

Scope of Work

EOB Wi-Fi Access Point network cabling installation

I. GENERAL

The purpose of this project is to install new data network category 6A (CAT6A) solid copper cabling to support the installation of ceiling mounted Access Points (AP). The cable runs will be from designated communications closets/server rooms to the Access Points which will be located on the 1st, 2nd and 3rd floors of the Existing Office Building (EOB).

II. Locations of work:

US Embassy Bangkok Existing Office Building (EOB)
1st, 2nd and 3rd floors

III. Cabling Work Detail:

1. Provide and install Cat6A 23AWG UTP, Solid, 100% Pure Copper, Plenum CMP cable from communication closets/server rooms located on the 1st, 2nd, and 3rd floors to each ceiling drop at the locations specified during the survey.
2. The contractor will provide and install new J-hook cable and wire management support system in hallways and offices above drop ceilings as indicated during the survey.
3. Provide and install new floor standing or wall mount cabinet size-appropriate communication racks with Cat6 patch panels mounted inside for each communication closet and server room that will have new cabling. Terminate new cable runs to these patch panels and dress the cables neatly.
4. Test and label all new drop locations and patch panels.
5. All cable terminations will maintain the twists of the pairs as close as possible to the point of termination, no more than 2 cm untwisted.
6. No plastic cable "zip" ties will be used for cable management. Cables dressing should be should grouped together using Velcro straps or similar, easily removable equipment.
7. All exposed CAT-6A must be in Panduit or conduit.
8. The vendor must coordinate with ISC and FM for cabling/installation standards and routing.

IV. Network Cabling Post-Installation Testing:

1. Each drop must be tested to CAT-6A standards with CAT-6A certified test equipment. A full report listing the performance of all drops must be provided to Embassy ISO.
2. Contractor will perform and document continuity and wire map testing on each cable installed between drops and patch panels to ensure that the cable pairs are properly connectorized.
3. Contractor will perform and document link attenuation tests on each cable installed between drops and patch panels. Maximum attenuation levels are:

Frequency (MHz) CAT-6	Link Test (dB) CAT-6
1	3
4	3.5
8	5
10	5.6
16	7
20	7.9
25	8.9
31.25	10
62.5	14.4
100	18.6
200	27.4
250	31.1

4. Contractor will test and document NEXT (crosstalk) on each cable installed between drops and patch panels using a Level III certified field tester.
5. Contractor will test and document DELAY and DELAY SKEW on each cable installed between drops and patch panels using a Level III certified field tester.
6. Any cabling failing to meet these test standards will be fixed by the contractor at their expense.

Timing of Work:

All work will be completed after business hours (5pm) and on Weekends in order to minimize impact on network users. Contractor will coordinate with ISC on exact scheduling.