

## BICS Program for Building Facilities

**BICS = Building Industry Consulting Services (LEC Engineer who coordinates facilities for telecom construction)**

- **ILEC = Incumbent Local Exchange Carrier (i.e. AT&T, Verizon, etc.)**
- **CLEC = Competitive Local Exchange Carrier (i.e. Cbeyond, Windstream, etc.)**

The following information is provided as a guideline for those wishing to request new infrastructure services into new buildings in most cases for the purpose of ordering new ILEC/CLEC services for their facility.

Please be sure that the following requirements have been met and that someone involved in the project has been working with BICS to get the *site certified*. The general contractor is typically the person that coordinates with them. If these facilities are not in place it will delay the install of the T-1 and other services so this is very important!

### **BICS Guidelines for Support Structures**

- 2" to 4" Schedule 40 PVC or metallic conduit(s) from the property line to the building(s).
- A closet or equipment room to locate telecom equipment. Floorspace requirements vary depending on the size and characteristics of the building.
- One or more 120VAC power outlets. Some buildings may require 240VAC.
- 4' X 8' X 3/4" plywood backboard(s)
- Conduit, ceiling space, underfloor duct or other type of enclosed raceway from equipment rooms to tenant spaces.
- 4" riser sleeves between floors of a multi-story building. Firestop material to be installed after cable placement.
- #6 AWG insulated wire from the building's grounding electrode system. Larger diameter wire may be needed in some cases.

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BellSouth Building Industry Consulting Service - 678-354-3793

Q: At what point in my project should I contact AT&T's BICS?

A: In the planning/pre-bid stage; to ensure that proper support structures are included in your construction specifications.

Q: What kind of support structures are required to be installed by the owner?

A: Usually structures that become "fixtures" of the property such as conduits, equipment rooms or closets, riser sleeves, plywood backboards, power outlets, etc. when needed. (See Guidelines Page)

Q: Will my building be served with copper or fiber optic cables?

A: That depends on the location of the building and the types of services needed. Your BICS representative will be able to answer this question for specific projects.

Q: Is the cost of BellSouth's cable and equipment billed to the property owner?

A: No, not unless the owner requires some type of special arrangement.

Q: Will BellSouth share owner-provided support structures with other telecommunications providers?

A: Yes.

Q: Is AT&T a member of BICSI, the international association of professionals involved in telecommunications design for buildings?

A: Yes, BellSouth has been a corporate member and active supporter of BICSI for over 20 years. Many of AT&T's BICS representatives are certified with BICSI as Registered Communications Distribution Designers (RCDD).

#### **OWNER PROVIDED TELECOMMUNICATIONS SUPPORT STRUCTURE GENERAL REQUIREMENTS\***

It is the owner's responsibility to seal entrance conduits, riser sleeves, and any other wall or floor penetrations, for waterproofing and/or fireproofing before and after our cable installation. Any seals we remove and/or replace should be re-inspected by the owner and replaced if necessary.

Call before digging – it's the LAW: Utilities Protection Center 800-282-7411 (3 days minimum notice)

All conduits shall be equipped with a pull line with at least a 200 lb. tensile strength.

Buried conduits shall be galvanized rigid steel, schedule 40 PVC, or encased in concrete. Turn-up and cap the conduits at the public right-of-way (R.O.W.). Bury telephone conduits between 24" and 36" deep. The route and R.O.W. end of the conduits should be coordinated with BellSouth.

Entrance conduits that extend exposed more than 50' after entering a building, or that pass through an air plenum, must be "IMC" or "RIGID" metal. Metallic entrance conduit must be grounded as required by the NEC (National Electric Code).

Conduit bends should be long sweeps when possible. The minimum radius is 10 times the conduit diameter.

Pull boxes are needed for conduit runs longer than 200', with reverse bends, and after two 90-degree bends, or as approved by BellSouth. Pull box lengths should be 16 times the diameter of the largest conduit entering the box, but not smaller than 24"W x 36"L x 24"D. Pull boxes should be placed in a straight section of conduit in an accessible common location. The use of "condulets" or "LB's" is unacceptable.

Anchor bolt for an aerial entrance must be 5/8" in diameter and securely attached to the building structure. It's location must meet Code required ground and power clearances, and no higher than the power attachment.

Plywood Backboards must be 3/4" thick and usually 4' wide x 8' high, and fire resistant. NEMA-3R cabinets must be 3'W x 4'H x 10" D with full 3/4" backboard, fully hinged lockable door, and ground.

Electronic Equipment installations require an environmentally controlled dust free space with controlled access and adequate lighting.

Power circuits should be dedicated (fused separately) and we recommend UPS. If for NMLI Service we recommend using the same UPS that backs up your local LAN.

Acceptable ground sources for the main telephone terminal include the main power ground system and building steel for some buildings. Acceptable ground sources for a telephone distribution terminal includes local power panel ground, and/or building steel if part of the power ground system. The grounding conductor for a telephone terminal should consist of an insulated AWG #6 (minimum size) copper ground wire. If routed through metal conduit, the ground wire must be bonded to the conduit as required by the NEC. The grounding conductor length should be minimized. Terminate conductor on a ground bus as required.

Changes in the design of telephone support structure after the BIC design has been issued may delay service, and any cost incurred by BellSouth/AT&T as a result of the changes will be billable to the requestee.

**For questions and other requirements / specifications which may apply to your project please call the BellSouth/AT&T Building Industry Consulting Service at 678-354-3793.**