

RECONSTRUCTION OF MINOR BRIDGES, BOX CULVERTS & PIPE CULVERTS AT VARIOUS LOCATIONS IN DEV-BHOOMI DWARKA DISTRICT (PANCHAYAT) UNDER MMGSY, IN THE STATE OF GUJARAT (PACKAGE-3).

BILL OF QUANTITIES (BOQ)

Item No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
1	Clearing and grubbing road land including uprooting rank vegetation grass bushes, shrubs, sapling and trees girth up to 300 mm removal of stumps of trees cut earlier and disposal of unserviceable materials (C) By mechanical means in area of light jungle.	0.74	One Hect.	28,455.09	21,056.77
2	Demarcation of road alingment including marking out road line by providing and fixing wooden pegs or steel rod of required size at every 25 M to 50 M. including excavating trenches on both sodes of 0.30 m. x 0.30M. including supplying of labours and all materials for every work etc complete.	0.15	One Km.	2,706.50	392.44
3	Portable Barricade in Construction Zone (Installation of a steel portable barricade with horizontal rail 300 mm wide, 2.5 m in length fitted on a 'A' frame made with 45 x 45 x 5 mm angle iron section, 1.5 m in height, horizontal rail painted (2 coats) with yellow and white stripes, 150 mm in width at an angle of 450, 'A' frame painted with 2 coats of yellow paint, complete as per IRC:SP:55-2001)	20.00	One No.	3,035.05	60,701.00
4	Diversion of water course, providing cofferdam and bund or island as may be necessary for foundation and maintaining the same for the period as may be necessary.	5.00	One No.	50,000.00	250,000.00
5	Earthwork for embankment including breaking clods, dressing with all lead and lift (Excluding watering and consolidation) (A) Selected soil should be From borrow area with all lead and lift and should have CBR not less than 6.00%.	5260.10	One Cum	163.62	860,660.47
6	Earthwork for embankment including breaking clods, dressing with all lead and lift and including watering rolling and consolidation of subgrade in layers at O.M.C. to required dry density including filling the depression which occur during the process using power roller 8T to 10T.(E) From Borrow area including all lead & lift	2475.00	One Cum	177.91	440,327.25
7	WBM Grading-2 Providing, laying, spreading and compacting stone agg. Of 63mm to 45mm size to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 KN in stage to proper grade and camber, applying and brooming, stone screening/binding material to fill-up the intersties of coarse agg., watering and compacting to the required density grading-2 as per Technical Specification Clasue.405 By manual means.	195.60	One Cum	2,105.57	411,850.39
8	Rolling and Watering of earthwork with vibratory roller including filling in depression which occur during the process and as directed.	4957.20	One Cum	22.95	113,767.74
9	Excavation for foundation upto 1.5m depth including sorting out and stacking of useful materials and disposing of the excavated stuff upto all lead. (B) Dense or hard soil.	59.50	One Cum	253.88	15,105.86

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10	Excavation for foundation upto 1.5m depth including sorting out and stacking of useful materials and disposing of the excavated stuff upto all lead. (C) Hard Murrum	36.00	One Cum	432.61	15,573.96
11	Excavation of foundation in Sand gravel caly soft soil and murrum etc. including shoring, struting dewatering as necessary and disposing of the excavated stuff as directed. Depth upto 3.00mt.	2565.10	One Cum	511.11	1,311,048.58
12	Excavation of foundation in hard murrum and boulders and very stiff or sticky clays and other similar strata including shorting out and struting and dewatering as necessary and disposing of the excavated stuff as directed.	896.00	One Cum	611.32	547,742.72
13	Excavation in large boulders and soft rock by wedging including shoring, strutting and dewatering as necessary and disposing of the excavated stuff as directed,	500.00	One Cum	716.55	358,277.30
14	Excavation in hard rock by dry-wet blasting and chiseling including dewatering preparing foundation base by proper benching and stepping and disposing of the excavated stuff as directed (B) Blasting prohibited.	585.00	One Cum	1,675.31	980,054.71
15	Providing and fixing Mild steel dowel bar of minimum 32mm dia. For anchoring by drilling holes in foundation strata including necessary bending, hooking of dowel bars and grouting the holes complete as per detailed drawing and as directed.	155.00	One Rmt.	450.07	69,760.25
16	Providing and laying rubble for apron (Each stone weighting not less than 40kg) including and packing and filling in the interstices with quarry spall.	288.10	One Cum	1,083.81	312,245.66
17	Providing and filling in foundation with ordinary cement concrete M-15 mix and providing necessary vertical pin headers incl. Formwork, vibrating, ramming and curing complete.	501.90	One Cum	3,715.62	1,864,869.68
18	Providing and casting in situ ordinary cement concrete M-15 mix and providing necessary pin headers including shuttering, scaffolding, laying vibrating, curing and finishing complete Without V-Grooves For all Hieght.	110.20	One Cum	3,921.63	432,163.63
19	Providing and filling in foundation with ordinary cement concrete M-10 mix and providing necessary vertical pin headers incl. Formwork, vibrating, ramming and curing complete.	26.60	One Cum	3,345.58	88,992.43
20	Providing and filling in foundation with ordinary cement concrete M-15 mix and providing necessary vertical pin headers incl. Formwork, vibrating, ramming and curing complete.	171.20	One Cum	3,715.63	636,115.58
21	Providing & laying 22.5 cm thick dry rubble stone pitching on side slope on existing earthwork on murrum bed 7.50 cm thick & filling interstic with murrum & providing Flush pointing in CM 1:3 etc complete including curing & preparing slope in Earth work as directed.	324.00	One Sqm	795.88	257,865.12

Item No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
22	Providing parapet of ordinary cement concrete M-20 as per detailed drawing with necessary reinforcement including shuttering laying vibrating and finishing to line and level complete (ii) cast in situ.	154.60	One Rmt.	1,082.18	167,305.03
23	Providing and casting in situ Controlled cement concrete M-20 for R.C.C. work in Piers, abutment, returns and riding returns as per drawing including centering, shuttering, scaffolding where necessary laying, vibrating curing and finishing complete (A) For all Height	1493.10	One Cum	5,198.58	7,761,999.80
24	Providing and casting in situ Controlled cement concrete M-30 for C.C. work in Piers, abutment, returns and riding returns as per drawing including centering, shuttering, scaffolding where necessary laying, vibrating curing and finishing complete (A) For all Height	545.00	One Cum	5,462.90	2,977,279.46
25	Providing and casting in situ Ordinary cement concrete M-20 for C.C. Toe Wall and Curtain walls including necessary shuttering laying, vibrating, ramming and curing complete.	40.00	One Cum	4,142.22	165,688.88
26	Providing and casting in situ Controlled Cement Concrete M-25 for R.C.C. Raft and cut-off walls including necessary shuttering laying, vibrating ramming of curing complete.	418.90	One Cum	4,697.25	1,967,678.03
27	Providing and casting in situ Controlled Cement Concrete M-30 for C.C. Raft and cut-off walls including necessary shuttering laying, vibrating ramming of curing complete.	890.00	One Cum	4,855.85	4,321,704.45
28	Providing and casting in situ Controlled Cement concrete M 30 mix for R.C.C. works in pier cap, abutment cap, and dirt wall including controlled cement concrete M 35 bed block or pedestals for required size below bearings as per detailed drawings, centering, shuttering, scaffolding wherever necessary laying, vibrating, curing and finishing complete.	75.00	One Cum	5,542.86	415,714.49
29	Providing and casting in situ Controlled cement concrete M 25 for R.C.C. Solid slab including centering, scaffolding, curing and finishing complete.	190.90	One Cum	5,256.06	1,003,381.85
30	Providing and casting in situ Controlled cement concrete M 30 for R.C.C. Solid slab including centering, scaffolding, curing and finishing complete.	540.00	One Cum	5,890.42	3,180,827.34
31	Providing and casting in situ Controlled cement concrete- M-20 for average 75/150mm thick wearing coat laid as directed including. tamping, vibrating, finishing, curing and filling in joints with bitumen complete.	19.80	One Cum	5,271.78	104,381.24
32	Providing and casting in situ Controlled cement concrete- M-30 for average 75mm thick wearing coat laid as directed including. tamping, vibrating, finishing, curing and filling in joints with bitumen complete.	44.80	One Cum	5,536.10	248,017.41
33	Providing and casting in situ Controlled cement concrete- M-20 mix for kerbs/Kerb blocks including formwork,curing and finishing complete.	12.30	One Cum	4,842.86	59,567.18
34	Providing and casting in situ Controlled cement concrete- M-30 mix for kerbs/Kerb blocks including formwork,curing and finishing complete.	60.00	One Cum	5,107.19	306,431.40
35	Providing and casting in situ Controlled cement concrete- M-25 mix for Approach slab including formwork, curing and finishing complete.	63.20	One Cum	5,235.67	330,894.34

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36	Providing and casting in situ Contolled cement concrete- M-30 mix for Approach slab including formwork, curing and finishing complete.	40.00	One Cum	5,394.27	215,770.74
37	Providing and laying weep hole in Abutment and returns by using A.C pipe of 100mm. Incl. fixing in proper grade and jointing the complete as per detailed specification.	987.00	One No	86.69	85,565.38
38	Providing and laying filter media 600mm. thick directed at the back of abutments, returns and wing walls as per detailed specifications.	498.80	One Sqm	1,239.35	618,188.00
39	Providing and filling sand behind abutments and between riding return, square return in layers as directed.	1780.00	One Cum	504.42	897,875.25
40	Providing and fixing in position Mild steel dowel bars in pier cap or abutment caps for anchorage in free end as per detailed drawings including cutting bending and welding complete.	60.00	One No	450.07	27,003.97
41	Providing and laying in Position FE -500/500D TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following (A) Piers (B) Abutments (C) Returns (D) Walls etc.	16.750	One MT	73,858.69	1,237,133.10
42	Providing and laying in Position FE -500/500D TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following (A) Pier cap (B) Abutment cap & Dirt walls.	7.50	One MT	73,858.69	553,940.21
43	Providing and laying in Position FE -500/500D TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for the following (A) Solid slab	49.00	One MT	73,243.02	3,588,907.90
44	Providing and Fixing in position FE-500/500D TMT bar reinforcement including cutting, bending, hooking, and tying complete as per detailed drawaing (A)RCC kerb (B) RCC Footpath (B) RCC Solid Slab/ App. Slab / Wearing coat.	70.100	One MT	73,243.01	5,134,335.11
45	Providing 12mm. Thick Pre-moulded asphalt filler joints as per drawings	82.80	One Sqm	703.52	58,251.79
46	Providing G.I. 100mm. Diameter water spouts including necessary iron gratings as per drawings.	80.00	One No	536.02	42,881.77
47	Providing flood gauge marks on sub structure as per design including painting complete	44.50	One Rmt.	167.03	7,432.88
48	Painting Two Coats on New Concrete Surfaces (Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces) - For inner face of Kerb / Crash Barrier	199.00	One Sqm	81.81	16,280.19
49	Filling available excavated earth (excluding rock) in trenches plinth sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering.	427.10	One Cum	136.91	58,474.26
50	Supplying and fixing reinforced concrete heavy duty non presure pipes with collars for culverts carrying heavy traffic as per IS 458-1991 specification including setting and joining the pipes in C.M. 1:2 watering and laying (to level or slope) of I.S. Class NP-3 of following internal diameter with all lead and lift. (i) 900mm Dia.	110.00	One Rmt.	3,596.93	395,662.80

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51	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. Stone/Rubble masonry.	194.40	One Cum	409.22	79,552.37
52	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. RCC Work.	404.10	One Cum	930.35	375,954.44
53	Dismantling G.I. Pipes G.S.W. Pipes and A.C Rain water pipes with fitting and clamps including stacking the materials with all lead and lift (for any of pipe)	82.50	One Rmt.	76.67	6,325.28
54	Removing all type of hume pipes and stacking including all lead of earthwork and dismantling of masonry works. (A) Up to 600 mm dia	34.00	One Rmt	183.16	6,227.56
55	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. (A) CC Work	39.50	One Cum	630.24	24,894.48
56	Dismantling of Flexible Pavements (Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately) ii) By Mechanical means. A) Bituminous course	33.00	One Cum	403.75	13,323.67
57	Dismantling of Cement Concrete Pavement (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 materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately).	87.00	One Cum	744.37	64,760.19
58	Providing temporary all weather and fair weather diversion suitable for traffic during the construction period of the bridge / Slab drain including providing necessary drains and all safety measures including red lamps / signals at night for traffic etc. complete..	424.00	One Rmt.	3,152.47	1,336,646.08
59	Providing and fixing Flood guage post mark of 'C' angle size 100mm x 50mm x 6mm thick (in head wall 0.500mt. And 1.50mt. Out side with painting and lettering with redeum color as directed.	2.00	One No	1,140.29	2,280.58

Item No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
60	Regulatory / Mandatory Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 60 cms Dia Circle as per design of IRC-67-2012. Pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T. Specifications; 3.6mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	2.00	One No	4,618.73	9,237.46
61	Distance Informatory / Destination Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 180x120 cms. rectangular as per design of IRC-67-2012. Pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ; reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 4.0mtr long (2 Nos.) stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 50 x 50 x 5mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	2.00	One No	20,918.11	41,836.22
62	Diversion Ahead Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 180x60 cms. rectangular as per design of IRC-67-2012. Pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T. Specifications; 3.1 mtr long stand post (2 Nos.) of 50 x 50 x 5mm / 50NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per the instruction of engineer in charge. The fixing at site shall be in 1:2:4 CC block of size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	2.00	One No	10,671.66	21,343.32

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63	Men at work (2' x 2') sign :-Providing and fixing sign boards made out of 2.0 mm aluminium sheet / 4 mm ACP(Aluminum composite Panel); size 60cm x 60cm square as per design of IRC-67-2012. Pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T. Specifications; 3.3 mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 50 x 50 x 5mm; painted with bestquality epoxy coatings in black and white bends. the details of symbol or inscription / numerals for each board shall be as per the instruction of engineer in charge.The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	2.00	One No	4,962.13	9,924.26
64	Sign board per Squate Meter :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 1meter x1 meter as per design of IRC-67-2012. Pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T. Specifications; 4 mtr long stand post (2 Nos.) of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 50 x 50 x 5mm; painted with bestquality epoxy coatings in black and white bends. the details of symbol or inscription / numerals for each board shall be as per the instruction of engineer in charge.The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	5.00	One No	12,310.89	61,554.45
65	Cautionary Warning Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 90 x 90 x 90 cms. equilateral triangle as per design of IRC-67-2012. Pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	2.00	One No	5,077.27	10,154.54

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66	Chevron sign :-Providing and fixing sign boards made out of 1.5mm aluminium sheet / 3mm ACP (Aluminum composite Panel); size 60x50 cm as per design of IRC-67-2012. Pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.3 mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 50 x 50 x 5mm; painted with bestquality epoxy coatings in black and white bends. the details of symbol or inscription / numerals for each board shall be as per the instruction of engineer in charge.The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from originaa manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	10.00	One No	4,681.35	46,813.50
67	Hazard Marker Sign :-Providing and fixing sign boards made out of 1.5mm aluminium sheet / 3mm ACP (Aluminum composite Panel); size 90x30 cms. rectangular as per design of IRC-67-2012. Pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T. Specifications; 1.8mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg.including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) Class-C Type-11 Retro Reflective sheeting	2.00	One No	3,666.30	7,332.60

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68	Hazard Marker Sign :-Providing and fixing sign boards made out of 2.0 mm aluminium sheet / 4 mm ACP (Aluminum composite Panel); size 90x30 cms. rectangular as per design of IRC-67-2012. Pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ; reflectorised with High Intensity Prismatic Grade retro reflectivesheeting of Type-4 as per ASTM D-4956 and latest M.O.S.T.Specifications; 1.8mtr long stand post of Iron Angle 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol for each board shall be as per the instruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg including excavation, curing etc.complete under the supervision of engineer in charge. A warranty for 7 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (B) Class-B Type-4 Retro Reflective sheeting	8.00	One No	3,518.68	28,149.44
69	Cautionary Warning Sign : Providing and fixing sign boards made out of 2mm Aluminium sheet size 90x90x90 cms. Equilateral treangle as per the design of IRC-67-1977 pre treated with phosphating process and acid etching coated with one coat of apoxy primer and two coats of best quality epoxy paint reflectorised with retro reflective sheeting as per latest MOST specification 3.1 Mt. long stand post and frame fabricated from suitable size iron angle of 35x35x3mm, 75x75x6mm. as required painted with best quality epoxy coating in black and white bends the details of symbole for each board shall be as per the instruction of Engineer in charge the fixing at site shall be in 1:2:4 CC block of size 45x45x60cms. for each leg including excavation curring etc. complete under the supervision of engineer in charge (A) Engineering Grade.	2.00	One No	3,808.65	7,617.30

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70	<p>MMGSY Project Information Board: Providing and fixing of typical PMGSY Project informatory sign board with Logo as per 1700 of MORD specifications and drawing. The board will be a composite unit consisting of Three Plates ACM (Aluminum Composite Material), material specificaitons as per clause 17001.3. The top most plate will be of 3mm ACM in diamond shape of 600x600mm size, riveted with MS angle iron frame of 25mmx25mmx5mm size on back on edges. The middle 4mm ACM plate of will be 1200x150mm size riveted with MS angle iron frame of 25mmx25mmx5mm size on back on edges. The main 4mm ACM lower most plate will be 1500mmx600mm size, riveted with MS angle iron frame of 25mmx25mmx5mm size. Riveting of all the sheets over angle and flat iron frame will be done neatly to have plain surface on one side. The angle iron frame of lower most plate and flat iron frame of the middle plate will be welded to two nos. 75mm x75mm (12 SWG) sheet tubes posts placed at 1125mm apart centre to centre. the top of the middle plate will be flushed with the top of 75mm dia medium steel tube posts and these posts will be embedded in cement concrete M15 grade block of 450x450x600mm below ground level. The height of the bottom of the lower plate will be 1200mm from normal ground level and the bottom of the middle plate will be 100mm above the top level of the lower most plate. the diamond shaped plate mounted over flat angle iron frame will be connected to middle plate by square steel section of 47mmx47mm, thickness 12SWG having a spacing of 100mm between the diamond shaped plate and middle plate and this square section will be riveted to the bottom point of the diamond shaped plate. MMGSY logo, letters and numerals on the ACM should be made up of Retro Reflective sheeting of Type-1 AEGP Class-A grade as per the latest MORD section 1700 and IRC 67-2012 specifications. Al the section of the frame and posts shall be painted with primer and two coats of epoxy paint. The design, painting and lettering shall be done as per the MMGSY Signage Guide and as directed by Engineer-In-charge. . A warranty for 5 years for the Retro reflective sheeting for Class-A respectively, from original manufacturer shall be submitted by contractor.</p>	2.00	One No	11,529.15	23,058.30
71	<p>Road marking with hot applied thermoplastic paints with reflectorising glass beads on bitumin surface providing and laying a hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250gms per sqm area, thickness of 2.5mm is excluding of surface applied glass beds as per IRC:35-2015. The finished surface to be level, uniform and free from streaks and holes. zebra patta /bump patta lane/center line/ edge line/cut patta. The white color marking should provide liminance coefficinet on cemend road shalll be min 130 mcd/m2/lux and Asphalt road shall be min 100 mcd/m2/lux during the service life during the day time. The marking should meet the performance criteria for night time reflectivity, wet reflectivity and skid resistance as mentioned in the section-15 of IRC 35-2015. Warranty for the Retro reflectivity should be two years.</p>	92.00	One sqm	367.72	33,830.31

Item No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
72	Cat Eye / Road Stud / RPM: Supplying of Molded Twin Shanks Raised Pavement Markers made of polycarbonate and ABS moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 13635 kgs. tested in accordance to ASTM D 4280 Type H and complying to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97 DO III Dt 11.06. 1997. The height, width and length shall not exceed 20 mm, 130 mm and 130 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 +/- 5 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 +/- 2 mm and height not less than 30+/- 2 mm) from the body is to be a minimum value of 500 Kgf. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturers recommendation and The color of the marker should be as per the IRC 35-2015 and as directed by Engineer-in-charge.	74.00	One No	326.23	24,141.02
73	Providing and applying anti carbonation, anti fading, mold resistant, heat insulating, and 100% acrylic breathable decorative external waterproof coating of approved shade for Pier/Abutment, Riding return, Square return, Protection wall, Pier / Abutment Cap, Dirt wall, Solid slab etc. having Viscosity @ Room Temperature by Ford cup No. B-4 (dilute 2 parts of product with 1 part of water) 18 to 30 sec. pH of 7.00 to 10.00 and Sp. Gravity @ Room Temperature 1.30+0.1, tested for carbon dioxide diffusion resistance properties for coating materials and coating systems for exterior masonry and concrete as per DIN EN 1062-6 (2002-2010) by a NBA Grade "A" accredited institution.	1325.00	One sqm	120.99	160,316.91
74	Carrying out load test of super structure as directed including all necessary materials plant equipment, instruments, labour and arrangements for test directed.	200.00	One MT	169.92	33,984.48
75	Type - B, "THRIE" : Metal Beam Crash Barrier (Providing and erecting a "Thrie" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 2 m high with 1.15 m below ground level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 811)	284.00	One Rmt	4,145.04	1,177,191.36
76	Providing and fixing guard stone as per I.R.C. type design including white washing etc. complete	236.00	One No	103.56	24,439.05
77	Scarifying bitumen macadam surface 6 cm to 10 cm.depth including stacking useful materials on road side and disposing off remaining stuff (A) On Existing Road	327.00	One Cum	41.60	13,603.20
78	Construction of Subgrade with approved material obtained from borrow pits with all lifts and leads, transporting to site spreading, grading to required slope and compacting to meet requirement to MoRTH table 300-2 in layers not more than 200 mm thick as directed by engineer in charge.(Effective CBR Minimum 8 %)	177.00	One Cum	357.01	63,190.77

Item No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
79	Construction of granular sub-base (Grade - 1) by providing coarse graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MoRTH clause 401.	239.00	One Cum	1,225.83	292,973.37
80	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam (in two layers) specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density, complete as per MoRTH clause 406.	296.90	One Cum	1,837.98	545,696.26
81	Providing and applying Prime coat with Slow Setting Bitumen Emulsion binder (SS- 1) @ rate of 7.5 Kg./10 sq.m. of road surface using Emulsion pressure sprayer etc., cleaning the road surface complete including cost of material labour etc complete as directed by engineer in charge.	1336.50	One Sqm	58.40	78,051.60
82	Providing and applying tack coat with Rapid Setting Bitumen Emulsion binder (RS- 1) @ rate of 2.5 Kg./10 sq.m. of road surface using Emulsion pressure sprayer etc., cleaning the road surface complete including cost of material labour etc complete as directed by engineer in charge.	1337.00	One Sqm	24.14	32,275.18
83	Providing and laying 25 mm thick (Compacted) Semi -dense Bituminous concrete on exiting bituminous surface and using specified graded black trapped machine crushed aggregate with 5% Bitumen Vg-30 - 60/70 grade bitumen by Wt of total mix as per MORTH specification including heating and mixing of asphalt with B.T. chips in continuous batch mix plant and transporting same at site and spreading by sensor paver finisher and consolidation the same with pair of 8 tonnes to 10 tonnes vibratory roller to achieve desired density and including flusing the stone dust @0.03 cum/10smt including cost of required tools , plants, all machineries, equipment fire wood , oil, kerosene, charges etc. complete.	33.80	One MT	3,471.53	117,337.71
84	Providing and laying compacted Bituminous concrete using BT aggregate as per MORTH gradation ,specification and asphalt Grade VG 30 mixing @54.00 Kg /MT of total Wt. of mix i.e. (5.40% of total weight mix) including heating and mixing aggregate & asphalt by batch mix plant spreading the same by sensor paver finisher including rolling & consolidation with 10-12 tonne vibratory roller, Tandem Roller ,PTR & providing all materials equipment's tools & plants, fire wood, oil , kerosene, labour charges , using contractor 's own machinery etc. Complete as directed by engineer in charge as per MoRTH Specification	70.50	One MT	3,666.64	258,498.12
85	Providing and laying 20 mm thick mix seal surfacing using specified graded crushed Black Trap stone aggregates as per MORTH gradation using VG-30 bulk bitumen for mixing at the rate of 5.1 % (51.00 Kg./M.T.) by hot mix process and hot laid process using paver finisher to the required camber and grade, including rolling with vibratory roller to achieve desired density including cost of fire wood, oil, Kerosene, labour charges and other charges of machineries etc. complete.	33.00	One MT	3,578.50	118,090.50

Item No.	Item Description	Quantity	Unit	Rate in Figure	Total Amount (in Rs.)
86	Providing and erecting a "W" metal crash barrier comprising of 3mm thick corrugated sheet metal beam rail, 70cm above Road/Ground level, fixed on ISMC series channel vertical post, 150x75x5mm spaced 2m center to center, 1.8m high, 1.1m below ground/road level, all steel parts and fittings to be galvanized by hot dip process, all fittings to conform to IS:1367 and IS:1364 metal beam rail to be fixed on the vertical post with a spacer of channel section 150x75x5mm, 330mm long complete as per clause 810.	284.00	One Rmt.	3,723.46	1,057,462.64
Total Rs.					51,205,214.31
<p>I \ We am \ are willing to carry out the work at % above \ below percent (Should be written in figures and words) of the estimated rate mentioned above. Amount of My \ Our tender works put as under.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>* Estimated Amount Put to tender Rs...... Deduct.....% Net Rs...... In words.....</p> </div> <div style="width: 45%;"> <p>* Estimated Amount Put to tender Rs...... Add.....% Total Rs...... In words.....</p> </div> </div> <p>1.The Contractor shall exhibit a board with detailed specification and details of work as directed by the Engineer-In-Charge for which no extra payment shall be made.</p> <p>2.The labour cess will be deducted as per prevailing rules i.e. 1% of the work done.</p> <p>3.GST and Income tax TDS will be deducted at a source while making payments of bills</p> <p>4.In all R.C.C. Items in Rate Analysis Standard Cement Consumption has been taken as per Govt. G.R.: PRC-10/2017 Cement Consumption/16/C Date:11/05/2017 as stated in</p> <p>S.O.R. therefore in R.C.C. items where there is a change as per actual mix design the cost of difference of cement consumption have been deducted from the rate of original item at the rate of input rate mentioned in all the tender.</p> <p style="text-align: center;"><i>*(Please strike out whichever is not applicable)</i></p> <p>Note: Credit Value of Dismantle material & Credit value of Diversion work Rs. 13,79,885.21 shall be recovered from First-2 RA Bill of Contractor. (RA-1 & RA-2)</p> <p>Signature of Contractor.</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Deputy Executive Engineer Panchayat R&B Sub Division</p> </div> <div style="text-align: center;"> <p>Executive Engineer Panchayat R&B Division Devbhumi Dwarka</p> </div> </div>					