

JABALPUR SMART CITY LIMITED

Jabalpur Madhya Pradesh

APPENDIX 2.10

TENDER DOCUMENT

For Percentage Rate Tender only

Office of the : **JABALPUR SMART CITY LIMITED**

NIT Number and Date : **JSCL/2017/481/ADM/32 DATED: 05/08/2017**

Agreement Number and Date : _____

Name of Work : **DEVELOPMENT OF DUMNA NATURE PARK,
PHASE 1 AT JABALPUR**

Name of the Contractor : _____

Probable Amount of Contract

(Rs. In Figure) : **3,71,50,000/-**

(Rs. In Words) : **Three Crore Seventy One Lakhs Fifty Thousand Only**

Contract Amount

(Rs. In Figure) : _____

(Rs. In Words) : _____

Stipulated Period of Completion : **12 months**

SECTION 1
Notice Inviting e-Tenders
Jabalpur Smart City Limited, Jabalpur

N.I.T. NO. JSCL/2017/481/ADM/32 Department 2017/481/ADM/32
/e-tendering Dated: 05/08/2017

Online percentage rate bids for the following works are invited from registered contractors and firms of repute fulfilling registration criteria:

S.No./Pkg /Code	Work	District(s)	Probable Amount (Rs. In lacs)	Completion Period (months)
1.	<u>Development of Dumna Nature Park, Phase 1 at Jabalpur"</u>	Jabalpur	371.50 Lacs	12 Months

1. Interested bidders can view the NIT on website <http://www.mpeproc.gov.in> www.jscljabalpur.org.
2. The Bid Document can be purchased only online from website <http://www.mpeproc.gov.in> from 08/08/2017 to 06/09/2017
3. Amendments to NIT, if any, would be published on website only, and not in Newspaper.



Executive Director

Jabalpur Smart City Limited

Notice Inviting Tenders
Jabalpur Smart City Limited, Jabalpur
Office of the Jabalpur Smart City Limited, Jabalpur

N.I.T.NO. _____/e-tendering

Dated _____

Online percentage rate bids for the following works are invited from registered contractors and firms of repute fulfilling registration criteria:

S.No.	Name of Work	District	Probable Amount of Contract (Rs. In lacs)	Earnest Money Deposit (EMD) (in Rupees)	Cost of Bid Document (in Rupees)	Category of Contractor	Period of completion (in Months)
1	<u>Development of Dumna Nature Park, Phase 1 of Jabalpur</u>	Jabalpur	371.50 lacs	3,71,500/-	15000/-	As per appropriate class	12 months

1. All details relating to the Bid Document(s) can be viewed and downloaded free of cost on the website.
2. Bid Document can be purchased after making online payment of portal fees through Credit/Debit/Cash Card/ Internet banking.
3. At the time of submission of the bid the eligible bidder shall be required to :
 - I. Pay the cost of bid document.
 - II. Deposit the Earnest Money
 - III. Submit a check list and
 - IV. Submit an affidavit.

Details can be seen in the Bid Data Sheet.

4. Eligibility for bidders :

At the time of submission of the bid the bidder should have valid registration with the Government of Madhya Pradesh, PWD in appropriate class; however, such bidders who are not registered with the Government of Madhya Pradesh and are eligible for registration can also submit their bids after having applied for registration with appropriate authority.

- (a) The bidder would be required to have valid registration at the time of signing of the Contract.
- (b) Failure to sign the contract by the selected bidder, for whatsoever reason, shall result in forfeiture of the earnest money deposit.

5. **Pre-qualification** - Prequalification conditions, wherever applicable, are given in the Bid Data Sheet.
6. **Special Eligibility**- Special Eligibility Conditions, if any, are given in the Bid data sheet.
7. The Bid Document can be purchased only online from website <http://www.mpemproc.gov.in> from 08/08/2017 to 06/09/2017. Other key dates may be seen in bid data sheet.
8. **SOR applicable is UADD Schedule of Rates 2012 Volume I, II, III and IV for Building Works & MP PWD SOR 2014 CPWD SoR 2016** and amendments upto the date of submission of tender.
9. Amendments to NIT, if any, would be published on website only, and not in newspaper.


 Executive Director
 Jabalpur Smart City Limited

सी मीत हो
को वे टीम
स्थान के काम
के अंततपुर से
या।

SECTION 1. NOTICE INVITING E-TENDERS
JABALPUR SMART CITY LIMITED, JABALPUR
DEPARTMENT

N.I.T. No. JSCL/ 2017/ 481/ ADM/ 32 /e-tendering Date 5.8.2017

Online percentage rate bids for the following works are invited from registered contractors and firms of repute fulfilling registration criteria :-

S.No./ Pkg/ Code	Work	District (S)	Probable Amount (Rs in Lacs)	Completion Period (months)
1.	Development of Dumna Nature Park, Phase 1 at Jabalpur.	Jabalpur	371.50 Lakhs	12 Months

1) Interested bidders can view the NIT on website [http:// www.mpeproc.gov.in](http://www.mpeproc.gov.in) 2) The Bid Document can be purchased only online from website <http:// www.mpeproc.gov.in> from 08.08.2017 to 06.09.2017, 3) Amendments to NIT, if any, would be published on website only, and not in newspaper.

Executive Director
Jabalpur Smart City Limited

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SECTION 1
Notice Inviting e-Tenders
Jabalpur Smart City Limited
Department

N.I.T. No. :- JSCL/2017/481/ADM/32 Date: 05/08/2017

Online Percentage rate bids for the following works are invited from registered contractors and firms of repute fulfilling registration criteria :

S.No./ Pkg/Code	Work	District (S)	Probable Amount (Rs. In lacs)	Completion Period (months)
1	Development of Dumna Nature Park, Phase 1 at Jabalpur	Jabalpur	371.50 Lacs	12 Months

1. Interested bidders can view the NIT on website <http://www.mpeproc.gov.in>; www.jscljabalpur.org
 2. The Bid Document can be purchased only online from website <http://www.mpeproc.gov.in> from 08/08/2017 to 06/09/2017.
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Executive Director, Jabalpur Smart City Limited

पत्रिका . जबलपुर . रविवार . 06.08.2017

Appendix 2.10
Tender Document
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SECTION 1

Notice Inviting e-Tenders

Jabalpur Smart City Limited, Jabalpur

N.I.T. NO-JSCL/2017/481/ADM/32

Dated: 05/08/2017

Online percentage rate bids for the following works are invited from registered contractors and firms of repute fulfilling registration criteria:

S.No./Pkg /Code	Nature of Work	District(s)	Probable Amount (Rs. In lacs)	Completion Period (months)
1.	Development of Dumna Nature Park, Phase 1 at Jabalpur"	Jabalpur	371.50 Lacs	12 Months

1. Interested bidders can view the NIT on website <http://www.mpeproc.gov.inwww.jscljabalpur.org>.
2. The Bid Document can be purchased only online from website <http://www.mpeproc.gov.in> from 08/08/2017 to 06/09/2017
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Executive Director
Jabalpur Smart City Limited

Notice Inviting Tenders
Jabalpur Smart City Limited, Jabalpur
Office of the Jabalpur Smart City Limited, Jabalpur

N.I.T. NO-JSCL/2017/481/ADM/32

Dated: 05/08/2017

Online percentage rate bids for the following works are invited from registered contractors and firms of repute fulfilling registration criteria:

S.No.	Name of Work	District	Probable Amount of Contract (Rs. In lacs)	Earnest Money Deposit (EMD) (in Rupees)	Cost of Bid Document (in Rupees)	Category of Contractor	Period of completion (in Months)
1	Development of Dumna Nature Park, Phase 1 at Jabalpur	Jabalpur	371.50 lacs	3,71,500/-	15000/-	As per appropriate class	12 months

1. All details relating to the Bid Document(s) can be viewed and downloaded free of cost on the website.
2. Bid Document can be purchased after making online payment of portal fees through Credit/Debit/Cash Card/ internet banking.
3. At the time of submission of the bid the eligible bidder shall be required to :
 - I. Pay the cost of bid document.
 - II. Deposit the Earnest Money
 - III. Submit a check list and
 - IV. Submit an affidavit.

Details can be seen in the **Bid Data Sheet**.

4. Eligibility for bidders :

At the time of submission of the bid the bidder should have valid registration with the Government of Madhya Pradesh, PWD in appropriate class; however, such bidders who are not registered with the Government of Madhya Pradesh and are eligible for registration can also submit their bids after having applied for registration with appropriate authority.

- (a) The bidder would be required to have valid registration at the time of signing of the Contract (GST no. etc.).
 - (b) Failure to sign the contract by the selected bidder, for whatsoever reason, shall result in forfeiture of the earnest money deposit.
5. **Pre-qualification** – Prequalification conditions, wherever applicable, are given in the Bid Data Sheet.
 6. **Special Eligibility**- Special Eligibility Conditions, if any, are given in the Bid data sheet.

7. The Bid Document can be purchased only online from website <http://www.mpeproc.gov.in> from 08/08/2017 to 06/09/2017. Other key dates may be seen in **Bid Data Sheet**.
8. **SOR applicable is UADD Schedule of Rates 2012 Volume I, II, III and IV for Building Works & MP PWD SOR 2014 CPWD SoR 2016** and amendments upto the date of submission of tender.
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Executive Director
Jabalpur Smart City Limited

SECTION 2
INSTRUCTIONS TO BIDDERS (ITB)
A.GENERAL

1. SCOPE OF BID

SCOPE OF WORK

The brief scope of work comprises of, but not limited to, the following;

- Construction of a RCC building with (Ground +1) storied having two blocks namely Interpretation block & Administrative block having overall built-up area of 879.50 sq.m
- Interpretation Block: At ground floor with 261.85 sq.m& first floor with 244.0 sq.m. built-up area
- Administrative Block: At ground floor with 236 . 70 sq.m& first floor with 136. 95 sq.m. built-up area
- Public health engineering works which includes piping and allied works for drainage, sewerage, wash rooms/toilets, pumping system etc. for the entire facility.
- Compliance to Green Building norms as per assigned GRIHA criteria.
- Construction of WBM Road of 7 kms
- Construction of Stone Pathway of 150metres and 125 meters respectively
- Landscaping along the stone pathway is also the part of this tender.
- Miscellaneous works including site office and other common items as per Schedule of Quantities.

(NOTE:- For all the above mentioned works the BOQ& DRAWINGS for each work is attached in this document.)

The general specifications for the work have been given in the enclosed Annexure 'E'. However, the following order or priority regarding specifications shall be followed by the contractor –

- Specification for R.C.C. works, other civil works and materials shall be governed by relevant latest B.I.S. specifications and I.R.C. specifications with their amendments from time to time.
- National Building Code of India, latest edition shall be referred.

- Specification for civil engineering works shall be according to the relevant IS codes and manuals.
- Specifications given in the Annexure 'E' enclosed.
- Any other specifications, not covered under the above said standards, shall be fixed by the Engineer-in-Charge. Nothing in this clause shall, however curtail the right of the Engineer-in-Charge to alter the specification for any part or whole of the work if he considers it necessary in the interest of work.

General Specifications

The work in general shall be carried out as per UADD, MPWD and CPWD specifications, (updated with correction slips issued up to last date of submission of tender) and text of revised UADD, MPWD and CPWD specifications for cement mortar, cement concrete and RCC works, unless otherwise specified in the nomenclature of the individual item or in the particular specifications for civil works and UADD, MPWD and CPWD specifications, Electrical works (Internal) and Electrical works (External), Road works in compliance with IRC Codes, UADD, MPWD and CPWD (updated with correction slips issued up to last date of submission of tender).

- All Electrical installation shall comply with the requirements of Indian Electricity rules, 1956 and Indian Electricity Act-1910 as amended up to date and bye laws of authority of State Government or any other department.
- All works related to Public Health Engineering will conform to the requirements of manual of Water Supply by the Ministry of Urban Development and various Indian Standards as listed there-in.
- All works related to road will conform to the IRC codes and specification
- All electrical works will conform to various Indian Codes as listed in the Technical Specifications.
- For the items not covered under the specifications as stated above, the work shall be done as per relevant IS Codes.
- For the items not covered under any of the specifications stated above, the work shall be executed as per Manufacturer's specifications/ General Engineering Practice and / or as per direction of Engineer in Charge.

Details and drawings given in document are for tender purpose only and successful bidder shall undertake confirmatory surveys for accuracy and completeness of data. It is in scope of

successful bidder to undertake all Site surveys, Geotechnical investigations/Engineering Surveys, hydrological investigations and other relevant tests/surveys etc.for construction purposes.

The successful bidder shall have to prepare and submit 'As Built Drawings' after execution depicting the exact construction carried out on site, in soft and hard copy format.

- Contractor has to prepare the documentation for showcasing the daily and weekly progress and the quantification of work done, Its mandatory to submit the progress report with Photos and Video every month and also before and after present conditions. At the end of the project a movie with 15 minutes, showcasing the project at different stages shall be submitted by the contractor.
- Preparation and Submission of Complete Bill of Materials (BoM) along with detailed technical specifications, manufacturer's details and delivery schedule at the sites. Shall also provide the codification for all the items delivered.
- Preparation and submission of the details of the man power deployment for the project.
- Dispatch of materials as per the implementation accepted timelines / implementation schedule and phasing of the project by the employer.

Scope also includes shifting of any scrap materials/excess earth lying at the constructional area to the designated place inside premises at no extra cost. Job also includes site clearing from any debris, vegetation, bushes and trees, etc and make the site free for construction within the parameters prescribed by the green norms of GRIHA & local statutory bodies.

Bidders are requested to submit their most competitive offer for carrying out the work set out, in the prescribed format and time frame specified elsewhere in the tender.

Bidder should submit a detailed work plan incorporating work schedule for different jobs in manner so that work can be completed as per time schedule mentioned. All the safety precautions should be taken while executing jobs at site such as excavation, work at height etc., All necessary Personal Protective Equipment such as helmets, shoes shall be arrange by the Contractors for their laborers as per the directions of Engineer and the quoted rates shall include cost towards all the above.

2. GENERAL QUALITY OF WORK:

The work shall have to be executed in accordance with the technical specifications specified in the Bid Data sheet/ Contract Data, and shall have to meet high standards of workmanship, safety and security of workmen and works.

3. PROCEDURE FOR PARTICIPATION IN E- TENDERING :

The procedure for participation in e-tendering is given in the Bid Data Sheet.

4. ONE BID PER BIDDER

4.1 The bidder can be an individual entity or a joint venture (if permitted as per Bid Data Sheet). In case the J.V. is permitted, the requirement of joint venture shall be as per the Bid Data Sheet.

4.2 No bidder shall be entitled to submit more than one bid whether jointly or severally. If he does so, all bids wherein the bidder has participated shall stand disqualified

5. COST OF BIDDING:

The bidder shall bear all costs associated with the preparation and submission of his bid, and no claim whatsoever for the same shall lie on the Government/JMC.

6. SITE VISIT AND EXAMINATION OF WORKS:

The bidder is advised to visit and inspect the site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the work. All costs in this respect shall have to be borne by the bidder.

B.BID DOCUMENTS

7. CONTENT OF BID DOCUMENTS:

The Bid Document comprises of the following documents:

1. NIT with all amendments.
2. Instructions to Bidders, Bid Data Sheet with all Annexure
3. Conditions of Contract :
 - I. Part I General Conditions of Contract and the Contract Data with all Annexure, and
 - II. Part II Special Condition of Contract.
4. Specifications
5. Drawings
6. Priced Bill of Quantities
7. Technical and Financial Bid
8. Letter of Acceptance
9. Agreement, and
10. Any other document(s), as specified

8. The bidder is expected to examine carefully all instructions, conditions of contract, the **Contract data**, forms, terms and specifications, bill of quantities, forms and drawings in the bid document, Bidder shall be solely responsible for his failure to do so.

9. PRE-BID MEETING (WHERE APPLICABLE)

Wherever the Bid Data Sheet provides for pre-bid meeting :

9.1 Details of venue, date and time would be mentioned in the Bid Data Sheet. Any change in the schedule of pre-bid-meeting would be communicated on the website only, and intimation to bidders would not be given separately.

9.2 Any prospective bidder may raise his queries and/or seek clarifications in writing before or during the pre-bid meeting. The purpose of such meeting is to clarify issues and answer questions on any matter that may be raised at that stage. The Employer may, at his option, give such clarifications as are felt necessary.

9.3 Minutes of the pre-bid meeting including the gist of the questions raised and the responses given together with any response prepared after the meeting will be hosted on the website.

9.4 Pursuant to the pre-bid meeting, if the employer deems it necessary to amend the bid Documents, it shall be done by issuing amendment to the online NIT.

10. AMENDMENT OF BID DOCUMENTS :

10.1 Before the deadline for submission of bids, the Employer may amend or modify the bid document by publication of the same on the website.

10.2 All amendments shall form part of the Bid Document.

10.3 The Employer may, at its discretion, extend the last date for submission of bids by publication of the same on the website.

C.PREPARATION OF BID

11. The bidders have to prepare their bids online, encrypt their Bid Data in the Bid Forms and submit Bid Seals (Hashes) of all the envelopes and documents related to the bid required to be uploaded as per the time schedule mentioned in the key dates of the Notice Inviting e-tenders after signing of the same by the Digital Signature of their authorized representative.

12. DOCUMENTS COMPRISING THE BID :

The bid submitted online by the bidder shall be in the following parts :

Part1- This shall be known as online Envelop A and would apply for all bids. Online envelop A shall contain the following as per details given in the bid data sheet:

- i) Registration number or proof of application for registration and organizational details in the format given in the bid data sheet.
- ii) Payment of the cost of Bid Document.
- iii) Earnest Money : and
- iv) An Affidavit Duly Notarized.

Part 2 – This shall be known as Online **Envelope B** and required to be submitted only in work where pre-qualification conditions and / or special eligibility conditions are stipulated in the Bid Data Sheet. Online **envelop B** shall contain a self-certified sheet duly supported by documents to demonstrate fulfillment of pre-qualification conditions.

Part 3- This shall be known as online **Envelope C** and would apply to all bids. Envelop C shall contain financial offer in the prescribed format enclosed with the Bid Data Sheet.

13. LANGUAGE :

The bid as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer shall be in English or Hindi. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English. In such case, for the purposes of interpretation of the bid, such translation shall govern.

14. TECHNICAL PROPOSAL:

- 14.1. Only, in case of bids with pre-qualification conditions defined in the Bid Data Sheet, the Technical Proposal shall comprise of formats and requirements given in the Bid Data Sheet.
- 14.2. All the documents/ information enclosed with the Technical Proposal should be self-attested and certified by the bidder. The Bidder shall be liable for forfeiture of his earnest money deposit,if any document/information are found false/fake/untrue before acceptance of bid. If it is found after acceptance of the bid, the bid sanctioning authority may at his discretion forfeit his performance security / guarantee, security deposit, enlistment deposit and take any other suitable action.

15. FINANCIAL BID:

- i) The bidder shall have to quote rates in format referred in Bid Data Sheet, in overall percentage, and not item wise, If the bid is in absolute amount, overall percentage would be arrived at in relation to the probable amount of contract given in NIT. The overall percentage rate would apply for all items of work.
- ii) Percentage shall be quoted in figures as well as in words. If any difference in figures and words is found, lower of the two shall be taken as valid and correct.
- iii) The bidder shall have to quote rates inclusive of all duties, taxes, royalties and other levies; and the Employer shall not be liable for the same.
- iv) The material along with the units and rates, which shall be issued, if any, by the department to the contractor, is mentioned in the Bid Data Sheet.

16. PERIOD OF VALIDITY OF BIDS:

The bids shall remain valid for a period specified in the Bid Data Sheet after the date of “close for bidding” as prescribed by the Employer. The validity of the bid can be extended by mutual consent in writing.

17. EARNEST MONEY DEPOSIT (EMD)

- 17.1 . The Bidder shall furnish, as part of the Bid, Earnest Money Deposit (EMD), in the amount specified in the Bid Data Sheet.
- 17.2 . The EMD shall be in the form of Fixed Deposit Receipt of a scheduled commercial bank, issued in favors of the name given in the Bid Data Sheet. The Fixed Deposit Receipt shall be valid for six months or more after the last date of receipt of bids. However form(s) of EMD may be allowed by the employer by mentioning it in the Bid Data Sheet.
- 17.3 Bid not accompanied by EMD shall be liable for rejection as non-responsive.
- 17.4 EMD of bidders whose bids are not accepted will be returned within ten working days of the decision on the bid.
- 17.5 EMD of the successful Bidder will be discharged when the Bidder has signed the Agreement after furnishing the required Performance security.
- 17.6 Failure to sign the contract by the selected bidder, within the specified period, for whatsoever reason, shall result in forfeiture of the earnest money.

D.SUBMISSION OF BID

- 18. The bidder is required to submit online bid duly signed digitally, and envelop “A” in physical form also at the place prescribed in the Bid Data Sheet.

E. OPENING AND EVALUATION OF BID

19. PROCEDURE :

- 19.1 Envelop “A” shall be opened first online at the time and date notified and its contents shall be checked. In cases where Envelop “A” does not contain all requisite documents, such bid shall be treated as non-responsive , and envelop B and / or C of such bid shall not be opened.
- 19.2 Wherever Envelop ‘B’ (Technical Bid) is required to be submitted, the same shall be opened online at the time and date notified. The bidder shall have freedom to witness opening of the envelop ‘B’ envelop ‘C’ (financial bid) of bidders who are not qualified in Technical Bid (Envelop ‘B’) shall not be opened.
- 19.3 Envelop ‘C’ (Financial Bid) shall be opened online at the time and date notified. The bidder shall have freedom to witness opening of the Envelop ‘c’
- 19.4 After opening Envelop ‘C’ all responsive bids shall be compared to determine the lowest evaluated bid.
- 19.5 The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all the bids at any time prior to contract award, without incurring any liability. In all such cases reasons shall be recorded.
- 19.6 The employer reserves the right of accepting the bid for the whole work or for a Distinct part of it.

20. CONFIDENTIALITY :

- 20.1 Information relating to examination, evaluation, comparison and recommendation of contract award shall not be disclosed to bidders or any other person not officially concerned with such process until final decision on the bid.
- 20.2 Any Attempt by a bidder to influence the employer in the evaluation of the bids or contract award decisions may result in the rejection of his bid.

F.AWARD OF CONTRACT

21. AWARD OF CONTRACT :

The Employer shall notify the successful bidder by issuing a ‘Letter of Acceptance’ (LOA) that his bid has been accepted.

22. PERFORMANCE SECURITY

- 22.1 Prior to signing of the contract the bidder to whom LOA has been issued shall have to furnish Performance Security of the amount in the form and for the duration, etc. as specified in the Bid Data Sheet.
- 22.2 Additional performance security, if applicable, is mentioned in the Bid data sheet and shall be in the form and for the duration, etc. similar to Performance Security.

23. SIGNING OF CONTRACT AGREEMENT:

- 23.1 The successful bidder shall have to furnish Performance Security and Additional Performance Security, if any, and sign the contract agreement within 15 days of issue of LOA.
- 23.2 The signing of contract agreement shall be reckoned as intimation to commencement of work. No separate work order shall be issued by the employer to the contractor for commencement of work.
- 23.3 In the event of failure of the successful bidder to submit Performance Security and Additional Performance Security, if any or sign the Contract Agreement, his EMD shall stand forfeited without prejudice to the right of the employer for taking any other action against the bidder.

24. CORRUPT PRACTICES:

The Employer requires that bidders observe the highest standard of ethics during the procurement and execution of contracts. In pursuance of this policy, the employer.

- i. May reject the bid for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract ; and
- ii. May debar the bidder declaring ineligible, either indefinitely or for a stated period of time, to participate in bids, if it at any time determines that the bidder has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing , a contract.

For the purposes of this provision, the terms set forth above are defined as follows :

- a. ‘corrupt practice’ means the offering, giving, receiving or soliciting directly or indirectly, anything of value to influence improperly the actions of another party ;

- b. 'fraudulent practice' means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a fanatical or other benefit or to avoid an obligation:
- c. 'coercive practice' means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party,
- d. 'collusive practice' means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.

(END OF ITB)

BID DATA SHEET		
GENERAL		
SR.NO.	PARTICULARS	DATA
1	Office inviting tender	JABALPUR SMART CITY LIMITED
2	NIT No.	N.I.T. NO-JSCL/2017/481/ADM/32
3	Date of NIT	5th August 2017
4	Bid document download available for date & time	8th August 2017
5	Website link	www.mpeproc.gov.in
SECTION 1 – NIT		
CLAUSE REFERENCE	PARTICULARS	DATA
2	Portal fees	As notified in e-tendering website
3	Cost of bid document	Rs.15,000.00
	Cost of bid document payable at	As notified in e-tendering website
	Cost of bid document in favor of	As notified in e-tendering website
4	Affidavit format	As per ANNEXURE B
5	Pre-Qualifications required	Yes
	If yes, details	ANNEXURE C
6	Special Eligibility	According to Bid Data sheet No
	If Yes, details	Annexure D
7	Key dates	Annexure A
SECTION 2 – ITB		
CLAUSE REFERENCE	PARTICULARS	DATA
1	Name of ‘work’	DEVELOPMENT OF DUMNA NATURE PARK, PHASE 1 AT JABALPUR”
2	Specifications	As per ANNEXURE –E
3	Procedure for participation in e-tendering	As per ANNEXURE -F
4	Whether joint venture is allowed	
	If yes, requirement for joint venture	As per ANNEXURE – G
9	Pre bid meeting to be held	Yes
	If Yes, Date, Time & Place	Date: - 21/08/2017 Time form 15:30 AM Place Office of the JSCL, Manas Bhawan Jabalpur

BID DATA SHEET

CLAUSE REFERENCE	PARTICULARS	DATA
12	Envelopment A containing : i. Registration number or proof of application for registration and organizational details as per Annexure H ii. Cost of Bid Document iii. EMD iv. An affidavit duly notarized as per Annexure – B Should reach in physical form	<i>At the Office of the Executive director, Jabalpur Smart City Limited</i> <i>Rs 15000/-</i> <i>Rs. 371500/-</i> <i>On or Before 18/09/2017</i>
14	Envelope-B Technical Proposal	<i>Annexure – I and Annexure –I (Format I-1 to I-5)</i>
15	Envelope-C Financial Bid	<i>Annexure – J (Should be submitted online only)</i>
	Materials to be issued by the department	<i>Annexure- K</i>
16	Period of Validity of Bid	<i>120 Days</i>
17	Earnest Money Deposit	<i>Rs. 3,71,500/-</i> <i>Three lakh seventy one thousand only</i>
	Forms of Earnest Money deposit	- <i>FDR/e-FDR</i> - <i>Demand draft of scheduled commercial bank</i> - <i>Interest bearing securities of post office.</i>
	EMD valid for a period of	<i>180 Days from the date of submission of the Bids</i>
	FDR must be drawn in favour of	<i>Executive Director, Jabalpur Smart City Limited</i>
21	Letter of Acceptance (LoA)	<i>Annexure L</i>
22	Amount of Performance Security	<i>5% of contract amount</i>
	Additional Performance Security, if any
	Performance security in the format	<i>Annexure M</i>
	Performance security in favour of	<i>Executive Director, Jabalpur Smart City Limited</i>
	Performance security valid up to	<i>Till issue of physical Completion Certificate as per Clause 35.1 of contract data sheet.</i>

Annexure – A

(See clause 1,7 of Section 1-NIT)

KEY DATES

s.no	Works department stage	Bidders stage	Start		Expiry		Envelopes
			Date	Time	Date	Time	
1		Purchase of Tender – Online	08/08/2017		06/09/2017		
2		Pre-Bid Meeting	21/08/2017	15:30 Manas Bhwan, JSCL			
		Bid Submission – Online	08/08/2017		12/09/2017		
3	Mandatory Physical submission Open (envelop-A)		08/08/2017		18/09/2017	17:30	Envelope A
4	Technical Proposal open (PQ Envelope-B)		14/09/2017				Envelope B
5	Financial Bid open (envelope-C)		28/09/2017				Envelope C

Original term deposit receipt of earnest money deposit, demand draft for the cost of bid document and affidavit shall be submitted by the bidder so as to reach the office as prescribed in bid data sheet, at least one calendar day before specified start time and date in key dates for opening of technical proposal as per key dates in Bid Data Sheet.

Annexure – B

(See clause 3 of Section 1-NIT

|| AFFIDAVIT ||
(To be Contained in Envelope A)
(On Non Judicial stamp of Rs. 100)

I/We _____ who is / are
_____ (status in the firm / company) and competent for submission of the
affidavit on behalf of M/S _____ (contractor) do solemnly affirm an oath and state that :

I/We am / are fully satisfied for the correctness of the certificates/ records submitted in support of the
following information in bid documents which are being submitted in response to notice inviting e-tender
No. _____ for _____ (name of work) dated _____ issued by the _____
(name of the Department).

I/We am/ are fully responsible for the correctness of following self- certified information / documents and
certificates.

1. That the self – certified information given in the bid document is fully true and authentic.
2. That :
 - a. Term deposit receipt deposited as earnest money, demand draft for cost of bid document and other relevant documents provided by the Bank are authentic.
 - b. Information regarding financial qualification and annual turnover is correct.
 - c. Information regarding various technical qualifications is correct.
3. No. close relative of the undersigned and our firm/company is working in the department.

Or

Following close relatives are working in the department :

Name _____ - Post _____ present Posting _____

Signature with seal of the Deponent (bidder)

I/We, _____ above deponent do hereby certify that the facts mentioned in above paras 1 to 4
are correct to the best of my knowledge and belief.

Verified today _____ (dated) at _____ (place).

Signature with seal of the Deponent (bidder)

Note : Affidavit duly notarized in original shall reach at least one calendar day before opening of the bid.

PRE- QUALIFICATIONS CRITERIA

The bidder should have:

A. Financial

- i. experience of having successfully executed: -
 - a) *Three similar works*, each costing not less than the amount *equal to 20%* of the probable amount of contract during the last 3 financial years; or
 - b) *Two similar works*, each costing not less than the amount *equal to 30%* of the probable amount of contract during the last 3 financial years; or
 - c) *One similar work* of aggregate cost not less than the amount *equal to 50%* of the probable amount of contract in any one financial year during the last 3 financial years;
- ii. Average annual construction turnover on the construction works not less than **50%** of the probable amount of contract during the last 3 financial years.
- iii. Executed similar items of work in any one financial year during the last 3 financial years, which should not be less than the minimum, physical requirement, if any, fixed for the work.

B. Physical (Not Applicable)

(The Employer shall specify all physical qualifications required).

Note: Above criteria are indicative, subject to suitable stipulations by the Departments and specific Bid.

Annexure —D

(See clause 6 of Section 1-NIT)

SPECIAL ELIGIBILITY CRITERIA

(Not Applicable)

Note: Above criteria are indicative, subject to suitable stipulations by the departments and specific bid.

ANNEXURE- E

(See clause 2 of Section 2 —ITB & clause 10 of GCC)

SPECIFICATIONS

1. UADD Department Specifications,
2. MP PWD Department Specifications
3. CPWD Department Specifications

The provisions of general / special conditions of contract, those specified elsewhere in the bid document, as well as execution drawings and notes, or other specifications issued in writing by the Employer shall form part of the technical specifications of this work.

PROCEDURE FOR PARTICIPATION IN E-TENDERING

1. REGISTRATION OF BIDDERS ON E-TENDERING SYSTEM:

All the PWD registered bidders are already registered on the new e-procurement portal <https://www.mpeproc.gov.in>. The user id will be the contractor ID provided to them from MP Online. The password for the new portal has been sent to the bidders registered email ID. for more details may contact M/s. _Tata Consultancy Services Corporate Block, 5th floor, DB City BHOPAL-462011 email id: eproc_helpdesk@mpsdc.gov.in. Helpdesk phone numbers are available on website.

2. DIGITAL CERTIFICATE:

The bids submitted online should be signed electronically with a Class III Digital Certificate to establish the identity of the bidder submitting the bid online. The bidders may obtain Class III Digital Certificate issued by an approved Certifying Authority authorized by the Controller of Certifying Authorities, Government of India. A Class III Digital Certificate is issued upon receipt of mandatory identity proofs along with an application. Only upon the receipt of the required documents, a Digital Certificate can be issued. For details please visit cca.gov.in.

NOTE:

- I. It may take upto 7 working days for issuance of Class III Digital Certificate; hence the bidders are advised to obtain the Certificate at the earliest. Those bidders who already have valid Class III Digital Certificate need not obtain another Digital Certificate for the same. The bidders may obtain more information and the Application Form required to be submitted for the issuance of Digital Certificate from **cca.gov.in**
- II. Bids can be submitted till bid submission end date. Bidder will require digital signature while bid submission.

The digital certificate issued to the Authorized User of a Partnership firm / Private Limited Company / Public Limited Company and used for online bidding will be considered as equivalent to a no-objection certificate / power of attorney to that user.

In case of Partnership firm, majority of the partners have to authorize a specific individual through Authority Letter signed by majority of the partners of the firm

In case of Private Limited Company, Public Limited Company, the Managing Director has to authorize a specific individual through Authority Letter. Unless the certificate is revoked, it will be assumed to represent adequate authority of the specific individual to bid on behalf of the organization for online bids as per information Technology Act 2000. This Authorized User will be required to obtain a Digital Certificate. The Digital Signature executed through the use of Digital Certificate of this Authorized User will be binding on the firm. It shall be the responsibility of Management / Partners of the concerned firm to inform the Certifying Authority, if the Authorized User changes, and apply for a fresh Digital Certificate for the new Authorized User.

3. SET UP OF BIDDER'S COMPUTER SYSTEM:

In order for a bidder to operate on the e-tendering System, the Computer System of the bidder is required to be set up for Operating System, Internet Connectivity, Utilities, Fonts, etc. The details are available at <https://www.mpeproc.gov.in>

4. KEY DATES:

The bidders are strictly advised to follow the time schedule (Key Dates) of the bid on their side for tasks and responsibilities to participate in the bid, as all the stages of each bid are locked before the start time and date and after the end time and date for the relevant stage of the bid as set by the Department.

5. PREPARATION AND SUBMISSION OF BIDS

The bidders have to prepare their bids online, encrypt their bid Data in the Bid forms and submit Bid of all the envelopes and documents related to the Bid required to be uploaded as per the time schedule mentioned in the key dates of the Notice inviting e-Tenders after signing of the same by the Digital Signature of their authorized representative.

6. PURCHASE OF BID DOCUMENT

For purchasing of the bid document bidders have to pay Service Charge online ONLY which is Rs. [as per Bid Date Sheet]. Cost of bid document is separately mentioned in the Detailed NIT. The Bid Document shall be available for purchase to concerned eligible bidders immediately after online release of the bids and upto scheduled time and date as set in the key dates. The payment for the cost of bid document shall be made. online through Debit/Credit card Net banking or NeFTChallan through the payment gateway provided on the portal.

7. WITHDRAWAL, SUBSTITUTION AND MODIFICATION OF BIDS

Bidder can withdraw and modify the bid till Bid submission end date

Annexure — G

(See clause 4 of Section 2 -ITB)

JOINT VENTURE (J.V.)

If J.V. is allowed following conditions and requirements must be fulfilled -

1. Number of partners in a Joint Venture shall not exceed 3 (three). The partners shall comply with the following requirements :
 - a. one of the partners shall be nominated as being Lead Partner, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners;
 - b. the bid and, in case of a successful bid, the Agreement, shall be signed so as to be legally binding on all partners;
 - c. the partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture and the entire execution of the contract, including payment, shall be done exclusively with the partner in charge;
 - d. all partners of the joint venture shall be liable jointly and severally for the execution of the contract in accordance with the contract terms, and a statement to this effect shall be included in the authorization mentioned under[c] of above, as well as in the bid and in the Agreement tin case of a successful bid];
 - e. The joint venture agreement should indicate precisely the role of all members of IV in respect of planning, design, construction equipment key personnel, work execution, and financing of the project. All members of JV should have active participation in execution during the currency of the contract. This should not be varied/modified subsequently without prior approval of the employer;
 - f. The-joint venture agreement should be registered, so as to be legally valid and binding on all partners and
 - g. a copy of the joint Venture Agreement entered into by the partners shall be submitted with the bid.
2. The figures for each of the partners of a joint venture shall be added together to determine the Bidder’s compliance with the minimum qualifying criteria required for the bid. All the partners collectively must meet the criteria specified in full. Failure to comply with this requirement will result in rejection of the joint venture’s bid.
3. The performance security of a joint venture shall be in the name of the partner Lead Partner/joint venture.
4. Attach the power of attorney of the partners authorizing the Bid signatory(ies) On behalf of the joint venture
5. Attach the agreement among all partners of the joint venture [and which is legally binding on all partners], which shows the requirements as indicted in the Instructions to Bidders’.
6. Furnish details of participation proposed in the joint venture as below:

DETAILS OF PARTICIPATION IN THE IOINT VENTURE

PARTICIPATION DETAILS	. FIRM ‘A’ (Lead	FIRM ‘B’	FIRM ‘C’
-----------------------	------------------	----------	----------

	Partner)		
Financial			
Name of the Banker(s)			
Planning			
construction Equipment			
Key Personnel			
Execution of Work (Give details on contribution of each)			

7. The partners of J.V. should satisfy the qualification criteria as below,
- a. The Lead Partner must meet at least 50% requirement of Technical and Financial eligibility criteria required for the bid.
 - b. The other partner(s) must meet at least 25% requirement of Technical and financial eligibility criteria required for the bid.
 - c. The lead partner and the other partners should together meet 100% of all the eligibility criteria required for the bid.
8. For the meeting the minimum qualification criteria of experience of similar nature work. Every partner can have experience of different works as defined in similar nature works and together should have the experience of all type of works described in similar nature works.

Annexure-H

(See clause 12 of Section 2 —ITB & clause 4 of GCC)

ORGANIZATIONAL DETAILS

(To be Contained in Envelope- A)

S.No.	Particulars	Details
1	Registration number issued by Centralized Registration System of Govt. of M.P. or Proof of application for registration.	‘(If applicable, scanned copy of proof of application for registration to be uploaded)
2	Valid Registration of bidder in appropriate class through Centralized Registration of Govt. of MP	Registration No. ____ Date _____ (Scanned copy of Registration to be uploaded)
3	Name of Organization/ Individual/ Proprietary Firm/Partnership Firm	
4	Entity of Organization Individual/ Proprietary Firm/ Partnership Firm (Registered under Partnership Act)/Limited Company (Registered under the Companies Act—1956)/ Corporation / Joint Venture	
5	Address of Communication	
6	Telephone Number with STD Code	
7	Fax Number with STD Code	
8	Mobile Number	
9	E-mail Address for all communications	
	Details of Authorized Representative	

10	Name	
11	Designation	
12	Postal Address	
13	Telephone Number with STD Code	
14	Fax Number with STD Code	
15	Mobile Number	
16	E-mail Address	

Note: In case of partnership firm and limited company certified copy of partnership deed/ Articles of Association and Memorandum of Association along with registration certificate of the company shall have to be enclosed.

Signature of Bidder with Seal

Date: _____

Annexure —1

See clause 14 of Section 2 -ITB)

Envelope — B, Technical Proposal

Technical Proposal shall comprise the following documents:

S.No.	Particulars	Details to be submitted
1	Experience — Financial & Physical	Annexure - I (Format: I-1)
2	Annual Turnover	Annexure - I (Format: I-2)
3	List of technical personnel for the key positions	Annexure - I (Format: I-3)
4	List of Key equipments/ machines for quality control labs	Annexure - I (Format: I-4)
5	List of Key equipments/ machines for construction work	Annexure - I (Format: I-5)

Note:

1. Technical Proposal should be uploaded duly page numbered and indexed.
2. Technical Proposal uploaded otherwise will not be considered.

Annexure - I (Format: I-1)

(See clause 14 of Section 2 -ITB)

FINANCIAL & PHYSICAL EXPERIENCE DETAILS

A. Financial Requirement:

The bidder should have completed either of the below:

- a) three similar works each costing not less than the amount equal to 20% of the probable amount of contract during the last 3 financial years; or
- b) two similar works each costing not less than the amount equal to 30% of probable amount of contract during the last 3 financial years; or
- c) one similar work of aggregate cost not less than the amount equal to 50% of the probable amount of contract in any one financial year during the last 3 financial years;

To be filled in by the contractor:

- I. Details of successfully completed similar works shall be furnished in the following format
- ii. Certificate duly signed by the employer shall also be enclosed for each completed similar work.

Agreement Number & Year	Name of Work	Date of Work Order	Date of Completion	Amount of Contract	Employer's Name and Address

Existing commitments— (Value of ‘C’ for Bid Capacity formula)

Agreement Number & Year	Name of Work	Date of Work Order	Date of Completion	Amount of Contract	Amount of balance work	Employer's Name and Address

B. Physical Requirement:(N.A.)

Execution of similar items of work in any one financial year during the last 3 financial years should not be less than the minimum physical requirement fixed for the work.

S.No.	Particulars	Actual Quantity Executed		
		(To be filled in by the contractor)		
		Year - 1	Year - 2	Year - 3
1	Physical qualification required	Yes/No		
2	Earthwork			
3	Concrete work			

Note:

1. Certificate duly signed by the employer shall be enclosed for the actual quantity executed in any one year during the last 3 financial years,
2. Similar works: The similarity shall be based on the physical size, complexity, methods technology or other characteristics of main items of work viz, earth work, cement concrete, Reinforced cement concrete, brick masonry, stone masonry etc.

ANNEXURE-I(FORMAT: I-2)

(See douse 14 of Section 2 -ITB)

ANNUALTURN OVER

Requirement:

Average annual construction turnover on the construction works not less than 50% of the probable amount of contract during the last 5 financial years;

To be filled in by the contractor:

Financial Year	Payments received for contracts in progress or completed
1	
2	
3	
4	
5	

Note:

- i Annual turnover of construction should be certified by the Chartered Accountant.
- ii. Audited. balance sheet including all related notes, and income statements for the above financial years to be enclosed.

Bid Capacity

Applicants who meet the minimum qualifying criteria in the evaluation as stated above are to be evaluated further for bid capacity as under:

$$\text{Bid Capacity}=(1.5AX B) - C$$

Where: A. = Maximum value of civil engineering works executed in any one year during the last five year (10% weight-age per year shall be given to bring the value of work executed at present price level)

B = Proposed contract period in years.

C = Amount of work in hand at present.

Annexure - I (Format : I-3)

(See clause 14 of Section 2-ITB & Clause 6 of GCC)

List of Technical Personnel for the Key Positions

Minimum requirement							Available with the bidder						
S.No.	Key Position	Minimum requirement	Qualification	Age	Similar work experience	Total Work Experience	S.No.	Name of Personnel	Key Position	Qualification	Age	Similar work experience	Total Work Experience
1.	Site Engineer	1	B.E. Civil	Below 65	5 years	10							

Note:

- 1. Aforesaid personnel shall be deployed within the period starting from the date of award of contract as stipulated in the contract.**
- 2. Approval of the superintending engineer about suitability of personnel shall be obtained before deployment.**

Annexure - I (Format : I-4)

(See clause 14 of Section 2-ITB)

List of Key Equipments/ Machines for Quality Control Labs

S No	Name of Equipment/ Machinery	Quantity for works costing	Quantity Available with the Bidder	Remarks
		UptoRs 5 Cr		
A)	GENERAL			
1)	Weigh Balances			
	a) 5-20 kg capacity Electronic type – Accuracy 1 gm	Nil		
	b) 500 gm capacity-Electronic Type Accuracy 0.01 gm	1 No.		
	c) Electronic 5 kg capacity Accuracy 0.5 gm	1 No.		
	e) Chemical Balance 100 gm capacity-accuracy 0.001 gm	Nil		
2)	Oven-electrically operated, thermostatically controlled (including thermometer), stainless steel interior (From 0°C to 220°C Sensitivity 1°C)	1 No		
3)	Sieves : as per IS:460-1962			
	a) I.S. sieves 450 mm internal dia of sieve sets as per BIS of required sieve sizes complete with lid and pan	1 set		
	b) IS sieve 200 mm internal dia (brass frame and steel/or brass wire cloth mesh) consisting of sieve sets of required sieve sizes complete with lid	2 sets		
4)	Sieve shaker capable of saking 200 mm and 450 mm dia sieves-electrically	Nil		

	operated with time switch (for work costing more than 15 crore only)			
5)	200 tonnes compression testing machine	1 No		
6)	Stop watches 1/5 sec. accuracy	1 No		
7)	Glassware comprising beakers, pipettes, dishes, measuring cylinders (100 to 1000 cc capacity) glass roads and funnels, glass thermometers range 0°C to 100°C and metallic thermometers range up to 300°C.	2 No. each		
8)	Hot plates 200 mm dia (1500 watt.)			
9)	Enamel trays			
	a) 600 mm x 450 mm x 50 mm	1 Nos		
	b) 450 mm x 300 mm x 40 mm	1 Nos		
	c) 300 mm x 250 mm x 40 mm	1 Nos		
	d) Circular plates of 250 mm dia	1 Nos		
10)	Water Testing Kit	Nil		
B)	FOR SOILS			
1)	Water Tank	1 No		
2)	Liquid limit device with ASTM grooving tools as per IS:2720	Nil		
3)	Sampling pipettes fitted with pressure and suction inlets, 10 ml. Capacity	Nil		
4)	Compaction apparatus (Proctor) as per IS:2720 (Part 7) complete with collar, base plate and hammer and all other accessories	Nil		
5)	Modified AASHTO Compaction apparatus as per IS:2720 (Part 8) 1974 or Heavy Compaction Apparatus as per IS complete with collar, base plate hammer and all other accessories(for work costing more than 15	Nil		

	crore only)			
6)	Sand pouring cylinder with conical funnel and tap and complete as per IS:2720 (Part 28) 1974 including modern equipment.	1 Nos		
7)	Ennore Standard Sand	As required		
8)	Sampling tins with lids 100 mm dia x 75 mm ht. ½kg capacity and miscellaneous items like moisture tins with lid 50 grams etc.	Nil		
9)	Lab CBR testing equipment for conducting CBR testing, load frame with 5 Tonne capacity, electrically operated with speed control as per IS:2720 (Part 16) and consisting of following: (for work costing more than 15 crore only)	Nil		
	a) CBR moulds 150 mm dia – 175 ht.	Nil		
	b) Tripod stands for holding dial gauge holder	Nil		
	c) CBR plunger with settlement dial gauge holder	Nil		
	d) Surcharge weight 147 mm dia 2.5 kg wt.	Nil		
	e) Spacers disc 148 mm dia 47.7 mm ht. With handle	Nil		
	f) Perforated plate (Brass)	Nil		
	g) Soaking tank for accommodating 6 CBR moulds	Nil		
	h) Proving rings of 1000 kg, 2500 kg capacity	Nil		
	i) Dial gauges 25 mm travel-0.01 mm/division	Nil		
10)	Standard penetration test equipment	Nil		

11)	Nuclear moisture Density meter or equivalent(for work costing more than 15 crore only)	Nil		
12)	Speedy moisture meter complete with chemicals	1 No		
13)	Unconfined Compression Test Apparatus (for work costing more than 15 crore only)	Nil		
D)	FOR CEMENT, CEMENT CONCRETE AND MATERIALS			
1)	Water Tank	1 No		
2)	Vicat needle apparatus for setting time with plungers as per IS:269-1967	1 No		
3)	Moulds			
	a) 150 mm x 300 mm ht. Cylinder with capping component along with the capping set and compound as per IS	Nil		
	b) Cube 150 mm, and 100 mm (each size)	6 Nos		
4)	Concrete permeability apparatus	Nil		
5)	High frequency mortar cube vibrator for cement testing	Nil		
6)	Concrete mixer power driven, 1 cu.ft. capacity	Nil		
7)	Variable frequency and amplitude vibrating table size 1 m x 1 m as per the relevant British Standard	Nil		
8)	Flakiness index test apparatus	1 No		
9)	Aggregate impact test apparatus as per IS:2386 (Part 4) 1963	Nil		
10)	Los-Angeles abrasion test apparatus as per IS:2386 (Part 4) 1963	Nil		
11)	Flow table as per IS:712-1973	Nil		

12)	Equipment for slump test	1 No		
13)	Equipment for determination of specific gravity or fine and coarse aggregate as per IS:2386 (Part 3) 1963	1 No		
14	Compression and Flexural strength testing machine of 200 T capacity with additional dial for flexural testing	1 No		
15	Core cutting machine with 10/15 cm dia diamond cutting edge	1 No		
16)	Needle vibrator	1 No		
17)	Air entrainment meter	Nil		
18)	0.5 Cft, 1 Cft cylinder for checking bulk density of aggregate with tamping rod	Nil		
19)	Soundness testing apparatus for cement (Lee Chattlier)	Nil		
E)	FOR CONTROL OF PROFILE AND SURFACE EVENNESS			
1)	Total Station	Nil		
2)	Precision automatic level with micrometer attachment	1 set		
3)	Distomat or equivalent	Nil		
4)	Theodolite – Electronically operated with computerised output attachment	Nil		
5)	Precision staff	2 sets		
6)	3 meter straight edge and measuring wedge	1 sets		
7)	Camber template 2 Lane			
	a) Crown type cross – section	1sets		
	b) Straight run cross – section	1sets		
8)	Steel tape			

	a) 5 m long	2 Nos		
	b) 10 m long	2 Nos		
	c) 20 m long	2 Nos		
	d) 30 m long	2 Nos		
	e) 50 m long	1 No		
9)	Roughometer (Bump Integrator)	1 No. (when required)		

Note: Intention to procure/lease the equipment should be accompanied by documents to the effect. The nature of documents could be any one of the under:

- i) Order to the manufacturer of the plant and equipment's.**
- ii) Confirmation from the manufacturer.**
- iii) Proof of payments in full or part.**
- iv) Agreement to lease the equipment.**

Annexure - I (Format : I-5)

(See clause 14 of Section 2-ITB)

Annexure - I (Format : I-5)

(See clause 14 of Section 2-ITB)

List of Key Equipment's/ Machines for Construction Work

S. No.	Name of Equipment/ Machinery	Available with the bidder	
		Name of Equipment/ Machinery	Quantity
1.	Earth moving equipment 1. Excavators (various sizes) Equipment for hoisting & lifting 1. Tower 2. Builder's hoist		
2	Equipment for concrete work 1. Concrete batching plant 2. Concrete pump 3. Concrete transit mixer 4. Concrete mixer (diesel) 5. Concrete mixer electrical 6. Needle vibrator electrical 7. Needle vibrator (petrol) 8. Table vibrator (elect./petrol)		
3	Equipment for building work 1. Block making machine 2. Bar bending machine 3. Bar cutting machine 4. Wood thickness planer 5. Drilling machine 6. Circular saw machine 7. Welding generators 8. Welding transformer		

	<ul style="list-style-type: none"> 9. Cube testing machines 10. M.S. Pipes 11. Steel shuttering 12. Steel scaffolding 13. Grinding/polishing Machines 		
4	<p>Equipment for Transportation</p> <ul style="list-style-type: none"> 1. Tippers 2. Trucks <p>Pneumatic equipment</p> <ul style="list-style-type: none"> 1. Air compressor (diesel) <p>De-watering equipment</p> <ul style="list-style-type: none"> 1. Pump (diesel) 2. Pump (electric) <p>Power equipment</p> <ul style="list-style-type: none"> 1. Diesel generators (Any other plant/equipment) 		
5	<p>Testing Equipment's</p> <ul style="list-style-type: none"> 1. Cube Testing 2. Sieve analysis 3. Ultrasonic test 4. Silt test 5. Micron gauge 6. Moisture Metre 7. Any other 		

Annexure J
(See clause 14 of Section 2 -ITB)

FINANCIAL BID
Shall be Submitted Online Only
(To Be Contained in Envelope-C)

NAME OF WORK _____

I/We hereby bid for the execution of the above work within the time specified at the rate (in figures) _____(in words) _____percent below/ above or at par based on the Bill of Quantities and item wise rates given therein in all respects and in accordance with the specifications, designs, drawings and instructions in writing in all respects in accordance with such conditions so far as applicable. I/We have visited the site of work and am/are fully aware of all the difficulties and conditions likely to affect carrying out the work. I/We have fully acquainted myself/ourselves about the conditions in regard to accessibility of site and quarries/kilns, nature and the extent of ground, working conditions including stacking. of materials, installation of tools and plant conditions effecting accommodation and movement of labour etc. required for the satisfactory execution of contract.

Should this bid be accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed- hereto so far as applicable, or in default thereof to forfeit and pay to the Municipal Corporation Jabalpur or his successors in office the sums of money mentioned in the said conditions.

Note:

- i. Only one rate of percentage above or below or at par based on the Bill of Quantities and item wise rates .given therein shall be quoted.
- ii. Percentage shall be quoted in figures as well as in words. If any difference in figures and words is found lower of the two shall be taken as valid and correct rate. If the bidder is not ready to accept such valid and correct rate and declines to furnish performance -security and sign the agreement his earnest money deposit shall be forfeited.
- iii. In case .the percentage “above” or “below” is not given by a bidder, his bid shall be treated as non-responsive.
- iv. All duties, taxes, and other levies payable by the bidder shall be included in the percentage quoted by the bidder.

Signature of Bidder

Name of Bidder

The above bid is hereby accepted by me on behalf of the Municipal Corporation Jabalpur dated the _____ day of _____ 20_____

Signature of Officer
by whom accepted

MATERIALS TO BE ISSUED BY THE DEPARTMENT

(Not Applicable)

(See clause 21 of Section 2 -ITB)

LETTER OF ACCEPTANCE (LOA)

No. _____

Dated: _____

To,

M/s. _____

(Name and address of the contractor)

Subject: _____

(Name of the work as appearing in the bid for the. work)

Dear Sir(s),

Your bid for the work mentioned above has been accepted on behalf of the Municipal Corporation Jabalpur at your bided percentage _____ below/ above or at par the Bill of Quantities and item wise rates given therein.

You are requested to submit within 15 (Fifteen) days from the date of issue of this letter:

- a. The performance security/ performance guarantee of Rs. _____ (in-figures) (Rupees _____ in words only). The performance security shall be in the shape of term deposit receipt / bank guarantee of any nationalized / schedule commercial bank valid up to three months after the expiry of defects liability period.
- b. Sign the contract agreement.

Please note that the time allowed for carrying-out the work as entered in the bid is _____ months including/ excluding rainy season, shall be reckoned from the date of signing the-contract agreement.

Signing the contract agreement shall be reckoned as intimation to commencement of work and no separate letter for commencement of work is required. Therefore, after signing of the agreement, you are directed to contact the Engineer-in-charge for taking the possession of site and necessary instructions to start the work.

Yours Faithfully

Executive Engineer

PERFORMANCE SECURITY

To

_____ [name of Employer]

_____ [address of Employer]

WHEREAS _____ [name and address of Contractor] (Hereinafter called ‘the Contractor’) has undertaken, in pursuance of letter of Acceptance No-_____ dated to execute _____ [name of Contract and brief description of Works] (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, Up to a total of _____ [amount of guarantee]* _____ (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and Without cavil or argument, an sum or sums within the limits of _____ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the term of the Contract of the Works to be performed there under or of any of the Contract documents which maybe made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification. This guarantee shall be valid until 3 (three) months from the date of expiry of the Defect Liability Period.

Signature, Name and Seal of the guarantor _____

Name of Bank _____

Address _____

Phone No, Fax No., E-mail Address, of Signing Authority _____

Date _____

*An amount shall be inserted by the Guarantor, representing the percentage the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.

SECTION 3

Conditions of Contract

Part - I General Conditions of Contract [GCC]

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A. General

1. DEFINITIONS

- 1.1. **Bill of Quantities:** means the priced and completed Bill of Quantities forming part of the Bid.
- 1.2. **Chief Engineer:** means Chief Engineer of the zone/ basin concerned:
- 1.3. **Completion:** means completion of the work as certified by the Engineer-in-Charge, in accordance with provisions of agreement.
- 1.4. **Contract:** means the Contract between the Employer and the Contractor to execute, complete and/or maintain the work. Agreement is synonym of Contract and carries the same meaning wherever used.
- 1.5. **Contract Data:** means the documents and other information, which comprise of the Contract.
- 1.6. **Contractor:** means a person or legal entity whose bid to carry out the work has been accepted by the Employer.
- 1.7. **Contractor's bid:** means the completed bid document submitted by the Contractor to the Employer.
- 1.8. **Contract amount:** means the amount of contract worked out on the basis of accepted bid.
- 1.9. **Completion of work:** means completion of the entire contracted work; Exhaustion of quantity of any particular item mentioned in the bid document shall not imply completion of work or any component thereof.
- 1.10. **Day:** means the calendar day.
- 1.11. **Defect:** means any part of the work not completed in accordance with the specifications included in the contract.
- 1.12. **Department:** means Department of the, State Government viz. Water Resources Department, Public Works Department, Public Health Engineering Department Rural Engineering Service and any other organization which adopts this document.

- 1.13. **Drawings:** means drawings including calculations and other information provided or approved by the Engineer-in-Charge.
- 1.14. **Employer:** means the party as defined in the Contract Data, who employs the Contractor to carry out the work. The Employer may delegate any or all functions to a person or body nominated by him for specified functions. The word Employer / Government / Department wherever used denote the Employer.
- 1.15. **Engineer:** means the person named in the Contract Data.
- 1.16. **Engineer in charge:** means the person named in the Contract Data.
- 1.17. **Equipment:** means the Contractor's machinery and vehicles brought temporarily to the Site for execution of work.
- 1.18. **Government:** means Government of Madhya Pradesh.
- 1.19. **In Writing:** means communicated in written form and delivered against receipt.
- 1.20. **Material:** means all supplies, including consumables, used by the Contractor for incorporation in the work.
- 1.21. **Superintending Engineer:** means Superintending Engineer-in-Charge of the Circle concerned.
- 1.22. **Stipulated period of completion:** means the period in which the Contractor is required to complete the work. The stipulated period is specified in the Contract Data.
- 1.23. **Specification:** means the specification of the work included in the Contract and any modification or addition made or approved by the Engineer-in-Charge.
- 1.24. **Start Date:** means the date of signing of agreement for the work.
- 1.25. **Sub Contractor:** means a person or corporate body who has a Contract with the Contractor, duly authorized to carry out a part of the construction work under the Contract.
- 1.26. **Temporary Work:** means work designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the work.
- 1.27. **Tender/Bid, Tendered/Bidder:** are the synonyms and carry the same meaning where ever used. -

- 1,28. **Variation:** means any change in the work which is instructed or approved as variation under this contract.
- 1.29. **Work:** The expression “work’ or “works” where used in these conditions shall unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the work by virtue of contract, contracted to be executed, whether temporary or permanent and whether original, altered, substituted or additional,

2. INTERPRETATIONS AND DOCUMENTS

2.1 Interpretations

In the contract, except where the context requires otherwise:

- a. words indicating one gender include all genders;
- b. Words indicating the singular also include the plural and vice versa.
- c. provisions including the word “agree”, “agreed” or “agreement’ require the agreement to be recorded in writing;
- d. written” or “in writing” means hand-written, type-written, printed or electronically made, and resulting in a permanent record;

2.2 Documents Forming Part of Contract:

1. NIT with all amendments.
2. Instructions to Bidders (ITB, Bid Data Sheet with all Annexure’s)
3. Conditions of Contract:
 - i. Part I General Conditions of Contract and the Contract Data; with all Annexures
 - ii. Part II Special Conditions of Contract.
4. Specifications
5. Drawings
- 6 Bill of Quantities
7. Technical and Financial Bid

8. Agreement, and

9. Any other document(s), as specified.

3. Language and Law

The language of the Contract and the law governing the Contract are stated in the Contract Data

4. Communications

All certificates, notice or instruction to be given to the Contractor by Employer/Engineer shall be sent to the address or contact details given by the Contractor in [Annexure H of ITB]. The address and contact details for communication with the Employer/Engineer shall be as per the details given in the Contract Data. Communication between parties that are referred to in the conditions shall be in writing. The notice sent by facsimile (fax) or other electronic means (email) shall also be effective on confirmation of the transmission. The notice sent by registered post or speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service. In case of any change in address for communication, the same shall be immediately notified to Engineer-in- Charge.

5. Subcontracting

Subcontracting shall be permitted for contracts of value more than amount specified in the Contract Data with following conditions.

- a. The Contractor may subcontract up to 25 percent of the contract price with the approval of the Employer in writing, but will not assign the Contract. Subcontracting shall not alter the Contractors obligations.
- b. Following shall not form part of subcontracting:
 - i. Hiring of labour through a labour contractor.
 - II. The purchase of Materials to be incorporated in the works.
 - iii. Hiring of plant&machinery . .
- c. The sub-contractor will have to be registered in the appropriate category in the centralized registration system for contractors of the GOMP.

6. Personnel

61 The Contractor shall employ for the construction work and routine maintenance the technical personnel as provided in the Annexure I-3 of Bid Data Sheet if applicable. If the Contractor fails to deploy required number of technical staff, recovery as specified in the Contract Data will be made from the Contractor.

6.2 If the Engineer asks the Contractor to remove a person who is a member of the contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within three days and has no further connection with the Works in the Contract.

7. Force Majeure

7.1 The term "Force Majeure" means an exceptional event or circumstance:

- (a) Which is beyond a Party's control,
- (b) Which such Party could not reasonably have provided against before entering into the Contract
- (c) Which, having arisen, such Party could not reasonably have avoided or overcome, and
- (d) Which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- i. War, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- ii. Rebellion, terrorism, sabotage by persons other than the contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
- iii. Riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel,
- iv. Munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
- v. Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

7.2. In the event of either party being rendered unable by force majeure to perform any duty or discharge any responsibility arising out of the contract, the relative obligation of the party affected by such force majeure shall upon notification to

the other party be suspended for the period during which force majeure event lasts. The cost and loss sustained by either party shall be borne by respective parties.

7.3 For the period of extension granted to the Contractor due to Force Majeure the price adjustment clause shall apply but the penalty clause shall not apply. It is clarified that this sub clause shall not give eligibility for price adjustment to contracts which are otherwise not subject to the benefit of price adjustment clause.

7.4 The time for performance of the relative obligation suspended by the force majeure shall stand extended by the period for which such cause lasts. Should the delay caused by force majeure exceed twelve months, the parties to the contract shall be at liberty to foreclose the contact after holding mutual discussions.

8. Contractor's Risks -

8.1 All risks of loss or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract are the responsibility of the Contractor.

8.2 All risks and consequences arising from the inaccuracies or falseness of the documents, drawing, designs, other documents and/or information submitted by the contractor shall be the responsibility of the Contractor alone, notwithstanding the fact that the design/ drawings or other documents have been approved by the department.

9. Liability for Accidents to Person

The contractor shall be deemed to have indemnified and saved harmless the Corporation against all action, suits, claims, demands, costs etc. arising in connection with injuries suffered by any persons employed by the contractor or his subcontractor for the works whether under the General law or under workman's compensation Act or any other statute in force at the time of dealing with the question of the liability of employees for the injuries suffered by employees and to have taken steps properly to ensure against any claim there under.

10. Contractor to Construct the Works

10.1 The Contractor shall construct install and maintain the Works in accordance with the Specifications and Drawings as specified in the Contract Data.

- 10.2 In the case of any class of work for which there is no such specification as is mentioned in Contract Data, such work shall be carried out in accordance with the instructions and requirement of the Engineer-in-charge.
- 10.3 The contractor shall supply and take upon himself the entire responsibility of the sufficiency of the scaffolding, timbering, machinery, tools and implements, and generally of all means used for the fulfillment of this contract whether such means may or may not be approved or recommended by the Engineer.

11. Discoveries

Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

12. Dispute Resolution System

- 12.1 No dispute can be raised except before the Competent Authority as defined in Contract Data in writing giving full description and grounds of dispute. It is clarified that merely recording protest while accepting measurement and/or payment shall not be taken as raising a dispute.
- 12.2 No dispute can be raised after 45 days of its first occurrence. Any dispute raised after expiry of 45 days of its first occurrence shall not be entertained and the Employer shall not be liable for claims arising out of such dispute.
- 12.3 The Competent Authority shall decide the matter within 45 days.
- 12.4 Appeal against the order of the Competent Authority can be preferred within 30 days to the Appellate Authority as defined in the Contract Data. The Appellate Authority shall decide the dispute within 45 days.
- 12.5 Appeal against the order of the Appellate Authority can be preferred before the Madhya Pradesh Arbitration Tribunal constituted under Madhya Pradesh *MadhyasthamAdhikaranAdhiniyam, 1983*.

12.6 The Contractor shall have to continue execution of the Works with due diligence notwithstanding pendency of a dispute before any authority or forum.

B. Time Control

13. Programme

13.1 Within the time stated in the Contract Data, the Contractor shall submit to the Engineer for approval a Programme showing the general methods arrangements, order and timing for all the activities for the construction of works.

13.2 **The program shall be supported with all the details regarding key personnel, equipment and machinery proposed to be deployed on the works for its execution.** The contractor shall submit the list of equipment and machinery being brought to site, the list of key personnel being deployed, the list of machinery/equipment being placed in field laboratory and the location of field laboratory along with the Programme.

13.3 An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities.

13.4 The Contractor shall submit to the Engineer for approval an updated Programme at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

13.5 The Engineer's approval of the Programme shall not alter the Contractor's obligations.

14. Extension of Time

- 14.1. If the Contractor desires an extension of time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds, he shall apply, in writing, to the Engineer-in-charge, on account of which he desires such extension. Engineer-in-Charge shall forward the aforesaid application to the Competent Authority as prescribed.
- 14.2 The competent authority shall grant such extension at each such occasion within a period of 30 days of receipt of application from contractor and shall not wait for finality of work. Such extensions shall be granted in accordance with provisions under clause 15 of this agreement.
- 14.3 In case the work is already in progress, the Contractor shall proceed with the execution of the works, including maintenance thereof, pending receipt of the decision of the competent authority as aforesaid with all due diligence.

15. Compensation for delay

- 15.1 The. time allowed for carrying out the work, as entered in the agreement, shall be strictly observed by the Contractor.
- 15.2 The time allowed for execution of the contract shall commence from the date of signing of the agreement. It is clarified that the need for issue of work order is dispensed with.
- 15.3 In the event milestones are laid down in the Contract Data for execution of the works, the contractor shall have to ensure strict adherence to the same.
- 15.4 Failure of the Contractor to adhere to the timelines and/or milestones shall attract such liquidated damages as is laid down in the Contract Data.
- 15.5 In the event of delay in execution of the Works as per the time lines mentioned in the Contract Data the Engineer-in-charge shall retain from the bills of the Contractor amount equal to the liquidated damages leviable until the Contractor makes such delays good. However, the Engineer-in-charge shall accept bankable security in lieu of retaining such amount.

- 15.6 If the Contractor is given extension .of time after liquidated damages have been paid, the Engineer in Charge shall correct any over payment of liquidated damages by the Contractor in the next payment certificate.
- 15.7 In the event the Contractor fails to make good the delay until completion of the stipulated contract period (including extension of time) the sum so retained shall be adjusted against the liquidated damages levied.

16. Contractor’s quoted percentage

The Contractor’s quoted percentage rate referred to in the “Bid for works’ will be deducted added from/to the net amount of the bill after deducting the cost of material supplied by the department.

C. Quality Control

17. Tests

- 17.1 The Contractor shall be responsible for:
- a. Carrying out the tests prescribed in specifications, and
 - b. For the correctness of the test results, whether preformed in his laboratory or elsewhere.
- 17.2 The contractor shall have to establish field laboratory within the time specified and having such equipments as are specified in the Contract Data.
- 17.3 Failure of the Contractor to establish laboratory shall attract such penalty as is specified in the Contract Data.
- 17.4 Ten percent of the mandatory test prescribed under the specification shall be got carried out through laboratories accredited by national Accreditation Board of laboratories (NABL) By the Engineer-in-charge and the cost of such testing shall be deducted form the payments due to contractor .

18. Correction of Defects noticed during the Defect Liability Period

- 18.1 The Defect Liability Period of work in the contract shall be as per the Contract Data.
- 18.2 The Contractor shall promptly rectify all defects pointed out by the Engineer well before the end of the Defect Liability Period. The Defect Liability Period shall automatically stand extended until the defect is rectified.
- 18.3 If the Contractor has not corrected a Defect pertaining to the Defect Liability Period to the satisfaction of the Engineer, within the time specified by the Engineer, the Engineer will assess the cost of having the Defect corrected, and the cost of correction of the Defect shall be recovered from the Performance Security or any amount due or that may become due to the contractor and other available securities.

D. COST CONTROL

19. Variations - Change in original Specifications, Designs, and Drawings etc.

- 19.1 The Engineer-in-charge shall have power to make any alterations, omissions or additions to or substitutions in the original specifications, drawings, designs and instructions, that may appear to him to be necessary during the progress of the work and the contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-charge, and such alterations, omission, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work, which the contractor may be directed to do in the manner above specified, as part of the work, shall be carried out by the contractor on the same conditions in all respects on which he agrees to do the main work.
- 19.2 The time for the completion of the work shall be adjusted in the proportion that the altered, additional or substituted work bears to the original contract

work and the certificate of the Engineer-in-charge shall be conclusive as to such proportion.

20. Extra items

20.1 All such items which are not included in the priced BOQ shall be treated as extra items.

21. Payments for Variations and / or Extra Quantities

21.1 The rates for such additional (Extra quantity), altered or substituted work / extra items under this clause shall be worked out in accordance with the following provisions in the irrespective order:

- a. The contractor is bound to carry out the additional (Extra quantity), work at the same rates as are specified in the contract for the work.
- b. If the item is not in the priced BOQ and is included in the SOR of the department, the rate shall be arrived at by applying the quoted tender percentage on the SOR rate.
- c. If the rates for the altered or substituted work are not provided in applicable SOR - such rates will be derived from the rates for a similar class (type) of work as is provided in the contract (priced BOQ) for the work.
- d. If the rates for the altered, substituted work cannot be determined in the manner specified in the sub clause (c) above - then the rates for such composite work item shall be worked out on the basis of the concerned Schedule of Rates minus/plus the percentage quoted by the contractor.
- e. If the rates for a particular part or parts of the item is not in the Schedule of Rates and the rates for the altered, or substituted work item

cannot be determined in the manner specified in sub clause (b) to (d) above, the rate for such part or parts will be determined by the Competent Authority, as defined in the Contract Data on the basis of the rate analysis derived out of prevailing market rates when the work was done.

- f. But under no circumstances, the contractor shall suspend the work on the plea of non-acceptability of rates on items falling under sub clause (a) to (d). In case the contractor does not accept the rate approved by the Engineer in Charge for a particular item, the contractor shall continue to carry out the item at the rates determined by the Competent Authority. The decision on the final rates payable shall be arrived at through the dispute settlement procedure.

22. No compensation for alterations in or restriction of work to be carried out.

22.1. If at any time after the commencement of the work, the Engineer-in-charge for any reason whatsoever, not require the whole or any part of the work as specified in the bid to be carried out the Engineer-in-charge shall give notice in writing of the fact to the Contractor and withdraw that whole or any part of the work.

22.2 The Contractor shall have no claim to any payments or compensation whatsoever, on account of any profit or advantage which he might have derived from the execution of work in full or on account of any loss incurred for idle men and machinery due to any alteration or restriction of work for whatsoever reason.

22.3 The Engineer-in-charge may supplement the work by engaging another agency to execute such portion of the work, without prejudice to his rights.

23. 'No Interest Payable

No interest shall be payable to the Contractor on any payment due or awarded by any authority.

24. Recovery from Contractors

Whenever any claim against the Contractor for the payment arises under the contract, the Department may be entitled to recover such sum by:

- (a) Appropriating, in part or whole of the Performance Security and Additional Performance Security, if any; and/or Security Deposit and / or any sums payable under the contract to the contractor.
- (b) If the amount recovered in accordance with (a) above is not sufficient, the balance sum may be recovered from any payment due to the contractor -under any other contract of the department, including the securities which become due for release.
- (c) The department shall, further have an additional right to effect recoveries as arrears of land revenue under the M.P. Land-Revenue Code.

25. Tax -

- 25.1 The rates quoted by the Contractor shall be deemed to be inclusive of the commercial tax and other levies, duties, cess, toll, taxes of Central and State Governments, local bodies and authorities,
- 25.2 The liability, if any, on account of quarry fees, royalties, octroi and any other taxes and duties in respect of materials actually consumed on public work, shall be borne by the Contractor.
- 25.3 Any changes in the taxes due to change in legislation or for any other reason shall not be payable to the contractor.

26. check Measurements

- 26.1 The department reserves to itself the right to prescribe a scale of check measurement of work in general or specific scale for specific works or by other special orders.
- 26.2 Checking of measurement by superior officer shall supersede measurements by subordinate officer(s), and the former will become the basis of the payment.
- 26.3 Any over/excess payments detected, as a result of such check measurement or otherwise at any stage up to the date of completion of the defect liability period specified in this contract, shall be recoverable from the Contractor, as per clause 24 above.

27. Termination by Engineer in charge

27.1 If the Contractor fails to carry out any obligation under the Contract, the Engineer in Charge may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.

27.2 The Engineer in Charge, shall be entitled to terminate the Contract if the Contractor

- a) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract;
- b) the Contractor is declared as bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
- c) without reasonable excuse fails to comply with the notice to correct a particular defect within a reasonable period of time;
- d) the Contractor does not maintain a valid instrument of financial security as prescribed;
- e) the Contractor has delayed the completion of the Works by such duration for which the maximum amount of liquidated damages is recoverable;
- f) If the Contractor fails to deploy machinery and equipment or personnel or set up a field laboratory as specified in the Contract Data;
- g) If the contractor, in the judgment of the Engineer in charge has engaged in corrupt or fraudulent practices in competing for or in executing the contract;
- h) Any other fundamental breaches as specified in the Contract Data.

27.3 In any of these events or circumstances, the Engineer in Charge may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site, However, in the case of sub-paragraph (b) or (g) of clause 27.2, the Engineer in Charge may terminate the Contract immediately.

27.4 Notwithstanding the above, the Engineer-in-Charge may terminate the Contract for convenience by giving notice to the Contractor.

28. Payment upon Termination

28.1 If the contract is terminated under clause 27.3, the Engineer shall issue a certificate for value of the work accepted on final measurements, less Advance Payments and

Penalty as indicated in the Contract Data. The amount so arrived at shall be determined by the Engineer-in-Charge and shall be final and binding on both the parties.

28.2 Payment on termination under clause 27.4 above -

If the Contract is terminated under clause 27.4 above, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation, of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

28.3 If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be recovered as per clause 24 above.

29. Performance Security

The Contractor shall have to submit, performance security and additional performance security, if any, as specified in the Bid Data Sheet at the time of signing of the contract. The contractor shall have to ensure that such performance security and additional performance security, if any remains valid for the period 'as specified in the Contract Data.

30. Security Deposit-

30.1 Security Deposit shall be deducted from each running bill at the rate as specified in the Contract Data. The total amount of Security Deposit so deducted shall not exceed the percentage of Contract Price specified in the Contract Data.

30.2 The security deposit may be replaced by equivalent amount of bank guarantee or fixed deposit receipt assigned to the Employer, with validity up to 3 (three) months beyond the completion of Defect Liability Period/ extended Delectability Period.

30.3 The Security Deposit shall be refunded on completion of Defect Liability Period.

31. Price Adjustment

31.1 Applicability

1. Price adjustment shall be applicable only if provided for in the Contract Data.
2. The price adjustment clause shall apply only for the works executed from the date of signing of the agreement until the end of the initial intended completion date or extensions granted for reasons attributed to the Employer by the Engineer.
3. The Contractor shall not be entitled to any benefit arising from the price adjustment clause for extension in the contract period for reasons attributed to the Contractor.
4. In the Force Majeure event the price escalation clause shall apply.

31.2 Procedure

1. Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants in accordance with following principles and procedures and as per formula given in the contract data.
2. The price adjustable shall be determined during each quarter from the formula given in the contract data.
3. Following expression and meaning are assigned to the work done during each quarter:

R = Total value of work during the quarter. It would include the amount of secured advance granted, if any, during the quarter, less the amount of secured advance recovered, if any during the quarter, less value of material issued by the department, if any, during the quarter.
4. Weightages of various components of the work shall be as per the Contract Data.

31.3 To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

31.4 The index relevant to any quarter, for which such compensation is paid, shall be the arithmetical average of the indices relevant of the calendar month.

31.5 For the purpose of clarity it is pointed out that the price adjustment may be either positive or negative, i.e. if the price adjustment is in favour of the Employer, the same shall be recovered from the sums payable to the Contractor.

32. Mobilization and Construction Machinery Advance

32.1 Payment of advances shall be applicable if provided in the Contract Data.

32.2 If applicable, the Engineer in Charge shall make interest bearing advance payment to the contractor of the amounts stated in the Contract Data, against provision by the contractor of an unconditional Bank Guarantee in a form and by a nationalized/ scheduled banks, in the name as stated in the Contract Data in amounts equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the contractor.

32.3 The rate of interest chargeable shall be as per Contract Data.

32.4 The construction machinery advance, if applicable, shall be limited to 80% of the cost of construction machinery and admissible only for new construction machinery.

32.5 The advance payment shall be recovered as stated in the Contract Data by deducting proportionate amounts from payment otherwise due to the Contractor. No account shall be taken of the advance payment or its recovery in assessing valuations of work done, variations, price adjustments, compensation events, or liquidated damages.

33. secured Advance

33.1 Payment of Secured Advance shall be applicable if provided in the Contract Data.

33.2 If applicable, the Engineer shall make advance payment against materials intended for but not yet incorporated in the Works and against provision by the contractor of an unconditional Bank Guarantee in a form and by a nationalized/scheduled bank, in the name as stated in the Contract Data, in amounts equal to the advance payment. The guarantee shall remain effective until the advance payment has been adjusted, but the amount of the guarantee shall be progressively reduced by the amounts adjusted by the contractor.

33.3 The amount of secured advance and conditions to be fulfilled shall be as stipulated in the Contract Data.

3.4 The Secured Advance paid shall be recovered as stated in the Contract Data.

34. Payment Certificates

The payment to the contractor will be as follows for construction work:

- (a) The Contractor shall submit to the Engineer monthly statements of the value of the work executed less the cumulative amount certified previously, supported with detailed measurement of the items of work executed.
- (b) The Engineer shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- (c) The value of work executed shall be determined, based on the measurements approved by the Engineer/ Engineer-in-charge.
- (d) The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed:
- (e) The value of work executed shall also include the valuation of Variations and Compensation Events.
- (f) All payments shall be adjusted for deductions for advance payment, security deposit, other recoveries in terms of contract and taxes at source as applicable under the law.

- (g) The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
- (h) Payment of intermediate certificate shall be regarded as payments by way of advance, against the final payment and not as payments for work actually done and completed.
- (i) Intermediate payment shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or be considered as an admission of the due performance of the contractor any part thereof, in any respect or the occurring of any claim.
- (j) The payment of final bill shall be governed by the provisions of clause 36 of GCC.

E. Finishing the Contract

35. Completion Certificate

35.1 A Completion Certificate in the prescribed format in Contract Data shall be issued by the Engineer-in-Charge after physical completion of the Work.

35.2 After final payment to the Contractor a Final Completion Certificate in the prescribed format in the Contract Data shall be issued by the Engineer-in-Charge.

36. Final Account

36.1 The Contractor shall supply the Engineer with a detailed account of the total amount that the Contractor considers payable for works under the Contract within 21 days of issue of certificate of physical completion of works. The Engineer shall issue a Defects Liability Certificate and certify any payment that is due to the Contractor within 45 days of receiving the Contractor's account if it is correct and complete. If the account is not correct or complete, the Engineer shall issue within 45 days a schedule that states the scope of the corrections or additions that are necessary. If the Account is still unsatisfactory

after it has been resubmitted, the matter shall be referred to the Competent Authority as defined in the Contract Data, who shall decide on the amount payable to the Contractor after hearing the Contractor and the Engineer in Charge.

36.2 In case the account is not received within 21 days of issue of Certificate of Completion as provided in clause 32.1 above, the Engineer shall proceed to finalize the account and issue a payment certificate within 28 days.

F. Other Conditions of Contract

37. Currencies

All payments will be made in Indian Rupees.

38. Labour

38.1 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

38.2 The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

39. Compliance with Labour Regulations

39.1 During continuance of the Contract, the Contractor and his Sub Contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the, State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or

the local authority. Salient features of some of the major labour laws that, are applicable to construction industry are given in the Contract Data. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made their under, regulations or notifications including amendments, If the Employer is caused to pay or reimburse, such amounts as may .be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/ byelaws/ Acts/Rules / regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct from any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer. The employees of the Contractor and the Sub Contractor in no case shall be treated as the employees of the Employer at any point of time.

40. Audit and Technical Examination

Government shall have the right to cause an audit and technical examination of the works and the final bill of the contract including all supporting vouchers abstract etc to be made after payment of the final bill and if as a result of such audit and technical examination any sun is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed by him to have been done under the contract and found not to; have been executed, the Contractor shall be liable to refund the amount of overpayment and it shall be lawful for Government to recover the same from him in the manner prescribed in clause 24 above and if it is found that the Contractor was paid less than what was due to him, under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by Government to the Contractor.

41. Death or Permanent Invalidity of Contractor

If the Contractor is an individual or a proprietary concern, partnership concern, dies during the currency of the contract or becomes permanently incapacitated, where the surviving partners are only minors, the contract shall be closed without levying any damages/compensation as provided for in clause 28.2 of the contract agreement However, if the competent authority is satisfied about the competence of the survivors, then the competent authority shall enter into a fresh agreement for the

remaining work strictly on the same terms and conditions under which the contract was awarded.

42. Jurisdiction

This contract has been entered into the State of Madhya Pradesh and its validity, construction, interpretation and legal effect shall be subjected to the courts at the place where this agreement is entered into. No other jurisdiction shall be applicable.

[End of GCC]

Contract Data

Clause reference	Particulars	Data
1.14	Employer	JSCL
1.15	Engineer	_____
1.16	Engineer in Charge	_____
1.12	Stipulated period of completion	12 Months
3	Language & Law of Contract	English & Indian Contract Act 1872
4	Address & contact details of the Contractor	As per Annexure H
	Address & contact details of the Employer/ Engineer- phone, Fax, email.	_____
5	Subcontracting permitted for the Contract Value	More than Rs.____Lakhs

6	Technical Personnel to be provided the contractor— requirement, &	As per Annexure - I (Format I-3)
	Penalty, if required Technical Personnel not employed	Rs. _____
10	Specifications	As per Annexure E
	Drawings	As per Annexure N
12	Competent Authority for deciding dispute under Dispute Resolution System	_____
	Appellate Authority for deciding dispute under Dispute Resolution System	_____
13	Period for submission of updated construction program	_____
	Amount to be withheld for hot submitting construction program in prescribed period	Rs. _____
14	Competent Authority for granting Time Extension.	Chief Executive Officer, JSCL
15	Milestones laid down for the contract	Yes No
	If Yes, details of Milestones	As per Annexure - O
	Liquidated damage	As per Annexure - P
17	List of equipment for lab	As per Annexure - Q
	Time to establish lab	_____
	Penalty for not establishing field Laboratory	Rs _____ per month for the delay
18	Defect Liability Period	Two Years after physical completion of work
21	Competent Authority for determining the rate	_____
27	Any other condition for breach of contract	_____

Contract Data

Clause reference	Particulars	Data
28	Penalty	Penalty Shall include (a) Security deposit as per clause 30 of General Conditions of Contract and (b) Liquidated Damages imposed as per clause 15 or Performance Security (Guarantee) including Additional Performance Security (Guarantee), if any, as per clause 29 of General Conditions of Contract, whichever is higher
29	Performance guarantee (Security) shall be valid up to	Till issue of physical Completion Certificate as per Clause 35.1
30	Security Deposit to be deducted from each running bill	At the rate of 5%.
	Maximum limit of deduction of Security Deposit	Up to 5% of Final Contract Amount.
31	Price Adjustment formula and procedure to calculate	As per Annexure R The price Adjustment shall apply only in respect of Cement, Steel, Bitumen and POL components
31.1 (1)	Price adjustment shall be applicable	Price Adjustment shall be applicable only in case where the amount in NIT is more than Rs. 10 (Ten) Crores. This clause shall not have any bearing with the Contract Amount.
32	32:1 Mobilization and Construction Machinery Advance Applicable	No Mobilization and Construction Machinery Advance payable .
	32.2 If yes, Unconditional Bank Guarantee	In the format prescribed in Annexure - S
	32.3 If yes, Rate of interest chargeable on advances	10% annual simple interest
	32.4 If yes, Type & Amount of Advance payment that can be paid	1. Mobilization advance - Not more than ... % of contract amount 2. Construction Machinery Advance — Not more than ... %

		of contract amount
	32.5 If yes, Recovery of advance payment	<p>Recovery of Mobilization and/or Construction Machinery advance shall commence when 10% of the Contract Amount is executed and recovery of total advance shall be done on pro-rata basis and shall be completed by the time work equivalent to 80% of the Contract Amount is executed.</p> <p>In addition to the recovery of principal amount, recovery of interest shall be carried out as calculated on the outstanding amount of principal at the close of each month. The interest shall be accrue from the day of payment of advance and the recovery of interest shall commence when 10% of the Contract Amount is executed and shall be completed by the time work equivalent to 80% of the Contract Amount is executed.</p>

Contract Data

Clause reference	Particulars	Data
33	33.1 secured Advance Applicable	No Secured Advance payable.
	33.2 if yes, Unconditional Bank Guarantee	In the format prescribed in Annexure —T
	33.2 if yes, Amount of Secured Advance :	75% of value of material as determined by the Engineer in Charge
	33.3 if yes, Conditions for secured advance .	<p>a) The materials are in-accordance with the specification for Works;</p> <p>b) Such materials have been delivered to site, and are properly stored and protected against damage, or deterioration to the satisfaction of the Engineer. The contractor shall store the bulk material in measurable stacks.;</p> <p>c) The Contractor’s records of the requirements, orders, receipt and use of materials are kept in a form approved by the Engineer and such records shall be available for inspection by the Engineer;</p> <p>d) The contractor has submitted with his monthly statement the estimated value of the materials on site together with such documents as may be required by the Engineer for the purpose of valuation of the materials and providing evidence of ownership and payment thereof;</p> <p>e) Ownership of such materials shall be deemed to vest in the Employer for which the Contractor</p> <p>has submitted an Indemnity Bond in an acceptable format; and</p> <p>f) The quantity of materials are not excessive and shall be used within a reasonable time as determined by the Engineer.</p>
	33.4 if yes, Recovery of Secured advance	The advance shall be repaid from each succeeding monthly payments to the extent materials [for which advance was previously paid) have been incorporated into the Works.

35	Completion certificate - after physical completion of the Work	As per Annexure - U
	Final Completion Certificate — after final payment on completion of the Work	As per Annexure-V
36	Competent Authority	_____
39	Salient features of some of the major labour laws that are applicable	As per Annexure - W
41	Competent Authority	_____

ANNEXURE—N

(See clause 10 of Section 3— GCC)

Drawings

ATTACHED AS ANNEXURE 1

ANNEXURE—O

(See clause 15 of Section 3 -GCC)

Details of Milestones

ANNEXURE—P

(See clause 15 of Section 3-GCC)

Compensation for Delay

If the contractor fails to achieve the milestones, and the delay in execution of work is attributable to the contractor, the Employer shall retain an amount from the sums payable and due to the contractor as per following scale -

- i. Slippage up to 25% in financial target during the milestone under consideration 2.5% of the work remained unexecuted in the related time span.
- ii. Slippage exceeding 25% but Up to 50% in financial target during the milestone under consideration - 5% of the work remained unexecuted in the related time span.
- iii. Slippage exceeding 50% but Up to 75% in financial target during the milestone under consideration -7.5% of the work remained unexecuted in the related time span,.
- iv. Slippage exceeding 75% in financial target during the milestone under consideration-10% of the work remained unexecuted in the related time span.

Note: For arriving at the dates of completion of time span related to different milestones, delays which are not attributable to the Contractor shall be considered. The slippage on any milestone is if made good in subsequent milestones or at the time of stipulated period of completion, the amount retained as above shall be refunded. In case the work is not completed within the stipulated period of completion along with all such extensions which are granted to the Contractor for either Employer's default or Force Majeure, the compensation shall be levied on the contractor at the rate of 0.05% per day of delay limited to a maximum of 10% of contract price. The decision of Superintending Engineer shall be final and binding upon both the parties.

Annexure – Q

(See clause 17 of Section 3 GCC)

List of Equipment for Quality Control Lab

ANNEXURE - R

(See clause 31 of Section 3 -GCC)

PRICE ADJUSTMENT

The formulas for adjustment of price are as follow:

R = Value of work as defined in Clause 31.2(3) of General Conditions of Contract

Weightages* of component in the work

S.No.	Component	Percentage of Component in the work
1.	Cement -P _c	
2.	Steel -P _s	
3.	Bitumen -P _b	
4.	POL P _f	

* Weightages of various components of the work shall be as determined by the competent Technical authority.

Adjustment for cement component

- (ii) Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula:

$$V_c = 0.85 \times P_c / 100 \times R \times (C_1 - C_0) / C_0$$

V_c = increase or decrease in the cost of work during the month under Consideration due to changes in rates for cement.

- C_0 = The all India wholesale price index for Grey cement on the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi (www.eaindustry.nic.in)
- C_1 = The all India average wholesale price Index for grey cement for the month under consideration as published by Ministry Government of India, New Delhi. (www.eaindustry.nic.in)
- P_c = Percentage of cement component of the work

Note: For the application of this clause, index of Grey Cement has been chosen to represent Cement group.

Adjustment of steel component

- (iii) Price adjustment for increase or decrease in the cost of steel procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_s \times /100 \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for steel.

S_0 = The all India wholesale price index for steel (Bars and Rods) on the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi (www.eaindustry.nic.in)

S_1 = The all India average wholesale price index for steel (Bars and Rods) for the month under consideration as published by Ministry of Industrial Development, New Delhi (www.eaindustry.nic.in)

P_s = Percentage of steel component of the Work.

Note :*For the application of this clause, index of Bars and Rods has been chosen to represent steel group.*

Adjustment bitumen component

- (iv) Price adjustment for increase or decrease in the cost of bitumen shall be paid in accordance with the following formula:

$$V_b = 0.85 \times P_b / 100 \times R \times (B_i - B_o) / B_o$$

V_b = Increase or decrease in the cost of work during the month under consideration due to changes in rates for bitumen.

B_o = The official retail price of bitumen at the IOC depot at nearest center on the date of opening of Bids.

B_i = The official retail price of bitumen of IOC depot at nearest center for the 15th day of the month under consideration.

P_b = Percentage of bitumen component of the work.

Adjustment of POL (fuel and lubricant) component

- (V) Price adjustment for increase or decrease in cost of POL (fuel and lubricant) shall be paid in accordance with the following formula:

$$V_f = 0.85 \times P_f / 100 \times R \times (F_i - F_o) / F_o$$

V_f = Increase or decrease in the cost of work during the month under consideration due to changes in rates for fuel and lubricant.

F_o = The official retail price of High speed Diesel (HSD) at the existing consumer pumps of IOC at nearest center on the date of opening of Bids.

F_i = The official retail price of HSD at the existing consumer pumps of IOC at nearest center for the 15th day of month of the under consideration.

P_f = Percentage of fuel and lubricants component of the work.

Note: For the application of this clause, the price of High Speed Diesel has been chosen to represent fuel and lubricants group.

Annexure - S

(See clause 32 of Section 3-GCC)

Bank Guarantee Form for Mobilization and Construction Machinery Advance

To

_____ [name of Employer)

_____ [address of Employer]

_____ [name of Contractor)

In accordance with the provisions of the General Conditions of Contract, clause 31 (“Mobilization and Construction Machinery Advance”) of the above-mentioned Contract _____ [name and address of Contractor] (hereinafter called “the Contractor”) shall deposit with _____ [name of Employer) a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____ [amount of Guarantee]* _____ [in words].

We, the _____ (bank of financial institution], as instructed by the Contractor., agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to _____ (name of Employer] on his first demand without whatsoever right of obligation on our part and without his first claim to the Contractor, in the amount not exceeding ‘[amount of guarantee]* _____ [in words].

We further agree that no change or addition to or other modification of the terms of the Contractor or Works to be performed thereunder or of any of the Contract documents which may be made between _____ [name of Employer] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the contract until _____ [name of Employer] receives full repayment of the same amount from the Contractor.

Yours truly,

Signature and Seal: _____

Name of Bank/Financial Institution: _____

Address: _____

Date: _____

* An amount shall be inserted by the Bank or Financial Institution representing the amount of the Advance Payment and denominated in Indian Rupees.

Annexure - T

(See clause 33 of Section 3 -GCC)

Bank Guarantee Form for Secured Advance

INDENTURE FOR SECURED ADVANCES

This indenture made the _____ day of _____ 20__ BETWEEN _____ (hereinafter called the contractor which expression shall where the context so admits or implies be deemed to include his executors, administrators and assigns) or the one part and the Employer of the other part.

Whereas by an agreement dated _____ (hereinafter called the said agreement) the contractor has agreed.

AND WHEREAS the contractor has applied to the Employer that he may be allowed advanced on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement for use in the construction of such of the works as he has undertaken to executive at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges)

AND WHEREAS the Employer has agreed to advance to the Contractor the sum of Rupees _____ on the security of materials the quantities and other particulars of which are detailed in Accounts of Secured Advance attached to the Running Account Bill for the said works signed by the Contractor on _____ and the Employer has reserved to himself the option of making any further advance or advances on the authority of other materials brought by the Contractor to the site of the said works.

Now THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees _____ on or before the execution of these presents paid to the Contractor by the Employer (the receipt where of the Contractor doth hereby 'acknowledge) and of such further advances (if any) as may be made to him as a for said the Contractor doth hereby covenant and agree with the President and declare as follows:

That the said sum of Rupees _____ so advanced by the Employer to

- (1) the Contractor as aforesaid and all or any further sum of sums advanced as aforesaid shall be employed by the Contractor in or towards expending the execution of the said works and for no other purpose whatsoever.
- (2) That the materials details in the said Account of Secured Advances which have been offered to and accepted by the Employer as security are absolutely the Contractor's own propriety and free from encumbrances of any kind and the contractor will not make any application for or receive a further advance, on the security Of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnified the Employer against all claims to any materials in respect of which an advance has be made to him as aforesaid.
- (3) That the materials detailed in the said account of Secured Advances and all other materials on the security of which any further advance or advances may here after be made as aforesaid (hereafter called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Engineer.
- (4) That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and on his own responsibility and shall at all times be open to inspection by the Engineer or any officer authorized by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the Contractor will forthwith replace the same with other materials of like quality or repair and make good the same required by the Engineer.
- (5) That the said materials shall not be removed from the site of the said works except with the written permission of the Engineer or an officer authorized by him on that behalf.

- (6) That the advances shall be repayable in full when or before the Contract receives payment from the Employer of the price payable to him for the said works under the terms and provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the Employer-will be at liberty to make a recovery from the Contractor's bill for such payment by deducting there from the value of the said materials than actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advances made under these presents were calculated.
- (7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing of the Employer shall immediately on the happening of such default were payable by the Contractor to be the Employer together with interest thereon at twelve percent per annum from the date or respective dates of such advance or advances to the date of repayment and with all costs, charges, damages and expenses incurred by the Employer in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the Employer to reply and pay the same respectively to him accordingly.
- (8) That the Contractor hereby charges all the said materials with the repayment to the Employer of the said sum of Rupees_____ and any further sum of sums advanced as aforesaid and all costs, charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the power contained therein if and whenever the covenant for payment and repayment here-in-before contained shall become enforceable and the money owing shall not be paid in accordance there with the Employer may at any time thereafter adopt all or any of the following courses as he may deem best:
- (a) Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the contractor in accordance with the provision in that

behalf contained in the said agreement debiting the contractor with the actual cost of effecting such completion and the amount due to the contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the contractor, he is to pay same to the Employer on demand.

- (b) Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable or repayable to the Employer under these presents and pay over the surplus (if any) to the Contractor.
 - (C) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.
- (9) That except in the event of such default on the part of the contractor as aforesaid interest on the said advance shall not be payable.
- (10) That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been here-in-before expressly provided for the same shall be referred to the Employer whose decision shall be final and the provision of the Indian Arbitration Act for the time being in force shall apply to any such reference.

Annexure - U

(See clause 35 of Section 3 -GCC)

Physical Completion Certificate

Name of Work:

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

Agreement NoDate

Amount of Contract Rs

Name of Agency

Used MB No.

Last measurement recorded

a. Page No. & MB No. _____

b. Date _____

Certified that the above mentioned work was physically completed on(date) and taken over on(date) and that I have satisfied myself to best of my ability that the work has been done properly.

Date of issue

Executive Engineer

.....

.....

(See clause 35 of Section 3-GCC)

Final Completion Certificate

Name of Work:

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

Agreement noDate

Name of Agency:

Used MB No.

Last measurement recorded

a: Page No. & MB No. _____

b. Date _____

Certified that the above mentioned work was physically completed on(date)
and taken over on(date).

Agreemented amount Rs

Final Amount paid to contractor Rs.

Incumbency of officers for the work

I have satisfied myself to best of my ability that the work has been done properly.

Date of issue

Executive Engineer

.....
.....

Salient Features of Some Major Labour Laws Applicable

- a) **Workmen Compensation Act 1923** The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) **Payment of Gratuity Act 1972:-** Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed the prescribed minimum years (say, five years) of service or more or on death the rate of prescribed minimum days' (say, 15 days) wages for every completed year of service. The Act is applicable to all establishments employing the prescribed minimum number (say, 10) or more employees.
- c) **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the Employer plus workers at the rate prescribed (say, 10% or 8.33%), The benefits payable under the Act are:
 - i. Pension or family pension on retirement or death as the case may be.
 - ii. Deposit linked insurance on the death in harness of the worker.
 - iii. Payment of P.F. accumulation on retirement/death etc.
- d) **Maternity Benefit Act 1951:** - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) **Contract Labour (Regulation & Abolition) Act 1970:** - The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the contractor fails to provide, the same are required to be provided, by the Principal Employer by Law.. The principal Employer is required to take certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ prescribed minimum (say 20) or more contract labour.
- f) **'Minimum Wages Act 1948;** - The Employer is to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of buildings, roads, runways is scheduled employment.

- g) **Payment of Wages Act 1936:** - It lays down as to by what date the wages are to be paid when it will be paid and what deductions can be made from the wages of the workers.
- h) **Equal Remuneration Act 1979:** - The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against female employees in the matters of transfers, training and promotions etc.
- I) **Payment of Bonus Act 1965:** - The Act is applicable to all establishments employing prescribed minimum (say, 20) or more workmen. The Act provides for payments of annual bonus within the prescribed range of percentage of wages to employees drawing up to the prescribed amount of wages, calculated in the prescribed manner. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. States may have different number of employment size.
- j) **Industrial Disputes Act 1947:** - The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) **Industrial Employment (Standing Orders) Act 1946:** - It is applicable to all establishments employing prescribed minimum (say, 100, or 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and gets these certified by the designated Authority.
- I) **Trade Unions Act 1926:** - The Act lays down the procedure for registration of trade unions of workmen and Employers. The Trade Unions registered under the Act have, 'been given certain immunities from civil and criminal liabilities.
- m) **Child Labour (Prohibition & Regulation) Act 1986:** - The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulations of employment of children in all other occupations and processes. Employment of child labour is prohibited in building and construction industry.
- n) **Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act 1979:** - The Act is applicable to an establishment which employs prescribed minimum (say, five) or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as Housing, Medical-Aid, Traveling expenses from home up to the establishment and back etc.

- o) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996 - All the establishments who carry on any building or other construction work and employs the prescribed minimum (say, 10) or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) **Factories Act 1948:** - The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing the prescribed minimum (say, 10) persons or more with aid of power, or another prescribed minimum (say, 20) or more persons without the aid of power engaged in manufacturing process.

SECTION 3

Conditions of Contract

Part — II Special Conditions of Contract [SCC]

SECTION 4

BILL OF QUANTITIES (BOQ)

General Description of work

.....

.....

Probable Amount of Contract:

(Rs. In Figure).....

(Rs.in Words)

S.No.	Particular of Item of work	Quantity	unit	Rate	Amount (in figure)	Amount (in words)	Remarks
I	II	III	IV	V	VI	VII	VIII
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
Total Amount (Rs in Figure)							

Total Amount (RsIn Words) _____

Executive Engineer

.....

.....

SECTION 5
AGREEMENT FORM

AGREEMENT

This agreement, made on the _____ day of _____
between: _____ (name and address of Employer) (hereinafter called “ the
Employer) and _____ (name and address of
contractor) hereinafter called “the Contractor’ of the other part.

Whereas the Employer is desirous that the Contractor execute
_____ (name and identification number of Contract)
(hereinafter called “the Works”) and the Employer has accepted the Bid by the Contractor for the
execution and completion of such Works and the remedying of any defects therein, at a cost of
Rs.....

NOW THIS AGREEMENT WITNESSED as follows:

1. In this Agreement, words and expression shall have the same meaning as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein Contract Price or

such other Sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

4. The following documents shall be deemed to form and be read and construed as part of this Agreement viz.
- i. Letter of Acceptance
 - ii. Contractor's Bid
 - iii. Condition of Contract: General and Special -
 - iv. Contract Data
 - v. - Bid Data
 - vi. Drawings
 - vii. Bill of Quantities and
 - viii. Any other documents listed in the Contract Data as forming part of the Contract.

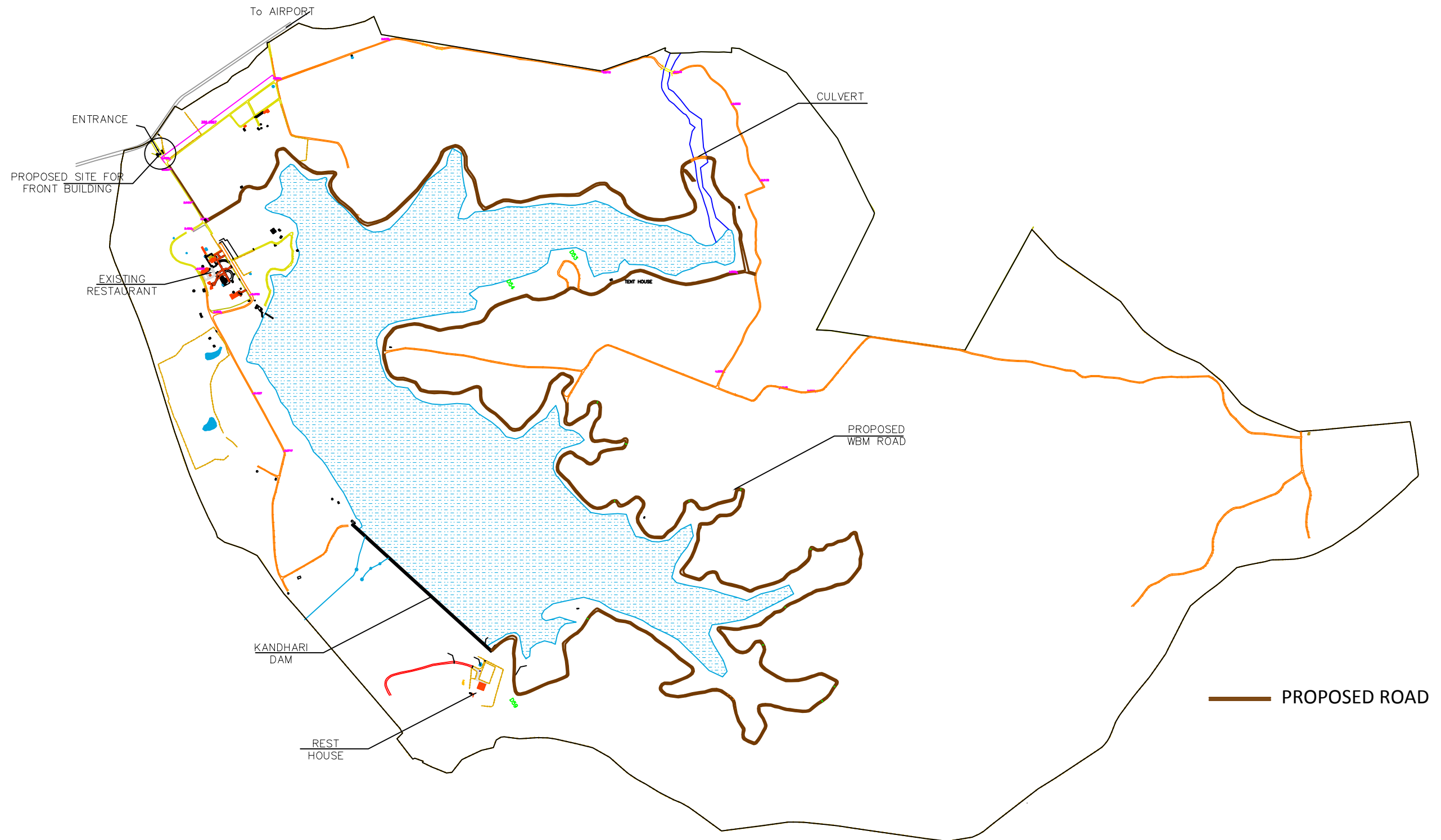
In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of _____ was hereunto affixed in the presence of:

Signed, Sealed and Delivered by the said _____ in the presence of:

Binding Signature of Employer _____

Binding Signature of Contractor _____



PROJECT NAME :-

**Development of Dumna Nature Reserve
Park, Jabalpur Madhya Pradhesh India**

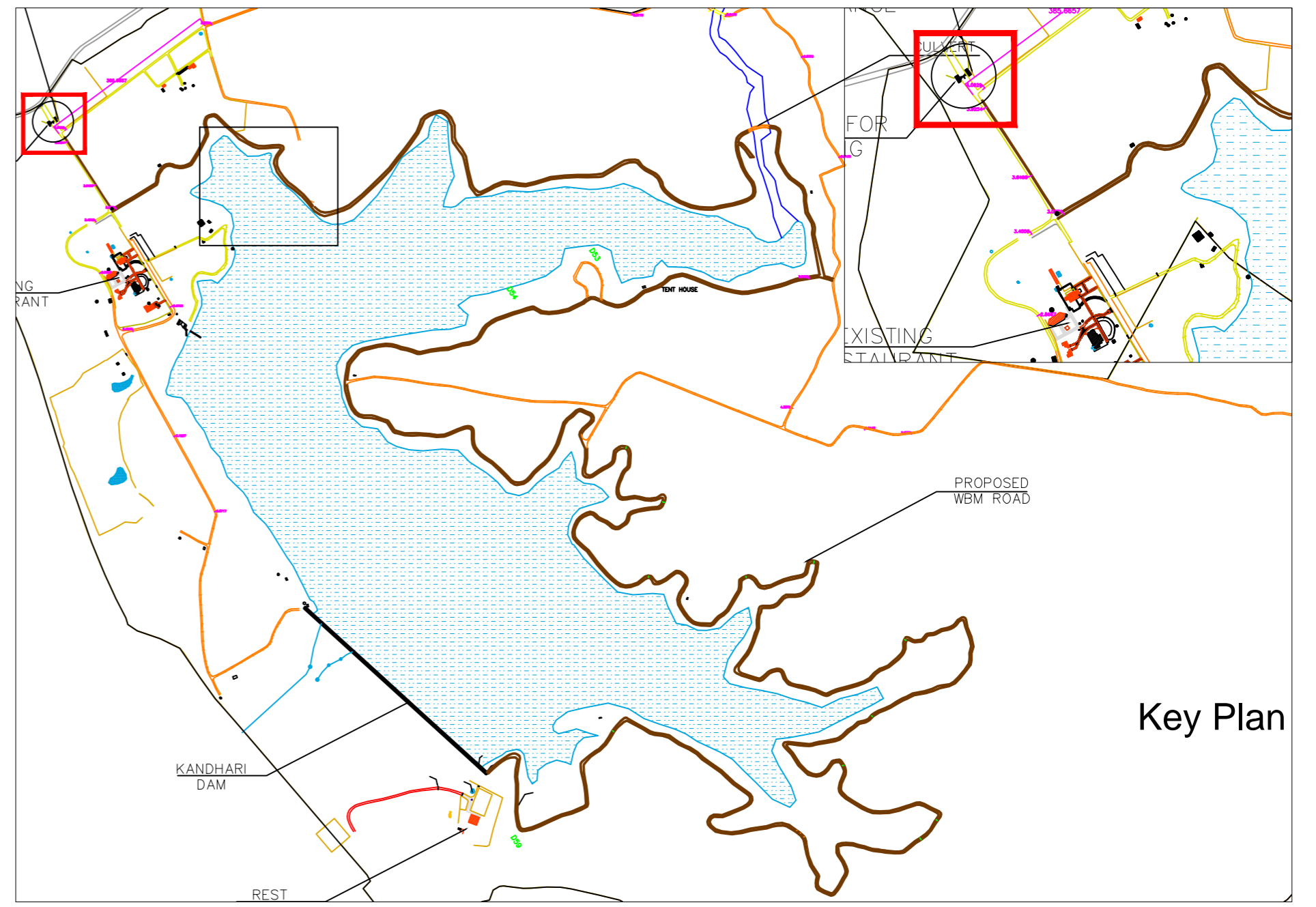
CLIENT NAME :-

SHEET NO:-

DATE:-

SHEET NAME:-

PROPOSED ROAD FOR DEVELOPMENT

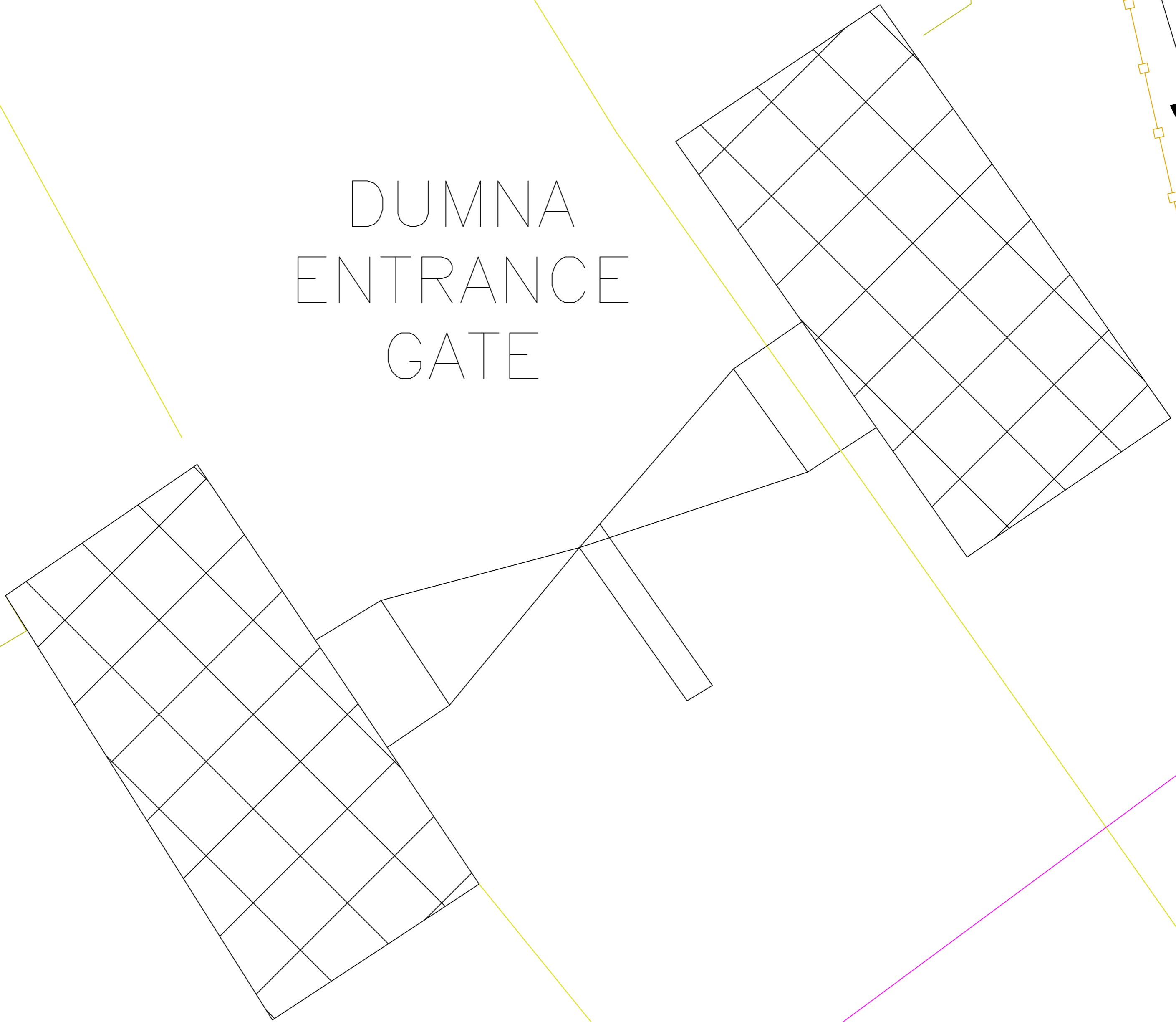


Key Plan

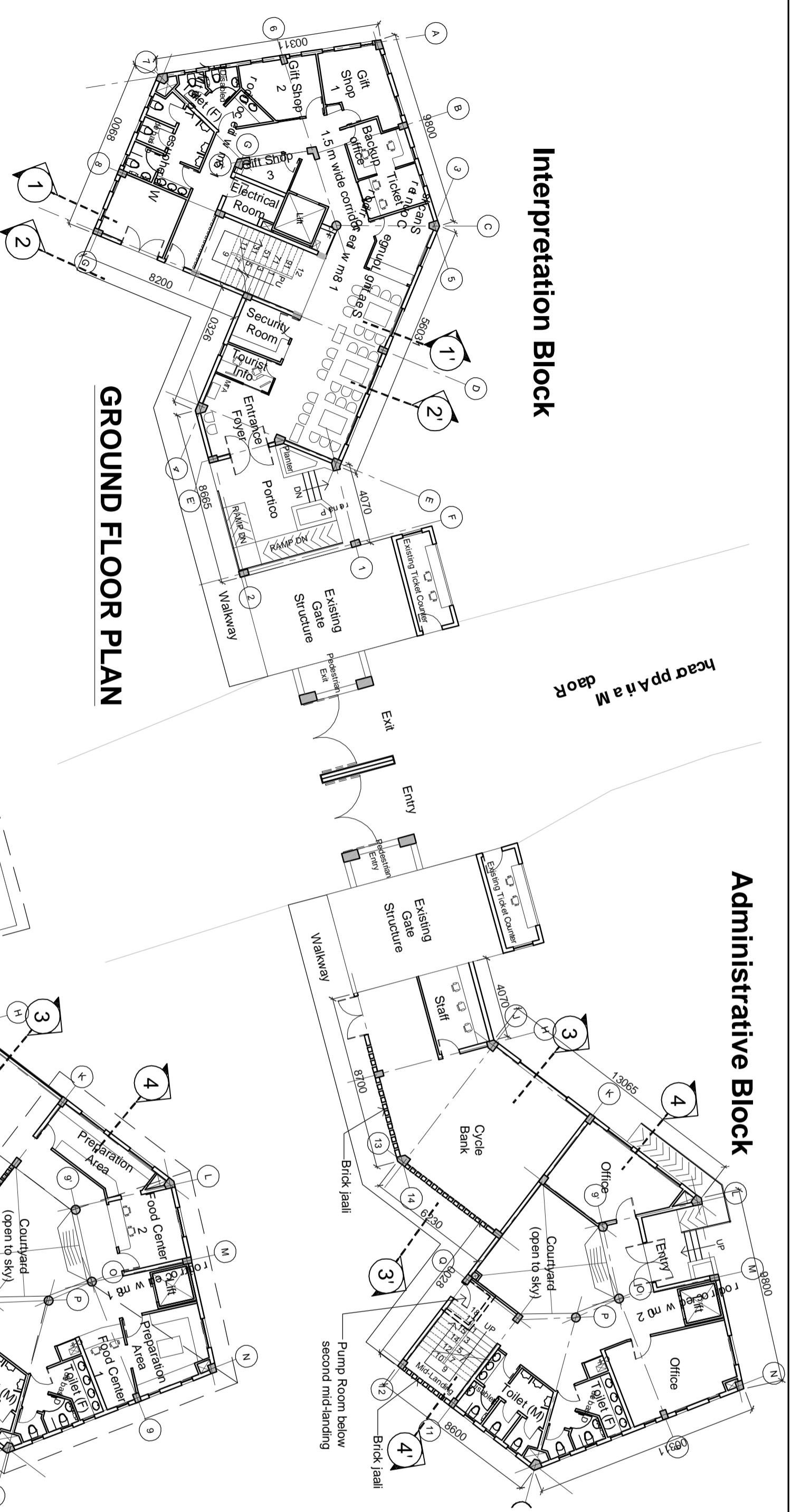
LOCATION FOR SOIL TEST

LOCATION FOR SOIL TEST

DUMNA
ENTRANCE
GATE

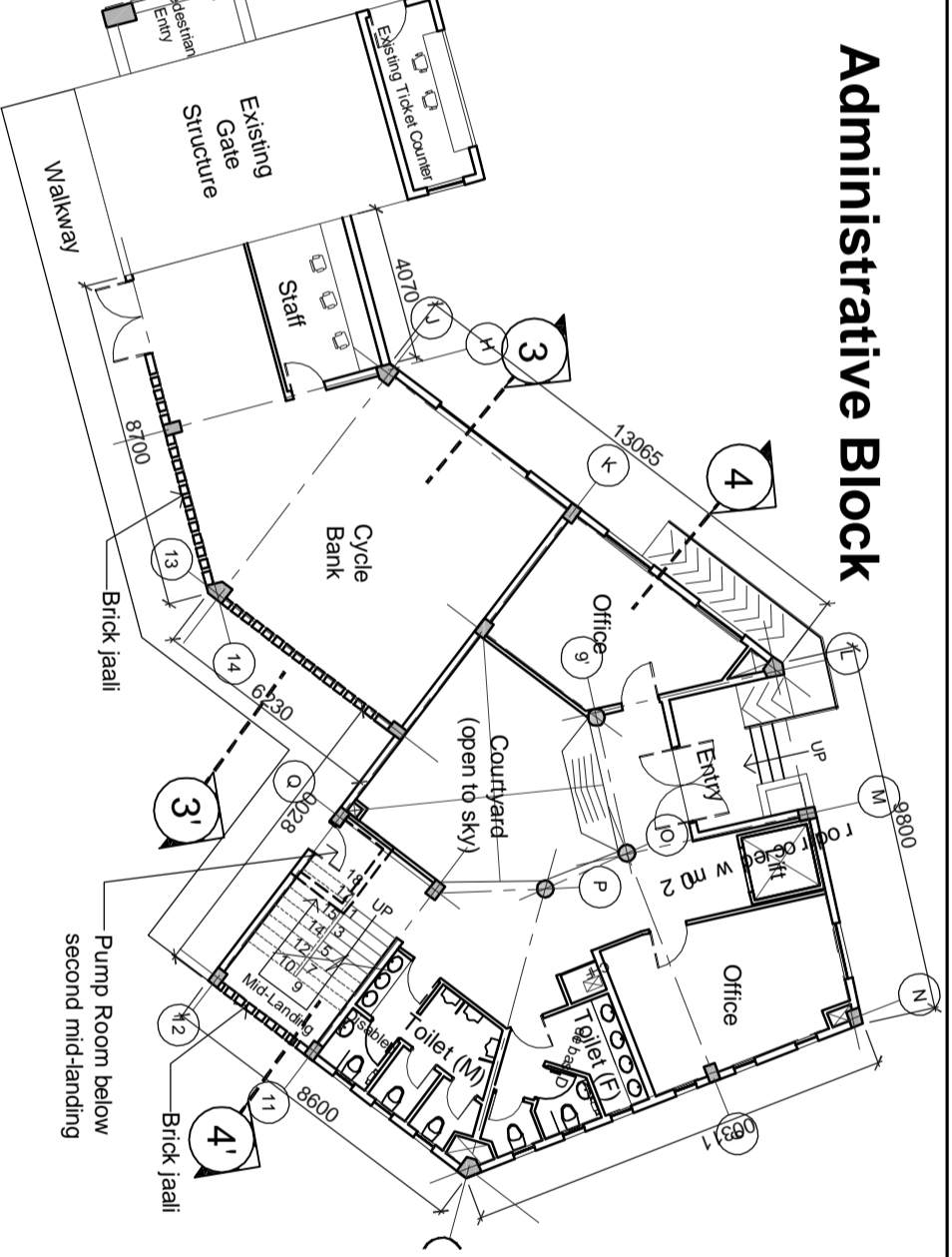


LOCATION FOR SOIL TEST



Interpretation Block

GROUND FLOOR PLAN

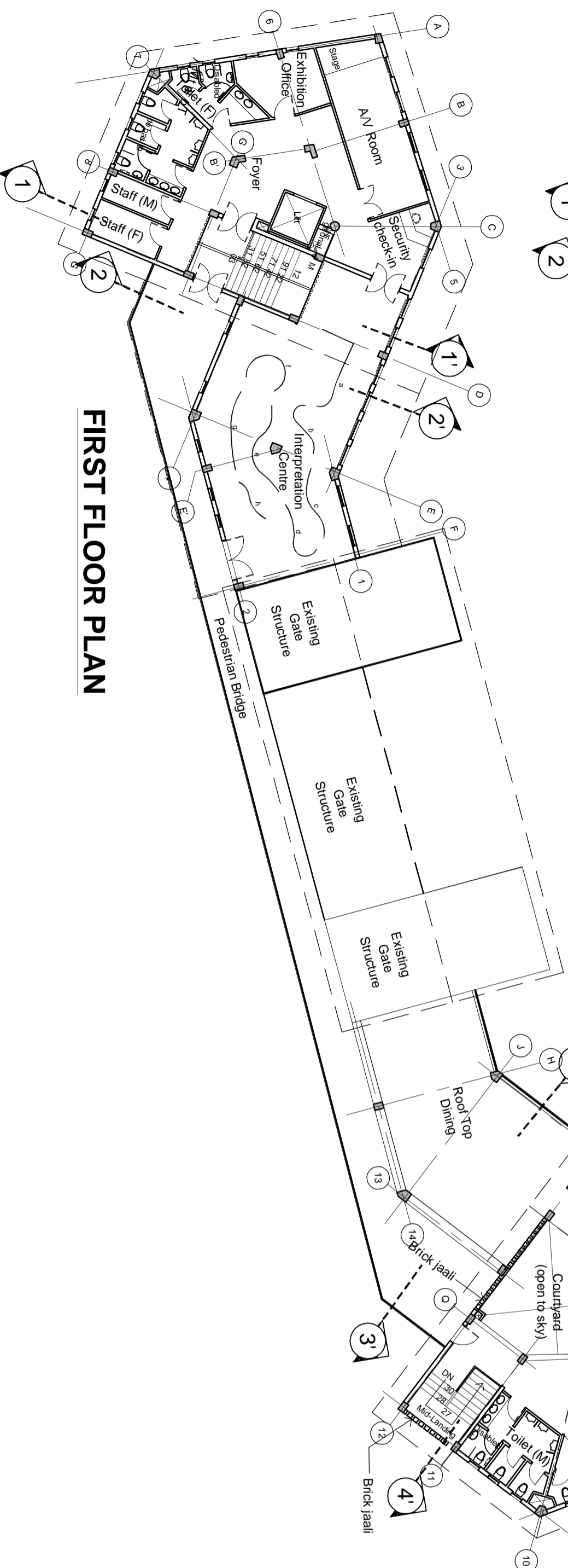


Administrative Block

Interpretation Block	
Interpretation Block Builtup Area	
Ground Floor	- 261.85 sq.m.
First Floor	- 244.0 sq.m.
Total	- 505.85 sq.m.
INTERPRETATION BLOCK	
GROUND FLOOR	
Space	Area (sq. m.)
1 PORTICO	13.55
2 ENTRANCE Foyer	14.22
3 TOURIST INFO	4.26
4 SECURITY ROOM	6.72
5 SEATING LOUNGE	28.02
6 SNACKS COUNTER	8.89
7 TICKET	6.05
8 BACKUP OFFICE	6.96
9 GIFT SHOP 1	11.90
10 GIFT SHOP 2	10.38
11 GIFT SHOP 3	3.82
12 WAREHOUSE	11.00
13 ELECTRICAL ROOM	4.69
FIRST FLOOR	
1 INTERPRETATION CENTRE	96.37
2 AV ROOM	25.38
3 SECURITY CHECK-IN	10.93
4 EXHIBITION OFFICE	11.90
5 STAFF(FEMALE)	5.8858
6 STAFF(MALE)	4.6922

Administrative Block

Administrative Block Builtup Area	
Ground Floor	- 236.70 sq.m.
First Floor	- 136.95 sq.m.
Total	- 373.65 sq.m.



FIRST FLOOR PLAN

ADMINISTRATIVE BLOCK	
GROUND FLOOR	
Space	Area (sq. m.)
1 STAFF	20.58
2 CYCLE BANK	70.11
3 COURTYARD	29.26
4 OFFICE 1	19.18
5 OFFICE 2	22.12
FIRST FLOOR	
1 FOOD CENTER 1	8.28
2 PREPARATION AREA 1	13.71
3 FOOD CENTER 2	11.52
4 PREPARATION AREA 2	12.41
5 ROOF TOP DINING AREA	84.20

Overall Builtup Area - 879.50 sq.m.

NOTE: The detail breakup area doesn't include the areas of Toilets, Lifts, Staircases

Project Title
**FRONT BUILDING
DUMNA NATURE RESERVE**

Revision

Client
**JABALPUR SMART
CITY LIMITED**

Drawn By
SP

Checked By

Scale
1:250

Sheet No.
1

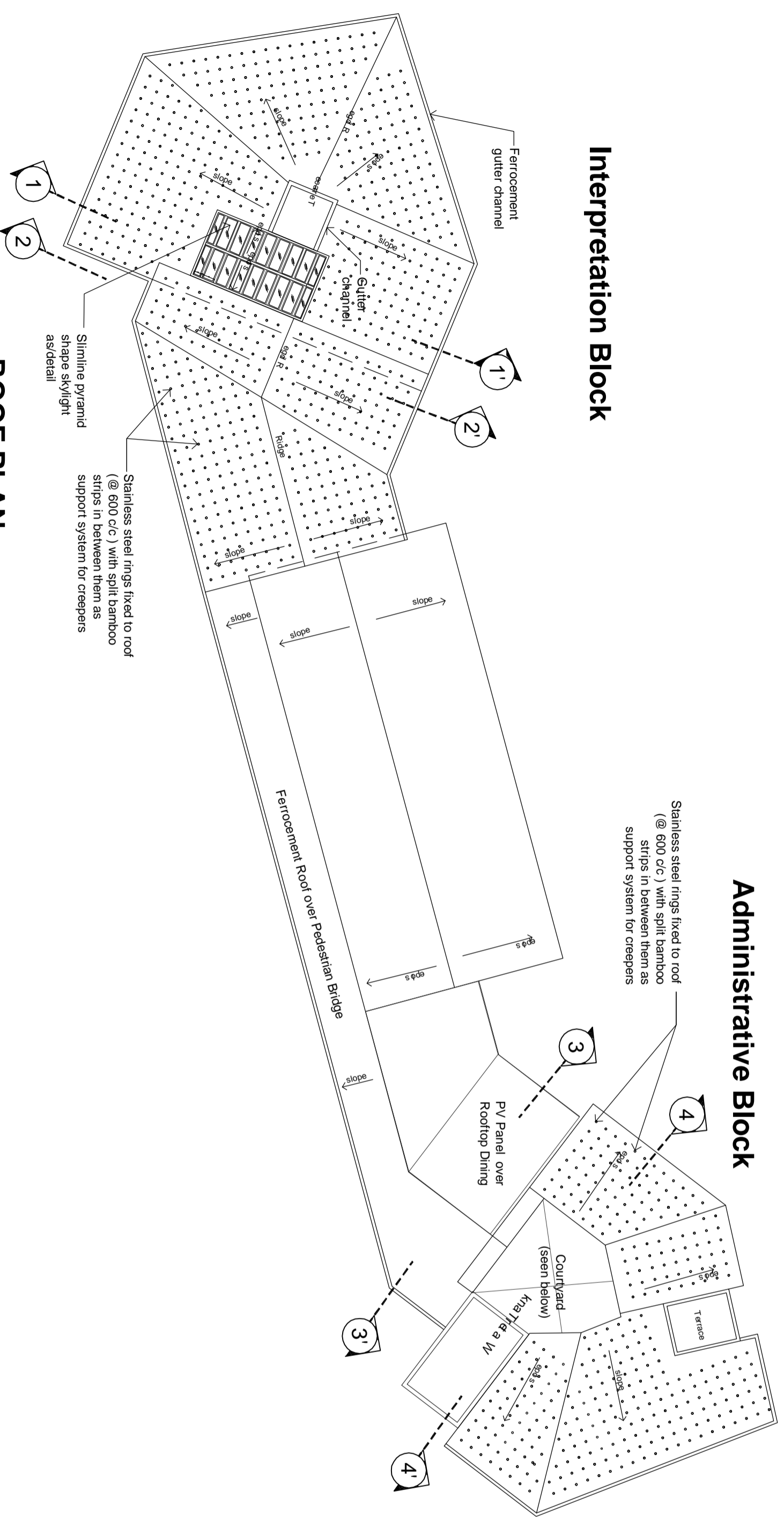
Sheet Title
**GROUND & FIRST FLOOR
PLANS**

Orientation

Date
Jul 03, 2017

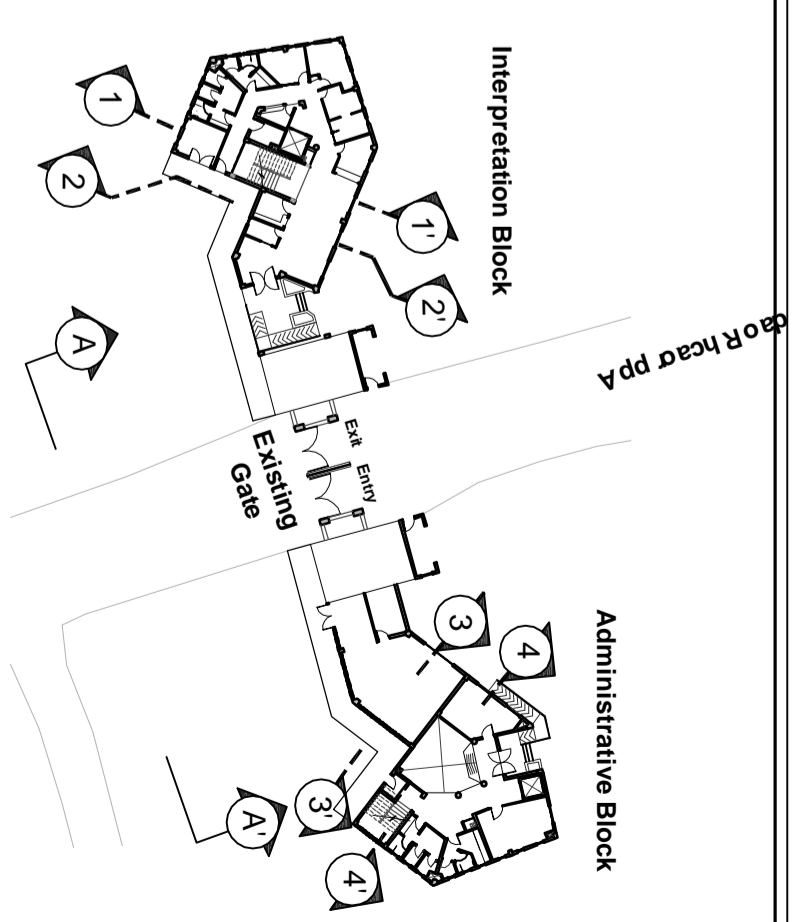
Submitted By

IPE GLOBAL
Expanding Horizons. Enriching Lives.



Administrative Block

Stainless steel rings fixed to roof (@ 600 c/c) with split bamboo strips in between them as support system for creepers



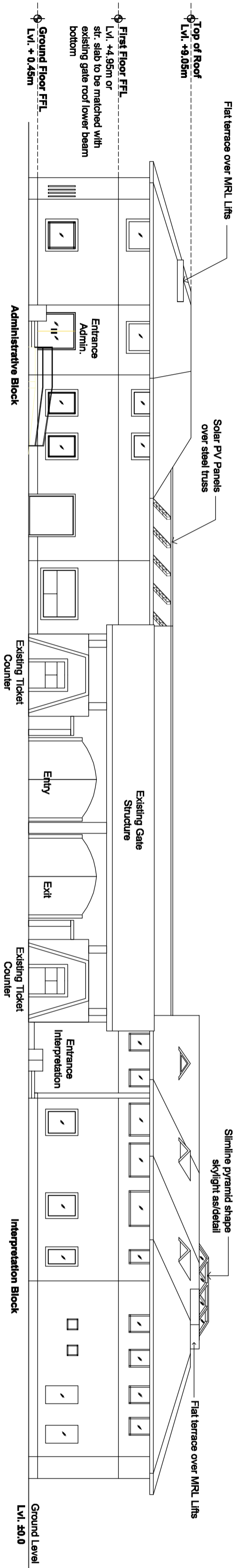
KEY PLAN

ROOF PLAN

SCALE - 1:250

INTERPRETATION BLOCK	
ROOF AREA CALCULATION	Area (sq.m.)
1.FERROCEMENT ROOF	342.9
2.SWTLIGHT	20.85
3.R.C.C. TERRACE	7.1
ADMINISTRATIVE BLOCK	
ROOF AREA CALCULATION	Area (sq.m.)
1.FERROCEMENT ROOF	153.45
2.R.C.C. TERRACE	7.1
3.WATER TANK	20.23
FERROCEMENT ROOF OVER PEDESTRIAN BRIDGE	
TOTAL FERROCEMENT AREA	103.45 SQ.M.
TOTAL R.C.C. TERRACE AREA	600.0 SQ.M.
TOTAL R.C.C. TERRACE AREA	14.20 SQ.M.
TOTAL STAINLESS STEEL RINGS	1150 NOS.

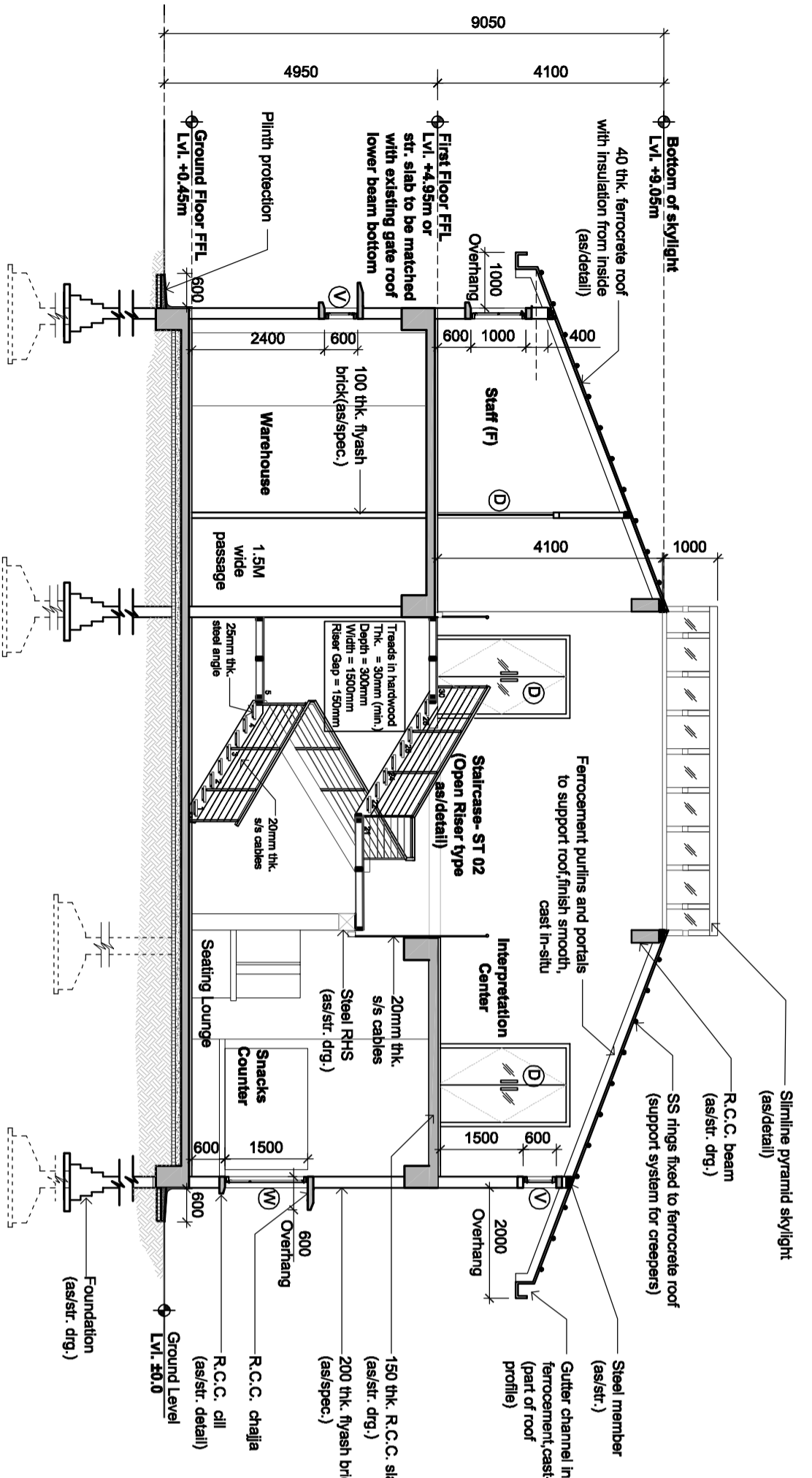
NOTE: The detail breakup area doesn't include the areas of Toilets, Lifts, Staircases



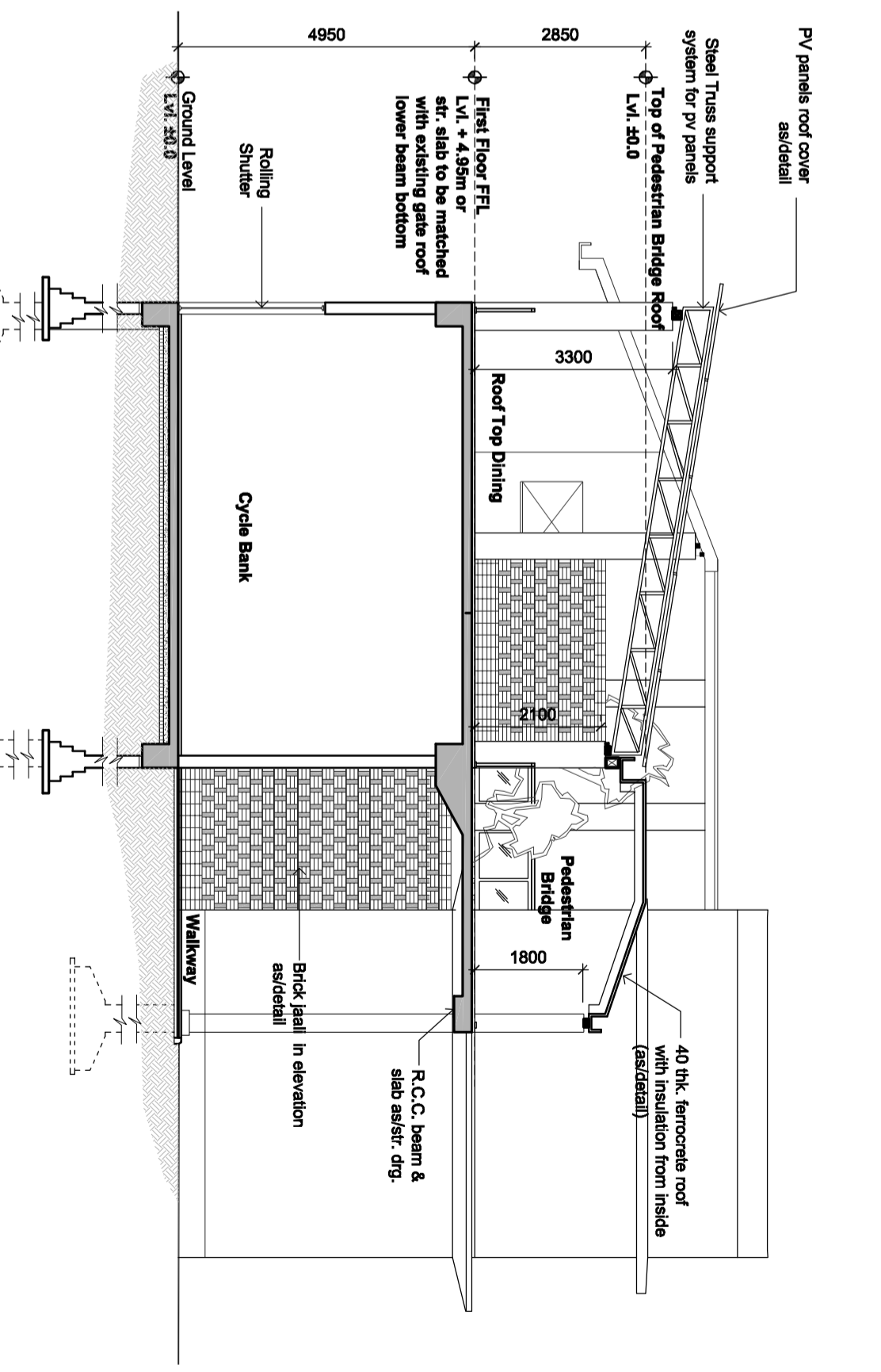
ELEVATION A-A'

SCALE - 1:200

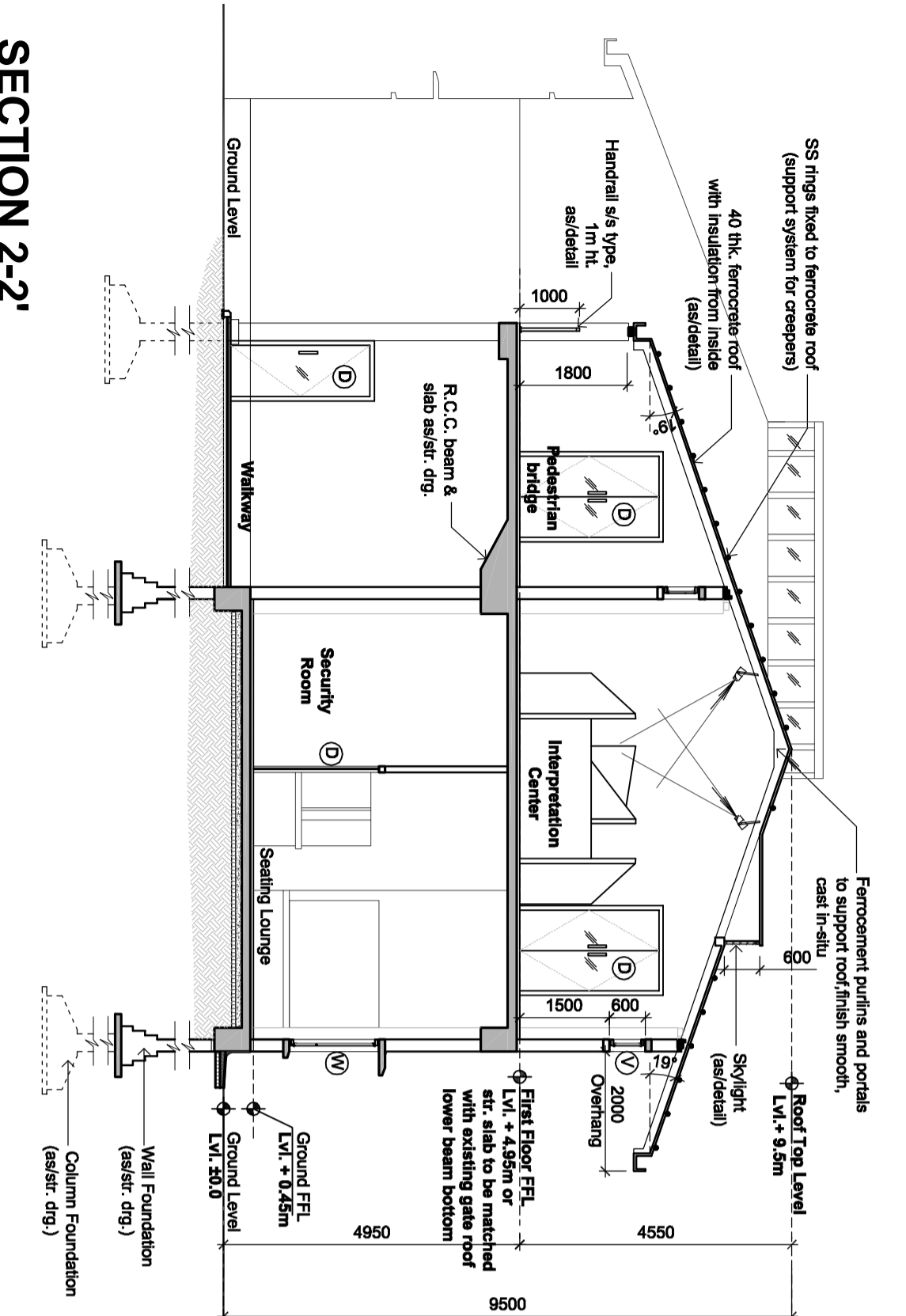
Project Title		Revision		Client		Sheet Title		Orientation		Submitted By	
FRONT BUILDING DUMNA NATURE RESERVE				JABALPUR SMART CITY LIMITED		ROOF PLAN & ELEVATION				IPE GLOBAL	
Drawn By SP		Checked By		Scale 1:250, 1:200		Sheet No. 2		Date Jul 03, 2017		Expanding Horizons. Enriching Lives.	



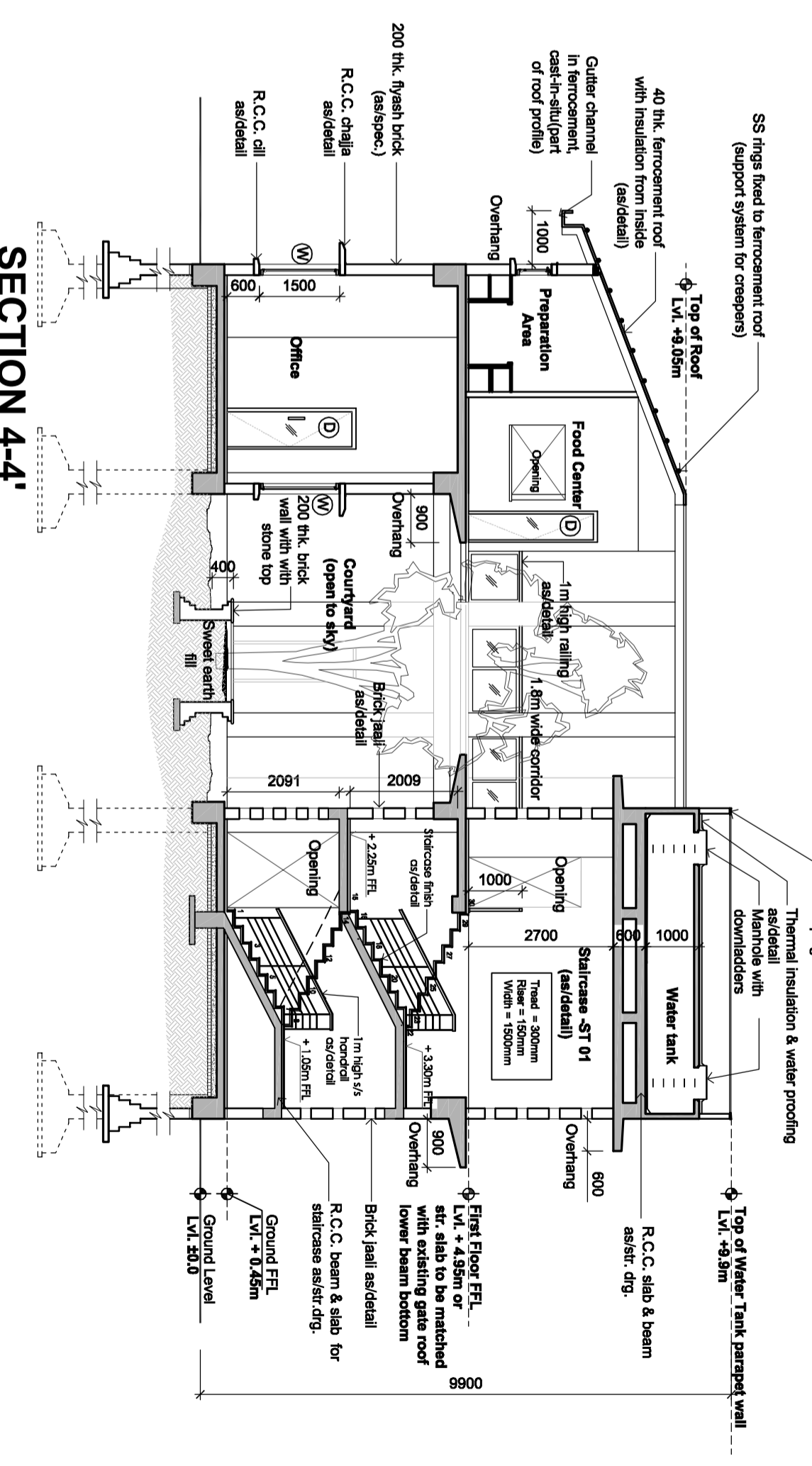
SECTION 1-1'



SECTION 3-3'



SECTION 2-2'



SECTION 4-4'

Project Title

FRONT BUILDING
DUMNA NATURE RESERVE

Revision

Client
Smart City
JABALPUR SMART CITY LIMITED

Sheet Title

ROOF PLAN & ELEVATION

Orientation



Submitted By



Drawn By

SP

Checked By

Scale

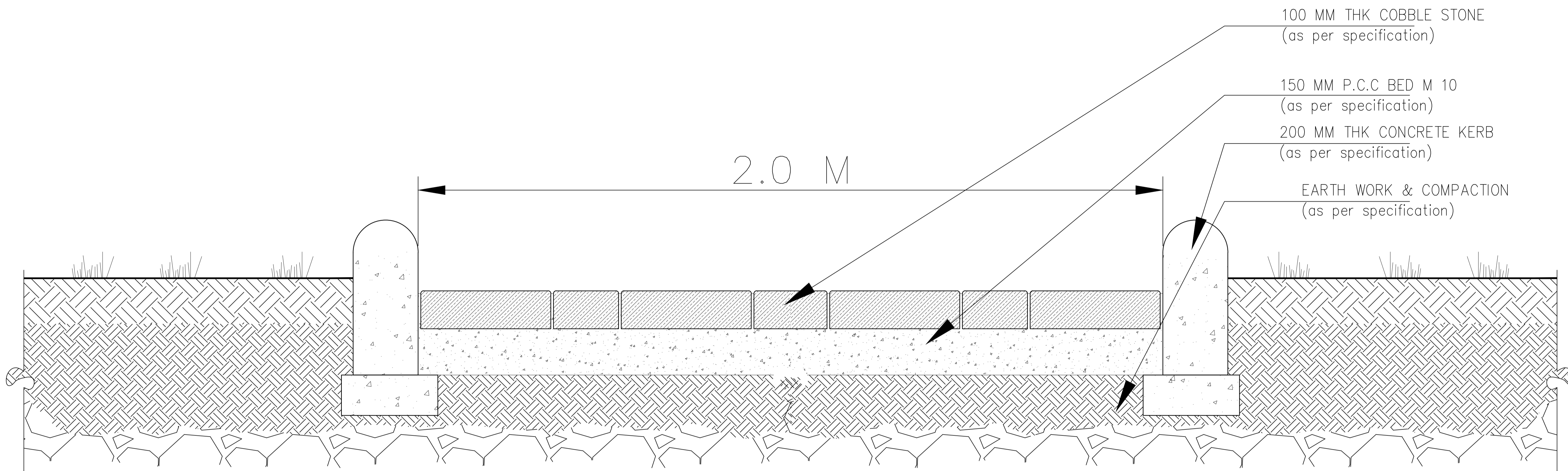
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Sheet No.

3

Date

Jul 03, 2017



PROJECT NAME :-

**Development of Dumna Nature Reserve
Park, Jabalpur Madhya Pradesh India**

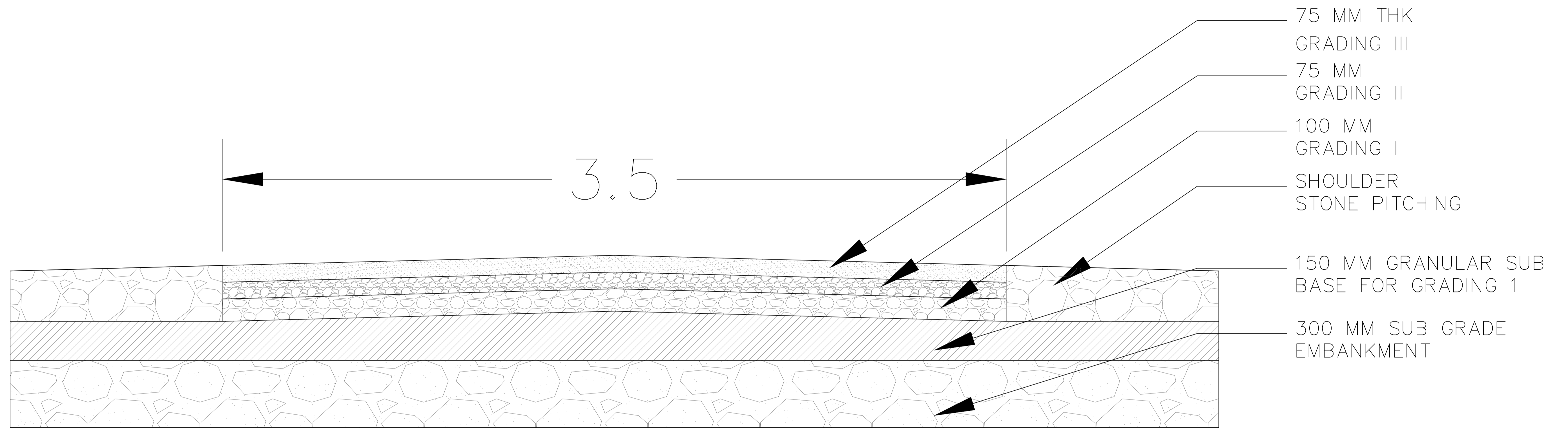
CLIENT NAME :-

SHEET NO:-

DATE:-

SHEET NAME:-

PROPOSED SECTION OF COBBLE PATH



SECTION OF WBM ROAD

PROJECT NAME :-

**Development of Dumna Nature Reserve
Park, Jabalpur Madhya Pradesh India**

CLIENT NAME :-

SHEET NO:-

DATE:-

SHEET NAME:-

PROPOSED SECTION OF WBM ROAD

SUMMARY SHEET

Sr No.	Item Description	Total Amount (In Rs.)
1	FRONT BUILDING (CIVIL WORKS)	15697988.82
2	FRONT BUILDING (ELECTRICAL WORKS)	4312970.00
3	WBM ROAD	14540491.40
4	STONE PATHWAY	1228547.38
5	LANDSCAPING	1365421.50
	GRAND TOTAL	37145419.10
	SAY	37150000.00
	<i>in words three crore seventy one lakhs fifty thousand</i>	

Estimate for Development of Dumna Nature Reserve Park, Jabalpur Madhya Pradesh India

FRONT BUILDING

Serial NO	Reference No	Description of item	TOTAL	Unit	RATE	AMOUNT
		EARTH WORK				
		SITE CLEARENCE				
	In force from 2012 UADD ,ISSOR Vol. 2. S NO.2.1.1 P-15	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth upto 50 m and lift upto 1.5 m, disposed soil to be levelled and neatly dressed.				
1	2.1.1	TOTAL SITE CLEARENCE	1000.00	m2	27.00	27000.00
	In force from 2012 UADD ,ISSOR Vol. 2. S NO.2.1.1 P-15	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. 2.6.1				
2	2.6.1	ALL KINDS OF SOIL	474.86	m3	127.00	60307.22
		P.C.C				
	In force from 2012 UADD ,ISSOR Vol. 2. S NO.4.1 P-34	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering All work up to plinth				
	4.1.5	Cement concrete grade M-10 (Nominal Mix) with 40 mm maximum size of stone aggregate				
3	4.1.5	TOTAL POSITION CEMENT CONCRETE	22.35	m3	3528.00	78840.22
		BRICKS WORK				
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-6.35 P-61	Brick work with mechanized autoclaved flyash lime bricks conforming to IS: 12894 :2002 of class designation 100 in superstructure above plinth level up to floor 2 level in.				
	6.35.2	TOTAL BRICK WORK	346.30		3026.00	1047892.60
		R C C				
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-5.3 P-46	Reinforced cement concrete work beams suspended floors roofs having slope of any degree landing bal. shelves chajjas lintels bands plain window sills stair cases and spiral stair case up to floor two level excluding the cost of centering shuttering finishing and reinforcement in concrete grade M-20 nomina mix with 20 mm nominal size graded stone aggregate -				
	5.3					
		TOTAL R C C	441.88	m3	4728.00	2089228.45
		REINFORCEMENT				
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-5.20 P-49	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire upto floor two level including all wastage etc. complete.				
	5.20.6	Thermo-Mechanically Treated bars.				
6		WEIGHT OF TWISTED BARS=125 X 441.88=55235KG	55235	Kg	60.00	3314100.00
	In force from 2012 UADD ,ISSOR Vol.2 P-126 11.37	FLOORING WITH CERAMIC GLAZED TILES				
		Providing and laying rectified Glazed Ceramic floor tiles 300x300 mm or more (8mm to 10mm thick) of 1st quality conforming to IS : 15622 of approved make in colours White, Ivory, Grey, Fume Red Brown, laid on 20mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand) including grouting the joints with white cement and matching pigments etc., complete.				
	11.37.1					
7	11.36.1		1946	m2	951.90	1852397.40
		CENTERING AND SHUTTERING				
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-20.1 P-209	Centering and shuttering including strutting, propping etc.and removal of form for Foundations, footings, bases of columns, etc. For mass concrete				
	20.1.1					
9	20.1.1	TOTAL	699.52	SqM	138.00	96533.76

		SHUTTERING IN				
	20.1.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers				
10		20.1.5	100.16	SqM	203.00	20332.07
	20.1.6	Columns, Pillars, Piers, Abutments, Posts and Struts.				
11		TOTAL	1215.96	SqM	282.00	342899.31
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-9.1 P-86	WOOD WORK				
	9.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position :				
	9.1.1	Second class teak wood				
12		TOTAL WOOD IN FRAMES	2.94	m3	83137.00	244126.60
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-9.5 P-86	DOORS				
	9.5	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows including ISI marked black enamelled M.S butt hinges with necessary screws excluding, panelling which will be paid for separately.				
	9.5.1.1	35 mm thick shutters				
13		TOTAL DOORS WOOD AREA	62.16	m2	2290.00	142346.40
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-9.7 P-87	WINDOWS/VENTILATORS				
	9.7.1	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				
14		WOOD WORK IN DOOR	48.96	m2	1804.00	88323.84
		EXTRA LABOUR				
	9.7.1.2	ADDING LABOUR RATE FOR ITEM 9.7.1				
15		same quantity as in item 9.7.1	48.96	m2	192.00	9400.32
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-9.3 P-87	WOOD WORK IN STAIRCASE IN INTERPRETATION BLOCK				
	9.3.1	Providing wood work in frames of false ceiling, partitions etc. sawn and put up in position : other than teak wood wooden plank using as stairs tread and riser 300mm and 150mm no of planks for stairs =24				
16		EXTRA LABOUR FOR ITEM NO 9.3.1	1.62	m3	64135.00	103898.70
17		SAME QUANTITY as in item 9.3.1	1.62	m3	3025.00	4900.50
	In force from 2014 MP PWD SOR Vol. 1 SNO- 10.25 P-182	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature(wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steeldash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge,(for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)				
18			138.91	Kg	793.75	110259.81

	In force from 2014 MP PWD SOR Vol. 1 S NO- 10.22 P-182	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete:				
	10.22.1	In stringers ,treads,landing,etc,of staircase including use of chequerd plate where ever required all complete	1800.00	Kg	62.00	111600.00
		PLASTER				
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-13.1 P-156	FINISHING WORK				
	13.7	12 mm cement plaster finished with a floating coat of neat cement of MIX				
	13.7.1					
20	13.7.1	1:3 (1 cement: 3 fine sand)	4866.08		145.00	705581.89
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-13.26 P-159	P.P.PUTTY				
	13.26	Providing and applying plaster of paris putty of 2 mm thickness overplastered surface to prepare the surface even and smooth complete				
	13.26.1	Providing and applying 1.5 mm thick (in two coat) white cement based wall putty of best quality, over plastered surface to prepare the surface even and smooth complete				
21		SAME quantity as in plaster item is as=4979.16m2	4866.08	m2	82.00	399018.56
	In force from 2012 UADD ,ISSOR Vol. 2. S NO-13.41 P-161	DISTEMPERING				
	13.41	Distempering with oil bound washable distemper of approved brandand manufacture to give an even shade				
		New work (two or more coats) over and including priming coat with cement primer				
			4866.08	m2	52.00	253036.16
22	13.41.1	same quantity as in item no 13.26=4995.44				
		FERROCEMENT CAST IN SITU ROOFING				
	NON SCHEDULED ITEM	FERROCEMENT CAST IN SITU ROOFING ,the roofing is taking on both the building interpretation block and admin block and rcc terrace				
	Rate Analysis with the help of DSR 2016,basic rates of materials	Providing and laying in position permanent shuttering for ferroceement roofing comprised of 40mm thick woodwool sheets of 48kg per cum. density, of approved make, in size 600mm by 1200mm, held in position on structural steel framework including all connectors, ties, and other arrangement to attach the layers of ferroceement reinforcement as called for.				
23		AS PER DRAWING=600m2	600.00	m2	2400.00	1440000.00
	Rate Analysis with the help of DSR 2016,basic rates of materials	Ferroceement layer comprising of one layer 10x10x10 gauge HDSW Fabric, one layer of 12mm x 1.5mm thick expanded metal mesh, one layer of galvanised chicken wire mesh, stretched over wood wool sheet, covered with cement mortar 30mm thick 1: 2 (1 cement : 2 coarse sand) finished smooth. Workability agents should be used to ensure low water cement ratio in mortar. Allow for wood wool top surface to be coated with thick coat of cement slurry.				
25			600.00	m2	2100.00	1260000.00
26	L/S	SKYNET ALUMINIUM FRAMED TETRAHEDRAN SHAPE glazed glass fixed tomb				
		TAKING COST LUMP SUMP	1	each	155000.00	155000.00
		WATER SUPPLY				

27	23.8	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work including cutting chases and making good the walls etc.				
		15 mm nominal outer dia .Pipes.	200.00	meter	139.00	27800.00
		20 mm nominal outer dia .Pipes.	100.00	meter	172.00	17200.00
		25 mm nominal outer dia .Pipes.	125.00	meter	232.00	29000.00
		32 mm nominal outer dia .Pipes.	70.00	meter	288.00	20160.00
28		Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge. External work				
		25 mm nominal outer dia .Pipes.	70.00	meter	204.00	14280.00
		32 mm nominal outer dia .Pipes.	125.00	meter	247.00	30875.00
		SANITATION				
29	MP PWD SOR 25.3	Providing and fixing white vitreous china extended Wall Mounted Anti germ Fluoro-Polymer Coated water closet Size 350 X 360 X 545 mm of approved shape (Wall hung W. C. pan size 350 X 360 X 545 mm) with soft closing seat cover, and 7.2 litre Low level slim dual flushing. PP (Poly Propylene) made 80 mm thick concealed flushing cistern, flushing capacity 3 litre)6 litre with all fittings and fixtures complete including cutting and making good the wall and floors wherever required				
	MP PWD SOR 25.3.1	Anti germ Fluoro-Polymer Coated (nano coating) Wall each 21hung water closet Size 350 X 360 X 545 mm with solid poly propylene made soft closing seat cover	20.00	each	21040.00	420800.00
30	MP PWD SOR 25.11	Providing and fixing white vitreous china Flat Back Anti germFluoro-Polymer Coated urinal (Inbuilt spreaders, Inbuilt Bottle trap) and inbuilt ceramic Waste coupling) Size 670 X 330 X325 mm with 15 mm Brass made presmatic auto closing concealed urinal flush valve with wall flange (Decol technology, 400000 operation warranted) complete including painting of fittings and brackets, cutting and making good the wall and floors wherever required				
	MP PWD SOR 25.11.1	White Vitreous China Anti germ Fluoro-Polymer CoatedUrinal Size 670 X 330 X 325 mm with 15 mm Brass made presmatic auto closing concealed urinal flush valve with wall flange (Decol technology, 400000 operation warranted)	8.00	each	13335.00	106680.00
24	MP PWD SOR 25.9	Providing and fixing white vitreous china type Anti germ Fluoro Polymer Coated Wash Basin size 190 x 600 x 435 mm with C. I.Brakets, 15 mm C. P. wall mounted single lever consiled basin mixture. (cortrage size 32 mm) 32 mm C. P. brass made waste coupling length 130 mm and 32 mm C. P. Brass Made Bottle Trapsize 200 x 300 mm fittings and fixtures complete including Painting of fittings and cutting and making good the wall and floors wherever required:				
	25.9.1	White Vetrious China Anti germ Fluoro-Polymer Coated each	10.00	each	13335.00	133350.00
26	MP PWD SOR 19.4	Providing and laying below ground unplasticised pvc pipe to with stand working pressure of 4 kg/cm2 soild waste pipe confirming to IS:13592 and IS:4985 including jointing with seal ring confirming to IS :5282 leaving 10 mm gap for thermal expansion all necessary fitting etc . complete . Excavation to be paid seperately .				

	19.4.1	110 mm diameter OD	100.00	RM	234.00	23400.00
	19.4.2	160 mm diameter OD	70.00	RM	477.00	33390.00
27	MP PWD SOR 19.5	Providing and laying cement concrete 1:3:6 (1 cement: 3 sand: 6 graded stone aggregate 20 mm nominal size) all-round PVC. pipes including bed concrete as per standard design:				
	19.5.1	110mm diameter PVC. pipe	100.00	RM	576.00	57600.00
	19.5.2	160 mm diameter PVC. pipe	70.00	RM	704.00	49280.00
28	MP PWD SOR 19.7	Providing and fixing square-mouth SW. gully trap class SP1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (insidc) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design :				
	19.7.1	100x100 mm size P Type				
	19.7.1.1	With well burnt bricks	20.00	each	1764.00	35280.00
29	MP PWD SOR 19.32	Providing and fixing S.W, intercepting trap in manholes with stiff mixture of cement mortar 1:1(1 cernent : 1 sand) including testing of joints etc. complete:				
	19.32.1	100 mm dia	20.00	each	298.00	5960.00
	19.32.2	150 mm dia	10.00	each	411.00	4110.00
30	MP PWD SOR 25.37	Providing and fixing in position best indian Health Faucet with 8mm dai 1 meter long Flaxibic Tube and wall bracket with N. R. V. (non return wall).	20.00	each	1920.00	38400.00
32	MP PWD SOR 25.42	Providing and fixing in position best indian Auto Closing wall mounted Pillar Cock (with DECOL cartredge) for wash basin use only.	20.00	each	3720.00	74400.00
33	MP PWD SOR 25.48	Providing and fixing in position best indian Sensotronic Sensor Faucet For Urinal use only.	8.00	each	10500.00	84000.00
34	UADD SOR 23.28	Providing and placing on at all floor levels high design HDPE (polyethylene) water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	5000.00	Ltr	7.00	35000.00
						15197988.82
35	NON SOR	Providing, Fixing and Installing Machine Room Less Lift all including as per manufacturer's Specification and as per the direction of Engineer in Charge	2	LS	250000.00	500000.00
GRAND TOTAL						15697988.82

Estimate for Development of Dumna Nature Reserve Park, Jabalpur Madhya Pradesh India

FRONT BUILDING ELECTRICAL ESTIMATE

Sl.no.	REF MP PWD ELECTRICAL SOR	Description	Unit	Rate		Qty	Total
1		WIRING IN CONCEALED RIGID PVC CONDUIT(HMS) SYSTEM WITH COPPER CONDUCTOR					
a	4.00	Point wiring (excluding metallic switch box & sheet but including switches,sockets,lamp,holders,ceiling roses etc) with 1.5 Sq. mm. PVC insulated cable FR with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI Marked of suitable size and 1.5 Sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit etc. as required as per specification for :-					
	4.10	Light Point/Fan Points.					
		a) Short point	Each		394.00	61.00	24034.00
		b) Medium point	Each		671.00	118.00	79178.00
		c) Long point	Each		1083.00	66.00	71478.00
	4.40	Twin Control light points					
		a) Short point	Each		486.00	6.00	2916.00
		b) Medium point	Each		812.00	8.00	6496.00
		c) Long point	Each		1285.00	8.00	10280.00
b	4.50	Point wiring (excluding metallic switch box & sheet but including switches, sockets) for 3 pin 6 Amp. Socket outlet point with 1.5 Sq. mm. PVC insulated cable FR with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI marked of suitable size and 1.5 Sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit with required materials as per specification on same board .	Each		285.00	121.00	34485.00
c	4.60	Wiring for circuit wiring with PVC insulated cable FR with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) of ISI marked suitable size etc. as required as per specification					
		b) 4x2.5 Sq.mm.	Metre	176.00	176.00	1600.00	281600.00
		c) 6x2.5 Sq.mm.	Metre	225.00	225.00	800.00	180000.00
2		POWER WIRING IN SURFACE RIGID P.V.C.CONDUIT (MMS) SYSTEM WITH COPPER CONDUCTOR					
a	8.10	Point wiring (excluding metallic switch box & sheet) for 3 Pin 16 Amp. Socket Outlet Point With 4 Sq. mm. PVC insulated cable FR with copper multi strand conductor ISI marked in Surface rigid P.V.C. Conduit (MMS) ISI Marked of suitable size etc. with 16 Amp. F.T. Switch & Socket / S.S.Combined 6/16 Amp. of ISI Marked and 4 Sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit as per specification for :-					
		On Separate Board					
		A. Short Point	Each		732.00	9.00	6588.00
		B. Medium Point	Each		1174.00	9.00	10566.00
		C. Long Point	Each		1697.00	18.00	30546.00
		D. Extra Long –I	Each		2366.00	17.00	40222.00
		E. Extra Long –II	Each		3101.00	5.00	15505.00
		E. Extra Long –III	Each		3841.00	5.00	19205.00
b	8.20	Same board switch socket 6/16 Amp	Each		468.00	58.00	27144.00
3		POWER WIRING IN CONCEALED RIGID PVC CONDUIT (HMS) SYSTEM WITH COPPER CONDUCTOR					
a	9.10	Point wiring (excluding metallic switch box & sheet) for 3 Pin 16 Amp. Socket Outlet Point With 4 Sq. mm. PVC insulated cable FR with copper multi strand conductor ISI marked in Concealed rigid P.V.C Conduit (HMS) ISI Marked of suitable size etc. with 16 Amp. F.T. Switch & Socket / S.S.Combined 6/16 Amp. of ISI Marked and 4 Sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit as per specification for					
		On Separate Board					
		A. Short Point	Each	574.00		5.00	2870.00

		B. Medium Point	Each	1113.00		5.00	5565.00
		C. Long Point	Each	1730.00		5.00	8650.00
		D. Extra Long –I	Each	2474.00		5.00	12370.00
		E. Extra Long –II	Each	3280.00		5.00	16400.00
4		SUPPLYING AND FIXING PVC. CONDUIT FOR SURFACE CONDUIT SYSTEM					
a	15.00	Supplying and fixing PVC conduit ISI marked along with the accessories on surface etc. as required					
	15.10	PVC . Conduit 20 mm (MMS)	Metre	39.00		100.00	3900.00
	15.20	PVC . Conduit 25 mm (MMS)	Metre	51.00		250.00	12750.00
	15.30	PVC . Conduit 32 mm (MMS)	Metre	72.00		100.00	7200.00
5		SUPPLYING AND FIXING PVC CONDUIT(HMS) FOR CONCEALED CONDUIT SYSTEM					
a	16.00	Supplying and fixing PVC conduit ISI marked along with the accessories in concealed system etc. as required					
	16.30	PVC . Conduit 32 mm (HMS)	Metre	108.00		1800.00	194400.00
	16.40	PVC . Conduit 40 mm (HMS)	Metre	137.00		600.00	82200.00
6		METALLIC SWITCH BOXES & MODULAR BOXES					
a	18.20	Supplying and fixing of approved make modular type metal box with modular frame/ base plate and cover plate including fixing in concealed / surface excluding switch,socket etc. as required for:-					
	18.2.1	1 Or 2 Module	Each	156.00		8	1248.00
	18.2.2	3 Module	Each	208.00		30	6240.00
	18.2.3	4 Module	Each	236.00		60	14160.00
	18.2.4	6 Module	Each	326.00		85	27710.00
	18.2.5	8 / 9 Module	Each	400.00		75	30000.00
	18.2.6	12 Module	Each	487.00		14	6818.00
	18.2.7	16 Module	Each	532.00		10	5320.00
b	18.30	Supplying and fixing of approved make modular type P.V.C. box with modular base and cover plate including fixing on surface excluding switch,socket etc. as required for:-					
	18.3.1	1 OR 2 Module	Each	151.00		5	755.00
	18.3.2	3 Module	Each	184.00		15	2760.00
	18.3.3	4 Module	Each	218.00		20	4360.00
	18.3.4	6 Module	Each	280.00		35	9800.00
	18.3.5	8 / 9 Module	Each	356.00		20	7120.00
	18.3.6	12 Module	Each	453.00		10	4530.00
7		SUB MAINS IN SURFACE PVC CONDUIT IN COPPER CONDUCTOR					
a	22.00	Wiring for sub-mains with PVC insulated cable FR with copper multi strand conductor ISI marked in surface rigid PVC conduit (MMS) ISI marked of suitable size(Conduit included) including 2mm thick accessories, connection etc,as required as per specification					
	22.20	3 WIRE SUB-MAIN					
	22.2.1	2.5 sq mm cable in 20 mm conduit	Metre	117.00		800.00	93600.00
	22.2.2	4.0 sq mm cable in 25 mm conduit	Metre	159.00		800.00	127200.00
	22.40	4 WIRE SUB-MAIN					
	22.4.2	4.0 sq mm cable in 25 mm conduit	Metre	195.00		600.00	117000.00
8		SUB-MAIN IN CONCEALED PVC CONDUIT IN COPPER CONDUCTOR					
a	23.00	Wiring for sub-mains with PVC insulated cable FR with copper multi strand conductor ISI marked in recessed / concealed rigid PVC conduit (HMS) ISI marked of suitable size(Conduit included) including 2mm thick accessories, connection etc,as required as per specification					
	23.10	2 WIRE SUB-MAIN					
	23.1.2	4.0 sq mm cable in 25 mm conduit	Metre	141.00		200.00	28200.00
	23.1.3	6.0 sq mm cable in 25 mm conduit	Metre	172.00		200.00	34400.00
	23.20	3 WIRE SUB-MAIN					
	23.2.2	4.0 sq mm cable in 25 mm conduit	Metre	172.00		500.00	86000.00
	23.2.3	6.0 sq mm cable in 25 mm conduit	Metre	219.00		600.00	131400.00
	23.40	4 WIRE SUB-MAIN					
	23.4.2	4.0 sq mm cable in 25 mm conduit	Metre	202.00		800.00	161600.00

b	25.60	Supplying of ISI Marked On-Load Change over switches panel mounting type confirming to IS : 13947 (part I & III) with front operated 4 pole, 415 V with two earthing terminals if required.					
	25.6.11	63 Amps. (With enclosure)	Each	5516.00		1.00	5516.00
	25.6.12	100 Amps.(With enclosure)	Each	6926.00		1.00	6926.00
c	25.80	Supplying of Two Way Centre off MCB Changeover Switch confirming to IS:13947 (part III) / IEC : 60947-3, 2/4 pole ,AC 240 / 415 Volt, 50 Hz					
	25.8.4	40 Amps, Four Pole (FP)	Each	3602.00		1.00	3602.00
d	27.50	Supplying of ISI Marked and accepted standard of Miniature Circuit Breaker (MCB) of 'C' series suitable for 240/415 Volts, 50 Cycle , 10 kA Value AC supply confirming to IS : 8828 : 1996, IEC : 60898 :2002 but without enclosures :-					
	27.5.1.1	0.5 Amp to 5 Amp Rating	Each	304.00		48.00	14592.00
	27.5.3.2	6 Amp to 32 Amp Rating	Each	617.00		36.00	22212.00
e	27.15	Supplying and installing of RCBOs (Residual current circuit breaker with overload and short circuit protection) ISI marked complete as per I.S. standard confirming to IEC:61009-2-1 & IS:12640-2:2001,240/415V 50 Hz with 10 kA short circuit withstand capacity for earth leakage, overload & short circuit protection including connection in existing enclosure in approved manner as per specification.					
	27.15.1	DP(4 module)					
	27.15.1.4	2 pole 63 Amps, 30 mA sensitivity	Each	4527.00		4.00	18108.00
f	27.80	Supplying of approved make TPN MCB DB Metal Double Door IP 43 protection with provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP MCBs as outgoing inclusive of Bus bar, Neutral bar, Earth bar & two earth terminals etc. complete as per IS:13032(exclusive of MCB & isolator):					
	27.8.3	6 way (8+18)	Each	3650.00		2.00	7300.00
	27.8.4	8 way (8+24)	Each	4379.00		4.00	17516.00
	27.8.5	12 way (8+36)	Each	6552.00			
g	27.10	Supplying of approved make, powder coated Metal Double Door Vertical TPN MCB DB IP 43 protection with provision for MCCB up to 160A TP/ FP 36kA as incomer and space for SP/TP MCBs as outgoing (without MCCB / MCBs) inclusive of bus bar & connections etc					
	27.1.2	MCCB with Breaking Capacity 25 KA at 415 V					
	27.1.2.1	Current Rating -25 to100 Amps & 80% -100% adjustable	Each	5601.00		4.00	22404.00
h	27.12	Supplying & fixing of approved make Industrial type metal plug & socket DBs (without MCB) SPN sheet encloser (dust protected) inclusive of 2 pole and earth metal plug and socket and space to incorporate SP MCB complete as per specification as required.					
	27.12.1	10 Amps	Each	1036.00		4.00	4144.00
i	28.70	Labour charges for fixing sheet steel enclosures, MCB DB flush mounting type, as per accepted practice, duly embedded and end plate completely flushed in wall, cable connection etc.complete :-					
		FOR S.No :-					
	28.7.1	27.7.1 to 27.7.7 ; 27.8.1 to 27.8.3 & 27.9.1,	Each	232.00		48.00	11136.00
	28.7.2	27.8.4 & 27.8.5 ; 27.9.2 to 27.9.3 ; 27.10.1 to 27.10.3 & 27.11.1 to 27.11.3	Each	271.00		24.00	6504.00
j	29.70	Supplying and fixing as per specification Switch of approved make ISI marked with necessary material complete.					
	29.7.1	6 Amp Flush type	Each	23.00		400.00	9200.00
	29.7.2	20 Amp Flush type	Each	90.00		70.00	6300.00
	29.7.4	6/10 Amps S.P.250 Volt Modular Switch	Each	128.00		30.00	3840.00
	29.7.5	20/16 Amps S.P.250 Volt Modular Switch	Each	190.00		30.00	5700.00
	29.8.1	6 Amp 250 Volt 3 / 5 Pin Flush type	Each	44.00		150.00	6600.00
	29.8.2	16 Amp 250 Volt 3 / 6 Pin Flush type	Each	105.00		75.00	7875.00

k	29.31	Supplying and fixing of approved make step type Modular electronic Fan regulator including connection etc. as required on existing board					
	29.31.1	100 Watt (1 Module)	Each	574.00		70.00	40180.00
		Locking arrangement for Switch Gear Mounting					
l	29.33	Supplying, fixing, testing & commissioning wall / floor mounted LT Panel primer coated with powder coated paint & provided with required gasket for dust / vermin proof with degree of protection IP42 suitable for 415V 3 phase, 50 Hz, 4 wire system fabricated out of CRCA sheet up to 2 mm thick (1.6 mm for doors) duly compartmentalized for incomer, bus section, outgoing, cable alleys & CT, PT Ampere Meter, Volt Meter, selector switches, Frequency Meter, phase indicating lamps, Energy Meter complete including cost of busbar supports, detachable cable gland plates, 2 earthing terminals, internal wiring & fixing of separately supplied MCBs, MCCBs, ACB, panel mounted Changeover switch / SFUs, etc. as required but excluding cost of bus bar strips, Ampere Meter, Volt Meter, Selector switch as per approved design & specification	Kg	180.00		485	87300.00
	29.34	Supplying and fixing of LT Panel accessories of approved make in existing LT Panel including connections etc.as required as per specification					0.00
	29.34.1	Digital Ampere Meter with CTs with selector switch	per set	1950.00		1	1950.00
	29.34.2	Digital Volt Meter with selector switch & HRC fuse	per set	2100.00		1	2100.00
	29.34.3	Frequency Meter	Each	1200.00		1	1200.00
	29.34.4	Copper Bus bar strips with PVC sleeves	Kg	650.00		24	15600.00
	29.34.5	Aluminium bus bar strips with PVC sleeves	Kg	250.00		25	6250.00
	29.34.6	LED lamp indicator	each	200.00		3	600.00
		Incomer					0.00
m	25.11	Supplying of ISI Marked Switch Disconnecter Fuse (SDF), open execution (Panel mounting cubicle type) conforming to IS:13947 (part I & III) 3 pole and neutral , AC -23A ,50 Hz , 415 Volt with 3 HBC fuses complete.					
	25.11.10	630 Amps	Each	27831.00		1.00	27831.00
		Outgoings					
	25.11.2	63 Amps	Each	2733.00		8.00	21864.00
	25.11.1	32 Amps	Each	1990.00		2.00	3980.00
9	30.10	Supplying, erection and testing of approved make electric Ceiling fan of double ball bearing complete with standard down rod, canopy, hanging shackle, Aluminium blades, without regulator, A.C. 230-250 volts including connections with all necessary material complete of approved as required conforming to IS :374/1979 with up to date amendments.					
a	30.1.1	Ceiling Fan (5 star & ISI)-1200 mm Sweep	Each	2276.00		70.00	159320.00
10	30.50	Supplying and fixing of Deluxe fresh air fan with louvers (ventilating fan) with self closing louvers of decorative PVC blades mounting square frame of approved make complete with all necessary material as required					
a	30.5.1	150mm RPM1300/1400	Each	1483.00		10.00	14830.00
11	31.30	Supplying, fixing & testing of approved make T- 5 lamp channel luminary with epoxy white powder coated CRCA sheet steel housing box type channel with reflector cover including electronic ballast (HF), PF > 0.95, THD <30% complete duly wired (with tube rod) as per specification & fixing as below:					
a	31.3.1	l) Fixing on wall/Ceiling on PVC plate Anchor fasteners and other necessary materials including connections etc. and as required.	Each	1170.00		20.00	23400.00
12		BULK HEAD					

a	31.60	Supplying, fixing and testing of approved make bulk head luminary consisting of pressure die aluminium housing lamp holder, prismatic glass cover, rubber gasket and wire guard, deluxe type, including fixing on wall as required, with necessary material complete Fitting suitable for Retrofit 10W CFL / GLS Lamp	Each	594.00	16.00	9504.00
b	31.70	Supplying, fixing and testing of approved make modular integral step / skirt LED light suitable for 3 module box and plate including fixing on wall as required, with necessary material complete	Each	665.00	12.00	7980.00
c	31.24	Supply and fixing of recessed mounting type Led light fixture, LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver, PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Housing made of CRCA with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer.				
	31.25.2	LED luminaire 2' X 2', 36W , 4-6.5k		11126.00	24.00	267024.00
	31.25.3	LED luminaire 2' X 2', 45W , 4-6.5k		10251.00	24.00	246024.00
e	31.26	Supplying and fixing surface mounting LED down lighter, LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver PF 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Housing made of CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer.				
	31.26.1	7 W/8 W, 100/150mm		2348.00	20.00	46960.00
	31.26.2	15 W , 180/200mm		3822.00	40.00	152880.00
	31.26.3	30 W , 300mm		6955.00	30.00	208650.00
f	31.28	Supplying and fixing integral post top lantern LED fitting comprises of copper dust finish cast aluminium spigot and spun aluminium canopy fixed with opal polycarbonate, pipe arrangement for vertical mounting, open construction driver and accessories are wired up to terminal block. LED of 1 to 3 W each assembled on single MCPCB, having color temp 6500K & having 50000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver PF 0.95 & surge protection 2KV. The colour rendering index of LED light should be more than 70. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. 2 Yrs Guarantee certificate from manufacturer.				
	31.28.1	40 W LED		16654.00	4.00	66616.00
g	32.10	Fixing of Fluorescent Tube fitting on wall /ceiling on wooden round block with anchor fastener /J hook & necessary material including connection with 3 core flexible wire etc. complete as required.	Each	64.00	20.00	1280.00
h	32.60	Supplying and fixing fan clamps of 12 mm dia steel bar as per specification complete :-				
	32.6.1	For stone slab roof "J" Type hook	Each	60.00	70.00	4200.00
13		LABOUR RATES FOR WIRING				

	33.40	Labour rate for point wiring a Light / Fan / Twin control light / Socket out let on separate board / Call bell Point in recessed/concealed rigid PVC conduit system.	Each	143.00		289.00	41327.00
	33.60	Labour rate for point wiring a Power Point in recessed / concealed rigid steel / PVC conduit system including labour for fixing earth continuity conductor .	Each	251.00		146.00	36646.00
	33.70	Labour rate for fixing rigid steel / PVC conduit in surface/concealed conduit wiring system, as per specification .					
	33.7.2	25 mm & 32 mm Conduit	Metre	15.00		1600.00	24000.00
	33.10	Labour rate for fixing rigid PVC conduit as per specification in recessed/concealed conduit wiring system.					
	33.10.2	25 mm & 32 mm Conduit	Each	23.00		1500.00	34500.00
14		EARTHING , LOOP EARTHING,LIGHTNING CONDUCTOR					
	37.1	Earthing with G.I. Earth pipe 4.5 Metre long and 40 mm dia with masonry enclosure in cement mortor, cover plate having locking arrangement on the top etc.(but without charcoal or coke and salt) complete as required.	Each	3017.00		4.00	12068.00
	37.20	Add Extra for using salt and charcoal / coke for pipe earth electrode as required including excavation & refilling.					
	37.2.1	Excavation 2.5 cum by manual labour	Each	1572.00		4.00	6288.00
	37.2.2	Excavation by making hole with Auger	Each	1068.00		4.00	4272.00
	37.3	Earthing with G.I. Earth plate 600mm X 600mm X 6mm thick including accessories and providing masonry encloser in cement mortor, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 Metre long etc. (but without charcoal or coke and salt) complete as required.	Each	2951.00		2.00	5902.00
	37.4	Earthing with Copper Earth plate 600mm X 600mm X 3mm thick including accessories and providing masonry encloser in cement mortor, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 Metre long etc. (but without charcoal or coke and salt) complete as required.	Each	8013.00		2.00	16026.00
	37.5.1	Add Extra for using salt and charcoal / coke for G.I. Plate or Copper plate earth electrode as required including excavation & refilling.	Each	1839.00		2.00	3678.00
	37.10	Providing & fixing 25mm X 5mm copper strip in 40mm dia G.I.pipe (B class) from earth electrode as required.	metre	1042.00		2.00	2084.00
	37.11	Providing & fixing 25mm X 5mm G.I.strip in 40mm dia G.I. Pipe (B class) from earth electrode as required.	metre	423.00		24.00	10152.00
	37.15	Providing and fixing 25mm X 4mm G.I. strip on surface or in recessed/concealed for connection etc. as required.	metre	123.00		150.00	18450.00
	37.16	Providing and fixing 6 SWG (5.6mm) G.I. wire on surface or in recessed/concealed for loop earthing as required.	metre	19.00		100.00	1900.00
	37.39	Supplying and drawing PVC insulated copper cable (Earth Continuity Conductor) of Green colour FR with copper multi strand conductor ISI marked in existing conduit along with other wires as required as per specification :					
	37.39.1	4 Sq mm	Metre	41.00		2000.00	82000.00
	37.39.2	6 Sq mm.	Metre	58.00		1000.00	58000.00
		TELEPHONE, LAN, TV CABLE					
	38.20	Supplying and drawing following pair of 0.5 mm size solid annealed copper conductor PVC Insulated telephone cable as per DOT Specifications in existing surface / concealed steel / PVC Conduit / Casing-N-Capping as required.					
	38.2.1	(i) 1 Pair	Metre	7.00		8.00	56.00
	38.2.2	(ii) 2 Pair	Metre	11.00		20.00	220.00
	38.2.3	(iii) 4 Pair	Metre	22.00		50.00	1100.00

	38.2.4	(iv) 10 Pair	Metre	53.00		12.00	636.00
		Supply, Installation testing and commissioning of telephone Tag block Krone connector with enclosure and lock complete as mentioned below :-					
	38.40						
	38.4.1	10 Pair	each	263.00		8.00	2104.00
	38.4.2	20 Pair	each	273.00		20.00	5460.00
	38.4.3	30 Pair	each	297.00		50.00	14850.00
	38.4.4	50 Pair	each	341.00		12.00	4092.00
	38.50	Supply, fixing and testing RJ - 11 Telephone Jack Single with shutter F.T	each	57.00		62.00	3534.00
	38.60	Supply, fixing and testing of RJ 11 telephone jack modular (1 Module)	each	129.00		62.00	7998.00
	38.70	Supply, fixing and testing of T.V. Outlet F.T	each	34.00		20.00	680.00
	38.80	Supply, fixing and testing of T.V. Outlet Modular (1Module)	each	129.00		20.00	2580.00
	41.10	Supply of XLPE Insulated power cable (confirming IS-7098 Part-I) 1100 Volt grade, 1 core /2 core /3½ core/4 core ISI MARKED with Alu. Stranded /solid conductor					
	41.1.8	3½ CORE ARMOURED					
	41.1.8.1	25 Sq.mm	Metre	252.00		300.00	75600.00
	41.1.8.2	35 Sq.mm	Metre	311.00		200.00	62200.00
	41.1.8.3	50 Sq.mm	Metre	401.00		100.00	40100.00
		BRASS COMPRESSION GLAND					
	41.50	Supplying and fixing heavy duty cable gland for P.V.C. insulated armoured cable with brass washer, Rubber ring complete erected with cable and lead connection etc. as per specification complete.					
	41.5.1	Gland Size 22mm suitable for cable 2,3,3½ & 4 x up to 6 Sq.mm	Each	33.00		50.00	1650.00
	41.5.2	Gland Size 22mm suitable for cable 2/3, 3½, 2/4 x 10 Sq.mm or 2x 16 Sq.mm	Each	45.00		50.00	2250.00
	41.5.6	Gland Size 45mm 3/3½ x 120 Sq.mm, 3½ x 95 Sq.mm 3 x 150 Sq.mm.	Each	136.00		20.00	2720.00
	41.5.7	Gland Size 50 mm 3½ x 150 Sq.mm, 3 x 185 Sq.mm	Each	177.00		20.00	3540.00
		LUGS:-					
	41.70	Supplying and fixing cramping type Alum. lugs as per I.S.S.Specification suitable for following size of cable with Alu./Copper solid/stranded conductor evenly cramped with high/pressure tool and connected to switch gear/Bus/M.C.C.B./ M.C.B. etc. as required complete.For Conductor Size-					
	41.7.1	6mm to 16 Sq.mm	Each	2.00		200.00	400.00
	41.7.2	25 Sq.mm	Each	4.00		150.00	600.00
	41.7.3	35 Sq.mm	Each	5.00		150.00	750.00
	41.7.4	50 Sq.mm	Each	8.00		60.00	480.00
	41.7.5	70 Sq.mm	Each	11.00		60.00	660.00
		CABLE LAYING					
	41.15	Laying of one number armoured / unarmoured power cable 1.1kV grade of size not exceeding 25 Sq.mm direct in ground including excavation in all soil / murrum / soft rock, sand cushioning, protective covering and refilling the pit etc. as required.	Metre	202.00		50.00	10100.00
	41.16	Laying of one number armoured / unarmoured power cable 1.1.kV grade of size exceeding 25Sq.mm but not exceeding 120 Sq.mm direct in ground including excavation in all soil / murrum / soft rock, sand cushioning, protective covering and refilling the pit etc. as required.	Metre	211.00		50.00	10550.00
	41.47	Laying of one number armoured / unarmoured cable 1.1kV grade of size not exceeding 25 Sq.mm on wall/truss with approved type of iron clamps etc. as required.	Metre	40.00		200.00	8000.00
	41.48	Laying of one number armoured / unarmoured cable 1.1kV grade of size exceeding 25 Sq.mm but not exceeding 120 Sq.mm on wall/truss with approved type of iron clamps etc. as required.	Metre	87.00		80.00	6960.00
	41.49	Laying of one number armoured / unarmoured cable 1.1kV grade of size exceeding 120 Sq.mm but not exceeding 400 Sq.mm on wall/truss with approved type of iron clamps etc. as required.	Metre	102.00		20.00	2040.00

		GRAND TOTAL					4312970.00
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Estimate for Development of Dumna Nature Reserve Park, Jabalpur Madhya Pradesh India

Construction of WBM Road on Existing Trails

Total Length :- 7 Km

S.NO.	UADD SOR II & III. ITEM NO.	DESCRIPTION OF ITEM	QTY.	UNIT	RATE	AMOUNT
1	VOL.III 2.2	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned up to a lead of 1000 meter including removal and disposal of top organic soil not exceeding 150 mm in thickness if required and as per relevant clauses of section-200.	38500.00			
		a). In area of light jungle	3.85	hectare	31510.00	121313.50
2	VOL.III 3.1	Excavation for roadway in soil including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto 1000 meters and as per relevant clauses of section-300.				
		Total	11833.80	cum	98.00	1159712.40
3	VOL.III 3.9	Construction of Embankment/Sub grade/ earth shoulders, as per clause 305.1.1 inclusive of operation necessary as per clause 305 & its sub-clauses, Where required but with approved materials obtained from excavation for road construction (vide clause 301.3.11) i/c consolidating the original ground by rolling as directed by the Engineer-in-charge but with a maximum of 6 passes of 8-10 tonne roller & i/c compaction and maintenance of surface during construction to ensure shedding & preventing ponding of water (clause 305.3.7), finishing i/c all lifts but excluding scarifying existing granular/bituminous road surface vide clause 305.6				
			12474.00	cum	234.00	2918916.00
4	VOL.III 4.1	Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with on prepared surface, mixing by mix in place method at OMC, and compacting with vibratory roller to achieve the desired density, complete in all respect and as per relevant clauses of section-400.				
			6237.00	cum	234.00	1459458.00

5	VOL.III 4.3	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening/ binding materials to fill up the interstices of coarse aggregate, watering and compacting to the required density and as per relevant clauses of section-400.				
		Grading- I				
		Using Screening Type-A (13.2mm Agg.)	2450.00			
		Add 10% extra for super elevation and bell mouth curve	245.00			
		Total	2695.00	cum	1035.00	2789325.00
		Grading- II				
		Using Screening Type-B (11.2mm Agg.)	1837.50			
		Total	1837.50	cum	973.00	1787887.50
		Grading- III				
		Using Screening Type- B (11.2mm Agg.)	1837.50			
		Total	1837.50	cum	931.00	1710712.50
6	VOL.III 16.4	Providing and laying Pitching on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical specifications and as per relevant clauses of section 2500.				
		a). Stone/Boulder	375.00			
		Total	375.00	cum	838.00	314250.00
7	VOL.III 14.14	Providing and Laying Reinforced cement concrete pipe NP4/prestressed concrete pipe for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets and as per relevant clauses of section-2900.				
		i). 1000 mm dia	50.00			
		Total	50.00	meter	5676.00	283800.00
8	VOL.III 3.2	Excavation for road way in ordinary rock including loading in a truck and carrying of excavated material to embankment site with in all lifts and leads upto 1000 meters and as per relevant clauses of section-300.				
			280.00	cum	142.00	39760.00
9	VOL.II 4.1.5	Cement concrete grade M-10 (Nominal Mix) with 40 mm maximum size of stone aggregate				
		Total	11.00	cum	3528.00	38808.00

10	VOL.II 5.2.1	Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.				
		Total	260.63	cum	5050.00	1316181.50
11	VOLL.II 20.1.2	Walls (any thickness) including attached pilasters, buttersesses, plinth and string courses etc				
		Total	440.00	sqm	216.00	95040.00
12	VOLL. III 13.26	Supplying, fitting and placing un-coated HYSD bar reinforcement in foundation complete as per drawing and technical specifications and as per relevant clauses of sections 1600.				
		Total	7786.90	kg	60.00	467214.00
13	VOL.III 3.10	Back filling behind the facing element in reinforced earth walls with approved material/selected soil having CBR >12 (Unless specified otherwise in the contract) obtained from excavation of borrow pits i/c all lifts & leads i/c grading to required slope & camber using mortar grader and compacting using vibratory roller of 80 to 100 kN static weight to meet compection requirement of Table No. 300.2 of MORTH specification				
		Total	150.00	cum	234.00	35100.00
14	VOL.III 14.8	Providing weep holes in Brick masonry/Plain/Reinforced concrete abutment, wing wall/return wall with 100 mm dia AC pipe, extending through the full width of the structure with slope of 1V :20H towards drawing foce. Complete as per drawing and Technical specifications and as per clause 2706 of specifications.				
		Total	23.00	meter	131.00	3013.00
TOTAL						14540491.40

Estimate for Development of Dumna Nature Reserve Park, Jabalpur Madhya Pradesh India

DETAIL ESTIMATE OF PATHWAY WITH COBBLE STONE

S.NO	ITEMS NO. SOR VOL. II	DESCRIPTION OF ITEMS	QTY	UNIT	RATE	AMOUNT
1	2.6.1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.				
			270.88	cum	127.00	34401.13
2	2.27	Supplying and filling in plinth under floors including, watering, ramming consolidating and dressing complete.				
	2.27.1	Crusher Stone Dust				
			90.75	cum	628.00	56991.00
3	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering All work up to plinth level.				
	4.1.4	Cement concrete grade M-10 (Nominal Mix) with 20 mm maximum size of stone aggregat				
			79.75	cum	3595.00	286701.25
4	5.1	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :				
	5.1.1	Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate.				
			16.50	cum	4728.00	78012.00
5		Providing and laying 100 mm thick natural cobble stone block size 200mm x 200mm . Complete as per the direction of engineer incharge including locking edges and top surface use as runway for pedestrain whearever required with cement mortar 1:3 and pigment of required shade of stone block including cost of labour material etc . All complete (NON SOR)				
			550.00	sqm	1250.00	687500.00
6	5.20	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire upto floor two level including all wastage etc. complete.				
	5.20.1	Mild steel and Medium Tensile steel bars.(Taking average weight for estimate, payable as per actual design and weight calculation)				
			1036.20	kgs	60.00	62172.00
7	20.1	Centering and shuttering including strutting, propping etc.and removal of form for :				

	20.1.1	Foundations, footings, bases of columns, etc. For mass concrete.				
			165.00	sqm	138.00	22770.00
TOTAL						1228547.38

Estimate for Development of Dumna Nature Reserve Park, Jabalpur Madhya Pradesh India

ESTIMATE OF LANDSCAPE

S.No	Item No. / SOR Vol	PARTICULARS	Quantity	UNIT	Rate (in Rs)	Amount
1	23.1 MP PWD SOR	Trenching in ordinary soil up to a depth of 60cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50m and making up the trcnchcd area to propcr levels by filling with earth or earth mixed with sludge or/and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure)	540.00			
			450.00			
			990.00	cum	207.00	204930.00
2	23.2 MP PWD SOR	Supplying and stacking of good earth at site including royalty if any and carnage (earth measured in stacks will be reduced by 20% for payment)	180.00			
			150.00			
			330.00	cum	568.00	187440.00
3	23.3 MP PWD SOR	Supplying and stacking sludge at site including royalty and carriage (sludge measured in stacks will be reduced b 8% for payment)	180.00			
			150.00			
			330.00	cum	715.00	235950.00
4	23.4 MP PWD SOR	Supplying and stackmg at site dump manure from approved source, including carriage (manure measured in stacks will be reduced by 8% for payment):	180.00			
			150.00			
			330.00	cum	816.00	269280.00
5	23.5 MP PWD SOR	Rough dressing the trenched ground including breaking clods.	900.00			
			750.00			
			1650.00	100 sqm	495.00	8167.50
6	23.6 MP PWD SOR	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	1650.00	100 sqm	168.00	2772.00
7	23.7 MP PWD SOR	Fine dressing the ground	1650.00	100 sqm	126.00	2079.00
8	23.8 MP PWD SOR	Spreading of sludge, dump manure and / or good earth in required thickness as per direction of Officer-in-charge (Cost of sludge, dump manure and /or good earth to be paid separately).	330.00	cum	18.00	5940.00
9	23.9 MP PWD SOR	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge				
		Adding the quantity of earth and sludge manure	990.00	cum	12.00	11880.00

10	23.1 MP PWD SOR	Grassing with selected type of grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth. if needed (the good earth shall be paid for separately):				
	23.10.3	In rows 5 cm apart in both directions.	1650.00	100 sqm	4002.00	66033.00
11	23.13 MP PWD SOR	Preparation of beds for hedging and shrubbery excavating further 30cm deep of already prepared trench, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, levelling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and levelling as directed, within a lead of 50m lift upto 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately)	88.00	cum	75.00	6600.00
12	23.14	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20%: 1 part of stacked ' volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth. if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately):				
	23.14.2	Holes 60 cm dia, and 60 cm deep.	100.00	each	68.00	6800.00
	23.14.3	holes 45 cm dia, and 45 cm deep.	200.00	each	21.00	4200.00
13	23.15 MP PWD SOR	Providing and planting different variety of plants of approved quality and sizes as mentioned including making pits of required size at site, refilled with B.C. Soil mixture manuring and pesticide etc complete (to be paid separately) including watering and 90 days maintenance from the date of final bill as per direction of engineer in charge complete in all respect (B.C Mixture paid separately).				
	23.15.1	Any of one from Plameriya alba, fycus benjameena. Malkikeya champa. Begnonia plumaric pudoca Plants (1.8 mtrs to 2.10 mtrs height.	50.00	each	645.00	32250.00
	23.15.2	Any of one from Lantana VAR Red, Lantana Blue White, Hemelia Mini. lantana varicated, ticoma Redicens, Spi Oala, Golden Dunanta.(height 0.3 m to 0.45m)	600.00	each	33.00	19800.00
	23.15.3	Any of one from Hibiscus Vice Rai, Gul Phinia. Bamboo Varicated. Chandani Vencated, Hamilia Pattern, Bouganvella. Canna Red/Yellow, Taqwamonasia. (height 0.3 m to 0.45 m)	75.00	each	54.00	4050.00
	23.15.4	Any Of one from Spathodia. Silver Oak, Thuja. Golden Bottle Brush, Exora Red (height 0.45 m to 0.60 m)	50.00	each	319.00	15950.00
	23.15.5	Any Of one from Glerodendron, Allamamala New, Allamanda Bail, Thima Bouganvella .	150.00	each	96.00	14400.00

	23.15.7	Foxtail Palm (1.80mtrs to 2.10mtrs Height)	60.00	each	1784.00	107040.00
	23.15.9	Ficus Varicated (1.80mtrs to 2.10 mtrs height)	50.00	each	994.00	49700.00
15	23.24 MP PWD SOR	Preparation of mounds of various size and shape by available excavated /supplied earth in layers not exceeding 20 cm in depth, breaking clods, watering of each layer, dressing etc lead upto 50 meter and lift upto 1.5 m complete as per direction Of Officer-in-charge .	720.00	cum	153.00	110160.00
16	23.25 MP PWD SOR	Providing Circular Cement Concrete pots of specificd size, cast with cement concrete of nominal mix 1:2:4 (1 cement: 2 sand; 4 graded stone aggregate 6 mm nominal size), reinforced With 7 Nos (3 nos. horizontal and 4 nos. vertical "U" shape) M.S. wires of 3.5 mm dia as per design, including required form work, finishing with cement punning on exposed Surface, Curing for specified period and stacking in required rows and height, all complete as per direction of Officer-in-charge .				
	23.25.1	Top inside dia 35 cm, outer bottom dia 25 cm, total height 35 cm with wall thickness of 25.4 mm.	175.00	each	152.00	26600.00
TOTAL						1365421.50