

**Name of Work:- Construction of Amra-Shapar Road of Jamnagar Taluka under MMGSY Yojana Package No. JAM/ BUJ/ MMGSY/ NP/2021-22/P-10 (Remaining Work )**

**Taluka : Jamnagar**

**Dist: Jamnagar.**

**Specification index**

Item No.	Item of work	Sr. No. of the applicable in enclosed	Page No.	Note
1	2	3	4	5
1	Earthwork for embankment from borrow area including breaking clods, dressing with all lead and lift (excluding watering and consolidation) for all lead and lift.	--- As per attached ---		
2	Earthwork for embankment from borrow pits including breaking clods, dressing with all lead and lift (excluding watering and consolidation) for all lead and lift.	--- As per attached ---		
3	Rolling and watering of earthwork in layers with power roller including filling in depression which occur during the process as directed.	--- As per attached ---		
4	Providing and laying Granular Sub Base Grade-I C.B.R. not less than 30% by Providing close graded materials , consisting of B.T. crushed stone aggregates 53mm to 9.5mm @ 50%, 9.5mm to 2.36mm @ 20%, 2.36mm to below @ 30% coarse sand combination and stone dust /Grit spreading in uniform layers with motor grader on prepared surface mixing by mix in place method with rotovator at OMC to required dry density including filling the depressions which occurred during the process using vibratory roller 8-T to 10-T complete as per Clause-401.	--- As per attached ---		
5	supplying and stacking of crushed stone aggregates , chippings etc of hard stone of 40 to 63 mm size free of disintegrated pieces deleterious and organic mater (for W.B.M.) and grading as per IRC code with all lead.	--- As per attached ---		
6	supplying & stacking of crushed stone aggregates , chippings etc of hard stone of 6 to 10 mm on road side with all lead including filing measure boxes.	--- As per attached ---		
7	Supplying and stacking of stone dust as binding materials and filling in boxes with all lead and lift.	--- As per attached ---		
8	Spreading the stone aggregates for soiling and W.B.M. including filling the interstices forming the surface to required camber and gradient as directed.	--- As per attached ---		

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9	Spreading the stone dust /binding materials filling the gaps in metal and levelling to camber and gradient as directed.	--- As per attached ---		
10	Rolling and consolidation of water Bound macadam using vibratory Road (Including watering).(layer not exceeding 100mm thickness)	--- As per attached ---		
11	Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including cleaning of road surface and spraying primer @ rate of 0.60 Kg/Sqm using mechanical means.	--- As per attached ---		
12	Providing and laying 37.50mm thick built up spray grout in one layers using black crushed stone aggregate as per gradation and specification including using bitumen for tackcoat at the rate of 2.5Kg/10sqm on surface by mechanical sprayer and bitumen of VG-10 grade mixing at the rate of 19.90 Kg/MT by weight of total mix (i.e. 1.99%) including heating and mixing the aggregate and bitumen by continues batching drum mix plant, transporting the mix and spreading the same by paver finished and consolidation with vibratory roller including cost of all materials , fuel , labours, tools and plants using contractor's own drum mix plant and machineries etc complete.	--- As per attached ---		
13	Providing , laying and rolling of 25mm thick open graded premix bituminous carpet with BT aggregate as specified and using bitumen VG-10 for tackcoat at the rate of 2.5 Kg/10 Sqm on BT surface and using bitumen VG-10 for mixing with aggregate at the rate of 3.36% i.e. 33.60 Kg/MT of total mix including heating and mixing in drum mix plant, spreading the same with paver finisher and consolidation with vibratory roller including necessary fire wood , oil, lubricants, labor charges etc. using contractor's own drum mix planet and equipment, tools etc completed in accordance with the requirements of specification .	--- As per attached ---		

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14	Providing and laying seal coat with B.T. aggregate as specified using aggregate at the rate of 0.18 cum/10 sqmt and bitumen Vg-10 for mixing with aggregate at the rate of 4.5% i.e. 45.00 Kg/MT of total mix including heating and mixing in drum mix plant and spreading the same by paver finisher and consolidation with vibratory roller including necessary fire wood, oil, lubricants , labour charges using contractor's own drum mix plant, machineries and equipment , tools etc complete in accordance with the requirement of specification.	--- As per attached ---		
15	Excavation for foundation in Dense or Hard Soil upto all depth including sorting out and stacking of useful materials and disposing off the excavated stuff upto all lead and lift.	--- As per attached ---		
16	Excavation for foundation in Hard Murum upto all depth including sorting out and stacking of useful materials and disposing off the excavated stuff upto all lead and lift.	--- As per attached ---		
17	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.	--- As per attached ---		
18	Providing and casting in situ ordinary CC M-150 mix and providing necessary pin headers including shuttering scaffolding laying , vibrating , curing and finishing etc completer without V-Grooves for all height.	--- As per attached ---		
19	Supplying and fixing reinforced concrete heavy duty 1200mm dia NP-3 pipes with collars for culverts including setting and joining the pipes in C.M. 1:2 watering and laying with all lead and lift.	--- As per attached ---		
20	Providing and casting in situ ordinary cement concrete M-200 for average 100 mm thick wearing coat laid as directed including tamping ,vibrating, finishing, curing and filling in joints with bitumen complete.	--- As per attached ---		
21	Providing and laying in position FE 415 TMT bar reinforcement including cutting, bending, hooking and tying complete as per detailed drawings for all concrete items.	--- As per attached ---		
22	Providing and fixing flood gauge marks of C angle size 100mm x 50mm x 6mm thick of length 1.50mt height fixed in head wall 0.50mt and 1.00mt outside with painting and lettering as directed.	--- As per attached ---		

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23	Providing & laying weep hole in Abutments, and returns by using A.C. pipe of 100mm including laying in proper grede and jointing the completed as per detailed specification.	--- As per attached ---		
24	Providing and casting in situ ordinary trimix cement concrete M-250 for average 200mm thick road work laid as directed including adding super platisizer admixture of IS make and providing and laying M.S. side rail of road thickness with necessary nut bolts plates fixing as per width applying plate vibrator (electric or diesel) on channel compressor with vacuum dewatering system by using all necessary equipments and materials and machinery such as running screed vibrator on prelaaid M.S. channel for leveling ,Vacume pump, floating and power towelling etc with filling the joints with bitumen as directed etc complete.	--- As per attached ---		
25	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.	--- As per attached ---		
26	Providing and fixing Hectometer fixing in C.C. 1:5:10 as per I.R.C. type design including painting, lettering etc. complete.	--- As per attached ---		
27	Providing and fixing guard stone in earth as per I.R.C. type design including white washing etc. complete.	--- As per attached ---		
28	Providing and fixing Village name boards as per standard I.R.C. type design of steel plate including painting lettering etc. complete with fixing in C.C. 1:4:8 block with necessary excavation.	--- As per attached ---		
29	Providing and fixing indicator stone fixing in earth of approved stone as per I.R.C. type design in C.C. 1:4:8 including white washing etc. complete.	--- As per attached ---		
30	Providing and fixing Junction board of M.S. plates and angles as per standard I.R.C. design including fixing in C.C. 1:4:8 with necessary excavation painting figuring and lettering on board etc. complete.	--- As per attached ---		

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31	Providing and fixing of typical MMGSY Project informatory sign board with Logo as per MORD specifications and drawing. Three MS plates of 1.6mm thick, top and middle plate duly welded with MS flat iron 25 x 5mm size on back on edges. The lower plate will be welded with MS angle iron frame of 25mmx25mmx5mm , The angle iron frame of the lower most plate and flat iron frame of middle plate will be welded 2 nos. 75 x 75mm of 12SWG sheet tubes posts duly embedded in cement concrete M-15 grade block of 450 x 450x600mm , 600mm below ground level . The top most diamond plate will be welded to middle plate by 47mm x 47mm of 12SWG steel plate tube . All M.S. will be stove enamelled on both sides. Lettering and printing arrows, board etc will be painted with ready mixed synthetic enamel paint of superior quality in required shade and colour. All sections of framed posts and steel tubes will be painted with primer and two coats of epoxy paints as per drawing clause 1701 and Annexure 1700.1	--- As per attached ---		
32	Supplying and fixing Reflective type road sign board of M.S. plates and angle iron including painting, lettering etc. complete including fixing in C.C. 1:4:8 with necessary excavation etc. complete as per I.R.C. type design.	--- As per attached ---		
33	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 stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm & 50 x 50 x 5mm painted with best quality epoxy coatings The fixing at site shall be in 1:2:4 CC block of size 45x45x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.(B)High Intensity Grade	--- As per attached ---		

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34	<p><b>Informatory Signs :-</b>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 &amp; acid teching; coated with one coat of epoxyprimer and two coats of best qualityepoxy paint; reflectorised with retro refiective 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</p>	--- As per attached ---		

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