

KACHCHH PANCHAYAT R. & B. DIVISION BHUJ

**NAME OF WORK:-RESURFACING OF PATRI BARAYA ROAD TA.MUNDRA (MMGSY/ V.R./ 7 -YEAR RESURFACING/
NORMAL/ 2025-26)P-5**

SPECIFICATION INDEX

Sr.No.of the Item in schedule-"B"	Brief Description of Item	Page No.
1	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 unseviceable materials and stacking of serviceable materials to be use (A) By mechanical means in area of light jungle	7
2	Box cutting the road surface to proper slope and camber for making a base for road work including removing the excavated stuff and depositing on the road side slope as directed upto 50Mt.lead.	7
3	Excavation for foundation upto 1.5 m depth including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead.(A) Loose or soft soil	11
4	Earth work for embankment with selected soil C.B.R.not less than 6.0 including breaking clods, dressing, with all, lead and lift (excl. watering and consolidation) From borrow area with all lead & lift	13
5	Rolling & watering and consolidation earthwork using vibratory road roller 8 - 10 tonne capacity (A) Earth work (layer not exceeding 200mm thickness)	15
6	Scarifying /Dismantalling gravelled macadam or bitumen macadam surface 6 cm to 10 cm.depth including stacking useful materials on road side and disposing off remaining stuff.	15
7	Construction of granular sub base by providing well graded crushed stone material(M.C.Metal 53 to 9.5 mm size 50%,M.C. metal 9.5 to 2.36 mm 20% and sand below 2.36mm size 30%) spreading in uniform layes with motor grader on prepared surface,mixing by mix in place method with rotovator at O.M.C. and compacting with three wheeler roller 8 T to 10 T to achieve the desired density complete as per technical specification Close graded Granular sub-base Material as per clause 401 for grading -I well graded sub base material.(150mm thick compacted thickness)	15
8	Providing and laying W.B.M. of M.C. metal of size 45 mm to 90 mm size including 0.27 Cu.M. Stone screening & 0.08 Cu.M. stone dust as filler including spreading, watering & consolidation by vibratory roller 80KN to 100KN static weight. 100 mm thick compacted.	18
9	Providing and laying W.B.M. of M.C. metal of size 45 mm to 63 mm size including 0.12 Cu.M. Stone screening & 0.08 Cu.M. stone dust as filler including spreading, watering & consolidation by vibratory roller 80KN to 100KN static weight. 75 mm thick compacted	18

Sr.No.of the Item in schedule-"B"	Brief Description of Item	Page No.
10	Supplying,stacking and spreading quarry spall with all lead and lift and including watering and rolling and consolidation of sub grade in layers at OMC to required dry density including filling depression which occurs during the process using vibratory roller of 80 KN to 100KN (selected quarry spall having CBR value not less than 30.0)	24
11	Providing and laying bituminous grout base course 37.50 mm compacted thi. using B.T. stone aggregates as per required gradation with the Bitumen V.G.-30 for tack coat 2.5 Kg/10 Smt on B.T.Surface and 4.0 Kg/10 Smt on W.B.M.Surfcae and asphalt V.G.-30 grade for mixing @ 1.99 % i.e. 19.90 kg./ MT by weight of mix incl. heating and mixing in drum mix plant transporting the mix , spreading the same by pavers finisher and consolidation as per MORTH specification incl. cost of all materials fuels, labors, tools and plant etc. using contractors own drum mix plant etc. comp. etc. comp.	25
12	Providing and laying 50 mm thick compacted B.M. using stone chips 0.66 Cum / 1 M.Ton mix as per gradation and tack coat with Bitumen V.G.-30 grade @ 2.50 kg. / 10 Smt. on B.T. surface and asphalt grade VG-30 for mixing @ 34 kg/M.Ton (I.e. 3.40% of mix) including heating the and aggregate by contineous batching drum mix plant, transporting and mixed matrrial and spreading the same by paver finisher and consolidation by vibratory roller of 80 KN to 100 Kn static weight including the cost of labour oil, lubricants etc. using contractors own machineries and plant.	28
13	Providing and laying 37.5 mm thick compacted B.M. using stone chips 0.66 Cum / 1 M.Ton mix as per gradation and tack coat with Bitumen V.G.-30 grade @ 2.50 kg. / 10 Smt. on B.T. surface and asphalt grade VG-30 for mixing @ 34 kg/M.Ton (I.e. 3.40% of mix) including heating the and aggregate by contineous batching drum mix plant, transporting and mixed matrrial and spreading the same by paver finisher and consolidation by vibratory roller of 80 KN to 100 Kn static weight including the cost of labour oil, lubricants etc. using contractors own machineries and plant.	32
14	Providing and Laying 20 mm thick mix seal surface using stone chips as per gradation on prepared surface with spesified grade crushed stone agg. as per MORTH & H specification and asphalt grade V.G.-30 for mixing at rate of 5.10 % by weight of mix and including heating the asphalt and aggregate by drum mix plant and spreading the same by paver finisher and consolidating by vibratory roller to achive the desired density incl. providing tools, plant,oil, kerosene, lubricating etc. comp. using contractors own machinery, drum mix plant and paver finisher etc. complete.	32
15	Dismantaling the existing structure including removing and stacking the dismantelled materials as and where directed. (A) R.C.C. work	34

Sr.No.of the Item in schedule-"B"	Brief Description of Item	Page No.
16	Excavation for foundation in sand, gravel, clay soft soils and murrum etc. including shoring, strutting dewatering as necessary and disposing of the excavated stuff as directed.(A) Depth upto 3.0 M. and lead upto 100m for 10 Cum	35
17	Providing and filling in foundation with ordinary cement concret M100 mix and providing necessary vetical pin headers including formwork vibrating ramming and curing complete.	36
18	Providing and filling in foundation with ordinary cement concret M150 mix and providing necessary vetical pin headers including formwork vibrating ramming and curing complete.	36
19	Proving and laying cement concrete Grade M20 C.C.1:1.5:3(1 Cement:1.5 Coarse Sand:3 stone agg 20mm nominal size) for CC road and curring etc. comp. incl. cost of form work. Finishing the cement concrete road by Tri-mix process inclusive of labour charges for trimix vacume dewatering process on cement conc. road by using vacume dewatering pump, surface floater, including channelling and making grooves & rough finish to surface, providing expansion join, construction joint incl. filling the joint with asphalt filler as per direction by engineer in charge as per specification.	41
20	Providing and casting in situ controlled cement concrete M-200 for R.C.C. return as per drawings including centering shuttering, scaffolding where necessary, laying vibrating, curing and finishing complete.(A) Height from 0.0 to 5.0 M. (1) Piers (2) Abutment (3) RCC return	48
21	Providing and casting in situ controlled cement concrete M-300 for R.C.C. Rafft and cut off walls including necessary shuttering laying, vibrating ranning and curing complete.	48
22	Providing and casting in situ controlled cement concrete M-300 for RCC work in piers abutment and RCC return as per drawing including centering shuttering scaffolding where necessary laying vibrating curing and finishing complete. (A) Height from 0.0m to 5.00 mt.	48
23	Providing and casting in situ. controlled cement concrete M300 for RCC solid slab including centering , scaffolding curing and finishing complete..	48
24	Providing and casting in situ controlled cement concrete concrete M-300 for approach slab cluding formwork curing and finishing complete.	48
25	Providing and casting in situ controlled cement concrete concrete M-400 for Kerb/Crash Barrier including formwork curing and finishing complete.	48

Sr.No.of the Item in schedule-"B"	Brief Description of Item	Page No.
26	Providing and casting in situ controlled cement concrete M-400 for average 100 mm thick wearing coat laid as directed including tamping, vibrating, finishing, curing and filling joints with bitumen complete	48
27	Providing and placing in position FE 550D TMT bar reinforcement including providing epoxy bonded Epoxy coating not less than 175 micron to reinforcement bars as per IS-13620 1993/ASTM-775 M including testing of coating at plant and all taxes and transporting to the site from factory, cutting, bending, hooking and tying complete as per as per detailed drawing for the following (A) Piers (B) Abutments (C) R.C.C. returns (D) Solid Slab (E) Abutment caps (F) Kerb, Wearing Coat etc.	54
28	Providing TMT Bar FE 550D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	59
29	Providing and laying rubble for apron (each stone weighting not less than 40Kg.) including and packing and filling in the interstices with quarry spalls	61
30	Providing and Laying filter media 600 mm thick as directed at the back of abutments returns and wing walls as per detailed specifications.	61
31	Providing and filling sand between abutments and between returns in layers as directed.	62
32	Providing & laying weep hole in Abutments, and returns by using PVC 6 Kg/Sqcm pipe of 110mm dia including laying in proper grade and jointing the completed as per detailed specification.	62
33	Providing P.V.C. 100mm diameter water spouts including necessary iron gratings as per drawing.	63
34	Supplying promoulded bituminous joint filler (II) 20mm thick	64
35	Providing the diversion by proper means e.i. In proper grade, camber and approach etc. for easy passing of traffic incl. Providing necessary sign board, making etc. and maintaining the same during the period of work up to completion of work.	65
36	Providing and fixing ordinary kilometer stone of pre-cast c.c. 1:2:4 including necessary reinforcement as per I.R.C. type design fixing in C.C. 1:4:8 including letter and paints etc. complete.	66
37	Providing and fixing hectometer as per I.R.C. type design including painting, lettering etc. complete. (ii) Fixing in C.C. 1:5:10	66

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38	Providing fixing indicator stone of approved stone as per I.R.C. type design in c.c. 1:4:8 including white washing etc. complete. (ii) Fixing in C.C. 1:5:10	66
39	<p>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), specifications as per clause 17001.3. The top most plate will be of 3mm ACP in diamond shape of 600x600 mm 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 75mmx75mmx6mm Mild steel post at Centre and this post 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. 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 Reflectivesheeting of Type-1 AEGP Class-A grade as per the latest MORD section 1700 and IRC67-2012 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 Logo sign design and as directed by Engineer-in-charge. A warranty for 5 years for the Retro reflective for Type-1 Class-A from original manufacture shall be submitted by contractor.</p>	67
40	<p>Citizen Information Board:-Providing and fixing sing boards made out of 2mm aluminium sheet; size 180 x 120cms. 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).</p>	70

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41	<p>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 High Intensity Prismatic Grade retro reflectivesheeting of Type-4 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr 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</p>	70
42	<p>Give Way 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 High Intensity Prismatic Grade retro reflectivesheeting of Type-4 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr 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</p>	70

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43	<p>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</p>	71
44	<p>Direction (Junction) Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 244x122 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; 4.0mtr (2 Nos.) 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 50x50x5mm; 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..</p>	71

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45	<p>STOP Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 90 cms. Octagonal as per design of IRC-67-2012. Pre treated with phospheting 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; 3.6mtr 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.</p>	71
46	<p>Village name Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 90x60 cms. rectangular as per design of IRC-67-2012. Pre treated with phospheting 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; 3.3mtr 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 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 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</p>	72

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47	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 shall 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.	72

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