d/c

Executive Engineer Construction Division
PWD (B&R)Malerkotla (148023)

Phone No: 01675-253008 Email.Id.xenpwdmalerkotla@gmail.com

Registred

To

M/s .S.P Bansal Construction Co,
Sahnewal- Dehlon Road, Village Paddi,
Distt Ludhiana 141206.

No. 6971 Dated: 06/03/24

Sub:- Raising/Widening and Stengthening of Dhuri to Sherpur Road(ODR-31) Under CRIF Scheme For Rs. 933.88 Lacs.

Ref: Your tender dated 15.02.2024

As approved by the Chief Engineer (South) PWD B&R Branch, Patiala vide his letter No. 736/CIRF dated 01.03.2024 and Superintending Engineer, Const. Circle PWD B&R, Sangrur Endst. No.7298-99 dated 05.03.2024, the above noted work is hereby allotted to your firm, coupled with the terms and conditions contained in the approved DNIT for a of **Rs. 933.88 Lacs** with a time limit of 12 months subject to the financial regularities: -

Sl. No	Description of Work	Unit	Allotted Rates
1	Dismantling of flexible pavements (Granular courses)and disposal of dismantled materials up to a lead of 1000 metres, stacking serviceable and unserviceable materials separately	**Cum**	**Rs 78.00**
2	**Dismantling of Structures** Dry brick pitching or brick soling complete in all respect as per MORT&H specifications (5th revision) 2013	**Cum**	**Rs 294.00**
3	Excavation for roadwork in soil with hydraulic excavator including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead upto 1000m	**Cum**	**Rs 109.00**

4	Construction of embankment with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2 complete in all respect as per MORT&H specifications (5th revision) 2013	**Cum**	**Rs 230.00**
5	Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table 300-2. complete in all respect as per MORT&H specifications (5th revision) 2013	**Cum**	**Rs 56.00**
6	Providing and laying of Brick on end edging 6.83cm wide, 11.11cm long and 22.86cm high half brick deep including excavation, refilling and disposal of surplus	**Mtr.**	**Rs 58.00**
7	Providing laying spreading and compacting Granular Sub Base 150mm thick in two layer of (with thickness of single layer not exceeding 200mm compacted) of natural sand, crushed gravel, crushed stone,crushed slag or combination thereof depending upon the grading required.Use of material like brick metal,Kankar & crushed concrete shall be permitted in the lower sub base.The material shall be free from organic or other deleterious constituents and shall conform to the gading given in Table 400-1 and physical requirements given in Table 400-2 grading III and IV shall preferably be used in lower sub base.Grading V & VI shall be used as a sub base-cum- drainages layer.Where the sub base is laid in two layers as upper sub base &lower sub base ,the thickness of each layershall not be less than 150mm transportation of material and spreading on the prepared sub grade with help of motor grader to required slopes and grades with moisture contents 1% to 2% the optimum moisture content and rolling with static smooth wheeled roller (80-100 KN) in case compacted layer does not exceed 100mm and with vibratory roller (of minimum 80-100 KN.) for compacted	**Cum**	**Rs 1650.00**

	layer not exceeding 250mm to achieve field density not less than 98% of maximum dry density determined in laboratory, checking for any high spots or depressions which become apparent corrected by removal or adding fresh material, including cost of tools and plants, templates, barriers, lighting arrangements at night maintenance of diversions, regulation of traffic etc. complete in all respects as per MORT&H specification 401, as per drawing, instructions and to the entire satisfaction of Engineer. Quality Control of work and arrangement of traffic shall be maintained as per section 900 & clause 112 of MORT&H specifications 5th revision 2013 respectively. The protection of edges of granular sub base extended over the full formation as shown in the drawing shall be considered incidental to the work of providing and laying GSB and no extra payment shall be made for the same. Rate shall be paid as per clause 401.8 of MORT&H specifications (5th revision)		
8	Relaying spreading and compacting Granular Sub Base 150mm thick in two layer of (with thickness of single layer not exceeding 200mm compacted) of natural sand, crushed gravel, crushed stone,crushed slag or combination thereof depending upon the grading required.Use of material like brick metal,Kankar & crushed concrete shall be permitted in the lower sub base.The material shall be free from organic or other deleterious constituents and shall conform to the gading given in Table 400-1 and physical requirements given in Table 400-2 grading III and IV shall preferably be used in lower sub base.Grading V & VI shall be used as a sub base-cum- drainages layer.Where the sub base is laid in two layers as upper sub base &lower sub base ,the thickness of each layershall not be less than 150mm transportation of material and spreading on the prepared sub grade with help of motor grader to required slopes and grades with moisture contents 1% to 2% the optimum moisture content and rolling with static smooth wheeled roller (80-100 KN) in case compacted layer does not exceed 100mm and with vibratory roller (of minimum 80-100 KN.) for compacted layer not exceeding 250mm to achieve field density not less than 98% of maximum dry density determined in laboratory, checking for any high spots or depressions which become apparent corrected by removal or adding fresh material, including cost of tools and plants, templates, barriers, lighting arrangements at night maintenance of diversions, regulation of traffic etc. complete in all respects as per MORT&H specification 401, as per drawing, instructions and to the entire satisfaction of Engineer. Quality Control of work and arrangement of traffic shall be maintained as per section 900 & clause 112 of MORT&H specifications 5th revision 2013 respectively. The protection of edges of granular sub base extended over the full formation as shown in the drawing shall be considered incidental to the work of providing and laying GSB and no extra payment shall be made for the same. Rate shall be paid as per clause 401.8 of MORT&H specifications (5th revision)	**Cum**	**Rs 270.00**

9	Water Bound Macadam (Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density.) **Grading- II Using Screening Type-A (13.2mm Agg.)**	**Cum**	**Rs 1690.00**
10	Water Bound Macadam (Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density.) **Grading- III Using Screening Type-B (11.2mm Agg.)**	**Cum**	**Rs 1790.00**
11	Surface Dressing (Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder laid on prepared surface and rolling with 8-10 tonne smooth wheeled steel roller)	**Sqm**	**Rs 55.00**
12	Providing and applying tack coat with Bitumen VG-10 (Bulk) before laying BC as per I:S 8887 with approval of Engineer @ 0.20 Kg. Per Sqm. area of surface dressing with pneumatic tyred self propelled pressure sprayer equipped arrangement, suitable pump, adequate capacity compressor and spraying bar with nozzles for spraying material uniformly at specified rate including all kind of material and labour inclusive of cleaning of surface free from dust, dirt and any extraneous materials including curing as per requirements including cost of barriers, lighting arrangements at night, maintenance of diversion, and regulation of traffic etc. complete in all respects as per **Ministry of Road Transport & Highways specifications Clause No. 503 (5th revision2013).**	**Sqm**	**Rs 12.00**

13	Providing and laying **dense graded bituminous macadam** with higher capacity batch type HMP using crushed aggregates of specified grading, premixed with **Bitumen (VG -30) @ 4.0 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 wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects Notes :- I. The actual volume of the aggregate to be paid for shall be computed after deducting the specified percentage from the volume computed by stacks measurement as per MORT & H specifications (addendum to latest revision) for the purpose of secured advance. II. The final grading for the aggregates required for bitumenious macadam course Grading 2 for 75 mm / 50 mm thickness of each layer conforming to table 500-7 of M.O.R.T. & H specifications (addendum to latest rivision) shall be determined after getting the bitumenious macadam grading-2 designed from Punjab PWD, B&R Research Laboratory Patiala after obtaining 60 % of material. The design mix so finally approved by shall be termed as the approved mix. The aggregates shall be hydrophobic and of low porosity. The aggregates shall satisfy the physical requirement set fourth in table 500-6 (addendum to latest revision). III. The mix shall exhibit the following details: a) Binder expressed as a percentage by weight of total mix. b) Coarse aggregate of 26.5 mm gauge expressed as percentage by weight of total mix. c) Crushed Bajri of 11.2 mm size expressed as percentage by weight of total mix. d) Fine aggregates 4.75 mm below expressed as percentage by weight of total mix. e) A single definite percentage passing each sieve for mixed aggregates. f) Density of Bitumensious macadam (75 mm/ 50mm thick after compaction) shall be minimum 2.2 gms/C.C & nothing extra shall be payable if higher density is achieved at site. IV) The Contractor thereafter, shall be required to complete the supply of various ingradients or Bituminous macadam as per proportions stipulated in the approved mix. V) Rate of B.M shall be quoted by the contractor with respect to binder content percentage by weight of mix being 3.4 % if Laboratory designs a mix with different percentage then the difference shall be payable / recoverable.	**Cum**	**Rs 6850.00**
14	Providing and laying Patch work with bituminous macadam 50mm thick with continuous type hot mix plant using crushed aggregates of specified grading premixed with bituminous binder VG 30 @3.4%, carriage of mixed material to site of work, laid over a previously prepared surface with paver finisher mechanical to the required grade, level and alignment and rolled to achieve the desired compaction complete as per technical clause 504 of MORT&H specifications Notes :- I. The actual volume of the aggregate to be paid for shall be computed after deducting the specified percentage from the volume computed by stacks measurement as per MORT & H specifications (addendum to latest revision) for the purpose of secured advance. II. The final grading for the aggregates required for bitumenious macadam course Grading 2 for 75 mm / 50 mm thickness of each layer conforming to table 500-7 of M.O.R.T. & H specifications (addendum to latest rivision) shall be determined after getting the bitumenious macadam grading-2 designed from Punjab PWD, B&R Research Laboratory Patiala after	**Cum**	**Rs 5200.00**

	obtaining 60 % of material The design mix so finally approved by shall be termed as the approved mix The aggregates shall be hydrophobic and of low porosity The aggregates shall satisfy the physical requirement set fourth in table 500-6 (addendum to latest revision) III The mix shall exhibit the following details. a) Binder expressed as a percentage by weight of total mix. b) Coarse aggregate of 26.5 mm gauge expressed as percentage by weight of total mix. c) Crushed Bajri of 11.2 mm size expressed as percentage by weight of total mix d) Fine aggregates 4.75 mm below expressed as percentage by weight of total mix e) A single definite percentage passing each sieve for mixed aggregates. f) Density of Bitumensious macadam (75 mm/ 50mm thick after compaction) shall be minimum 2.2 gms/C C & nothing extra shall be payable if higher density is achieved at site IV) The Contractor thereafter, shall be required to complete the supply of various ingradients or Bituminous macadam as per proportions stipulated in the approved mix V) Rate of B M shall be quoted by the contractor with respect to binder content percentage by weight of mix being 3 4 % if Laboratory designs a mix with different percentage then the difference shall be payable / recoverable		
15	Providing & laying **Bituminous Concrete** of **30mm compacted thickness** in a single course after applying tack coat 0.20 kg per sqm area on black top surface over the base previously prepared in accordance with MORT&H specifications **(5th Revision 2013)**, after mixing the **aggregates and VG-30 bulk bitumen** in electronic operated **Batch Type Hot Mix Plant** as per approved mix and laying the same with the help of electronic sensor paver as per MORT&H specifications. After spreading of mix as per **clause 501.6 & 501.7** entire surface during the operation shall be rolled with road roller 8-10 tonne (smooth wheeled) followed with vibratory road roller of 8-10 tonne static weight, followed by finished rolling with 6 to 8 tonne smooth wheel tendom roller as per **Clause Nos. 501.6 and 501.7.** The through unit rate for this item include the cost of aggregates, bitumen filler fuel for heating bitumen in a boiler premixing of stone aggregate and bitumen in an electronic operated Batch type Hot Mix Plant and carriage / laying and compaction of premixed materials from Hot Mix Plant to site of work, templates barriers, lighting arrangements & sundries etc. but except cost of tack coat.	**Cum**	**Rs 8700.00**
16	**CD Works**	-	-
16.1	Earth work in excavation for foundation of structures upto 3 m depth as per drawing and technical specifiction clause 1104 including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides complete in all respect as per MORT&H specifications (5th revision) 2013	**Cum**	**Rs 122.00**

16.2	Cement Concrete 1:3:6 with stone ballast complete in all respect as per MORT&H specifications (5th revision) 2013	**Cum**	**Rs 3265.00**
16.3	Brick Masonary work in cement mortar 1:4 in foundation of walls complete excluding pointing and plastering as per drawings and technical specification complete in all respect as per MORT&H specifications (5th revision) 2013	**Cum**	**Rs 4320.00**
16.4	Reinforced cement concrete (M-20) for slab excluding the cost of reinforcement but including the cost of centering shuttering & laid in position complete in all respect as per MORT&H specifications (5th revision) 2013	**Cum**	**Rs 4110.00**
16.5	Plain Cement Concrete M-15 complete as per Drawing and Technical Specifications.complete in all respect as per MORT&H specifications (5th revision) 2013	**Cum**	**Rs 4043.00**
16.6	P/L hume pipe 1-1/2' dia with collars.Complete in all respect as per MORT&H specifications (5th revision) 2013	**Mtr.**	**Rs 2188.00**
16.7	Painting Two Coats on New Concrete Surfaces (Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concrete surfaces) complete in all respect as per MORT&H specifications (5th revision) 2013	**Sqm**	**Rs 66.00**
16.8	Cold twisted deformed (ribbed/tor steel) Bars, for RCC works where not included in the complete rate at RCC including bending, binding, and placing in position. Complete in all respect as per MORT&H specifications (5th revision) 2013	**Qtl.**	**Rs 6255.00**
16.9	Plastering with cement mortar (1:3) on brick work in sub-structure as per Technical Specifications and complete in all respect as per MORT&H specifications (5th revision) 2013	**Sqm**	**Rs 100.00**

16.10	Construction of granular sub-base by providing coarse graded material grading-I, 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 technical clause 401 of MORT&H specifications.	**Cum**	**Rs 1235.00**
16.11	Dismantling of RCC Slab Complete in all respect as per satisfication of Engineer-in-Charge.	**Cum**	**Rs 960.00**
16.12	Dismantling of brick work in cement sand mortar / lime mortar including T&P scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material. & staking the serviceable material with all lifts & lead of 100 metre (By Mechanical Means) Complete in all respect as per satisfication of Engineer-in-Charge.	**Cum**	**Rs 255.00**
16.13	Construction of RCC railing of M30 Grade concrete, in-situ with 20 mm nominal size aggregate, true to line and grade, tolerance of vertical RCC post not to exceed 1 in 500, centre to centre spacing between vertical post not to exceed 2000 mm, leaving adequate space between vertical post for expansion, complete as per approved standard plans of MoRTH vide drawing no. SD/202. and technical specifications.the rate is inclusive of steel CSR 22.6A	**Cum**	**Rs 890.00**
16.14	Credit of Old material (Steel)	**Kg**	**Rs -25.00**
16.15	Credit of Old material (Brick Bats)	**Cum**	**Rs -472.50**
17	**Road Safety**	-	-

17.1	Providing and laying marking of centre line and stop line etc with hot thermoplastic compound 2.5 mm thick on road/ plain surface, including reflector sing glass beads @ 250 gms per sqm area with special applicator machine, as per IRC:35 including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control involved. The finished surface to be level, uniform and free from streaks and holes as per clause 803 of MoRT&H Specification 5th Revision 2013 including all material, labour, machinery,lighting, guarding Complete in all respects	**Sqm**	**Rs 450.00**
17.2	Place Identification sign board 900x600mm rectangular as per IRC 67- 2012 with high intensity Microprismatic grade retro reflective Sheeting as per ASTM D 4956 – 09 and as per IRC 67 – 2012 fixed over 4mm thick aluminium Composite material (ACM) sheeting having aluminium skin thickness of 0.4 to 0.5 mm on both sided and fixing the same with suitable size aluminium alloy rivets @ 200 mm c/c to back support frame of 25x25x3mm angle iron supported on two square hollow steel section post 60x60x3.2mm conforming to IS 4923 firmly fixed to ground in foundation concrete M-25 of size 0.45x0.45x0.60m for vertical post complete as per clause 801 of MORT&H specifications. Supplier shall provide a warranty as per clause 6.9 of IRC 67-2012 for retro reflective sheeting & a certified copy of test reports from an independent test laboratory conforming to clause 6.7 of IRC 67-2012 . **B Using high intensity Microprismatic grade retro reflective Sheeting Type IV as per ASTM D 4956 09 and as per IRC 67 2012**	**Each**	**Rs 4900.00**

17.3	Advance Direction sign board 600x600mm rectangular per IRC 67- 2012 with high intensity Microprismatic grade retro reflective Sheeting as per ASTM D 4956 – 09 and as per IRC 67 – 2012. grade sheeting fixed over 4mm thick Aluminium Composite Material (ACM) sheeting having aluminium skin thickness of 0.4 to 0.5 mm on both sided and fixing the same with suitable size aluminium alloy rivets @ 200 mm c/c to back support frame of 25x25x3mm angle iron supported on two square hollow steel section post 60x60x3.2mm conforming to IS 4923 firmly fixed to ground in foundation concrete M-25 of size 0.60x0.60x0.75m for vertical post complete as per clause 801 of MORT&H specifications. Supplier shall provide a warranty as per clause 6.9 of IRC 67-2012 for retro reflective sheeting & a certified copy of test reports from an independent test laboratory conforming to clause 6.7 of IRC 67-2012 . **B Using high intensity Microprismatic grade retro reflective Sheeting Type IV as per ASTM D 4956 09 and as per IRC 67 2012**	**Each**	**Rs 2880.00**
17.4	5th kilometre stone (precast):- Reinforced cement concrete M-15 grade 5th kilometre stone of standard design as per IRC 8-1980 fixing in position including painting and printing etc. complete as per technical clause 804 of MORT&H specifications	**Each**	**Rs 4500.00**
17.5	Ordinary kilometer stone (precast):- Reinforced cement concrete M-15 grade ordinary kilometre stone of standard design as per IRC 8-1980 fixing in position including painting and printing etc. complete as per technical clause 804 of MORT&H specifications	**Each**	**Rs 2650.00**
17.6	200 Mtr. Stone:- Reinforced cement concrete M-15 grade 200 metre stone ofstandard design as per IRC 26-1967 fixing in position includingpainting and printing etc. complete as per technical clause 804 of MORT&H specifications	**Each**	**Rs 500.00**

17.7	Hazard Marker sign board 300x900mm rectangular as per IRC 67- 2012 with high intensity Microprismatic grade retro reflective Sheeting as per ASTM D 4956 09 and IRC 67 2012, fixed over 4mm thick Aluminium Composite Material (ACM) sheeting having skin thickness of 0.4 to 0.5 mm on both sided and fixing the same with suitable size aluminium alloy rivets @ 200 mm c/c to back support frame of 25x25x3mm angle iron supported on a square hollow steel section post 60x60x3.2mm conforming to IS 4923 firmly fixed to ground including foundation concrete M-25 of size 0.45x0.45x0.60m for vertical post complete as per clause 801 of MORT&H specifications **B Using high intensity Microprismatic grade retro reflective Sheeting Type IV as per ASTM D 4956 09 and as per IRC 67 2012**	**Each**	**Rs 2825.00**
17.8	Cheron Signs for Curves	**Each**	**Rs 2825.00**
17.9	Cautionary sign board 600x600x600mm triangular as per IRC 67- 2012 with high intensity Microprismatic grade retro reflective Sheeting as per ASTM D 4956 – 09 and as per IRC 67 – 2012. fixed over 3mm thick aluminium Composite material (ACM) sheeting having aluminium skin thickness of 0.25 to 0.3 mm on both sided and fixing the same with suitable size aluminium alloy rivets @ 200 mm c/c to back support frame of 25x25x3mm angle iron supported on a square hollow steel section post 60x60x3.2mmmm conforming to IS 4923 without cost of definition plate firmly fixed to ground in foundation concrete M-25 of size 0.45x0.45x0.60m for vertical post complete as per clause 801 of MORT&H specifications. Supplier shall provide a warranty as per clause 6.9 of IRC 67-2012 for retro reflective sheeting & a certified copy of test reports from an independent test laboratory conforming to clause 6.7 of IRC 67-2012B Using high intensity Microprismatic grade retro reflective Sheeting Type IV as per ASTM D 4956 09 and as per IRC 67 2012 **B Using high intensity Microprismatic grade retro reflective Sheeting Type IV as per ASTM D 4956 09 and as per IRC 67 2012**	**Each**	**Rs 2330.00**

17.10	Mandatory sign board 600mm circular as per IRC 67- 2012 with high intensity Microprismatic grade retro reflective Sheeting as per ASTM D 4956 – 09 and as per IRC 67 – 2012. fixed over 3mm thick aluminium Composite material (ACM) sheeting having aluminium skin thickness of 0.25 to 0.3 mm on both sided and fixing the same with suitable size aluminium alloy rivets @ 200 mm c/c to back support frame of 25x25x3mm angle iron supported on a square hollow steel section post 60x60x3.2mmmm conforming to IS 4923 without cost of definition plate firmly fixed to ground in foundation concrete M-25 of size 0.45x0.45x0.60m for vertical post complete as per clause 801 of MORT&H specifications. Supplier shall provide a warranty as per clause 6.9 of IRC 67-2012 for retro reflective sheeting & a certified copy of test reports from an independent test laboratory conforming to clause 6.7 of IRC 67-2012 **B Using high intensity Microprismatic grade retro reflective Sheeting Type IV as per ASTM D 4956 09 and as per IRC 67 2012 B Using high intensity Microprismatic grade retro reflective Sheeting Type IV as per ASTM D 4956 09 and as per IRC 67 2012**	**Each**	**Rs 2670.00**
17.11	Providing and installation of solar cateye produced from an engineered polymer selected for superior impact resistance and weather-ability. The top of the solar stud should be transparent for solar charging and light output in active mode.The base of the body shall be yellow or neutral white as approved by Engineer In-charge. The marker shall incorporate a solar panel (comprising of solar cells) for converting solar energy into electricity, a storage device for storing the energy, LEDs for illumination and a design for providing 360 degree smooth illumination. The Solar stud shall be round in shape for providing illumination in all directions. The solar stud shall also have high reflective lenses for conspicuity in passive mode and dual shanks for improved road presence. The solar studs are intended for application directly onto pavement surfaces and shall be applied with epoxy resin adhesives designed for use with raised pavement markers and as supplied by the marker manufacturer separately. The solar cateye shall be of height: 65 ± 2 mm & Maximum Diameter: 136 ± 4 mm. The body of the solar cateye shall be resistant to dust and water ingress as per IP 65 standards. The marker shall support a load of 13635 Kg tested in accordance with ASTM D4280.	**Each**	**875.00**

17.12	Providing & Fixing Reflective Pavement Markers (Road Studs) from ASA (Acrylic Styrene Acrylonitrite) or HIPS (Hi-impact Polystyrene) or Acrylonitrile Butadiene Styrene (ABS) or any other suitable material approved by the Engineer with twin shanks. The markers shall support a load of 13,635 kg tested in accordance with ASTM D 4280. Reflective panels shall consist of number of lenses containing single or dual prismatic cubes capable of providing toal internal reflection of the light enterning the lens face. Lenses shall be moulded of methyl methecrylate conforrming to ASTM D 788 or equivalent. The slope or retro-reflecting surface shall prefeably be 35 + 50 to base and the area of each retro-reflecting surface shall not be less than 13.0 sqcm. Marker height shall not be less than 10 mm and shall not exceed 20 mm and its width shall not exceed 130 mm. The road studs shall be legibly marked with the name, trade mark or other means of identification of the manufacturer. No nails shall be used to affix the marker so that they do not pose safety hazard on the roads. Fixing will be done by driling holes on the road for the shankes to go inside and using the adhesives and the procedure recommended by the manufacturer and complete as per technical clause 804 of MoRT&H specifications (Fifth Revision) and as directed by the Engineer. The contractor shall obtain from the manufacturer a two year warranty for satisfactory field performance including stipulated retro-reflectance of the reflecting panel and submit the same to the Engineer. In addition, a two year warranty for satisfactory infield performance of the finished road marker shall also be given by the contractor who carries out the work of fixing of reflective road markers.	**Each**	**Rs 182.00**
17.13	Reinforced cement concrete M-15 grade boundary pillars of standard design as per IRC 25-1967 fixing in position including painting and printing etc. complete as per technical clause 806 of MORT&H specifications 5th Revision 2013	**Each**	**Rs 575.00**
18	Videography/Photography of Road before start of work, during execution and after completion. Complete in all respect as per direction of Engineer in Charge.	**Each**	**Rs 1000.00**

19	Credit of old Brick Bats @50% of item no.1	Cum	Rs -472.50
20	Credit of old Bricks @30% of item no.1	Each	Rs -4.00
21	Extra GST 18%	percentage	Rs 14245669.50

Conditions:-1. Time limit will be 12 months.

2. Other conditions as per approved DNIT.

You are requested to furnish a bank guarantee of scheduled Bank on the prescribed form in favour of this office for an amount of Rs. **46,69,413/-** (Rs. Forty Six Lacs Sixty Nine Thousand Four Hundred and Thirteen Only) valid until a date 28 days from the date of expiry of Defect liability period. No payment for the work done if any shall be released till such guarantee is furnished to this office.

The quoted rates of BOQ item no.12.8 (in allotment 16.10) are abnormally low for which the **additional performance security** of Rs. **107086/-** may be given as per clause 29.5 of ITB in addition to the performance security as per clause 34.1 of ITB valid upto date as per clause 52 of the Conditions of Contract in the Standard Bidding Document.

You are requested to start the work immediately under the instructions of Sub Divisional Engineer. Construction Sub Division No: 2, PWD B&R, Malerkotla and also submit the PERT Chart of work within seven days of receipt of this letter. The work should be executed as per MORT&H

specification with strict quality control measures to ensure good quality work. The necessary quality control tests should be performed as per the guidelines of SBD.

You are advised to attend this office to sign the agreement without which no payment will be made to you. The date of start will be reckoned from the date of issue of this letter. If there is any difference in the above allotted rates undersigned has right to correct as per approval of the Chief Engineer (South) Punjab PWD B&R Patiala.

Executive Engineer,
Construction Division PWD B&R,
Malerkotla.

Endst. No. 6972-75 dated: 06/03/24

Copy of the above is forwarded to: -

1. Superintending Engineer, Construction Circle PWD B&R, Sangrur w.r.t his office letter no: 7298-99 dated: 05.03.2024 for information please.

2. The Sub Divisional Engineer, Construction Sub Division No: 2 , PWD B&R, Malerkotla for information & necessary action. The SDE may obtain an affidavit from the contractor that work has been completed as per specifications before finalizing the bill. .

3. DAO/HDM/Agreement (file).

Executive Engineer,
Construction Division PWD B&R,
Malerkotla.