

Name of work :- Resurfacing of Chhodavadi Kariya Road Ch.00/000 to 6/915 Km. Ta.Bhesan Dist.Junagadh

BILL OF QUANTITIES

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate In Figures	Amount
1	Clearing and grubbing of road land incl.uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth upto 300mm removal of stumps of trees cut earlier and disposal of unserviceable materials © By mechanical means in area of Light jungle.	1.09	One Hect.	28455.09	31016.05
2	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 within 3.0KM. lead	2755.58	One Cum	173.04	476825.56
3	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 slopes as directed upto all lead.	288.75	One Cum	109.41	31592.14
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 of cutting and top of spoil bank.	1960.40	One Cum	109.41	214487.36
5	Supplying and stacking of Hard Murrum/ stone dust /binding materials on road site including filling measure boxes with all lead and lift.	1805.00	One Cum	468.64	845895.20
6	Scarifying graveled macadam or Bitumen macadam surface 6cm to 10cm depth including stacking useful materials on road side and disposing off remaining stuff.	3487.50	One Sqm	6.16	21483.00
7	Granular Sub-base Construction of 100mm Granular Sub base Grade-II C.B.R. not less than 30% by providing coarse graded materials, consisting B.T. crushed stone aggregate & combination of sand stone dust/grit spreading in uniform layers with mortar grader on prepared surface mixing by mix in place method with rotavator at OMC to required density including filling the depression which occur during the process using vibratory roller 8 T to 10 T complete as per clause 401.	400.00	One Cum	796.89	318756.00

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate In Figures	Amount
8	WBM Grading-2 Providing and laying Spreading and Compacting B.T.M.C. stone aggregate of 63 mm to 45mm size to WBM II 225mm thick in three layers (75mm Each) including spreading in uniform thickness hand packing rolling with vibratory roller 8-10 tones to proper grad and camber applying and brooming requisite type of screening /binding /filler materials to fill up the interstices of coarse aggregate watering and compacting to the required density. Grading - II using screening type- A [13.20 mm agg l	732.38	One Cum	1016.06	744142.02
9	Providing and laying evenly priming coat with emulsion SS-1 at rate of 7.5 Kg/10 Sqm etc.complete	6457.50	One Sqm	58.58	378280.35
10	Providing and laying Bituminous Grout 37.5mm thick compacted with asphalt VG-30 grade at the rate of 1.99% by weight of total mix with RS1 tack coat at 2.50 Kg/10 Sqmt. On existing B.T/ Metal. surface and using B.T. chips of required gradation including cleaning & heating the aggregate and asphalt by Drum Mix Plant & spreading the same by paver finisher & consolidation with vibratory road roller including providing all materials, equipments, tools, plants, fire wood, kerosene, oil and labor charges etc. comp. (using by contractor own machineries)	2081.00	One MT	2121.00	4413801.00
11	Providing and laying 37.5 mm thick Bituminous Macadam (B.M.) in one layers on the existing B.T. surface using stone chips as per gradation and using Emulsion RS1 for tack coat at rate of 2.5 kg/ 10 sq.m. on B.T. surface and Bitumen VG-30 34KG/MT by weight of total mix by using stone chips as per MORT & H specification including heating asphalt and aggregates by Drum mix plant and spreading by paver finisher to the required grade, level and alignment and rolled including consolidation with vibratory road roller as per clauses 501.6 and 501.7 to achieve the desired compaction and providing, operating plant machineries, equipments, tools, plants, oil fire wood, kerosene and all labour charges etc. complete	2128.00	One MT	2775.48	5906221.44

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate In Figures	Amount
12	Providing and laying 20 mm thick average Mix sealsurface using stone chips dust as per gradation and using bitument for mixing VG-30 at the rate of not less than 50.90Kg / M.T. on BT surface using stone chips as per M.O.R.T.H specification including heating the asphalt and aggregates by Hot Mix Plant and spreading the same by paver finisher including consolidation with Vibratory Roller and providing, operating plant machineries, equipment, tools, plants, oil, fire wood, kerosene and all labour charges etc. complete.	1208.00	One MT	3392.59	4098248.72
13	Excavation for foundation upto all depth including sorting out and stacking of useful materials and disposing of the excavated stuff upto all lead. Dense or hard soil.	847.32	One Cum	161.41	136765.92
14	Providing and laying rubble for apron (Each stone weighting not less than 40kg) including and packing and filling in the interstices with quarry spall.	43.23	One Cum	1083.81	46853.11
15	Providing and laying cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and plinth	111.98	One Cum	3605.01	403689.02
16	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 For all Hieght.	317.30	One Cum	3996.50	1268089.45
17	Construction of concrete road using tremix system with 20cm/15cm thick controlled M-250 concrete mixing conplast P-211 water reduction admixture @ 100ml/bag of cement and hardner 62.50ml. /bag using fixing and removing "C" channels of required road depth levelling if placed concrte with surface vibrator, finishing the surface with power floater and towel tight brooming as directed with providing expantion joints 20x200mm and contraction joints 20x20mm using concrete cutter machine etc. complete.[PQC]	273.66	One Cum	6456.28	1766825.58

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate In Figures	Amount
18	Providing and fixing in position FE 500D TMT bar reinforcement including cutting, bending and tying complete as per detailed drawings. (A) R.C.C. Kerb. (B) R.C.C. Footpath. (C) R.C.C. Approach slab. (D) Wearing Coat.	4.790	One MT	73243.02	350834.07
19	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.	513.75	One Cum	136.92	70342.65
20	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 casted by vertically vibrated technology of following internal diameter. 600mm dia.	7.50	One Rmt.	2108.86	15816.45
21	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 casted by vertically vibrated technology of following internal diameter. 900mm dia.	97.50	One Rmt.	3271.56	318977.10
22	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. Stone/Rubble masonry.	103.50	One Cum	409.22	42354.27
23	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. RCC Work.	367.52	One Cum	930.35	341922.23
24	Providing and placing in position FE 500D TMT Bar reinforcement including cutting, bending, hooking, and taying complete as per detail drawing. (C) Balanced cantiliver box type super structure.	1.73	One MT	76213.97	131850.17
25	Providing and fixing Precast cement concrete Hectometer as per IRC type design incl. painting, lettering etc. fixing in C.C. 1:5:10.	28.00	One No	356.50	9982.00
26	Providing and fixing Precast cement concrete Guard stone as per I.R.C. type design including white washing etc. complete. Fixing in Earth	469.00	One No	101.56	47631.64
27	Providing and fixing ordinary Kilometer stone of pre cast 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.	5.00	One No	891.53	4457.65

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate In Figures	Amount
28	Providing and fixing 5th Kilometer stone of pre-cast 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.	2.00	One No	1935.15	3870.30
29	Village/Bump Ahead sign. : Providing and fixing sign boards made out of 2mm Aluminium sheet size 90x60 cms. Rectangle as per the design of IRC-67-1977 pre treated with phospheting 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 letter and numbers should be as per IRC:30-1968, 3.1 Mt. long (2 nos) stand post and frame fabricated from suitable size iron angle of 50x50x5mm, painted with best quality epoxy coating in black and white bends, the details of symbole on inscription/ numerals for each board shall be as per the instruction of the Engineer in charge. The fixing at site shall be in C.C 1:2:4 block of size 45x45x60cms. for each leg including excavation curring etc. complete under the supervision of engineer in charge (A) Engineer Grade.	1.00	One No	5045.36	5045.36
30	Hazard Marker sign : Providing and Fixing sign boards made out of 2mm aluminum sheet : size 90*30 cms. rectangle as per design / Drawing attached (IRC). Pretreated 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.S.T specification: 3.1 M. long (2 nos) stand post and frame fabricated from suitable size iron angle of 35*35*3mm and 50*50*5mm : painted with best quality epoxy coatings in black and white bends the details of symbole 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*45*60 cms for each leg: including excvation curing etc. comp.under the supervision of engineer-in-charge.(B) Engineering Grade	40.00	One No	2423.74	96949.60

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate In Figures	Amount
31	Chevron sign :-Providing and fixing sign boards madeout of 1.5mm aluminium sheet / 3mm ACP (Aluminum composite Panel); size 60x50cm 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; 3.3 mtr 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 of35x35x3mm; 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 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 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. (A) Class-B Type-4 Retro Reflective sheeting	20.00	One No	3711.75	74235.00
32	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 phospheting 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.	18.00	One No	3808.66	68555.88

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate In Figures	Amount
33	Citizen's information Board. Providing and fixing of typical MMGSY information board as per instruction. Two MS 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 750mm, 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	One No	10361.59	10361.59
34	Road Marking with Hot Applied paints with reflectorising glass beads on bitumin surface providing and laying a hot applied thermoplasting compound 2.5mm thick including reflectorising glass beads @250 gm per sq.mtr 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/centerline/edge line/ cut patta. the while color marking should provide liminance coefficient on cement road shall be min. 130 mcd/m2/lux and asphalt road shall be min 100 mcd/m2/lux during the survice life during the date the marking should meet the performanace criteria for night time reflectivity, wet reflectivity and skid resistance as mentioned in the section-15 of IRC 35-2015 warranty for retroreflectivity shall be two years.	2106.00	One Sqm	367.72	774418.32

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate In Figures	Amount
35	Cat Eye / Road Stud / RPM: Supplying 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 body of the marker should having finger grip for easy and accurate placement and application with epoxy / bituminous Adhesive as recommended by the manufacturer of the marker. The color of the marker should be as per the IRC 35-2015 and as directed by Engineer-in . (A) Engineer Grade	990.00	One No	217.40	215226.00
36	STOP SIGN:-Providing and fixing sing boards made out of 2mm aluminium sheet; size 90 * 90cms rectangle as per the design of IRC-67-1977 pre treated with phospheting process & acid teching; coated with one coat of epoxy primer and two coats of best quality epoxy paint; reflectorised with retro refiective sheeting as per latest M.O.S.T. Specifications; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 * 35 * 3mm * 75 * 75 * 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 * 45 * 60cms for each leg. including excavation curing tec. complete under the supervision of engineer in charge. (A) Engineer Grade	2.00	One No	4676.06	9352.12

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate In Figures	Amount
37	Direction sign (Junction board):-Providing and fixing sign boards made out of 2mm aluminium sheet; size 244 * 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 * 50 * 5mm 75 * 75 * 6mm 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 incharge. The fixing at site shall be in 1:2:4 CC block of size 45 * 45 * 60cms for each leg. including ploto under the supervision of engineer in charge. (A) Engineer Grade (VR)...	2.00	One No	14831.71	29663.42
38	Distance Informatory/ Destubatuib sign: Providing and fixing sign 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 75 x 75 x 6mm 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	2.00	One No	10926.57	21853.14

Item No.	Description of Item (With brief specification and reference to book of Specification)	Quantity	Unit	Rate In Figures	Amount
39	Diversion sign board :-Providing & Fixing sign boards made out of 2mm aluminium sheet, size 180 x 60 cms. rectangle as per the attached drawing pre treated with phospheting process & acid etching. coated with one coat of epoxy priemr 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 (2nos) stand post and frame fabricated from iron angle of 35x35x3mm, 50x50x5mm painted with best quality epoxy coatings in blak and white bends. The fixing at site shall be in 1:2:4 CC block of size 45 x 45x 60cms for each leg, including excavation curing etc. complete under the supervision of engineer in charge. (A) Engineer Grade (VR)...	16.00	One No	6798.92	108782.72
Two Crore Thirty Eight Lakh Fifty Five Thousand Four Hundred Fifty Three Rupees and Sixty Paia					23855453.60

I \ We am \ are willing to carry out the work at % above \ bellow percent (Should be written in figures and words) of the estimated rate mentioned above. Amount of My \ Our tender works put as under.

* Estimated Amount

Put to tender **Rs**.....

Deduct.....%

Net **Rs**.....

In words.....

* Estimated Amount

Put to tender **Rs**.....

Add.....%

Total **Rs**.....

In words.....

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.

NOTE: Amount Rs. Of Dismantalled materials shall be recovered from 1st R.A. bill of Contractor at once.

Signature of Contractor.

Deputy Executive Engineer
Panchayat R&B Sub Division
junagadh-2

Executive Engineer
Panchayat R&B Division
Junagadh