



The term **design-build** suggests that there may be only two steps involved. In fact design-build includes all steps from pre-design of the project to the building of the project; it differs from design only which is approximately half of the more comprehensive service discussed here.

PRE-DESIGN

Prior to commencement of the design there are a number of preparatory steps that should take place. A pre-design report is often issued to establish current conditions and confirm expectations. Pre-design may include:

- Meetings with the client to fully understand the project requirements, budgets, timelines, equipment preferences if any, determine if connectivity to other buildings is required
- Site inspections to determine what outside plant work (OSP) needs to be done to connect the new facility to main carrier lines. The site inspection on an existing facility is useful in determining what existing systems may need to be tied in to, updated or replaced entirely
- Meetings with other project team members to coordinate activities between electrical and mechanical disciplines and to review schedule with the project lead

SCHEMATIC DESIGN

There may be a number of different communications systems in any given project. Each system is represented by a schematic drawing that captures the main elements of the system without showing detail that would later be included in drawings at the detailed design stage.

DETAILED DESIGN

Detailed design is the process where several possible communication systems may be explored and analyzed for project suitability. This examination may include a series of technical memoranda where client commentary is offered and requests for information (RFI) are asked of the designer. The designer takes input into consideration on the path to recommending what design elements will be incorporated into the final overall communications system design.

CONSTRUCTION DOCUMENTS

Once final designs have been approved, highly detailed drawings are produced. Included on the drawings are layouts for entrance facility, floors and rooms, conduits and cable pathways, telecom or server rooms, racks, backbone and horizontal cable. All voice and data jack locations are noted for individual work stations and any and all detail for separate systems such as camera locations for CCTV or the locations of speakers for public address systems. The purpose of the construction documents is to give a highly detailed record of the expected result of construction of the communications systems. These documents also provide a uniform standard for comparison of bids received in the next stage. The installation contractor will refer to these drawings as work commences.

TENDER SUPPORT

The purpose of the tendering process is to receive competitive bids for the installation of systems and equipment specified in the construction documents. During this process bidding contractors may request information of the designer to clarify installation or equipment specifics. Bidders will review shop drawings with the designer so that the winning bidder is fully knowledgeable as to what construction expectations are.

CONSTRUCTION MANAGEMENT

Please see our construction management technical service profile.

For more information on our Design-Build services and how Fancom can help bring your project vision to life, please call us at **905-990-4845** or send an email to **info@fancomni.com** indicating "design-build" in the subject line.