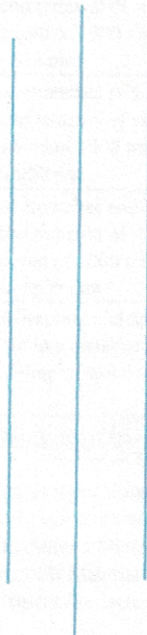




# **Summary of Road and Bridge Works Rate Analysis**

**2080/081**



**Mirchaiya Municipality**

**Office of Municipal Executive**

**Mirchaiya**

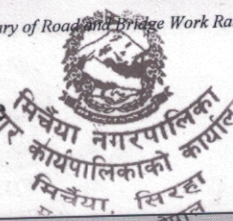
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**Summary of Road and Bridge Work Rate analysis 2080/81**

Norms No	Specification Clause No.	Description	Unit	Rate Contractor (NRs.)	Rate User (NRs.)	Remarks
<b>Site clearance</b>						
2.1.I(A)	201	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable Material to be used or auctioned, up to a lead of 30 meters including removal and disposal of top organic soil not exceeding 150 mm in thickness. (ii) By Mechanical Means (A) In area of light jungle (less than 15 number per 100 sqm )	Sqm	4.57	3.98	
2.1.II(B)	201	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable Material to be used or auctioned, up to a lead of 30 meters including removal and disposal of top organic soil not exceeding 150 mm in thickness. (ii) By Mechanical Means (B) In area of thorny jungle (more than 15 number per 100 sqm )	Sqm	4.83	4.20	
2.2 (i)	201	Cutting of Trees, including cutting of Trunks, Branches and Removal:Cutting of trees, including cutting of trunks, branches and removal of stumps, roots, stacking of serviceable Material with all lifts and up to a lead of 1000 meters and earth filling in the depression/pit. (i) Girth from 300 mm to 600 mm	Nos	1068.27	928.93	
2.2 (ii)	201	Cutting of Trees, including cutting of Trunks, Branches and Removal:Cutting of trees, including cutting of trunks, branches and removal of stumps, roots, stacking of serviceable Material with all lifts and up to a lead of 1000 meters and earth filling in the depression/pit. (ii) Girth from 600 mm to 900 mm	Nos	2670.69	2322.34	
2.2 (iii)	201	Cutting of Trees, including cutting of Trunks, Branches and Removal:Cutting of trees, including cutting of trunks, branches and removal of stumps, roots, stacking of serviceable Material with all lifts and up to a lead of 1000 meters and earth filling in the depression/pit. (iii) Girth from 900 mm to 1800 mm	Nos	7066.38	6144.68	
2.3	201	Clearing Grass and Removal of Rubbish and Dressing and levelling the construction surface:Clearing grass/ top soil and removal up to a distance of 50 meters outside the periphery of the area , including cutting and filling of small undulation.By Manual Means	Sqm	8.62	7.50	
<b>Dismantling</b>						
2.4.I(A)	202	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including scaffolding wherever necessary, sorting the dismantled Material, disposal of unserviceable Material and stacking the serviceable Material with all lifts and lead of 1000 meters (II) By Mechanical Means for Cement Concrete Grade M-15 & M-20.	Cum	2160.15	1878.39	
2.4.II(B)	202	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including scaffolding wherever necessary, sorting the dismantled Material, disposal of unserviceable Material and stacking the serviceable Material with all lifts and lead of 1000 meters (II) By Mechanical Means for Prestressed/ Reinforced cement concrete grade m-20 & above.	Cum	2128.71	1851.05	
2.5.I(A)	202	Dismantling of flexible pavements and disposal of dismantled Material up to a lead of 1000 metres, stacking serviceable and unserviceable Material separately By Manual Means	Cum	1946.19	1692.34	
2.5.II(A)	202	Dismantling of flexible pavements and disposal of dismantled Material up to a lead of 1000 metres, stacking serviceable and unserviceable Material separately By Mechanical Means	Cum	971.56	844.84	
2.6	202	Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled Material up to a lead of 1000 metres, stacking serviceable and unserviceable Material separately	Cum	2992.64	2602.30	
2.14	202	Removal of telephone / Electric poles including excavation and dismantling of foundation concrete and lines under the supervision of concerned department, disposal with all lifts and up to a lead of 1000 metres and stacking the serviceable and unserviceable Material separately	Nos	740.73	644.11	

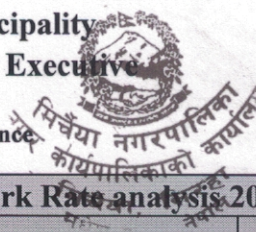
Hume pipe

[Signatures and stamps]





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**Summary of Road and Bridge Work Rate analysis 2080/81**

Norms No	Specification Clause No.	Description	Unit	Rate Contractor (NRs.)	Rate User (NRs.)	Remarks
3 7.2 A	701	Flush jointed Pipe for culverts:Providing and Laying Reinforced cement concrete NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per Drawing and Technical Specifications.For 300 mm internal dia.	RM	6326.70	5501.48	
4 7.2 B	701	Flush jointed Pipe for culverts:Providing and Laying Reinforced cement concrete NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per Drawing and Technical Specifications.For 450 mm internal dia.	RM	7565.25	6578.48	
5 7.2 C	701	Flush jointed Pipe for culverts:Providing and Laying Reinforced cement concrete NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per Drawing and Technical Specifications.For 600 mm internal dia.	RM	9033.80	7855.48	
6 7.2 D	701	Flush jointed Pipe for culverts:Providing and Laying Reinforced cement concrete NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per Drawing and Technical Specifications.For 900 mm internal dia.	RM	13723.73	11933.68	
7 7.2 F	701	Flush jointed Pipe for culverts:Providing and Laying Reinforced cement concrete NP3 Flush jointed pipe for culverts including fixing with cement mortar 1:2 as per Drawing and Technical Specifications.For 1200 mm internal dia.	RM	23640.50	20556.96	

**Earthwork in Roadway Excavation**

8 9.1,I.A	905	Roadway Excavation in all type of soil by Manual Means.Road way Excavation in all type of soils as per Drawing and Technical specifications including removal of stumps and other deleterious matter, all lifts and lead as per Drawing and instrution of the Engineer	Cum	710.70	618.00	Manual Means
9 9.1,I.B	905	Roadway Excavation in all type of soil by Mechanical Means.Road way Excavation in all type of soils as per Drawing and Technical specifications including removal of stumps and other deleterious matter, all lifts and lead as per Drawing and instrution of the Engineer	Cum	67.41	58.61	Hrdraulic excavator
10 9.1,I.B	905	Roadway Excavation in all type of soil by Mechanical Means.Road way Excavation in all type of soils as per Drawing and Technical specifications including removal of stumps and other deleterious matter, all lifts and lead as per Drawing and instrution of the Engineer	Cum	67.41	58.61	Backhoe Loader
11 9.1,I.B	905	Roadway Excavation in all type of soil by Mechanical Means.Road way Excavation in all type of soils as per Drawing and Technical specifications including removal of stumps and other deleterious matter, all lifts and lead as per Drawing and instrution of the Engineer.In case of mountainous terrain having cross slope 25-60 %	Cum	67.85	61.55	Cross slope 25-60% Terrain
12 9.1,II.B	905	Roadway Excavation in Ordinary Rock by Mechanical Means. Road way Excavation in ordinary Rock as per Drawing and Technical specifications including all lifts and lead as per Drawing and instrution of the Engineer				
		In Terai	Cum	202.23	175.85	
		In Hill	Cum	212.34	184.65	
13 9.1,IV.A	905	Excavation in Hard Rock (blasting prohibited) . Road way Excavation in hard rock with rock breakers, including breaking rock, lifts and lead for disposal as per Drawing and Technical specifications mechanical method, lead upto 30 m.				
		In Terai	Cum	1894.12	1647.06	
		In Hill	Cum	1988.82	1729.41	

**Earthwork in Excavation for Structure**

14 9.4 I A (i)	907	Earth work in excavation of foundation of structures, including construction of shoring and bracing, removal of stumps and other deleterious matter and backfilling with approved Material as per Drawing and Technical Specifications Depth upto3m. In ordinary soil by By Manual Means	cum	828.00	720.00	
15 9.4 I A (i)	907	Earth work in excavation of foundation of structures, including construction of shoring and bracing, removal of stumps and other deleterious matter and backfilling with approved Material as per Drawing and Technical Specifications Depth upto3m. In ordinary soil by By Manual Means including dewatering.	cum	910.80	792.00	Manual Means including dewatering
16 9.4,I,B,i	907	Earthwork excavation for foundation of structures, including construction of shoring, bracing, removal of stumps and other deleterious matter and backfilling with approved material as per Drawing and Technical specifications mechanical means, for ordinary soil & Depth upto 3 m	cum	101.11	87.92	Using Backhoe loader
17 9.4,I,B,ii	907	Earthwork excavation for foundation of structures, including construction of shoring, bracing, removal of stumps and other deleterious matter and backfilling with approved material as per Drawing and Technical specifications mechanical means, for ordinary soil & Depth upto 3-6 m	cum	124.23	108.02	Using Hydraulic excavator

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**Summary of Road and Bridge Work Rate analysis 2080/81**

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9.4.IB,iii	907	Earthwork in excavation of foundation of structures, including construction of shoring, bracing, removal of stumps and other deleterious matter and backfilling with approved material as per Drawing and Technical specifications mechanical means, for ordinary soil & Depth above 6 m	Cum	147.28	128.07	Using Hydraulic excavator
9.4.II,B	907	Excavation for structure foundation . Earthwork in excavation of foundation of structures, including construction of shoring, bracing, removal of stumps and other deleterious matter and backfilling with approved material as per Drawing and Technical specifications mechanical means, for ordinary Rock	cum	269.64	234.47	Using Hydraulic excavator
9.4.VA	907	Earth work in excavation of foundation of structures, including construction of shoring and bracing, removal of stumps and other deleterious matter and backfilling with approved Material as per Drawing and Technical Specifications Depth upto3m. In Marshy soil By Manual Means.	Cum	1946.19	1692.34	Marshy soil Manual means
9.4.VB	907	Earth work in excavation of foundation of structures, including construction of shoring and bracing, removal of stumps and other deleterious matter and backfilling with approved Material as per Drawing and Technical Specifications Depth upto3m. In Marshy soil By Mechanical Means.	cum	588.02	511.32	Marshy soil Mechanical means
<b>Stripping, Storing of top soil</b>						
9.5	905	Stripping, storing of top soil by road side at 15 m internal and re-application on embankment slopes, cut slopes and other areas in localities where the available embankment Material is not conducive to plant growth as per Drawing and Technical Specifications.	cum	130.60	113.57	
9.6	909	Stripping, Storing and Re-laying Top Soil from Borrow Areas in Agriculture Fields. Stripping of top soil from borrow areas located in agriculture fields, storing at a suitable place, spreading and re-laying after taking the borrow earth to maintain fertility of the agricultural field, finishing it to the required levels to the satisfaction of the farmer as per Drawing and Technical Specifications.	cum	289.96	252.14	
9.7	9,09,910	Preparation and surface treatment of Formation by removing mud and slurry, watering to the extent needed to maintain desired moisture content, compacting all complete as per Drawing and Technical Specifications.	sqm	8.23	7.16	
<b>Earthwork in Embankments &amp; Back filling</b>						
9.8	9,09,910	Construction of Embankment with material obtained from Borrow pits Providing, Laying,spreading and compacting embankment with borrow material as per Drawing and Technical specifications.	cum	234.09	203.56	
9.9 B	9,09,910	Construction of Embankment with Material Deposited from Roadway Cutting Providing, laying, spreading and compacting embankment with roadway cutting material and compact to the required density as per Drawing and Technical Specifications. (With machine)	cum	227.50	197.83	
9.11,A	908	Providing suitable material and Back filling behind abutment, wing wall and return wall complete as per Drawing and Technical specifications for Granular Materials	cum	1090.27	948.06	
9.11,C	908	Providing suitable material and Back filling behind abutment, wing wall and return wall complete as per Drawing and Technical specifications for Locally available material including compaction by tamping rod (with watering)	cum	1066.01	926.97	
9.11,D	908	Providing suitable material and Back filling behind abutment, wing wall and return wall complete as per Drawing and Technical specifications for Locally available material including compaction by tamping rod (without watering)	cum	935.77	813.72	
<b>Scarifying &amp; Pavement</b>						
10.1 A	1003	Scarifying Existing road Surface to a Depth of 50 mm by Manual Means:Scarifying the existing road surface to a depth of 50 mm and disposal of scarified Material with all lifts and leads as per Drawing and Technical Specifications.	sqm	32.43	28.20	
10.1 B	1003	Scarifying Existing road Surface to a Depth of 50 mm by Manual Means:Scarifying the existing granular road surface to a depth of 50 mm and disposal of scarified Material with all lifts and leads within Right of way as per Drawing and Technical Specifications.	sqm	19.55	17.00	
10.2 A	1003	Scarifying Existing road Surface to a depth of 50 mm by Mechanical Means:Scarifying the existing road surface to a depth of 50 mm and disposal of scarified Material with in all lifts and lead as per Drawing and Technical Specifications.	sqm	19.49	16.95	

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Norms No	Specification Clause No.	Description	Unit	Rate Contractor (NRs.)	Rate User (NRs.)	Remarks	
3	10.2 B	1003	Scarifying Existing road Surface to a depth of 50 mm by Mechanical Means:Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified Material with in all lifts and lead as per Drawing and Technical Specifications.	sqm	11.55	10.04	
4	10.3	1004	Construction of subgrade and Earthen Shoulders with approved material (Capping layer) : Providing and laying sub-grade and earthen shoulders with approved Material obtained from borrow pits with all lifts and lead as per Drawing and Technical specifications . Approved Material: Local Khet Ko Mato.	cum	686.35	596.83	
5	10.3	1004	Construction of subgrade and Earthen Shoulders with approved material (Capping layer) : Providing and laying sub-grade and earthen shoulders with approved Material obtained from borrow pits with all lifts and lead as per Drawing and Technical specifications . Approved Material: Transported from within 5km from Khola ko Charri	cum	686.35	596.83	
6	10.4	1,00,31,005	Compacting original ground ( Compacting original ground supporting sub-grade) : Loosing of the ground upto a level of 500 mm below the sub-grade level, watered, graded and compacted in layers as per Drawing and Technical specifications .	cum	112.90	98.17	
7	10.4II	1,00,31,005	Compacting original ground ( Compacting original ground supporting Embankment) : Loosing, levelling and compacting original ground supporting embankment to facilitate placement of first layer of embankment, scarified to a depth of 150 mm, mixed with water at OMC and then compacted by rollings as to achieve dry density as per Drawing and Technical specifications .	cum	54.53	47.42	
Sub-Base Course							
8	12.1 A	1201	Providing and laying granular sub-base material By Mechanical Means : Providing and laying granular sub-base on prepared surface, mixing at omc, and compacting to achieve the desired density , complete as per Drawing and Technical specifications .	cum	2636.74	2292.82	compacted
9	12.1 A	1201	Providing and laying granular sub-base material By Mechanical Means : Providing and laying granular sub-base on prepared surface, without mixing at omc, and without compacting , complete as per Drawing and Technical specifications .	cum	1975.49	1717.82	Uncompacte d
Base Course							
10	12.7 A	1204	Crusher Run Macadam Base and Sub Base By Mix in place method : Providing and laying crusher run macadam on a prepared surface, spreading and mixing, watering and compacting to form a layer of Base course as per Drawing and Technical specifications . (For 45 mm maximum size)	cum	4269.62	3712.71	
Bituminious work							
11	13.1 B	1302	Providing and applying prime coat with Hot Bitumen ( including cutter) on prepared surface of granular base including cleaning of road surface and spraying by Manual means as per Technical Specification. Prime Coat, with MC 30 / 70	lit	251.51	218.71	
12	13.2B	1302	Tack coat with Bitumen by Manual Means Providing and applying tack coat with hot Bitumen at the specified rate the prepared surfaces including cleaning as per Technical Speciation .	lit	195.62	170.11	
13	13.9A	1311	Providing and laying open-graded premix carpet of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates as wearing course on a previously prepared base as per drawing and Technical Specifications . By Manual Means	Cum	17476.09	15196.60	
13	13.9A	1311	Providing and laying open-graded premix carpet of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates as wearing course on a previously prepared base as per drawing and Technical Specifications . By Manual Means	Sqm	349.52	303.93	
14	13.11	1310	Providing and laying seal coat sealing the voids in a bituminous surface as per Drawing and Technical Specifications.	Sqm	96.86	84.23	
15	13.17	1300	Bitumen Cutter Providing and mixing of Bitumen cutter as per design / direction of Engineer	lit	160.52	139.58	
16	13.1 A	1302	Prime Coat, with MC 30 / 70 by Mechanical Means Providing and applying prime coat with Hot Bitumen ( including cutter) on prepared surface of granular base including cleaning of road surface and spraying by mechanical means as per Technical Specification .	lit	149.75	130.21	

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Norms No	Specification Clause No.	Description	Unit	Rate Contractor (NRs.)	Rate User (NRs.)	Remarks
13.1 C	1302	Prime Coat, with Emulsion by Mechanical Means Providing and applying primer coat with Bitumen emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at specified rate using mechanical means as per Technical Specification .	lit	141.93	123.41	
13.2 A	1302	Tack coat with Bitumen By Mechanical Means Providing and applying tack coat with hot Bitumen at specified rate on the prepared non-bituminous surfaces including cleaning as per Technical Speciation .	lit	140.64	122.29	
13.2 C	1302	Tack coat with Emulsion By Mechanical Means Providing and applying tack coat with Bitumen emulsion at specified rate on the prepared nonbituminous surfaces including cleaning as per Technical Speciation .	lit	135.58	117.89	
13.7 A	1303	Providing and laying surface dressing as wearing course in single coat using gravel of specified size on a recently applied layer of bituminous binder on prepared surface as per Drawing and Technical Specifications. A MECHANICAL MEANS Case - I :- 19 mm nominal chipping size	sqm	51.38	44.68	
13.7 A	1303	Providing and laying surface dressing as wearing course in single coat using gravel of specified size on a recently applied layer of bituminous binder on prepared surface as per Drawing and Technical Specifications. A MECHANICAL MEANS Case - II :- 13 mm nominal size chipping	sqm	36.04	31.34	
13.7 A	1303	Providing and laying surface dressing as wearing course in single coat using gravel of specified size on a recently applied layer of bituminous binder on prepared surface as per Drawing and Technical Specifications. A MECHANICAL MEANS Case - III :- 10 mm nominal size chipping	sqm	28.15	24.48	
13.7 A	1303	Providing and laying surface dressing as wearing course in single coat using gravel of specified size on a recently applied layer of bituminous binder on prepared surface as per Drawing and Technical Specifications. A MECHANICAL MEANS Case - IV:- 6 mm nominal size chipping	sqm	19.13	16.63	
13.19 ii, 13.11	1,31,01,315	Coarse sand sealing Using premix mixture machine for Premix Carpeting sand seal work.	sqm	96.86	84.23	
13.6A	1,309	Providing and Laying Bituminous Concrete/Asphat Concrete using crushed aggregate of specified grading, premix with bituminous binder and filler as per drawing and technical specification. Grading -I-19mm (Nominal Size)	Cum	23850.35	20739.43	
13.6A	1,309	Providing and Laying Bituminous Concrete/Asphat Concrete using crushed aggregate of specified grading, premix with bituminous binder and filler as per drawing and technical specification. Grading -II-13mm (Nominal Size)	Cum	23850.02	20739.15	
<b>Form work</b>						
18.1 a	1,80,41,805	Providing , Preparing and Installing form work including necessary supports and removing after completion for foundation and footings. (Class F1 Finish) a Using timber (soft wood )	sqm	1211.81	1053.75	
18.1 b	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for foundation and footings. (Class F1 Finish) using steel	sqm	580.52	504.80	
18.2 a i	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for walls. (Class F2 Finish), vertical plain surface a Using timber (soft wood ) i Height upto 3 m	sqm	1037.69	902.34	
18.2 a ii	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for walls. (Class F2 Finish), vertical plain surface a Using timber (soft wood ) Height 3 - 6 m	sqm	1262.51	1097.84	
18.2 b i	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for walls. (Class F2 Finish), vertical plain surface Using steel i Height upto 3 m	sqm	597.23	519.33	
18.2 b ii	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for walls. (Class F2 Finish), vertical plain surface Using steel Height 3 m - 6 m	sqm	705.58	613.55	
18.4 a i	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for columns Class F3 Finish Square / Rectangular surface , Using timber Height upto 3 m	sqm	1776.12	1544.45	
18.4 a ii	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for columns Class F3 Finish Square / Rectangular surface , Using timber Height 3 m - 6 m	sqm	2125.72	1848.45	

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Norms No	Specification Clause No.	Description	Unit	Rate Contractor (NRs.)	Rate User (NRs.)	Remarks
18.4 b i	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for columns Class F3 Finish Square / Rectangular surface , Using Steel Height upto 3m	sqm	788.27	685.45	
18.4 b ii	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for columns Class F3 Finish Square / Rectangular surface , Using Steel Height 3m-6m	sqm	913.63	794.46	
18.5 a i	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for columns Class F3 Finish circular surface , Using timber Height upto 3 m	sqm	2508.67	2181.45	
18.5 a ii	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for columns Class F3 Finish circular surface , Using timber Height 3 m - 6 m	sqm	3198.09	2780.95	
18.5 b ii	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for columns Class F3 Finish Circular surface , Using Steel Height 3m - 6m	sqm	1160.50	1009.13	
18.6 b	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for slab structure. Class F2 Finish False work not included Using steel	sqm	578.59	503.12	
18.6 c	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for slab structure. Class F2 Finish False work not included Using shuttering ply	sqm	798.69	694.51	
18.7 b	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for slab & beam structure. Class F2 Finish False work not included Using steel	sqm	765.93	666.03	
18.7 c	1804, 1805	Providing , Preparing and Installing form work including necessary supports and removing after completion for slab & beam structure. Class F2 Finish False work not included Using Shuttering Ply	sqm	1329.12	1155.76	
18.11 a i	1804, 1805	Providing and assembling in position falsework for the construction of RCC superstructure and removing after completion including design & drawings as per specification, for RCC Beam Bridge , Using timber , Height upto 3 m	sqm	6261.75	5445.00	
18.11 a ii	1804, 1805	Providing and assembling in position falsework for the construction of RCC superstructure and removing after completion including design & drawings as per specification, for RCC Beam Bridge , Using timber , Height 3 m - 6m	sqm	12868.50	11190.00	
18.11 b i	1804, 1805	Providing and assembling in position falsework for the construction of RCC superstructure and removing after completion including design & drawings as per specification, for RCC Beam Bridge , Using Steel , Height upto 3 m	sqm	2298.21	1998.45	
18.11 b ii	1804, 1805	Providing and assembling in position falsework for the construction of RCC superstructure and removing after completion including design & drawings as per specification, for RCC Beam Bridge , Using Steel ,Height upto 3 m-6 m	sqm	4855.18	4221.90	

**PCC/RCC Works Using Crushed Aggregate**

20.1	2000	Providing and laying of Plain Cement Concrete M 10 ( or 1:3:6 for nominal mix) in Foundation complete as per Drawing and Technical Specifications.	Cum	10166.13	8840.11	
20.2 A	2000	Providing and laying of Plain/Reinforced Cement Concrete in Foundation complete as per Drawing and Technical Specifications. A PCC Grade M 15	Cum	11630.46	10113.44	
20.2 B	2000	Providing and laying of Plain/Reinforced Cement Concrete in Foundation complete as per Drawing and Technical Specifications. A PCC Grade M 20	Cum	13026.18	11327.11	
20.2 C	2000	Providing and laying of Plain/Reinforced Cement Concrete in Foundation complete as per Drawing and Technical Specifications. A RCC Grade M 20	Cum	13093.26	11385.44	
20.2 E	2000	Providing and laying of Plain/Reinforced Cement Concrete in Foundation complete as per Drawing and Technical Specifications. A RCC Grade M 25	Cum	14976.19	13022.78	

**PCC/RCC Works Using Round Aggregate**

20.1	2000	Providing and laying of Plain Cement Concrete M 10 ( or 1:3:6 for nominal mix) in Foundation complete as per Drawing and Technical Specifications.	Cum	9648.63	8390.11	
20.2 A	2000	Providing and laying of Plain/Reinforced Cement Concrete in Foundation complete as per Drawing and Technical Specifications. A PCC Grade M 15	Cum	11112.96	9663.44	
20.2 B	2000	Providing and laying of Plain/Reinforced Cement Concrete in Foundation complete as per Drawing and Technical Specifications. A PCC Grade M 20	Cum	12508.68	10877.11	
20.2 C	2000	Providing and laying of Plain/Reinforced Cement Concrete in Foundation complete as per Drawing and Technical Specifications. A RCC Grade M 20	Cum	12575.76	10935.44	
20.2 E	2000	Providing and laying of Plain/Reinforced Cement Concrete in Foundation complete as per Drawing and Technical Specifications. A RCC Grade M 25	Cum	14458.69	12572.78	

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**Mirchaiya Municipality**  
**Office of Municipal Executive**  
 Mirchaiya  
 Madhesh Province  
 Nepal



**Summary of Road and Bridge Work Rate analysis 2080/81**

Norms No	Specification Clause No.	Description	Unit	Rate Contractor (NRs.)	Rate User (NRs.)	Remarks
<b>Rebar work for foundation/Sub-structure/Superstructure</b>						
20.3	2014	Providing and laying, fitting and placing un-coated Mild steel / HYSD reinforcement complete in foundation as per drawing and technical specification	Tonne	151704.16	131916.66	
<b>Gabion work</b>						
24.2, 24.3	2402	Providing mechanically woven double twisted crates / mattress including rolling, cutting and with lacing wire and binding wire as per specification (Heavy zinc coated Hexagonal mesh type 100 mm x 120 mm) and Assembling mechanical woven Gabion boxes /mattresses, placing in position including stretching; forming compartments; tying the sides and diaphragms with binding wire in each mesh; tying with bracing wires and tie wires; and tying down the lid complete as per specification (stone filling not included )	Sqm	450.65	391.87	
24.4	2402	Providing and filling stone/boulder in gabion boxes/mattress etc.. Including dressing, bedding, bonding all complete as per Drawing and Technical Specifications.	Cum	4761.00	4140.00	
24.5	2404	Laying and fixing of Geo-Textile all complete as per specification. Providing and laying of a geotextile filter between pitching and embankment slopes as per Drawing and Technical Specifications.	Sqm	189.75	165.00	
24.06	2,40,32,404	Providing and laying and fixing of Geo-membrane all complete as per specification.	Sqm	189.75	165.00	
<b>Brick Masonry</b>						
25.1 C	2500	Providing and laying Brick Masonry Work in Cement mortar in Foundation / structure complete excluding Pointing and Plastering, as per Drawing and Technical Specifications. Cement sand mortar (1:4)	Cum	13680.58	11896.16	
25.1 D	2500	Providing and laying Brick Masonry Work in Cement mortar in Foundation / structure complete excluding Pointing and Plastering, as per Drawing and Technical Specifications. Cement mortar (1:6)	Cum	13191.83	11471.16	
25.1 D	2500	Providing and laying Brick Masonry Work in Cement mortar in Foundation / structure complete excluding Pointing and Plastering, as per Drawing and Technical Specifications. Cement mortar (1:6)( hand mix)	Cum	13658.78	11877.20	
25.2 C	2500	Providing and laying Brick masonry work in superstructure/ sub-structure complete excluding pointing and plastering, as per drawing and Technical Specifications ,Cement Mortar 1:4 (1 cement : 4 sand)	Cum	14493.05	12602.66	
25.2 C	2500	Providing and laying Brick masonry work in superstructure/ sub-structure complete excluding pointing and plastering, as per drawing and Technical Specifications ,Cement Mortar 1:4 (1 cement : 4 sand) (Hand mixing)	Cum	14985.88	13031.20	
25.2 D	2500	Providing and laying Brick masonry work in superstructure/ sub-structure complete excluding pointing and plastering, as per drawing and Technical Specifications ,Cement Mortar 1:6 (1 cement : 6 sand)	Cum	14004.30	12177.66	
25.2 D	2500	Providing and laying Brick masonry work in superstructure/ sub-structure complete excluding pointing and plastering, as per drawing and Technical Specifications ,Cement Mortar 1:6 (1 cement : 6 sand) hand mixing	Cum	14497.13	12606.20	
<b>Stone masonry</b>						
26.3 B	2602, 2603,2607	Random Rubble Masonry Providing and laying of Stone Masonry Work in Cement Mortar 1:4 in Foundation complete as per Drawing and Technical Specifications.	Cum	11710.45	10183.00	
26.3 C	2602, 2603,2607	Random Rubble Masonry Providing and laying of Stone Masonry Work in Cement Mortar 1:6 in Foundation complete as per Drawing and Technical Specifications.	Cum	10926.15	9501.00	
26.5 A	2600, 2607	Providing and laying Stone Masonry work in cement mortar 1:4 in structure complete as per Drawing and Technical Specifications Random Rubble Masonry ( coursed/uncoursed )	Cum	13168.65	11451.00	
26.6 A	2600, 2607	Providing and laying Stone Masonry work in cement mortar 1:6 in structure complete as per Drawing and Technical Specifications Random Rubble Masonry ( coursed/uncoursed )	Cum	12585.60	10944.00	
26.7 A	2600,	Providing and Pointing with cement mortar on masonry work in structure as per Technical Specifications in cement mortar (1:3 )	Sqm	275.28	239.38	
<b>Plaster &amp; Pointing</b>						
25.3	2500	Providing, and applying Pointing with cement mortar (1:3 ) on brick work in structure as per Technical Specifications .	Sqm	281.34	244.65	

*Lawyer*

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**Office of Municipal Executive**  
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**Madhesh Province**  
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**Summary of Road and Bridge Work Rate analysis 2080/81**

	Norms No	Specification Clause No.	Description	Unit	Rate Contractor (NRs.)	Rate User (NRs.)	Remarks
16	25.4 A	2500	Providing and applying 12.5 mm thick Plaster with cement mortar on brick work structure as per Technical Specifications.Cement Mortar 1:2 (1 cement : 2 sand)	Sqm	459.74	399.78	Manual Mix
17	25.4 B	2500	Providing and applying 12.5 mm thick Plaster with cement mortar on brick work structure as per Technical Specifications.Cement Mortar 1:3 (1 cement : 3 sand)	Sqm	413.10	359.22	Manual Mix
18	25.4 C	2500	Providing and applying 12.5 mm thick Plaster with cement mortar on brick work structure as per Technical Specifications.Cement Mortar 1:4 (1 cement : 4 sand)	Sqm	386.52	336.11	Manual Mix
19	25.4 A	2500	Providing and applying 12.5 mm thick Plaster with cement mortar on brick work structure as per Technical Specifications.Cement Mortar 1:2 (1 cement : 2 sand)	Sqm	445.02	386.97	Mixture Used
20	25.4 B	2500	Providing and applying 12.5 mm thick Plaster with cement mortar on brick work structure as per Technical Specifications.Cement Mortar 1:3 (1 cement : 3 sand)	Sqm	398.38	346.41	Mixture Used
21	25.4 C	2500	Providing and applying 12.5 mm thick Plaster with cement mortar on brick work structure as per Technical Specifications.Cement Mortar 1:4 (1 cement : 4 sand)	Sqm	371.80	323.31	Mixture Used
Other works							
22	28.14 C	2812	Turfing with Sods Providing, furnishing and laying of the live sods of perennial turf forming grass on embankment slope, verges or other locations shown on the drawing or as directed by the engineer including preparation of ground, fetching of sods and watering.	Sqm	866.13	753.15	
23	15.4	1,501	Painting Two Coats on Concrete Surfaces Providing and Painting two coats after filling the surface with synthetic enamel paint in all shades on concrete / plaster surfaces as per Drawing and Technical Specifications.	Sqm	1147.07	997.45	
Stone Soling							
24	10.9	1006	Providing and laying of hand pack Cobble Stone ( approx size 10 cm * 9 cm * 9cm )with granular material bedding on prepared surface as per Drawing and Technical Specifications.	Sqm	786.60	684.00	
25	10.8	1006	Providing and laying of hand pack Stone soling with 150 to 200 mm thick stones and packing with smaller stone on prepared surface as per Drawing and Technical Specifications.	Cum	7866.00	6840.00	
Plum Concrete Works							
26	24.21A I	2421	Providing and laying Plum concrete ( Boulder mixed concrete) as per Drawing and Specifications A60% M 15 concrete and 40% boulders/stones I using Mechanical Aids	Cum	10508.63	9137.94	
27	24.21A II	0	Providing and laying Plum concrete ( Boulder mixed concrete) as per Drawing and SpecificationsA60% M 15 concrete and 40% boulders/stones I using Mannual Aids	Cum	12223.23	10628.90	
Miscellaneous							
28	9.2	905	Removal of unserviceable soil including excavation, loading and disposal upto 1000 meters lead	cum	135.04	117.43	
29	From Siraha district rate FY-2080/81		Earthfilling work with local soil/charri transported by tractor or other means from within 5km without compacting.	cum	400.00	400.00	
30	From Siraha district rate FY-2080/81		Construction of road or embankment using local soil from borrow pits using excavator and levelling work of the dumped soil done using tractor attached with leveller.	cum	180.00	180.00	

*Saujan*

*20/05/21*

*[Signature]*

*Rishu K. Yadav*

*[Signature]*

*Dash*

**प्रमुख प्रशासकीय अधिकृत**