



VISUAL SYSTEM DESIGN, LLC

Consulting Services for the Information Age

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Visual System Design offers consulting and design services to those who wish to communicate aurally or visually with others. Whether your audience is local, distant, or both, VSD has the talent and experience necessary to help you reach your goals.

OUR PHILOSOPHY

Your needs come first. VSD has no agendas, and no loyalties to anyone other than you, our client. You will not be consigned to a preconceived category, nor have some prepackaged design foisted on you. VSD will treat you and your requirements as unique, and create a system tailored to the way you work.

Elegant solutions are easy to use. Sophisticated design does not imply complexity. Technology should be transparent to the user.

Your system is a tool to help you communicate. Like any tool, its suitability should be judged by how well it meets your needs, not by how large or complicated it is. Our goal is to maximize your effectiveness; to place you in-the-meeting as opposed to on-the-system. To do that, VSD considers all aspects of the equation— human, equipment and infrastructure, while designing your facility or system. If you are an Architect, or represent a Corporation, Educational Institution or Governmental Agency in need of visual design services, VSD will be delighted to welcome you as a Client.

SPECIALISTS IN MEETING ROOM REQUIREMENTS

Audio/Visual/Data Presentation rooms

Boardrooms

Conference rooms

Training rooms

Classrooms

Distance Learning rooms

Audio/Video conferencing rooms

Multi-Purpose rooms

Hotel Ballrooms and combinable spaces

SERVICES OFFERED:

- Architectural Support
 - Acoustic, Electrical, Signal Wiring, and Lighting requirements
 - Facility Design
 - Programming Statements
 - Drawings
- Acoustic and Visual Systems Consulting
 - Needs Assessment/Analysis
 - Recommendations and equipment guidance
 - System(s) Design and drawings
 - Human Interface design for control systems
 - Coordination with IT Departments
 - Executive Summary, Scope-of-Work, etc. document preparation
 - Bid Package Preparation
 - Bid Evaluation and reports
 - Submittal review
 - Final system checkout
 - End-user training
- Project Management

Visual System Design, LLC, was formed to provide consulting services to Architects and to Corporate, Educational and Government clients. Prior to forming VSD, Stephen Thomer, Principal, offered consulting and system design services as an employee of Peirce-Phelps, Inc., VTEL/Forgent Corp., and as a Sole Proprietor. Stephen has three decades of experience in visual images and systems—as a commercial/industrial photographer, as a designer and programmer of multi-image, multi-media and video wall systems, and as a Consultant and Visual System Designer. Career highlights as a Consultant and Designer are listed below.

1986

Bell of PA. New Technology Presentation Center located on the campus of Temple University, PA. Custom multi-image presentation, control, and lighting systems. Jay Hellier, Hellier/Schneider, Architects.

1987

Bell of PA. Customer Presentation facility located in Bala Cynwyd, PA. Multi-image slide and video projection. Audio and control systems.

Bell of DE. Customer Presentation facility similar to the Bala Cynwyd location.

K-Tron Corp., NJ. Facility and system design for the new Boardroom, Training room and Conference room. Fully integrated electronic systems for lighting, conferencing, video and computer presentation, audio and speech reproduction, recording, and electronic white boards.

1988

AT&T, Breinigsville, PA. Solid State Technology Center Boardroom. Fully integrated multi-image slide, video and data rear projection systems, document imaging, audio, lighting, and control systems.

E.I. Dupont- Experimental Station. Conference and Meeting rooms

E.I. DuPont- Chestnut Run Campus. Facility redesign for three proposed new buildings. Jack Austin, H2L2, Architects.

1989

E.I. DuPont- Chestnut Run Campus. Video/data projection, electronic whiteboard, audio and control system design for 28 conference rooms across three buildings. Pioneered the use of modular system design with consistent operational logic and user interfaces. Successfully met DuPont's design challenge to enable users capable of operating one system to use any system located in any division or department across the campus. Jack Austin, H2L2, Architects.

AT&T, Holmdel, NJ. Executive Conference Room

Price Waterhouse, Phila., PA. Training room and Partner's Conference room. The Partner's conference room featured three full-duplex audio conferencing systems that could be combined into a single system serving the 50' long conference table located across three barrel-vaulted rooms. The system provides full local speech reinforcement; a first for so large a table in so live an acoustic environment. Lorraine Fisher, KPA Design Group, Architects.

ARCO, Newtown Square, PA. Training room. Slide(9), overhead transparency(3), video and computer projection systems, sound reproduction and speech reinforcement, and control systems.

Alliance Capital Management, NY, NY. A/V conference room with audio conferencing.

1990

E.I. Dupont, Wilmington, DE. Provided conceptual and initial system design for 77 training, meeting, presentation and conference rooms in the new Executive/Training complex. Complex was modeled as a cross between GE's Croton-on-Hudson facility, and Scanticon Princeton.

PMA (Pennsylvania Manufacturing Association), Phila., PA. Auditorium with full video and slide presentation, program and speech audio systems, remote control.

DEA (Drug Enforcement Agency), Crystal City, VA. Auditorium with audio and video/computer presentation systems, conferencing, and video and audio recording. Command and Control Center-HQ C³ facility featured significant communication, presentation, monitoring and control content.

GE, Croton-on-Hudson, NY. Renovations and systems replacement for the "Pit" and the "Den". The Pit is an amphitheater surrounded on three sides by seating; the fourth side contains three presentation walls. It was used as the forum for Jack Welsh's presentations to, and meetings

with GE's executive staff. Large screen presentation of all visually presentable media. Individual microphones for all participants, full-duplex conferencing system with local speech reinforcement, lighting and remote control systems.

1991

continuation of several projects started in 1990.

E.I. Dupont, Wilmington, DE. Auditorium and Engineering Conference room. Full visual presentation capability, audio voice lift/reinforcement and program audio systems, remote control systems.

Johnson & Johnson, New Brunswick, NJ. Conference room with remotely controlled audio-visual presentation systems.

Merck Sharpe & Dohme, West Point, PA. Training room and Presentation room. Both rooms included a full complement of visual presentation and conferencing systems.

Princeton University, Princeton, NJ. McCosh Auditorium. New audio, video and projection systems, control system.

Sun Refining & Marketing Center, Phila., PA. Auditorium/Conference room. Projection systems for all media, audio reproduction, reinforcement, recording and press feed systems, remote control.

1992

Day & Zimmerman, Phila., PA. Executive Conference room. Full audio, visual and control systems for presentation and audio conferencing.

Johnson & Johnson, New Brunswick, NJ. Executive Training Rooms. Two combinable rooms used to give presentations and training to J&J senior staff. Video and computer projection, audio voice lift/reinforcement and program audio systems, remote control, lighting, communications, and conferencing. Jim Chichocki, Berkowski & Associates, Architect.

Princeton University, Princeton, NJ. McCormick Hall Lecture room. Upgraded audio, video, projection and control systems.

Ortho Pharmaceutical, NJ. Conference room and Training rooms. Audio/Video/Data presentation, control, recording systems.

1993

Martin Marietta, Bethesda, MD. President's Boardroom. Significant audio and video presentation capability, master and satellite control systems, remote monitoring/operation capability, full recording and press feed capability.

Rosenbluth International, Phila., PA. 7 Conference rooms, Cafeteria, Fitness Center, Seminar room and Network Operation Center. Various audio/video/data systems suitable for each venue. The NOC was a showpiece for prospective clients featuring a 9-projector video wall used for multi-media presentations.

The Lancaster Group, NY, NY. Creation room, Client Presentation Room and Conference room. The creation room was the "what if" room where ideas for new ad and media campaigns were fleshed out. Audio, video and computer presentation systems. The Presentation room was a no-holds-barred system to wow clients with a media barrage.

Johnson & Johnson, New Brunswick, NJ. Corporate Boardroom. Upgrades to computer, projection, audio and control systems.

Alliance Capital Management, NY, NY. Executive Presentation room. Nine projector multi-image slide presentation, video/data projection, audio reproduction, reinforcement and conferencing systems, remote control.

AT&T, Breinigsville, PA. Technology center Conference room.

Betz Laboratories, Trevoze, PA. Training Center. Multi-screen slide, video and data projection, program audio, speech reinforcement and control systems.

Day & Zimmerman, Radnor, PA. Sales Conference room. Video and data presentation systems.

1994

Prudential Securities, NY, NY. 47th Floor Training rooms. Two large training

rooms used to train brokers/traders. Completely integrated display, presentation, lighting, control and videoconferencing systems allowed these rooms to be used stand-alone, or as distance learning facilities used to teach classes on both coasts simultaneously.

Prudential Securities, NY, NY. President's Boardroom. Upgrades to video/data projections systems, audio and control systems.

Prudential Securities, 1 New York Plaza, NY, NY. Complete consulting, facility and system design for 68 training, conference and meeting rooms, Auditorium, and Client Presentation room. All but the largest systems used modular building blocks to provide capability required by each venue, while still retaining the cost and standardization benefits of standardized systems.

US Dept of Transportation, Baltimore, MD. Crisis Management Center. Network Operation Center, videoconferencing, full communications, recording, and press feed systems.

1995

Banco Popular, San Juan, Puerto Rico. Distance Learning rooms, Auditorium and 5 "typical" videoconferencing rooms for implementation throughout their offices.

Merrion Merrill Dow, Kansas City, Kansas. Presentation/Videoconferencing room using twin projection screens.

Lowes Corporation, VA. Boardroom. Full audio/video/data presentation capability, videoconferencing and remote control systems. Special data/signal distribution/recording network tied satellite receivers, press feeds, recording studio and other conference rooms together for "broadcast" conferences.

Jenner & Block, Chicago, IL. Huge conference/presentation room(s) seating 180. Visual presentation systems for all media except motion picture, program audio, speech reinforcement, voice lift and audio conferencing systems, videoconferencing and control systems. Room was design to be divisible into two stand-alone sections when smaller capacities were desired.

USACOM, JTASC (United States Atlantic Command Joint Training, Analysis and Simulation Center. VIP Briefing Center. Massive display, monitoring and presentation capability.

Able to hold several simultaneous videoconferences and incorporate into the live presentation/briefing.

1996

Ameritech, Chicago, IL. Demo facility, Training room, and Customer presentation room. Audio and video conferencing, video/data projection.

American Cyanamid, NJ. Presentation room. Integrated audio, visual, lighting and control systems allow presentation of all media.

1996 - 2001

employed by **VTEL Corp** (later Forgent Corp) to provide consulting, facility and system design services to the Corporation and their clients. During this period Stephen was responsible for:

Facility, interior, lighting and system design and implementation for:

- Main Auditorium, Austin, TX
- Executive Conference room, Austin, TX
- CEO's office, Austin, TX
- Chairman's office, Austin, TX

- 5 Demonstration rooms and 3 Conference rooms, King of Prussia, PA

Facility and/or system design for many of VTEL's Fortune 500, Education, Corporate and Government clients.

Developed world-standard presentation/videoconferencing systems for sale to VTEL clients.

Designed and developed the new wireless control system and user interface for VTEL codecs.

Designed and developed the master control system human interface for VTEL's presentation/videoconferencing systems.

Designed and developed standard presentation, conference and training systems that could incorporate any codec available from VTEL, Polycom, PictureTel and V-Brick.

2002

Formed Visual System Design, LLC. Berkowsky and Associates, Architects. Facility and system design of a videoconference room and a 48 seat presentation/videoconference room for Schering-Plough, Kenilworth, NJ.



THE VISUAL SYSTEM DESIGN APPROACH

The following are elements found in typical Consulting & Design contracts. Use these descriptions as a guide in determining what services fit your requirements.

CONSULTING & DESIGN PHASE

SCOPE MEETING

This initial meeting, with you and your agents, acquaints all of the parties involved and establishes a dialog covering the overall scope of the requirements. These discussions develop a basic understanding of your functional requirements, as well as your operational expectations. The discovery process brings to light any special considerations, construction practices or union requirements that must be addressed and any impediments or limitations that would restrict the overall design. Your budget allocations should be discussed at this meeting, and a framework for proceeding adopted.

This framework is flexible and should be crafted to fit your needs and comfort level. At one end of the scale, we offer a Time & Materials contract that includes an initial Retainer (to retain our services) and hourly rates for work, to be billed as it is expended. If you are just getting your feet wet and want to explore your options, perhaps this pay-as-you-go plan is best. At the other end of the scale is a contract for the entire project. For those in the middle, we offer a step-by-step approach: a contract for an initial, limited scope of work with optional follow-on packages for subsequent stages of the project. You may choose any or all of the services outlined below. When you have decided, we will prepare a formal proposal listing the scope of work to be performed under the contract, our fee(s) and all deliverables.

PRELIMINARY DESIGN

Working with you, our team establishes the fundamental concepts and components of the overall design. We discuss these criteria with your Architect, and/or any other professional agencies you retain, to coordinate the physical requirements of the design. At this stage, the physical spaces required to implement the design are defined and any special structural, functional, or construction requirements considered. In addition, aesthetic concerns, lighting schemes and acoustical considerations are addressed. At the completion of this stage, any preliminary sketches, capabilities lists, and budget requirements are formulated for submission.

DELIVERABLES:

- Preliminary Programming Statement, and/or an Executive Summary.
- Preliminary implementation budgets for each system.
- Revised Budget for Remaining Consulting & Design (if required).
- Acoustic recommendations.
- Lighting criteria and control recommendations.

INITIAL DESIGN REVIEW

The purpose of this meeting is to make sure everyone is on the same track. All parties review the documents generated during the preliminary design stage and identify any desired revisions or areas of special concern. Any concerns that arise are addressed, and suggested changes evaluated. Adjustments deemed desirable are incorporated during the next stage.

CONTINUING DESIGN

Essentially, this stage is a refining of the preliminary design. It incorporates the information gleaned from the initial design review, and any subsequent modifications necessary to accommodate new architectural constraints, or changes you request. This process may take several iterations. The goal is to achieve an integrated, coherent design that meets all of your expectations, and provides an effective and friendly environment for your conferences and presentations.

DELIVERABLES:

- Final Programming Statement, or updated Executive Summary
- Final implementation budget estimates for each system

FINAL DESIGN REVIEW

At this meeting, all previous revisions are discussed and any applicable options adopted or deleted. Upon acceptance of the final design proposal, the construction phase may begin.

CONSTRUCTION DRAWING PHASE

CONSTRUCTION DRAWINGS

During this phase, all shop or fabrication drawings are prepared. These drawings, and all supporting information, are furnished to the Architect/Design Firm for use in producing the construction drawings. In addition to providing support to the Architect/Designer, we will also confer with your other agents to provide them with information specific to their disciplines.

DELIVERABLES:

- Acoustic requirements
- Lighting layout and control requirements
- Empty signal conduit requirements
- Conduit Riser drawings
- Power requirements, indicating locations and loads
- Thermal loads for HVAC requirements
- Appropriate floor plans and elevations
- Appropriate reflected ceiling plans
- Structural support requirements
- Applicable cut-outs or basic casework/millwork details
- Cut-sheet submittals for architectural elements, as necessary

SYSTEM IMPLEMENTATION PHASE

BID PACKAGE PREPARATION

Whether you plan to request bids, or prefer a directed or negotiated contract, this step is essential. This package must contain all of the elements required by the installing contractor to provide the system as planned. Our bid packages contain the following:

The Executive Summary, Programming Statements, and other material(s) you signed during the consulting and design phase. These documents describe your system, how it is to operate, and what your subjective and operational expectations are. They are included because they provide essential information that cannot be supplied in a list of instructions and drawings.

DELIVERABLES:

- Executive Summary, Programming Statement, etc. as described above
- A Bill of Materials listing the major components and subcomponents
- Architectural drawings completed during the construction drawing phase
- A detailed scope of work listing everything the contractor is responsible for providing
- An implementation timeline
- A list of rules and regulations explaining how the system is to be wired, tested, etc.

- Required single-line system drawings. These drawings vary from job to job, but generally include the following, if not already included in the architectural drawings:
 - Audio block drawings
 - Video block drawings
 - Control panel layouts
 - Control system drawings
 - Panel, plate and layout drawings
 - Custom equipment and interface drawings
 - Floor plans and equipment elevations
 - Reflected Ceiling plans
 - Conduit Riser drawings, with cable fill information

These materials are incorporated into the formal package sent to the prospective bidders. Typically, three qualified bidders are engaged. If you do not already have favored contractors, we will provide a list and make recommendations. After sending the materials, it is sometimes necessary to hold a bidder's meeting so that bidders may gather additional information, or have any questions answered.

BID EVALUATION AND REPORTS

After receiving each bidder's submissions, we evaluate the responses to make sure they conform to both the spirit and the letter of the design. This evaluation is furnished to you as a report, listing any deficiencies we found in the submissions along with our recommendations.

SUBMITTAL REVIEW

As a requirement of any contract, the successful bidder must submit applicable cut sheets, sketches and system drawings for approval prior to building the system. The intent of this review is to be certain that what was designed and bid is actually what will be built.

FINAL SYSTEM CHECKOUT

This is a proof of performance review wherein the installing contractor must prove to us that all aspects of the system function as intended. If we find substantive deficiencies, another checkout will be required after the contractor effects repairs. If there are only a few minor deficiencies, we will generate a punch list and certify the system(s) for operation. Either way, we furnish reports to you, as well as the contractor.

END-USER TRAINING

Generally, the installing contractor is required to provide a warranty covering the entire system, not just the components covered by a manufacturer's warranty. As such, they will become your service organization for the life of the warranty. It is often desirable to have the people who built and will maintain your system train the end-users in its operation. If you prefer that we provide this training, we are happy to include it in our scope.

VIDEO CONFERENCING FACILITY DESIGN PACKAGE

This package is designed specifically for those who have already made the decision to implement videoconferencing, chosen their network provider, and made equipment selections. It is also ideal for those who currently use videoconferencing and wish to renovate their room(s) to improve comfort and effectiveness. Since you are not starting from scratch, VSD offers this streamlined design package to provide you and your Architect with the lighting, layout, design and acoustic criteria essential for effective videoconferencing.

NEEDS ASSESSMENT

Typically, this is a single meeting with the Clients, and/or their appointed agents, to learn how they plan to conduct their meetings and to discover any special considerations or operational requirements. This is an interactive process designed to discuss preferences, outline options and ramifications, and refine requirements. The goal is to thoroughly understand the operational parameters and to provide the Clients with enough information to make informed decisions.

SITE REVIEW

A review of the available space(s) to determine suitability based on the criteria developed earlier. A walk-through immediately after the needs assessment meeting is always helpful because real world information is obtained— information that is not always conveyed by the architectural drawings. After the walk-through, a detailed analysis of the architectural drawings will be necessary before making our recommendations.

DELIVERABLES

- **EXECUTIVE SUMMARY.** Summarizes the needs assessment meeting, and lists the design criteria to be met. It indicates choices made, includes the reasoning behind those choices, and lists site recommendations.
- **DRAWINGS OR SKETCHES.** These documents will be prepared using drawings and backgrounds provided by the Architect. They are intended to convey information required by your Architect to prepare construction drawings and documents, and cannot serve as construction documents in and of themselves. They will indicate the location and placements of all relevant equipment, show critical dimensions where necessary, and note electrical, cable and conduit requirements. Any or all of the following may be included in the submission:
 - Floor plan
 - Elevation
 - Reflected Ceiling/Lighting plan
 - Electrical and Conduit drawing
- **ACOUSTIC GUIDELINES.** Lists those specifications that must be met to ensure proper functioning of your videoconferencing system. Also listed are those criteria that, if met, will enhance the overall performance of the system and the comfort of the users.
- **SURFACE FINISH CRITERIA AND MATERIAL SELECTION OBJECTIVES.**
- **FACILITY/ARCHITECTURAL DESIGN REVIEW.** An available option. A review of the Architect's construction drawing set prepared from the VSD Facility Design Package to ascertain that requirements were met and guidelines adhered to. Discrepancies will be noted and forwarded to the Architect for resolution.