

**Name of Work :- Resurfacing of Various Roads of Taluka Lakhpat (Package No. 01)
District Bhuj-Kachchh under Normal Resurfacing Budget-2024-2025 (Total 2 Roads,
Length 1.50 Km.)**

SPECIFICATION INDEX

It. No.	Description of Item	Applicable Separate Road Specification attached reference
1	Clearing and grubbing road land including uprooting wild vegetation grass bushes, shrubs, sapling and trees of girth up to 300mm removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable materials as per Clause-201 (area of light density) by mechanical means in area of light jungle.	As per separate sheet attached.
2	Earthwork in cutting including preparing the slope and camber and stacking or utilizing the cutting stuff in spoil bank as directed upto 200 meters from the end of cutting with all lead and lift.	As per separate sheet attached.
	(A) Hard Murrum	
3	Earth work for embankment including breaking clods, dressing with all lead and lift (including watering and consolidation) (C) from borrow area within all lead and lift (with minimum 6% CBR)	As per separate sheet attached.
4	Rolling and watering of earthwork in layers with power roller including filling in depressions which occur during the process.	As per separate sheet attached.
5	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 all lead and lift.	As per separate sheet attached.
6	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.	As per separate sheet attached.
7	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.	As per separate sheet attached.
8	Providing and laying compacted of specified murrum in side shoulder including carriage of material and spreading on prepared base including compacting as per MOST specification etc. complete.	As per separate sheet attached.
9	Providing and laying bituminous grout 37.5mm compacted thick using B.T. stone aggregates as per required gradation with the asphalt VG-30 grade for tack coat 2.5 Kg/10 Smt on B.T. surface and 4.0 Kg/10 Smt on W.B.M. surface and asphalt VG-30 grade for mixing @ 1.99% i.e. 19.90 kg./ MT by weight of mix including heating and mixing in drum mix plant transporting the mix, spreading the same by pavers finisher and consolidation as per MORTH specification including cost of all materials fuels, labors, tools and plant etc. using contractors own drum mix plant etc. completed as directed.	As per separate sheet attached.

It. No.	Description of Item	Applicable Separate Road Specification attached reference
10	Providing and laying 37.50 mm thick compacted B.M. using stone chips 0.66 Cum/1 M. ton mix as per gradation with Asphalt VG-30 for tack coat @ 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 continuous batching drum mix plant, transporting and mixed material 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.	As per seperate sheet attached.
11	Providing and laying bituminous seal coat with stone chips 6 to 10 mm size 0.18 Cmt/10 smt. i.e. using 0.66 cmt aggregate per M.T mix using asphalt VG-30 @ of 4.50% of mix including heating the asphalt and aggregate by continuous batching drum mix plant and paver finisher and consolidating by vibratory roller including providing equipment, tools, plant, firewood, oil, kerosene, labour charges etc. using the contractors own machinery and plant.	As per seperate sheet attached.
12	Providing and laying cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 machine crushed stone aggregates 40 mm nominal size) and curing complete in foundation and plinth.	As per seperate sheet attached.
13	Proving and laying cement concrete grade M-20 (1-Cement : 1.5 sand : 3 coarse aggregate 20mm nominal size) for C.C. road and curing etc. complete including cost of formwork, finishing the cement concrete road by Trimix process inclusive of labour charges for trimix vaccume dewatering process on cement concrete road by using vaccume dewatering pump, surface floater, including channelling and making grooves & rough finish to surface, providing expansion joint, construction joint including filling the joint with asphalt filler as per direction by engineer in charge and as per specification.	As per seperate sheet attached.
14	Providing I.S.I. mark T.M.T. bar Fe-500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto two floor level.	As per seperate sheet attached.
15	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.)	As per seperate sheet attached.
16	Providing and fixing Hectometer stone as per I.R.C. type design including painting, lettering etc.complete (i) Fixing in earth.	As per seperate sheet attached.
17	Providing and fixing Guard stone as per I.R.C. type design including white washing etc. complete (i) Fixing in earth.	As per seperate sheet attached.
18	Direction sign (Junction board) :- Providing and fixing sign boards made out of 2mm aluminium sheet size 244 x 122cms. rectangle as per the	As per seperate sheet attached.

It. No.	Description of Item	Applicable Separate Road Specification attached reference
19	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 phospheting process & acid	As per seperate sheet attached.
20	Village name/ Bump Ahead sign :- Providing and fixing sign board made out of 2 mm alluminium sheet size 90 x 60 cms rectangle as per the design of IRC-67-1977 pre treated with phospheting process and 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.R.T.H. specifications. Letters and numerals should be as per IRC-30-1968, 310m long (2 Nos.) stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5 mm painted with best quality epoxy coating 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 C.C. 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) Engineer grade (VR).	As per seperate sheet attached.
21	Hazard Marker Sign :- Providing and fixing sign board made out of 2mm aluminium sheet size 90 x 30 cms. rectangle as per the design / drawing attached (IRC) pretreated with phospheting & 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. specification, 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 C.C. 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).	As per seperate sheet attached.
22	STOP SIGN :- Providing and fixing sing boards made out of 2mm aluminium sheet size 90 x 90cms. rectangle as per the design of IRC-67-1977 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, 75 x 75 x 6mm 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).	As per seperate sheet attached.

It. No.	Description of Item	Applicable Separate Road Specification attached reference
23	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	As per sepearte sheet attached.
24	Cat Eye / Road Stud / RPM : Supplying of Moulded Twin Shanks Raised Pavement Markers made of polycarbonate and ABS moulded body and reflective panels with micro prismatic lens (No Glass bead 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 Kgs. Fixing will be by drilling holes on the	As per sepearte sheet attached.
25	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 phospheting 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	As per sepearte sheet attached.
26	Excavation for foundation up to 1.50 mt. depth including sorting out and stacking of useful material and disposing off the excavated stuff within all lead and lift for all sorts of soil.	As per sepearte sheet attached.
27	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 sepearte sheet attached.

It. No.	Description of Item	Applicable Separate Road Specification attached reference
28	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-grooves. (A) Height from 0.0 M. to 5.0 M.	As per seperate sheet attached.
29	Filing available excavated earth (excluding rock) in trenches,plinth, sides of foundations etc. in layers not exceeding 20 cm in depth consolidating each diposited layer bby ramming and watering.	As per seperate sheet attached.
30	Providing & Laying weep hole in abutments, and returns by using PVC 10kg/sqcm pipe of 110mm dia including laying in proper grade and jointing the completed as per detailed specification.	As per seperate sheet attached.
31	Providing and laying filter media 600mm thick as directed at the back of abutments and returns and wing walls as per detailed specifications.	As per seperate sheet attached.

Deputy Executive Engineer
Panchayat (R & B) Sub Division
Dayapar

Executive Engineer
Panchayat (R & B) Division
Bhuj - Kachchh