

Corrigendum

No.IIT Mandi (CW)/SE-1628/2024-25/1353-55

Dated: 02-09-2024

In continuation of this office e-NIT No. IIT Mandi (CW)/SE-1628/2024-25/1184-86 Dt. 09-08-2024 for the work:-

Construction of gabion wall and protection wall at various location at south campus (SH: construction of toe wall, RCC walls resting at bundled SDRA foundation base and gabion cascade near A-1 and A-7 academic blocks at South Campus of IIT Mandi).

Following clarification/addition are done in different item & in the special condition.

1. A note has been added below the **item No. 15** [Revised item attached].
2. In the **page No. 29** of the special condition the minimum yield load and minimum ultimate load value are revised [Details attached].

Further, the dates are extended as below due to administrative reasons:

1. The last date of submission of bids online 09-09-2024 at 06:00 P.M.
2. The date of opening of e-tenders will be 11-09-2024 at 03:30 P.M for technical bid.

All other terms and conditions shall remain the same. This corrigendum shall form part of the tender document.

For details of e-NIT visit our website <https://www.iitmandi.ac.in/tenders.php> & CPP Portal <http://eprocure.gov.in/eprocure/app>

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1. Notice Board
2. Central Public Procurement Portal
3. IIT Mandi Website

Sd/-
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2.2 Physical and Mechanical Properties

Product Name	Test Method	Chemical Composition (in%)							
		C	Si	Mn	P	S	Cr	Ni	Cu
Self Drilling Anchor	ASTME-415:2017	0.41	0.22	0.62	0.02	0.004	0.9	-	-
Outer Diameter (mm)		38							
Inner Diameter (mm)		19							
Min yield Load (Kn)		400							
Min ultimate load (Kn)		500							
Min Elongation (%)		6							
Thread type		ISO 10208							
Type of steel		EN 10083-1							
Thread (Left/Right hand)		Left or Right							
Length (m)		5x, 6x, 7x							
Options of anti corrosion		Epoxy coating, hot dip galvanisation							

1.0 INSTALLATION

- The SDA is driven in the required position with help of sacrificial drill bit at the bottom of the anchor bar which facilitates in drilling the hole. The diameter, length and spacing of SDA shall be as specified.
Anymore / lesser length or spacing of anchoring/nailing shall be carried out as per site condition and as directed by engineer-in-charge.
- The grout is pumped through the hollow bar during the drilling process. Grouting shall be done by using OPC grade 53 along with addition of suitable admixture. Mixing shall be done along with potable water so as to form the cementitious paste.
- The base plates of size 200mmx200mmx10mm shall be placed at rock interface for tightening the nuts.
- The fascia (if applicable) shall be installed in front and connected to the steel rods with base plate and nuts.

Equipment to be deployed on site

- Grout agitator
- Compressor – 450 to 600 CFM
- Drilling equipment per cushion/rotary type
- Expansive plasticizing agent for cement grouts shall be used, typical brand name DR.FIXIT PIDICRETE AM or FOSROC Cebex 100

2.0 Boulder Apron laid in Wire Crates:-

Mechanically woven wire crates shall be made of hot dipped galvanized mild steel wire of diameter not less than 2.2 mm having minimum tensile strength 350 MPa conforming to 18:280. The

Schedule of quantity

Name of Work: Construction of gabion wall and protection wall at various location at south campus (SH: construction of toe wall, RCC walls resting at bundled SDRA foundation base and gabion cascade near A-1 and A-7 academic blocks at South Campus of IIT Mandi).

Sl. No.	DESCRIPTION OF ITEMS	Qty.	UNIT	RATE (INR)	AMOUNT (INR)
1.	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth, 1.5m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth, within all lead and lift as directed by Engineer-in-Charge. a) All kinds of soil as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.	10463.15	Cum		
2.	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth within all lead and lift as directed by Engineer-in-Charge. a) Hard rock (blasting prohibited) as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.	3495.00	Cum		
3.	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50m outside the periphery of the area cleared as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.	2454.00	Sqm		
4.	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering within all lead and lift.	12190.00	Cum		
5.	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :	2250.00	Cum		

	a) 1:2:4 (1 cement : 2 coarse sand(zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources) as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.				
6.	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : a) 1:3:6 (1 Cement : 3 coarse sand(zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.	12.00	Cum		
7.	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : a) 1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources) as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.	443.00	Cum		
8.	Centering and shuttering including strutting, propping etc. and removal of form work for : a) Retaining walls, return walls, walls (any thickness) including attached pilasters, buttresses, plinth and string courses fillets, kerbs and steps etc. as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.	3000.00	Sqm		
9.	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : a) 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size) as per entire satisfaction and direction of Engineer -in-charge including carriage of material	1083.00	cum		

	within all lead and lift.				
10.	Centering and shuttering including strutting, propping etc. and removal of form for : a) Foundations, footings, bases of columns, etc. for mass concrete as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.	943.00	Sqm		
11.	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. a) Thermo-Mechanically Treated bars of grade Fe-500D or more as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.	242710.00	Kg		
12.	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources and using recycled concrete aggregate (RCA) as coarse aggregate and fine aggregate within permissible utilization of 20% each, Portland Pozzolana /Ordinary Portland/Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement a) All works upto plinth level i) Concrete of M25 grade with minimum cement content of 330 kg /cum as per entire satisfaction and direction of	784.00	Cum		

	Engineer -in-charge including carriage of material within all lead and lift.				
13.	<p>Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources and using recycled concrete aggregate (RCA) as coarse aggregate and fine aggregate within permissible utilization of 20% each, Portland Pozzolana /Ordinary Portland/Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete.</p> <p>Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement</p> <p>a) All works upto plinth level</p> <p>i) Add for Extra Cement in terms of design mix over the specified cement content therein as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.</p>	207.90	quintal		
14.	<p>A/R Providing and fixing 110mm dia Unplasticized rigid PVC pipe of required size for weep holes in plum concrete walls including cutting,placing and fixing in required slope all complete as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.</p> <p>a)110mm dia as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.</p>	749.00	mtrs		
15.	Cement pressure grouting through	2025.00	Bag		

	<p>Hollow/Solid Rock anchor of outer dia 76/51/38/32/25 in rock/overburden including all cost of material and equipments required to complete the grouting work at desired pressure</p> <p>a) outer dia 76/51/38/32/25 as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.</p> <p>Note: The rate shall include all the operations needed for the execution of the item above and the cost of plasticizer etc. The payment shall be based on number of cement bags consumed.</p>				
16.	<p>Supply and installation of Self driven rock anchor made of 40CR material with outer dia of 38mm and inner dia 19mm, Yield load carrying capacity of min 400kn/m in soil/overburden /rock suitable for drilling, placing and cement grouting. Installation with all accessories such as 76 mm dia drill bit, coupler, 10mm thick base plate and nut and bolt complete in all respect but excluding the cost of cement grouting which will be paid extra as per relevant BOQ item.</p> <p>a) 40CR material with outer dia of 38mm and inner dia 19mm as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.</p>	1350.00	Mtrs		
17.	<p>Providing & making Gabion structure with Mechanically Woven Double Twisted Hexagonal Shaped Wire mesh Gabion Boxes as per IS 16014:2012, MORTH Clause 2500, of required size, Mesh Type 10x12 (D=100 mm with tolerance of $\pm 2\%$) zinc coated, Mesh wire diameter 3.0 mm, mechanically edged/ selvedged with partitions at every 1m interval and shall have minimum 10 numbers of openings per meter of mesh perpendicular to twist, tying with lacing wire of diameter 2.2mm, supplied @3% by weight of Gabion boxes, filled with boulders with least dimension of 200 mm, as per drawing, all complete as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.</p>	6563.00	cum		

18.	Providing and laying hard stone filing/soling including carriage of material with in all lead & lift as per entire satisfaction and direction of Engineer - in - charge.	421.00	Cum		
19.	Providing, laying and fixing of membrane with Geotextile, 120 gsm non woven, 100% polyester of thickness 1 to 1.25 mm rapped to the backside of gabion walls as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.	2100.00	Sqm		
20.	Supplying and laying high strength flexible geogrids (HSFG) as soil reinforcement / basal reinforcement as per MORTH 3100 and IRC 113, made of high tenacity polyester core with polyethylene coating with Minimum Long Term Design Strength (LTDS) of more than 50% of ultimate tensile strength at 30 degree Celcius corresponding to 12 % strain. Ultimate tensile strength- 800 kN/m as per entire satisfaction and direction of Engineer -in-charge including carriage of material within all lead and lift.	2100.00	Sqm		
	Total				

Note:-

- 1. Quoted rate should be inclusive of all applicable taxes including GST (nothing extra shall be payable).**
- 2. All Statutory deduction will be made as per prevailing rates.**

Sd/-
Superintending Engineer