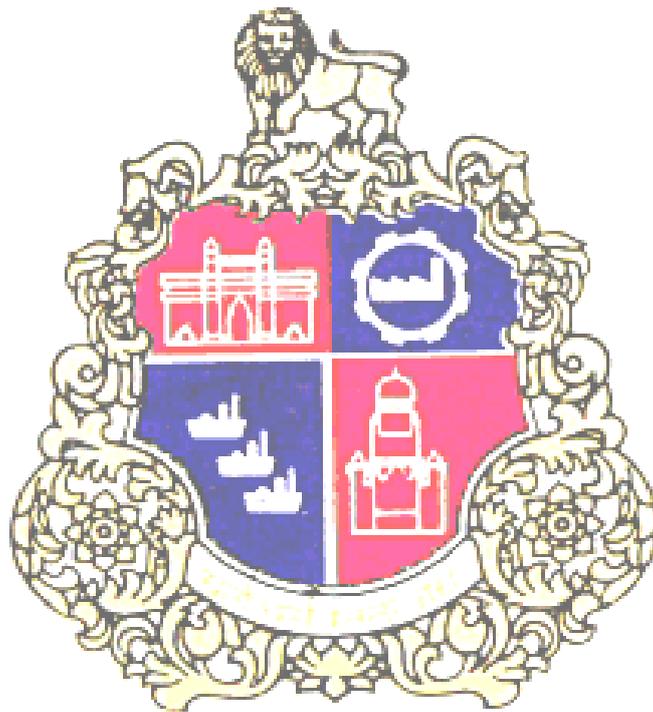


# **MUNICIPAL CORPORATION OF GREATER MUMBAI**

**ROAD DEPARTMENT**



**VOLUME-I**

**UNIFIED SCHEDULE OF RATES FOR**

**ROAD WORKS**

**2013**

## ROADS SCHEDULE 2013

### Foreword

Ever since establishment of Bombay Municipal Corporation (now Municipal Corporation of Greater Mumbai) in 1888 by the erstwhile British rulers in India, in the last 125 years of the history of its existence MCGM has catered to every aspect of the citizen of Mumbai that can be conceived of. Look to heritage buildings like Victoria Terminus (Chhatrapati Shivaji Terminus), Office of Municipal Corporation, Dadabai Naoroji Road, Dr. Babasaheb Ambedkar Road, Marine Drive (Netaji Subhash Road), Prince of Wales Museum, Gateway of India, Malabar Hill Reservoir, Nair Hospital, Lokmanya Tilak Hospital, KEM Hospital etc which are the service centers for the citizens. Municipal Services have also been provided in the suburban and extended suburban areas merged in 1950 & 1957 respectively. The obligatory duties are performed well but still there is need to improve in quantity and quality of services to be provided to the citizens.

Ethical governance and righteous work culture will certainly bring positive changes in design and implementation of projects. One may take an example of the first Municipal Head Quarter Building, that was completed in year 1893, in four years, designed by F W Stevens and the execution part was dealt by Project Engineer Shri Rao Saheb Sitaram Khanderrao Vaidya, who executed the project of 77.70m high structure and saved Rs.68,000/- as against estimated cost of Rs. 11.80 Lakhs.

The need is to work with precision and accuracy. There shall be harmony between planning and execution so as to evolve best economics with focused goals.

MCGM is one of the largest local self governments in the Asian Continent. In observance of historic traditions of strong civic activism, with the change in time and living conditions to match with the urbanization, MCGM has focused in providing variety of engineering services viz, storm water drain, sewerage, water supply, roads, bridges, solid waste management, environmental services. Beside this, the Corporation is also providing dedicated services in the Health sector by establishing Major and Peripheral hospitals.

To update and modernize the mechanism being used for working on related projects from the stage of conceptualization to execution, the need was realized to revise prevailing "Schedule Of Rates" along with specifications which were in operation with various departments and being prepared individually as per their need and revised at different span of time, resulting into various anomalies. To overcome all these, it was essential to revise the schedule of rates, not only with simple mechanized revision but incorporating major changes to keep up with the pace of urbanization, civilization, construction techniques / mechanization and voluminous developments by restructuring



## ROADS SCHEDULE 2013

items in the schedule to cover all requirements. This exercise would provide comfort with designs and field necessities and will assist in effective checks on creation of extra items during execution.

A conscious decision has been taken to prepare Unified Schedule of Rates to keep pace with the changing time; a first step forward in this direction. Since long time, there have been demands made by the stake holders like Municipal Engineers and Contractors to remove non-uniformity, anomalies and discrepancies in various schedules of rates for work contracts of various departments of MCGM. Every department had its own expertise and way of functioning which got reflected in its independent schedule of rates, which however, had no linkage with the fair market rates and schedules of other departments, resulting into extra items and fair rates. In place of earlier 9 Schedule Of Rates, the Unified Schedule of Rates is an effort and seeks to rectify the defects, discrepancies and non uniformities which will provide ease and accuracy of estimation to the Engineers.

In view of the enormous and voluminous nature of work, keeping time frame in perspective and above all, to ensure professionalism, the work of preparation of Unified Schedule of Rates (USR) was awarded to the eminent consultants M/s. TATA Consulting Engineers Ltd. M/s. TATA Consulting Engineers Ltd were directed to conduct a integrated factual market research for major materials from stockists/manufacturers/dealers and to study schedules of rates of Govt. bodies like C.P.W.D., P.W.D. etc The new Rate Analysis are based on Factual Market research done by M/s.TATA Consulting Engineers Ltd.

The anomalies in rate are minimized after extensive market research and collection of quotations from reputed large scale stockists/dealers, and also after comparison with rates of CPWD, PWD etc.

The Unified Scheduled of Rates is linked with its comprehensive specifications of basic important activities so as to have clarity in execution. These specifications follow a chronology of general scope of the item, material required, processing of material, construction operation, finishing and mode of measurement. Rigid Standard Operating Procedures (SOPs) and complete control on processes will certainly satisfy quality parameter. The need for checking the quality of construction is quite apparent and shall be ensured throughout the construction process. To achieve this, the Unified Scheduled of Rates incorporates quality assurance procedures.

All the rates are also linked to their detailed specifications and wherever required, with drawings. Though there are about 12500 items, every item is now given a Unique Code No. which will eliminate the repetition.

It has been our endeavor to include all the necessary modern materials and technologies in Unified Schedule of Rates, for example, the concept of green building, which will go a long way to have control on creation of extra items and fair rates. A salient feature of this Unified Schedule of Rates is 'Starring of items' specified categorically which can be used only at certain works or locations.



## **ROADS SCHEDULE 2013**

Another salient feature is 'Dynamic Rate System' which will be based on study of data base of quantities and bidding prices of awarded contracts on the basis of which necessary corrections can be applied to the Unified Schedule of Rates at specified intervals. The MCGM will be now be in a position to revise the Unified Scheduled of Rates every year, after incumbency period of M/s.TATA Consulting Engineers Ltd of one year, to work with and correct the system as and when necessary.

I am sure that this 'Unified Scheduled of Rates' will be a milestone in civic governance by MCGM. This publication shall be of great help and guidance to the officers engaged in the project work of MCGM.

**A.M.C. (Project)**

**Municipal Commissioner**



## A. GENERAL NOTES

1. The schedule of rates will be operative from 16-09-2013
2. The unified schedule of rates includes following department:
  - i. Buildings
  - ii. Water Supply Projects
  - iii. Hydraulic Engineering
  - iv. Sewerage Projects
  - v. Storm Water Drainage
  - vi. Roads
  - vii. Bridges
  - viii. Traffic and Signals
  - ix. Mechanical and Electrical
  - x. Garden Works
3. Volume-I contains USR, basic rate list and approved makes and Volume-II contains specification along with drawings wherever necessary and mandatory tests.
4. The specification of the items shall be as per latest Indian Standard Codes unless otherwise specified.
5. The rates of the items in this schedule of rates are worked out assuming average lead for Greater Mumbai area for all sorts of materials.
6. The rates are inclusive of transportation, duties, taxes and charges of all Government, Municipal or any other statutory body, applicable from time to time but exclusive of Works Contract Tax and Labour Cess levied by Government of Maharashtra.
7. The rates also includes Overheads @ 5% and Contractor's Profit @10% which is inclusive of labour supervision charges, tools and plants.
8. Rates of common material and labour is attached in the Annexure-A in Volume-I.
9. The building Schedule of Rates 2013 includes the existing items of FMA, FMB 2009, SIC and Fair items, with deletion of obsolete items, merger of similar items

and value addition of new items in line with modern technology and trends in accordance with latest rules, regulation, byelaws etc.

10. As per the Government policy the use fly ash is done for framing the items of work in accordance with the latest provisions of IS Codes. Also green building items have been introduced in new schedule to minimize the consumption of energy during construction and occupancy of building and also maintaining ecological balance.
11. From safety, health and environment point of view two legged steel tubular scaffolding shall be used, without making any holes in the outer face of the building or any structure. And no extra payment shall be made for works like scaffolding, centering for any height unless otherwise specified.
12. All materials shall be as per approved list of MCGM or equivalent material having quality standards as per relevant IS codes and shall be of first quality unless otherwise specified.
13. Following basic rates are considered in the USR:
  - i. Cement : Rs. 6,000/ MT
  - ii. Mild Steel : Rs. 47,400/ MT
  - iii. HYSD Steel (Fe415) : Rs. 48,400/ MT
  - iv. T.M.T. (Fe500) : Rs. 49,400/ MT
  - v. Structural Steel : Rs. 53,400/ MT
14. Rates given in SOR are for estimation purpose.
15. Rates of items and specification for excavation, concrete, plaster and brickwork shall be referred from common schedule unless and otherwise not mentioned in concerned department's schedule.

For Earthwork:

16. Lead will be admissible only within MCGM limits. The distance between centerlines shall be taken as the lead which shall be measured by the shortest route on the plan and not the actual route taken by the Contractor. Here Centerlines represents the center point (for area/mass excavation) and the center chainage for linear excavation.

17. The Engineer In Charge shall exclusively include these directions in the Tender/Bid document and the Tenders/Bidders shall be insisted to make the declaration of the dumping plot at the time of submission of Bid.
18. The Engineer In Charge shall take the quantity in account for the disposal only upto Municipal Limits for the Shortest Route and payment will be made as per the actual distance within municipal limit. The payment will be restricted to the shortest distance upto the Municipal limit for the plot identified outside the Municipal limit.

For Lift:

19. For the depth beyond 1.5 meter, the excavated quantity shall be worked out with the base rate plus the rate of respective slab of the lift. This is elaborated as below:

If total depth of excavation is 6 meter, wherein for first 4.5 meter soft soil is there and beyond it hard rock is available, then estimate shall be worked out as follows:

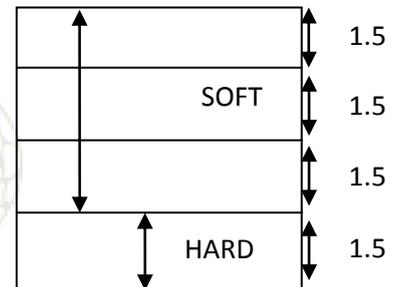
Assumed dimension 1 meter x 1 meter x 6 meter

Upto 4.5 meter depth, amount shall be calculated as:

- (1x1x4.5) Cu.M x Rs. 220 (Item no. CS-EW-1) +  
 (1x1x1.5) Cu.M x Rs. 48 (Item no. CS-EW-2-a) +  
 (1x1x1.5) Cu.M x Rs. 71 (Item no. CS-EW-2-b)

For next hard strata excavation (4.5 – 6.0 meter), amount shall be calculated as:

- (1x1x1.5) Cu.M x Rs. 873 (Item no. CS-EW-4) +  
 (1x1x1.5) Cu.M x Rs. 220 (Item no CS-EW-7-c)



20. Coding of items:

- The Coding procedure for Basic master material is as follows:
- Code will start with the common prefix of “MA” which stands for materials
  - Followed by Abbreviation code for each schedule of rate for eg H.E. for Building works, SP for Sewerage, WSP for water supply and so on and so forth.
  - The first item category in the list will be numbered as “1”
  - The last part of the code will be a number starting with “a” to indicate the item number in the master list.
  - The alpha numerics will be separated by (dash).
  - The code will look like: MA-GN-01

➤ The Coding procedure for SOR is as follows:

- Code will start from abbreviation for Department name “HE” or “WSP” or “SP”
- The USR will be subdivided into chapters according to the item classification; these chapters will be numbered as 1, 2, 3 .....
- The items under the chapter will be numbered from 1
- The sub items will be numbered as a, b, c ....
- The code will look like CS-CW-1-a-1

➤ Abbreviations to be used for Department

| <b>Sr. No.</b> | <b>Department</b>              | <b>Abbreviation</b> |
|----------------|--------------------------------|---------------------|
| 1              | Building works/Common Schedule | CS                  |
| 2              | Roads                          | RW                  |
| 3              | Traffic and Signaling          | RT                  |
| 4              | Bridges                        | BW                  |
| 5              | Water Supply Projects          | WSP                 |
| 6              | Hydraulic Engg.                | HE                  |
| 7              | Sewerage Projects              | SE                  |
| 8              | Storm Water Drains             | SWD                 |
| 9              | Mechanical and electrical      | ME                  |
| 10             | Garden Works                   | GW                  |

## **B. SALIENT FEATURES OF SOR FOR BUILDING WORKS**

- 1) All the rates are for all heights and levels unless noted otherwise.
- 2) Chloropyrifos EC 20 has been considered for anti termite treatment.
- 3) Artificial sand (crushed sand) has been considered for flooring bedding and for concrete work.
- 4) All the items are excluding fixtures otherwise not specified in respective item. In such case, items of Hardware section shall be used for fixtures.
- 5) For plastering and mortar work, river sand has been considered.
- 6) For plastering work all the rates are for all heights and levels and architectural decorative surface.
- 7) All external plaster items are including waterproofing compound except plastering item for structures like compound wall, masonry pedestals, pillars, etc.
- 8) Items for ashlar masonry, dewatering, self compacting concrete, vacuum dewatered concrete flooring and TMT steel bars have been introduced.
- 9) Rates of all the items in roofing work are inclusive of staging or scaffolding for any height.
- 10) Non-asbestos cement sheet provided in place of asbestos cement sheet roofing.
- 11) Concreting of pile shall be done with RMC only.
- 12) Rates of piling are inclusive of Chiseling of intermediate local boulders. No separate payment shall be made for the same
- 13) While estimating the quantity for Grouting of bentonite slurry in bored precast piles shall be measured as per bore dia and pile dia. Exact quantity can be measured while execution and shall be paid accordingly
- 14) Rates considered in concrete items are including pumping of concrete upto placing point.
- 15) New items like Self compacting concrete, vacuum dewatered concrete flooring and TMT steel bars have been introduced.
- 16) The dismantling and demolishing chapter covers only removing old items and repair work covers both removing old items and refixing the new.
- 17) For heritage works the rate includes the statutory charges for heritage committee and conservation architect and no extra payment will be made.
- 18) APP (Atactic poly-propylene) modified polymeric membrane water proofing will be used only for trial basis on approval of City Engineer and/or Chief Engineer (P&D).
- 19) In plumbing waterless urinals, fly ash bricks, fly ash concrete for green building concept have been introduced.

**Star Rating:**

In view of ambiguity related to choice of quality or grade of materials and subsequent items of works to be used at Ward level projects, Centralised projects or Special projects of and for smooth functioning during planning stage of a project, the new concept of Star Rating has been introduced for building works depending on the life expectancy of building, degree of occupancy of building and comfort to the end user. The buildings or structures rated are as follows:

- i. Two Star \*\* - Ward offices and Central dept. Offices, schools, Small Hospitals, Primary Health Center, Fire Station, Crematorium, Slaughter Houses, Markets, Swimming Pools, Zoos, Chowkies, Libraries, Staff quarters and residential colonies, Public Toilets and Water tanks.

- ii. Three Star \*\*\* - Superspeciality Hospitals, Drama Theatres, MCGM

Mayor's and Officer's bungalow, Heritage Structures, Head Office and Engineer's Hub.

The items or work not marked as two star or three star are assumed to be applicable for all the star buildings or structures mentioned above.

### C. SALIENT FEATURES OF SOR FOR ROAD AND BRIDGE WORKS

1. The rate analysis includes some provisions such as shuttering / centering on a percentage basis. This has been brought on a rational basis using available data.
2. Since the entire area covered by Greater Mumbai falls within the coastal belt, the minimum grade of structural concrete as recommended by IRC / MORTH for severe exposure has been adopted.

#### **Items referred from common schedule or other schedule:**

#### **ROAD**

|                |  |
|----------------|--|
| CS-EW-15 & 16: | Excavation in foundation for road works  |
| CS-CW-1-c:     | Cement Concrete - Nominal Mix of 1:3:6 -M10  |
| CS-CW-1-a:     | P/L M-20 grade concrete for RCC work (using cement @ 330 kg/cum) - All work upto plinth level  |
| CS-CW-7 & 19:  | Providing and laying in position machine batched and machine mixed design mix M-40 grade   |
| CS-CW-30-a:    | Formwork   |
| CS-PL-52:      | Cement Mortar 1:2 (1 Cement: 2 Coarse/ Fine Sand)  |
| CS-PL-56:      | Cement Mortar 1:6 (1 Cement: 6 Coarse/ Fine Sand)  |
| CS-CW-35-a:    | Reinforcement for R.C.C. work all complete. -Upto plinth level<br>Mild steel bars.   |
| CS-SS-01:      | Providing, detailing, fabricating and fixing at desired location using hot rolled sections and MS Plates of grade Fe 250 as per specifications and approved fabrication drawings |
| S-PN-4-c:      | Oil paint/ synthetic enamel paint in two coats with one coat of primer for Steelwork   |

#### **BRIDGE:**

|             |  |
|-------------|--|
| CS-EW-1-10: | Earthwork  |
| CS-SS-01:   | Providing and Fabricating structural steel work in rolled sections |
| CS-CW-1-b:  | PCC Grade M15 for Open Foundation by Mixer                         |
| CS-CW-1-a:  | PCC Grade M20 for Open Foundation by Mixer                         |

- CS-CW-2-a-1: RCC Grade M20 for Open Foundation by Batching Plant (RMC)
- CS-CW-16: Extra and over for providing richer RMC of M-25 grade cement concrete instead of M20
- CS-CW-17: Extra and over for providing richer RMC of M-30 grade cement concrete instead of M20
- CS-CW-18: Extra and over for providing richer RMC of M-35 grade cement concrete instead of M20
- CS-CW-19: Extra and over for providing richer RMC of M-40 grade cement concrete instead of M20
- CS-CW-20: Extra and over for providing richer RMC of M-45 grade cement concrete instead of M20
- CS-CW-21: Extra and over for providing richer RMC of M-50 grade cement concrete instead of M20
- CS-CW-35-b: Supplying, fitting and placing HYSD bar reinforcement

**Items that are referred to other SORs**

- RW-2-01: Supplying blue trap stones of approved quality & providing the same in rubble packing 25cm.

**D. LIST OF UNITS USED**

| Sr. No. | Units                  | Abbreviation Symbol | Remark                                      |
|---------|------------------------|---------------------|---|
| 1       | Length (Running Meter) | Rmt                 |   |
| 2       | Weight (Metric Tonne)  | MT                  |   |
| 3       | Weight Kilogram        | Kg                  |   |
| 4       | Time                   | Shift               | Shift Refers to a time duration of 8 Hrs    |
| 5       | Time (Hour)            | Hr                  |   |
| 6       | Quantity (Numbers)     | Each/No.            | Each refers to a single quantity per entity |
| 7       | Quantity (Lump sum)    | LS                  |   |
| 8       | Volume                 | Cum                 |   |
| 9       | Area (Square Meter)    | Sqm                 |   |
| 10      | Litre                  | Ltr                 |   |
| 11      | Cubic Centimeter       | Cucm                |   |

## E. LIST OF ABBREVIATIONS

|        |  |
|--------|--|
| AASHTO | American Association of State Highway and Transportation Officials |
| ASTM   | American Society for Testing and Materials                         |
| BS     | British Standard published by the British Standards Institution    |
| BOQ    | Bill of Quantities forming part of the contract                    |
| CBR    | California Bearing Ratio   |
| IRC    | Indian Road Congress   |
| IS     | Indian Standard published by the Bureau of Indian Standards        |
| WC     | Water Cement Ratio   |
| CRRRI  | Central Road Research Institute                                    |
| UCS    | Unconfined Compressive Strength                                    |
| WBM    | Water Bound Macadam  |
| SAM    | Stress Absorbing Membrane  |
| SAMI   | Stress Absorbing Membrane Interlayer                               |
| MoRTH  | Ministry of Road Transport and Highways                            |
| PCC    | Plain cement concrete  |
| RCC    | Reinforced cement concrete   |
| PSC    | Prestressed concrete   |
| HYSD   | High Yield Strength Deformed Bars                                  |
| EJ     | Expansion joints   |
| FBEC   | Fusion Bonded Epoxy Coating  |
| RE     | Reinforced Earth   |
| ESU    | Elastomeric slab unit  |

Schedule for Road Works  
2013

**INDEX**

| <b>Chapter. No.</b> | <b>Chapter Code</b> | <b>Contents</b>                    | <b>Item Range</b>    | <b>Page No.</b> |
|---------------------|---------------------|------------------------------------|----------------------|-----------------|
| 1                   | RW-1                | Earth Work Items                   | RW-1-01 to RW-1-19   | 1-2             |
| 2                   | RW-2                | Subbase and Base Items             | RW-2-01 to RW-2-24   | 2-5             |
| 3                   | RW-3                | Paver Items                        | RW-3-01 to RW-3-45   | 5-13            |
| 4                   | RW-4                | Kerb Stone                         | RW 4.01 to RW 4.15   | 13-14           |
| 5                   | RW-5                | Bituminous Items                   | RW-5-01 to RW-5-73   | 14-22           |
| 6                   | RW-6                | Mason                              | RW-6-01 to RW-6-06   | 22-22           |
| 7                   | RW-7                | Miscellaneous Items                | RW-7-01 to RW-7-54   | 22-28           |
| 8                   | RW-8                | Ducts and Pipes                    | RW-8-01 to RW-8-04   | 28-28           |
| 10                  | RW-10               | Cement Concrete Road Items         | RW-10-01 to RW-10-62 | 29-37           |
| 11                  | RW-11               | Geosynthetics And Reinforced Earth | RW-11-01 to RW-11-05 | 37-38           |
| 12                  | RW-12               | Maintenance Of Roads               | RW-12-01 to RW-12-16 | 38-39           |

| <b>DESCRIPTION OF ITEMS __ ROAD</b> |  |             |             |
|-------------------------------------|--|-------------|-------------|
| <b>ITEM CODE</b>                    | <b>ITEM DESCRIPTION</b>  | <b>UNIT</b> | <b>RATE</b> |
| <b>I</b>                            | <b>EARTH WORK ITEMS</b>  |             |             |
| <b>RW-1-01</b>                      | Scarifying the existing bituminous road surface to a depth of 15 cm removing, including transportaion any where & bringing the existing road to proper grade, level & camber &/ as per super elevation, rolling with 10/12 Tonnes power roller & binding the scarified layer with stone dust/grit/sand,watering,brushing, rolling, etc. complete as specified as directed by the Engineer.   | <b>Sqm</b>  | 170.00      |
| <b>RW-1-02</b>                      | Removing the humps (including wavy portion of the bituminous surface)by chiselling,picking, or by any means, & transporting excavated material anywhere & dressing the same to proper level,grade & camber &/ super elevation complete as specified as directed by the Engineer.   | <b>Sqm</b>  | 96.00       |
| <b>RW-1-03</b>                      | Bringing back the materials excavated from the work site of any kind of any size by any means & when directed upto a distance of 3Km., for filling / refilling in layers not exceeding 30 cm loose thickness as directed & specified (30%will be deducted for voids in earth & 40% for voids in boulders from lorry measurement) as specified as directed by the Engineer.   | <b>Cum</b>  | 458.00      |
| <b>RW-1-04</b>                      | Levelling, watering & rolling with power roller weighing not less than 3 tonnes & preparing the ground to the required level,grade & camber as specified as directed by the Engineer.  | <b>Sqm</b>  | 4.00        |
| <b>RW-1-05</b>                      | Levelling, watering and rolling to 95% Standard Proctor Density with a power roller weighing not less than 10 tonnes and preparing the ground to the required grade and camber as specified as directed by the Engineer.   | <b>Sqm</b>  | 7.00        |
| <b>RW-1-06</b>                      | Levelling, watering and rolling to 95% Standard Proctor Density with a power roller weighing not less than 10 tonnes and preparing the ground to the required grade and camber for rolling in trenches as specified as directed by the Engineer .  | <b>Sqm</b>  | 13.00       |
| <b>RW-1-07</b>                      | P/L earth work in embankments & /or filling low-laying grounds in layers not exceeding 25cm. In loose thickness & compacting each layer with a 10/12 tonnes power roller including levelling watering, etc. complete in confirmity with a reqired lines,grades & cross sections & also cleaning & grubbing the ground etc. complete as per New Road Specifications clause no. 151.0  | <b>Cum</b>  | 815.00      |
| <b>RW-1-08</b>                      | P/L earth work in embankments & /or filling low-laying grounds in layers not exceeding 25cm. In loose thickness & compacting each layer with a 10/12 tonnes power roller including levelling watering, etc. complete in confirmity with a reqired lines,grades & cross sections (Lab C.B.R. in socked conditions shall not be less than 4) etc. including cleaning & grubbing the ground (The contractor should take note of the site conditions pertaining to creek lands under reference & should note that nothing extra whatsoever will be paid like diversion of water, the protective measures that may be necessary to be carried out to protect the embankment from water & settlement of earth. Settlements will not be paid for the earth work must be retained for consolidations for one season & settlement if any will be ascertained & made up free of cost. The rates includes efforts for diversion of water, protection of embankments & also settlement of earth.etc. complete as per New Road Specifications clause no. 151.0. | <b>Cum</b>  | 987.00      |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE    |
|-----------|---|------|---------|
| RW-1-09   | P/L a top layer of earth of 15cm. Compacted thickness rolling with 10/12 tonne power roller, watering etc. complete in conformity with the lines, grades & cross sections & camber super elevation (Lab C.B.R. in soaked condition shall not be less than 10) including clearing & grubbing the ground etc. complete (including stabilisation if necessary.) as per New Road Specifications clause no. 151.0  | Cum  | 1074.00 |
| RW-1-10   | To carry out earth work in embankment or filling in low lying ground with Municipal earth,debris in layers not exceeding 25cm.in loose thickness & compacting each layer with 10/12 tonnes power roller, watering etc. in conformity with lines grades & cross sections including clearing & grubbing the ground etc. completeas specified as directed by the Engineer. (Transport of Municipal earth will be paid separately) as per road specifications as per New Road Specifications clause no. 151.0 | Cum  | 217.00  |
| RW-1-11   | Filling in trenches with Municipal earth materials etc. in layers not exceeding 25cm. In loose thickness , watering etc. compacting by means of plate vibrator or a power roller to a depth not exceeding 2m. Etc. complete as per New Road Specifications clause no. 151.0.  | Cum  | 182.00  |
| RW-1-12   | Preparing stabilised soil base 15cm. Compacted thickness including excavation adding the required sand,lime or other suitable material mixed & laid complete in regular lines to confirm with the required grade,camber & cross section, rolling etc. complete as specified & as directed. (C.B.R. under soaked condition shall not be less than 10) with soil available on site as per road specifications as per New Road Specifications clause no. 151.0   | Sqm  | 206.00  |
| RW-1-13   | Levelling, watering & rolling by vibratory roller weighing not less than 10 tonnes & preparing the ground to the required grade & camber etc. complete as specified as directed by the Engineer as per road specifications.   | Sqm  | 9.00    |
| RW-1-14   | Use of sensor paver for laying as per road specifications.  | Sqm  | 12.00   |
| RW-1-15   | Use of ordinary paver for laying as per road specifications.  | Sqm  | 7.00    |
| RW-1-16   | Extra for using sensor paver instead of ordinary paver as per New Road Specifications.  | Sqm  | 5.00    |
| RW-1-17   | Extra for using vibratory Roller instead of power roller for compaction as per New Road Specifications.   | Sqm  | 2.00    |
| RW-1-18   | Levelling, watering & rolling by vibratory roller IDD-22 weighing not less than 10 tonnes & preparing the ground to the required grade & camber (only to be used for reinstatement for trench in road work) as per New Road Specifications.   | Sqm  | 18.00   |
| RW-1-19   | Extra over for using vibratory roller IDD-22 at time of reinstatement of trench in road work as per New Road Specifications   | Sqm  | 5.00    |
| <b>II</b> | <b>SUBBASE AND BASE ITEMS</b>   |      |         |
| RW-2-01   | Supplying blue trap stones of approved quality & providing the same in rubble packing 25cm. Thick to the required level & camber,filling in voids with chips & 60mm metal etc. including spreading over the rubble 60mm metal 75mm thick, compacting to the satisfaction of the Engineer by a roller weighing not less than 10tonnes etc. complete as specified & as directed by the Engineer .   | Sqm  | 461.00  |
| RW-2-02   | Supplying blue trap stones of approved quality & providing the same in rubble packing 25cm. Thick to the required grade,level & camber,filling in voids with chips & 60mm metal etc.compacting using mechanical vibrating compactor / 8-10 MT Roller etc.complete as specified & as directed by the Engineer .  | Sqm  | 317.00  |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE   |
|-----------|---|------|--------|
| RW-2-03   | Laying hand set rubble packing (using municipal rubble)25cm. Thick to the required grade, level & camber, filling in the voids with chips & 60mm. Municipal metal including spreading over the rubble layer 50mm to 60mm. Size municipal metal 75mm. Thick compacted to the satisfaction of the Engineer by a roller weighing not less than 10 tonnes etc. as specified & as directed by the Engineer .   | Sqm  | 97.00  |
| RW-2-04   | Laying hand set rubble packing (using municipal rubble)25cm. Thick to the required level & camber, filling in the voids with new chips & 60mm. metal etc. including spreading over the rubble layer 60mm. Size,new metal 75mm. thick compacting to the satisfaction of the Engineer by a roller weighing not less than 10 tonnes as specified & as directed by the Engineer .   | Sqm  | 237.00 |
| RW-2-05   | Providing dry rubble packing behind the abutment retaining & wing wall in horizontal layers etc. complete as specified & as directed by the Engineer .  | Cum  | 805.00 |
| RW-2-06   | Breaking concrete pieces available on site into 75 mm pieces,spreading the same to a thickness of 15 cm.and compacting to the satisfaction of the Engineer, by a static roller weighing not less than 10 tonnes including watering, binding with stone dust, etc. complete and making the layer water bound as per New Road Specifications clause no.235  | Sqm  | 146.00 |
| RW-2-07   | Breaking asphalt cakes available on site into 90 mm pieces and spreading the same to a thickness of 15 cm. and compacting to the satisfaction of the Engineer, by a static roller weighing not less than 10 tonnes. Including binding with stone powder complete as directed.   | Sqm  | 104.00 |
| RW-2-08   | Providing & laying sub base 20 cm compacted(K.T.R.)thick made of metal obtained from rock having AIV of not more than 40% (metal varying in size from 90 mm to 45mm) and compacting the same to the satisfaction of the Engineer laid complete in to two layers the required level and camber, rolling with 10/12 tonnes roller interstices being filled with stone dust, watering, rolling and making each layer waterbound. As per new Road Specifications Clause no.220. | Sqm  | 443.00 |
| RW-2-09   | Providing and laying sub-base 10 cm.compacted thickness made up of metal obtained from rock having AIV of not more than 40% (metal varying in size from 90 mm to 45mm) and compacting the same to satisfaction of the engineer laid complete in one layer to the required level and camber, rolling with 10/12 tonnes roller interstices being filled in with stone dust, watering, rolling/and making the layer water bound.As per new Road Specifications Clause no.220.  | Sqm  | 222.00 |
| RW-2-10   | Spreading Municipal material such as broken concrete, asphalt pieces 90mm to 45 mm metal in a layer of 10 cm. Compacted thickness and compacting with 10/12 tonnes power roller to the satisfaction of the Engineer, binding with stone dust, watering,rolling and making the layer waterbound.As per new Road Specifications Clause no.220.  | Sqm  | 110.00 |
| RW-2-11   | Breaking Municipal rubble stone available on site to 90mm to 45mm metal & laying the same in a sub-base 10cm. thick compacting & to the satisfaction of the Engineer, by a 10/12 tonnes power roller,laid complete in ONE layer to the required level & camber, binding with stone dust,watering,rolling & making layer waterbound etc. complete .As per new Road Specifications Clause no.220.   | Sqm  | 111.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION   | UNIT | RATE    |
|-----------|--|------|---------|
| RW-2-12   | Breaking Municipal rubble stone available on site to 90mm to 45mm metal & laying the same in a sub-base compacting to 20cm.in two layers & to the satisfaction of the Engineer, by a 10/12 tonnes power roller,laid complete in one layers to the required level & camber, binding with stone dust,watering,rolling & making the layer waterbound.As per new Road Specifications Clause no.220.  | Sqm  | 221.00  |
| RW-2-13   | Supplying & spreading 60mm metal compacting the same to 10cm. To the satisfaction of the Engineer by a roller weighing not less than 10 tonnes to the required grade,level & camber including binding with grit,sand stone dust, watering rolling etc. complete & making the layer waterbound.As per new Road Specifications Clause no.235.2.5.  | Sqm  | 214.00  |
| RW-2-14   | Supplying & spreading 60 mm metal compacting the same to 7.5 cm. to the satisfaction of the Engineer by a roller weighing not less than 10 tonnes to the required grade, level and camber including binding with grit, sand, stone dust, watering, rolling etc. complete and making the layer water bound.As per new Road Specifications Clause no.220.  | Sqm  | 167.00  |
| RW-2-15   | Spreading Municipal 60mm size metal available on site compacting to 7.5cm. The same to the satisfaction of the Engineer by roller weighing not less than 10 tonnes to the required grade/ level & camber including binding with sand/stone dust & grit & watering,levelling, rolling etc. & making the layer waterbound.As per new Road Specifications Clause no.220.  | Sqm  | 56.00   |
| RW-2-16   | Breaking municipal rubble available on site to form 60mm size metal & depositing the same in neat stacks as directed (depot or lorry measurement will be consider without deduction for voids).As per new Road Specifications Clause no.220.   | Cum  | 329.00  |
| RW-2-17   | Breaking municipal rubble available on site into 60mm size metal spreading the same to the thicknes compacting to 10cm. & to the satisfaction of the Engineer by a roller weighing not less than 10 tonnes to a proper grade,level & camber including binding with sand/stone dust or grit & watering, rolling etc. complete & making the layer waterbound.As per new Road Specifications Clause no.220.   | Sqm  | 84.00   |
| RW-2-18   | Breaking municipal rubble available on site into 60mm size metal spreading the same to the thicknes compacting to 7.5cm. & to the satisfaction of the Engineer by a roller weighing not less than 10 tonnes to a proper grade,level & camber including binding with sand/stone dust or grit & watering, rolling etc. complete & making the layer waterbound.As per new Road Specifications Clause no.220.  | Sqm  | 65.00   |
| RW-2-19   | Ramming & compacting the metal, concrete pieces, asphalt cakes with a heavy rammer weighing not less than 15kg. Or a frog rammer including watering, levelling etc. complete.  | Sqm  | 12.00   |
| RW-2-20   | Providing & laying, spreading & compacting graded crushed stone agreeegate to wet mix macadam satisfaction including premixing the material with water to OMC in mechanical mix (pug mill) carriage of mix material by tipper to site laying in uniform layer of 75mm to100mm(compactd thickness each)with sensor paver finisher on prepared subbase & compacting with vibratory roller (10 tonne) to achieve desired density including lighing, guarding barricating & maintenance of diversion etc. as directed by the Engineer, ( Rebate for not using sensor paver should be taken,(metal gradation from 53mm to 75mm micron as per MCGM Road Specifications clause no.240). | Cum  | 2768.00 |



Schedule for Road Works  
2013

| ITEM CODE  | ITEM DESCRIPTION  | UNIT | RATE    |
|------------|---|------|---------|
| RW-2-21    | Providing & laying, spreading & compacting specified crushed stone in granular subbase course including premixing the material in mechanical mixer (pug mill or approved type), spreading of mixed material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour, machinery, lighting barricating to all lifts & lead maintenance of diversion etc. complete (metal gradation from 75mm to 75mm micron as per MCGM Road Specifications clause no.210). | Cum  | 2484.00 |
| RW-2-22    | Rebate for not using motor grader / paver for laying of Granular Sub base in RW-2-21  | Cum  | 67.00   |
| RW-2-23    | Providing and laying sub-base made up of metal obtained from rock having AIV of not more than 40% (metal varying in size from 90 mm to 45mm) and compacting the same to 7.5 to 10 cm thick & satisfaction of the engineer laid complete in one layer to the required level and camber, rolling with 10/12 tonnes roller interstices being filled in with stone dust, watering, rolling/and making the layer water bound. As per new Road Specifications Clause no.220. (VOLUMETRIC MEASUREMENTS TO BE RECORDED BY LEVELS ONLY)  | Cum  | 2658.00 |
| RW-2-24    | Supplying & spreading 60mm metal compacting the same to 7.5 TO 10cm. To the satisfaction of the Engineer by a roller weighing not less than 10 tonnes to the required grade, level & camber including binding with grit, sand stone dust, watering rolling etc. complete & making the layer waterbound. As per new Road Specifications Clause no.220. (VOLUMETRIC MEASUREMENTS TO BE RECORDED BY LEVELS ONLY)   | Cum  | 2158.00 |
| <b>III</b> | <b>PAVER ITEMS</b>  |      |         |
| RW-3-01    | P/F shahabad stone pavement 38mm. to 60 mm. thick of approved quality in traffic islands or wherever directed in City/Subs. Including necessary base of cement concrete M-10 (1:3:6) upto any required depth but not less than 100mm thick & finishing joints of the chequered tiles with C.M. 1:2 including pointing, curing etc. complete as specified & as directed.   | Sqm  | 969.00  |
| RW-3-02    | Removing, cleaning off old mortar & Carting away shahabad stone pavement upto a distance of 3Km. & stacking the same neatly as directed.  | Sqm  | 18.00   |
| RW-3-03    | Extra over above for an additional distance of every 1Km. Or part thereof.  | Sqm  | 0.60    |
| RW-3-04    | Removing & resetting blue stone pavement in 1:6 C.M. on a 10cm. Thick M-10 C.C. bedding including filling in joints with 1:2 C.M. & cement pointing curing etc.   | Sqm  | 683.00  |
| RW-3-05    | Removing & resetting blue stone pavement in 1:6 C.M. on a cushion of sand 20mm. To 25mm Thick on 10cm. Thick M-10 C.C. bedding including filling in joints with 1:2 C.M. & cement pointing curing etc. complete   | Sqm  | 778.00  |
| RW-3-06    | Removing, cleaning off old mortar & Carting away blue stone pavement upto a distance of 3Km. & stacking the same neatly as directed.  | Sqm  | 40.00   |
| RW-3-07    | Extra over above for an additional distance of every 1Km. Or part thereof.  | Sqm  | 0.60    |
| RW-3-08    | P/L Precast M-20 plain C.C. slabs, 10cm. Thick in pavement over 10cm. Thick M-10 C.C. bed including filling in the joints with 1:2 C.M. & pointing, curing etc. complete.   | Sqm  | 1279.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION   | UNIT | RATE    |
|-----------|--|------|---------|
| RW-3-09   | P/L Precast M-20 reinforced C.C. slabs,10cm. Thick over M-10 C.C. bedding 10cm. Thick, including filling in the joints with 1:2 C.M. & pointing, curing etc. complete.   | Sqm  | 1580.00 |
| RW-3-10   | P/L thick Precast M-20 plain C.C. slabs 5cm Thk, in pavement on M-10 C.C. bedding 10cm.thick including filling in the joints with 1:2 C.M. & pointing, curing etc. complete.   | Sqm  | 862.00  |
| RW-3-11   | Providing & fixing 80 mm thick interlocking unishape concrete pavers ( monolithic- single layer precast concrete blocks) of gray cement coloured in the carriageway having average crushing strength 50N/sq.m.m. as per technical specification, placed on average compacted thickness of 25 mm, uniformly graded river sand cushioning with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as specified and as directed by the Engineer.   | Sqm  | 951.00  |
| RW-3-12   | Providing & fixing 60 mm thick interlocking unishape concrete pavers ( monolithic- single layer precast concrete blocks) of gray cement coloured having average crushing strength of 40 N/mm <sup>2</sup> as per technical specification, placed on uniformly graded river sand cushioning of average compacted thickness 25 mm with properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.  | Sqm  | 850.00  |
| RW-3-13   | Removing & refixing interlocking concrete pavers of 80 mm thick, having of any size, shape and colour considering 10% breakage area of paver block while removing same from position and replaced same by new paver blocks having average crushing strength not less than 50 N/mm <sup>2</sup> placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.                                    | Sqm  | 311.00  |
| RW-3-14   | Removing & refixing interlocking concrete pavers of 60 mm thick, having of any size, shape and colour considering 10% breakage area of pver block while removing same from position and replaced same by new paver blocks having average crushing strength not less than 40 N/mm <sup>2</sup> placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.                                     | Sqm  | 301.00  |
| RW-3-15   | Providing & Fixing 80 mm thick unishape gray cement concrete interlocking pavers (monolithic-single layer precast concrete blocks) in Red ( Terra Cotta), Black, Brown or any colour with pigment @ 3% by weight of cement having average crushing strength of 50N/sqmm. in the carriageway placed on average compacted thickness of 25 mm. uniformly graded river sand cushioning with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as specified and as directed by the Engineer.                                | Sqm  | 1083.00 |
| RW-3-16   | Providing & Fixing 60 mm thick unishape gray cement concrete interlocking pavers (monolithic-single layer precast concrete blocks manufactured in gray cement only) in red ( Terra Cotta) Black, Brown or any colour having average crusting strength 40 N/mm <sup>2</sup> with pigment @ 3% by weight of cement in the footpath, placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer. | Sqm  | 976.00  |



Schedule for Road Works  
2013

| ITEM CODE      | ITEM DESCRIPTION   | UNIT       | RATE    |
|----------------|--|------------|---------|
| <b>RW-3-17</b> | Providing & fixing in the footpath, 60 mm thick Lacquer coated ( Reflective) interlocking gray cement concrete pavers in red ( Terra Cotta) Black, Brown, Lemon Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/ shape and colour having average crusting strength 40 N/mm <sup>2</sup> manufactured in double layer precast concrete blocks. The top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm size sieve 100% passing and retain on 4.75 mm size sieve , silica sand and with pure iron oxide ultra voilete stabilized pigment @ 5% by weight of cement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer should be 45 to 48 mm thick having 12 mm size sieve 100% passing aggregate as per technical specification placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer. | <b>Sqm</b> | 938.00  |
| <b>RW-3-18</b> | Providing & fixing in the carriageway 80 mm thick gray cement concrete Lacquer coated ( Reflective) interlocking pavers in red ( Terra Cotta) Lemon Yellow, Bright Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/ shape and colour having average crusting strength 50N/mm <sup>2</sup> manufactured in double layer precast concrete blocks the top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm sieve 100% passing and retained on 4.75 mm size sieve , silica sand and with pure iron oxide ultra voilete stabilized pigment @ 5% by weight of white cement and should be coated with lacquer having hard, high abresive resistance and water repellent. The bottom layer should be 65 to 68 mm thick having 12 mm sieve 100% passing aggregate as per technical specification placed on average compacted thickness of 25 mm uniformly graded river sand cushioning with proper capacity with mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer.   | <b>Sqm</b> | 1124.00 |
| <b>RW-3-19</b> | Providing & fixing in the carriageway 100mm thick interlocking concrete unishape pavers ( monolithic- single layer precast concrete blocks) of gray cement coloured having average crushing strength 50N/sq.m.m. as per technical specification, placed on average compacted thickness of 25 mm, uniformly graded river sand cushioning with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as specified and as directed by the Engineer.   | <b>Sqm</b> | 1137.00 |
| <b>RW-3-20</b> | Providing & Fixing in the carriageway interlocking 100 mm thick gray cement concrete unishape pavers in Red ( Terra Cotta), Black, Brown or any colour unishape (monolithic-single layer precast concrete blocks) with pigment @ 3% by weight of cement having average crushing strength of 50N/sq.m.m., placed on uniformly graded river sand cushioning of average compacted thickness 25 mm with proper compacting with mechanical compactor with the proper level, grade and camber etc. complete as specified and as directed by the Engineer.  | <b>Sqm</b> | 1337.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE    |
|-----------|---|------|---------|
| RW-3-21   | Removing & refixing interlocking concrete pavers of 100 mm thick, having of any size, shape and colour considering 10% breakage area of paver block while removing same from position and replaced same by new paver blocks having average crushing strength not less than 50 N/mm <sup>2</sup> placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.  | Sqm  | 340.00  |
| RW-3-22   | Removing the paver blocks of any thickness.,size,& colour from carriage way OR footpath & transporting the same to ward depot OR any where in MCGM limit. The paver blocks shall be stacked neatly at specified location etc. complete as specified and as directed by the Engineer.  | Sqm  | 201.00  |
| RW-3-23   | Transporting & fixing the available municipal paver blocks having any type,size, shape, colour & thickness etc. on roads & footpaths.The paver blocks shall be placed on average25 mm. compacted thickness of uniformity graded river sand cushioning as per specification with properly compacted with compactor with required line and level,grade and camber etc. complete as specified and as directed by Engineer. (Rate is inclusive of tansporting, loding and unloading of paver blocks from ward depot or anywhere in MCGM limit to site and fixing the same etc. )  | Sqm  | 246.00  |
| RW-3-24   | Providing & fixing in the footpath, 60 mm thick Lacquer coated ( Reflective) interlocking white cement concrete pavers in red ( Terra Cotta) Black, Brown, Lemon Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/ shape and colour having average crusting strength 40 N/mm <sup>2</sup> manufactured in double layer precast concrete blocks. The top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm size sieve 100% passing and retain on 4.75 mm size sieve , silica sand and with pure iron oxide ultra voilete stabilized pigment @ 5% by weight of white cement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer in gray cementshould be 45 to 48 mm thick having 12 mm size sieve 100% passing aggregate as per technical specification placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer. | Sqm  | 1003.00 |
| RW-3-25   | Providing & fixing in the footpath, 80 mm thick Lacquer coated ( Reflective) interlocking white cement concrete pavers in red ( Terra Cotta) Black, Brown, Lemon Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/ shape and colour having average crusting strength 50 N/mm <sup>2</sup> manufactured in double layer precast concrete blocks. The top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm size sieve 100% passing and retain on 4.75 mm size sieve , silica sand and with pure iron oxide ultra voilete stabilized pigment @ 5% by weight of whitecement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer in gray cementshould be 65 to 68 mm thick having 12 mm size sieve 100% passing aggregate as per technical specification placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.  | Sqm  | 1191.00 |



Schedule for Road Works  
2013

| ITEM CODE      | ITEM DESCRIPTION   | UNIT       | RATE    |
|----------------|--|------------|---------|
| <b>RW-3-26</b> | Providing & fixing in the footpath Interlocking concrete paver block 60mm thick Beganit in Gray/Blackcolour with Stone texture on top surface of approved pattern/ shape and colour having average crusting strength 40 N/mm <sup>2</sup> manufactured in double layer Interlocking concrete paver blocks Begaint 12 to 15 mm thick and consist cubical shape Quartz stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve , silica sand .The bottom layer should be 45 to 48 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average 25 mm compactedthickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer.  | <b>Sqm</b> | 1647.00 |
| <b>RW-3-27</b> | Providing & fixing in the footpath Concrete Paving Slabs(Flagstone) 400X400X60mm thick or any approved size in Gray or any specified colour with shot blasted texture or any approved texture on top surface of approved pattern/ shape and colour having average crusting strength 40 N/mm <sup>2</sup> manufactured in double layer precast concrete Paving Slabs(Flagstone) 12 to 15 mm thick and consist cubical shape Quartz stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve , silica sand .The bottom layer should be 45 to 48 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average 25 mm compacted thickness ofuniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer. | <b>Sqm</b> | 1692.00 |
| <b>RW-3-28</b> | Providing & fixing in the footpath Concrete Paver blocks 200X200X60mm thick or any approved size in Gray or any specified colour with shot blasted texture or any approved texture on top surface of approved pattern/ shape and colour having average crusting strength 40 N/mm <sup>2</sup> manufactured in double layer precast concrete Paver blocks 12 to 15 mm thick in top layer and consist of cubical shape Quartz stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve , silica sand .The bottom layer should be 45 to 48 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average 25 mm compacted thickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer.      | <b>Sqm</b> | 1597.00 |
| <b>RW-3-29</b> | Providing & fixing in the footpath Concrete Paver blocks 200X200X80mm thick or any approved size in Gray or any specified colour with shot blasted texture or any approved texture on top surface of approved pattern/ shape and colour having average crusting strength 50 N/mm <sup>2</sup> manufactured in double layer precast concrete Paver blocks 12 to 15 mm thick top layer and consist of cubical shape Quartz stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve , silica sand .The bottom layer should be 65 to 68 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average 25 mm compacted thickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer.         | <b>Sqm</b> | 1837.00 |



Schedule for Road Works  
2013

| ITEM CODE      | ITEM DESCRIPTION  | UNIT       | RATE    |
|----------------|---|------------|---------|
| <b>RW-3-30</b> | Providing & fixing in the footpath Concrete cobbles 100X100X60mm thick in Grey colour or any approved size in Gray or any specified colour with shot blasted texture or any approved texture on top surface of approved pattern/ shape and colour having average crusting strength 40 N/mm <sup>2</sup> manufactured in double layer precast concrete Concrete cobbles, 12 to 15 mm thick top layer and consist of cubical shape Quartz stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve , silica sand .The bottom layer should be 45 to 48 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average 25 mm compacted thickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer.   | <b>Sqm</b> | 1647.00 |
| <b>RW-3-31</b> | Providing & fixing in the carriageway/footpath, 60 mm thick Heritage paver interlocking white cement concrete pavers in red ( Terra Cotta) Black, Brown lamen colour with vermeticular or any antiskid texture on top surface of approved pattern/ shape and colour having average crusting strength 40 N/mm <sup>2</sup> manufactured in double layer precast concrete blocks the top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve , silico sand and with pure iron oxide ultra voilete stabilized pigment @ 5% by weight of cement . The bottom layer should be 45 to 48 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average 25 mm compacted thickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer. | <b>Sqm</b> | 2003.00 |
| <b>RW-3-32</b> | Providing & fixing in the carriageway, 80 mm thick Heritage paver interlocking white cement concrete pavers in red ( Terra Cotta) Black, Brown lamen colour with vermeticular or any antiskid texture on top surface of approved pattern/ shape and colour having average crushing strength 50 N/mm <sup>2</sup> manufactured in double layer precast concrete blocks the top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve , silica sand and with pure iron oxide ultra voilete stabilized pigment @ 5% by weight of cement . The bottom layer should be 65 to 68 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification rested on average 25 mm compacted thickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer.           | <b>Sqm</b> | 2590.00 |
| <b>RW-3-33</b> | Supply of shot blasted machine cut, coloured Granite of size 200 x 200 x 40mm thick to be fixed on prepared sub-base by on a bed of min. 40mm thick cushioning in C.M. 1:4 including neat cement float etc. filling of joints in C.M. 1:2 with grey cement to match the colour of cobble stone in the reguired pattern, design and as directed by the Engineer incharge, including cleaning, curing etc. complete as specified and as directed by the Engineer.   | <b>Sqm</b> | 4745.00 |



Schedule for Road Works  
2013

| ITEM CODE      | ITEM DESCRIPTION  | UNIT       | RATE    |
|----------------|---|------------|---------|
| <b>RW-3-34</b> | Providing & fixing in the carriageway/ footpath Vitrified Ceramic Topping Paver Blocks of size 150 x 150 x 80mm thick in various colour combination having average crushing strength 50 N/mm <sup>2</sup> & vitrified topping of 12 to 15mm.The bottom layer should be 65 to 68 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average 25 mm compacted thickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer.   | <b>Sqm</b> | 2147.00 |
| <b>RW-3-35</b> | Providing & fixing in the carriageway/ footpath Vitrified Ceramic Topping Paver Blocks of size 150 x 150 x 60mm thick in various colour combination having average crushing strength 40 N/mm <sup>2</sup> & vitrified topping of 12 to 15mm.The bottom layer should be 45 to 48 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification rested on average 25 mm compacted thickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as directed.   | <b>Sqm</b> | 1884.00 |
| <b>RW-3-36</b> | Providing & fixing in the footpath Concrete cobbles 150X150X80mm thick in Grey colour or any approved size in Gray or any specified colour with shot blasted texture or any approved texture on top surface of approved pattern/ shape and colour having average crusting strength 50 N/mm <sup>2</sup> manufactured in double layer precast concrete Concrete cobbles, 12 to 15 mm thick top layer and consist of cubical shape Quartz stone aggregate 8 mm sieve 100% passing and retain on 4.75 mm size sieve , silica sand .The bottom layer should be 65 to 68 mm thick in gray cement having 12 mm sieve 100% passing aggregate as per technical specification, rested on average 25 mm compacted thickness of uniformly graded river sand cushioning, compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer. | <b>Sqm</b> | 1945.00 |
| <b>RW-3-37</b> | Providing and laying RED & BLACK GRANITE cobble stones of 100mm x 100mm x 100mm, 3 line dressing with 12mm top layer in size of fine cut and well dressed in Grey colour in paving on a bed of min. 40mm thick cushioning in C.M. 1:4 including neat cement float etc. filling of joints in C.M. 1:2 with grey cement to match the colour of cobble stone in the required pattern, design and as directed by the Engineer incharge, including cleaning, curing etc. complete.   | <b>Sqm</b> | 2595.00 |
| <b>RW-3-38</b> | Supply of hand finish top machine cut, 3 line dressing Cobble Stone in size: 100 x 100 x 100mm in grey colour to be fixed on prepared sub-base with cement mortar 1:4 40mm thick and cement slurry.. filling of joints in C.M. 1:2 with grey cement to match the colour of cobble stone in the required pattern, design and as directed by the Engineer incharge, including cleaning, curing etc. complete as specified and as directed by the Engineer. NOTE: THIS ITEM SHOULD BE OPRATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.)  | <b>Sqm</b> | 2848.00 |
| <b>RW-3-39</b> | Providing & fixing in the footpath Combi-Paver having average crusting strength 40 N/mm <sup>2</sup> shot blasted 60mm thick in approved texture and colour and combination size 100 x 200, 125 x 200, 175 x 200, 225 x 200, 275 x 200 to be fixed on uniformly graded river sand cushioning average 25 mm compacted thickness , compacted by proper capacity mechanical compactor with proper level grade and camber etc. complete as specified and as directed by the Engineer. NOTE: THIS ITEM SHOULD BE OPRATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.)   | <b>Sqm</b> | 1837.00 |



| ITEM CODE | ITEM DESCRIPTION   | UNIT | RATE    |
|-----------|--|------|---------|
| RW-3-40   | Providing & fixing in the wall Stone colour Wall Tiles, Design- Aries in stone finish to be fixed in vertical wall with neat cement slurry in line and level, joints filled with color cement grouting & finishing etc. complete as specified and as directed by the Engineer. NOTE: THIS ITEM SHOULD BE OPERATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.)  | Sqm  | 1279.00 |
| RW-3-41   | Providing and fixing of cement concrete Precast Header of M-50 grade of size: 500 mm length x 325 mm height x 150 mm thick manufactured in wet press vacuum dewatering technology plant or equivalent with colour or any specified colour for Edge Restriction pimple finish for high visibility with excellent quality and finish and edges perfect and sharp. Including excavation in any soil except rock, laying a leveling course of M 15 grade RMC 100mm. thick, to required slope (inclusive of form work) jointing in C.M.1:2 proportion flush to concrete surface as directed. (Header shall be procured from MCGM registered agencies). NOTE: THIS ITEM SHOULD BE OPERATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.)   | Rmt  | 1646.00 |
| RW-3-42   | Providing and fixing of cement concrete Kerb Stone of M-25 grade IN WHITE CEMENT with COLOUR of size: 500mm width x 325 height x 165mm thick (Half Batter, Bull Nose / Full Batter) manufactured in wet press vacuum dewatering technology plant /EQUIVALANT with face pimple finish for high visibility with excellent quality and finish and edges perfect and sharp. Including excavation in any soil except rock, laying a leveling course of M 15 grade RMC 100mm. thick, to required slope (inclusive of form work) jointing in C.M.1:2 proportion flush to concrete surface, any shade as directed. (Kerbstones shall be procured from MCGM registered agencies). NOTE: THIS ITEM SHOULD BE OPERATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.)  | Rmt  | 1530.00 |
| RW-3-43   | Removing & refixing interlocking concrete pavers of 80 mm thick, having of any size, shape and colour 200X200X80mm thick in Gray colour with shot blasted texture on top surface, 80 mm thick Heritage paver interlocking white cement concrete pavers in red ( Terra Cotta) Black, Brown lamen colour with vermeticular or any antiskid texture on top surface,Vitrified Ceramic Topping Paver Blocks of size 150 x 150 x 80mm thick in various colour combination) (RW-3-29,3-32,3-34) considering 10% breakage area of paver block while removing same from position and replaced same by new paver blocks having average crushing strength not less than 50 N/mm <sup>2</sup> placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer. | Sqm  | 435.00  |
| RW-3-44   | Removing & refixing interlocking Concrete Paving Slabs(Flagstone) 400X400X60mm thick in Gray colour with shot blasted texture on top surface in various colour combination) (RW-3-27) considering 10% breakage area of paver block while removing same from position and replaced same by new paver blocks having average crushing strength not less than 40 N/mm <sup>2</sup> placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.  | Sqm  | 360.00  |



| ITEM CODE | ITEM DESCRIPTION   | UNIT | RATE   |
|-----------|--|------|--------|
| RW-3-45   | Removing & fixing interlocking concrete pavers of 60 mm thick, having of any size, shape and colour (Beganit in Gray/Blackcolour with Stone texture on top surface, 200X200X60mm thick in Gray colour with shot blasted texture on top surface, Concrete cobbles 100X100X60mm thick in Grey colour with shot blasted texture on top surface,60 mm thick Heritage paver interlocking white cement concrete pavers in red ( Terra Cotta) Black, Brown lamen colour with vermeticular or any antiskid texture on top surface,Vitrified Ceramic Topping Paver Blocks of size 150 x 150 x 60mm thick in various colour combination,COMBIPAVER 60 MM) (RW-3-26,3-28,3-30,3-31,3-35,3-39) considering 10% breakage area of paver block while removing same from position and replaced same by new paver blocks having average crushing strength not less than 40 N/mm <sup>2</sup> placed on uniformly graded river sand cushioning of average compacted thickness 25 mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer. | Sqm  | 393.00 |
| <b>IV</b> | <b>Kerb Stone</b>  |      |        |
| RW-4-01   | Providing & Fixing kerb stones 30 cm.to 40 cm. long., 15 cm. wide, 38 cm. deep medium dressed in all exposed surfaces, set in cement mortar 1:2 on a 15 cm. thick and 25 cm. wide RMC M-20 C.C. bed including filling the joints with 1:2 C.M. pointing, curing etc. complete.   | Rmt  | 506.00 |
| RW-4-02   | Removing & resetting kerb stones in 1:2 C.M. on new R.M.C.M-20 C.C. bed 15 cm, thick including filling the joints with 1:2 C.M. pointing, curing etc. complete.  | Rmt  | 305.00 |
| RW-4-03   | Removing existing kerb stones, cleaning off old mortar, carting away up to a distance of 2 K.M. and stacking the same as directed.   | Rmt  | 35.00  |
| RW-4-04   | Extra over above rates of carting for additional distance of every 2 KM. or part thereof .   | Rmt  | 3.00   |
| RW-4-05   | Cement pointing to existing kerb stones after taking out old mortar to a depth of 20 mm. including filling the joints with cement mortar 1:2 and curing etc. complete.   | Rmt  | 19.00  |
| RW-4-06   | Providing & fixing water tables of stone of size 30 cm. wide and 10 cm. thick, fairly dresed on a R.M.C. M-20 cement concrete bed 15 cm. thick, including filling in the joints, with cement mortar 1:2 cement pointing, curing etc. complete as specified and as directed.  | Rmt  | 444.00 |
| RW-4-07   | Removing & resetting water tables 30 cm. wide on a new M-20 cement concrete bed 15 cm .thick including filling in the joints with C.M.1:2 and cement pointing , curing including removing the old cement bed, curing etc. complete.  | Rmt  | 343.00 |
| RW-4-08   | Removing existing water tables/cleaning off old mortar & carting away to the distance of 2 K.M. and stacking the same as directed.   | Rmt  | 31.00  |
| RW-4-09   | Extra over and above for an additional distance of every 2 K.M. or part thereof.   | Rmt  | 1.40   |
| RW-4-10   | Providing and fixing single row of setts 15 cm. to 25 cm. long, 10 cm. wide and 15 cm. deep fair dressed on top and medium dressed on other sides on 15 cm. thick and 15 cm. wide R.M.C. M-20 C.C. bed including filling the joints with C.M. 1:2 and cement pointing , curing etc. complete.  | Rmt  | 269.00 |
| RW-4-11   | Removing and resetting single row of sets on a 15 cm. thick and 15 cm. wide R.M.C.. M - 20 c.c. bed including filling in the joints with C.M. 1:2 and cement pointing , curing etc. complete.  | Rmt  | 178.00 |
| RW-4-12   | Providing and fixing double row of sett stones 15 cm. to 25 cm. long, 10 cm. wide and 15 cm. deep fair dressed on top and medium dressed on other sides on 15 cm. thick and 25 cm. wide on R.M.C.M-20 C.C. bed, including filling the joints with C.M. 1:2 and cement pointing and removing old concreted bed, curing etc. complete.   | Rmt  | 488.00 |



| ITEM CODE | ITEM DESCRIPTION  | UNIT    | RATE   |
|-----------|---|---------|--------|
| RW-4-13   | Removing & resetting double row of sett stones on R.M.C.M-20 C.C. bed, 15 cm. thick and 25 cm. wide including filling the joints with C.M. 1:2 and cement pointing and removing old concreted bed, curing etc. complete.  | Rmt     | 302.00 |
| RW-4-14   | Removing existing sets, cleaning off old mortar and carting away to a distance of 2 KM and stacking the same as directed.   | Rmt     | 49.00  |
| RW-4-15   | Extra over above rate for a lead of every additional 2 KM or part thereof   | 100 Rmt | 152.00 |
|           |   |         |        |
| <b>V</b>  | <b>BITUMINOUS ITEMS</b>   |         |        |
| RW-5-01   | Supplying & spreading of one or more layers of compacted crushed coarse agg. with alternate application of bituminous binder & key aggregate with the requirements of MORTH, Rolling with 10/12 roller using <b>60/70 grade bitumen</b> (1% Antistripping agent) to serve as base course and in conformity with the line, level and cross sections shown on the drawings or as directed by the Engg., <b>thickness of individual course shall not be exceed 75 mm.</b><br>(As per New Road Specifications Clause No. 352) | Sqm     | 463.00 |
| RW-5-02   | Supplying & spreading of one or more layers of compacted crushed coarse agg. with alternate application of bituminous binder & key aggregate with the requirements of MORTH, Rolling with 10/12 roller using <b>60/70 grade bitumen</b> (1% Antistripping agent) to serve as base course and in conformity with the line, level and cross sections shown on the drawings or as directed by the Engg., <b>thickness of individual course shall not be exceed 50 mm.</b><br>(As per New Road Specifications Clause No. 352) | Sqm     | 352.00 |
| RW-5-03   | P/L premix hot mix <b>Bituminous concrete</b> with 6.00% of 60/70 Pen bitumen content by weight of mix surface coat to compacted <b>thickness of 40 mm. using new material</b> to the required grade, level and camber rolling with vibratory roller, power roller, pneumatic roller & using sensor paver etc. complete as specified and as directed with addition of lime filler 2% by weight of mix and anti stripping agent @ 1.00% of bitumen etc. (As per New Road Specifications Clause No. 364)                    | Sqm     | 463.00 |
| RW-5-04   | P/L thickness of MINIMUM 30 mm Bituminous Concrete hot mix with 6.00% of 60/70 Pen. bitumen using new material anywhere, as directed including rolling with 10 tonnes vibratory roller, pneumatic roller, power roller, using sensor paver to required grades camber and level with a addition of lime filler 2% and antistripping agent 1.00% of bitumen by weight. (As per New Road Specifications Clause No. 364)  | Sqm     | 348.00 |
| RW-5-05   | P/L Premix hot mixed <b>Bituminous macadam</b> with minimum 3.30% (with tolerance of $\pm 0.3$ ) of 60/70 pen. Bitumen by weight of mix to the required grade, level & camber, rolling with 10/12 tonnes power roller, vibratory roller & sensor paver complete & as specified & as directed, to <b>thickness of 65mm.</b> With antistripping agent 1.00% by weight of bitumen ( <b>using 30% reconditioned milling material</b> ). (As per New Road Specifications Clause No. 380)                                       | Sqm     | 407.00 |
| RW-5-06   | P/L hot mixed graded <b>Bituminous macadam</b> with 3.30% (with tolerance of $\pm 0.3$ ) of <b>60/70 pen.</b> Bitumen by weight of mix to the required grade, level & camber, rolling with 10/12 tonnes power roller, vibratory roller & sensor paver etc. complete as specified & as directed using grading II of MORTH & adding antistripping agent at the rate of 1.00% of bitumen by weight to a <b>thickness of 65mm. (using new materials)</b> . (As per New Road Specifications Clause No. 351)                    | Sqm     | 432.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE     |
|-----------|---|------|----------|
| RW-5-07   | P/L hot mixed graded <b>Bituminous macadam</b> with 3.30% ( with tolerance of $\pm 0.3$ ) of 60/70 pen. Bitumen by weight of mix using reconditioned milling material and adding antistripping agent at the rate of 1% of bitumen, by weight to the required thickness, to bring the road to proper level, & camber rolling with power roller, Vibratory roller & sensor paver etc. <b>(This item will be paid on volumetric basis by computing its dimensions by actual measurements). ( Using reconditioned milling material 30% )</b> (As per New Road Specifications Clause No. 380)  | Cum  | 6267.00  |
| RW-5-08   | P/L hot mixed graded <b>Bituminous Macadam</b> with 3.30% ( with tolerance of $\pm 0.3$ ) of 60/70 pen. Bitumen by weight of mix using reconditioned milling material to the required grade, level & camber, rolling with 10/12 tonnes power roller, vibratory roller & sensor paver complete as specified & as directed to <b>thickness of 75mm.</b> with antistripping agent 1% by weight of bitumen. <b>( Using reconditioned milling material 30% )</b> (As per New Road Specifications Clause No. 380)   | Sqm  | 470.00   |
| RW-5-09   | P/L hot mixed graded <b>Bituminous macadam</b> with 3.30% ( with tolerance of $\pm 0.3$ ) of 60/70 pen. Bitumen by weight of mix to the required grade, level and camber, rolling with 10/12 tones power roller, vibratory roller & sensor paver etc. complete as specified and as directed, using grading of II 'MORTH' and adding anti stripping agent 1.00% of by weight of bitumen ) to <b>thickness of 75 mm.</b> <b>( using new material )</b> (As per New Road Specifications Clause No. 351)  | Sqm  | 498.00   |
| RW-5-10   | P/L hot mixed graded Bituminous macadam with 3.30% ( with tolerance of $\pm 0.3$ ) of 60/70 pen. Bitumen by weight of mix to the required grade, level and camber, rolling with 10/12 tones power roller, vibratory roller & sensor paver etc. complete as specified and as directed, using grading of II 'MORTH' and adding anti stripping agent 1.00% of by weight of bitumen ) do--do-- to <b>thickness of 50mm.(using new material).</b> (As per New Road Specifications Clause No. 351)  | Sqm  | 332.00   |
| RW-5-11   | P/L hot mixed graded <b>Bituminous Macadam</b> with 3.30% ( with tolerance of $\pm 0.3$ ) of <b>60/70 pen.</b> Bitumen by weight of mix using new material and adding antistripping agent at the rate of 1% of bitumen by weight, to the required thickness to bring the road to proper grade, level & camber, rolling with 10/12 tonnes power roller, vibratory roller & using sensor paver, etc. complete as specified & as directed. (This item will be used as levelling coarse & will be paid on volumetric basis by computing its unit Cu.M. dimensions by actual measurements.) <b>(using new material).</b> (As per New Road Specifications Clause No. 351) | Cum  | 6643.00  |
| RW-5-12   | P/L hot mixed graded <b>Bituminous Macadam</b> with 3.30% ( with tolerance of $\pm 0.3$ ) of <b>60/70 pen.</b> Bitumen by weight of mix to the required grade, level & camber, & rolling with 3 tonnes roller etc. complete as specified & as directed, using grading II of 'MORTH' to a required <b>thickness of 50mm.</b> (to be used in the case of footpath only). (As per New Road Specifications Clause No. 351)  | Sqm  | 320.00   |
| RW-5-13   | Supplying & laying of <b>BITUMINOUS COLD MIXES</b> work by using new material Rolling with power roller, vibratory roller & using Motor grader/ sensor paver. ( CUTBACK BITUMEN Grade-MC) As per Mix design MoRTH 4th Revision 2001 reprinted Sept.2004 & AS PER NEW ROAD SPECIFICATIONS Clause no.317  | Cum  | 13087.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE     |
|-----------|---|------|----------|
| RW-5-14   | Supplying & laying of <b>BITUMINOUS COLD MIXES</b> work by using new material Rolling with power roller,vibratory roller & using sensor paver. (Bitumen – CATTIONIC EMULSION Grade-MS) As per Mix design MoRTH 4th Revision 2001 reprinted Sept.2004 & AS PER NEW ROAD SPECIFICATIONS Clause no.317   | Cum  | 12108.00 |
| RW-5-16   | P/L hot mixed <b>premix seal coat 10mm. thick</b> with 5.65% (with tolerance of $\pm 0.3$ ) of 60/70pen. Bitumen by weight of mix bitumen content including rolling etc. complete.  | Sqm  | 106.00   |
| RW-5-17   | P/L <b>TYPE A Seal Coat</b> using Bitumen - 60/70 Grade. As per Mix design MoRTH 4th Revision 2001 reprinted Sept.2004 & As Per New Road Specifications Clause no.370   | Sqm  | 84.00    |
| RW-5-18   | P/L hot mixed <b>premix seal coat 10mm. thick</b> with 5.65% (with tolerance of $\pm 0.3$ ) of 60/70pen. Bitumen by weight of mix bitumen content including rolling with 3 tone roller etc. complete as directed ( <b>to be used for footpath only</b> ) with antistripping agent 1% by weight of bitumen. (As per New Road Specifications Clause No. 370 )   | Sqm  | 101.00   |
| RW-5-19   | P/L compacting <b>Open Graded Premix Carpet of 20 mm thickness</b> in a single coarse composed suitable small size aggregate Pre-mixed with a bitumenous binder content of 14.60 Kg/10sqmt. on a previously prepared based in accordance with a requirement of MORTH specifications.(As per New Road specification caluse no.360). <b>Seal coat to be paid seprately.</b>   | Sqm  | 145.00   |
| RW-5-20   | Providing and applying <b>PRIME COAT with CATIONIC BITUMEN EMULSION (SS) @ 7 to 12 Kg. of 10Sqmt.</b> over prepared surface to receive bituminous mix by applying PRIMER with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed <b>For Low Porosity surface</b> & the primed surface shall be allowed to cure for at least <b>24 hours</b> or any other higher period, as is found to be necessary to allow all the moisture or volatiles to evaporate before any subsequent bituminous surface treatment or mix is laid (As per New Road Specifications Clause No. 313, curing as per 313.5)    | Sqm  | 69.00    |
| RW-5-21   | Providing and applying <b>PRIME COAT with CATIONIC BITUMEN EMULSION (SS) @ 9 to 12 Kg. of 10Sqmt.</b> over prepared surface to receive bituminous mix by applying PRIMER with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed <b>For Medium Porosity surface</b> & the primed surface shall be allowed to cure for at least <b>24 hours</b> or any other higher period, as is found to be necessary to allow all the moisture or volatiles to evaporate before any subsequent bituminous surface treatment or mix is laid. (As per New Road Specifications Clause No. 313,curing as per 313.5) | Sqm  | 80.00    |
| RW-5-22   | Providing and applying <b>PRIME COAT with CATIONIC BITUMEN EMULSION (SS) @ 12 to 15 Kg. of 10Sqmt.</b> over prepared surface to receive bituminous mix by applying PRIMER with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed <b>For High Porosity surface</b> & the primed surface shall be allowed to cure for at least <b>24 hours</b> or any other higher period, as is found to be necessary to allow all the moisture or volatiles to evaporate before any subsequent bituminous surface treatment or mix is laid (As per New Road Specifications Clause No. 313,curing as per 313.5)   | Sqm  | 91.00    |



| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE  |
|-----------|---|------|-------|
| RW-5-23   | Providing and applying <b>TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.2 to 0.25 Kg. of Sq.mt.</b> over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For <b>NORMAL BITUMINOUS SURFACES</b> & the tack coat shall be left to cure until all the volatiles have evaporated before any subsequent construction is started, which is indicated by <b>change in colour from brown to black</b> (As per New Road Specifications Clause No. 314, curing as per 314.3.4) | Sqm  | 26.00 |
| RW-5-24   | Providing and applying <b>TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.25 to 0.30 Kg. of Sq.mt.</b> over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For <b>DRY &amp; HUNGRY BITUMINOUS SURFACES</b> (As per New Road Specifications Clause No. 314)  | Sqm  | 27.00 |
| RW-5-25   | Providing and applying <b>TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.25 to 0.30 Kg. of Sq.mt.</b> over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For <b>GRANULAR SURFACES Treated with PRIMER</b> (Clause No. 314)  | Sqm  | 28.00 |
| RW-5-26   | Providing and applying <b>TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.30 to 0.35 Kg. of Sq.mt.</b> over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For <b>NON BITUMINOUS SURFACES CEMENT CONCRETE PAVEMENT</b> (As per New Road Specifications Clause No. 314)  | Sqm  | 31.00 |
| RW-5-27   | Providing and applying <b>TACK COAT with bitumen 60/70 Pen bitumen @ 0.20 to 0.25 Kg. of Sq.mt.</b> over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For <b>NORMAL BITUMINOUS SURFACES</b> (As per New Road Specifications Clause No. 314)   | Sqm  | 25.00 |
| RW-5-28   | Providing and applying <b>TACK COAT with bitumen 60/70 Pen bitumen @ 0.25 to 0.30 Kg. of Sq.mt.</b> over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For <b>DRY &amp; HUNGRY BITUMINOUS SURFACES</b> (As per New Road Specifications Clause No. 314)   | Sqm  | 27.00 |
| RW-5-29   | Providing and applying <b>TACK COAT with bitumen 60/70 Pen bitumen @ 0.25 to 0.30 Kg. of Sq.mt.</b> over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For <b>GRANULAR SURFACES Treated with PRIMER</b> (As per New Road Specifications Clause No. 314)  | Sqm  | 27.00 |
| RW-5-30   | Providing and applying <b>TACK COAT with bitumen 60/70 Pen bitumen @ 0.30 to 0.35 Kg. of Sq.mt.</b> over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For <b>NON BITUMINOUS SURFACES CEMENT CONCRETE PAVEMENT</b> (As per New Road Specifications Clause No. 314)   | Sqm  | 29.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE    |
|-----------|---|------|---------|
| RW-5-32   | P/L <b>Mastic Asphalt 25mm. thick</b> as per I.S. code No. 5317/1987.(As per New Road Specifications Clause No. 365)  | Sqm  | 593.00  |
| RW-5-33   | P/L <b>Mastic Asphalt 40mm. thick</b> as per I.S. code No. 5317/1987.(As per New Road Specifications Clause No. 365)  | Sqm  | 949.00  |
| RW-5-34   | <b>P/L Mastic Asphalt 50 mm. thick as per I.S. code No. 5317/1987.(As per New Road Specifications Clause No. 365) (for bridge).</b>   | Sqm  | 1186.00 |
| RW-5-36   | P/L Premix <b>Bituminous concrete</b> with 6.00% content by weight of mix with polymer modified bitumen (surface coat to thickness of about <b>40mm(compact thickness) using new material</b> to the required grade, level & camber rolling with vibratory roller & power roller,pnumatic roller & using sensor paver etc. complete as specified as directed with addition of lime filler etc. complete. <b>(bitumen of grade PMB-40)</b> . As per New Road Specifications caluse no.364) | Sqm  | 512.00  |
| RW-5-37   | P/L MINIUM 30 mm Thick Bituminous concrete with 6.00% content by weight of mix polymer modified bitumen ( PMB - 40 ) surface coat (compact thickness) using new material to the required grade, level & camber rolling with power roller,vibratory roller,pnumatic roller & using sensor paver etc. complete as specified as directed with addition of lime filler etc. complete.( As per New Road Specifications caluse no.364)  | Sqm  | 384.00  |
| RW-5-38   | P/L <b>Premix Bituminous concrete</b> with 6.00% rubberished modified bitumen surface coat to <b>thickness of 40mm (compact thickness) using new material</b> to the required grade, level & camber rolling with vibratory roller ,power roller, & pnumatic roller as specified as directed with addition of lime filler etc.complete. <b>(bitumen of grade CRMB-60)</b> (As per new Road Specification clause no.364)  | Sqm  | 486.00  |
| RW-5-39   | P/L MINIMUM 30 mm thick Bitunimous concrete with 6.00% content by weight of mix rubberished modified bitumen (CRMB-60) surface coat using new material to the required grade, level & camber using vibratory roller,power roller, pnumatic roller & using sensor paver, etc. complete as specified as directed with addition of lime filler etc.complete..(As per New Road Specifications caluse no.364)  | Sqm  | 364.00  |
| RW-5-40   | P/L hot premix <b>Bituminous concrete</b> with 6.00% of <b>bitumen grade 30/40</b> ,surface coat by mix design as per MORTH to the <b>conpacted thickness of 40 mm ,using new material</b> to the required line,level and camber rolling with power vibratory roller & sensor paver, etc.complete as specified and as directed with lime filler 5.00%by weight and antistripping agent @ 1% of bitumen by weight etc.complete.As per new Road Specification clause no.364)                | Sqm  | 479.00  |
| RW-5-41   | P/L MINIMUM 30 mm compacted thick hot Premix Bituminous concrete with 6.00% of 30-40 grade bitumen using new material any where as directed including Rolling with 10/12 MT power ,vibratory roller & senser paver to the required line, level, camber with line filler of 5% by weight & antistripping agent @ 1% of bitumen content by weight etc. complete.(As per new Road Specification clause no.364)   | Sqm  | 359.00  |



| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE    |
|-----------|---|------|---------|
| RW-5-42   | P/L hot <b>Premix seal coat 10 mm thick</b> including rolling etc. complete as specified & directed <b>bitumen of 30/40 grade</b> content average 5.65% by weight.  | Sqm  | 114.00  |
| RW-5-43   | P/L hot <b>Premix Dense bituminous macadam</b> with 4.50% bitumen content of <b>grade 30-40</b> to the required line,level,and camber rolling with 10/12 M.T.power ,vibratory roller & sensor paver etc. complete as specified and as directed to <b>thickness of 65 mm.</b> with antistripping agent at 1.00%by weight of bitumen using grading II of "MORTH"(As per new Road Specification clause no.354) | Sqm  | 625.00  |
| RW-5-44   | P/L hot <b>Premix Dense bituminous macadam</b> with 4.50% bitumen content of <b>grade 30-40</b> to the required line,level,and camber rolling with 10/12 M.T.power ,vibratory roller & sensor paver etc. complete as specified and as directed to <b>thickness of 50 mm.</b> with antistripping agent at 1.00%by weight of bitumen using grading II of "MORTH"(As per new Road Specification clause no.354) | Sqm  | 480.00  |
| RW-5-45   | P/L hot <b>Premix Dense bituminous macadam</b> with 4.50% bitumen content of <b>grade 30-40</b> to the required line,level,and camber rolling with 10/12 M.T.power ,vibratory roller & sensor paver etc. complete as specified and as directed to <b>thickness of 75 mm.</b> with antistripping agent at 1.00%by weight of bitumen using grading II of "MORTH"(As per new Road Specification clause no.354) | Sqm  | 721.00  |
| RW-5-46   | P/L hot <b>Premix Dense bituminous macadam</b> with 4.50% bitumen content of <b>grade 30-40</b> to the required line,level,and camber rolling with 10/12 M.T.power ,vibratory roller & sensor paver etc. complete as specified and as directed to <b>required thickness.</b> with antistripping agent at 1.00%by weight of bitumen using grading II of "MORTH"(As per new Road Specification clause no.354) | Cum  | 9609.00 |
| RW-5-47   | P/L hot <b>Premix Dense bituminous macadam</b> with 4.50% bitumen content of <b>grade 60-70</b> to the required line,level,and camber rolling with 10/12 M.T.power ,vibratory roller & sensor paver etc. complete as specified and as directed to <b>thickness of 65 mm.</b> with antistripping agent at 1.00%by weight of bitumen using grading II of "MORTH"(As per new Road Specification clause no.354) | Sqm  | 604.00  |
| RW-5-48   | P/L hot <b>Premix Dense bituminous macadam</b> with 4.50% bitumen content of <b>grade 60-70</b> to the required line,level,and camber rolling with 10/12 M.T.power ,vibratory roller & sensor paver etc. complete as specified and as directed to <b>thickness of 50 mm.</b> with antistripping agent at 1.00%by weight of bitumen using grading II of "MORTH"(As per new Road Specification clause no.354) | Sqm  | 465.00  |
| RW-5-49   | P/L hot <b>Premix Dense bituminous macadam</b> with 4.50% bitumen content of <b>grade 60-70</b> to the required line,level,and camber rolling with 10/12 M.T.power ,vibratory roller & sensor paver etc. complete as specified and as directed to <b>thickness of 75 mm.</b> with antistripping agent at 1.00%by weight of bitumen using grading II of "MORTH"(As per new Road Specification clause no.354) | Sqm  | 697.00  |
| RW-5-50   | P/L hot <b>Premix Dense bituminous macadam</b> with 4.50% bitumen content of <b>grade 60/70</b> to the required line,level,and camber rolling with 10/12 M.T.power ,vibratory roller & sensor paver etc. complete as specified and as directed to <b>required thickness.</b> with antistripping agent at 1.00%by weight of bitumen using grading II of "MORTH"(As per new Road Specification clause no.354) | Cum  | 9291.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION   | UNIT       | RATE     |
|-----------|--|------------|----------|
| RW-5-51   | P/L premix hot mix <b>Bituminous concrete</b> with 6.00% of <b>60/70 Pen bitumen</b> content by weight of mix surface coat to <b>compacted to required thickness using new material</b> to the required grade, level and camber rolling with power,vibratory roller pneumatic roller & sensor paver, etc. complete as specified and as directed with addition of lime filler 2% and anti stripping agent @ 0.1% by weight of bitumen etc.(As per new Road specifications clause no. 364)                       | <b>Cum</b> | 11543.00 |
| RW-5-52   | P/L premix <b>hot mix Bituminous concrete</b> with 6.00% of polymer modified bitumen ( <b>PMB-40</b> ) content by weight of mix surface coat to compacted to <b>required thickness using new material</b> to the required grade, level and camber rolling with power roller,vibratory roller,pneumatic roller & sensor paver,etc. complete as specified and as directed with addition of lime filler 2% and anti stripping agent @ 0.1% by weight of bitumen etc.(As per new Road Specification clause no.364) | <b>Cum</b> | 12805.00 |
| RW-5-53   | P/L premix hot mix <b>Bituminous concrete with 6.00% of rubberised modified bitumen (CRMB-60)</b> content by weight of mix surface coat to <b>compacted to required thickness using new material</b> to the required grade, level and camber rolling with power roller,vibratory roller pneumatic roller & sensor paver etc. complete as specified and as directed with addition of lime filler 2% and anti stripping agent @ 0.1% by weight of bitumen etc.(As per new Road Specification clause no.364)      | <b>Cum</b> | 12143.00 |
| RW-5-54   | P/L premix hot mix <b>Bituminous concrete with 6.00% of 30/40 grade bitumen content</b> by weight of mix surface coat to <b>compacted to required thickness using new material</b> to the required grade, level and camber rolling with power roller,vibratory roller pneumatic roller & sensor paver etc. complete as specified and as directed with addition of lime filler 2% and anti stripping agent @ 0.1% by weight of bitumen etc.(As per new Road Specification clause no.364)                        | <b>Cum</b> | 11977.00 |
| RW-5-55   | P/L premix hot mix for <b>SEMI- DENSE BITUMINOUS CONCRETE work by using new material</b> Rolling with power roller,vibratory roller, pneumatic roller, using sensor paver. ( <b>Bitumen – 60/70 Grade</b> ) As per Mix design MoRTH 4th Revision 2001 reprinted Sept.2004 & AS PER NEW ROAD SPECIFICATIONS Clause no.363   | <b>Cum</b> | 9954.00  |
| RW-5-56   | P/L <b>CLOSE graded PREMIX CARPET with Cationic Bitumen Emulsion Grade(MS) compacted thickness of 20 mm.</b> Rolling with power roller & sensor paver . As per Mix design MoRTH 4th Revision 2001 reprinted Sept.2004 (AS PER NEW ROAD SPECIFICATIONS(TYPE A) Clause no.362)   | <b>Sqm</b> | 144.00   |
| RW-5-57   | P/L for <b>CLOSE GRADED PREMIX CARPET (TYPE A)(MSS) with Bitumen Grade 60/70 compacted thickness of 20 mm.</b> Rolling with power roller & using sensor paver.As per Mix design MoRTH 4th Revision 2001reprinted Sept.2004 & AS PER NEW ROAD SPECIFICATIONS Clause no.363  | <b>Sqm</b> | 186.00   |
| RW-5-60   | P/L for <b>Open Graded Premix Carpet 20 mm thick using Paving Grade Bitumen(60/70)</b> Rolling with power roller, vibratory roller, & sensor paver. As per Mix design MoRTH 4th Revision 2001 reprinted Sept.2004 & AS PER NEW ROAD SPECIFICATIONS clause no.361.  | <b>Sqm</b> | 154.00   |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION   | UNIT | RATE    |
|-----------|--|------|---------|
| RW-5-61   | P/L Dense Bituminous macadam using Recycled material Rolling with power roller, vibratory roller ,using sensor paver. <b>(Bitumen – 60/70 Grade)</b> . As per Mix design MoRTH 4th Revision 2001 reprinted Sept.2004 & AS PER NEW ROAD SPECIFICATIONS clause no.380.   | Cum  | 8873.00 |
| RW-5-62   | <b>E.O. for use of PNUEMATIC ROLLER for compacting Bituminous Concrete as specified &amp; as directed</b>  | Sqm  | 25.00   |
| RW-5-63   | P/L, mastic asphalt 40mm thick with 10/20 grade bitumen including producing the same at computerised batch mix plant, transporting the same to site by means of mastic cookers, laying the same <b>with mastic paver</b> and including all necessary tools, labours & barricading, spreading of aggregates as antiskid measures by means over newly laid mastic asphalt as per clause no. 365 of 'Road Specification' as directed by Engineer in charge (Note: The material specifications / gradation & content shall be as specified in the relevent I.S. Codes.)      | Sqm  | 1769.00 |
| RW-5-64   | P/L, mastic asphalt 40mm thick with 10/20 grade bitumen including producing the same at computerised batch mix plant, transporting the same to site by means of mastic cookers, laying the same <b>without mastic paver</b> and including all necessary tools, labours & barricading, spreading of aggregates as a antiskid measures by means over newly laid mastic asphalt as per clause no. 365 of 'Road Specification' as directed by Engineer in charge (Note: The material specifications / gradation & content shall be as specified in the relevent I.S. Codes.) | Sqm  | 1685.00 |
| RW-5-65   | P/L, mastic asphalt 25 mm thick with 10/20 grade bitumen including producing the same at computerised batch mix plant, transporting the same to site by means of mastic cookers, laying the same <b>with mastic paver</b> and including all necessary tools, labours & barricading, spreading of aggregates as a antiskid measures by means over newly laid mastic asphalt as per clause no. 365 of 'Road Specification' as directed by Engineer in charge (Note: The material specifications / gradation & content shall be as specified in the relevent I.S. Codes.)   | sqm  | 1454.00 |
| RW-5-66   | Supplying & filling the square potholes with WONDER PATCH 20mm compacted thickness as per manufacturer's specifications over metaled base rolling with10 T Static Roller as specified by manufacturer & as directed.   | Sqm  | 1021.00 |
| RW-5-67   | EXTRA OVER for use of Wonder Binder 1% weight of bituminous mix as specified by the manufacturer & as directed.( payment to be given as per weight of bituminous mix )   | MT   | 5132.00 |
| RW-5-68   | Supplying & filling the square potholes with Carboncore 20mm compacted thickness (30mm loose thickness)as per manufacturer's specifications over metaled base rolling with10 T Static Roller as specified by manufacturer & as directed.   | Sqm  | 2026.00 |
| RW-5-69   | Rebate for not using PNUEMATIC TYRE ROLLER INSTEAD OF POWER ROLLER USED for copmaction of BITUMINOUS MIXES   | Sqm  | -18.00  |
| RW-5-70   | Rebate for not using VIBRATORY ROLLER INSTEAD OF POWER ROLLER used for copmaction of BITUMINOUS MIXES  | Sqm  | -2.00   |
| RW-5-71   | Rebate for not using SENSOR PAVER INSTEAD OF ORDINARY PAVER USED for Laying of BITUMINOUS MIXES  | Sqm  | -6.00   |
| RW-5-72   | Rebate for not using PNUEMATIC TYRE ROLLER INSTEAD OF VIBRATORY ROLLER USED for copmaction of BITUMINOUS MIXES   | Sqm  | -15.00  |



| ITEM CODE      | ITEM DESCRIPTION  | UNIT        | RATE    |
|----------------|---|-------------|---------|
| <b>RW-5-73</b> | Supplying & filling the square potholes & around manhole with 'Matrex ' India Cold Patch including cutting to geometric shape, average compacted thickness of 25 mm as per manufacturer's specifications over metaled subbase rolling with 10 T Static Roller / rubber wheeled asphalt roller as specified by manufacturer & as directed. ( Inspection shall be as per guidelines of ASTM D-2172, ASTM D-1664, ASTM D-1559 specifications ).<br>NOTE : 1) THIS ITEM SHOULD BE OPERATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.) .<br>2) ORIGINAL CHALAN SHOULD BE PRODUCED , FAILING WHICH NO PAYMENT TO BE MADE.<br>3) VALIDITY OF THIS ITEM IS UPTO 31.12.2009 ONLY. | <b>Sqm</b>  | 1239.00 |
| <b>RW-5-74</b> | P/L hot premix Bituminous concrete with 5 to 6 % of bitumen grade 30/40, surface coat by mix design as per MORTH, having gradation of aggregates of grading 1, to the compacted thickness of 50 mm ,using new material to the required line, level and camber rolling with power vibratory roller & sensor paver, etc. complete as specified and as directed with lime filler 2.00% by weight and antistripping agent @ 1% of bitumen by weight etc. complete. As per new Road Specification clause no.364)   | <b>Sqm</b>  | 599.00  |
| <b>VI</b>      | <b>MASON</b>  |             |         |
| <b>RW-6-01</b> | Providing UCR in cm. 1:5 using Municipal rubble etc. complete as specified including providing necessary expansion joint wherever required as directed.   | <b>Cum</b>  | 2088.00 |
| <b>RW-6-02</b> | Providing tuck/blush in cm 1:1 cement pointing to stone masonry after racking out old mortar of the masonry joint to a minimum depth equivalent to a width of the joint including neat cement rendering curing etc. completed.  | <b>Sqm</b>  | 127.00  |
| <b>RW-6-03</b> | Raising or lowering circular manholes to the required level upto 20 cm. including all material, form work etc. with 16 cm. thick cement concrete M-15 (1:2:4) c.c. coping under frame and cover of manhole, including curing etc. complete as specified and as directed   | <b>Each</b> | 949.00  |
| <b>RW-6-04</b> | Raising or lowering water entrances, hydrant key box/ sluice box/gully trap chambers to the required level, upto 20 cm. including all materials, curing etc. complete as specified and as directed.   | <b>Each</b> | 680.00  |
| <b>RW-6-05</b> | Raising or lowering rectangular manholes to the required level upto 30 cm. including all materials, form work, brick work and with 16 cm. thick M-15 C.C. coping under frame & cover of manhole including curing etc. complete, as specified and as directed.   | <b>Each</b> | 1993.00 |
| <b>RW-6-06</b> | Removing the old C.I. curicular frame & cover & delivering the same to any Municipal depot or workshop, as directed.  | <b>Each</b> | 167.00  |
| <b>VII</b>     | <b>MISCELLANEOUS ITEMS</b>  |             |         |
| <b>RW-7-01</b> | Removing & refixing traffic regulatory boards/busstop boards/street name boards etc. in M-100 cement concrete, complete as directed.  | <b>Each</b> | 629.00  |
| <b>RW-7-02</b> | Removing traffic regulatory boards/busstop boards with brackets etc., to Ward Chowky complete, as directed.   | <b>Each</b> | 178.00  |
| <b>RW-7-03</b> | Removing & refixing wooden/concrete benches as directed.  | <b>Each</b> | 2805.00 |
| <b>RW-7-04</b> | Demolishing existing masonry, structures, (above & below G.L.) & carting away serviceable materials, to Ward Chowky & stacking the same, separately, as directed (Actual Volume of the masonry will be paid.)   | <b>Cum</b>  | 524.00  |
| <b>RW-7-05</b> | Cutting down existing stone/ brick masonry compound walls, abutments, piers, wing-walls etc. including stacking the rubble, khandkies etc. in stack, as directed (Actual volume of structure will be paid.)   | <b>Cum</b>  | 212.00  |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION   | UNIT     | RATE     |
|-----------|--|----------|----------|
| RW-7-06   | Demolishing existing C.G.I./asbestos sheet structures & carting away serviceable materials, to Ward Chowky & stacking the same, separately, as directed (Actual Volume of the structure will be paid.)   | Cum      | 78.00    |
| RW-7-07   | Removing existing barbed wire fencing/pipe railing of any height, including posts & carting away the same to Ward Chowky & stacking the same neatly as directed.   | Rmt      | 23.00    |
| RW-7-08   | Breaking & removing existing cement concrete slab over culvert coping etc., by any means etc. complete as directed   | Cum      | 1012.00  |
| RW-7-09   | Milling upto 60mm. Depth Asphaltic surface by using milling machine including transportation anywhere as directed.<br>NOTE: For further passes of 60mm. Or part thereof, same rate will be applicable.   | /pass m2 | 92.00    |
| RW-7-10   | Milling upto 75mm. Depth Asphaltic surface by using milling machine including transportation anywhere as directed. (This item should be operated only when the milling in a single pass is required to be done more than 60mm. Depth.)   | Sqm      | 114.00   |
| RW-7-11   | Spreading the milled material available on site,11cm. Thick, compacting the same by a roller not less than 10tonnes,with required grade, level & camber.   | Sqm      | 34.00    |
| RW-7-12   | Spreading & rolling the Milled material available on site,in footpath,with a 3tonnes roller anywhere,levelling the same to proper thickness, upto 50mm.with directed grade, & camber.  | Sqm      | 21.00    |
| RW-7-13   | Supply of excavator-cum-loader machine on hire chargers, inclusive of diesel, lube oil, Cleaner, Driver etc.   | shift    | 13030.00 |
| RW-7-14   | Supply of dumper on hire charges inclusive of diesel,lube oil,Cleaner,Driver etc. without labourers.   | shift    | 5212.00  |
| RW-7-15   | Supply of Road Roller 8 to 10 M.T. Capacity inclusive of diesel,lube oil,Cleaner,Driver etc.   | shift    | 6071.00  |
| RW-7-16   | Supply of Road Roller 3 M.T. Capacity inclusive of diesel,lube oil,Cleaner,Driver etc.   | shift    | 3471.00  |
| RW-7-17   | Providing applying Yellow & Black road marking paint grade –I in 3- coats including single coat of approved brand primer after cleaning of old surface of kerb stone with brushing by wire brush as per relevant I. S. codes to satisfaction of Engineer in charge --- etc. complete.  | Rmt      | 53.00    |
| RW-7-18   | Providing applying Yellow & Black road marking paint grade –I in 3- coats including single coat of approved brand primer after cleaning of old surface of any type divider with brushing by wire brush as per relevant I. S. codes to satisfaction of Engineer in charge --- etc. complete.  | Sqm      | 152.00   |
| RW-7-19   | Transplantation of existing trees of girth of all dia. Including uprooting and shifting of the tree and placing in pits of suitable size and after transplanting, removal of excavated earth to desired location, filling the pit with red earth, manure, watering etc. complete with all leads, lifts, including maintenance for 3 years. The item also includes back filling of the trench taken for exposing the root system of the tree proposed to be transplanted etc. complete as directed by Engineer-in-charge. | per No.  | 4606.00  |
| RW-7-20   | Cutting down of various dia ----- The of tree above 50mm. Upto 150mm.  | Each     | 940.00   |
| RW-7-21   | Cutting down of various dia ----- The of tree above150mm. Upto 300mm.  | Each     | 4037.00  |
| RW-7-22   | Cutting down of various dia ----- The of tree above300mm. Upto 450mm.  | Each     | 5444.00  |
| RW-7-23   | Cutting down of various dia ----- The of tree above 450mm. Upto 600mm.   | Each     | 7296.00  |
| RW-7-24   | Cutting down of various dia ----- The of tree above 600mm. Upto 900mm.   | Each     | 10847.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION   | UNIT    | RATE     |
|-----------|--|---------|----------|
| RW-7-25   | Cutting down of various dia ----- The of tree above 900mm. Upto 1200mm.  | Each    | 14274.00 |
| RW-7-26   | Deposit with concerned authorities for cutting and transplanting of trees as per Government norms etc. complete as directed by Engineer in charge.   | per No. | 4606.00  |
| RW-7-27   | Supplying, stacking & Planting of approved trees of at least 1.0 m , height above GL in excavated pit of size 1.2 m x 1.2m x 1.2m, at the site shown by the Engineer, backfilling the pit by putting the manure & soil and watering & maintaining for 3 years, including deposing the excavated earth etc. complete as directed by Engineer-in-charge.   | per No. | 1583.00  |
| RW-7-28   | Excavation and dismantling of structures on roadway, dismantling the existing Bus shelters including sorting out the dismantle material, disposal of unserviceable material with all lift and leads etc. complete as directed by Engineer-in- charge.  | per No. | 6064.00  |
| RW-7-29   | Excavation and dismantling of structures on roadway, shifting and relocating of essential utilities, street poles, signals road sign boards including taking necessary permission from the service providers/ authorities including payment of necessary deposits and supervision charges, shifting charges etc. complete as directed by Engineer-in-charge. a) Street Poles   | per No. | 868.00   |
| RW-7-30   | Excavation and dismantling of structures on roadway, shifting and relocating of essential utilities, street poles, signals road sign boards including taking necessary permission from the service providers/ authorities including payment of necessary deposits and supervision charges, shifting charges etc. complete as directed by Engineer-in-charge. b) Traffic Signals  | per No. | 868.00   |
| RW-7-31   | Excavation and dismantling of structures on roadway, shifting and relocating of essential utilities, street poles, signals road sign boards including taking necessary permission from the service providers/ authorities including payment of necessary deposits and supervision charges, shifting charges etc. complete as directed by Engineer-in-charge. c) Road Sign Boards   | per No. | 236.00   |
| RW-7-32   | Providing placing in position, levelling, fixing M 25 Grade R.C.C. pre-cast frame of size 1150 x 1150 x 150 mm and cover( 2 Nos) of size 1000x500x75mm in line , level over storm water drain as per design procured from approved manufacturer etc.. Complete   | SET     | 3403.00  |
| RW-7-33   | Providing placing in position, levelling, fixing M 25 Grade R.C.C. pre-cast frame of size 1150 x 900 x 150 mm and cover( 1 Nos) of size 1000x750x75mm in line , level over storm water drain as per design procured from approved manufacturer etc.. Complete.   | SET     | 2634.00  |
| RW-7-34   | Supply of M - 25 CC steel fiber reinforced precast cover of size 1000 mm x 500 mm 75 mm as per design, procured from approved manufacturers etc. complete.   | SET     | 651.00   |
| RW-7-35   | Supply of M - 25 CC steel fiber reinforced precast cover of size 1000 mm x 750 mmx 75 mm as per design, procured from approved manufacturers etc. complete.  | SET     | 895.00   |
| RW-7-36   | Barricading the trenches on traffic flow side with 1.60 mtr. Height M.S. Angle post of 50 x 50 x 5 mm. buried in half the depth in drum of 20 ltrs. Capacit by 1:3:6 concrete spaced at 2.25 m centre to centre with 22 guage G.I. corrugated sheet of size 2.40 x 0.75 m. bolted to the M.S. Angle post and painted in yellow and black band with synthetic enamel paint as per traffic norms and as directed by the Engineers. | Rmt     | 149.00   |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION   | UNIT          | RATE     |
|-----------|--|---------------|----------|
| RW-7-37   | (a) To carry out total station survey of the road with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross sections longitudinally at 20 mtr. intervals with levels at every 4 mtr. cross distance, preparing drawings on Auto cad to the scale of 1:500 and supplying 2 hard copies and 1 soft copy in C.D. form.. etc. complete upto 18.3 mtr wide road.   | upto 500 mtr. | 15525.00 |
| RW-7-38   | To carry out total station survey of the road with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross sections longitudinally at 20 mtr. intervals with levels at every 4 mtr. cross distance, preparing drawings on Auto cad to the scale of 1:500 and supplying 2 hard copies and 1 soft copy in C.D. form.. etc. complete upto 18.3 mtr wide road. ,Extra over and above for every 100 mtrs. And part thereof.               | /100Mtr.      | 3000.00  |
| RW-7-39   | To carry out total station survey of the road with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross sections longitudinally at 10 mtr. intervals with levels at every 2 mtr. cross distance, preparing drawings on Auto cad to the scale of 1:500 and supplying 2 hard copies and 1 soft copy in C.D. form.. etc. complete from 18.30 to 27.45 mtr. wide road.  | upto 500 mtr. | 16300.00 |
| RW-7-40   | To carry out total station survey of the road with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross sections longitudinally at 10 mtr. intervals with levels at every 2 mtr. cross distance, preparing drawings on Auto cad to the scale of 1:500 and supplying 2 hard copies and 1 soft copy in C.D. form.. etc. complete from 18.30 to 27.45 mtr. wide road - Extra over and above for every 100 mtrs. And part thereof.    | /100Mtr.      | 3260.00  |
| RW-7-41   | To carry out total station survey of the road with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross sections longitudinally at 10 mtr. intervals with levels at every 2 mtr. cross distance, preparing drawings on Auto cad to the scale of 1:500 and supplying 2 hard copies and 1 soft copy in C.D. form.. etc. complete from 27.45 mtr. to 36.60 mtr wide road.  | upto 500 mtr. | 16980.00 |
| RW-7-42   | To carry out total station survey of the road with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross sections longitudinally at 10 mtr. intervals with levels at every 2 mtr. cross distance, preparing drawings on Auto cad to the scale of 1:500 and supplying 2 hard copies and 1 soft copy in C.D. form.. etc. complete from 27.45 mtr. to 36.60 mtr wide road. Extra over and above for every 100 mtrs. And part thereof. | /100 Mtr.     | 3400.00  |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT          | RATE     |
|-----------|---|---------------|----------|
| RW-7-43   | To carry out total station survey of the road with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross sections longitudinally at 10 mtr. intervals with levels at every 2 mtr. cross distance, preparing drawings on Auto cad to the scale of 1:500 and supplying 2 hard copies and 1 soft copy in C.D. form.. etc. complete for roads wider than 36.6 mtr.  | upto 500 mtr. | 19400.00 |
| RW-7-44   | To carry out total station survey of the road with reference to existing co-ordinate system by establishing control stations by establishing temporary bench mark from permanent bench mark, marking centre line of the road by nails, carrying out detailed levelling, plotting cross sections longitudinally at 10 mtr. intervals with levels at every 2 mtr. cross distance, preparing drawings on Auto cad to the scale of 1:500 and supplying 2 hard copies and 1 soft copy in C.D. form.. etc. complete for roads wider than 36.6 mtr., Extra over and above for every 100 mtrs. And part thereof.  | per 100 mtr.  | 3880.00  |
| RW-7-45   | Providing and fixing the barricading in double row with G.I. Sheets of 22 guage manufactured by TATA Co. and JINDAL Co. fixed on 3 inch dia. (75mm.) woden bullies which will be buried in existing road sufficeintly. Embossing of TATA/JINDAL Brand on G.I. Sheet shall be ensured before painting with yellow and black bands of Synthetic enamel paint as per the traffic norms and as directed by the Engineer.  | Rmt           | 545.00   |
| RW-7-46   | Supplying and fixing 600x900 clear opening composite resin manhole cover of single cover design, of approved brand with 12.5 ton load capacity, as per EN-124 standard.Covers & frame shall have SS nut bolt locking arrangement and top abrasion resistant layer of decorative granite finish. Abrasion resistance shall be conforming to IS-15658:2006 and permissible permanent set value of 6mm after the application of 2/3 test load in five continuous applications as per EN-124. The testing shall be performed in fully equipped and NABL certified test lab with random batch test (2% of lot size) as per testing procedure stated in EN-124 standard, including testing ,inspection of material sample and finished product in presence of Engineers (2nos.) at Manufacturer's work , etc. complete as specified and as directed by Engineer-in-Charge. (Inspection shall be as per guidelines of IS and EN-124 standard specifications.)          | No.           | 13288.00 |
| RW-7-47   | Supplying and fixing 900x900 clear opening composite resin manhole cover with two cover design, of approved brand with 12.5 ton load capacity, as per EN-124 standard. Covers & frame shall have SS Nut bolt locking arrangement and top abrasion resistant layer of decorative granite finish. Abrasion resistance shall be conforming to IS-15658:2006 and permissible permanent set value of 6mm for each cover, after application of 2/3 test load in five continuous applications as per EN-124. The testing shall be performed in fully equipped and NABL certified test lab with random batch test (2% of lot size) as per testing procedure stated in EN-124 standard, including testing ,inspection of material sample and finished product in presence of Engineers (2nos.) at Manufacturer's works, etc. complete as specified and as directed by Engineer-in-Charge. (Inspection shall be as per guidelines of EN-124-2004 standard specifications. | No.           | 17787.00 |



Schedule for Road Works  
2013

| ITEM CODE      | ITEM DESCRIPTION   | UNIT                   | RATE     |
|----------------|--|------------------------|----------|
| <b>RW-7-48</b> | Supplying 600x900 clear opening composite resin manhole cover with two cover design, of approved brand with 12.5 ton load capacity, as per EN-124 standard. Covers & frame shall have SS Nut bolt locking arrangement and top abrasion resistant layer of decorative granite finish. Abrasion resistance shall be conforming to IS-15658:2006 and permissible permanent set value of 6mm for each cover, after application of 2/3 test load in five continuous applications as per EN-124. The testing shall be performed in fully equipped and NABL certified test lab with random batch test (2% of lot size) as per testing procedure stated in EN-124 standard, including testing ,inspection of material sample and finished product in presence of Engineers (2nos.) at Manufacturer's works, etc. complete as specified and as directed by Engineer-in-Charge. (Inspection shall be as per guidelines of EN-124-2004 standard specifications. | <b>No.</b>             | 12650.00 |
| <b>RW-7-49</b> | Supplying 900x900 clear opening composite resin manhole cover with two cover design, of approved brand with 12.5 ton load capacity, as per EN-124 standard. Covers & frame shall have SS Nut bolt locking arrangement and top abrasion resistant layer of decorative granite finish. Abrasion resistance shall be conforming to IS-15658:2006 and permissible permanent set value of 6mm for each cover, after application of 2/3 test load in five continuous applications as per EN-124. The testing shall be performed in fully equipped and NABL certified test lab with random batch test (2% of lot size) as per testing procedure stated in EN-124 standard, including testing ,inspection of material sample and finished product in presence of Engineers (2nos.) at Manufacturer's works, etc. complete as specified and as directed by Engineer-in-Charge. (Inspection shall be as per guidelines of EN-124-2004 standard specifications. | <b>No.</b>             | 17250.00 |
| <b>RW-7-50</b> | P/f Polyethylene plastic water/sand fillable Metro Barricades having approx. size 1840mm. X 440mm. X 1900mm., (LxWxD), 32-35 Kgs empty wt. and tank capacity 100-120 lits., manufactured by M/s. B.D. Industries or equivalent ISO Certified Company having minimum experience of 3 years in manufacturing and supplying to the Govt./Semi Govt./Other reputed organisations alongwith necessary fixing arrangement as specified and directed by the Engineer Incharge   | <b>Rmt</b>             | 641.00   |
| <b>RW-7-51</b> | P/f Polyethylene plastic water/sand fillable Barricades having approx. size 2000mm. X 560mm. X 1000mm., (LxWxD), 20-23 Kgs empty wt. and tank capacity 80-100 lits., manufactured by M/s. B.D. Industries or equivalent ISO Certified Company having minimum experience of 3 years in manufacturing and supplying to the Govt./Semi Govt./Other reputed organisations alongwith necessary fixing and interlocking arrangement as specified and directed by the Engineer Incharge.  | <b>Rmt</b>             | 490.00   |
| <b>RW-7-52</b> | P/f Polyethylene plastic water/sand fillable Metro Barricades having approx. size 1840mm. X 440mm. X 1900mm., (LxWxD), 32-35 Kgs empty wt. and tank capacity 100-120 lits., manufactured by M/s. B.D. Industries or equivalent ISO Certified Company having minimum experience of 3 years in manufacturing and supplying to the Govt./Semi Govt./Other reputed organisations alongwith necessary fixing arrangement as specified and directed by the Engineer Incharge.(Temporary Barricades)  | <b>Rmt per 10 Days</b> | 96.00    |



Schedule for Road Works  
2013

| ITEM CODE          | ITEM DESCRIPTION   | UNIT            | RATE    |
|--------------------|--|-----------------|---------|
| RW-7-53            | P/f Polyethylene plastic water/sand fillable Barricades having approx. size 2000mm. X 560mm. X 1000mm., (LxWxD), 20-23 Kgs empty wt. and tank capacity 80-100 lits., manufactured by M/s. B.D. Industries or equivalent ISO Certified Company having minimum experience of 3 years in manufacturing and supplying to the Govt./Semi Govt./Other reputed organisations alongwith necessary fixing and interlocking arrangement as specified and directed by the Engineer Incharge. (Temporary Barricades)   | Rmt per 10 Days | 74.00   |
| RW-7-54            | Providing and fabricating the structural steel barricade made out of 1.25 mm. thk MS plates of size 2.5 M x 2M , M. S. Angles ISA 40mm x40mmx5mm., MS flat 40mm x5mm thk and ISLB 250 mm x 125 mm as per IS 1161- I RHS/SHS rolled angle plates etc. (material as per IS 4923 Grade YST 241) of TATA Steel, Lloyd Steel, SAIL, Essar Steel approved in straight profile of all sizes, shapes and for all works including stiffeners, bolts and nuts, fillet/butt welding, splicing, machine grinding of all member joints wherever required to give neat appearance, fabricating to a curved or bent profile like arch or semi circular shape, fixing at site as directed etc. complete. Rate is including the entire logistics of transporting and other related activities for completing this item. | MT              | 1143.00 |
| <b>VIII</b>        | <b>DUCTS AND PIPES</b>   |                 |         |
| RW-8-01            | P/L 150mm dia. R.C.C. hume pipes, NP2 class, jointing, filletting in 1:1 C.M., including plugging of both the ends with gunny bags, brick masonry in C.M. 1:4 with plaster in C.M. 1:4 & curing etc. complete, as specified as directed.   | Rmt             | 535.00  |
| RW-8-02            | P/L 250mm dia. R.C.C. hume pipes, NP2 class, jointing, filletting in 1:1 C.M., including plugging of both the ends with gunny bags, brick masonry in C.M. 1:4 with plaster in C.M. 1:4 & curing etc. complete, as specified as directed  | Rmt             | 758.00  |
| RW-8-03            | P/L 300mm dia. R.C.C. hume pipes, NP2 class, jointing, filletting in 1:1 C.M., including plugging of both the ends with gunny bags, brick masonry in C.M. 1:4 with plaster in C.M. 1:4 & curing etc. complete, as specified as directed  | Rmt             | 946.00  |
| RW-8-04            | Providing & fixing in position M-20 cement concrete precast slab, 50cm x 50cm.& 8cm. Thick with the word "DUCT"inscribed over it including making good,the damaged surrounding surface etc. complete.  | No.             | 251.00  |
|                    | <b>E.E.( T &amp; C)'S ITEMS</b>  |                 |         |
|                    | <b>CAUTIONARY BOARDS</b>   |                 |         |
| <b>9-01 ONWADS</b> | <b>Items will be Revise by Dy.Ch.E. (TRAFFIC) DEPT.</b>  |                 |         |
|                    |  |                 |         |
| <b>X</b>           | <b>CEMENT CONCRETE ROAD ITEMS</b>  |                 |         |
| RW-10-01           | Providing & laying M-40 cement concrete having avg. compressive strength 45Mpa, flextural strength 4.8 Mpa including Form work,mixing in non-tilting mechanical mixer, compacting by internal & surface vibrator,finishing curing & tarring the sides of slabs with hot bitumen/black Japan Paint as specified and as directed(cement mortar vata will be paid separately). Contractors have to make their own arrangement for potable water for construction/curing, etc. & will be not paid separately.  | Cum             | 5795.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE    |
|-----------|---|------|---------|
| RW-10-02  | Providing & laying M-15 cement concrete avg. compressive strength 18.5Mpa for foundation/encasement/pavement/saddle including Form work,mixing in mechanical mixer(weigh batcher) compacting by internal & surface vibrator,finishing curing etc. complete as specified and as directed(cement mortar vata will be paid separately). Contractors have to make their own arrangement for potable water for construction/curing,with hessain cloth, etc. & will be not paid separately for it.  | Cum  | 4999.00 |
| RW-10-03  | Providing & laying M-10 cement concrete avg. compressive strength 13.5Mpa for foundation/encasement/pavements with or without chequered design including Form work,mixing in mechanical mixer placing,vibrating with plate, needle vibrator,finishing curing etc. complete as specified and as directed(cement mortar vata will be paid separately). Contractors have to make their own arrangement for potable water for construction/curing,with hessain cloth, etc. & will be not paid separately for it.  | Cum  | 4513.00 |
| RW-10-04  | Providing & laying cement concrete 1:5:10( M8 ,ordinary concrete) for foundation/encasement etc.(using metal No. I,II,III, in proportion as directed) with or without chequered design including Form work wherever necessary,mixing in mechanical mixer,compacting by needle, plate vibrator & finishing curing as specified and as directed. Contractors have to make their own arrangement for potable water for construction/curing,with hessain cloth, etc. & will be not paid separately for it.(Minimum cement content 150 kg/m <sup>3</sup> )   | Cum  | 3520.00 |
| RW-10-05  | Providing & laying R.C.C. running beam in M-40 cement concrete including required formwork mixing, compacting & curing, etc. complete reinforced with 12mm dia.(Minimum 4 Nos.)M.S. main bars & 6mm Dia M.S. rings at 15cm/c/c to be anchored in slipper slab properly with M.S. reinforcement as per drawing etc. complete as specified(Steel will not be paid separately).Contractor has to make his own arrangement for portable waterfor construction/curing with hessian cloth, etc. & will not be paid separately.<br>Beam Size a) 23cmx27.50cm.  | Rmt  | 731.00  |
| RW-10-06  | Providing & laying R.C.C. running beam in M-40 cement concrete including required formwork mixing, compacting & curing, etc. complete reinforced with 12mm dia.(Minimum 4 Nos.)M.S. main bars & 6mm Dia M.S. rings at 15cm/c/c to be anchored in slipper slab properly with M.S. reinforcement as per drawing etc. complete as specified(Steel will not be paid separately).Contractor has to make his own arrangement for portable waterfor construction/curing with hessian cloth, etc. & will not be paid separately.<br>Beam Size: b) 23cm. x 30cm. | Rmt  | 850.00  |
| RW-10-11  | Cutting of construction & dumm/joints of M-35 C.C.& above slab by mechanical means within 10 to16 hrs.of casting of bay/slab as directed.<br>A) transverse dummy joints 100mm deep/1/3 thickness of concrete pavement &6mm wide.  | Rmt  | 82.00   |
| RW-10-12  | Cutting of construction & dumm/joints of M-35 C.C.& above slab by mechanical means within 10 to 16 hrs.of casting of bay/slab as directed.<br>B) Longitudinal construction joints 100mm deep/ 1/3rd thickness of slab & 6mm wide  | Rmt  | 82.00   |
| RW-10-13  | Providing & fixing in position premoulded asphalt filler 12mm thick confirming to I.S. 1838 of 1983 for placing of the expansion joint,around manholes & waterentrances, etc put to the required depth & 25mm below the camber,etc. complete as directed.   | Sqm  | 614.00  |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT  | RATE     |
|-----------|---|-------|----------|
| RW-10-14  | Providing & placing 5mm thick thermocole in dummy & construction joints immediately after cutting of joints & removing the same before dressing of dummy & construction joints etc. complete , as dirceted.   | Sqm   | 56.00    |
| RW-10-15  | Providing & fixing high density polythene pipe of approved quality to fit around the dowel bars of 32mm dia at the end of expansion joints,fully greased inside, cotton waste the pipe around the dowel bars & the pipe duly capped at the end as directed.(H.D.P. pipe shall be 30cm in length) As shown in the drawing.   | /Each | 26.00    |
| RW-10-16  | Providing & fixing in position mild steel in tie bars of 12mm dia 55cm long & 45cm C/C whenever directed including handling , wrapping with paper for half length,fixing straightening, wastage etc. complete in all respect as direced.  | MT    | 69775.00 |
| RW-10-17  | Providing & fixing in position M.S. dowel bars of 32mm dia 55cm long & 30cm C/C whenever directed including handling, fixing, etc. complete(no extra payment will be made for applying bitumen & grease to dowel bars)  | MT    | 61548.00 |
| RW-10-18  | Providing & laying waterproof paper of 40 GSM including overlap ( to be not less than 10cm)etc. complete as specified as directed.  | Sqm   | 13.00    |
| RW-10-19  | Providing & constructing cement vatas in cm 1:10 at 0.6m * 0.6m c / c admeasuring 0.09m at bottom, 0.04m at top & 0.075m deep & maintaining the same throughout 14 days curing & removing the same thereafter as directed.  | Sqm   | 65.00    |
| RW-10-20  | Resealing of joints of M-35 & above C.C. old pavement with hot applied sealing compounds confirming to IS-1834-1984 including cutting & removing existing damaged sealing compound by racking tool or mechanical means & clearing of joints with compressed air, application of primer for receiving hot sealing compound & providing layer of lime powder over hot sealing compound etc. complete as directed.<br>A) Resealing 6mm-10mm wide transverse /longitudinal joints with Avg.depth of 40mm.   | Rmt   | 63.00    |
| RW-10-21  | Resealing of joints of M-35 & above C.C. old pavement with hot applied sealing compounds confirming to IS-1834-1984 including cutting & removing existing damaged sealing compound by racking tool or mechanical means & clearing of joints with compressed air, application of primer for receiving hot sealing compound & providing layer of lime powder over hot sealing compound etc. complete as directed.<br>B) Resealing 11-15mm wide transverse /longitudinal joints with average depth of 40mm | Rmt   | 80.00    |
| RW-10-22  | Resealing of joints of M-35& above C.C. old pavement with hot applied sealing compounds confirming to IS-1834-1984 including cutting & removing existing damaged sealing compound by racking tool or mechanical means & clearing of joints with compressed air, application of primer for receiving hot sealing compound & providing layer of lime powder over hot sealing compound etc. complete as directed. C) Resealing of 12-25mm wide expansion joints with Avg. depth of 25mm.                   | Rmt   | 70.00    |
| RW-10-23  | Dressing of M-35 & above new C.C.pavement,dummy,transverse, longitudinal & expansion joints with hot rubberised sealing compound confirming to IS 1834-1984 after proper cleaning with compressed air,applying required primer & providing a layer of lime powder over hot sealing compound etc. complete as directed. A) Sealing 6mm wide dummy/transverse joints with a depth of 100mm/1/3rd thickness of concrete pavement.  | Rmt   | 85.00    |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE    |
|-----------|---|------|---------|
| RW-10-24  | Dressing of M-35 & above new C.C.pavement,dummy,transverse, longitudinal & expansion joints with hot rubberised sealing compound confirming to IS 1834-1984 after proper cleaning with compressed air,applying required primer & providing a layer of lime powder over hot sealing compound etc. complete as directed. B) Sealing of 6mm wide longitudinal joint with depth of 100mm./1/3rd thickness of concrete pavement.   | Rmt  | 85.00   |
| RW-10-25  | Dressing of M-35 & above new C.C.pavement,dummy,transverse, longitudinal & expansion joints with hot rubberised sealing compound confirming to IS 1834-1984 after proper cleaning with compressed air,applying required primer & providing a layer of lime powder over hot sealing compound etc. complete as directed. C) Sealing of 25mm wide expansion joints with avg. depth of 12mm.  | Rmt  | 51.00   |
| RW-10-26  | P/L ready mix cement concrete M-15cc having avg compressive strength 18.5 Mpa for foundation/encasement/ pavement/ cradle including form of mixing in batching plant,compacting by internal & surface vibrator,curing,finishing etc. complete as specified & as directed by the Engineer. Contractor has to make his own arrangement for water for curing etc.& will not be paid separately for it.(MINIMUM CEMNT CONTENT 240 Kg/m <sup>3</sup> .)  | Cum  | 5682.00 |
| RW-10-27  | P/L R.M.C. M-10 C.C. having avg. compressive strength 13.5 Mpa grade in foundation/encasement/pavement with or without chequered design including formwork, mixing in batching plant, placing vibrating with plate or needle curing etc. complete as directed by the Engineer. C/s. has to make his own arrangement for water for curing with Hessian cloth etc. & will not be paid separately.(MINIMUM CEMNT CONTENT 220 Kg/m <sup>3</sup> .)  | Cum  | 5404.00 |
| RW-10-28  | Supply & filling sand, metal GRAVELLY SAND Corresponded to CLASS II/ CLASS III GRADING of TABLE 100.1of new road specifications-2006 in trenches upto required depth & watering, ramming etc. complete as directed  | Cum  | 2069.00 |
| RW-10-29  | P/L R.M.C.M-20 C.C.having avg. compressive strength 24 Mpa procured from M.C.G.M. approved R.M.C. plant including use of approved makes plasticizer/retarder & transported by transit mixer & placing at worksite, compacting, finishing curing etc. by contractor's water & tarring the sides of from work with hot bitumen as specified & directed by the Engineer.(MINIMUM CEMNT CONTENT 260 Kg/m <sup>3</sup> .)  | Cum  | 5815.00 |
| RW-10-30  | Providing & fixing pre-cast Beam in M 40 CC of size 23 cm x 23 cm x 35 cm in length set in 15 cm M15 C.C. filling of joints in 1:2, including excavation, form work, mixing compacting , curing etc. complete as specified and as directed.   | No.  | 371.00  |
| RW-10-31  | Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate to the specified gradation using minimum cement content150 kg/cum of concrete with OPC 43 grade cement, mixing of concrete as per approved design mix using mechanised batch mix plant of appropriate capacity, transporting and laying and compacting with vibratory roller of mimimum 80- 100 KN static weight to give desired compacted density and average compressive strength of 10 MPa at 7 days and curing with liquid curing compound and sprinkling water and covering with moist hessian cloth or ponding of water for 7 days including providing construction joints, including all material, labour, machinery with all leads and lifts etc. complete as specified and as dirercted by the Engineer. <b>A) Laying by manually.</b> | Cum  | 4904.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION   | UNIT | RATE    |
|-----------|--|------|---------|
| RW-10-32  | Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate to the specified gradation using minimum cement content 150 kg/cum of concrete with OPC 43 grade cement, mixing of concrete as per approved design mix using mechanised batch mix plant of appropriate capacity, transporting and laying with self propelled paver with electronic sensor device and compacting with vibratory roller of minimum 80- 100 KN static weight to give desired compacted density and average compressive strength of 10 MPa at 7 days and curing with liquid curing compound and sprinkling water and covering with moist hessian cloth or ponding of water for 7 days including providing construction joints, including all material, labour, machinery with all leads and lifts etc. complete as specified and as directed by the Engineer . <b>B) Laying by paver with electronic sensor device</b>   | Cum  | 4871.00 |
| RW-10-33  | Providing & laying M-40 C.C.avg. compressive strength 45 MPa and avg.flextural strength of 5.0 MPa (As per IRC 15-2002.N.1.6) procured from M.C.G.M.approved R.M.C. plant including use of approved make plasticizer / retarder & Contractors water with ice flakes and transported by transit mixer and placing at work site. Compacting finishing, initial curing by approved curing compound & Contractors water and tarring the sides of slab with hot bitumen as specified and directed (w/c ratio 0.4 maximum)(vata for curring will be paid separately.) (MINIMUM CEMENT CONTENT 350 kg/m <sup>3</sup> )  | Cum  | 6652.00 |
| RW-10-34  | P/L R.M.C.M-25C.C.having avg. compressive strength 29 Mpa procured from M.C.G.M. approved R.M.C. plant including use of approved makes plasticizer/retarder & transported by transit mixer & placing at worksite, compacting, finishing curing etc. by contractor's water & tarring the sides of from work with hot bitumen as specified & directed by the Engineer.(MINIMUM CEMENT CONTENT 300 kg/m <sup>3</sup> )  | Cum  | 5988.00 |
| RW-10-35  | Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate (with no fines i.e. 2.36 mm passing 0% to5%) to the specified gradation using minimum cement content 150 kg/ cum of concrete with OPC 43 grade cement mixing of concrete as per approved design mix using mechanised batch mix plant of appropriate capacity, transporting and laying and compacting with vibratory roller of minimum 80- 100 KN static weight to give desired compacted density and average compressive strength of 10 MPa at 7 days and curing with liquid curing compound and sprinkling water and covering with moist hessian cloth or ponding of water for 7 days including providing construction joints, including all material, labour, machinery with all leads and lifts etc. complete as specified and as directed by the Engineer. NOTE: This ITEM Should be OPERATED after obtaining prior SPECIFIC TECHNICAL SANCTION of Dir.( E.S.& P.) . A) Laying by manually . | Cum  | 5243.00 |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION   | UNIT  | RATE    |
|-----------|--|-------|---------|
| RW-10-36  | Providing and laying Dry Lean Concrete base including providing coarse and fine aggregate (with no fines i.e. 2.36 mm passing 0% to5%) to the specified gradation using minimum cement content 150 kg/ cum of concrete with OPC 43 grade cement mixing of concrete as per approved design mix using mechanised batch mix plant of appropriate capacity, transporting and laying with self propelled paver with electronic sensor device and compacting with vibratory roller of minimum 80- 100 KN static weight to give desired compacted density and average compressive strength of 10 MPa at 7 days and curing with liquid curing compound and sprinkling water and covering with moist hessian cloth or ponding of water for 7 days including providing construction joints, including all material, labour, machinery with all leads and lifts etc. complete as specified and as directed by the Engineer. NOTE: This ITEM Should be OPERATED after obtaining prior SPECIFIC TECHNICAL SANCTION of Dir. ( E.S.& P.). B) Laying by paver with electronic sensor device. | Cum   | 5211.00 |
| RW-10-37  | Providing and fixing of the precast TREE GUARD KERB of M-20 C.C. of height 230mm., width 100mm., Length 400mm.,finished neatly, compacting ,curing, formwork etc. including bedding of M-10 C.C.procured from M.C.G.M.approved R.M.C. plant,10cm.thick, filling of jointing in C.M. 1:2 and painting the exposed surface with 3 coats of road marking paint, Grade I of approved colours and quality including single coat of approved brand primer including excavation in C.C. ,asphalt etc. as specified and as directed.   | Rmt   | 475.00  |
| RW-10-38  | Providing & placing sand drain blanket layer etc. complete,grading of sand to be used for sand blanket layers as filter material to act as a sand drain having grading requirement as per cl. No. 12 ,table no.: 100.1,class-I in road specification & refer cl. no. 133 for material requirement.   | Cum   | 2119.00 |
| RW-10-39  | Extra & over for providing and using special admixtures/ plasticizers to achieve required crushing & Average flexural strength 5.0 Mpa of M40 grade concrete in 7 days. NOTE :THIS ITEM SHOULD BE OPERATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.).NOTE: FOR SPECIAL ADMIXTURES ITEMS SUCH AS ELKEM MICROSILICA, POLYPROPYLENE FIBER, BSF GLANIUM SKY,EARLY STRENGTH SUPER PLASTYSIZER, STEEL FIBER REINFORCEMENT ETC. ORIGINAL CHALAN SHOULD BE PRODUCED , FAILING WHICH NO PAYMENT TO BE MADE.   | Cum   | 1642.00 |
| RW-10-40  | Extra over above for mixing polypropylene fibers 300 e3 Multi-Dimensional Graded Fibrillated 100% Vergin as per ASTM C 1116 III Type 4.1.3 Std. at the rate of 125 gms.per bag of 50 Kgs.of cement etc.NOTE :THIS ITEM SHOULD BE OPERATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.) NOTE: FOR SPECIAL ADMIXTURES ITEMS SUCH AS ELKEM MICROSILICA, POLYPROPYLENE FIBER, BSF GLANIUM SKY,EARLY STRENGTH SUPER PLASTYSIZER, STEEL FIBER REINFORCEMENT ETC. ORIGINAL CHALAN SHOULD BE PRODUCED , FAILING WHICH NO PAYMENT TO BE MADE.  | Cum   | 421.00  |
| RW-10-41  | Providing & Fixingof the Ferrocete precast slab (concrete grade M-25 with medium duty slab) of size 1050mm.*500mm.*50mm. Red, & Grey colour finish to be used as footpath over SWD in c.m.1:4 12mm thk to the required level including carrying out necessary load tests @ Municipal testing laboratory @ 2 nos. per 100 nos. of slabs to be fixed.  | /slab | 1715.00 |



Schedule for Road Works  
2013

| ITEM CODE         | ITEM DESCRIPTION  | UNIT       | RATE    |
|-------------------|---|------------|---------|
|                   | Cast in Situ Cement Concrete M20 kerb (Construction of cement concrete kerb with top and bottom width 115 and 165 mm respectively, 250 mm high in M 20 grade PCC on M-10 grade foundation 150 mm thick, foundation having 50 mm projection beyond kerb stone, kerb stone laid with kerb laying machine, foundation concrete laid manually.  |            |         |
| <b>RW-10-42-a</b> | Using Concrete Mixer  | <b>Rmt</b> | 254.00  |
| <b>RW-10-42-b</b> | Using Concrete Batching and Mixing Plant  | <b>Rmt</b> | 268.00  |
|                   | Cast in Situ Cement Concrete M 20 Kerb with Channel (Construction of cement concrete kerb with channel with top and bottom width 115 and 165 mm respectively, 250 mm high in M 20 grade PCC on M10 grade foundation 150 mm thick, kerb channel 300 mm wide, 50 mm thick in PCC M20 grade, sloped towards the kerb, kerb stone with channel laid with kerb laying machine, foundation concrete laid manually.  |            |         |
| <b>RW-10-43-a</b> | Using Concrete Mixer  | <b>Rmt</b> | 462.00  |
| <b>RW-10-43-b</b> | Using Concrete Batching and Mixing Plant  | <b>Rmt</b> | 493.00  |
| <b>RW-10-44</b>   | P/L Controlled Low Strength Material (CLSM) having avg. compressive strength 5.0Mpa procured from M.C.G.M. approved R.M.C. plant including use of approved makes plasticizer/retarder & transported by transit mixer & placing at worksite, compacting, finishing curing etc. as specified & directed by the Engineer. (MINIMUM CEMENT CONTENT 200 kg/m <sup>3</sup> )  | <b>Cum</b> | 3427.00 |
| <b>RW-10-45</b>   | Providing & laying M-60 C.C. and Avg. Flexural Strength of 5.0 MPa in 3days procured from M.C.G.M. approved R.M.C. plant including use of Microsilica approved make superplasticizer and transported by transit mixer and placing at work site. Compacting finishing, initial curing by approved curing compound Contractors water and tarring the sides of slab with hot bitumen as specified and directed (w/c ratio 0.35 maximum)(vata for curing will be paid separately.) NOTE: THIS ITEM SHOULD BE OPERATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.)NOTE: FOR SPECIAL ADMIXURES ITEMS SUCH AS ELKEM MICROSILICA, POLYPROPYLENE FIBER, BSF GLANIUM SKY,EARLY STRENGTH SUPER PLASTYSIZER, STEEL FIBER REINFORCEMENT ETC. ORIGINAL CHALAN SHOULD BE PRODUCED , FAILING WHICH NO PAYMENT TO BE MADE. | <b>Cum</b> | 9573.00 |
| <b>RW-10-46</b>   | Providing and fixing pre-cast Central Median divider Type-I of R.M.C.M-20 C.C. on Road as per drawing, finished neatly, compacting , curing, form work, etc, including beding R.M.C.M-10 C.C, 15 cm thick, filling of joints in C.M. 1:2 & painting the exposed surface with 3 coat of road marking paint, Grade-I of approved colour and quality including required excavation in C.C., asphalt etc. and removing the same any where in City & Sub limit, levelling the same as specified and as directed by the Engineer.( Note:- Every 10 dividers shall have 40 mm. dia. hole along the center line of divider at formation level of road to drain off rain water / excess water.)  | <b>Rmt</b> | 2020.00 |
| <b>RW-10-47</b>   | Providing and fixing pre-cast Central Median divider Type C TREE PLANTER of R.M.C.M-25 C.C. on Road as per drawing, finished neatly, compacting , curing, form work, etc, including Reinforcement as per drawing,beding R.M.C.M-10 C.C, 15 cm thick, filling of joints in C.M. 1:2 & painting the exposed surface with 3 coat of road marking paint, Grade-I of approved colour and quality including required excavation in C.C., asphalt etc. and removing the same any where in City & Sub limit, levelling the same as specified and as directed by the Engineer. ( Note:-Every 10 dividers shall have 40 mm. dia. hole along the center line of divider at formation level of road to drain off rain water / excess water.)  | <b>Rmt</b> | 2330.00 |



Schedule for Road Works  
2013

| ITEM CODE       | ITEM DESCRIPTION  | UNIT       | RATE    |
|-----------------|---|------------|---------|
| <b>RW-10-48</b> | Providing and fixing pre-cast Central Median divider Type NPD-1 of R.M.C.M-25 C.C. on Road as per drawing, finished neatly, compacting , curing, form work, etc, including Reinforcement as per drawing,beding R.M.C.M-10 C.C, 15 cm thick, filling of joints in C.M. 1:2 & painting the exposed surface with 3 coat of road marking paint, Grade-I of approved colour and quality including required excavation in C.C., asphalt etc. and removing the same any where in City & Sub limit, levelling the same as specified and as directed by the Engineer.  | <b>Rmt</b> | 8820.00 |
| <b>RW-10-49</b> | Providing and fixing pre-cast Central Median divider Type- II of R.M.C.M-20 C.C. on Road as per drawing, finished neatly, compacting , curing, form work, etc, including beding R.M.C. M-10 C.C, 15 cm thick, filling of joints in C.M. 1:2 & painting the exposed surface with 3 coat of road marking paint, Grade-I of approved colour and quality including required excavation in C.C., asphalt etc. and removing the same any where in City & Sub limit, levelling the same as specified and as directed by the Engineer.( Note:- Every 10 dividers shall have 40 mm. dia. hole along the center line of divider at formation level of road to drain off rain water / excess water.)   | <b>Rmt</b> | 1490.00 |
| <b>RW-10-50</b> | Providing and fixing of cement concrete Kerb Stone of various grades of size: 500mm width x 325 height x 165mm thick (Half Batter, Bull Nose / Full Batter) manufactured in wet press vacuum dewatering technology plant / equivalent with face pimple finish for high visibility with excellent quality and finish and edges perfect and sharp. Grade – M-25. Including excavation in any soil except rock, laying a leveling course of M 15 grade RMC 100mm. thick, to required slope (inclusive of form work) jointing in C.M.1:2 proportion flush to concrete surface, painting exposed surface with one coat of primer and two coats of 1st grade road marking paint in the yellow/white/black or any shade as directed. (Kerbstones shall be procured from MCGM registered agencies). | <b>Rmt</b> | 1219.00 |
| <b>RW-10-51</b> | Providing and fixing of Water Dished Channel size : 600 x 300 x 80mm, M-40 grade manufactured in vacuum wet press technology plant with excellent finish and sharp edges inclusive of excavation in any soil except rock, laying of leveling course of M 15 grade RMC 100mm. thick to required slope, (inclusive of form work) jointing in 1:2 cm. prop. flush to concrete surfaces as directed (Watertables shall be procured from MCGM registered agencies).  | <b>Rmt</b> | 874.00  |
| <b>RW-10-52</b> | Providing & fixing pre-cast concrete header for Paver Blocks on road M-50 grade pimple finish one edge chamber size 500mm x 325mm x 150mm for joint of Paver and asphalt road manufactured in wet press vacuum technology plant with excellent finish and sharp edge, Fixing in R.M.C. M15 C.C. 10 cm thk filling of joints in 1:2, including excavation, form work, mixing compacting , curing etc. complete as specified and as directed.   | <b>Rmt</b> | 1204.00 |
| <b>RW-10-53</b> | Green Cutting of construction & dummy joints of M-40 C.C.& above (Ultra thin white topping)slab by mechanical means within period of concrete strength @ 80 to 100 kg/ cm <sup>2</sup> or earlier, casting of bay/slab as directed. Transverse dummy & Longitudinal construction joints 1/2 thickness of concrete pavement & 3to4mm wide.   | <b>Rmt</b> | 57.00   |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION   | UNIT | RATE    |
|-----------|--|------|---------|
| RW-10-54  | Providing and fixing pre-cast Central Median divider Type NPD-1A of R.M.C.M-25 C.C. on Road as per drawing, finished neatly, compacting , curing, form work, etc, including Reinforcement as per drawing,beding RMC M-10 C.C, 15 cm thick, filling of joints in C.M. 1:2 & painting the exposed surface with 3 coat of road marking paint, Grade-I of approved colour and quality including required excavation in C.C., asphalt etc. and removing the same any where in City & Sub limit, levelling the same as specified and as directed by the Engineer.  | Rmt  | 4950.00 |
| RW-10-55  | Excavation in Reinforced OR pavement grade concrete M-20 & above by using modern machinery (poclain with rock breaker, etc.) including with stacking of excavated material within 150 m radius etc comapelete upto any depth as specified & as directed, by the Engineer.  | Cum  | 2187.00 |
| RW-10-56  | Extra over to use sleep form paver to lay Pavement Quality Concrete as per Morth specifications & as directed by the Engineer. NOTE: THIS ITEM SHOULD BE OPRATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.)   | Cum  | 340.00  |
| RW-10-57  | Extra over above RW-10-33 M-40 C.C. and Avg. Flexural Strength of 5.0 MPa in7days procured from M.C.G.M.approved R.M.C. plant including use of Microsilica, ( MCGM Registration manufacturer ) superplastisizer and fiber, transported by transit mixer and placing at work site. Compacting finishing, initial curing by approved curing compound Contractors water and tarring the sides of slab with hot bitumen as specified and directed (w/c ratio 0.30maximum)(vata for curring & fibre will be paid separately.)<br>NOTE:<br>1)THIS ITEM SHOULD BE OPRATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.)<br>2) FOR SPECIAL ADMIXUERES ITEMS SUCH AS ELKEM MICROSILICA, POLYPROPELYNE FIBER, BSF GLANIUM SKY,EARLY STRENGTH SUPER PLASTYSIZER, STEEL FIBER REINFORCEMENT ETC. ORIGINAL CHALAN SHOULD BE PRODUCED , FAILING WHICH NO PAYMENT TO BE MADE. | Cum  | 3063.00 |
| RW-10-58  | Extra over above RW-10-33 for mixing Dramix fiber manufactured by BEKAERT to be used in Steel Fiber Reinforcement Concrete Pavement shall be produced from high tensile steel cold drawn wires & confirm to ASTM A820 STANDARD & low carbon confirming to 10016-2-C9D.The length of fibre shall be 60mm & dia. 0.75mm making a wire network of 280m/kg. Aspect ratio (Length/Diameter) shall be 80 & Fibre Tensile Strength (Rm)>1225 n/mm <sup>2</sup> .<br>NOTE :1)THIS ITEM SHOULD BE OPRATED ONLY AFTER SPECIFIC SANCTION OF DIR(E.S.& P.) and applicable only SFRC Designed Pavement.<br>2) FOR SPECIAL ADMIXUERES ITEMS SUCH AS ELKEM MICROSILICA, POLYPROPELYNE FIBER, BSF GLANIUM SKY,EARLY STRENGTH SUPER PLASTYSIZER, STEEL FIBER REINFORCEMENT ETC. ORIGINAL CHALAN SHOULD BE PRODUCED , FAILING WHICH NO PAYMENT TO BE MADE.                       | Cum  | 1449.00 |
|           | <b>NOTE: FOR SPECIAL ADMIXUERES ITEMS SUCH AS ELKEM MICROSILICA, POLYPROPELYNE FIBER, BSF GLANIUM SKY,EARLY STRENGTH SUPER PLASTYSIZER, STEEL FIBER REINFORCEMENT ETC. ORIGINAL CHALAN SHOULD BE PRODUCED , FAILING WHICH NO PAYMENT TO BE MADE.</b>   |      |         |



Schedule for Road Works  
2013

| ITEM CODE | ITEM DESCRIPTION  | UNIT | RATE    |
|-----------|---|------|---------|
| RW-10-59  | P/L in position hot poured rubberized asphalt (sealing compound) for contraction joints spaced at every 4.0 m intervals using Backer Rod. The Diameter of Backer Rod Should be Approximately 25 percent greater than the width of joint to ensure a tight fit. The dimension recommended for the sealant width (W), depth (D) and reces (R) are respectively 10-12 mm, 8-10 mm and 6 mm.  | Rmt  | 32.00   |
| RW-10-60  | Providing and fixing of the precast kerb stone of height 325mm., base width 165mm., top width 115mm. in M20 grade RMC supplied through MCGM approved plant or concrete mixed with use of weigh batch mixers as detailed in drawing u/No.Dy.Ch.E./Rds/93 /E.S. of 17 / 8 / 2005 , excavation in any soil except rock, laying a leveling course of M 15 grade RMC 100mm. thick, to required slope (inclusive of form work) jointing in C.M.1:2 proportion flush to concrete surface, painting exposed surface with one coat of primer and two coats of 1st grade road marking paint in the yellow/white/black or any shade as directed. (Kerbstones shall be procured from MCGM registered agencies). | Rmt  | 583.00  |
| RW-10-61  | Providing and fixing of the precast tapered water table of thickness varying from 105 to 125 mm., 300mm. Width in M 20 grade RMC (Supplied through MCGM approved plant) or concrete mixed with use of weigh batch mixers as detailed in drawing No.DyChE/Rds/94/E.S. dated 17.8.2005 inclusive of excavation in any soil except rock, laying of leveling course of M 15 grade RMC 100mm. thick to required slope, (inclusive of form work) jointing in 1:2 cm. prop. flush to concrete surfaces as directed (Watertables shall be procured from MCGM registered agencies).  | Rmt  | 498.00  |
| RW-10-62  | Extra Rate over and above all respective controlled concrete items for using Ready Mix Concrete ( for a lead of 25 Km.) where batching plant cannot be erected.   | Cum  | 580.39  |
|           |   |      |         |
| <b>XI</b> | <b>GEOSYNTHETICS AND REINFORCED EARTH</b>   |      |         |
| RW-11-01  | Sub- Surface Drain with Geotextiles (Construction of sub surface drain 200 mm dia using geotextiles treated with carbon black with physical properties as given in clause 702.2.3(MoRTH) formed in to a stable network and a planar geocomposite structure, joints wrapped with geotextile to prevent ingress of soil, all as per clause 702 and approved drawings including excavation and backfilling)  | Rmt  | 2544.00 |
| RW-11-02  | Narrow Filter Sub- Surface Drain (Construction of a narrow filter sub-surface drain consisting of porous or perforated pipe laid in narrow trench surrounded by a geotextile filter fabric, with a minimum of 450 mm overlap of fabric and installed as per clause 702.3 and 309.3.5(MoRTH) including excavation and backfilling)   | Rmt  | 683.00  |
| RW-11-03  | Laying Paving Fabric Beneath a Pavement Overlay (Providing and laying paving fabric with physical requirements as per table 704-2(MoRTH) over a tack coat of paving grade Bitumen 80-100 penetration, laid at the rate of 1 kg per sqm over thoroughly cleaned and repaired surface to provide a water resistant membrane and crack retarding layer. Paving fabric to be free of wrinkling and folding and to be laid before cooling of tack coat, brooming and rolling of surface with pneumatic roller to maximise paving fabric contact with pavement surface)   | Sqm  | 129.00  |



| ITEM CODE  | ITEM DESCRIPTION   | UNIT | RATE    |
|------------|--|------|---------|
| RW-11-04   | Laying Boulder Apron in Crates of Synthetic Geogrids (Providing, preparing and laying of geogrid crated apron 1 m x 5 m, 600 mm thick including excavation and backfilling with baffles at 1 metre interval, made with geogrids having characteristics as per clause 704.2, joining sides with connectors/ring staples, top corners to be tie tensioned, placing of suitable cross interval ties in layers of 300 mm connecting opposite side with lateral braces and tied with polymer braids to avoid bulging, constructed as per clause 704.3(MoRTH). filled with stone with minimum size of 200 mm and specific gravity not less than 2.65, packed with stone spalls, keyed to the foundation recess in case of sloping ground and laid over a layer of geotextile to prevent migration of fines, all as per clause 704 and laid as per clause 2503.3(MoRTH) and approved design.) | Cum  | 1670.00 |
|            | <b>Reinforced Earth Retaining Wall</b> (Reinforced earth retaining walls have four main components as under: a) Excavation for foundation, foundation concrete and cement concrete grooved seating in the foundation for facing elements (facia material). b) Facia material and its placement. c) Assembling, joining with facing elements and laying of the reinforcing elements. d) Earthfill with granular material which is to be retained by the wall.)  |      |         |
| RW-11-05-a | <b>Facing elements of RCC</b>  | Sqm  | 2596.00 |
|            | <b>Assembling, joining and laying of reinforcing elements.</b>   |      |         |
|            | <b>With reinforcing element of steel / Aluminium strips / polymeric strips.</b>  |      |         |
| RW-11-05-b | 1.Galvanised carbon steel strips   | Rmt  | 529.00  |
| RW-11-05-c | 2.Copper Strips  | Rmt  | 529.00  |
| RW-11-05-d | 3.Aluminium Strips   | Rmt  | 529.00  |
| RW-11-05-e | 4.Stainless steel strips   | Rmt  | 529.00  |
| RW-11-05-f | 5.Glass reinforced polymer/fibre reinforced polymer/polymeric strips   | Rmt  | 529.00  |
| RW-11-05-g | With reinforcing elements of synthetic geogrids  | Sqm  | 3142.00 |
|            |  |      |         |
| <b>XII</b> | <b>MAINTENANCE OF ROADS</b>  |      |         |
| RW-12-01   | <b>Restoration of Rain Cuts</b> (Restoration of rain cuts with soil, moorum, gravel or a mixture of these, clearing the loose soil, benching for 300 mm width, laying fresh material in layers not exceeding 250 mm and compacting with plate compactor or power rammers to restore the original alignment, levels and slopes)   | Cum  | 125.00  |
| RW-12-02   | <b>Maintenance of Earthen Shoulder (filling with fresh soil)</b> (Making up loss of material/ irregularities on shoulder to the design level by adding fresh approved soil and compacting it with appropriate equipment.)  | Sqm  | 33.00   |
| RW-12-03   | <b>Maintenance of Earth Shoulder (stripping excess soil)</b> (Stripping excess soil from the shoulder surface to achieve the approved level and compacting with plate compactor)   | Sqm  | 12.00   |
| RW-12-04   | Filling Pot- holes and Patch Repairs with open - graded Premix surfacing, 20mm. (Removal of all failed material, trimming of completed excavation to provide firm vertical faces, cleaning of surface, painting of tack coat on the sides and base of excavation as per clause 314-MCGM Road Spec., back filling the pot holes with hot bituminous material as per clause 361-MCGM Road Spec., compacting, trimming and finishing the surface to form a smooth continuous surface, all as per clause 3004.2-MoRTH)   | Sqm  | 119.00  |



Schedule for Road Works  
2013

| ITEM CODE  | ITEM DESCRIPTION   | UNIT | RATE    |
|------------|--|------|---------|
|            | Filling Pot- holes and Patch Repairs with - Bituminous concrete, 40mm. (Removal of all failed material, trimming of completed excavation to provide firm vertical faces, cleaning of surface, painting of tack coat on the sides and base of excavation as per clause 314-MCGM Road Spec., back filling the pot holes with hot bituminous material as per clause 351-MCGM Road Spec., compacting, trimming and finishing the surface to form a smooth continuous surface, all as per clause 3004.2--MoRTH) |      |         |
| RW-12-05a  | <b>for grading I Material</b>  | Sqm  | 286.00  |
| RW-12-05b  | <b>for grading II Material</b>   | Sqm  | 293.00  |
| RW-12-06   | <b>Crack Filling</b> (Filling of crack using slow - curing bitumen emulsion and applying crusher dust in case crack are wider than 3mm.)   | Rmt  | 3.00    |
| RW-12-07   | <b>Dusting</b> (Applying crusher dust to areas of road where bleeding of excess bitumen has occurred.)   | Sqm  | 2.68    |
| RW-12-08   | <b>Fog Seal</b>  | Sqm  | 33.00   |
|            | <b>Crack Prevention courses.</b>   |      |         |
| RW-12-09-a | Stress Absorbing Membrane (SAM) crack width less than 6 mm   | Sqm  | 54.00   |
| RW-12-09-b | Stress Absorbing Membrane (SAM) with crack width 6 mm to 9 mm  | Sqm  | 63.00   |
| RW-12-09-c | Stress Absorbing Membrane (SAM) crack width above 9 mm and cracked area above 50 %   | Sqm  | 83.00   |
| RW-12-09-d | Bitumen Impregnated Geotextile   | Sqm  | 573.00  |
|            | <b>Slurry Seal</b>   |      |         |
| RW-12-10-a | 5 mm thickness   | Sqm  | 54.00   |
| RW-12-10-b | 3 mm thickness   | Sqm  | 37.00   |
| RW-12-10-c | 1.5 mm thickness   | Sqm  | 22.00   |
|            | <b>Surface Dressing for maintance works.</b>   |      |         |
| RW-12-11-a | 19 mm nominal chipping size  | Sqm  | 25.00   |
| RW-12-11-b | 13 mm nominal size chipping  | Sqm  | 58.00   |
| RW-12-12   | <b>Repair of joint Grooves with Epoxy Mortar</b> Repair of spalled joint grooves of contraction joints, longitudinal joints and expansion joints in concrete pavements using epoxy mortar or epoxy concrete)   | Rmt  | 2051.00 |
| RW-12-13   | <b>Repair of old Joints Sealant</b> (Removal of existing sealant and re sealing of contraction, longitudinal or expansion joints in concrete pavement with fresh sealant material)   | Rmt  | 39.00   |
| RW-12-14   | <b>Hill Side Drain Clearance</b> (Removal of earth from the choked hill side drain and disposing it on the valley side manually)   | Rmt  | 40.00   |
| RW-12-15   | <b>Land Slide Clearance in soil</b> (Clearance of land slides in soil and ordinary rock by a bull-dozer D 80 A-12, 180 HP and disposal of the same on the valley side)   | Cum  | 77.00   |
| RW-12-16   | <b>Land slide Clearance in Hard Rock Requiring Blasting</b> (Clearing of land slide in hard rock requiring blasting for 50% of the boulders and disposal of the same on the valley side.)  | Cum  | 133.00  |



Appendix-A  
Schedule for Road Works

| <b>BASIC RATES LIST ADOPTED FOR FRAMING THE SCHEDULE</b> |             |  |             |             |
|--|-------------|--|-------------|-------------|
| <b>(A) Labour</b>  |             |  |             |             |
| <b>Sl. No.</b>   | <b>Code</b> | <b>Description of Labour</b>   | <b>Unit</b> | <b>Rate</b> |
| 1  | LB-02       | Welder   | Day         | 425.00      |
| 2  | LB-05       | Bhisti   | Day         | 300.00      |
| 3  | LB-06       | Blacksmith 1st class   | Day         | 400.00      |
| 4  | LB-07       | Blacksmith 2nd Class   | Day         | 325.00      |
| 5  | LB-08       | Breaker / Chiseller/ Tapkar / Hole Driller   | Day         | 400.00      |
| 6  | LB-09       | Carpenter 1st Class  | Day         | 450.00      |
| 7  | LB-10       | Carpenter 2nd Class  | Day         | 375.00      |
| 8  | LB-12       | Male Mazdoor / Watchman  | Day         | 300.00      |
| 9  | LB-13       | Mixer Driver   | Day         | 350.00      |
| 10   | LB-16       | Fitter   | Day         | 425.00      |
| 11   | LB-21       | Mason 1st Class  | Day         | 500.00      |
| 12   | LB-22       | Mason 2nd Class  | Day         | 400.00      |
| 13   | LB-23       | Female Mazdoor   | Day         | 300.00      |
| 14   | LB-24       | Mechanic   | Day         | 500.00      |
| 15   | LB-25       | Blaster  | Day         | 400.00      |
| 16   | LB-26       | Operator Of Gunite M/C or Compressor   | Day         | 400.00      |
| 17   | LB-27       | Painter  | Day         | 325.00      |
| 18   | LB-29       | Plumber  | Day         | 450.00      |
| 19   | LB-32       | Semi Skilled Labour (Beldar)   | Day         | 350.00      |
| 20   | LB-33       | Mate / Supervisor / Foremen / Mistry   | Day         | 550.00      |
| 21   | LB-36       | Pavior / Tiler   | Day         | 600.00      |
| <b>(B) Usage Rates of Plant and Machinery</b>            |             |  |             |             |
| <b>Sl. No.</b>   | <b>Code</b> | <b>Description of Machine</b>  | <b>Unit</b> | <b>Rate</b> |
| 1  | HC-09       | Hydraulic Excavator of 1 cum bucket  | Hr          | 1375.00     |
| 2  | HC-12       | Poclain HC.300 (including operator & helper, diesel,etc.)                                  | Day         | 35000.00    |
| 3  | HC-13       | Tipper - 5 cum   | Hr          | 475.00      |
| 4  | HC-17       | Front End loader 1 cum bucket capacity   | Hr          | 687.50      |
| 5  | HC-21       | Rock breaker   | Day         | 6880.00     |
| 6  | HC-22       | Plate compactor  | Hr          | 50.00       |
| 7  | HC-27       | Tractor with trolley   | Day         | 1485.00     |
| 8  | HC-28       | Air Compressor   | Hr          | 337.50      |
| 9  | HC-32       | Concrete Mixer - 0.4/0.28 cum  | Hr          | 110.00      |
| 10   | HC-34       | Transit Mixer 4.0/4.5 cum  | Hr          | 950.00      |
| 11   | HC-35       | Pumping charges of concrete including Hire charges of pump, piping work & accessories etc. | Cum         | 150.00      |
| 12   | HC-122      | Transit Mixer 4/4.5 cum  | tonne.km    | 4.05        |
| 13   | HC-34       | Truck 5.5 cum per 10 tonnes  | tonne.km    | 2.25        |
| 14   | HC-36       | Concrete Pump of 45 & 30 cum capacity  | Hr          | 265.00      |
| 15   | HC-38       | Water Tanker   | Hr          | 95.00       |



Appendix-A  
Schedule for Road Works

|    |        |   |       |          |
|----|--------|---|-------|----------|
| 16 | HC-40  | Generator 33 KVA                                    | Hr    | 380.00   |
| 17 | HC-42  | Generator 100 KVA                                   | Hr    | 770.00   |
| 18 | HC-43  | Generator ( with diesel)                            | Day   | 1200.00  |
| 19 | HC-58  | Cranes - 3 tonnes                                   | Hr    | 370.00   |
| 20 | HC-77  | Vibrator (Needle Type 40mm)                         | Day   | 440.00   |
| 21 | HC-77  | Needle Vibrator                                     | Day   | 440.00   |
| 22 | HC-78  | Roller 3T   | Day   | 2930.00  |
| 23 | HC-79  | Roller 10-12 Tonne                                  | Day   | 5125.00  |
| 24 | HC-81  | Vibratory Roller 10T                                | Day   | 10000.00 |
| 25 | HC-82  | Screed Vibrator                                     | Day   | 590.00   |
| 26 | HC-80  | Vibratory Roller 8 tonne                            | Hr    | 1500.00  |
| 27 | HC-83  | Plate Vibrator                                      | Day   | 590.00   |
| 28 | HC-84  | Pneumatic Road Roller                               | Hr    | 1275.00  |
| 29 | HC-85  | Smooth Wheeled Roller 8 tonne                       | Hr    | 500.00   |
| 30 | HC-86  | Dumper  | Day   | 4400.00  |
| 31 | HC-87  | Sensor Paver  | Day   | 20000.00 |
| 32 | HC-88  | Ordinary Paver                                      | Day   | 8785.00  |
| 33 | HC-89  | Mastic Cooker ( without diesel)                     | Day   | 1320.00  |
| 34 | HC-90  | Bitumen Pressure Distributor                        | Hr    | 1100.00  |
| 35 | HC-91  | Dozer 180 HP @ 60 cum per hour                      | Hr    | 3830.00  |
| 36 | HC-94  | Batching and Mixing Plant - 30 cum capacity         | Hr    | 2100.00  |
| 37 | HC-115 | Batching and Mixing Plant - 15 - 20 cum capacity    | Hr    | 1675.00  |
| 38 | HC-95  | Production cost of the batch mix plant              | Cum   | 385.00   |
| 39 | HC-96  | Hotmix Plant - 120 TPH capacity                     | Hr    | 26000.00 |
| 40 | HC-97  | Hotmix Plant - 100 TPH capacity                     | Hr    | 19250.00 |
| 41 | HC-98  | Hydraulic Chip Spreader                             | Hr    | 2700.00  |
| 42 | HC-99  | Mechanical Broom Hydraulic                          | Hr    | 400.00   |
| 43 | HC-100 | Mobile slurry seal equipment                        | Hr    | 800.00   |
| 44 | HC-101 | Shifting charges Foden tractor trailer              | Day   | 13500.00 |
| 45 | HC-102 | Hot Bitumen Boiler With Mechanical Sprayer          | Sqm   | 7.00     |
| 46 | HC-39  | Generator blower, cutting machine water tanker etc. | Shift | 5500.00  |
| 47 | HC-116 | Kerb casting machine                                | Hr    | 325.00   |
|    |        |   |       |          |

**(C) Materials**

| Sl. No. | Code     | Description  | Unit | Rate    |
|---------|----------|--|------|---------|
| 1       | MA-GN-01 | Cement   | bag  | 300.00  |
| 2       | MA-GN-02 | White Cement   | bag  | 850     |
| 3       | MA-GN-04 | Sand   | Cum  | 1200.00 |
| 4       | MA-GN-05 | Plaster Sand   | Cum  | 3000    |
| 5       | MA-GN-06 | Stone Aggregate (Metal I) : 6-12 mm nominal size           | Cum  | 850     |
| 6       | MA-GN-07 | Stone Aggregate (Metal II) : 20-32 mm nominal size         | Cum  | 850     |
| 7       | MA-GN-08 | Stone Aggregate (Metal III) : 40 mm nominal size           | Cum  | 820     |
| 8       | MA-GN-09 | Rubble For Masonary  | Cum  | 650     |
| 9       | MA-GN-10 | Rubble For Soling  | Cum  | 600     |
| 10      | MA-GN-12 | Coarse graded Granular sub-base Material 2.36 mm to 9.5 mm | Cum  | 1109.00 |



Appendix-A  
Schedule for Road Works

|    |           |  |           |         |
|----|-----------|--|-----------|---------|
| 11 | MA-GN-15  | Boulder with minimum size of 300 mm for Pitching at Site   | Cum       | 385.00  |
| 12 | MA-GN-16  | Gravel/Quarry spall at Site  | Cum       | 385     |
| 13 | MA-GN-17  | Grit   | Cum       | 750     |
| 14 | MA-GN-18  | Murum  | Cum       | 400     |
| 15 | MA-GN-20  | Mild Steel Bars  | MT        | 47400   |
| 16 | MA-GN-21  | Cold twisted bars (HYSD Bars)  | MT        | 48400   |
| 17 | MA-GN-24  | Gunny Bag  | No.       | 6.5     |
| 18 | MA-GN-27  | Diesel   | Ltr       | 54.83   |
| 19 | MA-GN-28  | Petrol   | Ltr       | 75.14   |
| 20 | MA-GN-31  | Binding Wire   | Kg        | 60      |
| 21 | MA-GN-32  | Water  | Ltr       | 0.13    |
| 22 | MA-GN-33  | Bricks   | 1000 Nos. | 5000.00 |
| 23 | MA-GN-31  | Binding wire   | Kg        | 60      |
| 24 | MA-RW-003 | Colour Cement  | bag       | 1560.00 |
| 25 | MA-RW-004 | Lime   | Kg        | 5.50    |
| 26 | MA-RW-006 | Stone Aggregate : 63 Mm Nominal Size   | Cum       | 850.00  |
| 27 | MA-RW-017 | L.D.O  | Ltr       | 47.48   |
| 28 | MA-RW-018 | Emulsion Rs  | Ltr       | 41.00   |
| 29 | MA-RW-019 | Cut Back   | Ltr       | 72.00   |
| 30 | MA-RW-020 | Bitu Men 30/40   | Kg        | 39.00   |
| 31 | MA-RW-021 | Bitumen (60-70 grade)/ VG-30   | Kg        | 36.38   |
| 32 | MA-RW-022 | Bitumen 10/20  | Kg        | 40.00   |
| 33 | MA-RW-023 | CRM B -60  | Kg        | 40.00   |
| 34 | MA-RW-024 | PMB -40  | Kg        | 44.00   |
| 35 | MA-RW-133 | Road Marking Paint - Yelow White Black Oil Based   | Ltr       | 174.66  |
| 36 | MA-RW-026 | Jointsealing Compund   | Kg        | 57.00   |
| 37 | MA-RW-027 | Asphalt Filler Sheet 12 mm Thk   | Sqm       | 459.00  |
| 38 | MA-RW-029 | Primer For Jointsealing  | Ltr       | 83.00   |
|    |           | <b>Interlocking Paver Blocks (Supply of paver block including Transporting loading, unloading to the site)</b> |           |         |
| 39 | MA-RW-030 | 60 mm thick unishape concrete pavers   | Sqm       | 588.00  |
| 40 | MA-RW-031 | 80 mm thick unishape concrete pavers   | Sqm       | 676.50  |
| 41 | MA-RW-032 | 80 mm thick unishape gray cement concrete interlocking pavers  | Sqm       | 790.90  |
| 42 | MA-RW-033 | 60 mm thick unishape gray cement concrete interlocking pavers  | Sqm       | 697.40  |
| 43 | MA-RW-034 | 60 mm thick Lacquer coated ( Reflective) interlocking gray cement concrete pavers                              | Sqm       | 664.40  |
| 44 | MA-RW-035 | 80 mm thick gray cement concrete Lacquer coated (Reflective) interlocking pavers ( Terra Cotta)                | Sqm       | 826.10  |
| 45 | MA-RW-036 | 100 mm thick interlocking concrete unishape pavers   | Sqm       | 838.20  |
| 46 | MA-RW-037 | 100 mm thick gray cement concrete unishape pavers (Terra Cotta)  | Sqm       | 1012.00 |
| 47 | MA-RW-038 | 60 mm thick Lacquer coated ( Reflective) interlocking white cement concrete pavers                             | Sqm       | 721.60  |
| 48 | MA-RW-039 | 80 mm thick Lacquer coated ( Reflective) interlocking white cement concrete pavers                             | Sqm       | 884.40  |



Appendix-A  
Schedule for Road Works

|    |           |   |       |          |
|----|-----------|---|-------|----------|
| 49 | MA-RW-040 | 60mm thick Beganit concrete paver block with Stone texture on top surface   | Sqm   | 1281.50  |
| 50 | MA-RW-041 | Concrete Paving Slabs(Flagstone) 400X400X60mm thick   | Sqm   | 1320.00  |
| 51 | MA-RW-042 | Concrete Paver blocks 200X200X60mm thick  | Sqm   | 1237.50  |
| 52 | MA-RW-043 | Concrete Paver blocks 200X200X80mm thick  | Sqm   | 1446.50  |
| 53 | MA-RW-044 | Concrete cobbles 100X100X60mm thick with shot blasted texture   | Sqm   | 1281.50  |
| 54 | MA-RW-045 | 60 mm thick Heritage paver interlocking white cement concrete pavers  | Sqm   | 1590.60  |
| 55 | MA-RW-046 | 80 mm thick Heritage paver interlocking white cement concrete pavers  | Sqm   | 2101.00  |
| 56 | MA-RW-050 | Coloured Granite of size 200 x 200 x 40mm thick   | Sqm   | 3850.00  |
| 57 | MA-RW-048 | Vitrified Ceramic Topping Paver Blocks of size 150 x 150 x 80mm thick   | Sqm   | 1716.00  |
| 58 | MA-RW-049 | Vitrified Ceramic Topping Paver Blocks of size 150 x 150 x 60 mm thick  | Sqm   | 1487.20  |
| 59 | MA-RW-050 | Concrete cobbles 150X150X80mm thick   | Sqm   | 1540.00  |
| 60 | MA-RW-051 | RED & BLACK GRANITE cobble stones of 100mm x 100mm x 100mm  | Sqm   | 1980.00  |
| 61 | MA-RW-052 | Cobble Stone in size: 100 x 100 x 100mm in grey colour  | Sqm   | 2200.00  |
| 62 | MA-RW-053 | 60 mm combi paver   | Sqm   | 1446.50  |
| 63 | MA-RW-054 | Stone colour Wall Tile  | Sqm   | 935.00   |
| 64 | MA-RW-055 | Cement Concrete Precast Header of M-50 grade of size: 500 mm length x 325 mm height x 150 mm thick  | Sqm   | 880.00   |
| 65 | MA-RW-056 | Cement concrete Kerb Stone of M-25 grade IN WHITE CEMENT with COLOUR of size: 500mm width x 325 height x 165mm thick (Half Batter, Bull Nose / Full Batter) | Sqm   | 962.50   |
| 66 | MA-RW-129 | Precast Slab 1050x500x45 (M-25)   | No.   | 1365.10  |
| 67 | MA-RW-130 | Water Dished Channel size : 600 x 300 x 80mm (M-40 grade )  | Rmt   | 467.50   |
| 68 | MA-RW-131 | Pre-cast concrete header for Paver Blocks- size 500mm x 325mm x 150mm(M-50)   | Rmt   | 619.30   |
| 69 | MA-RW-132 | Cement concrete Kerb Stone of various grades of size: 500mm width x 325 height x 165mm thick (Half Batter, Bull Nose / Full Batter)                         | Rmt   | 740.30   |
| 70 | MA-RW-057 | Emulsion SS1  | Ltr   | 49.00    |
| 71 | MA-RW-058 | Antistriping Agent  | Ltr   | 170.00   |
| 72 | MA-RW-059 | Emulsion MS   | Ltr   | 38.00    |
| 73 | MA-RW-060 | Lub. Oil  | Ltr   | 165.00   |
| 74 | MA-RW-061 | Coaltar For Shuttering  | Ltr   | 33.00    |
| 75 | MA-RW-062 | Additives (Portland cement)   | Kg    | 6.00     |
| 76 | MA-RW-063 | Carbon core 20mm thk  | MT    | 37017.00 |
| 77 | MA-RW-064 | Wonder patch 20mm thk   | MT    | 18150.00 |
| 78 | MA-RW-065 | Wonder binder   | Kg    | 446.00   |
| 79 | MA-RW-066 | Steel Fibres  | Kg    | 72.00    |
| 80 | MA-RW-067 | Thermacol 5 mm Thick  | Sqm   | 22.00    |
| 81 | MA-RW-068 | G.I. corrugated sheet of 2.44*0.75 m.   | Sheet | 784.00   |
| 82 | MA-RW-069 | Ballis 3"Ø  | No.   | 193.00   |



Appendix-A  
Schedule for Road Works

|     |             |   |          |          |
|-----|-------------|---|----------|----------|
| 83  | MA-RW-071   | R.C.C. Hume Pipe 150Mm Dia (NP 2 Class)   | Rmt      | 318.43   |
| 84  | MA-RW-072   | R.C.C. Hume Pipe 250 Mm Dia (NP 2 Class)  | Rmt      | 486.49   |
| 85  | MA-RW-073   | R.C.C. Hume Pipe 300 Mm Dia (NP 2 Class)  | Rmt      | 610.00   |
| 86  | MA-RW-074   | Shahabad Stone 23X15X5 cm   | No.      | 11.00    |
| 87  | MA-RW-075   | Hassan Cloth  | Sqm      | 11.00    |
| 88  | MA-RW-076   | High Density Polythene Pipe (H.D.P.Pipe)(30Cm. Long With Cap )  | No.      | 12.00    |
| 89  | MA-RW-077   | Waterproof Paper 40 Gsm   | Sqm      | 8.00     |
| 90  | MA-RW-078   | Admixture   | Ltr      | 165.00   |
| 91  | MA-RW-079   | Curing Compound   | Ltr      | 165.00   |
| 92  | MA-RW-083   | Stone crusher dust finer than 3mm with not more than 10% passing 0.075 sieve.   | Cum      | 1200.00  |
| 94  | MA-RW-094   | Bitumen (80-100 grade )/ VG-10  | MT       | 35580.00 |
| 95  | MA-BW-039   | Bitumen (emulsion)  | MT       | 30506.30 |
| 96  | MA-BW-042   | Bitumen (modified graded)   | MT       | 39063.85 |
| 97  | MA-RW-099   | Connectors/ Staples   | Each     | 10.00    |
| 98  | MA-BW-056   | Electric Detonators @ 1 detonator for 1/2 gelatin stick of 125 gms each   | 100 Nos. | 2200.00  |
| 99  | MA-BW-057   | Epoxy compound with accessories for preparing epoxy mortar  | Kg       | 1650.00  |
| 100 | MA-BW-059   | Epoxy primer  | Kg       | 379.50   |
| 101 | MA-BW-064   | Gelatin 80%   | Kg       | 110.00   |
| 102 | MA-RW-104   | Geo grids   | Sqm      | 380.00   |
| 103 | MA-RW-105   | Geomembrane   | Sqm      | 413.00   |
| 104 | MA-RW-106   | Geonets   | Sqm      | 688.00   |
| 105 | MA-RW-107   | Geotextile  | Sqm      | 413.00   |
| 106 | MA-RW-108   | Geotextile filter fabric  | Sqm      | 138.00   |
| 107 | MA-RW-109   | Joint Sealant Compound  | Kg       | 115.00   |
| 108 | MA-RW-110   | Paving Fabric   | Sqm      | 69.00    |
| 109 | MA-RW-111   | Perforated geosynthetic pipe 150 mm dia   | Rmt      | 168.00   |
| 110 | MA-RW-112   | Polymer braids  | Rmt      | 413.00   |
| 111 | MA-RW-113   | Primer  | Kg       | 135.00   |
| 112 | MA-RW-114   | Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Copper Strips)  | Rmt      | 412.50   |
| 113 | MA-RW-115   | Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Galvanised carbon steel strips)                                     | Rmt      | 412.50   |
| 114 | MA-RW-116   | Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Glass reinforced polymer/fibre reinforced polymer/polymeric strips) | Rmt      | 412.50   |
| 115 | MA-RW-117   | Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Stainless steel strips)   | Rmt      | 412.50   |
| 116 | MA-RW-118   | Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. Aluminium strips)  | Rmt      | 412.50   |
| 117 | MA-BW-095   | Super plastisizer admixture IS marked as per 9103-1999  | Kg       | 165.00   |
| 118 | MA-RW-120   | Synthetic Geogrids as per clause 3102.8 and approved design and specifications.   | Sqm      | 2475.00  |
| 119 | MA-BLD-HW-5 | Unstaked lime   | MT       | 3250.00  |
| 120 | MA-RW-134   | 20 ltr. Capacity drum   | No.      | 33.00    |
| 121 | MA-RW-135   | Ice flakes  | Kg       | 2.20     |
| 122 | MA-RW-136   | Matrex cold patch 25 mm thk   | MT       | 17449.30 |



Appendix-A  
Schedule for Road Works

|     |              |   |     |        |
|-----|--------------|---|-----|--------|
| 123 | MA-RW-137    | Special Admixtures =ELECIUM-51  | Ltr | 289.30 |
| 124 | MA-RW-138    | Special Admixtures = GLANIUMSKY784  | Ltr | 258.50 |
| 125 | MA-RW-139    | Polypropylene fibers  | Kg  | 418.00 |
| 126 | MA-RW-140    | Fly ash   | Kg  | 1.76   |
| 127 | MA-RW-141    | Elkem Microsilica   | Kg  | 40.70  |
| 128 | MA-RW-142    | Admixtures BASF Glanium SKY784  | Ltr | 259.60 |
| 129 | MA-BLD-GN-25 | Plasticizer / super plasticizer   | Kg  | 43.00  |
| 130 | MA-BLD-PN-11 | Synthetic enamel/ Oil paint   | Ltr | 150.00 |
| 131 | MA-BLD-PN-10 | Primer for oil paint  | Ltr | 250.00 |
| 132 | MA-RW-129    | Backer Rod  | Rmt | 6.99   |
| 133 | MA-RW-143    | Kerb stone 30 cm.to 40 cm. long., 15 cm. wide,<br>38 cm. deep             | No. | 75.00  |
| 134 | MA-RW-144    | Water tables of stone of size 30 cm wide and 10<br>cm thick               | No. | 32.00  |
| 135 | MA-RW-145    | Setts Stone of size 15 cm. to 25 cm. long, 10 cm.<br>wide and 15 cm. deep | No. | 13.50  |

