



E-Tender No. MUMBAI/N/EN/ROB/LC -111, Date 31.10.2017

For

Construction of one ROB including approaches complete in lieu of existing LC no. 111 at KM 221/24-26 between Vedchha - Amalsad Railway station of Virar – Surat Section of Mumbai Division of Western Railway.

**FINANCIAL BID
(PACKET-B)**

**TENDER DOCUMENT
October 2017**

**Employer:
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
CPM/NORTH/MUMBAI UNIT
(A GOVERNMENT OF INDIA ENTERPRISE)
Under
MINISTRY OF RAILWAYS**

MUMBAI/N/EN/ROB/LC-111, Date 31.10.2017



DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD
A Govt. of India (Ministry of Railways) Enterprises
7th Floor, New Administrative Building, D.N. Road, Mumbai-400001
NOTICE FOR INVITING BIDS (Online i.e. E-Tender)

Tender No	MUM/N/EN/ROB/LC – 111, date 31.10.2017
Name of work	Construction of one ROB including approaches complete in lieu of existing LC no. 111 at KM 221/24-26 between Vedchha - Amalsad Railway station of Virar – Surat Section of Mumbai Division of Western Railway.
(a) Type of Tender	Open Tender (Single stage two packet).
(b) Type of Contract	Works Contract.
(c) Tender Value	Rs. 38,58,60,036.00/-
(d) Completion Period	18 months
(e) Earnest Money	Rs. 50,00,000.00/- (Paid through Demand Draft/ banker's Cheque, FDR payable in favour of “ Dedicated freight Corridor corporation of India Limited, Mumbai”)
(f) Cost of Tender document	Rs 10000/- plus GST (18%) To be paid by D.D./Banker's Cheque in favour of DFCCIL payable at Mumbai
(g) Tender Processing Fee	Rs 7,500/- plus GST (18%), taxes and duties as applicable (non refundable) through e- payment while uploading of tender
(h) Performance Bank Guarantee	Performance Guarantee (PG) have to be submitted within 30(thirty) days from the date of issue of Letter of Acceptance (LOA), amounting to 5% of the contract value in the form as give in clause 16.4 of GCC
(i) Retention Money / Security Deposit	5% of Contract Value
(j) Officer:	Chief Project Manager (North), Mumbai Dedicated Freight Corridor Corporation of India Limited/Mumbai, 7th Floor, New Administrative Building, D.N. Road, Mumbai-400001
(k) E-Tendering Web Site	E-tendering site- www.tenderwizard.com/DFCCIL Help: Please contact Tender wizard helpdesk at 011-49424365
(L)Pre bidding Conference	On 20.11.2017 at 11.00 AM at office of Chief Project Manager(North) Mumbai, 7th Floor, New Administrative Building, DN Road, 400001

Signature of tenderer (s)

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DATE & TIME SCHEDULE	
Date of Uploading of NIT & Other Documents (Online Publishing date)	04.11.2017 at 11.00 Hrs.
Documents download/Sell date (Online)	From 05.11.2017 at 11.00 Hrs.
Bid submission Last date (Online)	11.12.2017 up to 15.00 Hrs.
Last date of submission of originals of statutory documents i.e. EMD & Tender Document Charge	19.12.2017 up to 17.30 Hrs.
Bid Opening date & Time (online)	20.12.2017 at 15.00 Hrs.

Chief Project Manager (North), Mumbai Dedicated Freight Corridor Corporation of India Limited/Mumbai, 7th Floor, New Administrative Building, D.N. Road, Mumbai-400001

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SUMMARY OF PRICES

Name of work:- Construction of one ROB including approaches complete in lieu of existing LC no. 111 at KM 224/24-26 between Vedchcha – Amalsad Railway station of Virar – Surat Section of Mumbai Division of Western Railway.

Sl. No.	Description of works	Cost as per Schedules	Rates to be quoted in figures & words (Clearly mention above / below / at par on Schedules/Items updated DFCCIL Rate / cost given in column 3)
1	2	3	4
1.	Execution of all works as per Schedule "A" (Items as per SOR 2015-16 of State Govt. Gujarat R&B Navsari division.)	Rs. 2,65,14,807.00	Rates above / below / at par as per schedules shall be filled separately in Microsoft Excel File.
2.	Execution of all works as per Schedule "B" (NS Items as per State Govt of Gujarat)	Rs. 12,99,95,107.00	
3.	Execution of all works as per Schedule "C" (Items as per SOR 2015-16 of State Govt. Gujarat R&B Navsari division.)	Rs. 12,10,71,849.00	
4	Execution of all works as per Schedule "D" (NS Items as per Western Railway)	Rs. 10,52,86,877.00	
5	Execution of all works as per Schedule "E" (NS Items as per Western Railway)	Rs. 14,91,396.00	
6	Execution of all works as per Schedule "F" (NS Items as per Western Railway)	Rs. 15,00,000.00	
	Grand Total	Rs. 38,58,60,036.00	

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Notes:

- (i) The above prices are inclusive of all taxes, duties, levies, etc. Except GST.
 - a. GST as applicable from time to time on taxable value of each running account bill shall be paid by DFCCIL.
 - b. The contractor should adhere to anti profiteering provisions as per section 171 of the CGST Act. Where due to change in the rates of GST / Change in law, the contractor gets any credits / benefits, the same shall be passed on to DFCCIL by way of reduction in prices.
- (ii) The tenderer should quote single percentage above / par / below for each schedule.
- (iii) If the uniform percentage quoted by the Tenderer does not clearly indicate whether the rates are above/at par/below the estimated rates then through sign convention it will be considered to be on plus side and evaluated accordingly.
- (iv) Rate of item payable to contractor shall be as per above/below/at par on rates of schedule.

**SCHEDULE -1
SCHEDULE OF PRICES & TOTAL PRICES**

NAME OF WORK :- Construction of one ROB including approaches complete in lieu of existing LC no. 111 at KM 221/24-26 between Vedchcha - Amalsad Railway station of Virar – Surat Section of Mumbai Division of Western Railway.

Schedule- A

Schedule of Approximate quantities

SN	Item No.	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
1.	26117C	2.00	Clearing and grubbing site/road/land including uprooting all vegetation, grass, bush shrubs, saplings and trees with girth, removal of stumps of trees of girth of all sizes including removing stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable materials up to 50 m outside the periphery of the area cleared as directed by Engineer with all leads and lifts etc. complete as per specification. before commencement and after completion of the work.	32056.39	Hectore	64112.00
2.	27007A	13578	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 up to 3.0 m	318.15	Cum	4319841.00
3.	DSR-2014	2 10	Felling trees of the girth (measured at a height of 1 m above ground (level), Including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyond	879.81	No.	8798.00

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			60cm girth upto & including 120cm girth.			
4.	27039	5460	Empty boring through all sorts of strata for providing 1.20 m dia. RCC bored piles to required depth including flushing necessary casing pipe with all plants and equipments as required as per detailed specifications for abutments and piers. (Excluding Concrete & Reinforcement)	2450.26	RMT	13378419.00
5.			Carrying out load test on any pile as per standard procedure laid down in the IS:2911 specification including construction of test cap, dismantling the cap after test and cleaning the site and maintaining complete records of load settlement as directed by Engineer and as per specification, and submission of records.			
5(a)	27044	2.00	Load testing of foundation piles including loading with necessary kentledge or any other suitable method as directed. (Initial load Test).	37865.91	Each	75732.00
5(b)	27044	2.00	Load testing of foundation piles including loading with necessary kentledge or any other suitable method as directed. (Routine load Test).	37865.91	Each	75732.00
6	27001A	294	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. (Chipping and dressing of the RCC piles upto cut-off level (Min. 1 D) including cleaning of reinforcement and removal of dismantled materials, etc. for providing pile caps as directed by Engineer and as per specification. for 1000 & 1200 mm dia. pile.)	577.72	Cum	169849.00

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7.	14006A	599	Providing and laying chequered precast cement concrete tiles 22mm thick with aggregate of sizes upto 6mm in floors, treads of steps and landings on 20mm thick bed of C.M. 1:6 (1-cement : 6-sand) or L.M. 1:1.5(1-Lime putty : 1.5 coarse sand) joint with neat cement slurry with pigments to match the shade of the tiles. (A) Light shades using white cement.	554.49	Sqm	332140.00
8.	27100A	72	Providing PVC. 100 mm dia water spouts including necessary iron gratings as per drawings.	187.86	Each	13526.00
9.	27097A	306	Providing and fixing post and pipe railing as per detailed drawing including 3 coats of painting to steel work complete.	1073.63	Rmt	328531.00
10.	27004AA	152	Providing and laying filter media 600 mm thick as directed at the back of abutments, returns and wing walls as per detailed specifications.	792.85	Sqm.	120513.00
11.	26161	356	Providing and laying Hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads 250 gm/sq.mt area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35 and the finished surface to be level, uniform and free from streaks & holes. (As per Government letter no. SOR 102003/94/S-1, dated 20.07.2004)	298.96	Sqm.	106429.00
12.	26163	727	Supplying and fixing cat eye (stimsonite) made out from Acrilo beautile sterine injuction high compressed molding with reflector made of MMC (prismatic type of size 12cm*6cm*2.5cm) providing with bituminous adhesive 100 g. with each unit for fixing. (High intensity grade).	375.72	No.	273149.00

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13.	27050A	152	Providing Weep holes in RCC abutment, return wall and retaining wall with 100 mm dia. AC pipe and non-corrodible grating and geotextile, extending through the full width of the structure with slope of 1V:20H etc. complete as per drawing and technical specification.	53.93	Each	8197.00
14.	27072	1560000	Providing and Fixing in position fully moulded restrained elastomeric bearings as per detailed drawings.	1.11	cu.cm.	1731600.00
15.	27101B	2.00	Providing and fixing marble slab including transporting, engraving and painting all complete. Size 60cm x 60cm x 4cm.	800.93	Each	1602.00
16.	27098A	256	Providing G.I. 100 mm diameter water drainage spouts including necessary iron gratings as per drawings.	506.01	Each	129539.00
17.	M664	1621	Providing and fixing 100 dia. runners and down take GI pipe to drain water from drainage spout with necessary fixtures including cost of all materials, labours, bends, fixtures, specials etc. Complete as per drawing and as per direction of engineer.	808	RMT	1309768.00
18.	26B008	17500	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.	124.23	Cum	2174025.00
19.	26B004E	3612	Earth work for embankment for SUBGRADE with CBR 7.0 % is 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 depressing, which occurs	281.79	Cum	1017825.00

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			during the process using power roller of 8 tonne to 10 tonne all as per specification.			
20.	26054A	2.00	Supplying & fixing road sign board of MS plates and angle iron including painting, lettering, etc. complete including fixing in CC 1:4:8 with necessary excavation etc complete as per IRC Type design - Non-reflective type.	2103.83	Each	4208.00
21.	26093B	2.00	Informatory Sign:- Providing and fixing sign boards made out of 2mm aluminium sheet; size 80 x 60cms. rectangle as per the design of IRC-67-1977 pre-treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint; reflectorized with retro reflective sheeting as per latest MOST Specifications; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm 75x75x6mm as required; painted with best quality epoxy coatings in black and white bends. the details of symbol for each board shall 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 x45 x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.	4099.59	No.	8199.00
22.	26094B	2.00	Regulatory / Mandatory sign: - 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 phosphating process & acid etching; coated with one coat of epoxy primer and two	3346.13	No.	6692.00

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			coats of best quality epoxy paint; reflectorized with retro reflective sheeting as per latest MOST Specifications; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm 75x75x6mm 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.			
23.	26098B	2.00	Direction sign (Junction board):- Providing and fixing sign boards made out of 2mm aluminium sheet; size 244 x 122cms. rectangle as as per the design of IRC-67-1977 pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint; reflectorized with retro reflective sheeting as per latest MOST Specifications; Letters and numerals should be as per IRC-30-1968, 3.1m long (2 no.) 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.	20032.34	No.	40065.00

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24.	26099B	2.00	Distance information / Destubatuib sign:- Providing and fixing sign boards made out of 2mm aluminium sheet; size 180 x 120cms. rectangle as per the design of IRC-67-1977 pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint; reflectorized with retro reflective sheeting as per latest MOST Specifications; Letters and numerals should be as per IRC-30-1968, 3.1m long (2 no.) 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.	16166.06	No.	32332.00
25.	26109B	2.00	Danger plate sign :- Providing & fixing sign board made out of 2mm aluminium sheet, size 30cms diameter circle, pre-treated with phosphating process and acid etching, painted with one coat of epoxy primer and two coats of best quality epoxy paint reflectorized with retro reflective sheeting as per latest M.O.S.T. specifications (As per attached drawing).	528.23	No.	1056.00
26.	M942	1118	50 mm Dia. PVC pipe for entry cable pipe and crash barrier.	133.32	Rmt	149052.00
27.	NH SOR 12-13	200	Type A W Metal Beam Crash Barrier (Providing & erecting a "W" metal beam crash barrier comprising of 3mm thick corrugated sheet metal beam rail, 70mm above ground level fixed on ISMC series channel vertical post 150 x 75 x 5mm	3169.38	Rmt	633876.00

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			spaced 2m centre to centre 1.8m high, 1.1m below ground/road level of all steel parts & fitment to be galvanized by hot dip process, all fittings to conform to IS 1367 and IS 1364 metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm 330mm long complete as per clause 810)			
			Total Amount of Schedule – A			2,65,14,807.00

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Schedule- B

Schedule of Approximate quantities						
Sr. No.	Item No.	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
1.	State NS/1	2	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.	12625.00	L.S.	25250.00
2.	State NS/2	391	Providing & filling in foundation with ordinary cement concrete M 15 mix and providing necessary vertical pin headers including formwork vibrating ramming & curing complete.	2622.97	Cum.	1025582.00
3.	State NS/3	6176	Providing and casting in situ controlled cement concrete M-35 for RCC bored pile from 1.00 & 1.20 m. dia. using Tremie Pipe including necessary flushing, dewatering, formwork, mixing in mechanised batch mix plant, transporting, compacting, and finishing including all leads & lifts complete as per detailed specifications. (Excluding Reinforcement).	4842.95	Cum	29910059.00
4.	State NS/4	3251	Providing and casting in-situ controlled cement concrete of M35 grade for RCC work for Pile cap ,foundation for pier/abutment/ Stair Case/return walls with 20/40mm down coarse aggregate of the required size for any depth including dewatering, scaffolding centring, shuttering, mixing, placing in position, consolidating with mechanical vibrators, curing, de-shuttering carefully, making good the damages, fixing embedment,	4807.60	Cum.	15629507.00

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			inserts, pockets, wherever necessary as per specification and drawing.			
5.	State NS/5	234	Providing and casting in-situ controlled cement concrete of M30 grade for RCC work for Retaining walls with 20/40mm down coarse aggregate of the required size for any depth including dewatering, scaffolding centring, shuttering, mixing, placing in position, consolidating with mechanical vibrators, curing, de-shuttering carefully, making good the damages, fixing embedment, inserts, pockets, wherever necessary as per specification and drawing.	4687.41	Cum.	1096854.00
6.	State NS/6	1051	Providing and casting in situ controlled cement M35 for RCC work in piers, abutment and return wall as per drawing including centering shuttering scaffolding where necessary laying vibrating curing and finishing complete. A) height from 0.0 to 5.0 m	4885.37	Cum.	5134524.00
7.	State NS/7	578	Providing and casting in situ controlled cement M35 for RCC work in piers, abutment and return wall as per drawing including centering shuttering scaffolding where necessary laying vibrating curing and finishing complete. A) height from 5.0 to 10.0 m	4226.85	Cum.	2443120.00
8.	State NS/8	106	Providing and casting in situ controlled cement M35 for RCC work in piers and abutment return wall as per drawing including centering shuttering scaffolding where necessary laying vibrating curing and finishing complete. A) height from 10.0 to 15.0 m	4782.35	Cum.	506929.00
9.	State NS/9	904	providing and casting in situ controlled cement concrete M35 for RCC works on pier cap abutment	4951.02	Cum.	4475722.00

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			cap and dirt wall including controlled cement concrete or pedestals of required drawings, centering shuttering, scaffolding wherever necessary laying vibrating curing and finishing complete.			
10.	State NS/10	2202	Providing and casting in situ controlled cement concrete M-35 for R.C.C. work in superstructure including centering, shuttering scaffolding, ramming, vibrating curing and finishing complete.	5131.81	Cum.	11300246.00
11.	State NS/11	1900	Providing and casting in-situ controlled cement concrete of M-35 grade with minimum cement content 420kg/cum without admixture as per IS-456-2000, cement concrete for wearing coat with 10mm & 20mm downgraded crushed stone aggregates of required size in super structure including required formwork, shuttering and supporting arrangement (excluding cost of reinforcement) and transporting concrete from batching plant by transit mixture placing it in position, compacting with needle vibrator including curing with all labour, material, machinery all lead, lift etc. complete as per drawing and technical specification of MORTH 2702(P.No. 492 MORTH 2702)	4430.87	Sqm.	8418653.00
12.	State NS/12	24254	Providing and applying one coat of Epoxy phenolic primer of DFT 50 microns and two coats of Epoxy phenolic coating of DFT 100 microns each for RCC Element or any other equivalent epoxy coating system to all concrete surfaces exposed to atmosphere in substructure and superstructure including cost of material labour, transportation, scaffolding and preparing the surface by cleaning, washing, brushing, sand/grit blasting etc complete and as directed by	182.81	Sqm	4433874.00

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			engineer and as per specification. (Paint shall be approved from Engineer and tested from approved Laboratory) (Total DFT = 50+100+100 = 250 microns).			
13.	State NS/13	300	Providing and fixing in position Strip Seal Type Expansion Joint (for movement upto 60mm) as per detailed drawing MORTH specification. The rate is inclusive of supplying, fixing with contractor's own materials, equipments, machineries, labour, transport, testing, bolts, socket tubes, neoprene sheet/cap etc. complete. The rate is finished item complete and will be paid after fixing in all respect.	9065.76	Rmt	2719728.00
14.	State NS/14	2.00	Providing Pylon consist of cast-in-situ concrete of M30 grade exposed finish as per drawing and as directed by engineer in charge. Rate includes providing required shuttering and form work but excluding stone slab & carving. (Reinforcement shall be paid in respective item.)	3809.72	No.	7619.00
15.	State NS/15	2809	Reinforced Earth Retaining Wall (Reinforced Earth retaining wall is having following main component 1. Excavation for foundation, foundation concrete (CC grade M15) with cement concrete grooved seating in foundation for fascia panel. 2. Fascia panel in concrete grade M 35 and reinforcement FE 500D with hooks, tackles and placement thereof. 3. Assembling & joining with non-oven geotextile at facial panel joints with fascia elements and laying of the PP Geo-synthetic reinforcement element along with 600mm thick filter media conforming to the specifications and in accordance to the design as approved.	5913.83	Sqm	16611948.00

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			4. RCC coping (M 35) at top of facial panel and levelling pad (PCC M 15) at bottom of facia panel as per approved layout.			
16.	State NS/16	2168	Construction of Granular Sub Base (GSB) by providing coarse graded material of grading-II, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specification.	731.24	Cum	1585328.00
17.	State NS/17	1806	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed material by tripper to site, laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.	853.45	Cum	1541331.00
18.	State NS/18	12654	Providing and applying PRIMER COAT with bitumen emulsion using emulsion pressure distributor at the rate of 0.75 kg/sqm on prepared surface of granular base including clearing of road surface using mechanical brooms.	26.26	Sqm	332294.00
19.	State NS/19	751	Providing & laying DENSE GRADED BITUMINOUS MACADAM with batch type Drum Mix Plant (DMP) using crushed aggregates of specified grading, premix with bitumen grade 60/70 , bituminous binder @ 5.0 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth	3981.42	Cum.	2990046.00

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			wheeled, vibratory and tandem rollers to achieve the desired compaction complete, including providing & laying tack coat 2.5kg /10sqm all as per MORTH specification.			
20.	State NS/20	501	Providing & laying BITUMINOUS CONCRETE with batch type Drum Mix Plant (DMP) using crushed aggregates of specified grading, premix with bitumen grade 60/70 bituminous binder @ 5.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete, all as per MORTH specification.	5321.69	Cum	2666167.00
21.	State NS/21	9800	Backfilling, grading and compaction with selected backfill soil in layers in soil Reinforced works with peak internal angle of friction as per adopted design parameters, complete as per drawings and Technical Specifications or as directed by Engineer. (Providing and filling sand behind abutments and between returns in layers as directed)	715.08	Cum	7007784.00
22.	State NS/22	5297	Providing and laying 25mm thick Mastic asphalt wearing course with paving grade bitumen meeting the requirements given in the table 500-29 prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen pre-coated fine grained hard stone chipping of 13.2 mm normal size at the rate of 0.005 cum	416.12	Sqm	2204188.00

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			per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surface is not less than 1000c , protruding 1mm to 4mm over mastic surface, all complete as per clause 515.			
23.	State NS/23	65	Providing and laying in-situ controlled cement concrete of M 40 grade for RCC work for RCC pedestals & seismic arrester over piers and abutment, Stair Case & including necessary scaffolding formwork, centring, mixing in mechanised batch mix plant, transporting placing compacting by mechanical vibrators, finishing and curing and casting, finishing with decorative panel as per drawing etc. complete excluding reinforcement as directed by engineer and as per specifications.	5071.21	Cum	329629.00
24.	State NS/24	118	Providing and casting in -situ controlled cement concrete of M 40 grade for RCC crash Barrier with 20 mm down coarse aggregate of the required size including formwork, shuttering, placing in position, consolidation with mechanical vibrators curing finishing, de-shuttering carefully, marking good the damages, fixing embedment, inserts, pockets, wherever necessary as directed and as per drawing with F3 type exposed concrete finish and formwork as directed by Engineer - in -charge, etc. complete as per specification.	5071.21	Cum	598403.00
25.	NS/25	1371	Providing and casting in -situ controlled cement concrete of M 40 grade for RCC crash Barrier and friction slab with 20 mm down coarse aggregate of the required size including formwork, shuttering,	4050.10	Cum	5552687.00

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			placing in position, consolidation with mechanical vibrators curing finishing, de-shuttering carefully, marking good the damages, fixing embedment, inserts, pockets, wherever necessary as directed and as per drawing with F3 type exposed concrete finish and formwork as directed by Engineer - in -charge, etc. complete as per specification.			
26.	NS/26	19	Providing and casting in -situ controlled cement concrete of M 30 grade with minimum cement content 420kg/cum without admixture as per IS 456-2000, Reinforced cement concrete with 20 mm down coarse aggregate of the required size for Super structure for approach slab including formwork, shuttering and supporting arrangements (excluding cost of reinforcement) and transporting concrete from batching plant by transit mixture placing it in position, compacting with needle vibrator including curing with all labour, material, machinery all lead, lift etc. complete as per drawing and technical specification of MORTH & as directed by Engineer in charge.	3991.52	Cum	75839.00
27.	NS/27	125	Providing and casting in situ reinforced cement concrete M30 grade controlled cement concrete in RCC Chamber, kerb, protection wall around pier etc. using 6mm to 20mm machine crushed well graded stone aggregate, sand of approved quality, OPC 53 grade cement with contractor's own concrete mix design as approved by AMC etc complete as per specification. The rate is inclusive of all materials, including necessary mixing in fully automatic batch mix plant, transportation, curing,	3809.72	Cum	476215.00

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			vibrating, placing in position, shuttering, formwork, de-shuttering carefully, making good the damages, fixing embedment, inserts, pockets, where ever necessary, with all lead & lift with contractors labour, tools & plants machineries, as required with F3 type exposed concrete finish and form mark.			
28.	NS/28	14	Providing Vertical Joints between retaining walls, abutments, etc. with G.I. sheet 300 mm wide & 1.6 mm thick with required holes and holding arrangement & with necessary asphalt pad sealing the joint with filler material.	316.13	Rmt	4426.00
29.	NS/29	174	Providing and casting in situ controlled cement M30 for RCC work in retaining wall as per drawing including centering shuttering scaffolding where necessary laying vibrating cutting and finishing complete.	4765.18	Cum	829141.00
30.	NS/30	697	J type M20 Anchor bolt as per drawing including threading as shown in the drawing for standard octagonal pole type BOP 7030 all complete.	37.05	Kg	25824.00
31	NS/31	6	Structural Steel:- Base plate of 225 x 225 x 16 mm thick with adjustment of hole. MS plate 6mm thick 20mm wide 150mm long including welding to the base plate all complete.	6031.72	Qt.	36190.00
			Total Amount of Schedule – B			12,99,95,107.00

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Schedule- C						
Schedule of Approximate quantities						
SN	Item No.	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
1.	27020A	164	Providing and installing 6 mm MS liner for bored-cast-in-situ concrete piles including applying protective coating as per drawing and specification and as directed by Engineer.	55863.1	MT	9161548.00
2.	27043C	642	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500D grade) conforming to IS 1786 of all categories for Pile including cutting, bending, hooking and tying with 18-gauge mild steel binding wires, supporting in position to ensure lines and levels during concreting, maintaining proper cover / spacing etc. complete as per specification and detailed drawing.	44549.08	MT	28600510.00
3.	27047A	398	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500D grade) conforming to IS 1786 of all categories for Pile cap, foundation for pier/ abutment /return wall including cutting, bending, hooking and tying with 18-gauge mild steel binding wires, supporting in position to ensure lines and levels during concreting, maintaining proper cover / spacing etc. complete as per specification and detailed drawing.	38606.24	MT	15365283.00

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4.	27109 & 27111	449.00	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500D grade) conforming to IS 1786 of all categories for pier, abutment, return wall, pier cap, abutment cap, including cutting, bending, hooking and tying with 18 gauge mild steel binding wires, supporting in position to ensure lines and levels during concreting, maintaining proper cover / spacing etc. complete as per specification and detailed drawing.	45575.24	MT	20463282.00
5.	27115	658	Providing and fixing in position steel bar reinforcement for Super Structure of steel grade FE-500D(TMT) including cutting, bending, hooking, tying, welding etc. complete as per detailed drawing and specification.	44990.45	MT	29603716.00
6.	27119	389	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500D grade) conforming to IS 1786 of all categories for superstructure, approach slab, crash barrier, friction slab, pedestal, seismic arrester & dirt wall including cutting, bending, hooking and tying with 18 gauge mild steel binding wires, supporting in position to ensure lines and levels during concreting, maintaining proper cover / spacing etc. complete as per specification and detailed drawing.	44298.6	MT	17232155.00

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7.	M570	5.00	<p>Fabricating, supply and erecting in position Standard Structural steel sections conforming to IS 2062 for railing or other works using ISMB, ISA, ISMC, MS plate, flat, square bars, pipe, square pipe, etc. including welding, cutting, wastage, etc. complete. The rate is inclusive of welding rod, supply & fixing of correct size nut, bolts, washers, paint, with all contractor's materials, labour, tools & plants, in bolted / welded construction as directed by Engineer-in-Charge.</p> <p>Anticorrosive paint must be applied before applied any paint. The rate shall inclusive of providing and applying Epoxy Coating of approved shade, brand and manufacture on new structural steel work with one coat of 30 micron (DFT) of Epilux 4 Zinc Rich primer of Berger Paint India Ltd or equivalent as primer and Two coat each of 35 micron (DFT) of Epilux 84 High Gloss CR enamel of Berger Paint India Ltd or equivalent at all levels. (Total DFT is 30+35+35=100 microns)</p> <p>The waste cut pieces shall not be included in the paying quantity.</p> <p>The work shall be done as per drawing and specification.</p> <p>The work shall be carried out as per IS:800, IS:816</p>	45419.7	MT	227099.00
8.	27105A	13	<p>Providing and placing the reinforcement in designed position, fixing, lowering in position HYSD of TMT bars Fe500 D grade conforming to IS 1786 for kerb, protection wall etc. all categories & depth, at all levels. The rates includes for supply, loading, unloading, transporting to site, cutting, bending, hooking, placing, tying in position with</p>	32173.55	MT	418256.00

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			contractor's own black annealed binding wire, welding, forming the cage and lowering it in position in pile bore etc. Welding and supporting in position to ensure lines and levels during concreting, maintaining proper cover / spacing, all leads & lifts,etc. including contractor's own equipment, labour, supervisor, taxes, machineries, etc. complete as per drawings and specification. 1) The waste cut pieces shall not be included in the paying quantity. 2) Black annealed binding wire shall not be included in the paying quantity. 3) The work shall be done as per execution drawing.			
			Total Amount of Schedule -C			12,10,71,849.00

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Schedule-D

Schedule of Approximate quantities

SN	Item No.	Description	UNIT	Quantity	Rate	Amount in Rs.
1.	NS/1	Supply & Fabrication of steel girder spans including its components (Stiffeners, Bracings, Splices, Studs etc.) as per the approved drawings for composite construction of superstructure of the Road Over Bridge with contractor's own Steel conforming to IS: 2062 Grade 250(B) with all welds, HSFG Bolts, nuts bolts, rivets etc. with contractor's own materials, fabrication, machinery, templates, fixtures, equipments tools and plants transportation, skilled/unskilled labour, excise duty., Octroi, sales tax and other taxes, all leads lifts, descent, loading, unloading, crossing one or more Railway track if required etc. complete and as per technical specifications. The rate is inclusive of transportation of fabricated girder parts to site by contractor's own means at his cost. The rate shall also be inclusive of cold straightening of deformed and bent girder parts before their assembly. (The Structural Steel to be used Should be manufactured by SAIL/RINL/TISCO /ESSAR/JINDAL Only.) Work has to be done as per drawings and specifications approved by Railway. High quality superior brand of paint should only be used. For Painting, prior approval for superior brand / make of the paint should be taken from engineer in charge. Note:1. The fabrication of girders must be got done from RDSO approved firms only. 2. The rate is inclusive of assembly of girder with service bolts as per approved drawing in shop for checking by Engineer's representative and dismantling the same after checking for transportation to the site. 3. Weight of HSFG bolts, Rivets, Welds shall not be considered for payment. Nominal weight	MT	910	94629.73	86113054.00

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		of the girder spans including its components (Stiffeners, Bracings, Splices, Studs etc.) as per drawing will only be considered for payment.				
2.	NS/2	Metalizing girder/girder components such as cross girders, top chord channels, bracing etc. of Steel Girder as directed by Engineer with aluminium spray not less than two layers after preparing surface by sand/grit blasting as per provision laid in Appendix VI of IRS B 1179 code (latest alteration) including one coat wash primer (IS-5666) one coat zinc chrome primer (IS-104) and two coats of aluminium paint (IS-2339) with approved paint conforming to IS specification for fabrication & erection of steel girder bridge (RS B 1-79) as corrected up to date with contractor's own materials, tools, plants labour, loading/unloading, transportation, handling, re-handling if any including all lead, lifts, crossing of track/ obstruction etc. complete in all respect and as per direction of Engineer.	Sq.m	6705	607.09	4070538.00
3.	NS/3	Assembling, Welding, Erecting, Bolting by HSFG bolts, riveting if any as per approved drawings and Launching of girder spans including its components on running line / Non- Running line /Running electrified line / under block period with the help of road crane of required capacity as per Railway's approved drawings & Scheme with other ancillary steel structures fixed to the girder, where necessary, in proper level and alignment and as per technical specifications. The rate shall be inclusive of supply, erection and dismantling of staging and scaffolding and other temporary arrangements required for assembly, erection and launching of girders. The rate shall also be inclusive of cold straightening of deformed and bent girder parts before/after their assembly. Work has to be done as per drawings				

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		and specifications approved by Railway.				
		Note: Weight of HSFG bolts, Rivets, Welds shall not be considered for payment. Nominal weight of the girder spans including its components (Stiffeners, Bracings, Splices, Studs etc.) as per drawing will only be considered for payment. Launching of Steel girder spans Launching of Steel girder spans including its components on running line /Running electrified line / under block period with the help of road crane of required capacity as per Railway's approved drawings with other ancillary steel structures fixed to the girder where necessary in proper level and alignment and as per technical specifications.				
	NS/3 (a)	Launching of Steel girder spans including its components on running line /Running electrified line / under block period with the help of road crane of required capacity as per Railway's approved drawings with other ancillary steel structures fixed to the girder where necessary in proper level and alignment and as per technical specifications.	MT	580	16825.91	9759028.00
	NS/3 (b)	launching of steel girder spans including its components on non- running line with the help of road crane of required capacity as per Railway's approved drawings with other ancillary steel structures fixed to the girder where necessary in proper level and alignment and as per technical specifications.	MT	330	3181.19	1049793.00
4.	NS/4	Fabricating, supplying and erecting in position standard structural steel sections manufactured from IS approved manufacturers only ,conforming to IS :2062 - 1992 (including latest amendments) including welding with approved quality welding rods, supply and fixing of correct size turn bolts including one primer coat of red lead	MT	20.00	71620.22	1432404.00

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		paint conforming to IS:102 or Zinc chromate paint conforming to IS:104 followed by two coats of Aluminium paint as per IS : 2339 with all contractor's materials, labour, tools and plants etc in bolted/welded construction as directed by Engineer in charge. Work shall be carried out as per IS:800-1984 (with latest amendments), IRS specification No. B3-61 part 2 and IS 816 for welding.				
5.	NS/5	Providing and fixing POT -PTFE bearing as per IRC 83 in position true to line and level including cost of all materials fixtures surface for receiving bearing, grouting of sleeves with non-shrink high strength grout, load testing of bearing, transporting and fixing in position including all lead and lift etc. complete as per approved designs and drawing and as directed by Engineer.				
		Fixed bearing (Capacity up to 250 MT)	No.	22	53550.00	1178100.00
		Sliding bearing (Capacity up to 250 MT)	No.	22	53550.00	1178100.00
		Note: The rate is for finished item complete and paid only after fixing in position below the girder.				
6.	NS/6	Load testing of one composite steel /Span Designing and Load testing of one composite girder/ Span as selected by the Engineer confirming to Rly. Standard's with loads to be applied and removed incrementally etc. complete as per special condition and specification of contract, as per relevant IS/IRC codes with all contactors labour supervisor, T & P's all taxes, equipment, leading materials instruction of load test jacks etc., dial gauges, including all lead and lift.	Each	1.00	256339.00	256339.00

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7.	NS/7	Conducting Pile low strain integrity test as per ASTM D 5882- 96 code of American Society for Testing on cast -in situ RCC pile of 1200 mm diameter inclusive of analysis with all contractor's equipment, manpower, site preparation, lead and lifts etc. complete as per standard procedure, and as directed by the Engineer in charge. Note: - Rate is inclusive All equipment, all labour and consumable required & Mobilization of equipment.	Each	208	1199.62	249521.00
Total Amount of Schedule – D						10,52,86,877.00

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Schedule- E						
Schedule of Approximate quantities						
Sr. No.	Item No.	Description	UNIT	Quantity	Rate	Amount in Rs.
1.	NS/1	AutoCAD Drawings: Preparation / Alternation and submission of drawings such as general arrangement drawings, phase drawings, scheme plan, structural drawings etc. On Auto Cad as per details and directions given by the Engineer in charge including plotting and submitting in standard inkjet film of 50 micron and CD, submitting check prints on A3/A2/A0 size papers and final print complete and as per instructions of Engineer in charge.	Per Sqcm	100000.00	0.4	40000.00
2.	NS/2	Site Office Providing, arranging, managing and maintaining 500 sq.ft. well furnished AC office and well equipped Laboratory with 3 tables, 10 chairs, 2 steel almirah, one computer with printer & operator, sufficient number of display etc. to the satisfaction of the Project Manager including Electrical, Water expenses etc. For execution of this item the date of start shall be considered only when the Contractor has rented /constructed the required premises established the office & Laboratory as per requirement. This item shall remain valid only for original contact period; no additional payment shall be made for whatsoever reason even if time extension is provided or date of completion is extended. This office and laboratory including furniture and all other equipment shall be property of contractor after completion of Project.	LM	1.00	500000.00	500000.00

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3.	NS/3	Providing & fixing Safety Screen as per RDSO Drg. No. EL / C / 0068 MOD " E " , on the Parapet with necessary fixtures etc. as per detailed drawing including contractor's own materials, labours, tools and plants, etc. complete.	Sqm	726	1179.80	856535.00
4.	NS/4	Making and supplying of check rails of 52 kg/ 60 kg rails of various lengths for level crossing as per approval drawings.	Each LC	4	2997.00	11988.00
5.	NS/5	Providing, fixing and maintaining MS fabricated traffic barricading of 2.50m height on either side of the carriage way / portion of the carriage way closed to the traffic including provision of all sign boards/ bollards and warning lights etc. as per the Engineer in charge.	Meter	250	331.49	82873.00
Total Amount of Schedule – E			14,91,396.00			

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Schedule- F						
Schedule of Approximate quantities						
Sr. No.	Item No.	Description	UNIT	Quantity	Rate	Amount in Rs.
1.	USSOR	USSOR of W.Rly. items requiring for successful completion of the work as advised by in-charge of the work.	No.	1	15,00,000.00	15,00,000.00
Total Amount of Schedule – F					15,00,000.00	
Total of Schedule A, B, C, D, E & F					38,58,60,036.00	

END OF TENDER DOCUMENTS