

पुणे  
स्मार्ट सिटी  
डेव्हलपमेंट  
कॉर्पोरेशन लिमिटेड



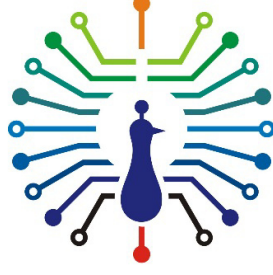
PUNE  
SMART CITY  
DEVELOPMENT  
CORPORATION LTD.



## PUNE SMART CITY DEVELOPMENT CORPORATION LTD (PSCDCL)

**Redesigning of Street, Footpath retrofitting, Place making on Roads, Junction Redesigning in Aundh Baner Balewadi area under Smart Cities Mission**

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SMART CITY  
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CORPORATION LTD.

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**TENDER NO. ....**

Issued to M/s

.....

Date of Prebid Meeting: .....at 11.00 am

As per receipt No.....Date:

Estimated Cost put to Tender :Rs. **22,90,60,320/-**

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Contractor

No. of Corrections

Sd  
Project Engineer

## SCOPE OF WORK

### NAME OF WORK:

**Redesigning of Street, Footpath retrofitting, Place making on Roads, Junction Redesigning in Aundh Baner Balewadi area under Smart Cities Mission**

### (1) GENERAL DESCRIPTION

Pune city has the privilege of being one of the foremost cities in the competition held under the SMART Cities Mission of Govt of India. **P U N E Smart City Development Corporation Ltd (PSCDCL) formed as SPV UNDER Smart Cities mission** is taking initiative to implement quick win project in Aundh Baner Balewadi Area and Pan City. The project shall be implemented in coordination with the Pune Municipal Corporation.

PSCDCL has taken up pilot projects under various categories to demonstrate its vision towards Smart cities. Under the Area Based development programme it had during the Smart City project report ( prepared by McKinsey ) submitted to the central government had chosen Aundh Baner Balewadi as the area of demonstration. Further the report had also identified D P Road as a potential road for demonstration of an ideal street.

Streets perform certain basic functions in the built environment such as providing routes for vehicles and public transport, and accommodating utility services and drainage systems. The design of a street affects how successful it is in performing these functions, and it can also vitally affect the urban character of a neighborhood and influence how people use the street and interact with each other on it. The quality of a street and its connections can affect whether people choose to walk or cycle, or take the car. It can affect whether people feel safe. Thus the character of the street needs to be developed in such a way so that along with the functions which it has to perform, other purposes could also be served such as encourages public transport, creating interactive neighborhood etc. Under the current project, the identified streets in Aundh area of Pune have been taken up to to the above aspects of usable and friendly streets. It is proposed to undertake the work of redesigning of the street, retrofitting of footpath and road, placemaking on road, junction redesigning etc amongst other improvements on the street.

Contractor

No. of Corrections

Sd-  
PSCDCL Engineer

The Pune Municipal Corporation under the vision of demonstrative projects has selected 9 streets in the Aundh Zone consisting of D P Road ITI Road Nagras Road Parihar Chowk Bhale Chowk Bremen Chowk Ambedkar Chowk etc to be taken up for this demonstration of creating an ideal streets network in the Complete Neighbourhood. (These are Named streets S1 to S9 )

As the first pilot it has further narrowed down on the D P Road from Bremen Chowk to Parihar Chowk ( S1 A ) Parihar Chowk to Ambedkar Chowk ( S1 B ) & from Parihar Chowk via police lines to University Road. ( S2 - Near shivneri bus stand this street runs parallel to DP Road )

The Focus & Guidelines for designing of this network of these streets are as under :

As this is the Pilot Demonstrative Project the street will be designed as an ideal street & will follow all acts & guidelines prepared by the Government of India & other Statutory Bodies, such as Pune Urban Street Design Guidelines, Smart City Guide Lines, National Disability Act, Hawkers & Vendors Act National Urban Transport Policy etc.

The Services laid in the street will be permanent in nature & one will maintained only through designed & designated Service Ducts provisions & not by digging the Road or Pavement Area in decade to come.

These streets will be designed by giving priority to pedestrians, will be disable friendly ( in totality such that one should be able to demonstrate that a person on wheel chair would be able to move from one point – origin to the other point – destination on his own in the identified zone ) thus achieving Universal Accessibility, making the neighbourhood cycle friendly, create designated spaces for Hawkers & Vendors as per the Central Government Act, provide for parking as per the newly accepted Parking Policy prepared by the Corporation & incorporate Public Transport & a Shuttle service ( Small open battery operated vans ) so that Residents in the area could move in these thus avoiding the use of Private Vehicle for short distances of travel.

The Street will be designed & executed such that it is a place for Social interaction having appropriate Street Furniture ( seating, dust bins, signage ), Recreation Space, facilities such as Urban Lounge ( a Modern Toilet ) Information Kiosk , Wi Fi, Appropriate Street

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Lighting, Public Art and could be compared to a Mall in open under the shade / canopy of trees.

Thus, to achieve this all the services below the surface Water supply, Storm Water, Sewerage, MSEB Cables, BSNL, Optical Fiber Cables, Gas Lines will be reorganised & re-laid. The junction boxes on the streets of various utilities which are eyesores will be relocated & camouflaged / covered with aesthetically designed screens.

It is expected that agencies quoting for this work should understand the overall concept & spirit of this project and mobilize for delivering the highest quality of work from the overall execution to the last detail which will comply with vision of the Smart City Pilot Project

## **(2) SCOPE OF PROJECT**

As mentioned above, with an objective of providing user friendly streets, the following tasks are proposed to be undertaken through the current project

### **1. Footpath retrofitting:**

Footpaths are those parts of a road or street that are intended for pedestrian use. Pedestrians include people on foot, in wheel chairs, or pushing a pram. It is therefore important that footpaths are wide enough for unhindered, unobstructed use by all user groups – including disabled users. There must be a functional pedestrian through-route on a footpath. Thus the footpath needs to retrofit so as to accommodate different type of users without any stumbling block. It is proposed to widen the footpaths as per the detailed cross sections provided with this document and providing user friendly and aesthetically appealing surface finish to the footpath alongwith the kerbs, shifting of utility boxes, provisions for new utilities etc.

### **2. Place making on roads**

Placemaking is both a process and tool, by which we collectively design and manage elements of the public realm to create places that are appealing, accessible, comfortable, and support social activity. Placemaking helps to define the pattern and use of the built environment and the manner and ease in which people are able to access, connect and move around in it. Placemaking can also help build and enhance sense-of-place by creating spaces that

encourage social interaction and support interesting activities. Such spaces will be created to achieve the objective of social development.

### 3. Junction redesigning on pilot basis:

Junction design and related engineering countermeasures play a very important (but not only) role in the field of traffic safety. By creating a properly designed street junction, vehicle flow can be improved while simultaneously increasing pedestrian comfort and safety. Thus Junction redesigning becomes one of the important project for execution.

To achieve the above tasks, the following items are proposed to be undertaken in the project.

1. Footpath reconstruction/ retrofitting with new kerb, new approved stamped concrete/ paver block surfacing, parking spaces, provision of separate RCC type utility ducts (1.5 X 1.5 m ) with opening after every 8 to 10 m interval to house current and future utilities.
2. Shifting and provision of new utility lines like water supply, sewer alongwith the chambers and electrical cables, feeder pillars, decorative street light poles etc.
3. Removal of the ramps, walls, compounds etc on the ROW of the road anc complete retrofitting of the footpaths.
4. Provisions of new Storm water line with RCC/ FRP chambers and heavy duty FRP frame and covers
5. Provision of new ramps to access property, reconstruction of compound walls (wherever required) reconstruction of access steps to property etc.
6. Provision of cobbled finishes at junctions and other traffic calming elemnets like islands, raised pedestrian crossings, humps, chikanes etc
7. Provision of Thin White Topping surfacing for the road carriageway.
8. Provisions of road crossing pipes, RCC duct at regular intervals and along the footpath
9. Relocation/ removal and reconstrudtcion of existing small shops (ota scheme)
10. Construction of public lounge (public toilets)
11. Provision of Street furniture items (benches, sitouts, bollards, information kiosk, dustbins), Steet signanges as per BOQ
12. Providion of road markings etc.



## PUNE SMART CITY DEVELOPMENT CORPORATION LTD

### TENDER NO: ..... /2016-17 INVITATION FOR TENDER (BRIEF TENDER NOTICE)

Sealed tender in B-1 Form (Percentage Rate) are invited by the Chairman, Pune Smart City Development Corporation Ltd, from eligible Contractors registered in appropriate class /Unlimited/ Special category with PMC/ PCMC/ PWD/ MSRDC/CPWD/ NHA and other Government, Semi-Government organization and with Private Sector organizations for the following work.

Tender Sr. No.	Name of work	Tender cost in Rs.	Earnest money in Rs.	Time limit in months	Cost of Tender Document (Rs)
02	Redesigning of Street, Footpath retrofitting, Place making on Roads, Junction Redesigning in AundhBanerBalewadi area under Smart Cities Mission	229060320/-	2290603/-	06	26429/-

#### Eligibility Criteria:

- Contractors Average Annual Turnover during last three years (FY 2013-14, 2014-15, 2015-16) shall be more than **Rs. 22.90 Crore**.
- Contractor must have completed at least one work of similar type during any of the last FIVE years with the total project value of not less **Rs. 11.45 Crore**. Out of this minimum 25 % cost shall be for items which includes footpath construction/ retrofitting, place making on roads, landscaping, junction improvement, providing street furniture etc. This cost shall be separately certified and shown in the documents submitted for qualification of the bidder duly authorized by the concerned Client.
- Contractor shall satisfy 100% Bid Capacity criteria for above tender.
- Contractor shall exhibit documentary evidence along with photographs, product brochures (street furniture items) and certificates of the similar projects executed/ completed by him during the last 5 years.**
- The Defect Liability and Operation & Maintenance period for this work shall be 60 months.
- The work shall be carried out under the supervision of Project Management Consultant appointed by PSCDCL in coordination with the Urban Designer appointed for this project.

Contractor

No. of Corrections

Sd-  
PSCDCL Engineer



7. Tender Forms are made available online on the Pune Municipal Corporation website [www.punecorporation.org](http://www.punecorporation.org) from 27/05/2016 to 14/06/2016 (upto 2.30 pm). The details about the online tendering process can be obtained from the Tender Cell, PMC, Shivajinagar, Pune- 411005.
8. A pre-bid meeting for all works will be held on 6<sup>th</sup> June 2016 at 2.00 pm in the Office of Chairman, PSCDCL, 4<sup>th</sup>Floor, PMC Main Building, Shivajinagar, Pune- 411005. Tenders will be received online until 14<sup>th</sup> June 2016 upto 2.30 pm and the technical bids will be opened on the same day at 4.00 pm in the presence of such intending tenderers or his / their authorized representatives in the Tender Cell of Pune Municipal Corporation. The queries related to the tender document shall be submitted by the bidder in written format on or before 6<sup>th</sup> June 2016 (upto 6 pm).
9. Bids must be accompanied by bid security specified for the work in the table above in form of Demand Draft/ F.D.R. from any Nationalized/ Scheduled bank payable at Pune and drawn in favor of "Pune Smart City Development Corporation Ltd" Exemption Certificate will not be accepted in lieu of Earnest Money.
10. PSCDCL shall not be responsible for any delay in receiving the documents on account of any reasons and Chairman, PSCDCL, Pune 411005, further reserves the right to revise or amend this notice and or the bid documents fully or partly prior to the last date notified for submission of offers or on any subsequent extended date. The Chairman, PSCDCL, Pune 411005, further reserves the right to reject any or all bids without assigning any reasons.
11. If the quoted percentage rate of the tender is more than 15 % above or 15 % below of estimated cost put to tender, then rate analysis of each item (separately) shall be submitted by the bidder within 2 days after opening of the financial bid. A bank guarantee from Nationalized Bank for % (Percentage) of estimated tender cost exceeding 15% below shall be submitted by the successful bidder for a period up to end of construction period within 2 days of opening of Commercial Bid failing which, his EMD shall be forfeited.

**Sd-  
Chairman  
Pune Smart City Development  
Corporation Ltd**

Contractor

No. of Corrections

Sd-  
PSCDCL Engineer

**PUNE SMART CITY DEVELOPMENT CORPORATION LTD****DETAILED TENDER NOTICE**

Sealed tender in B-1 Form (Percentage Rate) are invited by the CHAIRMAN PSCDCL, from eligible Contractors registered in appropriate class / unlimited category with PMC/ PCMC/ PWD/ MSRDC/CPWD/ NHA and other Government and Semi-Government organization and with Private Sector organizations for the following work.

**NAME OF WORK: Redesigning of Street, Footpath retrofitting, Place making on Roads, Junction Redesigning in ABB area under Smart Cities Mission**

1 **PLACE OF WORK:** Aund DP Road area of Pune city.

2. **ESTIMATED COST PUT TO TENDER: Rs. 22,90,60,320/-**

2 **EARNEST MONEY DEPOSIT Rs. 22,90,603/-**

Rs. Twenty Two Lakh Ninety Thousand Six Hundred and Three Only in the form of FDR/ Demand Draft only in the name of "Pune Smart City Development Corporation Ltd", payable at Pune from any Nationalized Bank. Exemption certificate will not be accepted in lieu of Earnest Money.

3 **SECURITY DEPOSIT**

The total Security Deposit shall be 5% (five percent) of contract sum i.e. tender amount.

a) 1% Earnest Money Deposit will be converted to Security Deposit.

b) 1% Security Deposit should be credited by contractor in the form of DD / FDR from Nationalized/ Scheduled Bank for PSCDCL registered contractors and DD/ FDR from Nationalized Bank only for non PSCDCL registered contractors, in the name of "Pune Smart City Development Corporation Ltd" after issue of letter of acceptance.

c) The balance amount of Security Deposit of 3% (three percent) of contract sum will be recovered through each running bills of the Contractor.

**d) Return of Security Deposit & Retention Money:**

Security Deposit shall be returned only after issuance of Virtual Completion Certificate by Engineer in charge / Project Management Consultant for the project. The schedule for returning the Security Deposit & Retention Money shall be as specified hereunder.

1. The return of SD shall start after 1 year of operation and maintenance (from date of issuance of Completion Certificate) of the road as specified in Detailed Tender Notice.

2. The SD shall be released on successful completion of operation and maintenance of the road during that period as specified in Detailed Tender Notice.

3. Starting from completion of year 1 of O&M, the SD shall be returned at the rate of 1 % every year (Total 5 % in 5 years) after submission of equivalent Bank Guarantee by the contractor for balance period of operation and maintenance.

Contractor

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PSCDCL Engineer

**Completion Certificate:**

It is obligatory for the contractor to obtain the completion certificate within 01 (one) months of completion of time period or valid extension period. **Only 90 % payment for the work shall be released to the contractor upon 100 % physical work completion. Upon completion of 90 % physical work, the contractor shall apply for Completion Certificate and balance amount of 10 % shall be released along with Completion Certificate and Final Bill.** It shall be mandatory on the contractor to receive completion certificate from PSCDCL / Consultant within 01 months of completion of Tender Period or Valid Extension Period failing which suitable amount shall be deducted from his Security Deposit as directed by the Engineer- in – Charge.

If during any period the contractor fails to complete the operation and maintenance of the work as specified in the Detailed Tender Notice, the cost of this work shall be deducted from the balance SD payable to the contractor.

**4 TIME LIMIT FOR COMPLETION OF WORK**

The time limit for completion of work is 06 months and will be counted from the date of issue of work order.

**5 ISSUE OF BLANK TENDER FORM**

Tender Form can be downloaded from the Pune Municipal Corporation Website [www.punecorporation.org](http://www.punecorporation.org) or [www.pmctenders.abcprocure.com](http://www.pmctenders.abcprocure.com). The Tender form shall be printed by the bidder and the hard bound copy shall be enclosed in Envelope No II. The tender fee in DD form should be submitted along with the tender document (in Envelope No I).

**6 LAST DATE OF SUBMISSION**

Tender submission shall be on 16<sup>th</sup> June 2016 upto 14.30 Hrs.

**7 PLACE OF SUBMISSION**

The Tender submission shall be online on the PMC tender website.

**8 DATE AND PLACE OF OPENING OF TENDER :**

On 16<sup>th</sup> June 2016 at 4.00 pm in the Tender Cell, PMC, Main Administration Building, Pune 411 005.

**9 COST OF BLANK TENDER FORM (NON-REFUNDABLE)**

- a) Rs. 26429 /- (Twenty Six Thousand Four Hundred and Twenty Nine) per set (Blank Tender form will not be issued by Post/Courier).
- b) Cost of Blank Tender Form will be accepted only by Demand Draft on Nationalized/Scheduled Bank payable at Pune in the name of Pune Smart City Development Corporation Ltd .
- c) The cost of Tender documents will not be refunded under any circumstances.
- d) The tender document should be downloaded from the Municipal Corporation website [www.punecorporation.org](http://www.punecorporation.org). The tender fee in the form of Demand Draft

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Sd-  
PSCDCL Engineer

from Nationalized/Scheduled Bank shall be enclosed in Envelope No I at the time of submission of tender. Failing to do so, the Envelope No II of the bidder shall not be opened.

#### 10 VALIDITY OF THE OFFER

120 days from the date of receipt of the Tender.

#### 11 ELIGIBILITY OF TENDERER

- a. The contractor must deploy the requisite machinery as directed by Engineer-in-charge. Any other machinery required to carry out the work should be deployed by contractor on the directions of Engineer-in-charge at no extra cost.

The minimum equipment required with Tenderer (Ownership Documents of all the machinery are to be attached) is as follows

- b. The contractor must deploy the requisite machinery as directed by Engineer-in-charge. Any other machinery required to carry out the work should be deployed by contractor on the directions of Engineer-in-charge at no extra cost.

The minimum equipment required with Tenderer (Ownership Documents of all the machinery are to be attached) is as follows

Sr.	Type of Equipment	Capacity	Nos. Required	Owned / Hired
1	Excavators	Min 0.9 m <sup>3</sup> bucket capacity	2	Owned
2	Backhoe Loader	Min 0.3 m <sup>3</sup> bucket capacity	2	Owned
3	W.M.M. Mixing Plant	Min 60 TPH- calibration to be done by to be done by PMC/any other public body before tender submission	1	HP Agreement/ Owned
4	a) Vibratory Tandem Roller (with Intelligent Compaction System)	Minimum 10 T operating Wt	2	HP Agreement/ Owned
5	b) Vibratory Soil Compactor	Minimum 10 T operating Wt	1	HP Agreement/ Owned
6	Dumpers / Tippers	Minimum 6.00 cum	6	Owned
7	Survey Equipments			
	i) Total Station		1	Owned/ rented
	ii) Auto Level	-	1	Owned

Contractor

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Sd-  
PSCDCL Engineer

Sr.	Type of Equipment	Capacity	Nos. Required	Owned / Hired
8	Rigid Pavement Cutting Machine	-	3	Owned/HP Agreement
9	R.M.C. Batch Mix Plant with minimum capacity 20 cum/hr	20 Cum /hr and calibration to be done by PMC/any other public body before tender submission	1	Owned
10	Transit Mixers	6 Cum	4	Atleast 2 Owned
11	<b>Fixed Form Paver</b>	Minimum 4 m width	<b>1</b>	<b>Owned/ HP Agreement</b>

- The contractor shall provide Ready Mix Batch Type plant (RMC) for all concrete work. The batch mixing plant shall sense all the data like aggregate weight, cement content, W/C Ratio for all batches through digital sensors and logic controller. The contractor shall provide a SCADA based data reader and logging software to collect the sensed data from the logic controller and convert it into machine readable file with data and time stamp. The contractor shall provide web connectivity to the batch mixing plant and software that will send the machine readable file generated from the SCADA software to contractor's web application as well as the e governance web application of PMC. **Complete details of each batch (generated by the printer at the RMC Plant) shall be available online as well as along with each Transit Mixer on site.**
- **Vehicle Tracking equipment:**  
The contractor shall provide VTS (vehicle tracking system) for all vehicles used for particular work of PSCDCL. The VTS shall record the latitude and longitude of the vehicle and shall send the data of the works management e governance software of PSCDCL dashboard. The contractor shall provide the web application that will show all vehicles of a contractor on a GIS map along with the batching plant of the contractor shall also provide a software that will update the entire mapping on the PSCDCL e governance works management system and dashboard.  
The VTS shall continuously send the data of the vehicle lat and long at every 5 sec to the web application and dashboard.  
The contractor shall provide web application i.e. integrated with PSCDCL work management e governance application system. This web application shall have software for vehicle loading and unloading for each batch. The vehicle carrying batches should show the batch details sensed through the SCADA software on GIS map.  
VTS shall be made available for all types of works i.e. asphalt, concrete, earthwork or any other type as applicable as part of the terms of contract.
- **Intelligent compacting system:**  
The contractor shall also provide intelligent compacting system on the compactor used for compaction work of PSCDCL. The intelligent compacting system shall have GPS, temperature sensors, accelerometers and IP 67 Compliant PC fitted on the compactor. This compaction system shall also record the number of passes made by the compactor. The system shall have

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PSCDCL Engineer

the screen that shall show the compaction in graphical format to the operator. The contractor shall provide real time data transferred to the web application to monitor the compaction remotely. The contractor shall provide web application in such a manner that it should update the compaction data in realtime on the PMC work management e goevrnance application dashboard. The intelligent compaction system shall be connected with the dashboard system the contractor shall provide software facility for PMC officials to update the QAP related data for compaction through its web application that will get transferred to the intelligent compacting system to benchmark the acceptance norms for colour coding, number of passes and acceptable temperature and density levels.

The contractor shall provide compaction register that shall contain information related to the compaction for further analysis. The compaction register shall maintain following record RUN ID, DATE and TIME of compaction, Latitude and Longitude, location, temperatures (in case of asphalt), density (for soil it can be derived as a compaction measuring value) number of passes, colour for temperature, colour for number of passes.

The contractor shall provide web application to view the actual monitor on the compactor through web remote monitoring as a live streaming of the compaction operations.

The contractor shall provide the certificate and gurantee from the manufacturer of the compactor for the compatibility of the system with the comactor. If the system is retrofitted to the compactor, it should not be old than 3 years.

- **Quality Reports**

The contractor shall provide web application to records the quality reports related to material acceptance by the agency, TPIA. The system shall have intelligent forms that will records the observation and generate quality reports and opload them to the PSCDCL e governance web application dashboard.

Web connectivity:

The contractor shall provide web connectivity to all above monitoring system web connectivity shall have minimum 1 MBPS internet speed and 100 % availability software should be intelligent in case of connectivity failure it should maintain pending files and send them as it is connected. The contractor shall make sure that all software and hardware is virus free.

## 12. **BID CAPACITY**

Contractor shall have financial capacity to qualify for bid capacity of equal to or more than the total value of works for which he has offered his bid. Contractor who meets the minimum qualification criteria will be qualified only if their available bid capacity is equal to or more than the total value of works for which he has offered his bid. The available bid capacity will be calculated as below:

**Assessed Available bid capacity = (A x N x 2.0 - B)**

A = **Maximum value of civil engineering works executed in any one year during the last three years i.e. from April, 2011 to March, 2016 (updated to 2011-2012 level by factor of escalation of 10% per year) taking into account the works completed as well as works in progress. For example, the value of work done during 2014-2015 will be updated to 2015-2016 level multiplying by a factor 1.1, the value of work done during 2013-2014 will be updated to 2015-2016 level, multiplying by a factor 1.2 & so on.**

N = Number of years prescribed for completion of the works for which bids are invited **(0.50 for this tender)**

B = Value, at 2015-2016 price level, of existing commitments and on-going works to be completed during the N years.

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works lists should be countersigned by the respective Employer or his authorized representative.

Calculations showing available bid capacity should be enclosed by the Contractor.

***Bid capacity will be considered 100%.***

Submission of duly notarized bond stating cost of work in hand and ongoing work for Bid Capacity calculation shall be binding on the Contractor.

### 13. PRE-TENDER CONFERENCE

- a) Pre-Tender conference is open to all eligible tenderers and will be held on 6<sup>th</sup> June 2016 @ 14.00 Hours in the office of the Chairman PSCDCL, PMC Buidlinhg, Pune wherein the prospective tenderers will have an opportunity to obtain clarifications regarding the work and the tender conditions.
- b) The prospective tenderers are free to ask for any additional information or clarification either in writing or verbally and the clarifications to the same will be given during pre-bid meeting and this clarification referred to as "Common Set of Deviations" will be applicable to all tenderers. Common set of deviations, if any, issued by PSCDCL will form part and parcel of the tender documents.
- c) The tender submitted by the tenderer shall be strictly as per NIT and Corrigendum/Addendum issued by the PSCDCL. The tender offer shall be unconditional. Conditional tenders/offers will be summarily rejected.
- d) All tenderers are cautioned that the tender containing any deviations from the contractual terms and conditions, specifications, or other requirements will be rejected as non-responsive.

### 14. COST OF BIDDING

The tenderer shall bear all costs associated with the preparation and submission of the bid and PSCDCL will in no case, be responsible and liable for those costs.

### 15. SITE VISIT

The contractor at his own responsibility and risk is encouraged to visit and examine the site of works and its surroundings and obtain all information that may be necessary for preparing the bid and entering into a contract for construction of the works. The costs of visiting the site and collecting the necessary information shall be borne by the bidder. No extra claim will be entertained in future on this account.

### 16. MANNER OF SUBMISSION OF TENDER AND ITS ACCOMPANIMENTS

The tender shall be submitted ONLINE ONLY. The TECHNICAL DOCUMENT shall consist of the following documents

- a) Technical Documents
  - i) Earnest Money Deposit as explained above.
  - ii) Documents in support of qualification & eligibility criteria. (Copy of Annexures & Scheduled A - Q attached hereafter)

Contractor

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Sd-  
PSCDCL Engineer

- i) Copy of PAN Card and latest Income Tax Return certificate / Sal form.

The bid capacity calculation shall be submitted by Contractor on the Chartered Accountants letterhead, duly signed by the Chartered Accountant considering the work in hand, work expected to be awarded and last 5 years turnover of the firm. For turnover only cost of civil works shall only be considered. Regarding experience of work, certificate shall be obtained from the competent authority having designation not lower than Project Engineer or Project Manager in case of private sector works.

- iv) A list of works in hand and tendered for.  
v) A list of works of similar type and magnitude carried out by the Contractor in last 5 years.  
vi) List of machinery and plants immediately available with the Tenderer for use on this work and list of machinery proposed to be utilized on this work, but not immediately available and the manner in which it is proposed to be procured. The condition, cost and location of machinery shall be indicated.  
vii) Details of Technical personnel on the rolls of the tenderer giving details of experience and qualification of each of them and details of technical personnel to be appointed for this project along with bio-data duly signed by the person to be appointed.  
viii) Work plans in Bar Chart format to be submitted along with tender document indicating the methodology planning with resources logistics and work plan with indicative milestone shall be submitted duly signed by the Tenderer within 07 days of issue of work order. He should indicate requirement of machinery and man power in work plan. A tender submitted without work plan in the form of bar chart indicating mile stone etc. would be considered as invalid and non responsive. The detailed work programme will be finalized and approved by PSCDCL after award of work. Contractor shall suitably modify the programme as directed by Engineer-in-charge.  
ix) Common set of deviations or any corrigendum / addendum / amendment issued by CHAIRMAN PSCDCL, Roads PMC duly signed by Contractor.

**b) COMMERCIAL SUBMISSION :**

The Contractor shall quote for the work as per details given in the main tender and also based on the details of conditions, stipulation made by the department and as per bill of quantity, specification and corrigendum / addendum issued before last date of receipt of tender document. The tender / offer shall be unconditional. Conditional offer will be rejected summarily as non-responsive.

**c) SUBMISSION OF TENDER**

The submission of the Tender shall be Online as per the norms of Tender Cell of PMC. The detailed information regarding the submission can be obtained from the website [www.onlinetenders.in](http://www.onlinetenders.in) or from the Tender Cell, PMC

**17. OPENING OF TENDER**

The tenders will be opened on the date specified in the Tender Notice (if possible) in the presence of the intending bidders or their authorized representative to whom they may choose to remain present. Following procedure will be adopted for opening of the tender.

**Technical Document:**

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First of all Technical Document of the tender will be opened to verify its contents as per requirements. If the various documents attached online do not meet the requirements of the PSCDCL, Pune a note will be recorded accordingly by the tender opening authority and the said Tenderers Financial Submission will not be considered for further action and the same will be recorded.

### **Commercial Submission**

The Financial Submission shall be considered for opening, after opening of Technical Document & after scrutiny of Contractors document. The Financial Submission shall be opened if the Contractor's documents and proposal is found to be acceptable & minimum eligibility criteria specified is satisfied. The tendered amount / percentage above or below from FINANCIAL SUBMISSION shall then be read out. The successful tenderer will be required to produce to the satisfaction of the specified concerned authority, valid and concurrent license issued in his favor under the provisions of the Contract Labor (regulation and abolition) 1970 Act, before starting the work. Failure to do so, acceptance of the tender shall be liable to be withdrawn and security deposit forfeited.

### **18. RIGHT RESERVED:**

**Right to reject any or all tenders without assigning any reason therefore is reserved by the Chairman of PSCDCL, Pune whose decision will be final and legally binding on all the tenderers.**

- 18.1 The PSCDCL, Pune at its discretion may extend the dead line for submission of tender by issuing an amendment.
- 18.2 The PSCDCL, Pune shall have the right to revise or to amend the contract document prior to receipt of tender.
19. The amount of the earnest money will be forfeited in case successful contractor does not pay the amount of initial security deposit within the time specified as stipulated by the Project Engineer, PSCDCL and complete the contract documents. In all other cases, earnest money will be refundable.
20. The bidders who are not registred with any Govt / Semi Govt organization shall seek the registration with Pune Municipal corporation within 1 month of issue of the work order by PSCDCL or the first RA bill whichever is earlier.

**CHECK LIST**

List of all documents, forms, statements, conditions, schedules, drawings etc should be submitted with the tender.

The above list shall contain the following documents particularly otherwise the tender is likely to be rejected.

<b>Sr.No.</b>	<b>Brief Details of Documents required</b>	<b>Whether Enclosed or Not</b>
<b>TECHINCAL SUBMISSION</b>		
1	Cash receipt or Demand Draft/FDR from Nationalized/Scheduled Bank, towards payment of Earnest Money	
2	List of Works in Hand and tendered for (Statement No I)	
3	List of Works of similar type and magnitude carried out by Contractor (Statement No II)	
4	Details of Plant and Machinery proposed to be deployed on the work immediately (Statement No III)	
5	Details of Technical Personnel available with the tenderer and Personnel to be deployed on this work (Statement No IV)	
6	Attested Copy of Partnership Deed/ Memorandum and Article of Association	
7	Latest Income Tax Clearance Certificate in attested copy valid for one year	
8	Attested Copy of valid Registration Certificate	
9	Sales Tax Registration Certificate as per Sales Tax Act 1959, Works Contract Certificate (as per Works Contract Act 1989)	
<b>COMMERCIAL SUBMISSION</b>		
1	Main Tender Document (Original) duly signed by Contractor and percentage duly filled	

Note: (i) All documents must be signed by the Tenderer.  
(ii) Information asked in prescribed Performa shall be submitted in prescribed format only.

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**STATEMENT NO. I**

**Details of work tendered for and in hand as on the date of submission of this tender**

**NAME OF THE TENDERER:**

Sr. No.	Name of work	Place & Country	Work in hand		Anticipated date of completion	Works tendered for			Remarks
			Tendered cost	Cost of remaining work		Estimated cost	Date when decision is expected	Stipulated date or period of completion	
1	2	3	4	5	6	7	8	9	10

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**STATEMENT NO. II****Details of works of similar type and magnitude carried out by the Contractor****NAME OF THE TENDERER:**

<b>Sr. No.</b>	<b>Name of work</b>	<b>Cost of work</b>	<b>Date of starting</b>	<b>Stipulated date of completion</b>	<b>Actual date of completion</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>

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**STATEMENT NO. III****Details of Plants and Machinery immediately available with the tenderer for this work****NAME OF THE TENDERER:**

<b>Sr. No.</b>	<b>Name of equipment</b>	<b>No. of units</b>	<b>Kind and make</b>	<b>Capacity</b>	<b>Age and condition</b>	<b>Present location</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>

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**STATEMENT NO. IV**

**Details of Technical Personnel available with the Contractor.**

**NAME OF THE TENDERER: (Minimum Requirement as Stated Below)- The details of the Personnel proposed to be deployed fulltime on site shall be submitted by the Contractor. The change in the site staff shall be allowed only after the approval of PSCDCL.**

<b>Sr. No.</b>	<b>Name of the person/ Nos</b>	<b>Qualification</b>	<b>Whether working in field or office</b>	<b>Experience of execution of similar works</b>	<b>Period for which the person is working with the Tenderer</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
	1. Project Manager	B.E. Civil	Field (fulltime)	15 Years		
	2. Project Engineer	B.E. Civil	Field (fulltime)	10 Years		
	3. Site Engineer (2 Nos)	DCE ITI or Similar qualification	Field (fulltime) Filed (fulltime)	5 Years 5 Years		
	4. Site Supervisor (3 Nos)					
	5. Landscape Architect	B arch (preferably Post Graduatre in Lanscape Archietcture)	Filed / Office (as required)	5 Years		

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**GENERAL CONDITIONS OF CONTRACT****1. DEFINITIONS**

Unless excluded by or repugnant to the context.

- a) The expression PSCDCL as used in the tender papers shall mean the "Pune Smart City Development Corporation Ltd"
- b) The expression Corporation as used in the tender paper means PSCDCL
- c) The expression "Department" as used in the tender papers shall mean PSCDCL, Pune.
- d) The expression "plant and equipment" as used in the tender papers shall mean every machinery, centering forms necessary or considered necessary by the CHAIRMAN PSCDCL to execute, construct complete and maintain the works and used in altered, modified, substituted and additional work, ordered in the time and manner herein provided and all temporary materials and special and other articles of appliances of every sort, kind and description whatsoever intended or used therefore.
- e) "Drawing" shall be mean the drawings referred to in specifications and any modifications of such drawings approved in writing by engineers and such other drawings as may from time to time be furnished or approved in writing by the CHAIRMAN PSCDCL.
- f) "Engineer-in-charge" of the work shall mean the **'Project Engineer' appointed by PSCDCL** "Project Engineer's representative" shall mean an assistant of the Project Engineer notified in writing to the Contractor by the Project Engineer.
- g) "PMC" shall mean the Project Management Consultant appointed by PSCDCL for construction supervision of project, management of project and monitoring the work. The PMC shall be Engineer whenever specified.
- h) The "Site" shall mean the lands and / or other places on under in or through which the work is to be executed under the contract including any other lands or place which may be allotted by PSCDCL/ Pune Municipal Corporation or used for the purpose of contract.
- i) Part(s) thereof as the case may be and shall include all extra or additional, altered or substituted works as required for performance of the contract.
- j) The "Contract" shall mean The agreement entered into between the owner and the Contractor as recorded in the contract form signed by the parties include all attachment the notice of tender, the sealed quotation and the tender documents including the tender and acceptance thereof together with the documents referred to therein, and the accepted conditions with annexure mentioned therein including any special conditions, specifications, designs, drawings, priced schedule / bill of quantities and schedule of rates. All these documents taken together shall be deemed to form one contract and shall be complementary to one another. Contract is deed of contract together with all its accompaniment and those later incorporated in it by internal consent.
- k) The "Contractor" shall mean the individual or firm or company whether incorporated or not, undertaking the work and shall include legal representative of such an individual or persons comprising such firms or company as the case may be and permitted, assigns of such individual or firm or company.

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- l) The “Contract sum” / “Contract price” shall mean the sum for which the tender is accepted.
- m) The “Contract time” means period specified in the tender document for entire execution of contracted works from the date of notification of award including monsoon period.
- n) A “Day” shall mean a day of 24 hours from midnight to midnight irrespective of the number of hours worked in that day.
- o) A “month” shall mean a calendar month.
- p) A “week” shall mean seven consecutive days without regard to the number of hours worked in any day in that week.
- q) “Excepted Risks” are risks due to riots (other wise than among Contractor’s employees) and civil commotion (in so far as both these are un-insurable) was (whether declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any acts of God, such as earthquake, lightening and un-precedent floods over which the Contractor has no control.
- r) “Temporary works” shall mean all temporary works of every kind required in or about the execution completion or maintenance of the works.
- s) “Urgent works” shall mean any measures, which in the opinion of the Engineer, become necessary during the progress of the works to obviate any risk or accident or failure or which become necessary for security of the work or the persons working, thereon.
- t) Where the context so requires, word importing the singular number only also include the plural number of vice-versa.
- u) Wherever there is mention of “Schedule of rates” or simply DSR or Schedule Rates in this tender it will be taken to mean as “The schedule of rate of Pune Municipal Corporation, Pune.

## 2. LINE OUT

The Contractor shall carry out the marking of the centerline of the road, closed box type subways and various other components and complete the lining out the work in the presence of the representative of the corporation. The Contractors shall be responsible for accuracy of the same. The Contractor shall construct required masonry and concrete pillars for marking of proper lines and levels with precision “Total Station “instrument and establish locations of piers, abutments and bench marks etc. as directed. The Contractor shall make available at site the “Total Station “instrument for full time from starting till completion of the work. The Contractor shall employ a qualified Engineer for the line out of the project and for complete survey work before taking up the work in hand and till completion of the work. The Total station shall be kept in custody of Engineer in charge.

## 3. PROGRAMME AND PROGRESS SCHEDULE

The Contractor shall submit his own programme with the tender, in the form of Bar Chart, indicating critical activities and PERT programme including phase wise deployment of man and machinery, power, cash flow etc. in Envelope No. I. The program may be

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submitted in general Bar Chart format at the tender stage. Simultaneous with the execution of the Contract Agreement, the Contractor shall submit to the Engineer-in-charge his item-wise monthly programme. The programme shall also provide the information as to required approvals to methodology, drawing, samples, materials, equipments & their time of submissions to the Corporation. The adequate commissioning & trial run period shall be incorporated in the programme/Bar Chart. The progress report shall be submitted by the Contractor vis-à-vis programme every month. The project team of the Contractor shall be so motivated to know the balance work at the end of each week & the rate required in the balance period to complete the work & therefore, shall endeavor to complete the task assigned for each week timely. In case, where the updated & revised schedule is required, the same shall be submitted to the owner for approval. The programme shall indicate and give details of physical and financial implication including men, materials and machinery requirements. In case the progress is less than the stipulated progress, Contractor shall increase the resources i.e. machinery and labour to achieve the targeted progress at no extra cost.

#### **4. INTENT AND INTERPRETATION OF CONTRACT DOCUMENTS**

4.1 The contract documents are complementary and what is called for by one is as binding as if called for by all. Any work that may be reasonably inferred from the drawings or specifications as being required to produce the intended result shall be provided by the Contractor whether or not it is specifically called for.

The Contractor shall furnish and pay for all labour, supervision, materials, equipment, transportation, construction, equipment and machinery tools, appliances, water, fuel, power, energy, light, heat, utilities, telephone, storage, protections, safety provisions, and all other facilities, services and incidentals of any nature whatsoever necessary for the satisfactory and acceptable execution, testing, initial operation (two months) and completion of the work in accordance with the contract documents, ready for use and operation by the owner. The cost of all these arrangements shall be deemed to be included in the contract offer and no separate payment shall be admissible therefore.

4.2 Interpretations

Written clarifications or interpretations necessary for the proper execution or progress of the work, in the form of drawings or otherwise, will be issued with reasonable promptness by the Engineer and in accordance with any schedule agreed upon. Such clarifications or interpretations shall be consistent with or reasonably inferable from the intent of the contract documents and shall become a part thereof. Where, there is a discrepancy between the drawings and the specifications, the Contractor shall obtain the Engineer's interpretation, which shall be binding on the Contractor.

4.3 Drawings

The contract drawings (G.A.D) provided are for tendering purpose only. This tender document shall be used for reference and guidance only. Figured dimensions on

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drawings shall only be followed and detailed drawings shall govern over general drawings. The structural drawings for execution will be supplied by the Engineer-in-charge in duplicate progressively. The Contractor shall keep approved set of drawings at site of work and copies of the approved drawings shall be made available to PSCDCL Engineer or his representative for checking record etc.

#### 4.3.1 Signed Drawings

Signed drawings alone shall not be deemed to be in order for work unless it is entered in the agreement or schedule of drawings under proper attestation of the Contractor and the Engineer or unless it has been sent to the Contractor by the Engineer with a covering letter confirming that the drawing is an authority for work in the contract.

#### 4.3.2 Technical Words

Work, materials or equipment described in works, which so applied, have a well-known trade or technical meaning shall be deemed to refer to such recognized meanings.

#### 4.3.3. Mistakes in Drawings

The Contractor shall be responsible for any discrepancies, errors or omissions in the drawings and other particulars, supplied by him, whether such drawings and particulars have been approved by the Engineer or not, provided that such discrepancies, errors or omissions be not due to inaccurate information or particulars furnished in writing to the Contractor by the Engineer.

4.3.4 The work specified in this contract shall include all general work, preparatory to the construction of said road like constructing temporary approach roads etc. & any kind of work necessary for the due & satisfactory construction and completion of the captioned road.

#### 4.3.5 Not applicable

4.3.6 Contractor shall appoint an experienced structural Engineer for preparing the design of centering and various formwork and getting it approved from PSCDCL. He shall also prepare design of shoring and strutting etc. required for excavation work. The work of centering and formwork, shoring and strutting shall be done under supervision of the structural Engineer of the Contractor and get it approved from the Engineer. The cost of such engineer is incidental to work and deemed to be included in the rate. No claim in this regard shall be paid by employer.

## 5. LAND, CONDITIONS AND LAYOUT

5.1 No land is available with the PSCDCL to be given to Contractor for his establishment. The Contractor has to make his own arrangements. The Contractor shall obtain consent from Pune Municipal Corporation/ Property owners, make all arrangement and pay all costs for the land, areas of access and right of way without any liability to the PSCDCL.

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The owner will furnish and pay for the land, easements and right of way for the land required for the road work.

## **5.2 Sub-Surface Conditions**

The Contractor shall promptly notify the owner in writing of any surface or latent physical conditions at the site differing materially from those indicated in the contract documents or of any unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in constructions of the character provided for in the contract documents. The Engineer will investigate those conditions and obtain such additional tests and surveys, as he may deem necessary. If the Engineer finds that the conditions differ significantly from those indicated in the contract documents or from those inherent in the construction, a variation order may be issued to incorporate the necessary revisions unless otherwise provided in the contract documents. Contractor shall satisfy himself about strata conditions before submission of detailed proposal and methodology of construction.

## **5.3 Line out of the Work**

### **5.3.1 Surveys and Measurements**

The Contractor shall provide free of charge all labour and material required & total station equipment for lining out, surveying, inspection decided by the Engineers as considered necessary for the proper and systematic execution of the work. The Department will only show the changed points on the alignment of road. It will be the responsibility of the Contractor to correctly align the road straight between points including setting out curves by total station equipment though the Department will render necessary assistance. Likewise, only one Bench Mark with definite value of R.L. will be shown to Contractor who shall have to provide for a network of temporary benchmark all along the road and near C.D. Works for executing the work. The Contractor shall be responsible for the provision, accuracy and maintenance of such temporary Bench Mark. He shall be responsible for the correctness of the position, levels, dimensions & alignments of all parts of the works & provision of necessary instruments & labour in connection with it, suitably pointed bamboo or wooden stack shall be provided at his cost and firmly fixed at every 50 meters on both sides of embankment to indicate final as well as intermediate height of the embankment. Any errors in position levels, dimensions & all alignment etc. shall be rectified by Contractor at his expenses. The checking or inspection of any setting out of any line or level or work by Engineer or his representative shall not in any way relieve the Contractor of his responsibility or correctness thereof. The Contractor shall carefully protect and preserve all Bench Marks, site rails, pegs and stones etc used in setting out the works. Marking out the centerlines of C.D. Works necessary approaches etc. shall be done by the Contractor at his own cost as directed by the Engineer.

### **5.3.2 Contractor's Verification**

The Contractor will establish at the work site temporary bench marks (TBM) as per

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requirement & as directed by Engineer-in-charge & connect it to a permanent B.M. available in the area with known value. The Contractor will then carry out necessary surveys & leveling, covering his work, in verification of the survey data on the working drawings furnished by the Engineer and he will be responsible for establishing the correct lines and levels and verification of the lines and level furnished on the working drawings. If any error has erupted in the work due to non-observance of this clause, the Contractor will be responsible for the error and bear the cost of corrective work.

### 5.3.3 Site Office, Laboratory & Facility to Field Staff

The Contractor shall provide a separate & independent main site office of Semi permanent type structure with attached toilet & bathroom arrangement for consultants & PSCDCL staff, as well as laboratory for material testing, along with furniture & electric fittings as required, during the contract duration at one of the location as directed by Engineer-in-Charge. The space for the same shall be provided by PSCDCL. Contractor shall maintain the structure during construction period inclusive of payment of electric & telephone (Landline) bills, security & daily upkeep of the premises. The designs and drawings shall be approved by Engineer-in-Charge/Engineer. The area should be minimum 100Sqm for site office of PSCDCL etc. The list of furniture & gadgets for the main site office is listed below. In addition to the above facility Contractor shall provide equipment as mentioned below for conducting routine Quality Control tests at each ongoing work site. The list of equipment at the main site laboratory is provided below. The Contractor has to provide, maintain the facilities in good condition. **The cost of providing & maintaining these facilities is incidental to work and deemed to have included in the offer given by the Contractor, failing which non-refundable penalty of Rs. 5000/- (Rupees Five Thousand only) per day will be imposed on Contractor.** After completion Contractor should demolish site office and remove furniture, fittings & etc as per direction of engineer.

### FACILITIES TO PSCDCL ENGINEERS& Project Management Consultants at SITE OFFICE

Sr.No.	(A) Providing & Maintaining Furnishing Items	Unit	Specification	Quantity
1	Executive Table- Godrej model T-108 type	Nos	B Clause 120 M o R T & H	1
2	Ex. Chair- Godrej model T108 type	Nos	'Do'	1
3	Table- Godrej model T104 type	Nos	'Do'	1
4	Table- Godrej model T101 type	Nos	'Do'	1
5	Ordinary chair type II	Nos	'Do'	10
6	Steel Almirah 1980x915x485 mm - Godrej No1 Store well type	Nos	'Do'	1
7	Steel Almirah 1270x765x440 mm - Godrej Minor plain type	Nos	'Do'	1

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8	Ceiling fans 48" make Orient / Usha / Khaitan or equivalent		'Do'	1
9	Crockery set for Tea	Set	'Do'	1
10	Water Purifier – Aqua Guard Nova or equivalent	Unit	'Do'	1

### 5.3.4 Laboratory & Related Requirement

The Contractor shall provide and maintain adequately equipped laboratory (at main site office location) as required for control on the quality of materials and the works. It shall have 100 Sqm area and shall be located and equipped as directed by the Engineer in charge. It shall be provided with amenities like water supply, electrical supply etc. In addition to this main laboratory, basic test equipment as mentioned in list below for carrying out routine tests shall be provided by Contractor at each ongoing site location. The Contractor shall engage a well experienced Lab-in-charge (bio-data to be approved by Engineer-in-charge) for conducting day-to-day test as per MoRT&H & B.I.S. specifications at the main laboratory and also at each ongoing site location. All necessary codes shall be kept in the main laboratory. These provisions shall be incidental to work & no separate payment will be made by PSCDCL. After completion Contractor should demolish laboratory structure and remove all the equipments as per directions of engineer.

**List of Equipments required for Laboratory at main site office location are given below**

Sr. No.	Description	Unit	Specification	Qty.
	<b>Main laboratory at SITE OFFICE</b>		B Clause 121	
1	A) General Equipment			
2	Balance ordinary, 10 Kg with weights	Nos		2
3	Balance ordinary, 20 Kg with weights	Nos		2
4	Electronic Balance 5Kg	Nos		1
5	Set of IS sieve			
6	GI Sieve, 450mm Dia. Set of 20 Sieves.	Nos		1
7	Brass Sieves, 200mm Dia Set of 10 Sieves.	Nos		1
8	First aid box	Nos	B Clause 121	1
9	B) For Soils and aggregate			
10	Atterberg limit apparatus	Nos		1
11	Compaction test equipment (Modified Proctor), 2250 cc mould & steel rammer	Nos		1
12	Dry bulk density test app.			
13	Sand replacement method, 100mm Dia.	Nos		2
14	Cylinder Tray with hole & calibration			

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	equipment			
15	Speedy moisture meter.	Nos		2
16	Core cutter apparatus with dolly & rammer	Nos		1
17	Camber board -3m and 3m Straight edge	Nos		1
18	Vacuum pump	Nos		2
19	Specific gravity - pycnometer 1 litre capacity	Nos		1
20	Specific gravity - 50ml Bottle	Nos	B Clause 121	1
21	Air Conditioner 1.5 T capacity Carrier/Hitachi or equivalent	Nos		2
22	D) For Cement and Cement Concrete			
23	Vicat apparatus for testing setting time	Nos		1
24	Slump testing apparatus and Air Meter.	Nos		3
25	Needle vibrator 40mm	Nos		3
26	Concrete cube moulds..150 x 150 x 150	Nos		18
27	Mortar cube moulds 50 Sqcm.	Nos		3
28	Concrete Beam moulds.150 x 150 x700	Nos		8

The above listed equipment conforming to relevant I. S. Specifications are required to be supplied by the Contractor and installed at the main site office laboratory and provided on individual ongoing site. The field laboratory shall be manned by the adequately qualified technical staff. The field laboratory shall be provided with amenities like water supply, electric supply etc. The cost of the equipment and also the salaries of the personnel manning the laboratory shall be considered, as incidental to the work and no separate payment will be made for the same to the Contractor. **The Contractor has to setup and establish the main site laboratory within 3 weeks from the date of work order, failing which non-refundable penalty of Rs. 5000/- per day will be imposed on Contractor till one month and thereafter tender will be cancelled.**

- (i) All materials to be used on work shall be got approved in advance from the Engineer-in-charge & shall pass the test and or analysis required by him, which will be:
- As specified in the specification for the items concerned and or as specified by the Indian Road Congress (IRC) Standard Specification or M o R T & H Specification.
  - Code of Practice for Road and Bridges or
  - BIS Specifications (whichever and wherever applicable) or
  - Such recognized specifications accepted to Engineer-in-charge as equivalent thereto or in absence of such recognized specifications.
  - Such requirement test and or analysis as may be specified by the Engineer-in-charge in order of precedence given above.
- (ii) The Contractor shall at his risk and cost make all arrangement and/or shall provide for all such facilities as the Engineer-in-charge may require for collecting preparing required number of samples for tests or for analysis at such time and to such place or

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places may be directed by the Engineer and bear all charges and cost or testing. Such samples shall also be deposited with the Engineer-in-charge.

- (iii) The Contractor shall if and when required submit at his cost the samples of materials to be tested or analysis and if, so directed shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and the materials, finally accepted by the Engineer-in-charge.
- (iv) The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of & as a result of testing of the materials.
- (v) The Contractor or his authorized representative will be allowed to remain present in the departmental laboratory while testing samples furnished by him. However, the results of all the tests carried out in the departmental laboratory in the presence or absence of the Contractor or his authorized representative will be binding on the Contractor.

Cost of routine day-to-day quality control testing charges for tests required as per specifications will be borne by Contractor by sending the same to the concerned laboratories or by establishing laboratory at site. The cost required for inspection including conveyance of engineers shall be borne by the Contractor, the cost of which is deemed to be included in the price bid.

However the cost of testing of material as directed by Engineer-in-charge for approving a particular material as laid down above will have to be borne by the Contractor. If in the opinion of the engineer/Engineer-In-Charge, any additional field or laboratory test is important for fulfilling engineering criteria / for determination of suitability and same is required to be conducted from in-house or outside laboratory, the cost of such test shall be borne by the Contractor and deemed to have been included in the offer given by the Contractor.

## **6. SECURITY DEPOSIT AND INDEMNITY BOND:**

### **6.1 Security Deposit**

The total Security Deposit shall be 5% (five percent) of contract sum i.e. tender amount.

- a) 1% Earnest Money Deposit will be converted to Security Deposit.
- b) 1% Security Deposit should be credited by contractor in the form of DD / FDR from Nationalized/ Scheduled Bank for PSCDCL registered contractors and DD/ FDR from Nationalized Bank only for non PSCDCL registered contractors, in the name of "Pune Smart City Development Corporation Ltd" after issue of letter of acceptance.
- c) The balance amount of Security Deposit of 3% (three percent) of contract sum will be recovered through each running bills.

### **6.2 Loss or Damage Indemnity Bond**

The Contractor shall be responsible during the progress as well as during maintenance period for any liability imposed by law for any damage to the work or any part thereof or to any of the materials or other things used in performing the work or for injury to any person or persons or for any property damaged in or outside the work limit. The Contractor shall indemnify and hold the owner and the Engineer harmless against any

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and all liability, claims, loss or injury, including costs, expenses, and attorney's fees incurred in the defense of same, arising from any allegation/ litigation, whether groundless or not, of damage or injury to any person or property resulting from the performance of the work or from any material used in the work or from any condition of the work or work site, or from any cause whatsoever during the progress, maintenance of the work & during defect liability period.

## 7. SUPERVISION AND SUPERINTENDENCE

### 7.1 Contractor's Supervision

The Contractor shall supervise & direct the works efficiently & with his best skill & attention. He shall be solely responsible for means, methods, techniques, procedures & sequences of construction. The Contractor shall co-ordinate all parts of the work and shall be responsible to see that the finished work complies fully with the contract documents, & such instructions & variation orders as the Engineer may issue during the progress of the works.

### 7.2 Project Manager & Resident/ Site Engineer

The Contractor shall keep on the work at all times during its progress a competent Project Manager to the satisfaction of PSCDCL, who shall not be replaced without ten (10) days written notice to the Engineer except under extra-ordinary circumstances. The Project Manager shall be the Contractor's representative at the site and shall have authority to act on behalf of the Contractor. All communications, instructions and directions given to the agent shall be binding as if given to the Contractor by the Engineer not otherwise required to be in writing will be given or confirmed in writing upon request of the Contractor. Additionally the Resident or Site Engineer shall be deployed fulltime for this project. The Resident Engineer shall be experienced and shall have executed similar type of work. Resident Engineer shall be B.E. and have experience of Civil Engineering work for 10 years out of which 6 years shall be in Urban Road Works. **The work shall not be allowed to commence without the deployment of Project Manager and the Site Resident Engineer by Contractor and approval of PSCDCL.**

## 8. CARE AND USE OF SITE

The Contractor shall not commence operations on land allotted for work except without prior approval of the Engineer. If these lands are not adequate the Contractor may have to make his own arrangements for additional lands required for his use.

The Contractor shall not demolish, remove or alter any of the structures, trees or other facilities on the site without prior approval of the Engineer. All the area of Contractor's operations shall be cleared before returning the same to the Engineer.

## 9. OVERLOADING

Contractor

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Sd-  
PSCDCL Engineer

No part of the work or new & existing structures, scaffolding, shoring, sheeting, construction machinery and equipment, or other permanent & temporary facilities shall be loaded more than its capacity. The Contractor shall bear the cost of correcting damage caused by loading or abnormal stresses or pressures.

**10. USE OF EXPLOSIVES**

Blasting is not permitted on this work.

**11. MANUFACTURER'S INSTRUCTIONS**

The Contractor shall compare the requirements of the various manufacturers' instructions with requirements of the contract documents, shall promptly notify to the Engineer in writing of any difference between such requirements and shall not proceed with any of the works affected by such difference until an interpretation or clarification is issued pursuant to article. The Contractor shall bear all costs for any error in the work resulting from his failure to the various requirements and notify the owner of any such difference.

**12. PROTECTION**

The Contractor shall note that traffic will be playing on adjoining slip roads during construction and special precautions are required to be taken. The Contractor shall take all precautions and furnish and maintain protection to prevent damage, injury or loss to other persons who may be affected thereby, all the works and all materials and equipment to be incorporated therein whether in storage on or off the site, under the care, custody or control of the Contractor or any of his sub-Contractors and other improvements and property at the site or where work is to be performed including building, trees and plants, pole lines, fences, guard rails, guide posts, culvert & project markers, sign structures, conduits, pipelines & improvements within or adjacent to streets, right-of-way, or easements, except those items required to be removed by the Contractor in the contract documents. The Contractors protection shall include all the safety precautions and other necessary forms of protection, and the notification of the owners of utilities and adjacent property.

The Contractor shall protect adjoining site against structural, decorative and other damages that could be caused by the execution of works and make good at his cost any such damages that could be caused by the execution of works and make good at his cost any such damages within reasonable time. Contractor shall take necessary insurance policy to cover the risk of accident and loss to work, or any other persons or properties and indemnify the employer.

**13. UTILITIES AND SUB-STRUCTURES**

The Contractor has to carry out shifting of utilities and services as per direction of engineer and in coordination with various utility service providers and Pune Municipal Corporation. If any utility of service is found not covered under BOQ, the Contractor has to carry out the work as per direction of Engineer including necessary co-ordination with

concerned services provider, payment for the same will be made as per provision in this contract. PSCDCL will assist him in the matter. Some of the utilities to be shifted are included in the Schedule-B. Some of utilities are unknown, with permission of PSCDCL & user department, Contractor may be asked to remove the services at accepted rate. The quantities of items pertaining to various utilities may increase or decrease. Contractor will not be paid any price variation for variation in quantities of the utilities.

#### **14. WORKMEN**

The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the works any unfit person or anyone not skilled and experienced in the assigned task. The Contractor shall in respect of labour employed by him comply with or cause to be complied with the provisions of various labour law and rules and regulations as applicable to them in regard to all matters provided therein and shall indemnify the owner in respect of all claims that may be made against the owner for non-compliance thereof by the Contractor. In the event of the Contractor committing a default or breach of any provisions of labour laws and rules and regulations, the Contractor shall without prejudice to any other liability under the acts pay the Employee a sum as decided by the Engineer-in-Charge.

##### **14.1 Work during Night or On Sundays and Holidays**

Unless otherwise provided, none of the permanent works shall be carried out during night, Sunday or authorized holidays without permission in writing. However, when work is unavoidable or necessary for the safety of life, priority of works, the Contractor shall take necessary permission immediately & advice the Engineer accordingly.

##### **14.2 Workmanship**

14.2.1 The quality of workmanship produced by skilled knowledgeable and experienced workmen, machines and artisans shall be excellent. Particular attention shall be given to the strength, appearance and finish of exposed work. All concrete work shall be form finished.

14.2.2 Contractor shall appoint experienced structural engineer for preparing design and detailing of formwork, centering etc. and shoring and strutting etc. and supervise the work of preparation and providing formwork, centering, shoring strutting etc. All designs shall be got approved from the Engineer-in-charge. The structural engineer C.V. shall be got approved. Structural Engineers shall have experience of minimum 20 years and have carried out such work in the field and design office.

#### **15. MATERIALS AND EQUIPMENT**

All materials and equipment incorporated in the work shall be new and of best quality. Materials and equipment not covered by detailed requirements in the contract documents shall be of the best commercial quality suitable for the purpose intended and approved by

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PSCDCL Engineer

the owner prior to use in the work. The cement provided shall be of 43 / 53 grade cement from Rajashree/ Ultra-Tech / Gujarat Ambuja / Birla Super / Modi and ACC Cement. All materials shall be got tested from laboratory and got approved from Engineer-in-charge.

### **15.1 Optional Materials**

Only one brand, kind or make of material and equipment shall be used for each specific purpose through-out the works, notwithstanding that similar material or equipment of two or more manufacturers or proprietary items may be specified for the same purpose.

16. Use of approved substitutions or equals : Deleted

### **17. LAWS AND REGULATIONS:**

#### **a. Governing Law**

The contract documents shall be governed by the laws and by-laws of India, the State of Maharashtra and the local bodies in this region.

#### **b. Resolving the disputes:**

In case of disputes, between a Contractor and the field officers, regarding this tender, decision of the Commissioner, PSCDCL, shall be the final and binding.

### **18. PERMITS, FEES, TAXES & ROYALTIES**

Unless otherwise provided in the contract documents, the Contractor shall secure and pay for all permits, Government fees and licenses necessary for the execution and completion of the works. The Contractor shall pay all duties including excise duty, sales tax, works contract tax, local taxes, income tax, octroi and other taxes Govt. Royalties and any other levies required by law including all taxes. The PSCDCL authorities will not take any responsibility of refund of such taxes/fees and in case of disputes between taxing authority and the Contractor, the PSCDCL and the PSCDCL and its officers shall be indemnified by the Contractor. Any violation, in the legal provisions of taxes, duties, permits and fees, carried out by the Contractor and detected subsequently shall be the sole responsibility of the Contractor and his legal heirs.

### **19. BURIED AND CONCEALED WORK**

The Contractor shall help in recording the precise location of all piping, conduits, ducts cables and any other work that is buried, embedded in earth or concrete or masonry, or concealed in wood or metal frame walls and structures at the time such work is installed and prior to concealment. If the Contractor should cover or bury such work before such recording takes place, he shall uncover the unrecorded work to the extent required by the Engineer and shall satisfactorily restore and reconstruct the removed work with no change in the contract price or the contract time without any extra cost to PSCDCL.

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PSCDCL Engineer

**20. INSPECTION**

- i) The Contractor shall inform the Engineer in writing when any portion of the work is ready for inspection giving him sufficient notice to enable him to inspect the same without affecting the further progress of the work. The work shall not be considered to have been completed in accordance with the terms of the contract until the Engineer-in-charge shall have certified in writing to that effect. No approval of materials or workmanship or approval of part of the work during the progress of execution shall bind the Engineer or in any way affect him even to reject the work which is alleged to be completed and to suspend the issue of his certificate of completion until such alternations and modifications or reconstruction have been affected at the cost of the Contractor as shall enable him to certify that the work has been completed to his satisfaction.
- ii) The Contractor shall provide at his cost necessary ladders and such arrangement as to provide necessary facilities and assistance for proper inspection of all parts of the work at his own cost.
- ii) The Contractor after completion of work shall have to clean the site of all debris and remove all unused materials other than those supplied by the Department and all plant and machinery, equipment, tools etc. belonging to him without one month from the date of completion of the work, or otherwise the same shall be removed by the Department at his cost and Contractor shall not be entitled for payment of any compensation for the same.

**21. SAFETY PRECAUTIONS AND EMERGENCIES AND PROTECTION OF ENVIRONMENT****21.1 Contractor's Responsibility for Safety**

The Contractor shall be solely responsible notwithstanding any stipulations by owner or Engineer for initiating, maintaining and supervising all safety precautions and programmes, in connection with the work and shall comply with all laws, ordinance, code rules, regulations and lawful orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damages, injury or loss during the entire contract period including non-working hours.

On the occurrence of an accident arising out of the works which result in death or which is so serious as to be likely to result in death, the Contractor shall within one hour of such accident intimate in writing to the Engineer the facts stating clearly and with sufficient details the circumstances of such accidents and subsequent action taken by him. The matter should also to be reported to the local police station immediately. All other accidents on the works involving injuries to the persons or property other than that of the Contractor shall be promptly reported to the Engineer clearly and with sufficient details the facts of such accidents and the action taken by the Contractor.

**The Contractor shall submit the following within 15 days of receipt of Work Order and get approved from Engineer – in Charge. Failing to do so, a fine of Rs. 5000/- (Rupees Five Thousand) per day shall be imposed on the Contractor.**

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PSCDCL Engineer

- a) Traffic Safety Plan
- b) Labour Safety Plan
- c) Disaster Management Plan
- d) Pedestrian Safety Plan.

21.2 The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

- a) Have full regard for the safety of all persons entitled to be upon the site and keep the site (so far as the same is under his control) and the works (so far as the same are not completed or occupied by the Employer) in an orderly state appropriate to the avoidance of danger to such persons.
- b) Provide barricading for the work site as per the drawings and specifications provided in Engineer-in-charge. Provide and maintain at this own cost all lights, guards, fencing, warning signs and watching, when and where necessary or required by the Engineer or by any duly constituted authority, for the protection of the works or for the safety and convenience of the public or others, and
- c) Take all reasonable steps to protect the environment on and off the site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.
- d) **If the contractor fails to provide adequate safety arrangement in the form of proper tin sheet barricading, traffic diversion boards, reflectors, blinkers at night etc, then he shall be imposed a fine of Rs. 500 per day increasing to Rs. 1000 per day after 1 week period until he provides adequate safety measure on site.**

### 21.3 Care of Works

The Contractor shall take full responsibility for the care of the works and material & plant for incorporation therein from the commencement date until the date of issue of the Taking-Over Certificate for the whole works when the responsibility for the said care shall pass to the Employer provided that:

If the Engineer issues a Taking-Over Certificate for any Section or part of the Permanent Works the Contractor shall cease to be liable for the care of that section or part from the date of issue of the Taking-Over Certificate, when the responsibility for the care of that Section or part shall pass to the Employer, &

The Contractor shall take full responsibility for the care of any outstanding works and material and plant for incorporation therein which he undertakes to finish during the Defects Liability Period until such outstanding Works have been completed.

If any loss or damage happens to the works, or any part thereof, or materials or plant for incorporation therein, during the period for which the Contractor is responsible for the care thereof, from any cause whatsoever, other than the excepted risk, the Contractor shall, at his own cost, rectify such loss or damage so that the Permanent Works conform in every respect with the provisions of the Contract to the satisfaction of the Engineer.

The Contractor shall also be liable for any loss or damage to the works occasioned by

him in the course of any operations carried out by him for the purpose of complying with his obligations under this agreement and during defect liability period.

The Contractor shall, without limiting his or the Employer's obligation and responsibilities under Clause – 21.3 ensure -

- a) The works, together with materials and plant for incorporation therein, to the full replacement cost (the term "cost" in this context shall include profit).
- b) An additional sum of 15 per cent of such replacement cost, to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the works and of removing debris of whatsoever nature, and

The Contractor's Equipment and other, things brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.

#### 21.4 Scope of Cover

The insurance in paragraphs (a) and (b) of Clause – 21.3 shall be in the joint names of the Contractor and the Employee and shall cover;

- a) The Employer and the Contractor against all loss or damage from whatsoever cause arising, other than as provided in Clause – 21.6, from the start of work at the Site until the date of issue of the relevant Taking-Over Certificate in respect of the Works or any Section or part thereof as the case may be, and
- b) The Contractor for his liability

During the Defects Liability Period for loss or damage arising from a cause occurring prior to the commencement of the Defects Liability Period, and

For loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under this agreement and during defect liability period.

Responsibility for amount not recovered

Any amounts not insured or not recovered from the insurers shall be borne by the Contractor in accordance with their responsibilities under Clause – 21.3.

#### 21.5 Exclusions

There shall be no obligation for the insurance in to include loss or damage cause by (accepted risk) War, hostilities (whether was be declared or not), invasion, act of foreign enemies, Rebellion, revolution, insurrection, or military or usurped power, or civil war, Ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof, or Pressure waves cause by aircraft or other aerial devices traveling at sonic or supersonic speeds. Damage to persons and properties

The Contractor shall, indemnify the Employer against all losses and claims in respect of :

- a) Death of or injury to any person, or

b) Loss of or damage any property (other than the works). Which may arise out of or in consequence of the execution and completion of the works & the remedying of any defects therein & against shall claims, proceedings, damages, costs, charges & expenses whatsoever in respect thereof or in relation thereto, subject to the exceptions defined in Clause-22.2.

**21.6 Third party insurance including employers property**

The Contractor shall, without limiting his or the Employer's obligations and responsibility under Clause -21.6, insure, in the joint names of the Contractor and the Employer, against liabilities for death of or injury to any person (other than the works) arising out of the performance of the Contract.

**21.7 Cross liability**

The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Employer &PSCDCL as separately insured.

**21.8 Accident or injury to work man**

The employer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or any Sub-Contractor, other than death or injury resulting from any act or default of the Employer, his agents or servants. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation, other than those for which the Employer is liable as aforesaid, and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

**21.9 Insurance against accident to work man**

The Contractor shall insure against such liabilities and shall continue such insurance during the whole of the time that any persons are employed by him on the works, provided that in respect of any persons employed by any Sub-Contractor, the Contractor's obligations to insure as aforesaid under this sub-clause shall be satisfied if the Sub-Contractor shall have insured against the liability in respect of such persons in such manner that the Employer &PSCDCL are indemnified under the policy, but the Contractor shall require such Sub-Contractor to produce to the Employer, when required, such policy of insurance and the receipt for the payment of the current premium.

**21.10 Evidence and Terms of Insurance**

The Contractor shall provide evidence to the Employer prior to the start of work at the Site that the insurances required under the Contract have been effected and shall, within 84 days of the Commencement Date, provide the insurance policies to the Employer, the Contractor shall notify the Engineer of so doing. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the Letter of Acceptance. The Contractor shall effect all insurances for which he is responsible with insurers and in



terms approved by the Employer.

**21.11 Adequacy of Insurance**

The Contractor shall notify the insurers of charges in the nature, extent or programme for the execution of the works and ensure the adequacy of the insurances at all times in accordance with the terms of the Contract and shall, when required, produce to the Employer the insurance policies in force and the receipts for payment of the current premiums.

**21.12 Remedy on Contractor's failure to insurance**

If the Contractor fails to effect and keep in force any of the insurance required under the Contract, or fails to provide the policies to the Employer within the period required by clause – 21.15 then and in any such case the Employer may effect and keep in force any such insurances and pay any premium as may be necessary for that purpose due or to become due to the Contractor, or recover the same as a debt due from the Contractor.

**21.13 Compliance with policy conditions**

In the event that the Contractor fails to comply with conditions imposed by the insurance policies affected pursuant to the Contract shall indemnify the employer &PSCDCL all losses and claims arising from such failure.

**21.14 Compliance with Statutes, regulations**

The Contractor shall conform in all respects, including by the giving of all notices and the paying of all fees, with the provisions of:

- a) Any National or State Statute, Ordinance, or other law, or any regulations, or bye-law of local or other duly constituted authority in relation to the execution and completion of the works and remedying of any defects therein, and
- b) The rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the works.

and the Contractor shall keep the Employer indemnified against all penalties and liability of every kind for breach of any such provisions. Provided always that the Employer shall be responsible for obtaining any planning, zoning or other similar permission required for the works to proceed and shall indemnify the Contractor in accordance with clause – 22.3.

**21.15** In all cases, the Contractor shall indemnify the Engineer against all losses or damages, resulting directly from the Contractor's failure to report in the manner aforesaid. This includes the penalties or fines, if any, payable by the owner as a consequence of failure to give notice under Workmen's Compensation Act or otherwise to conform to the provisions of the said Act in regard to such accidents.

**21.16** In the event of an accident in respect of which compensation may become payable by the

Contractor, such sum of money as may, in the opinion of the Engineer, be sufficient to meet such liability will be kept in deposit. On the receipt of award from the Labour Commissioner in regard to the quantum of compensation, the difference in the amount will be adjusted.

The Contractor shall take a Contractors All Risk Insurance Policy (CAR) for the works and keep it in force throughout the work period. The CAR policy shall also cover accident that may occur to the vehicle plying on the adjoining bridge / approach road, cross road and slip roads etc.

## **22. WARNINGS AND BARRICADES**

The Contractor shall provide and maintain **G.I. sheet, barricades, guards, guard rails**, temporary bridges and walkways, watchmen, headlights and danger signals illuminated from sunset to sunrise and all other necessary appliances such as blinkers, signals, red light and safeguards to protect the work, life, property, the public, excavations, equipment and materials. Barricades shall be substantial construction and shall be painted in Golden Yellow paint such as to increase their visibility at night. For any accident arising out of the neglect of above instructions, the Contractor shall be bound to bear the expenses of defense of every suit, action or other legal proceedings, at law, that may be brought by any person for injury sustained owing to neglect of the above precautions & to pay all damages and costs which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the Contractor be paid in compromising any claim by any such person.

## **23. ENGINEER'S STATUS DURING CONSTRUCTION AND AUTHORITY OF THE ENGINEER:**

The Engineer shall have the authority to enforce compliance with the contract documents. On all questions relating to quantities, the acceptability of materials, equipment, or works, the adequacy of the performance of the work and the interpretation of the drawings and specifications, the decision of the Engineer shall be final and binding and shall be precedent to any condition under the contract agreement unless otherwise provided in the contract documents. The Engineer shall have the authority to stop / suspend the work or any part thereof as may be necessary to ensure the proper execution of the work, disapprove or reject the works which is defective, to require the uncovering and inspection or testing of the works to require re-examination of the works, to issue interpretations and clarifications, to order changes or alterations in the works, and other authority as provided elsewhere in the contract documents.

The Engineer shall not be liable for the results of any ruling, interpretation or decision rendered, or request, demand, instruction, or order issued by him in good faith. The Contractor shall promptly comply with requests, demands, instructions and order from the Engineer. The whole of the works shall be under the directions of the Engineer, whose decision shall be final, conclusive & binding on all parties to the contract, on all questions relating to the construction & meaning of plans, working drawings, sections &

specifications connected with the work. The Engineer shall have the power & authority from time to time & at all times make and issue such further instructions and directions as may appear to him necessary or proper for the guidance of the Contractor and the good and sufficient execution of the works according to the terms of specifications and the Contractor shall receive, execute, obey and be bound by the same according to the true intent and meaning thereof; fully and effectually. Engineer may order any of the works contemplated thereby to be omitted, with or without the substitution of any other works in lieu thereof, or may order any works or any portion of works executed or partially executed, to be removed, changed or altered and if needful, may order that other works shall be substituted instead thereof and the difference of expenses occasioned by any such diminution or alteration so ordered and directed shall be deducted from or added to the amount of this contract.

In case the progress of the Contractor is found to be less than the programme given by him at any point of time and if the Engineer is convinced that the balance work cannot be executed within the balance period of time by the Contractor, a notice of 30 days will be issued to improve the progress. In case there is no improvement a further notice of seven days will be given and thereafter a part or whole of the work will be withdrawn from the Contractor and will be got done at the risk and cost of the Contractor. The right of Engineer in this respect shall be unquestionable. On expiry of the seven days notice, as above, the Contractor shall remove his materials, men, equipments, plant and management from the site, within seven days so that the new agency can take over immediately. Failing to this, the Corporation will remove the aforesaid things at the risk and cost of the Contractor.

#### **24. DUTIES OF ENGINEER'S REPRESENTATIVE**

The duties of the representative of the Engineer are to check, inspect and supervise the work and to get testing of any materials to be used or workmanship employed in connection with the works. He shall furnish the drawings and information to the Contractor, approve the Contractor's drawings recommend and approve the interim certificates and taking over certificates after thorough checking and inspection and recommend extra work required and extension of time.

Approval for or acceptance of any work or material or failure to disapprove any work or material by the representative of the Engineer shall not prejudice the power of the Engineer thereafter to disapprove such work or material and to order removal or modification thereof. If the Contractor shall be dissatisfied with any decision of the representative of the Engineer, he shall be entitled to refer the matter to the Engineer, who shall thereupon confirm, reverse or vary such decision.

#### **25. DEFECTS AND RECTIFICATION & MAINTENANCE**

##### **25.1 DEFECTS AND RECTIFICATION**

For period specified as the "Defect Liability Period" for the work from the date of issuance of the completion certificate in accordance with para "Final Inspection and Acceptance"

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PSCDCL Engineer

Contractor shall remain liable for any of the works or parts thereof or equipment and fittings supplied which in the opinion of the Engineer fail to comply with the requirements of the contract or are in any way unsatisfactory or defective.

To the extent that the works and each part thereof shall at or as soon as practicable after the expiry of the above period be taken over by the Engineer in the condition required by the contract to the satisfaction of the Engineer. The Contractor shall finish the work (if any) outstanding at the date of completion as soon as may be practicable after such date and shall execute all such work of repair, amendment, reconstruction, rectification and making good of defects imperfections, shrinkages or other faults as may during the period of maintenance or after its expiry be required of the Contractor in writing by the Engineer as a result of an inspection made by or on behalf of the Engineer prior to the expiry of the period. All such work shall be carried out by the Contractor at his own expenses if the necessity thereof shall in the opinion of the Engineer be due to the use of materials or to the neglect or failure on the part of the Contractor to comply with any obligation expressed or implied on the Contractor's part under the contract. If the Contractor fails to do any such work as entitled to carry out such work in which the Contractor should have carried out at the Contractor's own cost, the Engineer shall be entitled to recover from the Contractor the cost thereof or may deduct the same from the moneys that become due to the Contractor. Notwithstanding the aforesaid, if the Contractor remains in default, one calendar month after the Engineer has given written instructions in writing, the Security Deposit shall become payable to the PSCDCL who will deduct the cost plus overhead expenses of such works as have been necessary to rectify the Contractor's default and the balance, if any, shall be disbursed. The Contractor shall submit the operation and maintenance manual for the fruitful operation of the works. The Contractor will have a liberty to visit the operating works during the defect liability period and satisfy himself about the on-going operations in case he do not visit & a defect is observed then the Engineer's opinion shall be final & binding as to the application of defect liability.

## **25.2 MAINTENANCE DURING DEFECT LIABILITY PERIOD**

**The Defect Liability for this work is 60 months. During this period, it shall be the responsibility of the contractor to clean the roads, footpaths, dividers, cat's eyes, maintain the footpaths, dividers, kerb, signage and street furniture, road markings, pedestrian crossings, tree / shrub cutting, minor or major maintenance of arboriculture etc at an acceptable serviceability level as directed by the Engineer in charge.**

**During the operation and maintenance period contractor shall provide a supervisor level staff for attending to all the O& M activities during the O&M Period.**

**The contractor shall carry out the two coat painting of all kerbs, dividers, street furniture (where applicable) twice annually and once annually for the Road markings. The monthly report on the Operation and Maintenance shall be submitted to the Engineer and Quarterly payment for O& M as per the BOQ shall be**

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PSCDCL Engineer

**released to the contractor based on the work carried out by him and assesement by the Engineer in charge.**

**26. RIGHT TO WITHHOLD**

The Engineer may refuse to approve to any payment, or because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously approved and paid to such extent as may be necessary in the opinion of the Engineer to protect him from loss because (a). The work is defective, (b) Third party claims have been filed or there is reasonable evidence indicating probable filing of such claims, (c) of the Contractor's failure to make payment properly to sub-Contractors or for labour, materials or equipment, (d) of damage to another Contractor, or to the property of other caused by the Contractor, (e) of reasonable doubt that the work cannot be completed for the unpaid balance of the contract price, (f) of reasonable indication that the work will not be completed within the contract time, (g) of the Contractor's neglect or unsatisfactory prosecution of the work including failure to clean up. Once the reasons that enable or require the Engineer to withhold such payments are removed, payment will be made for amounts withheld because of them to the extent the Contractor is entitled to.

**27. FINAL INSPECTION AND ACCEPTANCE**

Upon written notice from the Contractor, that the entire work required by the contract documents is complete and that all submittals required by him are made, and after the Contractor has delivered the bonds, certificates of inspection, guarantees, warranties, releases and other documents, as required by the contract documents or by law, the Engineer will make a final inspection, and he will notify the Contractor in writing of any particulars in which this inspection reveals that the work is defective, and will also notify the Contractor in writing of any deficiencies in the submittals and the document required from him.

The Contractor shall promptly make such corrections as are necessary to remedy all defects or deficiencies. After the Contractor has completed any such corrections to the satisfaction of the owner, the Engineer will issue a written completion certificate of the work and file any notice and completion required by law or otherwise.

**28. CONTINUING OBLIGATION OF THE CONTRACTOR**

The Contractor's obligation to perform and complete the work in accordance with the contract documents is and shall be absolute. Neither the observation during construction and final inspection of the work by the Engineer, nor any payment to the Contractor under the Contract documents, nor any use or occupancy of the work or any part thereof by the

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PSCDCL Engineer

Engineer, nor any act of acceptance of the defective work by the Engineer shall constitute acceptance of work not in accordance with the contract documents.

**29. INCOME TAX AND WORK CONTRACT TAX**

Income Tax and Work Contract Tax as applicable on gross value of each running account bill shall be deducted towards income tax and Work Contract Tax and a certificate to that extent shall be issued by PSCDCL.

**30. FORCE MAJEURE**

Neither party shall be liable to the other for any loss or damage occasioned by or arising out of the acts of God and in particular unprecedented floods, volcanic eruptions, earthquake or other conclusion of nature and other acts such as, but not restricted to, invasion, act of foreign countries, hostilities or warlike operations before or after declaration of war, rebellion, military or unsurpassed power which prevent performance of the contract and which could not have been foreseen or avoided by a prudent person, such as Earthquake of magnitude more than for which the structures are designed.

**31. RECORDS AND MEASUREMENTS**

The Engineer, shall except stated therein, determine by measurement the value in accordance with the contract of works done in accordance therewith.

All items having a financial value shall be entered in a measurement book, level book, computerized systems etc. as prescribed by the Engineer so that a complete record is obtained of all work performed under the contract. Measurements shall be checked & confirmed by the Engineer or his authorized representative and by the Contractor or his authorized representative. Before taking measurement of any work the Engineer or the person deputed by him for the purpose shall give reasonable notice to the Contractor. If the Contractor fails to attend or send an authorized representative for measurement after such notice or fails to countersign or record the objection within a week from the date of measurement, then in any such event measurements will be taken by the Engineer, or by the person deputed by him shall be taken to be correct measurements of the works and shall be binding on the Contractor. There shall be absolutely no doubt regarding measurements, the Contractor must know the departmental practices developed as per the manuals and standard specifications. The Contractor shall, without any extra charge, provide assistance with every appliance and other things necessary for measurements, such as leveling instruments (Auto setting), Total Station of approved make. The Total Station shall be made available by the Contractor from the beginning of the work till the completion of the work, along with tapes, staves, video cameras/camera, paints, brushes and required labour etc.

Measurements shall be signed and dated by both the parties each day (for taking measurement) on the site on completion of measurements. The Contractor shall take up still colour photographs and video graphs at intervals during the execution of works so

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that a history of development and each activity of the project is maintained.

Set of dated photographs and video graphs, in three copies of each photographs, shall be submitted to the Engineer-in-charge every month. This generation of record shall provide the used methodology of working and highlight the quality of material and workmanship.

The cost of the said work shall be borne by the Contractor. It shall be the property of the Corporation and shall not be used for campaigning, advertising without the permission of the Corporation.

The Contractor shall submit the following before any part of the work is started.

- i) 2 Section and cross section of road as directed by the Engineer.
- ii) All levels along the L-section & cross section as directed & duly verified by Engineer.
- iii) Methodology of construction for each part of work.
- iv) Bar bending schedules for each component of the work and get the same approved.
- v) Detailed measurement of concrete & steel quantities shall be given on weekly basis.
- vi) Detail measurement of excavation in each strata,
- vii) Test reports of materials to be used for each part of work in the prescribed format.

### **32. WRITTEN NOTICE**

Written notice shall be deemed to have been duly served or delivered in person to the individual or member of the firm or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to him who gives the notice. The notice on the Fax Message/E-Mail shall be deemed to have been duly served. The address given in the Contractor's tender on which all notices,

letters & other communications to the Contractor shall be mailed or delivered, except that said address may be changed by the Contractor by notifying the owner in writing. This shall not preclude the service of any notice, letter or other communication upon the Contractor personally.

### **33. USE OF COMPLETED PORTIONS**

The owner shall have the right, upon written notice to the Contractor, to take possession or occupancy of, & use any completed or partially completed portions of the work, notwithstanding that the time for completing the entire work or such portions may not have expired but such taking possession or occupancy and use shall not deemed to waive of any requirement of the contract documents or a waiver or acceptance of any work not completed in accordance with the contract documents.

### **34. CLEANING UP**

The Contractor shall at all times during the work keep the site and premises, adjoining property and public property free from accumulations of waste materials, rubbish, and other debris resulting from the works, and at the completion of the work shall remove all waste materials, rubbish and debris from and about the site and premises as well as all tools, construction equipment and machinery and surplus materials, and shall leave the

site and premises, clean, tidy and ready for occupancy by the owner. The Contractor shall restore to their original condition those portions of the site not designated for alteration by the contract documents paved ways, parking areas and roadways disturbed by the construction shall be redone by filling the excavation, if any, by sand compacted material and bringing it to its original shape as directed and approved by the Engineer. No waste material shall be buried or disposed off on the owner's property unless so approved in writing by the Engineer-in-Charge. Before the Contractor applies for final inspection and acceptance of the work, all items of work shall be complete, ready to operate, and in a clean condition as determined by the Engineer. All slip roads and adjoining area must be kept free of metal / sand and to that extent regular sweeping of the road shall be done by the Contractor at his cost.

**35. OWNER'S RIGHT TO CLEAN UP**

If the Contractor fails to satisfactorily clean up or if a dispute arises between the Contractors or in several Contractors as to their responsibility for cleaning up, the Engineer may get the same cleaned up and charge the cost thereof to the Contractor for his failure, as the Engineer shall determine to be just.

**36. FOSSILS ETC**

All fossils, coins, articles of value of antiquity and structures or other remains or things of geological or archaeological interest discovered on the site shall be deemed to be the property of the owner and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out at the expenses of the Engineer's order as to the disposal of the same.

**37. LABOUR RULES**

The Contractor will have to produce to the satisfaction of the accepting authority a valid and current license issued in his favour under the provision of Contract Labour(Regulation and Abolition) Act 1970, before starting the work, otherwise the Contractor shall have to face the further consequences.

The Contractor shall have to comply with the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be breach of contract and the CHAIRMAN PSCDCL, may in his discretion, cancel the contract, the Contractor shall also be liable, for any pecuniary liability arising on account of any violation of the provisions of this act, by him.

**38. STATUTORY INCREASE IN DUTIES, TAXES ETC**

All the taxes and duties levied by the State and Central Govt. and by Local Bodies at the prevailing rates applicable on the date of receipt of tender shall be fully borne by the Contractor and shall not be reimbursed to him on any account. The tender shall be

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inclusive of all taxes levies, octroi etc. including the tax leviable in respect of work contract under the provision of Maharashtra Sales Tax as transfer of property in goods involved in the execution of Work Contract Act 1985 and its further amendments (Maharashtra ACT XIX of 1985) to be paid by the Contractor.

Further PSCDCL shall not honour any claim arising out of any increase in any of the prevailing statutory duties, taxes, levies, octroi, etc. as the same are inter-alia covered under the Price Variation Clause. At the time of quoting/bidding Contractor should bear the above fact in mind.

**39. INSPECTION, TESTING FEES**

As specified in clause No. 5.3.4

**40. SITE TEST**

The various works envisaged in the tender needs to be tested at site during/after completion of the individual work. This testing is to be done as per the standard procedure laid down in the relevant IRC / MORTH / I.S. or any other standard being followed. The detailed specification shall also be taken into consideration while carrying out the testing. The frequency and type of test on various material and completed item shall be as per MORTH specifications for road and bridge latest edition. The sub-work wise testing required is given in Note shall be as below, which is only indicative:

**SITE TESTING**

Sr. No.	Materials	Type of Test
1.	Asphalt	Ductility, Penetration,softening point
2.	Coarse aggregate	Sieve Analysis, Density, water absorption etc. moisture content. Flakiness Index, Aggregate Impact,
3.	Fine Aggregates	Sieve Analysis, Silt Content,Organic impurities etc. and moisture content. Aggregate Impact.
4.	Asphalt Mix	Gradation, Extraction, Marshall Stability.
5.	Cement Concrete	Slump test, Compression test, Flexural Strength Test
6.	Other site tests	As when required by the Engineer/E-I-C as per Quality Assurance Plan

Note : Coarse & Fine Aggregates should also be tested for Aggregate – Alkali reactivity from an approved laboratory.

Contractor shall provide all facilities to conduct various test as per MoRT&H / IS on site as specified at per his own cost &no extra payment shall be made.

**41. IMPORT LICENSE AND PROCUREMENT OF IMPORTED MATERIALS**

The Contractor shall quote for the indigenous equipment only, as far as possible for the work contracted. Foreign exchanges and import licenses, if any, required shall have to be arranged by the Contractor himself, independently. Delay in getting any material, will

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not be entertained for extension of time limit nor the risk of foreign exchange variation will be covered by the Corporation.

**42. MACHINERY REQUIRED**

All machinery required for erection / execution purposes such as concrete batching plant, hot-mix plant, excavator with rock breaker unit, cranes, trucks, etc. shall be arranged by the Contractor. Employer / P M C will not take any responsibility for providing such machinery even on rental basis. Execution of any item will be allowed only after the required machinery as directed by the Engineer– in –charge is made available in working condition.

**43. DISCREPANCIES AND OMISSIONS**

The tender drawings and specifications shall be considered as complimentary and explanatory, of each other and together shall form the technical requirements and stipulations of tender documents. Detailed drawings shall have preference over small-scale drawings. Similarly, detailed specifications shall have preference over general specifications. Should any discrepancy arise as to the meaning, intent or interpretation of any specification or drawing the decision of the Engineer- in-charge shall be final and binding on the Contractor.

**44. PRICE VARIATION**

Price variation is payable/recoverable as per terms and conditions of the price variation Clause enclosed as Annexure - 'A'.

**45. NO INTEREST ON DUES**

No interest shall be payable by the Corporation on amounts, due to contractors pending final settlement of claim. Further, no interest shall be payable by PSCDCL on any delayed amount / payment. No interest shall be payable on security deposit or withheld amount.

**46. EXTRA ITEMS OF WORK THAT MAY CROP-UP DURING EXECUTION OF WORK**

- (i) For any work other than given in the Schedule – B which is found necessary to be executed in the course of work, such items shall be executed by the contractor as per the following:
  - a) If tender rate is above, rate will be at par as per Current DSR of Pune Municipal Corporation or PWD DSR.
  - b) If tender rate is below, rate will be as per tender quoted rate on Current DSR of Pune Municipal Corporation or PWD DSR
  - c) In case the rate for item is not available in the PMC or PWD DSR then the rate analysis shall be done and got approved from appropriate authority of PSCDCL.

- (ii) Escalation on extra item of work is not payable.

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**47. ARBITRATION**

There is no provision for arbitration. The disputes between Contractor and PSCDCL will be dealt with as per provisions of contract. In case of dispute the decision given by the CHAIRMAN, PSCDCL will be final and binding on the Contractor. However, if the Contractor lodges the case in court of law, the PSCDCL has full power to withdraw the work and allot the same to other agency at the risk and cost of the Contractor. In this case no claim will be entertained.

- 48.** There may be hindrances in execution of construction work in few stretches related to the land acquisition, utilities relocation etc. The Contractor has to consider hindrance prone stretches as a last priority in his working construction programme and accordingly plan the completion of work.

**FORM B-1****PERCENTAGE RATE TENDER AND CONTRACT OF WORK  
GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS**

1. All works proposed to be executed by contract shall be notified in the form of invitation to tender pasted on a board hung up in the office of the Project Engineer and signed by the Project Engineer.

This form will state the work to be carried out as well as the date for submitting and opening tenders, and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit to be deposited by the successful tenderer and the percentage, if any, to be deducted from the bills. It will also state whether a refund of quarry fees, royalties, dues and ground rents will be granted. Copies of the specifications, designs and drawings, estimated rates, scheduled rates and any other documents required in connection with the work shall be signed by the Project Engineer for the purpose of identification and shall also be open for inspection by the contractors at the office of the Project Engineer during office hours.

Where the works are proposed to be executed according to the specifications recommended by a Contractor and approved by a competent authority on behalf of the Corporation, such specifications with designs and drawings shall form part of the accepted tender.

2. In the event of the tender being submitted by a firm, it must be signed by each partner thereof, and in the event of absence of any partner, it shall be signed on his behalf by a person holding a Power of Attorney authorizing him to do so.

- (i) The contractor shall pay along with the tender sum of RsTwenty Two Lakh Ninety Thousand only as and by way of earnest money. The contractor may pay the said amount by forwarding along with the tender Term Deposit receipt for 120 Days of any Nationalized or Scheduled bank for the like amount in favor of the "The CHAIRMAN, PSCDCL". The said amount of earnest money shall not carry any interest what so ever.

In the event if his tender being accepted, subject to provision of sub-clause (iii) below, the said amount of earnest money should be appropriated towards the amount of security deposit payable by him under conditions of General conditions of Contract.

- (ii) If, after submitting the tender, the contractor withdraws his offer, or modifies the same, or if after the acceptance of his tender the contractor fails or neglects to furnish the balance of security deposit without prejudice to any other rights and powers of the Corporation, hereunder, or in law, Corporation shall be entitled to forfeit the full amount of the earnest money deposited by him.
- (iii) In the event of his tender not being accepted, the amount of earnest money deposited by the contractor, shall unless it is prior thereto forfeited under the provisions of Sub-clause (iii) above, be refunded to him on his passing receipt therefore.

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3. Receipts for payments made on any account of work, when executed by a firm, should also be signed by all the partners except where the Contractors are described in their tender as firm, in which case the receipt shall be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.
4. Any person who submits the tender shall fill up usual printed form stating at what percentage above or below the rates specified in Schedule 'B' (Memorandum showing items of work to be carried out) he is willing to undertake the work. Only one rate or such percentage on all the Estimated rates/ Schedule rates shall be named. Tenders, which proposed any alteration in the works specified in the same form of invitation of tender, or in the time allowed for carrying out the work, or which contain any other conditions, of any sort will be liable to rejection. No printed forms of tender shall include a tender for more than one work, but if the Contractor who wish to tender for two or more works, they shall submit a separate tender for each. Tender shall have the name and number of the work to which they refer, written outside the envelope.
5. The Project Engineer or his duly authorized assistant shall open tenders in the presence of Contractors who have submitted tenders or their representatives who may be present at the time, and he will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, the Contractor shall for the purpose of identification, sign copies of the specifications and other documents mentioned in the rule 1. In the event of the tender being rejected, the Project Engineer shall authorize the P.M.C. Officer concerned to refund the amount of the earnest money deposited, to the Contractor marking the tender, on his giving a receipt for the return of the money.
6. The officer competent to dispose of the tenders shall have the right of rejecting all or any of the Tenders.
7. No receipt for any payment alleged to have been made by a Contractor in regard to any matter relating to this tender or the contract shall be valid and binding on Corporation unless it is signed by the Project Engineer or other appropriate officer of PSCDCL.
8. The Memorandum of work to be tendered for and the schedule of materials to be supplied by the Corporation and their rates shall be filled in by any completed by the office of the Project Engineer before the tender form is issued. If a form issued to an intending tenderer has not been so filled and completed, he shall request the said office to have this done before he completes and delivers his tender.
9. All work shall be measured net by standard measure and according to the rules and customs of the Public Works Department and without reference to any local custom. Under no circumstances shall any contractor be entitled to claim enhanced rates for items in this contract.
10. Every unregistered contractor shall, (unless exempted in writing by the Project Engineer) produce along with his tender a solvency certificate to the extent of 20 % of the tendered cost of the work from the Collector of the district or Tahasildar of Taluka within which he resides or a bankers certificate of his financial stability. If he fails to produce such a certificate his tender will not be considered.

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11. Every registered contractor should produce along with his tender certificate of registration as approved contractor in the appropriate class and renewal of such registration with date of expiry.
12. All corrections and additions or pasted slips should be initialed.
13. The measurements of work will be taken according to the usual methods in use in the Public Works Department and no proposals to adopt alternative methods will be accepted. The Project Engineer's decision as to what is the usual method in use in Public Works Department will be final.
14. The tendering Contractor shall furnish a declaration along with the tender showing all works for which he has already entered into contract and the value of the work that remains to be executed in each case on the date of submitting the tender.
15. Every tenderer shall furnish along with the tender, information regarding the Income tax circle or Ward of the District in which he is assessed to Income Tax, the reference to the number of the assessment and the assessment year, and a valid Income Tax Clearance Certificate.
16. In view of the difficult position regarding the availability of foreign exchange, no foreign exchange would be released by the Corporation for the purchase of plant and machinery required for the execution of the work contracted for.
17. The contractor will have to construct shed for storing controlled and valuable materials issued to him under Schedule 'A' of the agreement, at work site, having double locking arrangement. The materials will be taken for use in the presence of the Departmental person. No materials will be allowed to be removed from the sites of the works.
18. The Contractors shall also give a list of machinery in their possession and which they proposed to use on the work in the form of Statement No. III.
19. Every unregistered contractor should furnish along with tender a statement showing previous experience and technical staff employed by him, in the form of Statement No. IV.
20. Successful tenderer will have to produce to the satisfaction of accepting authority a valid and current license issued in his favor under the provision of Contract Labor (Regulation and Abolition Act 1973) before starting work, failing which acceptance of the tender will be liable for withdrawal and earnest money will be forfeited to Corporation.
21. The contractor shall comply with the provision of the Apprentices Act 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be breach of the contract and the CHAIRMAN PSCDCL, may in his discretion cancel the contract. The contractor shall also be liable for pecuniary liability arising on account of any violation by him of the provisions of the Act.

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**TENDER FOR WORKS**

I/We hereby tender for the execution, for PSCDCL (here-in-before and hereinafter referred to as Corporation) of the work specified in such memorandum at \_\_\_\_\_ percent below/above the estimated rates entered in Schedule 'B' (Memorandum showing items of work to be carried out) and in accordance in all respects with the specifications, designs, drawings, and instructions in writing referred to in rule 1 hereof and in Clause 12 of the annexed conditions of contract and agree that when materials for the work are provided by the corporation, such materials and the rates to be paid for them shall be as provided in Schedule 'A' hereto.

In figures as well as in words

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### MEMORANDUM

1. (a) General Description: Separately attached (a) If several sub-works are included they should be detailed as a separate list.
- (b) Tender Cost **Rs 22,90,60,320/-**
- (c) Earnest Money **Rs 22,90603/-** The amount of earnest money to be deposited.
- (d) Security Deposit (d) Security Deposit.
- (i) Cash (not less than the amount of earnest money) **(1 %)**
- (ii) To be deducted from current bills **(3 %)**

**TOTAL SECURITY DEPOSIT: Rs(5%)**

<p>(e) Percentage, if any to be deducted from bill so as to make up the total required as security deposit by the time, half the work, as measured by the costs, is done.</p> <p style="text-align: center;"><b>Three Percent</b></p>	<p>(e) This percentage where no security Deposit is taken, will vary from 5 percent to ten percent according to the requirements of the case where security deposit is taken see Note 1 of conditions of the contract</p>
<p>(f) Time allowed for the work from date of written order to commence.</p> <p style="text-align: center;"><b>06Calendar Months.</b></p>	<p>(f) Give schedule where necessary showing dates by which the various items are to be completed.</p>

2. I/We agree that the other offer shall remain open for acceptance for a minimum period of 120 days from the date fixed for opening the same thereafter until it is withdrawn by me/us by notice in writing duly addressed to the authority opening the tenders and sent by registered post A.D. or otherwise delivered at the office of such authority. Term Deposit Receipt No. \_\_\_\_\_ and date \_\_\_\_\_ in respect of the sum of **Rupees \_\_\_\_\_ in words \_\_\_\_\_ (Rupees \_\_\_\_\_) only** representing the earnest money is herewith forwarded. The amount of earnest money shall not bear interest and shall be liable to be forfeited to the Corporation should I/We fail to (i) abide by the stipulation to keep the offer open for the period mentioned above of (ii) sign and complete the contract documents as required by the Engineer and furnish the security deposit as specified in item (d) of the Memorandum contained in paragraph (i) above within the time limit laid down in clause (1) of the annexed General Conditions of the Contract.

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Project Engineer



The amount of earnest money maybe adjusted towards the security deposit or refunded to me/ us if so desired by me/us in writing, unless the same or any part thereof has been forfeited as aforesaid.

2. Should this tender be accepted I/We hereby agree to abide by and fulfill all the terms and provisions of the conditions of contract annexed hereto so far as applicable and in default thereof and pay to Corporation, the sum of money mentioned in the said conditions.

**Amount to be specified in words and figures**

The earnest money (a) the full value of which is to be absolutely forfeited to Corporation if I/We should not deposit the full amount of security deposit in specified format in the above memorandum, in accordance with clause 1(A) of the said conditions, otherwise the said sum of Rs. \_\_\_\_\_ shall be refunded.

**Signature of  
the Contractor before  
submission of the Tender.**

Address:

Dated the \_\_\_\_\_ day of

**Signature of the Witness to  
Contractor's Signature.**

Address:

(Occupation)

**The above tender is hereby accepted by me for and one behalf of the PSCDCL.**

Dated \_\_\_\_\_ day of \_\_\_\_\_ 2016

**Project Engineer (PSCDCL)  
or his duly authorized assistant)**

**CONDITIONS OF CONTRACT**

## Security Deposit

**Clause 1:** The person / persons whose tender may be accepted (hereinafter called the Contractor, which expression shall unless excluded by or repugnant to the context include his heirs, executors, administrators and assigns) shall (A) within 10 days (which may be extended by the CHAIRMAN PSCDCL concerned up to 15 days, if the CHAIRMAN PSCDCL thinks fit to do so) of the receipt by him of the notification of the acceptance of his tender deposit with the CHAIRMAN PSCDCL in F.D.R. pledged in the name of the Commissioner (if deposited for more than 12 months of sum as will amount to 5 percent of all moneys so payable such deductions to be held by PSCDCL by way of security Deposit). Provided always that in the event of the Contractor depositing a lump sum by way of security deposit as contemplated at (A) above then and in such case if the sum so deposited shall not amount to 5 percent of the total estimated cost of the work, it shall be lawful, for PSCDCL at the time of making any payment to the Contractor for work done under the contract C to Y make up the full amount of 5 percent by deducting a sufficient sum from every such payment as last aforesaid until the full amount of the security deposit is made up. All compensation or other sums of money payable by the Contractor to PSCDCL under the terms of his contract may be deducted from, or paid by the sale of sufficient part of the security deposit or from the interest arising there from, or from any sums which may be due or may become due by Corporation to the contractor under any other contract or transaction of any nature on any account whatsoever and in the event of his Security Deposit being reduced by a reason of ten days thereafter, make good in cash or F.D.R. pledged to CHAIRMANPSCDCL as aforesaid any sum or sums which may have been deducted from or raised by sale of his security deposit or any part thereof. The security deposit referred to when paid in cash, at the cost of the depositor, be converted and interest bearing securities provided that the depositor has expressly desired this in writing.

If the amount of the security deposit to be paid in a lump sum within the period specified at (A) above is not paid the tender/ contract already accepted shall be considered as cancelled any legal steps taken against the contract for recover of amounts, the amount of the security deposit lodged by a contractor shall be refunded after a date up to which the contract has agreed to maintain the work in good order is over. In the event of the contractor failing or neglecting to complete rectification work within the period up to which the contractor has agreed to maintain the work in good order, then, subject to provisions of clause 17 and 20 hereof the amount of security deposit retained by PSCDCL shall be forfeited without any notice.

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Compensation for delay

**Clause-2:** The time allowed to carry out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the order to commence work is given to the Contractor. The work shall through the stipulated period of the contract be proceeded with, all due diligence (time being deemed to be of the essence of the contract on the part of the Contractor) and the Contractor shall pay as compensation and amount equal to one percent or such smaller amount as the CHAIRMAN PSCDCL (whose decision in writing shall be final) may decide of the amount of estimated cost of the whole work as shown by the tenderer of everyday the work remains un commenced or unfinished after the proper dates. And further to ensure good progress during execution of the work, the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month to complete.

$\frac{1}{4}$	of the work in	1/3 of the time
$\frac{1}{2}$	of the work in	$\frac{1}{2}$ of the time
$\frac{3}{4}$	of the work in	$\frac{3}{4}$ of the time

**and full work should be completed in (06Calendar months)**

NOTE: The quantity of the work to be done within a particular time to be specified above shall be fixed and inserted in the blank space kept for the purpose of the officer competent to accept the contracts after taking into consideration the circumstances of each case and abide by the program of detailed progress laid down by the Project Engineer. In the event of the Contractor failing to comply with these conditions he shall be liable to pay as compensation, an amount an equal to one percent or such smaller amounts as the CHAIRMAN PSCDCL (whose decision in shall be final) may decide of the said estimated cost of the whole work for everyday that the due quantity of work remains incomplete provided always that the total amount of compensation to be paid under the provisions of this clause shall not exceed 10 percent of the estimated cost of the work as shown in the tender. CHAIRMAN PSCDCL, should be the final authority in the respect.

Action when whole of security Deposit is forfeited

**Clause – 3 :** In any case in which under any clause of this contract the Contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit whether paid in one sum or deducted by the installments or in the case of abandonment of the work owing to serious illness or death of the Contractor or anyother cause the Project Engineer, on behalf of the Corporation, shall have the power to adopt any of the following courses, as he may deem best suited to the interest of the Corporation.

- (a) To rescind the contract (for which rescission notice in writing to the Contractor under the hand of Project Engineer shall be conclusive evidence) and in that case the security deposit of the Contractor shall stand forfeited and be absolutely at the disposal of the Corporation.

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- (b) To carry out the work or any part of the work departmentally debiting the Contractor with the cost of the work, expenditure incurred on the tools and plant, and charges on additional supervisory staff including the cost of the work—charged establishment employed for getting the un-executed part of the work completed and crediting him with the value of the work done departmentally in all respect in the same manner and at the same rates as if it had been carried out by the Contractor under terms of his contract. The certificate of the Project Engineer as to the costs and other allied expense so incurred and as to the value of the work so done departmentally shall be final and conclusive against the Contractor.
- (c) i) To order that the work of the Contractor be measured up and to take such part thereof as shall be un-executed out of his hands, and to give it to another Contractor to complete, in which case all expenses incurred on advertisement for fixing a new contracting agency ,additional supervisory staff including the cost of the work charged establishment and the cost of the work executed by the new Contractor agency will be debited to the Contractor and the value of the work done or executed through the new Contractor in all respects and in the same manner and at the same rates as if it had been carried out by the Contractor under the terms of his contract. The certificate of the Project Engineer as to the costs and other allied expense so incurred and as to the value of the work so done departmentally shall be final and conclusive against the contractor.
- ii) In case the contract shall be rescinded under clause (a) above the Contractor shall not be entitled to recover or be paid, any sum for any work thereof actually performed by him under this contract unless and until the Project Engineer shall have certified in writing the performance of the such work and the amount payable to him in respect thereof and he shall only be entitled to be paid the amount so certified. In the event of either of courses referred to clause (b) or (c) being adopted and the cost of the work executed departmentally or through new contractor and other allied expense exceeding the value of such work credited to the Contractor the amount of excess shall be deducted from any money due to the Contractor, by Corporation under the contractor or otherwise howsoever or from his security deposit or the sale proceeds thereof provided; however that Contractor shall have no claim against Corporation even if the certified value of the work done departmentally or through a new Contractor exceeds the certified cost of such work and allied expenses, provided always that whichever of the three courses mentioned in clause (a), (b) or (c) is adopted by the CHAIRMAN PSCDCL, the Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements, or made any advance on account of or with a view to the execution of the work or the performance of the contract.

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Project Engineer

Action when the progress of any particular portion of the work is unsatisfactory

**Clause – 4 :** If the progress of any particular portion of the work is unsatisfactory, the CHAIRMAN PSCDCL shall notwithstanding that the general progress of the work is in accordance with the conditions mentioned in clause 2 be entitled to take action under clause 3 (b) after giving the Contractor 10 days notice in working. The contractor will have no claim for compensation, for any loss sustained by him owing to such action.

Contractor remains liable to pay compensation if action not taken under clause 3 and 4

**Clause – 5 :** In any case in which any of the powers conferred upon the Project Engineer by clause 3 and 4 shall have become exercisable and the same shall not have been exercised the non exercise thereof shall not constitute a waiving of any of the condition here of the such power shall notwithstanding be exercisable in the event of any future case of default by the Contractor for which under any clause hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the Contractor for past and future compensation shall remain unaffected,. In the event of the Project Engineer taking action under sub-clause (a) or (c) of clause 3, he may, if he so desires, take possession of all or any tools and plant, materials and stores in or upon the work of the site thereof belonging to the Contractor, or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable at current market rates to be certified by the Project Engineer whose certificate thereof shall be final. In the alternative, the Project Engineer may, after giving notice in writing to the Contractor or his clerk of any work, foreman or other authorized agent required him to remove such tools and plant, materials, or stores from the premises within a time to be specified in such notice, and in the event of the Contractor failing to comply with any such requisition, the Project Engineer may remove them at the Contractor's expenses or sell them by auction or private sale on account of the Contractor and at his risk in all respects, and the certificate of Project Engineer as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the Contractor.

Extension of time limit

**Clause – 6 :** If the Contractor shall desire an extension of the time for completion of work on the ground of his having been unavoidably hindered in its execution or on any other ground he shall apply in writing to the Project Engineer before the expiration of the period stipulated in the tender or before the expiration of 30 days from the date on which he was hindered as aforesaid or on which the clause for asking for extension occurred, whichever is earlier and the Project Engineer, or in the opinion of Project Engineer as the case may be if in his opinion, there were reasonable ground for granting an extension, grant such extension as he thinks necessary or proper, the decision of the CHAIRMAN PSCDCL in this matter shall be final.

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Project Engineer

Final Certificate

**Clause – 7 :** On the completion of the work the Contractor shall be furnished with a certificate by the Project Engineer (hereinafter called the Engineer-in- Charge) of such completion; but no such certificate shall be given nor shall the work be considered to be complete until the Contractor shall have removed from the premises on which the work shall have been executed, all scaffolding, surplus materials and rubbish, and shall have cleaned off, the dirt from all wood work, doors, windows, wall, floor or other parts of any building in or upon which the work has been executed, or of which he may have had possession for the purpose of executing the work, nor until the work shall have been measured by the Engineer-in –Charge or where the measurements have been taken by his subordinates until they have received approval of the Engineer-in- Charge, the said measurements being binding and conclusive against Contractor. If the contractor shall fail to comply with the requirements of this clause as to the removal of scaffolding surplus materials and rubbish and cleaning of dirt on or before the date fixed for the completion of the work the Engineer-in- Charge may at the expense of the Contractor, removal such scaffolding, surplus material and rubbish, and dispose off the same as he thinks fit and clean off as such dirt as aforesaid and the Contractor shall from with pay the amount of the all expenses so incurred, but shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

Payment on intermediate certificate to be regarded as advances

**Clause-8 :** No payment shall be made for any work, estimated to cost less than rupees one thousand till after the whole of work shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees one thousand the Contractor shall on submitting a monthly bill therefore be entitled to receive payment proportionate to the part of the work than approved and passed by the Engineer-in – Charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the Contractor. All such intermediate payments shall be regarded as payment by way of advance against the final payment only and not as payment for work actually done and completed and shall not preclude the Engineer-in-Charge from requiring any bad, unsound imperfect or unskillful work to be removed or taken away and reconstructed, or re-erected nor shall any such payment be considered as an admission of the due performance of the contract or any part thereof in any respect or the occurring of any claim nor shall it conclude, determine or effect in any other way powers of the Engineer-in-Charge as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or effect the contract. The final bill shall be submitted by the Contractor within one month of the date fixed for the completion of the work, otherwise the Engineer-in- Charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.

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Payment on reduced rates on account of items of work not accepted as completion discretion of Engineer-in-Charge

**Clause-9** : The rates of several items of work estimated to cost more than Rs. 1000/- agreed to within, shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In case where the item of work are not accepted as so completed by the Engineer-in Charge may make payment on account of such item at such reduced rates as he may consider reasonable in the preparation of final or on account bills.

Bill to be submitted

**Clause -10:** A bill shall be submitted by the Contractor in each month on or before the date fixed by the Engineer- in- Charge for all work executed in the previous month and the Engineer-in-Charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within 10 days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-Charge may depute a subordinate to measure up the said work in the presence of the contractor or his duly authorized agent whose counter signature to the measurement list shall be sufficient warrant, and the Engineer-in-Charge may prepare a bill from such a list which shall be binding on the contractor in all respects.

Bill to be on printed forms

**Clause-11:** The contractor shall submit all bills on the printed forms to be had in the application at the office of the Engineer- in - Charge. The charges to be made in the bill shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the tender at the rates hereinafter provided for such work.

Stores supplied by Corporation

**Clause-12:** If the specification or estimate of the work provides for the use of any special description of materials to be supplied from the store of the Engineering departmental store or if it is required that the contractor shall use certain stores to be provided by the Engineer in charge (such materials and stores and the prices to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so far as in any way to control the meaning or effect to this contract specified in the schedule or memorandum hereto annexed) the contractor shall be supplied with such materials and stored as may be required from time to time to be used only by him for the purpose of the contract only, and the value of the full quantity of the materials and stores so supplied shall be set off or deducted from any sums then due, or thereafter to become due to contractor under the contract, or otherwise, or from the security deposit or the proceeds of the sale thereof if the security deposit is held in pledged securities, the same or a sufficient portion thereof shall in that case be

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sold for the purpose. All materials supplied to the contractor shall remain the absolute property of Corporation and shall on no account be removed from the site of the work, and shall at all times be open for inspection by the engineer in charge. Any such materials unused and in perfectly good conditions at the time of completion or determination of the contract shall be returned by the engineering departmental store if the engineer in charge so requires by a notice in writing given under his hand but the contractor shall not be entitled to return any such materials except with consent of the Engineer in charge and shall have no claim for compensation on account of any such material supplied to him as foresaid but remaining unused by him or any wastage in or damage to any such materials.

**Clause-12 (A) :** All stores of controlled materials such as cement, steel etc., supplied to the contractor by the Corporation should be kept by the contractor under lock and key and will be accessible for inspection by the Project Engineer or his agents all the time.

Work to be executed in accordance to specifications, drawings, orders etc

**Clause-13:** The contractor shall execute whole and every part of the work in the most substantial and workman like manner, and both as regards materials and every other respect in strict accordance with specifications. The contractor shall also conform exactly, fully, and faithfully to the designs, drawings and instructions in writing relating to the work signed by the Engineer-in- Charge and lodged in his office and to which the contractor shall be entitled to have access for the purpose of inspection at such office, or at the site of the work during office hours. The contractor will be entitled to receive three sets of contract drawings and working drawing as well as one certified copy of the accepted tender along with work order free of cost. Further copies of the contract drawings and working drawings if required by him, shall be supplied at the rate of Rs. 200/- per set of contract drawings and Rs. 100/- per working drawing except where otherwise specified.

Alterations in specifications and designs not to invalidate

**Clause-14:** The Engineer-in-Charge shall have the power to make any alterations in or additions to original specifications, drawings, designs, and the instructions that may appear to him to be necessary or advisable during the progress of the work, and the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in the writing signed by the Engineer- in-Charge and such alterations shall not invalidate the contract, and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work, and if the additional and altered work includes any class of work for which no rate is specified in the contract, then such work or class shall be carried out at the rates entered in the Schedule of rates of the Government or the Corporation or at the rates mutually agreed upon between the Engineer- in -Charge or altered

Rates for works not entered in estimate or schedule of rate of the

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work for which no rate is entered in the rates agreed upon then the contractor shall within seven days of the date of receipt by him the order to carry out the work, inform the Engineer- in -Charge of the rate which it is his intention to charge for such class of work, and if the Engineer- in-Charge does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry out in such manner as he may consider advisable provided always that if the contractor shall commence work or incurred any expenditure in regard thereto before the rates shall have been determined as lastly hereinbefore mentioned, then in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rate as aforesaid according to such rate or rates as shall be fixed by the Engineer-in-Charge in the event of a dispute, the decision of the Chief Engineer will be final.

Where, however, the work is to be executed according to the designs, drawings and specifications recommended by the contractor and accepted by the competent authority the alterations above referred to shall be within the scope of such designs, drawings and specifications appended to the tender.

Extension of time in consequence of additions or alterations

The time limit for the completion of the work shall be extended in the proportion that the increase in its cost occasioned by alterations, or additions bears to the cost of the original contract work, and the certificate of the Engineer-in-Charge as to such proportion shall be conclusive.

**Clause 15-:**

No claim to any payment or compensation for alteration in or restriction of work

- (1) If at any time after the execution of the contract documents the Engineer shall for any reason whatsoever (other than default on the part of the contractor for which the Corporation is entitled to rescind the contract) desires that the whole or the part of the work specified in the tender should be suspended for any period or that the whole or part of the work should not be carried out, at all he shall give to the contractor a notice in writing of such desire and upon the receipt of such notice the contractor shall forthwith suspend or stop the work wholly or in part as required, after having due regard to the appropriate stage at which the work should be stopped or suspended so as not to cause any damage or injury to the work already done or endanger the safety thereof provided that the design of the Engineer as to the stage at which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the contractor. The contractor shall have no claim to any payment or compensation whatsoever by reason of or suspension, stoppage or curtailment except to the extent specified thereafter.
- (2) Where the total suspension of work ordered as aforesaid continued for a continuous period exceeding 90 days the contractor shall be at liberty to withdraw from the contractual

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obligations under the contract so far as it pertains to the unexecuted part of the work by giving a 10 days prior notice in writing to the Engineer, within 30 days of the expiry of the said period of 90 days, of such intention and requiring the Engineer to record the final measurements of the work already done to pay the final bill. Upon giving such notice the contractor shall be deemed to have been discharged from his obligation to complete the remaining un-executed work under his contract. On receipt of such notice the Engineer shall proceed to complete the measurement and make such payment as may be finally due to the contractor within the period of 90 days from the receipt of such notice in respect of the work already done by the contractor. Such payment shall not in any manner prejudice the right of the contractor to any further compensation under the remaining provisions of this clause.

- (3) Where the Engineer required the contractor to suspend the work for a period in excess of 30 days at any time or 60 days in the aggregate, the contractor shall be entitled to apply to the Engineer within 30 days of the resumption of the work after such suspension for payment of compensation to the extent of pecuniary loss suffered by him in respect of working machinery remained idle on the site or on the account of his having and to pay the salary or wages of labor engaged by him during the said period of suspension provided always that the contract shall be not entitled to any claim in respect of any working machinery, salary or wages for the first 30 days whether consecutive or in the aggregate or such suspension in respect of any suspension whatsoever occasioned by unsatisfactory work or any other default on his part. The decision of the Engineer in this regard shall be final and conclusive against the contractor.

- (4) In the event of-

- (i) Any total stoppage of work on notice from the Engineer under Sub clause (1) in that behalf.  
(ii) Withdrawal from the contractor from the contractual obligation complete the remaining un-expected work under the sub-clause (2) on account of continued suspension of work for a period exceeding 90 days.

**or**

- (iii) Curtailment in the quantity of item or items originally tendered on account of any alteration, omission on substitution in the specification, drawings, designs, or instructions under clause 15(1) where such curtailment exceeds 25 % in quantity and the value of quantity curtailed beyond 25 % at the rates for the items specified in the tender is more than Rs. 50000/-.

No claim to compensation on account of loss due to delay in supply of material by Corporation

It shall be open to the contractor, within 90 days from the service of (i) the notice of stoppage of work or (ii) the notice of withdrawal

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from the contractual obligations under the contract on account of continued suspension of work or (iii) notice under clause 15(1) resulting in such curtailment, to produce to the Engineer satisfactory documentary evidence that he had purchased or agreed to purchase material for use in the contracted work, before receipt by him of the notice of stoppage, suspension or curtailment and require the Corporation to take over on payment such material at the rates determined by the Engineer, provided, however such rates shall in no case exceed the rates at which the same was required by the contractor. The contractor shall thereafter take over the materials so offered, provided the quantities offered, are not in excess of the requirements of the unexecuted work as specified in the accepted tender and are of quality and specifications approved by the Engineer.

**Clause-15 (A) :** The contractor shall not be entitled to claim any compensation from the Corporation for the loss suffered by him on account of delay by Corporation in the supply of materials entered in Schedule 'A' where such delay is caused by-

- |   |  |
|---|--|
| No claim to compensation on account of loss due to delay in supply of material by Corporation | <ul style="list-style-type: none"> <li>(i) Difficulties related to the supply of railway wagons,</li> <li>(ii) Force Majeure,</li> <li>(iii) Act of God,</li> <li>(iv) Act of enemies of the State or any other reasonable cause beyond the control of Corporation.</li> </ul> |
|---|--|

In the case of such delay in the supply of materials, Corporation shall grant such extension of time for the completion of the works as shall appear to the Project Engineer to be reasonable in accordance with the circumstances of the case. The contractor shall accept the decision of the Project Engineer as to the extension of time as final.

Time limit for unforeseen claims

**Clause-16:** Under no circumstances whatever shall the contractor be entitled to any compensation from the Corporation on any account unless the contractor shall have submitted a claim in writing to the Engineer- in- Charge within one month of the case of such claim occurring.

Action and compensation payable in case of bad work

**Clause-17:** If any time before the security deposit or any part thereof is refunded to the contractor, it shall appear to the Engineer- in- Charge or his subordinate in charge of work, that any work has been executed with unsound, imperfect or unskillful workmanship or with the materials of inferior quality, or that any materials or articles provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for or are otherwise not in accordance with the contract it shall be lawful for the Engineer- in- Charge to intimate this fact in writing to the contractor and then notwithstanding the fact that the work, materials or articles complained of any have been inadvertently passed, certified and paid for the contractor shall be bound forthwith, to rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require, or if so required, shall remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost, and in the event of his failing to do so, within a period to be specified by the Engineer- in- Charge in the written intimation

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aforsaid, the contractor shall be liable to pay compensation at the rate of 1 % on the amount of the estimate for every day not exceeding 10 days during which the failure so continues and in the case of any such failure the Engineer- in- Charge may rectify and remove, and re-execute the work or remove and replace the material or articles complained of as the case may be at the risk and expense in all respects of the contractor. Should the Engineer- in- Charge consider that no such inferior work or materials as described above maybe accepted or made use of it shall be within his discretion to accept the same at such reduced rates as he may fix therefore.

Work to be open for

**Clause-18:** All work under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Engineer- in-Charge and his subordinates, and the contractor shall at all times during the usual working hours, and at all other times at which his subordinates to visit the work shall have been given to the contractor, either himself be present to receive orders and instructions or have responsible agent duly authorized in writing present for that purpose. Orders given to the contractors duly authorized agent shall be considered to have the same force and affect as if they had been given to the contractor himself.

Contractor or responsible agent to be present

Notice to be given before work is covered up

**Clause-19:** The Contractor shall give not less than 5 days notice in writing to the Engineer- in- Charge or his subordinate in charge of the work before measurement any work in order that the same may be measured and correct dimensions thereof taken before the same is so covered up or place beyond the reach of measurement and shall not cover up or place beyond the reach of measurement any work without the consent in writing of Engineer-in-Charge or his subordinate in charge of the work and if any work shall be covered up or placed beyond the reach of measurement, without such notice having been given or consent obtained the same shall be uncovered at the contractors expense and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed.

Contractor liable for damage done and for

**Clause- 20:** If during the period of 12 months from the date of completion as certified by the Engineer- in-Charge pursuant to Clause 7 of the contract for 12 months after commissioning the work, whichever is earlier in the opinion of the Project Engineer, said work is defective in any manner whatsoever, the contractor shall forthwith on receipt of notice in that behalf from the Project Engineer, duly commence execution and completely carry out at his cost in every respect or the work that may be necessary for rectifying and setting right the defects specified therein including dismantling and reconstruction of unsafe portion strictly in accordance with and in the manner prescribed and under the supervision of the Project Engineer. In the event of the contractor failing or neglecting to commence execution of the said rectification work within the period prescribed thereof in the said notice and/or to complete the same as aforsaid as required by the said notice, the Project Engineer shall get the same executed and carried out departmentally or by any other agency at the risk on account and at the cost of the contractor. The contractor shall forthwith on demand pay to the Corporation the amount of such cost, charges and expenses sustained or incurred by the Corporation of

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which the certificate of the Project Engineer shall be final and binding on the contractor. Such cost, charges and expenses shall be deemed to be arrears of land revenue and in the event of the contractor failing or neglecting to pay the same on demand as aforesaid without prejudice to any other rights and aforesaid remedies of the corporation the same maybe recovered from the contractor as arrears of land revenue. The Corporation shall also be entitled to deduct the same from any amount, which may then be payable or which may thereafter become payable by the Corporation to the contractor either in respect of the said work or any other work whatsoever or from the amount of security deposit retained by Corporation.

Contractor to supply  
plant, ladder,

**Clause-21:** The contractor shall supply at his own cost all materials (except such special material, if any as many in accordance with the contract, be supplied from the Engineering Departmental Stores), plant tools appliances implements, ladders, cordage, tackle scaffolding and temporary works requisite or proper for the proper execution of the work, whether, in the original, altered or substituted from and whether including in the specification or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirement of the Engineer-in-Charge as to any matter as to which these conditions, he is entitled to be satisfied, or which he is entitled to require together with the carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurement or examination at any time and from time to time of the work or the material, failing which the same may be provided by the Engineer-in-Charge at the expenses of the contractor and the expenses may be deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof. The contractor shall provide all necessary fencing and lights required to protect the public from accidents, and shall also be bound to bare the expenses of defense of every suit, action or other legal proceedings, that may be brought by any person for injuries sustained obeying to neglect of the above precautions, and to pay any damages and costs which may be avoided in any such suit actions or proceedings to any such person, or which may with consent of the contractor to be paid for compromising any claim by any such person.

List of machinery in contractor's possession and which they propose to use on the work should be submitted along with the tender.

**Clause-21 (A):** the contractor shall provide suitable scaffolds and working platforms gangways and stairways and shall comply with the following regulations in connection therewith: -

- (a) Suitable scaffolds shall be provided for workmen for all works that cannot be safely done from a ladder or by other means.
- (b) A scaffold shall not be constructed, taken down or substantially altered except-

- 
- (i) Under the supervision of a competent and responsible person: and
  - (ii) As far as possible by competent workers possessing adequate experience in this kind of work.
  - (c) All scaffolds and appliances connected therewith and ladders shall-
    - (i) Be sound of material,
    - (ii) Be of adequate strength having regards to the loads and strains to which they will be subjects, and
    - (iii) Be maintained in proper condition
  - (d) Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.
  - (e) Scaffolds shall not be overloaded and so far as practicable the load shall be evenly distributed.
  - (f) Before installing lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the Scaffolds.
  - (g) Scaffolds shall be periodically inspected by a competent person.
  - (h) Before allowing a scaffold to be used by his workmen the contractor shall, whether the scaffold has been erected by his workmen or not, take steps to ensure that it complies fully with the regulation herein in specified.
    - (i) Working platform, gangways, stairways shall
    - (ii) Be so constructed that no part of thereof can sag unduly or unequally.
    - (iii) Be so constructed and maintained having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping, and
    - (iv) Be kept free from any unnecessary obstruction.
  - (j) In case of working platform, gangway, working places and stairways at a height exceeding three members.
    - (i) Every working platform and every gangway shall be closely boarded unless other adequate measures are taken to ensure safety.
    - (ii) Every working platform and gangway shall have adequate width and
    - (iii) Every working platform, gangway, working place and stairway shall be suitable fenced.
  - (k) Every opening in the floor of a building or in a working platform shall accept for the time and to the extent required to allow the excess of persons for the transport for shifting of materials to be provided with suitable means to prevent the fall of persons or materials.
  - (l) When persons are employed on roof where there is a danger of falling from a height exceeding 3 meters. Suitable precautions shall be taken to prevent the fall of persons or material.

- (m) Suitable precautions shall be taken to prevent persons being struck by articles, which might fall from scaffolds or other working places.
- (n) Safe means of access shall be provided to all working platforms and other working places.
  - (o) The contractor(s) will have to make payments to the laborers as per minimum wages Act.

**Clause-21 (B):** The contractor shall comply with the following regulations as regards the hoisting appliances to be used by him.

- (a) Hoisting machine and tackle, including the attachments anchorages and supports shall,
  - (i) Be of good mechanical construction, sound material and adequate strength and free from patent defect and
  - (ii) Be kept in good repair and in working order.
- (b) Every rope used in hoisting or lowering materials or as a mean of suspension shall be of suitable quality and adequate strength and free from patent defect.
- (c) Hoisting machines and tackle shall be examined and adequately tested after erection on the site and before used and be reexamined in position at intervals to be prescribed by the Corporation.
- (d) Every chain, ring, hook, shackle swivel and pulley block used in hoisting and lowering materials or as a mean of suspension shall be periodically examined.
- (e) Every crane driver or hoisting appliance operator shall be properly qualified.
- (f) No person who is below the age of 18 years shall be control of any hoisting machine, including any scaffold which, or give signals to the operator.
- (g) In case of every hoisting machine and of every chain, ring, hook, shackle, swivel pulley block used in hoisting or lowering or as a mean of suspension, the safe working load shall be as ascertained by adequate means.
- (h) Every hoisting machine and all gear referred to in preceding regulation shall be plainly marked with the safe working load.
- (i) In the case of a hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated.
- (j) No part of any hoisting machine or of any geared referred to in regulation (g) above shall be loaded beyond the safe working load except for the purpose of testing.
- (k) Motors, gearing transmissions, electric wiring and other dangerous part of hoisting appliances shall be provided with efficient safeguards.
- (l) Hoisting appliances shall be provided with such means as will reduce to minimum, and the risk of the accidental descent of a load

- (m) Adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced

Measure for prevention of fire

**Clause-22:** The contractor shall not set fire to any standing jungle, trees, bush woods or grass without a written permit from the Project Engineer.

When such permit is given, and also in all cases when destroying cut or dug up trees bush wood, grass etc. by fire; the contractor shall take necessary measure to prevent such fire spreading to or otherwise damaging surrounding property.

The contractor shall make his own arrangements for drinking water for the labors employed by him.

Liability of contractor for any damage done in or outside work

**Clause-23:** Compensation for all damages done intentionally or unintentionally by the contractor's labor whether in or beyond the limits of Corporation property including any damage caused by the spreading of fire mentioned in Clause22 shall be estimated by the Engineer- in- Charge or such other officer as he may appoint and the estimate of the Engineer in charge subject to the decision of the CHAIRMAN PSCDCL on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demand, failing which, the same will be recovered from the contractor as damages in the manner prescribed in Clause 1 or deducted by the Engineer- in -Charge from any sums that may be due or become due from Corporation to the contractor under this contract or otherwise. The contractor shall bear the expenses of defending any section or other legal proceedings that may be brought by any persons for injury sustained by him owing to neglect of precautions to prevent the spread

Employment of female labour

of fire and he shall pay any damages and cause that may be awarded by the court in consequences.

**Clause-24:** The employment of female labors on works in neighborhood of soldier's barracks should be avoided as far as possible. The contractor shall employ the labor with the nearest employment exchange.

Work of Sunday

**Clause-25:** No work shall be done on a Sunday without the sanction in written of the Engineer -in -Charge.

Work not to sublet

**Clause-26:** The contract shall not be assigned or sublet without the written approval of the Engineer- in- Charge and if the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any proceeding to get himself adjudicated and insolvent or make any composition with his creditors, or attempt to do so or if bribe, gratuity, gift, loan, perquisites, reward or advantage pecuniary or otherwise, shall either directly or indirectly be given, promise or offered by the contractor or any of his servants or agents to any public officer or person in the employ of corporation in any way relating to his

Contract may be rescinded and security deposit forfeited for subletting it without approval or for bribing a public officer or if contractor becomes insolvent

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office or employment, or if in any such officer or person shall become in anyway directly or indirectly interested in the contract the Engineer-in -Charge may there upon by notice in written rescind the contract and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of Corporation and the same consequences shall ensure as if the contract had been rescinded under Clause 3 hereof and in addition the contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract.

Sum payable by way of compensation to be considered reasonable compensation without reference to actual loss

**Clause-27:** All sums payable by contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to the use of Corporation without reference to the actual loss or damage sustained, and whether any damage has or has not been sustained.

Changes in constitution of firm to

**Clause-28:** In case of tender by partners, any changes in the constitution of a firm shall be forthwith notified by the contractor to the Engineer-in- Charge for his information.

Direction and control of CHAIRMAN PSCDCL

**Clause-29:** All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Project Engineer for the time being, who shall be entitled to direct at what points and in what manner they are to be commenced and from time to time carried on.

**Clause-30:**

- (1) Except where otherwise specified in the contract and subject to the powers delegated to him by Corporation the decision of the Project Engineer for the time being shall be final, conclusive, and binding all parties to the contract upon all questions relating to the meaning of all specifications, designs, drawings and instructions hereinbefore mentioned and as to the quality of workmanship or materials used on the work, or as to any other question, claim, right matter, or thing whatsoever, if any way arising out of, or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions, or otherwise concerning the works or the execution, or failure to execute the same, whether arising during the progress of the work, or after the completion or abandonment thereof.
- (2) The contractor may within thirty days of receipt by him of any order passed by the Project Engineer as aforesaid appeal against it to the CHAIRMAN PSCDCL concerned with the contract, work or Project provided that-
  - (a) The accepted value of that contract exceeds Rs. 10.00 lakhs (Rs. Ten lakhs)
  - (b) Amount of claim is not less than Rs. 1.00 lakh (Rs. One lakh)
- (3) If the contractor is not satisfied with the order passed by the CHAIRMAN PSCDCL as aforesaid, the contractor may within thirty days of receipt by him of any such order,

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appeal against it to the Commissioner, and the Decision given by the Commissioner will be final.

Stores of European or American manufacture to be obtained from the Corporation	<p><b>Clause-31:</b> The contractor shall obtain from the Engineering Departmental stores, all stores and articles of European or American manufacture, which may be required for the work, or any part thereof or in making up any articles required thereof or in connection therewith unless he has obtained permission in writing from the engineer-in-charge will be debited to the contractor in his accounts at the rates shown in the schedule, in Form –A attached to the contract and if they are not entered in the said schedule, they shall be debited to him at the cost price which for the purpose of this contract shall include the cost of carriage and other expenses whatsoever which shall have been incurred in obtaining delivery of the same at the stores aforesaid.</p>
Lump sums in estimates	<p><b>Clause-32:</b> When the estimate on which a tender is made includes lump sums in respect of parts of the work the contractor shall be entitled to payment in respect of the items of work involved or the part of work in question at the same rates as are payable under this contract of each item, or if the part of work in question is not in the option of the engineer in charge capable of measurement, the Engineer- in-Charge may as his discretion pay the lump sum amount entered in the estimate and the certificate in writing of the Engineer- in-Charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provision of this clause.</p>
Action where no specifications	<p><b>Clause-33:</b> In the case of any class of work for which there is no such specification as is mentioned in rule 1 such work shall be carried out in accordance with the standard specifications of Public Works Department, and in the event of there being no specification, then in case the work shall be carried out in all respects in accordance with all instructions and requirements of the Engineer- in- Charge.</p>
Definition of work	<p><b>Clause-34:</b> The expression “works” or “work” where used in these conditions, shall unless there by something in the subject or context repugnant to such construction be construct to mean the work or works contracted to be executed under or in virtue of the contract, whether temporary or permanent and whether original, altered substituted or additional.</p>
Contractor’s percentage whether applied to net or gross amount of bill	<p><b>Clause-35:</b> The percentage referred to in the tender shall be deducted from/ added to the gross of the bill before deducting the value of any stock issued.</p> <p><b>Clause-36:</b> All quarry fees, royalties and ground rent for stacking materials if any should be paid by the contractor.</p>
Compensation under Workman’s Compensation Act	<p><b>Clause-37:</b> The contractor shall be responsible for and shall pay any compensation to his workmen payable under the Workmen’s Compensation Act 1923 (VIII of 1923) (hereinafter called the said</p>

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Act) for injuries caused to the workmen. If such compensation is payable paid by corporation as principal under sub section (1) of section 12 of the said Act on behalf of the contractor under subsection (2) of the said section. Such compensation shall be recovered in the manner laid down in the Clause 1 above.

**Clause-37 (A):** the contractor shall be responsible for and shall at the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident. If Corporation the same shall be recoverable from the contractor forthwith and be incurs such expenses deducted without prejudice to any other remedy of Corporation from any amount due or that may be due to the contractor.

**Clause-37 (B):** The contractor shall provide all necessary personal safety equipments and first aid apparatus available for use of persons employed on site and shall maintain the same condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith.

- (a) The workers shall be required to use the equipment so provide by the contractor shall take adequate steps to ensure proper use of the equipment by those concerned.
- (b) When the work is carried in the proximity to any place where there is a risk or drawing all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.
- (c) Adequate provisions shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

**Clause-37 (C):** The contractor shall duly comply with the provision of "the Apprentices Act"(III of 1961) the rules made there under and the orders that may be issued from time to time under the Act the said Rules.

**Clause-38:**

**(1) Clause-38:**

- (1) Quantities in respect of the several items shown in the tender rare approximate and no revision in the tendered rate shall be permitted in respect of any of the items so long as subject to any special provision contained in the specifications prescribing a different percentage of permissible variation the quantity of the item does not exceed the tender quantity by more than 50% and so long as the value of the excess quantity beyond this limit as the rate of the item specified in the tender is not more than Rs 5,00,000/-(Rs Five Lakh only).
- (2) The contractor shall if ordered in writing by the Engineer to do so , also carry out any quantities in excess of the limit mentioned in sub-clause (1) hereof one the same

**Claim for quantities  
Claim for quantities  
entered in the tender**

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conditions as in accordance with the specifications in the tender and at the rates as mentioned below:

- a) if tender rate is above, rate will be at par as per Current PSCDCL DSR
  - b) if tender rate is below, rate will be as per tender quoted rate on Current PSCDCL DSR. For the purpose of operation of this clause, the total cost shall be taken as derived from the PSCDCL DSR.
- (3) Claims arising out of reduction in the tendered quantity of any item beyond 50 % will be governed by the provision of clause 15 only when the amount of such reduction beyond 50 % at the rate of the item specified in the tender is more than Rs.5,00,000/- (Rs Five Lakh only). This reduction is exclusively of the reduction mentioned in clause No 2, 1, 4 of the work and site condition.
- (4) There is no change in the rate if excess is less than or equal to 50%. Also there is no change in the rate if quantity of work done is more than 50 % of the tendered quantity or the value of the excess work at tendered rates does not exceed Rs. 5,00,000/- (Rs Five Lacks only).
- (5) The quantity to be paid at tendered rate shall include-
- (a) Tendered Quantity plus
  - (b) 50 % excess of the tendered quantity or the excess quantity of the value of Rs 5,00,000/- (Rs. Five Lakh only). at the tendered rates whichever is more.

Employment of famine labour etc

**Clause No-39:** The contractor shall employ any famine, convict or other labour of a particular kind or class if ordered in writing to do so by the Engineer- in -Charge.

Claim for compensation for delay in starting the

**Clause No-40:** No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or in the case of clearance works on account of any delay in according to sanction of estimates.

Claim for compensation for delay in execution of

**Clause No-41:** No compensation shall be allowed for any delay in the execution of the work on account of water standing in borrow pits or compartments the rates are inclusive for hard or cracked soil Excavation in mud, sub soil , water standing in borrow pits and no claim for an extra rate shall be entertained, unless otherwise expressly specified.

Entering upon or commencing any portion of work

**Clause No-42:** The contractor shall not enter upon or commence any portion of work except with the written authority and instructions of the Engineer- in-Charge or of his subordinate in charge of the work. Failing such authority the contractor shall have no claim to ask for measurements of or payment for work.

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**Clause No-43:**

Minimum age of persons employed, the employment of donkeys and for other animals and payment of fair wages

- (i) No contractor shall employ any person who is under age of 18 Years.
- (ii) No contractor shall employ donkeys or other animals with breeching of string or thin rope the breeching must be at least three inches wide and should be of tape (Nawar).
- (iii) No animals suffering from sores lameness or emaciation or which is immature shall be employed on the work.
- (iv) The Engineer-in-Charge or his agent is authorized to remove from the work any person or animal found working which does not satisfy these conditions and no responsibility shall be accepted by Corporation for any delay caused in the completion of work by such removal.
- (v) The contractor shall pay fair and reasonable wages to the workmen employed by him in the contract under taken by him. In the event of any dispute arising between the contractor and his workmen on the grounds that the wages paid are not fair and reasonable, the dispute shall be referred with out delay to the Project Engineer who shall decide the same. The decision of the Project Engineer shall be conclusive and binding on the contractor but such decisions shall not in any way affect the conditions of contract regarding the payment to be made by corporation at the sanctioned tender rates.
- (vi) The contractor shall provide drinking water facilities to the workers similar amenities shall be provided to the workers engaged on large work in urban areas.
- (vii) Contractor to take precaution against accidents which take place on account of labour using loose garments while working near machinery.

Method of payment

**Clause No-44:** Payments to contractors shall be made by cheque drawn on any bank within the PSCDCL limits convenient not exceeding Rs 10 /- will be paid in cash.

Acceptance of conditions compulsory before tendering the work

**Clause No-45:** Any contractor who does not accept these conditions shall not be allowed to tender for works.

Employment of scarcity labour

**Clause No-46:** If Government declares a state of scarcity or famine to exit in any village situated within 10 miles of the work, the contractor shall employ upon such parts of work, as are suitable for unskilled labor, any person certified to him by the Project Engineer, or be any person to whom the Project Engineer may have delegated this duty in writing to be in need of relief and shall be bound to pay to such person wages not below the minimum which government may have fixed in this behalf. Any disputes which may arise in connection with the implementation of this clause shall be decided by the Project Engineer whose decision shall be final and binding on the contractor

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**Clause No-47:** The price quoted by the contractor shall not in any case exceed the control price, if any, fixed by the Government or reasonable price which it is permissible for him to charge a private purchaser for the same class and description, the controlled price or the price permissible under the hoarding and Profiteering Ordinance, 1948 as amended from time to time, if the price quoted exceeds the controlled price or the price permissible under the Hoarding and Profiteering Ordinance, 1948 as amended from time to time, if the price quoted exceeds the controlled price or the price permissible under Hoarding And Profiteering Prevention Ordinance, the contractor will specifically mention this fact in his tender along with the reasons for quoting such higher prices. The purchaser at his description will in such case exercise the right of revising the price at any stage so as to confirm with the control price on the permissible under the Hoarding and Profiteering Prevention Ordinance. This discretion will be exercised without prejudice to any other action that may be taken against the contractor.

**Clause -48:** The rates to be quoted by the contractor must be inclusive of Sales Tax. No extra payment on this account will be made to the contractor.

**Clause-49:** In case of materials that may remain surplus with the contractor from those issued for the work contracted for, the date of ascertainment of the materials being surplus will be taken as the date of sale for the purpose of Sales Tax and the Sales Tax will be recovered on such sale.

**Clause-50:** The contractor shall employ at least 80 percent of the total number of unskilled labour to be employed by him on the said work from out of the persons ordinarily residing in the district in which site of the said work is located.

Provided, however; that if the required number of unskilled labour from that district is not available, the contractor shall in the first instance employ such number of persons as in available and thereafter may with previous permission in writing of the Project Engineer-in-charge of the said work, obtain the rest of the requirement of unskilled labour from outside district.

**Clause-51:** Wages to be paid to the skilled and unskilled labourers engaged by the Contractor. The contractor shall pay the labourers skilled and unskilled according to the wages prescribed by the Minimum Wages Act of 1948 applicable to the area in which the work of the contract is located.

The contractor shall comply with the provisions of the Apprentices Act 1961 and the rules and Orders issued there under from time to time, if he fails to do so, his failure will be a breach of the contract and the Project Engineer, may in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provision of Act. The contractor shall pay the labourers skilled and unskilled

according to wages prescribed by Minimum Wages Act applicable to the area in which the work lies.

**Clause-52:** All amounts whatsoever which the contractor is liable to pay to the Corporation in connection with the execution of the work including the amount payable in respect of (i) materials and or stores supplied / issued hereunder by the Corporation to the Contractor (ii) hire charges in respect of heavy plant, machinery and equipment given on hire by the Corporation to the contractor for execution by him of the work and/or on which advances have been given by the Corporation to the contractor shall be deemed to be arrears of the Land Revenue and the Corporation may without prejudice to any other rights and remedies of the Corporation recover the same from the contractor as arrears of revenue.

**Clause-53:** The contractor shall duly comply with all the provisions of the Contract Labour (Regulation and Abolition) Act , 1970 (37 of 1970) and the Maharashtra Contract Labour (Regulation and Abolition) rules , 1971 as amended from time to time and all other relevant status and statutory provision concerning payment of wages particularly to workmen employed by the contractor and working on the site of the work. In particular the contractor shall pay wages to each worker employed by him on the site of the work at the rates prescribed under the Maharashtra contract labour (Regulation and Abolition) rules 1971.If the contractor fails or neglect to pay wages at the said rates or makes short payment and the Corporation makes such payment of wages in full or part thereof less paid by the contractor, as the case may be ,the amount so paid by the contractor to such workers shall be deemed to be arrears of land revenue and the corporation shall be entitled to recover the same as such from the contractor or deduct same from the amount payable by the corporation to the contractor hereunder or from any other amount payable by the Corporation to the contractor hereunder or from any other amounts Payable to him by the Corporation

**Clause- 54:** The contractor shall engage apprentices such as Bricks layer, Carpenters, Wireman, Plumber as well as Black Smith as recommended by the State Apprenticeship Advisor, Director of Technical Education, Dhobi Talav, Bombay on the construction work.

**Clause- 55: CONDITION FOR MALERIA ERADICATION**

- (A) The antimaleria and other health measure shall be as directed by the Joint Director (Malaria and Filariasis) of Health Services, Pune.
- (B) Contractor shall see that mosquitozenic conditions are not created so as to keep vector population to minimum level.
- ( C) Contractor shall carry out antimaleria measures in the area as per guidelines prescribed under National Malaria Eradication

Programme and as directed by the Joint Director (M & F) of Health Services, Pune.

- (D) In case of default in carrying out prescribed anti-malaria measure resulting in increase in Malaria incidence contractor shall be liable to pay to Government the amount spent by Government on anti-malaria measures to control the situation in addition to fine.
- (E) Relation with Public authorities- The contractor shall make sufficient arrangement for draining away the sullage water as well as water coming from the bathing and washing places and shall dispose of this water in such away as not to cause any nuisance. He shall also keep the premises clean by employing sufficient number of sweepers. The contractor shall comply with all rules, regulations ,bye –laws and directions given from time to time by any local or public authority in connection with this work and shall pay fees or charges which are leviable on him without any extra cost to Government.

**Clause-56 :** The tendered rates shall be inclusive all taxes ,rates and cesses and shall also be inclusive of the tax leviable in respect of work contract under the provision of Maharashtra sales tax on transfer of property in goods involved in the execution of the Works Contract Act, 1989 (Maharashtra act no. XIX of 1989).

**Clause-57:** If the project is shelved by the Corporation before commencement, the contractor will have no right to claim any losses or compensation due to the same and for whatsoever reasons.

**Clause – 58 :** All disputes and differences of any kind whatever arising out of or in connection with the contract or the carrying out of the work (whether during progress of the works or after their completion and whether before or after the determination , abandonment or breach of the contract ) shall be referred to and settled by Project Engineer .But if the contractor be dissatisfied with the decision of the CHAIRMAN PSCDCL or as to withholding by the Project Engineer of any certificate of the Project Engineer or as to withholding by the Project Engineer of any certificate to which the contractor may within 60 days after receiving notice of such decision give a return notice to the other party requiring that / may claim to entitled them and in any such case the contractor such matters in disputes be referred to in an appeal before a Committee as mentioned below. Such return notice shall specify the manner which are in disputes and such disputes or difference of which such notice has been given and no other shall be and is hereby referred to Committee consisting of the CHAIRMAN PSCDCLPSCDCL, the CHAIRMAN PSCDCL, Public Works Region, Pune and Chief Auditor of PSCDCL, the decision taken by the committee will be final and binding on both the parties.

Such reference except as to the withholding of any certificate to which the contractor to be entitled shall not be opened or entered upon until

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after the completion or alleged completion of the works or until after the practical cessation of the works arising from any cause unless with the written consent of the Project Engineer. Provided always that the Corporation shall not withhold the payment of an interim certificate nor the contractor in any way delay the carrying out of the works by reason of any such matters, question or dispute being referred to the Committee but shall, proceed with the work with all the diligence and shall, until the decision of the Committee abide by the decision of the Project Engineer and no award of the Committee shall relieve the contractor of his obligations to adhere strictly to Project Engineer's instructions with regard to the actual carrying out of the works. The Owner and the contractor hereby also agree that the said reference to the Committee under this clause shall be a condition precedent to any right of action under the Contract.

**Clause 59:** Contractor shall take out necessary Insurance Policy / policies for all workmen, labour employed on site so as to provide adequate Insurance cover for execution of the awarded contract work from National Insurance Co Ltd Branch 1248 A Asmani Plaza Deccan Gymkhana, Shivajinagar, Pune). Insurance Policy/policies taken out from any other company will not be accepted. He shall submit the receipt of premium to PSCDCL before work commencement.

### **ADDITIONAL GENERAL CONDITIONS AND SPECIFICATIONS**

NOTE: These are to apply as additional specifications and conditions, unless otherwise already provided for contradictorily else-where in this contract.

#### **1.1 CONTRACTOR TO INFORM HIMSELF FULLY:**

The Contractor shall be deemed to have carefully examined the work and site conditions including labour, the general and the special conditions, specifications, schedules and drawings and shall be deemed to have visited the site of the work and to have fully informed himself regarding the local conditions and carried out his own investigations to arrive at rates quoted in the tender. In this regard, he will be given necessary information to the best of knowledge of Department but without any guarantee about it.

If he shall have any doubt as to the meaning of any portions of these general conditions or the special conditions, or the scope of work or the specifications and drawings or any other matter concerning the contract, he shall in good time, before submitting his tender, set forth the particulars thereof and submit them to the Project Engineer, Road Department, PSCDCL, Pune -411005 in writing in order that such doubts may be clarified authoritatively

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before tendering. Once a tender is submitted, the matter will be decided according to tender conditions in the absence of such authentic prequalification.

### **1.2 ERRORS, OMISSION AND DISCREPANCIES:**

a) In case of errors, omissions and /or disagreements between written and scaled dimensions on the drawing or between drawing and specifications etc. the following order of preference shall apply.

- (i) Between actual scaled and written dimensions or descriptions on a drawing the latter shall be adopted.
- (ii) Between the written or shown description of dimensions in the drawing and corresponding one in the specifications, the latter shall apply.
- (iii) Between the quantities shown in schedule of quantities and those arrived at from the drawings, the latter shall apply.
- (iv) Between the written description of the item in the schedule of quantities and the detailed description in the specifications of the same items, the latter shall apply.

b) In case of difference between the rates written in figures and words, the rate adopted by the contractor for working out the total amount of the item will be taken as correct. In order cases correct rates would be that, which is lower.

In all cases of omissions and / or doubts or discrepancies in the dimensions or descriptions of any item or specifications, a reference shall be made to the Project Engineer, PSCDCL whose elucidation, elaboration or decision shall be considered as authentic. The contractor shall be held responsible for any errors that may occur in the work through lack of such reference and precaution.

### **1.3 CHANGE OF CEMENT CONTENT ETC**

**DELETED**

### **1.4 WORKING METHODS AND PROGRESS SCHEDULES:**

(a) Contractor shall submit within times stipulated by the Engineer, in writing the details of actual methods that would be adopted by the contractor for the execution of any items as required by Engineer , at each of the location, supported by necessary detailed drawings and sketches including those of the Plant and Machinery that would be used ,their locations, arrangement for conveying and handling materials etc. and obtain prior approval of the Engineer-in-charge well in advance of starting of such item of work. The Engineer-in-charge reserves the right to suggest modifications or make complete changes in the method proposed by the contractor, whether accepted previously or not, at any stage of work, to obtain the desired accuracy, quantity and progress of the work which shall be binding on the contractor, and no claim on account of such change in method of execution will be entertained by corporation so long as specifications of the item remain unaltered.

### **PROGRESS SCHEDULE**

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(b) The Contractor shall furnish within the period stipulated in writing by the Engineer-in-charge, of the order to start the work, a progress schedule in quadruplicate indicating the date of actual start, the monthly progress expected to be achieved and the anticipated completion date of each major item of work to be done by him, also indicating dates of procurement and setting up the materials, plant and machinery. The Schedule is to be such as is practicable of achievement towards the completion of the whole work in the time limit, the particular items, if any on the due dates specified in the contract and shall have the approval of the Engineer-in-Charge. No revised schedule shall be operative without such acceptance in writing. The Engineer is further empowered to ask for more detailed schedule or schedules say; week by week for any item or items, in case of urgency of work as will be directed by him and the contractor shall supply the same as and when asked for.

( c )The contractor shall furnish sufficient plant, equipment and labour as may be necessary to maintain the progress of schedule. The working and shift hours restricted to one shift a day for operations to be done under the corporation supervision shall be such as may be approved by the Engineer-in-charge. They shall not be varied without the prior approval of the Engineer. Night work which requires supervision shall not be permitted except when specifically allowed by Engineer each time, if requested by the contractor. The contractor shall provide necessary lighting arrangements etc. for night work as directed by Engineers without extra cost.

(d) Further, the contractor shall submit the progress report of work in prescribed forms charts etc. at periodical intervals ,as may be specified by the Engineer-in-charge .Schedule shall be in forms of progress charts, forms, progress statement and /or reports as may be approved by the Engineer.

(e) The contractor shall maintain Performa, charts, details regarding machinery equipment, labour, materials, personnel etc. as may be specified by the Engineer and submit periodical returns thereof as may be specified by the Engineer-in-charge.

### **1.5 TREASURE – TROVE**

In the event of discovery by the contractor or his employees, during the progress of the work of any treasure, fossils, minerals or any other articles of value or interest, the contractor shall give immediate intimation thereof to the Engineer and forthwith hand over to the Engineer such treasure or things which shall be property of Corporation.

### **1.6 AGENT AND WORK ORDER BOOK**

The Contractor shall himself manage the work or engage an authorized all time agent on the work capable of managing and guiding the work and understanding the specifications and contract condition. A qualified and experienced, Engineer shall be provided by the contractor as his agent for technical matters in case the Engineer-in-charge considers this as essential for the work and so directs contracts. He will take orders as will be given by the Project Engineer or his representatives and shall be responsible for carrying them out. This agent shall not be changed without prior intimation to the Project Engineer and his representatives on the work site. The contractor shall supply to the Engineer the details of all supervisory and other staff employed by the contractor and notify changes when made, and satisfy the unquestionable right to ask for change in the quality and numbers of contractor's supervisory staff and to order removal from work of any of such staff. The contractor shall comply with such orders and effect replacements to the satisfaction of the Engineer.

A work order book shall be maintained on site and it shall be the property of corporation and the Contractor shall promptly sign orders given therein by Project Engineer or his representative and his superior offices, and comply with them. The compliance shall be reported by the contractor to the Engineer in good time so that it can be checked. The blank work order book with machine numbered pages will be provided by the corporation free of charge for this purpose. The contractor will be allowed to copy out instructions therein from time to time.

### **1.7 INITIAL MEASUREMENTS FOR RECORD :**

Where, for proper measurement of the work, it is necessary to have an initial set of levels or other measurement taken ,the same as recorded in the authorized field book or measurement book of corporation by the Engineer or his authorized representative will be signed by the contractor who will be entitled to have a true copy of the same made at his cost . Any failure on the part of the contractor to get such levels etc. recorded before starting the work will render him liable to accept the decision of the Engineer as to the basis of taking measurement. Like-wise the contractor will not cover any work which will render its subsequent measurements difficult or impossible without first getting the same jointly measured by himself and the authorized representative of the Project Engineer. The record of such measurements on the corporation side will be signed by the contractor and he will be entitled to have a true copy of the same made at his cost.

### **1.8 HANDLING OVER THE WORK**

All the work and materials before finally taken over by Corporation will be entire liability of the Contractor for guarding, maintaining and making good any damages of any magnitude. Interim payments made for such work will not alter this position. The handling over by the contractor and taking over by the Project Engineer or his authorized representative will be always in writing, copies of which will go to the Project Engineer or his authorized representative and the contractor. It is, however understood that before taking over such work, Corporation will not put it into regular use as distinct from causal or incidental one, except as specifically mentioned elsewhere in this contract, or as mutually agreed to.

### **1.9 ASSISTANCE IN PROCURING PRIORITIES, PERMITS ETC**

The Engineer, on a written request by the contractor, will if in his opinion, the request is reasonable and in the interest of work and its progress, assist the contractor in securing, the priorities for deliveries ,transport permits for controlled materials etc. where such are needed. The Corporation, will not, however be responsible for the non-availability of such facilities or delay in this behalf and no claims on account of such failures or delays shall be allowed by the Corporation.

The Contractor shall have to make his own arrangement for machinery required for the work. However, such machinery conveniently available with the Corporation may be spared as the ruled in force on recovery of necessary Security Deposit and rent agreement in the prescribed form. Such an agreement shall be independent of this contract and the supply of machinery shall not form a ground for any claim or extension of time limit for this work.

### **1.10 SAMPLES AND TESTING OF MATERIALS**

- (i) All materials to be used on work shall be got approved in advance from the Engineer-in-charge and shall pass the test and or analysis required by him,

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which will be (a) as specified in the specification for the item concerned and or as specified by the Indian Road Congress Standard Specification (b) Code of Practice for Road and Bridges or (c) I.S.I. Specifications (Whichever and wherever applicable) or (d) such recognized Specifications accepted to Engineer-in-Charge as equivalent thereto or in absence of such recognized Specifications (e) such requirement test and or analysis as may be specified by the Engineer-in-Charge in order of precedence given above.

- (ii) The contractor shall at his risk and cost make all arrangements and /or shall provide for all such facilities as the Engineer-in-charge may require for collecting preparing required number of samples for tests or for analysis at such item and to such places may be directed by the Engineer and bear all charges and cost of testing. Such samples shall also be deposited with the Engineer-in-Charge.
- (iii) The contractor shall if and when required submit at his cost the samples of materials to be tested or analysis and if, so directed, shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and the materials , finally accepted by the Engineer-in-charge.
- (iv) The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of the materials.
- (v) The contractor or his authorized representative will be allowed to remain present in the departmental laboratory while testing samples furnished by him. However, the results of all tests carried out in the departmental laboratory in the presence or absence of the contractor or his authorized representative will be binding on the contractor.
- (vi) Cost of routine day to day quality control testing charges for tests required as per specifications will be borne by contractor by sending the same to the concerned laboratories or by establishing laboratory at site.

However the cost of testing of materials as directed by Engineer-in-Charge for approving a particular material as laid down in Para 1.10(i) to (vi) will have to be borne by the contractor.

### **1.11 CO-ORDINATION :**

When several agencies for different sub work of the Project are to work simultaneously on the timely completion of the whole Project smoothly, the scheduled dated for completion specified in each contract shall therefore be strictly adhered to. Each contractor may make his independent arrangement for water, power, housing etc. if they so desired. On the other hand the contractor is at liberty to mutual agreement in this behalf and make joint arrangements with the approval of the Engineer. No single contractor shall take or cause to be taken any steps or action that may cause disruption discontent, or disturbance of work labour or arrangement etc. of other contractor in the Project localities. Any action by any contractor which the Engineer in his unquestioned discretion may consider as infringement of the above code would be considered as a breach of the contract conditions and shall be dealt with as such.

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In case of any dispute, disagreement between the contractor, the Engineer's decision regarding the co-ordination, co-operation and facilities to be provided by any of the contractors shall be final and binding on the contractors concerned and such a decision or decisions shall not vitiate any contract nor absolve the contractor(s) of his/their obligations under the contract nor consider for the grant for any claim or compensation.

### **1.12 PAYMENT :**

The Contractor must understand that the rates quoted are for completed work and include all costs due to labour, scaffolding, machinery, power, royalties, octroi, taxes etc and should also include all expenses to cover the of night work if and when required and no claim for additional payment beyond the prices or rates quoted will be entertained. The mode of measurements has been indicated in the specifications, if there is any ambiguity or doubt in this respect the decision of Project Engineer will be final.

### **1.13 PATENTED DEVICE**

Whenever the contractor desires to use any designed devices, materials or process covered by the letter of patent or copy right, the right for such use shall be secured by suitable legal arrangement and agreement with patent owner and the copy of their agreement shall be filled with the Engineer-in-charge if so desired by the letter.

### **1.14 TEMPORARY QUARTERS :**

(i) The contractor shall at his own expense maintain sufficient experienced supervisory staff etc. required for the work and shall make his own arrangement, provide housing for them with all necessary arrangements, including fire preventive measures etc. as directed by the Engineer-in-charge.

(ii) The contractor shall provide, furnish, maintain and remove on completion of the work, a suitable office on the work site for the use of Project Engineer's representative. The covered area exclusive of verandah should not be less than 400 Sqft. It may have bamboo mating walls and asbestos or corrugated iron roof, paved floor should be 18" above ground level. He should provide a basket type latrine, urinals and keep them clean daily. This will be supposed to be included in his rate.

## **2.0 SAFETY MEASURES AND AMENITIES:**

### **2.1 SAFETY MEASURES :**

The contractor shall take all necessary precautions for the safety of the workers and preserving their health while working in such job as require special protection and precautions. The following are some of the requirements listed, though not exhaustive. The contractor shall also comply with the directions issued by the Engineer in this behalf from time to time and at all times.

(1) Providing protective foot wear to workers, in situations like mixing and placing of mortar of concrete in quarries and places where the work is under too much of wet conditions as also for movements over surfaces infected with oyster growth etc.

- (2) Providing protective head wear to workers, working in quarries etc. to protect them against accidental fall of materials from above. To provide Reflective Jackets, Helments to site staff.
- (3) Taking such normal precautions like providing hand rails at the edges of the floating platform or barges, not allowing nails or metal parts or useless timber to spread around etc.
- (4) Supporting workman with proper belts, ropes etc. when working on any masters, cranes, grabs, hoist, dredgers etc.
- (5) Taking necessary steps towards training the workers concerned in the use of machinery before, they are allowed to handle it independently and taking all necessary precautions in and around the areas where machines, hoists, and similar units are working.
- (6) Providing adequate number of boats (of at all required for plying water) to prevent overload and over-crowding.
- (7) Providing life belts to all men working in such situation from where they may accidentally fell into the water equipping the boats with adequate number of life belts etc.
- (8) Avoiding bare lives-wires etc. as would electrocute workers.
- (9) Making all platforms, staging and temporary structures sufficiently strong so as not to cause inconvenience and risk to the workmen and supervisory staff.
- (10) Providing sufficient first aid trained staff and equipment to be available quickly at the work site to render immediate first aid treatment in case of accidents due to suffocation, drowning and other injuries.
- (11) Take all necessary precautions with regard to use of divers.
- 12) Providing full length gum boots , leather hand gloves with fire proof apron to cover the chest and back reaching upto knees and protective goggles for the laborers working with hot asphalt handling vibrator in cement concrete and also where use of any or all these items is beneficial in the interest of the health and well being of the laborers in the opinion of the Engineer .
- 13) Where the workers are required to work near machine and are liable to accident they should not be allowed to wear loose cloths like dhoti, zabba, etc.

## **2.2 EXPLOSIVES:**

The contractor shall at his own expense construct and maintain proper magazines, if such are required for the storage of explosives for use in connection with the works, and such magazine , being situated, constructed and maintained un accordance with government Rules applicable in that behalf. The contractor shall at his own expenses obtain such license or licenses as may be necessary for storing and using explosives. Notwithstanding that the location etc or storage of explosives are approved by the Engineer, the Corporation shall not be incurring any responsibility whatever in connection with storage and use of all operations in or for which explosives are employed being at the risk of the contractor and upon his sole responsibility and the Contractor hereby gives to Corporation an absolute indemnity in respect thereof.

**2.3 DAMAGE BY FLOODS OR ACCIDENTS:**

The contractor shall take all precautions against damage by floods or like or from accident etc. no compensation will be allowed to the contractor on this account or for correcting and repairing and such damage to the work during construction. The contractor shall be liable to make good at his cost any plant or material belonging to the Corporation, lost or damaged by floods or from any other cause which is in his charge.

**2.4 RELATION WITH PUBLIC AUTHORITIES:**

The Contractor shall comply with all rules, regulations, bye-laws and direction given from time to time also by any local public authority in connection with this work and shall himself pay fees or charges which are leviable on him without any extra cost to the Department.

**2.5 POLICE PROTECTION:**

For the Special Protection of camp the contractor's works, the Department will help the contractor as far as possible to arrange for such protections with the concerned authorities if so required by the Contractor in writing. The full cost of such protection shall be borne by the Contractor.

**2.6 INDEMNITY:**

The Contractor shall indemnify the corporation against all actions, suits, claims and demands brought or made against him in respect of anything done or committed to be done by the Contractor on execution of or in connection with this contract and against any loss or damage to the corporation in consequence of any action or suit being brought against the Contractor for anything done or committed to be done in the execution of this contract.

**2.7 MEDICAL AND SANITARY ARRANGEMENTS TO BE PROVIDED FOR LABOUR EMPLOYED IN THE CONSTRUCTION BY THE CONTRACTOR:**

(a) The Contractor shall provide an adequate supply of potable water for use of labourers on work and in Camps.

(b) The contractor shall construct trench or semi permanent latrines for the use of the laborers. Separate latrines shall be provided for men and women.

(c) The Contractor shall build sufficient number of huts on a suitable plot of land for use of the laborers according to the following specifications.

1) Huts of bamboo and tin sheets may be constructed.

2) A good site not liable to submergence shall be selected on high ground remote from jungle but well provided with trees, shall be chosen wherever it is available. The neighborhood of tank, jungle, grass or woods should be particularly avoided. Camps should not be established close to large cuttings of earthwork.

3) The lines of huts shall have open spaces of at least ten meters between rows. When a good natural site cannot be procured, particular attention should be given to the drainage.

4) There should be no overcrowding. Floor space at the rate of 30 sq.ft.per head shall be provided. Care should be taken to see that the huts are kept clean and in good order.



- 5) The contractor must find his own land and if he wants Corporation Land, he should apply for it and pay assessment for it , if made available by Corporation.
- 6) The Contractor shall construct a sufficient number of bathing places. Washing places should also be provided for the purpose of washing clothes.
- 7) The Contractor shall make sufficient arrangements for draining away the surface and sullage water as well as water from the bathing and washing places and shall dispose off the wastewater in such a way as not to cause any nuisance.
- d) The Contractor shall engage a medical officer with a traveling dispensary for a camp containing 500 or more persons if there is no government or other private dispensary situated within 8kms from the camp. In case of emergency the contractor shall arrange at his cost for transport for quick medical help to his sick worker.
- e) The Contractor shall provide the necessary staff for effecting a satisfactory drainage system and cleanliness of the camp to the satisfaction of the Engineer. At least one sweeper per 200 persons should be engaged.
- f) The Assistant Director of Public Health shall be consulted before opening a labour camp and his instruction on matters such as water supply, sanitary conveniences, the camp site accommodation and food supply shall be followed the Contractor.
- g) The Contractor shall make arrangements for all anti-malaria measures to be provided for the labour employed on the work. The anti-malaria measure shall be provided as directed by the Assistant Director of Public Health.

### **3. QUARRIES:**

- 3.1** The quarrying operations if required and permitted by the Engineer-in-charge shall be carried out by the contractor with proper equipment such as Compressors, jack hammers, Drill bits, Explosives etc. and sufficient number of workmen shall be employed so as to get the required out-turn.
- 3.2** The Contractor shall carry out the works in quarries conformity with all the rules and regulations already laid down or may be laid down from time to time by Corporation due to non-compliance of any rules or regulations or due to damages by the contractor shall be the responsibility of the contractor. The Engineer-in-charge or his representative shall be given full facilities by the contractor for inspection at all times of the working of the quarry, records maintained, the stocks of the explosives and detonators etc, so as to enable him to check that the working records and storage are all in accordance with the relevant rule. The Engineer-in-charge or his representative shall at any time be allowed to inspect the works, buildings and equipment at the quarters.
- 3.3** The Contractor shall maintain at his own cost, the books, registers etc, required to be maintained under the relevant rules and regulations and as directed by the Engineer-in-charge. These books shall be open for inspection at times by the Engineer-in-charge or his representative and the contractor shall furnish the copies or extracts of books or register as and when required.

- 3.4** All quarrying operations shall be carried out by the contractor in organized and expeditious manner, systematically and with proper planning. The contractor shall engage licensed blaster and adopt electric blasting and/or any other approved method which would ensure complete safety to all men engaged in the quarry and its surroundings. The contractor shall himself provide suitable magazines and arrange to procure and store explosives, etc as required under the rules at his own cost the designs and the locations of the magazine shall be got approved in advance from the Chief Inspector of Explosives and the rules and regulations in this connection as laid down by the Chief Inspector of Explosives from time to time shall be strictly adhered to by the Contractor. It is generally experienced that it takes time to obtain the necessary license for blasting storage of material from the concerned authorities. The contractor must therefore take timely advance action for procuring all such licenses so that the work progress may not be hampered.
- 3.5** The approaches to the quarrying place from the existing public roads shall have to be arranged by the contractor at his own cost, and the approaches shall be maintained by the contractor at his own cost till the work is over.
- 3.6** The quarrying operations shall be carried out by the contractor to the entire satisfaction of the Engineer-in-charge and the development of the quarry shall be made efficiently so as to avoid wastage of stones. Only such stones as are of the required quality shall be used on the work. Any stone which is in the opinion of the Engineer-in-Charge, not in accordance with the specifications or of required quality will be rejected at any time , at the quarry or at the site of work. The rejected stones shall not be used on the work and such rejected materials shall be removed to the place shown at the contractor's cost.
- 3.7** Since all stones quarried from Government quarry (if made available) by the contractor including the excavated overburden are the property of the government, no stones or earth shall be supplied by the contractor to any other agencies or works , and are not allowed to be taken away for any other works all such surplus quarried materials not required for work under this contract shall be the property of the Government and shall be handed over by the contractor to Government free of cost at quarry site duly heaped at the spots indicated by the engineer-in-charge. The contractor will be entitled to the refund of the royalty if any paid by him for such quantity handed over to Government for which necessary certificate will be issued by Project Engineer as per usual procedure. If however, the Government does not require such surplus material, the contractor may be allowed to dispose off or use material elsewhere with prior written permission of Engineer-in-Charge. Leaving off a quarry face or opening of a new quarry face shall be done only on the approval of the Engineer-in-charge.
- 3.8** Quarrying permission will have to directly obtained by the contractor, from the Collector of the district concerned for which purpose the Corporation will render necessary assistance. All quarry fees, Royalty charges, octroi duties, ground rent for staking material, etc. if any two be paid, shall be paid directly by the contractor as per rules in force. The contractor will however be Entitled to a refund of part of such charges as are admissible under rules as mentioned elsewhere in this contract , after obtaining a certificate from the Engineer-in-charge that the material where required for use on government works .
- 3.9** The contractor will be permitted to erect at his own risk and cost at the quarry site if suitable vacant space in government area is available for the purpose, his own structures for stores, offices, etc at place approved by the Engineer-in-charge. On completion of the work, the contractor shall remove all the structures erected by him and restore the site to its original condition.

**3.10** The contractor shall not use any land in the quarry either for cultivation or for any other purpose except that required for breaking or stacking or transporting stones.

#### **4.0 DEFINITIONS:**

Deleted

#### **5.0 TRAFFIC REGULATION**

**5.1** Unless separately provided for in the contract, the contractor shall have to make all necessary arrangement for regulating traffic, day to night during the period of construction to the entire satisfaction of the Engineer. This includes the construction and maintenance of diversions if necessary. The contractor shall have to provide necessary caution boards, barricades, flags, lights and watchmen etc so as to comply with the latest Motor Vehicles rules and regulations and for traffic safety and he shall be responsible for all claims from accidents which may arise due to his negligence whether in regulating the traffic or in stacking material on the roads or due to any other reasons.

**5.2** It is to be clearly understood that whatever work carried by the contractor for construction of diversion road including earthwork, W.B.M, bituminous surface dressing, R.C.C. pipe drains etc will be paid for only once. If due to the flow of traffic, due to floods or due to any other cause, this diversion road and/or the R.C.C drain gets damaged, it shall be repaired and maintained by the contractor in good condition till completion of the whole work at his expenses.

**5.3** The contractors have to make own arrangement for temporary acquisition of land if required for diversion.

#### **6.0 LEVELLING INSTRUMENTS:**

If measurements of items of the work are based on volumetric measurements calculated from levels taken before and after construction of the item, a large number of leveling staves, tapes etc will have to be kept available by the contractor at the site of work for this purpose. Lack of such leveling staves, tapes, etc in required numbers may cause delay in measurements and the work. The contractor will have therefore to keep sufficient number of these readily available at site.

#### **7.0 CEMENT CONCRETE:**

- (a) Cement content for M 40grade concrete shall be between 400 to 425 Kg/cum. The contractors shall carry out all preliminary tests to work out grading and proportioning of aggregates in order to obtain and maintain uniform quality of work. The contractor shall supply all materials; labour and testing cost of preparing and testing samples as required by the Engineer. Unless otherwise specified in the detailed item wise specifications 6 cubes 6" X 6" X 6" (15 cm X 15 cm X 15 cm) for testing compressive strength and 6 beams moulds of size 15cm X12 cm X 70 cm for testing of flexural strength, at his cost. The cubes and beam mouldsshall be tested at approved laboratory and the test results shall not fall below those prescribed in P.W.D Handbook (Table CV P.412) or as laid down in the specifications. The cost of

such cubes and tests shall be entirely borne by the contractor. MIX Design shall be done as per IRC 44 2008 and got approved from Engineer in Charge.

- (b) All concrete shall be controlled and machine mixed, unless otherwise directed by Engineer-in-Charge for controlled or high grade concrete, the grading of aggregates shall be got approved from the Engineer.  
The correct proportions and the total amount of water for the mix will be determined by means of preliminary tests and shall be got approved by the Engineer, However such approval does not relieve the contractor from his responsibility, regarding the minimum works strength requirement. Works tests shall be taken in accordance with relevant codes and specifications. The minimum cement content shall be in accordance with I.S. 456-1978.  
All proportioning of aggregates shall be done by weight if so ordered by the Engineer.
- (c) All mixing shall be done by mechanical means in approved mixers. The Engineer may at his discretion, allow in writing hand mixing of concrete for minor items where small quantities are involved but in case the contractor shall increase the cement content of the mixture by 10 % without any extra cost.
- (d) The form work used shall be made preferably of steel or with lining of steel. Wooden shutters may be allowed at the discretion of the Engineer. E.g. lintels, small slabs and beams, coping etc.
- (e) The concrete shall be mechanically vibrated for proper compaction by the method approved by the Engineer.
- (f) The concrete shall be cured only by sweet potable water for full 21 days after the time of the period specified in the detailed specifications or as may be directed by Engineer-in-Charge.

### **8.1 REINFORCED CONCRETE WORK:**

a) The work included in this contract shall be carried out in addition to this specification detailed herein, in accordance with specifications and regulations as laid down in the following standard Specifications. The Contractor shall submit the mix design for M40 grade concrete and get approved from Engineer in Charge prior to starting the PQC work.

Standard Specifications published by Government of Maharashtra 1985 Edition.

I.S. 269 : 1958 Specification for ordinary rapid hardening and low heat Portland cement(Revised)

I.S. 363 : 1963 Specification for coarse and fine aggregate from natural courses for concrete.

I.S. 456: 1978 Code of practice for Plain and Reinforced Concrete.

If the standard specifications quoted above fall short for the items quoted in the schedules of this contract, reference shall be made to the latest British standard specifications. If any of the items of contract do not fall in reference quoted above, the decision and specifications of the Engineer shall be final.

### **8.3 ADDITIONAL GENERAL SPECIFICATION FOR 1:2:4 ORDINARY CEMENT CONCRETE**

1. If the concrete strength falls below that specified for the items and if the use can be permitted under clauses 303.3.7 of the IRC Bridge Code Section Part III given below, the unit (Bridge component) may be accepted at discretion of the CHAIRMAN PSCDCL concerned as a substandard work at a suitable reduced rate. Reduced rate will be determined by the Project Engineer concerned according to circumstances of the case and the concerned CHAIRMAN PSCDCL's approval to the reduced rate as mentioned above, he has to replace the concrete at his own cost with all consequent losses and damages.

"Standard Specification and Code of Practice" for road bridges section III Cement concrete 303.3.7 standard of acceptance.

i) Full payment shall be made when 75 % of the test cube results are equal and above specified strength. Case falling outside the above limits should be examined and decided by Engineer-in-charge on merits of each case.

ii) The test specimen should be taken by representative of the contractor in presence of a responsible officer of the rank of not lower than an Assistant Engineer or Additional Engineer.

iii) The test specimen should form carefully and no claim shall be entertained later on the ground that the casting of the test specimen were faulty and that the results of the test specimen did not give correct indication of the actual quality of the concrete.

iv) The minimum quantity of cement per 100 cu.ft of M 160 and above concrete should be 16.00 cement bags as per Standard Specification Book Specification F.B. 7-A on Page 42.

v) Payment (a) The payment of such concrete work will not be made till the strengths are ascertained.

vi) The payment of reinforcement of such affected items will not be made till the strength of the concrete are ascertained.

## **9 COLLECTION OF MATERIALS:**

(i) Where suitable and approved PW Department's quarries exist, the contractor or piece worker will be allowed if otherwise there is no objection to obtain the materials to the extent required for the work from the quarry. He will be however liable to pay compensation, if any damage is caused to the quarry either deliberately or through negligence or for wastage of material by himself or his staff or refund according to rules, if admissible and shall submit detailed accounts of materials from quarries as directed.

(ii) Where no suitable PW Department's quarries exist or when the quality of material required cannot be obtained from PW Department quarry, the contractor or piece worker shall make his own arrangements to obtain the material from existing or new quarry in Government waste land, private land or land belonging to other states or talukas, etc. After opening the quarry, but before starting collection, the quarry shall be got approved by the Engineer-in-charge or his representatives. The Contractor or piece worker shall pay all royalty charges, compensation etc. No claims or responsibility on account of any obstruction caused to execution of the work by difficulties arising out of private owners of land will be entertained.

(iii) The rates in the tender include all incidental charges such as opening of a new quarry, opening out a new portion in an existing quarry, removing top soil and the suitable material, dewatering a quarry, cost of blasting powder and fuse, lift, lead,

repairs to existing cart tracks, making new cart tracks, control charges, Central or State Governments or Municipal Taxes, Local Board Cess etc

(iv) The rates in the tender are for the delivery of the approved material on road site, properly stacked at the places specified by the Engineer-in-charge and are inclusive of conveyance charges in respect of the leads and lifts. No claims on account of changes in leads will be entertained.

(v) No material shall be removed from the land within the road boundary or from the land touching it without the written permission of the Engineer-in-charge or his authorized agent. If any material is unauthorisedly obtained from such places, the Contractor or piece worker shall have to make good the damages and pay such compensation, in addition as may be decided by the Project Engineer and will have to stop further collection.

(vi) Any material that falls on any PWD road from the cart etc during conveyance shall be immediately picked up and removed by the contractor or piece worker, failing which, it will be got removed departmentally at his cost. No heap shall be left prior to stacking even temporarily on the road surface or in any way so as to cause any obstruction or danger to the traffic. The Contractor or the piece worker shall be liable to pay for any claims or compensation etc arising out of any accident, etc. Any such materials causing obstruction or danger etc will be got removed departmentally at his cost and no claims for any loss or damage to the material, this removed will be entertained. The Contractor shall also be responsible for the damage or accident etc arising out of any material that falls on the road or track, not in charge of the Department and shall attend to any complaints which may be received.

(vii) The materials shall not be stacked in place where it is liable to be damaged or lost due to traffic passing over it to be washed away by rains or floods, to be buried under the landslide etc or the slip down an embankment or hill side etc. No claims for any loss due to these and similar causes will be entertained.

(viii) Before stacking, the materials shall be free from all earth, rubbish vegetable matter and other extraneous substances and in the case of metal, screened to gauge. If so directed when ready, it shall be stacked entirely clear of the roadway, on ground which has been cleaned of vegetation and leveled. On high banks, ghat roads etc, where it may be practicable to stack it entirely clear of the roadway, it may be stacked with the permission of the Engineer-in-charge on terms in such as way as to cause minimum danger and obstruction to the traffic or as may be directed by him.

(ix) The size of the stacks or materials other than rubble shall be 3.00 X 1.50 X 0.60 m of such other size as may be directed by the Engineer-in-charge and all but one stack in furlong shall be of the same uniform size and shall be uniformly distributed over whole lengths. One stack (at the end) in each furlong may be of length different in order to adjust total quantity to be required, but its width and height will be the same as those of the rest.

(x) The Additional Engineer shall supply the Contractor with statement showing furlong wise quantities that will be required and the order in which the collection is to be done. No materials in excess of requirement in that furlong shall be stacked. Any excess quantity shall be removed at the expense of the Contractor or piece worker to where it is required before the material in that furlong is finally measured.

(xi) In stacking materials, deposition shall commence at the end of the mile farthest from the quarry and be carried continuously to the other end (unless otherwise directed by the Project Engineer). Stacking in one furlong shall be completed before it is started in another unless directed otherwise in writing by the Project Engineer. Measurements of the materials stacked in a furlong will not be recorded until the full quantity required has been stacked unless otherwise authorized by Engineer in writing.

Collecting and spreading shall not be carried out at the same time in one and the same mile or in two adjoining miles except with the written permission of the Project Engineer.

(xii) Unless otherwise directed, the material shall be collected in the following order according to the availability of space: (1) Rubble (if included in tender), (2) Metal (3) Soft murrum and (4) Hard murrum. Hard murrum shall be stacked on the site opposite to that on which soft murrum has been stacked. Similarly, metal collected for petty repairs shall be stacked on the side opposite to metal for new layer. Where metal for two layers has to be stacked, as in the case of new roads, the metal for each layer shall be stacked on the opposite sides of the road.

(xiii) All road material shall be examined and measured before it is spread. The labour for measurements (and check measurements wherever carried out) shall be supplied by the Contractor or piece worker. Immediately after the measurement are recorded, the stack shall be marked by the Contractor or the piece worker by white wash or otherwise may be directed by the Project Engineer to prevent from any possibility of the same material being measured and recorded over again and to, prevent any unauthorized tampering with the stacks. If the Contractor or the piece worker fails to attend the measurements of materials after receiving the notice from the Additional Engineer, or his subordinate, stating date and time of the intention to measure the work, shall be measured nevertheless and no complaint in this respect will be entertained later on. If the Contractor or piece worker fails to supply sufficient labour or the materials required at the Time of measurements or check measurements after due notice has been given to him, the expenses incurred on account of employing Departmental labour or material etc shall be charged against his account.

(xiv) No deduction will be made for voids.

## **10.0 MISCELLANEOUS**

10.1 Rate shall be inclusive of S.T., General Tax and other Taxes etc.

10.2 For providing electric wiring or water lines etc recesses shall be provided if necessary through walls, slabs, beams etc and later on refilled up with bricks or stone chippings, cement mortar without any extra cost.

10.3 In case it becomes necessary for the due fulfillment of Contract for the Contractor to occupy land outside the Department limits, the Contractor will have to make his own arrangement with the land owners and to pay such rents if any are payable as mutually agreed between them. The Department will afford the Contractor all the reasonable assistance to enable him to obtain Corporation land for such purpose on usual terms and conditions as per the rules of the Corporation.

10.4 Special provision in detailed specifications or wording of any item shall gain precedence over corresponding contradictory provision (if any) in the Standard Specifications or PWD Hand Book, where reference to such specifications is given without reproducing the details in Contract.

10.5 Suitable separating barricades and enclosures shall be provided to separate material brought by the Contractor and material issued by Government to the Contractor under Schedule "A". Same applies for the material obtained from different sources of supply.

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- 10.6 It is presumed that the Contractor has gone carefully through the Standard Specifications of PWD Hand Books and the Schedule of Rate of the Division and studied the site conditions before arriving at rates quoted by him. Decision of the Engineer-in-charge shall be final as regards interpretation of specifications.
- 10.7 The stacking and storage of construction material at site shall be in such a manner as to prevent deterioration or intrusion of foreign matter and to ensure the preservation of their quality, properties and fitness for the work. Suitable precautions shall be taken by the Contractor to protect the material against atmospheric action, fire and other hazards. The materials likely to be carried away by wind shall be stored in suitable stores or with suitable barricades and where there is likelihood of subsidence of soil, such heavy material shall be stored on approved platforms.
- 10.8 For Roads and Bridge works, the Contractor shall in addition to the Specifications cited here, comply with the requirements of relevant IRC Code Practice, latest edition of MORTH Specifications.
- 10.9 The Contractor shall be responsible for making good the damages done to the existing Property during construction by his men.
- 10.10 If it is found necessary from safety point of view to test any part of the structure, the test shall be carried out by the Contractor with the help of the Department at this worn cost.
- 10.11 The Contractor shall provide, maintain, furnish and remove on completion temporary shed for office on work site for the use of Project Engineer's representative.
- 10.12 Defective work is liable to be rejected at any stage. The Contractor, on no account can refuse to rectify the defects merely on reasons that further work has been carried out. No extra payment shall be made for rectification.
- 10.13 In the Schedule B, the work has been divided into sections but not withstanding this, every part of it shall be deemed supplementary to and complimentary of every other part.
- 10.14 General directions or detailed description of work, materials and items coverage of rates given in the specification are not necessarily repeated in the Bill of Quantities. Reference is, however, drawn to the appropriate section clause (s) of the General Specifications in accordance with which the work is to be carried out.
- 10.15 In the absence of specific directions to the contrary, the rates and prices inserted in the items are to be considered as the full inclusive rates and prices for the finished work described there under and are to cover all labour, materials, wastage, temporary work, plant overhead charges and profits, as well as the general liabilities, obligations and risk arising out of the General Conditions of the Contract.



- 10.16 The quantities set down against the items in the Schedule B are only estimated quantities of each kind of work included in the Contract and are not to be taken as a guarantee that the quantities scheduled will be carried out or required or that they will not be exceeded.
- 10.17 All measurements will be made in accordance with the methods indicated in the specifications and read in conjunction with the General Conditions of Contract.
- 10.18 The details shown on drawings and all other information pertaining to the work shall be treated as indicative and provisional only and are liable to variation as found necessary while preparing working drawing which will be supplied by the Government during execution. The Contractor shall not, on account of such variation be entitled to any increase over the ones quoted in the tender which are on quantity basis.
- 10.19 The recoveries if any from the Contractor will be affected as arrears of land revenue through the Collector of the District.
- 10.20 Clause 101 to 107 of Specifications of Road and Bridge Works adhered herewith will be applicable to works as per Schedule B unless specified otherwise in the detailed specifications of the relevant items.
- 10.21 All materials used in the construction shall conform to the requirement of Specification Clause under Section – 1000 “Materials for Structures” of Specifications of Road and Bridge Works, MORTH New Delhi, attached to the tender.
- 10.22 Protection of underground telephone cables and aerial telephone wires and poles, transmission towers, electrical cables, and water supplying lines. During the execution of work, it is likely that the Contractor may meet with telephone cable, electrical cables, supply lines, etc. It will therefore be the responsibility of the Contractor to protect them carefully. All such cases should be brought to the notice of the Engineer-in-charge by the Contractor and also the concerned Department. Any damage whatsoever done to these cables and pipelines by the Contractor shall be made good by him at his cost.

#### **11.0 LINING OUT:**

The Contractor shall provide free of charge all labour and material required for lining out, surveying, inspection decided by the Engineer as considered necessary for the proper and systematic execution of work. The Department will only show the changed points on the alignment of the road and it will be the responsibility of the Contractor to correctly align the road straight between points including setting out curves, though the Department will render necessary assistance. Likewise, only one Bench Mark with definite value of R.L. will be shown to Contractor who shall have to provide for network of temporary Bench Mark all along the road and near C D Works for executing the work. The Contractor shall be responsible for the provision, accuracy and the maintenance of such temporary Bench Mark. He shall be responsible for the correctness of the position, levels dimensions and alignment of all parts of the works and provision of necessary instruments and labour in

connection with it, suitable pointed bamboos or wooden stakes shall be provided at his cost and firmly fixed at every 50 m on both sides of embankment to indicated final as well as intermediate heights of the embankments. Any errors in position, levels, dimensions and alignment shall be rectified by Contractor at his expenses. If such error is due to incorrect data supplied in writing by the Engineer or his authorized representative, the cost of rectification shall be borne by Corporation. The checking or inspection of any setting out of any line or level or works by Engineer or his representative shall not in any way relive the Contractor of his responsibility or correctness thereof. The Contractor shall carefully protect and preserve all Bench Marks, Site Rails, Pegs and stones etc used in setting out the work. Marking out the centerlines of C D Works, necessary approaches, etc shall be done by the Contractor at his own cost as directed by the Engineer.

### **ADDITIONAL SPECIAL CONDITIONS**

- 1 The Concrete Work for the works under this tender shall be carried out from Batch Type Ready Mix Concrete Plant only. The tenderer should produce required documentation about ownership of Batch Type RMC Plant in Envelope No I.
- 2 Plant calibration shall be valid for one year subject to the consistent supply of metal. Cost of calibration shall be borne by the contractor. Whenever required by the PSCDCL, recalibration of the plant shall be done by the contractor at his own cost.

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- 3 The Contractor shall maintain and update all the project work and work process related information online in website format at a location specified by the Municipal Corporation. The Contractor shall be responsible for updating of all project related information on the website daily with due authentication from Engineer-in-Charge with time lag specified by Engineer in Charge. The cost of developing the website and hosting the data on the website shall be borne by the Contractor. No extra payment for the development of website or data uploading shall be made.
- 4 Applicants should make available the equipments & machinery whenever required and should attach register hire lease document or indemnity bond from either party on Rs 100/- stamp paper duly notarised as an documentary proof and attach the same with envelope no.1.
- 5 The Contractor shall submit the **Request for Inspection (RFI)** to the Engineer-in-Charge and Consultants one day in advance before starting of any Hot mix related work. In no case shall the Hot mix work be started without submitting the RFI one day before the activity and without the prior approval of Engineer-in-Charge and Consultants. The Contractor shall submit the previous day's Progress on the following day by 11.00 am positively in the standard prescribed format approved by Engineer-in-Charge.
- 6 The Contractor shall submit the regular printouts from the Batch Mix plant and RMC Plant indicating the following details for each batch;
  - i. Date, time and location.
  - ii. Weight of batch and individual aggregate fractions and Cement with filler.
  - iii. Water Cement Ratio of the batch
8. The road roughness for all the project roads shall be measured in accordance to IRC SP 16 –2004. The Contractor shall arrange for and bear the cost of roughness testing of the completed roads. The minimum roughness allowable for the various surfaces measured in accordance to the above specifications is as follows.
  - i. Bituminous Concrete wearing surface – less than 2000 mm/ Km
  - ii. PQC (Concrete Pavement) Surface – less than 2200 mm/ Km

The Contractor shall arrange for necessary testing equipment and conduct the testing in consultation with Project Management Consultant and PSCDCL Engineers before commencement of work and after completion of wearing course. **If it is found that the Roughness Index of the BT/ PQC surface is outside the permissible limits then deduction in the BT/ PQC payment shall be enforced as per the directives of CHAIRMAN PSCDCL, Roads.** At least 10% tests for the work must be performed in Third Party Laboratory approved by PSCDCL and the cost such tests shall be borne by Contractor.
- 9 In case of non-conformance to the quality control checks in accordance to the quality assurance plan for Concrete related works, no payment shall be made to Contractor for non-conformance of work.
- 10 It is evident that there shall be live utilities under the road. The contractor shall repair and restore damaged utility lines viz. telephone, electricity, OFC, water line, drainage

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- line etc if damaged during the execution of work. No separate payment shall be made to the contractor for utility repair.
- 11 Every Bidder must have well equipped laboratory set up as described in NIT at plant site and mobile lab at every work site.
  - 12 The source of material viz.the quarries shall be approved by PSCDCL or consultant appointed by PSCDCL.
  - 13 The works shall be primarily carried out in day time only. Except the prior permission of development engineer (Road) to carry out the same at night time.
  - 14 The longitudinal and cross sectional of work be taken along with the photographs before starting and after satisfactory completion of the work along with identification of all the main hole covers of existing services and steel / cement concrete grating storm water drains etc.
  - 15 The original invoice of bitumen of manufactures shall be submitted to the department along with the test certificate of the manufactures and the bitumen be tested at plant site before it is put in to use.
  - 16 **It will be sole responsibility of bidder to provide for sufficient traffic wardens and barricades during the entire project duration and make sure that there is sufficient space for safe movement of pedestrians and vehicules during the construction operations.**
  - 17 Contractor must carry out survey of road using Total Station before commencing the first layer of resurfacing work in presence of PSCDCL engineer. The levels should be taken at longitudinal interval of 10 m cross sectional interval ( depending on the road width 2.00m to 5.00 m ) submit the detail cross section to department for cross check. This same procedure of levels will be applied after each layer of bitumen mix. Cores will have to be taken for each layer at the rate of one core per 250 Sqm in presence of PSCDCL Engineer / Consultant / Third Party Quality Assurance Agency.
  - 18 The contractor shall also provide complete Videograppping of the road before work commencement and during submission of each RA Bill along with chiangewisecoloured photographs in Hard Copy and Soft copy.

### GENERAL TECHNICAL SPECIFICATIONS

1. The General Technical Specifications comprise the “Specification for Road and Bridge Works” (Fifth Revision) issued by the Ministry of Road Transport and Highways (MORT&H), Government of India and published by the Indian Road Congress, New Delhi and for items not covered by these specification Standard Specifications edition, 1979, published by the Public Works Department, Govt. of Maharashtra, deemed to be bound into this document, unless and otherwise specifically relaxed wholly or partly through a special clause in the contract document. & relevant BIS codes of practice.

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### 1.1 Abbreviations Used

a)	LM / Lm / RMT/Rgm	=	Linear Meter / Running Meter
b)	Cum.	=	Cubic Meter
c)	Sqm.	=	Square Meter
d)	Cum /cc	=	Cubic Centimeter
e)	No.	=	Numbers
f)	MT / Tonne	=	Metric Tonne
g)	Hr	=	Hours
h)	Ha	=	Hector
i)	MoRT&H	=	Ministry of Road Transport & Highways
j)	IRC	=	Indian Roads Congress
k)	BIS	=	Indian Standards.

## 2. MISCELLANEOUS :

- 2.1 Rate shall be inclusive of all taxes including sales tax, work contract tax, octroi, duties, royalty etc.
- 2.2 The special provision in detailed specifications or wording of any item shall gain precedence over corresponding contradictory provision (if any) in the standard specifications or P.W.D. Hand Book where reference to such specifications is given without re-producing the details in contract.
- 2.3 It is presumed that the Contractor has gone carefully through MORTH Specification & P.W.D. Hand Book and the Schedule of Rates of the Division and studied the site conditions before arriving at rates quoted by him. Decision of the Engineer-in-charge shall be final as regards interpretation of specifications.
- 2.4 Stacking and storage of construction material at site shall be in such a manner as to prevent deterioration or intrusion of foreign matter and to ensure the preservation of their quality, properties and fitness for the work. Suitable precautions shall be taken by the Contractor to protect the material against atmospheric actions, fire and other hazards. The materials likely to be carried away by wind shall be stored in suitable stores or with suitable barricades and where there is likely-hood of subsidence of soil, such heavy materials shall be stored on approved platforms.
- 2.5 For road and grade separator works the contractor shall in addition to the specifications cited here, comply with requirements of relevant I.R.C. Code Practice. Latest edition of MORTH specification and BIS codes shall be applicable for this work.
- 2.6 The contractor shall be responsible for making good the damages done to the existing property during construction by his men.

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- 2.7 If it is found necessary from safety point of view to test any part of the structure, the test shall be carried out by the contractor with the help of the Department at his own cost.
- 2.8 The contractor shall provide, maintain, furnish and remove on completion, temporary shed for office on work site for the use of Project Engineer's representative.
- 2.9 Defective work is liable to be rejected at any stage. The contractor on no account can refuse to rectify the defects merely on reasons that further work has been carried out. No payment shall be made for rectification.
- 2.10 General directions or detailed description of work, materials and all coverage of rates given in the specification are not necessary repeated in the Bill of Quantities. Reference is however, drawn to appropriate section clause(s) of the General specifications accordance with which the work is to be carried out.
- 2.11 In the absence of specific directions to the contrary, the rates and prices inserted in the terms are to be considered as the full inclusive rates and prices for the finished work described there-under and are cover all labour, materials, wastage, temporary work, plant overhead charges and profiles, as well as the general liabilities, obligations and risks arising out of the General Conditions of Contract.
- 2.12 The quantities set down against the item in the Schedule 'B' are only estimated quantities of each kind of work included in the Contract and are not to be taken as a guarantee that the quantities schedule will be carried out or required or that they will not be exceeded.
- 2.13 All measurements will be made in accordance with the methods indicated in the specification and read in conjunction with the General Conditions of Contract.
- 2.14 The details shown on drawings and all other information pertaining to the work shall be treated as indicative and provisional only and are liable to variation as found necessary while preparing working drawing which will be supplied by the PSCDCL during execution. The contractor shall not, on account of such variation be entitled to any increase over the ones quoted in the tender which are on quantity basis. The contractor has to make his own investigation before quoting for the work.
- 2.15 The recoveries if any from contractor will be affected as arrears of land revenue through the Collector of the District.
- 2.16 Clause 101 to 107 of Specifications of Road and Bridge works adhered herewith will be applicable to works as per Schedule 'B' unless specified otherwise in the detailed specifications of the relevant items.

2.17 All materials used in the construction shall conform to the requirement of Specification Clause under Section-100 "Materials for Structures" of Specification of Road and Bridge Works MORTH New Delhi.

2.18 Protection of underground telephone cable and aerial telephone wires and poles, transmission towers, electrical cables and water supplying lines.

During the execution of work, it is likely that the contractor may meet with telephone cable, electrical cables, water supply lines etc. it will therefore be the responsibility of the Contractor to protect them carefully. All such cases should be brought to the notice of the Engineer-in-charge by the contractor and also to the concerned department. Any damage whatsoever done to these cables and pipe lines by the contractor shall be made good by him at his cost.

**3.. Order of precedence, clarifications and interpretations:**

When various specifications and codes referred to in presiding portion are at variance with each other following order of precedence will generally be accepted.

- i) Special conditions of contract, Item wise specifications, revised specifications if provided and execution drawing notes etc.
- ii) MoRT&H Specifications (Specifications for Roads & Bridge work)
- iii) I.S. Codes of practice.
- iv) Standard specification 1979 PWD Govt. of Maharashtra.

In case of items for which specifications are not available in the above mentioned specifications good sound engineering practice shall be followed and in such case specifications given by the employer consultants shall be final & binding on the contractor.

**4. Specifications for materials:**

All material to be used in work shall satisfy provision of relevant specifications of Road and Bridge.

**5. Method of MEASUREMENT:**

The method of measurement and payment shall be as described under various items and bill of quantity where specific definitions are not given, the method described in MoRT&H Specification will be followed.

6. All works shall be carried out in line & level as shown on execution drawing and as directed by Engineer.

**7. Clearance of SITE:**

The work of site clearance before & after completion of work shall be as per Section 200 of MoRT&H specifications. Contractor shall visit the site before submitting his offer and assess the quantum of work for clearing the site before execution, during execution & after completion of work.

Mode of measurement & payment for this item is on lump sum basis and include all type of site clearance as required by the Engineer, and include cost of labour material, T & P.

### 8. Excavation for ROAD:

8.1 As per the respective BOQ items & their specifications mentioned.

Contractor shall note that the water table may be at higher level which will necessitate the dewatering. Dewatering and removal of water is incidental to item of work. No separate payment for dewatering etc. will be made by PSCDCL.

8.2 Setting Out :

After site is cleared and leveled, alignment & location shall be mark and excavation limit shall be set out true to lines and section as shown on working drawings. The contractor shall provide all labour, survey instrument i.e. Total station and materials required for setting out.

8.3 Disposal of excavated material :

All excavated material shall be used in work as directed. Usable surplus material shall be stacked properly as directly. Unusable excavated material shall be disposed of by the contractor as specified & directed by the Engineer.

8.4 Measurement :

Excavation work shall be measured for depth below existing road / ground level. Measurement shall generally confirm to MoRT&H Specification Section –300 Clause 304.40. Each change of strata shall be got certified by the Engineer in charge. Measurement for excavation shall be as required for the exact width length and depth as shown on the drawing or as directed by the Engineer.

No excess excavation will be considered for payment and extra work occasioned shall be done at contractor risk & cost.

8.5 Rate include

- a) Excavation & disposing of material including backfilling etc. as directed.
- b) Setting out works profiles etc.
- c) leveling of surface
- d) Site clearing
- e) Dewatering

### FOLLOWING SPECIFICATION SHALL BE ADOPTED FOR ITEM WORK

SR. NO.	DESCRIPTION	REFERENCE TO SPECIFICATION MoRT&H SPECIFICATIONS FOR ROAD AND BRIDGE
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		<b>WORK</b>
1	Setting out of work	Section 100 Clause 109
2	Material	Section 1000 & BIS
	a) Cement	Clause 1006
	b) Steel	Clause 1009.3
	c) Aggregate Course	Clause 1007 (I.S. Code 383)
	d) Aggregate Fine	Clause 1008 (I.S. Code 383)
	e) Water	Clause 1010
	f) Bitumen	Grade 80/100 or 30/40 (I.S. 73) as specified.
	g) Admixture	Clause 1012
3	Storage of materials cement, steel, H.T. steel, aggregate, prestressing material.	Section 1000 Clause 1014
4	Excavation for structure and foundation	MOST Section 300 Clause 304
5	Concrete for PCC, RCC work	Section 1700
6	Pavement Quality Concrete (PQC)	Section 602, 900 & 1000.
7	Steel	
	a) H.Y.S.D. reinforcement	Section 1000 Clause 1009.3 & IS 1732
8	Protection, bending, placing etc. for steel	Section 1600
9	Polypropylene Fibers	ASTM C-1116, Type III 4.1.3. ASTM C-1116, Performance Level 1 ASTM C-1399 (min. average residual strength of 0.35 Mpa).
10	Expansion Joint	Section 2600
11	Construction Joint	Section 1700 Clause Appendix – 1700 / I
12	Asphalt Wearing coat	Section 500 & Section 900
	a) Prime Coat	Section 500 Clause 502
	b) Tack Coat	Section 500 Clause 503
	c) Bitumen Macadam	Clause 504
	d) Dense Bitumen Macadam	Clause 507
	e) Asphaltic / Bitumen Concrete	Clause 509

	f) Mastic Asphalt	Clause 515
13	Weep Hole	Section 2700 Clause 2706
14	Drainage Water Spout	Section 2700 Clause 2707
15	Metal beam crash barrier	Section 800 Clause 810
16	Traffic sign marking and other road appurtenances	Section 800
17	Item not covered above	Relevant Clause of MoRT&H Specification for Road & Bridge & IRC Codes and relevant I.S. code and specification.

## 9. SPECIFICATIONS INTERLOCKING CEMENT CONCRETE PAVER BLOCKS

The interlocking concrete blocks should be procured from manufacturer approved by PSCDCL and satisfying the following criteria. IRC SP 63 2004 shall be used as guideline for Paver Block work.

- a. Manufacturer shall have fully automatic vibro pressing plant with vertical vibration system to ensure maximum compaction to achieve required strength. The grade of concrete should be M – 40, thickness 80mm M – 30, thickness 60mm and M – 50, thickness 100mm.
- b. Manufacturer shall have adequate capacity mixer with digital water meter / moisture control system to maintain constant water/ cement ratio.
- c. Manufacturing plant shall have complete automation with computerized weigh batching system for consistent quality of paving blocks.
- d. Blocks shall be moist cured for initial 24 hours and then water cured for at least 15 days before dispatch to site.
- e. Manufacturer shall have complete laboratory setup for testing blocks as per IS 15658-2006 and should be on approved list of MMRDA, MCGM, PCMC or equivalent organization.
- f. Manufacturer shall possess excise registration certificate.

## 10. TRAFFIC MANAGEMENT DURING CONSTRUCTION

- 1 The Contractor shall at all times carry out work on the road in a manner creating least interference to the flow of traffic while consistent with the satisfactory execution of the same. For all works involving improvements to the existing highway, the Contractor shall, in accordance with the directives of the Engineer, provide and maintain, during execution of the work, a passage for traffic either along a part of the existing carriageway under improvement, or along a temporary diversion constructed close to the highway. The contractor shall take prior approval of the Engineer regarding traffic arrangements during construction.

- 2 Signs, lights, barriers and other traffic control devices shall be provided and maintained in a satisfactory condition till such time they are required as directed by the Engineer, so as to ensure smooth and safe traffic on the road throughout the length. Necessary traffic arrangement at temporary diversions by signs, lights, barriers etc. is also included in the scope
- 3 The Contractor shall take all necessary measures for the safety of traffic during construction and provide, erect and maintain such barricades, including signs, markings, flags, lights and flagmen as may be required by the Engineer for information and protection of traffic approaching or passing through the section of the highway under improvement. Before taking up any construction, an agreed phased programme for the diversion of traffic on the highway shall be drawn up in consultation with the Engineer.

The barricades erected on either side of the carriageway/portion of the carriageway closed to traffic, shall be of strong design to resist violation, and painted with alternate black and white stripes, Red lanterns or warning lights of similar type shall be mounted on the barricades at night and kept lit throughout from sunset to sunrise.

At the points where traffic is to deviate from its normal path (whether on temporary diversion or part width of the carriageway) the channel for traffic shall be clearly marked with the aid of pavement markings, painted drums or a similar device to the directions of the Engineer. At night, the passage shall be delineated with lanterns of other suitable light source.

One-way traffic operation shall be established whenever the traffic is to be passed over part of the carriageway inadequate for two-lane traffic. This shall be done with the help of temporary traffic signals or flagmen kept positioned on opposite sides during all hours. For regulation of traffic, the flagmen shall be equipped with red and green flags and lanterns/lights.

On both sides, suitable regulatory/warning signs as approved by the Engineer shall be installed for the guidance of road users. On each approach, at least two signs shall be put up, one close to the point where transition of carriageway begins and the other 120 m away. The signs shall be of approved design and of refractory type, if so directed by the Engineer.

- 4 Signs, lights, barriers and other traffic control devices, as well as the riding surface of diversions shall be maintained in a satisfactory condition till such time they are required as directed by the Engineer. The temporary travelled way shall be kept free of dust by frequent applications of water, if necessary.

#### **TRAFFIC SAFETY MEASURES DURING CONSTRUCTION**

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This includes providing traffic safety arrangement required for traffic control near the stretch of road where widening or resurfacing work is being taken up, before actual start of widening/ resurfacing work of road and during the actual work. The contractor will have to provide the traffic safety arrangement as per the detailed drawing. The traffic safety arrangements will have to be got approved from the Engineer by the contractor before taking any construction activities for widening or resurfacing of road. It will be sole responsibility of bidder to provide for sufficient traffic wardens and barricades along the road edge.

The Engineer shall get himself satisfied about the traffic safety arrangement provided on the work site before allowing contractor to commence the widening activity and a certificate to that effect shall be recorded in the Measurement Book. The following traffic signs shall be provided by the contractor.

- A) The sign No. 1 “**SPEED LIMIT (20)**” shall be placed at a distance of 120 m. away from point where the transition of carriageway begins. The sign board shall be in size 60 cm. dia. having white background and red border and the numerals shall be in black colour as per IRC: 67-1977. Distance between sign No. 1 and sign No. 2 shall be minimum 20 m.
- B) The sign No. 2 cautionary boards indicating “**NARROW ROAD AHEAD**” shall be placed at a distance of 80 m. away from the point of transition of carriageway. The signboard shall be of an equilateral triangle of size 90 cm. having white colour background. Retro-reflective border in red colour and non reflective symbol in black colour as per IRC: 67-1977.
- C) The sign No. 3 signboard indicating “**MEN AT WORK / PSCDCL ROAD WORK AHEAD**” shall be placed at a distance of 40 m. away from the point of transition of carriageway. The signboard shall be of an equilateral triangle of size 90 cm. having white colour background. Retro-reflective border in red colour and non reflective symbol in black colour as per IRC: 67-1977.
- D) The sign No. 4 the board displaying the message “**GO SLOW- WORK IN PROGRESS- SORRY FOR INCONVENIENCE**” shall be placed at the point of transition of carriageway. The size of signboard shall be 1.0 m x 1.0 m. having red background and retro- reflective messages in white colour.

#### **BARRICADING FOR WORK:**

The proper barricading of the construction zone for road widening or resurfacing shall be done by contractor by using the following devices and providing adequate number of persons with Flags / Whistles and reflective jackets for traffic control.

- Sand filled plastic cones mounted with Retro-reflective Arrow Hazard Marker sign shall be placed as indicated in the drawing. Plastic cone shall be 73 cm. in height having 39 cm. square/hexagonal bases. Sand filled plastic cones shall be placed along the work is in progress as shown in the drawing. Cones shall be fluorescent orange and shall be made of a material that can be struck without damaging vehicles on impact. For night time use, cones shall be retroreflective

or equipped with lighting devices for maximum visibility. Retroreflection shall be provided by a white band 150 mm wide, no more than 100 mm from the top of the cone, and an additional 100 mm white band a minimum of 50 mm below the 150 mm top band. The reflective sheeting used for bands shall be of Class B sheeting as per IRC-67:2011.

- Retro-reflective Strong Inviolable Stand Type Barrier shall be placed at either ends of the widening area up to the edge of the Road. The barricades shall not be removed unless the permission is given by the responsible officer of the rank not less than Deputy Engineer. The Barricade shall have two plates of size 1.30 m x 0.20 m. painted black and shall have white Retro-reflective Strips of Class B sheeting as per IRC-67:2011. and mounted on Angle Iron Stand of 1.0 m. height. Minimum height of barricade shall be 1.50 m. alternatively, the barrcading with continous Tin sheets fixed on woodnen posts at distance of not more than 2 m and height not less than 1.5 m shall be used. The tin sheets shall be painted in alternate Black and Yellow paint and mainatine in god condition during the widening work. All the excavated portions of road / CD work/ RCC chambers etc shall be covered on all sides with painted Tin Sheet barricading.
- Yellow light flasher shall be kept lit from sunset to sunrise, 2 Nos. along transition line of traffic and 3 Nos. at barriers on both sides.
- Informatory sign board indicating Name of work, Contrcator, Consultant, Amount of contract, completion period, Defect Liability period, and Telephone No., name of Juniro Engineer, Consultant and COntrcatorENgineer with Telephone No. shall be provided at the starting point, end point of the stretch of road proposed for widening as per the scope of the agreement.

The signs, lights, barricades and other traffic control devices shall be well maintained, till such time that the traffic is commissioned on the widened road. The size, shape and colour of all the sign and caution boards shall be as mentioned above as per detailed drawings in accordance with the relevant IRC Specifications and as per Ministry of Road Transport & Highway (MORT&H) Specifications.

The sign shall be erected when the maintenance or minor construction activity extends over longer period of time and is of a more stationary nature. It may also be used at intermediate locations on long construction areas to set apart certain road sections having a higher degree of construction activities than observed in other intersections.

### **PRICE VARIATION CLAUSE**

**Accompaniment to the Government Resolution  
Public Works Department No. CAT/06/04/148, DATED 16/5/2005**

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If during the operative period of the contract as defined in condition (i) below, there shall be any variation in the Consumer Price Index (New Series) for Industrial workers for Pune centre as per the labours Gazette published by the Commissioner of Labour , Government of Maharashtra and / or in the wholesale Price Index for all commodities prepared by the Office of Economic Adviser, Ministry of Industry , Government of India , as compared to the respective figure therefore , on the date 30 days before the last date prescribed for the receipt of tender and/or in the Price of Petrol / Oil and Lubricants, and major construction materials like bitumen, cement, steel various types of metal pipes etc. then subject to the other conditions mentioned below, price adjustment on account of Labour component , Material component, Petrol, Oil And Lubricants , CL components Bitumen components , HYSD and mild steel components , cement components , CI and DI Pipes.

Labour component , Material component, Petrol, Oil And Lubricants ,which respectively are 37 % , 58% and 5% of the total cost of work put to tender, calculated as per the formula hereinafter appearing , shall be made to the contact price for any reasons whatsoever, component percent as given below are as of the total costs of work put to tender . Total of Labour Material and POL component shall be 100 and other components shall be as per actual. (Total of all these three components will be 100).

**(A) Formula for Labour Component**

$$V1 = 0.85 \times P \times \{K1/100 \times (L1-L0)/L0\}$$

**Where ,**

**V1** = Amount of price variation in Rupees to be allowed for labour component

**P** = Cost of work done during the quarter under consideration minus the cost of Cement, HYSD and mild Steel, Bitumen, calculated at the basic star rates as period under consideration

**Basic Material Rates used for the purpose of estimation to be specified.**

**K1** = Percentage of Labour Component as indicated above.

**L0** = Basic Consumer price Index for Pune centre shall be average consumer price index for the quarter preceding the month in which to the last date prescribed for receipt of tender falls.

**L1**= Average consumer price index for punecentre for the quarter under consideration.

**(B) Formula for Material Component**

$$V2 = 0.85 \times P \times \left\{ \frac{K2}{100} \times \frac{(M1-M0)}{M0} \right\}$$

**Where ,**

**V2** = Amount of price variation in Rupees to be allowed for material component

**P** = Same as worked out for labour component

**K2**= Percentage of Material Component as indicated above.

**M0** = Basic wholesale price index shall be average wholesale price index for the quarter preceding the month in which to the last date prescribed for receipt of tender falls.

**M1**= Average Wholesale Price Index during the quarter under consideration.

**(C) Formula for Petrol, Oil and Lubricant Component**

$$V3 = 0.85 \times P \times \left\{ \frac{K3}{100} \times \frac{(P1-P0)}{P0} \right\}$$

**Where ,**

**V3** = Amount of price variation in Rupees to be allowed for POL component

**P** = Same as worked out for labour component

**K3** = Percentage of Petrol , Oil and Lubricant Component.

**P0** = Average price of HSD at Pune during the quarter preceding the month (i.e. Three months) in which the last date prescribed for receipt of tender falls.

**P1**= Average Price of HSD for Pune during the quarter under consideration.

#### **(D) Formula for Bitumen Component**

**V4**=  $QB (B1-B0)$

**Where** =

**V4** = Amount of price variation in Rupees to be allowed in the Bitumen component

**QB** = Quantity of Bitumen (Grade) in metric tonnes used for permanent works and approved enabling works during the quarter under consideration.

**B1**= Current average ex-refinery price per metric tonnes of Bitumen (Grade) under consideration including taxes ( Octroi, excise, sales tax) during the quarter under consideration.

**B0** = Basic rate of bitumen in rupees per metric tonne as considered for working out value of P or average ex-refinery price in rupees per metric tonne including taxes ( Octroi, excise, sales tax) of Bitumen for the grade of Bitumen under consideration for prevailing quarter preceding the month i.e. 3 months in which the last date prescribed for receipt of tender, falls whichever is higher.

#### **(E) = Formula for HYSD and Steel Component**

**V5** =  $So \frac{\{SL1-SLo\}}{SLo} \times T$

**Where**

**V5**= Amount of price variation in Rupees to be allowed for HYSD/ Mild Steel component

**So** = Basic rate of HYSD/ Mild Steel in rupees per metric tonne as consider for working out value of p

**SL1**= Average steel index as per RBI Bulletin during the quarter under consideration

**SLo**= Average of Steel Index as per RBI Bulletin during the quarter preceding the month in which the last date prescribed for receipt of tender falls.

**T** = Tonnage of Steel used in the permanent works for the quarter under consideration.

#### **(F) = Formula for Cement Component**

**V6** =  $Co \frac{\{CL1-CLo\}}{CLo} \times T$

**Where** =

**V6** = Amount of price variation in Rupees to be allowed for Cement component

**Co** =Basic rate of Cement in rupees per metric tonne as consider for working out value of p

**CL1**= Average Cement index as per RBI Bulletin during the quarter under consideration

**CLo**= Average of Cement Index as per RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender falls.

**T** = Tonnage of Cement used in the permanent works for the quarter under consideration.

## **2. Conditions referred to in Paragraph-1**

- (i) **The operative period of the contract shall mean the period commencing from the date of the work order issued to the Contractor and ending, on the date when the**

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**time allowed for the work specified in the Memorandum under tender for work expires (15 months for this work). No escalation shall be allowed during the extended time period for the work.** . The decision of the Engineer-in-charge as regard the Operative Period of the contract shall be final and binding on the contractor. Where compensation for liquidated damages is levied on the contractor on account of delay in completion or inadequate progress under the Relevant contract provisions, the escalation amount for the balance work from the date of levy of such compensation shall be worked out by pegging the indices  $L_1$ ,  $M_1$ ,  $C_1$ ,  $P_1$ ,  $B_1$ ,  $Sl_1$ , and  $Cl_1$  to levels corresponding to the date from which such compensation is levied.

- (ii) This price variation clause shall be applicable for all contracts in B-1/B-2 and C forms but shall not apply for piece work .This price variation shall be determined during each quarter as per formula given above in this clause.
  - (iii) The price variation under this clause shall not be payable for the extra items required to be executed during the completion of the required work and also on the excess quantities payable under the provisions of the contract respectively.
  - (iv) This clause is operative both ways, i.e. if the price variation as calculated above is one the plus side, payment on account of the price variation shall be allowed to the contractor and if it is on the negative side, the Government shall be entitled to recover the same from the contractor and the amount shall be deductible from any amount due and payable under the contract.
  - (v) To the extent that full compensation for any rise or fall in the costs to be contractor is not entirely covered by the provision of this or other clauses in the contract, the unit rate and prices included in the contract shall be deemed to include amount to cover the contingency of such other actual rise or fall in costs
1. For the works which are delayed by administrative procedure or by technical reasons are only eligible for Escalation Clause. To execute this the sanction should be taken from Engineer – In – Charge and it will be binding on the Contractor for the works which are delayed by Contractor’s own delay will not be given Escalation . In this regard the decision of Engg.-in-charge will be final and binding.
  2. The indices for working out the escalation component on items during the O&M Period shall be taken from the date of starting of O&M Period upon issuance of completion certificate by the Engineer In Charge.

**Asphalt density and the asphalt percentage will be considered as given below**

<b>Type of Asphalt Mix</b>	<b>Asphalt Density</b>	<b>Asphalt %</b>
<b>AC</b>	<b>2.5/MT</b>	<b>6.20</b>
<b>DBM</b>	<b>2.3/MT</b>	<b>4.50</b>
<b>BM</b>	<b>2.3/MT</b>	<b>4.00</b>
<b>LBM</b>	<b>2.0/MT</b>	<b>2.50</b>

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3. For Mastic Asphalt bitumen grade 10-20 should be taken, for the difference the density of bitumen should be taken from approved laboratory's report for job mix. For difference bitumen percentage will be taken 15.50% or approved job mix whichever is less is considered and the basic rate of 80-100 grade bitumen difference rate will be paid.

**ANNEXURE - 'B'****CONTRACT DETAILS**

- |                   |  |
|-------------------|--|
| 1) Name of Work   | Redesigning of Street, Footpath retrofitting, Place making on Roads, Junction Redesigning in ABB area under Smart Cities Mission |
| 2) Estimated Cost | Rs. 22,90,60,320/-   |

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- 
- 3) **Cost of blank Tender Form** **Rs. 15,000 /- Per Copy**
- 4) **Pre-tender Conference**  
 a) **Date** ..../..../2016  
 b) **Time** @ 15.00 hrs.  
 c) **Venue** Office of the Chief Engineer Roads, **PMC, Pune**
- 5) a) **Submission of the tender forms** ONLINE  
*Will be communicated after pre-bid conference.*  
 b) **Date and Time**
- 6) **Earnest Money Deposit** **Rs. 20,90,603/-**(1% of estimated cost)
- 7) **Initial Security Deposit** 1 % of EMD shall be converted to Security Deposit and 1 % of the contract sum to be paid in the form of DD/ FDR
- 8) **Balance Security Deposit to be deducted from R.A. Bills** 3 % of the contract sum to be recovered from each RA Bill
- 9) **Time limit** 06months including monsoon season
- 11) **Price variation clause percentages** *As stated in N.I.T.*
- 12) **Mobilization Advance** Nil
- 13) **Machinery Advance** Nil
- 14) **Defect liability period** **60 months** after date of completion certified by the Engineer
- 15) **Engineer-in-charge** *Project Engineer, PSCDCL.*
- 16) **Engineer** *Resident Engineer of Project Management Consultant*
- 17) **Validity Period :** 120 days from date of opening the price bid offer.

**“DECLARATION OF THE CONTRACTOR”**

I/We hereby declare that I/We have made myself/ourselves thoroughly conversant with the local conditions regarding all materials and labour on which I/We have based my/our rates for this tender. The specifications and the leads in this work have been carefully studied and understood before submitting this tender.

I/We undertake to use only the best materials approved by the Project Engineer or his duly authorized assistant during execution of the work and to abide by the decisions. I/We am/are fully responsible for quality of work and shall maintain the work in good order during defect liability period after complete.

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**BILL OF QUANTITIES****SUMMARY OF PROJECT BOQ**

<b>Sr.No</b>	<b>Section</b>	<b>Work Type</b>	<b>Amount (Rupees)</b>
1	Section 1	Civil Work	181689876.00
2	Section 2	Water Supply Work	13827603.00
3	Section 3	Sewerage Work	6966087.00
4	Section 4	Electrical Work	26576754.00
		<b>TOTAL</b>	<b>229060319.00</b>

**(Rupees Twenty-Two Crore, Ninety Lakh, Sixty Thousand, Three Hundred and twenty Only)**

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## BOQ FOR CIVIL WORK

Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
1	3560.00	<b>Dismantling existing masonry/ concrete structures</b> (above and below G.L.) and carting away serviceable/ unserviceable materials, and stacking the same, at dumping ground with all leads and lifts etc. complete as directed by Engineer.	Cum	496.00	1765760
2	448.70	<b>Dismantling existing brick / rubble masonry</b> structures (above and below G.L.) and carting away serviceable/ unserviceable materials, and stacking the same, at dumping ground with all leads and lifts etc. complete as directed by Engineer	Cum	427.00	191594.9
3	4083.75	<b>Dismantling offlexible pavements</b> upto 300mm and disposal of dismantled materials up to a lead of 1000 m, stacking serviceable and unserviceable materials separately) MORTH Spec. No. 202 . By Mechanical Means	Cum	293.00	1196538.75
4		<b>Excavation for roadways in Soil /Murum</b> of all sorts up to required depth including dressing section to the required grade and camber and side slopes in soil, soft murum, hard murum, BT surface, otta, dismantled structures including scaffolding if required shoring, strutting and conveying the excavated materials within the lead of 200m, spreading, watering, ramming including supporting the utility services such as pipe lines, cables etc. using bamboos, wire ropes, installing red lamps and barricading around the excavated pits for safety etc. complete.			
	15685.45	Depth 0 to 1.0 m	Cum	66.00	1035239.48
	7842.72	Depth 1.0 to 2.0 m	Cum	81.00	635260.59
5	4235.00	<b>Excavation for foundation in Soft rock</b> , including dressing to required slope,strutting,shoring, dewatering, backfilling extra excavation and transporting surplus material within a lead of 200 mtrs., supporting the drainage,water pipes,cables etc. with ballies,wire rope,barricading the excavated pit with bamboos,ropes,tapes and red lamp for safety etc. excluding the cost of transportation beyond the initial lead. (lift 1.0 to 2.0 m)	Cum	320.00	1355200

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Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
6	1430.00	<b>Excavation for foundation in hard rock by wedging &amp; chiselling</b> or using pneumatic breakers including dressing to required slope, strutting, shoring, dewatering, backfilling extra excavation and transporting surplus material within a lead of 200 mtrs., supporting the drainage, water pipes, cables etc. with ballies, wire rope, barricading the excavated pit with bamboos, ropes, tapes and red lamp for safety etc. excluding the cost of transportation beyond the initial lead. <b>(lift 2.0 to 3.0 m)</b>	Cum	857.00	1225510
7	20.00	Dismantling & Shifting / Raising or lowering of existing Society Gate as per requirement & site condition as per detailed drawings & specifications, as per the of Engineer In Charge	Nos	4000.00	80000
8		<b>Providing and laying polished natural stone</b> as specified below (Machine cut) of an approved quality and size for paving / flooring in plain and/or diamond / approved pattern including cement mortar bedding of 25 mm thick in 1:4 proportion, cement float, machine cutting, dressing, leveling, jointing, filling the joints with neat cement slurry or with required pigment, machine polishing at site, curing, finishing, etc complete as directed by Engineer In Charge.			
	150.00	25 to 30 mm thk. Tandur stone of size 0.45m x 0.6m	Sqm	921.00	138150
	150.00	18 mm thk. Green marble	Sqm	1630.00	244500
	150.00	18 mm thk. White marble of superior quality and white cement float	Sqm	3972.00	595800
	303.60	18 mm thk. Jaisalmer Stone (Tree Cutta)	Sqm	1557.00	472705.2
	592.44	18 mm thk. Lakha Red Granite tiles/slab	Sqm	5260.00	3116234.4
	150.00	18 mm thk. Ruby red, jet black, Hasan green Granite tiles/slab	Sqm	3360.00	504000
	150.00	18 mm thk. Steel Gray Granite tiles/slab	Sqm	2780.00	417000
9	351.56	Providing <b>Second Class Burnt Brick Masonry</b> with Conventional / I.S. type bricks in cement mortar 1:6 in foundations and plinth of inner walls / in plinth external walls including bailing out water, striking joints on unexposed faces, racking out joints on exposed faces and watering, Complete.	Cum	5483.00	1927576.065

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Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
10	885.00	<b>Providing External Cement Plaster 20 mm thick</b> in two coats in cement mortar 1:4 with cement finish, to concrete, brick or stone surface, in position including scaffolding and curing complete	Sqm	376.00	332760
11	720.00	<b>Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces</b> including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required as directed by Engineer in charge.	Sqm	24.00	17280
12	720.00	<b>Providing and applying two coats of appex Appex Ace</b> white exterior paint of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface ,applying primer coat ,scaffolding if necessary , and watering the surface for two days etc complete	Sqm	500.00	360000
13	25.00	Providing & fixing on walls/ ceiling/ floors, <b>13 mm dia. heavy grade having embossed as ISI Mark galvanised iron pipes</b> weight of 1.48 Kg/metre with necessary fittings. remaking good the demolished portion and applying primer of anticorrosive oil paint 2 coats complete.	Rmt	155.00	3875
14	4.00	<b>Providing and fixing screw down 15 mm dia. wheeled stop tap of brass</b> including necessary sockets/union nut complete.	Nos	342.00	1368
15	4.00	<b>Providing and fixing 1/2 " Surgical Bibcock</b> including necessary sockets/union nut complete.	Rmt	4275.00	17100
16	4.00	<b>Providing and fixing coloured glazed earthenware full stall type Urinal</b> with P.V.C. flushing cistern of 5 liters capacity with fitting, inlet pipes and stop tap brackets for fixing the cistern 32mm dia. P.V.C. flush pipe with fittings and flushing arrangement including lead soil pipe, lead trap soil pipe connection up to the outside face of the wall. <b>(Duravit Company )</b>	No	15246.00	60984
17	4.00	<b>Providing and fixing white glazed earthenware Wash Hand Basin</b> of 40cm x 55cm size including cold water pillar tap/cold and hot water pillar tap brackets, rubber plugs and brass chain, stop tap and necessary pipe connection including P.V.C. waste pipe and trap up to the outside face of the wall.	No	11142.00	44568

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Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
18	4.00	Providing and fixing <b>10cm C.I. Nahani Trap</b> including C.I. grating bend and piece of C.I. pipe upto the outside face of the wall complete.	No	347.00	1388
19	8.00	<b>Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia.</b> nickel plated towel rod etc. complete s directed by Engineer in charge	No	352.00	2816
20	50.00	<b>Providing, laying &amp; fixing P.V.C. pipe of 50mm dia.</b> with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete as directed by Engineer in charge.	Rmt	125.00	6250
21	2.00	<b>Providing and fixing 1st class white glazed earthenware Orissa Type W.C. Pan 580 mm dia</b> including P or S trap cast iron soil and vent pipe upto the outside face of the wall (1:5:1 0) cement concrete bedding 15 mm thick, 10 liter P.V.C	No	2514.00	5028
22	2.00	<b>Providing and fixing European type white glazed earthenware</b> coupled closet symphonic trap with symphonic low level white glazed 10 litres cistern with black backlite seat with all necessary pipe connection etc. complete as directed by Engineer in charge	3330	Nos	6660
23	26.88	<b>Providing and fixing 4 mm Aluminum composite</b> panel for Round Column fixed over frame made from 38x19x2mm Aluminum channel fixed with clears and fastners including sealing the joints with baker rod and silicon sealent. (Aluminium composite panel of Alstone / Aludecor make) including all taxes Spc. as directed by Architect/ Engineer- in-charge) (230 mm Vertical & 600 mm Horizontal C/C Aluminium Grid)	3390	Sqm	91123.2
24	26.88	<b>Providing and fitting in position 12 mm thick toughned glassdoor</b> in ozone/Dorma patch fitting including concealed Ozone/Dorma Heavy Duty floor springs,SS handles of ozone /Dorma make of 0.9/1 m height,on both sides ss patch fittings,heavy duty locks with strike plate/Box including top and bottom pivot in S.S (304) patch fitting including all accessories ,EPDM gasket silicon filling where required S.S doors stoppers fitted floor tiles for fitting concealed floor spring clearing of site etc.complete including all taxes,LBT,wastage / breakage etc.up to satisfaction of engineer incharge / Architects	16154	Sqm	434219.52

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Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
25	557.00	<b>Construction of Khandki Facing Coursed Rubble Masonry</b> in 1:5 cement mortar in typical CR method (2nd Type) as per using specific Khandki in visible surface & to shape the Khandki as per instructions of Engineer - In- Charge by machine cut & department direction, pointing in 1:3 cement mortar, striking the joint up to 2 C.m. Using header, necessary scaffolding, curing etc all & to make visible portion as per department instruction by making corners, covers etc	Cum	6971.00	3882847
26	46436.00	<b>Transportation of material</b> obtained from excavation including soil, rubble, bricks, RCC concrete, kerb stones, steel railing, iron pipes, channels etc. obtained from dismantling, loading in a truck of minm.5 Cum. capacity or designed capacity and transporting within the municipal limits or any designated place of corporation, unloading, stacking or spreading of material etc. complete.	Cum	223.00	10355228
27	100.00	<b>Providing RCC Hume pipe of 600 mm Dia. I.S. NP-3 class</b> S/s with rubber ring complete. (All the pipes & rubber rings supplied shall confirm to relevant IS & IS 458-2003). The contractor shall also arrange to get pipes tested in accordance with tests specified in relevant IS at contractor's cost and as directed. Testing shall be carried out in presence of Engineer. Cost includes freight, transportation, octroi, loading & unloading at site & all taxes.	Rmt	2100.00	210000
28	100.00	<b>Laying &amp; Jointing of RCC Hume pipe of 600mm Dia. I.S. NP-3 class</b> S/s with rubber ring complete. (All the pipes & rubber rings supplied shall confirm to relevant IS & IS 458-2003). The contractor shall also arrange to get pipes tested in accordance with tests specified in relevant IS at contractor's cost and as directed. Testing shall be carried out in presence of Engineer. Cost includes freight, transportation, octroi, loading & unloading at site & all taxes.	Rmt	522.00	52200
29	2200.00	<b>Providing RCC Hume pipe of 1000mm Dia. I.S. NP-3 class</b> S/s with rubber ring complete. (All the pipes & rubber rings supplied shall confirm to relevant IS & IS 458-2003). The contractor shall also arrange to get pipes tested in accordance with tests specified in relevant IS at contractor's cost and as directed. Testing shall	Rmt	4900.00	10780000

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Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
		be carried out in presence of Engineer. Cost includes freight, transportation, octroi, loading & unloading at site & all taxes.			
30	2200.00	<b>Laying &amp; Jointing RCC Hume pipe of 1000mm Dia. I.S. NP-3 class</b> S/s with rubber ring complete. (All the pipes & rubber rings supplied shall confirm to relevant IS & IS 458-2003). The contractor shall also arrange to get pipes tested in accordance with tests specified in relevant IS at contractor's cost and as directed. Testing shall be carried out in presence of Engineer. Cost includes freight, transportation, octroi, loading & unloading at site & all taxes.	Rmt	1740.00	3828000
31	866.08	<b>Providing and laying in situ, in PCC 1:2:4</b> of trap/ granite /quartzite /gneiss metal of foundation and bedding including bailing out water, formwork, compacting and curing complete.	Cum	4538.00	3930271.04
32	72.04	Providing & casting <b>M20 grade (PCC)</b> plain cement concrete mixed in weigh batcher of adequate capacity in bridge piers, abutment and abutment caps, dirt wall, headers using 20mm trap metal including formwork, centering, staging, compacting with vibrators, leveling and finishing the surface, curing for minimum 15 days etc. complete in Ready Mix Concrete	Cum	4654.00	335255.544
33	4462.00	<b>Providing &amp; casting M20 grade (RCC)</b> cement concrete mixed in weigh batcher of adequate capacity in bridge piers, abutment and abutment caps, dirt wall, headers using 20mm trap metal including formwork, centering, staging, compacting with vibrators, leveling and finishing the surface, curing for minimum 15 days etc. complete in Ready Mix Concrete	Cum	5026.00	22426012
34	700.00	<b>Providing &amp; casting M25 grade (RCC)</b> cement concrete mixed in weigh batcher of adequate capacity in bridge piers, abutment and abutment caps, dirt wall, headers using 20mm trap metal including formwork, centering, staging, compacting with vibrators, leveling and finishing the surface, curing for minimum 15 days etc. complete in Ready Mix Concrete	Cum	5296.00	3707200
35	5000.00	<b>Dewatering</b> from the excavation pit near existing nallah, river including making cofferdams,bunds for diverting water, bailing and pumping out water etc.complete.	BHP/Hr	33.00	165000

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Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
		<b>Note:</b> A log-book must be maintained at site for registering the duration of pump usage.			
36	50.00	<b>Providing Steel Railing</b> of size 150x80 of 1.25m height as per Detailed Drawing and Specification & as per direction of Engineer In Charge	Rmt	2000.00	<b>100000</b>
37	80.00	<b>Providing &amp; fixing 100mm dia. A/C/ PVC pipe for Weep Holes</b> in Brick / Plain Concrete/ Reinforced concrete abutment, wing walls/ return wall with 100 mm dia PVC pipe extending through the full width of the structure with slope of 1V: 1.5 H towards drawing face. complete as per drawing and technical specification.	Rmt.	64.00	5120.00
38	45.00	<b>Providing TAR Paper bearing pad</b> of approved quality in proper size including fixing etc. complete. 3mm thick .Shalimar Type	Sqm	87.00	3915.00
39	180.00	<b>Providing Rubble filling</b> of trap/granite/quartzite/ geiss stones behind abutment including hand packing filling gravel/sand in the voids etc. Complete	Cum.	752.00	135360.00
40	550.00	<b>Providing and fixing in position HYSD steel bars reinforcement</b> of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams, columns, canopies, staircase, newels, chajjas, lintels, pardies, coping, fins, arches etc as per detailed designs, drawings and schedules including cutting, bending hooking the bars, binding with wires or tack welding and supporting as per required complete	MT	47706.00	<b>26238300</b>
41	75.00	<b>Supplying &amp; fixing 900 mm X 600 mm Rectangular Composite (20 Tons Capacity) H D Resin storm Water drain Gully Gratings with Frame of Approved Brand,</b> conforming to relevant Grade as per IS: 1726 :1991 ,etc , complete. (Inspection shall be as per guidelines of IS specifications) Size: 900 mm X 600 mm	Nos	18411.00	1380825
42	165.00	<b>Supplying &amp; fixing 90 cms X 60 cms Rectangular Composite Resin Manhole Cover and Frame of approved Brand,</b> Heavy Duty conforming to relevant Grade. Designation: HD-25 as per IS:1726;1991,etc complete. (Inspection shall be as per guidelines of IS Specification). Heavy Duty-25 TONS (HD) Size: 900 mm X 600 mm (36 Inches X 24 Inches)	Nos	15300.00	<b>2524500</b>

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Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
43	20.00	<b>Supplying &amp; fixing 53 cms Diameter Round Composite Resin Manhole Cover</b> and Frame of approved Brand, extra Heavy duty, conforming to relevant grade. Designation EHD-40 TONS as per IS:1726;1991 etc.complete. (Inspection shall be as per guide lines of IS Specifications) Heavy Duty-40 TONS (EHD) Size:530 mm-Diameter (21 inches)	Nos	8700.00	174000
44	2600.00	<b>Refilling the trenches</b> with available excavated stuff with soft material first over pipe line and then hard material in 15cm layers with all leads and lift including consolidation surcharging etc. complete.	Rmt	225.00	585000
45	5940	<b>Granular Sub Base with coarse graded material</b> :- Construction of granular sub base by providing close graded material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieved the desired density, complete as per clause 401.	Cum	1802.00	10703880
46	20302.40	<b>Stamped Concrete</b> Thin overlay approximately 1/32" to 5/16"(thicker application may be nessecery in some situations) of stamped concrete overlays over M-20 concrete of 150mm thick-surface, interior, applied smooth, textured or stamped in various patterns and designs using stamps and seamless texture skins, then antiqued, chemically stained or integrally colore and sealed with the appropriate coating. Systems sealers or protective top coats according to the job conditions and specifications. (including the cost of M-20 concrete of 150mm thickness	Sqm	1882.00	38209116.8
47	750.00	<b>Water repellent &amp; water blast paver block</b> - Providing & laying of 80 mm thick non slippery concrete paving blocks as per the IS 15658-2006 with face of block having exposed granite aggregate using water blast technology with colourUV stabilized and made from rich oxides, surface coated with polymers for water repellency which also enhances colour and guarantee by manufacturer. Block to be manufactured in fully automatic ISO certified vibration compaction machine having strength of M40 & cured in controlled temperature through mist. Transportation and fixing on site with all material and labour included	Sqm	860.00	645000

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Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
48	864.00	<b>Perforated Paver Blocks-</b> Supply & installation of grass paver blocks with grass, soil etc, as per instruction of Engineer in Charge	Sqm	820.00	708480
49	3432.60	<b>Providing &amp; fixing of Tactile Tiles</b> for footpath as per approved size and shape as per detailed drawings & specifications	Sqm	150.00	514890
50	500.00	<b>Providing &amp; Fixing precast RCC dividers</b> of C.C.M-20 grade on road as per drg & details provided ., finished neatly with c.m.(1:2) if required, painting the exposed surfaces with coat of road marking paint of approved colour & quality including required excavation in concrete road except rock and removing the excavated material anywhere in city or suburban limit levelling the same as specified & directed. The item includes providing & fixing M.S.bars (reinforcement) 10 Kg per Rmt as per drawing or <b>as per instruction of engineer incharge</b>	Rmt	1426.00	713000
51	4020.00	<b>Providing &amp; fixing Prestressed precast-L shape kerb stone</b> Using 2 low relaxation pre-stressing wires of 5 mm diameter, M-30 grade concrete & diamantions 350mm high, 125mm thick with built in base of 187mmX75mm, including 2 numbers of 50mm dia sleeves for services at the top of the base & with top external edge with rounding of 20mm radius in highly superior quality surface & edge finish in 1 meter lengths & painting .(excluding excavation for kerbing, lead lift and transportation of excavated material, P.C.C. below kerbing). Prestressed kerb stone prestressing force 2 X 5mm dia wires, 1034.7 kg/sqcm per wire. Weight of 1 m long kerb stone -120 kg (tolerance 2%)	Rmt	1140	4582800
52	1650	<b>Providing &amp; fixing Prestressed precast-L shape kerb stone with Elbow Shape for ramp entry</b> using 2 low relaxation pre-stressing wires of 5 mm diameter, M-30 grade concrete & diamantions 350mm high, 125mm thick with built in base of 187mmX75mm, including 2 numbers of 50mm dia sleeves for services at the top of the base & with top external edge with rounding of 20mm radius in highly superior quality surface & edge finish in 1 meter lengths & painting .(excluding excavation for kerbing, lead lift and transportation of excavated material, P.C.C. below kerbing). Prestressed kerb stone prestressing force 2 X 5mm dia wires, 1034.7 kg/sqcm per wire. Weight of 1 m long kerb stone -120 kg (tolerance 2%) 10011	Rmt	1140	1881000

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Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
53	120.00	Providing & fixing FRP Tree Grating Section having size 1.5m x 1.5m having circular opening at centre of 0.6 m to 0.9 m diameter as requirement on site as per detailed drawing & Specification having sufficient strength upto 5 ton capacity and instructions by Engineer- In - Charge.	Nos	3000.00	360000
54	10350.00	Excavation of existing bituminous Road by <b>Miling</b> machine up to 75mm depth & excavated material transport to Corporation kothi or to be transported to Corporation area as per direction of Engineer In Charge	Sqm	69.00	714150
55	1325.00	<b>Providing &amp; Laying white topping (M40)</b> Construction of unreinforced, dowel jointed, plain cement concrete pavement over prepared sub base with 43 grade cement @ 425 Kg per cum, coarse and fine aggregate( 100%crushed sand) confirming to IS 383, max size of coarse aggregate not exceeding 25 mm, mixed in a batching plant as per approved mix design, transported to site,(Including RMC) laid with fixed form or slip form paver or screed vibrator as directed by engineer incharge, spread, compacted and finished in a continuous operation including provision of construction, expansion, construction and longitudinal joints, joint filter, separation membrane, sealant primer, joint sealant, with polysulphied and baker rod, debonding strip, dowel bar at every expansion joint, tie rod, admixtures geosythetic fiber mesh @ of 1.8 kg per cum as approved, curing compound, finishing to lines and grades as per drawing. (IRC specification no.15)traffic management with necessary sign board,barricades etc complete	Cum	5859.00	7763175
56	135.00	Providing and supplying the <b>ferrocrete dust bin</b> of 450mm (width) X 450mm (Length) x 1000mm (Height) or as per detailed drawings & specifications provided & as directed by Engineer-in-charge.	Nos	5000.00	675000
57	480.00	<b>Supply &amp; fixing precast cylindrical Bollard of size 200.00 &amp; 400 mm dia &amp; 375 mm height</b> , manufactured with M -30 grade of concrete by vibro compaction process using FRP moulds &with washed fine grit finish on the exposed surface of the bollard of approved colour & texture as specified by Engineer in charge	Nos	3500.00	1680000

Contractor

No. of Corrections

Sd  
Project Engineer

Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
58	5.00	<b>Providing and supplying ferrocete seating</b> of in Pre-cast form and assembling at site with proper welding and fasteners. The thickness may be 40mm or if it is less than but more than 20 mm then it may be stiffened. The size of the bench is 450mm (width) X 1500mm (Length) X 450mm (Height). Spec. as directed by Engineer -in-charge	Nos	5550.00	27750
59	1602.00	<b>Supplying &amp; Providing Corbels stone of 50mm to 55mm</b> thick with natural finish & four side machine cut Granite Cobells of different colours & fixing in 1:6 cement mortar on an average 50mm thick cement bed. Gaps in two stones to be filled by 1:3 cement mortar & filler of colour cement with sunk pointing and machine cut straight line looks circular shape or required shape as per detail drawing & specifications & as per the instructions of engineer in charge	Sqm	1791.00	2869182
60	11.25	<b>Providing and fixing RCC Jali as per drawing</b> as directed by engineer in charge.	Nos	673.00	7571.25
61	720.00	Supply & Spreading of <b>Poyta soil</b> as per requirement & direction of Engineer in Charge	Cum	565.00	406800
62	291.60	<b>Providing and applying thermoplastic reflective paint</b> of any colour or compound for traffic lane strips 100 mm wide and 3 mm thick of pigment 10% on clean dry and good road surface with 10% glass beads, 20% binder, 10% extender and 60% of filler materials as per MORTH Specification No. 803.4. Spec No. MORTH 513. Chap. 5 Item No. 5.14, Page No. 73 MORTH in White Colour	Sqm	425.00	123930
63		<b>Providing and applying arrows, letters, numbers and symbols</b> made from reflective "PREFORMED ROAD MARKING MATERIAL having all dimensions as per 'code of practice for Road Markings IRC 35- 1997, having thickness 2.50 to 3.00 mm on clean, dry and good road surface with 30% Glass bead, 20 binder, 10 % pigment and 35 % extenders fillers to achieve material composition as per MORTH 803 .4. 10011 a)PRODUCT : ARROW 3.50 M LONG STRAIGHT OR STRAIGHT + LEFT			
	5	a)PRODUCT : ARROW 3.50 M LONG STRAIGHT OR STRAIGHT + LEFT RIGHT OR ONLY LEFT / RIGHT	NO	1483.00	7415
	5	B) PRODUCT : ARROW 5 M LONG STRAIGHT OR STRAIGHT + LEFT RIGHT OR ONLY LEFT/RIGHT	NO	2100.00	10500
	5	PRODUCT : SYMBOL OF CYCLE TRACK & DISABLE D MAN	Per KM	1225.00	6125

Contractor

No. of Corrections

Sd  
Project Engineer

Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees)
					(Figure)
	5	PRODUCT : LETTERS & NUMERALS 1250 MM HIGH AND 313 MM WIDE	No	550.00	2750
	5	e)PRODUCT : LETTERS & NUMERALS 2500 MM HIGH AND 521 MM WIDE	No	1600.00	8000
64	15.00	Cautionary Sign : Supply and Fixing of Retro Reflective <b>Advance Directio Sign Board size 900 mm equilateral triangle</b> made out of Wide Angle Cube Corner Micro prismatic grade sheeting conforming to IRC-67: 2012 & Type XI standards of ASTM D 4956 –09 specifications and fixed over 3mm thick ACP sheet & back support frame of 25x25x3mm MS Angle. Board shall be supported with 65 NB Pipe Vertical post with wall thickness of 2.5 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm X 45 cm X 60 cm etc complete. The information message shall be made out of cut out letters in Blue color transparent overlay film as per IRC 67-2012 Guidelines. 10 years Warranty for Retro Reflective Sheeting from the original sheeting manufacturer & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be submitted by the contractor.Size of the board : 900 mm equilateral triangle P.C.M.C. approved rate	Nos	14278.00	<b>214170.00</b>
65	15.00	Mandatory Sign : Supply and Fixing of Retro Reflective <b>Mandatory Circlular Sign Board of diameter 600 mm</b> made out of Wide Angle Cube Corner Micro prismatic grade sheeting conforming to IRC-67: 2012 & Type XI standards of ASTM D 4956 – 09 specifications and fixed over 3mm thick ACP sheet & back support frame of 25x25x3mm MS Angle. Board shall be supported with Powder Coated 65 NB MS Pipe Vertical post with wall thickness of 2.5 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm X 45 cm X 60 cm etc complete. The information message shall be made out of cut out letters in Blue color transparent overlay film as per IRC 67-2012 Guidelines. 10 years Warranty for Retro Reflective Sheeting from the original sheeting manufacturer & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be submitted by the contractor.Size of the board : 600 mm diameter circle board P.C.M.C. approved rate	Nos	6341.00	<b>95115.00</b>

Contractor

No. of Corrections

Sd  
Project Engineer



Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees) (Figure)
66	6.00	Advance Direction Boards - Supply and Fixing of Retro <b>Reflective Advance Direction Sign Board size 1800 mm x 1800 mm</b> made out of Wide Angle Cube Corner Micro prismatic grade sheeting conforming to IRC-67: 2012 & Type XI standards of ASTM D 4956 –09 specifications and fixed over 3mm thick ACP sheet & back support frame of 35x35x5mm MS Angle. Board shall be supported with 2 number of Powder Coated 80 NB MS Pipe Vertical post with wall thickness of 2.5 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm X 45 cm X 60 cm etc complete. The information message shall be made out of cut out letters in Blue color transparent overlay film as per IRC 67-2012 Guidelines. 10 years Warranty for Retro Reflective Sheeting from the original sheeting manufacturer & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be submitted by the contractor. Size of the board 1800 mm x 1800 mm	Nos	34988.00	<b>209928.00</b>
67	<b>1435.00</b>	<b>Cats Eye</b> -Supplying of Molded Shank Raised Pavement Markers made of polycarbonate and ABS moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to ASTM D 4280 Type H and complying to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97 – DO III Dt 11.06. 1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 +/- 2 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 +/- 5 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 +/- 2 mm and height not less than 30 +/- 2 mm) from the body is to be a minimum value of 500 Kgf. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the Engineer <b>In White colour</b>	Nos	<b>275.00</b>	<b>394625</b>
68	<b>3.00</b>	Supply & Installation of <b>Steel Structured Modular Bus stop</b> with fabrication in steel welding & fitted in cement concrete M-20 (3.5m x 1.5 m x 0.23m) with coloured chequered Ties & colour to concrete base.	Nos	<b>350000.00</b>	<b>1050000</b>
			<b>Total</b>		<b>181689875.74</b>

Contractor

No. of Corrections

Sd  
Project Engineer

## BOQ FOR WATER SUPPLY WORK

Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees)
<b>1</b>		<b>Excavation</b> for foundation/pipe trenches in <b>earth, soils</b> of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 30 meters and lifts as below, stacking and spreading as directed, normal dewatering, preparing the bed for foundation and including backfilling, etc. complete. <b>PMC W/S DSR (1-1)</b>			
	<b>2464.00</b>	<b>Lift 0 to 1.0 m (PMC W/S DSR 1-1-1)</b>	<b>Cum</b>	313	771232
	<b>483.00</b>	<b>Lift 1.0 to 2.0 m (PMC W/S DSR 1-1-2)</b>	<b>Cum</b>	338	163254
<b>2</b>		<b>Excavation</b> for foundation pipe trenches in <b>Soft rock</b> including trimming and leveling the bed removing the excavated material up to a distance of 30m beyond the area and with all lifts stacking spreading as directed dewatering and strutting, preparing the bed for foundation and including back filling etc complete. <b>(PMC W/S DSR 1-2-2)</b>			
	<b>786.00</b>	<b>Lift 1.0 to 2.0 m</b>	<b>Cum</b>	527	414222
<b>3</b>		<b>Excavation</b> for foundation/pipe trenches in <b>hard rock</b> and concrete road by chiseling, wedging, line drilling, by mechanical means or by all means other than blasting including trimming and leveling the bed, removing the excavated material up to a distance of 30 meters beyond the area and lifts as below, stacking as directed by Engineer-in-charge, normal dewatering including backfilling etc. complete. by all means. <b>(PMC W/S DSR 1-3-2)</b>			
	<b>196.00</b>	<b>Lift 1.0 to 2.0 m</b>	<b>Cum</b>	1773	347508
<b>4</b>	<b>16.00</b>	<b>Dismantling of flexible pavements</b> (Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000m, stacking serviceable and unserviceable materials separately) MORTH Spec. No. 202 By Mechanical Means Bituminous course. <b>(PMC W/S DSR 1-4-1)</b>	<b>Cum</b>	293	4688
<b>5</b>	<b>2987.00</b>	<b>Transportation of material</b> obtained from excavation including soil, rubble, bricks, RCC concrete, kerb stones, steel railing, iron pipes, channels etc. obtained from dismantling, loading in a truck of min. 5 Cum. capacity or designed capacity and transporting within the municipal limits or any designated place of corporation, unloading, stacking or spreading of material etc. complete. <b>(PMC W/S DSR 1-11)</b>	<b>Cum</b>	188	561556

Contractor

No. of Corrections

Sd  
Project Engineer

Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees)
6	3315.00	Filling in plinth and floors / trenches with <b>Contractors murum</b> for bedding in 15cm layers including watering and compaction complete. <b>(PMC ROAD DSR 2-3)</b>	Cum	281	931515
		<b>DI PIPE</b>			0
7		<b>Providing D.I. K-9 grade pipes</b> with internal cement mortar lining including all taxes, insurance, railway freight, unloading from railway wagon, loading into truck, transport to departmental stores/site, unloading, stacking etc (IS : 8329-2000 Latest Version) (with E.D.) . <b>PMC W/S DSR 2-17</b>			
	100	100mm Dia.	Rmt	1170	117000
	100	150mm Dia.	Rmt	1562	156200
	3500	200mm Dia.	Rmt	2150	7525000
8		<b>Lowering, laying and jointing</b> with SBR rubber gaskets C.I./D.I. S/S pipes of various classes with C.I./D.I./MS specials of following diameters in proper position, grade and alignment as directed by Engineer-in-charge including conveyance of material from stores to site of work , including cost of jointing materials and rubber rings, labour, giving hydraulic testing etc. complete. (without cost of rubber ring) <b>PMC W/S DSR 2-18</b>			
	100	100mm Dia.	Rmt	17	1700
	100	150mm Dia.	Rmt	19	1900
	3500	200mm Dia.	Rmt	22	77000
9		Providing & supplying ISI <b>D.I. specials and fittings</b> with cement mortar lining inside suitable for hydrostatic test pressure, all specials, socket and spigot tail pieces, double socket, bends (11.25 degree, 22.5 degree, 45 degree, 90 degree) double socket reducer flanged reducer, double flanged bends etc.as directed by Engineer-In-Charge. including transportation to stores/site, of work, including chainpully Crain charges required for loading, unloading, including laying and fixing the specials/fittings as directed by Engineer-In-Charge <b>PMC W/S DSR (2-23)</b>			
	8638.00	<b>a) 80 to 300mm dia. (2-23-1)</b>	Kg	145	1252510
10		Providing and supplying rubber rings <b>SBR / EPDM suitable</b> for jointing the CI Pipes or DI pipes (IS 5382/1985), also suitable for 6 KG PER SQCM hydraulic pressure including jointing the pipes with rubber ring with all materials, grease, tackle machine, testing the joints to the required working pressure etc complete. as directed by Engineer-In-Charge. <b>PMC W/S DSR 4-60</b>			

Contractor

No. of Corrections

Sd  
Project Engineer

Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees)
	<b>20.00</b>	100mm Dia. (4-60-2)	Nos	163	3260
	<b>20.00</b>	150mm Dia. (4-60-3)	Nos	233	4660
	<b>700.00</b>	200mm Dia. (4-60-4)	Nos	372	260400
<b>11</b>		<b>Supply of CI Mechanical Joint All Socket Tees</b> as dimensionally described in Table-18 of IS 13382/1992 complete with sealing rubber gaskets of SBR (dimensionally described in IS 12820/1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C.I., D.I, AC class-10, MS, HDPE, PVC pipes. including transportation of material to the site or to the store of corporation etc complete. <b>(PMC W/S DSR 4-69-8)</b>			
	<b>2</b>	<b>150x150</b>	Nos	14210	28420
	<b>2</b>	<b>200 x 150</b>	Nos	16853	33706
	<b>10</b>	<b>200x250</b>	Nos	25351	253510
<b>12</b>		<b>Supply of CI Mechanical Joint Double Socket Reducers</b> as described in Table - 21 of IS - 13382/1992 complete with sealing rubber gaskets of SBR (dimensionally described in IS - 12820/1992) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C.I. pipes. <b>(PMC W/S DSR 4-69-2-5)</b>			
	<b>5</b>	200 x 150 dia.	<b>No</b>	10216	51080
	<b>1</b>	200x100 dia	<b>No</b>	9385	9385
	<b>1</b>	250 x 150 dia	<b>No</b>	14003	14003
<b>13</b>		<b>Supply of CI Mechanical Joint Double Socket 45° (1/8) bends</b> as dimensionally described in table - 14 of IS-13382/1992 complete with sealing rubber gaskets of SBR (dimensionally described in IS-12820/1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C.I. pipes. <b>(PMC W/S DSR 4-69-4)</b>			
	<b>1</b>	<b>100mm</b>	<b>No</b>	6400	6400
	<b>1</b>	<b>150 mm</b>	<b>No</b>	11096	11096
	<b>5</b>	<b>200mm</b>	<b>No</b>	14725	73625

Contractor

No. of Corrections

Sd  
Project Engineer

Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees)
<b>14</b>		<b>Supply of CI Mechanical Joint Double Socket 22.5° (1/16) bends</b> as dimensionally described in table - 14 of IS-13382/1992 complete with sealing rubber gaskets of SBR (dimensionally described in IS-12820/1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C.I. pipes. <b>(PMC W/S DSR 4-69-5)</b>			
	<b>1</b>	<b>100mm</b>	<b>No</b>	5252	5252
	<b>3</b>	<b>150 mm</b>	<b>No</b>	8906	26718
	<b>5</b>	<b>200mm</b>	<b>No</b>	11230	56150
<b>15</b>		<b>Supply of CI Mechanical Joint Collars</b> suitable for C.I. Spun Pipes and dimensionally described in table - 13 of IS-13382/1992 complete with sealing rubber gaskets of SBR (dimensionally described in IS-12820/1989) with follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C.I. pipes. <b>(PMC W/S DSR 4-70-1)</b>			
	<b>1</b>	<b>100mm</b>	<b>No</b>	2114	2114
	<b>3</b>	<b>150 mm</b>	<b>No</b>	4878	14634
	<b>5</b>	<b>200mm</b>	<b>No</b>	5553	27765
<b>16</b>		<b>Providing CI D/F sluice valves</b> with jointing to pipe work (including all hardware and packing), water works quality having non rising spindle with hand wheel and without bypass arrangement, spindle of stainless steel as per requirement excluding CC foundation/structural steel support. 1) up to 300mm Dia. conforming to IS 780 A) Sluice Valves with PN 1.0 (Kirloskar, IVC, IVI, Ghavane Patil make only.) <b>(PMC W/S DSR 3-40)</b>			
	<b>1</b>	<b>100mm</b>	<b>No</b>	11735	11735
	<b>3</b>	<b>150 mm</b>	<b>No</b>	17950	53850
	<b>5</b>	<b>200mm</b>	<b>No</b>	30000	150000
<b>17</b>		<b>Providing and supplying Air Valves</b> as per IS-14845 and MJP's standard specifications of approved make and quality of following diameters including all taxes (Central and Local), railway freight, inspection charges, unloading from railway wagons, loading into truck, transportation up to departmental stores/site, unloading and stacking etc. complete. Air Valve Single Ball Flanged/Screwed PN-1 (Kirloskar, IVC, IVI, Ghavane Patil make only.) <b>(PMC W/S DSR 3-48)</b>			
	<b>5</b>	<b>25mm (3-48-2)</b>	<b>No</b>	2231	11155

Contractor

No. of Corrections

Sd  
Project Engineer

Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees)
<b>18</b>		<b>Providing and supplying Air Valves</b> as per IS-14845 and MJP's double orifice type combined with isolating sluice valve, mounted in horizontal position and operated by wheel gearing, small orifice elastic ball resting on gun metal orifice nipple, large orifice vulcanite ball seating on molded seat ring, inlet face and drilled, including all taxes (Central and Local), insurance, third party inspection charges, loading, unloading, transportation up to departmental stores/site etc. complete. Air Valve Double Ball Flanged PN-1 (Kirloskar, IVC, IVI, Ghavane Patil make only.) <b>(PMC W/S DSR 3-50)</b>			
	<b>2</b>	<b>80mm</b>	<b>No</b>	20155	40310
		<b>OTHER WORK</b>			
<b>19</b>		Providing and constructing <b>B.B. masonry valve chamber</b> with 23cm thick 1:4:8 proportion PCC bedding excluding excavation, B.B masonry in CM 1:5 proportion 12mm thick cement plaster in CM 1:4 proportion on both sides with providing and fixing C.I. manhole frame and cover in RCC 1:2:4 copping or RCC 1:2:4 proportion into 15cm thick slab, etc. complete as directed by Engineer-In-Charge. Note: wall thickness: 0.23m for depth of 1.2m and above 0.35m for balance depth exceeding 1.2m. 90 x 60cm internal size and depth up to 1.2m with 90 x 60cm size CI manhole frame and cover of 50kg. <b>(PMC W/S DSR 3-60)</b>			0
	<b>2</b>	For Air Valves	<b>No</b>	3348	6696
<b>20</b>		<b>Dismantling dead pipelines</b> of M.S. / R.C.C. / C.I. / P.S.C. / G.I. / A.C. P.V.C. / S.W. / H.D.P.E. pipe including cost of necessary excavation and refilling of trenches, breaking the joints & lifting pipes and stacking to the place as directed by engineering in charge with all leads and lifts including cleaning the surface etc. complete. <b>(PMC W/S DSR 1-13)</b>			
		<b>A) M.S./R.C.C./C.I./P.S.C.</b>			
	<b>100</b>	100mm	<b>Rmt</b>	20	2000
	<b>100</b>	150mm	<b>Rmt</b>	22	2200
	<b>100</b>	200mm	<b>Rmt</b>	30	3000
	<b>100</b>	250mm	<b>Rmt</b>	41	4100
<b>21</b>		<b>Making cross connection</b> to existing distribution main of any type including excavation, breaking & removing existing pipes, lowering, laying of specials & pipes in their position, refilling, closing the water supply in that area, dewatering & restarting the water supply, etc. complete as directed by Engineer -In-Charge for following diameters of existing pipelines, irrespective of diameters of branch line including drilling holes to pipe, drilling treading, providing of brand double nipple barred piece, union, bench, T, etc & jointing, testing for leak proof complete. <b>(PMC W/S DSR 4-65-1)</b>			
	<b>20</b>	25 to 65mm <b>(4-65-1)</b>	<b>Job</b>	1454	29080
		15mm <b>(6-94-1)</b>			0

Contractor

No. of Corrections

Sd  
Project Engineer

Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees)
		20mm (6-94-2)			0
		25mm (6-94-3)			0
		Fixing of G.I. Pipe. (PMC W/S DSR 6-150)			0
		15mm (6-150-1)			0
		20mm (6-150-2)			0
		25mm (6-150-3)			0
					0
<b>22</b>		Providing and making <b>lead caulked joint</b> with molten lead to Cast Iron pipes and / or specials of all classes and filling of following dia. Including cost of lead and all jointing material, labour, hydraulic testing etc. complete. (PMC W/S DSR 2-24)			
	<b>1</b>	100mm Dia provisional	<b>Nos</b>	706	706
	<b>1</b>	150mm Dia provisional	<b>Nos</b>	1077	1077
	<b>3</b>	200mm Dia provisional	<b>Nos</b>	1353	4059
<b>23</b>		Providing laying & jointing of <b>C.I. / D.I .Pipe: G.I. B class pipe</b> on newly laid C.I. / D.I. pipe line for transferring the connection from old CI/DI line to newly laid pipe line including cost of ISI mark GI union socket ferrul, including cost of 2m length of B class G.I. pipe with cost of material for jointing, hydraulic testing, including cost of labour etc. complete. (PMC W/S DSR 4-66)			
	<b>10</b>	Provisional	<b>Per Job</b>	776	7760
<b>24</b>		Providing, laying & jointing of C.I. / D.I .Pipe line for transferring the connection from old line to newly laid pipe line. etc. complete. (PMC W/S DSR-4-64)			
	<b>10</b>	80mm to 150mm Dia.	<b>Job</b>	2132	21320
	<b>10</b>	200mm to 300mm Dia.	<b>Job</b>	2906	29060
<b>25</b>		Providing, I.S.I. mark <b>G.I. pipes</b> of following class and dia. Including all local and central taxes, octoi, inspection charges, transportation to Stares etc. complete. (PMC W/S DSR 6-94)			
		<b>B class Medium</b>			
	<b>50</b>	15mm (6-94-1)	<b>Rmt</b>	88	4400
	<b>50</b>	20mm (6-94-2)	<b>Rmt</b>	114	5700
	<b>50</b>	25mm (6-94-3)	<b>Rmt</b>	118	5900

Contractor

No. of Corrections

Sd  
Project Engineer

Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees)
<b>26</b>		Fixing of G.I. Pipe. <b>(PMC W/S DSR 6-150)</b>			
	<b>50</b>	15mm <b>(6-94-1)</b>	<b>Rmt</b>	20	1000
	<b>50</b>	20mm <b>(6-94-2)</b>	<b>Rmt</b>	27	1350
	<b>50</b>	25mm <b>(6-94-3)</b>	<b>Rmt</b>	29	1450
<b>27</b>		<b>Supply of CI Mechanical Joint All Socket Tees</b> as dimensionally described in Table-18 of IS 13382/1992 complete with sealing rubber gaskets of SBR (dimensionally described in IS 12820/1989) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C.I., D.I, AC class-10, MS, HDPE, PVC pipes. including transportation of material to the site or to the store of corporation etc complete. <b>(PMC W/S DSR 4-69-8)</b>			
	<b>2</b>	<b>100x100 (4-69-8-3)</b>	<b>Nos</b>	8132	16264
	<b>2</b>	<b>150x150 (4-69-8-6)</b>	<b>Nos</b>	14201	28402
	<b>5</b>	<b>200x200 (4-69-8-10)</b>	<b>Nos</b>	19432	97160
<b>28</b>		<b>Supply of CI Mechanical Joint Double Socket Reducers</b> as described in Table - 21 of IS - 13382/1992 complete with sealing rubber gaskets of SBR (dimensionally described in IS - 12820/1992) with cast iron follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C.I. pipes. <b>(PMC W/S DSR 4-69-2-5)</b>			
	<b>3</b>	200 x 150 dia.	<b>Nos</b>	10216	30648
<b>31</b>		<b>Supply of CI Mechanical Joint Collars</b> suitable for C.I. Spun Pipes and dimensionally described in table - 13 of IS-13382/1992 complete with sealing rubber gaskets of SBR (dimensionally described in IS-12820/1989) with follower gland and mild steel nut bolts coated or otherwise protected from rusting and suitable for C.I. pipes. <b>(PMC W/S DSR 4-70-1)</b>			0
	<b>1</b>	<b>100mm (4-70-1-2)</b>	<b>Nos</b>	2114	2114
	<b>1</b>	<b>150mm (4-70-1-4)</b>	<b>Nos</b>	2744	2744
	<b>3</b>	<b>200 mm (4-70-1-5)</b>	<b>Nos</b>	3775	11325
		<b>OTHER WORK</b>			
<b>33</b>		Providing and laying Plain cement concrete <b>1:2:4 (M15)</b> by using trap crushed metal 20mm and 12mm size mixed with sand and water in mechanical mixer with weigh batcher including centering, form work, compaction, leveling, roughening (if required) and curing, used 1:2 cement sand mortar for leveling the rough surface. etc Complete. <b>PMC W/S DSR 5-3A</b>			0
	<b>5</b>	<b>For thrust blocks</b>	<b>Cum</b>	6055	30275

Contractor

No. of Corrections

Sd  
Project Engineer



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Item No.	Qty	Description Of Items	Unit	Rate (Rupees)	Amount (Rupees)
<b>34</b>		<b>Dewatering</b> from the excavation pit near existing nallah, river including making cofferdams, bunds for diverting water, bailing and pumping out water etc.complete. <b>PMC ROAD DSR 1-6</b> Note: A log-book must be maintained at site for registering the duration of pump usage.			
	<b>100</b>		BHP/Hr	33	3300
				<b>Total</b>	<b>13827603</b>

Contractor

No. of Corrections

Sd  
Project Engineer

## BOQ FOR SEWER WORK

Item No.	Qty	Description Of Items	Rate (Rupees)	Unit	Amount (Rupees)
1	2070	Excavation for foundation pipe trenches in soil of all sorts up to required depth including dressing section to the required grade and camber and side slopes in soil , soft murum, hard murum, BT surface, otta, dismantled structures including scaffolding if required shoring, strutting and conveying the excavated materials within the lead of 200m , spreading, watering, ramming including supporting the utility services such as pipe lines, cables etc. using bamboos, wire ropes, installing red lamps and barricading around the excavated pits for safety etc. complete. PMC DRAINAGE DSR 1-1	215.00	Cum	445050.00
		Lift 0.00 to 1.00m			
		Lift 1.00 to 2.00m			
2	518	Excavation for foundation pipe trenches in Soft Rock including scaffolding if required shoring, strutting and conveying the excavated materials within the lead of 200m, spreading, watering, ramming including supporting the utility services such as pipe lines, cables etc. using bamboos, wire ropes, installing red lamps and barricading around the excavated pits for safety etc. complete. PMC DRAINAGE DSR 1-3-B	510.00	Cum	264180.00
		Lift 1.00 to 2.00m			
3	518	Excavation for foundation pipe trenches in Hard Rock by wedging & chiseling or using pneumatic breakers including dressing to required slope, strutting, shoring, dewatering, backfilling extra excavation and transporting surplus material within a lead of 200 meters, supporting the drainage, water pipes, cables etc. with ballies, wire rope, barricading the excavated pit with bamboos, ropes, tapes and red lamp for safety etc. excluding the cost of transportation beyond the initial lead. PMC DRAINAGE DSR 1-5-B	715.00	Cum	370370.00
		Lift 1.00 to 2.00m			
4	3105	Transportation of material obtained from excavation including soil, rubble, bricks, RCC concrete, kerb stones, steel railing, iron pipes, channels etc. obtained from dismantling, loading in a truck of min. 5 Cum. capacity or designed capacity and transporting within the municipal limits or any designated place of corporation, unloading, stacking or spreading of material etc. complete. PMC DRAINAGE DSR 1-7-B	90.00	Cum	279450.00

Contractor

No. of Corrections

Sd  
Project Engineer

Item No.	Qty	Description Of Items	Rate (Rupees)	Unit	Amount (Rupees)
5	100	Dewatering from the excavation pit near existing nallah, river or in other excavation including diverting water, bailing and pumping out water etc. complete. PMC DRAINAGE DSR 3-29	44	Hp/hour	4400.00
6	2300	Providing RCC Hume pipe of 450 mm Dia. I.S. NP-3 class S/s with rubber ring complete. (All the pipes & rubber rings supplied shall confirm to relevant IS & IS 458-2003). The contractor shall also arrange to get pipes tested in accordance with tests specified in relevant IS at contractor's cost and as directed. Testing shall be carried out in presence of Engineer. Cost includes freight, transportation, octroi, loading & unloading at site & all taxes. PMC DRAINAGE DSR 2-7-7	1330	Rmt	3059000.00
7	2300	Laying in position RCC Hume pipe of 450mm Dia. NP-3 Class in proper line, level & Slope including providing, fixing rubber ring joint finishing with in cement mortar 1:1 curing & testing etc. complete. Laying of pipes shall be carried out as per relevant IS, including all leads and lifts etc. complete as directed by Engineer. PMC DRAINAGE DSR 2-9-7	370	Rmt	851000.00
8		Providing and constructing Circular Manhole of 2nd class BB or Cement concrete block masonry having diameter of 53.54 cm at top in cement mortar of 1:6, PCC 15cm thick of 1:2:4 in bedding, preparing channel by laying pipe, cement plaster on both the sides in 1:3 ( No external plaster is required in case on concrete block masonry), providing approved cast iron manhole cover with frame of weight 175Kgs. per no., providing & fixing cast iron or RCC steps of weight 3kgs per no. @ 45cm center to center from inside including dewatering from excavation pit, curing and drop arrangement. Note: No separate payment shall be made for drop arrangement. PMC DRAINAGE DSR 2-12			
	32	a) 1.5 m depth X 1.25 m dia.	7826.00	No	250432.00
	32	b) 1.5 m depth X 1.50 m dia.	12645.00	No	404640.00
	14	c) 3.0 m depth X 1.75 m dia.	32985.00	No	461790.00
9	2559.00	Refilling the trenches with available excavated stuff with soft material first over pipe line and then hard material in 15cm layers with all leads and lift including consolidation surcharging etc. complete. PMC DRAINAGE DSR 2-12-G	225.00	Cum	575775.00
			Total		6966087.00

Contractor

No. of Corrections

Sd  
Project Engineer

## BOQ FOR ELECTRICAL WORK

Item No	Qty	Item description	Unit	Rate (Rupees)	Amount (Rupees)
1		Supply of HT XLPE (Round armoured) Nitrogen cured HT XLPE 22K grade of following sizes stranded compact circular Alu conductor screened with standard semi conducting compound XLPE insulated insulation with extruded			
2	1700	A. 22 Kv 300 sq mm HT cable PMC DSR 3-11-11.5/16-17 (10358)	Mtr	1843.00	3133100.00
3	200	B. supply of 22 Kv 95 sq mm HT cable (single run) PMC DSR 3-11-11.1 (13358)	Mtr	985.00	197000.00
4	1700	Laying of 22 Kv 300 sqmm sq mm HT cable PMC DSR 3-13-13-13.4/16-17	Mtr	110.00	187000.00
5	200	Laying of 22 Kv 95 sqmm sq mm HT cable (single run) PMC DSR 3-13-13-13.1	Mtr	80.00	16000.00
6	1700	S&E 200 mm outside dia double wall corrugated pipe (dwc) Of HDPE for enclosing cable below ground/road surface to required depth DSR No 3-2-2.5	Mtr	591.0000	1004700.00
7	2	Suply of 22 kv 4way out door type HT distribution piller as per MSEDCL design PMC DSR-3-4-4.1 (10356)	Per No	66638.00	133276.00
8	2	Erection of 22 kv 4way out door type HT distribution piller with concreting. PMC DSR-3-8-8.1 (10357)	per No	2200.00	4400.00
9	1	Supply of 22 Kv 630 A out door type RMU consisting 2 in coming SF6 load breakers and two out going sf6 fiiied SFU with HRC fuses and other standerd acceriesas per MSEDCL specifications PMC DSR 3-33-1 (10365)	per set	897750	897750.00
10	5	Supply of heat shrinkable straight through joint for 22Kv(E) XLPE HT cable 3x300 sq mm with necessary material as per specification CB-JT/HT PMC DSR No -3-23-23.5 (10363)	Per no	34170	170850.00

Contractor

No. of Corrections

Sd  
Project Engineer

Item No	Qty	Item description	Unit	Rate (Rupees)	Amount (Rupees)
11	5	Supply of heat shrinkable straight through joint for 22Kv(E) XLPE HT cable 185 sqmm to 240 sqmm sqmm with necessary material as per specification CB-JT/HT PMC DSR No 3-23-23.4 (10364)	Per No	31369.00	156845.00
12	10	Labour charges for 11/22 Kv straight through joint 3-24-2 (10364)	Per No	2500.00	25000.00
13	1200	Excavation in soft soil/Murum for pits for poles/staysearth pits or trenches PMC DSR 3-1-1-1/16-17 (10355)	cum	70.00	84000.00
14	1000	Excavation in Hard Murum/Metal road(BT) for pits for poles/staysearth pits or trenches PMC DSR 3-1-1-2/ 16-17 (10355)	cum	125.00	125000.00
15	800	Excavation in Hard rock for pits for poles stays earth pits or trenches PMC DSR 3-1-1-3/16-17 (10355)	cum	280.00	224000.00
16	200	S &E 25 cm dia hume pipewith accessories at required depth below ground for encasing cable PMC DSR 3-2-2.2 (10355)	Mtr	320.00	64000.00
17	200	S &E (including excavation) 150 mm dia half round pipe pipe with at required depth below ground for encasing cable 3-2-2.3	Mtr	210.00	42000.000
18	10	S&E galvanised cast iron earth plate size 15x15x.6 cm burried in specially prepared earth pit with 30 kg coal & salt with necessary length of Gi wire 8swg (double) connected to switch gear/ PMC DSR-8-1-1 (10263)	Per No	500.00	5000.00
19	11	Dismantling existing poles above 6 mtrs with accessories from CC foundation and refilling the pit DSR 3-126/16-17 (10376)	per no	800.00	8800.00
20	500	Dismantling existing over head line of all sizeand making coils of conductor/ GI wire of suitable size DSR 8-8.4/13-14	Mtr	40	20000.00
		Sub Total Part A		A	<b>6498721.00</b>
21	4	Supply of out door type 6 way LT distribution piller as per MSEDCL design. PMC DSR-3-3-3.3 (10356)	No	37803.00	151212.00

Contractor

No. of Corrections

Sd  
Project Engineer

Item No	Qty	Item description	Unit	Rate (Rupees)	Amount (Rupees)
22	15	Supply of out door type 4way LT distribution piller as per MSEDCL design PMC DSR-3-3-3.2 (10356)	No	23067.00	346005.00
23	6	Supply of out door type LT Mini piller 200 A as per MSEDCL design PMC DSR-3-3-3.4 (10356)	No	8970.00	53820
24	3	supply of out door type LT distribution box 400Aas per MSEDCL desine PMC DSR 3-5-5.2(10356)	No	24000.00	72000
25	4	erection of out door type 6 way LT distribution piller with concreting . PMC DSR-3--6-6.3 (10356)	No	1500.00	6000
26	15	erection of out door type 4way LT distribution piller with concreting. PMC DSR-3-6-6.2 (10356)	No	1200.00	18000
27	9	Erection of out door type LT Mini piller with concreting. PMC DSR-3-6-6.1 (10356)		1000.00	9000
28		Supply of PVC/XLPE armoured cable (10358)			
29	1600	3.5x300 sq mm PMC DSR 3-12-12.6/16-17	Mtr	1180.00	1888000
30	200	3.5x120sq mm PMC DSR 3-12-12.3/16-17	Mtr	400.00	80000
31	200	3.5x 95 sq mm PMC DSR 3-12-12.2/16-17		320.00	64000
32	200	3.5x70 sq mm PMC DSR 3-12-12.1/16-17	Mtr	255.00	51000
33	200	LT cable laying charges up to 50 sqmm PMC DSR 3-14-14.1/16-17	Mtrs	35.00	7000
34	400	LT cable laying charges 70 sqmm to 120 sqmm PMC DSR 3-14-14.2/16-17	Mtrs	55.00	22000
35	1500	LT cable laying charges above 120 sqmm PMC DSR 3-14-14.3/16-17	Mtrs	65.00	97500
36		Providing epoxy straight through joint			
37	50	for LT PVC armoured cable 50 sq mm PMC DSR 3-16-16.1/16-17 (10360)	Nos	750.00	37500
38	50	3.5x70 sq mm PMC DSR 3-16-16.2/16-17 (10360)	No	850.00	42500
39		3.5x 95 sq mm PMC DSR 3-16-16.2/16-17 (1			
40	25	3.5x120 sq mm PMC DSR 3-16-16.3/16-17 (10360)	No	1350.00	33750

Contractor

No. of Corrections

Sd  
Project Engineer

Item No	Qty	Item description	Unit	Rate (Rupees)	Amount (Rupees)
41	10	3.5x 185sq mm PMC DSR 3-16-16.3/16-17 (10360)	No	1900.00	19000
42	5	LT PVC armoured cable 240 sq mm PMC DSR 3-16-16.5/16-17 (10360)	No	2500.00	12500
43	5	LT PVC armoured cable 300 sq mmPMC DSR 3-16-16.6/16-17 (10360)	No	3200.00	16000
44		crimping of LT cable by EC grade approved Aluminium lugs for following cables evenly crimped with high pressure tool ,connected to switchgear with brass/cadmium plated nut bolts.			
45	20	up to 50 sqmm PMC DSR 3-15-15.1 (10360)	per cable end	115.00	2300
46	50	70 sqmm to 120 PMC DSR-3-15-15.2 (10360)	per cable end	225.00	11250
47	10	Above 120 sqmm PMC DSR 3-15-15.3	per cable end	375.00	3750
48		S&E heavy duty brass cable glands for following PVC armoured cables with brass washers rubber rings erected with cable leads connected (10376)			
49	50	3.5x240 to 300 sqmm PMC DSR 3-137/16-17	No	166.00	8300
50	50	3.5x120sq mm PMC DSR 3-135/16-17	No	101.00	5050
51	50	3.5x 50sqmm to 70 sq mm DSR 3-134/16-17	No	101.00	5050
52	50	4cx 16 sq mm PMC DSR 3-132/16-17	No	46.00	
53	60	S&E galvanised cast iron earth plate size 15X15x0.6 cm buried in specially prepared earth pit with 30 kg coal & salt with necessary length of Gi wire 8swg (double) connected to switch gear PMC DSR 8-1-1 (10263)	Per No	500.00	30000.00
		Sub total of Part B		B	<b>3092487.00</b>

Contractor

No. of Corrections

Sd  
Project Engineer

Item No	Qty	Item description	Unit	Rate (Rupees)	Amount (Rupees)
54	66	Supplying and erecting 9 m high galvanised octagonal pole with bottom of 200 mm A/F, top100mm A/F made from 3 mm thick HT plate 260x260x12 mm base plate ,with foundation bolts PMC DSR 4-1-3/16-17(10259)	No	12000.00	792000.00
55	280	Supply of lion type GIP.D.N 266056 3m high cast iron decorative pole made out of CI casting .The pole should have inbuilt junction box .Bottom dia of pole 280 mmand top 75 with baseplate dimensions 380 mm, PMC DSR 40-1 (10398)	No	31100.00	8708000.00
56	40	supplying and erecting 1,5 Mtr long single arm galvonised stlt brackets for Octagonal poles as per PMC specified PMC DSR-6-2-1/16-17 (10262)	No	2750.00	110000.00
57	26	supplying and erecting 1.5 Mtr long double arm galvonised stlt brackets for Octagonal poles as per PMC specified PMC DSR-6-2-3/16-17 (10262)	No	4000.00	104000.00
58	280	supply of single arm CI decorative bracket PMC DSR 26-17-2 (10397)	No	6752.00	1890560.00
59	600	supply and erecting PVC armoured cable 1100 V. grade with ISI mark 3.5 c 50 sq mmSq.mm. stranded/solid aluminium wiwith Al lugs of propersize PMC DSR-13-1-5/16-17(10266)	Mtr	228.00	136800.00
60	2000	supply and erecting PVC armoured cable 1100 V. grade with ISI mark 4 core 25 Sq.mm. stranded/solid aluminium PMC DSR-13-1-5/16-17(10266)	Mtr	150.00	300000.00
61	3900	supply and erecting PVC armoured cable 1100 V. grade with ISI mark 4 core 10 Sq.mm. stranded/solid aluminium with 6 mm. thick 25 mm. width M.S.spacers & G.I.saddles screwed with continuous 12 SWG G.I.earth wire complete erected on wall PMC DSR-13-1-3 (10265)	Mtr	92.00	358800.00

Contractor

No. of Corrections

Sd  
Project Engineer



Item No	Qty	Item description	Unit	Rate (Rupees)	Amount (Rupees)
62	2800	Supplying and laying including excavation 50 mm dia double walled corrugated pipes (DWC) of polyethylene (Confirming to IS 14930 II) (Similar to TELEREX / ELETREX ) with necessary connecting sockets / couplings,tees of same material PMC DSR -14-1-1/16-17	Mtr	70.00	196000.00
63	66	Designing and casting M-20 cement concrete foundation suitable for 9 mtr high Octagonal pole including excavation , foundation . Nuts bolts etc PMC DSR 9-1-7-3 (10264)	No	4000.00	264000.00
64	280	Designing and casting M-20 cement concrete foundation suitable for 3 mtr high decorative pole as per PMC design including excavation , foundation . Nuts bolts etc PMC DSR 9-1-7-1 ( 10264)	No	3500.00	980000.00
65	346	Erection commissioning and testing of 43 w to 150 w led fitting with providing 2.5sq m pvc insulated wire with 1.1 Kv grade with ISI Mark for connection PMC DSR 12-2 (10265)	No	250.00	86500.00
66	346	S & E plate type earthing with 15x15x0.6 cm mm dia. 2.5 mtr long G.I.pipe or 20 mm dia. buried in earth with necessary earthing material and 20 mm GI strip from earth plate connected to pole by nutbolt. Earthing to be done as per ISI specification PMC DSR – 8-1-6/ 16-17(10263)	No	500.00	173000.00
67	2	supplying commissioning and testing 3 ph Astronomical control based load monitering sys useful for energy saving of lighting load.	No	27543.00	55086.00
68	92	Supplyof high power 150 W LED fittings with lense as per specifications by PMC PMC DSR 26-17-2/16-17(10315)	No	16500.00	1518000.00
69	280	Supplyof high power 43/45 W LED fittings with lense as per specifications by PMC PMC DSR 26-17-6/16-17(10315)	No	4500.00	1260000.00

Contractor

No. of Corrections

Sd  
Project Engineer

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<b>Item No</b>	<b>Qty</b>	<b>Item description</b>	<b>Unit</b>	<b>Rate (Rupees)</b>	<b>Amount (Rupees)</b>
70	66	Dismantling of existing poles above 6 mtrs PMC DSR 3-126	No	800.00	52800
				<b>C</b>	16985546.00
		<b>TOTAL OF A + B +C</b>			<b>26576754.00</b>

Contractor

No. of Corrections

Sd  
Project Engineer