

# Project Administration Manual

Project Number: 49377-001

Loan Number: LXXXX

September 2016

India: Madhya Pradesh District Roads II Sector  
Project

## ABBREVIATIONS

ADB	=	Asian Development Bank
AFS	=	audited financial statements
CAAA	=	Controller of Aid Accounts and Audit
CSC	=	construction supervision consultants
DMF	=	design and monitoring framework
DPR	=	detailed project report
EARF	=	environmental assessment and review framework
EIA	=	environmental impact assessment
EMP	=	environmental management plan
ESMS	=	environmental and social management system
GACAP	=	governance and anticorruption action plan
GDP	=	gross domestic product
GOMP	=	Government of Madhya Pradesh
ICB	=	international competitive bidding
IEE	=	initial environmental examination
IDC	=	interest during construction
IPP	=	indigenous people plan
IPPF	=	indigenous people planning framework
LAR	=	land acquisition and resettlement
LIBOR	=	London interbank offered rate
MDR	=	major district road
MORTH	=	Ministry of Road Transport and Highways
MPPWD	=	Public Works Department, Government of Madhya Pradesh
MPRDC	=	Madhya Pradesh Road Development Corporation Ltd.
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
PAI	=	project administration instructions
PAM	=	project administration manual
PIU	=	project implementation unit
PPP	=	public private partnership
PPTA	=	project preparatory technical assistance
QCBS	=	quality- and cost based selection
RP	=	resettlement plan
RRP	=	report and recommendation of the President to the Board
SBD	=	standard bidding documents
SH	=	state highway
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference

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### **Project Administration Manual Purpose and Process**

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Public Works Department, Government of Madhya Pradesh (MPPWD) and Madhya Pradesh Road Development Corporation (MPRDC) are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by MPPWD and MPRDC of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At loan negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the loan agreement. Such agreement shall be reflected in the minutes of the loan negotiations. In the event of any discrepancy or contradiction between the PAM and the loan agreement, the provisions of the loan agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in the PAM.



## I. PROJECT DESCRIPTION

1. The state of Madhya Pradesh, in its present form, came into existence in November 2000 following its bifurcation to create the new state of Chhattisgarh. It is the second largest state in the country, with an area of about 308,000 sq km and population of about 73 million.<sup>1</sup> Madhya Pradesh is amongst the poorer states in the country, and its per capita income is about 70% of the national average.<sup>2</sup> However, its gross state domestic product (GSDP) grew at a compound annual growth rate of about 8.4% during FY2005-FY2015, with the GSDP per capita increasing at an average annual growth rate of 6.9% during the same period, being fostered through a series of development measures. These include the Pithampur–Dhar–Mhow region as a key node on the Delhi-Mumbai Industrial Corridor extent in Madhya Pradesh, many notified industrial areas, and industrial growth centers. However, agriculture is the mainstay of the state's economy and about 70% of the people live in rural areas. The dispersed nature of industrial development and agricultural production means that the road network is a critical element of the economic infrastructure.

2. The state has a road network of about 127,000 km, out of which about 4,700 km are national highways, 11,000 km are state highways (SHs), and about 20,000 km are MDRs. Rural roads make up the balance road network. The number of annually registered vehicles in the state has increased at an average annual rate of 9.7% since 2003 to reach about 8.8 million vehicles in 2013.<sup>3</sup> Estimates by MPRDC indicate that vehicular growth over the 2011-2021 period will be over 7% per annum.<sup>4</sup> Commensurate with this increase in vehicle ownership, the average daily traffic has also been increasing. The Government has estimated that over \$1.2 billion will be required in the period 2013-2023 to meet investment requirements in the road sector in the state.

3. The state is close to completing its program of upgrading its entire state highway network with a combination of budgetary allocations, ADB support in three previous loans, and public-private partnerships.<sup>5</sup> However, MDRs have had marginal attention, and major portions of the MDRs still need to be upgraded. ADB has sanctioned one previous loan for improvement of MDRs.<sup>6</sup> Government of Madhya Pradesh has now taken up improvement of MDRs as a critical part of the state road core network, which are being improved through a systematic approach using budgetary and multilateral funding.

4. **Impact and Outcome.** The impact will be improved mobility and accessibility, aligned with the 12th Five Year Plan of the government. The outcome will be improved road transport efficiency and safety in Madhya Pradesh.

5. **Outputs.** The project outputs will be (i) about 1400–1500 km of MDRs, designed to all-weather standards and road safety, with concrete pavements, reconstructed and rehabilitated. Contracts will include 5-year performance-based maintenance obligations, which will also improve quality of assets created since the contracts will need to keep in view the extended risk

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<sup>1</sup> Government of India, 2011. *Census Data 2011*. New Delhi.

<sup>2</sup> Source: Government of India open database: [www.data.gov.in](http://www.data.gov.in) accessed on 24-April-2016

<sup>3</sup> Ministry of Road Transport and Highways, 2014. *Road Transport Yearbook (2012-2013)*. New Delhi.

<sup>4</sup> Madhya Pradesh Road Development Corporation, 2013. *Development Plan for State Roads in Madhya Pradesh 2013-2033*. Bhopal.

<sup>5</sup> The loans are: 1959-IND Madhya Pradesh State Roads Sector Development Program; 2330-IND Madhya Pradesh State Roads Sector Project (MPSRSP)-II; and 2736-IND Madhya Pradesh State Roads Project-III.

<sup>6</sup> The loan is 3189-IND: Madhya Pradesh District Connectivity Sector Project.

liability. The use of concrete pavements, which is the first such extensive use for district roads in India, will also improve asset life-cycle and maintainability. (ii) a cashless accident victim treatment facility implemented, which will be a group insurance product linkage that enables treatment of road accident victims in proximate hospitals. This facility will be available in nonurban areas, initially in 3-4 districts of the state, with insurance premiums being paid by the state and met out of ADB financing; and (iii) accident response system in the state improved. This will include hardware and networking improvement to the capacity and reach of the system, and interfacing with other services. While Madhya Pradesh has been one of the first states in the country to establish the accident response system and provide linkage to ambulances through the state, the present initiative will mainstream these systems.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

**Table 1: Indicative Action Timeline**

Indicative Activities	Months						Responsible Individual/Unit/Agency/ Government
	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	
Advance contracting actions	X						MPRDC (ongoing)
Retroactive financing actions					X		MPRDC
Establish project implementation arrangements	X						MPRDC
ADB Board approval			X				ADB
Loan signing					X		Government/ ADB
Government legal opinion provided						X	Government/ ADB
Government budget inclusion	X						Government (ongoing)
Loan effectiveness						X	Government/ ADB

ADB = Asian Development Bank; MPRDC = Madhya Pradesh Road Development Corporation Ltd.

Source: Asian Development Bank.





### III. PROJECT MANAGEMENT ARRANGEMENTS

#### A. Project Implementation Organizations: Roles and Responsibilities

**Table 3: Implementation Roles and Responsibilities**

Project Implementation Organizations	Management Roles and Responsibilities
<ul style="list-style-type: none"> <li>• Executing agency</li> </ul>	<p>The executing agency will be the Public Works Department, Government of Madhya Pradesh, acting through Madhya Pradesh Road Development Corporation Ltd.</p> <ul style="list-style-type: none"> <li>➤ overall coordination of project implementation</li> <li>➤ selection of subprojects</li> <li>➤ procurement of works</li> <li>➤ consultant recruitment</li> <li>➤ day-to-day project management</li> <li>➤ ensure compliance with safeguard requirements</li> <li>➤ withdrawal applications</li> <li>➤ project progress reports</li> <li>➤ maintaining project financial statements</li> <li>➤ implementation of safeguard activities</li> </ul>
<ul style="list-style-type: none"> <li>• ADB</li> </ul>	<p>Review overall implementation of the project in consultation with the executing agency including: the project schedule; actions required in terms of poverty reduction, environmental impacts, and resettlement plans and subproject selection, if applicable; timeliness of budgetary allocations and counterpart funding; project expenditures; progress with procurement and disbursement; statement of expenditure when applicable; compliance with particular loan covenants; and the likelihood of attaining the project's immediate development objectives.</p>

ADB = Asian Development Bank.  
Source: Asian Development Bank.

#### B. Key Persons Involved in Implementation

##### Executing Agency

Public Works Department,  
Government of Madhya Pradesh,  
acting through the Madhya  
Pradesh Road Development  
Corporation

Officer's Name: Mr. Manish Rastogi  
Position: Managing Director, MPRDC, & Secretary, PWD,  
Government of Madhya Pradesh  
Telephone: +91-755-2765217  
Email address: [rastogi.manish@nic.in](mailto:rastogi.manish@nic.in)

Office Address: 45-A, Arera Hills, Bhopal, (M.P)  
India - 462 011

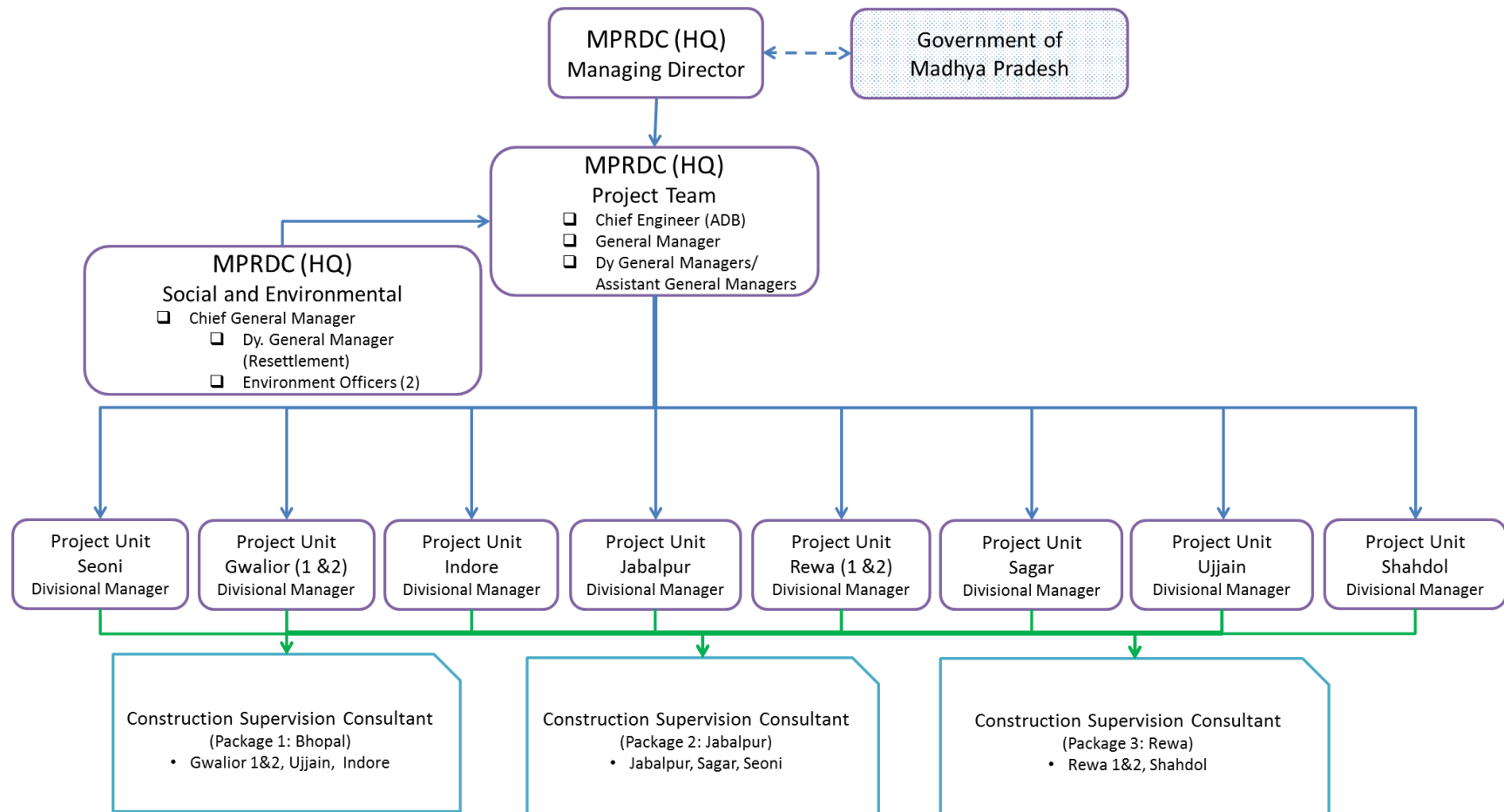
**ADB**

Staff Name: Hiroaki Yamaguchi  
Position: Director, SATC  
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**Mission Leader**

Staff Name: Ravi Peri  
Position: Principal Transport Specialist  
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### C. Project Organization Structure



ADB = Asian Development Bank; HQ = headquarters; MPRDC = Madhya Pradesh Road Development Corporation Ltd.  
Source: MPRDC.

#### IV. COSTS AND FINANCING

6. ADB will finance \$350 million of the project, which is 70% of the total cost. The Government of Madhya Pradesh will finance the balance 30% amounting to \$150 million. ADB's financing will be related to the following components: (i) rehabilitation of roads; (ii) improvement of Accident Response System, including initiative for cashless treatment of accident victims; (iii) and consulting services related to these aspects. ADB will also finance taxes and duties which (a) are within the reasonable threshold identified during the CPS preparation process; (b) represent about 5% of the investment plan; (c) apply only to ADB-financed expenditures; and (d) is considered material and relevant to the success of the project. In addition to financing a proportionate share for the above components, Government of Madhya Pradesh will finance all costs related to (i) land acquisition; (ii) rehabilitation and resettlement; (iii) maintenance works; (iv) project management; (v) interest during construction; and (vi) commitment charges. Detailed component-wise tabulations are given in subsequent tables in this project administration manual.

##### A. Cost Estimates Preparation and Revisions

7. Cost estimates were prepared by a set of technical consultants recruited by MPRDC for preparing detailed project reports, and reviewed by MPRDC staff. The basic cost data for the project is based on a "Schedule of Rates for Roads and Bridges" published periodically by the Government of Madhya Pradesh, from November 2014. This has been escalated to December 2015 by adding an escalation factor that is derived from the ongoing awarded bids. During implementation, the updated "Schedule of Rates" (if any), along with the then current normalized bid rates will be updated by MPRDC on an annual basis, and used for assessing project estimates and bid responses.

##### B. Key Assumptions

8. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: Rs66.77 = \$1.00 (as of 11 August 2016).
- (ii) Price contingencies based on expected inflation over the implementation period are as follows:

**Table 4: Cumulative Escalation Rates for Price Contingency Calculation**

Item	2016	2017	2018	2019	2020	Average
Foreign rate of price inflation	1.5%	2.9%	4.5%	6.0%	7.6%	4.5%
Domestic rate of price inflation	5.4%	11.5%	17.6%	24.1%	30.9%	17.9%

Source: Asian Development Bank. *International and Domestic Cost Escalation Factors 2015-2018*. Asian Development Bank estimates for 2019-2020.

### C. Detailed Cost Estimates by Expenditure Category

**Table 5: Project Investment Plan**  
(\$ million)

Item	Amount <sup>a</sup>
A. Base Cost <sup>b</sup>	
1. Rehabilitation and maintenance of roads	432.00
2. Cashless accident victim treatment facility	8.00
3. Improvement of Accident Response System	2.00
<b>Subtotal (A)</b>	<b>442.00</b>
B. Contingencies <sup>c</sup>	43.00
C. Financing Charges During Implementation <sup>d</sup>	15.00
<b>Total (A+B+C)</b>	<b>500.00</b>

<sup>a</sup> This includes taxes and duties of about \$23 million to be financed from government resources by cash contribution and ADB. The amount of taxes and duties to be financed by ADB: (i) are within the reasonable threshold identified during the CPS preparation process, (ii) represent only 5% of the investment plan, (iii) apply only to ADB-financed expenditures, and (iv) the financing of the taxes and duties is considered material and relevant to the success of the Project.

<sup>b</sup> In December 2015 prices.

<sup>c</sup> Physical contingencies computed at 5% for civil works; price contingencies at 1.5% of foreign exchange costs and 5.5% of local currency costs.

<sup>d</sup> Includes interest and commitment charges. Interest during construction for the ADB loan(s) is computed at the 5-year fixed swap rate plus a spread of 0.5% and maturity premium of 0.10%. Commitment charges for an ADB loan are 0.15% per year on the undisbursed loan amount.

Source: Asian Development Bank estimates.

### D. Allocation and Withdrawal of Loan Proceeds

**Table 6: Allocation and Withdrawal of Loan Proceeds**

Sl. No.	Item	Amount Allocated \$ Category	Percentage of ADB Financing from the Loan Account
1	Works	294,330,000	73% total expenditure claimed
2	Accident Response System	10,000,000	100% total expenditure claimed
3	Consulting Services	14,000,000	100% total expenditure claimed
4	Unallocated	31,670,000	
	<b>Total</b>	<b>350,000,000</b>	

## E. Detailed Cost Estimates by Financier

**Table 6: Detailed Cost Estimates by Financier**  
(\$ million)

	Component	Total \$ Million	ADB		GOMP	
			%	Amount	%	Amount
A.	<b>Land acquisition, resettlement and rehabilitation</b>	3.50	0.0%	0.00	100.0%	3.50
B.	<b>Civil Works</b>	404.43	72.8%	294.33	27.2%	110.10
1	Sample Roads (9)	75.00				
2	Non-sample roads	329.43				
C.	<b>Maintenance Works</b>	6.07	0.0%	0.00	100.0%	6.07
D.	<b>Accident Victim Treatment Insurance</b>	8.00	100.0%	8.00	0.0%	0.00
E.	<b>Accident Response System</b>	2.00	100.0%	2.00	0.0%	0.00
F.	<b>Consulting Services</b>	14.00	100.0%	14.00	0.0%	0.00
G	<b>Project Management</b>	4.00	0.0%	0.00	100.0%	4.00
	Subtotal A-F	<b>442.00</b>	<b>72.0%</b>	<b>318.33</b>	<b>28.0%</b>	<b>123.67</b>
H	<b>Contingencies</b>					
	1. Physical	21.00	72.8%	15.46	27.2%	5.54
	2. Price	22.00	72.8%	16.21	27.2%	5.79
	Subtotal Contingencies	43.00	72.8%	31.67	27.2%	11.33
I	<b>Financing Charges</b>					
	1. IDC	13.00	0.0%	0.00	100.0%	13.00
	2. Commitment Charges	2.00	0.0%	0.00	100.0%	2.00
	Subtotal Financing Charges	15.00	0.0%	0.00	100.0%	15.00
	<b>TOTAL</b>	<b>500.00</b>	<b>70.0%</b>	<b>350.00</b>	<b>30.0%</b>	<b>150.00</b>

ADB = Asian Development Bank; GOMP = Government of Madhya Pradesh; IDC = interest during construction.

Items under 'D' above cover payments of insurance premiums; and under 'E' cover system hardware, software, and networking equipment.

Note: Numbers may not sum precisely because of rounding.

Source: Madhya Pradesh Road Development Corporation & Asian Development Bank.

## F. Detailed Cost Estimates by Outputs

**Table 7: Detailed Cost Estimates by Outputs**  
(\$ million)

	Component	Total \$ Million	Output 1: Rehabilitation of Roads		Output 2: Cashless Accident Treatment		Output 3: Accident Response System	
			%	Amount	%	Amount	%	Amount
A.	Land acquisition, resettlement and rehabilitation	3.50	100%	3.50	0%	0.00	0%	0.00
B.	Civil Works	404.43	100%	404.43	0%	0.00	0%	0.00
1	Sample Roads (9)	75.00						
2	Non-sample roads	329.43						
C.	Maintenance Works	6.07	100%	6.07	0%	0.00	0%	0.00
D.	Accident Victim Treatment Insurance	8.00	0%	0.00	100%	8.00	0%	0.00
E.	Accident Response System	2.00	0%	0.00	0%	0.00	100%	2.00
E.	Consulting Services	14.00	97%	13.51	4%	0.49	0%	0.00
F.	Project Management	4.00	100%	4.00		0.00	0%	0.00
	Subtotal A-F	<b>442.00</b>		<b>431.51</b>		<b>8.49</b>		<b>2.00</b>
G.	Contingencies							
	1. Physical	21.00	100%	21.00	0%	0.00	0%	0.00
	2. Price	22.00	100%	22.00	0%	0.00	0%	0.00
	Subtotal Contingencies	43.00	100%	43.00	0%	0.00	0%	0.00
H.	Financing Charges							
	1. IDC	13.00	100%	13.00	0%	0.00	0%	0.00
	2. Commitment Charges	2.00	100%	2.00	0%	0.00	0%	0.00
	Subtotal Financing Charges	15.00	100%	15.00	0%	0.00	0%	0.00
	<b>TOTAL</b>	<b>500.00</b>		<b>489.51</b>		<b>8.49</b>		<b>2.00</b>

ADB = Asian Development Bank; GOMP = Government of Madhya Pradesh; IDC = interest during construction.

Note: Numbers may not sum precisely because of rounding.

Source: Madhya Pradesh Road Development Corporation & Asian Development Bank.



## G. Detailed Cost Estimates by Year

**Table 8: Detailed Cost Estimates by Year**  
(\$ million)

	Component	Total \$ Million	2017	2018	2019	2020	2021
A.	<b>Land acquisition, resettlement and rehabilitation</b>	3.50	0.70	1.40	0.88	0.53	0.00
B.	<b>Civil Works</b>	404.43	20.22	60.66	101.11	141.55	80.89
1	Sample Roads (9)	75.00					
2	Non-sample roads	329.43					
C.	<b>Maintenance Works</b>	6.07	0.00	0.00	0.00	0.91	5.16
D.	<b>Accident Victim Treatment Insurance</b>	8.00	0.00	0.00	2.00	3.60	2.40
E.	<b>Accident Response System</b>	2.00	0.00	0.00	0.50	0.90	0.60
E.	<b>Consulting Services</b>	14.00	2.10	2.10	3.50	3.50	2.80
F.	<b>Project Management</b>	4.00	0.60	0.60	1.00	1.00	0.80
	Subtotal A-F	<b>442.00</b>	23.62	64.76	108.98	151.99	92.64
G.	<b>Contingencies</b>						
	1. Physical	21.00	0.00	2.10	3.15	4.20	11.55
	2. Price	22.00	0.00	0.00	0.00	0.00	22.00
	Subtotal Contingencies	43.00	0.00	2.10	3.15	4.20	33.55
H.	<b>Financing Charges</b>						
	1. IDC	13.00	0.01	0.26	1.14	2.71	8.88
	2. Commitment Charges	2.00	0.13	0.49	0.42	0.29	0.67
	Subtotal Financing Charges	15.00	0.14	0.75	1.56	3.00	9.56
	<b>TOTAL</b>	<b>500.00</b>	<b>23.76</b>	<b>67.62</b>	<b>113.69</b>	<b>159.18</b>	<b>135.75</b>

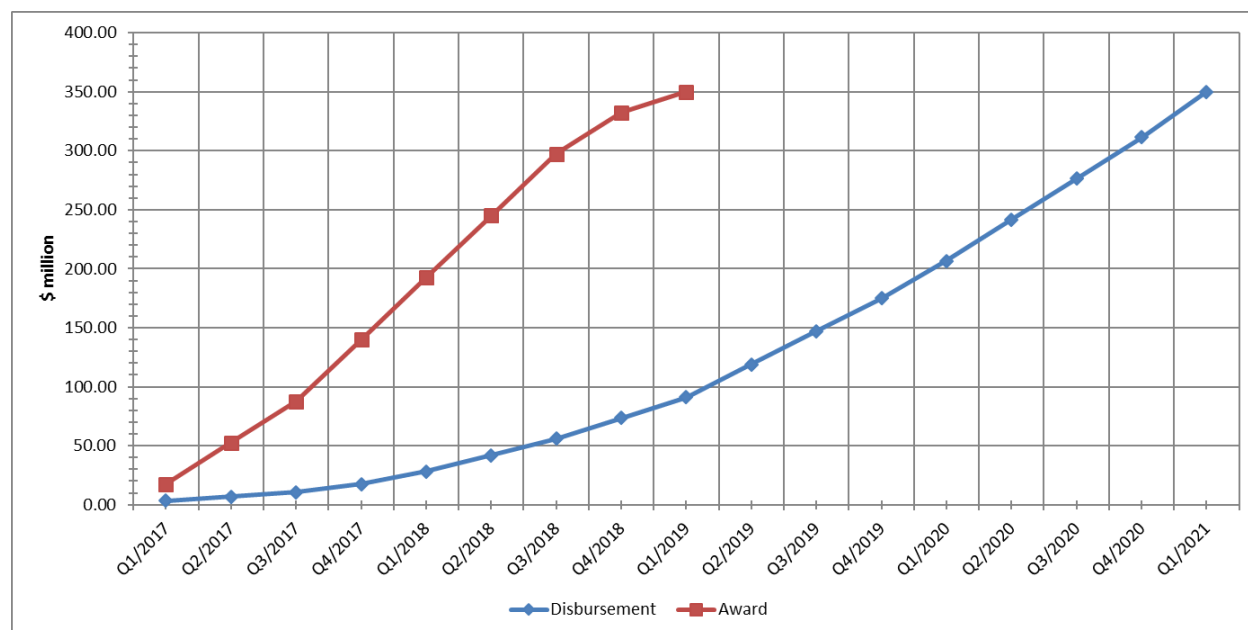
ADB = Asian Development Bank; GOMP = Government of Madhya Pradesh; IDC = interest during construction.

Note: Numbers may not sum precisely because of rounding.

Source: Madhya Pradesh Road Development Corporation & Asian Development Bank.

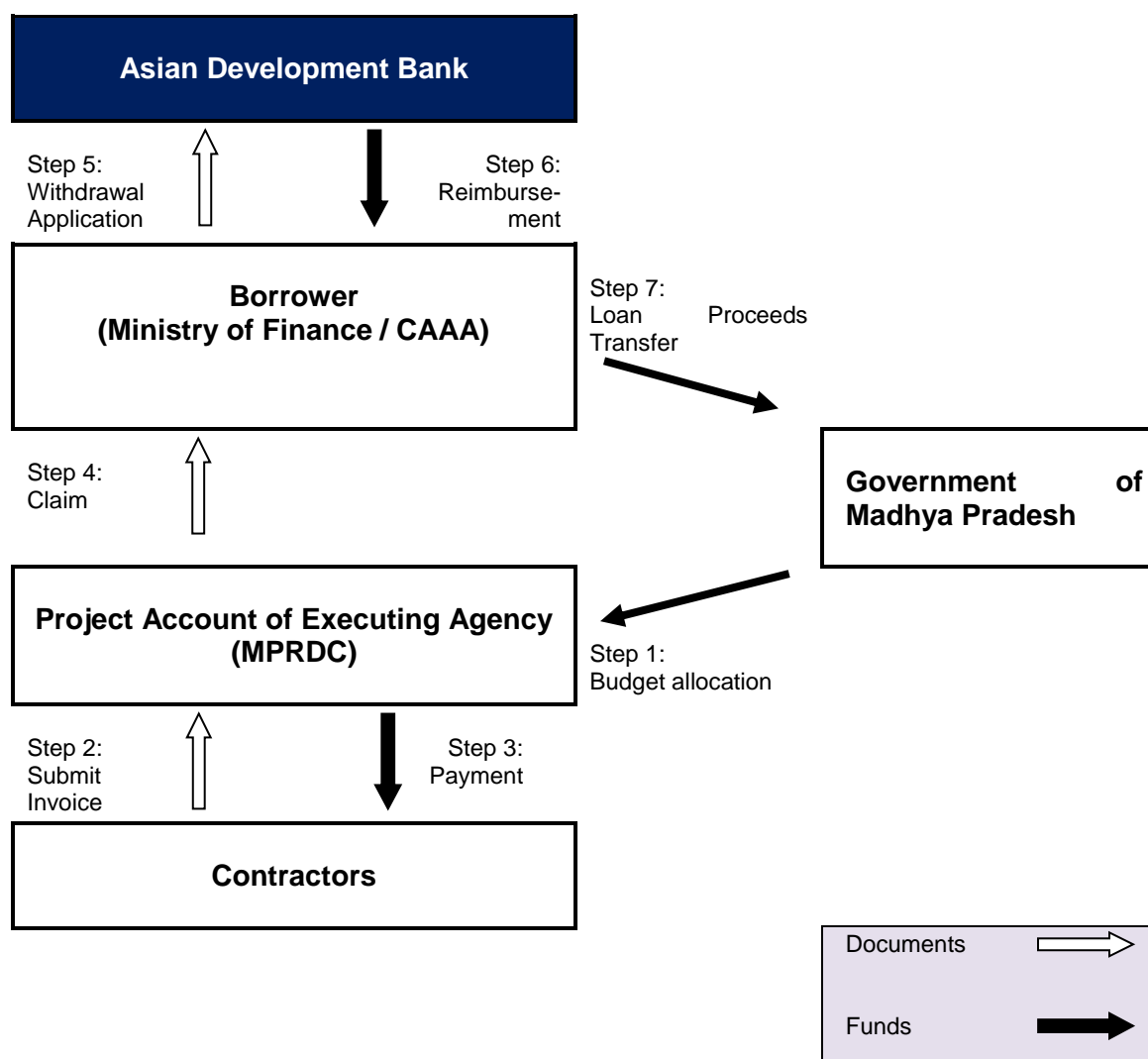
## H. Contract and Disbursement S-Curve

9. The following graph shows contract awards and disbursement for the allocated amounts over the life of the project, on a quarterly basis, based on the contract awards and disbursement projections.



## I. Fund Flow Diagram

10. Disbursement methods as outlined in ADB's Loan Disbursement Handbook (2015) will also be adopted for the project. As the main disbursement method, the loan will adopt the reimbursement method for payments. GOMP will provide the ADB loan and counterpart funds to MPRDC for project implementation, ensuring sufficient budget for payments to the contractors based on the submitted invoices. MPRDC will then submit claims to the Borrower, who will submit them to ADB. ADB will pay to the Borrower out of the loan and the Borrower will provide Additional Central Assistance to MPRDC through GOMP. GOMP will be responsible for meeting the financial responsibilities and obligations of MPRDC for the project. The following diagram shows how the funds will flow from ADB and the Borrower to implement project activities.



CAAA = Controller of Aid Accounts and Audit; MPRDC = Madhya Pradesh Road Development Corporation Ltd.  
Source: MPRDC and Asian Development Bank.

## V. FINANCIAL MANAGEMENT

11. The executing agency, MPRDC was incorporated on 14 July 2004, under the Companies Act, 1956, and is a wholly owned entity of the government of Madhya Pradesh. MPRDC will maintain a separate account for the project. Financial management risks will be considered and updated throughout the life of the project. Risk mitigation measures will also be updated accordingly.

### A. Financial Management Assessment

12. The financial management assessment (FMA) was conducted in April 2016 in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note. The FMA considered the capacity of MPRDC, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. Based on the assessment, the capacity of MPRDC is adequate in project financial accounting and in

ADB disbursement procedures. MPRDC has been the executing agency for four previous ADB loans and assessment of prior performance in financial management indicates that MPRDC's capacity with respect to auditing requirements, including timely submission of audited project financial statements has been good and major concerns have not been identified. MPRDC follows double entry, accrual based accounting since it is a corporate entity. The entity is using established commercial enterprise resource planning software and is able to undertake budgeting and other functions. The accounting system has the controls in place to ensure that all transactions are correctly made and adequately explained. All accounting and supporting documents are maintained for a minimum 8 years from the date of transaction. MPRDC is staffed with experienced financial specialists in its Finance & Accounts Department. The Finance and Accounts Department has been handling the function successfully since incorporation in 2004. Since then, loans worth \$1,120 million have been availed and managed by the team. In all, including build-operate-transfer (BOT) and engineering, procurement, and construction (EPC) (non-ADB) projects, the total value of projects implemented till date is more than \$5,500 million. The internal audit function at MPRDC is carried out by an accounting firm it hired. The Internal Auditor's report is submitted to Managing Director of MPRDC and the same is then reviewed by Statutory Auditor appointed by Comptroller and Auditor General of India. The final Annual Report for the financial years FY2014 and FY2015 are unqualified and do not have any adverse notes. No significant financial management risks have been identified. It is concluded that the overall pre-mitigation financial management risk of MPRDC is "Low". However, certain action points have been identified and set out in Table 9 below.

**Table 9: Action Points on Financial Risk**

<b>Risk</b>	<b>Activities to Mitigate</b>	<b>Responsibility</b>	<b>Timeline</b>
Funds Flow: Counterpart funds for the project (implementation and maintenance) are not available on time.	Assurances will be placed in the project agreements that counterpart funds for the project (implementation and maintenance) will be made available on time	MPRDC and ADB	At the time of loan negotiations.
Reporting and Monitoring: Maintenance funds received from Government are not segregated according to the category of Roads.	Records of Funds flow for maintenance of MDRs need to be maintained separately.	GM (Accounts), MPRDC	Ongoing, commencing from Q1-2017
Reporting and Monitoring: Financial statements are not easily accessible.	Disclose Annual Reports and Financial Statements through MPRDC website.	MD (MPRDC)	From FY2017

ADB = Asian Development Bank; FY = fiscal year; GM = general manager; MD = managing director; MDR = major district roads; MPRDC = Madhya Pradesh Road Development Corporation, Q = quarter.

Source: Asian Development Bank.

## **B. Disbursement**

### **Disbursement Arrangements for ADB Funds**

13. The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2015, as amended from time to time), and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.<sup>7</sup> Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

14. The statement of expenditures (SOE) procedure will be used to reimburse eligible expenditures, subject to a maximum limit of \$400,000. Supporting documents and records for expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.

15. ADB's imprest account procedure will not be used for the project. Direct payment procedures will not be used for the project.

16. MPRDC will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB.

17. Before the submission of the first withdrawal application, the Government should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is set in accordance with ADB's *Loan Disbursement Handbook*. Individual payments below this amount should generally be paid by MPRDC and subsequently claimed to ADB through reimbursement. ADB reserves the right not to accept withdrawal applications below the minimum amount.

18. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing.

19. All disbursements under government financing will be carried out in accordance with regulations of the GOI and GOMP.

## **C. Accounting**

20. MPRDC will maintain separate project financial statements and records by funding source for all expenditures incurred on the project. Project financial statements will follow accounting principles and practices prescribed by the Government's accounting laws and regulations.<sup>8</sup>

## **D. Auditing**

21. MPRDC will cause the detailed consolidated project financial statements to be audited in

<sup>7</sup> Disbursement eLearning. [http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning)

<sup>8</sup> Government laws and regulations, and following Indian Generally Accepted Accounting Principles

accordance with the Government's audit regulations by an auditor appointed by the Auditor General, which is acceptable to ADB. The audited financial statements will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the executing agency.

22. The annual audit report for the project financial statements will include a management letter and an audit opinion which cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan proceeds were used only for the purposes of the project or not; and (iii) the level of compliance for each financial covenant contained in the legal agreements for the project. If a management letter is prepared by the auditor, this shall also be submitted to ADB.

23. MPRDC will also cause the entity-level financial statements to be audited in accordance with Indian audit regulations, by an independent auditor acceptable to ADB. The audited entity-level financial statements, together with the auditors' report, will be submitted in the English language to ADB within one month after their approval by the competent authority.

24. To ensure the timely submission of audited project financial statements, MPRDC shall formally request the Comptroller and Auditor General (CAG) to include audits of subprojects under the project in their yearly work plan through the DEA. Unaudited project financial statements should be submitted to CAG for audit within 3 months of the end of the fiscal year.

25. The Government and MPRDC have been made aware of ADB's policy on delayed submission of audited project financial statements, and the requirements for the statements being of satisfactory and acceptable quality.<sup>9</sup> If the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed, then ADB reserves the right to require an additional auditor, as mutually agreed with the borrower, to complete the audit in a satisfactory and timely manner. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

26. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

27. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Public Communications Policy (2011).<sup>10</sup> After review, ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 14 days of the date of ADB's confirmation of their

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<sup>9</sup> ADB Policy on delayed submission of audited project financial statements:

- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next six months.
- When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the loan.

<sup>10</sup> Available from <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

acceptability by posting them on ADB's website. The Audit Management Letter, additional auditor's opinions and audited entity financial statements will not be disclosed.

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

28. All advance contracting and retroactive financing will be undertaken in conformity with ADB's *Procurement Guidelines* (April 2015, as amended from time to time) (ADB's *Procurement Guidelines*)<sup>11</sup> and ADB's *Guidelines on the Use of Consultants* (March 2013, as amended from time to time) (ADB's *Guidelines on the Use of Consultants*).<sup>12</sup> The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower; Government of Madhya Pradesh; and MPRDC have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the Project.

29. **Advance contracting.** MPRDC has requested advance action for procurement of works to expedite the consultant selection process, including finalization of the request for proposal; and the tender process of works, including preparation of the bidding documents for civil works and call for tender.

30. **Retroactive financing.** MPRDC has requested approval for retroactive financing. If approved by the ADB Board, up to 20% of the amount of the loan proceeds (\$70 million, 20% of \$350 million) will be eligible for retroactive financing, provided that expenditures are incurred on works, equipment, and consulting services for the project in accordance with agreed procedures and during the 12 months before the signing of the loan and project agreements.

### B. Procurement of Goods, Works and Consulting Services

31. All procurement of goods and works will be undertaken in accordance with ADB's *Procurement Guidelines*.

32. MPRDC and ADB have discussed procurement packages and procedures and understood that the proposed project does not involve national competitive bidding (NCB). The procurement plan should be updated whenever change in the procurement arrangements is required and agreed.

33. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.

34. Procurement activities under MPRDC will be the responsibility of the designated officer, Chief Engineer (Procurement), who will be supported by the Deputy General Manager (Procurement), and other staff and consultants. ADB will closely monitor all major project implementation activities. Contracts for civil works will comprise about 20 international competitive bidding (ICB) packages. All contracts for civil works and goods will be procured in accordance with ADB's *Procurement Guidelines*. ADB's standard bidding documents will be used in all cases.

<sup>11</sup> Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

<sup>12</sup> Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

35. All consultants will be recruited according to ADB's *Guidelines on the Use of Consultants*.<sup>13</sup> The terms of reference for all consulting services are detailed in Section D.

36. Consulting services are required to facilitate project management and implementation. Construction supervision consultants (CSC) will be funded out of loan proceeds. The expertise requirement of international consultants and national consultants are given in the relevant sections of the terms of reference in Attachment 5. Consulting firms will be engaged using the quality- and cost- based selection (QCBS) method with a standard quality: cost ratio of 80:20.

37. MPRDC will institute a referencing system in record keeping. All procurement files including bid invitations, winning bids, evaluation reports, pre-contract documents, contracts documents and invoices are kept in single contract files. The government regulations require keeping all records for eight years which sufficiently covers ADB requirement to keep the project records for two years after project completion, considering that all projects under the proposed loan are envisioned to be completed within 3-4 years following procurement activities.

### **C. Procurement Plan**

38. The procurement plan is in Attachment 1 and describes all procurement of good and works to be undertaken for the Project based on the procurement capacity assessment undertaken separately for MPRDC.

### **D. Consultant's Terms of Reference**

39. The terms of reference for the construction supervision consultants are given in Attachment 6. Those for the Accident Insurance Consultant are given in Attachment 7. In addition, one environmental expert and one social expert, who are familiar with the safeguards processes of multilateral agencies, will be recruited and positioned in MPRDC's office at Bhopal. The terms of reference of these (national) individual consultants are given in Attachment 8.

## **VII. SAFEGUARDS**

40. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS.<sup>14</sup>

### **A. Environmental Safeguards**

41. In accordance with requirements of the ADB SPS, the nine sample subprojects have been categorized as environment category "B" as no significant, long term or irreversible environmental impacts are anticipated under them. Therefore, a consolidated initial environmental examination (IEE) including road-specific environmental management plans (EMPs) have been prepared for the nine sample subprojects. An environmental assessment and review framework (EARF) has been prepared to guide environment safeguards related preparatory work and implementation for the non-sample subprojects and ensure compliance with the ADB's SPS 2009 and the environmental policies of the government.<sup>15</sup> In accordance

<sup>13</sup> Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

<sup>14</sup> Available at: <http://www.adb.org/sites/default/files/pub/2009/Safeguard-Policy-Statement-June2009.pdf>

<sup>15</sup> The Environmental Assessment and Review Framework, Resettlement Framework, and Indigenous Peoples Planning Framework have been published on the websites of MPRDC and ADB.



with the EARF and the selection criteria, no subproject categorized 'A' under ADB SPS will be financed.

42. All required clearances, as applicable, such as the environmental clearance, forestry clearance for diversion of forest land, "No Objection" letters from wildlife agencies etc., must be obtained by MPRDC before start of construction works in the respective road sections. Permits, certificates, no-objection letters, etc., for activities such as operation of hot mix plants, operation of equipment and machinery, sourcing of ground water, and the like must be obtained by the contractor before the implementation of the respective construction activity.

43. The environment monitoring plan (EMOP) is a plan for monitoring various environment quality parameters and checking the effectiveness of the EMP. It comprises activities on testing the quality of air, water, and noise through laboratory tests and physical monitoring of problems of soil erosion, habitat enhancement activities carried out, and occupational health and safety issues. Quality testing of air, water and noise will be outsourced by the contractor to recognized and approved laboratories, while physical monitoring activities will be carried out by the CSC. MPRDC will carry out the activities related to tree plantation and maintenance either by including in the construction contracts, or through specialized agencies that can carry out tree plantation, maintenance, monitoring and reporting.

44. The EMP for all subprojects will be attached to the respective contract documents. The responsibilities of respective parties and agencies on implementing the environmental safeguards are given below:

(i) **MPRDC:** Ensure that all environment safeguard requirements as stated in the EARF, IEE and loan covenants for the project is complied with. Submit annual environmental monitoring reports as necessary to ADB for disclosure on the ADB website.

- **Environmental Expert, MPRDC:** Implementation and monitoring of the requirements of the EARF for the entire project and IEE and EMP for respective subprojects. Preparation of annual environmental monitoring reports for the project based on periodic monitoring reports prepared at the site level. (Currently the Environment and Social Safeguard Unit of MPRDC has only one dedicated Environmental Officer. One more Environmental officer will be recruited to help manage environment safeguards under MPRDC projects).
- **Environmental Focal Person, PIU (site level), MPRDC:** One of the engineers working under the Division Manager (PIU Head) will be the safeguards focal person. He/she will be responsible for day to day monitoring of site level implementation of the EMP. Review and approval of monthly/ quarterly environmental monitoring checklists or reports.

(ii) **Contractor:** Appointment of Environmental Health and Safety Officer. Implementation of the EMP. Updating of the EMP when necessary, together with and in consultation with the CSC Environmental Specialist. Monthly reporting to CSC and PIU on implementation of EMP.

(iii) **Environmental Specialist, CSC:** Periodic site level monitoring, providing technical advice, on the job training, etc., to the contractor to enable smooth implementation of the EMP. Updating the EMP as necessary together and in consultation with the contractor. Preparation of monitoring checklists/ reporting formats

to be completed on a monthly basis. Submit the completed checklists/ reports to the environmental focal person from PIU at the site level. Prepare annual environmental monitoring reports for review by MPRDC and further submission to ADB for disclosure on the ADB website. Provide necessary technical support to the environmental focal person at the site level as well as MPRDC.

45. An initial coordination cum training workshop will be organized by the CSC environmental specialist during the pre-construction stage and further during construction stages for MPRDC staff, other CSC staff, and the contractors.

## **B. Social Safeguards**

46. **Involuntary Resettlement.** The project is categorized as “B” per ADB Safeguard Policy Statement. A resettlement framework (RF) has been prepared for the sector project in accordance with (i) the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013” (LA Act 2013); (ii) state laws and regulations; and (iii) ADB’s Safeguard Policy Statement, 2009. The RF guides the screening and planning for all subprojects that have resettlement impacts. Displaced persons (titleholders and non-titleholders) will be compensated at replacement cost and rates for different categories of loss and special assistance are detailed in the RF. The project was developed with a view to avoid land acquisition and involuntary resettlement by adopting the most feasible technical design. The proposed improvement of roads will all occur within the existing right-of-way. The sample subprojects are representative of the kinds of impact likely to be encountered in non-sample roads.

47. For the 9 sample subprojects, meaningful consultation and information disclosure were undertaken during preparation. No land acquisition is envisaged and nine households will experience temporary impact to livelihood along three subprojects. One resettlement plan has been prepared to cover the three subprojects with impact and one due diligence report for the remaining six sample roads with no impact has been prepared.

48. For non-sample subprojects with resettlement impacts, resettlement plans (RPs) will be prepared in accordance with the provisions made in the RF. Negotiated settlements may be utilized. It will follow the requirements outlined in the RF.

49. If any changes or additional land requirements or involuntary resettlement impacts are identified during implementation for any subproject, a RP will be prepared or updated. ADB’s prior approval will be obtained before awarding of civil works contracts, or further implementation of the relevant section of the subprojects.

50. MPRDC will (i) carry out meaningful consultation with project affected persons during the entire project; (ii) implement the subprojects in accordance with the RF and RPs prepared; (iii) ensure that all displaced persons should be paid compensation and assistance prior to displacement; (iv) ensure that the land should be made free of encumbrances and obstructions from the related section required to be handed over to the civil works contractor for and prior to commencement of construction thereof in accordance with the work schedule under the related civil works contract; (v) establish efficient grievance redress mechanism to assist affected persons to resolve grievances and complaints if any in a timely manner; and (vi) provide semi-annual progress reports to ADB. In addition, one social expert, who is familiar with the safeguards processes of multilateral agencies will be recruited and positioned in MPRDC’s office at Bhopal.

51. Should there be any involuntary resettlement, the implementation of the resettlement plans will be monitored internally by MPRDC and the implementation NGO engaged by MPRDC. Should the impact be significant, a qualified and experienced external monitoring agency/experts of the CSC, will undertake the external monitoring of the safeguards and relevant social issues.

52. **Impact on indigenous peoples.** The project has been categorized “C” as per ADB’s SPS. An indigenous peoples planning framework (IPPF) has been prepared to guide the screening and preparation of planning documents for non-sample subprojects. Subprojects with significant impacts and categorized as 'A' in accordance with ADB SPS on indigenous peoples will not be financed. In accordance with the framework, if any impacts on indigenous people are identified in the subsequent subprojects, the EA will prepare an indigenous peoples plan (IPP) and submit it to ADB for approval before award of related civil works contract and implemented before commencement of the relevant section of the civil works contract as applicable. Any update of IPP during implementation shall follow requirements similar to the RPs as described for involuntary resettlement.

### C. Grievance Redress Mechanism

53. The project-specific grievance redress mechanism (GRM) has been established to receive and facilitate the resolution of affected people’s concerns, complaints and grievances about the social and environmental performance at the project level. The GRM will aim to provide a time bound and transparent mechanism to voice and resolve social and environmental concerns linked with the project. The project specific GRM is not intended to bypass the government’s own redress process; it is intended to address project affected people’s concerns and complaints promptly, making it readily accessible to all segments of affected persons and is scaled to the risks and impacts of the project. Hence, depending on the nature and significance of the grievances or complaints, the GRM will comprise procedures to address grievances at the project site level and MPRDC level. More serious complaints which cannot be addressed at the MPRDC level will be forwarded to the respective Grievance Redress Committee (GRC). Complainant may access the formal legal system at any time.

## VIII. GENDER AND SOCIAL DIMENSIONS

54. **Gender.** For the project, gender-sensitive measures have been integrated to maximize project benefits to women. The table below list out the measures and institutions responsible for implementation.

	Activity	Responsibility
1	Integrate safety and elderly-women-children-disabled (EWCD) friendly features into road design such as well marked crossings, safety signage, pedestrian walkways in the form of raised walkway, hard shoulder, soft shoulder, or covered drains depending on available ROW and local needs	Designed by DPR Consultant  Implemented by civil works contractor  Monitored by PIU / CSC
2	Give preference to employing local women for road maintenance during the 5-year maintenance period, and provisions in bidding documents ensure equal wages for equal work done by both	Implemented by civil works contractor  Monitored by PIU / CSC

	Activity	Responsibility
	male and female skilled and unskilled labor in project works	(sex disaggregated data to be collected for number of maintenance workers employed)
3	Provide basic training to 100% of road maintenance workers employed	Implemented by civil works contractor  Monitored by PIU / CSC
4	Collect sex-disaggregated data and pedestrian data for cashless accident victim treatment facility	Implemented by Consultant for Accident Response and Insurance System  Monitored by MPRDC
5	Collect sex-disaggregated data and improve public awareness targeting rural communities for accident response system.	Implemented by MPRDC  Monitored by ADB

ADB = Asian Development Bank; CSC = construction supervision consultant; DPR = detailed project report; EA = executing agency; EWCD = elderly-women-children-disabled; IA = implementing agency; MPRDC = Madhya Pradesh Road Development Corporation; PIU = project implementation unit; ROW = right of way.

55. **HIV/AIDS.** The State and MPRDC shall ensure that the works contracts under the project incorporate provisions to the effect that the contractors are required to (i) carry out HIV/AIDS awareness programs for labor; (ii) disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction. Such contracts will also include clauses for termination in case of any breach of the stated provisions by the contractors. The CSC will monitor the implementation.

56. **Labor standards.** The State and MPRDC shall ensure that the works contracts under the project follow all applicable labor laws of Government of India and State of Madhya Pradesh and that these further include provisions to the effect that contractors (i) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts will also include clauses for termination in case of any breach of the stated provisions by the contractors. The CSC will monitor the implementation.

## IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

### A. Project Design and Monitoring Framework

57. The design and monitoring framework (DMF) is in Attachment 2.

### B. Monitoring

58. **Project performance monitoring.** The achievement of the project performance targets will be assessed following the DMF. MPRDC will, within 3 months of the loan signing, develop a systematic project performance monitoring system, in form and substance acceptable to ADB, for use throughout the life of the project. MPRDC will also establish, within 3 months of loan effectiveness, a baseline for performance indicators to be used for monitoring implementation of each road subproject. MPRDC will conduct annual evaluation surveys for each road subproject, in accordance with the project performance monitoring system, to evaluate the scope, implementation arrangements, progress, and achievement of the project objectives.

59. **Compliance monitoring.** Compliance with covenants will be monitored through ADB's project administration missions – including project inception mission to discuss and confirm the timetable for compliance with the loan covenants; project review missions to review the borrower's compliance with particular loan covenants and, where there is any noncompliance or delay, discuss proposed remedial measures with the Government; and mid-term review mission if necessary to review covenants to assess whether they are still relevant or need to be changed, or waived due to changing circumstances.

60. **Safeguards monitoring.** Implementation of the EMP, RP, IPP, and social mitigation measures will be monitored internally by designated MPRDC officers and externally by the CSC.

- (i) **Environment safeguard monitoring.** For environment safeguards records on implementation of the mitigation measures on site will be maintained by the contractor. Based on these records and spot checks of at least once a month by designated MPRDC staff (internal monitor) and CSC, monitoring reports will be compiled on a quarterly basis. These quarterly monitoring reports will further be compiled into an annual report for all subprojects for further submission to ADB for disclosure on the ADB website. If there are any changes in the design or alignment or if there are any unanticipated impacts, the EMP of the respective subproject will be updated to account for any additional or new environmental impacts and relevant corrective actions. Further, the need for revising the respective IEE report will also be reviewed and confirmed in discussion with ADB.
- (ii) **Social safeguard monitoring.** The Environment and Social Unit of MPRDC will be responsible for overall internal monitoring and evaluation of the project progress for social safeguard. If there is involuntary resettlement, the internal monitor will monitor and verify RP implementation to determine whether resettlement goals have been achieved, livelihood and living standards have been restored, and provide recommendations for improvement. Monitoring will also ensure recording of displaced persons' (DP's) views on resettlement issues

such as: DP's understanding of entitlement policies, options, and alternatives; site conditions; compensation valuation and disbursement; grievance redress procedures; and staff competencies. The internal monitor will also evaluate the performance of the NGOs (if required). The monitoring reports will be sent to ADB twice a year. For subprojects that have significant adverse safeguard impacts, the resettlement specialist of the CSC will be the external monitor. An important function of the external monitoring expert is to advise MPRDC on safeguard compliance issues. If significant non-compliance issues are identified, MPRDC is required to prepare a corrective action plan to address such issues. MPRDC will document monitoring results, identify the necessary corrective actions, and reflect them in a corrective action plan. MPRDC, in each quarter, will study the compliance with the action plan developed in the previous quarter. Compliance with loan covenants will be screened by MPRDC.

- (iii) **Gender monitoring.** The CSCs will undertake monitoring for number of women employed for maintenance. Sex-disaggregated data should be collected and reported on a semi-annual basis.

## C. Evaluation

61. The project inception mission will be fielded soon after the legal agreements for the Project are declared effective; thereafter, regular reviews will follow at least annually. As necessary, special loan administration missions and a midterm review mission will be fielded, under which any changes in scope or implementation arrangement may be required to ensure achievement of project objectives. MPRDC will monitor project implementation in accordance with the schedule and time-bound milestones, and keep ADB informed of any significant deviations that may result in the milestones not being met. A project completion report will be submitted by MPRDC within six months of physical completion of the project, providing detailed evaluation of the progress of implementation, costs, consultant performance, social and economic impact, and other details as requested by ADB.<sup>16</sup>

## D. Reporting

62. MPRDC will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within six months of physical completion of the project. To ensure projects continue to be both viable and sustainable, project financial statements and the executing agency AFSs, together with the associated auditor's report, should be adequately reviewed.

## E. Stakeholder Communication Strategy

63. Salient information regarding the project, including scope, general progress status, beneficiaries, invitation for bid and consultant recruitment notices, will be provided to the general public. The information will be made available and updated through the official website of MPRDC. The safeguard documents, i.e., environmental assessment and review framework, initial environmental examination including EMP, resettlement framework, resettlement plans,

<sup>16</sup> Project completion report format available at: <http://www.adb.org/sites/default/files/pai-6-07-a.pdf>

indigenous people planning framework, indigenous peoples plan (if any) will be posted on ADB's website. MPRDC will provide relevant information, including information from the above documents in a timely manner, in an accessible place and in a form and languages understandable to the displaced people and other stakeholders. If the displaced people are illiterate other appropriate communication methods will have to be used such as direct verbal communications through one on one meetings or meetings and grievance redress meetings.

## X. ANTICORRUPTION POLICY

64. The Government, State Government, and MPRDC are advised of ADB's Anticorruption Policy (1998, as amended to date). Consistent with its commitment to good governance, accountability and transparency, implementation of the Project shall adhere to ADB's Anticorruption Policy. ADB reserves the right to review and examine, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the Project. In this regard, investigation of government officials, if any, would be requested by ADB to be undertaken by the government.

65. To support these efforts, relevant provisions of ADB's Anticorruption Policy are included in the Loan Regulations, Agreements, and the bidding documents. In particular, all contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the State and MPRDC, and all contractors, suppliers, consultants, and other service providers as they relate to the Project. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contract under the Project.<sup>17</sup>

66. Madhya Pradesh has been amongst the first states in the country to enact specific legislation for anticorruption measures, through the "*Lokayukta Evam Uplokayukt Adhininyam*" (Act 37 of 1981) (Act to appoint an anticorruption ombudsman with specific powers). MPRDC will follow norms and standards prescribed in the executive orders issued by the State Government from time to time, which emphasizes on transparency in managing of works. To achieve this goal, the e-tendering system has been introduced in 2009. Other initiatives such as computerization of accounts and web-based work progress monitoring system have been developed to enhance transparency.

67. ADB's Anticorruption Policy designates the Office of Anticorruption and Integrity as the point of contact to report allegations of fraud or corruption among ADB-financed projects or its staff (footnote 17). Office of Anticorruption and Integrity is responsible for all matters related to allegations of fraud and corruption. For a more detailed explanation refer to the Anticorruption Policy and Procedures. Anyone coming across evidence of corruption associated with the Project may contact the Anticorruption Unit by telephone, facsimile, mail, or email at the following numbers/addresses:

- by email at [integrity@adb.org](mailto:integrity@adb.org) or [anticorruption@adb.org](mailto:anticorruption@adb.org)
- by phone at +63 2 632 5004
- by fax to +6326362152
- by mail at the following address (**Please mark correspondence Strictly Confidential**):  
Office of Anticorruption and Integrity  
Asian Development Bank  
6 ADB Avenue  
Mandaluyong City 1550

<sup>17</sup> ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

## Metro Manila, Philippines

68. The website of MPRDC will provide updated, detailed information on project implementation. For example, it will include procurement-related information, such as ongoing tenders, list of participating bidders, name of the winning bidder, basic details on bidding procedures adopted, amount of contract awarded, and the list of goods and/or services procured.

## **XI. ACCOUNTABILITY MECHANISM**

69. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>18</sup>

70. MPRDC has issued an order to establish a grievance redress mechanism.<sup>19</sup> The relevant committees and staff to make the mechanism operational have to be put in place prior to carrying out social surveys for any subproject. The grievance redress mechanism will ensure greater accountability, to receive and resolve complaints, as well as to act upon stakeholders' reports of irregularities on project related matters, including grievances concerning environment and resettlement. The existence of this mechanism will be publicized to ensure that stakeholders are aware that a venue is available to address concerns or grievances relating to fraud, corruption, abuse, and any other aspects of project implementation.

## **XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL**

<b>Sl. No.</b>	<b>Date</b>	<b>Description of Revisions</b>
1.	27-Apr-2016	First draft at Fact Finding Mission
2.	11-Aug-2016	Loan Negotiations: minor editorial and consistency changes

<sup>18</sup> For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

<sup>19</sup> Through an order dated 09/06/2014



## PROCUREMENT PLAN

### Basic Data

<b>Project Name:</b> Madhya Pradesh District Roads II Sector Project	
<b>Project Number:</b> 49377-001	<b>Approval Number:</b>
<b>Country:</b> India	<b>Executing Agency:</b> Public Works Department, Government of Madhya Pradesh
<b>Project Procurement Classification:</b> B	<b>Implementing Agency:</b> Madhya Pradesh Road Development Corporation Ltd.
<b>Project Procurement Risk:</b>	
<b>Project Financing Amount:</b> US\$ 500,000,000 <b>ADB Financing:</b> US\$ 350,000,000 <b>Cofinancing (ADB Administered):</b> <b>Non-ADB Financing:</b> US\$ 150,000,000	<b>Project Closing Date:</b> 31 March 2021
<b>Date of First Procurement Plan:</b> 30 April 2016	<b>Date of this Procurement Plan:</b> 30 April 2016

### A. Methods, Thresholds, Review and 18-Month Procurement Plan

#### 1. Procurement and Consulting Methods and Thresholds

Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding for Goods	US\$ 1,000,000 and Above	
National Competitive Bidding for Goods	Between US\$ 100,001 and US\$ 999,999	The first NCB is subject to prior review, thereafter post review.
Shopping for Goods	Up to US\$ 100,000	
International Competitive Bidding for Works	US\$ 40,000,000 and Above	
National Competitive Bidding for Works	Between US\$ 100,001 and US\$ 39,999,999	The first NCB is subject to prior review, thereafter post review.

Consulting Services	
Method	Comments
Quality- and Cost-Based Selection for Consulting Firm	

#### 2. Goods and Works Contracts Estimated to Cost \$1 Million or More

The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
001	Khatakia to Suthaliya via NH-3, Kumbhraj, Barod, Mragwas, Batawda, Chanchoda, Binaganj, Teligaon(MP-MDR-06-10)	24,386,627.46	ICB	Prior	1S2E	Q3 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N

							Advance Contracting: Y  Bidding Document: Large Works
002	Sirsod-Pichhore / Narwar-Chitori Amola Road to	20,061,647.50	ICB	Prior	1S2E	Q3 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
003	Mungawali-Malhargarh / Piprond-Thubon / Belai-Kareela Mata mandir / Bhounrasa-Malhargarh	18,459,404.61	ICB	Prior	1S2E	Q3 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
004	Sanwer-Chandravatiganj-Gautampura road	13,496,080.73	ICB	Prior	1S2E	Q2 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
005	Bijawar-Kantaphod-Satwaas-Khategaon road	17,374,039.29	ICB	Prior	1S2E	Q2 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N

							Advance Contracting: Y  Bidding Document: Large Works
006	Gadarwara-Gotetoria / Podar-Salichok-Babai-Sukhakhairi / Kareli-Singhpur-Dangidhana	21,059,120.01	ICB	Prior	1S2E	Q3 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
007	Maharajpur-Sahajpur / Samnapur-Bilehra-Nanhi Deori-Narayanpur / Kesali-Sahajpur road	25,521,310.94	ICB	Prior	1S2E	Q2 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
008	Garpehera-Dhamoni / Barodiya-Dhamoni /	25,213,444.25	ICB	Prior	1S2E	Q2 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
010	Bariya Choki-Lugasi-Garhi Malhara / Bamitha-Dumra / Rajnagar-Bachhon / Khaparia Banspahari / Chhatarpur-Vikrampur-Rajnagar road	30,000,000.00	ICB	Prior	1S2E	Q2 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document:

							Large Works
011	Barghat-Kanhiwada / Dharna-Asta-Dondiwada-Dharmakua / Waraseoni-Katangi road	24,962,357.10	ICB	Prior	1S2E	Q2 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
012	Rampayali-Garra Chouki / Khairlanji-Agasi / Laalbarra-Samnapur / Sitapathar-Mahkepaar-Goreghat	26,732,588.59	ICB	Prior	1S2E	Q3 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
014	Chourai-Panjara-Chand / Chand-Bichhua-Khamarpani	20,386,808.19	ICB	Prior	1S2E	Q3 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
015	Teonthar-Shankargarh / Baheradabar-Piparahi-Jadkud / Naigarhi-Garh	14,499,514.41	ICB	Prior	1S2E	Q3 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
016	Kirhai-Ramgarh-Mukundpur Road / Jharkua-Raigaon-	24,761,853.78	ICB	Prior	1S2E	Q3 / 2016	Prequalification of Bidders: N

	Karsara / Bhadanpur-Bhatura Road						Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
017	Harfari Misirgawan via Khaira-Shivpurva / Chitrangi-Garhwa	14,867,103.79	ICB	Prior	1S2E	Q3 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
018	Parsona-Mada / Mada-Ramgarh / Jhurai-Sarai road	17,408,287.53	ICB	Prior	1S2E	Q2 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
019	Sohagpur-Manpur road	14,055,723.08	ICB	Prior	1S2E	Q2 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Large Works
020	Anooppur-Jaitpur / Gohparu-Rasmohani-Budhar (via Bathiya) / Pasgarhi-Deori-Janakpur road	28,214,679.29	ICB	Prior	1S2E	Q2 / 2016	Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance

							Contracting: Y  Bidding Document: Large Works
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### 3. Consulting Services Contracts Estimated to Cost \$100,000 or More

The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior/ Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
1	Construction Supervision (Bhopal)	3,350,000.00	QCBS	Prior	Q2 / 2016	FTP	Assignment: International  Quality-Cost Ratio: 80:20  Advance Contracting: Y
2	Construction Supervision (Jabalpur)	4,880,000.00	QCBS	Prior	Q2 / 2016	FTP	Assignment: International  Quality-Cost Ratio: 80:20  Advance Contracting: Y
3	Construction Supervision (Rewa)	4,460,000.00	QCBS	Prior	Q2 / 2016	FTP	Assignment: International  Quality-Cost Ratio: 80:20  Advance Contracting: Y
4	Accident Insurance System	240,000.00	QCBS	Prior	Q1 / 2017	BTP	Assignment: National  Quality-Cost Ratio: 80:20  Advance Contracting: Y

#### 4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

The following table lists smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number	General Description	Estimated Value	Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
None								

Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior/Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
None								

#### B. Indicative List of Packages Required Under the Project

The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review (Prior/Post)	Bidding Procedure	Comments
None							

Consulting Services							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior/Post)	Type of Proposal	Comments
None							

## DESIGN AND MONITORING FRAMEWORK

**Impact the Project Is aligned with:**

 Mobility and accessibility improved (Twelfth Five Year Plan)<sup>a</sup>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<b>Outcome</b> Road transport efficiency and safety in Madhya Pradesh improved	By 2021 a. Movement of people and goods on rehabilitated roads measured by AADT increased to 82,000 (2014 baseline: 44,000 vehicles) b. Average travel time on the project roads reduced by 20% (2014 baseline: 1.75 minutes per km) c. Vehicle operating cost (economic) on the project roads reduced by 20% (2015 baseline: Rs9.60 per km for cars and Rs27.00 for medium trucks)	a-c. Post-implementation measurement endorsed by MPPWD	Severe economic reversals are encountered in the state.
<b>Outputs</b> 1. Major district roads reconstructed and rehabilitated	By 2020 1a. About 1,400–1,500 km of MDRs reconstructed and rehabilitated to all-weather standards with road safety and EWCD-friendly features at appropriate locations <sup>b</sup> 1b. MDRs placed under 5-year, performance-based maintenance contracts	1a-1b. Post implementation progress report endorsed by MPPWD	Major turnover in key MPRDC staff during implementation
2. Cashless accident victim treatment facility implemented	By 2020 2a. A cashless accident victim treatment facility made operational in 3-4 districts of the state	2a. Post implementation progress report endorsed by MPPWD	
3. Accident response system improved	By 2020 3a. Existing accident response system upgraded 3b. Monitoring system for accident type and sex-disaggregated data established	3a-3b. Post implementation progress report endorsed by MPPWD	



<p><b>Key Activities with Milestones</b></p> <p><b>1. Major district roads reconstructed and rehabilitated</b></p> <p>1.1 Award and mobilize construction supervision consultants by Q4 2016.</p> <p>1.2 Award contracts for reconstruction and rehabilitation of about 1,400–1,500 km of roads starting from Q4 2016, and complete construction by Q3 2020.</p> <p>1.3 Conduct post-implementation measurement of indicators by MPRDC by Q4 2021.</p> <p><b>2. Cashless accident victim treatment facility implemented</b></p> <p>2.1 Structure, develop, and introduce the facility by Q3 2018.</p> <p>2.2 Implement appropriate initial scheme in conjunction with an insurance company and selected hospitals by Q3 2020.</p> <p><b>3. Accident response system improved</b></p> <p>Start improvement of system hardware by Q3 2017 and complete by Q4 2018.</p> <p><b>Project Management Activities</b></p> <p>Project implementation units established by Q3 2016.</p> <p>Resettlement plan activities completed by Q3 2016.</p> <p>Counterpart funds available by Q3 2016.</p>
<p><b>Inputs</b></p> <p>ADB: \$350 million (loan)</p> <p>Government: \$150 million</p>
<p><b>Assumptions for Partner Financing</b></p> <p>Not Applicable</p>

AADT = annual average daily traffic; EWCD = elderly, women, children, and disabled; km = kilometer; MDR = major district road; MPRDC = Madhya Pradesh Road Development Corporation, Q = quarter.

<sup>a</sup> Government of India, Planning Commission. 2013. *Twelfth Five Year Plan, 2012–2017 Economic Sectors Volume II*. Delhi. <http://planningcommission.gov.in/plans/planrel/12thplan/welcome.html>.

<sup>b</sup> EWCD features include well-marked crossings, safety signage, and pedestrian walkways.  
Source: Asian Development Bank.

## LIST OF PROJECT ROADS

### I. SAMPLE ROADS

S No.	Name of Road	MDR No.	District	Length (Km)
1	Barghat-Kanhiwada	37-07	Seoni	21.79
2	Dharna-Asta-Dondiwada-Dharmakua	37-11	Seoni	26.23
3	Waraseoni-Katangi	42-06	Balaghat	30.60
4	Kirhai - Ramgarh - Mukundpur	44-16	Satna	34.35
5	Jharkua-Raigaon-Karsara	44-19	Satna	23.95
6	Parsona-Mada	46-03	Singroli	24.39
7	Mada -Ramgarh	46-04	Singroli	19.87
8	Jhurai-Sarai		Singroli	31.50
9	Harfari Khaira-Misirgawan via Shivpurva	46-08	Singroli	25.99

km = kilometer; MDR = major district roads.

Source: Madhya Pradesh Road Development Corporation.

**II. NON-SAMPLE ROADS**

<b>Sl. No</b>	<b>Name of Road</b>	<b>MDR No.</b>	<b>District</b>	<b>Length (Km)</b>
1.	Khatakia to Suthaliya via NH-3, Kumbhraj, Barod, Mragwas, Batawda, Chanchoda, Binaganj, Teligaon	06-10	Guna	87.30
2.	Sirsod-Pichhore	07-01	Shivpuri	33.00
3.	Narwar-Chitori to Amola	07-18	Shivpuri	26.00
4.	Mungawali-Malahargarh	08-04	Ashok Nagar	16.72
5.	Piprod-Thubon	08-05	Ashok Nagar	6.80
6.	Belai-Kareela Mata Mandir	08-09	Ashok Nagar	17.34
7.	Bhounrasa-Malhargarh	27-18	Vidisha	20.60
8.	Sanwer-Chandravatiganj-Gautampura	15-14	Indore	33.94
9.	Gadarwara-Gotetoria	41-03	Narsinghpur	13.57
10.	Podar-Salichok-Babai-Sukhakhairi	41-12	Narsinghpur	25.35
11.	Kareli-Singhpur-Dangidhana	41-14	Narsinghpur	30.30
12.	Maharajpur-Sahajpur	31-08	Sagar	24.45
13.	Samnapur-Bilehra-Nanhi Deori-Narayanpur	31-29	Sagar	45.40
14.	Kesali-Sahajpur	31-30	Sagar	15.06
15.	Garpehera-Dhamoni	31-14	Sagar	35.33
16.	Barodiya-Dhamoni	31-15	Sagar	19.81
17.	Nauniya-Madanpura	31-23	Sagar	2.00
18.	Khurai-Rajwas	31-10	Sagar	31.82
19.	Bariya Choki-Lugasi-Garhi Malhara	35-06	Chhatrapur	15.54
20.	Bamitha-Dumra	35-07	Chhatrapur	28.07
21.	Rajnagar-Bachhon	35-10	Chhatrapur	23.85
22.	Khaparia Banspahari	35-13	Chhatrapur	24.47
23.	Chhatrapur-Vikrampur-Rajnagar	35-23	Chhatrapur	10.24

Sl. No	Name of Road	MDR No.	District	Length (Km)
24.	Rampayali-Garra Chouki	42-16	Balaghat	27.56
25.	Khairlanji-Agasi	42-18	Balaghat	28.90
26.	Laalbarra-Samnapur	42-20	Balaghat	8.50
27.	Sitapathar-Mahkepaar-Goreghat	42-24	Balaghat	18.65
28.	Chourai-Panjara-Chand	40-10	Chhindwara	17.22
29.	Chand-Bichhua-Khamarpani		Chhindwara	37.00
30.	Teonthar-Shankargarh	43-09	Rewa	16.58
31.	Baheradabar-Piparahi-Jadkud	43-11	Rewa	19.70
32.	Naigarhi-Garh	43-17	Rewa	14.87
33.	Bhadanpur-Bhatura	44-23	Satna	20.05
34.	Chitrangi-Garhwa	46-02	Singroli	24.06
35.	Sohagpur-Manpur	46-04	Umaria	59.40
36.	Anooppur-Jaitpur	49-04	Shahdol	36.66
37.	Gohparu-Rasmohani-Budhar (via Bathiya)	49-08	Shahdol	33.17
38.	Pasgarhi-Deori-Janakpur	49-07	Shahdol	23.49
39.	Bijawar-Kantaphod-Satwaas-Khategaon	10-03	Dewas	55.17

km = kilometer; MDR = major district road.

Note: This is a sector loan, and subject to approval of ADB, non-sample roads may be changed by MPRDC

Source: Madhya Pradesh Road Development Corporation.

## DESIGN STANDARDS

The design standards and general design considerations for all subprojects include the following:

- i. Design standards will be in conformance with Indian Road Congress (IRC) codes and Ministry of Road Transport and Highways circulars and standards for design of roads and bridges.
- ii. As per IRC: 73, the minimum carriage-way width for major district roads is 3 meters. In consideration of future traffic growth and level of service, the subproject roads will be widened to 5.5 meter (intermediate lane) carriage-way. Where warranted due to future traffic growth, the existing road will be widened to 7 meter.
- iii. In built-up and urban areas, the widening will be accommodated within the existing right-of-way as far as possible.
- iv. Proper cross-drainage structures will be provided, wherever necessary, to ensure all weather connectivity. The overall width of culverts and new bridges will be 12 meters.
- v. In built up areas, side-drains of 'V' cross section will be provided. Footpaths will also be provided in built up areas, using paving blocks.
- vi. Adequate road safety features will be provided in accordance with the requirements of Indian Roads Congress/Ministry of Road Transport and Highways standards.
- vii. Elderly, Women, Children and Disabled (EWCD) features will be provided at all appropriate locations such as near schools, bus stops, places of worship or public gathering, etc. These include marked pedestrian crossings, ramps from footpaths for wheelchairs, signage, speed control measures, and signals, where required. Other site specific measures for EWCD will be determined during implementation, with due public consultation.
- viii. Bituminous pavement will be provided, except in selected flood-prone areas, where concrete pavement may be provided based on a case-by-case assessment.
- ix. Design speeds will range from 50 to 80 KMPH, depending on available right of way and location. At rail-road crossings, 20 KMPH speed has been proposed.
- x. On all roads, it is proposed to use rigid pavements with 300mm thick Pavement Quality Concrete having designed base and sub-base, granular fill etc.

## SELECTION CRITERIA FOR SUBPROJECTS

### A. Subproject Selection Criteria

1. Unless modified or amended in the loan or project agreements, the Project will utilize the following subproject selection criteria and approval process.
2. A subproject will be eligible for financing under the Project if:
  - (i) It is to improve existing major district roads (MDR) or other district roads (ODR), identified by Government of Madhya Pradesh (GOMP) as part of the road network implemented by the Madhya Pradesh Road Development Corporation (MPRDC);
  - (ii) It is the technically feasible least-cost option and a detailed project report prepared supports such feasibility of improving the road to (at least) a standard intermediate lane configuration or a two lane configuration;
  - (iii) An economic analysis of the subproject prepared in accordance with Asian Development Bank (ADB) Guidelines for the Economic Analysis of Project shows that the estimated economic internal rate of return will be at least 12%;
  - (iv) **Environmental safeguards.** A subproject categorized as 'A' in accordance with ADB SPS will not be considered under the Project. The subproject has been screened for its environmental impacts in compliance with the requirements of India and ADB's Safeguards Policy Statement (2009), an initial environmental examination including environmental management plan has been prepared for each subproject following the environmental assessment and review procedures as specified in the environmental assessment review framework agreed between GOMP and ADB.
  - (v) **Social safeguards.** The subproject will minimize land acquisition. If land acquisition or involuntary resettlement is required for a subproject, a resettlement plan will be prepared in accordance with applicable national and state laws and regulations, ADB's Safeguards Policy Statement (2009); and the agreed resettlement framework;
  - (vi) **Indigenous peoples safeguard.** A subproject with significant impact that is categorized as 'A' in accordance with ADB SPS will not be considered under the Project. If any indigenous peoples/scheduled tribes are likely to be affected by a subproject, an indigenous peoples plan (IPP) will be prepared in accordance with the agreed indigenous peoples' planning framework (IPPF) and the ADB's Safeguards Policy Statement (2009);
  - (vii) Sufficient counterpart funding has been allocated to implement the subproject timely and efficiently in accordance with the overall implementation schedule; and;
  - (viii) For each subproject, all necessary government approvals will have been/ will be obtained as applicable.

## B. Approval Process

3. A subproject, to be eligible for financing, will conform to the following:

- (i) MPRDC will select a possible subproject from priority roads identified by GOMP to be implemented by MPRDC. MPRDC will then conduct a feasibility study for the subproject including its cost estimate, technical and economic analysis. MPRDC will fill out a checklist for (a) involuntary resettlement; (b) indigenous people; and (c) environmental screening.
- (ii) MPRDC will submit (a) project selection and prioritization reports, and (b) the above checklists to ADB for further review, to obtain necessary guidance with regard to the extent of relevant analysis, assessment or plans.
- (iii) ADB will review the reports submitted by MPRDC. If ADB finds that a proposed **subproject is not likely to satisfy the eligibility criteria and/or that the agreed procedures**, ADB will advise MPRDC either (a) to modify the subproject proposal in a manner that will make it eligible for approval; or (b) that the subproject must be rejected. If a subproject is rejected, MPRDC may propose a replacement subproject. If the ADB finds that the proposed subproject is likely to satisfy the eligibility criteria and procedures, ADB will advise whether, based on the resettlement checklist a resettlement plan is required, and based on the indigenous people checklist, whether an IPP is required. An initial environmental examination (IEE), including EMP, is required for all subprojects.
- (iv) Following the review described in (iii) by MPRDC and/or ADB, MPRDC will conduct detailed design and, based on those works, develop a resettlement plan (if required) and IPP (if required), and undertake an IEE including an environmental management plan (EMP) with support of the on-going technical assistance consultants'
- (v) Where applicable, MPRDC will disclose the resettlement plan and IPP, and make it available to the displaced persons.
- (vi) MPRDC will appropriately disclose the IEE.
- (vii) The reports of preliminary design/other design work will be submitted by MPRDC following examples provided by the ADB based on the appraisal of the sample subproject.
- (viii) MPRDC will send the relevant safeguard planning documents (resettlement plan, IPP, and IEE including EMP) to ADB for final review and approval.
- (ix) After reviewing the appraisal reports and relevant safeguard documents, if ADB finds that the proposed subproject does satisfy the eligibility criteria and procedures, ADB will approve the subproject. If ADB finds that the proposed subproject does not satisfy the eligibility criteria and procedures, or does not comply with ADB's Safeguard Policy Statement, ADB may (a) advise MPRDC on remedial actions to be taken for the proposed subproject in order for it to comply or (b) reject the subproject.

**TERMS OF REFERENCE FOR CONSTRUCTION SUPERVISION CONSULTANT**  
**Package -1 (Bhopal)**  
**(49377-IND) Madhya Pradesh District Roads II Sector Project (MPDRIISP)**

*{NOTE: There are three similar packages, where the scope is identical but consultant deployment, person days, etc., may vary}*

**III. A. BACKGROUND**

1. The Government of India has applied for financial assistance from the Asian Development Bank (ADB) towards the cost of the proposed Madhya Pradesh District Roads II Sector Project (MPDRIISP) aims to improve about 1,550 km of priority district road sections in Madhya Pradesh state of India.

2. Madhya Pradesh Road Development Corporation Ltd. (MPRDC), a company fully owned by Govt. of Madhya Pradesh has been entrusted with the responsibility of widening and re-construction of major district roads (MDRs) under MPDRIISP. These terms of reference (TOR) broadly define the services required of the consultant who is to be engaged to assist the MPRDC in the implementation of the aforementioned Project. The Project is being considered for financing by the Asian Development Bank (ADB).

3. The Consultants shall be engaged under three packages namely Package - 1 (Bhopal), Package-2: (Jabalpur) and Package-3: (Rewa).

Package – 1 (Bhopal) consists 5 civil work contracts. This package involves widening and reconstruction of about 321.08 kilometer of selected district roads in Madhya Pradesh. The input of international experts is about 23 person-months while the national experts (including non-key experts) is estimated to be 1152 person-months. The estimated cost is about US\$ 2.93 million for this consultancy package.

Package – 2 (Jabalpur) consists 9 civil work contracts. This package involves widening and reconstruction of about 658.60 Km of selected district roads in Madhya Pradesh. The input of international experts is about 26 person-months while the national experts (including non-key experts) is estimated to be 2202 person-months. The estimated cost is about US\$ 4.42 million for this consultancy package.

Package – 3 (Rewa) consists 6 civil work contracts. This package involves widening and reconstruction of about 552.53 Km of selected district roads in Madhya Pradesh. The input of international experts is about 26 person-months while the national experts (including non-key experts) is estimated to be 2085 person-months. The estimated cost is about US\$ 4.05 million for this consultancy package.

4. The roads and the key/non-key personnel mentioned in this TOR are subject to the approval of Asian Development Bank.

**B. Objective**

5. MPRDC now invites Expressions of Interest (EOI) for all these three consultancy packages from eligible consulting firms for the said assignment. Only the firms from the ADB member countries are eligible for submitting EOIs. However, this TOR is issued for Package -1 (Bhopal).



6. The objective of the proposed consultancy services is to assist the MPRDC to implement the subproject works in the State by:

- i. Ensuring high standards of quality assurance in the execution of work and completion of work within stipulated time limit. Consultant will be especially responsible for quality and timely completion;
- ii. Comprehensive supervising project implementation activities carried out by the Contractor(s) to ensure complete compliance with the drawings, technical specifications and various stipulation contained in the Contract Documents;
- iii. Efficiently supervising the construction by deploying personnel who are experienced in modern methodology of construction supervision and contract management;
- iv. Proper management of civil works contracts as "the Engineer" in terms of civil works contract;
- v. Comprehensive supervision of project implementation activities carried out by the contractors to ensure compliance with the drawings, technical specifications and various stipulations contained in the Contract Documents, with high standards of quality assurance in supervision and in the execution of work; and
- vi. Training MPRDC staff in managing the contracts.

### **C. Contract Management Framework**

7. The civil construction contract will be based on the FIDIC MDB June 2010 version (hereafter referred to as FIDIC) with appropriate amendments to incorporate local requirements.

8. MPRDC will administer the project as "the Employer".

9. MPRDC will nominate a senior officer, who will act as "Employer's Representative." Substitution of key professional staff and CVs of junior staff of the consultant shall be approved by this officer in MPRDC.

10. The construction supervision consultant (CSC) will act as "the Engineer" under FIDIC for the contract. The CSC will make the necessary measurements and ensure the quality of work. The CSC shall make all engineering decisions required during the implementation of the Contract. However, the CSC shall seek prior approval of the Employer with regard to the following:

- i. Issuing the order to commence the works;
- ii. Issuing/approving variation orders in quantities exceeding 10% of the individual BOQ items or aggregate variation exceeding 5% of the contract value with financial implications;
- iii. Issuing/approving variation orders for non-BOQ items which have financial implications; except in an emergency situation as reasonably determined by the CSC

- iv. Sanction of additional items, sums or costs and variations of rates and price including fixation of new rates;
- v. Approval of subletting of any part of works;
- vi. Approval of any extension of contractual time limits;
- vii. Stopping and/or termination of the Contract of works; and
- viii. Where this TOR or the Civil construction contract conditions require to do so.

11. The CSC will be a firm of consultants. The firm's full time Director will be "the Engineer." The CSC designates its Team Leader as the Engineer's Representative, who shall act on all matters pertaining to the Engineer's Representative. However, the Consultant's firm shall be responsible for all actions taken by its Team Leader and his team.

#### **IV. D. SCOPE OF CONSULTING SERVICES**

12. The scope of consulting services will include, but not necessarily be limited to the following:

- i. Act as the 'Engineer' in terms of civil works contract to the extent of the delegation given;
- ii. Assist the Employer in contract administration and management of the project and the civil works contract;
- iii. Interpretation of the Technical Specifications and Contract Documents;
- iv. Review designs, drawings, BOQ provisions and specification with respect to actual site conditions and suggest modifications, if required or deemed appropriate. Any realignment, redesign/modification, any additional design of bridge desired for completion of the project will be done by CSC and related approvals from concerned authorities will be obtained by the CSC without any extra cost including remuneration of personnel, equipment, software and office supplies;
- v. Conduct road safety audit during construction and pre-opening of road for traffic;
- vi. Review and ensure conformity of contractor's securities in approved formats and ensure validity of these securities;
- vii. Ensure requisite insurances have been received and they comply with the requirements of the contract;
- viii. Review compliance with the documentation and advance actions requirements, including securing of all statutory clearances and permits or handing over of site, and advise on issuing the notice to set the Commencement Date;
- ix. Ensure the contractor effects and implements a system for the quality assurance of the works. The system of control of quality of materials and completed works shall also include sampling methods and criteria and acceptance criteria. The sampling

methods and the acceptance criteria shall be based on statistical methods and the recommendations of the relevant Indian Road Congress and MORTH/IS publications (as applicable) and international practices;

- x. Scrutinize the contractor's detailed work program, suggest modifications, if any, to the program after a careful study and ensure the contractor complies with the program;
- xi. Scrutinize and/or review contractor's superintendence, personnel and suggest modifications, if any;
- xii. Scrutinize the contractor's mobilization of the Contractor's Equipment to ensure the nominated plant and equipment is delivered to the site in accordance with the contractor's program and that permits, where necessary, are obtained in a timely manner;
- xiii. Scrutinize the construction methods proposed by the contractor for carrying out the works to ensure that these are satisfactory with particular reference to the technical requirements, project implementation schedule and environmental aspects as well as safety of works, personnel and the general public;
- xiv. Review the horizontal and vertical alignment for the roads based on review of tender drawings and the topographic survey carried out by the contractor. This work will include, if required, amending the DPR alignment plan and profile drawings based on the updated topographic surveys;
- xv. Issue of finalized or revised 'Good for Construction' drawings and prepare and provide additional detailed drawings, if and as necessary, including drainage (inclusive of drainage scheme through the built-up areas), junctions, road signs and markings, safety measures, km stones, protection works, etc., based on the contractor's survey and setting out;
- xvi. Ensure all bridge details are complete and modify the design and drawings wherever required due to founding level as a result of the change in the founding strata or any other reason at the time of execution;
- xvii. Scrutinize and approve the Contractor's working drawings based on survey setting out details, and drawings for temporary works, as required under the contract;
- xviii. Carry out detailed checking and verification of the setting-out data for the work including lines, levels and layout to ensure conformity with the working drawings;
- xix. Carry out supervision of all works as per approved method statements of various items of work and ensure proper supervision as per requirement;
- xx. Examine Contractor's preparation and the completed portion of work as per 'requests for inspection' and promptly advise the contractor;
- xxi. Monitor closely and regularly the progress of work and advise the contractor about corrective measures;

- xxii. Carry out regular inspection of the contractor's equipment, plant, machinery, installations, housing and medical facilities etc. and ensure they are adequate and are in accordance with the terms and conditions of the contract;
- xxiii. Direct the contractor to carry out all such works or to do all such things as may be necessary to avoid or to reduce the risk in case of any emergency affecting the safety of life or of the works or of the adjoining property and advise the Employer thereof as soon thereafter as is reasonably practicable;
- xxiv. Supervise the Contractor in all matters concerning safety and care of the work including environmental aspects and labor welfare;
- xxv. Witness sampling and testing being carried out by staff of the Contractor and undertake additional audit tests as necessary to ensure the quality of works and promptly inform the contractor of the results;
- xxvi. Review the test results/certificates of all construction materials and/or sources of materials and undertake additional tests as necessary to assess the quality of works;
- xxvii. Review all mix designs proposed by the contractors and approve/suggest modifications in the mix design, laying methods, sampling and testing procedure, and quality control measures, to ensure required standard and consistency in quality at the commencement of items;
- xxviii. Maintain a permanent record of all tests carried out for monitoring the quality of works;
- xxix. Prepare updated and additional drawings as required during the contract period and supply to the contractor in time;
- xxx. Measurement of quantities and certification, recording of measurements; verify, certify and issue interim and final payment certificate of the contractor based on the conditions of the contract/approval of employer;
- xxxi. Examine the requests for advances and monthly statements of contractors;
- xxxii. Support the MPRDC in matters relating to land acquisition and resettlement including updating the Resettlement Plan, monitoring the implementation of the resettlement plan and providing expert advice in all matters relating to acquisition and resettlement which include, but not necessarily limited to, the following activities:
  - a. Review results of internal monitoring and verify claims through random checking at the field level to assess whether resettlement objectives have been generally met. Involve the affected people and the community groups in assessing the impact of land acquisition for monitoring and evaluation purposes.
  - b. Identify the strengths and weaknesses of the resettlement objectives and approaches, implementation strategies and suggest corrective action plans.

- c. Review and verify the progress in land acquisition/ resettlement implementation and prepare monthly and semi-annual monitoring reports for the EA and ADB respectively.
  - d. Evaluate and assess the adequacy of compensation given to the affected persons and the livelihood opportunities and incomes as well as the quality of life of the affected persons after the project induced changes.
  - e. Evaluate and assess the adequacy and effectiveness of the consultative process with the affected persons, particularly those who are vulnerable, especially women, including the adequacy and effectiveness of the grievance redressal mechanism and procedures available to the affected persons and dissemination of information about these.
  - f. Advise the EA on safeguard compliance issues and if necessary a corrective action plan will be prepared to address such issues.
- xxxiii. Assist MPRDC in arranging the relocation of services including providing plans of the location of all services if not shown in sufficient detail on the existing plans, preparing correspondence for the MPRDC, arranging meetings and generally ensuring that the MPRDC is meeting the deadlines necessary to avoid delay claims from the Contractor;
  - xxxiv. Maintain a permanent record of all measurements for the work quantities to be paid for and of all payments made;
  - xxxv. Prepare monthly reports fully describing the progress of works including implementation of environment, social and resettlement safeguard requirements and the services rendered by the Consultant during the month under review, indicating also the problem areas and action required to overcome them;
  - xxxvi. Prepare Financial Statements;
  - xxxvii. Maintain a day-to-day diary recording all events relevant to the works;
  - xxxviii. Review and approve 'as-built' drawings prepared by the contractor and maintain records of all test data and results and also certify "as constructed" drawings for each component of the works furnished by the contractor;
  - xxxix. Inspect the works on completion of the milestone before accepting the work and indicate to Project Manager/Nodal Officer any outstanding work to be carried out by the contractor before issuing a milestone certificate;
  - xl. Inspect the works on completion of the milestone for the whole of the permanent works before accepting the work and indicate to Project Manager/Nodal Officer any outstanding work to be carried out by the contractor before issuing the milestone certificate or during the defects notification period for the permanent works;
  - xli. Inspect the works at appropriate intervals during the defect notification period for the permanent works (to the extent of the duration of the services) and advise the MPRDC on remedial works, if any;

- xl. Review the IEE report and update the environmental management plan (EMP) and environmental monitoring plan (EMOP);
- xli. Ensure the contractor implements the EMP;
- xlii. Conduct coordination and training workshops on roles and responsibilities on EMP and EMOP implementation;
- xliii. Prepare annual environmental monitoring reports based on the EMP monitoring and EMOP implementation activities to be submitted to ADB;
- xliv. Monitor the status of the contractor's compliance with HIV/AIDS provisions in the civil works contracts;
- xlv. Operate a quantitative and qualitative project performance monitoring system (PPMS) in consultation with ADB and to monitor and evaluate the performance of the project in relation to its goals, purposes and outputs. Carry out baseline surveys to collect baseline values with reference to the methodology developed under another study. The baseline values to be collected include, but not limited to, the followings; (a) traffic volumes and journey times, (b) freight tariffs and bus fares, (c) environment and social impact indicators, (d) socio – economic indicators and (e) social and poverty reduction impact indicators. Implementation and evaluation monitoring indicators would be measured at necessary agreed frequency during the project. Measurements of these indicators, together with relevant comments would be included in the quarterly progress reports and the final completion report;
- xlvii. Assist the MPRDC staff to carry out all of the duties as defined above as they apply to the maintenance works contracts until the completion of the services while simultaneously training the MPRDC staff to undertake all of these duties;
- xlviii. Assist MPRDC in respect of contractor's claims and other matters;
  - i. Assist MPRDC in preparing the reply with respect to the arbitration, the appeal of arbitration or litigation related to the work, whenever required;
  - ii. Make online entries on the management information system [MIS] system of MPRDC; and
  - iii. Provide services of any other specialist (not listed in the contract), as may be required and authorized by MPRDC, at the rate established in the Construction Supervision Contract or as mutually agreed upon.

## **V. E. OTHER RELEVANT INFORMATION**

13. The detailed engineering for the work has been presented in the detailed project reports (DPRs) for each contract package, prepared generally in accordance with the Indian Roads Congress standards, by the consultants engaged by MPRDC.

14. The DPRs contain drawings which are deemed 'Good for Construction' except where modification is required to adapt to on site conditions.

15. The Specifications are based on the latest edition of the Ministry of Shipping, Road Transport and Highways (MORTH) Specifications for Roads and Bridge Works.

#### **VI. F. MEASUREMENT OF QUANTITIES AND CERTIFICATION TO CONTRACTOR**

16. The CSC must ensure that all the levels and detailed measurements required to arrive at quantities of items are recorded in Measurement Book.

17. If CSC wants to use any software for working out the quantities of area or volume, such software/computer program shall be approved by the Employer prior to its use. Nevertheless, recording of detailed measurements in the Measurement Book is necessary even when software is used by the CSC. In any circumstances standard mode of measurement as given under MORTH specifications shall not be deviated.

18. The CSC will process interim and final payment certificates for the contractor's work in accordance with the civil works contract. Interim monthly payments shall be based on interim payment certificates processed by the CSC on the basis of statements filed by the Contractor. The CSC should ensure that all the deductions are made as per the Contract provisions before recommending the interim payment certificate. The CSC will be liable to pay the Contractors' claims on account of delay in payment of interim payment certificate due to recommending of ineligible payments or not proposing eligible recoveries/ deductions. In processing contractual certificates, the Team Leader of the CSC will certify that he has checked at least 10% of the measurements and quality control tests. The Resident Engineer checks and certifies 50% of the measurements and quality control tests, while the Assistant Resident Engineer checks and certifies 100% of the measurements and quality control tests. The Team Leader shall intimate the details of these check tests to the Project Manager/Nodal Officer before undertaking them, so that the Project Manager/Nodal Officer could associate, if they wish to do so. The Consultant or any of his concerned experts shall do the repeat tests or measurements, if directed by the Project Manager/Nodal Officer In-Charge of the construction package, in the presence of the same or any of his delegated representatives. In case of any conflict the Consultant may do the test check in the presence of the Project Manager/Nodal Officer In-Charge limited to 5% of total measurement/quality control tests.

#### **VII. G. EXPECTED INPUTS**

19. The implementation of Madhya Pradesh District Roads II Sector Project is organized under 20 Construction Packages in Three Consultancy Services Viz. Package – 1 (Bhopal), Package - 2 (Jabalpur) and Package - 3 (Rewa). The suggested composition and duration for the Supervision Team for the Construction Supervision Consultancy Services is given in Table 1. Position-based tasks/responsibility assignments are given in Table 2. These details are tentative, for the purposes of the EOI, and are likely to be refined for the RFP.

**Table 1: Staffing Requirements****PACKAGE - 1 (BHOPAL)**

<b>Sl. No</b>	<b>Position</b>	<b>Person months</b>
<b>A.</b>	<b>KEY EXPERTS</b>	
<b>I</b>	<b>International</b>	
1	Team Leader Cum Senior Contract Administration Specialist – 1	23
	<b>Sub-Total (MM – International (Key Experts))</b>	<b>23</b>
<b>II</b>	<b>National</b>	
<b>a.</b>	<b>TL's HQ Office</b>	
1	Senior Highway Engineer - 1	23
2	Senior Material Engineer – 1	21
3	Senior Quantity Surveyor cum Contract Specialist – 1	23
4	Senior Bridge Engineer – 1	23
5	Environment Specialist – 1	6
6	CAD Expert – 1	23
7	Senior Pavement Engineer – 1	6
8	R & R cum Social Development Specialist – 1	6
9	Electrical Engineer - 1	23
10	Road Safety Engineer	2
	<b>Total (MM – National TL's HQ Office)</b>	<b>156</b>
<b>b.</b>	<b>Site office</b>	
1	Resident Engineer – 5	95
	<b>Sub-Total (MM – National (TL Office + Site Office))</b>	<b>251</b>
<b>B.</b>	<b>NON-KEY EXPERTS</b>	
<b>a.</b>	<b>Site office</b>	
1	Asstt. Resident Engineer (Roads) – 5	95
2	Asstt. Resident Engineer (Bridge) – 5	95
3	Quantity Surveyor cum MIS In-charge – 5	95
4	Material Engineer / Quality Control Engineer – 5	85
5	Field Engineer – Roads – 8	138
6	Field Engineer – Bridges – 7	117
7	Field Engineer – Survey – 8	138
8	Lab Technician – 8	138
	<b>Sub-Total (MM – Non-key Experts)</b>	<b>901</b>
	<b>Total (MM – National Key Experts &amp; Non-key Experts (TL Office + Site Office))</b>	<b>1152</b>
	<b>Total (MM – International + National + Non-key Experts)</b>	<b>1175</b>



**Table 2: Position based tasks/responsibility assignments**

Sl. No.	Position	Tasks/Responsibilities
I.1	Team Leader / Senior Contract Administration Specialist	<ul style="list-style-type: none"> <li>• Assist the Employer and Engineer in contract administration and management of the Project and Civil Work Contract</li> <li>• Interpret the Technical Specifications and Contract Documents</li> <li>• Obtain consent of the concerned authorities before approvals of any redesign of road realignment, modifications and redesign of bridges.</li> <li>• Review the contractors' securities being in approved format and ensure timely renewal of securities</li> <li>• Ensure receipt of requisite insurances as per contract requirement</li> <li>• Review documentations and advance actions for handing over of site and advise on issuing notice to set the commencement date.</li> <li>• Ensure contractor's effects and implements Quality Assurance System</li> <li>• Issue approval to the contractor's detailed work program, suggest modifications if any and ensure contractor compliance with the Program</li> <li>• Issue approval to the Contractor's Superintendence Personnel with modifications if any</li> <li>• Scrutinize contractors' mobilization of equipment in accordance with the contractor's program</li> <li>• Scrutinize and approve contractor's construction methods statement.</li> <li>• Issue finalized or revised "Good for Construction drawings" and additional detailed drawings required for the execution of the work</li> <li>• Issue to contractor amended alignment plan and profile drawings based on review of tender drawings and updated topographic surveys</li> <li>• Issue bridge details and modified drawings wherever required due to change in founding level, as a result of change in founding strata or any other reason at the time of execution.</li> <li>• Approve contractor's working drawings based on setting out details</li> <li>• Approve setting out data for the Works finalized as a result of ground verification and survey</li> <li>• Monitor supervision of all works and ensure proper supervision as per contract requirement</li> <li>• Monitor closely and regularly the progress of work and advise the contractor about corrective</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<p>measures.</p> <ul style="list-style-type: none"> <li>• Monitor status of contractor's equipment, plant, machinery installations, housing and medical facilities.</li> <li>• Direct and/or advise contractor to avoid and/or reduce the risk in case of any emergency</li> <li>• Advise contractor in all matters covering safety and care of work, environmental aspects and labor welfare</li> <li>• Review the test results / certificate of all construction material and/or sources of materials to ensure quality.</li> <li>• Review and approve mix designs proposed by the Contractors</li> <li>• Verify and recommend, if in order, contractors' requests for advance and interim payment certificate</li> <li>• Assist Client in arranging relocation of services</li> <li>• Maintain a permanent record of all payments made to the contractor</li> <li>• Prepare monthly reports</li> <li>• Prepare Financial Statement</li> <li>• Approve and compile "as built" drawings</li> <li>• Inspect the works on completion of each milestone before accepting the work and report to the MPRDC.</li> <li>• Inspect Works at appropriate intervals during Defect Notification Period and advise the MPRDC</li> <li>• Ensure the contractor's Implements and maintains the environmental monitoring in compliant with the Environmental Management Plans</li> <li>• Operate PPMS System</li> <li>• Assist MPRDC Staff to carry out all the duties as apply to Maintenance Works Contract</li> <li>• Ensure that requisite insurances furnished by the Contract are compliant with contractual requirements.</li> <li>• Assist in finalization of bidding documents, if not already done.</li> <li>• Assist MPRDC in evaluating bids for contracts for civil works.</li> <li>• Assist MPRDC in dispute resolution activities, if necessary, during the pendency of the contract</li> <li>• Overall responsible for Contract administration and Management i/c monitoring of alignment, profile and quality of road, Bridge and CD works, correctness of quantity of work executed and</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		payable to contractor, implementation of EMP, Social and safeguard issues etc..
II.1	Senior Highway Engineer	<ul style="list-style-type: none"> <li>• Review designs, drawings for the road works</li> <li>• Suggest modifications, if required as per actual site conditions</li> <li>• Carry out design of any realignment, redesign/modifications of the roadwork components, if necessary, as per site conditions.</li> <li>• Review horizontal and vertical alignment for the road based on review of tender drawings and topographic survey carried out by the contractor including amending the alignment plan and profile based on updated topographic surveys</li> <li>• Check setting out data for the Works finalized as a result of ground verification and survey</li> <li>• Overall responsible for the correctness of alignment, profile and quality of road</li> </ul>
II.2	Senior Pavement Engineer	<ul style="list-style-type: none"> <li>• Review crust design and assist TL in finalizing crust composition as a result of ground verification</li> <li>• Assist TL in approving "Typical Good for Construction Sections" for road part</li> <li>• Scrutinize and assist TL in approving contractor's construction methods statement.</li> <li>• Prepare revised "Typical Good for Construction Sections" and additional detailed drawings required for the execution of the work</li> <li>• Overall responsible for the Crust design.</li> </ul>
II.3	Senior Material Engineer	<ul style="list-style-type: none"> <li>• Assist TL and DTL (if any) to finalize sampling methods and criteria and acceptance criteria for quality control and assurance</li> <li>• Examine Contractors preparation and completed portion of work as per "Request for Inspection (RFI)" and advise Contractor promptly regarding deficiency, if, any.</li> <li>• Monitor closely and regularly the progress on materials procurement and quality and report to the TL</li> <li>• Carry out inspection of Contractor's lab equipment and report to TL</li> <li>• Ensure and witness sampling and testing being carried out by staff of the Contractors and undertake additional tasks as necessary to ensure quality of works</li> <li>• Scrutinize test results/certification of all construction materials and/or sources of materials and undertake additional tests if necessary and report to TL</li> <li>• Scrutinize mix design proposed by the</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		Contractor and report to TL <ul style="list-style-type: none"> <li>• Maintain a Permanent record of all tests carried out for monitoring the quality of works</li> <li>• Approval of Borrow Areas and quarries with the consent of TL</li> <li>• Overall responsible for the quality of construction material, road, Bridge and CD works</li> </ul>
II.4	Senior Quantity Surveyor cum Contract Specialist	<ul style="list-style-type: none"> <li>• Review BOQ items and quantity with drawings and point out the discrepancies/variations, if any, to TL</li> <li>• Verify record measurements and BoQ items / Work quantities executed in the contractors' monthly statement</li> <li>• Verify, examine and certify interim payment certificates received from contractors</li> <li>• Prepare variation statement for TL</li> <li>• Maintain a permanent record of all measurement for the work quantities</li> <li>• Assist TL in Contract administration and the civil works contract</li> <li>• Assist TL in Interpretation of the Technical Specifications and Contract Documents</li> <li>• Review and ensure conformity of contractor's securities in approved formats and ensure timely renewal of securities.</li> <li>• Ensure that requisite insurances furnished by the Contractor are compliant with contract requirements.</li> <li>• Assist TL in preparing the monthly reports and Financial Statements</li> <li>• Assist in finalization of bidding documents, if not already done</li> <li>• Assist MPRDC in evaluating bids for contracts for civil works</li> <li>• Assist MPRDC in dispute resolution activities, if necessary, during the pendency of the contract</li> <li>• Overall responsible for correctness of quantity of work executed and payable to contractor and Payment to contractor</li> </ul>
II.5	Senior Bridge Engineer	<ul style="list-style-type: none"> <li>• Review alignment, designs, drawings for bridges/culverts/other structures</li> <li>• Suggest modifications and design, if required as per actual site conditions</li> <li>• Carry out any design, if required for bridges/culverts/ other structures</li> <li>• Check and modify design and drawings, if required due to change in founding level, or any other reason as a result of scrutiny of geotechnical data</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Scrutinize contractors working drawings for temporary works for structure</li> <li>• Carry out Supervision of all bridge works and CD works as per approved methods statements</li> <li>• Examine Contractors preparation and completed position of work as per "Request for Inspection (RFI)" and advise contractor promptly regarding discrepancy, if any</li> <li>• Monitor closely and regularly the progress of work of bridges / CD works and report to the TL</li> <li>• Supervise the Contractor in all matters concerning safety and care of the works</li> <li>• Witness sampling and testing being carried out by the Staff of Contractor particularly of bridge and CD works components</li> <li>• Assist TL in compilation of "as build" drawings</li> <li>• Overall responsible for the alignment, line, level and quality of Bridge and CD works</li> </ul>
II.6	R & R cum Social Development Specialist	<ul style="list-style-type: none"> <li>• Support the MPRDC in matters relating to land acquisition and resettlement</li> <li>• Update resettlement plan prepared.</li> <li>• Monitor the implementation of resettlement plan</li> <li>• Provide expert advice in all matters relating to acquisition and resettlement</li> <li>• Monitor implementation of the resettlement plan</li> <li>• Monitor the status of the contractor compliance with HIV/AIDS provisions in the contract</li> <li>• Identify current economic and social management issues</li> <li>• Mobilize community participation in the Project</li> <li>• Organize and facilitate multi-stakeholder participatory processes</li> <li>• Organize regional and buffer zone development program</li> <li>• Develop communication channels with the Stakeholders and reporting</li> <li>• Undertake data collection and correlation on PPMS based upon Traffic Volumes and Journey times, freight tariffs and bus fares, environmental and social impact indicators and socio economic indicators, social and poverty reduction impact indicators</li> <li>• All the related assignments mentioned under section 8 Part B, Annexure A and A1 of the bid document</li> </ul>
II.7	Environmental Specialist	<ul style="list-style-type: none"> <li>• Scrutinize Contractors construction method statement for its being compliant to environmental aspects,</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Supervise the Contract in all matters concerning environmental aspects</li> <li>• Monitor compliance with the Environmental Management Plan</li> <li>• Assist MPRDC in undertaking environmental safeguards</li> <li>• Prepare and execute Environmental Management Plan as per requirement of ADB</li> <li>• Perform all tasks as stated in the EARF.</li> </ul>
II.8	CAD Expert	<ul style="list-style-type: none"> <li>• Assist TL, Senior Highway Engineer, Senior Bridge Engineer and Resident Engineer on all matters relating to computer-aided designs productions.</li> </ul>
II.9	Electrical Engineer	<ul style="list-style-type: none"> <li>• Review the proposal of electrical lines, Poles &amp; Transformer to be shifted and proposal of raising of electric lines crossing the road.</li> <li>• Review the BOQ quantities related with electrical utility shifting.</li> <li>• Prepare the proposal of electrical utility shifting jointly with contractor's and MPSEB representatives.</li> <li>• Assure that all the electrical utility dangerous to road user be shifted.</li> <li>• Assure that unnecessary shifting of Electrical utility shall not take place.</li> <li>• Assure the specification and quality of all the items of electrical utility shifting.</li> <li>• Certify the quantities of electrical utility shifting claimed by Contractor in each IPC.</li> <li>• Overall responsible for quality of electrical utility shifting material, work and correctness of quantity executed and payable to contractor.</li> </ul>
II.10	Road Safety Engineer	<p>The road safety expert shall study, review and comment on safety audit manual prepared by the contractor/Concessionaire, review safety measures adopted by the contractor/concessionaire during execution of different component of works, review scheme for traffic management and diversion plan during construction period, review the safety measures provided for the traffic and Project workers, conduct road safety inspection and prepare site specific road safety audit report and suggest measures to address various issues.</p> <ul style="list-style-type: none"> <li>•</li> </ul>
III.1	Resident Engineer	<ul style="list-style-type: none"> <li>• Interpret the Technical Specifications and Contract Documents and advise to TL</li> <li>• Obtain related approvals from concerned authorities for any redesign of road realignment,</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<p>modifications and redesign of bridges.</p> <ul style="list-style-type: none"> <li>• Review the contractors' securities being in approved format and ensure timely renewal of securities</li> <li>• Ensure receipt of requisite insurances as per contract requirement</li> <li>• Review documentations and advance actions for handing over of site and advise on issuing notice to set the commencement date.</li> <li>• Ensure contractor's effects and implements Quality Assurance System</li> <li>• Review and assist TL in approving the contractors detailed work program suggesting modifications, if any and ensure contractor compliance with the Program</li> <li>• Review and assist TL in issuing approval to the Contractor's Superintendence Personnel suggesting modifications if any, Scrutinize contractors' mobilization of equipment in accordance with the contractors' program</li> <li>• Scrutinize and approve contractor's construction methods statement.</li> <li>• Review and assist TL in Issuing finalized or revised "Good for Construction drawings" and additional detailed drawings required for the execution of the work</li> <li>• Assist TL in Issuing to contractor amended alignment plan and profile drawings based on review of tender drawings and updated topographic surveys</li> <li>• Assist TL in Issuing bridge details and modified drawings wherever required due to change in founding level, as a result of change in founding strata or any other reason at the time of execution.</li> <li>• Assist TL in Approval of contractor's working drawings based on setting out details</li> <li>• Ensure compliance of setting out data for the Works finalized as a result of ground verification and survey</li> <li>• Monitor supervision of all works and ensure proper supervision as per contract requirement</li> <li>• Monitor closely and regularly the progress of work and advise the contractor about corrective measures.</li> <li>• Monitor status of contractor's equipment, plant, machinery installations, housing and medical facilities.</li> <li>• Direct and/or advise contractor to avoid and/or reduce the risk in case of any emergency</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Advise contractor in all matters covering safety and care of work, environmental aspects and labor welfare</li> <li>• Review and check the test results / certificate of all construction material and/or sources of materials to ensure quality.</li> <li>• Review and check the mix designs proposed by the Contractors</li> <li>• Verify and recommend, if in order, contractors' requests for advance and interim payment certificate</li> <li>• Assist Client in arranging relocation of services</li> <li>• Maintain a permanent record of all payments made to the contractor</li> <li>• Prepare monthly reports</li> <li>• Prepare Financial Statement</li> <li>• Assist TL in approve and compilation of "as built" drawings</li> <li>• Inspect the works on completion of each milestone before accepting the work and report to the TL/MPRDC.</li> <li>• Inspect Works at appropriate intervals during Defect Notification Period and advise the TL/MPRDC</li> <li>• Ensure the contractor Implements and maintains the environmental monitoring in compliant with the Environmental Management Plans</li> <li>• Operate PPMS System</li> <li>• Assist MPRDC Staff to carry out all the duties as apply to Maintenance Works Contract</li> <li>• Monitor Assistant Resident Engineer (Roads) and Assistant Resident Engineer (Bridge) work.</li> <li>• Overall responsible for Contract administration and Management i/c monitoring of alignment, profile and quality of road, Bridge and CD works, correctness of quantity of work executed and payable to contractor, implementation of EMP, Social and safeguard issues etc.</li> </ul>
III.2	Assistant Resident Engineer (Roads)	<ul style="list-style-type: none"> <li>• Assist in management of the Project and contract administration</li> <li>• Assist in Interpretation of the Technical Specifications and Contract Documents</li> <li>• Review designs, drawings, BoQ Provisions and Specifications</li> <li>• Conduct road safety audit during construction and preopening of road</li> <li>• Review and Assist in compliance of documentation and advance actions for handing over</li> </ul>



Sl. No.	Position	Tasks/Responsibilities
		<p>site and advise on setting the commencement date</p> <ul style="list-style-type: none"> <li>• Assist RE to ensure contractor's Quality Control Assurance System</li> <li>• Scrutinize Contractor's detailed work program</li> <li>• Scrutinize and/or review Contractor's Superintendence, Personnel and report to RE, on modifications, if any.</li> <li>• Scrutinize contractor's mobilization of equipment, in accordance with the contractor program.</li> <li>• Scrutinize contractors' construction methods statement and report to RE for its being compliant to technical requirement, project implementation schedule, environmental aspects, safety of works, personnel and general public</li> <li>• Review horizontal and vertical alignments and follow up action based on report of Sr. Highway Design Engineer</li> <li>• Review "Good for Construction Drawings", prepare additional detailed drawings, if required, based on contractors' survey and setting out</li> <li>• Scrutinize contractors working drawings based on survey setting out details.</li> <li>• Scrutiny, checking and verification of setting out data</li> <li>• Carry out supervision of all works as per approved methods states</li> <li>• Examine Contractors preparation and the completed position of work as per "Request for Inspection" and promptly advise the contractor regarding the deficiency, if any</li> <li>• Monitor closely and regularly the progress of work and report to the RE</li> <li>• Carry out regular inspection of Contractor's equipment, plant, machinery, installations, housing and medical facilities.</li> <li>• Direct contractor to carry out works, as may be necessary to avoid or to reduce the risk in case of any emergency</li> <li>• Supervise the contractor in all matters concerning safety of works, labor, workmen and environmental aspects and labor welfare.</li> <li>• Witness sampling and testing being carried out by staff of the Contractor and undertake additional audit tests to ensure quality</li> <li>• Monitor and review the test results / certificates for all construction material and/or resources of materials and report to RE</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Monitor and review the mix designs proposed by the Contractor</li> <li>• Examine the requests for advances and monthly statements of contractors and examine interim payment certificates.</li> <li>• Assist MPRDC in arranging relocation of services including all correspondence, meetings and preparation of details.</li> <li>• Maintain a permanent record of all measurements for the works /quantities to be paid for and of all payment date.</li> <li>• Prepare monthly reports</li> <li>• Review “as-built” drawings prepared by the Contractor and maintain record of tests of all data and records.</li> <li>• Maintain a day to day diary recording all events relevant to the work</li> <li>• Responsible for the Contract administration and Management, Horizontal &amp; Vertical profile and quality of road work, correctness of quantity of work executed and payable to contractor, implementation of EMP, Social and safeguard issues etc..</li> </ul>
III.3	Assistant Resident Engineer (Bridge)	<ul style="list-style-type: none"> <li>• Assist in management of the Project and contract administration</li> <li>• Assist in Interpretation of the Technical Specifications and Contract Documents</li> <li>• Review designs, drawings for bridges/culverts/other structures</li> <li>• Suggest modifications and design, if required as per actual site conditions</li> <li>• Carry out any design, if required for bridges/culverts/ other structures</li> <li>• Check and modify design and drawings, if required due to change in founding level, or any other reason as a result of scrutiny of geotechnical data</li> <li>• Review BoQ Provisions and Specifications</li> <li>• Conduct road safety audit during construction and preopening of road</li> <li>• Review and Assist RE in compliance of documentation and advance actions for handing over site and advise on setting the commencement date</li> <li>• Assist RE to ensure contractors Quality Control Assurance System</li> <li>• Scrutinize Contractors detailed work program</li> <li>• Scrutinize and/or review Contractor's Superintendence, Personnel and report to RE, on modifications, if any.</li> <li>• Scrutinize contractor's mobilization of</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<p>equipment, in accordance with the contractor program.</p> <ul style="list-style-type: none"> <li>• Scrutinize contractors' construction methods statement and report to RE for its being compliant to technical requirement, project implementation schedule, environmental aspects, safety of works, personnel and general public</li> <li>• Review horizontal and vertical alignments at structure locations and follow up action based on report of Sr. Highway Design Engineer</li> <li>• Review "Good for Construction Drawings", prepare additional detailed drawings, if required, based on contractors' survey and setting out</li> <li>• Scrutinize contractors working drawings based on survey setting out details.</li> <li>• Scrutiny, checking and verification of setting out data</li> <li>• Carry out supervision of all works as per approved methods states</li> <li>• Examine Contractors preparation and the completed position of work as per "request for inspection" and promptly advise the contractor regarding the deficiency, if any</li> <li>• Monitor closely and regularly the progress of work and report to the RE</li> <li>• Carry out regular inspection of Contractor's equipment, plant, machinery, installations, housing and medical facilities.</li> <li>• Direct contractor to carry out works, as may be necessary to avoid or to reduce the risk in case of any emergency</li> <li>• Supervise the contractor in all matters concerning safety of works, labor, workmen and environmental aspects and labor welfare.</li> <li>• Witness sampling and testing being carried out by staff of the Contractor and undertake additional audit tests to ensure quality</li> <li>• Monitor and review the test results / certificates for all construction material and/or resources of materials and report to RE</li> <li>• Monitor and review the mix designs proposed by the Contractor</li> <li>• Examine the requests for advances and monthly statements of contractors and examine interim payment certificates.</li> <li>• Assist MPRDC in arranging relocation of services including all correspondence, meetings and preparation of details.</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Maintain a permanent record of all measurements for the works /quantities to be paid for and of all payment date.</li> <li>• Prepare monthly reports</li> <li>• Review “as-built” drawings prepared by the Contractor and maintain record of tests, all data and records.</li> <li>• Maintain a day to day diary recording all events relevant to the work</li> <li>• Responsible for monitoring the line, level and quality of Bridge work and CD structures.</li> </ul>
III.4	Quantity Surveyor cum MIS In-charge	<ul style="list-style-type: none"> <li>• Review BOQ items and quantity with drawings and point out the discrepancies/variations, if any, to RE</li> <li>• Measure quantities of work, record measurements and verify BoQ items / Work quantities executed in the contractors’ monthly statement</li> <li>• Verify and examine interim payment certificates received from contractors</li> <li>• Prepare variation statement for RE</li> <li>• Maintain a permanent record of all measurement for the work quantities</li> <li>• Assist RE in preparing the monthly reports and Financial Statements</li> <li>• Make online entries in the MIS system of the Employer</li> <li>• Responsible for correctness, accuracy of measurement and quantity of works recorded.</li> </ul>
III.5	Material Engineer/ Quality Control Engineer	<ul style="list-style-type: none"> <li>• Assist RE and Senior Pavement / Material Engineer to finalize sampling methods and criteria and acceptance criteria for quality control and assurance</li> <li>• Examine Contractors preparation and completed portion of work as per “Request for Inspection” and advise Contractor promptly regarding the deficiency, if any.</li> <li>• Monitor closely and regularly the progress on materials procurement and quality and report to the RE and Senior Pavement / Material Engineer</li> <li>• Carry out inspection of Contractor’s lab equipment and report to RE and Senior Pavement / Material Engineer</li> <li>• Ensure and witness sampling and testing being carried out by staff of the Contractors and undertake additional tasks as necessary to ensure quality of</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<p>works</p> <ul style="list-style-type: none"> <li>• Scrutinize test results/certification of all construction materials and/or sources of materials and undertake additional tests if necessary and report to RE and Senior Pavement / Material Engineer</li> <li>• Scrutinize mix design proposed by the Contractor and report to RE and Senior Pavement / Material Engineer</li> <li>• Maintain a Permanent record of all tests carried out for monitoring the quality of works</li> <li>• Assist Senior Pavement / Material Engineer in Approval of Borrow Areas and quarries with consent of Senior Pavement / Material Engineer</li> <li>• Monitor and maintain quality in all aspects.</li> <li>• Responsible for Quality Control of construction material and completed works.</li> </ul>
III.6	Field Engineer – Roads	<ul style="list-style-type: none"> <li>• Assist RE and Assistant Resident Engineer on all matters at site relating to road works.</li> <li>• Responsible for the Horizontal &amp; Vertical profile and quality of road work.</li> </ul>
III.7	Field Engineer – Bridge	<ul style="list-style-type: none"> <li>• Assist RE and Assistant Resident Engineer on all matters at site relating to Bridge works.</li> <li>• Responsible for the line, level and quality of Bridge work and CD structures.</li> </ul>
III.8	Field Engineer – Survey	<ul style="list-style-type: none"> <li>• Scrutinize topographic survey data, if any, in the contract drawings and associate and scrutinize the contractors updated topographic survey data.</li> <li>• Witness and Monitor survey and setting out operations and verify data and details</li> <li>• Carry out detailed checking and verification of setting out data</li> <li>• Carry out levels of different layers along with the surveyor of the contractor</li> <li>• Responsible for maintaining the Horizontal and vertical profile of the road</li> </ul>
III.9	Lab Technician	<ul style="list-style-type: none"> <li>• Assist RE, Assistant Resident Engineer road, Assistant Resident Engineer Bridge and Material Engineer/ Quality Control Engineer on all matters relating to construction material testing and quality of completed works.</li> <li>• Responsible for Quality Control of construction material and completed works.</li> </ul>

**LIST OF ROADS**  
Package – 1 (Bhopal)

<b>Pkg. No.</b>	<b>Road No.</b>	<b>Road Name</b>	<b>Length in km</b>	<b>Total Pkg. Length (km)</b>	<b>Completion Period (months)</b>
1	1	Khatakia to Suthaliya via NH-3, Kumbhraj, Barod, Mragwas, Batawda, Chanchoda, Binaganj, Teligaon	87.30	87.30	21
2	2	Sirsod-Pichhore Road	33.00	59.00	16
	3	Narwar-Chitori to Amola Road	26.00		
3	4	Mungawali-Malahargarh Road	16.60	63.60	16
	5	Bhounrasa-Malhargarh Road	20.60		
	6	Piprod-Thubon Road	8.00		
	7	Belai-Kareela Mata Mandir Road	18.40		
4	8	Sanwer-Chandravatiganj-Gautampura Road	35.00	55.18	16
	9	Kshipradwa-Budhibarlai-Solsindi-Khandakhedi-Jamodi-Maharajganj-Baloda-Rajod-Panod-Sanwer Road	20.18		
5	10	Bijawar-Kataphod-Satwaas-Khategaon Road	56.00	56.00	16
		Total		321.08	

## H. ADDITIONAL SERVICES

20. The Supervision Consultant shall, if so required by the Client, provide any additional service at rates or on man-month rates as per the contract, or as mutually agreed upon, as a variation order.

### I. Reports

21. The Supervision Consultant will prepare and submit the reports as listed in Table-3 to the Client on the format prepared by the Consultant and as approved by the Client / (except for inception report)

**Table 3: Reports to be Submitted**

Sl. No.	Report	Frequency	Due Date	No. of Copies	No. of CDs
1.	Inception Report	One Time	Within 30 days after commencement of services.	5	1
2.	Progress Report & (Monthly & Quarterly)	Every month/three months	5 <sup>th</sup> of month following the reporting month/quarter	5	1
3.	Design Review Report	One Time	Within 30 days after the Services Commence	5	1
4.	Final Report	One Time	Within 30 days of completion of services	10	5
5.	Construction Supervision Manual	One Time	30 days after commencement of services	5	1
6.	Quality Assurance (QA) Document	One Time	30 days after commencement of service	5	1
7.	Maintenance Supervision Manual	One Time	30 days before the expected commencement of the first maintenance works	5	1

#### i. Inception Report

22. The Inception Report shall contain the details of all meetings held with the Client and any initial meetings held with the Contractor and decisions taken therein, the resources mobilized by the Construction Supervision Consultant as well as the Contractor and the Consultant's perception in the management and supervision of the project. The report shall also include the Master Work Program and Resources Mobilization for the Project.

## **ii. Progress Reports**

23. The Monthly Progress Report shall contain details of all meetings, decisions taken therein, mobilization of resources (Consultant and the contractors), physical and financial progress and the projected progress for the forthcoming periods and implementation of environment, social and resettlement safeguard requirements. The Report shall clearly bring out the delays, if any, reasons for such delay(s) and the recommendations for corrective measures. The Report shall also contain the performance data for contractor's plant and equipment.

24. The Quarterly Progress Report shall include similar details to the monthly reports for the last month of the quarter, and summarize the overall progress for the quarter and highlight the main issues and the action being proposed to address those issues.

## **iii. Design Review Report**

25. The Construction supervision consultant shall undertake a detailed engineering review of the design as included in the civil works contract drawings for the purpose of identifying any defects/omissions, which compromise the completeness or consistency of the design. This review shall be carried out immediately after the services commence and a detailed 'Design Review Report' shall be submitted to the Employer within 30 days. This report will set out all findings and recommendations for making good any defects/omissions identified in civil works designs. Notwithstanding the above, the supervision consultant shall also inform the Employer of any defect/omission which may have a substantial impact on the Project at the time the defect/omission is uncovered. Where defects in design are noted or designs are inadequate, the CSC shall prepare revised detail designs suitable for construction in adequate time so as not to delay the Contractor.

## **iv. Final Report**

26. The Consultant will prepare a comprehensive final completion report of the construction contract packages after completion of the Permanent Works. The reports shall incorporate summaries of the methods of construction, the construction supervision performed, reference to as-built drawings of the construction, problems encountered and solutions undertaken thereon and recommendations for future projects of similar nature to be undertaken by the MPRDC. The Consultant shall submit the self-appraisal report within the prescribed time summarizing the following details:

- a. Details of Consultant's personnel including substitution made during the assignment.
- b. Details of variation orders issued.
- c. Details of extension of time granted to the Contractor.
- d. Details of Quality Assurance System.
- e. Quality observed at site by the Consultant.
- f. Details of claims.
- g. Special preventive measures for maintenance suggested by the Consultant.
- h. Overview of environment, social and resettlement safeguard requirements implemented.

27. The report will also summarize the maintenance works carried out to the time of the report on any of the construction contracts where maintenance has commenced.



**v. Construction Supervision Manual**

28. The primary objective of the Construction Supervision Manual will be to evolve guidelines for administration, supervision and management of the project and the construction contracts to be implemented. Such a manual is not intended to be a contractual document nor is it to take precedence over the contract specifications. The Manual will merely act as a guide and reference to the various staff in the management and supervision of the project in discharging their duties in a smooth and systematic manner.

**vi. Quality Assurance Document**

29. The Quality Assurance (QA) Documents shall be evolved on the basis of the relevant manual for quality system for bridges and highways published by the Indian Road Congress (IRC).

**vii. Maintenance Supervision Manual**

30. The primary objective of the Maintenance Supervision Manual will be to evolve guidelines for administration, supervision and management of the maintenance components of the contracts and to assist the MPRDC in running this part of the works in their own right. Such a manual is not intended to be a contractual document nor is it to take precedence over the contract specifications. The Manual will merely act as a guide and reference to the various staff in the management and supervision of the maintenance works for the project in discharging their duties in a smooth and systematic manner.

**VIII. J. STAFFING SCHEDULE**

31. The total implementation period for the Construction Supervision Consultant will consist of (i) individual construction periods of 16-21-month civil works contract and (ii) a defects notification period during which the Consultant will only require part time input over the first 12 Months, as per the agreement proposed.

32. The Supervision Consultant's site team would be mobilized progressively on the date of actual commencement of works by the contractors, or as decided by the Client. During the first 12 Months of defect notification period, the Consultant's Team Leader along with other staff as in Table 1 will be required to continue on a periodic basis, as and when required, which will be dealt with separately at the appropriate stage towards the completion of the construction works.

33. After award of the contract for Consultancy Services, the Client expects all the proposed key personnel to be available during implementation of the Contract as per the agreed staffing schedule. The Client will not consider substitutions during contract implementation except under exceptional circumstances. In case of such replacements, the Consultant will ensure that there is a reasonable overlap between the staff to be replaced and the replacement wherever feasible/possible. Replacement of Key Experts beyond an upper limit of 25% man-month of total Key Experts shall invite penalty except if replacement asked by the Client under sub-clauses 32.1 and 32.2 of Section 8-Conditions of Contract. The new key expert after substitution beyond 25% man-month limit for total Key Experts shall be paid at 90% of the agreed billing rates.

## K. Facilities

34. The Consultant will make provisions for all facilities, equipment, transport, supplies and supporting staff which he considers necessary to successfully carry out the services for implementation of the Project and will also include the price of those items in his financial proposal. In particular, the consultant should note that the following items must be included in his financial proposal as they will not be provided for the use of the consultant:

- i. Base office, site office, accessories and its maintenance;
- ii. Residential accommodation and its maintenance;
- iii. Vehicles with drivers, maintained and operated;
- iv. Office equipment, including computers, printers, plain paper copiers; Mobile, Fax Machine, Internet Connection and ancillary devices; and
- v. Technicians.

## L. Performance Security

35. Consultant shall be required to submit an acceptable Bank Guarantee for an amount equal to 5% of the accepted consultancy cost towards Performance Security proportionately in the currencies of payment asked for in the financial proposal. The validity of the bank guarantee(s) shall cover the entire duration of the consultancy period (construction period plus the first 12 months of defect notification period). The format of the Bank Guarantee(s) shall be approved by Employer. The bank guarantee(s) shall be released after satisfactory completion of the assignment.

## M. Qualification and experience requirements

36. Qualification and experience requirements for key personnel of the Consultant are as suggested below.

37. The detailed requirements and importance (in terms of weighting) of each requirement are shown in the Evaluation Sheets included in Appendix to the Data Sheet.

### **Team Leader/Senior Contract Administration Specialist (International Position)**

a) Qualifications	Desirable: Bachelor's degree in civil engineering. Preferable: Post graduate degree in civil engineering or its related disciplines. Membership of professional institutions.
b) Total Professional Experience	25 yrs Desirable
c) Project-related Experience	Desirable: 5 yrs. as Team Leader/Sr. Highway Engineer/Sr. Material Engineer/Sr. Pavement Engineer and 5 years as Resident Engineer in supervision/contract administration or Project Manager of large highway or road and bridge construction contracts (at least 2 contracts each costing over US\$ 60 million administered under FIDIC or similar contract conditions), preferably managing multiple contracts.
d) Overseas/Country Experience	Preferably with substantial experience in developing countries.

**Senior Highway Engineer (National Position)**

a) Qualifications	Desirable: Bachelor's degree in civil engineering Preferable: Post graduate degree in highway or transportation engineering. Membership of professional institutions.
b) Total Professional Experience	15 yrs. Desirable
c) Project-related Experience	Desirable: 8 years as Highway Engineer in designing highways for highway construction projects (at least 2 highway projects of similar nature costing over \$50 million each). Familiarity with international and Indian standards for design of highways including related software (MX-Road, AutoCAD 3-D Civil etc.).
d) Experience in working with international organizations/ agencies	Preferably with substantial experience in developing countries

**Senior Pavement Engineer (National Position)**

a) Qualifications	Desirable: Bachelor's degree in civil engineering Preferable: Post graduate degree in civil engineering or its related fields. Membership of professional institutions
b) Total Professional Experience	15 yrs. Desirable
c) Project-related Experience	Desirable: 8 years as Pavement Engineer and with experience of various designs and construction procedures for flexible and rigid pavements (at least 2 highway projects costing over US\$ 50 million each).
d) Experience in working with international organizations/ agencies	Preferably with substantial experience in developing countries

**Senior Material Engineer (National Position)**

a) Qualifications	Desirable Bachelor's degree in civil engineering Preferable: Post graduate degree in civil engineering or its related fields. Membership of professional institutions
b) Total Professional Experience	15 yrs. Desirable
c) Project-related Experience	Desirable: 8 years as Materials Engineer and with experience of various testing procedures, designs of various mixes like GSB, WMM, Bituminous mixes, Concrete Mixes, etc (at least 2 highway projects costing over US\$ 50 million each).
d) Experience in working with international organizations/ agencies	Preferably with substantial experience in developing countries

**Senior Quantity Surveyor cum Contract Specialist (National Position)**

a) Qualifications	Desirable: Bachelor's degree in civil engineering Preferable: Post graduate degree in civil engineering or its related fields. Membership of professional institutions.
b) Total Professional Experience	15 yrs. Desirable
c) Project-related Experience	Desirable: 8 years as quantity surveyor (at least 2 projects of similar nature costing over US\$ 50 million each administered under FIDIC contract conditions). or Desirable: 8 years in Contract administration of road construction contracts (at least 2 contracts each costing over US\$ 50 million administered under FIDIC contract conditions). Familiarity with international and Indian design standards. Hands-on experience in using various quantity-estimation software and
d) Experience in working with international organizations/ agencies	Preferably with substantial experience in developing countries

**Senior Bridge Engineer (National Position)**

a) Qualification	Desirable: Bachelor's degree in civil engineering Preferable: Post graduate degree in Structural Engineering. Membership of professional institutions
b) Total Professional Experience	15 yrs. Desirable
c) Project-related Experience	Desirable: 8 years as Bridge Engineer and with experience of designs/supervisions (At least 2 bridge works each of length over 100 m or costing over US\$ 1 million).
d) Experience in working with international organizations/ agencies	Preferable.

**R & R cum Social Development Specialist (National Position)**

a) Qualification	Desirable: Bachelor's degree in civil engineering, sociology, or other relevant fields. Preferable: Post graduate degree in social science.
b) Total Professional Experience	7 yrs. Desirable
c) Project-related Experience	Desirable: 4 years as Resettlement Specialist/Resettlement and Rehabilitation (R&R) Specialist/Social Development Specialist dealing with

	<p>land acquisition and/or R&amp;R in large highway or road construction projects (at least 2 projects, preferably funded by international funding agencies such as ADB, World Bank, etc.)</p> <p>Conversant with the requirements of the international funding agencies for social safeguards, and familiar with preparation and implementation of R&amp;R plans as per the requirements of ADB.</p> <p>Design or implementation of quantitative and qualitative project performance monitoring systems for large infrastructure projects of similar nature, preferably funded by international funding agencies such as ADB, World Bank, etc.</p> <p>Conversant with the requirements of the international funding agencies regarding project performance monitoring and evaluation.</p>
d) Experience in working with international organizations/ agencies	Preferable.

### **Environmental Specialist (National Position)**

a) Qualification	<p>Desirable: Bachelor's degree in environmental engineering or environmental science or Post Graduate degree in environmental science or other related fields.</p> <p>Preferable: Post graduate degree in environmental engineering.</p> <p>Membership of professional institutions.</p>
b) Total Professional Experience	7 yrs. Desirable
c) Project-related Experience	<p>Desirable: 4 years as Environment Specialist/Environment Engineer in large highway or road construction projects (at least 2 projects, preferably funded by international funding agencies such as ADB, World Bank, etc.)</p> <p>Required to be conversant with the requirements of the international funding agencies for environmental safeguards and familiar with preparation and execution of environmental management plans as per the requirements of ADB.</p>
d) Experience in working with international organizations/ agencies	Preferable.

### **CAD Expert (National Position)**

a) Qualification	Desirable: Diploma in civil engineering or other relevant fields.
b) Total Professional Experience	5 yrs. Desirable

c) Project-related Experience	Desirable: 3 years in computer-aided design of major highway projects.
d) Experience in working with international organizations/ agencies	Preferable.

### **Electrical Engineer (National Position)**

a) Qualification	Desirable: Bachelor's degree in Electrical engineering. Preferable: Post graduate degree in Electrical engineering or its related disciplines. Membership of professional institutions.
b) Total Professional Experience	15 yrs. Desirable
c) Project-related Experience	Desirable: 8 yrs. as Electrical Engineer in construction/ supervision/design of Electrical Infrastructure Projects (at least 2 contracts each costing over US\$ 2.5 million), preferably as Electrical Engineer in one Highway project.
d) Experience in working with international organizations/ agencies	Preferable.

### **Road Safety Engineer (National Position)**

a) Qualification	Desirable: Bachelor's degree in civil engineering. Preferable: Post graduate degree in civil engineering or its related disciplines. Membership of professional institutions.
b) Total Professional Experience	12 yrs. Desirable
c) Project-related Experience	Desirable: 6 yrs. as Road Safety Engineer in construction/ supervision/design of Road Projects (at least 2 contracts each costing over US\$ 10 million).
d) Experience in working with international organizations/ agencies	Preferable.

### **Resident Engineer (National Position)**

a) Qualification	Desirable: Bachelor's degree in civil engineering. Preferable: Post graduate degree in civil engineering or its related disciplines. Membership of professional institutions.
b) Total Professional Experience	15 yrs. Desirable
c) Project-related Experience	Desirable: 8 yrs. as Resident Engineer/Project Manager in supervision or contract administration of large highway or road and bridge construction contracts (at least 2 contracts each costing over US\$ 20 million administered

	under FIDIC contract conditions), preferably managing multiple contracts.
d) Experience in working with international organizations/ agencies	Preferable.

**Asst. Resident Engineer (Road) (National Position)**

a) Qualification	Desirable: Bachelor's degree in civil engineering. Preferable: Post graduate degree in civil engineering or its related disciplines. Membership of professional institutions.
b) Total Professional Experience	10 yrs. Desirable
c) Project-related Experience	Desirable: 5 yrs. as Asstt. Engineer/ Dy. Project Manager in supervision or contract administration of large highway or road and bridge construction contracts (at least 2 contracts each costing over US\$ 10 million administered under FIDIC or similar contract conditions), preferably managing multiple contracts.
d) Experience in working with international organizations/ agencies	Preferable.

**Asst. Resident Engineer (Bridge) (National Position)**

a) Qualification	Desirable: Bachelor's degree in civil engineering. Preferable: Post graduate degree in civil engineering or its related disciplines. Membership of professional institutions.
b) Total Professional Experience	10 yrs. Desirable
c) Project-related Experience	Desirable: 5 yrs. as Asst. Engineer/Dy. Project Manager in supervision or contract administration of bridge work (at least 2 works each costing over US\$ 0.5 million administered under FIDIC or similar contract conditions), preferably managing multiple contracts. Exclusive experience in Bridges for two years is preferable.
d) Experience in working with international organizations/ agencies	Preferable.

**Quantity Surveyor cum MIS In-charge (National Position)**

a) Qualification	Desirable: Bachelor's degree in civil engineering Preferable: Post graduate degree in civil engineering or
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	its related fields. Membership of professional institutions.
b) Total Professional Experience	10 yrs. Desirable
c) Project-related Experience	Desirable: 5 years as quantity surveyor/assistant quantity surveyor (at least 2 projects of similar nature costing over US\$ 10 million each administered under FIDIC contract conditions). Familiarity with international and Indian design standards. Hands-on experience in using quantity-estimation software.
d) Experience in working with international organizations/ agencies	Preferable.

**Material Engineer / Quality Control Engineer (National Position)**

a) Qualification	Desirable: Bachelor's degree in civil engineering Preferable: Post graduate degree in civil engineering or its related fields. Membership of professional institutions
b) Total Professional Experience	10 yrs. Desirable
c) Project-related Experience	Desirable: 5 years as Materials Engineer/ Assistant Materials Engineer and with experience of various testing procedures, designs of various mixes like GSB, WMM, Bituminous mixes, Concrete Mixes, etc. (at least 2 highway/bridge projects costing over US\$ 10 million each). Hands-on experience in Quality Control is preferable along with above.
d) Experience in working with international organizations/ agencies	Preferable.

**Field Engineer – Roads/ Bridges/ Survey (National Position)**

a) Qualification	Desirable: Diploma in civil engineering Preferable: Bachelor's degree in civil engineering or its related fields.
b) Total Professional Experience	5 years Desirable: for degree holder. 8 years Desirable: for diploma holder.
c) Project-related Experience	Desirable: 3 years in relevant area ( <u>Roads/ Bridges/ Survey</u> ) of operation in any construction supervision of road projects.



d) Experience in working with international organizations/ agencies	Preferable.
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**Lab Technician (National Position)**

a) Qualification	Desirable: Diploma in civil engineering or Bachelor's degree in Science
b) Total Professional Experience	Desirable: 3 years for Diploma in civil engineering / 5 years for Bachelor's degree in Science
c) Project-related Experience	Desirable: 2 years for Diploma in civil engineering / 3 years for Bachelor's degree in Science in testing construction materials.
d) Experience in working with international organizations/ agencies	Preferable.

**Note:**

- a) The inputs of the Team Leader and Resident Engineers and some Key Professional/ Non Key Experts include 2 months' period for advance mobilization prior to mobilization by the contractor and for period during the defect liability for finalization of the bills of the contractor after completion of the work.
- b) Visits and review by 'Engineer or any other staff at headquarters will be deemed to have been covered within the overheads.
- c) All other technical support staff may be covered under out of pocket expenses.
- d) The inputs shown are for one Consultancy Package only.
- e) In case of positions requiring field work and if the proposed expert/personnel has age more than 65 yrs, a health certificate from a physician advising suitability for field work must be provided.
- f) The CVs of International and national key Experts only shall be evaluated.

## **TERMS OF REFERENCE FOR ACCIDENT INSURANCE CONSULTANTS (49377-IND) Madhya Pradesh District Roads II Sector Project**

### **A. Introduction**

1. The Government of India has applied for financial assistance from the Asian Development Bank (ADB) towards the cost of the proposed Madhya Pradesh District Roads II Sector Project which aims to improve about 1,500 kilometer of priority district road sections in Madhya Pradesh state of India.<sup>20</sup> The project outputs will be (i) about 1500 km of MDRs, designed to all-weather standards and road safety, with concrete pavements, reconstructed and rehabilitated. Contracts will include 5-year performance-based maintenance obligations, which will also improve quality of assets created since the contracts will need to keep in view the extended risk liability. The use of concrete pavements, which is the first such extensive use for district roads in India, will also improve asset life-cycle and maintainability; (ii) cashless accident victim treatment facility piloted; and (iii) accident response system in the state improved and mainstreamed.

2. Madhya Pradesh Road Development Corporation Ltd. (MPRDC), a company fully-owned by Government of Madhya Pradesh, has been entrusted with the responsibility of implementing the project on behalf of the government of Madhya Pradesh.

3. While Madhya Pradesh has been one of the first states in the country to establish the accident response system and provide linkage to ambulances through the state, the present initiative will mainstream these systems and also set in place a cashless accident victim treatment facility for accident victims. MPRDC is proposing to recruit a consulting firm (the consultants), following ADB's Guidelines on the Use of Consultants (The Guidelines). The consultants will be a "financial advisory" firm with experience in insurance, banking, and audit. The selection of the Consultant will be through a quality-cost based system on an 80:20 proportion for quality and cost, following a Bio-data Technical Proposal (BTP) mode. Only firms from ADB member countries can participate.<sup>21</sup>

### **B. Background**

4. In furtherance of MPRDC's mandate as a highway authority, MPRDC commissioned a feasibility report on the current situation relating to the treatment of road accident victims in the state, in January 2014, with funding assistance from ADB. The report also included an evaluation of the options available to MPRDC that could provide road accident victims with better immediate medical care.

5. All road accident victims in India are covered by the Motor Vehicle Act 1988 (MVA), which states that all vehicles are to be insured to cover damage to third parties in road accidents. Under the MVA, road accident victims cannot have a cashless process when admitted to a private hospital following a road accident: The treatment costs needs to be paid before victims leave the hospital. The road accident victim will then seek reimbursement for the cost of hospital treatment by making a claim against the third party that caused the accident. The majority of claims under the MVA are dealt with by motor vehicle tribunals (which are part of the court system); very few claims are settled by the insurance company.

<sup>20</sup> ADB is presently appraising the project.

<sup>21</sup> <http://www.adb.org/about/members>

6. The current process is proving to be unhelpful to accident victims as it is taking from 18 to 24 months for claims to be processed and heard by the tribunal. In addition the claimant has the additional time and costs associated with engaging the services of a lawyer to process their claim in the tribunal.

7. MPRDC reviewed the options presented in the feasibility report and determined that the option to seek proposals from insurance companies for a specific product to cover the immediate needs of an accident victim's medical care in any hospital in the state was the preferred approach. The insurance company will be selected through a transparent bid process, under ADB's Procurement Guidelines. This is similar to the present practice being adopted by the Ministry of Road Transport and Highways (MORTH) on some national highways.

### C. Objective & Purpose

8. The objective of the proposed consultancy service are:

- (i) To provide all road accident victims with immediate emergency care, for durations not exceeding 48 hours, at any hospital in Madhya Pradesh at no cost to the accident victim.
- (ii) To establish a cost effective insurance scheme where private insurers provide the insurance product and the associated administration for the scheme. In the present initiative, 3-4 districts of Madhya Pradesh (the likely districts are Bhopal, Indore, Rewa, Satna) will be covered as a pilot project.
- (iii) To establish a database in order to assess cases, including collection of sex-disaggregated data and victim profile (vehicular or pedestrian)
- (iv) To assess the cost of such insurance, on a per-district basis
- (v) To carry out a bid process, including drafting the required documentation, and seeking approval from the Government.

### D. MPRDC's Role

9. On behalf of the Government of Madhya Pradesh, MPRDC will be the implementing agency for contract and administration matters. While MPRDC will coordinate all activities required to implement this assignment and ensuing process, the Consultant will need to coordinate very closely with other departments in Madhya Pradesh, especially Health and Transport. MPRDC will:

- (i) Manage this assignment to derive the required outputs;
- (ii) Assist the Consultant in coordination with other departments and in obtaining required approvals;
- (iii) Set up a steering committee of stakeholders to meet with the insurance company on a quarterly basis;<sup>22</sup> and
- (iv) Managing and administer the procurement process for the Insurance company(ies) in line with ADB's procurement policies and procedures, (which will include the publication of terms of reference for the proposed product, the setting and holding of a pre-bid meeting, assessing the proposals, finalizing a contract and managing the contract).

<sup>22</sup> Stakeholder group is to include all government ministries and departments that can influence the development of road safety in the state, for example, Police, Ministry of Transport, Ministry of Health, Concessionaires, etc.

## **E. Scope of Services**

10. MPRDC now wishes to engage a team of multi-disciplinary expertise to carry out the broad scope of work mentioned in the sections above. The overarching objective of these Services is to provide quality technical support to assess, design, and procure, the insurance product for cashless treatment of accident victims in the state of Madhya Pradesh. In achieving these objectives, the Consultant is required to provide all required assistance and support to MPRDC in complying with the requirements of ADB's requirements for project design and implementation. The Consultant is encouraged to refer to these policies available on ADB's website (<http://www.adb.org/documents/handbook-project-implementation>) before submitting the proposal and during delivery of these services.

11. In support of the overarching objective, the key tasks of the services, shall include, but not be limited to, the following:

### **I. Examination of Legal Context in Insurance**

- i. Assessment of practical and empirical requirements for an accident response system and identifying potential areas for examination for legal and regulatory aspects. This is an understanding requirement and definition exercise that should be done with due consultations with various government and non-government stakeholders.
- ii. Collection of landmark cases on road safety and analysis of the same. Understand the similar funds, insurance schemes as state-wide medical insurance schemes for below poverty line [BPL] or urban poor, cashless accident treatment scheme of NHAI/ MORTH on certain road corridors, similar schemes in other states such as Karnataka, and so on.
- iii. Examine various Acts, Laws, rules and guidelines/orders of government towards road safety. Examine the existing insurance framework, time for processing, liabilities under third party and comprehensive schemes, as well as probable uncovered (by insurance) cases.
- iv. Based on the comprehensive understanding, propose a broad legal framework and/ or regulatory requirements to ensure that the ensuing process follows clear legal and process precedents and is legally and financially feasible.

### **II. Examination of Financial Context in Insurance**

- i. Discussions with insurance companies on the modality and feasibility of the proposed scheme, market interest, cost estimates including premia and deductibles (if any).
- ii. Discussions with healthcare and emergency medical service providers to determine input side costs; assessment of similar costs and charges for insurance schemes as state-wide medical insurance schemes for BPL or urban poor, cashless accident treatment scheme of NHAI/ MORTH on certain road corridors, similar schemes in other states such as Karnataka, and so on.
- iii. Based on the comprehensive understanding, create a financial model of likely

costs, including direct and contingent costs, any other additional costs, and overall feasibility of the ensuing model.

### **III. Preparation of Scheme and Stakeholder Discussions**

- i. This phase is critical, and involves preparing a draft scheme, holding discussions with various departments, including Health, Transport, Home (Police), Finance, and so on. MPRDC will facilitate the meetings and discussions, but the Consultant needs to be aware that substantial efforts would be needed to discuss and conclude the scheme format. This phase will also include discussions with healthcare and emergency service providers, insurance companies, IRDA, and so on through a couple of outreach workshops. The Consultant will need to prepare notes, brochures, and presentation material as required.
- ii. Following the discussions and deliberations, the consultant will prepare a final report summarizing the activities till this stage. This report will form the basis of the subsequent stage of procurement and contracting.

### **IV. Procurement and Contracting**

- i. The Consultant will prepare a set of procurement documents for carrying out a bid process for procuring the Insurance Company that will provide the insurance services. The nature of the procurement documents should take into account that these are not standard bids targeted at normal service providers. On a broad basis, a single-stage, two-envelope (qualification + technical; and financial) would be preferred. While ADB does not have any standard bid documents for this nature of service, the procurement documents should reflect ADB requirements (eligible country, transparency, and so on). National laws and regulations regarding operation of insurance companies should also be kept in view.
- ii. Once the procurement documents are approved by the Government and ADB, the Consultant should carry out the process under the aegis of MPRDC. This will include market outreach, anchoring responses to queries, preparing and presenting in pre-bid meetings, preparing addenda or clarifications, assisting in evaluation of bids (if requested by MPRDC), and providing assistance in concluding the contract.

### **F. Deliverables**

12. The tasks and outputs of the Consultant will include the following assessments and recommendations:

- A. Inception Report
- B. Legal and Regulatory Framework Assessment Report
- C. Financial Assessment and Feasibility Report
- D. Draft Final Report
- E. Procurement Documents
- F. Final (Completion) Report

## G. Data and Resources Provided by MPRDC

13. MPRDC will make available data and reports on the existing Accident Response System. MPRDC will facilitate meetings with various state government agencies, and issue letters of request to facilitate meetings for the Consultant with insurance companies, IRDA, and so on, as required.

14. MPRDC will make available temporary workstations and meeting venues, subject to availability. However, the nature of work is not in-house to MPRDC, and the Consultant will need to make own arrangements for work spaces in Bhopal, as required.

15. Outreach workshops can be organized under the appropriate budget head of this assignment, subject to MPRDC's prior approval.

## H. Team Composition and Timeline

16. The estimated duration of services will be 15 months.

Proposed Key Professionals and indicative person-months are indicated in the table below:

	Key Professionals	Person-months
	National	(Intermittent)
1.	Team Leader (Finance and Insurance Expert)	6
2.	Legal Expert	4
3.	Finance Expert	4
4.	Emergency Medical Practitioner	2
5.	Procurement Expert	6
	Total	22

Notes:

- i. The above Key Professionals are minimum requirements. The Consultant has to propose additional non-key technical support staff and administrative staff, as required, to best meet the objectives of the assignment. The numbers and person-months for such staff shall be included in the technical proposal and the costs in respect of these personnel are to be included in the financial proposal, and will be deemed to have been so included. CVs shall be provided at the time that the post is to be filled. Candidates shall meet the requirements for responsiveness of that position, as per good practice.
- ii. Workshops, awareness programs and/or materials, will be covered under Provisional Sums. However, these have to be prepared and conducted by the professional staff of the Consultant.

## I. Position Qualifications

17. **Team Leader (Insurance and Finance Expert).** The expert shall have a post-graduate degree in finance, accounting with certified actuarial qualifications, or equivalent qualifications, with at least 15 years of relevant experience in the areas of banking, finance, and insurance matters. Experience related to accident insurance systems will be given higher preference. International experience will get added preference.

- Minimum General Experience: 15 years
- Minimum Specific Experience: 15 years

18. **Legal Expert.** The consultant shall have a degree in law with at least 10 years of relevant experience in the areas of legal and policy matters related to insurance systems, consumer affairs, finance and banking. Experience of insurance activities in India and international experience will get added preference.

- Minimum General Experience: 12 years
- Minimum Specific Experience: 10 years

19. **Finance Expert.** The expert shall have a post-graduate degree in finance, accounting with certified actuarial qualifications, or equivalent qualifications, with at least 10 years of relevant experience in the areas banking, finance, and insurance matters.

- Minimum General Experience: 12 years
- Minimum Specific Experience: 10 years

20. **Emergency Medical Practitioner.** The expert shall have be a medical Doctor with experience in emergency room, trauma center, or similar position. Some knowledge of management and administration of such facilities will be preferred.

- Minimum General Experience: 10 years
- Minimum Specific Experience: 10 years

21. **Procurement Expert.** The expert shall have a graduate degree in a relevant discipline (finance, management, or equivalent) with experience in procurement systems for multilateral agencies such as ADB.

- Minimum General Experience: 10 years
- Minimum Specific Experience: 10 years

#### J. Cost Estimate

	Quantity/ Unit (month)	Rate (\$)	Amount (\$)
Remuneration	22	7,500	165,000
National per-diem allowance [Bhopal, Hyderabad]	3	250	22,500
Domestic air travel	10	1000	10,000
Misc travel expense; Communications			2,000
Contingencies			14,000
Reports			1,000
Provisional Sum			20,000
Total			234,500

**TERMS OF REFERENCE FOR ENVIRONMENTAL SAFEGUARDS EXPERT AND SOCIAL  
SAFEGUARDS EXPERT  
(BOTH INDIVIDUALS, NATIONAL)**

**A. Background**

The Government of Madhya Pradesh (GOMP), acting through the Madhya Pradesh Road Development Corporation (MPRDC) is implementing a project with financial assistance from the Asian Development Bank (ADB). The Madhya Pradesh Major District Roads Improvement II Sector Project (the project), costing about \$500 million, will improve about 1,500 kilometer of major district roads in the state of Madhya Pradesh, and contribute to road safety and sustainable maintenance.

The project will be implemented by MPRDC through its head office in Bhopal, which would be responsible for overall project management, financial management and procurement, monitoring and evaluation. In addition, 10 MPRDC project implementation units (PIUs), each headed by an Executive Engineer/ Divisional Manager, will function from various locations in the state. MPRDC would be supported by construction supervision consultants, which will be firm(s) of consultants being recruited for the purpose.

**B. Objective**

ADB's projects strongly support environmental and social safeguards actions in line with ADB's Safeguards Policy Statement (2009) and other policies such as ADB's Public Communications Policy (2011). More specifically, MPRDC has to meet specific obligations under social and environmental safeguards. The project is classified as 'B' for Involuntary Resettlement and 'B' for Environmental Safeguards. MPRDC will be implementing and monitoring safeguards action through its field units and headquarters. In addition, there are specific obligations on the contractors, supervision consultants, and resettlement NGOs recruited by MPRDC. The objective of the assignment is to provide support to the MPRDC in discharging environmental and social safeguards function and assisting them in ensuring that environmental and social safeguards functions, obligations, reporting, and fiduciary aspects are appropriately handled at all levels of the Project.

Two individual experts are proposed to be separately recruited, and based in the MPRDC headquarters in Bhopal. The experts will work in close association with the Chief Engineer and nominated safeguards staff in the MPRDC and coordinate with other project consultants and NGOs to assist the MPRDC in meeting, monitoring, and reporting on its safeguards obligations. The experts shall familiarize themselves with the working of the MPRDC in terms of safeguards and with a thorough understanding of ADB's safeguards requirements vis-à-vis the project.

**C. Scope of Work and Position Requirements**

**Social Development Expert (national, 24 person-months):** Assist the MPRDC in understanding, monitoring, and reporting on the implementation of Resettlement Plans (RPs) in accordance with ADB's Safeguard Policy Statement (2009) and other related policies such as the Public Communications Policy (2011). The Expert will ensure that the MPRDC has undertaken payment of compensation to people affected by the project prior to hand-over of the site to the contractor. Prepare the due diligence reports on resettlement implementation as



needed under the Project. Provide monthly and quarterly reports on resettlement implementation and provide updates on the schedule and financial aspects of resettlement to the team. Ensure consultations of affected persons are undertaken and documented during Resettlement Plan/ Social Due Diligence implementation. Participate in and document the Grievance Redress Mechanism. Monitor and provide guidance to the work of the supervision consultants and NGOs for resettlement implementation (engaged by MPRDC) and monitor the resettlement implementation at the project sites and provide training, if required, to the local MPRDC and supervision consultant staff. The required qualifications of the Social Development Expert are as follows:

- (i) **Educational Qualifications.** Minimum – Master’s Degree or equivalent in Social Sciences or related field
- (ii) **General Experience.** Minimum total work experience after post-graduation – 15 years
- (iii) **Relevant Experience.** Minimum Social/ resettlement expert in at least two externally funded (World Bank or ADB) projects of similar size and complexity.
- (iv) **Essential Knowledge and Experience**
  - (a) The candidate must have knowledge of the Asian Development Bank’s guidelines, procedures and operational policies/directives.
  - (b) Experience in preparation and monitoring of Resettlement Plans, gender plan, LAP, community consultations and IPDP is required.
  - (c) Familiarity with project area and local language will be advantageous

**Environment Expert (national, 24 person-months):** Assist the MPRDC in understanding, monitoring, and reporting on the environmental management plan (EMP) and other measures related to environmental protection in accordance with ADB’s Safeguard Policy Statement (2009). Prepare the due diligence reports on EMP implementation as needed under the Project. Provide monthly and quarterly reports on EMP implementation and provide updates on the schedule and financial aspects to the team. Monitor EMP implementation at the project sites and provide training, if required, to the local MPRDC and PMC staff. The required qualifications of the Environment Expert are as follows.

- (i) **Educational Qualifications.** Minimum – Master’s Degree or equivalent in Environment Sciences or related field
- (ii) **General Experience.** Minimum total work experience after post-graduation – 15 years
- (iii) **Relevant Experience.** Minimum 10 years of total work experience on carrying out environment impact assessments of road development projects
- (iv) **Essential Knowledge and Experience.**
  - (a) Desirable - Environmental Expert in at least two externally funded (World Bank or ADB) projects
  - (b) The candidate must have good knowledge of the Asian Development Bank’s guidelines, procedures and operational policies/directives.
  - (c) Candidate should be conversant with all the activities expected to be undertaken for Environmental / Forest / Wild life clearance procedures and pertinent guidelines of Ministry of Environment & forests (MoEF), Government of India.
  - (d) The candidate must have the experience of preparing environmental management plans and supervising & monitoring implementation of the plans.

**D. General Scope of Work for Both Experts**

Support the MPRDC to deal with all safeguards management issues as per the norms and guidelines prescribed by MPRDC and ADB, including screening and categorization of sub-projects for environmental, involuntary resettlement, and indigenous peoples to be in requirements with the project requirements.

Carry out monthly and quarterly monitoring of safeguard activities.

Facilitate MPRDC in drafting documents/ correspondences/ reports on safeguards issues to be dealt by MPRDC and ADB.

Undertake sample field review of activities by project divisions/circles for safeguards, and report anomalies/deficiencies to management.

Verify monthly statements and records submitted by project divisions/circles for completeness and correctness. Carry out review of internal controls.

Support MPRDC and field divisions in compliance to Government statutory requirements with reference to safeguards.

Prepare project progress reports and safeguards monitoring reports for MPRDC and ADB.

Facilitate project in timely and effective resolution of any safeguards issues/ observations.

Liaise and coordinate with various agencies (forest, revenue, etc.) for effective implementation of the Project.

Carry out any other work related to safeguards activities assigned by Superintending Engineer (Planning) from time to time.

**E. Services and Facilities**

The experts will be provided furnished office space in MPRDC, Bhopal, with basic office facilities like telephone, stationary, etc. to carry out project work. The experts will need to get their own computer/ laptop, software, and internet access points as required.

The experts will be provided with all required project documents/ correspondences/ reports/ contract records, access to project sites and offices, as necessary to deliver the terms of assignment.

Travel and other logistic expenses for field visits will be provided as per Travel and Daily Allowance norms of MPRDC. The travel will be pre-approved by MPRDC.

**F. Deliverable and Reporting Requirement**

The deliverables will be as per scope of work. This is not a report-writing assignment, but for providing ongoing support services of a technical nature. The experts will be expected to assist MPRDC in preparing required documentation, monitoring reports, and submissions to ADB. However, the experts will also be required to submit:

- Quarterly report to Chief Engineer before beginning of each quarter,

- highlighting the work program of next quarter.
- Monthly report to Chief Engineer by the 10<sup>th</sup> of each month highlighting the tasks carried out during the past month.

**G. Terms of Payment**

The payment will be made in twenty-four equal installments of the contract value in every second week of the next month upon submission of invoice by the firm. The payment will be approved by Chief Engineer.