## Corrigendum

### In tender document

Tender Enquiry No. 47/01/Earthing & LT cable works (Elect.) / 2018 /Ris /Es-162 Dated: 05-03-2018

As per schedule, Pre- Bid meeting of Earthing & LT cable works for 25 Nos OTs of Trauma Center and Hospital complex (SH:- Electrical work.) at AIIMS Rishikesh." was held on 05-03-2018 at 11.00 AM, in the office of Executive Engineer.

Following modification (deletions/additions/replacements) additions for Tender Enquiry no: - 47/01/Earthing & LT cable works (Elect.) / 2018 /Ris /Es-162 has been made.

- 1. Query was raised whether contractor of State Government listed contractor are also Approved and eligible for NIT on Page 03. Notice Inviting Tender. Clarification: - Approved and eligible contractor of State Government contractor are also eligible for NIT No. 47/01/Earthing & LT cable works (Elect.) / 2018 /Ris /Es-162.
- 2. Query regarding extension of tender submission date. Clarification: last date of Submission of tender is extend up to 21.03.2018 3.00PM and opening date is 23.03.2018 at 11.00AM.
- 3. Query regarding point wise
  - a. According to your design of item no. 1, IR value can't be decided without Knowing the resistivity of soil & the area of work where it has to be done. So Kindly clarify the resistivity of soil.
  - b. Kindly clarify breaking capacity, type of MCCB's, spreader link & Rotary Handle which is not mentioned in item no. 8.
  - c. Kindly clarify the make, type & design of Rising Main/ Bus Trunking of Item no. 10.
  - d. Kindly clarify Rotary handle which is not mentioned in Item No. 9.

#### Clarification

- a. Copy of Test report uploaded
- b. Breaking capacity of MCCB,s 400A 35 KA, 200A 16 KA, 63 A 16 KA
- c. Make C&S, Type Sandwich, Design- PIBX-B-200
- d. All MCCB's Rotary handle operated.
- 4 Work Completion period of above work is 3 month from the date of award.
- 5 Cable, Copper Flat and cable Tray may be 100% deviate.

# CHAPTER - III ELECTRICAL RESISTIVITY SURVEY

#### 3.1 INTRODUCTION

The work of electrical resistivity was conducted for AIIMS building like Institutions at Rishikesh for determination of strata of site.

#### 3.2 EXPERIMENT

The distance was fixed horizontally 10.00 meters and resistance of 10 ohms in the investigation the three spots were selected and testing was done at 10.00 metres distance for 3 points both on right and left from fixed central point. The readings have been tabulated in tables 1-3. The resistivity is were calculated and given in the separate tables 4-6 and strata have also been mentioned against them.

#### 3.3 FIELD INVESTIGATION

Electrical Resistivity test was conducted at the site at one point location as directed by Engineer in charge and observed values are as under:

Table - 1 (PIT NO. 1)

Distance (meter)	L.H.S. (R = E/I)	R.H.S (R = E/L)
10	0.03	0.06
20	0.15	0.16
30	0.16	0.15
40	0.12	0.13
50	0.14	0.15
60	0.16	0.16
70	0.16	0.17
80	0.18	0.18

Table - 2 (PIT NO. 2)

Distance (meter)	L.H.S. (R = E/I)	R.H.S (R = E/L)
10	0.04	0.08
20	0.17	0.18



Distance (meter)	L.H.S. (R = E/I)	R.H.S (R = E/L)
30	0.19	0.16
40	0.17	0.19
50	0.14	0.19
60	0.16	0.18
70	0.17	0.17
80	0.18	0.19

## Table - 3 (PIT NO. 3)

Distance (meter)	L.H.S. (R = E/I)	R.H.S (R = E/L)	
10	0.07	0.08	
20	0.17	0.17	
30	0.08	0.19	
40	0.16	0.17	
50	0.18	0.18	
60	0.19	0.18	
70	0.20	0.20	
80	0.23	0.23	

## 3.4 CALCULATION OF RESISTIVITY

Table - 4 (PIT NO.1)

	P=2 π DR where R=E/I		
	L.H.S.	R.H.S	
Distance (meter)	Ohm meter	Ohm meter	
10	2.X3.143X1000X0.03=188.58	2.X3.143X1000X0.06=377.16	
20	2.X3.143X2000X0.15=1885.80	2.X3.143X2000X0.16=2011.52	
30	2.X3.143X3000X0.16=3017.28	2.X3.143X3000X0.15=2828.70	
40	2.X3.143X4000X0.12=3017.28	2.X3.143X4000X0.13=3268.72	
50	2.X3.143X5000X0.14=4400.20	2.X3.143X5000X0.15=4714.50	
60	2.X3.143X6000X0.16=6034.56	2.X3.143X6000X0.16=6034.56	
	2.X3.143X7000X0.16=7040.32	2.X3.143X7000X0.17=7480.34	
<u> </u>	2.X3.143X8000X0.18=9051.84	2.X3.143X8000X0.18=9051.84	

Table - 5 (PIT NO.2)

	P=2 ∏ DR where R=E/I		
	L.H.S.	R.H.S	
Distance (meter)	Ohm meter	Ohm meter	
10	2.X3.143X1000X0.04=251.44	2.X3.143X1000X0.08=502.88	
20	2.X3.143X2000X0.17=2137.24	2.X3.143X2000X0.18=2262.96	
30	2.X3.143X3000X0.19=3583.02	2.X3.143X3000X0.16=3017.28	
40	2.X3.143X4000X0.17=4274.48	2.X3.143X4000X0.19=4777.36	
50	2.X3.143X5000X0.14=4400.20	2.X3.143X5000X0.19=5971.70	
60	2.X3.143X6000X0.16=6034.56	2.X3.143X6000X0.18=6788.88	
70	2.X3.143X7000X0.17=7480.34	2.X3.143X7000X0.17=7480.34	
80	2.X3.143X8000X0.18=9051.84	2.X3.143X8000X0.19=9554.72	

PIT NO.3 (Table No. 6)

	P=2 ∏ DR where R=E/I	
<del></del>	L.H.S.	R.H.S
Distance	R = E/I	R = E/I
(meter)	Ohm meter	Ohm meter
10	2.X3.143X1000X0.07=440.02	2.X3.143X1000X0.08=502.88
20	2.X3.143X2000X0.17=2137.24	2.X3.143X2000X0.17=2137.24
30	2.X3.143X3000X0.18=3394.44	2.X3.143X3000X0.19=3583.02
40	2.X3.143X4000X0.16=4023.04	2.X3.143X4000X0.17=4274.48
50	2.X3.143X5000X0.18=5657.40	2.X3.143X5000X0.18=5657.40
60	2.X3.143X6000X0.19=7166.04	2.X3.143X6000X0.18=6788.88
70	2.X3.143X7000X0.20=8800.40	2.X3.143X7000X0.20=8800.40
<b>8</b> 0	2.X3.143X8000X0.23=11566.24	2.X3.143X8000X0.23=11566.24

#### 15 CONCLUSION

The interpretations of results have been done on the basis of I.S 1892-1979. They indicate that the strata up to 10.00 metres depth is dry in nature which resembles with the results already obtained from soll exploration. The depth was measured from mid point of the actual location. The value up to



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20 meter indicates that the strata are clayey soil. From 20.00 meter to 50.00 meter the strata indicate lime stone and then after moraines as per I.S. 1892-1979, Page -38.

Upto 30 mtr. Morainies

Upto 40mtr. Sand Stone

Upto 70 mtr. Granite

Then after Rock Salt