राष्ट्रीय राजमार्ग एवं अवसंरचना विकास निगम लिमिटेड

सङ्क परिवहन और राजमार्ग मंत्रालय, भारत सरकार तीसरी मंजिल, पीटीआई बिल्डिंग, 4-संसद मार्ग, नई दिल्ली-110001







CIN: U45400DL2014GOI269062

National Highways & Infrastructure Development Corporation Limited

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(भारत सरकार का उद्यम)

NHIDCL/NH-07/Slopeprotection/Uttarakhand/PKG-III/2023 Date:12.02.2024

Pre-Bid Query Reply

To,

All respective Bidders,

Name of work: "Construction for Mitigation Measures of 05 Nos. Landslides, 05 Nos. Sinking Zones and 1 no. Bridge from Ch. 450.00 to Ch. 468.00 (18 Km. length) on NH-07 on EPC mode in the State of Uttarakhand (Package-III)."-Pre-bid meeting Queries and reply-reg.

Sir,

The reply from the NHIDCL in respect of queries received with reference to the pre-bid meeting held on 29.01.2024 is as under:

| Sr. No. | Reference to Tender Document | Reference to Tender Document | Query/Request/comments of the contractor | Reply |
|---------|---|---|--|------------------------------------|
| | Clause Page No. | | | |
| | Clause 2.2.2.2 Technical Capacity Sub- Clause (iii) (d) | Since the work of slope stabilization, slope protection and Landslide Mitigation are specialized in nature, if the bidder fails to meet any of the criteria (sought above in) in a single project of completed value of work cumulatively equal to or more than 20% of the Estimated Project Cost, bidder shall enter into signing of Pre-Bid Memorandum of Understanding (MoU) with a Specialized System Provider (SSP) for technical expertise including design, drawings, on-site technical assistance and other requisite services prior to bid submission date and submit the MoU along with their bid (This is one of the Essential Criteria Document of the Bidder and for technical evaluation of the bid, in case of the bidder opting for the MoU and the MoU shall form a part of the bid). If the work is | • | Please refer to Corrigendum-III |



| | | awarded to such bidder, the said bidder cannot suspend the MoU with the SSP without written permission of the Authority during the pendency of the EPC Contract. | | |
|-------------------------------|---|---|--|-----------------|
| Т | Technical Capacity Sub- Clause (iii) (d) | established under Indian Company's Act and must be existing in India for minimum 10 years having a minimum net worth of INR 80 Crores by end of the financial year preceding the Bid Due Date. Certificate of incorporation along with net worth certificate certified from a Chartered Accountant shall be submitted as documentary proof. Such SSP shall also be ISO 9001 certified for the last 10 years and shall possess ISO 45001 | least two or more landslide rehabilitation or slope protection project for roads/Railway/Metro rail/hydroelectric projects in India in which soil nails & high tensile steel wire mesh must have been used. SSP includes design, supply of specialized materials and technical assistance in the last 5 (Five) financial years preceding the Bid Due Date for roads/Railway/Metro rail/hydroelectric projects etc. In such case, the experience certificates of the SSP certified by a Government Engineer not below the rank of Executive Engineer shall be submitted along with the bid for evaluation purpose. The experience certificates of the SSP shall be issued by a government organization or a Public Listed Company Such SSP shall be an organization established under Indian Company's Act and must be | Corrigendum-III |
| d C - 2 T C ((| locument, Clause no. 2.2.2.2 Technical Capacity c) Slope protection and | reinforced soil Wall/slope, Retaining Wall, Expansion Joints, Bridge Bearing, Prestressing Systems, Commercial Stabilizer, Geosynthetics Products etc.; EPC | for SSP: - As these works are related to Slope stabilization • and as already mentioned in Clause 2.2.1 about all the protection work so it is requested to kindly allow that SSP Contractor should have work | Corrigendum-III |

Mitigation no. 25 & 26):

projects (Page material/technology/design in NH Projects.kindly The tripartite agreement shall have the condition as this condition is provision of involvement of the Technology favoring only one or two companies. Provider right from design to execution. Technology Provider shall deploy the Kindly amend descriptions as: requisite design experts/material technologist/skilled and trained construction "As per Clause 2.2.1, supervision personnel to certify material Contractor testing and material characterization for Protection work experience as design, proof check of the design, approve mentioned in construction methodology including field trial sections before actual construction, quality control and supervision and certification of "Certificate the day-to-day construction /execution.

> slope protection and Landslide Mitigation shall also be ISO 9001 certified are specialized in nature, if the bidder fails for the last 10 years. to meet any of the criteria (sought above in.....) in a single project of completed value of work cumulatively equal to or more than 20% of the Estimated Project Cost, bidder shall enter into signing of Pre-Bid Memorandum of Understanding (MoU) with a Specialized System Provider (SSP) for technical expertise including drawings, on-site technical assistance and other requisite services prior to bid submission date and submit the MoU along with their bid (This is one of the Essential Criteria Document of the Bidder and for technical evaluation of the bid, in case of the bidder opting for the MoU and the MoU shall form a part of the bid). If the work is awarded to such bidder, the said bidder cannot suspend the MoU with the SSP without written permission of the Authority during the pendency of the EPC Contract.order as a proof of getting the work in the preceding 07 years.

The SSP shall have completed at least one landslide rehabilitation or slope protection project in India having minimum 80 m height in which

and Technology Provider before use of such mentioned in Clause 2.2.1 and remove highlighted

SSP should have Clause 2.2.1"

incorporation of along with net worth certificate certified from a Chartered Accountant shall be submitted as (d) Since the work of slope stabilization, documentary proof. Such SSP



| | | galvanized soil nails, galvanized steel | | |
|---|----------------------------|---|---------------------------------------|---|
| | | mesh and ground anchors must have | | |
| | | been used and the scope of SSP includes | | |
| | | design, supply of specialized materials and | | |
| | 1 | technical assistance in the last 5 (Five) | | |
| | | financial years preceding the Bid Due Date | | |
| | | | | |
| | | for roads/Railway/Metro rail/hydroelectric | | |
| | | projects etc. In such case, the experience | | |
| | 1 | certificates of the SSP certified by a | | |
| | | Government Engineer not below the rank of | | |
| | | Executive Engineer shall be submitted | | |
| | | along with the bid for evaluation purpose. | | |
| | | Such SSP shall be an organization | | |
| | 1 | established under Indian Company's Act | | |
| | | and must be existing in India for minimum | | |
| | | 10 years having a minimum net worth of | | |
| | 1 | | | |
| | | INR 80 Crores by end of the financial year | | |
| | | preceding the Bid Due Date. Certificate of | 1 | |
| | | incorporation along with net worth | | |
| | 1 | certificate certified from a Chartered | | |
| | | Accountant shall be submitted as | | |
| | | documentary proof. Such SSP shall also | | |
| | | be ISO 9001 certified for the last 10 years | | |
| | | and shall possess ISO 45001 and ISO | | |
| | | 14001 certification. | | |
| 1 | | 14001 Corumoution. | 180 | |
| 4 | Please refer | As per the Design & Drawing approved by | Request to inform variations | Please refer modified |
| | (Pkg-I) | the Authority. The minimum mitigation | acceptable as per site conditions in | schedule B |
| | | measure to be carried out is shown in the | | (Corrigendum-III) |
| | | drawing. | loring of area soverage ster | (************************************** |
| | Tenner de la ser sonner le | drawing. | | |
| | (Schedule-B), | | | |
| | Clause no. 7, | | et et | |
| | Mitigation | 9 | | |
| | Measures, | | â. | |
| | Land Slide | | | |
| | Zones, Sinking | | | |
| | Zones & | | | |
| | Landslide cum | | | |
| | Sinking Zone, | | | |
| | Page 17 & 18 | | | |
| | l age 17 a 10 | | | |
| 5 | RFP | Works of carrying out mitigation measure | Kindly refer letter no | As per RFP |
| | document, | for unstable slopes and sinking areas for hil | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |
| | | roads of not less than the magnitude giver | | |
| | Clause 110 Z.Z. | above. The mitigation means should include | Engineer office Ministry of Deep | |
| | | above. The miligation means should include | Transport and Highways Designs | |
| | qualification | the items more than use of 7 items listed | | |
| | requirements | below. | Officer- Dehradun, Uttarakhand | |
| | of Bidder, | | (attached). It was decided by the | 1 1 |
| | (Page - | • | authority that the similar work | (|
| | | | | |

| | 18)2.2.1 | 1. High Tensile Rope Net System | criteria should include only TWO | |
|---|---------------------|--|---|--|
| | | 2. High tensile steel wire mess | items having major component in the estimate for which Bid is to be | |
| | | 3. Geocomposite mats | called.Hence, in view of the above- | |
| | | 5. Geocomposite mats | mentioned details we would like to | |
| | | 4.Hydraulically applied erosion contro products | request kindly list only two major component for the similar work / eligibility criteria. | |
| | | 5. Sub-surface drainage pipes | engionity enteria. | |
| | | 6. Mechanically bonded Geotextile | - | d |
| | | 7. Micropiling | | |
| | | 8. Self-Drilling Anchors | | |
| | | 9. Rapid slope consolidator | | |
| | | 10. Multi stand pre-stressed cable anchors | | |
| | | 11. Gabion structure | | |
| | | 12. RCC, RR work in slope/ sinking zones | | |
| | | The bidder shall submit the complete details of the work of the RFP of the contract executed | | |
| 6 | In Drawing -1, | Rhomboidal shape (mesh opening 100 x | In tender specification rhomboidal | Being an EPC contract |
| | Landslide | 146) High Tensile Steel Wire Mesh, wire \varnothing | shape meshes of opening 100 x | contractor has to carry |
| | | 3 .4 mm, Mesh Tensile strength 100kN/m, | | |
| | KM 411+380 TO KM | mesh punching strength 160kN | · · · · · · · · · · · · · · · · · · · | prepare design and drawings after detailed |
| | 411+450 | | As per IRC codal guidelines, | study and survey at |
| | LOCATION-9 | 2 | | site. The work is to be |
| | KM 429+070 TO KM | | | carried out as per the scope in Schedule B |
| | 429+460 | | Mesh Size: The general mesh | according to the |
| | | | openings size is diamond in shape | standards in schedule - |
| | | | with a regular mesh opening of 8.3 cm x 14.3 cm (83 mm x 143mm) | D |
| | | | made by a wire of 2mm, 3mm or | |
| | | | 4mm diameter. | |
| | | | It also suggested by IRC as per Clause no. 5.3.5 that, Single twist | |
| | | | mesh can have high deformations | |
| | | | that can lead to the stripping of | |
| | | | anchors and could cause global | |
| | | 1 | failure of the system. Also, in case of accidental breakage of single | |
| | | | wire the entire mesh unravels | 1 |



exposing the threat of rockfall. Hence higher maintenance may be required in case of single twist mesh.

In case of single twist mesh, on breakage of single wire, the whole mesh gets unravelled very easily and hence the use shall be restricted to very low hazard locations.

In view of the above, we would like to request kindly mention only tensile Strength 100 kN/m and punch strength 160kN of the mesh in item description with mesh opening 8x10 (80mm x 100mm) and wire dia ranging from min 2.7mm to 3mm as recommended by IRC HRB Special Report -23. please refer Clause 5.3.5, Page 95 Mesh Size:- The general mesh openings size used for the rockfall works 8x10 protection are (80mmx100mm) and 10x12 (100mm x 120mm) with the wire diameter of the mesh wire ranging from min 2.7mm to 3.0mm.

refer

to

Clause 2.2.2.2 Technical Capacity

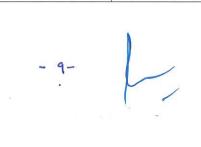
slope Please work Since the work of slope stabilization, slope Since the protection and Landslide Mitigation are stabilization, slope protection and Corrigendum-III specialized in nature, if the bidder fails to Landslide Mitigation are specialized meet any of the criteria (sought above in....) in nature, if the bidder fails to meet in a single project of completed value of any of the criteria (sought above work cumulatively equal to or more than in.....) in a single project of 20% of the Estimated Project Cost, bidder completed value shall enter into signing of Pre-Bid cumulatively equal to or more than Memorandum of Understanding (MoU) with 20% of the Estimated Project Cost, a Specialized System Provider (SSP) for bidder shall enter into signing of Pre-Bid Memorandum technical expertise Understanding (MoU) with

including design, drawings, on-site technical Specialized System Provider assistance and other requisite services prior to bid submission date and submit the MoU (SSP) for technical expertise along with their bid (This is one of the including design, drawings, on-site Essential Criteria Document of the Bidder technical assistance and other and for technical evaluation of the bid, in requisite services prior to bid case of the bidder opting for the MoU and submission date and submit the the MoU shall form a part of the bid). If the MoU along with their bid (This is

work is awarded to such bidder, the said one the Essential of bidder cannot suspend the MoU with the Document of the Bidder and for SSP without written permission of the technical evaluation of the bid, in Authority during the pendency of the EPC case of the bidder opting for the Contract. MoU and the MoU shall form a part of the bid). If the work is awarded to such The SSP shall have completed at least bidder, the said bidder cannot one suspend the MoU with the SSP without written permission of the landslide rehabilitation or slope protection Authority during the pendency of project in India having minimum 80 m height the EPC Contract. in which galvanized soil nails, galvanized mesh and ground anchors must have been The SSP shall have completed at used and the scope of SSP includes design, least two landslide rehabilitation or supply of specialized materials andslope protection project technical roads/Railway/Metro rail/hydroelectric projects in India in assistance in the last 5 (Five) financial years which soil nails & high tensile steel the Bid Due preceding Date wire mesh must have been used. roads/Railway/Metro rail/hydroelectric projects etc. In such case, the experience certificates of the SSP certified by a Government Engineer not below the rank of The experience certificates of the Executive Engineer shall be submitted SSP shall be issued by a along with the bid for evaluation purpose. government organization or a Public Listed Company having minimum turnover of Rs.500 Crores. Such SSP shall an organization Such SSP shall be an organization established under established under Indian Company's Act Company's Act and must be and must be existing in India for minimum existing in India for minimum 5 10 years having a minimum net worth of years preceding the Bid Due Date. INR 80 Crores by end of the financial year Such SSP shall also be ISO 9001 preceding the Bid Due Date. Certificate of certified company. incorporation along with net worth certificate certified from a Chartered Accountant shall be submitted as documentary proof. Such SSP shall also be ISO 9001 certified for the last 10 years and shall possess ISO 45001 and ISO 14001 certification. *8 As per RFP As per RFP Section 7, 5.1 for the The proposed work to be carried Please refer Data/Details for similar work (Technical out in all the three packages area Corrigendum-III Section 7, 5.1 Capacity) Bidder need to qualify for "For specialized in normal Highway projects (including Major Bridges/ROB/Flyovers/Tunnels)" having at nature and only Bidders with Rockfall Protection, Slope

least one similar work of 20% of Estimated Stabilization Experience should be Project Cost [Rs.32.57Cr.] shall have been allowed to bid. completed from the Eligible Projects in Category 1 and/or Category 3 specified in Clause 2.2.2.5. As per RFP. Since the work of slope stabilization, The above-mentioned Please slope protection and Landslide Mitigation qualifications are restrictive and Corrigendum-III Clause 2.2.2.2 are specialized in nature, if the bidder fails only one Specialized System (Technical to meet any of the criteria (sought above Provider will qualify for this project. Capacity) Sub clause (iii) For in.....) in a single project of completed value The prospective bidders will be Stand-alone of work cumulatively equal to or more than 20% of the Estimated Project Cost, bidder compelled to sign an MoU with the specialized shall enter into signing of Pre-Bid that particular SSP which will projects & sub Memorandum of Understanding (MoU) with doesn't provide a level playing clause (d) a Specialized System Provider (SSP) for ground for other SSP's. technical expertise including drawings, on-site technical assistance and other requisite services prior to bid submission date and submit the MoU along with their bid (This is one of the Essential Criteria Document of the Bidder and for There is no mention of any technical evaluation of the bid, in case of the bidder opting for the MoU and the MoU requirement of galvanized soil nails shall form a part of the bid). If the work is & ground anchors in the entire bid awarded documents of all three packages to such bidder, the said bidder cannot but it has been mentioned that the suspend the MoU with the SSP without SSP should have experience of at written permission of the Authority during least one landslide rehabilitation or slope protection project in India the pendency of the EPC Contract. having minimum 80 m height in galvanized soil which galvanized steel mesh and ground anchors must have been used. This is contrary to the solutions proposed for installation. The SSP shall have completed at least one landslide rehabilitation or slope protection project in India having minimum 80 m height in which galvanized soil nails, galvanized steel mesh and ground anchors Also, the rationale for SSP's must have been used and the scope of SSP includes .design, supply of specialized existence in India for 10 years and materials and technical assistance in the networth of INR 80 Crores are not last 5 (Five) financial years preceding the clear. We kindly request you to Bid Due Date for roads/Railway/Metro reduce the SSP's existence in India rail/hydroelectric projects etc. In such case, to 5 years if necessary and remove the experience certificates of the SSP the net worth clause. It is the

| | | certified by a Government Engineer no below the rank of Executive Engineer shal be submitted along with the bid for evaluation purpose. | responsible for executing the | |
|----|--|--|--|-----------------|
| | | Such SSP shall be an organization established under Indian Company's Act and must be existing in India for minimum 10 years having a minimum net worth of INR 80 Crores by end of the financial year preceding the Bid Due Date. Certificate of incorporation along with net worth certificate certified from a Chartered Accountant shall be submitted as documentary proof. Such SSP shall also be ISO 9001 certified for the last 10 years and shall possess ISO 45001 and ISO 14001 certification. | principal contractor who should possess the ISO 9001 certificate. We request you to kindly delete the clause for the service provider. | |
| 10 | As per RFP Clause No. 2.2.2.2 (ii) | one similar work of 20% of estimated cost shall have been completed from the eligible projects and eligible projects as defined are: (a) Widening/reconstruction/up-gradation works on NH/SH/Expressway or on any category of road taken up under CRF. ISC/EI, SARDP, LWE | as per the definition of above eligible projects the contractors who have executed any of the abovementioned works are eligible for qualification or not since the invited bids are involving specialized nature of works ie slope stabilization landslide mitigation. | corrigendum-III |
| | | (b) Winding/reconstruction/up-gradation on MDRs with load assistance from multilateral agencies or on BOT basis | | s |
| | | (c) Widening/reconstruction/up-gradation work of roads in Municipal Corporation limits, construction of Bypasses | III | |



| | | (d) Construction of Stand-alone bridges, ROBs, Tunnels (e) Construction/reconstruction of linear projects like airport runways, railways | v | |
|----|------------------------------------|---|--|-----------------|
| - | | (construction/reconstruction of railway tracks, yards for keeping containers etc) metro rail and ports (including construction/re-construction of Jetties) | | |
| 11 | (c) | It is mentioned that, EPC Contractor/Concessionaries shall ensure signing of tripartite agreement between the Authority, EPC contractor/Concessionaire and Technology Providers before use of such material/technology/design in NH Projects. | said tripartite agreement is to be signed during the time of bidding by the contractor or after award of the | |
| 12 | (Pkg-I) Schedules, Annex – I | As per the Design & Drawing approved by the Authority. The minimum mitigation measure to be carried out is shown in the drawing. | We would request to inform the acceptable percentage of variations in terms of area coverage, nail lengths etc. | Corrigendum-III |
| 13 | -1 | Rhomboidal shape, high tensile steel rope cable net, mesh opening 400X400, wire ø 10.0mm mesh Tensile strength 182 (+/-15) kN/m mesh Punching load 383(+/-20) kN, | may please be amended as given | |

KM Min. tear capacity of High resistance clip 388+150 11kN. In tender specification, rhomboidal shape meshes have been mentioned, there Rhomboidal shape, high tensile is a mention of tear capacity of high steel rope cable net, mesh opening LOCATION-8 KM 413+490 resistance clips of 11kN which is not in line 400X400, wire ø 10.0mm mesh TO KM to requirement as per IRC HRB special Tensile strength 182 (+/-15) kN/m 413+620 report 23. with tear capacity of High resistance LOCATION-10 knot 20kN - 24kN . KM 432+160 TO Please Refer IRC HRB Special Report 432+270 23. (copy attached) Clause 5.3.1.2, Cable Panels with high strength clips, page 92 (Tensile Strength): When tested in accordance with the testing procedure explained in Clause 4.4.4 of Chapter 4, the common values of junction tearing/rupture strength for this type of panels will be 12kN - 15kN. Hence the value 11kN is invalid as its lower than the minimum value mention in IRC HRB SP 23 and shall be revised. Kindly also refer Table 5.1 "General Comparison of different types of cable panel system", page no. 93, a comparison between Cable Panel with High Strength Knots and Cable Panel with High Strength Clips has been given, which clearly states that high strength net Cable Panel with High Strength Knots have better performance

drawings after detailed study and survey at site. The work is to be carried out as per the scope in Schedule B according to the mesh Punching load 383(+/-20) kN, standards in schedule

Clause 5.3.1.1, Cable panel with high strength knots, page 92 : Junction Strength (copy attached) - When tested in accordance with the testing procedure explained in Clause 4.4.4 of Chapter 4, the common values of junction tearing/rupture strength for this type of panels ranges 20 kN- 24 kN.

than cable panel with high strength clips. Considering the prevailing site criticalitties

geology/strata

knots

seismicity, sleep slope, heavy rainfall, etc.,

properties,

highly

are

poor

recommended.

strength

As per Drawing Rhomboidal shape, high tensile steel rope cable net, mesh opening 300X300, wire parties that the item descriptions of meshes Being an EPC contract, -1 10.0mm mesh Tensile strength 220 (+/-10) may please be amended as given contractor has to carry LANDSLIDE LOCATION-3 |kN/m mesh Punching load 461(+/-10) kN,|below:out investigation and 393+910 Min., tear capacity of High resistance clip "Rhomboidal shape, high tensile prepare design and KM 11KN. In tender specification, rhomboidal steel rope cable net, mesh opening drawings after detailed TO 394+100 shape meshes have been mentioned, there 300X300, wire ø 10.0mm mesh study and survey at site. The work is to be is a mention of tear capacity of high Tensile strength 220 (+/-10) kN/m LOCATION-4 400+480|resistance clips of 11kN which is not in line|mesh Punching load 461(+/-10) kN, carried out as per the KM to requirement as per IRC HRB special with tear capacity of High resistance scope in Schedule B TO according to the knot 20kN - 24kN. 400+670 report 23. standards in schedule LOCATION-5 D KM 400+710 Please Refer IRC HRB Special Report TO KM 23. (copy attached) 400+840 Clause 5.3.1.2, Cable Panels with high strength clips, page 92 (Tensile Strength): When tested in accordance with the testing procedure explained in Clause 4.4.4 of Chapter 4, the common values of junction tearing/rupture strength for this type of panels will be 12kN - 15kN. Hence the value 11kN is invalid as its lower than the minimum value mention in IRC HRB SP 23 and shall be revised. Kindly also refer Table 5.1 "General Comparison of different types of cable panel system" , page no. 93, a comparison between Cable Panel with High Strength Knots and Cable Panel with High Strength Clips has been given, which clearly states that high strength net Cable Panel with High Strength Knots have better performance than cable panel with high strength clips. Considering the prevailing site criticalities poor geology/strata properties, seismicity, sleep slope, heavy rainfall, etc., strength knots highly high recommended. Clause 5.3.1.1, Cable panel with high strength knots, page 92: Junction Strength (copy attached) - When tested in accordance with the testing procedure explained in Clause 4.4.4 of Chapter 4, the common values of junction tearing/rupture strength for this type of panels ranges 20

kN- 24 kN.

As per Drawing Rhomboidal shape (mesh opening 83 x Kindly amened item descriptions Being an EPC contract, -1. Landslide 143) High Tensile Steel Wire Mesh, wire Ø as :contractor has to carry LOCATION-2 3.0mm, Mesh Tensile strength 150kN/m, out investigation and KM 391+690 mesh punching strength 180kN in tender High Tensile Steel Wire Mesh, wire prepare design KM specification, rhomboidal shape meshes of Ø 2.7mm - 3.0mm, Mesh Tensile drawings after detailed TO opening 83 x 143 are mentioned. These strength 150kN/m, mesh punching study and survey at 391+770 meshes may have poor mesh performance strength 180kN of double twisted site. The work is to be concern: The suggested product is a single mesh having an opening of 8x10 carried out as per the LOCATION-9 429+070 twist mesh conforming to IRC HRB Special (80mmx100mm) scope in Schedule B TO KM report, 2014. according to 429+460 standards in schedule D. Kindly refer attached IRC HRB Special As per Drawing Report-23. Clause 5.3.5 Page no. 95 and -2 96, Specification for single twist mesh. (Copy attached) SINKING LOCATION-1 1. Mesh Size: The general mesh openings 386+110 size is diamond in shape with a regular TO KM mesh opening of 8. cm x 14.3 cm (83 mm x 386+280 143mm) made by a wire of 2mm, 3mm or 4mm diameter. However, as per Caluse no. 5.3.5, Single twist mesh can have high deformations that can lead to the stripping of anchors and could cause global failure of the system. Also, in case of accidental breakage of single wire the entire mesh unravels exposing the threat of rockfall. Hence higher maintenance may be required in case of single twist mesh. In case of single twist mesh, on breakage of single wire, the whole mesh gets unravelled very easily and hence the use shall be restricted to very low hazard locations. Hence other meshes providing the same strength characteristics should be used. The general mesh openings size used for the rockfall protection works are 8x10

(80mmx100mm) and 10x12 (100mm x

120mm) with the wire diameter of the mesh wire ranging from 2.7mm to 3.0mm which are implemented in numerous government tenders designed by reputed government agencies and consultants working in close collaboration with MoRTH at projects from Himachal Pradesh and Uttarakhand with the same type of geology. Kindly amened item descriptions Being an EPC contract, per Rhomboidal shape (mesh opening 100 x 16 As contractor has to carry -1, 146) High Tensile Steel Wire Mesh, wire Ø 3 as :-Drawing out investigation and Landslide 4 mm . Mesh Tensile strength 100kN/m, LOCATION-6 mesh punching strength 160kN. In tender High Tensile Steel Wire Mesh, wire prepare design 411+380 specification , rhomboidal shape meshes of 2.7mm - 3.0mm, Mesh Tensile drawings after detailed KM opening 100 x 146 are mentioned which is strength 100kN/m, mesh punching study and survey at TO not as per IRC guidelines and also these strength 160kN of double twisted site. The work is to be 411+450 meshes may have poor performance mesh having an opening of 8x10 carried out as per the concern: The suggested product is a single (80mmx100mm) LOCATION-9 scope in Schedule B 429+070 twist mesh conforming to IRC HRB Special according to the TO KM report 23. standards in schedule 429+460 D Kindly refer attached IRC HRB Special Report-23. Clause 5.3.5 Page no. 95 and 96. Specification for single twist mesh, (Copy attached) 1. Mesh Size: The general mesh openings size is diamond in shape with a regular mesh opening of 8.3 cm x 14.3 cm (83 mm x 143mm) made by a wire of 2mm, 3mm or 4mm diameter. However, as per Caluse no. 5.3.5, Single twist mesh can have high deformations that can lead to the stripping of anchors and could cause global failure of the system. Also, in case of accidental breakage of single wire the entire mesh unravels exposing the threat of rockfall. Hence higher maintenance may be required in case of single twist mesh. In case of single twist mesh, on breakage of single wire, the whole mesh gets unravelled very easily and hence the use shall be restricted to very low hazard

| | la ationa | | T |
|---|---|---|--|
| | Hence other meshes providing the same strength characteristics should be used. The general mesh openings size used for the rockfall protection works are 8x10 (80mmx100mm) and 10x12 (100mm x 120mm) with the wire diameter of the mesh wire ranging from 2.7mm to 3.0mm which are implemented in numerous government tenders designed by reputed government agencies and consultants working in close collaboration with MoRTH at projects from Himachal Pradesh and Uttarakhand with the same type of geology. | | |
| As per Drawing- 1, Landslide LOCATION-1 KM 388+030 TO KM 388+150 Landslide LOCATION-2 KM 391+690 TO KM 391+770 LOCATION-6 KM 411+380 TO KM 411+450 LOCATION-7 KM 411+870 TO KM 411+930 LOCATION-9 KM 429+070 TO KM 429+070 TO KM 429+460 LOCATION-10 KM 432+160 TO | 3D Geocomposite mat, 6.5mm thickness, mass per unit area 600 grams/sqm, 6kN/m tensile strength in length direction & 2kN/m in cross direction The tender document states Geocomposite mat with certain strength which do not seem as per standard guideline being used .kindly refer below details taken from MORTH. Please refer MoRTH, 700 GEOSYNTHETICS Guidelines, Clause no. 706, Table 700-13 & Table 700-14: Tensile Strength Requirement for Non Reinforced/ Reinforced Three Dimensional Geosynthetic Mat for Erosion Control Application for (Less Severe Environmental Condition) / (Severe Environmental Conditions). 1. Thickness of 3 D Geocomposite mat 6.5 mm or 12mm. 2. Mass per unit area of 3D Geocomposite mat should be 250 grams/Sqm or 500 grams/Sqm 2. Tensile strength in length direction | Kindly amened item descriptions as:- 3D reinforced Geocomposite mat, 12mm thickness, mass per unit area 500 grams/sqm, with minimum 10kN/m tensile strength. | Being an EPC contract, contractor has to carry out investigation and prepare design and drawings after detailed study and survey at site. The work is to be carried out as per the scope in Schedule B according to the standards in schedule -D |



| | KM 432+270 | (i) For Non Reinforced 3D Geocomposite mat it should be 2kN/m. | | |
|-----|---|--|---|--|
| | As per | (ii) For Reinforced 3D Geocomposite mat it should be 10kN/m to 35 kN/m. | | |
| | Drawing -2 SINKING LOCATION- 1 KM 386+110 TO | (iii) Cross direction tensile strength is not mentioned in the MoRTH Guidelines for 3D mat. | | |
| | KM 386+280 | 3D Geocomposite mat, 6.5mm thickness, mass per unit area 600 grams/sqm, 6kN/m tensile strength in length direction & 2kN/m in cross direction+ Hydroseeding | | |
| | | 83 x 10 Ø 1/m, 0kN | | |
| | | VC /ith 9.0 ng. ns. | | |
| | | From the drawings, its evident that, the erosion control mats are provided on steeper slope. Considering the severity of the site and steeper slope, erosion control mat shall be reinforced with minimum tensile strength of 10kN/m and thickness of 12mm as per MORTH Section 700, Table 700-14. | | |
| 18 | RFP document, Clause no 2.2. Eligibility and qualification requirements | 2.2.1 Works of carrying out mitigation measure for unstable slopes and sinking areas for hill roads of not less than the magnitude given above. The mitigation means should include the items more than use of 7 items listed below. | (RO/UK/THDC/01, Signed on 11/10/2022) issued by The Chief Engineer office, Ministry of Road | |
| | of Bidder ,(Page -17 & 18) | High Tensile Rope Net System High tensile steel wire mess | It has been decided by the authority that the similar work should include 2 items having major component in | |
| * | | 3. Geocomposite mats | the estimate for which Bid is to be called. • | |
| i a | | Hydraulically applied erosion control products | | |
| | | 5. Sub-surface drainage pipes | Hence, in view of the above mentioned details we would like to | |

| | | 10.11 | | |
|----|----------------|--|---|------------------------------------|
| | | 6. Mechanically bonded Geotextile | request kindly list only two major | |
| | | 7. Micropiling | component for the similar work religibility criteria. | |
| | | 0.015.00 | ongionity ontona. | |
| | | 8. Self Drilling Anchors | | |
| | | 9. Rapid slope consolidator | | |
| | | 10. Multi stand pre-stressed cable anchors | | |
| | | 11. Gabion structure | | |
| | | 12. RCC, RR work in slope/ sinking zones | | |
| | | The bidder shall submit the complete details | | |
| | | of the work of the RFP of the contract | | |
| | | executed | | |
| 19 | RFP | (c) "For any proprietary products | Kindly amened descriptions as: | Please refer to |
| 19 | document, | (c) "For any proprietary products (patented/monopolistic etc.) such as | | Please refer to Corrigendum-III |
| | Local City | reinforced soil Wall/slope, Retaining Wall, | | Corrigeria di II-III |
| | 2.2.2.2 | Expansion Joints, Bridge Bearing, Pre- | | |
| | Technical | stressing Systems Commercial Stabilizer | "SSP Contractor should have | |
| | Capacity | Geosynthetics Products etc.; EPC | experience about slope stabilzation | |
| | | Contractor/Concessionaire shall ensure | work mentioned in Clause 2.2.1" | |
| | (c) Slope | signing of tripartite agreement between the | | |
| | protection and | Authority, EPC Contractor/Concessionaire | | |
| | landslide | and Technology Provider before use of such | | |
| | Mitigation | material/technology/design in NH Projects. | | |
| | projects, Page | The tripartite agreement shall have the | "Certificate of incorporation along | |
| | no. 24 & 25 | provision of involvement of the Technology | with net worth certificate certified | |
| | | Provider right from design to execution. | from a Chartered Accountant shall | |
| | | Technology Provider shall deploy the | be submitted as documentary proof. | |
| | | requisite design experts/material | Such SSP shall also be ISO 9001 | 15 |
| | : : | technologist/skilled and trained construction | certified for the last 10 years." | |
| | | supervision personnel to certify material | | |
| | | testing and material characterization for | | |
| | | design, proof check of the design, approve | | |
| | 1 | construction methodology including field trial | - | |
| | | sections before actual construction, quality | *** | |
| | | control and supervision and certification of | | |
| | | the day-to-day construction /execution. | | |
| | | (d) Since the work of slope stabilization, | | |
| | | slope protection and Landslide Mitigation | | |
| | | are specialized in nature, if the bidder fails | 2 | |
| | | to meet any of the criteria (sought above | ii . | |
| | | in) in a single project of completed value | | |
| | 1 | of work cumulatively equal to or more than | | |
| | 1 | 20% of the Estimated Project Cost, bidder | Ē | |
| | | shall enter into signing of Pre-Bid | | |
| | | | | |

Memorandum of Understanding (MoU) with a Specialized System Provider (SSP) for technical expertise including design, drawings, on-site technical assistance and other requisite services prior to bid submission date and submit the MoU along with their bid (This is one of the Essential Criteria Document of the Bidder and for technical evaluation of the bid, in case of the bidder opting for the MoU and the MoU shall form a part of the bid). If the work is awarded to such bidder, the said bidder cannot suspend the MoU with the SSP without written permission of the Authority during the pendency of the EPC Contract.

The SSP shall have completed at least one landslide rehabilitation or slope protection project in India having minimum 80 m height in which galvanized soil nails, galvanized steel mesh and ground anchors must have been used and the scope of SSP includes design, supply of specialized materials and technical assistance in the last 5 (Five) financial years preceding the Bid Due Date for roads/Railway/Metro rail/hydroelectric projects etc. In such case, the experience certificates of the SSP certified by a Government Engineer not below the rank of Executive Engineer shall be submitted along with the bid for evaluation purpose. Such SSP shall be an organization established under Indian Company's Act and must be existing in India for minimum 10 years having a minimum net worth of INR 80 Crores by end of the financial year preceding the Bid Due Date. Certificate of incorporation along with net worth certificate certified from a Chartered Accountant shall be submitted as documentary proof. Such SSP shall also be ISO 9001 certified for the last 10 years and shall possess ISO 45001 and ISO 14001 certification.

"The SSP shall have completed at least one landslide rehabilitation or slope protection

| | | project in India having minimum 80 m heigh | t | |
|----|------------------|--|-------------------------------------|--|
| | | in which galvanized soil nails, galvanized | 1 | |
| | | steel mesh and ground anchors must have | | |
| | | been used " | | |
| | | , | | |
| | | 50 | | |
| | | | | |
| | | Please refer above mentioned condition: | | |
| | | Since all works are releted to Slope | | |
| | | stabilzation, hence kindly amend that SSF | | |
| | | Contractor should have experience about | t | |
| | | slope stabilzation work mentioned in Clause | | |
| | | 2.2.1. | | |
| | | | | |
| | | As present tender condition is favouring | | |
| | | only one or two comapnies. | | |
| | | | | |
| | | | | |
| 66 | | | | |
| | | 8 | | ¥8 |
| | | We would like to bring this to your kind | | |
| | | notice that ISO 45001 cover occupational | | |
| | | health & safety management systems and | | |
| | | ISO 14001 is related to environmental | | |
| | | management systems, which are not related | | |
| | | to the material/product quality and not | | |
| | | required in designing of Slope/Rockfall | l . | |
| | | protection and Reinforced Soil wall system. | | |
| | | protection and itelinorced Soil wall system. | | |
| | | Hence, we would like to requset kindly | | |
| - | | remove this limiting specifications to | | |
| | 1 | promote healthy competition. | | |
| | | promote mediany competition. | | |
| 20 | As per RFP | Bidder need to qualify for "For normal | This work includes the specialized | Please refer to |
| | Section 7, 5.1 | | major work involving the works of | No Introductive points of the Control of the Contro |
| | for the | Bridges/ROB/Flyovers/Tunnels)" having at | | |
| | N 964 665 | least one similar work of 20% of Estimated | | 8 |
| | | Project Cost [Rs. 32.57Cr.] shall have | | |
| | | been completed from the Eligible Projects in | | |
| | Capacity) | Category 1 and/or Category 3 specified in | having credentials of Roads /Maior | |
| | (Refer Clause | | Bridges/ROB/Flyovers/Tunnels, | |
| | No. 2.2.2.2 and | | whereas considering the criticality | |
| | Defination { | | of the structure, contractor with | |
| | 2.2.2.2 (ii) } | | similar work i.e. slope protection | |
| | (11) } | | works including the works i.e. | |
| | | | Anchors, rockfall meshes on a hilly | |
| | | | terrain should be allowed in the | |
| | | | technical qualification. | |
| | | | damouton. | |
| | | | | |

| 0.1 | , DED | (c) Slope Protection and Landslide This mentioned clause shall restrict Please refer to RFP & |
|-----|-----------------|--|
| 21 | As per RFP, | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| | Clause | Mitigation projects: every prospect bidder having Corrigendum-III. |
| | 0000 | requisite credentials and |
| | 2.2.2.2 | "For any proprietary products experiences that they have earned |
| | (Technical | (patented/monopolistic etc.) such as through their work pertaining to |
| | Capacity) | reinforced soil Wall/slope, Retaining Wall, specialized slope stabilization, |
| | | Expansion Joints, Bridge Bearing, Pre-slope protection and Landslide |
| | Sub clause | stressing Systems, Commercial Stabilizer, Mitigation works with their expertise |
| | /····\ = | Geosynthetics Products etc.; EPClin execution as per the client |
| | (iii) For | Contractor/Concessionaire shall ensure requirement and design approving |
| | Stand-alone | signing of tripartite agreement between the authority. |
| - | specialized | Authority, EPC Contractor/Concessionaire |
| | projects (c) | and Technology Provider before use of such There are only a handful of |
| | Slope | |
| | Protection and | indicondinated in original and |
| | Landslide | The tripartite agreement shall have the tripartite agreement has been |
| | Mitigation | provision of involvement of the Technology signed, again this clause shall |
| | projects: | Provider right from design to execution restrict the prospect bidder, limit the |
| | 1 | Technology Provider shall deploy the fair competition and shall favour |
| 125 | | requisite design experts/material certain bidders only. |
| | | technologist/skilled and trained construction |
| | | supervision personnel to certify material We request department to |
| | | testing and material characterization for consider the similar work done by |
| | | design proof check of the design approveline contractor in line with the tender |
| | | construction methodology including field trial/requirement, and remove this rail |
| | | sections before actual construction, quality/competition restricting clause of |
| | | control and supervision and certification of tripartite agreement. |
| | | the day-to-day construction |
| | | life day-to-day constitution |
| | | |
| | | |
| | | Furth surveys the primary |
| | | Furthermore, the primary |
| | | responsibility for execution lies |
| | | solely with the contractor, while |
| | | services such as technology and |
| | | design may be associated with |
| | | SSP. Therefore, we request the |
| | | elimination of the requirement for |
| | | SSP and the credentials sought, |
| | | right from design to execution. |
| | | |
| | | |
| | | |
| 22 | As per RFP, | Since the work of slope stabilization, 1. Qualification to meet the Please refer to |
| | Clause, 2.2.2.2 | slope protection and Landslide Mitigation criteria in a single project of Corrigendum-III |
| | (Technical | are specialized in nature, if the bidder fails completed value of work equal to or |
| | | to meet any of the criteria (sought above in more than 20 % of the estimated |
| | clause (iii) |) in a single project of completed value of project cost is a must requirement |
| | For Stand- | work cumulatively equal to or more than pertaining to technical and financial |
| | alone | 20% of the Estimated Project Cost, bidder compliances hence it can't be |
| | Jaiorio . | Total of the Committee Conference of the Confere |

specialized projects & sub clause (d) for MOU with a SSP

into signing of Pre-Bid compensated by a MOU with SSP Memorandum of Understanding (MoU) with as a Specialized System Provider (SSP) for department to remove this clause or technical expertise including drawings, on- site technical assistance and requisite experience may qualify other requisite services prior to bid and submission date and submit the MoU along competition. with their bid (This is one of the Essential Criteria Document of the Bidder and for technical evaluation of the bid, in case of the bidder opting for the MoU and the MoU shall form a part of the bid). If the work is awarded to such bidder, the said bidder cannot suspend the MoU with the SSP project requirement, asking for a without written permission of the Authority common single unified requirement during the pendency of the EPC Contract. height 80 m and net worth of 80 Cr landslide rehabilitation or slope protection and same system of galvanised project in India having minimum 80 m height which galvanized soil nails galvanized steel mesh and ground anchors must have been used and the scope of SSP 3. includes design, supply of specialized remove the criteria of the special materials and technical assistance in the requirement of MOU with SSP as last 5 (Five) financial years preceding the already there are prospect bidders Bid Due Date for roads/Railway/Metrowho has executed similar kind of rail/hydroelectric projects etc. In such case, specialized the experience certificates of the SSP|stabilization, slope protection and certified by a Government Engineer not Landslide Mitigation. below the rank of Executive Engineer shall be submitted along with the bid for 4. evaluation purpose. Such SSP shall be an confirm the following in respect to organization established under Indian the min qualification criteria of an Company's Act and must be existing in eligible SSP India for minimum 10 years having a minimum net worth of INR 80 Crores by end of the financial year preceding the Bid Due # Why department has chosen Date. Certificate of

design, else any contractor not having shall restrict

mentioned.

requesting

It has been observed in all three tenders that has been floated recently of different values and of SSP i.e protection works of

we request department to work

we request department to

specifically a min. height of 80 m with galvanized soil nail, galvanized steel mesh and ground anchors, this clause shall favour one party. Also, why credentials of galvanized anchors are required as it's only a coating requirement only and shall restrict the fair competition.

Provided system for protection

| | , | | works can be of any type including Gabion facia with different coating Green facia, concrete, Anchor with any type or coating then why the credential for galvanized weld meshor galvanized soil nails has been asked, it needs to be generalized for fair competition. | |
|----|--|---|---|--|
| 23 | RFP, Pre-bid meeting venue | Pre-bid meeting venue | Kindly provide the address o | Prebid meeting held on 29.12.2023 through VC |
| 24 | Schedule – B, Construction for mitigation measures of Slope Protection work & Sinking Zones. | | Kindly provide previous history and precautionary measures which were earlier taken at the sinking zone and land slide zone | Kindly refer clause 2.5.1 of the RFP |
| 25 | Construction for mitigation measures of Slope Protection work & Sinking Zones. | Survey, Identification of extent of instability, investigations, detailed designing and execution/ construction of mitigation measures as per approved design and standards (duly certified/vetted by the design director, Proof Consultant and vetted by any THDC (Tehri Hydro Development Corporation Limited) or one of the IITs as stipulated under Article-10 and schedule-I) to be followed during construction and its stage and its maintenance for 10 years from the date of successful completion of the project / works with complete adherence of safety standards. | geological and geotechnical data to estimate the SDA/rock bolt depth. 2. Kindly provide Hydrological/ groundwater data. 3. Kindly provide type of rock class expected along the section. | Kindly refer clause 2.5.1 of the RFP |
| 26 | Schedule-B, 7. Design of Structure | | | Kindly refer clause 2.5.1 of the RFP |
| 27 | 13. Change of Scope | Any variations in the lengths specified in this Schedule-B shall constitute a Change of Scope only when it meets the provisions of Article-13 of EPC documents. Change of Scope shall not be considered when the change in length of mitigation measures is | project (purely landslide & sinking zone), financial implication of 10% is very big amount in terms of risk for any contractor. Request to | Kindly refer clause 2.5.1 of the RFP |



. .

| | within 10% of total length and the value of | the same upto 2% of total length. | |
|---|---|--|----------------------------|
| | the Contract shall remain unchanged. | | |
| | | | |
| 28 Schedule- (B-1), 14. Shifting of Utilities | 5 5 | It is requested, kindly add provision of payment for utility shifting in Schedule - H | As per Corrigendum- III |
| 29 As per Schedule A Annex-II Page No. 10 Width (m) is provided 18 m in table column 5 | | As per Schedule A Annex-II Page No. 10 Width (m) is provided 18 m in table column 5 but ROW is not provided , so Please Provide the ROW | Annexure-II, Schedule A |
| , Clause No 9.2 | Shifting of obstructing utilities: The Contractor shall, in accordance with Applicable Laws and with assistance of the Authority, undertake the work of shifting of any utility (including electric lines, water pipes, gas pipelines and telephone cables) to an appropriate location or alignment, if such utility or obstruction adversely affects the execution of Works or Maintenance of the Project Highway in accordance with this Agreement. The cost of such shifting, as per estimates prepared by the entity owning the utility and approved by the Authority, shall be reimbursed by the Authority to the Contractor. The scope of work of such shifting of Utilities shall be as indicated in Schedule-B-1. In the event of any delay of such shifting on the part of the contractor, no extension of time for completion of the project and no claims, In any manner, shall be admissible on this account against the Authority. The work of shifting of Utilities can be taken up by the Contractor any time after signing of the Agreement | Contractor. But Schedule B Clause 14 is says that the shifting of utilities and felling of trees shall be carried out by the Contractor and the cost of the same shall be borne by the Contractor. So please confirm, the cost of shifting is in the scope of Contractor or Not | |

| | | AS per Schedule B, Clause No 14 Shifting of Utilities, Page No 19 The shifting of utilities and felling of trees shall be carried out by the Contractor. The cost of the same shall be borne by the Contractor | | |
|---------|-----------------------------------|---|--|-----------------|
| re 2 | .2.2.2 (ii)and ii), | | tender, we have visited the site locations and found specialized | Corrigendum-III |
| | Q. | v | Request you to kindly amend the criteria by saying "one similar work of 20% of Estimated Project Cost executed for hill slope protection works for minimum height of 70 meter in hilly/mountainous terrain shall only be allowed". | eq. |
| 2 | Clause No 2.2.1. Page No 8. | | 5 items are non-specialized items, So we request you to kindly include major specialized items from | |
| | | High Tensile Rope Net System High tensile steel wire mess | these kind of specilized protection works. 1. High Tensile Rope Net System/ | • |
| | | 3. Geocomposite mats | Rolled Cable Net | |



| | Hydraulically applied erosion contro products | 2. High tensile steel wire mess/ Double Twisted mesh with longitudinal Ropes |
|----|---|--|
| | 5. Sub-surface drainage pipes | Rapid slope consolidator/ Rockfall Barrier/ Avalanche barrier |
| | 6. Mechanically bonded Geotextile | |
| | 7. Micropiling | 4.Micropiling |
| | 8. Self Drilling Anchors | 5.Self Drilling Anchors |
| | 9. Rapid slope consolidator | 6.Multi stand pre-stressed cable anchors |
| | 10. Multi stand pre-stressed cable anchors | 7.Hydrosheeding |
| | 11. Gabion structure | |
| | 12. RCC, RR work in slope/ sinking zones | We further request you to kindly amend the clause read as - Works of carrying out mitigation measure for unstable slopes and sinking areas for hill roads of not less than the magnitude given above. The mitigation means should include the items more than use of 5 items out of 7 in single project as listed above. |
| | | We hope that our request shall be taken into consideration |
| 33 | of stand-alone specialized projects (Major) Bridges/ROB/ Flyover/Tunnel) | this clause . So bidder is requestng , Corrigendum-III |
| | | |

| 34 | 2.11.1 (o) , page no 35 | Read as. (o) Certificate regarding/Compliance with Restrictions under Rules 144 (xi) of the General Financial Rules/(GFRs) as per format given in Appendix-IX shall be submitted by the Bidder with the RFP Bid duly signed by Authorised signatory & shall be part of the Contract Agreement. | Appendix -IX, But the Appendix -IX is BOQ Format. | Corrigendum-III |
|----|----------------------------|---|---|---------------------|
| 35 | Schedule B, Page No-17. | (i) Traffic control devices and road safety works shall be provided in accordance with the provision of relevant Manual as and when need arises or damaged by negligent working. a). Traffic Signs: Traffic signs include roadside signs, overhead signs and curb mounted signs conforming to IRC:67 and section 800 of MoRTH specification. b). Pavement Marking: Pavement markings shall cover road marking shall be provided conforming to IRC 35-2015. | Schedule B page no 18, It is Included in the scope of Work o | as per the scope |
| | | Clause No 9. Roadside Furniture To be made good the damaged road side furniture during the execution. Clause No 10. Compulsory Afforestation The number of trees which are to be planted by the Contractor as compulsory afforestation shall be as per Forest conservation Act. Clause No 11. Hazardous Locations The safety barriers shall also be provided in accordance with the provision of relevant Manual. Clause No12. Special Requirement for Hill Roads: Contractor shall follow Shall be followed in accordance with hill road manual. | | |
| 36 | As per Clause | The shifting of utilities, to an appropriate | AS per Clause -Copy of utility | Kindly refer clause |

| Utilities,. Page No 19 of Schedule | location in accordance with the standards and specifications of concerned Utility Owning Department, and felling of tress is part of the scope of work of the Concessionaire. The cost of the same shall be borne by the Contractor. The bidders may visit the site and assess the quantum of shifting of utilities for the project before submission of their bid. Copy of utility relocation plan is enclosed. The specifications of concerned Utility Owning Department shall be applicable and followed. | Document so Bidder is requesting please provide the Plan. | |
|--|---|--|--|
| 2.2.1 (B), Page No-18, | the works of steel I-girder bridge construction in hilly terrain with superstructure and protection measures for open foundation around the abutment. | If any Major Bridge/ROB/Flyover/Tunnel is (are) part of the project, then the Bidder shall necessarily demonstrate additional experience in construction of Major Bridge/ROBs/Flyovers/Tunnel in the last 10 (Ten) financial years preceding the Bid Due Date i.e. shall have completed at least one similar Bridge/ROB/Flyover/Tunnel of following sizes: (a) In case, longest span of bridge/ROB/flyover is less than or equal to 60m, no additional qualification is required. | |
| | | As per Schedule B Page No 22, Span of Major Bridge is 51.5 M which is less than 60 M so no additional qualification is required. So please remove the clause 2.2.1(B) We hope that our request shall be | |

taken into consideration. We would like to share you that the experience of using Protection measures are already defined in clause 2.2.1 (A), than again protection measures for open foundation around the abutment is mentioned in clause 2.2.1 (B) additional Kindly remove the qualification criteria. Kindly remove the experience of bridge else kindly amend the clause as "Should have experience of carrying out the works of steel Igirder bridge construction in hilly terrain with superstructure OR construction of substructure." We hope that our request shall be taken into consideration per Since the work of slope stabilization, slope As we understand, since the work Please to 38 2.2.2.2(d) protection and Landslide Mitigation are of slope stabilization and Landslide Corrigendum-III specialized in nature, if the bidder fails to Mitigation are specialized in nature, meet any of the criteria (sought above so the work should be executed by in.....) in a single project of completed value specialized agency of work cumulatively equal to or more than experience in designing, execution 20% of the Estimated Project Cost, bidder for slope stabilization works shall enter into signing of Pre-Bid Memorandum of Understanding (MoU) with For the same purpose as per clause a Specialized System Provider (SSP) for bidder shall enter into signing of design, Pre-Bid Memorandum technical expertise including drawings, on-site technical assistance and Understanding (MoU) other requisite services prior to bid Specialized System Provider (SSP) submission date and submit the MoU along with experience in at least one with their bid (This is one of the Essential andslide rehabilitation or slope Criteria Document of the Bidder and for protection project in India having technical evaluation of the bid, in case of minimum 80 m height in which the bidder opting for the MoU and the MoUgalvanized soil nails, galvanized shall form a part of the bid). If the work is steel mesh and ground anchors. awarded to such bidder, the said bidder Here we would like to understand cannot suspend the MoU with the SSP without written permission of the Authority the above required expereince is not corelating with the technical during the pendency of the EPC Contract. specification provided in tender drawings. So we request you to kindly allow only those Specialized System Provider " with experience

| | | | in at least one landslide rehabilitation or slope protection project in India having minimum 80 m height with the major items mentioned in drawings (Query SI. No 04). We hope that our request shall be taken into consideration. The bidder also requested to add the condition that SSP can sign agreement only with one bidder in | | |
|----|--|--|--|--------|-------|
| | | | particular tender not with many. | | |
| 39 | As Per DCA Clause No 19.10 (e), Page No 106 | Hood Works Farthwork, William to or Cemeral Colvert, William to or Cemeral Ceme | Which Percentage shall be govern the price adjustment of the Contract Price for Mitigation Measures, Land Slides and Sinking Zones work. Please confirm | Please | refer |
| 40 | no. 2.2.2.2 (C): | (c) Slope protection and landslide Mitigation projects: The bidder shall enter into signing of Pre-Bid Memorandum of Understanding (MoU) with a Specialized System Provider (SSP) for technical expertise including | we are well known contractor having a wide experience in the field of Road Construction, Bridges, Tunnel and other civil works. We would like to notify you that we are keen to participate in this tender and ready | 100 | refer |
| 41 | 2.2.2.2 (C):- | which says that Technology Provider shall deploy the requisite design experts/material technologist/skilled and trained construction supervision personnel to certify material testing and material characterization for design, proof check of the design, approve construction methodology including field trial sections before actual construction, quality control and supervision and certification of the day-to-day construction /execution. Kindly insert a condition in the tender saying that the both EPC Contractor/Concessionaire and Technology Provider will be responsible for the execution of the project and liable to provide the Bank Guarantee for the defect liability period of 10 years. SO that any event | SSP / Technology provider can sign the MOU with one contractor only for same project, so that there will be fair price competition for bidding. | | to |

| | | /maintenance work will arise in between 10 | | |
|----|-----------------|--|--|------------|
| | | years of guarantee shall be repair by SSP | | |
| | | as per required time frame mentioned in | | |
| | | EPC contract. | | |
| | | | | |
| | | | | |
| 42 | Contractor All | The Contractor shall effect and maintain at | As per the Article-20, Clause No. | As per RFP |
| | | its own cost the insurances specified in | | |
| | Insurance | Schedule-P and as per the requirements | | |
| | | under the Applicable Laws. | requirement to take the CAR | |
| | 20, | and the Applicable Laws. | Insurance Policy against the | |
| | 20, | | | l l |
| | Clause No. | | | |
| | 20.1 of Article | The Contents of Schedule-P of EPC | submission is as under: | |
| | | Tender / Agreement are as under: | | |
| | 20 (Insurance | a constant on O constant to the state of the | | 70 |
| | for Works and | | Due to several landslide and Natural | |
| | Maintenance.) | | Digester happened in | |
| | | 1. Insurance during Construction Period | hilly/mountainous area in the State | |
| | | 9 | | |
| | | | | |
| | | | Companies (undertakings Govt. of | |
| | | (i) The Contractor shall effect and maintain | 7 | |
| | | at its own cost, from the Appointed Date till | | |
| | | the date of issue of the Completion | I 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | |
| | - | Certificate, the following insurances for any | I THE STATE OF THE | |
| | | loss or damage occurring on account of Non | | 2 |
| | | Political Event of Force Majeure, malicious | Agreement. | |
| | | act, | | |
| | | | | |
| | | accidental damage, explosion, fire and | There is a provision in the EDC | |
| | | terrorism: | There is a provision in the EPC | |
| | | | Agreement, which gives some | |
| | | | liberty to contractor to get | |
| | | (a) incurance of Works Plant and Materials | relief/remedy from Principal | |
| | | (a) insurance of Works, Plant and Materials | Employer on account of failure to | |
| | | and an additional sum of [15 (fifteen)] per | ensure the work timely as per | |
| | | cent of such replacement cost to cover any | applicable laws in terms of Clause | |
| | | additional costs of and incidental to the | 20.4 (Remedy for failure to insure) | |
| | | rectification of loss or damage including | of Article-20 of the EPC Agreement. | |
| | - | professional fees and the cost of | | |
| | | demolishing and removing any part of the | | |
| | | Works and of removing debris of | Kaaning view of shows foots | |
| | | whatsoever nature; and | Keeping view of above facts, we | |
| | | | request your good office to kindly | |
| | | | modify in the said condition as | |
| | | (h) incurrence for the Contractor's agricument | under: | |
| | | (b) insurance for the Contractor's equipment | | |
| | | and Documents brought onto the Site by the | 1 | |
| | | Contractor, for a sum sufficient to provide | "In case the contractor fails to | |
| | | for their replacement at the Site. | produce the CAR Insurance Policy | |
| | | | produce the CAN Insulance Folicy | |

| | | | than Principal Employer will arrange | £- |
|-----|------------------------|--|--|----------------|
| | | | the Work Insured Policy and the | |
| | | (ii) The insurance under sub para (a) and | value of premium shall be adjusted | |
| | | (b) of paragraph 1(i) above shall cover the | proportionally from the Contractor | |
| | | Authority and the Contractor against all loss | Bills." | |
| | | or damage from any cause arising under | | |
| | | paragraph 1.1 other than risks which are not | | |
| | | insurable at commercial terms. | | |
| | | | | |
| 43 | Para - B. | Feasibility Report / Detailed Project Report | As per the Para-B. Documents, | Please refe |
| | Documents, | the contract of the contract o | Clause No. 2.7 Contents of the | |
| | Clause No. 2.7 | | RFP, PART-III, | 3 |
| | Contents of the | | , . , | |
| | RFP, PART-III, | | Sub Clause No. 2.7.2 of the RFP. | |
| | IXIT, FAIXI-III, | Sub Clause No. 2.7.2 – | | |
| | | 8 | | |
| | | The Draft Agreement and the Feasibility / | | |
| | | Detailed Project Report provided by the | We wish to draw your kind notice | |
| | | Authority as part of the BID Documents | that we have gone through the | |
| | | I so the same of t | complete RFP and observed that no | |
| | | The state of the s | Details Project Report (DPR) has | (4) |
| | | | been provided by the authority. | |
| | | | Hence, we request your good office | |
| | | | | |
| | | | to kindly provide Details Project | |
| | | | Report (DPR) which will help us for | |
| | | | better analysis of the Project | |
| | | * | requirements. | |
| 4.4 | Continu 1 | Did Coording about he submitted in the form | A H CE 4 1-11-E | |
| 44 | 10 m to the control of | Bid Security shall be submitted in the form | | |
| | Introduction, | of Insurance Surety Bond, Account Payee | | orrigendum-III |
| | M | Demand Draft, Banker's Cheque or | No. of the control of | |
| | | Electronic Bank Guarantee (e-Bank | of the RFP. | |
| 3 | | Guarantee). | | |
| | Bidding | _ | | |
| | Process. | | It is submitted that in Clause Na | |
| | Clause No. | | It is submitted that, in Clause No. | |
| | | Para - D, 2.20, Bid Security, Clause No. | | |
| | | 2.20.1 of the RFP. The Bidder shall furnish | | |
| | | as part of its BID, a BID Security referred to | THE STATE OF THE S | |
| | | in Clause No. 1.2.10 in form of a | | |
| | | DD/FD/Bank Guarantee issued by | other way Bid Security shall be | |
| | | nationalized bank, in favour of the Authority | furnish in form of DD/FD/Bank | |
| | | in the format at Appendix-II ("the Bank | Guarantee issued by nationalized | |
| | 1 | The state of the s | bank, in favour of the Authority in | 12 |
| | | (C. A590) | the format at Appendix-II ("the | |
| | | | Bank Guarantee") as mentioned in | |
| | | | | |
| | | | Clause No. 2.20.1 of the RFP. | |
| | | | | |
| | | | | |
| | | | Hence, we request your good office | |
| | 1 | | rionoe, we request your good office | |



to kindly confirm whether, Bid Security shall be submitted in form of Electronic Bank Guarantee (e-Bank Guarantee) or physical Bank Guarantee as per the format at Appendix-II ("the Bank Guarantee") is applicable and allowed to submit against the Bid Security. No. (d) Since the work of slope stabilization, As per the Clause No. 2.2.2.2 As per RFP 45 Clause slope protection and Landslide Mitigation Technical Capacity. Serial Number 2.2.2.2 Technical are specialized in nature, if the bidder fails (iii) For Stand-alone specialized to meet any of the criteria (sought above projects, Para-D: Capacity. Serial Number in.....) in a single project of completed value For of work cumulatively equal to or more than (iii) 20% of the Estimated Project Cost, bidder Stand-alone It is submitted that the Clause cited shall enter into signing of Pre-Bid specialized above allowing the bidders enter projects, Para-Memorandum of Understanding (MoU) with signing of a Specialized System Provider (SSP) for D: Memorandum of Understanding expertise including design, (MoU) with a Specialized System drawings, on-site technical assistance and (SSP) for technical Provider other requisite services prior to expertise including design submission date and submit the MoU along drawings, on-site technical with their bid (This is one of the Essential assistance and other requisite Criteria Document of the Bidder and for services prior to bid submission date the bidder opting for the MoU and the MoU and submit the MoU along with their shall form a part of the bid). If the work is awarded to such bidder, the said bidder cannot suspend the MoU with the SSP without written permission of the Authority|t is very clear that numbers of during the pendency of the EPC Contract. bidders will participate in this tender hence allowing the bidders enter into signing MoU with SSP should be withdrawn. The SSP shall have completed at least one landslide rehabilitation or slope protection project in India having minimum 80 m height in which galvanized soil nails, galvanized Even though, if department allowed steel mesh and ground anchors must have the bidders enter into signing MoU been used and the scope of SSP includes with SSP then the requirement of design, supply of specialized materials and technical assistance should be retechnical assistance in the last 5 (Five) instead with execuition otherwise, financial years preceding the Bid Due Dateboth contractor and SSP would not for roads/Railway/Metro rail/hydroelectrichave experience of execution of projects etc. In such case, the experience works, which is not desirable in any certificates of the SSP certified by aform.

Government Engineer not below the rank of Executive Engineer shall be submitted It is also mentioned in (d) Para-2. along with the bid for evaluation purpose. The SSP shall have completed at least one landslide rehabilitation or slope protection project in India Such SSP shall be an organization having minimum 80 m height in established under Indian Company's Act which galvanized and must be existing in India for minimum galvanized steel mesh and ground 10 years having a minimum net worth of anchors must have been used and INR 80 Crores by end of the financial year the scope of SSP includes design preceding the Bid Due Date. Certificate of supply of specialized materials and incorporation along with net worth certificate technical assistance in the last 5 certified from a Chartered Accountant shall (Five) financial years preceding the be submitted as documentary proof. Such Bid SSP shall also be ISO 9001 certified for the roads/Railway/Metor last 10 years and shall possess ISO 45001 rail/hydroelectric Project etc. and ISO 14001 certification. This specific requirement in quantity (80 m height) preferring one specific SSP to enter and technically qualify for this Bid. For a fair competition this condition and requirement should be remove so that number of bidders can participate in the tender and department may have a healthy competition. No. (d) Since the work of slope stabilization, As per the Clause No. 2.2.2.2 Please refer slope protection and Landslide Mitigation Technical Capacity. Serial Number corrigendum-III are specialized in nature, if the bidder fails (iii) For Stand-alone specialized to meet any of the criteria (sought above projects, Para-D: Serial Number in.....) in a single project of completed value For of work cumulatively equal to or more than 20% of the Estimated Project Cost, bidder shall enter into signing of Pre-Bid Stand-alone projects, Para-Memorandum of Understanding (MoU) with SSP as it is biased to prevail one a Specialized System Provider (SSP) for company only. expertise including design, drawings, on-site technical assistance and other requisite services prior to bid submission date and submit the MoU along

with their bid (This is one of the Essential Criteria Document of the Bidder and for

Clause

2.2.2.2

Technical

Capacity.

(iii)

specialized

D:

technical evaluation of the bid, in case of the bidder opting for the MoU and the MoU shall form a part of the bid). If the work is awarded to such bidder, the said bidder cannot suspend the MoU with the SSP without written permission of the Authority during the pendency of the EPC Contract.

The SSP shall have completed at least one landslide rehabilitation or slope protection project in India having minimum 80 m height in which galvanized soil nails, galvanized steel mesh and ground anchors must have been used and the scope of SSP includes design, supply of specialized materials and technical assistance in the last 5 (Five) financial years preceding the Bid Due Date for roads/Railway/Metro rail/hydroelectric projects etc. In such case, the experience certificates of the SSP certified by a Government Engineer not below the rank of Executive Engineer shall be submitted along with the bid for evaluation purpose.

Such SSP shall be an organization established under Indian Company's Act and must be existing in India for minimum 10 years having a minimum net worth of INR 80 Crores by end of the financial year preceding the Bid Due Date. Certificate of incorporation along with net worth certificate certified from a Chartered Accountant shall be submitted as documentary proof. Such SSP shall also be ISO 9001 certified for the last 10 years and shall possess ISO 45001 and ISO 14001 certification.

47 Concerning the Memorandum Understanding (MoU) with a

Specialized System Provider

Since we lack knowledge of the elements listed in clause 2.2.1, we are Please Pre-Bid talking with the specialized system provider about the MOU in relation to Corrigendum-III those issues. Please include a clause in the tender stating that the party with whom a technological memorandum has been signed must also be responsible for the project's safety during the maintenance period. The technology mus also offer a bank guarantee for the project for the same reason.

As we have also found that the experience mentioned for Specialized System Provider (SSP) does not meet the items given in drawings. So we request you to allow the company / SSP shall have completed at least one (SSP) as per and slide rehabilitation or slope protection project in India having minimum 80

refer

| | 1. | T. 1. 17 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. | | |
|----|---|--|-----------------|-------|
| | ACTOR/OF THE SECOND | m height in which major items mentioned in respective drawings must have | | |
| | | been used and the scope of SSP includes design, supply of specialized | | |
| | Landa de la constantina della | materials and technical assistance in the last 5 (Five). | | |
| | inform you that | | | |
| | we are eager | | | |
| | to be a bidder | | | |
| | in this tender. | | | |
| | | | | |
| 48 | General | As understood the bidder should have a single completed project of slope | Please | refer |
| | | stabilization, slope protection and/ or landslide mitigation work in India meeting | Corrigendum-III | |
| | | the requirements of Clause 2.2.1 of RFP, wherein the value of work should | | |
| | | cumulatively equal to or more than 20% of the Estimated Project Cost. In case | | |
| | | the bidder does not have this experience they can have MOU with a Specialized | | |
| | | System Provider (SSP) for the services and qualifying experience of SSP, | | |
| | | mentioned in this tender. | | |
| | | | | |
| | | | | |
| | | | S | |
| | | It is requested to also include the provision of JV with SSP, in this particular | | |
| | | clause, so that the bidder can have the option to either have an MOU or JV as | | |
| | | per their convenience. In such case technical eligibility criteria of JV with SSP | | |
| | | shall remain same as it is stipulated for MOU with SSP in this tender. | | |
| | | · | | |
| | | | | |
| | | | | |
| | | It is our humble submission to extend the deadline for bid submission by at least | | |
| | | 45 days from the present bid due date, considering the challenging site location | | |
| | | which requires significant time for the necessary site investigation and allied | | |
| | | works, and also taking into account this festive season of year-end and winter | | |
| | | vacation, when conducting such extensive works within stipulated time frame is | | |
| | | quite challenging. | | |
| - | | | | |
| | | | | |
| | | T | | |
| | | To maintain a smooth cash flow, it is requested that 70% of the payment be | | |
| | | released upon receipt of materials at the site on a pro rata basis. Since the | | |
| | | materials are primarily capital-intensive (some are also imported materials), the | × | |
| | | release of 70% of the payable amount against the supply of materials will be | | |
| | | beneficial for interest of the project. | | |
| | * | Ti and the state of the state o | | |
| | | | | |
| | | "Unit of measurement is liner length. Payment of each stage shall be made on | | |
| | | | | |
| | | completion of a stage in square meter not less than 10% of the total length. | | |
| | | However, considering landslide mitigation and slope protection as a specialized | | |
| | | work, therefore, to faciliate the contractor 70% of the stage payment shall be | | |
| | | released upon delivery of the materials at site." | | |
| | | | | |
| | | | | |
| | | It seems there is discrepancy in clauses of DCA and Schedule-B. As per Clause | | |
| | | The port of date | | |



| | | 1.4, in case any discrepancies "between the Clauses of this Agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail". Thus, in this case Clause 9.2 of DCA will prevail and "Shifting of obstructing utilities" is a reimbursable item. | al al | |
|----|---|--|-------------------------------|--------|
| 49 | General | Requesting for site visit | Please refer 2.5.1 of the RFP | clause |
| 50 | In Clause 1.2.4 of Section-I of RFP | There is no mention of BG. Is BG allowed for Bid Security. | Please corrigendum-III | refer |
| 51 | As per Clause 1.2.3 of RFP | , "Feasibility Report/Detailed Project Report will be provided by Authority". But it is not enclosed. | Please corrigendum-III | refer |
| 52 | As per requirement of clause 2.2.1, | Eligibility and qualification requirements of Bidder: "Works of carrying out mitigation measure for unstable slopes and sinking areas for hill roads of not less than the magnitude given above." | Please corrigendum-III | refer |
| 53 | As per Clause 2.2.2.2 (c), | "For any proprietary products (patented/monopolistic etc.) such as signing of Tripartite agreement after reinforced soil Wall/slope, Retaining Wall, award of contract & entering of pre-Expansion Joints, Bridge Bearing, Pre-bid MOU respectively. Here, we stressing Systems, Commercial Stabilizer, would like to highlight the fact that, Geosynthetics Products etc.; EPC contractor/ Concessionaire shall ensurer responsibility of Engineering signing of tripartite agreement between the Authority, EPC Contractor/Concessionaire and Technology Provider before use of such material/technology/design in NH Projects. The tripartite agreement shall have the mitigation works, which should be provision of involvement of the Technology executed only by most experienced Provider right from design to execution. Contractor. So, we hereby request requisite design experts/material signing and Pre bid MOU technologist/skilled and trained construction requirements to restrict supervision personnel to certify material unexperienced contractors from testing and material characterization for design, proof check of the design, approve construction methodology including field trial sections before actual construction, quality control and supervision and certification of the day-to-day construction /execution & As per 2.2.2.2(d), "Since the work of slope stabilization, slope protection and Landslide | | |

Mitigation are specialized in nature, if the bidder fails to meet any of the criteria (sought above in.....) in a single project of completed value of work cumulatively equal to or more than 20% of the Estimated Project Cost, bidder shall enter into signing of Pre-Bid Memorandum of Understanding (MoU) with a Specialized System Provider (SSP) for technical expertise including design, drawings, on-site assistance and other requisite services prior to bid submission date and submit the MoU along with their bid (This is one of the Essential Criteria Document of the Bidder and for technical evaluation of the bid, in case of the bidder opting for the MoU and the MoU shall form a part of the bid). If the work is awarded to such bidder, the said bidder cannot suspend the MoU with the SSP without written permission of the Authority during the pendency of the EPC Contract." The RFP relates to EPC type of contract, To be more transparent it is Being an EPC contract, wherein the Contractor has liberty to design submitted the major manufacturer contractor has to carry landslideout investigation and the system using available technologies and and designers of 2.2.2.2.(iii).(c) mitigation systems in India are: materials available in the industry. However, prepare design and looking at the specifications as mentioned in drawings after detailed (i) Maccaferri Environment contract documents it appears that setting Solutions Ltd. study and survey at up of specifications is directed to use of site. The work is to be are(ii) TechFeb India Industries Ltd. items which carried out as per the manufactured/monopolised/patented scope in Schedule B (iii) Terre Armee India particular specialised system provider. according to the standards in schedule (iv) Geobrugg Construction D. Every expert designer has its own manufacturing plants in India and same items are imported from abroad. Hence, the specification should be generic and not be customised to suit particular expert design manufacturing/agency.

We, therefore, demand that the specifications in schedule 'B' & 'D

Please refer

(Page-25) of

Request for

Proposal

(RFP) for

subjected

project work.

clause

| | | | should be revised and made generic. | |
|----|---|---|---|--------------------------------|
| 55 | RFP Clause: 2.2.2.2 Technical Capacity (B) | Technical Capacity (B) for stand-alone specialized Projects (Major Bridges/ROB/Flyover/Tunnel (iii) For stand-alone specialized projects: | We have work experience of slope A stabilization, slope protection of projects of greater than 20% of Estimated Project Cost with NHIDCL. Are we still required to sign a pre-bid Memorandum of Understanding (MOU) with a specialized System Provider (SSP)? | |
| 56 | RFP Clause: 2.20 Bid Security | In case our banker is not providing E-BG, ca Security along with an undertaking from our | | Please refer orrigendum-III |
| 57 | RFP Clause 2.2.2 Technical Capacity(i) | Kindly confirm whether the payment re Subcontract basis and not having Employer/Authority Engineer can be taken of Technical Capacity? | formal approval from Principle c | |

(Vivekanand Jaiswal)

Consultant (T)