



# SCHEDULE OF RATES **BUILT HERITAGE CONSERVATION**

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**2021**

TATA TRUSTS



AGA KHAN TRUST FOR CULTURE



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**BUILT HERITAGE CONSERVATION**

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## FOREWORD

The Tata Trusts, having worked for decades on preserving monuments in public spaces, initiated an exercise to prepare this document whose urgency lay in the lack of a Specifications Manual and Rates specific for conservation works in built heritage. In a country blessed with a built heritage that spans both time and styles of architecture, conserving this built environment is paramount: it defines the diversity that makes India, the differences that influence and enrich our culture and an understanding of how we live together.

Conservation of monuments in public spaces revitalises communities and usage of the commons. Conservation of heritage buildings and their continued or adaptive re-use is as vital in preserving an architectural style as it is in preserving environmental costs; and as climate change endangers buildings further, strengthening our built heritage to withstand these increased threats is becoming urgent.

While the Central Public Works Department (CPWD) publishes a specifications manual, with regular updates, related to modern construction works, the field of built heritage conservation does not have any benchmarked specifications or rates to serve as a guide for undertaking projects.

As projects in built heritage are on the increase around the country, the Trusts commissioned experts from the sector in partnership with the Aga Khan Trust for Culture, to prepare this document, that collates specifications of materials commonly used in conservation projects and lays down procedures for their correct usage keeping in mind traditional building materials, along with an analysis of rates. The manual focusses on materials such as Lime, Stone, Brick, Timber etc. and processes such as Flooring, Roofing and Landscaping.

The first of its kind in the field, we hope that this document will support future conservation projects and enable decision makers – officials, donors, corporates, contractors, as well as younger conservation architects entering the field, and government agencies embarking on projects – and serve as the starting point for establishing standards in built heritage conservation. India is a land with two millennia worth of processes and materials, and we hope the document will grow in the future with contributions from practitioners in the conservation of built heritage.

**Ratan N. Tata**  
Chairman, Tata Trusts





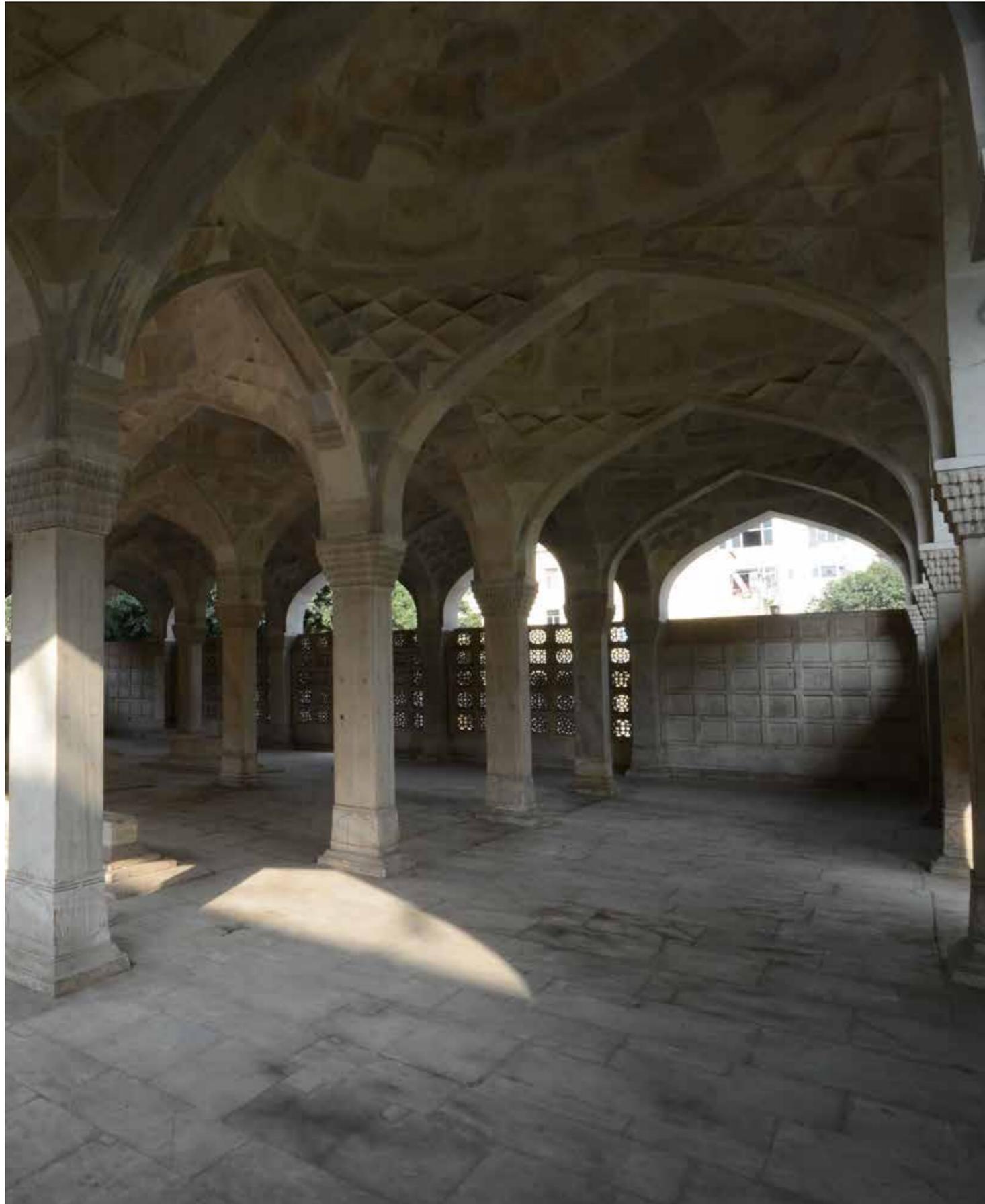
## EXECUTIVE SUMMARY

India boasts of an ancient civilization and though less than 10000 historic buildings are protected across the country, it can be estimated that over a million historic structures still stand across the country. By comparison over 650,000 heritage buildings are protected in the UK and an estimated 30,000 in New York city alone.

The Archaeological Survey of India protects 3675 monuments to be of national importance while a similar number are estimated to be protected by the State Governments across the nation. A few thousand structures are also 'listed' by urban municipalities such as in Delhi, Mumbai, Hyderabad, amongst others. Several thousand heritage buildings, though not protected for their heritage value are in the care of government agencies such as the Central Public Works Department, most are thus in private ownership – where there is little advice and no incentives to retain their historic architecture and character.

Traditionally, our built heritage was cared for by a team of craftspeople under the leadership of a master craftsmen, who were well versed in the use traditional tools, techniques and materials. However, from the 20th century these roles were replaced by supervising engineers, archaeologists and architects, often unfamiliar with traditional building materials and techniques and thus using inappropriate practices or materials in the conservation process. In recent decades, with the lack of opportunities and respect, the availability of skilled craftspeople has further declined, posing a significant challenge to built heritage conservation.

In 2007, following the successful completion of the Garden Restoration of Humayun's Tomb, the Archaeological Survey of India requested the Aga Khan Trust for Culture to undertake the conservation of the Humayun's Tomb as well as several monuments standing within the larger Humayun's Tomb – Sunder Nursery – Nizamuddin Basti area. Soon thereafter, the Tata Trusts agreed to support the conservation effort at the Humayun's Tomb. In 2013, on the completion of the conservation effort at Humayun's Tomb, the Tata Trust lent support to AKTC's conservation effort at the Qutb Shahi Heritage Park, Golconda, Hyderabad. 50 years after independence, conservation of India's built heritage had become a national priority and over the past 25 years, conservation effort nationwide have been supported by government, corporates, national and international trusts, private philanthropists, amongst others. Yet, the costs, impact and quality of works have varied and on occasion well intentioned efforts have compromised the significance of historic buildings. The Tata Trusts have supported a wide range of conservation projects and have often been approached for guidance on costs, quality, process to be followed – by officials and corporates. In 2014, the Archaeological Survey of India notified the new National Policy for Conservation, laying emphasis on the continuation of building craft traditions in India and aligning conservation practice to the Indian context while respecting established international principles. While this policy is definitely a bold new step, the lack of an established standard for conservation has led to varying approaches in conservation, with well-meaning efforts often leading to further damage and deterioration. Even within ASI



conservation works undertaken in different circles have varied considerably in use of material and costs. To facilitate conservation effort and provide a template for officials, donors, contractors, conservators, an effort to write a sequel to the CPWD Schedule of Rates was required. This manual includes detailed Technical Specifications, associated Schedule of Rates and also the Analysis of Rates to enable a systematic approach to conservation; just as the existing specifications of the Central Public Works Department do for modern construction. To ease understanding of this manual, it includes several case studies that serve as examples of the conservation works undertaken by the Aga Khan Trust for Culture in Delhi and Nizamuddin as well as those provided by independent conservation practitioners who advised on this effort.

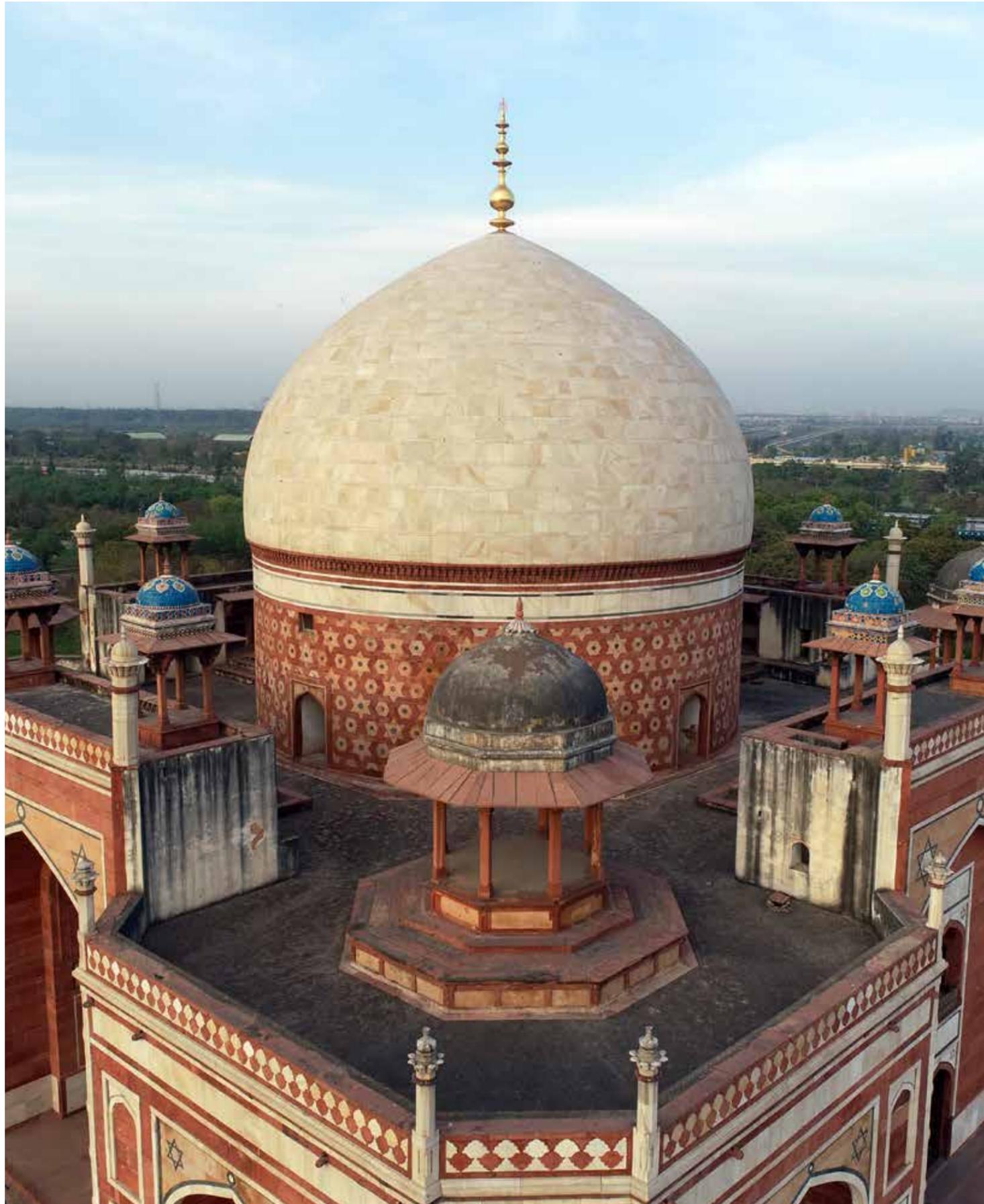
The specifications build upon data collected across geographical areas from the Archaeological Survey of India, State departments of Archaeology, the Indian National Trust for Art and Cultural Heritage and several independent practitioners. Prepared by an inter-disciplinary team including engineers, conservation architects, conservators, craftsmen, architects, conservators, archaeologists, amongst others established at the Aga Khan Trust for Culture's Delhi office

Over the past year, specifications, rates were sought and independent experts, officials from ASI, State Departments of Archaeology and CPWD reviewed the documentation at regular intervals. A review workshop held mid-way through the exercise allowed practical challenges, aspirations of conservation professionals and responsible officials and institutional preferences to be incorporated in the effort. While this will be of much use in a large part of the country, envisioned as a dynamic document, the manual as yet does not address the needs of heritage buildings in areas of the country with unique building traditions such as with mud, wood or bamboo, amongst others. It is hoped that the Central Public Works Department will incorporate this within their own Schedule of Rates and thus build upon this exercise and update it at periodic intervals, incorporating additional specifications, analysis of rates, case studies and guidelines for conservation. In any case for many heritage buildings this manual will need to be read in conjunction with the existing CPWD DSR as for heritage buildings in use, modern additions and infrastructure is also required to be provided.

This manual is meant for the use of conservation professionals, who can include site specific redressal of problems as will be required, for many items of work of similar nature. They will be able to use sound practices based on standard specifications that will be crucial to maintaining quality of works.

It is hoped that the compilation of these standards and practices will enable an enhanced level of implementation of conservation works in the country, empowering both public and private owners of heritage buildings in conservation decision making, and widening available expertise in the conservation effort. It is estimated that in the UK, 55% of the construction industry budgets are utilized on conservation of their 650,000 protected heritage buildings in turn meeting several of the Sustainable Development Goals and reducing carbon emissions and environmental impact of building anew.

Ashok Khurana, Director General, Central Public Works Department (Retired)  
Rajpal Singh, Chief Engineer, Aga Khan Trust for Culture



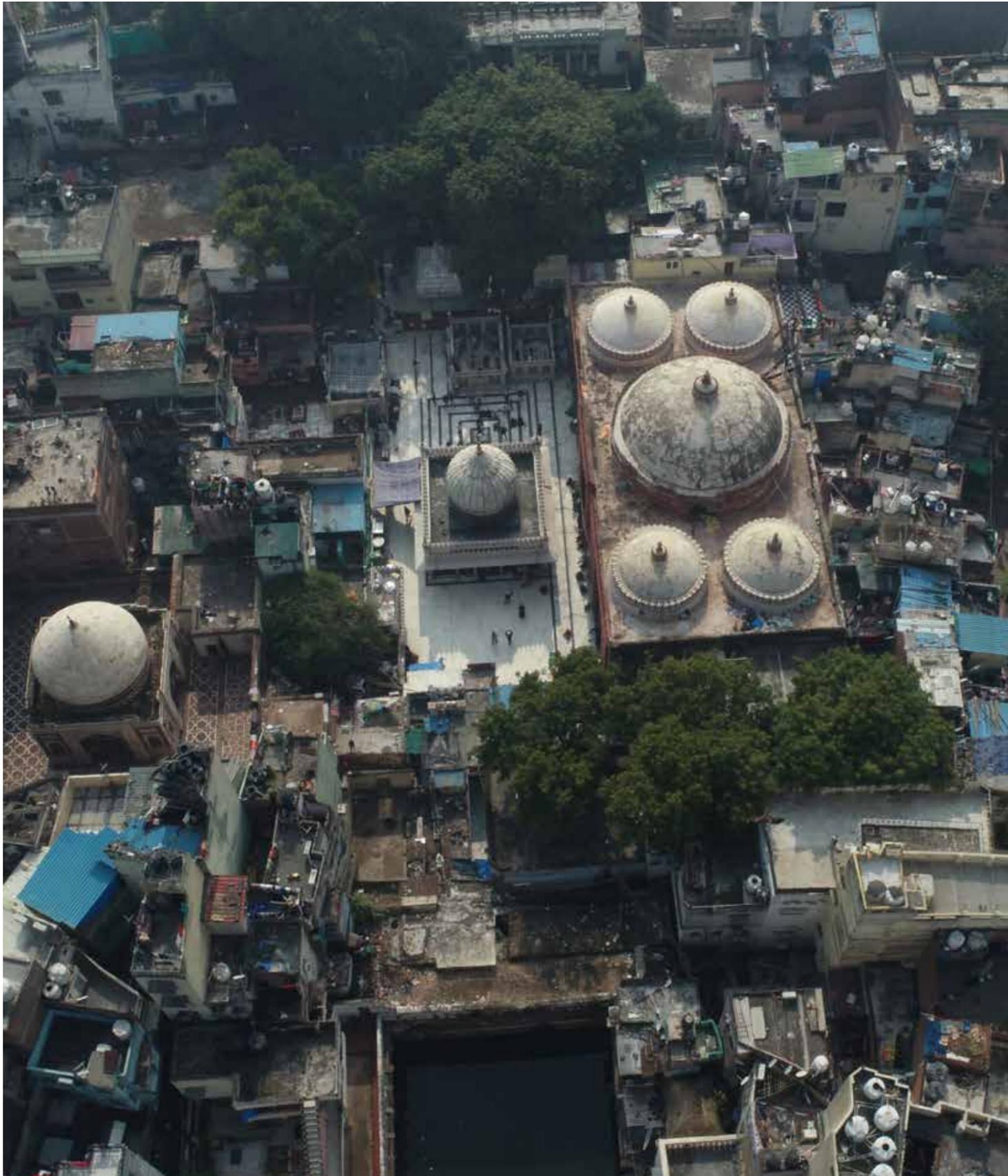
## ACKNOWLEDGEMENTS

To produce a document such this, involving material specifications and standardisation of rates, was to embark into as yet, unrecorded terrain in the field of built heritage. While it was apparent to us this was necessary as we examined proposals and projects with no benchmark to refer to for guidance, we could not have taken this up without the support and understanding of both the Trustees at Tata Trusts and the team of experts who agreed to take this on. One understood the need, the other enabled the technical thoroughness needed.

We hope this manual will be taken up by a government body and be annually updated, so as to catalyse the field of built heritage - an enabling document for several agencies to use in conserving our country's vast and myriad built heritage. It is not a final say on the subject; as the years go by we hope it will be added to, further strengthening the document by recording materials and processes that vary from region to region, many particular to our country. This initial step has been taken; the path ahead, hopefully cleared, using the guidelines and standards, for re-opening many more mindfully conserved heritage sites for public usage.

I would like to extend my thanks to the Trustees at Tata Trusts and to Mr. Ashok Khurana (former Director General Central Public Works Department) for leading the project; Dr. R.C. Agrawal (former Joint Director General ASI; and the team at Aga Khan Trust for Culture (AKTC) - especially Mr. Ratish Nanda, CEO who anchored all, Mr. Rajpal Singh, Chief Engineer AKTC, Mr. K R Bhandaria, Engineer – in – Charge, AKTC and Ujwala Menon, Senior Program Manager AKTC - who through difficult times, illness and several lockdowns, persevered in collating data, rigorously documenting and checking all collected and conducted peer reviews to record this manual. To all the architects, engineers, designers and photographers who worked on this together, co-ordinating site visits and meetings through the pandemic restrictions, our gratitude. I would like to thank my colleague Paroma Sadhana, Programme Officer, Arts and Culture, Tata Trusts, who shared in the enthusiasm in bringing this to fruition, and was especially diligent in keeping all on track.

Deepika Sorabjee  
Head – Arts and Culture  
Tata Trusts



## ACKNOWLEDGEMENTS

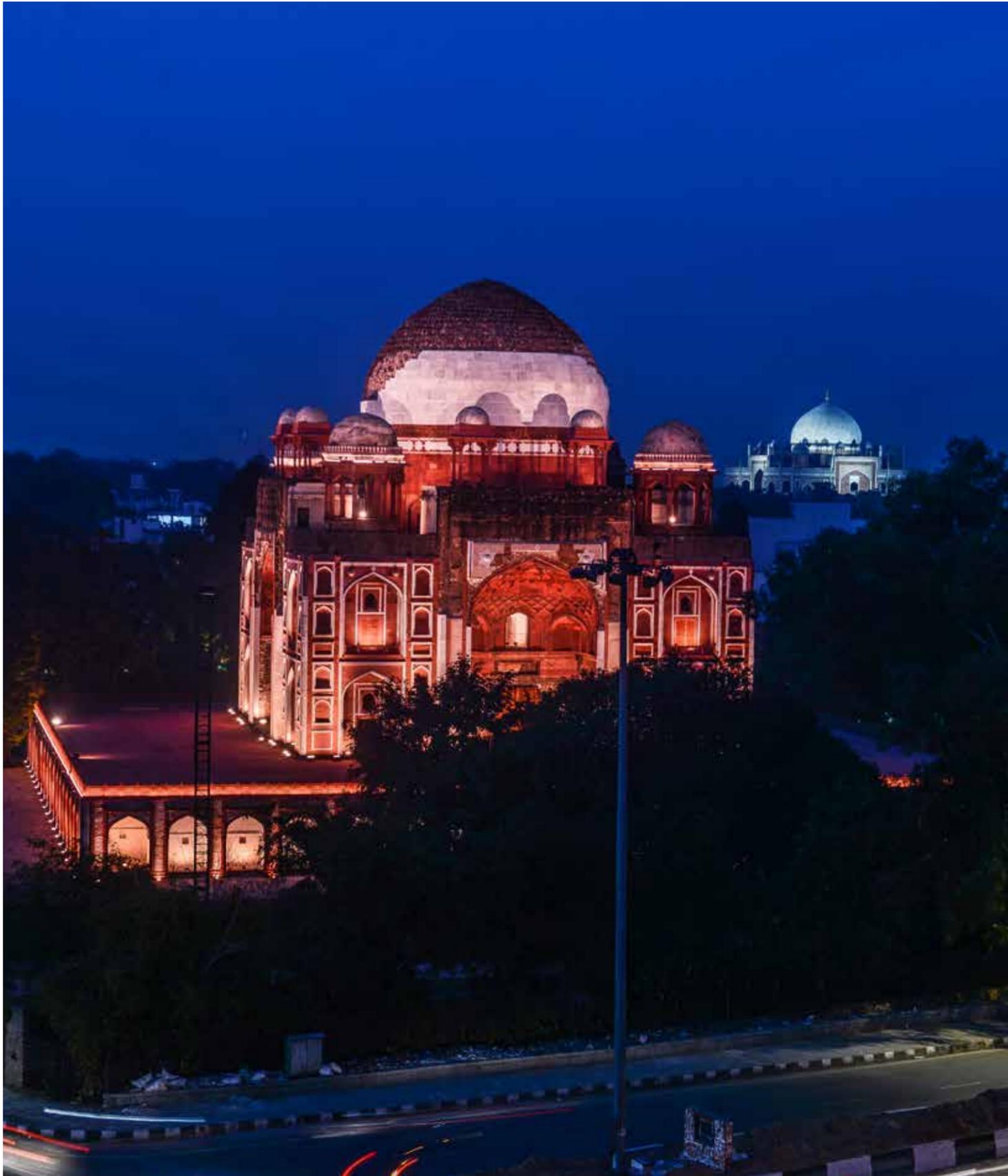
At the end of 25 years of conservation effort at Humayun's Tomb – Nizamuddin Basti – Sunder Nursery area of Delhi and a decade long effort at the Qutb Shahi Heritage Park, Golconda, Hyderabad – both undertaken by the Aga Khan Trust for Culture with the support of the Tata Trusts - this manual attempts to benchmark traditional material preparation and costs of undertaking conservation works in an effort to aid, facilitate and encourage similar conservation effort at countrywide heritage sites.

For a mammoth effort such as this, acknowledgments are due to several individuals, not all of whom can be named. This is especially true as this effort builds upon over 25 years of implementing conservation effort at the Aga Khan Trust for Culture in partnership with the Archaeological Survey of India as well as with the Department of Heritage at the Government of Telangana and has thus been indirectly informed by several officials and former colleagues.

We are grateful that the CAG audit of the Archaeological Survey of India in 2013, the Parliamentary Committee on Tourism & Culture in its report of July 2021 as well as the PMO appointed committee on 'Improving Heritage Management in India' in May 2020 Chaired by Shri Amitabh Kant, CEO, NITI Aayog, all noted the variation in the quality of conservation works being undertaken in India and emphasised the urgent need to prepare detailed specifications for conservation works along with analysis of rates.

First and foremost, I am grateful that Mr Ashok Khurana understood and envisaged the need to prepare specifications, analysis of rates, guidelines for conservation and pursued this with officials of the Ministry of Housing & Urban Affairs as well as Ministry of Culture, Central Public Works Department and the Archaeological Survey of India. He consistently provided leadership and guidance for this effort.

Mrs Usha Sharma, IAS, former Director General, ASI; Mrs V. Vidyavathi, IAS, Director General, ASI; Mr Janhwij Sharma, Additional Director General, ASI; Dr M Nambirajan, Joint Director General; Mr N K Pathak, Director (Monuments), ASI as well as Superintending Archaeologists of several ASI circles from countrywide locations have been generous in their support and making ASI material available for incorporation in these specifications. At the ASI special thanks are due to Mr. R S Jamwal, Former Director (Conservation) who has independently reviewed the specifications



and provided valuable insight into conservation practices followed by the Archaeological Survey of India across its many sites. Also to Mr Sunder Paul, Superintending Archaeological Engineer, ASI who actively participated in the review workshops and provided valuable guidance.

At the Ministry of Housing & Urban Affairs, Mr Kamran Rizvi, IAS, Additional Secretary (Works) and Mr. Ved Prakash, IRSE, Joint Secretary (Works), enthusiastically supported the effort and enabled active involvement of CPWD officials in the periodic review of this manual. Mr Vinayak Rai, Chief Engineer, CSQ (Civil), CPWD deputed Mr D S Adhikari, AE, CPWD, to inform and periodically review the work and his inputs helped align this effort with the CPWD DSR.

At the Delhi Government, Mrs Swati Sharma, IAS, Secretary, Art, Culture & Language and Mr. Mohammed Ahsan Abid, Special Secretary, Government of National Capital Territory of Delhi both saw value in the exercise and in addition to their involvement ensured engineers and finance officers responsible for the Department of Archaeology were both involved in discussions.

At the outset of this exercise, several independent Conservation Architects generously shared specifications, case studies and schedule of rates they have prepared and used for undertaking conservation projects across the country. We gratefully received valuable material from INTACH and I am grateful to Mr Divay Gupta, Director, Architectural Heritage Division for his additional inputs. Mr. Benny Kuriakose, Ms. Poonam Mascarenhas, Mr. Manish Chakraborti, Mr. Munish Pandit and Ms. Urvashi Srivastava, amongst others both generously shared original material and actively participated in an intense review workshop in September. Similarly, Mr Yogesh Kapoor, Landscape Architect provided the valuable inputs on behalf of Shaheer Associates from garden restoration projects they have been involved with including at Humayun's Tomb, Baghe Babur, Qutb Shahi Heritage Park, amongst others.

I am indebted to Mr. Benny Kuriakose, who, following the review workshop continued to guide and advice the team. His invaluable knowledge and guidance was instrumental in making this manual relevant to conservation practice in the Indian context.

At the Aga Khan Trust for Culture I have been privileged to work alongside an inter-disciplinary team. To undertake our projects, seek funds from donors such as the Tata Trusts, for 25 years we have had to prepare specifications and rates analysis. This enabled us to undertake this mammoth effort on the request of the Tata Trusts. Since the beginning of our involvement in India, Mr Rajpal Singh, AKTC Chief Engineer has personally prepared these and has made exemplary effort for the present effort. He has been ably supported by Mr K R Bhandaria, Project Engineer, who joined the effort on his retirement from CPWD.



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On behalf of AKTC, Ms Ujwala Menon, Senior Project Manager, AKTC ably led the team and coordinated the effort; she was assisted by Ms Nishtha Goel, Architect. I am grateful that Conservation Architect, Ms Bhawna Dandona joined the effort and focussed on preparing the technical specifications; she was assisted by architects Ms Prashansa Sachdeva, Ms Mrinalini Singh. This work has been possible with the sincere efforts of Mr Rajpal Singh, Mr K R Bhandaria, Ms Ujwala Menon and Ms Bhawna Dandona.

Significant inputs were provided by Dr R C Agrawal, Former Joint Director General, ASI, Mr N C Thapliyal, also formerly at ASI. At AKTC Conservation Architects Prashant Banerjee, Neetipal Brar, Aishwarya Das, Maanvi Chawla and engineers Mr M P Mishra, Mr Nikul Kumar, amongst others also contributed to the effort. Photograph and layout was carried out by Mr Narendra Swain and Mr Rinkesh Rana respectively.

Finally, this effort would not have seen the light of day without the deep understanding of the need in India for a material specifications and standardisation of rates for conservation by Ms Deepika Sorabjee, Head, Arts & Culture, Tata Trusts. Deepika has been keen on art and heritage conservation and actively involved in this effort over the past three years, just as she has done so for the effort at the Qutb Shahi Heritage Park. Also at Tata Trusts, I thank Ms. Paroma Sadhana for her actively and patiently facilitating this mammoth project.

I would also like to take this opportunity to thank conservation professionals in advance for their future inputs to further develop this manual. This effort will only be valuable if it is incorporated into individual and institutional efforts and it is hoped the Departments of Archaeology across India, the Archaeological Survey of India and the Central Public Works Department will find this of value.

In Gratitude,

Ratish Nanda, CEO & Conservation Architect, Aga Khan Trust for Culture

<b>Basic Rate - Materials</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0286	Brick Aggregate (Single size) : 50 mm nominal size	cum	650.00
0287	Brick Aggregate (Single size) : 40 mm nominal size	cum	650.00
0293	Stone Aggregate (Single size) : 40 mm nominal size	cum	1,300.00
0295	Stone Aggregate (Single size) : 20 mm nominal size	cum	1,350.00
0296	Stone Aggregate (Single size) : 12.5 mm nominal size	cum	1,350.00
0297	Stone Aggregate (Single size) : 10 mm nominal size	cum	1,350.00
0302	Safeda ballies 125 mm diameter	meter	40.00
0308	Bhusa	quintal	500.00
0309	Paving bitumen of grade VG-10 of approved quality	tonne	25,614.00
0313	Blown type petroleum bitumen of penetration 85/25 of approved quality	tonne	34,000.00
0367	Portland Cement (OC - 43 Grade)	tonne	4,940.00
0368	White Cement	tonne	11,200.00
0370	Coal (steam)	quintal	440.00
0373	Cramp Gun metal 25x6x300 mm	each	80.00
0595	Bright finished or black enameled mild steel butt hinges 100x58x 1.90 mm	10 No.s	80.00
0597	Bright finished or black enameled mild steel butt hinges 50x37x 1.50 mm	10 No.s	49.00
0637	Bright finished or black enameled mild steel screws 40 mm	100 No.s	60.00
0640	Bright finished or black enameled mild steel screws 20 mm	100 No.s	30.00
0682	Oxidised mild steel screws 50 mm 100	No.s	76.00
0771	Kerosene oil	litre	50.00
0773	Unslaked lime	quintal	600.00
0775	Lime	quintal	600.00
0784	Marble dust/ powder	quintal	400.00
0785	Marble chips up to 4 mm and down size White & black	quintal	189.00
0788	Marble chips large size above 4 mm White & black	quintal	250.00
0811	Mud (dry)	cum	165.00
0823	Pink primer (for wood)	litre	105.00
0859	Oil type wood preservative	litre	130.00
0873	Copper pins 6 mm dia 7.5 cm long	each	10.00
0874	Black colour dark shade pigment	kg	70.00
0875	Red, chocolate, orange, buff or yellow (red oxide of iron) light shade pigment	kg	60.00
0876	Green or blue medium shade pigment	kg	56.00
0982	Coarse sand (zone III)	cum	1,350.00
0983	Fine sand (zone IV)	cum	900.00
0992	Galvanised steel plain sheets	quintal	5,000.00
1002	Mild steel round bar 12 mm dia and below	quintal	4,500.00
1003	Mild steel round bar above 12 mm dia	quintal	4,400.00
1007	Structural steel such as tees, angles channels and R.S. joists	quintal	4,600.00
1008	Flats up to 10 mm in thickness	quintal	4,500.00
1015	Mild steel expanded metal 20x60 mm strands 3.25 mm wide 1.60 mm thick	sqm	280.00
1021	Hard drawn steel wire fabric 75 x 25 mm mesh of weight not less than 7.75 kg/sqm	sqm	430.00
1034	Bolts and nuts up to 300 mm in length	quintal	4,800.00

Code No.	Description	Unit	Rate
1149	Glass strip 4 mm thick 40 mm deep	meter	20.00
1154	Through and bond stone	100 No.s	5,000.00
1157	Stone for masonry work	cum	1,100.00
1159	Stone dust	cum	1,100.00
1160	Red sand stone block	cum	17,500.00
1161	White sand stone block	cum	19,500.00
1164	Red sand stone slab 40 mm thick (un-dressed)	sqm	810.00
1165	White sand stone slab 40 mm thick (un-dressed)	sqm	1,130.00
1166	Red sand stone slab 30 mm thick (un-dressed)	sqm	600.00
1168	Kota stone slab 20 mm to 25 mm thick (semi-polished)	sqm	280.00
1174	Red sand stone slab 45 mm to 50 mm thick (un-dressed)	sqm	915.00
1182	Surkhi	cum	700.00
1187	First class teak wood in scantling	10 cudm	880.00
1189	Second class teak wood in scantling	10 cudm	776.00
1190	Second class teak wood in planks	10 cudm	791.00
1194	Second class deodar wood in planks	10 cudm	500.00
1196	First class kail wood in planks	10 cudm	300.00
1197	Second class kail wood in scantling	10 cudm	260.00
1198	Second class kail wood in planks	10 cudm	260.00
1199	Sal wood in scantling	10 cudm	600.00
1200	Kiln seasoned selected sheesham wood planks	10 cudm	650.00
1201	Precast terrazzo tiles 22 mm thick (light shade)	sqm	285.00
1202	Precast terrazzo tiles 22 mm thick (medium shade)	sqm	265.00
1203	Precast terrazzo tiles 22 mm thick (dark shade)	sqm	245.00
1213	Water proofing materials	kg	35.00
1225	Mild steel flat strap fitting	quintal	4,120.00
1231	Extra for selected planks of second class teakwood	10 cudm	150.00
1237	Cutting marble or sand stone slab up to 50 mm thick by mechanical device	meter	10.00
1239	18 mm thick Flamed finish granite stone slab	sqm	1,000.00
1241	Commercial LPG in cylinder	kg	82.00
1984	Common burnt clay F.P.S. bricks tile class designation 10	1000 No.s	4,500.00
1986	Common burnt clay modular bricks class designation 12.5	1000 No.s	5,000.00
2406	Float glass panes of nominal thickness 4 mm (weight not less than 10 kg/sqm)	sqm	300.00
2407	Float glass panes of nominal thickness 5 mm (weight not less than 12.50 kg/sqm)	sqm	500.00
2447	Hollock ballies 125 mm diameter	meter	35.00
2466	Hollock wood in scantling	10 cudm	350.00
2500	Extra for selected planks of second class deodar wood	10 cudm	110.00
2504	Kiln seasoning of timber	cum	750.00
2505	Hollock wood in planks	10 cudm	390.00
2506	Carben Steel galvanised (min 5 micron) dash fastner (min 5 micron) of 10 mm dia double threaded 6.8 grade counter sunk head screw comprising of 10 mm dia polyamide PA 6 grade sleeve. Size 10mm x 60 mm	10 No.s	260.00
2602	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	1000 No.s	4,500.00
2709	Ceremic Tiles Pieces for Crazy Flooring	quintal	135.00

Code No.	Description	Unit	Rate
3002	Polyvinyl chloride sheet 400 micron thick	sqm	40.00
4009	Mild steel tubes hot finished welded type	kg	57.00
6501	Sand zone V (Jamuna)	cum	1,225.00
7029	Galvanised wire mesh of average width of aperture 1.4 mm and nominal dia of wire 0.63 mm	sqm	250.00
7048	Rawl plug 50 mm (designation 10 nos)	each	25.00
7266	Pressed clay tiles 20mm thick 250x250 mm size	1000 No.s	8,600.00
7297	Granite of any colour, 18 mm thick (slab area above 0.50 sqm)	sqm	1,800.00
7312	Expandable fastener with plastic sleeve and M.S. screws : 25 mm long	each	10.00
7313	Expandable fastener with plastic sleeve and M.S. screws : 32 mm long	each	10.00
7314	Expandable fastener with plastic sleeve and M.S. screws : 40 mm long	each	13.00
7315	Expandable fastener with plastic sleeve and M.S. screws. 50 mm long	each	14.00
7319	Wall form panel 1250x500 mm	each	860.00
7326	Corner angle 45x45x5 mm 1.50 m long	each	240.00
7327	100 mm channel shoulder 2.5 m long	each	910.00
7328	Double clip (bridge clip)	each	76.00
7329	Single clip	each	59.00
7330	M.S. tube 40 mm dia	meter	215.00
7339	Stainless steel cramp	kg	290.00
7346	Double coupler	each	46.00
7349	12 mm M.S. 'U' beading	meter	14.00
7387	Spigot for standard jointing	kg	43.00
7397	Base Jack	each	145.00
7398	Challies	each	765.00
7399	Cup locks	each	48.00
7767	Stone cleaning chemical approved by ASI	litre	295.00
7768	Water repellent chemical approved by ASI	litre	1,200.00
7769	Stone surface strengthening chemical approved by ASI	litre	900.00
7770	Turpentine oil	litre	55.00
7771	Liquid Ammonia 5%	litre	160.00
7775	Sodium pentachlorophenate	kg	550.00
7800	Ceramic Glazed Tiles 1st quality minimum thickness 5mm in all colours shades and designs except burgundy, bottle green, black	sqm	212.00
7802	Ceramic Glazed Tiles 1st quality 300 x 300 in all shades designs except White, Ivory, Grey, Fume Red Brown etc.	sqm	260.00
7804	Rectified Ceramic Glazed Tiles 1st quality 300 x 300 mm or more in all shades designs except White, Ivory, Grey, Fume Red Brown etc.	sqm	400.00
7904	Machine moulded common burnt clay tile bricks of class designation 12.5	1000 Nos	4,900.00
8205	A.P.P. modified 3 mm thick membrane reinforced with polyester matt	sqm	205.00
8206	Bitumen primer for bitumen membrane	litre	80.00
8207	Geotextile 120 grams per sqm membrane	sqm	45.00
8211	Stainless steel screws 40 mm	100 No.s	215.00

Code No.	Description	Unit	Rate
8214	Stainless steel screws 20 mm	100 No.s	125.00
8218	Stainless steel butt hinges 50x37x1.5 mm IS : 12817 marked	10 No.s	135.00
8220	Stainless steel butt hinges (heavy weight) 100 x 60 x 2.5 mm IS :12817 marked	10 No.s	255.00
8620	Vitrified floor tile 50x50 cm conforming to IS 15622:2006 group (B1a)	sqm	490.00
8621	Vitrified floor tile 60x60 cm conforming to IS 15622:2006 group (B1a)	sqm	659.72
8622	Vitrified floor tile 80x80 cm conforming to IS 15622:2006 group (B1a)	sqm	850.00
8623	Vitrified floor tile 100x100 cm conforming to IS 15622:2006 group (B1a)	sqm	1,390.00
8669	Mangalore ridge tiles 20 mm thick	each	8.00
8670	Mangalore tiles 20 mm thick	each	8.00
8683	Red sand stone gang saw cut 30 mm thick	sqm	425.00
8684	White sand stone gang saw cut 30 mm thick	sqm	560.00
8698	Stainless steel cramps(weight 260 grams) with nuts, bolts and washer for dry stone cladding	each	100.00
8719	2nd class teak wood moulded beading or Taj beading/ornamental beading of size 18X5 mm	meter	28.00
8737	Stainless steel wire guage (Grade-304) aperture 1.4 mm and 0.50mm dia wire	sqm	400.00
MR	Gum (Babool)	kg	220.00
MR	Batasha	kg	75.00
MR	Belgiri	kg	130.00
MR	20 mm nominal size brick aggregate (single size)	cum	675.00
MR	Markula	cum	1,500.00
MR	Brick Ballast (20-25 mm size)	cum	1,150.00
MR	Mortar for laying and pointing	cum	9,323.60
MR	SS clamp	kg	700.00
MR	Brown/ Black Marble	sqm	7,200.00
MR	Cost of Tiger Marble 1st quality	sqm	4,000.00
MR	Yellow marble 1st quality	sqm	4,000.00
MR	Indian White Marble Stone	cum	3,50,000.00
MR	Steel Rod	kg	350.00
MR	White marble stone	cum	2,50,000.00
MR	White marble stone 100 mm thick	cum	2,50,000.00
MR	Copper Clamp	kg	700.00
MR	Lakhori Brick size 200 x 50 x 40 mm	each	12.00
MR	Arches, domes, vaults up to 6 m span	sqm	1,713.20
MR	Mud Brick 80%	No.s	10.00
MR	Bonding Agent	litre	500.00
MR	Colour & Pigment	kg	60.00
MR	Finished Work	cum	1,800.00
MR	Sand stone of average size 0.55 x 0.35 x 0.10	cum	17,500.00
MR	Red sand stone 65 mm thick	sqm	1,050.00
MR	Fuel for hot water	litre	60.00
MR	Micro sand	kg	10.00
MR	Pressure pump	day	1,000.00

Code No.	Description	Unit	Rate
MR	Non ionic soap solution	kg	150.00
MR	Turbo Shell	gm	0.50
MR	Special Nail SS 1.5 to 2 cm long	No.s	3.50
MR	Hole making charge for each shell	No.s	3.00
MR	Ardite LP, adhesive etc.	job	600.00
MR	Tracing paper, sheet, C-stone, etc.	job	300.00
MR	Brick aggregate of zero size.	cum	2,500.00
MR	Cinder Ballast	cum	1,600.00
MR	80% Twigs	No.s	50.00
MR	Local grass (for 2,50 cm thick compressed layer)	kg	30.00
MR	80% Poles	Rmt.	1,200.00
MR	Brick Ballast zero guage	cum	2,500.00
MR	Brick Ballast 10 to 15mm size	cum	2,200.00
MR	Red Sand Stone slab 100 mm thick	sqm	1,850.00
MR	Red Sand Stone slab 75 mm thick	sqm	1,400.00
MR	Red Sand Stone slab 65 mm thick	sqm	1,100.00
MR	Red Sand Stone slab 50 mm thick	sqm	915.00
MR	Red Sand Stone slab 40 mm thick	sqm	810.00
MR	White Sand Stone slab 100 mm thick	sqm	2,050.00
MR	White Sand Stone slab 75 mm thick	sqm	1,700.00
MR	White Sand Stone slab 50 mm thick	sqm	1,400.00
MR	White Sand Stone slab 40 mm thick	sqm	1,130.00
MR	Cutting marble or sand stone slab upto 100 mm thick by mechanical device	meter	20.00
MR	Cutting marble or sand stone slab upto 75 mm thick by mechanical device	meter	20.00
MR	Cutting marble or sand stone slab upto 40 mm thick by mechanical device	meter	10.00
MR	White sand stone slab gang saw cut 50mm thick	sqm	1,400.00
MR	Red sand stone slab gang saw cut 50mm thick	sqm	915.00
MR	20 mm nominal size brick aggregate (single size)	cum	675.00
MR	100 mm thick Indian White Marble Stone	sqm	35,000.00
MR	75 mm thick Indian White Marble Stone	sqm	26,250.00
MR	65 mm thick Indian White Marble Stone	sqm	22,750.00
MR	50 mm thick Indian White Marble Stone	sqm	17,500.00
MR	100 mm thick Agaria Marble Stone	sqm	6,500.00
MR	75 mm thick Agaria Marble Stone	sqm	4,875.00
MR	65 mm thick Agaria Marble Stone	sqm	4,250.00
MR	50 mm thick Agaria Marble Stone	sqm	3,300.00
MR	100 mm thick Raj Nagar Marble Stone	sqm	3,500.00
MR	75 mm thick Raj Nagar Marble Stone	sqm	2,650.00
MR	65 mm thick Raj Nagar Marble Stone	sqm	2,300.00
MR	50 mm thick Raj Nagar Marble Stone	sqm	1,750.00
MR	10 mm ballast	cum	1,350.00
MR	12.5 mm ballast	cum	1,350.00
MR	Red Oxide of Iron	kg	60.00
MR	Machine-cut Red Sand Stone Slab - 50mm thick	sqm	960.00
MR	Brick Aggregate (Single size) : 20 mm nominal size	cum	1,150.00
MR	Sal ballies 80 mm diameter	meter	100.00

<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
MR	Sal ballies 100 mm diameter	meter	125.00
MR	Sal ballies 125 mm diameter	meter	160.00
MR	Sal ballies 150 mm diameter	meter	200.00
MR	Fuel for hot water	litre	60.00

<b>Basic Rate - Labour</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0100	Bandhani	day	617.00
0101	Bhisti	day	617.00
0102	Blacksmith 1st class	day	738.00
0103	Blacksmith 2nd class	day	679.00
0111	Carpenter 1st class	day	738.00
0112	Carpenter 2nd class	day	679.00
0113	Chowkidar	day	558.00
0114	Beldar	day	558.00
0115	Coolie	day	558.00
0116	Fitter (grade 1)	day	738.00
0119	Glazier	day	679.00
0122	Mason (for plaster of paris work) 1st class	day	738.00
0123	Mason (brick layer) 1st class	day	738.00
0124	Mason (brick layer) 2nd class	day	679.00
0125	Mason (for plain stone work) 2nd class	day	679.00
0126	Mason (for ornamental stone work) 1st class	day	738.00
0127	Driver for (Road roller, concrete mixer, Trucks etc.)	day	738.00
0128	Mate	day	617.00
0130	Mistry	day	738.00
0131	Painter	day	679.00
0139	Skilled Beldar (for floor rubbing etc.)	day	617.00
0141	White Washer	day	617.00
0155	Mason (average)	day	709.00
0156	Carpenter (average)	day	709.00
0159	Skilled torch operator for laying tack	day	738.00
MR	Conservator	day	1,650.00

<b>Basic Rate - Carriage</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
2201	Carriage of Bricks	1000 No.s	276.72
2202	Carriage of Stone aggregate below 40mm nominal size	cum	103.77
2203	Carriage of Coarse Sand	cum	103.77
2204	Carriage of Timber	cum	118.59
2205	Carriage of Steel	tonne	92.24
2206	Carriage of stone aggregate above 40mm nominal size	cum	112.79
2207	Carriage of Brick tiles	1000 No.s	166.03
2208	Carriage of Lime	cum	103.77
2209	Carriage of Cement	tonne	92.24
2211	Carriage of Tar / Bitumen	tonne	103.77
2215	Carriage of Soling stone & masonry stone	cum	122.08
2216	Carriage of Stone blocks white & red sand stone & kota stone slab	tonne	92.24
2241	Carriage of Good earth	cum	129.71
2260	Carriage of Brick aggregate	cum	112.79
2261	Carriage of Fine sand (1 Badarpur sand : 2 Jamuna sand)	cum	103.77
2264	Carriage of Rubbish	cum	103.77
2266	Carriage of Surkhi	cum	103.77
2267	Carriage of Stone dust	cum	103.77
2268	Carriage of Marble dust and/or marble chips	cum	103.77
2302	Carriage of G.I. sheet and accessories	tonne	92.24
MR	Carriage of 20 mm brick aggregate		
MR	Carriage of 40 mm or above brick aggregate		
MR	Carriage of 40 mm or below brick aggregate		
MR	Carriage of ballast	cum	103.77

<b>Basic Rate - Machinery</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
0002	Concrete Mixer 0.25 to 0.40 cum with Hopper	day	800.00
0006	Spraying Machine including electric charges	day	250.00
0012	Vibrator (Needle type 40 mm)	day	370.00
0013	Machine for rubbing of floors	day	300.00
0018	Hire and running charges of loader	day	5000.00
0019	Hand Grinder for mirror polish	day	250.00
0020	Hydraulic Excavator (3D) with driver and fuel	day	7000.00
9999	Hire and running charge of mechanical mixer	L.S.	2.00

<b>Basic Rate - Sundries</b>			
<b>Code No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>
9999	Sundries	L.S.	2.00
9999	Sundries, T. & P. etc.	L.S.	2.00
9999	Assembly nuts & bolts	L.S.	2.00
9977	Carriage	L.S.	2.00
9999	Shuttering oil	L.S.	2.00
9999	Scaffolding	L.S.	2.00
9999	Lime Mortar for laying and pointing	cudm	7.27
9999	Centering and Shuttering	L.S.	2.00
9999	Extra labour for lifting of material	L.S.	2.00
9999	Labour and materials	L.S.	2.00
9999	Labour	L.S.	2.00
9999	Cost of stone including carriage	L.S.	2.00
9999	Labour for dressing dowel cutting chase and fixing etc.	L.S.	2.00
9999	Labour for making pin in to required shape and size, cutting chases in stone and fixing in position	L.S.	2.00
9999	Cutting threads and cost of nuts, washers, etc.	L.S.	2.72
9999	Pigment	L.S.	2.00
9999	Scaffolding and sundries etc.	L.S.	2.00
9999	Brick cover support	L.S.	2.00
9999	Mortar for pointing	L.S.	2.00
9999	Mortar and sundries	L.S.	2.00
9999	Lime Mortar	L.S.	
9999	Indigo, gum etc.	L.S.	2.00
9999	Sundries, ladder etc.	L.S.	2.00
9999	Sundries such as sand paper and scrapper	L.S.	2.00
9999	Repair to scraches	L.S.	2.00
9999	Scaffolding and racking out joints including sundries	L.S.	2.00
9999	Sundries such as fuel, kerosene oil, sand paper, etc.	L.S.	2.00
9999	Sundries including carborandum stone etc.	L.S.	2.00
9988	Sundries and carriage of cement etc.	L.S.	2.00
9999	Rounding of edges and making outlet	L.S.	2.00
9999	Disposal of mulba	L.S.	2.00
9999	Sundries (Brushes and T and P)	L.S.	2.00
9999	Cleaning the surface including necessary repairs	L.S.	2.00
9999	Brushes	L.S.	2.00
9999	Making good the holes	L.S.	2.00
9999	Preparing roof surface, cutting grooves	L.S.	2.00
9999	Sundries, brushes, bitumen torch etc	L.S.	2.00
9999	Sundries, torch, LPG etc	L.S.	2.00
9988	Sundries including carriage of cement etc	L.S.	2.00
9988	Sundries including carriage of quick set polymer etc.	L.S.	2.00
9999	Putty	L.S.	2.00
9999	Brushes, sand paper etc	L.S.	2.00
9999	Sundries such as nails, spikes and applying wood preservative on un-exposed surfaces	L.S.	2.00
MR	Nails and spikes	L.S.	
MR	Applying wood preservative on unexposed surface	L.S.	
9999	Chemical treatment	L.S.	2.00

Code No.	Description	Unit	Rate
9999	Sundries, screws, etc.	L.S.	2.00
9999	Labour for drilling holes and making good etc.	L.S.	2.00
9999	Labour for drilling holes, steel tape, sundries etc.	L.S.	2.00
9999	Welding charges	L.S.	2.00
9999	Fixing of rawl plugs	L.S.	2.00
9999	Cleaning T & P & its maintainance cost (Jet Pump, electric cable, horse pipe, water pipe, Nozel safety belt Rope & maintainance cost and safety machine for window etc.)	L.S.	2.00
9999	Handling/ Transportation charges	L.S.	2.00
MR	Gur, Belgiri water	L.S.	200.00
MR	Belgiri, Gur etc. for surface treatment	L.S.	
MR	G.I. Wire, T.P. Sheet, Corborandom stone, etc.	L.S.	25.00
MR	Ardite	L.S.	15.00
MR	Tin plate, Mica, Hard stone, Lakh & G.I. wire	L.S.	40.00
MR	Gur and Belgiri	L.S.	2.00
MR	Gur, Belgiri and other organic additives in finishing layer	L.S.	
MR	Lime for punning in finishing layer	L.S.	
MR	Lime paste for applying in finishing final layer	L.S.	
9999	Cowdung	L.S.	2.00
9999	Mud mortar for gobri leaping	L.S.	2.00
MR	Belgiri & Gum etc.	L.S.	200.00
9999	Labour for leaping and carring to roof	L.S.	2.00
9977	Carriage of pigment & marble powder etc.	L.S.	2.00
9999	Carriage of pigment	L.S.	2.00
9977	Carriage of Glass	L.S.	2.00
9977	Carriage of Tiles	L.S.	2.00
MR	Carriage of red oxide of iron	L.S.	
9977	Carriage of marble slab	L.S.	2.00
9977	Carriage	L.S.	2.00
9977	Carriage of bhusa and cowdung	L.S.	2.00
9977	Carriage of bitumen membrance	L.S.	2.00
9977	Carriage of Geotextile	L.S.	2.00
MR	Carriage of ballies	L.S.	
9977	Carriage of wire fabric	L.S.	2.00
9999	Mortar for pointing in white cement	L.S.	2.00
9999	T&P	each	15.00

<b>Sub-Head 1: Earth Work</b>				
<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
1.1	Scientific excavation over areas (exceeding 30 cm in depth, 1.50m in width as well as 10 sqm on plan) upto 2.0m depth around heritage structure without damaging the burried architectural part of the building including screening collecting and depositing the usable objects/ articles at the specified place including getting out the excavated soil and disposal of the source in the authorised dumping ground as per direction of the Conservation Architect / Engineer-in-charge.	Cum	<b>1156.90</b>	
1.2	Extra for numbering, lifting and stacking the antiquities in stores up lead of 50m as directed by Conservation Architect / Engineer -in-Charge.	Cum	<b>783.60</b>	
1.3	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50m			
1.3.1	All kinds of soil			
1.3.1.1	Pipes, cables etc, not exceeding 80 mm dia.	meter	<b>223.00</b>	
1.3.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	meter	<b>364.30</b>	
1.3.1.3	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm	meter	<b>264.60</b>	
1.4	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	sqm	<b>12.50</b>	
1.5	Surface dressing of the ground including cleaning of site vegetation, weeds, shrubs and in equility etc. by using different means, techniques etc. that suits the most upto the depth of 15cm including malba removal and disposal upto a lead of 50m.	sqm	<b>24.30</b>	
1.6	Earth work excavation in trenches or cells (Not exceeding 1.50m in width as well as 10 sqm on plain) including dressing of all sides and ramming of bottoms and disposal of excavated earth up to a lead of 100m and lift upto 6.5m	cum	<b>98.30</b>	
1.7	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil	Cum	<b>252.29</b>	

1.8	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m	Cum	<b>219.70</b>	
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**Sub-Head 2: Mortar**

<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
2.1	Preparing lime mortar of specified grade from non-hydraulic lime and fine aggregate such as coarse sand, defined sand, surkhi, stone dust, mud etc. Wherever Surkhi is specified in the item of work it should only be added and mixed in required proportions at site of work before use.			
2.1.1	Lime Mortar 1:1 (1 Lime putty : 1 Fine sand)	cum	<b>7814.50</b>	
2.1.2	Lime Mortar 1:2 (1 Lime putty : 2 Fine Sand)	cum	<b>7142.50</b>	
2.1.3	Lime Mortar 1:2 (1 Lime putty : 3 Fine Sand)	cum	<b>6800.20</b>	
2.1.4	Lime Mortar 1:1:1 (1 Lime putty : 1 Surkhi : 1 Fine sand)	cum	<b>7056.50</b>	
2.1.5	Lime Mortar 1:1:2 (1 Lime putty : 1 Surkhi : 2 Fine sand)	cum	<b>6738.20</b>	
2.1.6	Lime Mortar 1:2:1 (1 Lime putty : 2 Surkhi : 1 Fine sand)	cum	<b>6666.20</b>	
2.1.7	Lime Mortar 1:1 (1 Lime putty : 1 coarse sand)	cum	<b>8135.10</b>	
2.1.8	Lime Mortar 1:1:1 (1 Lime putty : 1 Surkhi : 1 Coarse sand)	cum	<b>7272.50</b>	
2.1.9	Lime Mortar 1:1.5:1.5 ( 1 Lime putty : 1.5 Surkhi : 1.5 Coarse sand)	cum	<b>6945.20</b>	
2.1.10	Lime Mortar 1:2 (1 Lime putty : 2 coarse sand)	cum	<b>7560.70</b>	
2.1.11	Lime Mortar 1:3 (1 Lime putty : 3 coarse sand)	cum	<b>7281.70</b>	
2.1.12	Lime Mortar 1:1:2 (1 Lime putty : 1 Surkhi : 2 Coarse sand)	cum	<b>7062.20</b>	
2.1.13	Lime Mortar 1:3:6 (1 Lime putty : 3 Surkhi : 6 Coarse sand)	cum	<b>7307.50</b>	
2.1.14	Lime Mortar 1:2 (1 Lime putty : 2 Surkhi)	cum	<b>6943.20</b>	
2.1.15	Lime Mortar 1:2 (1 Lime putty : 2 Marble Dust/powder)	cum	<b>6667.50</b>	
2.1.16	Lime mortar mixed with lime and marble dust/ powder 1:1 (1 lime : 1 marble dust/ powder)	cum	<b>9917.60</b>	
2.1.17	Kafgi Lime mortar 3:4:8 ( 3 Lime putty : 4 Coarse sand : 8 Surkhi)	cum	<b>6814.00</b>	
2.1.18	Preparation of Lime Mortar 1:3:1 ( 1 Lime putty : 3 mud mortar : 1 Coarse sand)	cum	<b>4560.00</b>	
2.1.19	Lime Mortar 1:1.5:1.5 ( 1 Lime putty : 0.5 Surkhi : 1.5 Coarse sand)	cum	<b>6655.90</b>	
2.2	Mud Mortar	cum	<b>737.00</b>	
2.3	Cement mortar 1:4 (1 cement : 3 coarse sand).	cum	<b>4664.50</b>	
2.4	Cement mortar 1:4 (1 cement : 4 coarse sand).	cum	<b>4010.30</b>	
2.5	Cement mortar 1:5 (1 cement : 5 coarse sand).	cum	<b>3658.10</b>	
2.6	Cement mortar 1:2 (1 cement : 2 stone dust).	cum	<b>5108.10</b>	
2.7	Cement mortar 1:3 (1 cement : 3 fine sand).	cum	<b>4183.00</b>	

### Sub-Head 3: Concrete Work

S. No.	Item Description	Units	Rate	Remark
3.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level			
3.1.1	1:1½:3 (1 Cement: 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size)	Cum	<b>7210.50</b>	
3.1.2	1:3:6 (1 Cement : 3 coarse sand (zone-III): 6 graded stone aggregate 40 mm nominal size)	Cum	<b>6126.20</b>	
3.1.3	1:4:8 (1 Cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size)	Cum	<b>5789.60</b>	
3.1.4	1:5:10 (1 cement : 5 coarse sand (zone-III): 10 graded stone aggregate 40 mm nominal size)	Cum	<b>5520.30</b>	
3.2	Providing and laying lime concrete in foundation, footings, bases of columns etc.of specified grade excluding cost of centering and shuttering			
3.2.1	With stone aggregate 40mm nominal size and 40% mortar comprising of (1 lime putty : 1 surkhi : 1 coarse sand)	Cum	<b>7945.90</b>	
3.2.2	With brick aggregate 20mm nominal size and 40% mortar comprising of (1 lime putty : 1 surkhi: 1 coarse sand)	Cum	<b>6533.90</b>	
3.2.3	With brick aggregate 40mm nominal size and 40% mortar comprising of (1 lime putty : 1 surkhi: 1 coarse sand)	Cum	<b>6759.70</b>	
3.2.4	With brick aggregate 50mm nominal size and 40% mortar comprising of (1 lime putty : 1 surkhi : 1 coarse sand)	Cum	<b>6759.70</b>	
3.3	Providing and laying 50 mm thick lime concrete coping on parapets/ khanguras and on top of walls in lime mortar 1:1:1 (1 lime: 1 surkhi: 1 coarse sand) mixed with 40% brick jeera upto floor five level excluding cost of centering and shuttering.	sqm	<b>414.10</b>	
3.4	Extra for additional cost of centering for arches exceeding 6m span including all strutting, bolting, wedging etc. and removal (area of soffit to be measured).	sqm	<b>560.70</b>	
3.5	Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	sqm	<b>284.90</b>	
3.6	Centering and shuttering including strutting, propping etc. and removal of form for			
3.6.1	Arches, domes, vaults up to 6 m span	Sqm	<b>1713.20</b>	
3.6.2	Edges of slabs and breaks in floors and walls			
3.6.2.1	Under 20 cm wide	meter	<b>173.20</b>	
3.6.2.2	Above 20 cm wide	sqm	<b>737.30</b>	
3.6.3	Cornices and mouldings	sqm	<b>740.20</b>	

<b>Sub-Head 4: Stone Work</b>				
<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
4.1	Random rubble /coarse rubble masonry with hard stones in foundation and plinth including levelling up with lime concrete using 40mm stone aggregate upto plinth level with lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand)	Cum	<b>9,063.80</b>	
4.2	Consolidation of loose/ damaged stone masonry with hard stone in foundation and plinth including carefully dismantling of stone, cleaning of mortar and reconsolidating using old reusable stone and new stone both as per site condition and availability of old reusable stone for masonry with lime mortar 1:2 (1 lime : 2 coarse sand)			
4.2.1	Random Rubble masonry			
4.2.1.1	Considering 75% reusable old and 25% new stone	Cum	<b>9,928.40</b>	
4.2.1.2	Considering 50% reusable old and 50% new stone	Cum	<b>10,257.40</b>	
4.2.1.3	Considering 25% reusable old and 75% new stone	Cum	<b>10,586.30</b>	
4.3	Random rubble masonry with hard stones in super structure including levelling with lime concrete (1 lime : 3 surkhi : 6 coarse sand) with 40mm stone aggregate in lime mortar: 1:1:1 (1 Lime : 1 Surkhi : 1 Coarse sand) at window sills, ceiling level and like.	Cum	<b>9,670.90</b>	
4.4	Consolidation of loose/ damaged stone masonry with hard stone in super structure above plinth upto five floor level including carefully dismantling of stone, cleaning of mortar and reconsolidating using old reusable stone and new stone both as per site condition and availability of old reusable stone for masonry with lime mortar 1 :2 (1 lime : 2 coarse sand)			
4.4.1	Random Rubble masonry			
4.4.1.1	Considering 75% reusable old and 25% new stone	Cum	<b>11,641.90</b>	
4.4.1.2	Considering 50% reusable old and 50% new stone	Cum	<b>11,970.80</b>	
4.4.1.3	Considering 25% reusable old and 75% new stone	Cum	<b>12,299.80</b>	
4.5	Extra for Random rubble masonry with hard stone in:			
4.5.1	Square or rectangle pillars	Cum	<b>728.50</b>	
4.5.2	Circular pillars	Cum	<b>1,551.30</b>	
4.6	Extra for Random rubble masonry with hard stone curved on a plan for a mean radius not exceeding 6 m.	Cum	<b>804.50</b>	
4.7	Coursed rubble masonry (first sort) with hard stone in foundation and plinth with:			
4.7.1	Lime Mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand)	Cum	<b>8,884.10</b>	
4.8	Consolidation of loose/ damaged stone masonry with hard stone in foundation and plinth including carefully dismantling of stone, cleaning of mortar and reconsolidating using old reusable stone and new stone both as per site condition and availability of old reusable stone for masonry with lime mortar 1 :2 (1 lime : 2 coarse sand)			
4.8.1	Coursed Rubble Masonry (first sort)			
4.8.1.1	Considering 75% reusable old and 25% new stone	Cum	<b>10,518.70</b>	
4.8.1.2	Considering 50% reusable old and 50% new stone	Cum	<b>10,847.60</b>	

4.8.1.3	Considering 25% reusable old and 75% new stone	Cum	<b>11,176.60</b>	
4.9	Coursed rubble masonry (second sort) with hard stone in foundation and plinth with:			
4.9.1	Lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand)	Cum	<b>8,377.20</b>	
4.10	Coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level and upto five floor level:			
4.10.1	Masonry work (first sort), in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand)	Cum	<b>10,289.90</b>	
4.10.2	Masonry work (second sort), in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand)	Cum	<b>9,783.00</b>	
4.11	Consolidation of loose/ damaged stone masonry with hard stone in super structure above plinth upto five floor level including carefully dismantling of stone, cleaning of mortar and reconsolidating using old reusable stone and new stone both as per site condition and availability of old reusable stone for masonry with lime mortar 1 :2 (1 lime : 2 coarse sand)			
4.11.1	Coursed Rubble Masonry (first sort)			
4.11.1.1	Considering 75% reusable old and 25% new stone	Cum	<b>10,839.00</b>	
4.11.1.2	Considering 50% reusable old and 50% new stone	Cum	<b>11,254.30</b>	
4.11.1.3	Considering 25% reusable old and 75% new stone	Cum	<b>11,669.60</b>	
4.12	Extra for coursed rubble masonry with hard stone (first or second sort) in:			
4.12.1	Square or rectangle pillars	Cum	<b>810.20</b>	
4.12.2	Circular pillars	Cum	<b>2,301.60</b>	
4.13	Extra for coursed rubble masonry with hard stone (first or second sort) curved on plan for a mean radius not exceeding 6 m.	Cum	<b>875.30</b>	
4.14	Stone work in plain ashlar masonry in super-structure upto floor five level in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) including pointing with lime mortar and an admixture of pigment matching the stone shade.			
4.14.1	One face dressed			
4.14.1.1	Red sand stone	Cum	<b>34,766.20</b>	
4.14.1.2	White sand stone	Cum	<b>38,333.20</b>	
4.14.2	Both face dressed			
4.14.2.1	Red sand stone	Cum	<b>36,480.90</b>	
4.14.2.2	White sand stone	Cum	<b>40,047.80</b>	
4.15	Raking out joints of stone masonry surface to the required width and depth, with due care and precaution, by mechanical/ manual means, including preparing and cleaning the surface for re-pointing/ refilling of joints, including disposal of rubbish to the dumping ground within 50 meter lead.	sqm	<b>51.70</b>	

4.16	Stone work in plain ashlar in arches in super-structure upto floor five level in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) including centering, shuttering and pointing with lime mortar and an admixture of pigment matching the stone shade.			
4.16.1	One face dressed			
4.16.1.1	Red sand stone	Cum	<b>35,343.70</b>	
4.16.1.2	White sand stone	Cum	<b>38,910.60</b>	
4.16.2	Both face dressed			
4.16.2.1	Red sand stone	Cum	<b>37,058.40</b>	
4.16.2.2	White sand stone	Cum	<b>40,625.30</b>	
4.17	Stone work in plain ashlar in domes in super structure in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) including centering, shuttering and pointing with lime mortar and an admixture of pigment matching the stone shade.			
4.17.1	One face dressed			
4.17.1.1	Red sand stone	Cum	<b>38,406.20</b>	
4.17.1.2	White sand stone	Cum	<b>41,973.20</b>	
4.17.2	Both face dressed			
4.17.2.1	Red sand stone	Cum	<b>42,658.20</b>	
4.17.2.2	White sand stone	Cum	<b>46,225.10</b>	
4.18	Extra for stone work, random rubble/ coarsed rubble masonry/ ashlar masonry above floor V level for every four floor or part thereof.	Cum	<b>1,493.10</b>	
4.19	Extra for plain ashlar or ashlar punched in:			
4.19.1	Square or rectangle pillars	Cum	<b>2,400.30</b>	
4.20	Extra for stone work; plain ashlar or ashlar punched curved on plan with a mean radius not exceeding 6 m.	Cum	<b>1,669.70</b>	
4.21	Providing and fixing red sand stone work plain fine dressed in string coarse as Lintels, beams etc. set in composite lime mortar 1:1:1 (1 Lime : 1 Surkhi : 1 Course sand) and copper dowels including pointing with same mortar with an admixture of pigment matching to the stone shade.	Cum	<b>72,199.90</b>	
4.22	Providing and fixing red sand stone work in plain fine dressed in string coarse as Chaukhat, Slab, Dab & quid set in composite lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) mixed with composite materials and include taking out old decayed and broken red sand stone by chiseling out bit by bit very carefully without disturbing to the adjoining structures.	Cum	<b>88,147.80</b>	
4.23	Providing and fixing Indian White Marble Stone work in plain fine dressed in string coarse as Beam, Columns, Chaukhat, Slab, Dab, quid & steps set in Lime Mortar 1:1 (1 lime : 1 Marble Dust/ Powder) and copper dowels including pointing with same mortar with and admixture of pigment matching to the marble shade and including taking out old decayed and broken red sand stone by chiselling bit by bit very carefully without disturbing to the adjoining stones.	Cum	<b>5,39,126.10</b>	

4.24	Stone work ashlar sunk or moulded or sunk and moulded upto floor five level in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) including pointing with lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) with an admixture of pigment matching the stone shade:			
4.24.1	Red sand stone	Cum	<b>36,605.70</b>	
4.24.2	White sand stone	Cum	<b>40,177.40</b>	
4.25	Extra for stone work ashlar sunk or moulded or sunk and moulded or carved in:			
4.25.1	Triangular or Square or Rectangular pillars	Cum	<b>313.10</b>	
4.25.2	Circular or polygonal pillars	Cum	<b>887.10</b>	
4.26	Extra for stone work ashlar sunk or moulded in cornices.	per meter per cum	<b>225.40</b>	
4.27	Stone work (machine cut edges) for wall lining etc. (vener work) upto 10 meter height, backing filled with grout of average 12 mm thick lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) including pointing in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) with an admixture of pigment matching the stone shade : (To be secured to be backing and the sides by means of cramps and pins which shall be paid for seperately):			
4.27.1	Red sand stone - Exposed face fine dressed with rough backing			
4.27.1.1	100 mm thick	sqm	<b>9,779.20</b>	
4.27.1.2	75 mm thick	sqm	<b>9,015.90</b>	
4.27.1.3	50 mm thick	sqm	<b>4,986.90</b>	
4.27.1.4	40 mm thick	sqm	<b>4,807.60</b>	
4.27.2	Red sand stone - Exposed face machine cut and table rubbed with rough backing.			
4.27.2.1	100 mm thick	sqm	<b>10,713.90</b>	
4.27.2.2	75 mm thick	sqm	<b>9,747.10</b>	
4.27.2.3	50 mm thick	sqm	<b>6,680.70</b>	
4.27.2.4	40 mm thick	sqm	<b>6,501.40</b>	
4.27.3	White sand stone - Exposed face fine dressed with rough backing			
4.27.3.1	100 mm thick	sqm	<b>10,113.70</b>	
4.27.3.2	75 mm thick	sqm	<b>9,517.60</b>	
4.27.3.3	50 mm thick	sqm	<b>36,068.90</b>	
4.27.3.4	40 mm thick	sqm	<b>5,342.80</b>	
4.27.4	White sand stone - Exposed face machine cut and table rubbed with rough backing.			
4.27.4.1	100 mm thick	sqm	<b>11,048.40</b>	
4.27.4.2	75 mm thick	sqm	<b>10,248.90</b>	
4.27.4.3	50 mm thick	sqm	<b>7,491.80</b>	
4.27.4.4	40 mm thick	sqm	<b>7,036.50</b>	
4.27.5	Gang saw cut stone			
4.27.5.1	50mm thick White sand stone	sqm	<b>4,104.20</b>	

4.27.5.2	50mm thick Red sand stone	sqm	<b>3,293.10</b>	
4.28	Providing and fixing Makrana White Marble stone 100mm thick vennering stone including fix new stone with Special Lime Mortar 1:1 (1 Lime : 1 Marble dust) including supply of all materials labour T&P etc. required for proper completion of work.	sqm	<b>62,446.10</b>	
4.29	Extra for stone work (veneer work) curved on plan with a mean radius not exceeding 6m.	Cum	<b>2,400.30</b>	
4.30	Providing and fixing stainless steel cramps of required size and shape for anchoring stone wall lining to the backing or securing adjacent stones in stone wall lining in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including making the necessary chases in stone and holes in walls wherever required.	kg	<b>615.30</b>	
4.31	Providing and fixing adjustable stainless steel cramps of approved quality, required shape and size, adjustable with stainless steel nuts, bolts and washer (total weight not less than 260 gms), for dry stone cladding fixed on frame work at suitable location, including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the engineer-in-charge.	No.	<b>293.20</b>	
4.32	Providing and fixing stone dowels 10x5x2.50 cm cut to double wedge shape as per design in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including making the necessary chases.	each	<b>48.30</b>	
4.33	Providing and fixing copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone well lining in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including making the necessary chases.	each	<b>38.80</b>	
4.34	Providing and fixing sloping chajja of stone 40mm thick and upto 80cm wide beyond the wall as measured along the slope in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) with 12 mm diameter anchoring steel bar, 45 cm long, fixed in each stone and supported on and including with bricks cove in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including pointing in lime mortar 1:2 (1 lime : 1 surkhi : 1 coarse sand) with an admixture of pigment matching the stone shade:			
4.34.1	Red sand stone:			
4.34.1.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	sqm	<b>3,222.70</b>	
4.34.2	White sand stone:			
4.34.2.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	sqm	<b>3,811.40</b>	
4.35	Providing and fixing horizontal chajja of stone 40mm thick and upto 80 cm projection in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including pointing in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) with an admixture of pigment matching the stone shade:			

4.35.1	Red sand stone	sqm	<b>2,247.70</b>	
4.35.2	White sand stone	sqm	<b>2,761.50</b>	
4.36	30 mm red sand stone sun-shade (chisel-dressed) supported on red sand stone brackets, fixed in walls with lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including finishing complete.	sqm	<b>2,512.10</b>	
4.37	Providing and fixing red sand stone brackets 55x22.5x45 cm sunk and moulded including providing and fixing with 4 Nos gun metal cramp 25x6 mm 30 cm long and dowel bars 7.5 cm long 6mm dia as per design.	each	<b>6,142.30</b>	
4.38	Stone work, plain in copings, cornices, string courses and plinth courses, upto 75mm thick in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including pointing with lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) with an admixture of pigment matching the stone shade.			
4.38.1	Red sand stone	Cum	<b>36,482.50</b>	
4.38.2	White sand stone	Cum	<b>40,049.50</b>	
4.39	Providing and fixing stone jali 40mm thick throughout in lime mortar (1 lime : 1 surkhi : 1 coarse sand), including pointing in lime mortar 1:2 (1 lime : 1 surkhi : 1 coarse sand) with an admixture of pigment, matching the stone shade, jali slab without any chamfers etc.			
4.39.1	Red sand stone	sqm	<b>12,128.20</b>	
4.39.2	White sand stone	sqm	<b>12,599.10</b>	
4.40	Providing and fixing stone jali throughout, in lime mortar 1:2 (1 lime : 2 coarse sand) with an admixture of pigment, matching the stone shade, jali slab with chamfering etc. complete as per approved drawing and design and direction of the conservation architect and Engineer-in-charge.			
4.40.1	75 mm thick	sqm	<b>34,059.20</b>	
4.40.2	100 mm thick	sqm	<b>35,787.70</b>	
4.42	Providing and fixing 12 to 15 cm thick fine dressed Indian White Marble Stone work as in façade panels having richly fine carvings of floral design on front surface set in Special Lime Mortar 1:1 (1 Lime : 1 Marble dust) including all labours materials T&P etc. required for proper completion of work.	sqm	<b>1,67,386.60</b>	
4.43	Providing and fixing red sand stone members of different shape as carving brackets, beam & Jali etc. including simple moulding carving and make shape as per original including chiselling out bit by bit old decayed stone without disturbing to the adjoining stone and including supply of all materials T&P etc. required for proper completion of work.	Cum	<b>50,557.40</b>	

4.44	Providing and fixing red sand stone members of different shape as carving pillar base, carving pillar cap, carving bracket, mehrab, beam, gola galta, pillars & thevi etc. including simple moulding carving and make shape as per original including chiseling out bit by bit old decayed stone without disturbing to the adjoining stone and including supply of all required materials labour T&P etc. required for proper completion of work.	Cum	<b>1,87,488.50</b>	
4.45	Consolidation of exposed hard stone masonry of dome external cell by refixing the loose masonry wall with lime mortar 1:1:1 (1 lime putty: 1 coarse sand : 1 surkhi)	Cum	<b>24,271.00</b>	

<b>Sub-Head 5: Brick/ Tile Masonry</b>				
<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
5.1	Traditional brick masonry in nanak shahi or lakhori bricks in lime mortar in super structure up to floor V level in lime mortar 1:1:1 (1 lime : 1 surkhi: 1 coarse sand)	cum	<b>45,819.10</b>	
5.2	Traditional Brick work in Nanak shahi or Lakhori bricks in plain arches in super structure up to floor V level in lime mortar 1:1:1 (1 lime : 1 coarse sand: 1 surkhi).	cum	<b>55,547.10</b>	
5.3	Traditional Brick work in Nanak shahi or Lakhori bricks in gauged arches in lime mortar 1:1:1 (1 lime : 1 coarse sand: 1 surkhi).	cum	<b>58,053.30</b>	
5.6	Brick work in plain arches in superstructure above plinth level and upto floor five level including centering and shuttering complete, for span up to 6 meters with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in lime mortar 1:1:1 (1 lime putty : 1 surkhi : 1 coarse sand).	cum	<b>16,549.60</b>	
5.7	Brick work in gauged arches in super structure above plinth level and upto floor five level including centering and shuttering complete, for span up to 6 meters with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand)	cum	<b>20,099.50</b>	
5.5	Brick work with bricks of class designation 7.5 in super structure above plinth level and upto floor V level in all shape and size including all scaffolding in lime mortar 1:1:1 (1 lime putty : 1 surkhi : 1 coarse sand)	cum	<b>8,900.40</b>	
5.4	Brick work with common burnt bricks of class designation 7.5 in foundation and plinth in Lime mortar 1:1:1 (1 Lime putty : 1 surkhi : 1 coarse sand)	cum	<b>7,467.40</b>	
5.8	Providing half brick masonry with bricks of class designation 7.5 in foundation and plinth in lime mortar 1:1:1 (1 lime putty : 1 surkhi : 1 Coarse sand)	cum	<b>1,181.50</b>	
5.9	Providing half brick masonry with bricks of class designation 7.5 in super structure up to floor V level in lime mortar 1:1:1 (1 lime putty : 1 surkhi : 1 coarse sand)	sqm	<b>1,190.50</b>	
5.10	Tile brick masonry using 5 cm thick common burnt clay F.P.S. (non modular) tile bricks of class designation 10 in super structure upto floor V level in lime mortar 1:3 (1 lime putty : 3 coarse sand)	sqm	<b>14,689.60</b>	
5.11	Exposed brick work with selected F.P.S. bricks of class designation 7.5 including making horizontal and vertical grooves 10 mm wide, 12 mm deep complete in lime mortar in proportion similar to the existing traditional lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand).			
5.11.1	upto Plinth level	cum	<b>#SPILL!</b>	
5.11.2	in super structure upto floor V level	cum	<b>9,141.90</b>	

5.12	Stitching of cracks in brick masonry with stone / R.C.C. lintels of size 450x200x50 mm chasing, grooving the brick masonry and inserting the stone lintel. All around the stone lime mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand) should be properly packed upto floor V level.	each	<b>276.90</b>	
5.13	Brick work with Sun-dried mud bricks masonry of size 0.30 x 0.13 x 0.15 m in mud mortar admixed markula to maintain the originality using 20% bricks from salvages from the dismantling and 80% new supply of materials.	cum	<b>7,822.50</b>	

**Sub-Head 6: Lime Plastering**

<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
6.1	20mm thick lime plaster of mix in two layers. Under layer 12mm thick finished with a top layer 8 mm thick.			
6.1.1	1: 3 (1 Lime putty : 3 coarse sand)	Sqm	<b>477.70</b>	
6.1.2	1:1:1 (1 lime putty : 1 surkhi : 1 fine sand)	Sqm	<b>471.00</b>	
6.1.3	1:1:2 (1 lime putty : 1 surkhi : 2 coarse sand)	Sqm	<b>471.20</b>	
6.1.4	1:2 (1 lime putty : 2 surkhi)	Sqm	<b>467.60</b>	
6.2	15mm thick lime plaster of mix : In single coat			
6.2.1	1:3 (1 lime putty : 3 coarse sand)	Sqm	<b>394.30</b>	
6.2.2	1:1:1 (1 lime putty : 1 surkhi : 1 fine sand)	Sqm	<b>389.10</b>	
6.2.3	1:1:1 (1 lime putty : 1 surkhi : 1 coarse sand)	Sqm	<b>394.00</b>	
6.3	12 mm thick lime plaster of mix : In single coat			
6.3.1	1:3 (1 lime putty : 3 coarse sand)	Sqm	<b>339.20</b>	
6.3.2	1:1:1 (1 lime putty : 1 surkhi : 1 fine sand)	Sqm	<b>334.80</b>	
6.3.3	1:1:1 (1 lime putty : 1 surkhi : 1 coarse sand)	Sqm	<b>339.00</b>	
6.4	Lime punning with a mixture of lime putty (screened and pressed through) and marble dust mixed with Gur, Bilgri, Urd and other ingredients followed by grinding to fine consistency for smooth finishing of mix 1:2 (1 lime : 2 marble powder).	Sqm	<b>312.30</b>	
6.5	Making cornice band with ornamental design as per the cexisting design with lime plaster 1:3 (1 lime putty : 3 fine sand)			
6.5.1	Size 150 mm wide and 50 mm average thickness	meter	<b>667.70</b>	
6.5.2	Size 100 mm wide and 50 mm average thickness	meter	<b>613.80</b>	
6.5.3	Size 75 mm wide and 50 mm average thickness	meter	<b>587.80</b>	
6.6	Ruled/ Flush pointing on Red sand stone/ White sand stone masonry surface with lime, surkhi and stone dust mortar in the ratio 1:1:1 (1 lime : 1 surkhi (50% red and 50% light yellow surkhi) : 1 coarse sand). (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	<b>289.80</b>	
6.7	Stained pointing on red sand stone with 1:1:1 ratio lime mortar (1 lime : 1 surkhi : 1 coarse sand) mixed with composite materials with red oxide as a pigment including raking out joints etc. including supply of all materials labour T&P etc required for proper completion of work.	sqm	<b>247.10</b>	
6.8	Providing and laying 65-75mm av thick simple moulded plaster 1:1:1 ratio composite lime mortar (1 lime : 1 surkhi : 1 coarse sand) mixed with composite materials labour T&P etc. required for proper completion work.	sqm	<b>1,046.00</b>	
6.9	Recessed Pointing with 1:1:1 ratio composite lime mortar (1 lime : 1 coarse sand : 1 surkhi) mixed wth colour pigment including racking out joints etc. and supply of all materials labour T&P etc. required for proper completion of work.	Sqm	<b>397.40</b>	

6.10	Providing and laying to 75mm to 100mm average thick diamond cut lime plaster in three coats the ceiling of domes & corner as per original evidence at site. With composite lime mortar 1:1:1 ratio (1 lime : 1 surkhi : 1 coarse sand) including supply of all materials labour T. & P. etc required for proper completion of.	Sqm	<b>3,635.20</b>	
6.11	Plastering the internal and external surfaces using traditional lime mortar 1:1:2 ( 1 lime putty : 1 surkhi : 2 coarse sand) mixed with organic additives such as aloevera/ jaggery including ramming of the plaster work till the shrinkage cracks disappears and curing complete.			
6.11.1	Lime plastering in layers up to 125 mm thickness to match with the original			
6.11.1.1	Upto a height of 6m	Sqm	<b>2,854.30</b>	
6.11.1.2	Upto a height of 12m	Sqm	<b>2,962.80</b>	
6.11.1.3	Upto a height of 18m	Sqm	<b>3,071.30</b>	
6.11.2	Lime plastering in layers up to 75 mm thickness to match with the original			
6.11.2.1	Upto a height of 24m	Sqm	<b>2,098.30</b>	
6.11.3	Lime plastering in layers up to 50 mm thickness to match with the original			
6.11.3.1	Upto a height of 6 m	Sqm	<b>1,083.50</b>	
6.12	Plastering ribs on the internal and external surfaces of dome as per original pattern and sectional specifications in rich lime mortar 1:1 ( 1 lime putty : 1 fine sand ) mixed with organic additives such as aloevera/jaggery etc.			
6.12.1	Plaster work with decorative bands up to 15 cm width	meter	<b>830.80</b>	
6.13	Repair of partially missing medallions on the external / internal surfaces as per original design pattern using rich lime mortar			
6.13.1	Medallion with intricate decorative stucco work			
6.13.1.1	Medallion up to 45 cm Diameter & 75mm thick	No.	<b>1,907.70</b>	
6.13.1.2	Medallion up to 60 cm Diameter & 75mm thick	No.	<b>3,903.40</b>	
6.14	Repair of partially missing medallions / arch crowns on the external / internal surfaces as per original design pattern using lime mortar 1:1 (1 lime : 1 fine sand)			
6.14.1	Arch crowns with intricate details			
6.14.1.1	up to height 45 cm & 75 mm thick considering 70% area of full size	No.	<b>1,509.80</b>	
6.14.1.2	upto height 60cm & 75mm thick considering 60% area of full size	No.	<b>1,855.20</b>	
6.15	Constructing the missing medallions / arch crowns on the external / internal surfaces as per original design pattern of size 450mm dia and 75mm thick using lime mortar 1:1 (1 lime putty : 1 fine sand)			
6.15.1	Medallion with intricate decorative strucco work	No.	<b>5,479.80</b>	

6.16	Repairing / Re- plastering the bands of thickness 75mm using traditional lime mortar 1:2 ( 1 lime putty : 2 coarse sand) mixed with organic additives such as aloevera/ jaggery including ramming of the plaster work till the shrinkage cracks disappears and curing complete.			
6.16.1	Plain plaster bands or bands with minimal details			
6.16.1.1	Bands Of 10 cm width	meter	<b>2,350.60</b>	
6.16.1.2	Bands Of 20 cm width	meter	<b>2,824.70</b>	
6.16.1.3	Bands Of 30 cm width	meter	<b>4,359.10</b>	
6.16.1.4	Bands Of more than 40 cm width upto 60cm	meter	<b>4,844.30</b>	
6.17	Repairing plaster in the bands using traditional lime mortar 1:2 ( 1 lime putty : 2 coarse sand) mixed with organic additives such as aloevera/ jaggery including ramming of the plaster work till the shrinkage cracks disappears and curing complete.			
6.17.1	Repairing the bands of Capitol with less decorative details			
6.17.1.1	Bands more than 90 cm width	meter	<b>4,576.20</b>	
6.18	Repair of the merlon shape parapet wall as per size and profile of the original existing patterns including plastering, consolidation and partial re-construction of missing profile. using traditional lime mortar 1:2 (1 lime putty : 2 coarse sand) mixed with organic additives			
6.18.1	Repair of the merlon shape parapet wall beyond 12 m height			
6.18.1.1	Merlons up to size 2.3 m x 1.3 m	No.	<b>17,412.40</b>	
6.18.1.2	Merlons up to size 0.045 m x 0.35m	No.	<b>3,543.10</b>	
6.18.1.3	Merlons up to size 1.3 m x 0.9 m	No.	<b>11,642.30</b>	
6.19	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.			
6.19.1	With Lime mortar 1:3 (1 Lime : 3 fine sand)	Sqm	<b>493.80</b>	
6.19.2	With Lime mortar 1:3 (1 Lime : 3 coarse sand)	Sqm	<b>505.60</b>	
6.20	Pointing on stone work with lime mortar 1:3 (1 lime : 3 fine sand) :			
6.20.1	Flush/ Ruled pointing	Sqm	<b>293.50</b>	
6.20.2	Raised and cut pointing	Sqm	<b>534.10</b>	
6.21	Raised and cut pointing on stone work in lime mortar 1:2 (1 Lime : 2 Marble dust/ powder).	Sqm	<b>533.40</b>	
6.22	Pointing on stone slab ceiling with lime mortar 1:2 (1 lime : 2 fine sand):			
6.22.1	Flush/ Ruled pointing	Sqm	<b>163.50</b>	

<b>Sub-Head 7: Flooring</b>				
<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
7.1	Providing and fixing Red sand stone flooring over 20mm (average) thick base of combination mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including pointing with combination mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand)			
7.1.1	100 mm thick Red sand stone	sqm	<b>3850.00</b>	
7.1.2	75 mm thick Red sand stone	sqm	<b>3169.00</b>	
7.1.3	65 mm thick Red sand stone	sqm	<b>2716.00</b>	
7.1.4	50 mm thick Red sand stone	sqm	<b>2390.00</b>	
7.2	Providing and fixing Indian White Marble flooring over 20mm (average) thick base of combination mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including pointing with combination mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand)			
7.2.1	100 mm thick Indian White Marble Stone	sqm	<b>53987.80</b>	
7.2.2	75 mm thick Indian White Marble Stone	sqm	<b>40753.80</b>	
7.2.3	65 mm thick Indian White Marble Stone	sqm	<b>35460.30</b>	
7.2.4	50 mm thick Indian White Marble Stone	sqm	<b>27473.70</b>	
7.3	Providing and fixing Agaria Marble flooring over 20mm (average) thick base of combination mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including pointing with combination mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand)			
7.3.1	100 mm thick Agaria Marble	sqm	<b>10882.90</b>	
7.3.2	75 mm thick Agaria Marble	sqm	<b>8425.20</b>	
7.3.3	65 mm thick Agaria Marble	sqm	<b>7,479.90</b>	
7.3.4	50 mm thick Agaria Marble	sqm	<b>5996.90</b>	
7.4	Providing and fixing Raj Nagar Marble flooring over 20mm (average) thick base of combination mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand), including pointing with combination mortar 1:1:1 (1 lime : 1 surkhi : 1 coarse sand)			
7.4.1	100 mm thick Raj Nagar Marble	sqm	<b>6345.60</b>	
7.4.2	75 mm thick Raj Nagar Marble	sqm	<b>5060.00</b>	
7.4.3	65 mm thick Raj Nagar Marble	sqm	<b>4530.60</b>	
7.4.4	50 mm thick Raj Nagar Marble	sqm	<b>3652.60</b>	
7.5	Brick on edge flooring with bricks of class designation 7.5 on a bed of 12mm lime mortar, including filling the joints with same mortar, with common burnt clay non modular bricks:			
7.5.1	1:1:1 (1 lime : 1 surkhi : 1 coarse sand)	sqm	<b>1043.40</b>	
7.6	Dry brick on edge flooring in required pattern with bricks of class designation 7.5 on a bed of 12mm mud mortar, including filling joints with Jamuna sand, with common burnt clay no modular bricks.	sqm	<b>680.90</b>	
7.7	25mm wooden planking, tongued and grooved in flooring, including fixing with iron screws complete with:			
7.7.1	Second class teak wood	sqm	<b>4152.50</b>	
7.7.2	Second class deodar wood	sqm	<b>2759.10</b>	

7.8	38mm thick wood block flooring of first class teak wood laid over 25mm thick levelling layer of lime concrete with brick aggregate 28mm nominal size and 50% mortar comprising of (1 lime putty : 1 surkhi : 1 coarse sand) to be paid separately, coated with a thin layer of hot bitumen penetration 85/25 (blown type) @ 2.45 kg per sqm, including fixing blocks in position after dipping in hot bitumen (blown type) up to half depth, planed, levelled smooth and finished complete.	sqm	<b>9971.20</b>	
7.9	40mm thick Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.			
7.9.1	40 mm thick with 20 mm nominal size stone aggregate	sqm	<b>498.40</b>	
7.10	40 mm thick marble chips flooring rubbed and polished to granolithic finish, under layer 34 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size) and top layer 6mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from 1 mm to 4 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7 marble chips) by volume, including cement slurry etc. complete :			
7.10.1	Dark shade pigment with ordinary cement	sqm	<b>846.30</b>	
7.10.2	Light shade pigment with white cement	sqm	<b>876.40</b>	
7.10.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	<b>858.00</b>	
7.10.4	White cement without any pigment	sqm	<b>854.90</b>	
7.10.5	Light shade pigment with ordinary cement	sqm	<b>842.50</b>	
7.10.6	Ordinary cement without any pigment	sqm	<b>817.70</b>	
7.11	40 mm thick marble chips flooring, rubbed and polished to granolithic finish, under layer 31 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size) and top layer 9 mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from 4 mm to 7 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder : 7 marble chips) by volume, including cement slurry etc. complete.			
7.11.1	Dark shade pigment with Ordinary cement	sqm	<b>863.10</b>	
7.11.2	Light shade pigment with white cement	sqm	<b>906.10</b>	
7.11.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	<b>879.70</b>	
7.11.4	White cement without any pigment	sqm	<b>880.50</b>	
7.11.5	Light shade pigment with ordinary cement	sqm	<b>859.30</b>	
7.11.6	Ordinary cement without any pigment	sqm	<b>873.31</b>	

7.12	40 mm thick marble chips flooring, rubbed and polished to granolithic finish, under layer 28 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size) and top layer 12 mm thick with white, black, chocolate, grey yellow or green marble chips of sizes from 7 mm to 10 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 2:3 (2 cement marble powder mix : 3 marble chips) by volume, including cement slurry etc. complete :			
7.12.1	Dark shade pigment with Ordinary cement	sqm	<b>908.20</b>	
7.12.2	Light shade pigment with white cement	sqm	<b>968.50</b>	
7.12.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	<b>931.50</b>	
7.12.4	White cement without any pigment	sqm	<b>906.10</b>	
7.12.5	Light shade pigment with ordinary cement	sqm	<b>900.60</b>	
7.12.6	Ordinary cement without any pigment	sqm	<b>906.10</b>	
7.13	Marble chips skirting up to 30 cm height, rubbed and polished to granolithic finish, top layer 6 mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from smallest to 4 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7 marble chips) by volume :			
7.13.1	18 mm thick with under layer 12 mm thick in cement plaster 1:3 (1 cement : 3 coarse sand) :			
7.13.1.1	Dark shade pigment with ordinary cement	sqm	<b>1397.50</b>	
7.13.1.2	Light shade pigment with white cement	sqm	<b>1427.60</b>	
7.13.1.3	Medium shade pigment with 50% white cement and 50% ordinary cement	sqm	<b>1409.20</b>	
7.13.1.4	White cement without any pigment	sqm	<b>1406.10</b>	
7.13.1.5	Light shade pigment with ordinary cement	sqm	<b>1393.70</b>	
7.13.1.6	Ordinary cement without any pigment	sqm	<b>1369.90</b>	
7.14	Providing and fixing glass strips in joints of terrazo/ cement concrete floors.			
7.14.1	40 mm wide and 4 mm thick	meter	<b>75.20</b>	
7.15	Extra for laying terrazo flooring on staircase treads not exceeding 30 cm in width, including cost of forming, nosing etc.	sqm	<b>72.00</b>	
7.16	Precast terrazo tiles 22 mm thick with graded marble chips of size upto 12 mm, laid in floors, and landings, jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete, on 20 mm thick bed of cement mortar 1:4 (1 cement:4 coarse sand) :			
7.16.1	Light shade pigment using white cement	sqm	<b>1238.60</b>	
7.16.2	Medium shade pigment using 50% white cement and 50% ordinary cement	sqm	<b>1218.70</b>	
7.16.3	Dark shade pigment using ordinary cement	sqm	<b>1147.00</b>	
7.16.4	Ordinary cement without any pigment	sqm	<b>1091.60</b>	
7.17	Extra if terrazo tiles are laid in treads of steps not exceeding 30 cm in width.	sqm	<b>90.10</b>	

7.18	Precast terrazo tiles 22 mm thick with graded marble chips of sizes upto 12 mm, in skirting and risers of steps not exceeding 30 cm in height, on 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand), jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete with tiles of :			
7.18.1	Light shade pigment using white cement	sqm	<b>1846.70</b>	
7.18.2	Medium shade pigment using 50% white cement and 50% ordinary cement	sqm	<b>1787.10</b>	
7.18.3	Dark shade pigment using ordinary cement	sqm	<b>1738.70</b>	
7.18.4	Ordinary cement without any pigment	sqm	<b>1668.90</b>	
7.19	40 mm thick red oxide and flooring under layer of 30mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size) and top layer of 10mm thick plaster of cement red oxide mix using 3.5 kg of red oxide of iron per 50 kg of cement 1:3 (1 cement : 3 coarse sand) finished with a floating coat of cement red oxide mix of same proportion.	sqm	<b>1270.90</b>	
7.20	Add or deduct for using more or less than 3.5 Kg of red oxide of iron per 50 Kg cement in 40mm thick red oxide flooring	sqm	<b>21.90</b>	
7.21	Red oxide plaster skirting (upto 30 cm height with top layer of 6 mm thick plaster of cement mix. Using 3.5 kg of red oxide of iron per 50 kg of cement in mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of cement red oxide mix of same proportion.	sqm	<b>565.00</b>	
7.22	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand)			
7.22.1	25 mm thick	sqm	<b>1531.80</b>	
7.23	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Conservation Architect/ Engineer-in-Charge.			
7.23.1	Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	<b>3526.60</b>	
7.24	Marble stone flooring with 18 mm thick marble stone, as per sample of marble approved by engineer-in-charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete with :			
7.24.1	Makrana white second quality	sqm	<b>3230.60</b>	
7.24.2	Raj Nagar plain	sqm	<b>1953.50</b>	

7.24.3	Agaria White	sqm	<b>2722.80</b>	
7.25	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.			
7.25.1	25 mm thick	sqm	<b>1810.00</b>	
7.26	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :			
7.26.1	Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	<b>2476.50</b>	
7.27	40 mm thick fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand) with joints finished flush.			
7.27.1	Red Sand Stone	sqm	<b>1786.70</b>	
7.27.2	White Sand Stone	sqm	<b>2257.70</b>	
7.28	40 mm thick fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand), including pointing with cement mortar 1:2 (1 cement : 2 stone dust) with an admixture of pigment to match the shade of stone.			
7.28.1	Red Sand Stone	sqm	<b>1972.30</b>	
7.28.2	White Sand Stone	sqm	<b>2443.30</b>	
7.29	40 mm thick rubbed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand) with joints 3 mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar.			
7.29.1	Red Sand Stone	sqm	<b>1972.30</b>	
7.29.2	White Sand Stone	sqm	<b>2443.30</b>	
7.30	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	meter	<b>148.10</b>	
7.31	Extra for Kota stone/ sand stone in treads of steps and risers using single length up to 1.05 metre.	sqm	<b>33.10</b>	

<b>Sub-Head 8: Roofing</b>				
<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
8.1	Providing Red Sand Stone slab for roofing and laying them in lime mortar 1 : 2 (1 lime : 2 coarse sand) over wooden karries or R.C.C. battens or structural steel sections (Karries or battens or structural steel sections to be paid separately), including pointing the ceiling joints with lime mortar 1:1 (1 lime : 1 fine sand).			
8.1.1	Undressd Red sand stone slab - 50 mm thick	sqm	<b>1816.70</b>	
8.1.2	Machine-cut Red sand stone slab - 50 mm thick	sqm	<b>1883.00</b>	
8.2	Structural steel work in single section fixed with or without connecting plate including cutting hoisting, fixing in position and applying a priming coat of approved steel primer, as directed by Engineer incharge, and including all leads, lifts etc. complete.	kg	<b>86.80</b>	
8.3	100 mm thick (Average) mud phaska of damped brick earth on roofs laid to slope consolidated and plastered with 25mm thick mud mortar mixed with bhusa @ 35 kg per cum of earth and gobri leaping with mix 1:1 (1 clay: 1 cow dung) and covered with brick tile, grouted with lime mortar 1:2 (1 lime : 2 coarse sand).			
8.3.1	With common burnt clay F.P.S. brick tile of class designation 10	sqm	<b>854.30</b>	
8.3.2	With machine moulded common burnt clay F.P.S. (non modular) brick tiles of class designation 12.5, confirming to IS 2690	sqm	<b>874.60</b>	
8.4	Extra for every additional 1 cm thickness of mud phuska.	sqm	<b>18.60</b>	
8.5	Providing and laying pressed clay tiles (as per approved pattern 20 mm nominal thickness of approved size) on roofs jointed with lime mortar 1:2 (1 lime : 2 coarse sand) laid over a bed of 20mm thick lime mortar 1:2 (1 lime: 2 coarse sand) and finished neat complete.	sqm	<b>481.90</b>	
8.6	Providing gola 75mm x 75mm in lime concrete 1:1:2:2 (1 lime: 1 surkhi: 2 coarse sand: 2 brick aggregate 12mm to 20 mm nominal size) using methi, gur, hemp, belgiri etc. including beating and temping as per specification.			
8.6.1	in 75 x 75 mm deep chase	meter	<b>129.00</b>	
8.7	Making khurras 45 x 45 cm with average minimum thickness of 10 cm lime concrete 1:3:6 (1 Slaked lime :3 surkhi : 6 coarse sand) with graded brick aggregate 20mm nominal size over PVC sheet 1m x 1m x 400 micron, finished with 12mm lime mortar 1:3 (1 Slaked lime : 3 Coarse sand), rounding the edges and making and finishing the outlet complete.	No.	<b>260.30</b>	

8.8	Regrading terracing of mud phaska covered with tiles or brick, in lime by dismantling tiles or bricks, removing mud plaster, preparing the surface of mud phaska to proper slope, relaying mud plaster gobri leaping and tiles or bricks, grouted in lime mortar 1:3 (1 lime : 3 fine sand), including replacing unserviceable tiles or bricks with new ones and disposal of unserviceable material to the dumping ground (the cost of the new tiles or brick excluded) within 50 metres lead.	sqm	<b>543.00</b>	
8.9	Flush pointing with Lime mortar 1:1:1 (1 lime : 1surkhi : 1 fine sand) for flat tile bricks on top of mud phaska :			
8.9.1	With F.P.S. brick tiles	sqm	<b>108.50</b>	
8.10	Painting top of roofs with bitumen of approved quality @ 17 kg per 10 sqm impregnated with a coat of coarse sand at 60 cudm per 10 sqm, including cleaning the slab surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil complete :			
8.10.1	With residual type petroleum bitumen of grade VG -10	sqm	<b>126.00</b>	
8.11	Replacing sand stone slabs in roofing, laid in lime mortar 1:2 (1 lime :2 coarse sand), including necessary repairs and lime pointing with same mortar complete, including disposal of rubbish to dumping ground within 50 metres of lead :			
8.11.1	Undressed Red / white sand stone slabs 30 to 50 mm thick	sqm	<b>1981.80</b>	
8.20	Providing & laying on roof pressed clay tile ridge (Mangalore tile) of 20mm thickness and of approved pattern on steel/ wooden frame work complete (steel/ wooden frame work to be paid separately).	meter	<b>72.20</b>	
8.12	Lime concrete terracing on roofing average thickness 10 cm laid to fall with 25 mm nominal size gauge brick ballast and 50% lime mortar 1:2 (1 lime putty : 2 Surkhi) including ramming / beating and finishing with gur and belgiri treatment including rounding of junctions with parapet etc. complete.	sqm	<b>2797.40</b>	
8.13	Lime concrete terracing on roofs average thickness 10 cm laid to fall with 25 mm nominal size gauge brick ballast and 50% lime concrete 1:2 (1 lime putty : 2 Surkhi) including ramming / beating and finishing with gur and belgiri treatment and covered with flat brick tiles grouted with lime mortar 1: 1 (1 lime : 1 fine sand) and finishing etc. complete.	sqm	<b>627.80</b>	
8.14	Extra for every additional 0.5 cm thickness of lime concrete terracing.	sqm	<b>61.50</b>	
8.15	Providing and laying brick tiles over mumty roofs grouted with lime mortar 1:2 (1 lime : 2 coarse sand) over 12 mm layer of lime mortar 1:2 (1 cement : 2 coarse sand) and finished neat.	sqm	<b>682.10</b>	
8.16	Providing and laying cinder concrete in lime mortar 1:15 (1 lime : 15 cinder of 12.5 mm nominal guage) on terraced roofs, laid to slope including consolidating the same.	cum	<b>4462.20</b>	

8.17	Renewing wooden battens in roofs, including making good the holes in wall and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of engineer-in-Charge.			
8.17.1	Sal wood	cum	<b>91114.40</b>	
8.18	Renewing wooden beams in roofs including making good the holes in walls and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of engineer-in-charge.			
8.18.1	Not exceeding 4.00 metres in length.			
8.18.1.1	Sal wood beams	cum	<b>95325.80</b>	
8.18.1.2	Hollock wood beams	cum	<b>60860.00</b>	
8.18.2	Above 4.00 metres and upto 5.00 metres length.			
8.18.2.1	Sal wood beams	cum	<b>97267.00</b>	
8.18.2.2	Hollock wood beams	cum	<b>62765.30</b>	
8.19	Providing & fixing on roof pressed clay tile (Mangalore tile) of 20 mm nominal thickness and of approved size and as per approved pattern on steel/ wooden frame work complete (steel/ wooden frame work to be paid separately).	sqm	<b>324.40</b>	
8.21	Flush pointing with Lime mortar 1:1:1 (1 lime : 1surkhi : 1 fine sand) for flat tile bricks on top of mud phaska :			
8.21.1	With modular brick tiles	sqm	<b>110.40</b>	
8.22	Providing and laying of brick tiles of class designation 12.5 in two different layers with second layer laid at right angle to the bottom layer for roofing in lime mortar 1:2 (1 lime : 2 coarse sand) over wooden karries on RCC battens or structural steel section (karries or battens or structural steel section to be paid seperately) including grouting and 12 mm thick layer of lime mortar between both layers of brick tile with lime mortar 1:2 (1 lime : 2 coarse sand) complete as per direction of Engineer in charge.	sqm	<b>1149.10</b>	
8.23	Providing and laying 10 cm thick mud concrete over mud earth in 1:1:3 (1 Earth : 1 Markula : 3 Stone aggregate) for proper water tightening of roof/ floors of the Palace Complex.	sqm	<b>646.10</b>	
8.24	Providing and laying position lime concrete with graded brick aggregate 20 to 25 mm size an 50% composite lime mortar 1:1:1 ratio (1 lime : 1 surkhi : 1 coarse sand) mixed with belgiri, gur & jute (fibre) in roof terracing including supply of all materials labour T. & P. etc. required for proper completion of work.	cum	<b>16700.60</b>	

8.25	<p>Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with nonwoven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/ 450N/ 5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :</p>			
8.25.1	3 mm thick.	sqm	<b>535.00</b>	
8.26	<p>Extra for covering top of membrane with Geotextile, 120 gsm non woven, 100% polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.</p>	sqm	<b>99.70</b>	

<b>Sub-Head 9: Tile Work</b>				
<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
9.2	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineerin - Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	sqm	<b>1030.30</b>	
9.1	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red rown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sq.m including pointing the joints with white cement and matching pigments etc., complete.	sqm	<b>996.70</b>	
9.3	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including pointing the joints with white cement and matching pigments etc., complete.	sqm	<b>1170.70</b>	
9.4	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete.			
9.4.1	Size of Tile 500x500 mm	sqm	<b>1267.80</b>	
9.4.2	Size of Tile 600x600 mm	sqm	<b>1500.60</b>	
9.4.3	Size of Tile 800x800 mm	sqm	<b>1758.70</b>	
9.4.4	Size of Tile 1000x1000 mm	sqm	<b>1758.70</b>	

9.5	Crazy ceramic tile flooring, with under layer 12 mm thick cement mortar 1:4 (1 cement: 4 coarse sand), with joints not exceeding 5 mm, including filling the gaps with ordinary cement mixture & mixing with synthetic polyester fibre, triangular in shape having specific gravity of 1.34 to 1.40, cross section size ranging from 10 to 40 micron & length upto 6 mm , mixing fibre @ 125 grams per 50 kg of cement in cement mortar, including providing and mixing water proofing material in mortar @ 1 kg per 50 kg of cement, all complete as per direction of Conservation Architect/ Engineer-in-charge.	sqm	<b>107836.30</b>	
9.6	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete.			
9.6.1	Size of Tile 500x500 mm	sqm	<b>1313.10</b>	
9.6.2	Size of Tile 600x600 mm	sqm	<b>1545.90</b>	
9.6.3	Size of Tile 800x800 mm	sqm	<b>1806.80</b>	
9.6.4	Size of Tile 1000x1000 mm	sqm	<b>2547.30</b>	

<b>Sub-Head 10: Timber Work</b>				
<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
10.1	Providing and laying of tallows/ twigs of local poplar using 20% twigs from salvage and 80% new supply over round bal tern covered with 2.50m thick Av compressed local grass as per local traditional matching with the original pattern.	sqm	<b>1675.00</b>	
10.2	Providing and laying of local poplar pole for ceiling of the room of the Palace Complex as per the local traditional matching with the original pattern using 20% poles from the salvage and 80% from new supply.	meter	<b>1814.70</b>	
10.3	Providing beams including hoisting, fixing in position and applying wood preservative for the unexposed surface etc. complete with			
10.3.1	Salwood	cum	<b>93844.40</b>	
10.3.2	First class Kail wood	cum	<b>52895.60</b>	
10.4	Providing joists (karries) including hoisting, fixing in position and applying wood preservative as unexposed surface etc. complete with			
10.4.1	Salwood	cum	<b>90056.70</b>	
10.4.2	First class Kail wood	cum	<b>49115.80</b>	
10.5	Providing and fixing sal ballies in posts, purlins, rafters, post plates etc. including cost of iron nails and spikes required and applying wood preservative on all exposed surfaces.			
10.5.1	80 mm diameter	meter	<b>181.60</b>	
10.5.2	100 mm diameter	meter	<b>232.20</b>	
10.5.3	125 mm diameter	meter	<b>297.50</b>	
10.5.4	150 mm diameter	meter	<b>370.20</b>	
10.6	Providing and fixing sal ballies in trusses including cost of iron nails and spikes required and applying wood preservative on all exposed surfaces.			
10.6.1	80 mm diameter	meter	<b>264.80</b>	
10.6.2	100 mm diameter	meter	<b>301.60</b>	
10.6.3	125 mm diameter	meter	<b>353.10</b>	
10.6.4	150 mm diameter	meter	<b>412.00</b>	
10.7	Sawing charges for converting wooden sleepers or logs into planks and scantling etc.			
10.7.1	Soft Wood	sqm	<b>73.90</b>	
10.7.2	Hard Wood	sqm	<b>114.90</b>	
10.80	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).			
10.8.1	Second class teak wood	cum	<b>130183.10</b>	
10.8.2	Sal wood	cum	<b>105327.20</b>	
10.8.3	Kiln seasoned and chemically treated hollock wood	cum	<b>71746.40</b>	
10.9	Providing wood work in frames of false ceiling, partitions etc. sawn and fixed in position with necessary stainless steel screws etc.			

10.9.1	Sal wood	cum	<b>95893.90</b>	
10.9.2	Kiln seasoned and chemically treated hollock wood	cum	<b>62368.40</b>	
10.10	Extra for additional labour for circular works, such as in frames of fan light			
10.10.1	Second class teak wood	cum	<b>12938.00</b>	
10.10.2	Sal wood	cum	<b>10532.70</b>	
10.10.3	Kiln seasoned and chemically treated hollock wood	cum	<b>7174.90</b>	
10.11	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge. (Note:- Butt hinges and necessary screws shall be paid separately)			
10.11.1	Second class teak wood			
10.11.1.1	35 mm thick shutters	sqm	<b>3613.30</b>	
10.11.1.2	30 mm thick shutters	sqm	<b>3269.90</b>	
10.11.2	Kiln seasoned and chemically treated hollock wood			
10.11.2.1	35 mm thick shutters	sqm	<b>2381.50</b>	
10.11.2.2	30 mm thick shutters	sqm	<b>2208.70</b>	
10.11.3	Kiln seasoned selected planks of sheesham wood			
10.11.3.1	35 mm thick shutters	sqm	<b>3191.60</b>	
10.11.3.2	30 mm thick shutters	sqm	<b>2906.00</b>	
10.12	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :			
10.12.1	Second class teak wood	sqm	<b>2942.30</b>	
10.12.2	Kiln seasoned and chemically treated hollock wood	sqm	<b>1949.60</b>	
10.12.3	Float glass panes			
10.12.3.1	4 mm thick glass pane (weight not less than 10kg/sqm).	sqm	<b>1792.60</b>	
10.12.3.2	5.0 mm thick glass panes (weight not less than 12.50 kg/sqm).	sqm	<b>2116.90</b>	
10.12.4	Fly proof stainless steel grade 304 wire gauge with 0.5 mm dia. wire and 1.4mm wide aperture with matching wood beading	sqm	<b>1458.60</b>	
10.13	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws.			
10.13.1	Second class teak wood			
10.13.1.1	35 mm thick	sqm	<b>4354.60</b>	
10.13.1.2	30 mm thick	sqm	<b>4354.00</b>	
10.13.2	Kiln seasoned and chemically treated hollock wood			
10.13.2.1	35 mm thick	sqm	<b>2952.20</b>	
10.13.2.2	30 mm thick	sqm	<b>2754.60</b>	
10.13.3	Kiln seasoned selected planks of sheesham wood			
10.13.3.1	35 mm thick	sqm	<b>3886.30</b>	

10.13.3.2	30 mm thick	sqm	<b>3559.90</b>	
10.14	Providing and fixing wire gauge shutters using galvanized M.S. wire gauge of average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm, for doors, windows and clerestory windows with hinges and necessary screws			
10.14.1	35 mm thick shutters			
10.14.1.1	with ISI marked M.S. pressed butt hinges bright finished of required size			
10.14.1.1.1	Second class teak wood	sqm	<b>4221.20</b>	
10.14.1.1.1	Kiln seasoned and chemically treated hollock wood	sqm	<b>2979.50</b>	
10.14.1.1.1	Kiln seasoned selected class of sheesham wood	sqm	<b>3796.20</b>	
10.14.1.2	With ISI marked stainless steel butt hinges of required size			
10.14.1.2	Second class teak wood	sqm	<b>4347.70</b>	
10.14.1.2	Kiln seasoned and chemically treated hollock wood	sqm	<b>3106.00</b>	
10.14.1.2	Kiln seasoned selected class of sheesham wood	sqm	<b>3922.70</b>	
10.14.2	30 mm thick shutters			
10.14.2.1	with ISI marked M.S. pressed butt hinges bright finished of required size			
10.14.2.1.1	Second class teak wood	sqm	<b>3750.80</b>	
10.14.2.1.1	Kiln seasoned and chemically treated hollock wood	sqm	<b>2689.60</b>	
10.14.2.1.1	Kiln seasoned selected class of sheesham wood	sqm	<b>3386.90</b>	
10.14.2.2	With ISI marked stainless steel butt hinges of required size			
10.14.2.2	Second class teak wood	sqm	<b>3877.20</b>	
10.14.2.2	Kiln seasoned and chemically treated hollock wood	sqm	<b>2815.90</b>	
10.14.2.2	Kiln seasoned selected class of sheesham wood	sqm	<b>3513.40</b>	
10.15	Providing and fixing expandable fasteners of specified size with necessary plastic sleeves and galvanised M.S. screws including drilling holes in masonry work / CC/ R.C.C. and making good etc. complete.			
10.15.1	25 mm long	No.	<b>18.90</b>	
10.15.2	32 mm long	No.	<b>20.30</b>	
10.15.3	40 mm long	No.	<b>24.40</b>	
10.15.4	50 mm long	No.	<b>25.70</b>	
10.16	Providing 50x50x50 mm 2nd class teak wood plugs including cutting brick work and fixing in cement mortar 1:3 (1 cement : 3 fine sand) and making good the walls etc.	No.	<b>33.90</b>	
10.17	Providing and fixing 2nd class teak wood plain lining tongued and grooved, including wooden plugs complete with necessary screws and priming coat on unexposed surface.			
10.17.1	40 mm thick	sqm	<b>6137.80</b>	
10.17.2	25 mm thick	sqm	<b>4057.80</b>	
10.17.3	20 mm thick	sqm	<b>3291.20</b>	
10.17.4	12 mm thick	sqm	<b>2181.90</b>	
10.18	Providing and fixing specified wood frame work consisting of battens 50x25mm fixed with rawl plug and drilling necessary holes for rawl plug etc. including priming coat complete.			
10.18.1	Kiln seasoned and chemically treated hollock wood	cum	<b>152707.30</b>	

10.19	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete			
10.19.1	2nd class teak wood			
10.19.1.1	50x12 mm	meter	<b>184.60</b>	
10.19.1.2	50 x 20 mm	meter	<b>232.20</b>	
10.19.2	Kiln seasoned and chemically treated hollock wood			
10.19.2.2	50x12 mm	meter	<b>149.20</b>	
10.19.2.2	50x20 mm	meter	<b>173.20</b>	
10.20	Providing and fixing plain jaffri of 35x10 mm laths placed 35 mm apart (frames to be paid separately), including fixing 50x12 mm beading complete with			
10.20.1	Second class teak wood	sqm	<b>2546.90</b>	
10.21	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.			
10.21.1	Fixed to steel windows by welding	kg	<b>165.70</b>	
10.21.2	Fixed to openings /wooden frames with rawl plugs screws etc.	kg	<b>183.90</b>	
10.22	Providing and fixing expanded metal 20x60 mm strands 3.25 mm wide and 1.6mm thick for windows etc. including 62 x19 mm beading of II nd class teak wood and priming coat with approved steel primer all complete.	sqm	<b>1246.90</b>	
10.23	Providing and fixing hard drawn steel wire fabric 75x25 mm mesh of weight not less than 7.75 Kg per sqm to window frames etc. including 62x19 mm beading of second class teak wood and priming coat with approved steel primer all complete.	sqm	<b>1454.80</b>	
10.24	Providing and fixing fly proof galvanized M.S. wire gauge to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm all complete.			
10.24.1	With 2nd class teak wood beading 62X19 mm	sqm	<b>1133.40</b>	
10.24.2	With 12 mm mild steel U beading	sqm	<b>781.20</b>	
10.25	Deduct for fixing 75x25 mm hard drawn steel wire fabric of weight not less than 7.75 Kg per sqm in panelled and glazed door and window shutter instead of glass sheet 4 mm thick.	sqm	<b>173.90</b>	
10.26	Providing beams including hoisting, fixing in position and applying wood preservative for the unexposed surfaces, etc. complete with			
10.26.1	Sal wood	cum	<b>93844.40</b>	
10.26.2	Hollock wood	cum	<b>59720.40</b>	
10.27	Providing and fixing 2nd class teak wood lipping/ moulded beading or taj beading of size 18X5 mm fixed with wooden adhesive of approved quality and screws/nails on the edges of the Pre-laminated particle board as per direction of Conservation Architect/ Engineer-in-charge.	meter	<b>78.80</b>	

10.28	Providing and fixing wire gauge shutters using stainless steel grade 304 wire gauge with wire of dia 0.5 mm and average width of aperture 1.4 mm in both directions for doors, windows and clerestory windows with necessary screws			
10.28.1	35 mm thick shutters			
10.28.1.1	with ISI marked M.S. pressed butt hinges bright finished of required size			
10.28.1.1.1	Second class teak wood	sqm	<b>4352.20</b>	
10.28.1.1.1	Kiln seasoned and chemically treated hollock wood	sqm	<b>3110.50</b>	
10.28.1.1.1	Kiln seasoned selected class of sheesham wood	sqm	<b>3927.20</b>	
10.28.1.2	With ISI marked stainless steel butt hinges of required size			
10.28.1.2.1	Second class teak wood	sqm	<b>4478.70</b>	
10.28.1.2.1	Kiln seasoned and chemically treated hollock wood	sqm	<b>3237.00</b>	
10.28.1.2.1	Kiln seasoned selected class of sheesham wood	sqm	<b>4053.70</b>	
10.28.2	30 mm thick shutters			
10.28.2.1	with ISI marked M.S. pressed butt hinges bright finished of required size			
10.28.2.1.1	Second class teak wood	sqm	<b>3881.80</b>	
10.28.2.1.1	Kiln seasoned and chemically treated hollock wood	sqm	<b>2820.60</b>	
10.28.2.1.1	Kiln seasoned selected class of sheesham wood	sqm	<b>3,517.90</b>	
10.28.2.2	With ISI marked stainless steel butt hinges of required size			
10.28.2.2.1	Second class teak wood	sqm	<b>4008.20</b>	
10.28.2.2.1	Kiln seasoned and chemically treated hollock wood	sqm	<b>2946.90</b>	
10.28.2.2.1	Kiln seasoned selected class of sheesham wood	sqm	<b>3644.40</b>	
10.29	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete.			
10.29.1	With 2nd class teak wood beading 62X19 mm	sqm	<b>1353.60</b>	
10.29.2	With 12 mm mild steel U beading	sqm	<b>1001.50</b>	
10.30	Repairing the wooden jalties with similar wood ( Upto 2" ) including replacing decayed members , treatment and finishing.			
10.30.1	Up to an area of 5 sqm	sqm	<b>5931.80</b>	
10.31	Providing joists (karries) including hoisting fixing in position and applying wood preservative on un-exposed surface etc. complete with			
10.31.1	Sal Wood	cum	<b>90056.70</b>	

**Sub-Head 11: Scaffolding**

S. No.	Item Description	Units	Rate	Remark
11.1	<p>Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/ structure, upto 25 meter height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 meter center to center, horizontal &amp; vertical tubes joint with cup &amp; lock system with M.S. Tubes, M.S. tube challis., M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and / or pointing and / or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc, wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen, etc., complete as per directions and approval of Engineer-in-charge.</p> <p>Note:</p> <ol style="list-style-type: none"> <li>1. The elevational area of the scaffolding shall be measured for payment pupose.</li> <li>2. The payment will be made once only for execution of all items for such works.</li> <li>3. This item to be used for maintainance work judicially, necessary deductoin for saffolding in the existing item to be done</li> </ol>	sqm	<b>257.90</b>	
11.2	<p>Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40mm dia M.S. tube 1.5m center to center, horizontal &amp; vertical tubes joining with cup &amp; lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracing, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge. The elevational area of the scaffoding shall be measured for payement purpose. The payment will be made once irrespective of duration of scaffolding. Note: This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done.</p>	sqm	<b>183.10</b>	

11.3	Erecting scaffolding with tublar pipes 40mm diameter and 2 meter long M.S. tube vertical pipe 1.5 meter centre to centre tied with horizontal bracing of 40mm diameter pipe including dismantling after completing of work and carriage of pipes from site of work to godown. Note: Material for scaffolding shall be provided by the department.	No.	<b>213.50</b>	
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<b>Sub-Head 12: Dismantling &amp; Demolishing</b>				
<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
12.1	Carefully dismantling lime concrete manually and disposal of material within 50 metres lead as per direction of Engineer-in-charge.	cum	<b>607.50</b>	
12.2	Carefully dismantling brick work manually including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.			
12.2.1	In mud mortar	cum	<b>503.00</b>	
12.2.2	In lime mortar with old mughal bricks	cum	<b>1,272.00</b>	
12.2.3	In lime mortar	cum	<b>607.50</b>	
12.2.4	In cement mortar	cum	<b>1,469.90</b>	
12.3	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured):			
12.3.1	from brick work in mud mortar	1000 no	<b>3,354.50</b>	
12.3.2	From brick work in lime mortar	1000 no	<b>3,886.40</b>	
12.3.3	From brick work in cement mortar	1000 no	<b>4,880.90</b>	
12.4	Carefully dismantling stone rubble masonry manually including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :			
12.4.1	In lime mortar	cum	<b>826.40</b>	
12.4.2	In cement mortar	cum	<b>1,754.30</b>	
12.5	Carefully dismantling dressed stone work ashlar face stone work, marble work or precast concrete work manually including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :			
12.5.1	In lime mortar	cum	<b>1,045.00</b>	
12.5.2	In cement mortar	cum	<b>2,052.90</b>	
12.6	Removing mortar from and cleaning stones and concrete articles (net quantity of stacks of cleaned materials will be measured):			
12.6.1	In lime mortar	cum	<b>345.40</b>	
12.6.2	In cement mortar	cum	<b>495.80</b>	
12.7	Carefully dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :			
12.7.1	Of area 3 sqm and below	each	<b>266.40</b>	
12.7.2	Of area beyond 3 sqm	each	<b>375.60</b>	
12.8	Careful removal of doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :			
12.8.1	Of area 3 sqm and below	each	<b>106.50</b>	
12.8.2	Of area beyond 3 sqm	each	<b>140.70</b>	
12.9	Carefully dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	<b>190.30</b>	

12.10	Carefully dismantling brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	<b>79.60</b>	
12.11	Carefully dismantling mud phaska in terracing and disposal of material within 50 metres lead.	cum	<b>652.30</b>	
12.12	Carefully dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead			
12.12.1	G.S. Sheet	sqm	<b>121.90</b>	
12.12.2	Asbestos cement sheet	sqm	<b>56.90</b>	
12.13	Carefully dismantling stone slab roofing over wooden karries or R.C.C. battens (dismantling karries and battens to be paid for separately), including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	cum	<b>1,902.90</b>	
12.14	Carefully dismantling jack arch roofing and floors including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	<b>181.30</b>	
12.15	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts	cum	<b>138.80</b>	
12.16	Dismantling of fractured, cracked and out of plumb wood works such as Beams, Brackets and posts etc. very carefully and properly avoiding any damages to the adjoining structure, including sorting out serviceable materials, stacking properly and disposal of unserviceable materials within a lead of 300 meter to 350 meter.	meter	<b>321.30</b>	
12.17	Dismantling of wooden round poles from the ceiling/ roof very carefully avoiding damages to the adjoining structures for resetting/ relaying the same by sorting out serviceable materials, cleaning, stacking properly and disposal of unserviceable materials within a lead of 300 meter distance.	meter	<b>25.90</b>	
12.18	Dismantling cracked weathered and fractured Twigs/ Tallu/ round batten from the roofs/ ceiling for resting/ relaying the same, including disposal of broke, cracked and unserviceable materials within a lead of 300 meter and sorting out serviceable materials, cleaning and stacking in order complete.	sqm	<b>140.10</b>	
12.19	Dismantling of 30 cm thick scratched and worn out dead plaster and mud concrete from the roofs and floors at different levels of the Palace, including sorting out serviceable materials, stacking and screening/ seiving and disposal of unserviceable materials within a lead of 300 meters.	cum	<b>1,307.20</b>	
12.20	Dismantling of tiles and weathered sun dried mud bricks wall carefully in parapets/ structural wall avoiding any damages to the adjoining structure, including sorting out serviceable materials within a lead of 400 to 500 m.	cum	<b>1,119.90</b>	
12.21	Taking out old and decayed Red sand stone flooring including removal of dead concrete and stacking of dismantled material away from site as directed by the Engineer-in-charge	sqm	<b>229.50</b>	

12.22	Dismantling old & decayed lime concrete on roof terrace bit by bit with chisels and special tools to avoid any disturbance/ damage to the adjoining structure & stacking of refused material/ debris (malba) away from site as directed by the Engineer-in-charge within a dist. of 100 m and lift upto 25m through staircase or chain pully block and scaffolding.	cum	<b>2,255.00</b>	
12.23	Removal of old decayed & dislodged concrete edging and cutting for making grooves in parapet walls & roof terrace for filling the cracks & making concrete edging including removal of debris upto a lead of 200 m & lift upto 10 m.	cum	<b>6,101.80</b>	
12.24	Taking out old decayed and bulged R.R. Masonry including stacking of serviceable items and removal of rubbish materials from site to a lead of 50m.	cum	<b>1,279.20</b>	

**Sub-Head 13: Surface Cleaning**

<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
13.1	Removing white or colour wash or oil, grease, paint etc. in multiple layers under the supervision of trained conservator from exposed stone wall or from rendered brick or stone wall at all heights by scrubbing with bristle brushes applying hot/ warm water wherever necessiated. A gentle use of air abrasive tools may be permitted as long as no damage to the original surface is ensured. The surface shall finally be cleaned by hand rubbing and rinsing with clean water to obtain nearly original surface, colour and texture. (The rate shall include all the above operations, cost of material, tools and tackles etc. including erecting the scaffolding and dismantling the scaffolding after the work is completed.)	Sqm	<b>859.80</b>	
13.2	Removal of dirt, old paint, oil greese etc. from steel sections under the supervision of trained conservator by mechanical scrapping, or by applying mild chemicals or by resorting to burning with blow lamps etc. Cleaned surface to be sand papered employing different grades of sand papers. (Rates includes all operations described above and shall apply for all levels and heights. Nothing extra over quoted rates shall be payable.)	Sqm	<b>664.70</b>	
13.3	Cleaning of marble stone surfaces of stains, dirt, dust, soot, etc. by applying non-ionic mild soap solution having ph value 7. The surface shall finally be rinsed with profuse clean water to obtain a nearly original surface. The cleaning shall be carried out under the supervision of trained conservator.	Sqm	<b>356.90</b>	
13.4	Cleaning the sand stone surface and removing dirt, dust, bird dropping, grease, oil, algae, fungus, monkey beats, vegetable growth etc., including providing, applying and washing the surface with liquid Ammonia Chemical of 5% solution and other chemical cleaning agent as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacturer, with the help of required scrubbers and also cleaning with machine operated water jet mixed with desired quantity of fine silica wherever required, without causing any scratching/ damage to the stone surface and finally washing the surface and finally washing the surface with clean water with the help of pressure jet machine, complete in all respect, including taking all precautions to safeguard ventillators, windows, doors etc. by suitable covering so as to avoid any damage to the building/ structure, all as per direction of Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).	sqm	<b>158.20</b>	

13.5	Providing and applying antifungal wash treatment using 3% solution of sodium pentachlorophenate, of reputed brand and manufacturer, on cleaned sand stone surface at desired locations as per direction of Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).	Sqm	<b>59.10</b>	
13.6	Applying two or more coat of Ethyl Silicate chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacturer, with brush or spray on the existing stone masonry surface till there is no further absorption of chemical by stone surface, including protecting the applied surface from direct sunlight by suitable means during application, all complete as per direction of the Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).	Sqm	<b>293.70</b>	
13.7	Applying breathable, non-reactive, antifungal, and water repellent Silane/ Silaxane chemical as approved by Archaeological Survey of India/ Engineer-in-charge, of approved brand and manufacture, diluted with solvent mineral Turpentine oil in the ratio of 1:2 (One part of approved chemical : 12 part of Turpentine oil), on the existing sand stone masonry surface with two or more coats to give uniform application of chemical on the surface, all complete as per direction of Engineer-in-charge (The rate is inclusive of all materials & labours involved except scaffolding).	Sqm	<b>92.40</b>	

<b>Sub-Head 14: Miscellaneous</b>				
<b>S. No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Rate</b>	<b>Remark</b>
14.1	Providing and fixing missing intricate shell (Seap) inlay works comprising the turbo shell 1.5 to 2 mm thick of different shape and size for require pattern pinned with special kind of nail and set in arldite adhesive etc. required for proper completion of work.	Sq cm	<b>165.50</b>	
14.2	Picking up and scraping the old surface of lime concrete in roof terracing and applying 25mm layer of lime mortar 1:1:1 mixed with brick aggregate of zero size including ramming, rubbing & watering complete the surface to match with the original.	sqm	<b>1,085.00</b>	
14.3	Filling the cracks & making concrete edging with zero brick aggregate mixed with 50% lime mortar 1:1:1 ( 1 lime : 1 surkhi : 1 coarse sand) mixed with composite materila including supply of all materials, labout T&P etc required for proper completion of work.	cum	<b>5,486.20</b>	
14.4	White washing with lime to give an even shade :			
14.4.1	New work (three or more coats)	Sqm	<b>27.80</b>	
14.4.2	Old work (two or more coats)	Sqm	<b>16.00</b>	
14.4.3	Old work (one or more coats)	Sqm	<b>9.50</b>	
14.5	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	Sqm	<b>45.90</b>	
14.6	Applying priming coat:			
14.6.1	With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	Sqm	<b>57.10</b>	
14.7	Painting with oil type wood preservative of approved brand and manufacture : New work (two or more coats)	Sqm	<b>44.50</b>	



