

**Name of work :- Construction of Khamnath Bridge in place of existing damaged arch bridge on River Ghee on Khambhalliya Porbandar Road in Khambhaliya Nagar Palika Limit on new alignment.**

**BILL OF QUANTITIES**

It. No.	Description of Item (with brief specification and reference to book of specifications)	Quantity	Unit	Rate		Amount
				In figures	In words	
1	2	3	4	5	6	7
1	Dismantling the existing structure R.C.C. work including removing and stacking the dismantled materials as and where directed.	54.00	Cum.	930.35	Rupees Nine Hundred Thirty And Paise Thirty Five Only	50238.90
2	Dismantling the existing structure Rubble Masonry including removing and tacking the dismantled materials as and where directed.	292.00	Cum.	409.22	Rupees Four Hundred Nine And Paise Twenty Two Only	119492.24
3	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 By mechanical means in area of light jungle.	1.34	Hector	28455.08	Rupees Twenty Eight Thousand Four Hundred Fifty Five And Paise Eight Only	38129.80
4	Marking out the centre line of the Bridge and various other component structures and complete lining out and levelling with theodolite, levels, including constructing necessary masonry pillars for lines and levels and establishing necessary bench marks etc. complete as directed and maintained it till completion of superstructure.	1.00	Job.	1515.00	Rupees One Thousand Five Hundred Fifteen Only	1515.00

1	2	3	4	5	6	7
5	Providing and installing barricading with retro- reflective paint / film / tapes as specified in the drawing @ 3m high with 50x50x6mm angle, 450mm deep M15 concrete embedment, with vertical angle at 3m c/c spacing, marking Mandatory and information details, Speed limit, Work in Progress etc. along the construction site the construction of bridge, along with necessary diversion arrangement for existing traffic movement in an unobstructed condition, all relevant markings, sign boards and illumination as per relevant MORT & H specification. Rate to be inclusive of all materials, fabrication works, paint works, foundation works, transportation, loading, unloading, installation, removing & relocating and inclusive of all taxes and including the same design for providing openable gates include all safety features. No extra rental will be given to the contractor in case of any delays from his part for construction or due to any valid time limit extensions. Each barricading sheet is to be numbered with a unique number. The contractor may reuse the same sheet for barricading else where with in the project boundaries, however in such case, he will not been titled for separate rent for reuse. After the completion of project, the ownership of barricading will remain with the contractor. Blinkers are to be installed on the barricading at critical locations. Barricading is to be cleaned by means of washing with water on a weekly basis or a sand when required as per the instructions of Engineer in charge.	990.00	Sqm.	658.52	Rupees Six Hundred Fifty Eight And Paise Fifty Two Only	651934.80
6	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. With all lead and lift.	3278.00	Cum.	511.11	Rupees Five Hundred Eleven And Paise Eleven Only	1675418.58
7	Excavation for foundation in hard murrum and boulders and very stiff or sticky, clays and other similar strata including shoring and strutting and dewatering as necessary and disposing of the excavated stuff as directed .	1119.00	Cum.	611.32	Rupees Six Hundred Eleven And Paise Thirty Two Only	684067.08

1	2	3	4	5	6	7
8	Excavation in large boulders and soft rock by welding including shoring, strutting and dewatering as necessary and disposing of the excavated stuff as directed.	925.00	Cum.	716.55	Rupees Seven Hundred Sixteen And Paise Fifty Five Only	662808.75
9	Excavation in hard rock by dry-wet blasting and chiselling including dewatering preparing foundation base by proper benching and stepping and disposing of the excavated stuff as directed. With prohibited Blasting work.	3464.00	Cum.	1675.30	Rupees One Thousand Six Hundred Seventy Five And Paise Thirty Only	5803239.20
10	Providing and fixing mild steel dowel bars of minimum 32mm dia. for anchoring by drilling holes in foundation strata including necessary bending, hooking of dowel bars and grouting the holes complete as per detailed drawing and as directed.	958.00	Rmt.	450.06	Rupees Four Hundred Fifty And Paise Six Only	431157.48
11	Providing and Casting in situ controlled Cement Concrete M-150 including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability; including necessary shuttering laying, vibrating as per direction of the Engineer-in-charge for Foundation.	3653.00	Cum.	4194.53	Rupees Four Thousand One Hundred Ninety Four And Paise Fifty Three Only	15322618.09
12	Providing and Casting in situ controlled Cement Concrete M-350 including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability; including necessary shuttering laying, vibrating, ramming and curing complete as per direction of the Engineer-in-charge. for R.C.C. Raft and cut-off walls.	2517.00	Cum.	5071.21	Rupees Five Thousand Seventy One And Paise Twenty One Only	12764235.57
13	Providing and casting in situ controlled cement concrete M-350 including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability; including centring shuttering, scaffolding where necessary, laying vibrating, curing and finishing complete as per direction of the Engineer-in-charge as per drawings for Piers, Abutment, RCC return.	1784.00	Cum.	5720.56	Rupees Five Thousand Seven Hundred Twenty And Paise Fifty Six Only	10205479.04

1	2	3	4	5	6	7
14	Providing and casting in situ controlled cement concrete M-350 including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability; including controlled cement concrete M-350 bed blocks or pedestals of required size below bearings as per detailed drawings, centring, shuttering, scaffolding, wherever necessary, laying vibrating, curing and finishing complete as per direction of the Engineer-in-charge for R.C.C. work in Pier cap, Abutment cap and Dirt wall.	663.00	Cum.	5758.01	Rupees Five Thousand Seven Hundred Fifty Eight And Paise One Only	3817560.63
15	Providing and casting in situ controlled cement concrete M-450 including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability; including centring, shuttering scaffolding, ramming, vibrating curing and finishing complete as per direction of the Engineer-in-charge for R.C.C. work in superstructure.	2060.00	Cum.	6387.24	Rupees Six Thousand Three Hundred Eighty Seven And Paise Twenty Four Only	13157714.40
16	Providing and casting in situ controlled cement concrete M-450 including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability; including formwork curing and finishing, complete as per direction of the Engineer-in-charge for Kerb/ kerb blocks.	578.90	Cum.	5481.27	Rupees Five Thousand Four Hundred Eighty One And Paise Twenty Seven Only	3173107.20
17	Providing and casting in situ controlled cement concrete M-400 including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability; including tamping, vibrating, finishing, curing and filling in joints with bitumen complete & Providing and laying in position as per direction of the Engineer - in - charge for average 75 mm thick wearing coat laid as directed.	204.00	Cum.	5846.89	Rupees Five Thousand Eight Hundred Forty Six And Paise Eighty Nine Only	1192765.56

1	2	3	4	5	6	7
18	Providing and casting in situ controlled cement concrete M-350 including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability; including formwork curing and finishing complete as per direction of the Engineer-in-charge for Approach Slab.	52.00	Cum.	5609.54	Rupees Five Thousand Six Hundred Nine And Paise Fifty Four Only	291696.08
19	Providing & Casting in situ of controlled cement concrete M-350 including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability; as per detailed drawings with necessary reinforcement including, shuttering, laying vibrating and finishing to line and level complete as per direction of the Engineer - in - charge for Parapet.	1333.00	Rmt.	1294.82	Rupees One Thousand Two Hundred Ninety Four And Paise Eighty Two Only	1725995.06
20	Providing and laying precast R.C.C footpath slab in controlled cement concrete of M-200 grade (7.0Cm. thickness including necessary reinforcement and providing and setting cement chequered tiles in C.M. 1:5 as per drawing including necessary formwork, curing and finishing complete.	1970.00	Sqm.	1100.80	Rupees One Thousand One Hundred And Paise Eighty Only	2168576.00
21	Providing and placing in position FE 550D TMT bar reinforcement for all items including cutting bending hooking and tying complete as per detailed drawing.	1306.50	MT	74054.77	Rupees Seventy Four Thousand Fifty Four And Paise Seventy Seven Only	96752557.00
22	Providing fusion bonded Epoxy coating not less than 175 micron thickness and up to 300 micron to reinforcement bars as per IS-13620-1993/ASTM-775 M including testing of coating at plant and all taxes for any dia. of reinforcement	1313.10	MT	9137.53	Rupees Nine Thousand One Hundred Thirty Seven And Paise Fifty Three Only	11998490.64
23	Providing and fixing in position fully molded restrained elastomeric Bearings as per detailed drawings.	1651104.0	Cu.cm.	0.90	Rupees And Paise Ninety Only	1485993.60

1	2	3	4	5	6	7
24	Providing and fixing Modular strip seal expansion joint including anchorage catering to a horizontal movement beyond 70mm and up to 140mm, complete as per approved drawing and standard specifications to be installed by the manufacturer/supplier or authorised representative.	84.00	Rmt.	2057.37	Rupees Two Thousand Fifty Seven And Paise Thirty Seven Only	172819.08
25	Providing and fixing of Tar paper below approach slab as per direction of Engineer in-charge.	13.00	Sqm.	303.50	Rupees Three Hundred Three And Paise Fifty Only	3945.50
26	Providing and laying - Filter Media 600mm thick directed at the back of abutments, returns and wing walls as per detailed specifications.	1554.00	Sqm.	1239.35	Rupees One Thousand Two Hundred Thirty Nine And Paise Thirty Five	1925949.90
27	Providing and filling sand behind abutments and between returns in layers as directed.	792.00	Cum.	504.42	Rupees Five Hundred Four And Paise Forty Two Only	399500.64
28	Steel work , weld in build-up sections framed work including cutting, hoisting, fixing in position and applying a priming coat of red lead paint In beam and joists channels angles tess, flats with connecting plates or angles cleats as in main and cross beams as per approved drawing.	60.00	Qtl.	9108.48	Rupees Nine Thousand One Hundred Eight And Paise Forty Eight Only	546508.80
29	Providing flood gauge marks on substructure as per design including painting complete.	24.00	Rmt.	167.03	Rupees One Hundred Sixty Seven And Paise Three Only	4008.72
30	Providing masonry steps with Cement Pointing on approaches as directed.	94.00	Step.	230.50	Rupees Two Hundred Thirty And Paise Fifty Only	21667.00
31	Providing and fixing marble slab Size 75cm x 60cm x 4cm including engraving and painting complete.	2.00	No.	1012.64	Rupees One Thousand Twelve And Paise Sixty Four Only	2025.28
32	Providing & laying weep hole in Abutments, and returns by using A.C./ PVC pipe of 100mm including laying in proper grade and jointing the completed as per detailed specification.	1022.00	No.	86.69	Rupees Eighty Six And Paise Sixty Nine Only	88597.18
33	Providing G.I. 100mm diameter water spouts including necessary iron gratings as per drawings.	48.00	No.	536.02	Rupees Five Hundred Thirty Six And Paise Two Only	25728.96

1	2	3	4	5	6	7
34	Providing and laying dry stone pitching of 22.5 cm. thick including preparing the surface and cement pointing in C.M. 1 :3 (1 cement : 3 Sand) etc. complete.	600.00	Sqm.	505.00	Rupees Five Hundred Five Only	303000.00
35	Providing panel wall for dry stone pitching in uncoursed rubble masonry with hard stone of approved quality in cement mortar 1:5 including curing etc as complete job.	81.00	Cum.	2650.75	Rupees Two Thousand Six Hundred Fifty And Paise Seventy Five Only	214710.75
36	Labour charges for dry stone pitching of 20.0 cm. thick including preparing the surface etc as complete job.	120.00	Sqm.	422.58	Rupees Four Hundred Twenty Two And Paise Fifty Eight Only	50709.60
37	Providing and laying cement concrete 1:2:4 (1- Cement : 2 Coarse sand : 4- graded stone aggregates 20 mm nominal size) and curing complete excluding cost of formwork in Foundation and Plinth.	75.00	Cum.	3784.74	Rupees Three Thousand Seven Hundred Eighty Four And Paise Seventy Four Only	283855.50
38	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 with all lead and lift.	1517.00	Cum.	102.17	Rupees One Hundred Two And Paise Seventeen Only	154991.89
39	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.	13141.00	Cum.	252.07	Rupees Two Hundred Fifty Two And Paise Seven Only	3312451.87
40	Construction of Granular sub base by providing 100 mm thick GSB Gr - II coarse graded material using B.T Metal 26.5 mm to 9.5 mm @ 35 %, 9.5 mm to 4.75 mm @ 25%, and Below 2.36mm @40% in uniform layer with motor grader on prepared surface mixing by mix in place method with vibratory roller to achieve the desired density complete as per clause 401.	1506.00	Cum.	1259.47	Rupees One Thousand Two Hundred Fifty Nine And Paise Forty Seven Only	1896761.82

1	2	3	4	5	6	7
41	Providing & Casting in situ Controlled trimix cement concrete pavement M-350 laid as directed over a prepared sub base using cement content as per approved Design Mix manufactured in fully automatic batching plant including the cost of centring shuttering and finishing including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability. using surface hardener & other admixtures in proportion mentioned by the manufacture and laid in continuous bay as per the direction of engineer-in -charge by providing longitudinal Joints, dowel bars, tie rod including providing & laying M.S side rail of road thickness with necessary nut bolts plate and fixing as per width applying plate vibrator (electric or Diesel) on channel compressor with vacuum dewatering system by using all necessary equipment & materials such as running screed vibrator on pre-laid M.S channel for levelling, Vacuum pump, floating and power travelling etc. including providing 32 mm dia. dowel bar 50 Cm. long @ 30 Cm C/C and 12mm dia Anchor bar 64CM. long at 60Cm. C/C with filling joints with bitumen as directed etc. complete.	1649.00	Cum.	8363.81	Rupees Eight Thousand Three Hundred Sixty Three And Paise Eighty One Only	13791922.69
42	Providing and fixing pre-cast concrete kerb stone of grey cement based concrete block 30cm length, 30cm height and 15cm thick of M250 grade concrete as per approved design and including excavation for fixing in proper line and level, filling the joint with C:M 1:3 (1cement:3fine sand) etc. complete.	1270.00	Rmt.	374.92	Rupees Three Hundred Seventy Four And Paise Ninety Two Only	476148.40
43	Providing and fixing pre-cast Rubber Dye / steel Dye inter locking concrete block 60mm thick with grade of concrete M300 pneumatic compressed / vibrated mechanically and as per approved design Confirming to IS 15658 : 2006 including 35 mm Sand layer for levelling and filling the joint with sand in proper line and level as per guidelines of IRC : SP 63-2018 etc. Complete	750.00	Sqm.	706.92	Rupees Seven Hundred Six And Paise Ninety Two Only	530190.00



1	2	3	4	5	6	7
44	Providing and applying two coats of coal tar or bitumen conforming to IS:3117 - latest version on the top and sides of RCC box/slabs @ 1.70 kg/sqm after cleaning the surface with all labour and materials complete job as directed by the engineer.	2838.00	Sqm.	163.95	Rupees One Hundred Sixty Three And Paise Ninety Five Only	465290.10
45	Finishing wall with weather proof exterior emulsion paint on wall surface (two coats) to give an required shape even shade after thoroughly brushing the surface to remove all dirt, and remains of loose powdered materials.etc complete.	7619.00	Sqm.	120.26	Rupees One Hundred Twenty And Paise Twenty Six Only	916260.94
46	Painting lines, dashes, arrows, letters etc. on roads, Air fields and like in two coats with road marking paint, brushing including cleaning the surface of all dirt, dust and other foreign matter. Over 10cm in width.	1937.00	Sqm.	130.27	Rupees One Hundred Thirty And Paise Twenty Seven Only	252332.99
47	Road marking with hot applied thermoplastic paints with reflectorizing glass beads on bitumen surface providing and laying a hot applied thermoplastic compound 2.5 mm thick including reflectorizing 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/centre line/ edge line/cut patta. The white colour marking should provide luminance coefficient on cement 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.	292.00	Sqm.	367.72	Rupees Three Hundred Sixty Seven And Paise Seventy Two Only	107374.24

1	2	3	4	5	6	7
48	Cat Eye / Road Stud / RPM: Supplying of Molded Twin Shanks mould body and reflective panels with micro prismatic lens capable of providing total internal reflection of light entering the lens face and shall support a load of 13635kgs tested in accordance to ATM D 4280 type H and complying to specification of category A of Morth circular No.RW/NH/33023/10-97 DO III dt. 11-06-1997. The length,width and height shall not exceed 20mm,130mm and 130mm and with minimum reflective area of 13sqcm on each side and the slope to the base shall be 35+/-5 degree.The strength of detachment of the intergrated cyclindrical shank (of the diameter not less than 19+-2mm and height shall not less than30+-2mm from the body is to be a miniumum value of 500khf. Fixing will be by drilling holes on the road for the shanks to go inside without nail and using epoxy resin based adhesive as per manufacturers recomendation and the colour of the marker should be as per the IRC-35-2015 and as directed by the Engineer in charge.	216.00	No.	326.23	Rupees Three Hundred Twenty Six And Paise Twenty Three Only	70465.68
	TOTAL OF WORK			Rs.		21,01,92,008.23
Rupees in words:		Rupees Twenty One Crore One Lakh(s) Ninety Two Thousand Eight And Paise Twenty Three Only				
I/We am/are willing to carry out the work at.....% above/below percent(Should be written in figures and words) of the estimated rate mentioned above. Amount of my /our tender works out as under.						
Estimated amount put to tender				Estimated amount put to tender		
Deduct.....% below.....				Add.....% Above.....		
Net				Net		
In words				In words		

Signature of Contractor

Executive Engineer  
Devbhoomi Dwarka R & B Division  
Khambhaliya

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**BOQ NOTES:-**

1	All works shall be carried out as per latest MORTH Specification Booklet and other specification of Division as directed.
2	All Controlled Concrete Work shall be carried out with Batch Mix Plant established at site as per GoG R&B Dept. Circular No. PRCH/1022/751/C-1, Dt: 15/07/2023.
3	All Rates quoted include clearance of site (prior commencement of work and at its close) in all respects and hold good for work under all conditions, site moisture, weather etc.
4	Bidders are advised to visit the site & make himself / themselves aware of the scope & specification of the work to be done & of conditions and other factors bearing on the execution of the work before on line submission of his / their bids. Once the bid is finalized, under no circumstances arguments for crust deficiency / additional / altered works will be heard until & unless Engineer in charge deem so. Engineer in charge shall have right to reject & decision of Engineer in charge shall be final & binding.
5	1.00 % of Construction cost shall be deducted from Bill. Amount of Contract as per the Building and other Construction worker's welfare cess Act - 1996 (Labour & Employment Department Letter No. CWA - 2004 - 1831 - M (3). Dt. 9-12-05, Notification of Labour & Employment Department Dtd. 03-01-05 and Labour & Employment Department letter No. CWA / 2004-841-M(3), Dt. 14-12-05).
6	Testing of material shall be done as per statement attached with specification. The material should be tested in GERI or Private laboratory approved by Govt. of Gujarat. Bill for testing charges should be paid by Executive Engineer and computed after deducting the cost of materials to be supplied by the Govt. and shall be recovered from the contractor's running bill as per Govt., R&B Department No. TNC-1085/(4)/C dtd 20-12-91.
7	For Tender cost more than Rs. 2.50 lacs, 2% (percent) Tax deduction at source shall be made (which includes 1% (one percent) for GST & 1% (one percent) for CGST) as per Govt. of Gujarat, Finance Deptt.'s Circular No. : GST/1017/ 1097/GST Cell, Dtd. 15/09/2018 & above Circular details to follows.
8	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.
9	The contractor shall exhibit a board as per Government Circular No. Vernacular TNC/1090/ 24/S dated 05.03.2011 with details specifications and details of works and amount involved at site at his own cost as directed by Engineer-in-charge.
10	Credit amount of dismantled material <b><u>Rs 80,000.00</u></b> shall be deducted from the Running/final Bill of this work on prorata basis of work done.

**Signature of Contractor**

**Executive Engineer  
Devbhoomi Dwarka R & B Division  
Khambhaliya**