and regulated areas and, thereafter, submit from time to time a report in respect thereof to the Central Government. [Section 35B(1)]**

Although, the Circles of the ASI may have some data on unauthorized constructions carried out in the prohibited and regulated areas of protected monuments and sites, this may not be correct and many omissions could be there because of lack of proper mechanism and manpower infrastructure. This is a major exercise which may involve a lot of interaction with Panchayats, Municipalities, Development authorities, revenue authorities and various Central and State Government departments to find out the details of constructions carried out in the prohibited and regulated areas of the protected monuments and protected areas without approval of the Director General.

42. The Director General, Archaeological Survey of India has been given powers to call for information from the local bodies and other authorities for identification on of all constructions made on and after 16th June, 1992 in all prohibited areas and regulated areas. **[Section 35B(2)]** This provision makes it mandatory for the local bodies and other authorities to share the details on un-authorize constructions carried out by the individuals and public bodies in the prohibited and regulated areas of the monuments and sites after the issue of the notification dated 16th June, 1992in the Official Gazette.

43. As per section 12 of the Amendment Act, the permissions granted by the Archaeological Survey of India between 16th June, 1992 and the enforcement of the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010 for construction or re-construction or repair or renovation except those granted ex-post-facto after the completion of the structure or building in the prohibited areas and regulated areas of the protected of the protected monuments and protected areas have been held as valid and not challengeable in any court, tribunal or other authority. Any rule, order or notification made under the Ancient monuments and Archaeological Sites and Remains Act, 1958 for carrying out any repair, renovation or construction work or undertaking any public work or public project before the commencement of the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010 shall also not be challengeable in any court, tribunal or other authority.

MODEL BUILDING BYE-LAWS 2016

Conservation of heritage sites shall include buildings, artifacts, structures, areas and precincts of historic, aesthetic, architectural, cultural or environmentally significant nature (heritage buildings and heritage precincts), natural feature areas of environmental significance or sites of scenic beauty.

DEFINITIONS :

a. "Authority" means National Monuments Authority.

b. "Competent Authority" means an officer not below the rank of Director of archaeology or Commissioner of archaeology of Central or State government or equivalent rank.

c. "Conservation" means all the processes of looking after a place so as to retain its historical and/or architectural and/or aesthetic and/or cultural significance and includes maintenance, preservation, restoration, reconstruction and adoption or a combination of more than one of these.

d. "Construction" means any erection or a building, including any addition or extension thereto either vertically or horizontally.

e. "Heritage building" means and includes any building of one or more premises or any part thereof and/or structure and/or artifact which requires conservation and / or preservation for historical and / or architectural and / or artisanary and / or aesthetic and/or cultural and/or environmental and/or ecological purpose and includes such portion of land adjoining such building or part thereof as may be required for fencing or covering or in any manner preserving the historical and/or architectural and/or aesthetic and/or cultural value of such building.

f. "Heritage Precincts" means and includes any space that requires conservation and /or preservation for historical and / or architectural and/or aesthetic and/or cultural and/or environmental and/or ecological purpose. Walls or other boundaries of a particular area or place or building or may enclose such space by an imaginary line drawn around it.

g. "Preservation" means and includes maintaining the fabric of a place in its existing state and retarding deterioration.

h. "Prohibited Area" means area of the protected monuments declared as of national importance and extending to a distance of 100 meters in all direction.

i. "Restoration" means and includes returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without introducing new materials.

j. "Reconstruction" means and includes returning a place as nearly as possible to a known earlier state and distinguished by the introduction of materials (new or old) into the fabric. This shall not include either recreation or conjectural reconstruction.

k. "Regulated Area" means area in respect of every ancient monuments and archaeological sites and remains declared as of national importance and extending to a distance of 200 meters in all direction.

CONSERVATION OF HERITAGE SITES INCLUDING HERITAGE BUILDINGS, HERITAGE PRECINCTS AND NATURAL FEATURE AREAS

APPLICABILITY

These regulations shall apply to heritage sites which shall include those buildings, artifacts, structures, streets, areas and precincts of historic, architectural, aesthetic, cultural or environmental value (hereinafter referred to as Listed Heritage Buildings/ Listed Heritage Precincts) and those natural feature areas of environmental significance or of scenic beauty including, but not restricted to, sacred groves, hills, hillocks, water bodies (and the areas adjoining the same), open areas, wooded areas, points, walks, rides, bridle paths (hereinafter referred to as 'listed natural feature areas') which shall be listed in notification(s) to be issued by the State Government / identified in Master Plan.

The provisions in this chapter are beyond the regulations applicable on the *Prohibited and Regulated areas* as defined by Ancient Monuments and Archaeological Sites and Remains (AMASR) Act 2010, where *site specific Heritage Bye-Laws* prepared and notified by the Competent Authority (National Monuments Authority) under the AMASR Act shall be applicable. NOC shall have to be obtained by submission of required documents as may be necessary, including *"Heritage Impact Assessment" report*, if so necessitated by the NMA.

Responsibility of the owners of heritage buildings

It shall be the duty of the owners of heritage buildings and buildings in heritage precincts or in heritage streets to carry out regular repairs and maintenance of the buildings. The State Government, the Municipal Corporation or the Local Bodies and Authorities concerned shall not be responsible for such repair and maintenance except for the buildings owned by the Government, the Municipal Corporation or the other local bodies.

Restrictions on development / re-development / repairs etc.

No development or redevelopment or engineering operation or additions / alterations, repairs, renovations including painting of the building, replacement of special features or plastering or demolition of any part thereof of the said listed buildings or listed precincts or listed natural feature areas shall be allowed except with the prior permission of Commissioner, Municipal Corporation /Vice Chairman, Development Authority. Before granting such permission, the agency concerned shall consult the Heritage Conservation Committee to be appointed by the State Government and shall act in according with the advice of the Heritage Conservation Committee.

i. Provided that, before granting any permission for demolition or major alterations / additions to listed buildings (or buildings within listed streets or precincts), or construction at any listed natural features, or alteration of boundaries of any listed natural feature areas, objections and suggestions from the public shall be invited and shall be considered by the Heritage Conservation Committee.

ii. Provided that, only in exceptional cases, for reasons to be recorded in writing, the Commissioner, Municipal Corporation/ Vice Chairman, Development Authority may refer the matter back to the Heritage Conservation Committee for reconsideration.

However, the decision of the Heritage Conservation Committee after such reconsideration shall be final and binding.

Penalties

Violation of the regulations shall be punishable under the provisions regarding unauthorized development. In case of proved deliberate neglect of and/or damage to Heritage Buildings and Heritage Precincts, or if the building is allowed to be damaged or destroyed due to neglect or any other reason, in addition to penal action provided under the concerned Act, no permission to construct any new building shall be granted on the site if a Heritage Building or Building in a Heritage Precinct is damaged or pulled down without appropriate permission from Commissioner, Municipal Corporation/ Vice Chairman, Development Authority.

It shall be open to the Heritage Conservation Committee to consider a request for rebuilding/ reconstruction of a Heritage Building that was unauthorizedly demolished or damaged, provided that the total built-up area in all floors put together in such new construction is not in excess of the total built-up area in all floors put together in the original Heritage Building in the same form and style in addition to other controls that may be specified.

Preparation of list of heritage sites including heritage buildings, heritage precincts and listed natural feature areas

The list of heritage sites including Heritage Buildings, Heritage Precincts and listed Natural Features Areas is to be prepared and supplemented by the Commissioner, Municipal Corporation / Vice- Chairman, Development Authority on the advice of the Heritage Conservation Committee. Before being finalized, objections and suggestions of the public are to be invited and considered. The said list to which the regulation applies shall not form part of this regulation for the purpose of Building Bye-laws. The list may be supplemented from time to time by Government on receipt of proposal from the agency concerned or by Government *suo-moto* provided that before the list is supplemented, objections and suggestions from the public be invited and duly considered by the Commissioner, Municipal Corporation/Vice- Chairman Development Authority/and/or State Government and / or the Heritage Conservation Committee.

When a building or group of buildings or natural feature areas are listed it would automatically mean (unless otherwise indicated) that the entire property including its entire compound / plot boundary along with all the subsidiary structures and artefacts, etc. within the compound/plot boundary, etc. shall form part of list.

Alteration / modification / relaxation in development norms

On the advice of the said Heritage Conservation Committee to be appointed by the Government and for reasons to be recorded in writing, the Commissioner, Municipal Corporation / Vice Chairman, Development Authority shall follow the procedure as per Development Authority Act, to alter, modify or relax the Development Control Norms prescribed in the Master Plan, if required, for the conservation or preservation or retention of historic or aesthetic or cultural or architectural or environmental quality of any heritage site.

Heritage precincts / Natural feature areas

In cases of streets, precincts, areas and (where deemed necessary by the Heritage Conservation Committee) natural feature areas notified, development permissions shall be granted in accordance with the special separate regulation prescribed for respective streets, precincts / natural feature areas which shall be framed by the Commissioner Municipal Corporation/ Vice- Chairman, Development Authority on the advice of the Heritage Conservation Committee.

Before finalizing the special separate regulations for precincts, streets, natural features, areas, the draft of the same shall be published in the official gazette and in leading newspapers for the purpose of inviting objections and suggestions from the public. All objections and suggestions received within a period of 30 days from the date of publication in the official gazette shall be considered by the Commissioner, Municipal Corporation / Vice- Chairman, Development Authority / Heritage Conservation Committee.

After consideration of the above suggestions and objections, the agency concerned**,** acting on the advice of the Heritage Conservation Committee shall modify (if necessary) the aforesaid draft separate regulations for streets, precincts, areas and natural features and forward the same to Government for notification.

Road widening

Widening of the existing roads under the Master Plan of the City or Town / Zonal Development Plan or in the Layout Plan shall be carried out considering the existing heritage buildings (even if they are not included in a Heritage Precinct) or which may affect listed natural features areas.

Incentive uses for heritage buildings

In cases of buildings located in non-commercial use zones included in the Heritage Conservation List, if the owner / owners agree to maintain the listed heritage building as it is in the existing state and **to preserve its heritage state with due repairs and the owner / owners / lessees give a written undertaking to that effect, the owner / owners / lessees may be allowed with the approval of the Heritage Conservation Committee within permissible use zone to convert part or whole thereof of the non-commercial area within such a heritage building to commercial/office use/ hotel.** Provided that if the heritage building is not maintained suitably or if the heritage value of the building is spoiled in any manner, the commercial / office / hotel use shall be disallowed.

Maintaining skyline and architectural harmony

After the guidelines are framed, buildings within heritage precincts or in the vicinity of heritage sites shall maintain the skyline in the precinct and follow the architectural style (without any high-rise or multi-storeyed development) as may be existing in the surrounding area, so as not to diminish or destroy the value and beauty of or the view from the said heritage sites. The development within the precinct or in the vicinity of heritage sites shall be in accordance with the guidelines framed by the Commissioner, Municipal Corporation / Vice- Chairman, Development Authority on the advice of the Heritage Conservation Committee or separate regulations / guidelines, if any, prescribed for respective zones by Municipal Corporation / Development Authority.

Restrictive covenants

Restrictions existing as imposed under covenants, terms and conditions on the leasehold plots either by the State Government or by Municipal Corporation of the city/town or by Development Authority shall continue to be imposed in addition to Development Control Regulations. However, in case of any conflict with the heritage preservation interest/environmental conservation, this Heritage Regulation shall prevail.

Grading of the listed buildings / listed precincts

Listed Heritage Buildings / Listed Heritage Precincts may be graded into three categories. The definition of these and basic guidelines for development permissions are as follows:

Listing does not prevent change of ownership or usage. However, change of use of such Listed Heritage Building / Listed Precincts is not permitted without the prior approval of the Heritage Conservation Committee. Use should be in harmony with the said listed heritage site.

GRADE- I	GRADE- II	GRADE- III
(A) Definition **Heritage Grade-I comprises buildings and precincts of national or historic importance, embodying excellence in architectural style, design, technology and material usage and/or aesthetics; they may be associated with a great historic event, personality, movement or institution. They have been and are the prime landmarks of the region.** **All natural sites shall fall within Grade-I.**	Heritage Grade-II (A&B) comprises of buildings and precincts of regional or local importance possessing special architectural or aesthetic merit, or cultural or historical significance though of a lower scale than Heritage Grade-I. They are local landmarks, which contribute to the image and identity of the region. They may be the work of master craftsmen or may be models of proportion and ornamentation or designed to suit a particular climate.	Heritage Grade-III comprises building and precincts of importance for townscape; that evoke architectural, aesthetic, or sociological interest through not as much as in Heritage Grade-II. These contribute to determine the character of the locality and can be representative of lifestyle of a particular community or region and may also be distinguished by setting, or special character of the façade and uniformity of height, width and scale
(B) Objective: **Heritage Grade-I richly deserves careful preservation.**	Heritage Grade-II deserves intelligent conservation.	Heritage Grade-II deserves intelligent conservation (though on a lesser scale than Grade-II and special protection to unique features and attributes)
(C) Scope for Changes: **No interventions be permitted either on exterior or interior of the heritage building or natural features unless it is necessary in the interest of strengthening and prolonging the life of the buildings/or precincts or any part or features thereof. For this purpose, absolutely essential and minimum changes would be allowed and they must be in conformity with the original.**	Grade-II(A): Internal changes and adaptive re-use may by and large be allowed but subject to strict scrutiny. Care would be taken to ensure the conservation of all special aspects for which it is included in Heritage Grade-II. Grade-II(B): In addition to the above, extension or additional building in the same plot or compound could in certain circumstances, be allowed provided that the extension / additional building is in harmony with (and does not detract from) the existing heritage building(s) or precincts especially in terms of height and façade.	Internal changes and adaptive reuse may by and large be allowed. Changes can include extensions and additional buildings in the same plot or compound. However, any changes should be such that they are in harmony with and should be such that they do not detract from the existing heritage building/precinct.
(D) Procedure: **Development permission for the changes would be given on the advice of the Heritage Conservation Committee.**	Development permission for the changes would be given on the advice of the Heritage Conservation Committee.	Development permission for changes would be given on the advice of the Heritage Conservation Committee.
(E) Vistas / Surrounding Development: **All development in areas surrounding Heritage Grade-I shall be regulated and controlled, ensuring that it does not mar the grandeur of, or view from Heritage Grade-I.**	All development in areas surrounding Heritage Grade-II shall be regulated and controlled, ensuring that it does not mar the grandeur of, or view from Heritage Grade-II.	All development in areas surrounding Heritage Grade-III shall be regulated and controlled, ensuring that it does not mar the grandeur of, or view from Heritage Grade-III.

Opinion of the Heritage Conservation Committee

Nothing mentioned above should be deemed to confer a right on the owner / occupier of the plot to demolish or reconstruct or make alterations to his heritage building / buildings in a heritage precinct or on a natural heritage site if in the opinion of the Heritage Conservation Committee, such demolition / reconstruction /alteration is undesirable.

Approval to preserve the beauty of the area

The Heritage Conservation Committee shall have the power to direct, especially in areas designated by them, that the exterior design and height of buildings should have their approval to preserve the beauty of the area.

Signs and outdoor display structures / including street furniture on heritage sites

Commissioner, Municipal Corporation/ Vice- Chairman, Development Authority on the advice of the Heritage Conservation Committee shall frame regulations or guidelines to regulate signs, outdoor display structures and street furniture on heritage sites.

Composition of heritage conservation committee

The Heritage Conservation Committee shall be appointed by the State Government comprising of:

	Secretary (UD)	Chairman
	(i) In charge Architecture, State PWD	Member
	(iii) Structural Engineer having experience of 10 years in the	
	field and membership of the Institution of Engineers, India	Member
	A) Architect having 10 years' experience	Member
	B) Urban Designer	Member
	C) Conservation Architect	Member
	Environmentalist having in-depth knowledge and experience of 10 years of the subject	Member
	Historian having knowledge of the region having 10 years experience in the field	Member
	Natural historian having 10 years' experience in the field	Member
	Chief Town Planner, Municipal Corporation	Member
	Chief Town Planner, Development Authority	Member
	Chief Architect, Development Authority	Member
	Representative of State Archaeological Department	Member
	Chief Town Planner, State Town & Country Planning Department	Member-Secretary

a. The Committee shall have the powers to co-opt upto three additional members who may have related experience.

b. The tenure of the Chairman and Members of other than Government Department / Local Bodies shall be three years.

The terms of reference of the Committee shall inter alia be:

i. To advice the Commissioner, Municipal Corporation/ Vice- Chairman, Development Authority whether development permission is to be granted under Building Bye-Laws No. 12.3 and the conditions of permission.

ii. To prepare a supplementary list of heritage sites, which include buildings artefacts, structures, streets, areas, precincts of historic, aesthetic, architectural, cultural, or environmental significance and a supplementary list of natural feature areas of environmental significance, scenic beauty including but not restricted to sacred groves, hills, hillocks, water bodies (and the areas adjoining the same), open areas, wooded areas, points, walks, rides, bridle paths etc. to which this Building Bye-Law would apply.

iii. To advise whether any relaxation, modification, alteration, or variance of any of the Building Bye-laws;

iv. To frame special regulations / guidelines for precincts and if necessary for natural feature areas to advise the Commissioner, Municipal Corporation/ Vice- Chairman, Development Authority regarding the same;

v. To advise whether to allow commercial / office/ hotel use in the (name the areas) and when to terminate the same.

vi. To advise the Commissioner, Municipal Corporation/ Vice- Chairman, Development Authority in the operation of this Building Bye-law to regulate or eliminate/erection of outside advertisements/bill boards/street furniture;

vii. To recommend to the Commissioner, Municipal Corporation/ Vice- Chairman

viii. Development Authority guidelines to be adopted by those private parties or public/ government agencies who sponsor beautification schemes at heritage sites;

To prepare special designs and guidelines / publications for listed buildings, control of height and essential façade characteristics such as maintenance of special types of balconies and other heritage items of the buildings and to suggest suitable designs adopting appropriate materials for replacement keeping the old form intact to the extent possible.

To prepare guidelines relating to design elements and conservation principles to be adhered to and to prepare other guidelines for the purposes of this Regulation;

To advise the Commissioner, Municipal Corporation / Vice- Chairman, Development Authority/ on any other issues as may be required from time to time during course of scrutiny of development permissions and in overall interest of heritage / conservation

To appear before the Government either independently or through or on behalf of the Commissioner, Municipal Corporation / Vice-Chairman, Development Authority in cases of Appeals under Development Authority/Municipal Corporation Act in cases of listed buildings / heritage buildings and listed precincts / heritage precincts and listed natural feature areas.

Implications of listing as heritage buildings

The Regulations do not amount to any blanket prevention of demolition or of changes to Heritage Buildings.The only requirement is to obtain clearance from Commissioner, Municipal Corporation/ Vice- Chairman Development, Authority and Heritage Conservation Committee from heritage point of view.

Ownership not affected

Sale and purchase of Heritage Buildings does not require any permission from Municipal Corporation of the city/town/ Development Authority/or Heritage Conservation Committee. The Regulations do not affect the ownership or usage. However, such usage should be in harmony with the said listed precincts / buildings. Care will be taken to ensure that the development permission relating to these buildings is given within 60 days.

HERITAGE BYELAWS

Government of India has amended the Ancient Monuments and Archaeological Sites & Remains Act 1958 in year 2010 to include certain newer sub-sections. One of the major amendments is the provision of Heritage Byelaws for Prohibited and Regulated Area for each centrally protected monuments/sites. In 2011, through a Gazette notification dated 23rd August 2011 Govt. of India has notified Ancient Monuments and Archaeological Sites and Remains (Framing of Heritage Bye-laws and other functions of the Competent Authority)Rules 2011. The rules provide certain parameters which shall be considered for the preparation of the Heritage Bye-laws.

Provisions of Heritage Bye-laws in AMASR Act 2010.

- 20 E (1) – The competent authority, in consultation with Indian National Trust for Arts and Cultural Heritage, being a trust registered under the Indian Trusts Act, 1882 (2 of 1882) or such other expert heritage bodies as may be notified by the Central Government, shall prepare heritage bye-laws in respect of each protected monuments and protected area.
- 20 E (2) – The heritage bye-laws referred to in sub-section (1) shall, in addition to such matters as may be prescribed, include matters relating to heritage controls such a elevation, facades, drainage systems, roads and service infrastructure (including electric poles, water and sewer pipelines)
- 20 E (3) – The Central Government shall, by rules, specify the manner of preparation of detailed sited plans in respect of each protected area or protected monument or prohibited area or regulated area, the time within which such heritage bye-laws shall be prepared and particulars to be included in each such heritage bye-laws. .
- 20 E (4) – The competent authority for the purpose of preparation of detailed site plans and heritage by-laws may appoint such number of experts or consultants as it may deem fit.
- 20 E (5) – A copy of each of the heritage bye-laws are prepared under sub-section (1) shall be forwarded to the Authority for its approval.
- 20 E (6) – A copy of the heritage by-laws as approved by the Authority under sub-section 5 shall be laid before each House of Parliament.
- 210 E (7) – Each heritage bye-laws shall, be made available by the competent authority to the public, by exhibiting the same on its website and also in such other manner as it may deem fit, immediately after laying the same before each House of Parliament.

  Nineteen draft Heritage Bye-Laws are under consideration of NMA for finalisation before these are laid before the parliament.

DELHI MASTER PLAN PROVISIONS FOR CONSERVATION OF HERITAGE

CONSERVATION OF BUILT HERITAGE

Delhi is a historical city, whose remnants are spread right from Mehrauli to Shahjahanabad having large number of monuments scattered all over Delhi. The built heritage of Delhi is an irreplaceable and non-renewable cultural resource. Besides being part of life for many, it has educational, recreational and major tourism potential. It enhances Delhi's environment, giving it identity and character. It encompasses culture, lifestyles, design, materials, engineering and architecture.

The Heritage Resources include symbols of successive civilizations and cities that came

up over the millennia, historic buildings and complexes, historical gardens, water engineering structures and their catchments, the remains of fortified citadels, places for worship and for the deceased, historic cities and villages, unearthed heritage and their components.

The surveys conducted by the DDA & INTACH identify 1208 historical monuments in Delhi of which the Archaeological Survey of India has declared 170 monuments as protected. In addition to these MCD, NDMC and the State Archaeological Department have published lists of Heritage Buildings.

The agencies concerned with the protection of Delhi's Built Heritage are ASI, GNCTD, State Archaeology Department, NDMC, MCD, Cantonment Board and DDA. Built heritage of Delhi needs to be protected, nourished and nurtured by all citizens and passed on to the coming generations. It is suggested that with the aim of framing policies and strategies for conservation, appropriate action plans may be prepared by all the agencies. These should include promotion of conservation of the civic and urban heritage, architecturally significant historical landmarks, living monuments, memorials and historical gardens, riverfront, city wall, gates, bridges, vistas, public places, edicts and the ridge.

It is recommended that these should be suitably incorporated while preparing layout plans / schemes. In case of major monuments it is necessary that the surrounding area should be identified in the layout / detail plan, and should have building controls in relation to height, material and spread of the monuments. It will also be necessary to maintain close interaction and coordination between all these agencies keeping in view the following objectives and requirements.

i. Maintain and update a database.

ii. Develop organizational capacity for heritage management.

iii. Define all the applicable terms.

iv. Listing of Heritage Buildings based on the following criteria:

(a) The age of the building;

(b) Its special value for architectural or cultural reasons or historical periods;

(c) Its relevance to history;

(d) Its association with a well-known character or event;

(e) Its value as part of a group of buildings;

(f) The uniqueness of the building or any object or structures fixed to the building or forming part of the land and comprised within the curtilage of the building.

v. v. Prepare guidelines for development, redevelopment, additions alterations, repairs, renovations and reuse of the heritage buildings.

vi. vi. Implementing programmes for education and awareness.

HERITAGE ZONES

Heritage Zone is an area, which has significant concentration, linkage or continuity of buildings, structures, groups or complexes united historically or aesthetically by plan or physical development. The following areas have been identified as Heritage Zones as indicated in the Zonal Plan:

i. Specific heritage complex within Walled City of Delhi, Shahjahanabad.

ii. Specific heritage complex within Lutyens Bungalow Zone.

iii. Specific heritage complex within Nizamuddin and Humayun's Tomb Complex.

iv. Specific heritage complex within Mehrauli area.

v. Specific heritage complex within Vijay Mandal - Begumpur - Sarai Shahji – Lal Gumbad.

vi. Specific heritage complex within Chirag Delhi.

However more areas can be added to this list based on studies by concerned agencies.

ARCHAEOLOGICAL PARK

Archaeological Park is an area distinguishable by heritage resource and land related to such resources, which has potential to become an interpretive and educational resource for the public in addition to the value as a tourist attraction

All decisions regarding Built Heritage in general and Archaeological Parks in particular should be based on evaluation of the pertinent aspects like form and design, materials and substance, use and function, traditions and techniques, location and setting, spirit and feeling and other internal and external factors.

The following areas have been designated as Archaeological Parks:

i. Mehrauli Archaeological Park.

ii. Tughlaquabad Archaeological Park.

iii. Sultan Garhi Archaeological Park.

Other areas can be added to the list on the basis of studies.

SPECIAL CONSERVATION PLANS

Each local body / land owning agency should formulate "Special Development Plans" for the conservation and improvement of listed heritage complexes and their appurtenant areas. Alteration or demolition of any listed heritage building is prohibited without the prior approval of the Competent Authority.

The development plans / schemes for such areas shall conform to the provisions, in respect of Conservation of Heritage Sites including Heritage Buildings, Heritage Precincts and Natural Feature Areas.

CONSERVATION APPROACHES & CHARTERS

Charters are statements of intent, guidance and vision of principles, high level documents which needs to be synthesized for everyday application UNESCO, ICOMOS, Council of Europe, Stirling Charter

i. Indian Approach to conservation – Cyclic World view Buildings live, die and are rebuilt once again. Site is more respected than the buildings.

ii. Western Approach to conservation – Linear World view – Venice Charter/Burra Charter

Buildings cannot evolve over time. Minimum Intervention. Clear distinction between past and present.

The entire realm of Conservation includes Cultural Heritage Preservation.

Re-s of Conservation are listed below:

a. Restoration.

b. Preservation.

c. Reconstruction.

d. Maintenance.

e. Rehabilitation.

f. Replication.

g. Retrofitting.

h. Refurbishment.

i. Revitalization.

j. Relocation.

k. Adaptive Re-use

Conventions and Charters

i. Athens Charter-1931

ii. Venice Charter-1964

iii. ICOMOS (International Council of Monuments & Sites, France)-1965

iv. Burra Charter, Australia

v. World Heritage Centre, UNESCO

vi. Organization of World Heritage Cities, Canada-1993

vii. National Trust, UK-1895

viii. Royal Commission on Historical Monuments, UK -1908

ix. Victorian Society,UK-1958

x. English Heritage-1984

Criteria of Listing as a Heritage Building

The three key concepts need to be understood to determine whether a property is worthy of listing.

Historic significance is the importance of a property to the history, architecture, archaeology, engineering or culture of a community, region or nation.

In selecting a building, particular attention should be paid to the following:

- Association with events, activities or patterns
- Association with important persons
- Distinctive physical characteristics of design, construction or form, representing work of a master
- Potential to yield important information such as illustrating social, economic history such as railway stations, town halls, clubs, markets, water works, etc.
- Technological innovations such as dams, bridges, etc.
- Distinct town planning features like squares, streets, avenues, e.g Rajpath in Lutyens, New Delhi



Historic integrity is the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic period.

Historic integrity enables a property to illustrate significant aspects of its past. Not only must a property resemble the historic appearance but it must also retain physical materials, design features and aspects of construction dating from the period when it attained significance.

Historic context is information about historic trends and properties grouped by an important theme in the history of a community, region or nation during a particular period of time. A knowledge of historic context enables listeners to understand a historic property as a product of its time

Listing format

1. **Serial Number** : (village name / map ref / 3 digit no)
2. **PHOTOGRAPH**
3. **Name**/Historic Name/Other Names :
4. **Age / Year of construction** (Absolute or Relative):
5. **Postal Address** and Approach :
6. **Ownership** (address) :
7. **Usage:** Historical and Current :
8. **Typology**: residential, commercial, community, religious :
9. **Significance**: historical, architectural, and associative :
10. **Architectural Description** :
11. **Construction materials :**
12. **Present Condition** :
13. **Conservation requirements :**
14. Any other **information** (existing drawings, old photographs, lithos etc):
15. **Lister's name**, address with date :

CONSERVATION OF ARCHITECTURE ELEMENTS

Chemical Preservation

The real challenge before us is to plan the necessary measures of conservation with a view to assure the survival of these built cultural heritage and unique symbols of our civilizations for centuries to come, with as little intervention as possible but without altering or modifying in any way the authenticity of their original character. To ensure the stability as well as proper conservation of our cultural heritage, there is a need to give more thrust to the scientific research in conservation options must be based on a preliminary investigation which includes the knowledge of physical nature of the object (constituent materials, architectural characteristics, production techniques, state of decay) and of the factors which induce or could induced its decay. In other words, as in the case of medical study the field of conservation therapy to be based on a correct diagnosis.



Bricks and Stones

Masonry consists of stone, brick or concrete blocks bonded with mortar. Mortar is a mixture of lime, sand, water and, more recently, cement. Masonry, when properly constructed and well maintained, will last for centuries. Mortar joints will normally require repointing every 50 years. Brick is the most common masonry wall, usually with limestone or granite for foundations.

Stone is also common in areas where there is a tradition of stone masonry and availability of the material. The performance of a masonry wall depends on proper design, materials, workmanship and maintenance. Key requirements are that a wall be strong, keep moisture out and allow the mortar to flex. Most masonry work involves re-pointing and occasional replacement of deteriorated brick or stone.

Principle

- When re-pointing, use an appropriate lime-based mortar.
- Avoid cleaning. Conserve the patina of age that gives the building character.
- If cleaning is necessary, carry out with great care. Do a test patch first to ensure there is no damage to the masonry surface.

- Never sandblast.
- Conserve original brick and stone with periodic check-ups and maintenance.

Problems

Brick and stone can deteriorate for many reasons, the key ones being

- Excessive moisture in the masonry freezing and thawing in winter
- Water in the walls rusting out masonry ties
- Improper cleaning, such as sandblasting
- Differential expansion, leading to cracking
- Airborne pollutants

Some indications of masonry problems are –

Bulging - indicates the wall has moved.

Cracking - indicates movement within the wall.

Straining - indicates excessive dampness.

Crumbling - indicates moisture penetration due to poor brick or to sand blasting.

Paint Blistering - indicates moisture trapped behind paint.

Mortar Cracking - indicates cement mortar is too hard and is popping out in freeze-thaw cycles.

Re-pointing

Mortar bonds masonry together. As well as compressive strength, workability and flexural (bending) capacity are important. Mortar should be weaker than the masonry to accommodate movement in walls, or else cracks will occur. The earliest mortars were lime-based, being water resistant and flexible, but often weak and susceptible to frost action. Later cement mortars, with little or no lime, are strong and fast setting, but with poor and uncertain bonding. Masonry cement is a pre-blended mixture of lime, Portland cement and other ingredients that can vary to suit conditions. When repointing

- Duplicate the original mortar mix
- Match the original mortar joint

In applying the mortar, ensure the adjacent bricks are wet and that the mortar dries slowly under the shade of a tarpaulin if it is sunny. Allow it to cure properly.

Mortar mixes

The right mortar mix for a masonry wall is very important, so that it moves with the wall. If the original mortar has fared well, the intent is to duplicate its mix. The following is a rough guide of mortars for different types of brick and stone.

Cleaning

Cleaning masonry is one of the most difficult jobs there is, particularly, when trying to remove paint. In general, there is no way to remove paint that will not also damage the surface of the masonry. The only solutions are to let the paint wear off over many years or repaint. Cleaning dirt off masonry is a simpler and safer procedure, although dirt does not, generally harm masonry and, in fact, can provide attractive qualities of character and age. Cleaning methods include the following:

Water

Cleaning masonry with water is the simplest, safest and least expensive method. It softens the dirt and rinses deposits from the surface. When water-cleaning, ensure the wall is watertight and mortar and caulking joints are sound, the least amount of water is used, and there are two to five weeks of dry weather before frost. The different techniques are as follows:

Hand-scrubbing

Using a mild detergent and hosing down when complete. This is simple and effective.

Spraying**-** using regular water pressure to create a fine mist applied periodically over several hours and hosing down when complete.

Pressure Washing

Using mechanized pressure. Great care should be taken on soft masonry and mortar, which can be destroyed if the pressure is too high and spray duration too long.

Chemical

Chemicals are usually used to remove paint. It can, and usually does, destroy the surface of masonry. If contemplated, a test patch should be done to determine the extent of the damage. The general approach to chemical cleaning involves wetting down the masonry, applying the chemical and rinsing off. The different cleaners are as follows:

Acid-usually hydrofluoric (HFI), is mixed in a maximum concentration of 5%, preferably 1%-3%. Acid should not be used to clean limestone, marble or sandstone.

Alkali - can be used on acid-sensitive masonry such as limestone, marble and glazed brick. It has a potassium hydroxide, ammonia or caustic soda base. Alkali should not be used on stone with a high iron content.

Paint removers - are often the only means of removing paint. Reaction with the masonry can vary, therefore a test patch should be conducted first.

Sandblasting

Abrasive cleaning, usually sandblasting, is not acceptable for old and historic masonry. It removes the hard exterior surface of brick in particular, which then taken on moisture and rapidly deteriorates. Many older brick buildings which were sandblasted have subsequently been re-plastered as the brick became porous and crumbled. On stone, it can destroy details and texture.

STUCCO

Traditional Composition

Stucco was originally a lime and sand mix and applied in three coats to the wood lath. The first "scrzatch" coat bound the mix to the lath, the second coat built up the strength and the finish coat provided texture and colour. Animal hair and straw can sometimes be found in old stucco and were used as binders. In the early 1900's, Portland cement was added to the mix for additional strength. In conserving and restoring traditional stucco, the traditional composition and application should be revived.

Stucco is an ancient material going back many centuries. One source suggests the word might be derived from an old German work "stucchi" which means crust. Initially, stucco was applied directly over masonry and later applied onto a wood or metal lath. When applied correctly, it will last indefinitely. Architecturally, over the past two hundred years stucco has had an uneven history. In the early to mid-1800s, it was used in a number of ways. One was to cover over rough field stone on a building elevation. The stucco was incised with lines to make the elevation appear as cut stone. This same technique was used also with lath and stucco on wood frame buildings.

Repair

The most common damage to traditional stucco is cracking or falling away at the sides or edges. These can be repaired by removing to the lath base. Wetting the area and applying new coats of a mix as close as possible to the original. This should be left to dry slowly. Bulging is a more serious problem and usually denotes the stucco has come away from the lath. The stucco in the area of the bulge or the entire wall, should be removed and redone. A very difficult task is to have the new repair patch stucco math the old, particularly the colour. Two alternatives are available, either re-plaster the entire elevation, which can be costly, or paint. A latex paint is recommended as it breathes and is less susceptible to peeling. Only latex paint formulated for stucco should be used.

Conservation Principles

- Conserve traditional stucco walls. It is a rare and little used finish.
- When repairing, use the traditional ingredients and techniques, particularly the lime and sand mix.
- When repairing stucco walls, analyze the stucco ingredients which may be Portland cement.
- Retain skilled craftsmen to restore stucco wall or build a new.

Wood Siding

Introduction

Wood siding was one of the most common sidings for historic buildings. Wood is vulnerable to decay through moisture and damp and requires a finish of paint or stain.

Every effort should be made therefore, to preserve original wood siding, not only because it is authentic to the building but also because it's quality cannot be found. It is the deterioration of the finish that has frequently caused wood siding to be covered by insulbrick in the early 1900's and, more recently, by vinyl or aluminium siding. The main challenges of wood siding are, therefore, maintenance or choosing the right replacement.

Conservation Principles

- Conserve original wood siding.
- If replacing, match the original profile.
- For new additions, select a wood siding that complements the style of the original historic building.
- Paint in period heritage colours.

Different Types of Wood Siding

Wood is a traditional siding widely used in historic buildings and most appropriate for new additions. Wood siding includes tongue and groove, bevel, board and batten and shingle. Some of their characteristics are as follows:

Tongue and Groove

This is a horizontal pine board with a 6" to 8" face locked together by a tongue and groove joint. The joints may be flush or, more commonly, V-grooved. Nailing is through the tongue, thereby eliminating surface nail heads. Finish iswith paint or stain.

Bevel

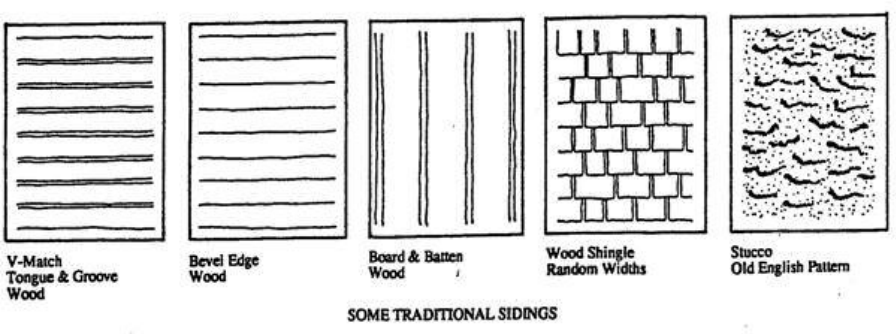
This is a horizontal pine or cedar board with a 4" to 8" face, overlapped at the top. Nailing is surface. Finish is paint or stain.

Board and Batten

This consists of vertical 10" to 12" wide rough sawn or planed pine boards with ¼" spaces between and 1"x2" battens over. Traditionally, the batten edges were mitred. Paint is the traditional finish.

Shingle

Shingle siding comes in various profiles, including straight, scalloped and angled. It is often used selectively and decoratively at roof gables and as veranda handrails, with a paint finish.



Maintenance

Original wood siding should be conserved whenever possible. With periodic maintenance and painting, it will last indefinitely. Some maintenance guidelines are as follows:

Painting

Painting is the most important maintenance item with wood siding. Ensure the paint work is in sound condition. For further information, refer to the Paint & Color Guideline.

Split Boards

Pry split boards apart and coat the interior faces with an epoxy resin glue. When tacky, push the split together, sand and spot paint.

Replacing Boards

Cut out deteriorated sections only between the nearest studs, with circular saw and chisel. Using the removed section as a template, insert a new piece, nail and caulk end joints.

Choosing the Right Siding for an Addition

The choice of siding for a new addition will be governed by many factors including quality, cost and ease of application. A key consideration is to ensure the siding complements the architectural style of the main building. If the main building is wood, it is best to match the original siding. If it is masonry, the wood siding should be complementary. Wood sidings vary in scale and character and traditionally suit different situations.



Figure 7. Bevel edge

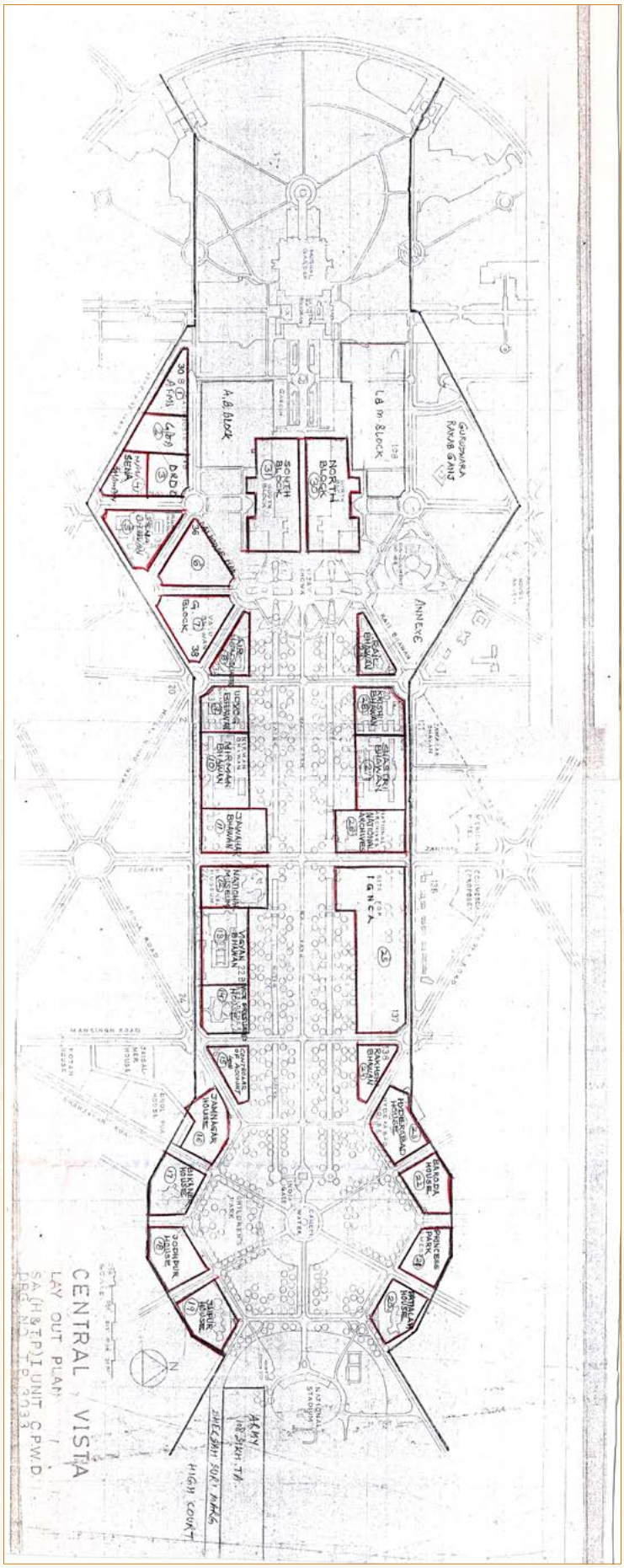


Figure 8.board and batten



Figure 9. Tongue and groove

CONSERVATION OF PRESIDENT'S ESTATE



CENTRAL VISTA

CONSERVATION OF PRESIDENT'S ESTATE

Conservation Methodology

The conservation work of the heritage buildings in the President's estate are guided by internationally accepted norms and charters.

Venice Charter: The charter for the conservation and restoration of heritage buildings and sites defines the object of conservation is

- to prolong the life of cultural heritage and if possible,
- to clarify the artistic and historical messages therein without the loss of authenticity and meaning.

Conservation is a cultural, artistic, and technical and craft activity based on humanistic and scientific studies and systematic research. In all works of preservation, restoration, there should always be precise documentation in the form of analytical and critical reports, illustrated with drawings and photographs. The conservation work should focus on preservation, with an intention to prolong the life of the monument. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity."

Article 1 of the charter defines the concept of an historic monument that embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization.

Article 3 that outlines the aim of conservation as the intention in conserving and restoring monuments is to safeguard them no less as works of art than as historical evidence.

The article 12 states that the replacement of missing parts must integrate harmoniously with the whole, but at the same time must be distinguished from the original so that restoration does not falsify the artistic or historic evidence.

The **INTACH Charter** 2004 framed in the Indian context, stating that the local masters build, rebuild, restore, renew in response to contemporary exigencies or evolving needs of the community; they must be encouraged to follow their traditions even when there is no available evidences in the form of documentation, oral histories or physical remains of structure. An exact replacement, restoration or rebuilding must be valued when it ensures continuity of traditional building practices. Conjectural restoration or rebuilding must nevertheless respect the overall spatial and volumetric composition of historical setting.

Conservation Guidelines

INTACH Charter: The charter explains that "integrity" is to be interpreted not only in terms of the physical fabric of the building, but also with respect to the collective knowledge systems and cultural landscape it represents, as it believes in the concept of jeernodharanam or regeneration of what decays.

Thus, historic ways of building must be valued more than the imperative to put a contemporary stamp on any intervention in a historic building. Similarly, the patination of historic fabric due to age or natural decay should not compel the preservation of a ruin as it exists, frozen in time and space. In conformity with local aesthetic traditions, and for the well being of the heritage building or site, renewal, restoration, repair or rebuilding is acceptable. Patina may, where necessary, be considered as a sacrificial layer.

Conservation Guidelines

The heritage buildings in the Presidents Estate have been categorized broadly in three categories or grades: IIA, II B and III. Grade IIA buildings mainly comprise of landmark buildings like the Clock Tower buildings in both the schedules, the domed buildings at the entrance of main avenues which are like the entrance guardians or sentinels and are in perfect harmony with the Clock tower. With the considerable setback in building layout from the main avenue and the thick plantation, the domes and the tower are the only structures that can be seen from far and near.

The grade IIA buildings also include most of the significant buildings along the main avenue, like the long barracks and the independent bungalows towards the ridge / Mother Teresa crescent and at the corners.

The Grade IIB buildings are other significant buildings, like the Stable blocks which have high historic value but architecturally ordinary buildings or the JCO quarters along the main avenue of schedule A that have well designed entrance porch in sync with the barracks but are simple houses. The servant block in the round about of schedule B is one landmark building, which is exclusive from the exterior but have modest interiors is graded IIB. All other remaining old buildings are graded III, varying from the veterinary hospital which is considerably altered to the poorly maintained family quarters and the servants quarters.

Grade IIA:

- The layout, materials of the building, both interior and exterior and the cartilege such as the boundary wall, surrounding open spaces should be maintained in the original state.
- No alteration in the spatial characteristics and the exterior facade should be done.
- Compatible re-use without compromising the integrity of the building should be encouraged, for example, the domed blocks, which are presently used as either Groom's quarter or store should be put in more compatible use like reading room, display area. It would also allow to open up the original ceiling of the dome.
- Partition of internal spaces should be avoided.
- Segregation of the buildings by building boundary walls, railings should be strictly avoided;

- Introduction of new elements in the facades or interiors should be avoided.
- New buildings adjacent to or in front of the heritage buildings by blocking its view should be removed and avoided in future.
- The original archways, doors, windows should not be blocked. If at all necessary, it should be done sensitively by leaving an offset.
- Similarly, the loggias should not be blocked. In odd situations, if at all necessary, it should be done sensitively by leaving an offset.
- Main entrance porches and the doors should not be blocked.
- The glazed doors, windows, ventilators with wooden frames, sash bars should be restored and not be replaced.
- The flooring of the loggias should be provided with kota stone, sandstone instead of tiles.
- The facade elements like the conical turrets; brick dado wall should be maintained
- Multi layers of white wash and paints over pillars, walls, mouldings should be removed carefully. Original plaster should be preserved and only decayed plaster should be replaced with lime mortar matching the original specification.
- All internal mouldings should be restored and maintained.
- Old rain water outlets should be maintained.
- Fire places should not be painted. The wooden or stone top and the mouldings around should be maintained in original state.
- Original red sandstone steps should be maintained and not replaced.
- Electrical conduiting and other services related works should be done sympathetically by routing the cables underneath the plaster. Routing along the cornices should be avoided.
- Water tanks on top of loggias should be avoided.
- Signages should be properly designed and located appropriately. Paint over the pillars should be avoided.

Grade IIB:

- Repair and upgradation should be done sympathetically with materials that are compatible in nature with the original material. If the usage demands to enhance the quality of materials, it should be done, such as in the horse stables, hard cemented flooring should be upgraded to soft flooring.
- Appropriate reuse and upgradation without changing the interiors and exterior is welcome. The elevation characters- brick dado, top cornice, entrance porches and the interior courtyard should not be altered.
- The original boundary walls should not be altered.

- All doors, windows, ventilators should be repaired, restored to its original design and not replaced by new aluminium frames.
- Original RBC, jack arch or vaulted ceiling should not be replaced with other alternate roofs such as RCC, I section and stone planks. It not only alters the appearance but also disturbs the structural integrity of the structure.
- Multi layers of white wash and paints over pillars, walls, mouldings should be removed carefully. Original plaster should be preserved and only decayed plaster should be replaced with lime mortar matching the original specification.
- Original red sandstone steps should be maintained and not replaced.
- Electrical conduiting and other services related works should be done sympathetically by routing the cables underneath the plaster. Routing along the cornices should be avoided.
- Water tanks on top of loggias should be avoided.
- Closing of courtyards should be avoided.
- Fire places should not be painted. The wooden or stone top and the mouldings around should be maintained in original state.

Grade III:

- The rooms should be repaired and upgraded sympathetically with materials that are compatible in nature with the original.
- Original RBC, jack arch or vaulted ceiling should not be replaced with other alternate roofs such as RCC, I section and stone planks. It disturbs the structural integrity of the structure.
- New construction may take place on the same footprint of the existing building. The inner courtyard and the outer boundary wall with cornice mouldings, entrance doors (if any)should be maintained without any change in size, scale and design.
- The boundary wall with the top moulding, brick dado wall and the vaulted entrance ways should be maintained.
- Brick dado wall should neither be plastered nor be replaced with red sandstone cladding. Exposed brick surface should not be painted .

Other Common Guidelines:

- Conservation work of heritage building is a specialized job. Any work, even if minor in nature should be regularly supervised by a qualified conservation architects. Historic buildings have many clues, hints that require an investigative mind, which are particular useful in the conservation process and to enhance the life of the building.
- Regular maintenance is important once the repair / conservation work is complete. It can be done with the help of house keeping staffs, mainly in terms of cleaning the terrace, clearing the rain water pipes, removing the vegetation growth on the

terrace and very close to the building etc. The staff should also be trained and made aware of the significance of such repairs.

- Surrounding level around the buildings , which is presently raised considerably above the original level, should not be further raised . Attempt should be made to restore the original level.
- Plinth protection should be provided around the buildings. One suggestion is the brick on edge paving on bed of lime concrete.
- Original brick and red sandstone paving existing in the courtyard, pathways should be maintained.
- All repair works should be done in original and compatible materials such as lime plaster. No cement plaster or pointing should be used on heritage buildings.
- All mouldings and other decorative features should be maintained.
- Planting very close to the building that not only obstructs the views but also creates dampness and ingress of roots, branches should be avoided.
- The masons, laborers and artisans should be trained to understand the level of care required while dealing with the heritage fabric.

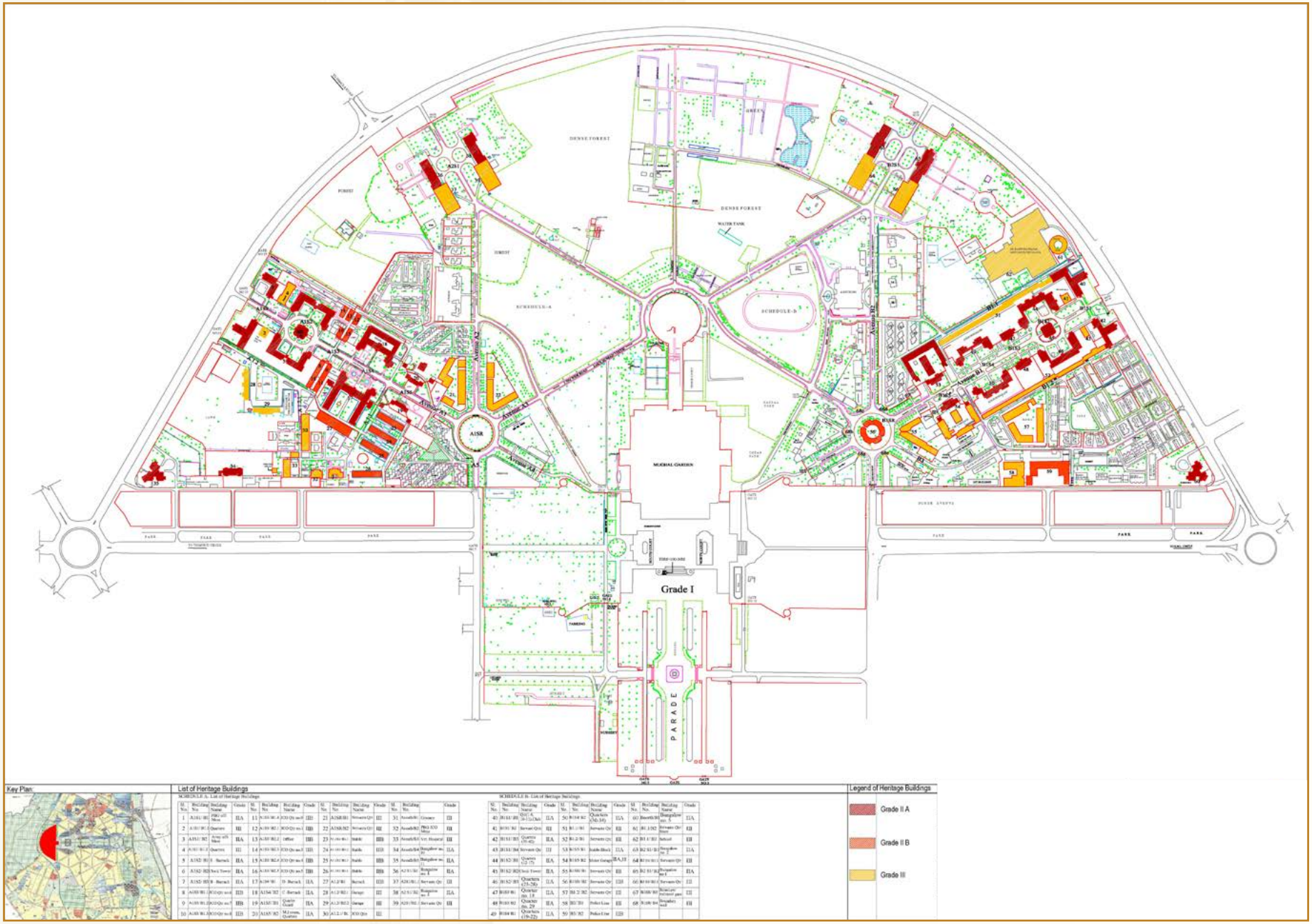


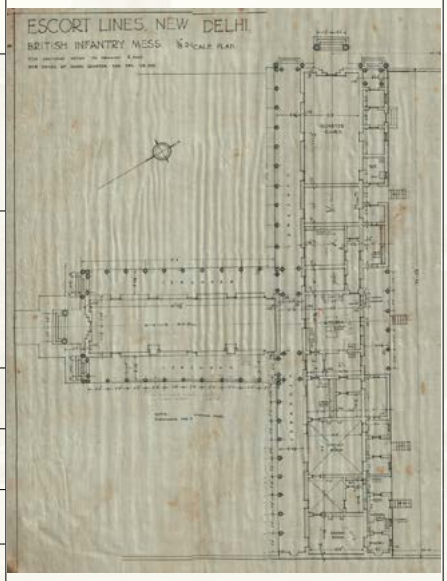
Figure 2.2 : Mapping and Grading of Heritage Structures in the President's Estate

Heritage Buildings [SCHEDULE A]

Sl. No. 1		Building No. A1 S1/ B1		
				SCHEDULE A
Past Name		British Infantry Mess, Escort Lines		
Date of Construction		1931		
Current Use / Past Use		Mess		
Architecture	Layout Plan	One of the major landmarks in the main avenue of schedule A. It forms a complex with the follower's quarters, which is on its north side. The building has T shaped plan with colonnaded verandah or loggia on the south side.		
	Elevation	Single storey building with loggias at lower height than the rooms. Plain plastered walls. Corners of loggias have square columns and the parapet decorated with conical turrets at each corner. Two projected porches each supported with two circular columns.		
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators		
Building Condition		Alteration in the interior. Loggia on the south east side closed. Renovation work ongoing. Part of the loggia on the north side closed to convert rooms.		
		Good	Fair ●	Poor
Significance		Historical	Architectural	
		A	A	
Grading		IIA		



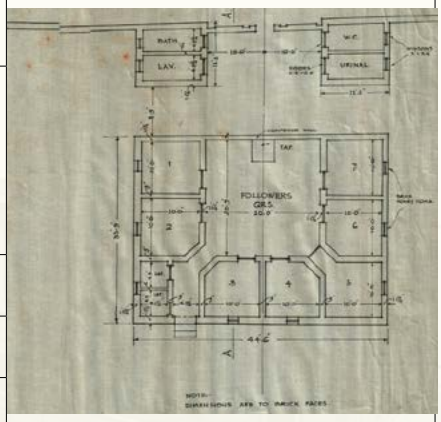


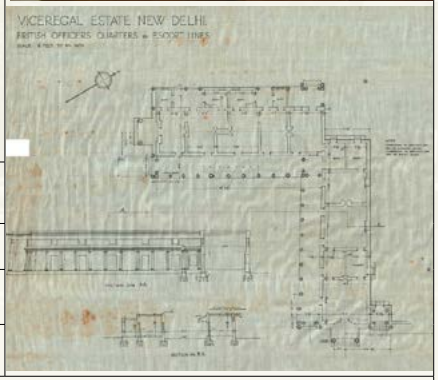


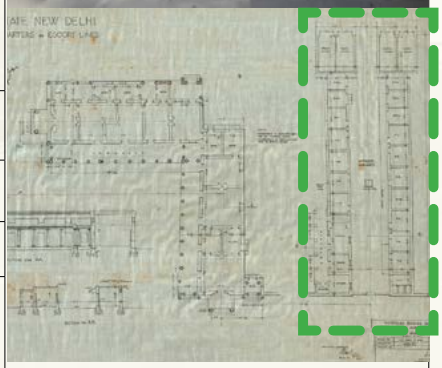
Recommendation

The layout, materials of the building, both interior and exterior and the cartilage such as the boundary wall, surrounding open spaces should be maintained in the original state. Repair work be done in original and compatible materials such as lime plaster. The blocked verandah should be opened up.

Inventory by	Date of Inventory	Drawing Reference
A. Vijaya, INTACH	February 2013	DL-PE-A1s1/B1

Sl. No. 2		Building No. A1 S1/ B1.1	SCHEDULE A
		-	
Past Name		Follower's Quarters, British Infantry Mess, Escort Lines	
Date of Construction		1931	
Current Use / Past Use		Residential	
			
Architecture	Layout Plan	The quarter forms a complex with the Presidents body guard officers Mess. The original layout and plan of the quarter has been altered.	
	Elevation	Single storeyed building. From the main avenue, the building is not visible, as it is enclosed by a boundary wall. Building facade has been altered completely.	
Building Material		Brick masonry walls RCC ceiling	
Building Condition		Complete alteration on both the interior and exterior. Vaulted roof replaced with RCC slab. The external wall towards the main avenue cladded with sand stone dado in place of original exposed brick.	
		Good / Fair ● / Poor	
Significance		Historical / Architectural	
		B / C	
Grading		III	
Recommendation		The building should be upgraded internally to the user's requirement. Foot print and the height of the building must maintain the same as the original. Elevation from the main avenue of the building together with the boundary wall should not be altered from the original design.	
		Date of Inventory	Drawing Reference
		February 2013	DL-PE-A1s1/B1 (02-03)

Sl. No. 3		Building No. A1 S1/ B2			SCHEDULE A
					
Past Name		British Officer's Quarter, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Mess			
					
Architecture	Layout Plan	One of the major landmarks in the main avenue of schedule A. It forms a complex with the follower's quarters on its north side. The building has L shaped plan with colonnaded verandah or loggia on the south side.			
	Elevation	Single storey building with loggias at lower height than the rooms. Plain plastered walls. Corners of loggias have square columns and the parapet decorated with conical turrets at each corner. Two projected porches each supported with two circular columns.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Alterations in the internal rooms, verandah flooring. Fireplaces closed. Flower beds very close to the building and some old trees are close to the building with roots ingressing.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		A	A		
Grading		IIA			
Recommendation		The layout, materials of the building, both interior and exterior and the cartilage such as the boundary wall, surrounding open spaces should be maintained in the original state. Repair work be done in original and compatible materials such as lime plaster. The blocked verandahs to the west side should be opened up. Plumbing lines, water tanks on top of verandah need to be re - organized.			
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1s1/B2

Sl. No. 4		Building No. A1 S1/ B2.1	SCHEDULE A
			
Past Name		Servant's Quarter, Escort Lines	
Date of Construction		1931	
Current Use / Past Use		Residential	
Architecture	Layout Plan	This is part of the Army Guard Officers Mess Complex. Rooms are arranged on either side of the courtyard.	
	Elevation	Single storey building and simple elevation of Plain plastered wall with window openings. Boundary wall continues between the Army Guard Officers mess and the quarters and hides the building facade from the main avenue.	
Building Material		Brick masonry walls Vaulted ceiling	
Building Condition		Porch, awnings are new additions. The entrance door from the main avenue is blocked. It has about 20 rooms, 6 of which are used as living qtr, 10 are store rooms, one tailor shop. Vaulted ceiling is in good condition. Toilet block added at the original entry space. New intervention of red sand stone cladding on the boundary wall.	
		Good / Fair ● / Poor	
Significance		Historical / Architectural	
		B / C	
Grading		III	
Recommendation		There is only one narrow entry point to the quarter, which is inadequate at the time of any hazard. The access and circulation must be improved. Interior, ventilation should be upgraded.	
		Date of Inventory	Drawing Reference
		February 2013	DL-PE-A1s1/B2 (02-04)

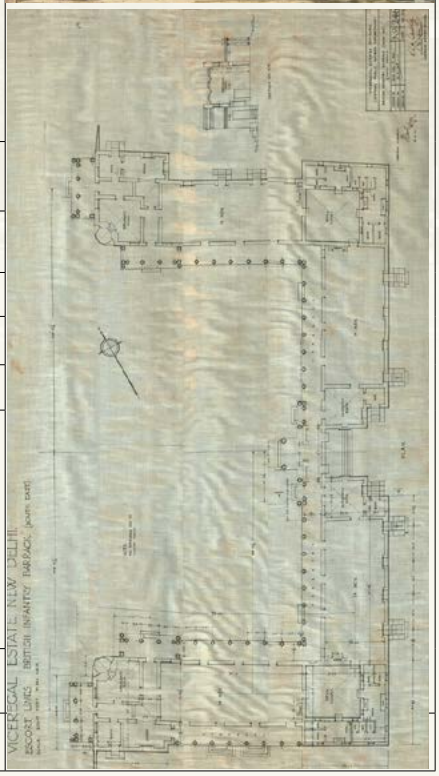
Sl. No. 5		Building No. A1 S2/ B1		
Past Name		British Infantry Barrack (South East), Escort Lines		
Date of Construction		1931		
Current Use / Past Use		Residential		
Architecture	Layout Plan	One of the major landmarks in the main avenue of schedule A. C shaped plan with colonnaded loggia along the avenue. Corners are chamfered and have arched alcoves with fountains.		
	Elevation	Single storey building with loggias at lower height than the rooms. Plain plastered walls. Corners of loggias have square columns and the parapet decorated with conical turrets at each corner. There is one projected porch supported with two large circular columns.		
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators		
Building Condition		Alterations in the internal rooms, verandah flooring. Fireplaces closed. Dampness on the walls, ceilings. The central porch is blocked.		
		Good	Fair ●	Poor
Significance		Historical	Architectural	
		A	A	
Grading		IIA		
Recommendation				
The layout, materials of the building, both interior and exterior and the cartilage such as the boundary wall, surrounding open spaces should be maintained. Repair work to be done in original and compatible materials such as lime plaster. The blocked central porch should be opened up and restored. Flooring should be changed. Fountains should be restored.				
		Date of Inventory	Drawing Reference	
		February 2013	DL-PE-A1s2/B1	

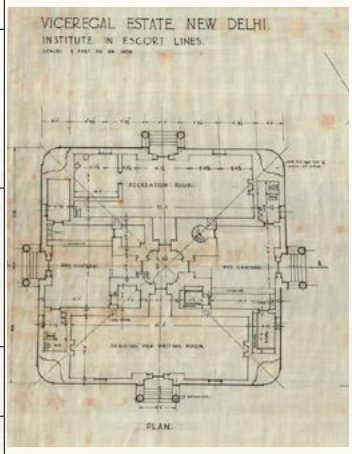
SCHEDULE A









Sl. No. 6		Building No. A1 S2/ B2			SCHEDULE A
					
Past Name		Institute, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Office / Institute (Canteen, reading writing room)			
					
Architecture	Layout Plan	One of the central and major landmark in the main avenue of schedule A. Square plan with chamfered corners and arched alcoves with lion head fountains. Spiral staircase leads to the terrace.			
	Elevation	Single storey with central tower. Clocks on each four sides one of the major features. Plain plastered walls. Four projected porches each supported with two circular columns. Parapet decorated with conical turrets and vases, dome with lantern finial.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Alteration in the interior. Partitions, wooden claddings on walls. Jharokhas added to the windows on the exterior. Gate added to the east of the building.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		A	A		
Grading		IIA			
Recommendation					
The layout, materials of the building, both interior and exterior and the cartilege such as the surrounding open spaces should be maintained in the original state. Repair work to be done in original and compatible materials such as lime plaster. Fountains should be restored.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1s2/B2

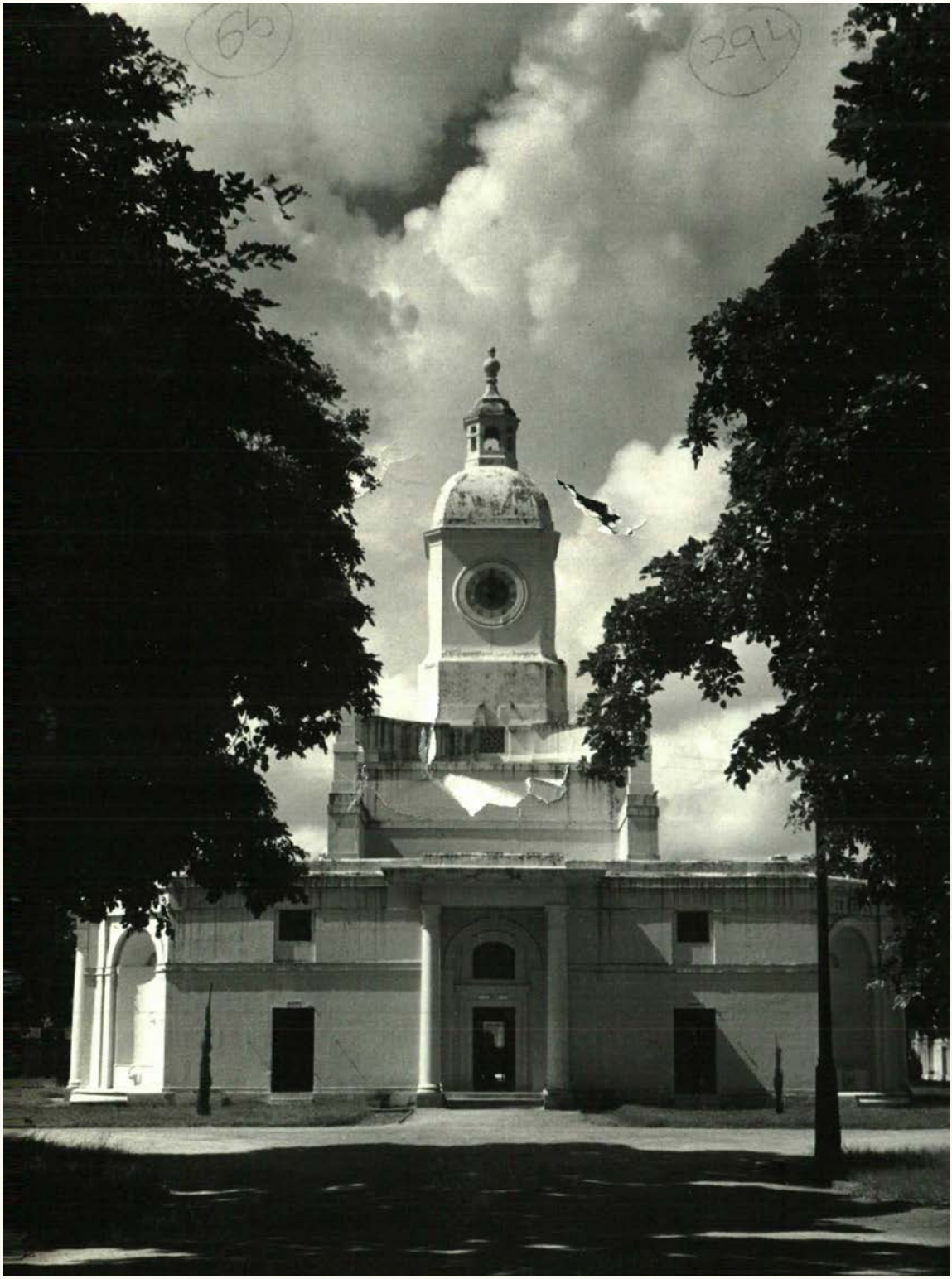
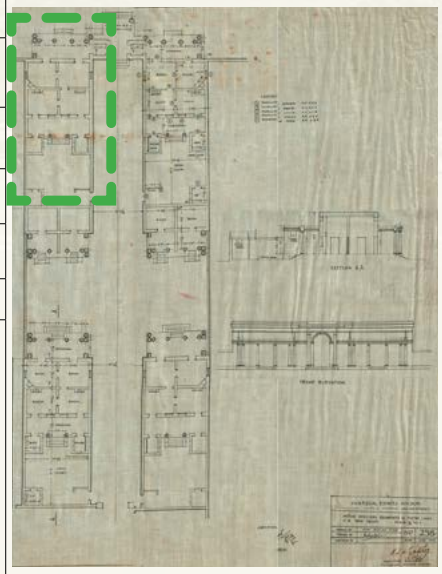
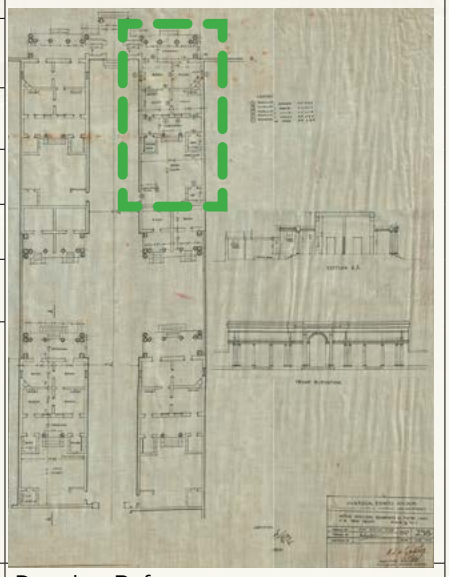
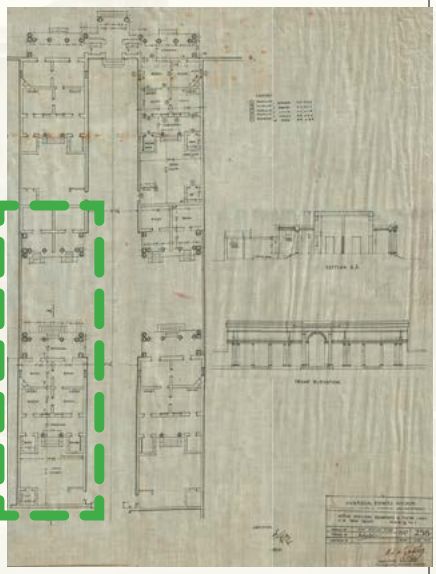


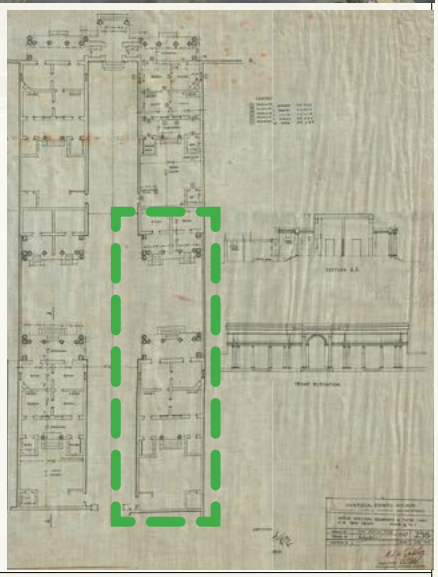
Figure 2.10 : Archival pics of Clock Tower - 1960s

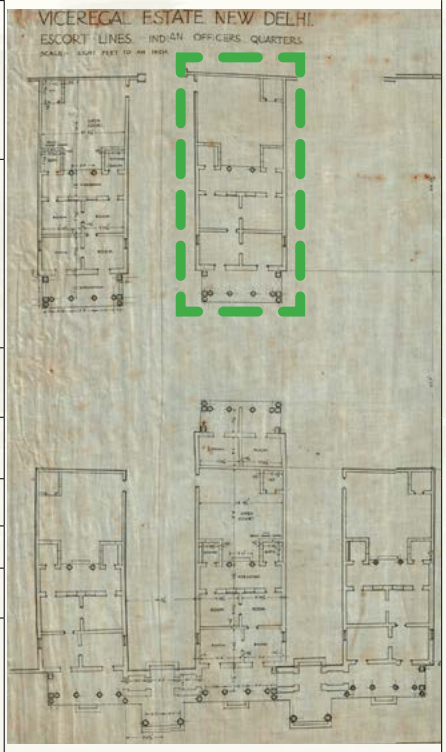
Sl. No. 7		Building No. A1 S2/ B3			SCHEDULE A
					
Past Name		---			
Date of Construction		1931			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	One of the major landmarks in the main avenue of schedule A. C shaped plan with colonnaded verandah or loggia along the avenue. Corners are chamfered and have arched alcoves with lion head fountains.			
	Elevation	Single storey building with loggias at lower height than the rooms. Plain plastered walls. Corners of loggias have square columns and the parapet decorated with conical turrets at each corner. One projected porch supported with two circular columns.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Alterations in the internal rooms, verandah flooring. Fireplaces closed. Dampness on the walls, ceilings. The central porch columns painted in red colour. Main facade hidden behind trees. New Dining hall building built closely to the west of the Barrack.			
		Good	Fair ○	Poor	
Significance		Historical	Architectural		
		A	A		
Grading		IIA			
Recommendation					
The layout, materials of the building, both interior and exterior and the cartilage such as the boundary wall, surrounding open spaces should be maintained in the original state. Repair work be done in original and compatible materials such as lime plaster. Pillars, cornice mouldings should be restored.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1s2/B3

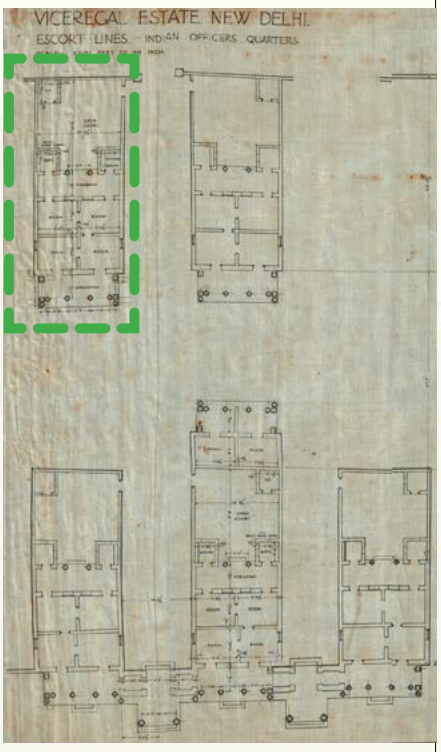
Sl. No. 8		Building No. A1 S3/ B1.1			SCHEDULE A
					
Past Name		Indian Officer's Quarters, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
Architecture	Layout Plan	One of the four quarters along the main avenue. Entrance to the qtrs framed by a projected porch on the avenue side. Colonnaded loggia run along the avenue. The quarters are accessed from the central corridor and each quarter has a front loggia consisting of 6 circular columns and four square columns at the corners.			
	Elevation	Single storey building with loggias at lower height than the rooms. Plain plastered walls with cornice mouldings. The front facade is characterized with colonnades and central porch.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Alterations in the internal rooms, verandah flooring. Wall added along the central corridor to enclose the front courtyard.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	B		
Grading		IIB			
Recommendation					
The quarter to be repaired with materials compatible in nature such as lime plaster, brick masonry etc. The entrance porch, central corridor, porch towards the courtyard, cornice mouldings should be maintained without any change.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1s3/B1

Sl. No. 9		Building No. A1 S3/ B1.2			SCHEDULE A
					
Past Name		Indian Officer's Quarters, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	One of the four quarters along the main avenue. Entrance to the qtrs framed by a projected porch on the avenue side. Colonnaded loggia run along the avenue. The quarters are accessed from the central corridor and each quarter has a front loggia consisting of 6 circular columns and four square columns at the corners.			
	Elevation	Single storey building with loggias at lower height than the rooms. Plain plastered walls with cornice mouldings. The front facade is characterized with colonnades and central porch.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Alterations in the internal rooms, verandah flooring. Wall added along the central corridor to enclose the front courtyard.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	B		
Grading		IIB			
Recommendation					
The quarter to be repaired with materials compatible in nature such as lime plaster, brick masonry etc. The entrance porch, central corridor, porch towards the courtyard, cornice mouldings should be maintained without any change.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1s3/B1

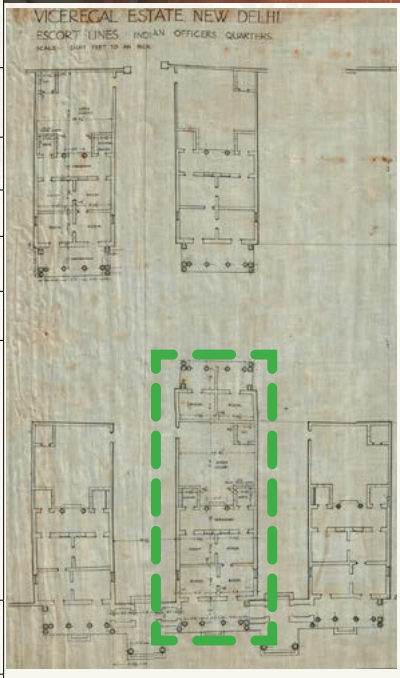
Sl. No. 10		Building No. A1 S3/ B1.3			SCHEDULE A
					
Past Name		Indian Officer's Quarters, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	One of the four quarters along the main avenue. Entrance to the qtrs framed by a projected porch on the avenue side. Colonnaded loggia run along the avenue. The quarters are accessed from the central corridor and each quarter has a front loggia consisting of 6 circular columns and four square columns at the corners.			
	Elevation	Single storey building with loggias at lower height than the rooms. Plain plastered walls with cornice mouldings. The front facade is characterized with colonnades and central porch.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Alterations in the internal rooms, verandah flooring. Wall added along the central corridor to enclose the front courtyard.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	B		
Grading		IIB			
Recommendation					
The quarter to be repaired with materials compatible in nature such as lime plaster, brick masonry etc. The entrance porch, central corridor, porch towards the courtyard, cornice mouldings should be maintained without any change.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1s3/B1

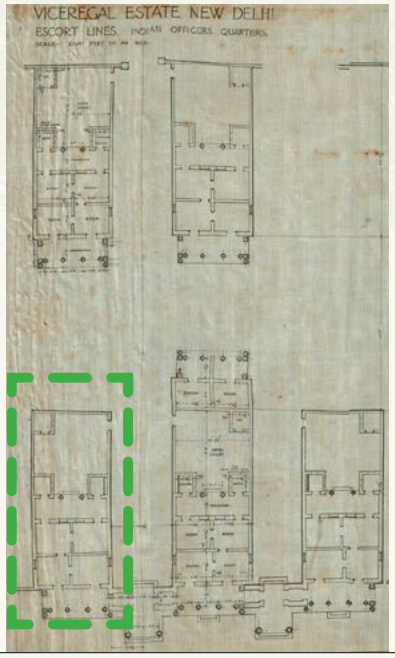
Sl. No. 11		Building No. A1 S3/ B1.4			SCHEDULE A
					
Past Name		Indian Officer's Quarters, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
Architecture	Layout Plan	One of the four quarters along the main avenue. Entrance to the qtrs framed by a projected porch on the avenue side. Colonnaded loggia run along the avenue. The quarters are accessed from the central corridor and each quarter has a front loggia consisting of 6 circular columns and four square columns at the corners.			
	Elevation	Single storey building with loggias at lower height than the rooms. Plain plastered walls with cornice mouldings. The front facade is characterized with colonnades and central porch.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Alterations in the internal rooms, verandah flooring. Wall added along the central corridor to enclose the front courtyard. The entrance loggia is damaged and has sagging beams and projection.			
		Good	Fair	Poor ●	
Significance		Historical	Architectural		
		B	B		
Grading		IIB			
Recommendation					
The quarter to be repaired with materials compatible in nature such as lime plaster, brick masonry etc. The entrance porch, central corridor, porch towards the courtyard, cornice mouldings should be maintained without any change.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1s3/B1

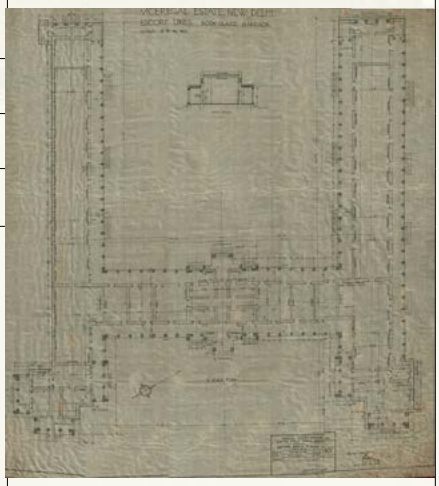
Sl. No. 12		Building No. A1 S3/ B2.1			SCHEDULE A
					
Past Name		Indian Officer's Quarters, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	One of the five quarters along the main avenue. Entrance to the qtrs framed by a projected porch on the avenue side. Colonnaded loggia run along the avenue. The quarters are accessed from the central corridor and each quarter has a front loggia consisting of 6 circular columns and four square columns at the corners.			
	Elevation	Single storey building with loggia at lower height than the rooms. Plain plastered walls with cornice mouldings.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Alterations in the internal rooms, verandah flooring. Surrounding road paving level has been raised, to the same level as the building level. Bamboo chiks on the front loggia.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	B		
Grading		IIB			
Recommendation					
The quarter should be repaired with materials compatible in nature such as lime plaster, brick masonry etc. The entrance porch, central corridor, porch towards the courtyard, cornice mouldings should be maintained without any change. Surrounding level should be made lower than the building plinth level. Plinth protection should be provided around the building.					
		Date of Inventory			Drawing Reference
		February 2013			Archival drawing

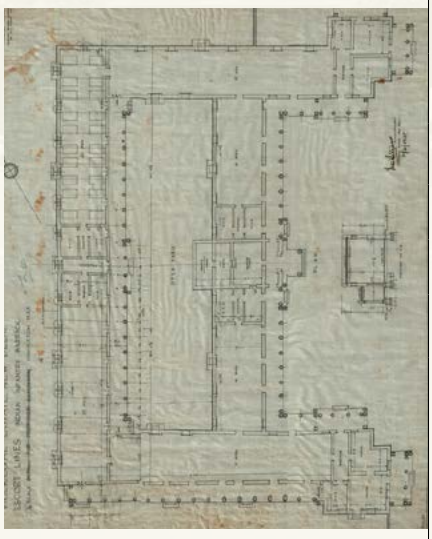
Sl. No. 13		Building No. A1 S3/ B2.2			SCHEDULE A
					
Past Name		Indian Officer's Quarters, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Office / Residential			
					
Architecture	Layout Plan	One of the five quarters along the main avenue. Entrance to the qtrs framed by a projected porch on the avenue side. Colonnaded loggia run along the avenue. The quarters are accessed from the central corridor and each quarter has a front loggia consisting of 6 circular columns and four square columns at the corners.			
	Elevation	Single storey building with loggia at lower height than the rooms. Plain plastered walls with cornice mouldings.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Front loggia closed with new walls and glass window. Alterations in the internal rooms, verandah flooring. Surrounding road paving level has been raised to the same level as the building level.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	B		
Grading		IIB			
Recommendation					
The quarter should be repaired with materials compatible in nature such as lime plaster, brick masonry etc. The entrance porch, central corridor, porch towards the courtyard, cornice mouldings should be maintained without any change. Surrounding level should be made lower than the building plinth level. Plinth protection should be provided around the building.					
		Date of Inventory			Drawing Reference
		February 2013			Archival drawing

Sl. No. 14		Building No. A1 S3/ B2.3			SCHEDULE A
					
Past Name		Indian Officer's Quarters, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	One of the five quarters along the main avenue. Entrance to the qtrs framed by a projected porch on the avenue side. Colonnaded loggia run along the avenue. The quarters are accessed from the central corridor and each quarter has a front loggia consisting of six circular columns and four square columns at the corners.			
	Elevation	Single storey building with loggia at lower height than the rooms. Plain plastered walls with cornice mouldings.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		MS joists, MS flats and stone planks seem to have been added later in place of RBC beams, ceiling. Alterations in the internal rooms, verandah flooring. Surrounding road paving level has been raised to the same level as the building level. Bamboo chiks at the front loggia.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	B		
Grading		IIB			
Recommendation					
The quarter should be repaired with materials compatible in nature such as lime plaster, brick masonry etc. The entrance porch, central corridor, porch towards the courtyard, cornice mouldings should be maintained without any change. Surrounding level should be made lower than the building plinth level. Plinth protection should be provided around the building.					
		Date of Inventory			Drawing Reference
		February 2013			Archival drawing

Sl. No. 15		Building No. A1 S3/ B2.4			SCHEDULE A
					
Past Name		Indian Officer's Quarters, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	One of the five quarters along the main avenue. Entrance to the qtrs framed by a projected porch on the avenue side. Colonnaded loggia run along the avenue. Each quarter has a front loggia consisting of 6 circular columns and four square columns at the corners.			
	Elevation	Single storey building with loggia at lower height than the rooms. Plain plastered walls with cornice mouldings.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Loggia towards the courtyard closed with new walls and glass window. Alterations in the internal rooms, verandah flooring. Surrounding road paving level has been raised to the same level as the building level.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	B		
Grading		IIB			
Recommendation					
The quarter should be repaired with materials compatible in nature such as lime plaster, brick masonry etc. The entrance porch, central corridor, porch towards the courtyard, cornice mouldings should be maintained without any change. Surrounding level should be made lower than the building plinth level. Plinth protection should be provided around the building.					
		Date of Inventory	Drawing Reference		
		February 2013	Archival drawing		

Sl. No. 16		Building No. A1 S3/ B2.5			SCHEDULE A
					
Past Name		Indian Officer's Quarters, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
Architecture	Layout Plan	One of the five quarters along the main avenue. Entrance to the qtrs framed by a projected porch on the avenue side. Colonnaded loggia run along the avenue. Each quarter has a front loggia consisting of 6 circular columns and four square columns at the corners. Original stone paving exists towards the front court.			
	Elevation	Single storey building with loggia at lower height than the rooms. Plain plastered walls with cornice mouldings.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Alterations in the internal rooms, verandah flooring. Surrounding road paving level has been raised to the same level as the building level.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	B		
Grading		IIB			
Recommendation					
The quarter should be repaired with materials compatible in nature such as lime plaster, brick masonry etc. The entrance porch, central corridor, porch towards the courtyard, cornice mouldings should be maintained without any change. Surrounding level should be made lower than the building plinth level. Plinth protection should be provided around the building. Original stone paving existing on the front court should be preserved and maintained.					
		Date of Inventory			Drawing Reference
		February 2013			Archival drawing

Sl. No. 17		Building No. A1 S4/ B1			SCHEDULE A
					
Past Name		Body Guard Barrack, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	One of the major landmarks and the largest barrack in the main avenue of schedule A. It has colonnaded verandah or loggia along the avenue and at the rear.			
	Elevation	Single storey building with loggias at lower height than the rooms. Plain plastered walls. Corners of loggias have square columns and the parapet decorated with conical turrets at each corner. The central projected porch is supported with two circular columns.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Alterations in the internal rooms, verandah flooring. Fireplaces closed. Dampness on the walls, ceilings. Newly installed fountains in the front space.			
		Good	Fair ○	Poor	
Significance		Historical	Architectural		
		A	A		
Grading		IIA			
Recommendation					
The layout, materials of the building, both interior and exterior and the cartilage such as the boundary wall, surrounding open spaces should be maintained in the original state. Repair work be done in original and compatible materials such as lime plaster.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1s4/B1

Sl. No. 18		Building No. A1 S4/ B2			SCHEDULE A
					
Past Name		Indian Infantry Barrack, Escort Lines			
Date of Construction		1937			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	One of the major landmarks in the main avenue of schedule A. The barrack is large as the D Barrack. The building encloses to form a courtyard at the rear. It has colonnaded verandah or loggia along the avenue and on south side.			
	Elevation	Single storey building with loggias at lower height than the rooms. Plain plastered walls. Corners of loggias have square columns and the parapet decorated with conical turrets at each corner. The central projected porch is supported with two circular columns.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		One of the major interventions is the addition of a new toilet block in the courtyard. Dampness on the walls, ceilings. Pillar damaged.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		A	A		
Grading		IIA			
Recommendation					
The layout, materials of the building, both interior and exterior and the cartilege such as the boundary wall, surrounding open spaces, courtyards should be maintained. Repair work be done in original and compatible materials such as lime plaster.					

	Date of Inventory	Drawing Reference
	February 2013	DL-PE-A1s4/B2



FigureIMAG0616.JPG
Source PBG Regimental HQ Photo Archive



Figure **Archival pics of Barrack interiors- 1950s**
Source PBG Regimental HQ Photo Archive

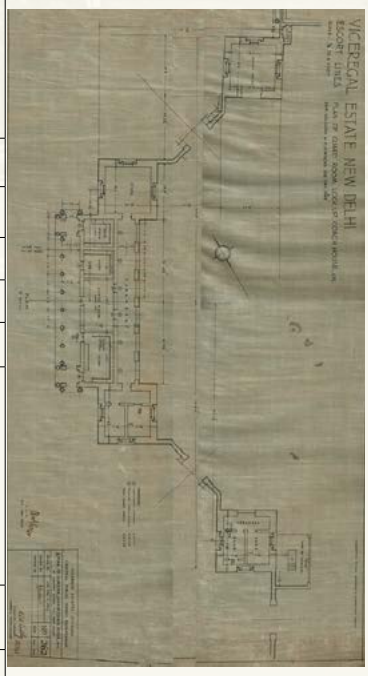
Sl. No. 19		Building No. A1 S5/ B1		
Past Name		Guard Room, Lock Up, Coach House, Escort Lines		
Date of Construction		1931		
Current Use / Past Use		Office & residential		
Architecture	Layout Plan	One of the major landmarks in schedule A. The complex consists of four square blocks topped with domes, of which two blocks along the avenue are connected with each other by another rectangular block having front loggia.		
	Elevation	Single storey building with domes at double height space. The front loggia with 16 circular and 4 square columns is at lower height than the rooms. The domed buildings have rendered / rusticated plaster externally. The domes have lantern finial and spherical top.		
Building Material		Brick masonry walls Vaulted and RBC ceiling Wooden doors, windows, ventilators		
Building Condition		Two domes out of four are closed with false ceilings and are not visible from the room below. The spherical finial is missing from 2 domes, which was originally of brass. New boundary walls added in the surrounding.		
		Good	Fair ●	Poor
Significance		Historical	Architectural	
		A	A	
Grading		IIA		
Recommendation				
The layout, materials of the building, both interior and exterior and the cartilege such as the boundary wall, surrounding open spaces should be maintained. Repair work to be done in original and compatible materials such as lime plaster. Domes should be kept open from inside without any false ceiling. Plinth protection should be provided around the buildings. Appropriate reuse of the domed blocks should be considered.				
		Date of Inventory	Drawing Reference	
		February 2013	DL-PE-A1s5/B1	

SCHEDULE A









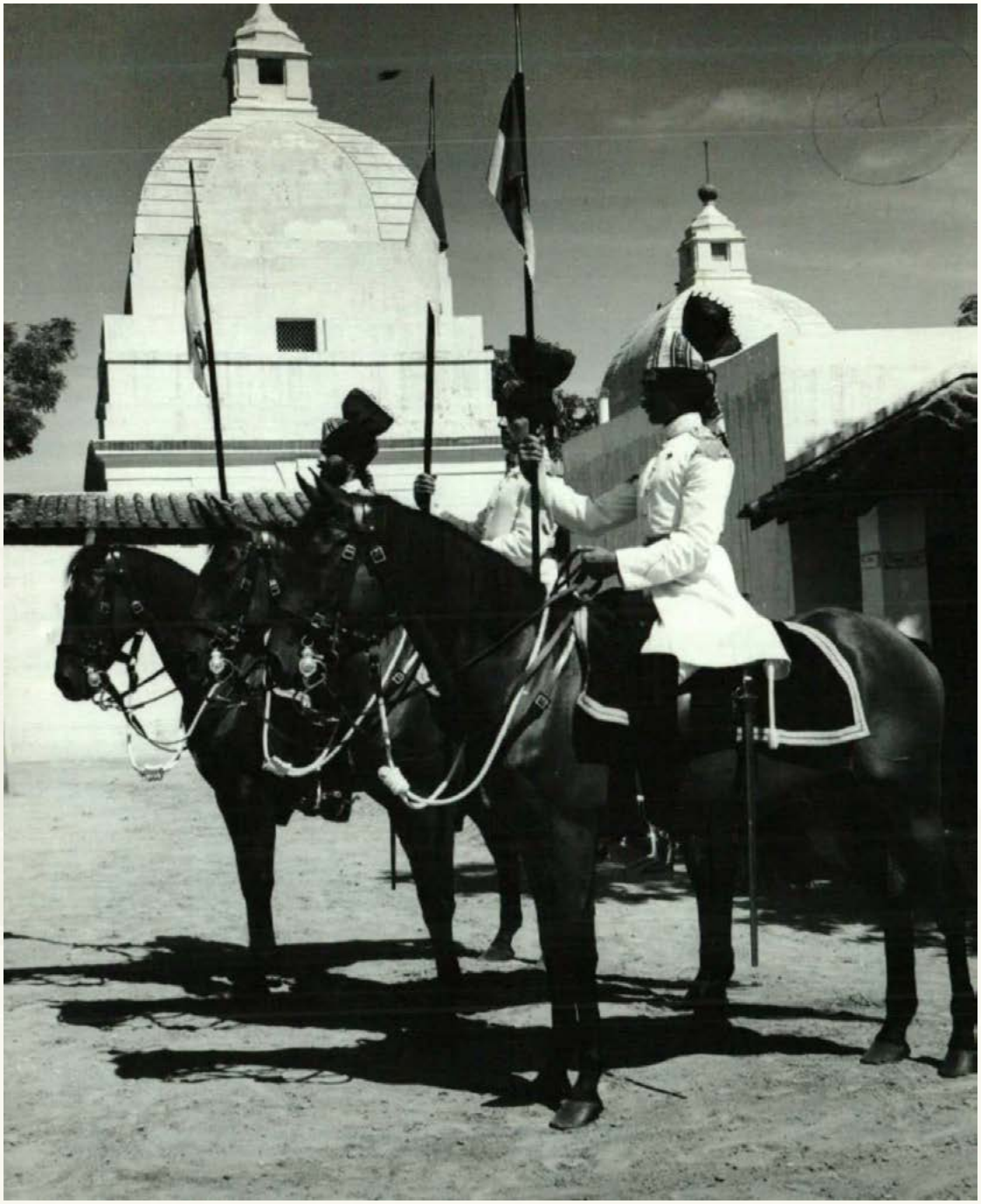


Figure 2.11 : Archival pics of Regimental Head Quarter- 1960s
Source PBG Regimental HQ Photo Archive

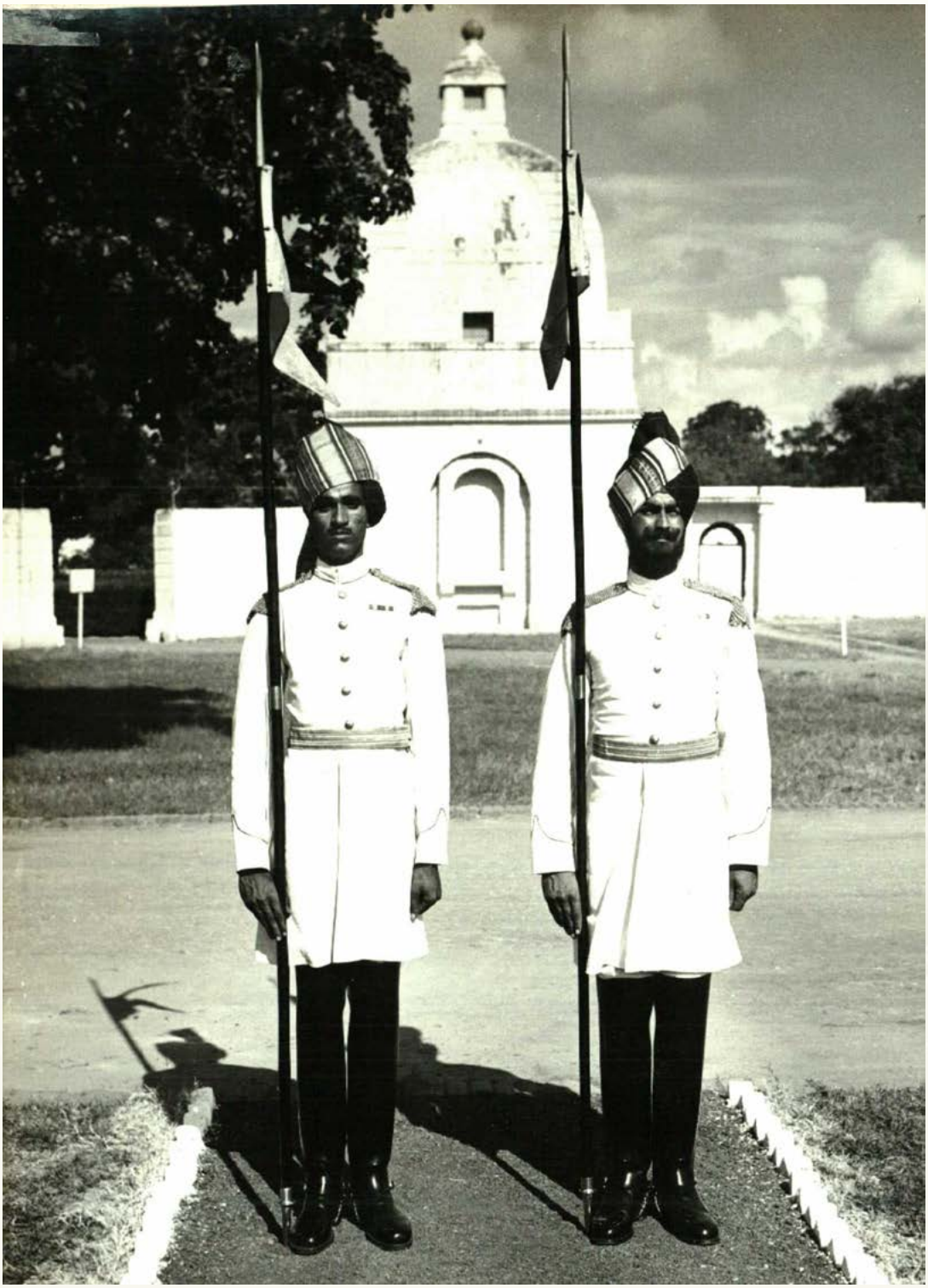
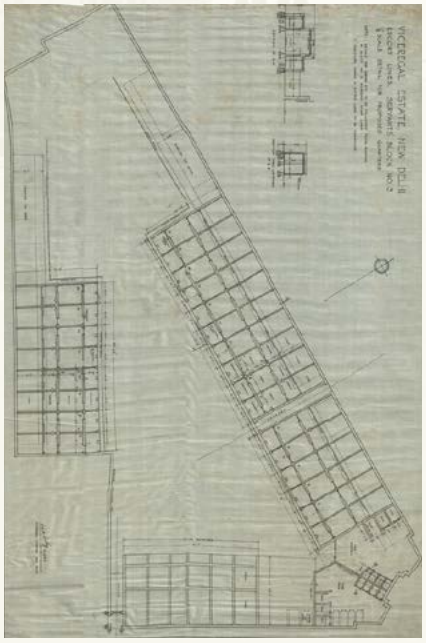
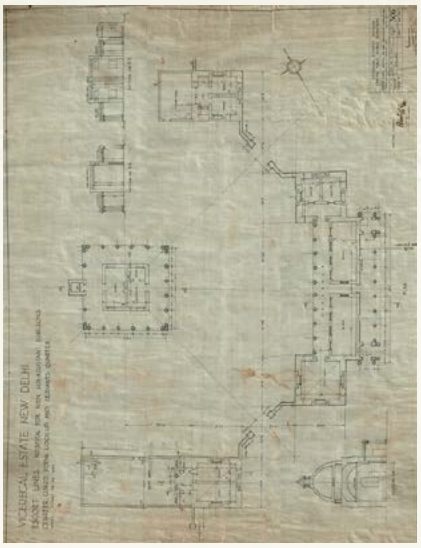
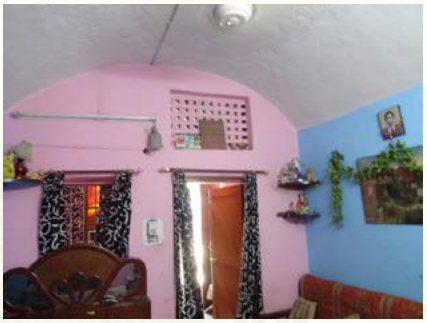


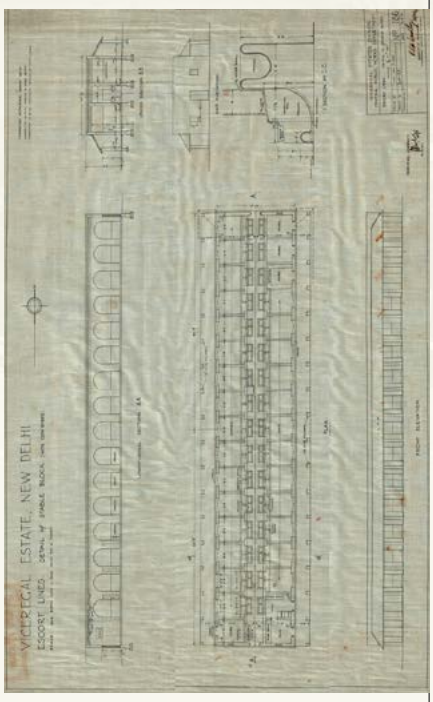
Figure 2.12 : Archival pics of Guard room- 1960s
Source PBG Regimental HQ Photo Archive

Sl. No. 21		Building No. A1 SR/ B1			SCHEDULE A
					
Past Name		Servant's Block no. 3, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
Architecture	Layout Plan	One of the two original servants blocks existing in schedule A around the main round-about. The triangular block is introvert in plan where in the quarters open towards the inside courtyard and enclosed by plain wall on the exterior. There are two entrance doors to access the complex.			
	Elevation	From the avenues, the exterior plain plastered wall with simple cornice on top running all along is what one can see. Similar to the other buildings, dado has exposed brick cladding. Entrance doors are articulated, one of which has circular pillars.			
Building Material		Brick masonry walls RCC ceiling			
Building Condition		Rooms in poor state of repair. Vaulted ceiling replaced by RCC ceiling. Surrounding ground level has been raised. Plants, vegetation near to the building causing dampness on walls.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	C		
Grading		III			
Recommendation					
The rooms to be repaired and upgraded sympathetically with materials that are compatible in nature with the original. The inner courtyard, outer boundary wall with cornice mouldings, entrance doors should be maintained without any change in size, scale and design. Surrounding level should be made lower than the building plinth level. Plinth protection should be provided around. Original brick paving existing in the courtyard should be maintained.					
		Date of Inventory			Drawing Reference
		February 2013			Archival drawing

Sl. No. 20		Building No. A1 S5/ B2			SCHEDULE A
					
Past Name		Hospital for Men, Sub Assistant Surgeon's Quarter, Guard Room, Lock Up, Servant's quarter in Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Hospital and Residential			
Architecture	Layout Plan	One of the major landmarks in schedule A. The complex consists of four square blocks topped with domes, two blocks along the avenue are connected with each other by another rectangular block with front loggia.			
	Elevation	Single storey building with domes at double height space. The front loggia with 16 circular and 4 square columns is at lower height than the rooms. The domed buildings have rendered / rusticated plaster externally. The domes have lantern finial with spherical top.			
Building Material		Brick masonry walls Reinforced Brick concrete ceiling Wooden doors, windows, ventilators			
Building Condition		Original layout has been changed in terms of new buildings added in the courtyards. Rooms added to the separate dispensary block by closing the colonnade around.The domes are not visible from inside.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		A	A		
Grading		IIA			
Recommendation					
The layout, materials of the building, both interior and exterior and the cartilege such as the boundary wall, surrounding open spaces should be maintained in the original state. Domes should be kept open from inside without any false ceiling. Upgradation, new additions should be done in sympathetic manner without compromising the integrity. Appropriate reuse of the building should be considered.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1s5/B2

Sl. No. 22		Building No. A1 SR/ B2			SCHEDULE A
					
Past Name		Servant's Block no. 2, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	One of the two original servants blocks existing in schedule A around the main round-about. The triangular block is introvert in plan where in the quarters open towards the inside courtyard and enclosed by plain wall on the exterior. There are two entrance doors to access the complex, which have vaulted ceiling.			
	Elevation	From the avenues, the exterior plain plastered wall with simple cornice on top running all along is what one can see. Similar to the other buildings, dado has exposed brick cladding. Entrance doors are articulated.			
Building Material		Brick masonry walls Vaulted ceiling			
Building Condition		Rooms in poor state of repair. Surrounding ground level has been raised. Plants, vegetation near to the building causing dampness on walls.			
		Good	Fair	Poor ○	
Significance		Historical	Architectural		
		B	C		
Grading		III			
Recommendation					
The rooms to be repaired and upgraded sympathetically with materials that are compatible in nature with the original and without changing the vaulted roof, which is in good condition. The inner courtyard, outer boundary wall with cornice mouldings, entrance doors should be maintained without any change in size, scale and design. Surrounding level should be made lower than the building plinth level. Plinth protection should be provided around. Original brick paving existing in the courtyard should be maintained.					

	Date of Inventory	Drawing Reference
	February 2013	---

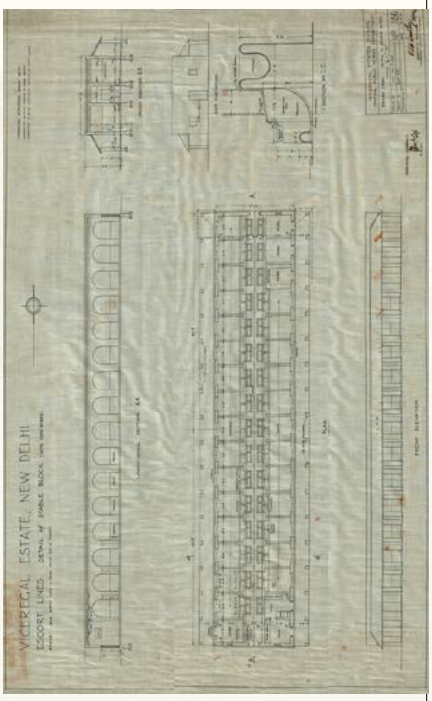
Sl. No. 23		Building No. A1.1 S1/ B1.1			SCHEDULE A
					
Past Name		Stable Block for horses and cows			
Date of Construction		1931			
Current Use / Past Use		Stable			
					
Architecture	Layout Plan	One of the very important buildings of President's Body Guards in schedule A. There are total of four stables for 120 horses, each stable housing about 30 horses. Linear and rectangular in plan with two rows of chambers on either side. There are troughs for food and drinking bowls at the centre between the two rows for each of the chambers.			
	Elevation	Single storey building with plain rectangular pillared verandahs covered with CGI sheets on either side of the main building, which has a flat roof of jack arch ceiling. The chambers have arched openings.			
Building Material/construction		Brick masonry walls Jack arch ceiling. Wooden truss on verandah. Cemented flooring			
Building Condition		Structure is in fair condition. Wooden members are decaying. Crazy finish on terrace. Ceiling fans in each chamber.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		A	B		
Grading		IIB			
Recommendation					
The existing stables should be upgraded to international standards, specially the flooring. The cemented floor should be upgraded to rubber floor. The open spaces in the surrounding should be maintained as existing.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1.1s1/B1

Sl. No. 24		Building No. A1.1 S1/ B1.2		
Past Name		Stable Block for horses and cows		
Date of Construction		1931		
Current Use / Past Use		Stable		
Architecture	Layout Plan	One of the very important buildings of President's Body Guards in schedule A. There are total of four stables for 120 horses, each stable housing about 30 horses. Linear and rectangular in plan with two rows of chambers on either side. There are troughs for food and drinking bowls at the centre between the two rows for each of the chambers.		
	Elevation	Single storey building with plain rectangular pillared verandahs covered with CGI sheets on either side of the main building, which has a flat roof of jack arch ceiling. The chambers have arched openings.		
Building Material/construction		Brick masonry walls Jack arch ceiling. Wooden truss on verandah. Cemented flooring		
Building Condition		Structure is in fair condition, Wooden members are decaying. Crazy finish on terrace. Ceiling fans in each chamber.		
		Good	Fair ○	Poor
Significance		Historical	Architectural	
		A	B	
Grading		IIB		
Recommendation				
The existing stables should be upgraded to international standards, specially the flooring. The cemented floor should be upgraded to rubber floor. The open spaces in the surrounding should be maintained as existing.				

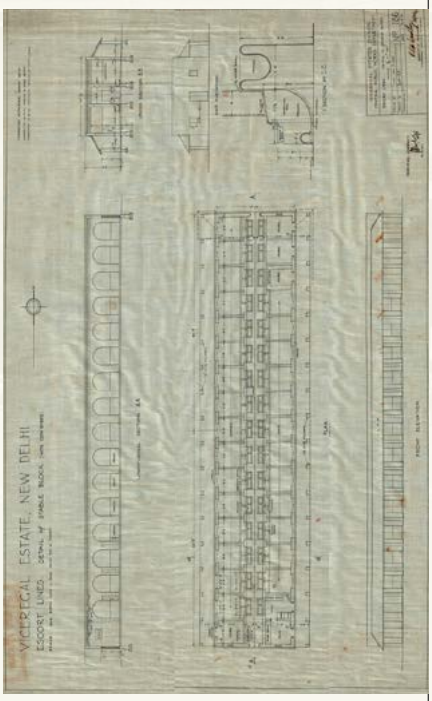
SCHEDULE A







	Date of Inventory	Drawing Reference
	February 2013	DL-PE-A1.1s1/B1

Sl. No. 25		Building No. A1.1 S1/ B1.3			SCHEDULE A
					
Past Name		Stable Block for horses and cows			
Date of Construction		1931			
Current Use / Past Use		Stable			
					
Architecture	Layout Plan	One of the very important buildings of President's Body Guards in schedule A. There are total of four stables for 120 horses, each stable housing about 30 horses. Linear and rectangular in plan with two rows of chambers on either side. There are troughs for food and drinking bowls at the centre between the two rows for each of the chambers.			
	Elevation	Single storey building with plain rectangular pillared verandahs covered with CGI sheets on either side of the main building, which has a flat roof of jack arch ceiling. The chambers have arched openings.			
Building Material/construction		Brick masonry walls Jack arch ceiling. Stone flooring			
Building Condition		Structure is in fair condition. Wooden truss on verandah. Cemented flooring			
		Good	Fair	Poor	
Significance		Historical	Architectural		
		A	B		
Grading		IIB			
Recommendation					
The existing stables should be upgraded to international standards, specially the flooring. The cemented floor should be upgraded to rubber floor. The open spaces in the surrounding should be maintained as existing.					

	Date of Inventory	Drawing Reference
	February 2013	DL-PE-A1.1s1/B1

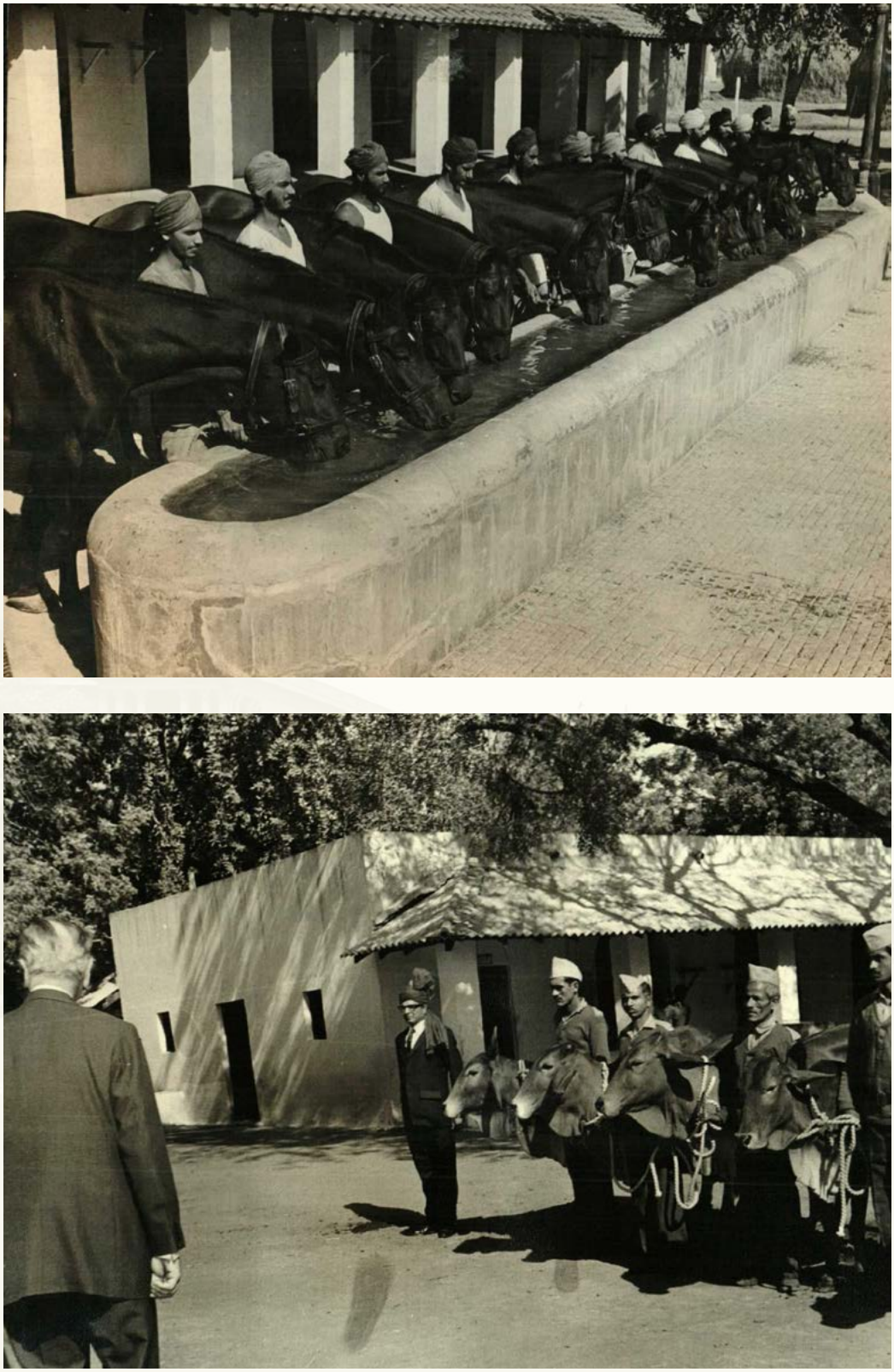
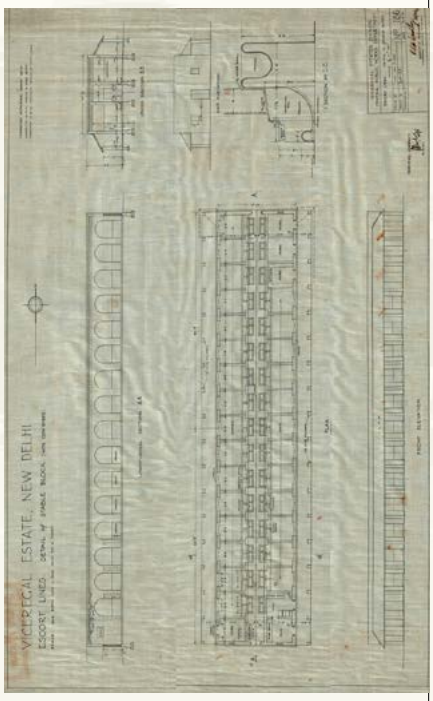
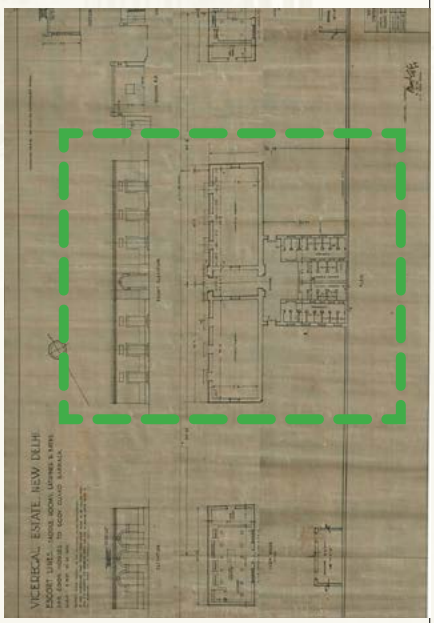
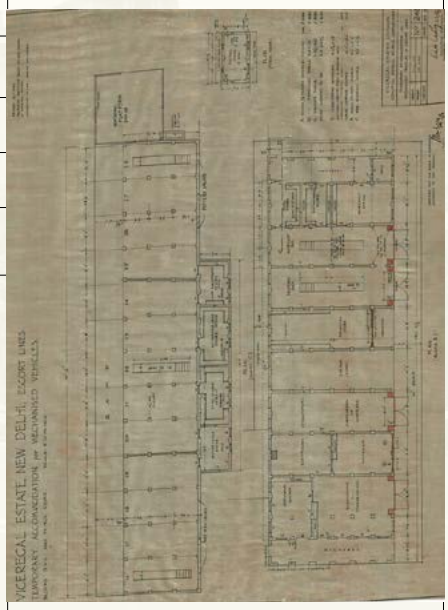


Figure 2.13 : Prince of Wales looking at Regimental Dairy Cows
Source PBG Regimental HQ Photo Archive

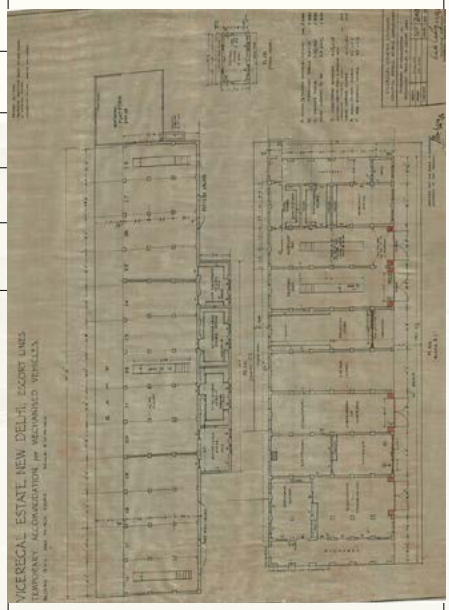
Sl. No. 26		Building No. A1.1 S1/ B1.4			SCHEDULE A
					
Past Name		Stable Block for horses and cows			
Date of Construction		1931			
Current Use / Past Use		Stable			
					
Architecture	Layout Plan	One of the very important buildings of President's Body Guards in schedule A. There are total of four stables for 120 horses, each stable housing about 30 horses. Linear and rectangular in plan with two rows of chambers on either side. There are troughs for food and drinking bowls at the centre between the two rows for each of the chambers. The stable also houses about 50 cows (including calves,4 buffaloes,2 bulls)			
	Elevation	Single storey building with plain rectangular pillared verandahs covered with CGI sheets on either side of the main building, which has a flat roof of jack arch ceiling. The chambers have arched openings.			
Building Material/construction		Brick masonry walls Cemented flooring. Verandah over GI pipes.			
Building Condition		Structure is in poor state of maintenance. Wooden truss has been replaced by GI pipes. Plaster damaged.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		A	B		
Grading		IIB			
Recommendation					
The existing stables should be upgraded to international standards, specially the flooring. The cemented floor should be upgraded to rubber floor. Damaged plaster should be replaced with lime mortar plaster. Damaged shed over the verandah should be replaced. The open spaces and the exercise ground in the surrounding should be maintained.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1.1s1/B1

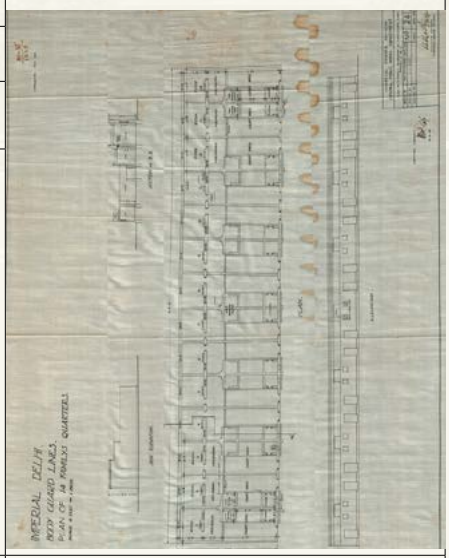
Sl. No. 27		Building No. A1.2 / B1			SCHEDULE A
					
Past Name		Saddle rooms, Escort Line			
Date of Construction		1931			
Current Use / Past Use		Residential / Saddle rooms			
					
Architecture	Layout Plan	The Use is changed, but the original layout remains the same. The central archway has been blocked, added a GI sheet roof on it and used as store. The saddle rooms on either side are used as barracks.			
	Elevation	Plain plastered walls with cornice mouldings and wooden doors. Symmetrical in elevation on either side of the archway. Low height plinth, which has been further reduced at present.			
Building Material		Brick masonry walls Jack arch ceiling			
Building Condition		Except the blocked archway, the rooms on either side are in fair condition. There was a toilet back to the rear side of the building, which is now demolished. There is a Gurudwara and Shiva temple on either side of the building,			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		A	B		
Grading		IIB			
Recommendation					
The layout, materials of the building, both interior and exterior, surrounding open spaces should be maintained in the original state. Upgradation should be done in sympathetic manner without loosing the integrity of the original structure. The central archway should be opened up and restored to its original design.					

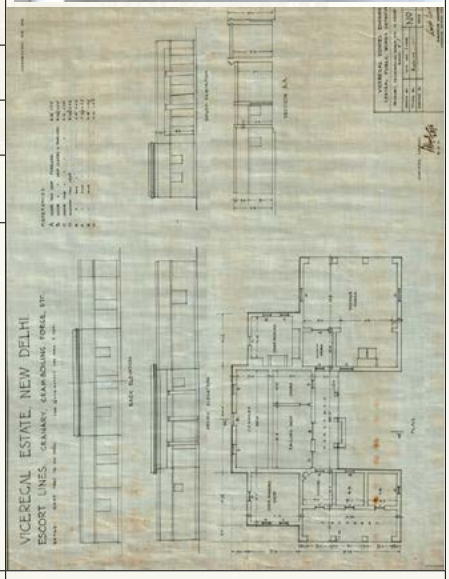
	Date of Inventory	Drawing Reference
	February 2013	Archival drawing

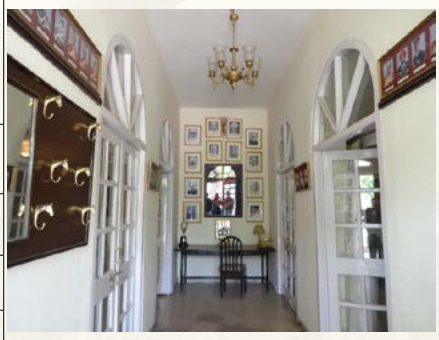
Sl. No. 28		Building No. A1.2 / B2.1			SCHEDULE A
					
Past Name		Temporary accommodation for mechanised vehicles, Escort Lines			
Date of Construction		1942			
Current Use / Past Use		Garage			
Architecture	Layout Plan	One of the original three garages. Rectangular in plan.			
	Elevation	Simple elevation with square pillars, steel shutters, parapet wall.			
Building Material		Brick masonry walls and columns			
Building Condition		In fair condition. layout has been modified.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	C		
Grading		III			
Recommendation					
Upgradation may be done as per the usage and requirement of vehicles. Footprint, height of the building and the Surrounding open spaces should be maintained.					

	Date of Inventory	Drawing Reference
	February 2013	Archival drawing

Sl. No. 29		Building No. A1.2 / B2.2			SCHEDULE A
					
Past Name		Temporary accommodation for mechanised vehicles, Escort Lines			
Date of Construction		1942			
Current Use / Past Use		Garage			
Architecture	Layout Plan	One of the original three garages. Rectangular in plan.			
	Elevation	Simple elevation with square pillars, steel shutters, parapet wall.			
Building Material		Brick masonry walls and columns			
Building Condition		In fair condition. layout has been modified.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	C		
Grading		III			
Recommendation					
Upgradation may be done as per the usage and requirement of vehicles. Footprint, height of the building and the Surrounding open spaces should be maintained.					
		Date of Inventory			Drawing Reference
		February 2013			Archival drawing

Sl. No. 30		Building No. A1.2.1 / B1			SCHEDULE A
					
Past Name		14 Family Quarters, Body Guard Line			
Date of Construction		1929			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	Rectangular block housing 14 single room quarters. Each quarter has a room that measures 14'6"x10', a verandah, bathroom and latrine accessed from the front courtyard.			
	Elevation	Plain plastered wall with door openings.			
Building Material		Brick masonry walls I section and stone plank ceiling.			
Building Condition		The quarters are in poor state of repair. Original Jack arch ceiling replaced by I section, stone plank ceiling.			
		Good	Fair	Poor ○	
Significance		Historical	Architectural		
		B	C		
Grading		III			
Recommendation					
Upgradation should done as per the usage and requirement. Footprint, height of the building should be maintained.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A1.2.1/B1

Sl. No. 31		Building No. A south/ B1			SCHEDULE A
					
Past Name		Granary, Gram Boiling, Forge etc, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Granary			
					
Architecture	Layout Plan	The building houses many functions such as Granary, Gram boiling, Ferrier shop, Shoeing Forge, store etc. There are different rooms for each of these.			
	Elevation	Single storeyed building. Plain plastered wall with top cornice moulding below the parapet.			
Building Material		Brick masonry walls RBC ceiling. Jack arch ceiling.			
Building Condition		Repair work ongoing. Part of the building has been altered to accomodate guest rooms. New extension has also been made. Gram boiling and the room where the food is mixed is in poor state of repair. Tiles on wall.			
		Good	Fair	Poor ●	
Significance		Historical	Architectural		
		B	C		
Grading		III			
Recommendation					
Upgradation should be done as per the usage and requirement. Height of the building should be maintained.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-Asouth/B1

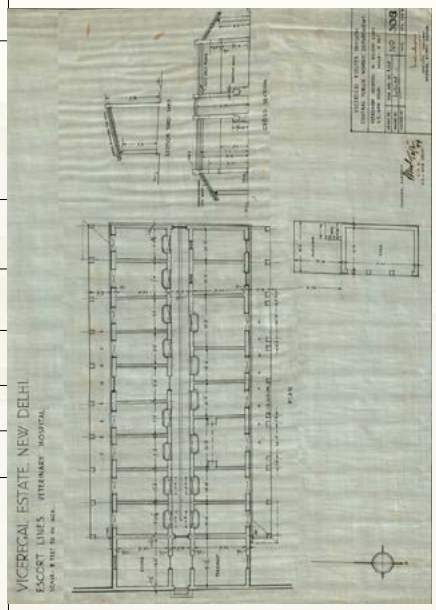
Sl. No. 32		Building No. A south/ B2			SCHEDULE A
					
Past Name		not known			
Date of Construction		1931			
Current Use / Past Use		Mess			
Architecture	Layout Plan	Rectangular plan with front loggia with circular columns. Old plan has been altered.			
	Elevation	Single storey building with plain plastered wall with arched door openings in the front. The verandah has six circular columns and the main entrance is flanked by two columns. Old elevation has been altered.			
Building Material		Brick masonry walls RCC ceiling.			
Building Condition		Building altered and reconstructed. Repair work ongoing. New flooring on the verandah. Base of the columns hidden. New boundary wall built around the building.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	C		
Grading		III			
Recommendation					
Upgradation may be done as per the usage and requirement. The layout, materials of the building, both interior and exterior, surrounding open spaces should be maintained. There is no need for enclosure wall around the building.					

	Date of Inventory	Drawing Reference
	February 2013	---

Sl. No. 33		Building No. A south/ B3			SCHEDULE A
Past Name		Veterinary Hospital, Escort Lines			
Date of Construction		1931			
Current Use / Past Use		Mess			
Architecture	Layout Plan	Rectangular plan with verandahs on either side. The plan was originally similar to that of the stables and had separate chambers together with troughs. Originally, there were arched openings to access each chamber.			
	Elevation	Single storey building with plain plastered walls. The arched openings have been altered to rectangular ones. The ceiling is of jack arch type and the verandah originally had tiled roof.			
Building Material		Brick masonry walls Jack arch ceiling			
Building Condition		The building has undergone considerable change. New flooring, tiles on the wall, pillars. Water cooling system to the ICUs, stables.			
		Good	Fair ●	Poor	
Significance		Historical	Architectural		
		B	C		
Grading		III			
Recommendation					
Upgradation has been done as per the usage and requirement. The layout of the building, surrounding open spaces to be should be maintained. New additions should be done in sympathetic manner.					







	Date of Inventory	Drawing Reference
	February 2013	DL-PE-Asouth/B3

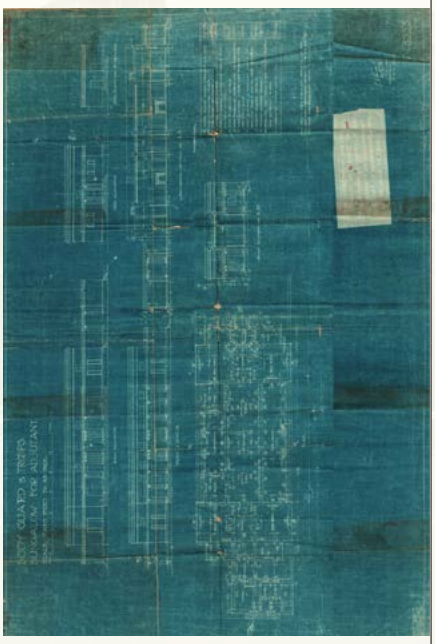
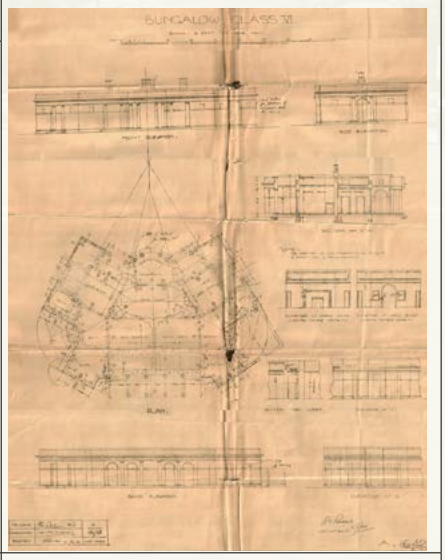
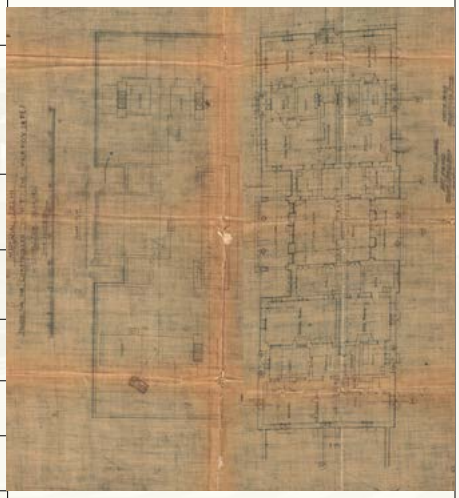
Sl. No. 34		Building No. A south/ B4			SCHEDULE A
					
Past Name		Bungalow for Adjutant, Body Guard and Troops			
Date of Construction		1926			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	Rectangular plan with loggia having both circular and square pillars. Large open space around the Bungalow.			
	Elevation	Single storey building with plain plastered walls. The height of loggia is lower than that of the main building.			
Building Material		Brick masonry walls, RBC ceiling wooden doors, windows, ventilators			
Building Condition		Fairly maintained			
		Good ●	Fair	Poor	
Significance		Historical	Architectural		
		A	A		
Grading		IIA			
Recommendation					
The layout, materials of the building, both interior and exterior, surrounding open spaces should be maintained. Repair work to be done in original and compatible materials such as lime plaster.					
		Date of Inventory			Drawing Reference
		February 2013			Archival drawing



Figure 2.14 : Archival pics of Commandant's bungalow- 1960s

Sl. No. 35		Building No. A south/ B5			SCHEDULE A
					
Past Name		Bungalow Class VI			
Date of Construction		1927			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	Irregular plan similar to Victorian house. Large open space around the Bungalow. There are horse stables inside the premises.			
	Elevation	Single storey building with plain plastered walls, main arched entrance, loggias, cornice mouldings. The height of loggia is lower than that of the main building.			
Building Material		Brick masonry walls, RBC ceiling Wooden doors, windows, ventilators			
Building Condition		Fairly maintained. Minor repair works done in various rooms and kitchen area.			
		Good ●	Fair	Poor	
Significance		Historical	Architectural		
		A	A		
Grading		IIA			
Recommendation					
The layout, materials of the building, both interior and exterior, surrounding open spaces should be maintained. Repair work to be done in original and compatible materials such as lime plaster, brick masonry etc.					

	Date of Inventory	Drawing Reference
	February 2013	DL-PE-Asouth/B5

Sl. No. 36		Building No. A2 S1/ B1			SCHEDULE A
					
Past Name		House of Comptroller to H.E. the viceroy (4 PE)			
Date of Construction		1931			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	Rectangular Plan with central loggia on both front and rear sides. The building is symmetrical along the central axis in terms of both plan and elevation. Large open space around the Bungalow.			
	Elevation	Single storey building with plain plastered walls, slightly projected loggia with two circular columns, cornice mouldings at lintel and parapet level. Other features are tall chimneys, louvred windows with key stone, arched doorway and window set within arched frame with circular pillars.			
Building Material		Brick masonry walls, RBC ceiling Wooden doors, windows, ventilators			
Building Condition		Fairly maintained			
		Good ●	Fair	Poor	
Significance		Historical	Architectural		
		A	A		
Grading		IIA			
Recommendation					
The layout, materials of the building, both interior and exterior, surrounding open spaces should be maintained in its original state. Repair work should be done in original and compatible materials such as lime plaster, brick masonry etc.					
	Date of Inventory				Drawing Reference
	February 2013				Archival drawing

Sl. No. 37		Building No. A2 S1/ B1.1			SCHEDULE A
		-			
Past Name		Servants Quarters with House of Comptroller			
Date of Construction		1931			
Current Use / Past Use		Residential			
Architecture	Layout Plan	All servants quarters look inwards to the courtyard. Outer courtyard with original stone paving and brick on edge (honeycomb) paving.			
	Elevation	Single storey buildings. From outside, enclosed by plain plastered boundary wall with simple cornice on top.			
Building Material		Brick masonry walls, RBC ceiling, Wooden doors, windows, ventilators			
Building Condition		Condition is poor. Repair work ongoing.			
		Good	Fair	Poor	
Significance		Historical	Architectural		
		B	C		
Grading		III			
Recommendation					
Upgradation should be done as per the usage and requirement. Footprint, height of the building should be maintained.					

	Date of Inventory	Drawing Reference
	February 2013	---

Sl. No. 38		Building No. A2 S1/ B2			SCHEDULE A
					
Past Name		House of Surgeon to the Viceroy			
Date of Construction		1933			
Current Use / Past Use		Residential			
					
Architecture	Layout Plan	Rectangular Plan with central loggia on both front and rear sides. The building is symmetrical along the central axis in terms of both plan and elevation. Large open space around the Bungalow.			
	Elevation	Single storey building with plain plastered walls, slightly projected loggia with two circular columns, cornice mouldings at lintel and parapet level. Other features are tall chimneys, louvred windows with key stone, arched doorway and window set within arched frame with circular pillars.			
Building Material		Brick masonry walls, RBC ceiling Wooden doors, windows, ventilators			
Building Condition		Fairly maintained			
		Good ●	Fair	Poor	
Significance		Historical	Architectural		
		A	A		
Grading		IIA			
Recommendation					
The layout, materials of the building, both interior and exterior, surrounding open spaces should be maintained in its original state. Repair work should be done in original and compatible materials such as lime plaster, brick masonry etc.					
		Date of Inventory			Drawing Reference
		February 2013			DL-PE-A2s1/B2

Sl. No. 39		Building No. A2 S1/ B2.1			SCHEDULE A
		-			
Past Name		Servants Quarters with House of Surgeon			
Date of Construction		1933			
Current Use / Past Use		Residential			
Architecture	Layout Plan	All servants quarters look inwards to the courtyard. Outer courtyard with original stone paving and brick on edge (honeycomb) paving. Old garage presently used as residence have vaulted ceiling.			
	Elevation	Single storey rooms. From outside, enclosed by plain plastered boundary wall with cornice moulding on top.			
Building Material		Brick masonry walls Vaulted ceiling			
Building Condition		Repair work ongoing. Cornice mouldings are repaired and recreated in cement mortar.			
		Good	Fair	Poor ●	
Significance		Historical	Architectural		
		B	C		
Grading		III			
Recommendation					
Upgradation should be done as per the usage and requirement. Layout, height of the building should be maintained.					
		Date of Inventory			Drawing Reference
		February 2013			

CONSERVATION AUDIT OF NORTH AND SOUTH BLOCKS

CONSERVATION AUDIT OF NORTH AND SOUTH BLOCKS

INTRODUCTION

The Viceroy's House (now Rashtrapati Bhawan), designed by Edwin Lutyens, is flanked on both sides of the Kingsway (Rajpath) by Secretariat Buildings designed by Herbert Baker. The Eternal City's layout-with its assertive avenues, vistas, axial approach, and foci and the ensemble of buildings together with Great Place (Vijay Chowk) presents one of the outstanding urban spaces in the world.

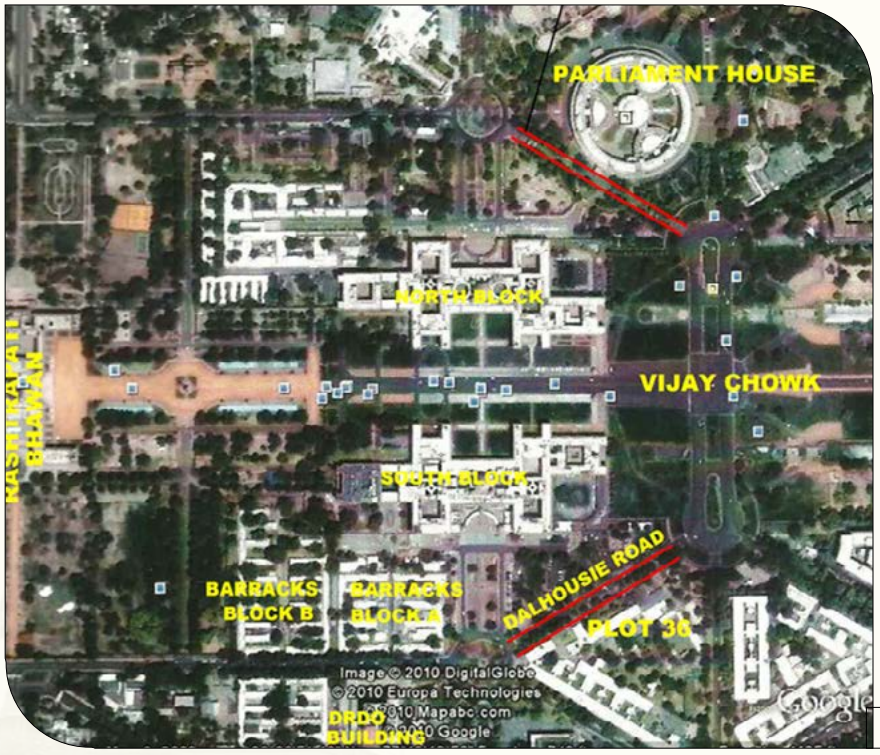
The Secretariat Building was designed in Indo-Saracenic Revival architecture. Together the buildings were designed to form two squares. They have broad corridors between different wings and wide stairways to the four floors and each building is topped by a giant dome, while each wings end with colonnaded balcony.

Both the identical building have four levels, each with about 1,000 rooms, in the inner courtyards to make space for future expansions. The external finish of Secretariat Buildings used Cream and Red Dholpur Sandstone from Rajasthan, with the red sandstone forming the base.

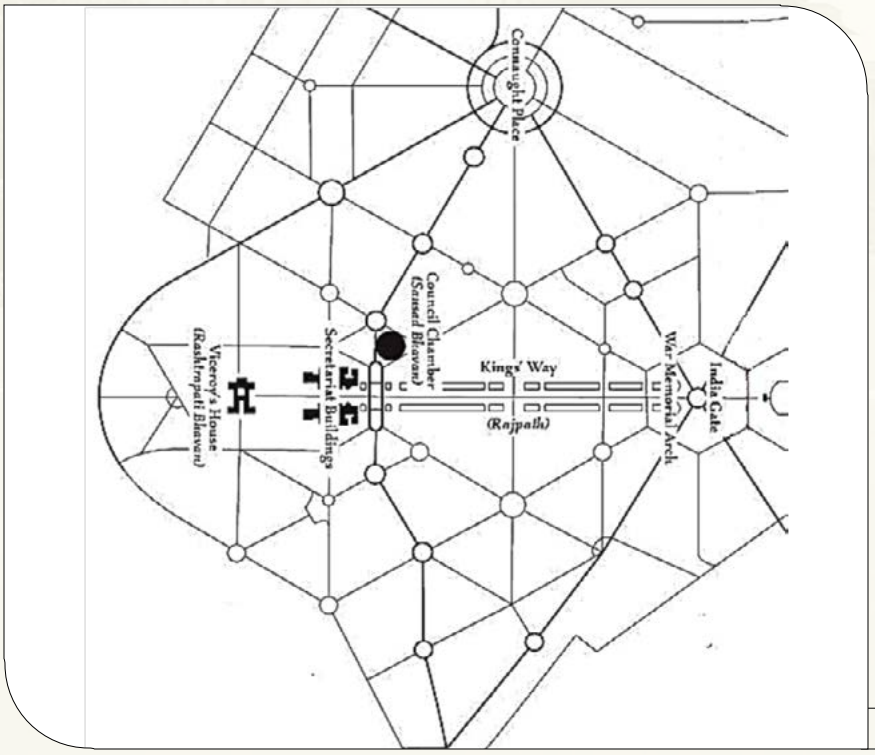
The architectural elements used in Secretariat Buildings were incorporated from Mughal and Rajasthani architecture style and motifs. These are visible in the use of Jali and Chatri. The four Dominion Columns in front of main gates also lend uniqueness to the Secretariat Building over the Raisina Hill.

The Secretariat Building consists of two buildings: the North Block and the South Block. The South Block houses the Prime Minister's Office, Ministry of Defence and the Ministry of External Affairs. The North Block primarily houses the Ministry of Finance, the Home Ministry and Department of Personnel and Training.





GOOGLE IMAGE



PLAN OF LUTYENS , DELHI

THE PREAMBLE

North Block and South Block along with its precincts has been declared as Heritage Grade-I through Delhi Gazette Notification dated 25/9/2009-01/10/2009 by GNCTD.

The Cabinet has approved that all addition - alteration works including repair works involving changes in the original specifications in these buildings will be carried out only after the recommendation and advice of " The Special Advisory Committee on Conservation and Protection of North/ South Block" constituted for this purpose.

In order to maintain consistency of approach in all future work, Technical Guidelines are laid down which help to ensure that such heritage buildings are provided with modern amenities to meet the present day requirements namely climate control and other amenities without adversely affecting the heritage character and architecture of the buildings.



THE GUIDELINES FOR CONSERVATION AUDIT

{Issued by MoUD vide O.M. No. 11013/1/2008-WI dated 12/10/2009)

The Cabinet has approved "Guidelines to be followed by CPWD and Ministries/ Departments in occupation of North and South Block" to regulate and guide all future works.

The aforesaid guidelines stipulates the following:

1. Govt. has decided that in future all addition / alteration works including repairs works involving changes in the original specifications in these buildings will be carried out by CPWD alone.
2. In case any user Ministry/ Department desires to carry out the work themselves, they should be allowed to do so only after obtaining clearance/ concurrence of CPWD.
3. In all such matters including the works to be carried out by itself, CPWD shall be advised by a committee under the Chairmanship of ADG (Architecture) CPWD constituted by Ministry of Urban Development vide OM dated 17 /12/2008, The committee is called "Special Advisory Committee on Conservation & Protection of North / South Block.
4. Conduct an exhaustive survey of current status of buildings and its documentation by way of drawings & photographs.
5. Each year, a Conservation Audit of North and South Block would be undertaken to ensure that the protocol and guidelines issued in this regard have been adhered to. This annual audit would be done by the Chairman DUAC and assisted by DG(ASI) and DG(CPWD). The report of the Conservation Audit would be forwarded by the Ministry of UD to other Departments/ Ministries housed in the North Block and South Block for their information and corrective action.
6. A Bi-Annual Conservation Audit would be undertaken by a team consisting of three professional experts in addition to 3 member team. The report of the Bi- Annual Conservation Audit would be placed before the Cabinet for information.

PROVISIONS OF DELHI MASTER PLAN/ BUILDING BYE LAWS

Scope of interventions as stipulated in Building Bye Laws in respect of Grade I HeritageBuilding are as under:

1. **Provisions in Bye Laws regarding Grade I Heritage Buildings**

   Definition: Heritage Grade I comprises buildings and precincts of national or historic importance, embodying excellence in architectural style, design, technology and material usage or aesthetics; they may be associated with a great historic event, personality, movement or institution. They have been and are the prime landmarks of the region. All natural sites shall fall within Grade-I.

Objective: Heritage Grade-I richly deserves careful preservation

Scope for Changes: "No interventions be permitted either on exterior or interior of the heritage building or natural features unless it is necessary in the interest of strengthening and prolonging the life of the buildings or any part or features thereof. For this purpose, absolutely essential and minimum changes would be allowed and they must be in conformity with the original.

Procedure: Development permission for the changes would be given on the advice

of the Heritage Conservation Committee.

Vistas/ Surrounding Development: All development in areas surrounding Heritage Grade-I Building shall be regulated and controlled, ensuring that it does not mar the grandeur of, or view from Heritage Grade I building

2. Development permission for the changes would be given on the advice of The Heritage Conservation Committee."
3. The North Block and South Block and its precinct being located in the Central Vista area and listed as Grade-I Heritage Building/Precincts in the Heritage List of NDMC, any intervention to the building structure and precinct needs the advice of the Central Vista Committee, the Special Advisory Committee on Conservation and Protection of North/ South Block and Statutory approvals of Heritage Conservation Committee (HCC), DUAC and the Local body (NDMC).
4. The precinct of North Block and South Block also forms part and parcel of Lutyen Bungalow Zone (LBZ) area.

IMPORTANT MAINTENANCE WORKS UNDERTAKEN

Some important Client requirements housed in the North and South Block:

- Renovation of rooms to be in tune with the latest materials and style.
- Partitioning of the space into cubicles with provision of work stations.
- Providing of split unit AC in lieu of window AC.
- Provision of separate and dedicated power supply for PMO. Renovation of toilets.
- Renovations of canteen.
- Modernization of Halls in the Jalebi Chowk. Waterproofing and restoration of fountains. Rejuvenation and Beautification of courtyard. Restoration of red sandstone jail at the entrance porch. Rejuvenation and Beautification of courtyard. Restoration of red sandstone jail at the entrance porch.
- Rehabilitation of Vijay Chowk - Improvement of fountains and waterproofing of the saucer of fountain body and restoration of northern cascade.

- Provision of barrier free ramps at each gate.
- Erection of security structures with ancillary facilities near the entry points. Surveillance and access control system in the form of boundary wall.
- Repair/ replacement of flooring and dado in the corridor.
- Installation of Dish Antenna for communication and security.

OUTCOME OF CHANGES

Over a period of time, the sanctioned works carried out are not in harmony with architectural features of the buildings thereby spoiling the aesthetics and originality.

Unplanned random changes are adversely affecting the services. These additions create hindrance in maintenance operations.

They defeat the very purpose of conservation of such a valuable Heritage Building. Noticable deterioration has taken place in these buildings due to the effect of weathering and lack of skilled maintenance.

ISSUES

Client requirements, sometimes, do not match with the original specifications which are intended for the heritage building.

No documentation/ photographs available due to security reasons which are essential for the consideration by specialized advisory committee.

The demand for office spaces and parking very often exceeds the availability of additional spaces and parking of vehicles are encroached in the parks/ footpaths.

Client expectations are immediate execution after the approval but the scheme needs to go through approvals of the "Specialized Committee" and the "Heritage Conservation Committee" and for external intervention also the proposal needs the approval of local bodies i.e the NDMC and Delhi Fire Service.

Sometimes a viable proposal cannot be undertaken due to reasons of security issues. Restoration and preservation techniques demand carrying the work holistically and in sensitivity with the original material and technology of the heritage building. This may not suit the intended objectives of the client if the modernization approach is taken on a piece meal manner and executed with insensitivity.



South Block-Double Storeyed Structure In Courtyard (Mea)



South Block-Structure In Courtyard (Mod)



Encroachment In Corridor In North Block (Dopt & Mha, Mof)



South Block- Creation Of Additional Accomodation (Mea)



South Block- Additional Accomodation Creating Unhygienic Condition (MEA)



North Block- Creation Of Additional Unauthorised Accomodation (MHA)



North Block- Creation Of Additional Unauthorised Accomodation (MHA)



Encroachment In Corridor In North Block (DOPT & MHA)



North Block- Inappropriate AC's in Corridor



North Block- Inappropriate AC's Courtyard

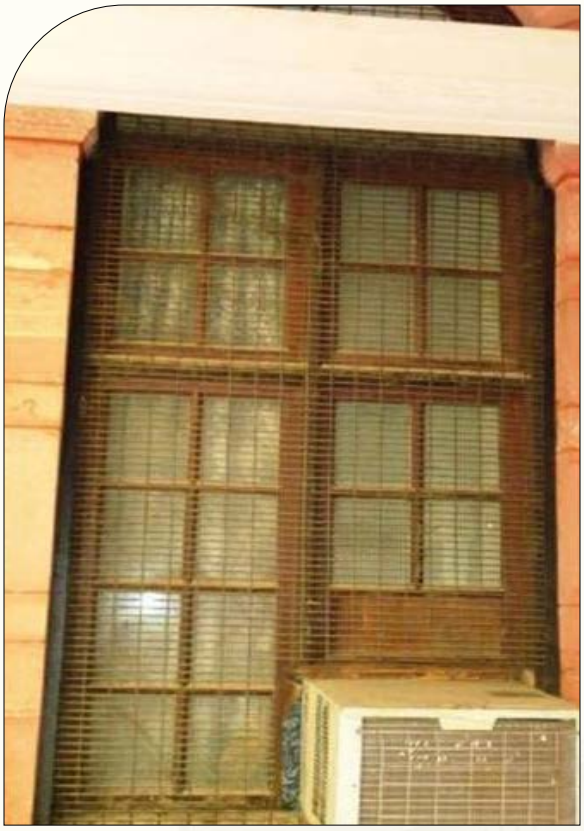


North Blcok- Garbage Dumped Inappropriately In Stair Well (MHA, MOF & DOPT)

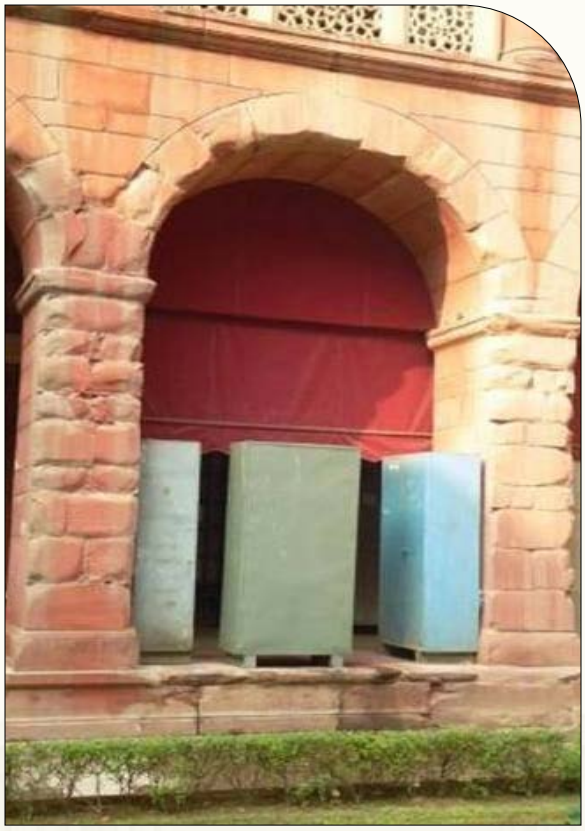


North Block- Garbage Dumped Inappropriately In Stair Well at Gate No 8 MHA

VISUALS OF NORTH BLOCK



AC's projecting out in the courtyard Cornice above the window not in visual harmony



Deformed stone cladding of columns in the courtyard



Rain Water Pipes Jutting out in the Courtyard, Blackening of sandstone due to seepage, Degradation of natural colour

Site Inspection by Conservation Audit Team to North Block on 16/12/2013

VISUALS OF NORTH BLOCK



Worn out Sandstone Base need to be restored; Jutting out cables to be relocated



Encroachment in the corridor of Courtyard to be removed and cleared.



Service pipes should be relocated as they lend visual sore from the Courtyard.

SITE INSPECTION BY CONSERVATION AUDIT TEAM TO NORTH BLOCK ON 16/12/2013

VISUALS OF NORTH BLOCK



Worn out sandstone paving to be replaced similar to existing ones. Care to be taken to avoid stagnation of water on paving.



Unwanted clamps jutting out from the cornice of arches in the courtyard to be removed.



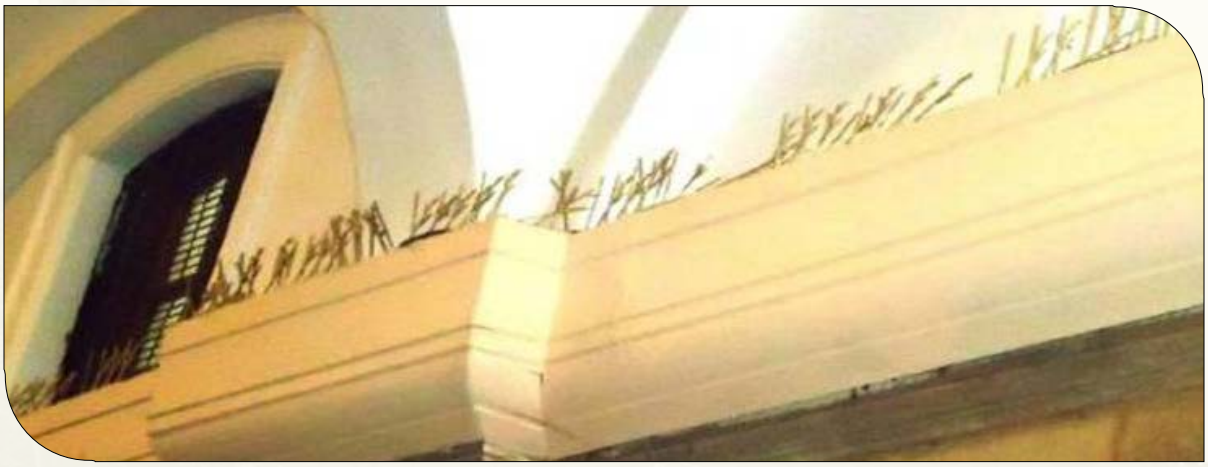
Screen and furniture to be removed as it is not an integral part of the heritage building.

SITE INSPECTION BY CONSERVATION AUDIT TEAM TO NORTH BLOCK ON 16/12/2013

VISUALS OF NORTH BLOCK



Mortar spills near the sandstone jali facing courtyard to be washed and cleared



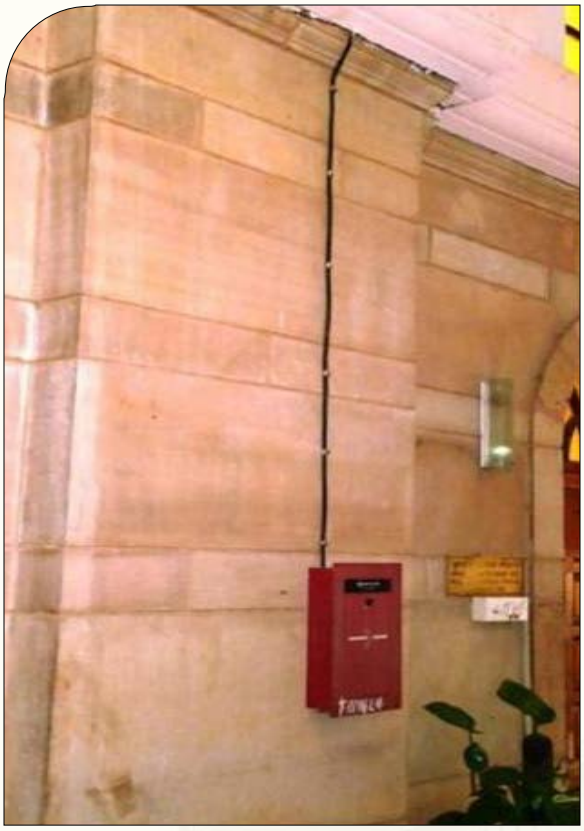
Pigeon spikes are no longer essential and should be removed above the cornice.



Broken and missing cornices cause visual disharmony and needs to be rectified

SITE INSPECTION BY CONSERVATION AUDIT TEAM TO NORTH BLOCK ON 16/12/2013

VISUALS OF NORTH BLOCK



Placement of junction boxes with wires should be avoided in important areas like corridors. If not avoidable wires should be concealed.



Unauthorised covering of corridor to be removed including unsightly wires.



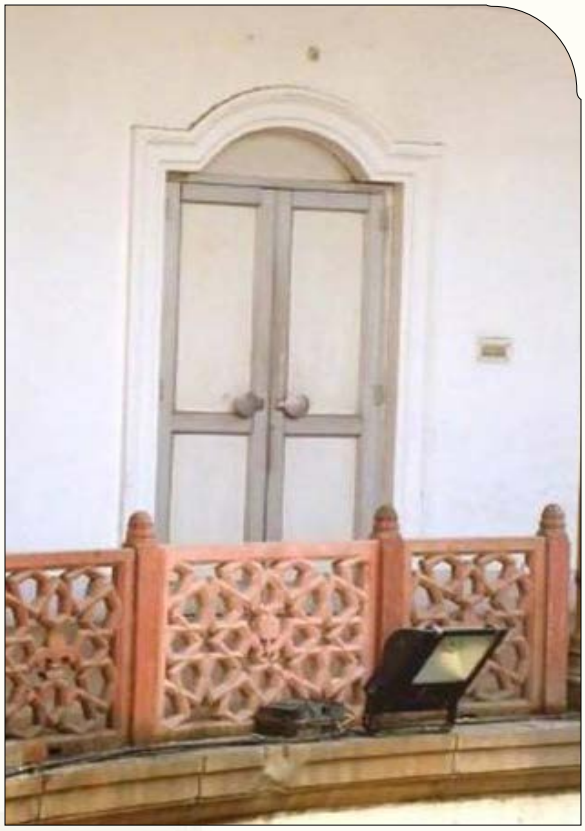
Wires and broken cornices lend bad visual look and should be avoided

SITE INSPECTION BY CONSERVATION AUDIT TEAM TO NORTH BLOCK ON 16/12/2013

VISUALS OF NORTH BLOCK



Unauthorised covering of corridors to be removed



Stone jaalis to be cleared of wires and broken areas to be restored



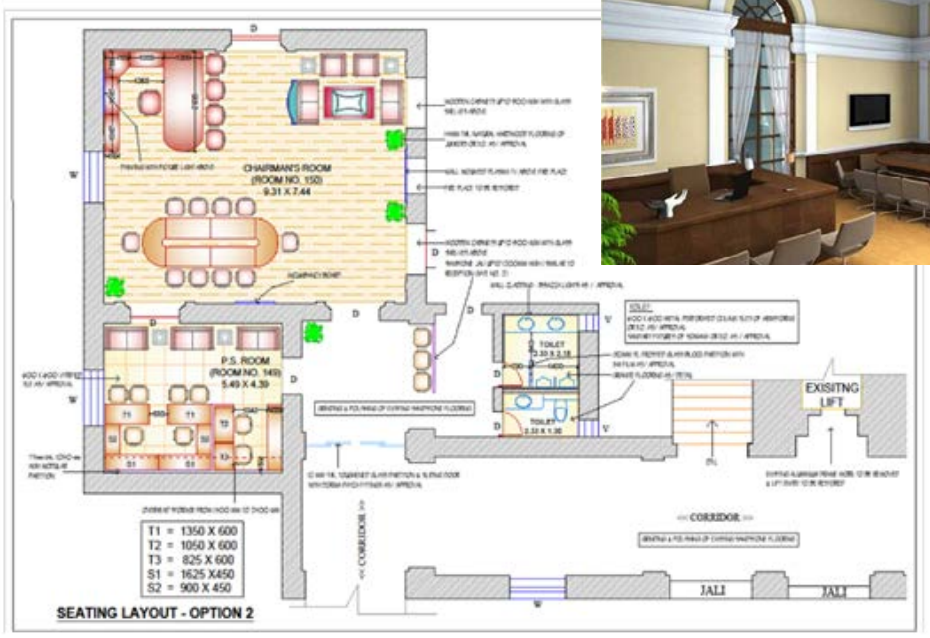
Unauthorised covering of corridor around the courtyard to be cleared. Overhanging wires and AC's must be removed.

SITE INSPECTION BY CONSERVATION AUDIT TEAM TO NORTH BLOCK ON 16/12/2013



Room No. 150,

North Block

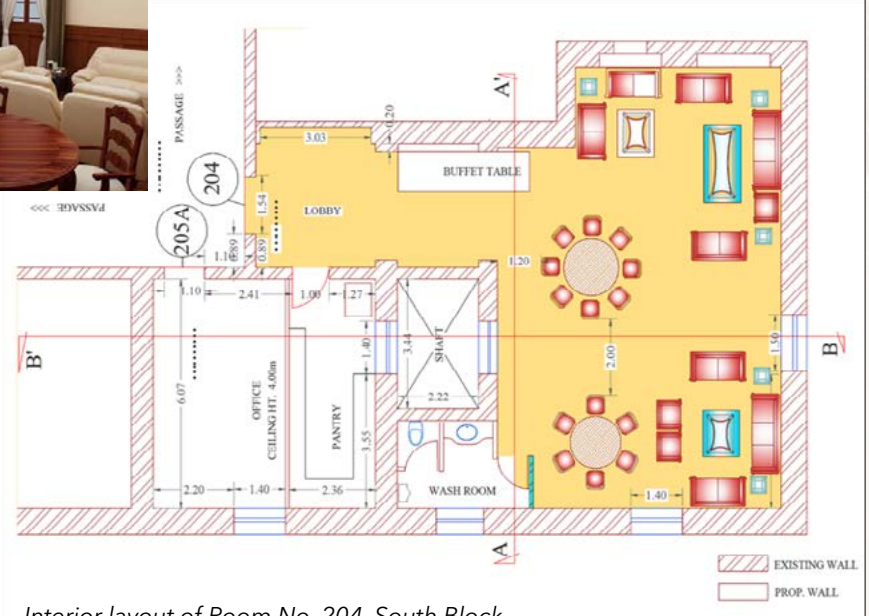


Interior Layout of Room No. 150, North Block, New Delhi

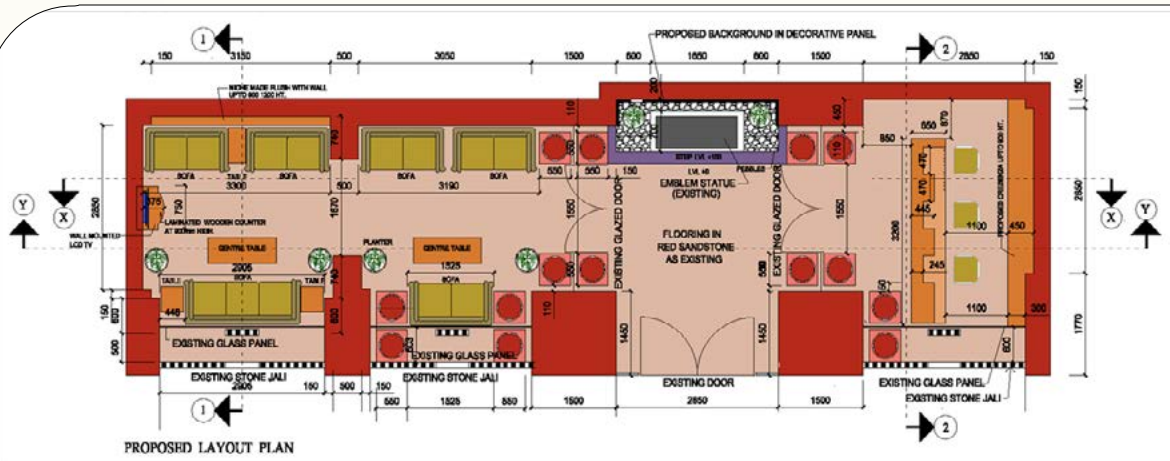


View of Room No. 204,

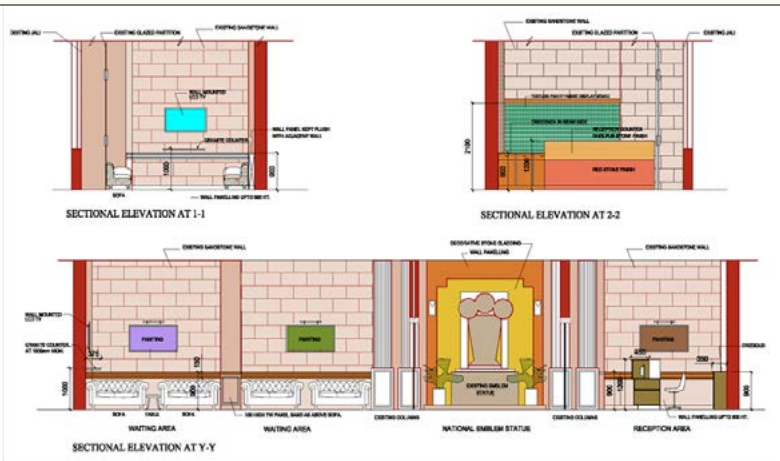
South Block



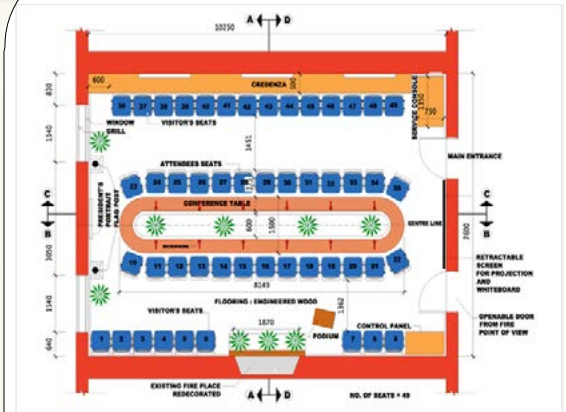
Interior layout of Room No. 204, South Block



Interior layout of Reception for Ministry of Finance, North Block



Wall elevations of Reception for Ministry of Finance, North Block

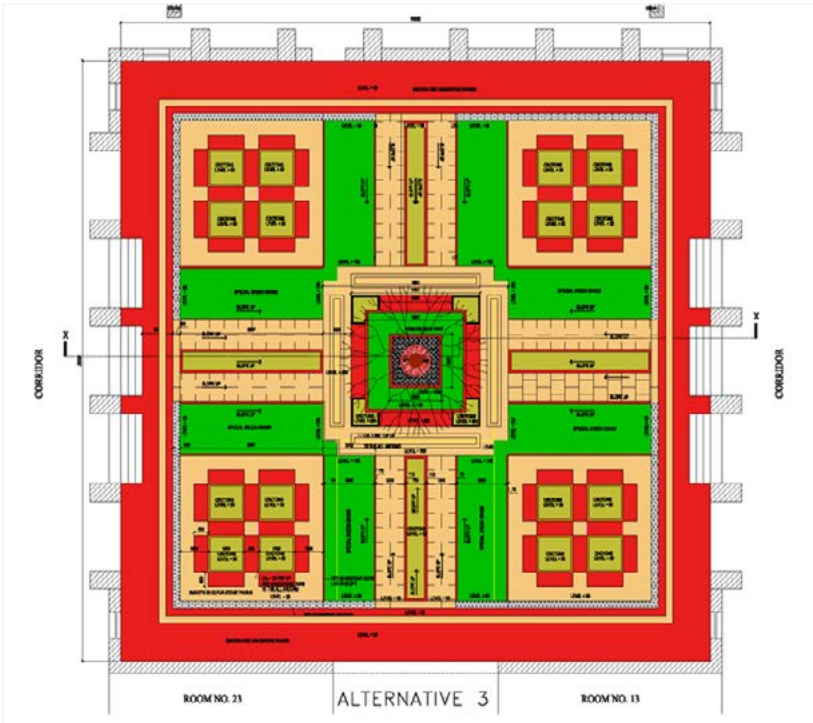




Renovation of Conference Room at 102, South Block



Renovation/ Modernisation of offices at Jalebi Chowk, North Block



Proposal of landscaping of courtyard at North Block



Improvement sfter Removal of Window AC's



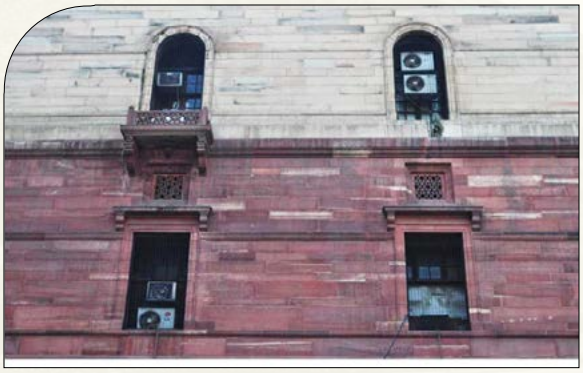
South Block- Wall Spoiled by Condensation Water

ADVANTAGES OF VRV AIR CONDITIONING

- Ducting & False ceiling can be avoided.
- No water requirement.
- Easy to install.
- Individual temperature control.
- Provide heating
- Electrical Power saving, energy efficient.
- No manpower required for operation.

PROTECTION OF FAÇADE FROM WEATHERING

- Cleaning
- Stone Strengthener
- Water Repellent Coating
- Anti pigeon tape



Affected Wall Before Cleaning (North Block)



Treatment of Walls with Wacker Chemicals North Block Gate No. 3



External Façade of North Block Before Fixing Anti Bird Tape



North Block After Fixing Anti- Bird Tape

LIGHTING

- Façade lighting of North and South Blocks
- Lighting of six fountains near Vijay Chowk
- Fountains in front of North and South Block



Fountain Lighting



North Block Façade Lighting as on Date

CASCADES AT VIJAY CHOWK



TREE LIGHTING





Fountains

- Augmentation of water supply
- Waterproofing of existing fountains
- Restoration of Cascade Fountain Saucers







Cleaning of Fountains



Fountains in Front of North & South Blocks

RESTORATION OF COURTYARDS

By Removal of Unauthorised Structures



South Block Unauthorised Structure in Courtyard (MOD)



Landscaping After Removal of Unauthorised Structure in South Block (MOD)



Courtyard in South Block (MOD)



Courtyard in North Block Gate No. 4 (MHA)



North Block- Unauthorised Structure in Courtyard (MHA)



Courtyard in North Block Gate No. 4 (MHA) After Removal of Unauthorised Structure

RESTORATION OF CORRIDORS

Replacement of broken sandstone in the floors and cable duct covers



North Block : Stone Flooring in Corridor



Replacement of Red & White Sand Stone



North Block : Stone Flooring in Corridor



Replacement of Red & White Sand Stone



Corridor in North Block

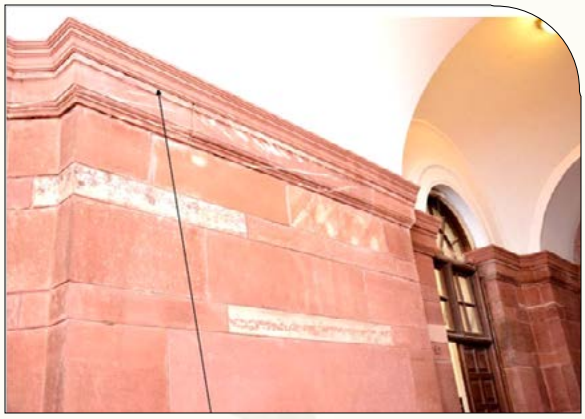


Replacement of Red & White Sand Stone

Cornice for wires, Cleaning of Tunnel and Pointing of columns



LOOSE WIRES IN CORRIDOR



LOOSE WIRES HIDDEN BEHIND CORNICE IN PMO, SOUTH BLOCK



CLEANING OF TUNNEL (NORTH BLOCK)



CLEANING OF TUNNEL (NORTH BLOCK)



Renovation of rooms



HALL AT JALEBI CHOWK NORTH BLOCK

BEFORE RENOVATION



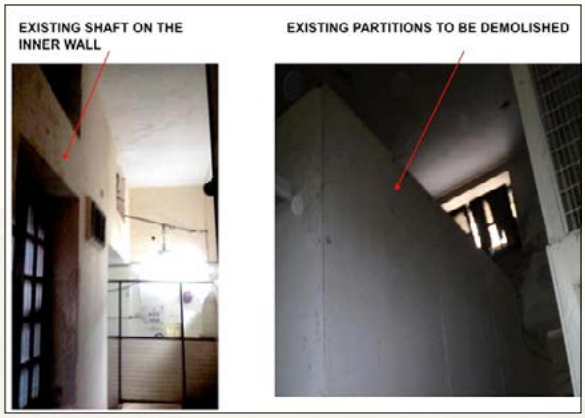
HALL AT JALEBI CHOWK NORTH BLOCK

AFTER RENOVATION



CONFERENCE ROOM IN ROOM NO. 204,

SOUTH BLOCK



CONFERENCE ROOM IN ROOM NO. 204,

SOUTH BLOCK



CONFERENCE ROOM IN SOUTH BLOCK
AFTER COMPLETION



CONFERENCE ROOM IN SOUTH BLOCK
AFTER COMPLETION

Substation

- Electrical distribution system
- Electrical wiring
- Provision of DG Sets
- Provision of fire fighting and fire alarm system



SUB-DISTRIBUTION PANEL SUB-DISTRIBUTION BOARD

Electrical distribution system at North Block



Installation of DG Sets at North Block



Provision of fire alarm system at North Block



Fire fighting system at South Block



LT PANEL



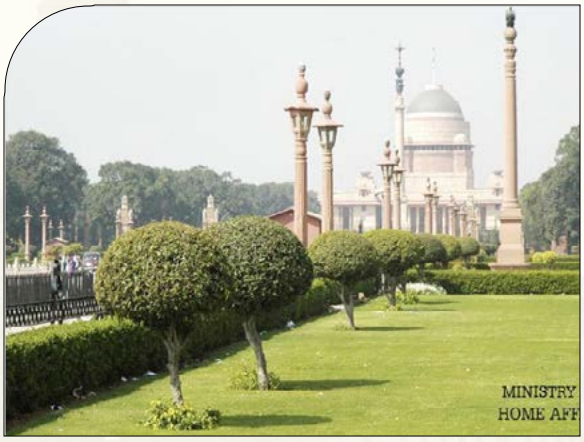
TRANSFORMER



Horticulture Work in Front of South Block



Aesthetic View of the Ministry of Home Affairs Lawns



Landscaping Work in Front of the Ministry of Home Affairs Gate



Greenery Work in the Courtyard of the Ministry of Finance at North Block



Landscaping Work at Vijay Chowk



View From Rafi Marg to Vijay Chowk

IMPLEMENTATION

- North Block and South Block which are listed Grade 1 Living Heritage Buildings the user Ministries needs to be informed before-hand about the various aspects of maintenance guidelines and their implications on his requirements.
- The Modernization Proposals to meet the present day requirements need to be strictly undertaken within the ambit of Maintenance Guidelines for North Block and South Block approved by the Cabinet and issued vide No. 11013/1/2008-WI dated 12/10/2009 and also supervised by experts.
- Better coordination required amongst the Architectural, Civil and Electrical inputs for smooth execution of the proposals.
- The breaking / alterations of original structure should be avoided as far as possible so that the character of the structure is retained.
- Proper space should create for communication and electrical cables so that they are not visually obtrusive. Redundant cables and services need to be removed.
- Minimal physical intervention.
- Restoration and preservation techniques holistically and in sensitivity with the original material and technology of the heritage building.
- Reversible and sustainable conservation and retention of original fabric and craftsmanship as maximum as possible.
- Complete and detailed documentation of North Block and South Block is required in terms of existing layout, materials, services and construction technology. These are very valuable for better understanding and generating solutions for any kind of intervention in the building and serve as manual for future maintenance.
- Detailed Project Report (DPR) for undertaking renovation and conservation works for various categories for the North and South Blocks.

PRESENT INTERVENTIONS

Following present interventions are required to restore the altered/ damaged state in North and South Block to their original status:

- Conduct an exhaustive survey of current status of buildings and its documentation by way of drawings & photographs.
- No user ministry shall take up work without the approval of the Committee. Unauthorized structures in courtyard, corridors & loggias that encroach must be removed and the space restored to original state in the phased manner.
- Train and sensitize the maintenance staff with the help of ASI/ INTACH.
- Service lines such as sanitary and water supply pipes which have outlived their life to be replaced with suitable sizes and installed as per the guidelines.
- All repairs and replacement of stone work for walls and flooring shall be carried out strictly in accordance to the principles as outlined in the Guidelines.

a. Aluminum windows to be replaced with teak windows.

b. Window type AC's to be replaced with VRV system.

c. Service shafts to be cleared to the original state.

d. Proper space for communication & electrical cables.

e. Dish antennas/water tanks/ lift rooms which are visually obtrusive to be brought to lower heights.

f. Treatment of External Walls to be done with Stone strengthener Wacker OH-100 and Water repellent Wacker-290 as per guidelines of ASI, GOI.

g. Lamp posts exposed to monkey menace are susceptible to breakage. To be repaired carefully.

h. Roof: Improved and compact system of water proofing to be provided as replacement.

i. Down take Pipes.

j. Stone Jallis broken / missing to be restored as per original design.

k. Repairs to Broken Portion of carved stone components.

l. Pointing of the Facias and Chajjas - General Treatment.

m. Repair/replacement to Worn Out portion of Stone due to Prolong Usage.

n. Provision of well designed Cornice to take more cables thereby avoiding exposure of cables and wires along the corridors.

o. VRF system of air-conditioning to be provided.

p. Maintenance of Tunnels for Services to be done regularly.

q. Maintenance of Drainage, Down Pipes and Outlets to be done periodically.

NEED FOR SITE MANAGEMENT PLAN (SMP)/ INTEGRATED MANAGEMENT PLAN (IMP) FOR NORTH BLOCK AND SOUTH BLOCK

Absence of Site Management Plan (SMP)/ Integrated Management Plan (IMP) for North Block and South Block including its precincts entails lack of proper direction and its management in the Conservation of Heritage Building. Recently, CCMP(Comprehensive Conservation Master Plan) was prepared for the President's Estate including Rashtrapati Bhawan by INTACH. North Block and South Block being Grade-I Heritage Buildings, management of various services with conservation necessitates need for Site Management Plan (SMP) / Integrated Management Plan (IMP) so as to address the efforts of conservation holistically and guide the intervention of various development works to the fuller realization of goals.

In the present scenario, there is more emphasis on improvement and modernization of office space housed in North and South Blocks to accommodate the ever growing needs of manpower and infrastructure of user ministries. Due to severe space crunch, there is widespread encroachment of open spaces and corridors which are covered to create additional work areas.

In most cases, the Heritage issues are quite often not addressed appropriately due to weak legal and statutory measures. Moreover, various development works to be carried out are considered in isolation and not anchored within the context of Comprehensive Management of services and infrastructure.

There is also an importance to take the stakeholders into confidence for the fuller realization of conservation strategies

HERITAGE DETAILED PROJECT REPORT (DPR)

Heritage DPR is a document that addresses and outlines the Management, Protection, Documentation, Conservation and Development of Natural and Cultural resources of a city or an urban area through specific heritage projects and supporting frameworks.

It identifies and details out key projects to be implemented in the identified heritage areas that ensures a resource based approach to conservation and development of the architectural heritage.

Recognizing the nature and potential of Heritage Conservation in the North and South Blocks, Heritage DPR can also guide the course of conservation efforts. By adopting this strategy, appropriate Heritage works can be conveniently carried out in tandem with ever growing needs and aspirations of the users.

GUIDELINES TO BE FOLLOWED BY CPWD AND MINISTRIES / DEPARTMENTS IN OCCUPATION OF NORTH AND SOUTH BLOCK

(Reproduced MoUD OM NO. 11013/1/2008-WI dated 12/10/2009)

1. Over a period of time, number of addition and alterations have been carried out in North and South Block. These changes are not in harmony with the architectural features of the buildings and create hindrance in maintenance and operations apart from spoiling the aesthetics of these important buildings.
2. Buildings of North and South Block are heritage structures. There is a need to conserve and restore these buildings to its original shape and architecture and maintain their original grandeur. Unplanned random changes have taken place in these buildings due to manifold increase in the occupancy of these buildings. Further, some of such changes are adversely affecting the services making it difficult to carry out maintenance operations. Some of the changes which have taken place in these buildings are :

- Air-conditioners installed in the windows by modication of original teak
- wood windows.
- Dripping of water from these air-conditioners causes defacing of the fascia. Aluminum windows provided in Lieu of the original Teak Wood windows which is not in harmony with the original architectural elements.
- Corridors and Loggias have been blocked.
- Open spaces have been converted into office spaces.
- Permanent structures erected in the courtyards affecting the vision and air flow.
- Communication cables and electrical cables overawing the spaces provided for such services.
- Service shafts have been converted into Lift / dumb-waiter shafts.
- Condemned furniture/ materials are stacked in the stairwells and open courtyards meant for circulation and services.
- Dish Antenna / water tanks / Lift rooms / air-conditioning package units erected on the terrace.
- Painting of surfaces (walls and roofs) with in-appropriate paints. Use of incongruous materials in partitions etc.

3. Keeping in view these problems, Government vide O.M.No.731/2/6/2008- Cab. III dated 01.01.2009,has decided that in future all addition-alteration works including repairs works involving changes in the original specications in these buildings will be carried out by CPWD alone. In case any user Ministry/ Department desires to carry out the work themselves, they should be allowed to do after obtaining clearance & concurrence of CPWD which shall respond to all such proposals within a period of thirty days. In all such matters including the works to be carried out by itself, CPWD shall be advised by a Committee constituted vide O.M. No. 11013/ 1/ 2008-WI dated 17.12.2008 of Ministry of Urban Development. The committee is chaired by ADG (Architecture), CPWD and include representative from ASI, Chief Architect of CPWD, concerned Chief Engineer(Civil/Electrical). The committee shall review all the Addition/Alterations already carried out by various Ministries and advise the Government remedial action to be taken towards restoration of the building to its original status and architecture. This committee may be called "Special Advisory Committee on Conservation and Protection of North/ South Block".

4. There is a need to restore the original architecture and grandeur of these buildings at the earliest and Lay down clear guidelines for future works so that original character and architecture is conserved. The objective is to provide these heritage buildings with modern amenities to meet the present day requirements viz., climate-control and other facilities without adversely affecting the overall character of these buildings.

5. Following actions are required to restore these buildings to their original state:

   i. Conduct an exhaustive survey of current status of buildings and its documentation by way of drawings & photographs.

   ii. No user ministry shall take up any work without the approval of the Committee.

   iii. Structures erected in the courtyards, corridors and Loggias to create additional spaces be restored to their original state in the phased manner.

   iv. Aluminum windows provided in the buildings be replaced with teak-wood windows matching with the originally provided doors/ windows.

   v. Windowtype air-conditionersto be replaced with a suitable air-conditioning system such as VRF system.

   vi. Service shafts be cleared to the original state by removing Lifts/dumb waiters. Condemned furniture/materialsto be removed from service shafts, stairwells and open courtyards.

   vii. Proper space be created for communication and electrical cables contained within the spaces designed to match with the original architecture.

   viii. Train and sensitize the maintenance staff about the techniques of maintenance of heritage buildings with the help of INTACH/ASI.

ix. Dish antennas /water tanks/Lift rooms, wherever absolutely necessary be brought to Lower heights so as not to be obtrusive beyond the skyline of these buildings.

x) Services such as sanitary and water supply pipes be replaced with suitable sizes commensurate with the present occupancy of the buildings. Manholes and service pipelines to be replaced in the underground tunnels in systematic and scientific manner. Proper vents and exhaust system to be provided in the underground tunnels to allow access for repairs and replacement of services/ elements whenever required.

6. The works to be carried out in these buildings primarily relate to conservation and restoration works involving different kind of treatment to these buildings essentially constructed with red and white sandstone cladding and oaring. Guidelines hereinafter mentioned shall be followed during maintenance and repair works also. While carrying out the works mentioned, it would be necessary for CPWD and other agencies to consult the historic documentation including original drawings, detailed specications available with CPWD and National Archives dating between 1913 and 1931 .

7. **Stone Working Flooring:**

Adequate care is required to be taken to match the compatibility of the stone in colour, texture, thickness etc. Joints of the stone slabs are to be properly made and these joints should be as narrow as possible. Alignment of the replaced stones shall be proper, even and level and the replacement should exhibit continuity of the replaced floor slab with the old stone surface. Primarily, the emphasis should be to prevent decay and prolong the life of stone work. Conservation process should be carried out in such a way and without destroying or falsifying the historic evidence. The Principle of Conservation to be followed shall be :

i. Documentation of all undertaken work to differentiate the original and new work.

ii. Maintain the authenticity and integrity of the work.

iii. Conservation process to be based on time tested methods and done with proper research and trials.

iv. Minimal physical intervention.

v. Reconstruction where absolutely necessary.

vi. Restoration where intervention are obtrusive.

vii. Reversible and Sustainable Conservation actions

8. **Principles to be followed for repair and replacement:**

Repair and replacement should be based on governing principles of minimal physical intervention meaning thereby making minimum changes to the historic building and retain wherever possible, the original fabric and character. Thus a balance is to achieved between carrying out necessary repairs while preserving the authentic sense of history of these heritage building. Repair is to be preferred over replacement. Original features like floor walling may be retained or repaired wherever possible and should adhere to the original work to the extent possible. Utmost effort should be made to match the type and colour of the original stone work. Wherever possible, traditional local materials and craftsmanship should be employed, even in repair work.

Replacement of Stone :

Certain basic principles as under may be followed for replacement of the stones

i. Unless very necessary the original old stone blocks should not be replaced. In case a stone has been identied for replacement then it has to be replaced with the same type of the stone i.e. lithologically compatible and practically identical in colour, texture, size, carve, resilience and workability the extent possible.

ii. Mixing should be proper in the mortar which has to be replaced in the ld bonding.

iii. The replaced sandstone slabs should be ne, four line chiseled dressed and not machine cut.

iv. The original composition of mortar for pointing shall be used.

v. Grouting should be done where the walls are fragile.

vi. There should be proper alignment of plumb with reference to old construction for achieving better access and continuity. The coarse line should match with the original construction and for treating the joints for pointing as of original construction.

Sourcing:

The original stone had an origin from Vindhyan region and the same was sourced from Dholpur, Bharatpur and Agra quarries. The known source of red sandstone is from the quarries close to Mathura- Fatehpur Sikri region near Agra. These quarries being within the Taj trapezium zone have been banned by Supreme Court. Therefore, the stone has to be sourced from other quarries. The colour and texture of red sandstone brought from different quarries may differ. Under such circumstances it would be appropriate to go in for sandstone which resembles in colour to at least 90% with the original. Articial colouring should be avoided and efforts should be made to procure sandstone which matches in physical and

chemical properties with the original material at least to the extent of 90%. Laboratory testing prior to obtaining the requisite amount of stone is recommended to arrive at the best match. it would be better that tender enquiries may include the quarry from which the sandstone is recommended to be brought, to maintain the authenticity of important historic buildings like South / North Block. Thus effort needs to be made for thorough exploration of quarries, and there is every possibility of ending red sandstone matching to the one used originally in colour and texture. Minor difference between old and new stones having nearly same colour and texture, in course of time, would gradually disappear.

Sandstone to be selected may be ne grained and compact. The durability of the sandstone depends upon the sharpness and recess of the grains. Soft and perishable sandstone show round grains and has tendency to split into thin layers which should be avoided. The stones having least water so that there are no remnants of detergents on the surface. Minimum intervention of chemical during cleaning is necessary. Occasional mild neutral/alkaline substances like 2-3% Teepol, 2-3% sodium-bicarbonate is used with poultice to remove stains and secretions. This treatment is very specialized and needs to be undertaken through trained personnel under professional guidance of conservators. Removal of surface deposits including biological growth is necessary as and when observed. The water may not be allowed to accumulate or stagnate on the stone surface.

Seepage of any kind needs to be avoided and the areas inspected periodically.

Same/ similar treatment as detailed above may be undertaken for vertical surface also, but at much lower periodicity.

Dos and Don'ts for Sandstone care :

- Dos :
    1. To keep sandstone dust free, dust it using a clean non-treated dry dust mop or vacuum clean. Care must be taken while using vacuum cleaner to avoid scratching the surface.
    2. Use clean and clear water to clean sandstone regularly using a mop or sponge.
    3. The cleaner solution should be neutral.
- Don'ts:
    1. The cleaner to be used in sandstone should not contain acid or lemon, which can damage the polish and nish off the surface.
    2. Do not use cleaners that contain acid such as bathroom cleaners or tub and tile cleaner.
    3. Do not use abrasive products that can scratch the surface.

4. Do not put heated objects on the surface directly. Use mats under them.

- Monitoring :

5. Monitoring of the replaced sandstones to check its conformity to the established norms for any adverse characteristic which may have been unnoticed during replacement process is necessary. This will facilitate maintenance process that can delay stone decay.
6. All maintenance records are to be maintained along with tests carried periodically on the stones to monitor the changes and decays.
7. Carrying out changes in the drawings as part of the monitoring process.

9. **Treatment to External Walls :**

The external walls of the building, are observed having accumulations of superficial secretions which may block breathability. This requires skilful chemical cleaning. It is also seen that the surface loss is seen i.e. exfoliation and scaling covered with supercial dust which requires to be treated with mild cleaning followed by application of stone strengthener (Wacker OH-100) and water repellent treatment with Wacker - 290 (asilicon based product) or any similar / better process / material to stabilize the surface.At many places walls have shown signs of dampness and mild growth of moss and lichens are observed as a result of leakage in the pipes/ drains/ flow of water from air• conditioners directly on the stone surfaces. This is required to be cleaned followed by chemical cleaning, application of strengthener and water repellent coating. Staining at the ground level has been noticed due to presence of salt action and loss of upper stone surface. This can be taken care with mild cleaning with 2-3% alkaline Teepol solution.

followed by application of strengthener and water repellent. Sometimes black bands and other type of spots or white bands are noticed. These are not always due to any defect but because of original in-built characteristics of red sand stone used, coupled with atmospheric action. Such stones should be left untouched as ageing itself adds to their authenticity and natural beauty of the structural elements.

10. **Lamp Posts :**

The lamp posts are exposed to monkey menace and hence are susceptible to breakage. Decay and surface loss are seen at some locations. Carefully crafted repairs are essential at such locations to regain the originality

In the lamp posts, certain elements wherever found missing or whenever some post is found missing it needs to be replaced / repaired by choosing appropriate matching stone and ensure xing by using stainless steel rods to guard against monkey menace.

For the surface deterioration of minor nature, where the surface loss is not much. it can be attended to by suitable repairs. For this lime mortar, lime putty stone dust of matching colour and brick dust (surkhi) can be prepared and applied on decayed surface to achieve desired colour and nish. There would be some limitation as repairs when subject to weathering action may not render similar surface to that of original stone, hence difference appears.

When the surface loss is more, the portion will he required to be cut off and x a requisite piece of matching stone using epoxy base adhesive with stone base and nally dress it to required nish.

11. **Roof:**

The roof has been used for different purposes. Various kinds of services are installed on terrace. Manyare functionalwhereas some have become redundant. Tar felting provided on the roof for water proofing at many places have outlived its life. After thorough investigation, improved and compact system of waterproong could be provided as replacement.

12. **Down Lake Pipes :**

Down take pipes at certain places are broken. These need replacement and dampness thereafter, treated in the manner already described.

13. **Stone Jalis:**

Stone jalis are broken / missing at few openings. They needs to be restored as per original design and pattern by engaging skilled craftsperson and procurement of requisite stone blocks.

14. **Maintenance / Cleaning of External Walls :**

After attending essential repairs to the external walls like repair to the stone work, pointing etc. to enhance look of the outer walls surface area as well as for consolidation and to improve resistance to environment, following course of action/chemical conservation is required for maintaining external walls.

(a) General Cleaning: The chemical cleaning of the stone surface is done with a mixture of 5% liquid ammonia and 1-3%Teepol {Kimdal - 100 a non- ionic detergent). This mixture should be applied and scrubbed on dirty stone surface using suitable soft coir / nylon brushes for removal of dust, dirt, grease, stain marks, mosses and lichens. Aerthis the surface should be thoroughly washed with plain clean and clear water to clean off the surface. Care should be taken that there are no reminiscence of chemicals on slum surface. Periodicity of chemical cleaning should be once in 4-5 years.

(b) Stone Strengthener (Wacker OH - 100): If the surface is weak and fragile needing consolidation, stone strengthener (Wacker OH -- 100, a silicon based product - ethyl silicate) should be applied on the required surface of sand stone by brushing or by spraying.

(c) Fungicidal treatment: After this the sand stem should be given fungicidal treatment by application of 3% solution of Sodium Penta Chlorophenate {fungicide} to prevent fungal growth.

15. **Repairs to Broken Portion of Carved Stone Components :**

When the parts are required to be replaced. the same has been detailed under the heading Lamp Posts. In addition, if decayed stone block can be taken completely its face can be reversed and dressed to desired nish, thus avoiding colour match problems. Wherever complete replacement is essential, the stone of matching colour and texture be procured dressed and fixed after desired nish.

16. **Pointing of the Fascia and Chajjas - General Treatment :**

Pointing of joints of stone masonry, chajjas etc. wherever it is decayed / detached, needs to be restored. Re-pointing can be done after removing the loose mortar without damaging the stone surface and using lime based soft mortar. Cement based hard mortar for pointing of joints is not preferable as it prevents breathing action, diverting the movement of moisture through stone surface resulting into damage to stone by salt action.

To ensure the colour matching, the trial mixes should be prepared comprising lime putty, ne aggregates (sand and stone dust of matching stones) and brick dust (surkhi). These should be applied on trial surfaces to arrive at desired proportion giving appropriate tone and colour. No pigments should be used to get the matching colour as it leads to colour variations after drying and weathering.

As it will need erection of scaffolding, the pointing work of entire selected portion can be taken up along with chajjas and facias and other items of repair work to economize the operations.

17. **Repair / Replacement to worn out portion of Stone due to prolong usage :**

The worn out stones normally seen in the steps and other movement areas need to be maintained properly for easy and comfortable movement of users. Under such situation it will be better to go in for replacement with the matching stones of similar colour and texture in accordance with the general guidelines for procurement of suitable stones already detailed in this document.

18. **Redesigning of Cornice to take more Cables:**

The requirement is to accommodate more cables, i.e., creation of extra space. The width of the duct can't be increased as it has some projection restrictions. The present height of stone strip used for duct is about 10cm. This can be increased to 15 cm or more to create more space. This can be achieved by using red sand stone strips which need to be anchored with wall surface using stainless steel anchors / pins, suitably designed so that they can hold well structurally the strips and are not visible from the corridor.

19. **VRF system of air-conditioning :**

VRF system of air-conditioning is proposed to be adopted for North and South Block to avoid dripping of water from the window air conditioners and to restore original windows. To maintain the character of these important buildings, no structural changes or modications to these buildings be carried out while undertaking air-conditioning works. Piping for such air-conditioning, is to be carried through existing ventilation shafts and ducts. It needs to be ensured that no piping work is visible on the walls inside the rooms, corridors and circulation areas. Surface mounting piping is to be avoided except in the existing ventilation shafts / ducts. The piping system is to be further provided in such a manner that it does not entail ingress of water in the building in undesirable manner which may adversely affect the building fabric. Diffuser units and control switches, wherever needs to be provided, the placements of such units will be decided by the Chief Architect, CPWD to maintain architectural features and the harmony within these buildings. Condensation water is required to be discharged in such a manner that the same is not visible in the rooms or in the courtyards or circulation areas. The condensation water is required to be discharged into the designed drainage system without being visible anywhere in the building.

Chiller units to be placed on the terrace are to be positioned in such a way that these are not visible from the Rajpath and these be placed away from the parapet as far as possible. To reduce their height in order to restrict their visibility even if the packages are to be specially designed the same needs to be attempted.

20. **Maintenance of Tunnels for Services:**

An underground tunnel has been provided in both the buildings to accommodate services such as storm water drainage, sewerage pipelines, water supply pipelines and other services. Over the time due to additional load on to these building, numbers of services have been added and electricity / telecommunication cables have been accommodated in these tunnels. Many of these cables are hanging in the tunnels making the inspection much more difficult. The ventilation and light in these tunnels have reduced over the period making these services very difficult to maintain. As a rst step proper lighting, needs to be provided in the service tunnels and all cables are required to be contained by providing specially designed brackets to make space for inspection personnel and workers to carry out their work in the service tunnel. The services are required to be upgraded to carry the additional load after proper survey and design. To obviate accumulation of foul water/ sewerage/ foul smell, the services such as sewer pipelines and storm water drainage are required to be upgraded. To upgrade the tunnels forced ventilation system may be required, which may be provided after consultation with the experts as to their necessity and positioning.

21. **Maintenance of Drainage, Down Pipes and Outlets:**

Dampness is a major cause to set in many decay processes. If regular care is not taken, it may lead to blockage of drains, down pipes, outlets, water spouts etc. All these systems shall be kept functional by proper cleaning, maintenance, replacement of broken pipes and by conducting regular inspections and repairs.

22. **The existing rain water discharge system and sewerage/ water supply services :**

Rain water is discharged from terrace through 6 inches diameter Cl rain water pipes. These pipes are located in various quadrangles through small shafts. Special type of basins are located in those quadrangles below the terrace level to receive rain water from terrace. The rain water is nally discharged to the rain water pipes- As the approach to the basins is difficult, a permanent approach needs to be designed and provided. Some of the rain water pipes are choked and have outlived their life. These rainwater pipes are required to be replaced. The shafts are connected to underground tunnels which run below the basement. The storm water is discharged to the outfall through the manholes connected through the pipes inside the tunnel. Whenever the damage cannot be rectied, that part of the network is required to be replaced.

23. Sewerage System :

The sewerage is discharged from the toilet blocks through the shafts which caters to services like sewerage and water supply pipelines. There are 10 to 11 stacks of SCI / Cl pipes in each shaft which receive discharge from WCs, urinals/ floor traps from each oor. Manholes are located in the shafts. The sewage is nally discharged through manholes in the underground tunnel described under the drainage section. The discharge is nally passed on to NDMCsewer lines which pass near gates Nos. 8, 9, 10,11 of South Block and near gate no. 6. 7, 8, 9, 10 & 11 of North Block through series of manholes. The entry into the tunnel has been severely restricted as number of cables have been laid over the time. As most of the down take pipes have outlived their life, these will require replacement. The underground sewerage lines in the tunnel also requires replacement with proper sizing, and construction of new manholes. This work can be taken up after the cables are properly aligned and led In the walls/structure in the safe and workable manner

24. **Water supply** :

The water is supplied by NDMC which is store in underground tanks located near gate No.11 of the South Block and gate no. 6 of North Block. The water is then pumped to the overhead tanks located on the terrace. Water supply lines are running through tunnels and shafts. From the overhead tanks, the water is supplied to each toilet through down take GI pipelines.

Over the years, some new toilets have been created in both the buildings for which additional overhead tanks have been constructed and water supply / sewerage lines laid. These water supply lines have been damaged by monkeys and are found displaced at many places. The pipelines provided for additional toilets require relocation. Old / damaged overhead tanks require replacement with properly designed and architecturally compatible water tanks along with suitable camouflaging arrangements.

Water supply lines at most of the places require replacement with proper capacities as in the case of sewerage lines. As the work has assumed a specialized nature because of the additional load of services in the shafts and tunnels, the entire work requires a proper design by a competent consultant and execution taken up thereafter.

25. **General Precautions :**

While designing and laying of services in the tunnels the maintenance aspects are required to be kept in view so that workers can go to each and every manhole/water supply line and sewerage line for day-to-day maintenance to avoid clogging of services and overawing of manholes. Soak pits provided for these buildings also require thorough cleaning.

The work in general be carried out in these buildings will conform to CPWD specications and maintenance manual in general and adhering lo the guidelines mentioned hereinabove. Wherever there is contradiction / difference between the specifications / provisions of maintenance manual and the guidelines hereinabove shall be followed as modication to the specications/ maintenance manual in this regard.

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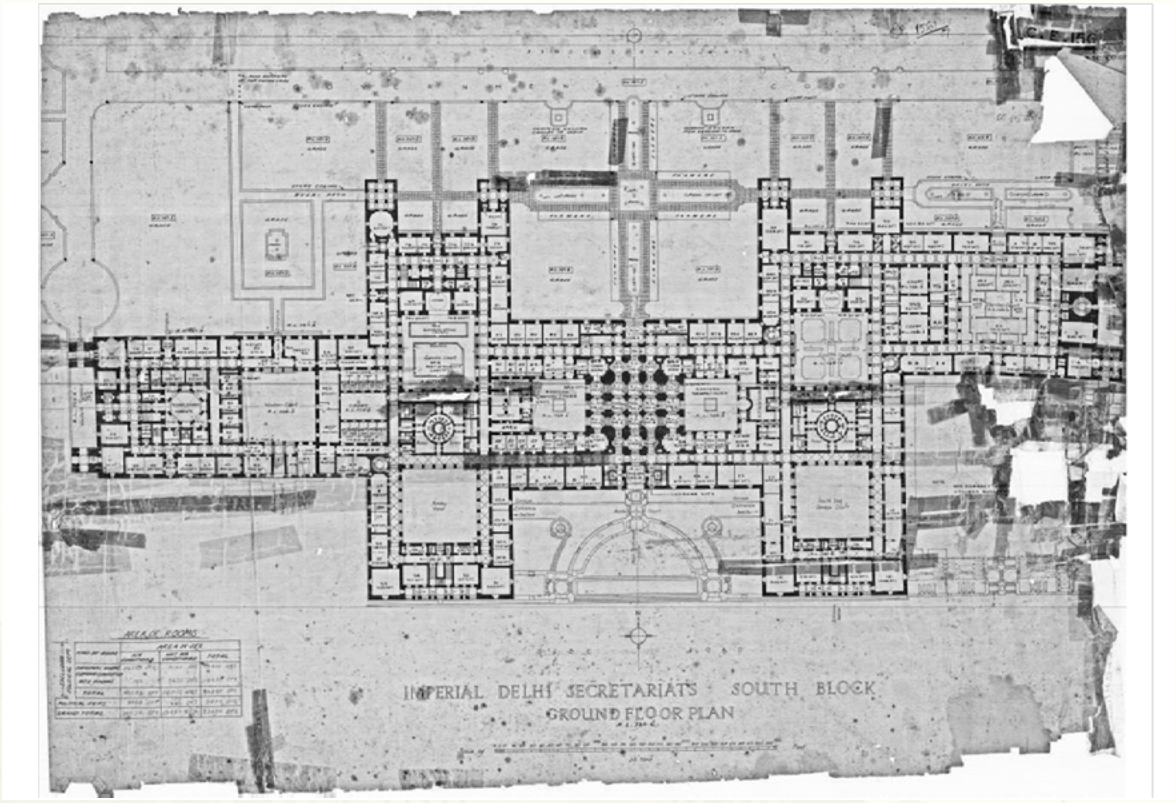
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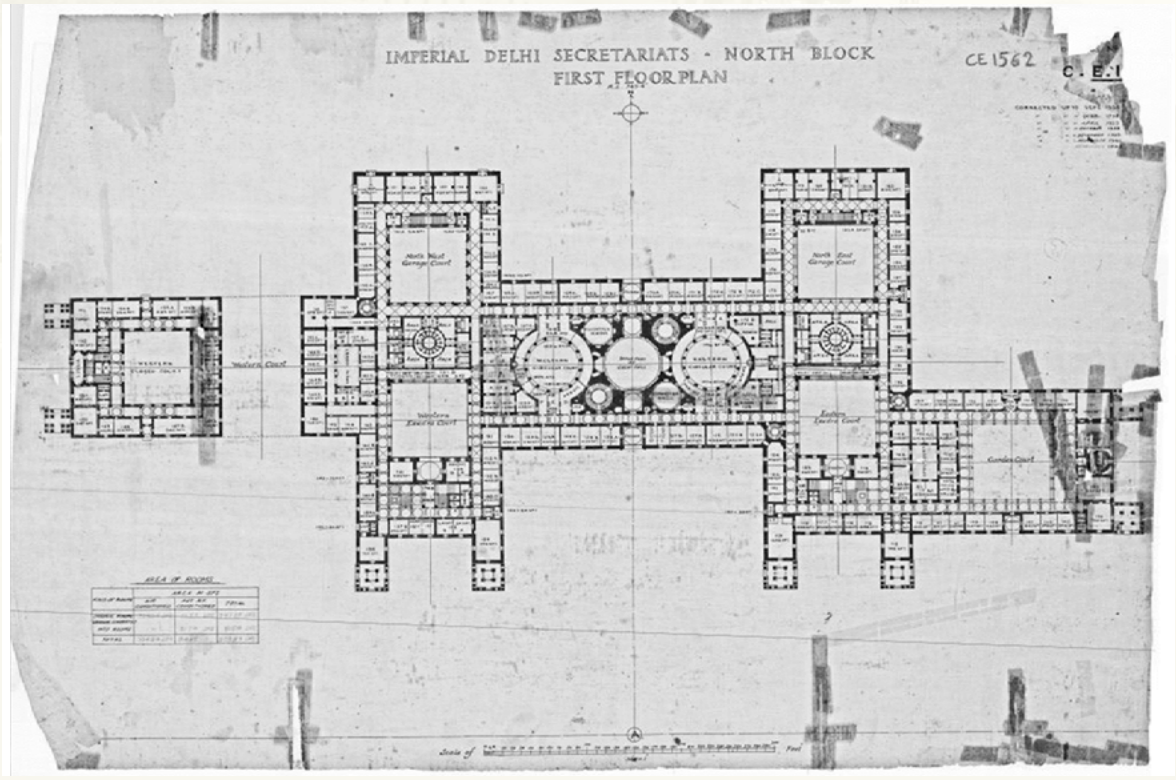
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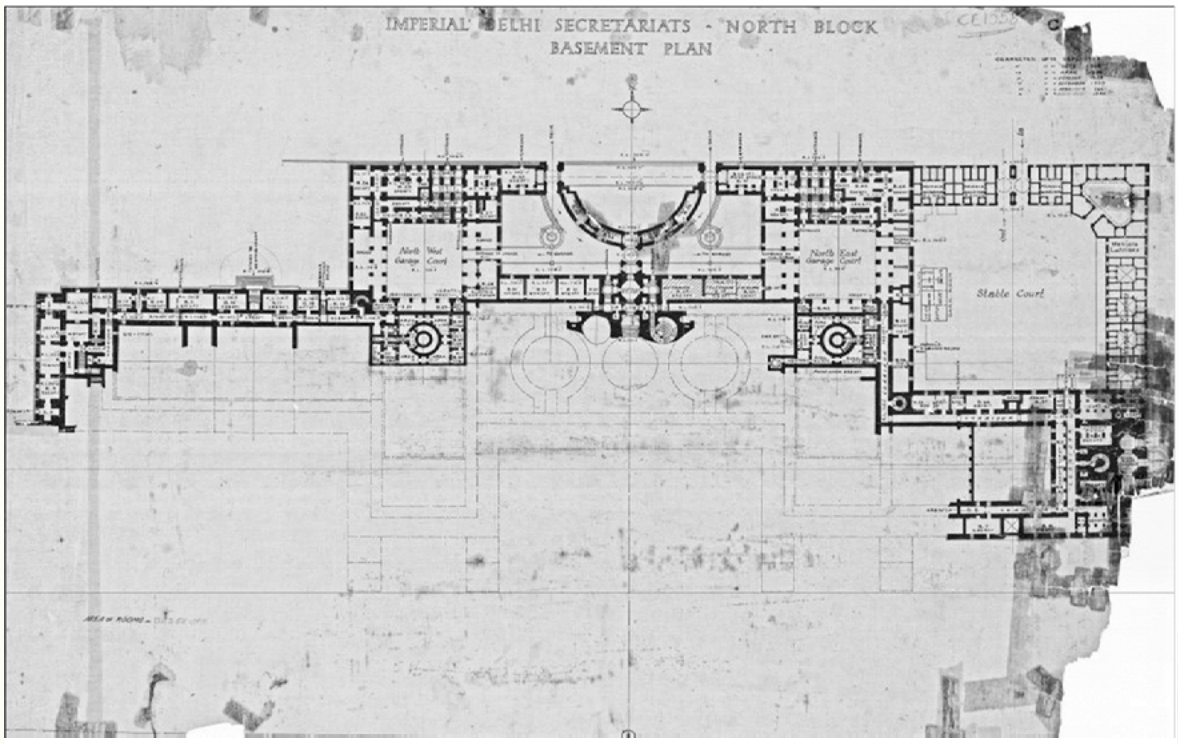
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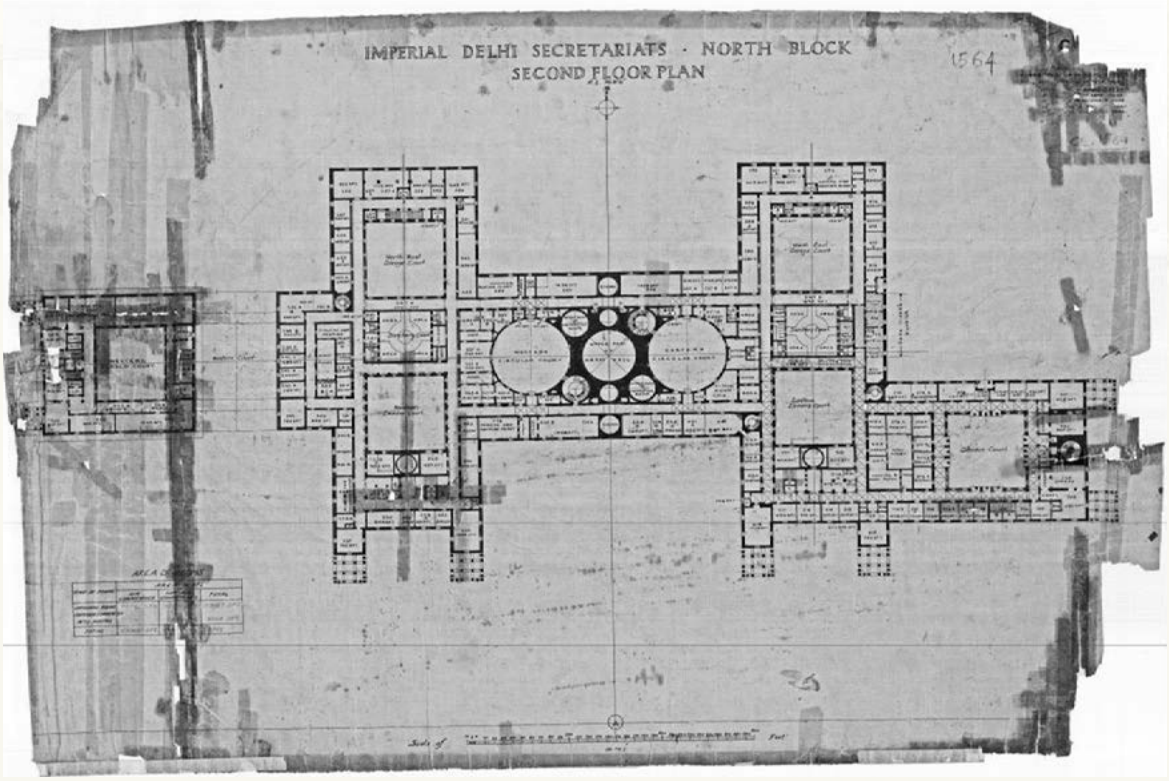
PHOTOGRAPHS OF ORIGINAL PLANS OF NORTH BLOCK AND SOUTH BLOCK





PHOTOGRAPHS OF ORIGINAL PLANS OF NORTH BLOCK AND SOUTH BLOCK





CONSERVATION OF RESTORATION OF GORTON CASTLE

CONSERVATION OF RESTORATION OF GORTON CASTLE

Repair, Retrofitting and Restoration of Fire Damaged Gorton Castle Building (AG Office) at Shimla (HP) Detailed Project Report (DPR) Prepared by Cpwd

Shimla prides itself with many colonial buildings and many of them are declared as heritage sites attracting travellers far all over Himachal Pradesh and far off places. These buildings showcase the creativity of the artists and designers of the colonial era. Most of these buildings were built inspired by the Neo-Gothic architecture.





HISTORY OF GORTON CASTLE IN SHIMLA

Gorton castle was constructed in year 1904. The building was designed by one of the best British architects of that time, Sir Swinton Jacob. The architecture of this castle was inspired by Neo-Gothic style. Sir Swinton Jacob was working as a consulting engineer in Jaipur. This well known architect and engineer of the colonial India earned from for his master piece architectures that had the blending of Islamic ,Hindu and western traditions."

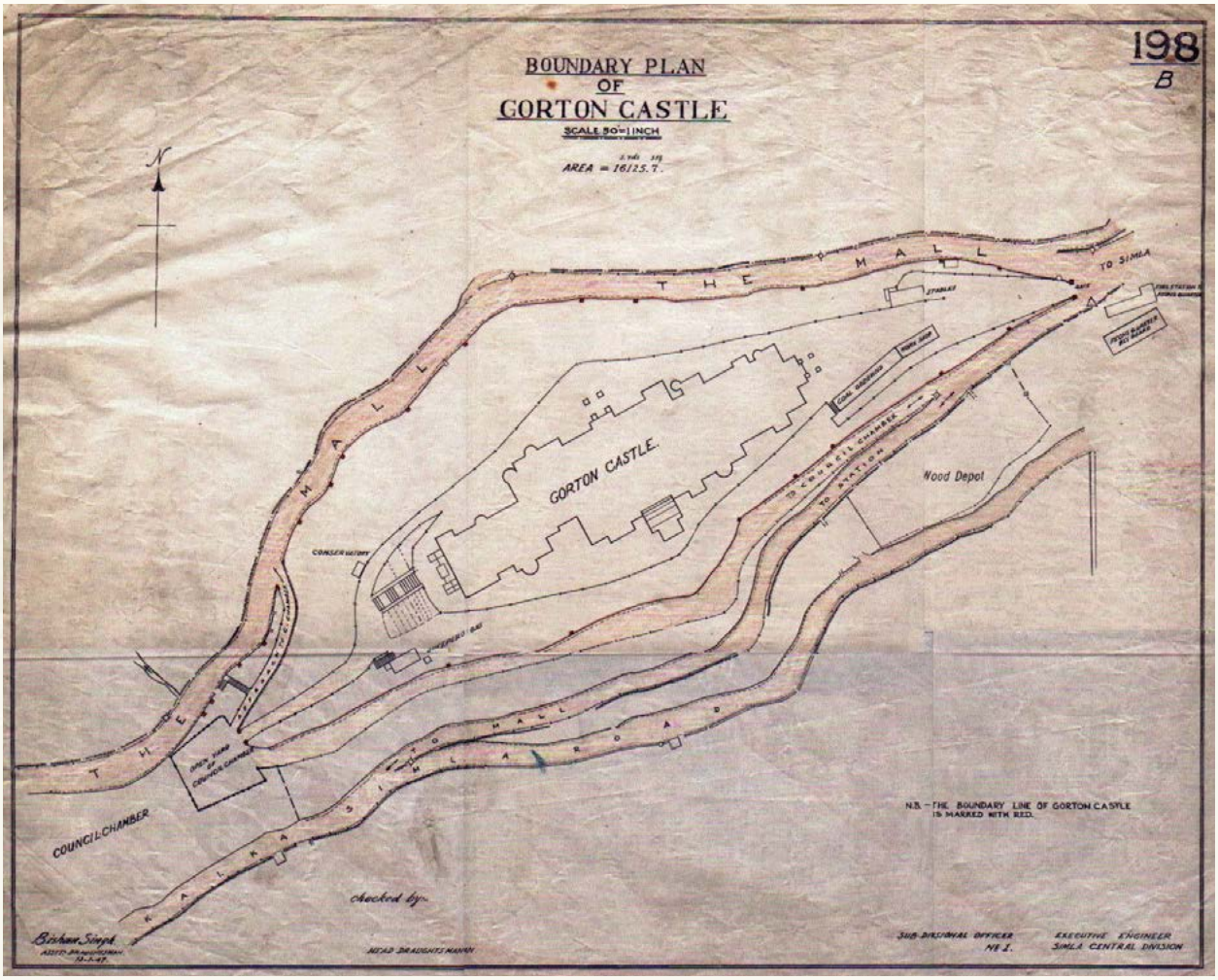
The design was liked a lot by Lord Curzon. The design of the castle complemented its high location and wonderful surroundings. The land on which the castle was built was originally the place donated for building a hospital. The castle was named as Gorton Castle after the name of its original owner of this site , Mr. Gorton ,an ICS. The land changed hands thrice and was then purchased by Sir James Walker, a banker, on payment of Rs 80,000. When the site was taken for building Government Secretariat, he was given another land for hospital construction. The land was acquired by the government for its officials after persuading Sir Walker a lot.

ARCHITECTURE OF GORTON CASTLE

Situated on the top of the hills , Gorton Castle is built over an area that has dimension of 400ft x 100 ft. the castle has three stories and houses 125 rooms of various sizes. The castle is surrounded by timber blocks mostly of rosewood. The blocks were bought from Andaman .For constructing the building grey stones from Sanjauli, Himachal Pradesh were used. The main entrance of the castle resembled like a chalet and there was a large portico having a wonderful fresco. The side of the castle had bay windows. High towers surmounted the stone walls of the castle. The iron roof of the castle gave it a look of fairy-tale castles.

LOCATION OF GORTON CASTLE

Gorton castle can be easily reached because it is located at the centre of the city, the mall Road .From any part of the Shimla Town, this castle can be easily reached.



SPECIAL FEATURES OF THE STRUCTURE :

The structure of this building is containing many special features which resembles to the Neo-gothic and Rajasthani style, some of which are summarized as under :

- Load bearing stone masonry walls in lime mortar of varying thickness.
- Use of composite stone masonry stone walls with coursed rubble on exposed face and random rubble on hidden face.
- Roofing in high pitched Nainital patterned iron sheets.
- Roof canopies .
- Flag post on roofs.
- Spires on roof.
- Stone ornamental balconies.
- Stone ornamental Jharokas.
- Stone ornamental railings.
- Stone ornamental brackets.
- Stone ornamental facias.
- Stone ornamental cornices.
- Stone ornamental copings.
- Stone ornamental soffits and jambs.
- Wooden floors on steel girders in attics.
- Glass roof in central staircases.
- Wooden spiral service staircases.
- Wooden ornamental brackets.
- Wooden ornamental eve board.
- Cast iron railing with a combination of woodwork on central staircases.
- Wooden ornamental trusses on central staircase.
- Wooden trusses on the structure t other than attics.
- MS trusses with agreement of adjusting MS tie rods on attics.
- Jack-arch intermediate floors.
- Central courtyard.

LOAD BEARING STONE MASONARY WALLS IN LIME ORTAR OF VARYING THICKNESS:

The structure of this building was constructed in load bearing stone masonry walls using argillaceous sand stone from nearby Sanjauli quarry .Lime mortars have been used in stone masonry walls. The structure is four stories having wall thickness of 90 cm art ground floor and reducing floor wise upto 45 cm at top floor.



Figure 10 Cast iron railing with combination of wood work

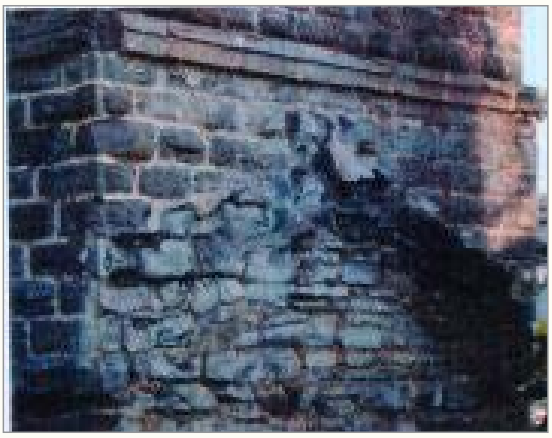


Figure 11. Composite wall



Figure 12. Canopy

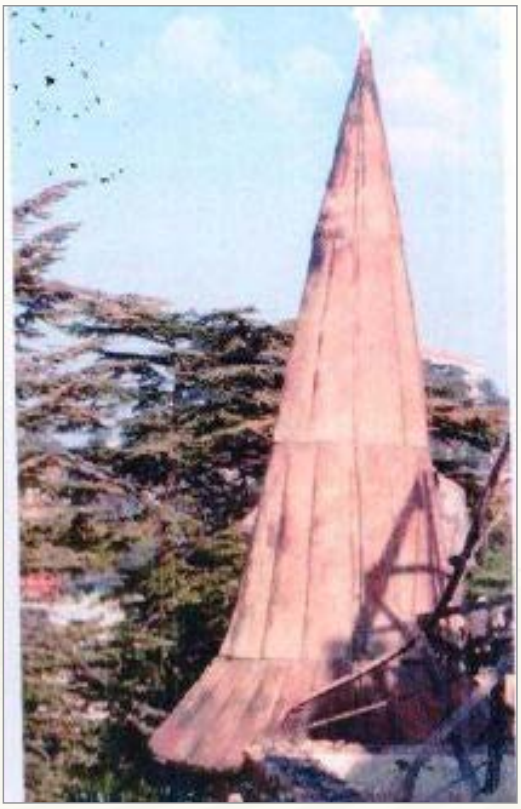


Figure 13. Flag post



Figure 14. Stone Chimneys



Figure 18 . Stone ornamental coping



Figure 17. Pitched roof



Figure 15. Glass roof



Figure 16. Stone ornamental balconies



Figure 20. wooden ornamental brackets



Figure 19. Wooden ornamental brackets

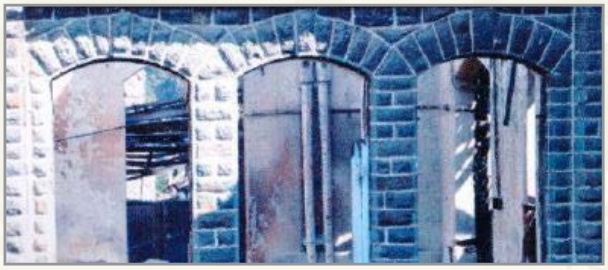


Figure 21. Stone ornamental mehrabs



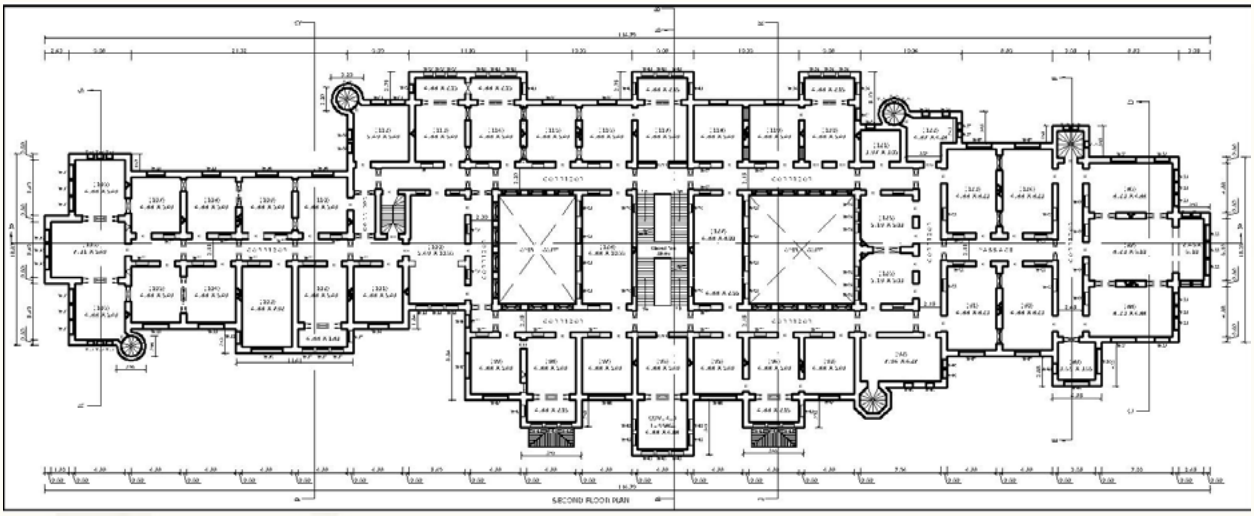
Figure 23. Stone ornamental soffit and jambs



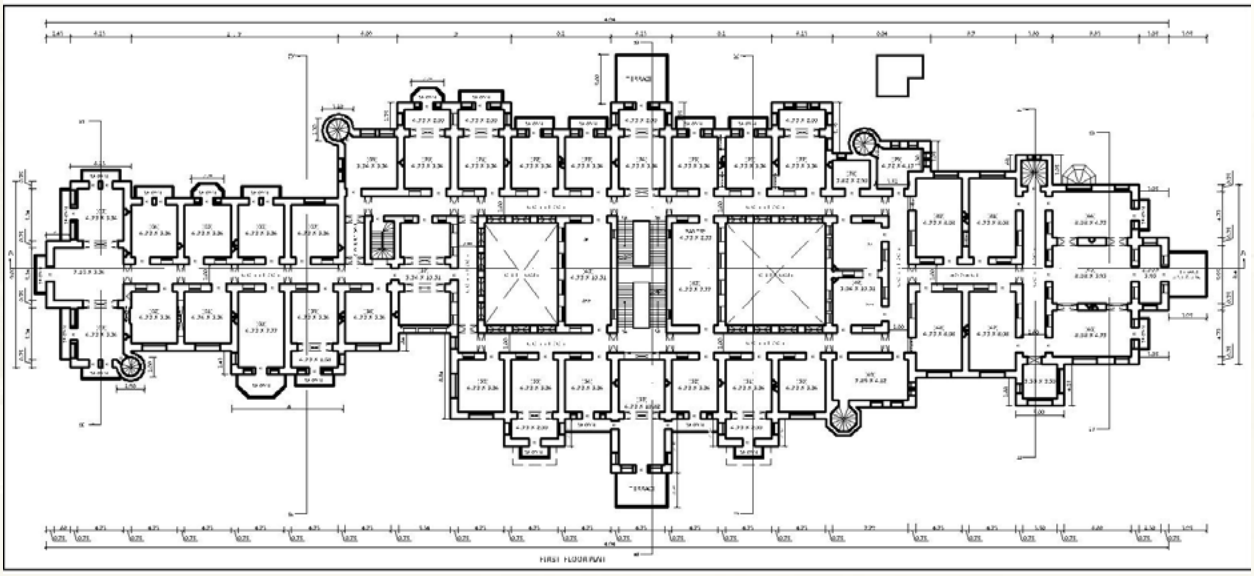
Figure 22. Stone ornamental jharokas

REDEVELOPED ARCHITECTURAL DRAWINGS OF THE STRUCTURE.

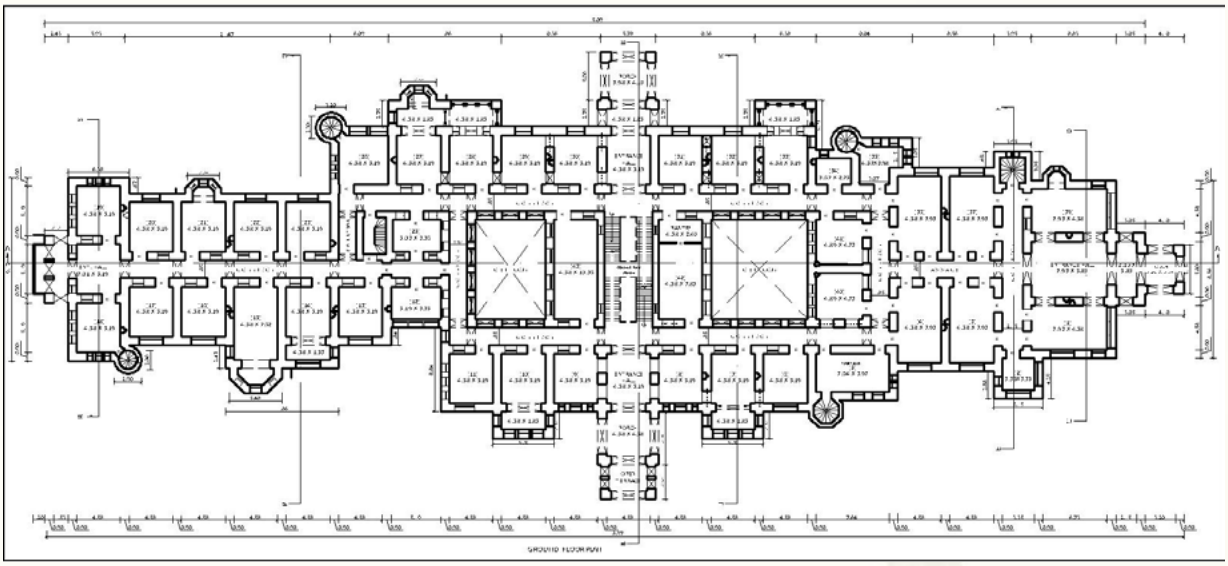
With the help of old heritage drawings, digital drawing in AutoCAD were developed by CPWD. While developing new drawings, all missing details and features of the old drawings has been incorporated after taking the actual measurement of the site.



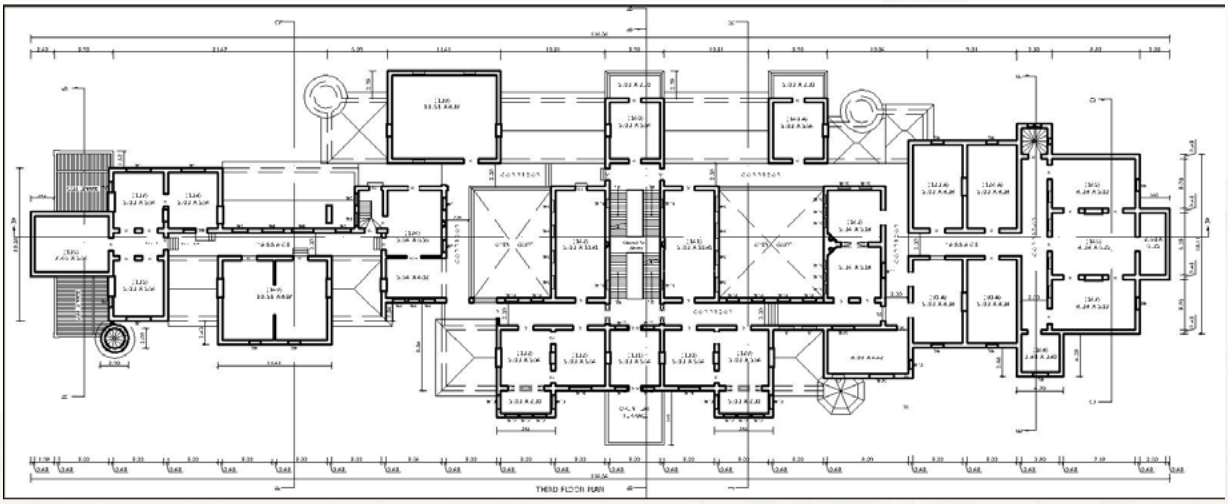
GROUND FLOOR PLAN OF GORTON CASTLE.



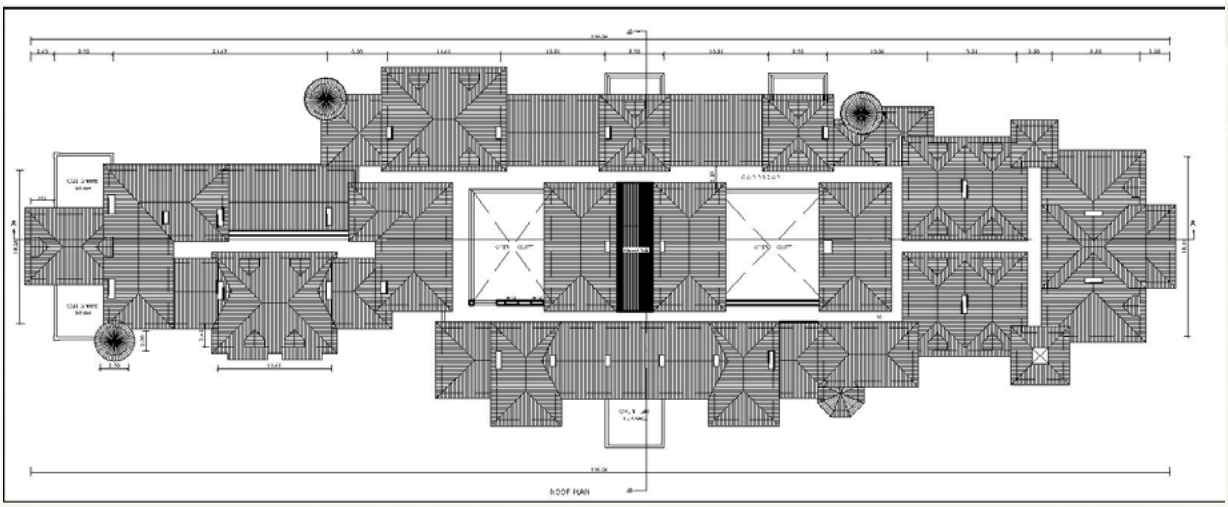
FIRST FLOOR PLAN OF GORTON CASTLE.



SECOND AND THIRD FLOOR PLAN OF GORTON CASTLE



THIRD FLOOR PLAN OF GORTON CASTLE



ROOF PLAN OF GORTON CASTLE

UNFORTUNATE EVENT OF MAJOR FIRE DATED 28/01/2014

During the wee hours of 28/01/2014 this majestic and historically important building met to the unfortunate incident of major fire. At about 2:45 AM, there was no sign of fire as the diesel tanker arrived to the premises to unload the diesel for central heating plant. Incident of fire took place at somewhere between 2:45 AM to 3:35 AM . Fire tender arrived at about 3:35 AM to mitigate fire .after the joints effort of Himachal Pradesh fire department , local police and army fire could be controlled by about 10:30 AM . However, small sparks and localised fire kept on erupting for next two days.

Fire started from the front side of the building and spread to the rear which was the wind direction , fire spread through the wooden trusses and wooden floors of the loft and the top floors . The entire top floor and the 3rd floor and more than half of the second floor were gutted to the fire. Massive collateral damages were done to the other two lower floors also.



DAMAGE CAUSED TO THE BUILDING DUE TO THE FIRE AND PRESENT STATUS OF THE BUILDING:

The intensity of fire was high and devastating to such an extent that all iron trusses, roof sheets , iron girders ,steel tables and furniture and various other steel items were totally melted and distorted . The table glass and other items were also melted .stone masonry walls were expended and disintegrated .stones got fragmented and are getting chipped off easily showing shine of every residual strength. All the wooden items such as wooden trusses, wooden boarding under the roof sheets, wooden planks floors and false ceiling got totally gutted into the fire.

The upper two floors got totally damaged in fire. Due to this fire, about 60 Nos. rooms out of total 148 no.s room got damaged as detailed below.

Name of the office	Total no. Of rooms	Rooms gutted in fire	Percentage of rooms gutted in fire
Audit	56	39	70
A & E	92	21	23
Total	148	60	41

CLEARANCE OF THE FIRE DEBRIS :

This operation was done under the supervision and management of CPWD Engineers. While conducting this herculean task special attention was required to be paid for the safety of all the persons involved in this operation .All possible safety aids such as gum boots safety helmets, gloves , masks safety belts etc. Were provided to entire team while undertaking this operation. At most of the places burnt material and debris were removed within a weeks. In this operation gas cutters were extensively used as it was not possible to remove the intermingled trusses , false ceiling , ducts etc. tones of the debris were removed from the premises.

HERITAGE AND ARCHITECTURAL ISSUES (BRIEF REPORT SUBMITTED BY HERITAGE CELL MINISTRY OF URBAN DEVELOPMENT FOR RESTORATION):

Considering the Pan India requirement of preservation and conservation of heritage buildings located in India which are under the maintenance responsibility of the Central Government especially under the ambit of the Ministry of Urban Development, a dedicated heritage cell comprising of the expert architects, structural engineers , archaeological members and other conservation experts was constituted by the competent authority of Ministry of Urban Development, Government of India vide their O.M.No. 2/11/2011-W-II (CPWD/EW-I), dated 30/03/2012.

Since the building Gorton Castle is a heritage building and under the responsibility of Ministry of Urban Development, Government of India, the sad heritage cell inspected the building on 28/03/2014 to 30/03/2014 in detail. Following members of such heritage cell inspected this building.

1. Mrs Sipra Mitra, ADG (Arch)-Chairman cum overall in charge, Heritage Committee.
2. Mr. Rajesh Kaushal, CA(NDR)-Chairman , Heritage Committee.
3. Mr. A.K. Tyagi, SA-IV (NDR)-Nodal officer, Heritage Committee.
4. Mr. R.S. Jamwal, SAE, ASI –Member, Heritage Committee.
5. Mr. Rajesh Khare, SE, CDO – Member, Heritage Committee.

After the detailed deliberations heritage cell vide their letter no. 276-292 dated 11/04/2014 issued their final recommendations in respect of every components of the buildings for the items and methodology to be adopted for its restoration. However, heritage cell has referred some of the points which were connected to the structural issues for obtaining the recommendations from CBRI, Roorkee. Further the issue of how to improve behaviour of this building during seismic eventualities was also referred to CBRI, Roorkee for their recommendations .rest of the items which mainly covers heritage character of the building and architectural issues were covered by heritage cell in their recommendations.

The brief of recommendation given by heritage cell are as under:					
S. No.	**Items**	**Floors**	**Existing specifications**	**Proposal under submitted to heritage cell MoUD/CPWD for deliberation and recommendations.**	**Final recommendations of Heritage Cell MoUD/CPWD (as per minutes dated 11.04.2014)**
1.	Foundation		Step foundation	----------	No comments as per CBRI Recommendation.
2.	Walls		Walls of varying thickness at different floor 900 mm to 450mm stone of grey color laid in lime-surkhi mortar (stone from Barog /Sanjauli quarry)	Walls to be reconstructed using matching stones with lime/cement mortar.	Proposal accepted but walls to be reconstructed using matching stones with lime mortar.
3.	Floor				
	1.	Ground floor	Mosaic flooring over base of lime / cement concrete.	Similar type of flooring finishes Mosaic/cc flooring	Similar type of flooring finishes to be obtained. However structural arrangements to be done as per CBRI recommendations. CBRI may also be requested to conduct seismic analysis of the building as a whole & to recommend least intrusive methods for floors reconstruction.
	2.	First floor	PCC /Mosaic / vitrified tiles over CC base over jack arch roofing	---------do-------	
	3.	Second floor	---------do-------	---------do-------	
	4.	Third floor	---------do-------	---------do-------	
	5.	Attic floor	3" RCC floor over boarded floor maltnoid sheet over 1.5" thick planks over wooden joists over RS beams.	---------do-------	
4.		False ceiling	Wooden tiles at certain areas/ aluminium perforated sheet/ mineral fiber	Calcium silicate. metallic tiles / aluminium perforated /aluminium strips/ aluminium channel system having opening /sliding facility for accessibility in specific areas.	Minimum amount of false ceiling to be used. Item of false ceiling of Calcium silicate/ aluminium perforated /aluminium strips accepted.

The brief of recommendation given by heritage cell are as under:					
S. No.	Items	Floors	Existing specifications	Proposal under submitted to heritage cell MoUD/CPWD for deliberation and recommendations.	Final recommendations of Heritage Cell MoUD/CPWD (as per minutes dated 11.04.2014)
5.		Doors	Wooden panelled door	Wooden panel door matching & fire escape door with special features such as vision panel at strategic locations.	All doors to be built as per original design and specifications.
6.		Frames	Wooden frames and stone ashler works	Same as matching to the existing wooden features to be protected with fire paint.	Proposal accepted.
7.		Windows frame and shutters	Stone jalis & wooden shutters with shash and panel glass windows.	Same as matching to the existing .Wooden features to be protected with fire paints	Proposal accepted.
8.		Jalis	Stone jalis and cast iron jalis	Same as existing	Proposal accepted.
9.		Cornices	Stone	Same as existing	Proposal accepted.
10.		Arches	Stone	Same as existing	Proposal accepted.
11.		Staircase			
	1.	Main staircase roofing with stashed glass ceiling	Wooden planks over C.I. joists.	Same as existing with increased thickness wooden planks and fire paints of treads for main staircase , Granite tiles over C.I. joists with glass ceiling.	Proposal accepted except for granite tiles. Wooden planks to be retained .fire proof paint to be done
	2.	Railing	Wooden handrails with balusters of cast iron	Same as existing	Proposal accepted.
	3.	Service/ spiral staircase	Wooden	C.I. staircase	Proposal accepted.
	4.	Additional staircase	Wooden	C.I. staircase	Proposal accepted.

The brief of recommendation given by heritage cell are as under:					
S. No.	Items	Floors	Existing specifications	Proposal under submitted to heritage cell MoUD/CPWD for deliberation and recommendations.	Final recommendations of Heritage Cell MoUD/CPWD (as per minutes dated 11.04.2014)
12.		Roofing	PGI sheets of terracotta color over timber boarding over cast iron truss in Nainital Pattern	Prelaminated PGI Sheets of terracotta color over timber boarding over cast iron truss in Nainital Pattern over fire retardant material boarding over steel truss (as per design)with existing slope and design in Nainital Pattern. The old skyline to be redeveloped. Canopies on fire staircases to be redeveloped on steel truss/framework.	Entire roofing along with canopies as per original specification and design. Seismic design & fire consideration to be added as per CBRI and fire consultant report. Anchorage and strengthening of roofing should be suitably enhanced to meet seismic and other load consideration as per CBRI report . heritage skyline of the roof of this building has to be built to maintain original character.
13.		Eves board	Wooden	Same shape in wood with fire paints	Proposal accepted.
14.		Toilets	All toilets, tiles with modern fixtures	Energy efficiency sanitary fixtures with modern tiles.	Proposal accepted.
15.		Lights	Fluorescent lighting	LED/CFL/energy efficient lighting	Proposal accepted.
16.		Heating	Central heating	Energy efficient central heating system to be redesigned .	Central heating system to be reassessed and designed with modern systems available .impact assessment to be redone. Case to be re-put up for the final comments of the cell.
17.	Fire place	On all floors	Features existing fire places retained but opening filled with brick wall.	To restored , but not to be used top to be closed keeping view as it is.	Proposal accepted.
18.	Open court yard	On all floors	Open to sky	To be maintained but all round the chajjas added in courtyard to be redesigned to merge with the building.	Proposal accepted.

The brief of recommendation given by heritage cell are as under:					
S. No.	**Items**	**Floors**	**Existing specifications**	**Proposal under submitted to heritage cell MoUD/CPWD for deliberation and recommendations.**	**Final recommendations of Heritage Cell MoUD/CPWD (as per minutes dated 11.04.2014)**
19.	Chimneys	Roof level	Vent pipe concealed with stone with stone masonry	Same except for the sealing of vent pipes and keeping the aesthetics same.	Proposal accepted.
20.	Finishes				
i)	External	All external walls	Exposed stone finish	Same as existing	
ii)	Internal	All internal walls	Cement plaster with acrylic paints	Same as with POP/ cement putty in general. Wall panelling with wooden materials at specific areas.	Wall panelling should be kept minimum.
21	Lift	--------	Not existing	Machine less/capsule type lifts with features matching to building features may be provided at both the central courtyards, as per demand of client department.	No lift in central court yard portion .if required , it may be examined to be provided at other location such as near kitchen/pantry etc.,if found feasible.
i)	Barrier free provisions	--------	Not existing	To be added	Proposal accepted.
ii)	Rain water harvesting	--------	Not existing	To be added	Proposal accepted.
iii)	DGU units	--------	Not existing	Possibility may be explored for execution	Proposal accepted.
23.	Services layout	--------	--------	Fire alarming, fire fighting water supply, sanitary , rain water disposal, heating system, lightening arrester. Intelligent lighting system. Communication system. Power backup system. Overall MEP services. To be redesigned	All services may be redesigned keeping visual aesthetics in mind. A well documented comprehensive scheme to be developed for entire building.

The brief of recommendation given by heritage cell are as under:					
S. No.	**Items**	**Floors**	**Existing specifications**	**Proposal under submitted to heritage cell MoUD/CPWD for deliberation and recommendations.**	**Final recommendations of Heritage Cell MoUD/CPWD (as per minutes dated 11.04.2014)**
24.	Unauthorised construction	--------	Near canteen	All unauthorised construction to be removed so as to make around space available for fire tenders.	Accepted all un authorised construction to be removed. Original building external envelope to be reclaimed. A clear 6 mtr . wide access around the building for fire tender should be provided .Vehicle parking should not be allowed on this free access for fire tenders. Paperload should be reduced using modern technology. Storage of documents should be managed properly using compacters.
25.	Ornamental features	--------	Various features such as cornices , balconies , jharokhas, eves board, jams, cills, soffits etc.	To be redeveloped	Proposal accepted. 1.Complete restoration work to be thoroughly documented. 2. Detailed drawings of building work, services electrical and mechanical services to be prepared alongwith manual for maintenance for future use. 3. Fire zoning scheme to be prepared. 4. Signages as per latest norm to be installed in entire building. 5. Fire control room and hydrants to be provided as per scheme. 6. Set of all completion drawings to be maintained.

METHODOLOGY FOR PROCESSES:

After assessing about the fire severity and damage caused to various components of the structure, comprehensive technical recommendation regarding methods to be adopted along with specific location and components of the structure is elaborated in the report .The brief of these important recommendations is summarised as under which are provided in Chapter -4.0 of the report under the heading 'methodology for processes'.

- Cementitious grout in uncoursed rubble masonry walls.
- Controlling growth of wall fungus and algae on exterior surfaces of walls.
- Insertion of through elements in URM Masonry.
- Stitching of cracks.
- Providing RCC band along with concrete block at steel beam support.
- RC Splint and bandage at sill, lintel , Gabel Ends.
- Using WWM or
- Using steel twin lintel belt.
- Encasement around openings
- Anchoring rafter on top of masonry walls and installing connection between Bond Beam.
- Ferro-cement lining/strengthing as plaster work inside room.
- Reconstruction of RR stone masonry.

HERITAGE IMPACT ASSESSMENT REPORT FOR RE-DEVELOPMENT OF BHAVISHYA NIDHI ENCLAVE, MALVIYA NAGAR

HERITAGE IMPACT ASSESSMENT REPORT FOR RE-DEVELOPMENT OF BHAVISHYA NIDHI ENCLAVE, MALVIYA NAGAR

I. EXECUTIVE SUMMARY

The Central Public Works Department of the Government of India proposes to carry out Re-development of a Bhavishya Nidhi Enclave on an existing site of 4.55 acres (1.841 Ha) located at Malviya Nagar, New Delhi, to the south of DDA Sarvpriya Vihar Park.

The proposed Redevelopment site is located in the proximity of four National Monuments (No. 265 Sarai Shahji, Malviya Nagar; No. 262 Tomb of Sheikh Kabir-ud-Din also known as Rakabwala Gumbad(Sarai Shaji/Malviya Nagar); No. 270 Begumpuri Mosque, Begumpur and No. 272 Bijay Mandal) notified and protected by the Archaeological Survey of India. The project site boundaries lie within the Regulated Area of three of these monuments which are Tomb of Sheikh Kabir-ud-Din also known as Rakabwala Gumbad(Malviya Nagar) , Begumpuri Mosque and Bijay Mandal, neighboring domes, building and dalan (Kalu Sarai) and a section of the site is within the Prohibited Area of Sarai Shahji1. Project proponent, CPWD has requested the School of Planning & Architecture, New Delhi to carry out a Heritage Impact Assessment as required for Category IV (NMA Rule 6) 'Reconstruction of residential buildings or structures in the land owned by the Central Government located in the regulated area'.

Date for Final Heritage Impact Assessment Report : 24th September, 2018

Name of Centrally Protected Monument / Site (s):

1. Group of Monuments (Sarai Shahji), Malviya Nagar, Notified on 21.05.1988 S.O. 1545-Edu of ASI (No. 130)
2. Tomb of Sheikh Kabir-ud-Din, Notified on 25.10.1918 DL,7485-Edu of ASI (No. 131)
3. Begumpuri Mosque (Begumpur), Notified on 25.03.1918, DL, 2324-Edu., of ASI (No. 47)
4. Bijay Mandal, neighboring domes, building & dalan, Notified on 25.03.1918, DL, 2324-Edu of ASI (No. 67).2

Name of Organization responsible for preparation of Heritage Impact Assessment-Scoping

Report: School of Planning & Architecture, New Delhi; Department of Architectural Conservation

Name of Project Proponent: Ministry of Labour and Employment, Government of India; Employee Provident Fund Organization(EPFO)

On the basis of systematic third-party Heritage Impact Assessment according to NMA guidelines and international norms, and in compliance with requirements of the AMASR (Amendment & Validation) Act, 2010, and related legal framework, mitigation measures have been proposed to avoid, minimize and manage or compensate for the identified slight or negligible effects of the potential impacts of the proposed Re-development of Bhavishya Nidhi Enclave, Malviya Nagar, New Delhi.

Compliance with AMASR (Amendment & Validation) Act, 2010 in Prohibited Area is to be ensured by the project proponent and there is to be no construction in the southern half of the site that comes within the Prohibited Area of Monument No.265 (Sarai Shahji). The landscape plan is to be revised, and the southern half of the site that comes within the Prohibited Area of Monument No. 265 will not be constructed upon, and will be landscaped to avoid any adverse impact and ensure legal compliance. External finish is changed to Random Rubble Textured in order to evoke the heritage character of the surroundings.

Ground Penetrating Radar Survey is to be undertaken to identify the location of any sub-surface archaeological deposits within the area of the site that falls within the Regulated Area of Monument Nos.265, 262 and 270. Archaeological excavations under the supervision of an expert Archaeologist are required prior to re-development and rescue archaeology of any archaeological remains and artifacts discovered. A Landscape Plan for the project site is to ensure retention/ relocation of existing trees.

[1]ASI Inventory

[2]ASI Survey

II. HERITAGE IMPACT ASSESSMENT- SCOPING REPORT

HERITAGE IMPACT ASSESSMENT- SCOPING REPORT OF PROPOSED REDEVELOPMENT OF BHAVISHYA NIDHI ENCLAVE, MALVIYA NAGAR

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2. Geographical Coordinates
3. Date of Notification
4. Date of Heritage Impact Assessment Report

iv. **Assessment Methodology** (flow diagram)

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    a) Project Description and Need (PDN)
    b) Pertinent Institutional Information (PII) & Regulatory Framework
2. Cultural Impact Prediction and Assessment (Baseline Data and Documentation)
    1. Initial Examination and Interpretation of existing condition
    2. Site Field Verification & Base Documentation for anticipated impacts/ effects
3. Statement of Significance- Identification and characterization of values and significance of heritage resources
4. Project Impact Analysis- Development Appraisal and Models to assess changes due to the redevelopment project
5. Identification and Analysis of Potential Impact on Heritage Resources
6. Incorporation of Comments after Stakeholder interaction and Finalization- Statement of Heritage Impact and Evaluation of significance of all direct and indirect impacts on the built heritage, natural resource and visual quality.
7. Management and Mitigation measures for General Assessment Area & Specific Protected Sites.

v. **Monument's history and description of Heritage Assets and Attributes**

1. Statement of Significance
2. Introduction: History of Protected Sites & Monuments. Significance of Malviya Nagar Group of Monuments
3. Description of Heritage Assets and Attributes- Significance and Values
    i. Group of Monuments (Sarai Shahji), Malviya Nagar
    ii. Tomb of Sheikh Kabir-ud-Din also known as Rakabwala Gumbad(Sarai Shahji/Malviya Nagar
    iii. Begumpuri Mosque (Begampur)
    iv. Bijay Mandal, neighboring domes, building and dalan (Kalu Sarai)

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    2. Nature of the work proposed

3. Rationale for Re- development
4. Ownership

2. Proposed Housing Project details
    1. Total Site Area
    2. Proposed Ground coverage
    3. Proposed Green area
    4. Permissible FAR
    5. Number of Stories- Proposed height
    6. Building classification and Facilities provided

vii. **Assessment and Evaluation of Overall Impact**

vii.i. Impact on Built Heritage

1. Integration of the Proposed project with the monuments and its surroundings (3D Model + Section)
2. Impacts due to Proposed activities (Such as open space, community facilities, intangible associations, disturbance to the local environment, etc)
3. Impact on archeological remains due to project excavations and on erosion, subsidence and instability of soil in the area. (Map showing areas of archeological potential)
4. Impact on any other anthropological or archeological sites or artefacts nearby
5. Maps of (i) monument and the proposed site (ii) Surrounding heritage features of the proposed site (within 300 meters of the monument) (iii) the site (indicating levels and contours) to appropriate scales) 1:500).

vii.ii. Impact on Natural Heritage

1. Impact on the existing natural drainage system (Details on a contour map showing the natural drainage near the proposed project site).
2. Impact on any kind of natural features (rivers, nalas, canals, forests, low lying areas, wetlands, etc.) or any existing subterranean water channels
3. Impact on the water runoff characteristics of the surroundings (quantitative as well as qualitative) Management of storm water from within the site and Provisions made to avoid flooding of the area. Details of the drainage facilities provided along with a site layout indicating contour levels).
4. Impact on existing trees and other vegetation Any extensive clearing or modification of vegetation due to construction. (Detailed account of the existing trees and vegetation affected by the project).

5. Impact on ground water table Any extensive pumping of ground water required for construction (Ground Water Authority clearance should be obtained)

vii.iii. Impact on Intangible Heritage

1. Any adverse effects on local communities, disturbance to sacred sites or other cultural values and intangible heritage of the monument/ area.

vii.iv. Visual Heritage Impact

a) Impact on the existing views of the monument and historic landscape, *obstruction of views of the monument and the historic landscape. Illustrated through drawings. The view corridors from and to the monument highlighted.*

b) Shadow Analysis

Any shadow on the monument due to the height of the proposed construction.

Drawing to Illustrate shadow analysis.

c) Local considerations of urban form and urban design on building facades, features, etc. influencing the design criteria.

vii.v. Other Direct and Indirect Impacts

1. Any Impact on the monument due to the generation of dust, smoke, odorous fumes or other hazardous gases during the period of construction and due to construction.
2. Creation of shortage of parking space for vehicles. Details of the present level of transport infrastructure around the monument and surrounding area. Measures proposed for improvement including the traffic management at the entry and exit to the project site.
3. Details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths, etc., with areas under each category.
4. Significant increase in traffic noise and vibrations
5. Impact of DG sets and other construction equipment on noise levels and vibration in and around the monument
6. Etc.

viii. **Mitigation Measures Proposed**

1. Site specific Measures for the Project Site (Area within Regulated Area)
2. General Mitigation Measures Required
3. Monument/Asset Specific Measure

ix. **Summary and Conclusions**

x. **Bibliography and Acknowledgements**

xi. **List of Annexures**

III. INTRODUCTION

1. Name of Centrally Protected Monument/ Site(s):

1. Group of Monuments (Sarai Shahji), Malviya Nagar



2. Tomb of Sheikh Kabir-ud-Din also known as Rakabwala Gumbad (Sarai Shaji/Malviya Nagar)



3. Begumpuri Mosque (Begumpur)





BUILT HERITAGE RESOURCES

Site of 4.55 acres is located partially within the prohibited zone of National Monument **No. 265** Group of Monuments **(Sarai Shahji)**, Malviya Nagar and within the regulated zone of two protected National Monuments **No. 270 Begumpuri Mosque (Begumpur)** and **No. 272 Bijay Mandal,** neighboring domes, building and dalan (Kalu Sarai have been proposed for this Heritage Impact Assessment study



2. Geographical Coordinates:

1. Group of Monuments (Sarai Shahji), Malviya Nagar: Lat. 28'34 N; Long. 77'11E
2. Tomb of Sheikh Kabir-ud-Din also known as Rakabwala Gumbad (Sarai Shaji/Malviya Nagar): Lat 28'32'N; Long 77'13'N
3. Begumpuri Mosque (Begumpur): Lat 28'32' N; Long 77'12'E
4. Bijay Mandal, neighboring domes, building and dalan (Kalu Sarai): Lat 28' 32' N; Long 77'12'E

3. Date of Notification:

1. No. 265 Group of Monuments (Sarai Shahji), Malviya Nagar: 21.05.1988 S.O. 1545- Edu of ASI (No. 130)
2. No. 262 Tomb of Sheikh Kabir-ud-Din also known as Rakabwala Gumbad (Sarai Shaji/Malviya Nagar): 25.10.1918 DL,7485-Edu of ASI (No. 131)
3. No. 270 Begumpuri Mosque (Begumpur): 25.03.1918, DL, 2324-Edu., of ASI (No. 47)
4. No. 272 Bijay Mandal, neighboring domes, building and dalan (Kalu Sarai): 25.03.1918, DL, 2324-Edu., of ASI (No. 67).3

4. Date of Heritage Impact Assessment Report: 24.09.2018

Name of Organisation responsible for preparation of Heritage Impact Assessment Scoping Report: School of Planning & Architecture, New Delhi; Department of Architectural Conservation.

Name of Project Proponent: Ministry of Urban Development, Government of India, Central Public Works Department.

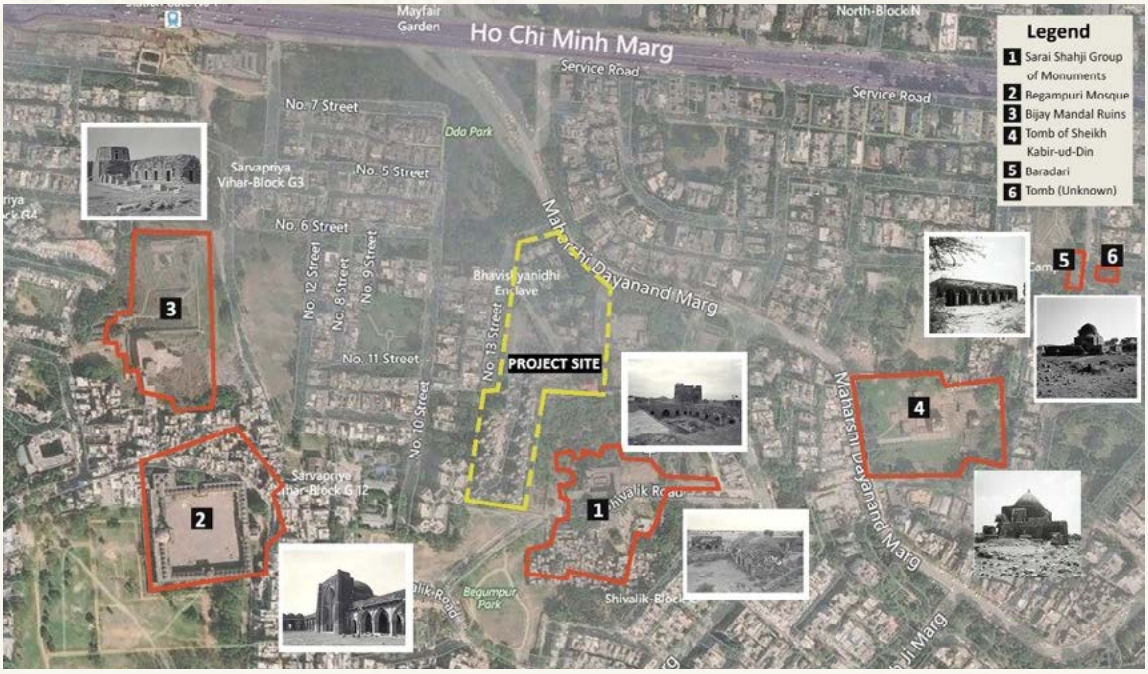


Figure III.I. Malviya Nagar and surroundings showing project site and Centrally Protected monuments

[3] ASI Inventory

The Central Public Works Department of the Government of India, proposes to carry out Re-development of Housing for Employees Provident Fund Organisation (EPFO) on an existing site of 4.55 acres (1.841 Ha) located at Malviya Nagar, New Delhi. The Redevelopment site is located in the vicinity of four National Monuments and two state protected monuments

1. No. 265 Group of Monuments (Sarai Shahji), Malviya Nagar,
2. No. 262 Tomb of Sheikh Kabir-ud-Din also known as Rakabwala Gumbad (Sarai Shaji)
3. No. 270 Begumpuri Mosque (Begumpur)
4. No. 272 Bijay Mandal, neighbouring domes, building and dalan (Kalu Sarai) notified and protected by the Archaeological Survey of India.
5. No 258, Baradari, Sadhna Enclave
6. No 259, Unknown Tomb, Sadhna Enclave



The irregular southern boundary of the Project Site is at a distance ranging from 37m to 44m from the northern edge of Protected Area of Monument-No.265/130. The site is 187M north-east of the Protected Area of Monument- No.279/47 and 286M east of the Protected Area monument- No. 272/67. It is 304M west of the Protected Area of monument- No. 262/131.

HERITAGE WITHIN ASSESSMENT AREA

Monument Nos. 130-Group of Monuments, Sarai Shaji, 131-Tomb of Seikh Kabir-ud-din, 47- Begampuri Mosque and 67- Bijay Mandal indicated in the Archeological Survey of India Inventory of Sites and Monuments on the NRSC Indian Geo-Platform of ISRO and two state protected monuments, Baradari and Unknown Tomb have been considered for the purpose of the Heritage Impact Assessment.

The project site **boundaries** lie within the Regulated Area of two monuments, and the southern half of the site on which no construction is proposed lies within the Prohibited Area of No. 265[1]. The Project proponent, CPWD has requested the School of Planning & Architecture, New Delhi to carry out a Heritage Impact Assessment as required for Category IV (NMA Rule 6) – 'Reconstruction of residential buildings or structures in the land owned by Employers provident fund organisation (EPFO) of the Central Government located in the regulated area'.

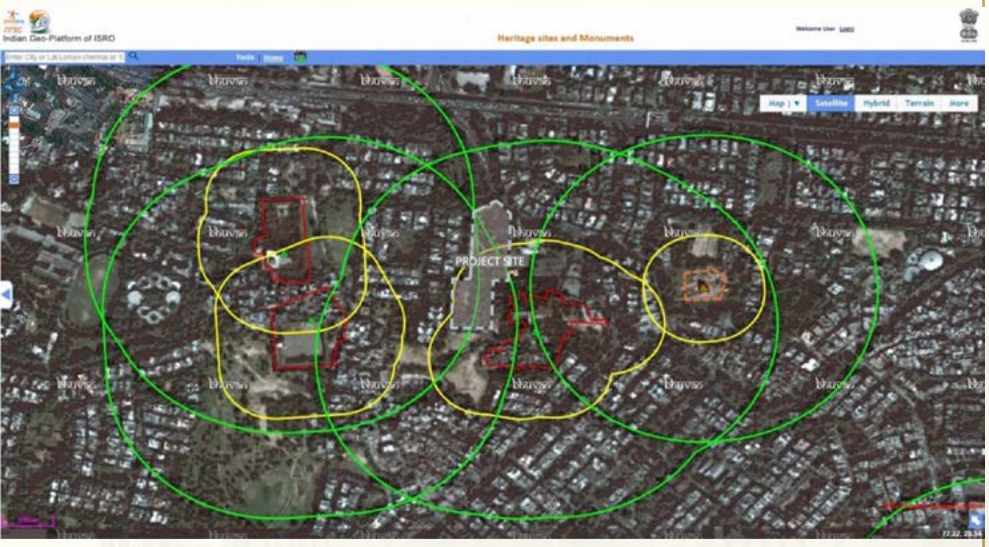


Figure III.III Restricted and regulated zones of the ASI Protected monuments in Malviya Nagar, Source: Bhuvan(Archaeological Survey of India All India Inventory of Sites and Monuments on the NRSC Indian Geo-Platform of ISRO- https://bhuvan.nrsc.gov.in/governance/culture_monuments)

STATE PROTECTED AND UNPROTECTED MONUMNETS

There are two monuments protected under the State Department of Archeology and over 8 unprotected monuments, six of which are inside the site boundary of Tomb of Kabirud- din and two other are located near the DDA park Sadhna enclave.

The two monuments protected under State are an Unknown Tomb and Baradari.

IV. ASSESSMENT METHODOLOGY

Project Background

The Central Public Works Department has requested School of Planning and Architecture, New Delhi to undertake a third party Heritage Impact Assessment and Preparation of HIA report for the proposed Re-development of Bhavishya Nidhi Enclave Housing at Malviya Nagar for the Ministry of Urban Development, Government of India as required by the Competent Authority, NCT of Delhi (Under Sections 20C and 20D of AMASR Act, 1958).

The Bhavishya Nidhi Enclave site of 4.55 acres is located partially within the prohibited zone of National Monument No. 265 Group of Monuments (Sarai Shahji), Malviya Nagar, as per Gazette notification S.O. 1545 of 21st May, 1988 and within the regulated zone of two protected National Monuments No. 270 Begumpuri Mosque (Begumpur), as per Gazette notification DL, 2324 of 25th March,1918 and No. 272 Bijay Mandal, neighboring domes, building and dalan (Kalu Sarai) as per Gazette notification DL, 2324 of 25.03.1918.

The **Heritage Impact Assessment for the proposed Re- Development of Bhavishya Nidhi Enclave at Malviya Nagar was undertaken by the School of Planning and Architecture, New Delhi.** The team undertaking the HIA comprised of: Project Coordinator Anuradha Chaturvedi (Conservation Architect & Head of Department of Architectural Conservation, SPA – Impact Assessment Course at IIT, Madras, 2005);

Project Associate Neelima Yadav (Conservation Architect)

Project Assistant Yashika Ashish (Architect)

All required authenticated and validated data was provided by the CPWD, Project proponent, and the concerned offices of

ASSESSMENT AREA

The assessment area is a defined imaginary line which encompasses the protected, prohibited and regulated areas of centrally protected monuments.

The assessment area line has been defined by School of Planning and Architecture in order to ensure that all possible impacts are taken into account for the Heritage Impact assessment study.

Archeological Survey of India & Department of Archeology, New Delhi.

The systematic **Assessment Methodology for the Heritage Impact Assessment report is in consonance with the requirements of the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010 and Schedule II; National Monuments Authority Rules, 2011; National Monuments Authority Guidelines on parameters for large scale projects and Annexure II on Content Outline of Archaeological Impact Assessment Report** – Dtd.29.02.2016.

The Heritage Impact Assessment Report consists of two sections:

Section I includes the Executive Summary, Introduction, Assessment Methodology, Values and Significance of Heritage Assets and Attributes, Project Details and Description of Proposed Changes and redevelopment, Assessment and Evaluation of overall impact, Proposed Mitigation measures, Summary and Conclusions, Bibliography and Acknowledgements.

Section II includes a detailed discussion of Impacts on Built Heritage, Natural Heritage, Intangible Heritage, Visual Impacts and other Direct and Indirect Impacts.

MONUMENTS WITHIN ASSESSMENT AREA

The centrally protected monumnets within the assessment area are No. 265 Group of Monuments (Sarai Shahji), Malviya Nagar and within the regulated zone of two protected National Monuments No. 270 Begumpuri Mosque (Begumpur) and No. 272 Bijay Mandal, neighboring domes, building and dalan.

Two state Protected Monuments No. 258 and 259, Baradari and Unknown tomb respectively.

Assessment Methodology

Step 1. Scoping and Definition of Assessment Area and Issues

Project Description & Need (PDN)

Pertinent Institutional Information (PII) & Regulatory Framework

Step 2. Cultural impact prediction and assessment



Identification and verification of Heritage property within the Malviya Nagar





Evaluation of heritage property
Total of 6 monuments found on site, Four Protected the State Archaeology & 2 protected under the Delhi State Department of Archaeology

Zafar Hassan Listing (1916-1922)	ASI Protected ,notified 1924 & 2009	Tokyo University Study 1960	INTACH inventory 2004	Delhi State Archeology 2009

Step 3. Statement of Significance

Statement of Significance - Identification and characterization of values and significance of heritage resources.



Site Field Verification & Base Documentation for anticipated impacts/effects

Step 4. Project Impact Analysis



Development Appraisal and model to assess changes due to the proposed Redevelopment



Identification of Potential Impacts (IPI) on Heritage Resources



Step 5. Management and Mitigation measures

Step 6. Draft Report Submission and Incorporation of Comments

Step 7. Implementation Framework

Baseline Data and Documentation

Data Collection from various sources:

- Project Proponent – CPWD
- Archaeological Survey of India – Offices of Delhi Circle;
- Delhi State Department of Archaeology, GNCTD
- INTACH, Delhi Chapter
- American Institute of Indian Studies
- The University of Tokyo, Japan

Initial Examination: Site survey conducted by qualified professionals on 29.07.18 05.08.18, 13.08.18, 29.08.18 and 11.09.18

Site Examination undertaken on 05.08.18 feild survey for anticipation of possible impacts

Site Visits to all the monuments within the Assessment Area on 13.08.18

Base map preparation as per the preliminary site survey marking the "area of potential effects.

Values have been assessed using a matrix that includes Historical value, Architectural value, Artistic value, Archaeological value, Socio-cultural value, Functional value and Ecological value.

Building Documentation and preperation of Documentation Drawings by Ar Yashika Ashish

Preparation of Sketch up model for understanding the volumes

Discussion on Draft report with the Project Proponent on 11.09.18.

Final Site visit for preperation of Documentation drawings on 11.09.18

Classification of Effects as per the baseline study

The Statement of Heritage Impact defines the need to adequately address any potentially significant impacts on the heritage resources because of the proposed project, as well as overall impacts due to negligence and unauthorized construction within the protected area boundary.

Possible measures required to avoid, minimize, rehabilitate and mitigate any adverse impact of the proposed project on the identified heritage resources

Assessment Methodology

1. **Scoping and definition of Assessment Area and Issues to be addressed**

   a. Project Description and Need (PDN)

   Defining of the scope of the Heritage Impact Assessment report was undertaken on the basis of the letter received by the CPWD from the National Monuments authority regarding the submission of a Heritage Impact Assessment Report.

   This is a Redevelopment project for Bhavishya Nidhi Enclave on a site of 4.4 acres that was in use by EPFO and lies within the Prohibited Area No. 265. Sarai Shahji Group of Monument and lies within the Regulated area of three nationally protected No. 272. Bijay Mandal, No. 270. Begumpuri Mosque, No. 265. Bijay Mandal, neighboring domes, building and dalan.

2. **Baseline Data and Documentation**

   a. Initial Examination and Interpretation of existing conditions

   School of Planning and Architecture, New Delhi contacted the following institutions and organizations for certified authentic and validated information, maps, plans, measured architectural drawings and baseline data regarding the heritage resources located within the potential impact area of the proposed Redevelopment project of Bhavishya Nidhi Enclave, Malviya Nagar.

   - Project Proponent CPWD & Project Architect Pallavi Madan
   - Archaeological Survey of India-Offices of Delhi Circle;
   - Delhi State Department of Archeology, GNCTD
   - INTACH, Delhi Chapter
   - American Institute of Indian Studies (AIIS)
   - India International Center (for studies on Indian Transport systems before locomotives)
   - Tokyo University

REDEVELOPMENT PROJECT DESCRIPTION



Plan showing the project site plan provided Architecture division CPWD The site area is 4.4 acres and the southern half (48% of site) of the site, that is not to be redeveloped, falls within the Prohibited area of monument No. 265, Group of Monument Sarai Shahji.

A large number of historical records and other secondary sources were also referred to for the study. Specific information on the sources referred for various stages of the conducted study are provided in the Bibliography.

b. Site Field Verification and Base Documentation for anticipated Impact/ effect

Site visits were undertaken on 05.07.18, 29.07.18, 05.08.18 and 13.08.18 to the Project Site and the Assessment area was defined on the basis of the Protected Monument Site(s), their Prohibited Area (100m from the protected boundary of the monument) and their Regulated Areas (Additional 200m

beyond the prohibited area of the monument) as depicted on the Bhuvan image.

Base Map was prepared along with accurate sections by the HIA team with the help of 1984 survey map of Delhi, the Google earth for the more recent development in within the assessment area and survey drawings provided by CPWD for the accurate location of the Notified Monument. The Notified Monuments location was obtained from ASI and checked on site. A total station resurvey of the southern boundary of the site was undertaken to reconfirm the distance from the protected area boundary.

In addition, detailed surveys of the Notified monuments were conducted for preparation of detailed drawings, condition assessment and photo documentation of notified monuments.

This is a prerequisite to ensure compliance with the AMASR Act.

Impacts and effects of the proposed project on the heritage resources were identified through the

BASELINE DATA



Image Source: @ASI



Image Source: @GNCTD



Image Source: @INTACH

- Site Visits and Surveys
- Verification of site data from secondary sources
- Preparation of drawings of the notified monuments
- Condition assessment of heritage resources within the assessment area of the monuments
- Interaction with ASI personnel's, experts, local residents and the project proponent

Accurate Base Plan showing the proposed project site was prepared the assistance of the project proponent for detailed analysis and assessment of potential impacts.

3. **Statement of Significance-Identification and characterization of values and significance of heritage resources**

Detailed Assessment of the existing cultural resources in the Malviya Nagar Assessment area has been carried out on the basis of internally accepted norms and guidelines. These heritage resources include the archaeological resources identified by the ASI in 1916-22 (304-309); survey by Tokyo University in 1959-60 and 1961-62; INTACH Listing of 1999, the ASI Inventory of 2004, INTACH Delhi Chapter Listing 2009 for Delhi Government.

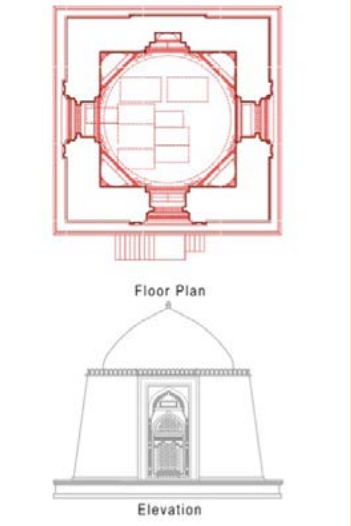
The historical evolution of the site and its locational significance has been studied in order to understand the importance of the heritage resources within the assessment area and their contribution to the architectural development over time. The study also highlighted the fact that the surroundings of the site contains high archeological potential and therefore require consideration in planning and development, as well as for compliance with the AMASR Act.

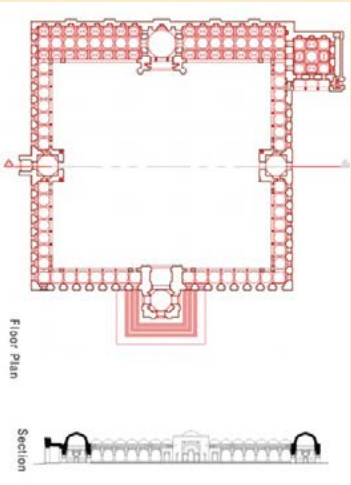
A statement of significance of

- Notified National Monuments protected by Archeological Survey of India in Malviya Nagar
- Notified State Monuments Protected by Department of Archeology, Delhi

DOCUMENTATION

Detailed Plan and Sections of monuments within the assessment area of the study were prepared with the help of secondary sources and on site verification.





- Other identified monuments, built heritage
- Intangible Heritage

has been prepared, describing the site and surroundings, history and chronology, architectural features, spatial configuration, special features; their values and significance at the Local, Regional and National level.

Value have been assessed using a matrix that incudes Historic value, Architectural value, Socio-cultural value, Functional value and Ecological value.

4. Project Impact Analysis- Development Appraisal and models to assess changes due to the Redevelopment project for Bhavishya Nidhi Enclave, Malviya Nagar Appraisal of the proposed Re-development project for Bhavishya Nidhi Enclave, Malviya Nagar for EPFO has been undertaken on the basis of design drawings, description and data provided by the project proponent to determine if the proposed project is in compliance with pertinent laws, regulation and policies.

   Assessment of the range of possible impacts due to the proposed project to the character of the site, context and surroundings of the National and State protected monuments within the designated assessment area of the site for the purpose of the study has been undertaken. Other than the centrally protected monuments, other Historic and Archeological properties within the assessment area has been included in order to identify the range of possible impacts on the Built Heritage, other Environmental parameters during the pre-construction, construction, operation and post-operation phases of the re-development project.

   A detailed inventory of heritage resources has been prepared, describing the site and surroundings, history and chronology, architectural features, spatial configuration, special features of the protected & unprotected heritage resources; their values and significance at the Local, Regional and National level.

FIELD VERIFICATION

Survey: CPWD- No. 265 Detailed survey of exact location of the protected monument No. 265 as per the geocoordinates and its distance from the project site boundary was done by CPWD and verified by the HIA team.



5. Identification of Potential Impact(IPI) on Heritage Resources The various impacts on the Heritage resources of the proposed project of Re-Development of Bhavishya Nidhi Enclave, Malviya Nagar have been categorized and compiled in the form of an Impact Matrix. For the purpose of determining effects, the main criterion used is whether there is a possibility of the heritage resources location, setting, significant historical and architectural feature or use. Criteria used to determine whether effects are beneficial or adverse are related to the authenticity and integrity of the heritage resources location, design, setting, material, workmanship, feeling or association.

   The effects are categorized according to whether they are Direct (Primary) or Indirect (Secondary); Cumulative and Incremental or Single and one time; Short term or Long term; Temporary or Continuous; Occurring during the construction phase or the operational phase; Naturally reversible or Irreversible; Repairable via Mitigation measures and management practices or Irreparable.

6. Statement of Heritage Impact- Evaluation of significance of all direct and indirect Impacts on the built heritage, natural resources and visual quality A systematic approach has been followed for evaluation of significance of the site from the Monuments. The possible impact has been detailed out by evaluation of the available facts, professional judgement by experts and studies conducted within the assessment area of the monument.

   The assessment of magnitude and importance of the interaction between the proposed project and the different types of significant heritage resources has been undertaken and a statement of Heritage Impact prepared.

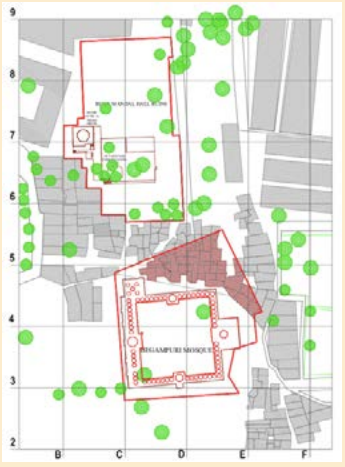
   This has taken into account the necessity for compliance with the legal and regulatory frameworks such as the AMASR (Amendment and Validation) Act,2010; the Zonal & Master Plans, the functional and normative thresholds of the area, as well as the potential aesthetic and visual effect of the proposed project.

STATEMENT OF HERITAGE IMPACT





3 D View of the assessment area of project



Begampuri group of Monuments

7. **Management and Mitigation measures for General Assessment Area & Specific Protected Sites: History of Protected Sites and Monuments**

The proposed project for Redevelopment of Bhavishya Nidhi Enclave of the Employers Provident Fund Cooperation Organization (EPFCO), falls within the Prohibited Area No. 265. Sarai Shahji Group of Monument and lies within the Regulated area of three nationally protected No. 272. Bijay Mandal, No. 270. Begumpuri Mosque, No. 265. Bijay Mandal, neighboring domes, building and dalan.

Possible measures required to avoid, minimize, rehabilitate and mitigate any adverse impact of the proposed project in the identified heritage resources within the assessment area are defined based on evaluation of alternative courses of actions, keeping in view the significance, present status, effectiveness and feasibility.

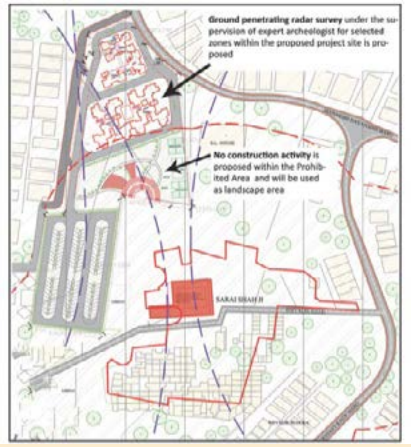
Any cumulative impacts that might be caused by the proposed project is studied and addressed. The mitigation measures that may be required are identified and classified based on the extent and type of Impact including:

- Project-site specific measures which are required for identification and rescue of any form of archeological remains.

  This also caters to the building materials and façade elements to reflect the historic character of the area.
- Monument specific mitigation measures required for the identified heritage resources that are currently effected by unauthorized construction and irregular maintenance.
- Possibility for developing synergies because of any beneficial impact of the proposed project for improvement of environmental conditions in areas of Malviya Nagar and around the heritage monuments and sites.

MITIGATION MEASURES

Mitigate Negligible Adverse Impact & Maximise Beneficial Impact of Proposed Project on the Heritage Resources.



Ensure no Construction Within the Prohibited Area of Protected Monuments Rescue of Remains and Artefacts Prior to Approved Construction

V. Monument's History and description of Heritage Assets and Attributes

Introduction:

Begumpur village and Sarai Shaji are located at the heart of the fourth historic city of Delhi: Jahanpanah, and emerged as an important node on the historic trade routes that gained prominence during the Mughal Period. The village is surrounded by Siri towards the north, Chirag Delhi towards its east, Hauz Khas on its South-west, and Mehrauli on the south. Associated with the trade route that connected Central Asia, Afghanistan and north India, Begumpur settlement was located at a junction.

Although the historic origins are not clear, the settlement of Begumpur is associated with the construction of the Begumpuri Mosque. The area remained as an important center till the late Mughal Period and therefore resulted in a considerably large number of historic Buildings of different types, largely linked with the facilities and social infrastructure of trade.

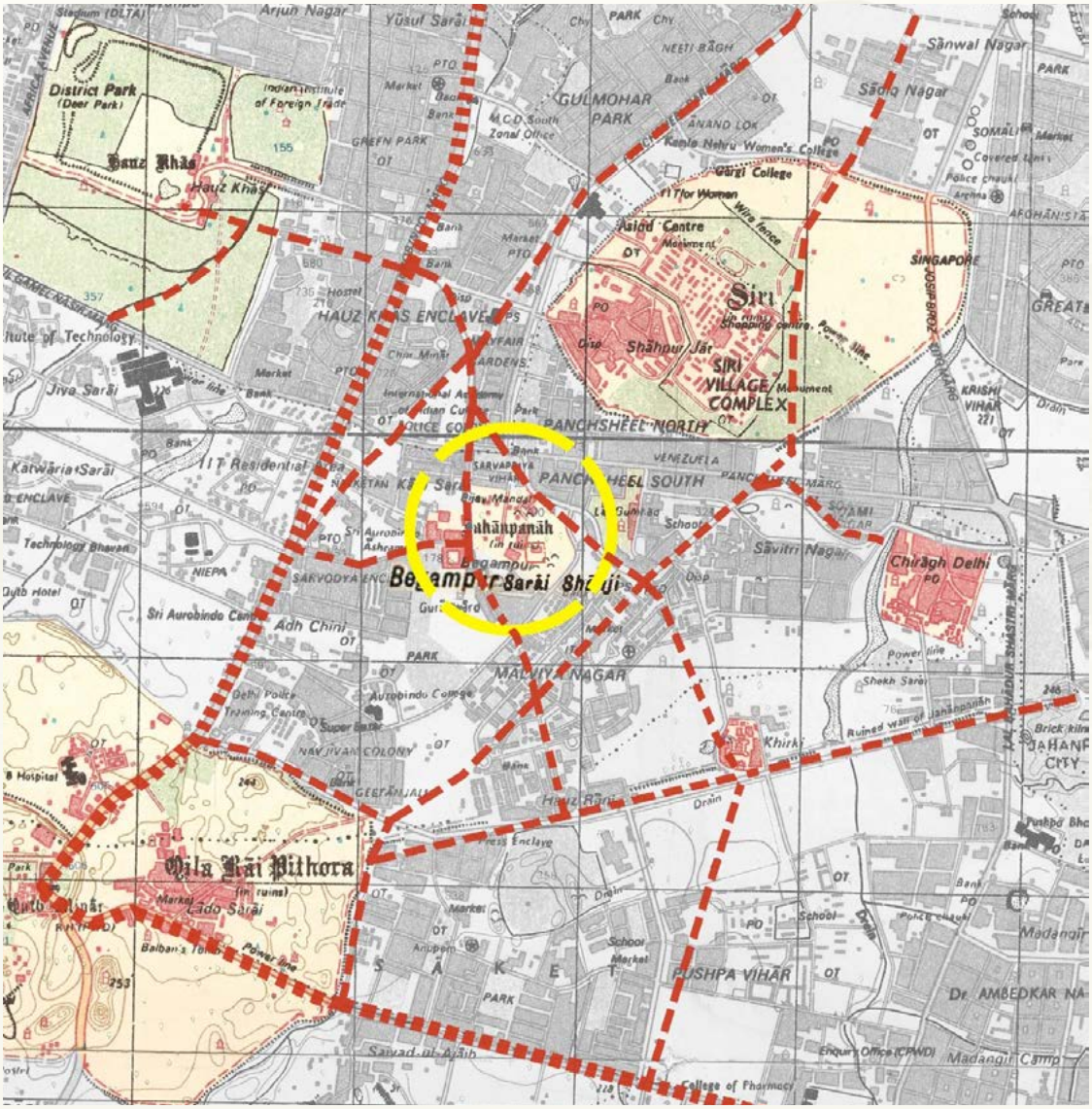


Figure V.II: Historic map showing Begumpur and Sarari Shaji, highlighting the historic routes and settlements in vicinity to the assessment area overlaid on the 1980's survey map of Delhi

The Sarai Shahji group of Monuments provide invaluable material evidence of the infrastructure associated with the advancement in trade and commerce during the Mughal Period. The Sarai Shahji denotes a distinctive typology of Mughal 'Sarais' belonging to the Jahangiri Period (1605-1627 A.D) which is very unique. It is also the resting place of a very significant figure who had played an important role in the suppression of Prince Khusrau's revolt and changed the course of history of the Mughal empire.

Significance of Lal Gumbad Group of Monuments

The Lal Gumbad group of monuments consist of the group of monuments located towards the North Eastern section of the assessment area. The most significant among them is the Lal Gumbad complex which includes ruins of tombs, two walled enclosures, several wall mosques, grave platforms and gateways.

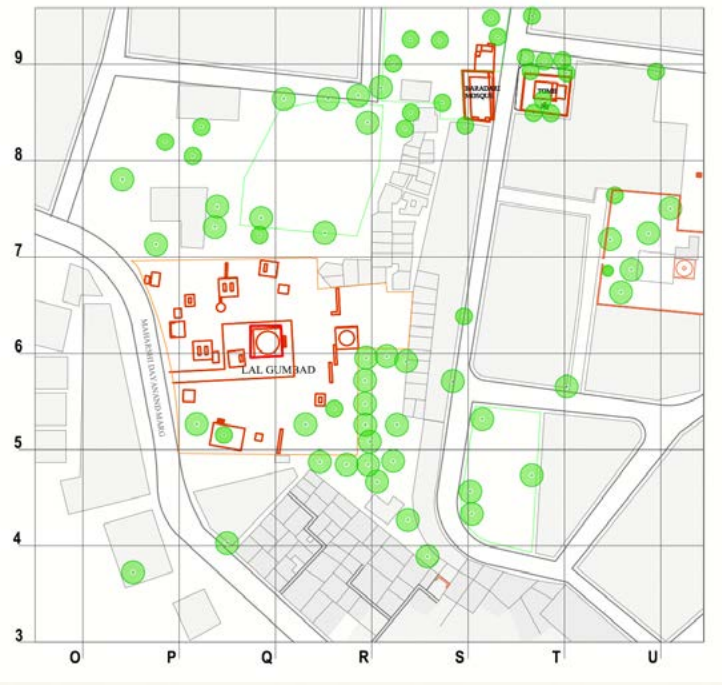
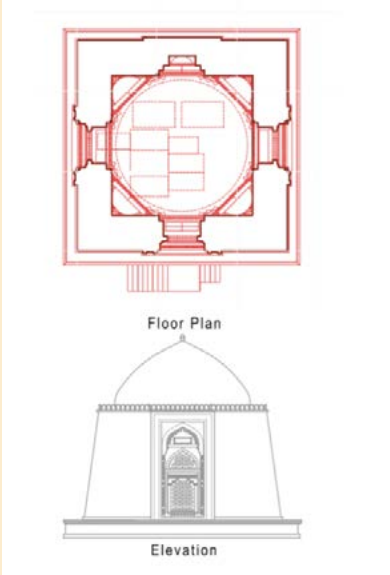


Figure V.IX: Historic and present day Plan of the Lal Gumbad Group of Monuments

The main red sandstone building is the tomb of Sheikh Kabirud- din Auliya who was a disciple of Sufi saint Roshan Chiraghe- Delhi. The tomb was constructed in 1397.

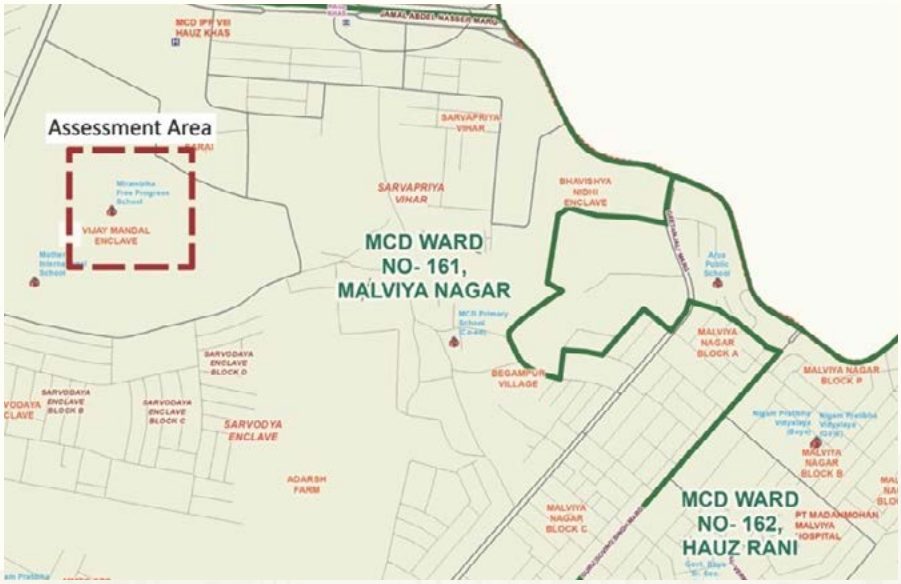
STATEMENT OF SIGNIFICANCE

The Lal Gumbad group of Monuments are material evidence of the regional development in the tomb architecture in over two centuries starting from the Tughlaqs to the Lodi's.z

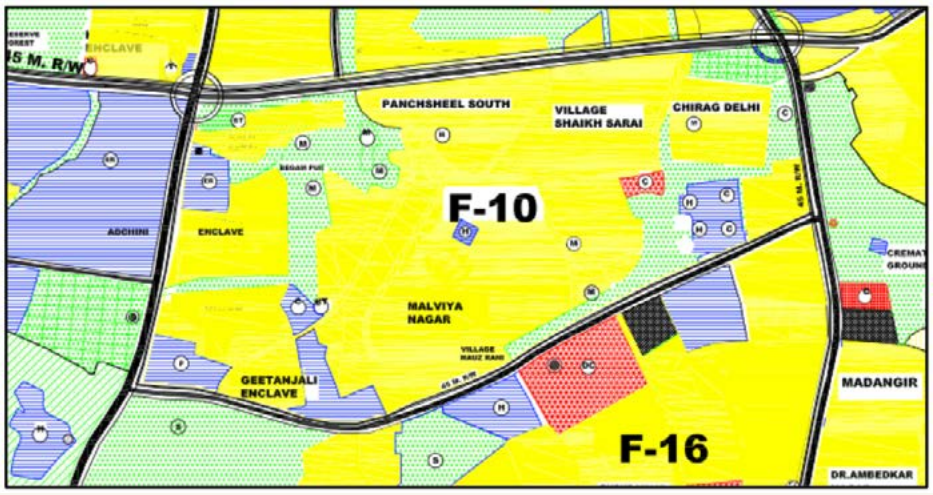


The Lal Gumbad group of Monuments are material evidence of the regional development in the tomb architecture in over two centuries starting from the Tughlaqs to the Lodi's.

Today, Begumpur and Sarai Shaji are located within the Malviya Nagar Ward no 161 of MCD. It comes in Zonal Plan for the Zone F-10 and is indicated as a mixed-use zone. The main connectivity is from Outer Ring Road. There are many three DDA parks in very close vicinity to the proposed site. Due to its prime location the area around has become a very prime piece of real estate especially from last few decades.

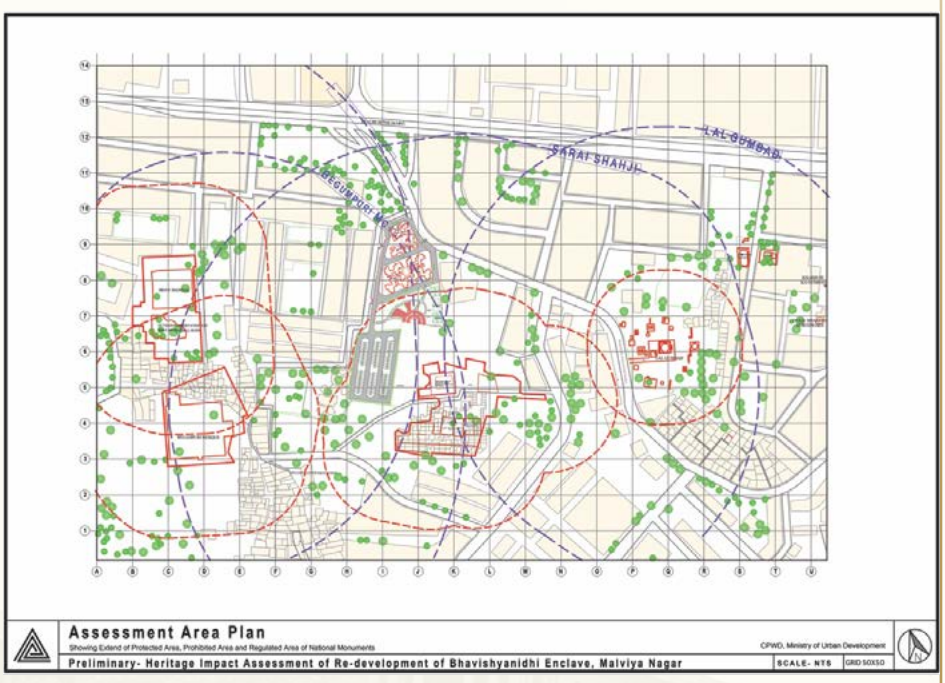


Large scale unauthorized development can be found within the surrounding areas and even within the protected area boundary of monument No. 265 Group of Monuments (Sarai Shahji) and No. 270 Begumpuri Mosque. This insensitive development has caused tremendous deterioration in the surroundings of the protected heritage resources, as well as damage to the monument. A number of remains of the walled enclosure of Sarai Shahji which were measured and drawn at the time of its nomination are not traceable today.



VI. PROJECT DETAILS AND DESCRIPTION OF THE CHANGES/ DEVELOPMENT PROPOSED

Proposed Project for Re-Development for Bhavishya Nidhi Enclave, Malviya Nagar



The proposed site is located to the south of Ho Chi Min marg and its irregular southern boundary is at a distance ranging from 37m to 44m from the northern edge of Protected Area of Monument- No.265/130. The site is 187M north-east of the Protected Area of Monument- No.279/47 and 286M east of the Protected Area monument- No. 272/67. It is 304M west of the Protected Area- No. 262/131. The project site boundaries lie within the Regulated Area of two monuments i.e. No.265/130 and No.265/130, and the southern half of the site lies within the Prohibited Area of No. 265/130.

There are two monuments No. 258 & 259 protected under the Department of Archaeology located to the north-east of the site. The two monuments are notified on 11th August, 2009, Baradari Mosque and Tomb respectively.

Re-Development for Bhavishya Nidhi Enclave

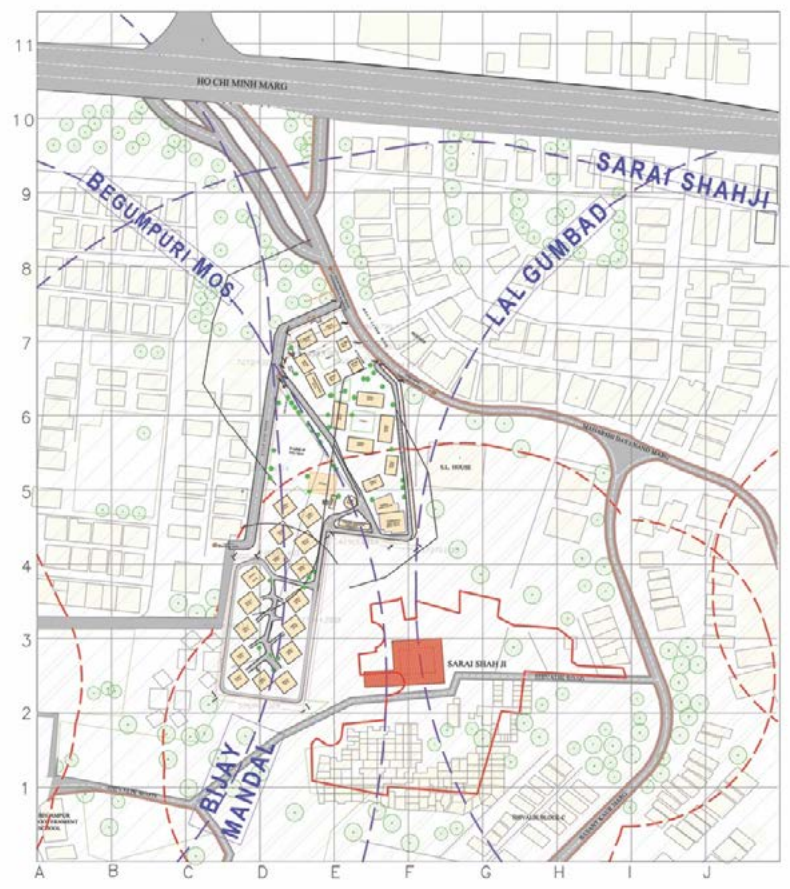
OWNER : Employees provident fund organization (EPFO)

Head office, 14, Bhikaji Cama Place, New Delhi

CPWD is authorized by the owner for Redevelopment of Bhavishya Nidhi Enclave at Malviya Nagar, New Delhi

DISTANCE FROM MAIN MONUMENT: 37M-44M due to irregular boundary wall

NO CONSTRUCTION WITHIN 100M PROHIBITED AREA



Nature of the work Proposed

Redevelopment for Residential Accommodation for People in Government Service: Re-development of the Existing residential colony for the residents intended to accommodate more number of residents, and increase the green area at the ground level. The new development be constructed post the demolition of existing quarters on site.

Rationale for Development





Re- Development for Bhavishya Nidhi Enclave

Nature of Work Proposed Redevelopment Proposed to Improve Poor Condition of The Existing Infrastructure & Services





Photographs showing the present state of the existing infrastructure on site,

- Poor condition of the existing infrastructure and services.
- Signs of deterioration visible on the facades of existing building in the form of major cracks and delamination of concrete finish exposing the reinforcement at a number of places.
- Government policy to provide improved residential accommodation to people in government services.
- Need to accommodate more number of Residential facilities for the CPWD, and the new development will cater to one and half times the present number.
- The new development proposes a huge green pocket which will enhance the character of the whole place.

Ownership

Government land allotted to Employees Provident Fund Organisation (EPFO) to accommodate people in Government service.

Proposed Housing project details

Name of Project: Redevelopment of Bhavishya Nidhi Enclave at Malviya Nagar, New Delhi; SH: C/o T-II(28 Nos.), T-III(28 Nos.), T-IV(28 Nos.), T-V(22 Nos.) Qtrs

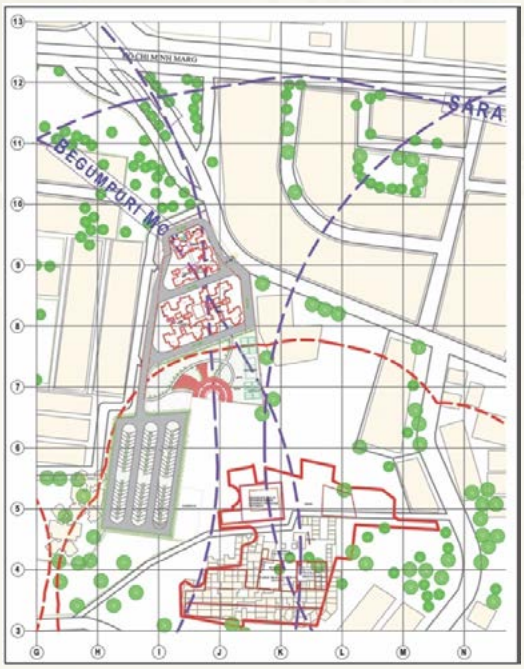


Figure VI.II.I: Plan showing the site and surrounding, Proposed development

Re-Development for Bhavishya Nidhi Enclave

The project site is 4.55 acres (1.84 Ha)

Total plan area covered = 1325.62 sqm

The proposed covered plan area = 2109 sqm

The number of proposed dwelling units are T-II(28 Nos.), T-III(28 Nos.), T-IV(28 Nos.), T-V(22 Nos.) Qtrs

The Project is likely to come at Bhavishya Nidhi Enclave, Malviya Nagar. Residential Colony is already existing at the proposed plot. There are already existing 128 Type-II and 8 Nos Type IV quarters which fall within the construction prohibited zone which shall be demolished when they have outlived their use, and the area will be utilized for landscaped park and surface parking facilities.

The new construction has to be done after demolishing the existing quarters as detailed below:

Type-III 4x8 =32 Nos (G+3), Plan area 4x166.167 = 666.68 sqm

Type IV 3x2 =6 Nos (G+1), Plan area 3x69.06 = 207.18 sqm

Type IV 3x2 =6 Nos (G+1), Plan area 3x114.64 = 343.92 sqm

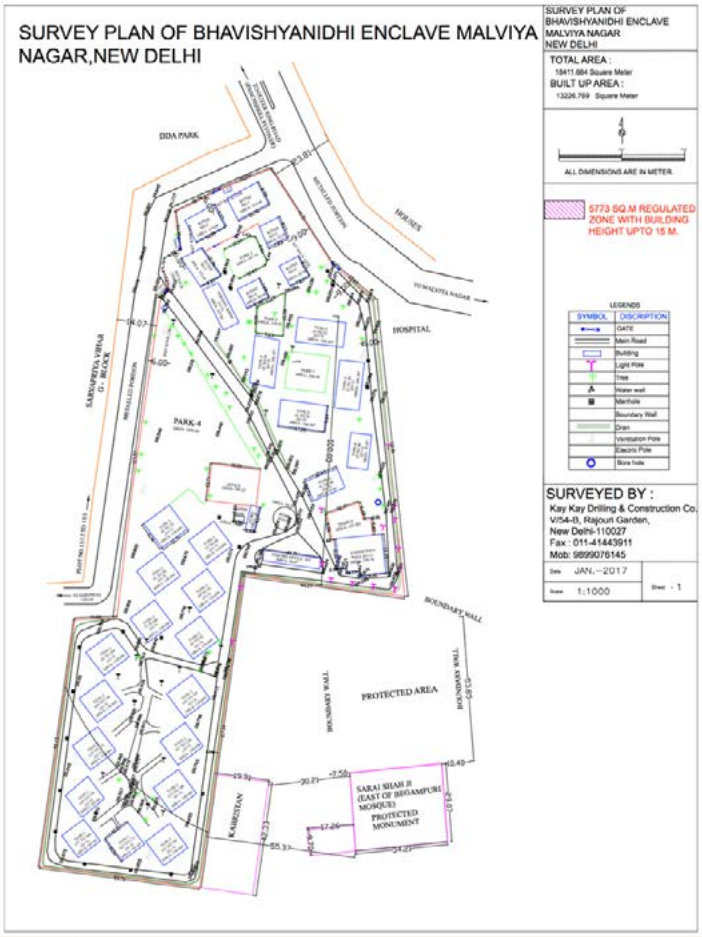
Servant quarters and garages = 1 Block double storied, Plan area 1x107.84 = 107.84 sqm

Total plan area covered = 1325.62 sqm

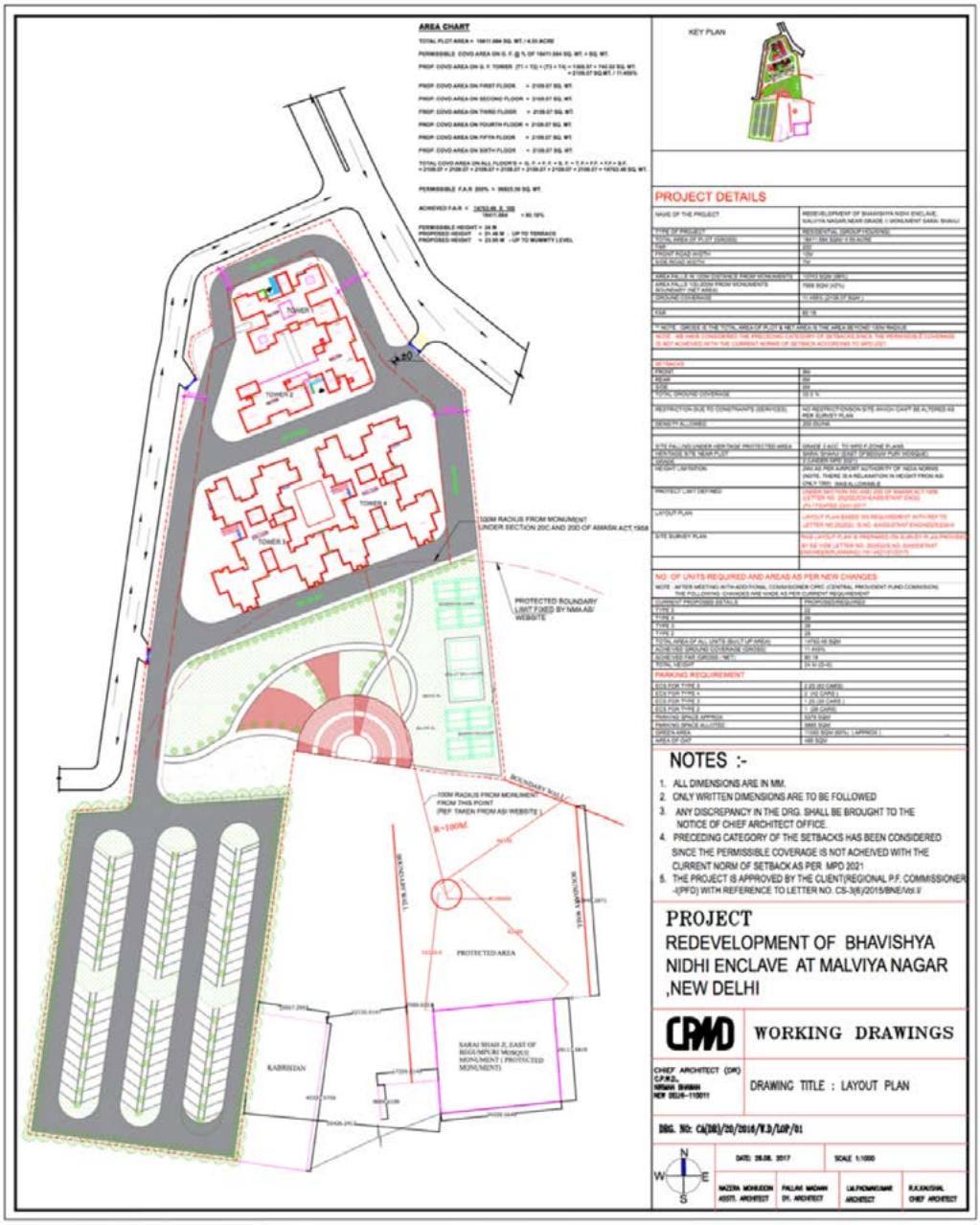
The proposed covered plan area = 2109 sqm

The number of proposed dwelling units are T-II(28 Nos.), T-III(28 Nos.), T-IV(28 Nos.), T-V(22 Nos.) Qtrs

Total Site Area- The project site is 4.55 acres (1.84 Ha)



Proposed ground coverage- The proposed ground coverage is 11.33% which is in complaisance with the present ground coverage of 19% on site. This clearly projects that the amount of green area within the site will increase considerably.



Proposed Green Area

Permissible FAR @ 200 i.e. 22080 sq.mt, Proposed FAR is 80.10 i.e. 12654 sq mt Therefore, the proposed FAR is much lower than the permissible FAR.

Number of Stories: Proposed height (Including roof structures)- 24 mt and No. of floors – G+6

Basement – Basement is not proposed for the project

Building classification and facilities provided: Total No. of Residential towers Four Towers– 4

Total No. of dwelling units

Residential Units- 106 TYPE-II(28 Nos.), TYPE-III(28 Nos.), TYPE-IV (28 Nos.), TYPE-V(22 Nos.) Qtrs

Landscaped open spaces at the ground level – Landscape plan

Revised Landscape plan and site plan drawings (appendix)

Present condition of the site surroundings

East: Maharshi Dayanand Marg on the North-East edge and Sarai Shaji Group of monuments on the South-East

West: Shivalik Apartments, 8 storey building and Sarvapriya Vihar plotted houses, 3-4 storey building

North: DDA Park Sarvapriya Vihar

South: DDA Park and Delhi Government School, 3 storey

Existing status of modern construction in the vicinity of the monument and the proposed site of construction/redevelopment

Maximum height of the existing building in the close vicinity: Shivalik Apartments: 8 stories



Figure VI.III.I: Shivalik apartments located in close vicinity to the project site

Modern construction inside the protected area boundary of the monument No. 265 Sharai Shaji- 2-5 stories

VII. ASSESSMENT AND EVALUATION OF OVERALL IMPACT OF THE PROPOSED DEVELOPMENT

Impact on Built Heritage- Notified Protected and other monuments

The likelihood of any possible impact both adverse or beneficial of the proposed project based on various identified attributes of the monument has been analysed on the basis of a five-point scale. On the other hand, the project already has a beneficial impact of generation of specialist knowledge regarding the heritage resources due to the requirements of a systematic heritage impact assessment.

Value of Heritage Asset/Heritage Asset	SCALE & SEVERITY OF CHANGE/IMPACT				
	NO CHANGE	NEGLIGIBLE CHANGE	MINOR CHANGE	MODERATE CHANGE	MAJOR CHANGE
No. 265, Group of Monumnets (Sarai Shaji), Malviya Nagar, HIGH VALUE					
Architectural		Minimal			
Archaeological	Neutral			Noticeable	Critical
Cultural		Minimal			
Landscape			Low		
Prohibited Area		Minimal			
Regulated Area			Low		

Value of Heritage Asset/Heritage Asset	SCALE & SEVERITY OF CHANGE/IMPACT				
	NO CHANGE	NEGLIGIBLE CHANGE	MINOR CHANGE	MODERATE CHANGE	MAJOR CHANGE
No. 270, Begumpuri Mosque, Begumpur, IGH VALUE					
Architectural	Neutral				
Archaeological	Neutral			Noticeable	Critical
Cultural		Minimal			
Landscape	Neutral				
Prohibited Area		Minimal			
Regulated Area		Minimal			

Value of Heritage Asset/Heritage Asset	SCALE & SEVERITY OF CHANGE/IMPACT				
	NO CHANGE	NEGLIGIBLE CHANGE	MINOR CHANGE	MODERATE CHANGE	MAJOR CHANGE
No. 272, Bijay Mandal, Malviya Nagar, IGH VALUE					
Architectural	Neutral				
Archaeological	Neutral				
Cultural		Minimal			
Landscape	Neutral				
Prohibited Area	Neutral				
Regulated Area		Minimal			

Value of Heritage Asset/Heritage Asset	SCALE & SEVERITY OF CHANGE/IMPACT				
	NO CHANGE	NEGLIGIBLE CHANGE	MINOR CHANGE	MODERATE CHANGE	MAJOR CHANGE
No. 262, Lal Gumbad, Sadhna Enclave, IGH VALUE					
Architectural	Neutral				
Archaeological	Neutral				
Cultural		Minimal			
Landscape	Neutral				
Prohibited Area	Neutral				
Regulated Area	Neutral				

Value of Heritage Asset/Heritage Asset	SCALE & SEVERITY OF CHANGE/IMPACT				
	NO CHANGE	NEGLIGIBLE CHANGE	MINOR CHANGE	MODERATE CHANGE	MAJOR CHANGE
State Protected Monuments, No. 4 Baradari, MEDIUM VALUE					
Architectural	Neutral				
Cultural		Minimal			
State Protected Monuments, No. 5 Unkbown Tomb MEDIUM VALUE					
Architectural	Neutral				
Archaeological	Neutral				
Cultural		Minimal			
Tughlaq Tomb/ Gurudrawara LOW VALUE					
Archaeological	Neutral				
Cultural		Minimal			
Kharbuze ka Gumbad LOW VALUE					
Archaeological	Neutral				
Cultural	Neutral				

Figure VII.I: Matrix showing the scale and severity of changes/impact due to the proposed project, and the significance of the effect or overall impact on the protected Area of the monuments and within their Prohibited and Regulated Areas.

Integration of the Proposed project with the monuments and its surroundings (3D Model + Section)

The proposed construction will have very minimal impact on the type of development presently existing on site (i.e. dense and medium rise) as the proposed construction is well integrated with the existing fabric.

The proposed project is consistent with the Master Plan and Zonal Development Plan of the area, proposed land-use is in conformity with the Master Plan. The proposed project will not alter the existing land-use. It is in consonance with stated Government of India Ministry of Urban Development Policy to provided increased accommodation for Government employees in state-of-the art Green, sustainable residential colonies.



Figure: 3D model of the site showing the Proposed project site and its surroundings



Figure: Section AB' showing the heights of existing development in close vicinity to the site

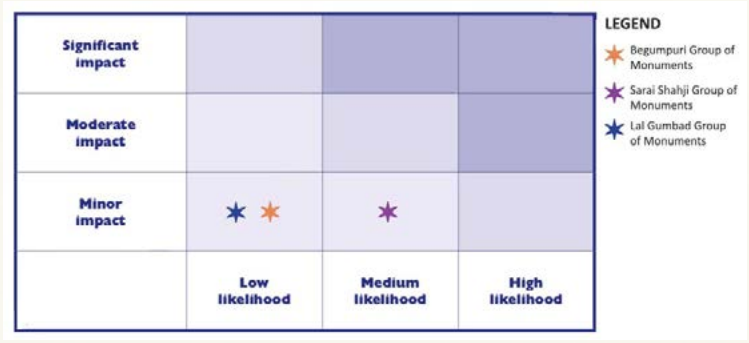


Table VII.I. Impacts on the monuments in close vicinity to the proposed site

IMPACT on Built Heritage

The open spaces and community facilities may experience a beneficial impact as the site adds a large open green (proposed green area in the southern half of site which is falling under the prohibited zone of monument No.265, Group of Monuments, Sarai Shaji).



Existing green belt behind the monument Sarai Shahji

Impacts due to Proposed activities (Such as open space, community facilities, intangible associations, disturbance to the local environment, etc)

The open spaces and community facilities may experience a beneficial impact as the site adds a large open green (proposed green area in the southern half of site which is falling under the prohibited zone of monument No.265, Group of Monuments, Sarai Shaji). The surroundings (Prohibited Area and Regulated Area) will have negligible or slight change for which mitigation measures are proposed. There will be no disturbance to the local environment or intangible associations. The open spaces and community facilities may experience a beneficial impact.

The area of site which falls within the prohibited area will be integrated into the network of planned and landscaped green areas at the ground level that would have a beneficial impact. Other infrastructure facilities such as transformers etc. are not located within the 'prohibited area' section of the site to avoid any slight to minor adverse impact to ensure compliance with the legal requirements.

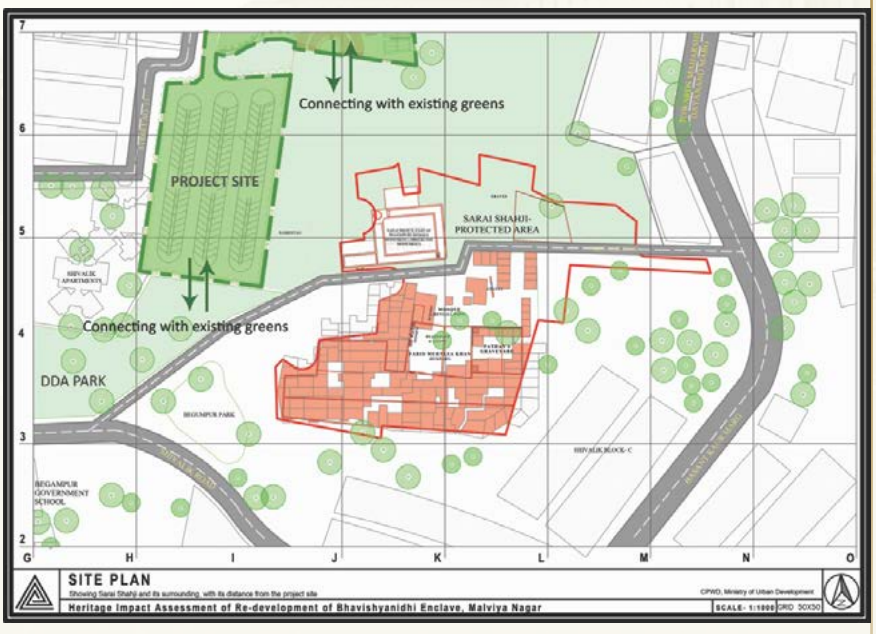


Figure. Showing the addition of open spaces to the existing open space network towards the southern half of the site

Impact on archaeological remains due to project excavations and on erosion, subsidence and instability of soil in the area.

MODERN CONSTRUCTI ON IN VICINITY OF THE MONUMENTS

Nature of Work Proposed Redevelopment Proposed to Improve Poor Condition of The Existing Infrastructure & Services



Construction within the protected area of Begumpuri Mosque



Lal Gumbad and its vicinity



Constriction within the protected area of Sarai Shahji

As per the soil investigation report submitted by the project proponent prepared by Kesari & Associates, New Delhi. at the time of construction of the existing housing on site, the site was levelled and filled for up to 4m. Therefore, there are very slight chances of finding archaeological remains in the site area whereas mitigation measures have been suggested for both the cases. Measure will also be taken to avoid kind of erosion due to the excavations. Hence, there is going to be minimal impact due to the project excavations in project site and its vicinity.

There is no change or negligible impact on the monuments due to the proposed project. The surroundings (Prohibited Area and Regulated Area) will have negligible or slight change for which mitigation measures are proposed. There will be no disturbance to the local environment or intangible associations. The open spaces and community facilities may experience a beneficial impact.

4. Impact on any other anthropological or archaeological sites or artefacts nearby All nearby monuments, artefacts, archaeological sites, built heritage in the vicinity of the site have been taken into consideration. There is no change or negligible impact of the proposed project on these identified heritage components.



Figure. Maps of (i) monument and the proposed site (ii) Surrounding heritage features of the proposed site (within 300 meters of the monument)

Impact on Natural Heritage

The proposed project will have a positive impact to the exiting natural heritage around the site.

Impact on the existing natural drainage system

Plumbing and Fire Services consultant, Behera and Associates was hired by the project Proponent and their proposal for site drainage reads as follows

"We will have proposed Modular Rain Water Harvesting. In general, the rain water from terraces and other open areas shall be collected through Rain water down take pipes and connected to catch basins. The Rain water from hard courts and landscaped area shall be collected by catch basins through a RCC pipe network with gratings and connected to the rain water harvesting pits in the complex and finally over flow from rain water harvesting will be led out to main Municipal Drainage." (Report recommendations in the annexure)

Therefore, this proposal will only have beneficial impact on the natural drainage of the site.

Impact on any kind of natural features or any existing subterranean water channels

The proposal will not alter the natural feature or any existing subterranean water cannels.

Impact on the water runoff characteristics of the surroundings

The water runoff from the site will be collected within the site itself in runoff collections drains and pits, and will be used for landscaping purposes. Hence, there will be no Impact on the water runoff characteristics of the surroundings.

Modification in the landscape plan is also requested as a mitigation to ensure the same. The modified landscape plan will ensure felling of lesser number of trees.

EXISITING NATURAL HERITAGE



Natural Heritage within the Protected area of monument No. 265



DDA Park, Sarai Shaji



Existing Vegetation on Site



Evergreen plant species in close vicinity, DDA park

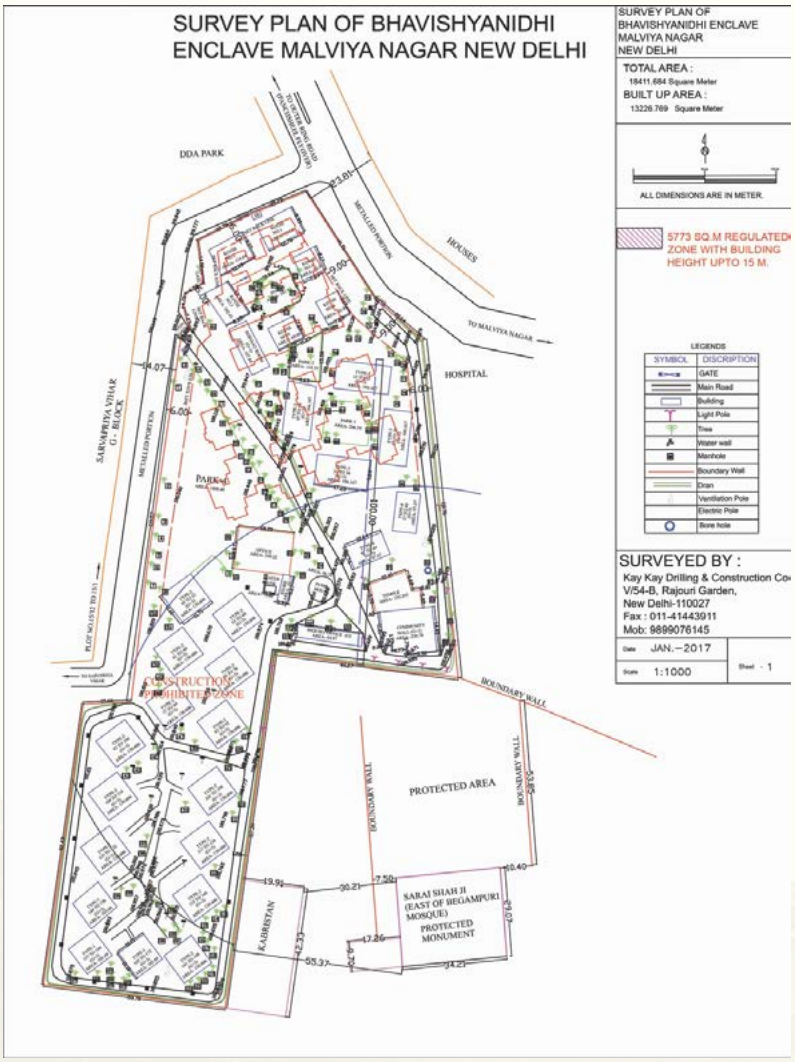


Figure. Showing the survey map of the number of existing trees on sitepreconstruction highlighting the trees which are being cut for construction previously and also after the revised landscape plan

Impact on ground water table

The water supply for the site is municipal water and no form of boring for water is proposed in the proposal. The proposal of large number of green pockets and rain water harvesting will lead to a beneficial impact on the ground water table.

Clearance from Ground Water Authority has been obtained.

SOIL INVESTIGATION REPORT

Kesari & Associates hired by the project proponent have untaken a through Geotechnical investigation and as per their study the site there is filled up strata on the site uptp 2.0 m to 3.0 m of present ground level.

This study indicates the upper layer of any archeological remains present on site has already been filled up at the time of previous construction and therefore the untouched portions (site edges) are the only potential sites.

VIII. MITIGATION MEASURES PROPOSED

Site specific Measures for the Project Site (Area within Regulated Area)

Compliance with AMASR (Amendment & Validation) Act, 2010 – Prohibited Area has been ensured and there will be no new construction on the southern half of the site that comes within the Prohibited Area of Monument No. 165.

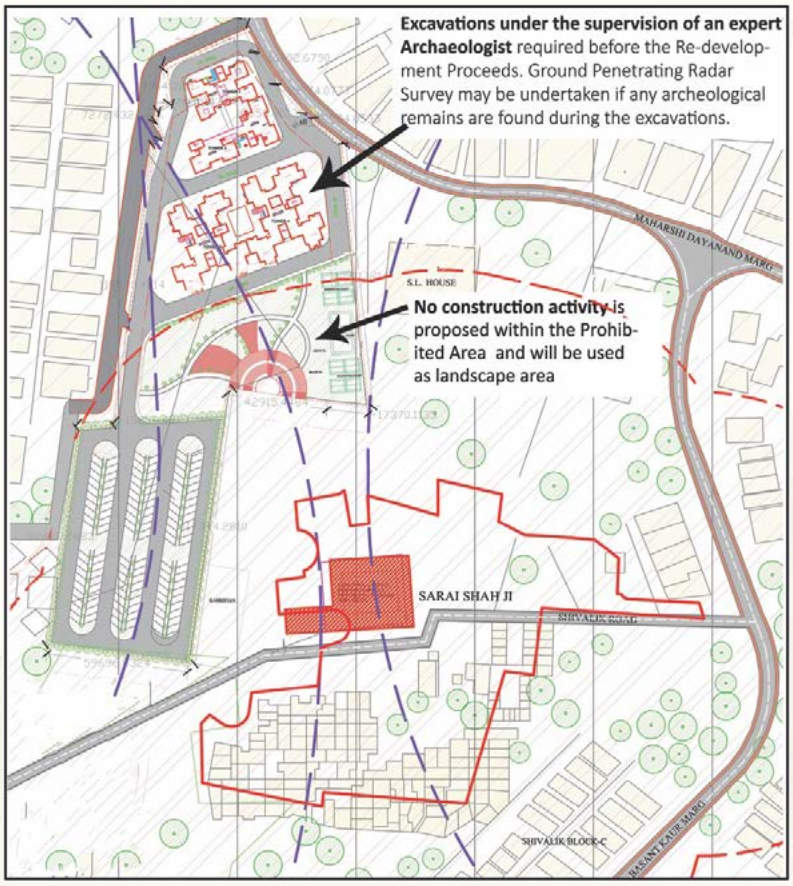


Figure VIII.I. Showing the proposed on site mitigation measures within the prohibited area of the Monument

The landscape plan will be revised, keeping in mind the heritage character of Sarai Shaji. Plan of tower 3 and 4 has to be redesigned to ensure that the southern corner of the tower does not overlap with the Prohibited Area of Monument No. 165.

The Project Proponent is in process of preparation of a revised Landscape Plan for the project site to ensure retention of maximum number of existing trees. The central road bisecting the first half of the site is to be avoided, this will also provide for a green pocket between the towers.

MITIGATION MEASURES

IT HAS BEEN ENSURED AND THERE WILL BE NO NEW CONSTRUCTION ON THE SOUTHERN HALF OF THE SITE THAT COMES WITHIN THE PROHIBITED AREA OF MONUMENT NO. 165.

REVISING THE LANDSCPE PLAN TO SAVE MORE NUMBER OF EXISTING TREES.

FAÇADE TREATMENT TO RESPECT THE HERITAGE CHARACTER OF THE MONUMENTS IN VICINITY TO THE SITE.

External elevation finish is to be changed to Random rubble textured panels in order to evoke the heritage character of the surroundings.

Based on the Geotechnical Investigation it has been found that the site has been filled up to up to 3.0m and therefore, Archeological investigation at the edges of the site maybe required and an expert archeologist should be involved. Excavations under the supervision of an expert Archaeologist required before the Re-Development Proceeds. Ground Penetrating Radar Survey may be undertaken if any archeological remains are found during the excavations.

Rescue and salvage of any archaeological remains and significant artefacts that provide information about the history of inhabitation of the site, and that are related to the monuments in the vicinity.

General Mitigation Measures Required

Encouraging the local commercial organization towards the use of Corporate Social Responsibility for upgrading the present state of heritage resources in the Assessment Area of the Monument.

- Management Plan for the Sarai Shahji group of Monuments keeping in mind the needs of the madrasa running within the protected boundary enclosure.
- Conservation Plan for individual heritage structures
- Connecting Heritage back to the people with the help of heritage trail linking all the underused network of open spaces within the assessment area of the project.

A number of unattended and derelict public open spaces are presently located around the site. The proposal is to link these open spaces which would enhance the overall character of the place.

Protection Integration and improvement, upkeep, maintenance of the open space networks including the parks and chowks associated with the monuments.

MCD to ensure action towards the open dumping of garbage heaps in open in front of the Monuments.

Monument/Asset Specific Measures

Ensuring the relocation of the unauthorized encroachments in the protected area boundary of the Protected Monuments.

Preparation of a Comprehensive Management Plan for the nationally protected and state protected monuments of Malviya Nagar.

IX. SUMMARY & CONCLUSIONS

Based on the third party assessment carried out by School of Planning and Architecture, New Delhi according to NMA guidelines and international norms, and in compliance with the requirement of the AMASAR (Amendment & Validation) Act, 2010, and related legal framework, Mitigation measures have been proposed to avoid, minimize and manage the identified neutral, minimal or low effects of the potential impacts of the proposed Re-development Project for Bhavishya Nidhi Enclave, Malviya Nagar on the protected and unprotected monuments including Nos, 258, 259, 262, 265, 270 and 272.

It has been ensured by the project proponent that there will be no construction in the southern half of the site which falls within the prohibited zone of monument No.265, Group pf monuments, Sarai Shahji in compliance with the AMASR (Amendment & Validation) Act,2010. The southern half of the site will be beautifully landscaped to avoid any adverse impact and ensure legal compliance. Site Landscape plan and façade finish has been revised so as to respect the heritage character of the surroundings.

Excavations for the new building will be done under the supervision of an expert Archaeologist and rescue archaeology of any archaeological remains and artefacts discovered will the undertaken by the project proponent.

Monument/Asset Specific Measures include the following:

- Ensure improved conservation and preservation measures and a comprehensive conservation management plan for the notifies and protected monuments such as the Sarai Shaji Group of Monuments and Lal Gumbad List of monuments.
- Check unauthorised, illegal and out of scale construction in the vicinity of the monuments through incentives such as Transfer of Development Rights.
- Improvement in the maintenance and upkeep of the centrally protected monuments identified under the study as most of these are currently in a bad state of preservation.
- Improvement in the upkeep and maintenance of the open space networks and parks located in close vicinity of the site, especially monument No. 265. Where heap of garbage is being thrown over the open space within the protected area boundary of the site.

ANNEXURES

No. 2/11/2011-W.II(CPWD)/EW-I
Govt. of India
Ministry of Urban Development
(Works Division)

Nirman Bhavan, New Delhi.
Dated: 30-03-2012

OFFICE MEMORANDUM

Subject: Setting up of Heritage Cell in CPWD.

The undersigned is directed to state that with a view to strengthen the activities in conservation and preservation of heritage buildings under the control of CPWD, it has been decided to constitute a Heritage Conservation Cell under the chairmanship of ADG(Arch.), CPWD consisting of the following members:

(i) Chief Architect (NDR) – Head of the Cell (Chairman)
(ii) Senior Architect (HQ)-II - Nodal Officer
(iii) Architect – 2 Nos. (to be nominated by Addl. DG(Architect)
(iv) Superintending Engineer (D), CDO
(v) Executive Engineer (C) 1 No. (To be nominated by CE (NDZ-I)
(vi) Executive Engineer (E) 1 No. (To be nominated by CE(E) NDR)
(vii) Asstt. Director (H) 1 No. (To be nominated by DOH)
(viii) Superintending Archeologist, ASI.

2. The objective, scope of work, role and responsibilities of the Heritage Conservation Cell are annexed.

3. This issues with the approval of Secretary, Ministry of Urban Development.

(J.S. Rawat)
Under Secretary to the Govt. of India.

To,

(1) ADG(Arch.), CPWD
(2) All Members concerned.

Copy for information to:

1. Secretary(UD), MOUD.
2. DG(CPWD).
3. AS(UD), MOUD.
4. JS(L&W), MOUD.
5. All ADGs in CPWD.
6. All Chief Engineers and Chief Architects in CPWD.
7. DDG(Pers.)/DDG(Works), CPWD.
8. Director(S&D), CPWD.
9. Director(Works), MOUD.
10. W-I Desk, MOUD

(J.S. Rawat)
Under Secretary to the Govt. of India.

List of Heritage Buildings under the jurisdiction/maintenance of CPWD

Updated upto 05/11/2012

New Delhi

1. Rashtrapati Bhawan
2. Parliament House

(Parliament Cell works vide letter no. CE/24(101)/PCWC/2012/1461 dated 20/8/2012) Page 1)

3. Building within the President Estate
4. Jaipur Column
5. North & South Block
6. Hyderabad House & Complex
7. Gandhi Sadan Smriti
8. Teen Murti House
9. Indira Gandhi Memorial
10. Vice President's House

(CE (NDZ)-I CPWD. No. 2(5)/2005-W1(B)Vol.VIII/845, dated 26/10/2012 Page no.2)

11. Jaipur House
12. Bikaner House
13. Faridkot House
14. Darbhanga House
15. Naval Officer Mess (Kota House)
16. Jaiselmer House
17. Patiala House
18. Bahagal Pur House

(B-W/SAIII/1/2012/548-549/ dated 14-5-2012). Page no. 3.

NCT of Delhi

19. Session House at North End Road
20. Press Building & DC Office at 5 Sham Nath Marg
21. Delhi Vidhan Sabha

(Letter no. 23(M-36) /EE(P)/MZ-3/1340-E dated 31-10-12 Page No.- 8)

Shimla Central Division -1

22. The Bemloe Cottages

23. Eddleston
24. Earnoston
25. Grand Hotel
26. Vice Regal Lodge
27 The Cedar
28. Railway Board Building
29. Kennnedy College Building
30. Clairmiount Building
31. Garton Castle Building

(CE(NZ-1)CPWD, 32/43/M/NZ-1/943/) page no. 4

Kolkata

32. Indian Museum
33. Asiatic Society
34. National Library
35. India Govt. Mint
36. G.S.I (HQ) Main Building
37. B.S.F (HQ) Office at Gurusaday
38. Pass port Office at Gurusaday
39. Pass port office at Ballygunge Place
40. Victoria Memorial Hall
41. Central Govt. Office at 5 Bsplanade East Kolkata.
42. Fort William

(CA(ER) 22(1) /2009-CA(ER)//ADMN dated 27-8-2012) page no. 5

Mumbai

43. Nav Bhavan
44. Scindia House
45. Exchange Building
46. Old Custom House

(letter no. Estt-91/CA/566 dated 31-10-2012)

47. New Custom House , Ballard Pier Mumbai
48. Nav Bhavan, Ballard Pier Mumbai
49. Exchange Building , Ballard Pier Mumbai
50. NOMA (CJ), Hall, Port, Mumbai

(24(54)/W S/MCD-1/2012/829 dated 20-1902012 Page no. 7)

Form I

(See rule 5)

Application for grant of permission for undertaking repair / renovation in the prohibited area and construction / reconstruction / repair / renovation in the regulated area of protected monument or archaeological site and remains declared as of national importance under the Ancient Monuments and Archaeological Sites and Remains Act, 1958

1. Name of the applicant :

2. Address of the applicant :
   (a) Present
   (b) Permanent

3. Name of the owner(s) :
   (if the applicant is other than the owner)

4. Address of the owner(s) :
   (a) Present address
   (b) Permanent address

5. Whether the property is owned by individual or jointly
   (furnish documents)

6. Whether the property is owned by Government/Public Sector Undertaking/Private Sector Undertaking/Firm (if so, details to be furnished with complete address and phone numbers) :

7. Locality of the proposed construction :
   (with full details plot number, etc.)

8. Name of the nearest monument or site :
   (a) Locality :
   (b) Taluk :
   (c) District :
   (d) State :
   (Enclose area map showing the monument and the site of repair / renovation / construction / reconstruction)

9. Distance of the site of construction related activities from the protected boundary of the monument:

(a) Distance from the main monument:

(b) Distance from the protected boundary wall of the monument:

10. Nature of the work proposed:
(Repair/renovation/construction/reconstruction, etc.)

11. Details of work proposed
(furnish complete details with drawings of building / structure)

(i) Number of storeys
(ii) Floor area (storey-wise)
(iii) Height (excluding mumty, parapet, water-storage tank, etc.)
(iv) Height (including mumty, parapet, water-storage tank, etc.)
(v) basement, if any proposed with details

(Enclose plan, section and elevation drawings of the existing building duly approved by the Building Plan Sanctioning Authority and proposed building plan with section and elevation in case of reconstruction. Enclose building plan, section and elevation of the proposed building in case of construction/reconstruction.)

12. Purpose of the proposed work :
(residential/commercial/institutional/public/community)

13 Approximate date of the commencement of the proposed works:

14 Approximate duration for completion of the proposed work:

15. Maximum height of the existing modern buildings in the close vicinity of -
(a) near the Monument:
(b) near the site of construction related activity:

16. Whether the monument is located within the limits of Municipal Corporation / Municipalities/ Nagar Panchayat / Village Panchayat

17. Does any Master Plan/zonal development plan/layout plan approved by concerned local authorities exists for the city / town / village:

18. Status of modern constructions in the vicinity of the monument and the proposed site of construction/reconstruction:

19. Open space/park/green area close to the protected monument / protected area:

20. Whether any road(s) exists between the monument and the site of construction/reconstruction:

21. Remarks/additional information, if any:

I .....declare that the above information is correct. I also undertake to observe the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958 as amended by the, the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010 and the rules made there under.

Place:

Seal of firm (if any)

Date: Signature of the applicant

Note:

1. If the application is on the behalf of the organisation/firm, the signature should be of the head of that organisation/firm.
2. Enclose photographs showing the monument and the existing modern constructions.
3. Google Earth Images of the area under reference showing the monument and the site of construction related activities.
4. Enclose ownership documents duly attested by an authorized officer of the Government.
5. In case of repairs/renovation a report from a duly authorised/licenced architect to be submitted by the applicant.

Form II

(See rule 10)

Forwarding of proposal from competent authority to the Authority for recommendation / approval for grant of permission for undertaking repairs/ renovation in the prohibited area and construction / reconstruction / repairs / renovation in the regulated area of an protected monument or archaeological site and remains declared as of national importance

1. Name of the applicant :

2. Address of the applicant :

   (a) Present
   (b) Permanent

3. Status of the ownership :

4. Whether the property is owned by individual or jointly / Government / Public Sector Undertaking / Private Sector Undertaking / Firm

5. Locality of the proposed construction, etc. :

6. Name of the nearest protected monument or protected area :
   (a) Locality :
   (b) District :
   (c) State :

7. Distance from the protected monument/protected area:
   (distance should be given from all sides)

8. Nature of the work proposed :
   (repair/renovation/construction/reconstruction)

9. Details of work proposed :
   (furnish complete details with drawings showing the nature of work)
   (i) Number of stories
   (ii) Floor area (storey-wise)
   (iii) Height (excluding mumty, parapet, water-storage tank, etc.)
   (iv) Height (including mumty, parapet, water-storage tank, etc.)
   (v) Basement, if any proposed with details

10. Purpose of the proposed work :
    (residential/commercial/institutional/public/community)

11. Status of maximum height of the existing modern buildings in the close vicinity of:
(a) near the Monument:
(b) near the site of construction related activity:

12. Whether the monument is located within the limits of Municipal Corporation / Municipalities / Nagar Panchayat/Village Panchayat:

13 Does any Master Plan/zonal development plan duly approved by the respective local authorities exists for the city/town/village:

14. Category of the Application:

15. Date of inspection of the site:
(by the Competent Authority or other designated officer)

16. Name & Designation of the site inspecting official:

17. Report of the inspecting official :
(Photographs, aerial view of the site to be submitted)

18. Assessment reports by Experts, if any:

19. Specific recommendations of Competent Authority:
(with three sets of the proposal)

Place:

Date: Signature of the Competent Authority
F.No.

SEAL

Form III

(See rule 12)

Grant of permission for undertaking repairs and renovation of building / structure located in the prohibited area of the protected monument or archaeological site and remains declared as of national importance under the Ancient Monuments and Archaeological Sites and Remains Act, 1958

Whereas, ...
.....
....., of .....has applied for permission for..... ....in the prohibited area near or adjoining ....at .... District....., State.....and has undertaken to observe the provision of the Ancient Monuments and Archaeological Sites and Remains Act, 1958 (24 of 1958) and rules made there-under, I, ..., competent authority, do hereby grant this permission on the basis of the approval/recommendation of the National Monument Authority, under sub rule (.....) of rule .....of the said rules to the said..... (name of the applicant)..... ..... for .....in the area indicated in red outline on the plan attached hereto.

The permission is granted subject to the provision of the Act and the Rules and is further subject to the following conditions, namely.-

1.
2.
3.

The permission is not transferable and it shall be valid for a period of three years commencing with .....day of .....

Station : Signature of the Competent Authority
Date :
F.No. SEAL

Form IV

(See rule 12)

Grant of permission for undertaking construction /reconstruction / repair/ renovation in the regulated area of protected monument or archaeological site and remains declared as of national importance under the Ancient Monuments and Archaeological Sites and Remains Act, 1958

Whereas, ...

Form V

(See rule 12 and 13)

Refusal of permission for undertaking construction / reconstruction / repair / renovation in the regulated area / prohibited area of protected monument or archaeological site and remains declared as of national importance under the Ancient Monuments and Archaeological Sites and Remains Act, 1958

To

.....
.....
.....

File No : ..... Dated : .....

Sir/Madam,

With reference to your application no.....dated..... .....for the grant of permission for the construction/ reconstruction / repair / renovation in the prohibited / regulated area of protected monument / archaeological site and remains declared as of national importance, plot no.....block no. ..... situated at.....
.....I am to inform you that the permission has been refused on the following grounds.

1.
2.
3.
4.

Station :
Date :

Signature of the Competent Authority

SEAL

THE FIRST SCHEDULE

[see rule 21 (1)]

Parameters for Preparation of Site Plan

While preparing a site plan for the protected area, the prohibited and regulated areas, the following parameters shall be adhered to and incorporated.

i) mapping of all structures in the protected area;

ii) mapping of all structures in the area under control of the Archaeological Survey of India and acquired area; and structures outside the protected area;

iii) clearly indicating protected area and area acquired or transferred to Archaeological Survey of India;

iv) mapping of all structures in prohibited and regulated area on plan;

v) other features like tank, embankment, mud fortification, remnants of ancient structures, etc., be shown;

vi) roads and pathways;

vii) open area;

viii) sewerage pipe lines, big open drains and more than one metre width, canals, etc.;

ix) water supply lines, water works, etc.

THE SECOND SCHEDULE

[See rule 22]

Parameters for Heritage Bye-laws :

The heritage bye-laws shall be framed on the basis of the site plan prepared for each of the prohibited and regulated areas of protected monuments and the following parameters, namely –

(i) Architectural, historical and archaeological value of the monument;
(ii) Sensitivity of the monument (e.g. developmental pressure, urbanization, population pressure, etc);
(iii) Visibility from the protected monument or area and visibility from regulated area;
(iv) Land-use to be identified;
(v) Archaeological heritage remains other than protected monument(s);
(vi) Cultural landscapes;
(vii) Significant natural landscapes that forms part of cultural landscape and also helps in protecting the monument from environmental pollution;
(viii) Usage of open space and constructions;
(ix) Traditional, historical and cultural activities;
(x) Skyline as visible from the monument and from regulated areas;
(xi) Vernacular architecture;
(xii) Developmental plan as available by the local authorities;
(xiii) Building related parameters-
  (a) Height of the construction;
  (b) Floor area;
  (c) Usage;
  (d) Façade design;
  (e) Roof design;
  (f) Building material;
  (g) Colour;
(xiv) Visitors facilities and amenities.

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Government of India
Ministry of Housing & Urban Affairs
Central Public Works Department

