



**Tender No. EDFC\_CGM\_TDL\_ROB\_94R3**

**For**

**Name of Work Construction of balance work of two lane Road Over Bridge (excluding approaches) at 01 No. Level Crossing in lieu of level crossings No. 94B at DFC Chainage 532/15-17 between New Bhaupur to New Kanchosi section of CGM/TDL of Eastern Dedicated Freight Corridor Corporation of India Limited.**

**E-TENDER DOCUMENT  
FINANCIAL BID (PACKET-B)**

Single Stage-Two Packet  
Open Online E-Tender

(PARTICIPATION THROUGH E-TENDER ONLY)  
E-tendering site- <https://www.ireps.gov.in> / its link at [www.dfccil.com](http://www.dfccil.com)  
(Help desk of IREPS: 011 -23761525)

**Employer:  
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED  
(A GOVERNMENT OF INDIA ENTERPRISE)  
Under MINISTRY OF RAILWAYS**

**Chief General Manager, Tundla,  
3/20, 3<sup>rd</sup> Floor, KPS Tower, Mayur Complex, Nagle Padi Near Tulsi Cinema, NH-02, Agra,  
UTTAR PRADESH-282002, India**

**CORPORATE OFFICE  
DFCCIL, 5TH Floor, Supreme Court Metro Station Building,  
New Delhi-110001**

## GENERAL INFORMATION / DATA SHEET

## GENERAL INFORMATION / DATA SHEET

Tender Notice No.	EDFC_CGM_TDL_ROB_94R3
Name of the work	Construction of balance work of two lane Road Over Bridge (excluding approaches) at 01 No. Level Crossing in lieu of level crossings No. 94B at DFC Chainage 532/15-17 between New Bhaupur to New Kanchosi section of CGM/TDL of Eastern Dedicated Freight Corridor Corporation of India Limited.
Employer	Chief General Manager/ TDL and 3/20, 3rd Floor, KPS Tower, Mayur Complex, Nagle Padi Near Tulsi Cinema, NH-02, Agra, UTTAR PRADESH-282002, India
Engineer	Employer/Employer's authorized Representative
Type of Tender	Open E-Tender ( <b>Single stage Two Packet</b> )
Type of Contract	Works Contracts
Estimated Cost	<b>Rs. 11,17,47,001.0/- (Including GST)</b> <b>(Rupees Eleven Crore seventeen lacs fourty seven thousand one. Only).</b>
Period of Contract	<b>09 months</b>
Earnest Money	<b>Rs. 7,08,800/-</b> <b>(Rs. Seven lacs eight thousand eight hundred only)</b> The Earnest Money shall be submitted in favour of DFCCIL in the form as detailed in Para 1.3.8 of Preamble & General Instructions to Tenderers (Part-I, Chapter-III). The original Bank Guarantee of Bid Security or Earnest Money have to be submitted to Employer's office before the scheduled date and time of submission of the tender.
Cost of Tender Document	<b>Rs. 11800.0</b> The cost of the tender document shall be deposited <b>through payment gateway provided on <a href="http://www.ireps.gov.in">http://www.ireps.gov.in</a></b> on or before schedule date and time of submission of Bid. The proof of submission of cost of tender document should be uploaded along with the Technical Bid.
E-tendering website	<b><a href="http://www.ireps.gov.in">http://www.ireps.gov.in</a></b> For any help, please contact IREPS Helpdesk at 011-23761525
Date of uploading of NIT & Bid documents (online publishing date)	<b>On Date 01.11.2022</b>

Date of document download/Sale (Online)	<b>AS per IREPS</b>
Issue of Corrigendum, if any	<b>Upto three days prior</b> to the last date of submission (on websites _ <a href="http://www.ireps.gov.in">http://www.ireps.gov.in</a> and <a href="http://www.dfccil.com">www.dfccil.com</a> )
Date & Time of Submission of Tender	On or before date <b><u>22.11.2022 and time upto -15:00hrs</u></b>
Date and Time of Opening of Tender (Technical bids -Packet A)	<b><u>Date 22.11.2022 at 15:30 hrs</u></b> Opening date of Financial Bid (Packet-B) will be notified later
Validity of offer	120 days from the date of opening of the Technical Bid of the Tender
Security Deposit	5% of Contract value
Performance Bank Guarantee	Performance Guarantee (PG) have to be submitted within 21 (twenty-one) days from the date of issue of Letter of Acceptance (LOA), amounting to 3% of the contract value in the form as given in clause 16.4 of GCC
Defect Liability Period	12 Months
DFCCIL's Bank Account	The DFCCIL's Bank Account details is as under for making deposit in cash for the purpose of Security Deposit/ Performance Guarantee is as under: Name of Account: Dedicated Freight Corridor Corporation of India Ltd, Kanpur Name of Bank: Union Bank of India, Kamla Nagar, Agra Account No: 302601010780193 Type of Account: Current Account IFSC Code: UBIN0561657

**SUMMARY OF PRICES**

**Name of work:-** Construction of balance work of two lane Road Over Bridge (excluding approaches) at 01 No. Level Crossing in lieu of level crossings No. 94B at DFC Chainage 532/15-17 between New Bhaupur to New Kanchosi section of CGM/TDL of Eastern Dedicated Freight Corridor Corporation of India Limited.

<b>S. N.</b>	<b>Description of works</b>	<b>DFCCIL updated cost in Rs (including GST)</b>	<b>Rates to be quoted in figures &amp; words (Clearly mention above / below / at par on updated DFCCIL Rate / cost given in column 3)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1.	Execution of all works as per Schedule "A" (Items as per USSOR 2019)	<b>4,80,38,223.85</b>	..... % age (in figures) .....(In words)
2.	Execution of all works as per Schedule "B" (Items as per USSOR 2019 for Supply of Cement)	<b>50,68,014.60</b>	..... % age (in figures) .....(In words)
3.	Execution of all works as per Schedule "C" (Items as per USSOR 2019 for Supply of Steel Reinforcement including straightening, cutting etc.)	<b>1,78,66,080.00</b>	..... % age (in figures) .....(In words)
4.	Execution of all works as per Schedule "D" (Items as per DSR-2018)	<b>36,79,594.06</b>	..... % age (in figures) .....(In words)
5.	Execution of all works as per Schedule "E" (NS Items)	<b>3,70,95,088.29</b>	..... % age (in figures) .....(In words)
	<b>Total</b>	<b>11,17,47,000.8</b>	

**Notes:**

- 1) The above prices are inclusive of GST as prevailing.
- 2) The tenderer should quote single percentage above / par / below for each schedule.
- 3) 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.
- 4) If the contractor different percentage (%) above /below against each items of any schedule (i.e. A,B,C,D,E), then his offer will be summarily rejected.

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

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
<b>SCHEDULE 'A' (Items as per USSOR-2019)</b>						
1	013100	Providing and removing barricading with the help of portable fencing along the running track where the work is to be done in close vicinity of the track. Fencing shall consist of self supporting steel angles of size 50x50x 6mm,1.5m long provided with hooks etc.and embedded in CC 1:2:4 block of size 0.23x0.23x0.23m placed at c/c distance of 2m along the track.12mm dia rods in three horizontal layers tack welded with the angle posts including providing retro-reflective tapes in Horizontal & vertical direction. Note : Released material will be the property of the contractor after the completion of work. Cost of cement to be paid separately.				
(a)	013101	With provision of one 50mm wide retro-reflective tape in horizontal direction, duly secured/tight with vertical posts	Metre	243.76	40.00	9750.40
2	022010	Earthwork in excavation for foundations and floors of the bridges, retaining walls etc. including setting out, dressing of sides, ramming of bottom, getting out the excavated material, back filling in layers with approved material and consolidation of the layers by ramming and watering etc. including all lift, disposal of surplus soil up to a lead of 300m, all types of shoring				

Signature of tenderer (s)  
with seal

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		and strutting with all labour and material complete as per drawing and technical specifications as directed by Engineer				
(a)	022011	All kinds of soils	Cum	207.28	275.00	57002.00
3	022030	Providing and laying in position Plain cement concrete of specified Nominal Mix for miscellaneous works like side drains, foundation for OHE masts and other miscellaneous structures excluding the cost of Cement, centering and shuttering - All work up to plinth level :				
(a)	022032	1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)	Cum	2907.16	2.00	5814.32
(b)	022034	1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size)	Cum	2976.74	8.00	23813.92
4	022040	Providing and laying in position machine batched, machine mixed and machine vibrated Design Mix Cement Concrete of specified grade (Cast in Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality in RCC raft foundation & Pile cap including finishing, using Admixtures in approved proportions (as per IS:9103), to modify workability & other properties without impairing strength and durability complete as per specifications and direction of the Engineer in charge. Payment for cement, reinforcement and shuttering shall be paid extra.	Cum	2935.38	150.00	440307.00

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
5	022050	Providing and laying in position machine batched, machine mixed and machine vibrated Design Mix Cement Concrete of specified grade (Cast in Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality for the following Reinforced cement concrete structural elements up to height of 10 m from foundation top level, including finishing, using Admixtures in approved proportions (as per IS:9103), to modify workability & other properties without impairing strength and durability complete as per specifications and direction of the Engineer in charge. Payment for cement, reinforcement, shuttering shall be paid extra.				
(a)	022051	Abutment & Pier	Cum	3228.92	258.45	834514.37
(b)	022053	Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc.	Cum	3375.69	260.00	877679.40
6	022090	Providing, driving and installing Bored cast in-situ Reinforced Cement Concrete piles using Hydraulic piling Rig of specified diameter and length below pile cap of specified grade Design Mix Cement Concrete, using 20mm graded crushed stone aggregate and coarse sand of approved quality, to carry a safe working load not less than specified, excluding the cost of permanent casing pipe and length of pile to be embedded in pile cap etc. complete, concreting by machine batching, machine mixing,				



Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		scaffolding, using Admixture in approved proportion (as per IS:9103), placing with tremie pipe, chipping off of pile top to remove laitance concrete above cut off level etc., pumping and bailing out water with all labour material complete including crossing of tracks if required, as per approved drawing, specification and direction of the Engineer in charge. Length of the pile for payment shall be measured up to the bottom of pile cap excluding the mud mat. Payment for cement, permanent casing pipe (if any) & reinforcement shall be paid extra.				
(a)	022093	1000mm diameter	Meter	8768.04	420.00	3682576.80
7	025030	Centring and shuttering including strutting, propping etc. and removal of form for :				
(a)	025031	abutment, wing wall, retaining wall, RCC box type foundations, Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc. up to 5m above ground level	Sqm	715.68	741.30	530533.58
(b)	025033	Extra for additional height over item no. 025031 & 025032 wherever required with adequate bracing, propping etc. over initial height of 5 metres for every additional height of 1 metre or part thereof	Sqm/m	115.48	200.00	23096.00
8	022120	Conducting load testing of a single pile upto following capacity in accordance with IS:2911 (Part-IV) including installation of loading				

Signature of tenderer (s)  
with seal

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. with all labour, material, tool & plants, equipment, machinery, etc. complete as per drawing and specification, as directed by the Engineer				
(a)	022127	Routine Load Test above 100 ton capacity upto 250 ton capacity pile	Each	65177.46	1.00	65177.46
g	022130	Lateral load testing of single pile in accordance with "IS Code of practice IS:2911 (Part-IV) for determining safe allowable lateral load of pile" with all labour, material, tool & plants, equipment, machinery, etc complete as per drawing and specification as directed by the Engineer				
(a)	022131	Piles with lateral load capacity of above 10 ton & upto 20 ton	Each	24383.96	1.00	24383.96
10	022140	Pulse Echo Test (PET) for integrity testing of piles with contractor's men, materials and machines. The rate includes cost of Inspection of site, preparation of pile head and any other unforeseen cost required for the test, submission of reports in triplicate as per satisfaction of the Engineer in Charge at site.	Each	3605.97	14.00	50483.58
11	025040	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M-35 grade (Cast - in Situ) using 20 mm graded crushed stone aggregate and coarse sand of approved quality in jacketing	Sqm	5062.49	244.68	1238690.05

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		of piers and abutments from bottom of foundation upto a height of 10m including finishing for average 30cm thickness of jacketing. Payment for reinforcement, cement, wire mesh, shuttering, drilling of holes and insertion of rods will be made extra.				
12	025041	Extra for Drilling 32 mm dia holes for jacketing/anchoring	metre	174.30	15.60	2719.08
13	025042	Inserting of dowel bars of specified dia. (cost of rods to be paid extra)	metre	15.31	210.00	3215.10
14	31100	Providing and fixing in position of standard preformed sealed and slab type or strip seal elastomeric type expansion joints for Railway bridge or Road Over Bridges as per approved drawings and latest MOST/IRC specifications. The rates are inclusive of supplying, fixing with contractor's own materials, e.g. inserts, bolts, socket tubes, Neoprene sheet/cap etc., equipments, machineries, labour, all taxes, royalty, all lead & lifts, transport, testing, surface preparations, complete				
(a)	031102	For 80mm expansion	Meter	10026.91	40.00	401076.40
15	031110	Load testing of one or more spans of bridge as selected by the Engineer as per approved load test procedure following relevant IS/IRC/Railway codes with contractor's labour, deflection measuring instruments, loading materials, recoding and analyzing the load testing results including all lead & lift, etc. complete as required. The rates are all				

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		inclusive and will be paid after load test is finished and girder is cleared of the kentledges/loading material etc. The load shall be 1.25 times the stipulated design load.				
(a)	031111	For Span design load upto 100 MT	Each	90408.91	1.00	90408.91
(b)	031062	Extra for every increase of 1 MT or part thereof in the span load capacity upto 800 MT	MT	891.58	100.00	89158.00
16	041010	<p>Supplying, fabrication, assembling of all types of steel girders of specified spans with structural steel conforming to Quality "B0" Grade Designation E250 conforming to IS:2062, erection / slewing / end launching of steel girders with cranes or any other approved launching methods as per site conditions (not requiring traffic block) on sub-structure including provision of trolley refuges etc., complete as per approved QAP and drawings conforming to IRS-B1-2001 and other relevant codes and specifications. Note:</p> <p>1. Detailed fabrication and erection drawings &amp; launching methodology will be prepared by the contractor and got approved from Railway.</p> <p>2. The item includes fabrication of all types of battens, bracings, ties, stiffeners, packing, diaphragms, shop rivets / welding, T&amp;F bolts, drifts, SAW, templates, jigs, fixtures, accessories, transporting various components from fabrication shop to site including loading &amp; unloading, assembly of girders with drifts/bolts,</p>				

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		<p>field riveting /welding /HSFG Bolting, assembling of temporary support for side slewing, raising of girders to the bed block level, providing sliding arrangements and slewing the girder in position, lowering of girder on bearings and bed plates with all temporary arrangements or any other method of launching complete.</p> <p>3. The bearing sets to be provided with the girders will be paid separately as per relevant item.</p> <p>4. Payment for addition in weight for rivets / welds shall be made as per clause 45 of IRS B-1-2001.</p> <p>5. In case of composite work ( welding and HSFG bolts ), addition in weight shall be 1% for welding and HSFG bolts shall be paid separately under relevant item.</p> <p>6. Painting of girders will be paid separately under relevant item.</p> <p>7. Payment Schedule:</p> <p>(i) Receipt of material at site: 40%</p> <p>(ii) Fabrication of girders: 20%</p> <p>(iii) Erection/Launching: 20%</p> <p>(iv) Completion in all respects: 20%</p>				
(a)	041011	PlatesGirder/ Semi through girder	MT	113637.65	342.57	38928849.76
17	041070	Supplying and fixing M.S. Angles 65mmx 65mmx 8mm or any other size conforming to IS:2062 in the nosing of steps of stair cases of Foot Over Bridges including provision of 10mm dia, anchor bar 600mm c/c and fixing with main girder with M.S. flat, making anti-slip arrangements over the top of nosing as per approved scheme given by Engineer in charge with all material, labour,	Kg	87.36	2869.97	250720.58

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		T&P as a complete job.				
18	052160	Providing and fixing of Drainage Spouts of 110mm UPVC Type A ISI marked (Working pressure 4 kg/sqcm) using suitable clamps and adhesive etc., complete.	meter	398.73	960.00	382780.80
19	052073	Epoxy Grout	Kg	1410.43	18.06	25472.37
<b>TOTAL COST OF SCHEDULE 'A'</b>						<b>4,80,38,223.85</b>

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
<b>SCHEDULE 'B' (Supply of Cement)</b>						
20	025060	Supply and using Cement at Worksite				
(a)	025061	Ordinary Portland Cement 43 grade	MT	7678.81	660.00	5068014.60
<b>TOTAL COST OF SCHEDULE 'B'</b>						<b>50,68,014.60</b>

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
<b>SCHEDULE 'C' (Supply of Reinforcement)</b>						
21	025070	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete				
(a)	025072	Thermo-Mechanically Treated bars of grade Fe-500D or more	Kg	78.36	228000.00	17866080.00
<b>TOTAL COST OF SCHEDULE 'C'</b>						<b>1,78,66,080.00</b>



Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
<b>SCHEDULE 'D' (Items as per DSR-2018)</b>						
22	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
(a)	4.1.2	1:1½:3 (1 Cement: 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size)	cum	8254.99	38.40	316991.62
23	4.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing:				
(a)	4.2.2	1:1½:3 (1 cement : 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	cum	10276.68	110.61	1136703.57
24	4.4	Providing and laying cement concrete in kerbs, steps and the like at or near ground level excluding the cost of centering, shuttering and finishing.				
(a)	4.4.1	1:1½:3 (1 Cement: 1½ coarse sand(zone-III) : 3 graded stone aggregate 20 mm nominal size)	Cum	8254.99	16.57	136785.18
25	5.9	Centering and shuttering including strutting, propping etc. and removal of form work for :				

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
(a)	5.9.1	Foundations, footings, bases for columns	Sqm	326.11	38.40	12522.62
(b)	5.9.3	Suspended floors, roofs, landings, balconies and access platform	Sqm	793.44	114.64	90959.96
(c)	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	632.01	195.79	123741.24
(d)	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	839.98	375.46	315378.89
(e)	5.9.7	Stairs, (excluding landings) except spiral-staircases	Sqm	712.49	50.17	35745.62
26	6.1	Brick work with non-modular (FPS) bricks of class designation 7.5 in foundation and plinth in :				
(a)	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand) –wall	cum	7049.35	15.05	106092.72
27	10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
(a)	10.25.2	In gratings, frames, guard bar, ladders, railings, brackets, gates and similar works	kg	149.97	1000.00	149970.00
28	10.26	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.				
(a)	10.26.3	G.I. pipes	Kg	180.89	1190.00	215259.10
29	11.19	Chequered terrazo tiles 22 mm thick				

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		with graded marble chips of size up to 6 mm in floors, jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete, on 20 mm thick bed of cement mortar 1:4 (1 cement :4 coarse sand)				
(a)	11.19.3	Dark shade pigment using ordinary cement	Sqm	1338.44	39.06	52279.47
30	13.1	12 mm cement plaster of mix -				
(a)	13.1.2	1:6 (1cement: 6coarse sand)	sqm	291.07	39.00	11351.73
31	13.61	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
(a)	13.61.1	Two or more coats on new work	Sqm	139.15	54.18	7539.15
32	13.98	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:				
(a)	13.98.1	One or more coats on old work	sqm	96.91	160.68	15571.50
33	15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge	Cum	2901.85	311.50	903926.28
34	15.6	Extra for scraping, cleaning, straightening reinforcement from R.C.C. or R.B. work	kg	7.67	1552.87	11910.51
35	16.48	Painting road surface marking with adequate nos of coats to give uniform finish with ready mixed road marking paint conforming to IS : 164,				

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		on bituminous surface in white/yellow shade, including cleaning the surface of all dirt, scales, oil, grease and foreign material etc. complete.				
(a)	16.48.1	New work (Two or more coats)	Sqm	247.23	100.00	24723.00
36	16.5	Providing and fixing Glow studs of size 100x20 mm made of heavy duty body shall be moulded ASA (Acrylic styrene Acryloretrite ) or HIP (High impact polystyrene) or ABS having electronically welded micro-prismatic lens with abrasion resistant coating as approved by Engineer in charge. The glow stud shall support a load of 13635 kg tested in accordance with ASTM D4280. The slope of retro- reflective surface shall be 35 (+/-5) degress to base .The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM I: 809 as recommended in BS: 873 Code Description Unit Rate No. SUB HEAD : 16.0 ROAD WORK 279 part 4 : 1973. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-charge.	Each	224.85	54.00	12141.90
<b>TOTAL COST OF SCHEDULE 'D'</b>						<b>36,79,594.06</b>

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
<b>SCHEDULE 'E' (Non-Schedule Items)</b>						
37	NS-1	Providing and laying in position machine batched, machine mixed and machine vibrated Design Mix Cement Concrete M-35/M-40 grade (Cast in situ) using 20 mm graded crushed stone aggregate and coarse sand of approved quality in RCC deck slab laid to required camber including end cantilever,RCC crash barrier, RCC railing, etc. including pumping of concrete to site of laying, finishing, using admixtures in recommended proportions (as per IS: 9103), if approved in mix design to accelerate or retard setting of concrete,improve workability without impairing strength and durability with all contractor's labour,tools & plants, material,fuel, consumables, machinery, loading, unloading, lead and lift complete in all respect as a complete job as per specification & as directed by Engineer.	<b>Cum</b>	9926.13	275.00	2729685.75
38	NS-2	Providing and laying in position machine batched, machine mixed and machine vibrated Design Mix Cement Concrete M-40 grade (Cast in situ) using 20 mm crushed stone aggregate and coarse sand of approved quality in wearing coat & footpath including pumping of concrete to site of laying, finishing, using admixtures in recommended proportions (as per IS: 9103), if approved in mix design to accelerate or retard setting of concrete, improve workability without impairing strength and durability with all contractor's	<b>Cum</b>	5328.24	65.00	346335.60

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		labour, tools & plants, material, fuel, consumables, machinery, loading, unloading, lead & lift complete in all respect as a complete job as per specification & as directed by Engineer.				
39	NS-3	Supplying, fabrication & fixing in position BRC protection screen with MS angle frame, expanded metal (XPM), GI Sheet of 16 gauge, J Bolts etc of approved Railway design with two coats of aluminium paints of approved manufacturer as per drawing no. RDSO/ETI/C/0068 with all contractor's labour, tools & plants, material, fuel, consumables, machinery, loading, unloading, lead & lift complete in all respect as a complete job as per specification & as directed by Engineer.	<b>Kg</b>	131.38	1500.00	197070.00
40	NS-4	Manufacturing, Supplying and fixing of POT / POT-PTFE bearings as per approved drawings for the following spans at site including fitting and fixing in position true to line and level with all contractor's materials, labour, tools and plants, loading, unloading and stacking at site as per specification/drawing or as directed by engineer as a complete job.				
	(a)	For 35.56 m composite girder	<b>Sets</b>	930757.63	1.00	930757.63
	(b)	For varies from 29.130 to 33.250m composite girder.	<b>Sets</b>	766018.71	1.00	766018.71
		The drawing upto last alteration / revision/amendment shall be				

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		followed.				
		Cast steel of grade 280 - 520 W or 340 - 570 W of IS 1030 shall be used.				
		Each set of bearing shall include 10 nos of bearings (2 POT bearings and 8 POT - PTFE bearings) and all bolts and all other components connected with bearings as shown in respective drawings.				
		The supply of POT / POT-PTFE bearing shall include all materials shown in the drawings. The supply also includes supply of all holding down bolts to fix the bearings at the bottom on pedestal and all bolts to fix the bearings to the bottom of girder.				
		75% payment shall be made after supply of each set at site on submission of indemnity bond and balance 25% shall be made after fixing of bearings.				
41	NS-5	Design supplying, cutting, fixing and fabricating steel sheet pile of required shape, size, thickness, depth and weight conforming to IS 2314 including loading, unloading, leading, assembling and driving at site with use of vibro-hammer as directed by site engineer including all labour, material and taxes as a complete job. Work shall be executed as per provisions of Appendix-VII of IRS-B1-2001 and provision contained in chapter 21 of Indian Railway unified	Kg	172.23	148200. 0	25524486

Sl. No.	Item no.	Description of items	Unit	DFCCIL's Rate (Rs)	Qty.	Amount (Rs)
		standard specification.				
42	NS-6	Structural steel work; welded in built up sections, using 3.15mm thick MS sheet, flat of size 65X8 mm, etc including cutting, bending, straightening, hoisting, fixing in position, including applying a priming coat of approved steel primer, complete - and fixing of plate with main girders as per approved drawing of deck slab shuttering.	<b>Kg</b>	120.65	53100.0 0	6406515
43	NS-7	Providing and fixing 65mm dia GI Pipe of medium class on the top of RCC crash barrier as a railing with supports of 12 mm thick m s plate cut to shape as vertical along with 50 x 10mm thick m s plate all round welded to vertical including 25 mm wide and 3 mm thick collar plate, verticals welded on base plate of size 120 x 120 x 16 mm, 4 nos 10 dia galvanized m s holding down bolts with nuts and washers, 4 nos 10 dia MS rod of 48mm long welded to m s holding down bolts, verticals shall be @ 1.50 m C / C including two or more coats of synthetic enamel paint of required shade over one coat of zinc chromate primer with all contractor's materials, labour, tools and plants, loading, unloading and stacking at site as per specification/drawing and as directed by engineer as a complete job.	<b>Meter</b>	1449.4	134.00	194219.6
<b>TOTAL COST OF SCHEDULE 'E'</b>						<b>3,70,95,088.29</b>



**Explanatory Notes for BOQ:**

- (i) Contractor shall quote rates of shuttering and curing for all heights.
- (ii) The rates of reinforcement item mentioned in the above schedule include placing of reinforcement under running traffic conditions.
- (iii) All NCR USSOR items contain item nos., if any discrepancy is found in nomenclature, schedule nomenclature will prevail.
- (iv) Tenderer must quote their rates for supply and erection of fabricated girders with their own material including loading, transportation and unloading at site. DFCCIL shall not provide any assistance for procurement of raw material for manufacturing the girders tendered for.
- (v) The rates shall also be inclusive of all taxes legally leviable and / or any other taxes, license fee and royalty charges etc. if any.
- (vi) The above quantity is approximate:-The DFCCIL reserve the right to increase / decrease the same.
- (vii) The contractor has to submit launching scheme and detailed drawing of each component of the Railway safety and nothing extra shall be paid for this activity.