

## Scope of Work:

Sub: Construction of road from village tarhesa to Manatu under CD activity of KDCMP.

The scope of works: The scope of works includes Earth work in surface excavation, laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, Surface dressing one coat on new surface with bitumen of specified grade and applying tack coat using hot straight run bitumen of grade VG - 10 etc. as per specification and BOQ.

## Special Terms & Conditions:

1 Before tendering, the Bidder is advised to visit the site, its surroundings, assess and satisfy themselves about the local conditions such as approach roads to the site, water & power supply, taxes, duties & levies as applicable nature of the ground and sub-soil condition, underground water table, levels, accommodations they may require etc., river regime, river water levels, other details of river and any other relevant information required by them. The Bidder may obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. Bidder shall be deemed to have considered site conditions and to have satisfied himself in all respect before quoting his rates and terms and no claim whatsoever in this regard shall be entertained by the Owner at a later date. Contractor has to maintain harmonious relation with local people and administration for smooth progress of job.

2 Contractor shall have total responsibility for all equipment and materials in his custody stores, loose, semi assembled and/or erected by him at site. The contractor shall make suitable security arrangements including employment of security personnel to ensure the protection of all materials, equipment and works from theft, fire, pilferage and any other damages and loss.

3 Contractor shall mobilize minimum of the following :1 No. WBM mixing plant of adequate capacity, 1 No. Hot Mix Plant, 1 No paver finisher equipped with electronic sensor, 1 No. Vibro Roller at construction site and additional equipment if any, required for successful completion of work shall be provided / arranged by the agency.

4 Contractor shall use new plywood formwork. All joints shall be either vertical or horizontal and shall be such as to avoid of liquid through the formwork.

5 Agency will supply all construction material required all tools and tackles and other construction support material and No material will be issued by NTPC Ltd.

6 Contractor shall depute Minimum qualified and experience person holding Civil engineering in Diploma or Degree for execution of work /testing/ measurement.

7 Contractor shall depute surveyor for taking levels throughout the works.

8 Contractor in all respects shall organize his work, systems, environment, process control documentation, tools, plant, inspection, measuring and testing equipment's etc. as per instructions of Engineer-in charge.

9 NTPC and their Consultant may depute their representative for checking and supervision of important stages of work. The contractor shall be required to provide all facilities for inspection of works at no extra cost to NTPC. Any defect in quality of work or deviations from drawings / specifications pointed out during such inspection shall be made good by the contractor in the same way as if pointed out by the NTPC Engineer, without any cost implication to NTPC.

10 Contractor shall be deemed to have fully conversant with the local conditions prevailing in State(s) where contract is operative i.e. restrictions of plying of the vehicles imposed by the Security Forces and/or local administrative and/or law enforcing agencies, also the liabilities for the security checks etc. The department will not be responsible for eventualities due to security risks/security requirements as may be required and/or imposed by the Security Forces and/or by the local administrative and/or law enforcing agencies. No claim whatsoever on this account shall be admissible.

11 As part of the contract the contractor shall provide and maintain a site laboratory for the testing of all construction materials use under the direction and general supervision of the Engineer-in-Charge or his representative/as per approved FQP.

12 All equipments shall be provided by the Contractor so as to be compatible with the testing requirements specified. The Contractor shall maintain the equipment in good working condition for the duration of the Contract.

13 The Contractor shall provide approved qualified personnel to run the laboratory for the duration of the Contract. The number of staff and equipment available must at all times be sufficient to kept pace with the sampling and testing programme as required by the Engineer-in-Charge.

14 The Contractor shall fully service the site laboratory and shall supply everything necessary for its proper functioning, including all transport needed to move equipment and samples to and from sampling points on the site, etc.

15 The Contractor shall re-calibrate all measuring devices whenever so required by the Engineer-in-Charge and shall submit the results of such measurements without delay

16 All expenditure on quality tests shall be borne by the contractor.

17 All expenditure on quality tests shall be borne by the contractor. Contractor shall use PPC cement of reputed company like Jaypee, Grasim, ACC, Ultra Tech, Ambuja, Lafarge or BIS approved.

18 Steel shall be use of reputed company like SAIL, TISCO, IISCO, RINL, Essar Steel, Ispat Industries, JSW Steel or BIS approved.

19 All materials shall be approved & checked by EIC or his representative, before using the materials.

20 The Contractor shall attend at his cost, all the meetings with the Engineer-in-Charge, other Contractors and the Consultants of the Owner for the Contract. The Contractor shall attend such meetings as and when required and fully cooperate with such persons and agencies involved.

21 Except as otherwise specifically provided in the Contract, the Contractor shall be liable and responsible for the payment of all taxes, duties, levies, royalties for construction materials and charges imposed on the contractor, its vendors and those imposed on the Contractor's equipment, materials, supplies and services to be used in the performance of the contract or furnished under the contract.

22 Efforts will be made by the Owner to hand over the site to the Contractor free of encumbrance. However, in case of any delay in handing over of the site to the Contractor, the Owner shall only consider suitable extension of time for the execution of the work. It should be clearly understood that the Owner shall not consider any other compensation whatsoever viz. towards idleness of Contractor's labour, equipment etc.

23 The Contractor shall make his own arrangement for approach to the work site including borrow/disposal areas and for movement of men, machinery, other equipment etc. required for carrying out the work included under this Contract.

24 The Owner reserve the right to hand over the site in parts progressively to the Contractor. The Contractor will be required to do work on such released fronts in parts without any reservation whatsoever.

25 Contractor shall make necessary arrangement to prevent pollution of the water in any stream, springs, nallah, river and lakes. The Contractor shall be solely responsible and liable for all damage caused by any pollution that may take place during the execution of the work.

26 Bidder shall depute well qualified and experienced personnel for administration and execution of the Contract at site in the area of planning, procurement & contracts/construction, electricals, mechanical, quality assurance, personnel, finance, safety etc.

27 The Contractor shall be required to attend all weekly site progress review meetings organized by the 'Engineer-in-Charge' or his authorized representative.

28 To achieve the required progress, two or more shifts a day may be necessary for executing the work. The period of completion and number of working days shall not be affected by the number of shifts each day. No extra amount on account of any shift work is payable to the Contractor.

29 Wherever, the work is carried out at night, adequate lighting of working areas and access paths should be provided by the Contractor at his cost. Sufficient notice should be given by the Contractor to the Engineer-in-Charge regarding the details of works in shifts so that necessary supervision could be provided.

30 All equipment, labour, materials including cement, reinforcement and the structural steel required for the enabling works associated with the entire Contract-shall have to be arranged by the Contractor only. Nothing extra shall be paid to the Contractor on this account and the unit rates quoted by the Contractor for various items in the Schedule of Items shall be deemed to include the cost of enabling works.

31 The siting and nature of all offices, huts, access road to the work areas, access tracks to work areas, bunds, sumps, channels, and all other temporary works as may be required for the proper execution of the works shall be subject to the approval of the Engineer-in-Charge. These works shall be executed by the Contractor at his own cost.

32 The Contractor shall not be permitted to sub-contract the whole or any part of the scope of work included under the package.

33 Contractor shall also maintain monthly progress strictly in accordance with detailed work schedule that will be worked out and mutually agreed upon. If the Contractor fails to maintain the above progress or to complete the work and clear the site on or before the contract or extended date of completion, he shall without prejudice to any other right or remedy of the Corporation on account of such breach, pay as agreed compensation and not as penalty as per GCC.

34 The contractor shall not object to execute any extra item, if necessary, for completion of the work with prior permission from Engineer-In-Charge. The rates of such items shall be determined as per GCC.

35 The contractor at their own cost shall cover their workmen under group insurance scheme covering workmen's liability. The insurance is to be done before start of work. CAR policy as per GCC shall be obtained by the contractor.

36 The contractor at their own cost shall comply with all statutory requirements like Insurance (Labour compensation & CAR policy), PF, Labour laws etc. as required before start of work.

37 Contractor shall preferably employ local people/Cooperative society/prospective Project affected People of NTPC Coal Mining Project.

38 All works will be executed as per CPWD and IS specifications.

39 Construction power and construction water will be arranged by Agency.

40 The contractor is to ensure safety to his workmen engaged in his job and is to follow standard safety norms. Safety items including PPEs, Safety Net, life line, First aid box etc. as required shall have to be arranged by the contractor at his own cost. The contractor at their own cost deploys minimum one Safety Officer and safety Stewart(s) as required at site.

41 The contractor at their own cost provides safety ribbon, hoarding etc and others safety provision during construction of work. No extra payment shall be made.

42 The contractor at their own cost makes diversion of the road (if required) and manage the local people. No extra payment shall be made.

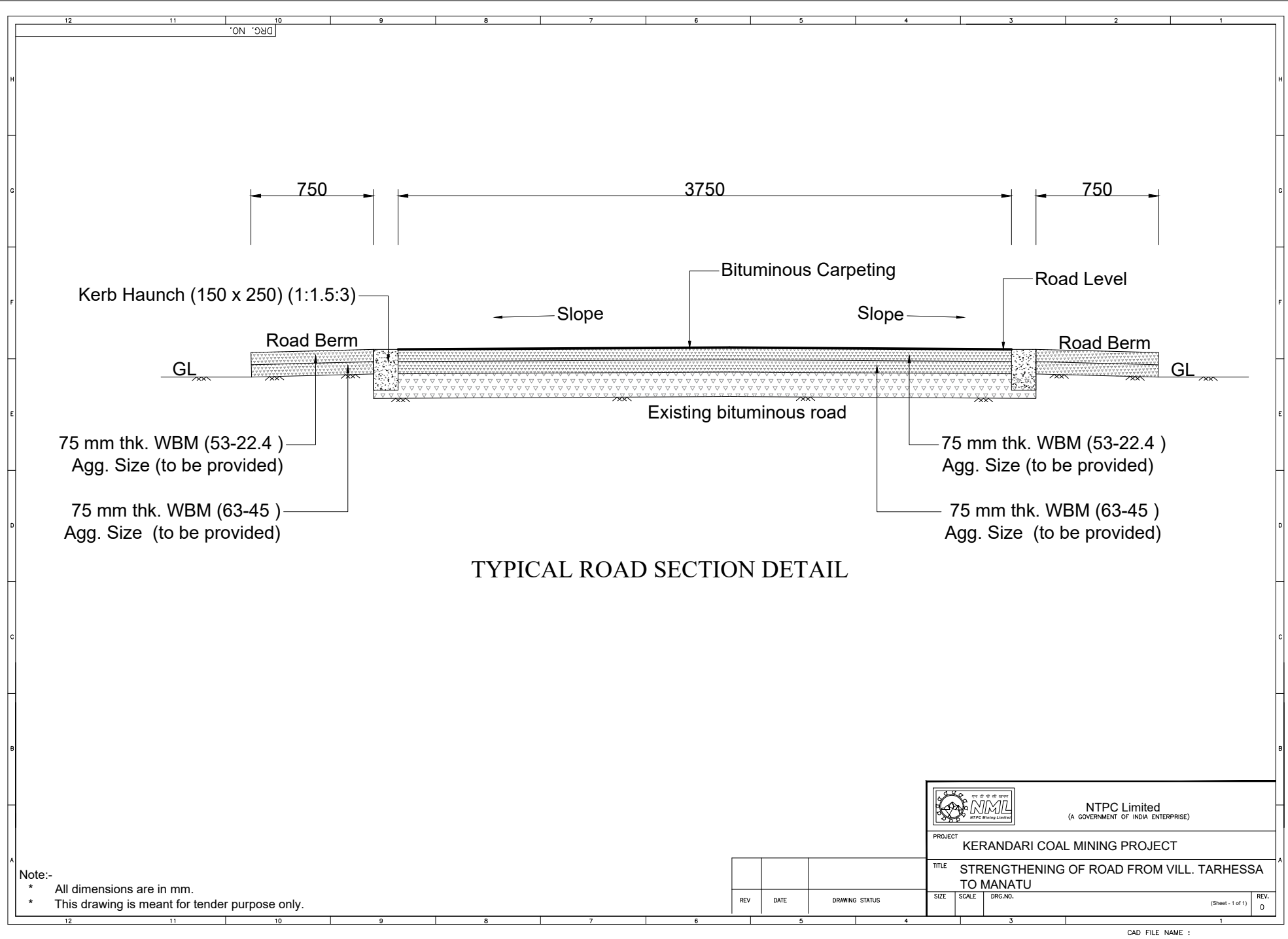
43 All other terms and conditions applicable as per GCC of works.

Contract Period

1. Job shall be completed within 06 MONTHS from the date of LOA (Letter of Award) or as direction by EIC.
2. Contractor has to mobilize adequate resources to meet his commitments to NTPC as indicated from time to time. In case due to reasons not attributable to the contractor, the work gets delayed and additional manpower / resources have to be mobilized so as to expedite the work to meet various milestones, same shall be done within the quoted rates as per Rate Schedule, at no extra cost to NTPC. In the event the contractor fails to respond to these requirements, NTPC shall take appropriate actions to meet its commitments in line with the provisions of General Conditions of Contract.
3. The work under the scope of this contract is deemed to be completed in all respects, only when all the works are carried out as per satisfaction of NTPC. The decision of NTPC on completion date shall be final and binding on the contractor.

#### Payment Terms and Conditions


1. Payment shall be released on RA bill basis on certification of EIC (Engineer in Charge) or his representative.
2. Rate shall be firm, and no escalation is payable.
3. GST may be paid as applicable or as per the provisions of the relevant Act / Rules.
4. SD/Tax deduction at source shall be made as per the provisions of the relevant Act / Rules.
5. 1% Cess will be deducted to comply statutory provisions of BOCW Act and BOCW Welfare Cess Act, 1996.
6. LD shall be applicable as per GCC of civil works.
7. Amount linked to safety shall be 2% (Minimum).
8. Defect Liability Period shall be of 12 Months



TYPICAL ROAD SECTION DETAIL

Note:-  
 \* All dimensions are in mm.  
 \* This drawing is meant for tender purpose only.

REV	DATE	DRAWING STATUS

		<b>NTPC Limited</b> (A GOVERNMENT OF INDIA ENTERPRISE)	
PROJECT <b>KERANDARI COAL MINING PROJECT</b>			
TITLE <b>STRENGTHENING OF ROAD FROM VILL. TARHESSA TO MANATU</b>			
SIZE	SCALE	DRG.NO.	REV. 0
			(Sheet - 1 of 1)

Sl. No	Activity and operation	Characteristics / instruments		Class# of check	Type of Check	Quantum Of check	Reference Document	Acceptance Norms	Format of	Remarks																				
		1	2								3	4	5	6	7	8	9	10												
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;"></td> <td style="width:15%;">Supplier's Name and Address:</td> <td colspan="5" style="text-align:center;">FIELD QUALITY PLAN</td> <td style="width:10%;">PROJECT:</td> <td colspan="4" rowspan="2" style="text-align:center;"> <b>KD CMP</b>  <b>Construction of road from village Tarhesa to Manatu under CD activity of KDCMP</b>   <b>800061179, Dtd-05.11.2024</b> </td> </tr> <tr> <td></td> <td>ITEM : CIVIL WORKS SUB-SYSTEM :</td> <td colspan="2">QP NO. : REV. NO.: 00 DATE:</td> <td colspan="2">PAGE:</td> <td>PACKAGE:</td> <td>PR No &amp; Date</td> </tr> </table>												Supplier's Name and Address:	FIELD QUALITY PLAN					PROJECT:	<b>KD CMP</b> <b>Construction of road from village Tarhesa to Manatu under CD activity of KDCMP</b>  <b>800061179, Dtd-05.11.2024</b>					ITEM : CIVIL WORKS SUB-SYSTEM :	QP NO. : REV. NO.: 00 DATE:		PAGE:		PACKAGE:	PR No & Date
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<b>ROAD WORKS</b>																														
<b>1.01 Control Of Alignment , Level and Surface Regularity</b>																														
1.01.01		Horizontal alignment	As reqd	B	Physical	100%	Section 900 of MORTH specification, NTPC Spec.	SR	√	Horizontal Alignment shall be reckoned w.r.t. the center line of carriageway, tolerance will be +/-25 mm for carriageway and +/-40 mm for lower layers																				
1.01.02		Surface Levels	As reqd	B	Physical	on a grid of points placed at 6.25m longitudinally and 3.5m transversely	Table 900-1 of MORTH Spec., NTPC Spec.	SR	√	for 10 consecutive measurements taken longitudinally, not more than one measurement shall be permitted to exceed the tolerance,																				
1.01.03		Surface Regularity of subgrade & Pavement Courses	As reqd	C	Physical	100%	Table 900-2 of MORTH Spec.,	SR	√	On rectification of irregularities the corrective measures given in MORTH spec (Clause 902.5) shall be followed																				
<b>2.00.00 Test on earth work for embankment, subgrade construction and cut formation</b>																														
2.01.00		Modified Proctor Density test	As reqd	A	Physical	1 test per 1000 SQM per stretch	IS 2720 - Part - 8	SR / TR	√																					
2.02.00		Compaction Test	As reqd	A	Physical	on each layer by taking at least one measurement of density for each 1000	IS 2780 (part28)	SR	√																					
<b>3.01.00 Test on bases and sub-bases (excluding bituminous bound bases)- WBM (Water bound mecadam)</b>																														
3.01.01		Aggregate impact value	As required/ agreed	A	Physical	1 for each source and for every change in source	IS 2386 - Part - 4	SR / TR	√																					
3.01.02		Aggregate crushing value	As required/ agreed	A	Physical	1 for each source and for every change in source	IS 2386 - Part - 4	SR / TR	√																					



3.01.03		Los Angeles Abrasion Value	As required/ agreed	A	Physical	Per 200 M3	IS 2386 - Part - 4	SR / TR	√	
3.01.04		Grading Requirements	As required/ agreed	A	Physical	Per 100 M3	IS 2386 - Part - I 16.1.1 table 16.2	SR / TR	√	
3.01.05		Flakiness Index	As required/ agreed	B	Physical	1 for each source and for every change in source	IS 2386 - Part - 1	SR / TR	√	
3.01.06		Water Absorption	As required/ agreed	B	Physical	1 for each source and for every change	IS 2386 - Part - 3	SR / TR	√	
3.01.07		Field density	As required/ agreed	A	Physical	on each layer by taking at least one measurement of density for each 1000sqm of compacted area	IS 2780 (part28)	SR / TR	√	
3.01.08		Surface level	As required/ agreed	C	Physical	6.25 m longitudinal and 2.75 m transverse	Level Survey	SR / TR		
3.02.01	Moorum	LL, PI	As required/ agreed	A	Physical/Lab	1 test per 100 M3 of moorum used	IS :2720	SR / TR		
4.01.00	<b>Test on bituminous construction (Surface dressing &amp; Bituminous Concrete)</b>									
4.02.00		Quality of binder	Penetrometer with St. needle	A	Physical	No of samples per lot	IS 73, IS 217, and IS 8887	SR/ TR	√	

4.03.00		Aggregate impact value	As required/ agreed	A	Physical	1 for each source and for every change in source	IS 2386 - Part - 4	SR / TR	√	
4.04.00		Aggregate crushing value	As required/ agreed	A	Physical	1 for each source and for every change in source	IS 2386 - Part - 4	SR / TR	√	
4.05.00		Los Angeles Abrasion Value	As required/ agreed	A	Physical	1 for each source and for every change in source	IS 2386 - Part - 4	SR / TR	√	
4.06.00		Flakiness Index	Flakiness test gauge	B	Physical	1 for each source and for every change in source	IS: 2386 - Part - 1	SR/TR	√	

4.07.00		Stripping value	Laboratory	A	Physical	initially one set of 3 representative specimens for each source of supply, subsequently on change in the equality of aggregates	IS: 6241	SR/TR	√	
4.08.00		Stability of Mix	Laboratory	A	Physical	Three marshall specimen per 100 tonnes of mix, subject to minimum of 2 sets being tested per plant per day	ASTM D 1559	SR/TR		
4.09.00		Binder Content	Field/ centrifuge type bitumen extractor, hand operated	A	Physical	One test for each 100 tonnes of mix subject to minimum of two tests per day per plant		SR/TR		
4.10.00		Thickness, Density of compacted layer	Field	A	Physical	One test of 3 samples pe 500 sqm	Appendix 'B'	SR/TR		
4.11.00		Water absorption test	Laboratory	A	Physical	initially one set of 3 representative specimens for each source of supply, subsequently on change in the equality of aggregates	IS: 2386 - Part - 3.	SR/TR	√	
4.12.00		Temperature of binder at application	Thermometer	B	Physical	At regular close intervals		SR/TR	√	
4.13.00		Grading of aggregates	Set of Sieves	A	Physical	one test per 250 cum of aggregates	IS 2386	SR/TR	√	

**Quality Assurance Plan**

Note:

- i) Before execution of any civil work the contractor shall conduct full scale suitability tests on various construction materials like cement, reinforcement steel, fine & coarse aggregates, bricks etc. in presence of Execution & FQA Dept.
- ii) For those tests which cannot be conducted at contractor's lab, Material shall be jointly sampled & sealed by contractor and NTPC engineer, thereafter, these shall be sent to concerned lab for testing through the covering letter signed by FQA engineer. Test shall be conducted by the Agency at his own cost in the presence of Agency and NTPC representative. The test report along with the recommendation obtained from laboratories shall be submitted to NTPC by the agency without delay.
- iii) Brick shall be essentially chimney burnt clay bricks of class –I designation complying all standard tests mentioned in FQP.
- iv) Cement shall be of BIS approved source having valid BIS license clearly visible week no of manufacturing over bags.
- v) Structural steel shall be as per IS Codes and of make SAIL, JSW Steel Ltd, Jindal Steel & Power, Tata steel Ltd. RINL, Arcelor Mittal Nippon Steel India Ltd, and JSW Ispat Special Products Ltd.
- vi) Reinforcement steel/TMT bars shall be of make SAIL, Jindal Panther, Tata steel Ltd. RINL, ESL Steel Ltd.
- vii) Reinforced steel & Structural steel supplied at the site shall be conforming to IS:1786 & IS:2062.
- viii) NTPC reserves the right to carry out quality surveillance of the quality management and control activities and procedure of the contractor or sub-contractor.
- ix) Agency shall send the requisition through Execution Dept for all 'A' class checks

<u>Contractor</u>	<u>Name of the work</u>	<u>*A(critical): checked / witnessed</u>	<u>For NTPC Use</u>
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Name :	<b>Technical approval for the work of "Construction of road from village Teresa to Manatu under CD activity of KDCMP"</b> <b>PR No &amp; Date: 800061179, Dtd-05.11.2024</b>	<u>by FQA; B(major)-checked /witnessed by Execution;</u> <u>C(minor)- checked/ witnessed by main contractor</u>	Reviewed by	Approved by
Sign:				Name & sign of approving authority with seal



# Kerandari 'A' CMP

Department : Proj.Civil-Const.  
Purchase Requisition : 800061179

## Service PR

PR Date : 05.11.2024  
Indent Type : Normal  
Brief Description: : Construction of road from village tarhesa to Manatu and strengthening of existing road from Pikri bridge to Lochar river bridge under CD activity of KDCMP.  
Estimated Value ₹ 20,687,653.60 (INR TWO CRORE SIX LAKH EIGHTY-SEVEN THOUSAND SIX HUNDRED FIFTY-THREE AND SIXTY PAISE ONLY)  
Defect Liability Period : 12 MONTHS  
Completion Period : 180 DAYS

Currency Code: : INR  
EIC : DGM/AGM

SNo.	Code	Service Description	Tracking MPN	UOM	Quantity	Delivery Date	Estimated Price( ₹ )
00010		SCHEDULE ITEMS	102997	AU	1.000	30.11.2024	20,687,653.60
10.10	CVDSR1802001	DSR-2018 Item:2.1.1		M2	270		78.67
10.20	CVDSR1802052	DSR-2018 Item:2.25		M3	700		186.70
10.30	CVDSR1804018	DSR-2018 Item:4.4.1		M3	340		6,128.97
10.40	CVDSR1804016	DSR-2018 Item:4.3.2		M2	2,700		517.91
10.50	CVDSR1815002	DSR-2018 Item:15.2.1		M3	30		1,476.83
10.60	CVDSR1816004	DSR-2018 Item:16.3.2		M3	1,775		1,305.30
10.70	CVDSR1816005	DSR-2018 Item:16.3.3		M3	1,775		1,487.29
10.80	CVDSR1816012	DSR-2018 Item:16.3.10		M3	600		686.63
10.90	CVDSR1816013	DSR-2018 Item:16.4		M3	3,550		652.16
10.100	CVDSR1816042	DSR-2018 Item:16.28.1		M2	16,875		134.26
10.110	CVDSR1816044	DSR-2018 Item:16.30.1		M2	16,875		35.74
10.120	CVDSR1816045	DSR-2018 Item:16.30.2		M2	16,875		28.60
10.130	CVDSR1816065	DSR-2018 Item:16.39.1		M2	16,875		334.05
10.140	CVDSR1816103	DSR-2018 Item:16.62		M2	900		516.21
10.150		Deduction for using PPC over OPC		PBG	2,720		47.00-



A Maharatna Company

Prepared By  
Ashutosh Kumar  
MANAGER

## Kerandari 'A' CMP

Department : Proj.Civil-Const.  
Purchase Requisition : 800061179

Approved By



# Kerandari 'A' CMP

Department : Proj.Civil-Const.  
Purchase Requisition : 800061179

## SERVICE DESCRIPTION

SNo.	Service Code	Service Short Text
Service Long Text		
10.10	CVDSR1802001	DSR-2018 Item:2.1.1
As per DSR 2018		
10.20	CVDSR1802052	DSR-2018 Item:2.25
As per DSR 2018		
10.30	CVDSR1804018	DSR-2018 Item:4.4.1
As per DSR 2018		
10.40	CVDSR1804016	DSR-2018 Item:4.3.2
As per DSR 2018		
10.50	CVDSR1815002	DSR-2018 Item:15.2.1
As per DSR 2018		
10.60	CVDSR1816004	DSR-2018 Item:16.3.2
As per DSR 2018		
10.70	CVDSR1816005	DSR-2018 Item:16.3.3
As per DSR 2018		



A Maharatna Company

# Kerandari 'A' CMP

Department : Proj.Civil-Const.  
Purchase Requisition : 800061179

10.80	CVDSR1816012	DSR-2018 Item:16.3.10
As per DSR 2018		
10.90	CVDSR1816013	DSR-2018 Item:16.4
As per DSR 2018		
10.100	CVDSR1816042	DSR-2018 Item:16.28.1
As per DSR 2018		
10.110	CVDSR1816044	DSR-2018 Item:16.30.1
As per DSR 2018		
10.120	CVDSR1816045	DSR-2018 Item:16.30.2
As per DSR 2018		
10.130	CVDSR1816065	DSR-2018 Item:16.39.1
As per DSR 2018		
10.140	CVDSR1816103	DSR-2018 Item:16.62
As per DSR 2018		
10.150		Deduction for using PPC over OPC