

**Name of Work :- Construction of Dhuvaran Village Railway Fatak BT Road to Machhipura Vistar Joining Road (VRNP) Km. 0/000 to 0/500 Ta. :-Khambhat Dist. :- Anand Pkg. No. AND/MMGSY/NORMAL/2025-26/25**

**Taluka :Khambhat District : Anand**

- 1** Construction of Dhuvaran Village Railway Fatak BT Road to Machhipura Vistar Joining Road (VRNP) Km. 0/000 to 0/500 Ta. :-Khambhat Dist. :- Anand

### **Bill of Quantities**

Item No	Item of work	Quantities Estimated	Unit	Rate in Figures in Rs.	Amount
1	2	3	4	5	6
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	0.25	Ha.	28455.10	7113.78
2	Earthwork for embankment including breaking clods, dressing with all lead and lift (including watering and consolidation) (A) From Borrow pits within land width	2561.00	Cum	132.38	339025.18
3	Earthwork for embankment including breaking clods, dressing with all lead and lift (including watering and consolidation)(D) From Borrow area within 2.0 Km. lead	365.00	Cum	186.65	68127.25
4	Earthwork in cutting in all sorts of soil and soft murrum including conveying and putting the stuff in spoil bank maintaining minimum distance of five meter between top edge and cutting and toe of spoil bank.	285.00	Cum	109.41	31181.85
5	Rolling and watering of earthwork in layers with power roller including filling indepressions which occur during the process.	143.00	Cum	22.96	3283.28
6	Providing Hard side Shoulder of 100 mm thick for emabankment using quarry spall with all lead and lift and including watering and rolling and consolidation of subgrade in layers including filling the depressions which occur during the process using power roller 80 KN to 100KN Static Weight.	60.00	Cum	1229.17	73750.20
7	Providing and laying 150mm thick Granular sub base in required layer by providing coarse graded materials Grading-II using B.T. M.C. Metal 53.00mm to 26.5mm @ 35%, aggregate 26.50 to 4.75mm @ 45% and Stone dust @ 20% as per Table 400-2 of MORT&H gradation including conveying the materials at site of work, mixing & spreading in to grade and camber, watering & consolidating at OMC with vibratory roller including the cost of material, labours etc. complete.	331.00	Cum	1443.29	477728.99
8	Providing and laying 100 mm thick Compacted WBM (Using loose volume, MCBT metal size 45 to 90 mm size) (1.21 Cmt.B.T. Grit 11.2 mm size 0.18 cmt, Stone dust 0.09 Cmt per Total 1 Cmt of Compacted volume) including spreading in uniform thickness, hand packing, rolling with vibratory roller 80 -100 kN static wt. to proper grade and camber, applying and brooming, stone screening/ binding materials to fill-up the interstices of course aggregate watering and compacting etc. complete as per Specification.	213.00	Cum	2009.90	428108.70
9	Providing and laying 150 mm thick in 2- Layer (75+75 mm) Compacted WBM ( Using loose volume, MCBT metal size 45 to 63 mm size) (1.21 Cmt.B.T. Grit 11.2 mm size 0.12 cmt, Stone dust 0.06 Cmt per Total 1 Cmt of Compacted volume) including spreading in uniform thickness,hand packing, rolling with vibratory roller 80 -100 kN static wt. to proper grade and camber, applying and brooming, stone screening/ binding materials to fill-up the interstices of course aggregate watering and compacting etc. complete as per Specification.	308.00	Cum	1894.76	583586.08
10	Supplying and fixing reinforced concrete heavy duty non pressure pipes with collars for culverts including setting and joining the pipes in C.M. 1:2 watering and laying (To level of slops of I.S. 458 / 1971 Class NP3 of following internal diameter. (i) 300 mm dia.	30.00	Rmt	1095.19	32855.70

Item No	Item of work	Quantities Estimated	Unit	Rate in Figures in Rs.	Amount
1	2	3	4	5	6
11	Providing and laying Builtup spray grout base 37.50 mm thick in Single layer using asphalt grade VG 30 for tackcoat at the rate of 4.0 Kg./10 sqm. using B.T. stone aggregates as per MORT & H gradation and specification with the asphalt of VG-30 grade at the rate of 1.99% i.e. 19.90 Kg./M.T. including heating and mixing asphalt and aggregate by continuous drum mix plant, transporting the mix, and spreading the same by paver finisher and consolidation by vibrator roller of 80 to 100 KN Static WT including cost of all materials, fuel, labours, tools and plant etc using contractor's own machinaries etc. complete.	148.00	MT.	2776.49	410920.52
12	Providing and laying 37.50 mm. thick Bitumenous Macadam with using asphalt grade VG 30 for tackcoat at the rate of 2.50 Kg./10 sqm. using crushed stone aggregate as per MORT & H gradation and VG-30 grade Bitumen at the rate of 3.40% by weight of total mix ( ie 34 kg. / MTon of mix ) for binding including heating & mixing the asphalt and aggregates by contineous Drum mix plant and transporting the mix and spreading the same by paver finisher and consolidation with vibratory road roller of 80 to 100 KN Static WT including providing and laying uniformly tack coat and using contractor's own machinaries including cost of all materials, fuel, labours, tools and plant etc using contractor's own machinaries etc. complete.	163.00	MT.	3334.01	543443.63
13	Providing and laying Mix Seal Surfacing 20.00 mm thick using stone chipping as per MORT & H specification and asphalt grade VG-30 for mixing @ 50.90 Kg/M.T. i.e. 5.09 % of total weight of mix including heating the asphalt and aggregate mixing by continuous Drum mix plant transporting mixed material and spreading the same by pavers finisher and consolidation by vibratory roller of 80 Kn to 100 Kn static weight and flushing sand or stone dust @ 0.03 cmt / 10 smt including cost of labour, oil, lubricant etc using contractor's own Machineries and plant firewood, oil, kerosene, labour charges etc. complete	91.00	MT.	3997.58	363779.78
14	Providing and fixing Hectometer as per I.R.C. type design including painting, lettering etc. complete.(ii) Fixing in C.C. 1:5:10	2.00	Nos.	356.50	713.00
15	Providing and fixing guard stone as per I.R.C. type design including white washing etc. complete.(ii) Fixing in C.C. 1:5:10	20.00	Nos.	350.81	7016.20
16	Providing and fixing ordinary Kilometer stone of precast C.C. 1:2:4 including necessary reinforcement as per I.R.C. type design in C.C. 1:4:8 including painting, lettering etc. complete (For O.D. road V.R.)	1.00	Nos.	704.34	704.34
17	Cautionary Warning Sign :-Providing and fixing sing boards made out of 2mm aluminium sheet; size 90 x 90 x 90 cms. equilateral triangle as per design of IRC-67-1977. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with retro reflectivesheeting as per latest M.O.S.T.Specifications; 3.1m long stand postand frame fabricated from suitable sizeiron angle of 35 x 35 x 3mm, 75 x 75 x 6mm as required; painted with bestquality epoxy coatings in black andwhite 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) Engineer Grade(VR)	4.00	Nos.	3379.00	13516.00

Item No	Item of work	Quantities Estimated	Unit	Rate in Figures in Rs.	Amount
1	2	3	4	5	6
18	Village name/ Bump Ahead sign :-Providing and fixing sing boards made out of 2mm aluminium sheet; size 90 x 60cms. rectangle as as per the design of IRC-67-1977 pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint; reflectorised with retro reflective sheeting as per latest M.O.S.T. Specifications; Letters and numerals should be as per IRC-30-1968, 3.1m long (2 nos) stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5mm painted with best quality 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 block of size 45 x 45 x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.(A) Engineer Grade(VR)...	2.00	Nos.	5045.37	10090.74
19	Direction sign (Junction board):-Providing and fixing sing boards made out of 2mm aluminium sheet; size 244 x 122cms. rectangle as as per the design of IRC-67-1977 pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint; reflectorised with retro reflective sheeting as per latest M.O.S.T. Specifications; Letters and numerals should be as per IRC-30-1968, 3.1m long (2 nos) stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5mm 75x75x6mm as required; painted with best quality 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 block of size 45 x 45 x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.(A) Engineer Grade(VR)...	2.00	Nos.	14831.71	29663.42
20	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 beads 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 colour marking should provide liminance coefficinet on cement 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.	105.00	Sq.mt	367.73	38611.65
21	Supplying and fixing cat eye (Stimsonite) made out from Acrilo beautille sterine injuction high compressed molding with reflector made of MMC (prismatic type of size 12cm x 6cm x 2.5cm) provided with bituminous adhesive 100g. with each unit for fixing. (High Intensity grade)	58.00	Nos.	375.72	21791.76
22	Hazard Marker Sign :-Providing and fixing sing boards made out of 2mm aluminium sheet; size 90 x 30cms. rectangle as as per the design/drawing attached (IRC) pretreated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint; reflectorised with retro reflective sheeting as per latest M.O.S.T. Specifications; 3.1m long	2.00	Nos.	2423.74	4847.48

Item No	Item of work	Quantities Estimated	Unit	Rate in Figures in Rs.	Amount
1	2	3	4	5	6
23	Citizen' s information Board- Providing and fixing of typical MMGSY information board as per instruction. Two ACP sheets of 3 mm thick, of 900 mm x 750mm size fixed at top & bottom duly rivetted with MS angles of 25 x 25 x 5 mm thick M.S angle shall be welded by two vertical M.S angle of 5 mm thick to 75 mm x 75 mm of 12 SWG square tubes posts duly embedded in cement concrete M-15 grade blocks of 600mm x 600mm x 75mm, below ground level. The letters & figure of any shade reflectorised with High Intensity Prismatic Grade Retro Reflective Sheeting of Type 4 as per ASTM D-4956 and latest MORD specifications; All sections of framed posts and steel tube will be painted with primer and two coats of epoxy paints as per drawing Clause 1701 and Annexure 1700.1 (10.16). (A) Class-B High intensity Grade Retro Reflective sheeting	1.00	Nos.	11612.98	11612.98
24	MMGSY "LOGO" Board : Providing and fixing of MMGSY LOGO informatory sign board with Logo as per section 1700 of MORD specifications and drawing. The board will be a composite unit consisting of Two Plates of ACM (Aluminum Composite Material), material specifications as per clause 1700.1.3. The top most plate will be of 3mm ACP in diamond shape of 600x600mm size, riveted with MS angle iron frame of 25mmx25mmx5mm size on back on edges. The Lower plate will be of 4mm ACP of 1100x300mm size riveted with MS angle iron frame of 25mmx25mmx5mm size on back on edges. 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 Both the plates will be welded to a 75mm x75mmx6mm Mild steel post at Centre and this post will be embeded 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. The spacing between the diamond shaped plate and Lower Plate is kept 150mm. 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 Logo sign Design and as directed by Engineer in-charge. A warranty for 5 years for the Retro reflective sheeting for Type-1 Class-A from original manufacturer shall be submitted by contractor.	1.00	Nos.	5068.18	5068.18

Item No	Item of work	Quantities Estimated	Unit	Rate in Figures in Rs.	Amount
1	2	3	4	5	6
25	<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 specifications 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 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. All 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>	1.00	Nos.	11112.02	11112.02
26	<p>STOP SIGN:-Providing and fixing sign boards made out of 2mm aluminium sheet; size 90 x 90cms. rectangle as per the design of IRC-67-1977 pre treated with phosphating process &amp; acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint; reflectorised with retro reflective sheeting as per latest M.O.S.T. Specifications; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm 75x75x6mm as required; painted with best quality 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 block of size 45 x 45 x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.(A) Engineer Grade(VR)...</p>	1.00	Nos.	4676.06	4676.06
27	<p>Regulatory/Mandatory signs :Providing and fixing sign boards made out of 2mm aluminium sheet; size 60cms. diameter circle as per the design of IRC-67-1977 pre treated with phosphating process &amp; acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint; reflectorised with retro reflective sheeting as per latest M.O.S.T. Specifications; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm 75x75x6mm as required; painted with best quality 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 block of size 45 x 45 x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.(A) Engineer Grade(VR)...</p>	2.00	Nos.	3268.76	6537.52

Item No	Item of work	Quantities Estimated	Unit	Rate in Figures in Rs.	Amount
1	2	3	4	5	6
28	Informatory Signs :-Providing and fixing sing boards made out of 2mm aluminium sheet; size 80 x 60cms. rectangle as per the design of IRC-67-1977 pre treated with phospheting process & acid teching; coated with one coat of epoxyprimer and two coats of best qualityepoxy paint; reflectorised with retro reflective sheeting as per latest M.O.S.T. Specifications; 3.1m long stand postand frame fabricated from suitable sizeiron angle of 35 x 35 x 3mm75x75x6mm as required; painted with best qualityepoxy coatings in black and whitebends. the details of symbol for eachboard shall details of symbol for eachboard shall be as per the instruction ofengineer in charge. The fixing at site shall be in 1:2:4 CC block of size 45 x45 x 60cms. for each leg. including excavation curing tec. complete under the supervision of engineer in charge.(A) Engineer Grade(VR)...	1.00	Nos.	3856.90	3856.90
29	Excavation for foundation upto 1.5M. depth including sorting out and stacking of useful materials and disposing of the excavated stuff upto 50 meter lead.(B) Dense or Hard soil.	45.00	Cum	253.89	11425.05
30	Providing and filling in foundation with ordinary Cement concrete M-100 mix and providing necessary vertical pin headers including formwork, vibrating, ramming and curing complete.	8.00	Cum	3345.59	26764.72
31	Providing and casting in situ ordinary cement concrete M-150 mix and providing necessary pin headers including shuttering, scaffolding, laying, vibrating, curing and finishing complete without V-Groves. (A) Height from 0.0 M. to 5.0 M.	67.00	Cum	3921.83	262762.61
32	Providing TMT Bar FE500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	340.00	Kgs.	77.29	26278.60
33	Supplying and fixing reinforced concrete heavy duty non-pressure pipes with collars for culverts including setting and joining the pipes in C.M. 1:2 watering and laying (To level of slops of I.S. 458 / 1971 Class NP4 of following internal diameter. (iv) 900 mm dia.	15.00	Rmt	4710.56	70658.40

Item No	Item of work	Quantities Estimated	Unit	Rate in Figures in Rs.	Amount
1	2	3	4	5	6
34	White washing with lime on wall surface (two coats) to give an even shade including thoroughly booming the surface to remove all dirt, dust; mortar drops and other foreign matter.	61.00	Sq.mt	12.70	774.70
<b>Rupees Thirty Nine Lakh(s) Thirty One Thousand Three Hundred Eighty Seven And Paise Twenty Seven Only</b>					<b>3931387.27</b>

I / We am / are willing to carryout the work at .....% above/Below percent (..... Percent above/Below) (Should be written in figure and words) of the estimated rates mentioned above. Amount of my / our tender worked out as under.

Estimated amount put to tender Rs: .....  
Deduct.....% below Rs: .....  
Net Rs: .....  
In Words .....  
(Please strike out which ever is not applicable.)

Estimated amount put to tender Rs: .....  
Add.....% above Rs: .....  
Net Rs: .....  
In Words .....

**Note :**

- 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.
- 2 The labour cess will be deducted as per prevailing rules i.e. 1% of the work done.
- 3 GST and Income tax TDS will be deducted at a source while making payments of bills
- 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 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.

**CERTIFICATE**

Quantities rate and wordings of items are as per estimate and calculation in the Sch. - B are airthmatically checked. Above all items of "Schedule-B" with Item Description, Unit, Rate & Amount have verified by me and found order.

Tender clerk

Sr.Divisional Account Officer  
Panchayat (R & B) Division  
Anand

Dy.Executive Engineer  
Panchyat (R & B) Sub Division  
Khambhat

Signatturre of contractor  
with seal

Executive Engineer  
Panchayat (R & B) Division  
Anand