

दक्षिणपूर्वरेलवे / **South Eastern Railway**  
(प्रधानमुख्यविद्युतअभियंताकाकार्यालय, गार्डनरीच, कोलकाता -700043)  
(Office of the Principal Chief Electrical Engineer, 11, Garden Reach Road, Kolkata-43)

**File No:** SER-HQ0ELEC(POWR)/51/2023-O/o DY.CESE/GRC/SER **दिनांक:/Date:** 15.07.2024

To,

**Sr.DENs/Co-ord, Sr.DSTE & Sr.DEE (G)** of ADA, CKP, KGP, RNC Divisions, SRC  
**Sr.DEN/GRC, DyCESE/GRC, AEE/G/GRC**

**Sub:** JPO on Concealed electrical/telecom wiring, location of switch boards/points for lights and fan etc, its plan and execution in buildings Including composite Tender.

**Ref:** CE's CIRCULAR's NO. Maint/BLDG/Pt V; Dated: 14/11/2014. (Attached)

**JPO vide Sub & ref above is re-circulated for reference and implementation by concern Officials.**

Encl. As above

Digitally Signed by Neeraj  
Kumar Verma  
Date: 15-07-2024 15:19:01  
Reason: Approved

नीरज कुमार वर्मा  
**CHIEF ELECTRICAL GENERAL ENGINEER**

**Copy to:**  
**Secy.to GM: For kind information of GM Sir.**  
**PCE, PCEE, PCSTE, CAO/C/GRC**  
**DRM/ADA, CKP, KGP, RNC**  
**CE(G), CE/TP**

दक्षिण पूर्व रेलवे  
South Eastern Railway

कार्यालय प्रधान मुख्य इंजीनियर  
गार्डन रीच, कोलकाता-43

CE's CIRCULAR NO. - 281

Sub: JPO on Concealed electrical/telecom wiring, location of switch boards/points for lights and fan etc., its plan and execution in buildings including Composite Tender.

Concealed wiring gives a neat installation as cables are hidden. It is also more economical than an open wiring system because it is quicker to put and requires less cable length.

In all new Buildings/Renovation works the wiring should be concealed which means that the cables go in conduits inside the walls and across the ceiling. These conduits must be put up before roof casting as well as plastering of the walls. The conduits must go through wall and roof in straight lines. The cable should be pulled through the conduit by means of steel/nylon/fish wire.

However, a concealed wiring system will be difficult to install once the slab is casted or wall is plastered and finished.

To avoid this following should be adhered to:

- 1) Electric wiring diagram must give full information about the concealed electric installation. It must show different circuits that go from the fuse box to all outlets like switches, sockets, power points, fan, light etc. The diagram must provide accurate information about the required dimension of cables according to the amount of current they will carry.
- 2) Location of switches, points for lights/fans and other utilities as applicable sh ll also be part of such drawings conforming to furniture layouts etc. in terms of C.S. no. 10 of IRWM. It must show the location including height from floor and side of all fittings including switch board etc.
- 3) Concealed wiring plan for telephone, internet and TV cable (if any) should also be a standard part of electrical wiring diagram. (Distinguished by suitable colour and line style).
- 4) All electrical/telecom drawings for civil structure in addition to being signed by Elect(G) and S&T officials must have signature of sectional DEN/Sr.DEN and Sr.DEN/Co.
- 5) Civil work such as roof casting & plastering should not be started unless drawing as (iv) above is finalized.
- 6) No electrical/telecom work should be allowed without an approved drawing having signature of officials mentioned above.
- 7) Electrical work in the new construction/renovation shall be permitted only after the go ahead of Sr.DEN & Sr.DEE (G).

- 8) In every building estimate 0.5% cost of the estimate should be earmarked for provision of telephone/telecom facilities.

To achieve better coordination for building works Composite Tender (Civil + Elect(G) works & Telecom works) should be called by Engineering department. For this following procedure should be adopted.

- a) The Tender schedule for Elect(G)/Telecom works should be prepared by Elect(G)/Telecom department duly approved by DEE(G)/SrDEE(G) & DSTE/Sr DSTE along with all special conditions and incorporated as a separate schedule in composite tender.
- b) Separate rates should be called for Elect(G) and Telecom schedules.
- c) As far as possible third member of TC for such work should be from Elect(G) department. If not then rate analysis and justification should be called from branch officer of Elect(G) and same should be referred in TC. Similarly for Telecom works also rate analysis and justification should be called from branch Officer of S&T department.
- d) Work order, Execution, Supervision, Measurements, Test Checks etc for Elect(G)/Telecom works shall be done by Elect(G)/Telecom department as it is done for their own contract. Billing shall be done by Engineering department.

*(V.K. Aggarwal)* 14/11  
CEE/SER

*(A.V. Silva Prasad)* 13/11  
CSTE/SER

*(R.K. Aggarwal)* 14/11  
PCE/SER

No4/Maint/BLDG/Pt V

Dated - 14.11.2014

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