

UCIT & Division of Administration and Finance Planning+Design+ConstructionP roject Procedures 11/01/2016

A Supplement to the UC Design Guidelines and Standards Manual

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Introduction and Purpose

Increasingly the systems and services associated with networking, telecommunications, and audiovisual/multimedia delivery are merging. As a result, an increased need exists for communication and coordination in planning and implementing building construction and renovation projects.

This document presents guidance for P+D+C personnel working with the UC Office of Information Technologies (UCIT). It describes policies, procedures, and guidelines for involving UCIT's Enterprise Shared Services (ESS) and Electronic Classroom Support Services (ECSS) departments in UC's construction and renovation projects. Keeping all parties involved and informed is a shared responsibility of the Division of Administration and Finance Planning+Design+Construction and the UCIT ESS and ECSS departments.

By following the guidance presented in this document, all departments will help ensure that construction and renovation projects are timely and meet customer needs and expectations.

The document is organized into the following sections:

Introduction and Purpose

UCIT's Role in Construction Projects: This section outlines UCIT's involvement in the phases of a construction project.

UCIT Policies and Procedures: Presents requirements for submitting GetIT Communications Request, as well as other procedures for working with UCit.

UCIT Installation Types: Presents the different installations UCIT performs.

Appendix: Design Procedures for Communication Jack Numbering

UCIT's Role in Construction Projects

This section describes UCIT's participation in and contributions to each phase of a construction project. P+D+C is responsible for coordinating UCIT's involvement in telecommunications and audiovisual (AV) design with the other parts of a construction project, from programming through turnover and acceptance.

Adherence to Policies and Standards

Policies and standards are in place to assist P+D+C personnel and contractors in working with UCIT's ESS and ECSS departments.

ESS

Any contracted agency or individual contractor responsible for the detailed design of telecommunications infrastructure on any project must adhere to UCIT's most current Communications Standards document at [UCIT Communication Standards](#)

ECSS

Any contracted agency or individual responsible for the detailed design of AV equipment for learning or meeting spaces must adhere to the most recent Electronic Classroom Standards document, available at <http://eclassroom.uc.edu/ucit/eclassroom/support.asp>

Program Statement Phase

Campus Planning or the designated Project Representative, as applicable, must give representatives from UCIT's NTS and ECSS departments an opportunity to participate in the development of Program Statements and budgets.

ESS

For capital projects, UCIT ESS provides site infrastructure and building work scope as well as budget estimates for data and communication work scope. For basic and local renovation projects, UCIT provides work scope and budget estimates.

In addition, Campus Planning or the Project Representative, as applicable, must provide UCIT with the occupancy figures or anticipated jack activation numbers for each construction or renovation project as soon as possible. UCIT needs this information to ensure that equipment levels, placement, and network designs are appropriate.

All wiring and rewiring project budgets must include capital funds for the purchase of telephony, network equipment, and wireless equipment. This item is especially important for new buildings and where renovations create an increase in connectivity.

ECSS

UCIT's ECSS department will review and approve all plans pertaining to audiovisual systems. Project budgets for buildings that include learning or meeting spaces (for example, classrooms, teaching labs, and conference rooms) must include capital funds for the purchase of audiovisual equipment that meets UCIT specifications, **including the funds needed to properly secure the equipment**. These funds must be protected so they cannot be spent to cover overruns in other parts of the project.

Associate A/E Selection Phase

Non-University-Designed Projects

ESS

NTS must be consulted during the selection process if the selected A/E firm's responsibilities will include telecommunications design. NTS will review the design credentials of prospective firms whose project responsibilities encompass telecommunications design (on larger projects, generally an Associate A/E firm or a subcontractor to the Associate A/E firm).

Any firm that is responsible for infrastructure and telecommunications design must provide an individual who has Registered Communications Distribution Designer/Local Area Network (RCDD/LAN) certification (or the equivalent knowledge, through experience and education). Any selected firm that does not have an RCDD/LAN specialist on staff must contract with another firm to bring this design expertise to the project.

ECSS

A term contract that enables a single vendor to provide AV needs assessment, design, equipment, installation, and service is now available for use. ECSS will assist Planning+Design+Construction in choosing one of the contract vendors. These vendors have been prequalified and must be used unless none can perform the required work. ECSS must participate in developing the required qualifications for non-contract AV external consultants, evaluating consultants' credentials, and approving the final selection.

University-Designed Projects

ESS

NTS must have the option of performing the design internally or selecting a contract designer (through its pool of communications vendors on its labor contract) to be funded by the project.

ECSS

ECSS must have the option of acting as AV consultant or selecting an external consultant to be funded by the project.

Schematic Phase

ESS

Future occupants of facilities being renovated or constructed must be given copies of drawings early in the Schematic phase. The future occupants should then identify all needed telephone and data jacks and mark their locations on the drawings.

NTS support spaces for the building communication room (BCR, sometimes called the intermediate cross-connect or intermediate distribution frame) and telecommunications rooms (TRs, sometimes called wiring closets or horizontal cross-connects) should be identified for telephones and networks. Normally there is one BCR per building. The BCR may also serve as a TR.

More than one TR per floor is required when the terminated wiring distance between any communications jack and the TR exceeds 295 feet (90 meters).

ECSS

Future occupants of facilities being renovated or constructed must identify AV needs for learning or meeting spaces, in consultation with ECSS and the selected consultant, so that these needs can be considered in design and development documents.

Design Phase

NTS reviews detailed designs, offers corrective suggestions when appropriate, and acts as telecommunications consultant to the responsible designers and all project affiliates.

NTS is responsible for the oversight of wireless design and installation. The project must cover the cost of the wireless survey, wireless equipment, and detailed documentation required to support the University wireless network. (Refer to section 8.1.7 of the [UCIT Communication Standards](#) for guidelines on estimating wireless access points for specific areas.)

ECSS, with the assistance of the selected AV consultant, reviews detailed designs, offers corrective suggestions when appropriate, and acts as AV consultant to the responsible designers and all project affiliates.

UCIT Input to Drawings and Specifications

The Project Representative must give UCIT sufficient time (generally 2 weeks) to review a full set of design and development drawings and specifications. UCIT must review and approve all adopted changes before the final set of drawings and specifications goes to bid.

ESS

The drawings must show all updated jack locations, labeling, major pathways, room layouts, and rack layouts relating to the communications infrastructure. A separate AutoCAD drawing identifying all wireless access point locations and coverage must be reviewed and approved before final drawings and specifications go to bid.

ECSS

ECSS, with the assistance of the selected AV consultant, must be involved in the design of all AV systems, from needs assessment through detailed specifications. Drawings must show all updated jack locations, major pathways and conduits, and room layouts relating to the AV infrastructure. Drawings must be provided as AutoCAD files and also as full-size prints.

Furniture Selection

ESS

The selection process for modular furniture on all projects must include adapters or transitional devices that will facilitate the proper installation of voice and data jacks, if such adapters or devices are not already supported by the furniture manufacturer. Please refer to the [UCIT Communication Standards](#) for jack specifications.

ECSS

All housings for AV equipment, including instructor workstations, cabinets, alcoves, soffits, and so forth, are part of the AV systems and therefore subject to review and approval by ECSS, with the assistance of the selected AV consultant.

Approval of AV Equipment

ECSS must review and approve the design and selection of all AV equipment and systems in learning and meeting spaces.

Underground Pathways

The Architect must refer to the [UCIT Communication Standards](#) when designing underground pathways.

Bid and Award

Statement of Work

ESS

P+D+C must develop a Statement of Work that details the scope of work and lists all responsibilities of the selected communications contractor. This statement should include, but not be limited to, installation of UC's standard cabling solution; testing requirements; audits; service activations; coordinating and scheduling of service cutovers; documentation needs; commissioning; and so forth.

The Statement of Work for renovation projects must also include directions for demolition of existing Communications cabling. A qualified communications cabling contractor will be required to professionally remove all pertinent communications (voice/data) cables and associated terminating devices from the faceplate to the TR. Before this can occur the responsible Project Manager from P+D+C must contact UCIT via e-mail at ryan.hargis@uc.edu. Be sure to reference the project GetIT request that should already have been submitted to cover all one time project cost,...and request an “Audit” of the area targeted for demolition in order to identify all voice and data jacks affected by the demolition. The associated backbone cable information for each voice connection must also be documented as part of the demolition. This exercise is required in order for UCIT to plan for future equipment needs and possible backbone cable expansion or replacement if necessary.

ECSS

P+D+C must include in the bid package a Statement of Work for all projects for which communications or AV work is contracted.

ECSS must review and approve the Statement of Work for the contractor selected to provide AV portions of the project.

Bid and Award for Projects over \$215,000

The bid and award for labor will be competitively bid. The contractor must have the appropriate manufacturer certifications for fiber optics and copper cabling. The “nCompass” limited lifetime warranty certification for structured copper cabling and fiber optics, from Legrand/Ortronics and Superior Essex is required.

ESS

NTS should assist the P+D+C representative in selecting the vendor(s) to provide structured cabling on all projects over \$215,000.

ECSS

A term contract that enables a single vendor to provide AV needs assessment, design, equipment, installation, and service is now available for use. ECSS will assist Planning+Design+Construction in choosing one of the contract vendors. These vendors have been prequalified and must be used unless none can perform the required work. ECSS must participate in developing the required qualifications for non-contract AV external consultants, evaluating their credentials, and approving the final selection.

Bid and Award for Projects \$215,000 and Under

The bid and award for labor will go to one of the University's awarded contractor(s) on the labor contract (T972).

The contractor must have the appropriate manufacturer certifications for fiber optics and copper cabling. The "nCompass" limited lifetime warranty certification for structured copper cabling and fiber optics, from Legrand/Ortronics and Superior Essex is required.

As stated above, AV term contract vendors must be used unless none can perform the required work.

Commissioning

ESS

ESS acts as telecommunications consultant to the responsible Architect and all project affiliates in the commissioning process.

The Project Representative must provide UCIT with the communications electrical construction schedule so that UCit can properly guide infrastructure and equipment room standards and approve installations.

Communications Inspections and Approval

ESS's IT Design & Construction Manager inspects the communications wiring installation in progress on an ongoing basis.

ESS's IT Design & Construction Manager inspects horizontal and backbone cabling in equipment rooms before terminations in order to approve the proposed location and method of terminations.

ESS's IT Design & Construction Manager also inspects labeling at the individual jacks and in the equipment rooms for legibility and proper format.

ESS's IT Design & Construction Manager will not approve any project until the following tasks have been completed:

1. Test results have been supplied;
2. CAD drawings with final jack counts, jack IDs, and permanent room numbers have been provided;
3. Any improper installation or punch list items have been corrected; and
4. The selected contractor or Planning+Design+Construction has completed all registrations for warranties.

ECSS

ECSS's role in commissioning is to act on behalf of the University for acceptance of the AV portions of the project. This includes performing or directing the following activities, which will be performed at the project's expense by an AV term contractor, not awarded the project:

- Inspection of installation,
- Testing of systems,
- Inventory of deliverables as specified in the contract,
- Training for support staff,
- Creation of a punch list, and
- Final sign-off, including authorization of final payment by ECSS personnel.

P+D+C must not authorize final payment for AV work without ECSS approval.

UCIT Policies and Procedures

This section presents requirements for completing UCIT's GetIT Communications Request submittal process, as well as other UCIT policies and procedures.

In order for UCIT to begin any work activities on a project including research, design activities or providing equipment estimates, a project GetIT request must first be submitted for all projects. No charges will be applied against the provided budget until work has been approved and completed.

GetIT Communications Request Submittal Process

The following information is required when submitting all GetIT communications request:

- Contact name
- Contact number
- Building
- Room number
- Mail location
- Budget number for recurring charges (important because project funds do not pay for recurring charges and/or communication devices)
- Move date(s)

Requests for service must clearly specify the type of service needed (voice and/or data) so the request can be routed accordingly.

If the budget numbers for recurring charges are different for voice and data, the user (building occupant) should submit a separate GetIT request for each service option. If the budget number for recurring charges is the same for voice and data services, only one GetIT request is required.

Projects Funded through P+D+C

P+D+C -funded projects include capital, basic renovation, and/or locally funded projects.

For these projects, the P+D+C Project Representative or Move Coordinator should contact future occupants of renovated or new-construction facilities within 90 days of anticipated move dates. This time frame should be sufficient to allow the customer to make changes or additions if necessary.

Users should submit GetIT request, following the guidelines in “GetIT Communications Request Submittal Process” above. The Project Representative or Move Coordinator in P+D+C must submit a GetIT request with the appropriate budget number in order to initiate any work, or service activations.

If the moves are in phases but are within the same department, only one GetIT request needs to be submitted for all phases. Move dates must be clearly spelled out on both voice and data request. Specific details of the move should be included on a spreadsheet(s).

The Project Representative or Move Coordinator submit GetIT request to UCIT with the set of marked drawings and a “move spreadsheet” at least 60 days before the anticipated move. The move spreadsheet should include the following details:

- User’s name, if known
- User’s new room number
- New jack location/identification (voice and data)
- Old jack location/identification (voice and data) if moving
- Phone number (voice) if moving; phone numbers should be marked on drawings as well
- Phone type (voice)

Drawings must be annotated to identify all proposed telephone and data connections.

Projects Funded by Departments

For department-funded projects, the user should obtain a drawing (preferably AutoCAD) of the project area and mark the drawing to show the locations of all proposed telephone and data connections.

The user should submit GetIT Communications Request at least 60 days before an anticipated move, following all the guidelines outlined in “GetIT Communications Request Submittal Process” on page 11.

Users should submit a GetIT Communications Request along with the set of marked drawings, and a “move spreadsheet” that provides the following information:

- User’s name
- User’s new room number
- New jack location/identification (voice and data)
- Old jack location/identification (voice and data) if moving
- Phone number (voice) if moving; phone numbers should be marked on drawings as well
- Phone type (voice)

- Speed of requested or existing data connection(s) (e.g., 10 Meg, 100 Meg, shared or switched, etc.)

UCIT Installation Types

This section presents procedures for the service installation types UCIT performs, including:

- Telecommunications service...(Voice and Data)
- Elevator phone and data service
- Fire alarms
- Emergency Help and Area of Rescue phones and units
- Door access
- Bearcat Card
- Cable TV (CATV)
- Building control systems
- Wireless data
- Electronic classroom phones and data service

The table on the following page shows UCIT's notification and scheduling requirements for each installation type.

Telecommunications Service

Identifying Jack Locations

Future occupants of buildings being renovated or constructed should be given copies of drawings early in the Design phase. The future occupants should then identify all needed telephone and data jacks and mark their locations on the drawings.

For learning and meeting spaces, ECSS should represent future occupants in the identification process.

Notification and Scheduling Requirements

Project schedules must allow ample time for UCIT to prepare and successfully complete service activations, moves, or cutovers.

To guarantee normal service, the Project Representative must finalize all move information for voice and data and provide this information to the UCIT project manager or assigned UCIT Project & Customer Service Representative 60 days before the proposed move dates.

UCit Notification and Scheduling Requirements by Installation Type

** If a “Construction Project” order covering one-time charges has already been submitted on a given project, these specific services listed below can be activated by referencing that GetIT “Construction Project request” number in an e-mail defining specific type of service and requested installation/activation date, to the ESS/Academic Services Field Operations Manager Ryan Hargis at; hargisr@uc.mail.uc.edu. In some cases additional budget info may be required in order to set up recurring charges.*

Installation Type	Notification	When to Submit
*Telecommunications service Voice and Data moves or activations.	Reference initial project GetIT request ... occupants budget number for recurring charges is required at this time.	60 days before need
*Elevator phone and data	Reference initial project GetIT request; showing voice and data needs.	2 weeks before inspection
*Fire alarm	Reference initial project GetIT request.	2 weeks before inspection
*Help Phone/Area of Rescue	Reference initial project GetIT request.	2 weeks before need
*Door access	Reference initial project GetIT request.	2 weeks before need
*Bearcat Card	Reference initial project GetIT request.	3 weeks before need
*Cable television	Reference initial project GetIT request.	3 weeks before need
*Building control system	Reference initial project GetIT request.	2 weeks before need
*Wireless data	Reference initial project GetIT request.	2 weeks before need
*Electronic Classroom phone/data service	Written notification to ECSS - Reference Initial project GetIT request.	60 days before project completion

ESS/Academic Services requires at least 30 days' notification to meet any proposed scheduled user move. Users who haven't confirmed their move dates should still provide their move information to UCIT.

P+D+C Project Representative must provide a move schedule to the NTS Project Manager as soon as the information is available.

Elevator Phone and Data service

Elevator phone and data communication lines must be installed as part of a project's communications installation. The Architect should identify these lines on the drawings and include them in the bid package.

To activate elevator phone and data service, the P+D+C Project Representative must reference the initial GetIT "Construction Project request" number in an e-mail defining type of service and requested installation/activation date, to the Academic Services Field Operations Manager Ryan Hargis at; hargisr@uc.mail.uc.edu.

Fire Alarms

Fire alarm communication lines must be installed as part of a project's voice communications installation. In accordance with the ***UCIT Communication Standards***, all cables for fire alarm service are to be installed in a ¾-inch minimum conduit, installed from the fire alarm panel, and stubbed within 5 feet of the communications cable tray or j-hook system. The Architect should identify these lines on the drawings and include them in the bid package.

To activate fire alarm communication service, the Project Representative must reference the initial Project GetIT request at least 2 weeks before any scheduled inspection.

Help Phones and Area of Rescue Phones and Units

Emergency communication lines such as Help Phones and Areas of Rescue phones must be installed as part of a project's voice communications installation. In accordance with the ***UCIT Communication Standards***, all cables for Help phones and Area of Rescue service are to be installed in a ¾-inch minimum conduit, installed from the proposed unit installation point, and stubbed within 5 feet of the communications cable tray or j-hook system. The Architect should identify these lines on the drawings and include them in the bid package.

To activate help phones and Area of Rescue service, the P+D+C Project Representative must reference the initial Project GetIT request at least 2 weeks before the actual need in an e-mail defining the “Construction Project request” number, type of service and requested installation/activation date, to the ESS Academic Services Field Operations Manager Ryan Hargis at; hargisr@uc.mail.uc.edu.

Door Access

Door access communication lines must be installed as part of the project’s data communications installation. The Architect should identify these lines on the drawings and include them in the bid package. For “Door Access” service, a single data cable/jack is required for the necessary network connection to the Door Access controller. This data communication line must be installed labeled and terminated as defined in the project scope of work and/or the **UCIT Communication Standards**.

To activate door access data communication service, the Project Representative must reference the initial Project GetIT request at least 2 weeks before the actual need

Bearcat-Card

Bearcat-Card communication lines must be installed as part of a project’s communications installation. All new Bearcat Card lines will be installed as data communication lines and must be labeled and terminated as defined in the project scope of work and/or the **UCIT Communication Standards**. The Architect should identify these lines on the drawings and include them in the bid package.

To activate Bearcat-Card communication service, the Project Representative must reference the initial Project GetIT request at least 3 weeks before the actual need.

Cable TV

Cable TV (CATV) backbone communication lines must be installed as part of a project’s communications installation. The Architect should identify these lines and the associated pathways on the drawings and include them in the bid package.

CATV building communications lines are installed as part of a project’s AV installation. The Architect should identify these lines on the drawings and include them in the audiovisual bid package.

Currently, more than 100 locations on West campus alone receive CATV. **CATV connections will not be installed in additional classrooms**, since CATV use is not widespread and faculty needing this technology can be scheduled to teach in classrooms where CATV already exists.

The University's Electronic Classrooms Subcommittee is charged with monitoring implementation of technology in centrally scheduled classrooms. The recommendations of this subcommittee, which are available at: <http://eclassroom.uc.edu/ucit/eclassroom/support.asp>, should be consulted for guidelines about CATV installations.

To activate CATV service, the Project Representative must reference the initial Project GETIT request at least 3 weeks before the actual need.

Building Control Systems

For building control systems, two installation procedures are possible.

Option 1 – Electrical Installation

In this scenario, building control system communication lines are installed as part of the project's electrical wiring installation by the project's mechanical or electrical contractor, depending on the project. The Architect should identify these lines on the drawings and include them in the bid package.

Option 2 – Data Communications Installation

Option 2 applies if the building control system is designed to communicate with TCP/IP-based network protocols. In this case, building control system communication lines are installed as part of the project's data communications installation. The Architect should identify these lines and the associated pathways on the drawings and include them in the bid package.

To have building control systems brought on line with the University's Campus Data Network, the Project Representative must reference the initial Project GetIT request at least 2 weeks before the actual need.

Wireless Data

Wireless communication lines must be installed as part of a project's data communications installation. The Architect should identify these lines and the associated pathways on the drawings and include them in the bid package. In order to get the wireless design and equipment details for any new construction or renovations project, the project representative must submit a GetIT "Construction Project" order requesting a wireless survey. If a "Construction Project" order covering one-time charges has already been submitted on a given project, all required WAPs can be activated by referencing the GetIT Construction Project request number in an e-mail to the ESS/Academic Services Field Operations Manager Ryan Hargis at; hargisr@uc.mail.uc.edu.

For all structured cabling installations or any devices or equipment that needs to be purchased, please provide the appropriate "project" budget number at the time of

your request, if not provided when the “Construction Project” consultation request was submitted.

To activate wireless data service where wireless access points are already in place, the Project Representative must reference the initial Project GetIT request at least 2 weeks before the actual need. All wireless communication equipment must follow the UCIT wireless installation policy which can be found at:

http://www.uc.edu/ucit/internet/oncampus/wirelessdatacommunicationswpa21.html#MainContent_title. Expenses for survey, equipment, and installation must be included in the project costs.

Electronic Classroom Phone and Data Service

ECSS supplies classroom phone and data specifications, and submits the GetIT request for activating classroom phones and data jacks. UC P+D+C must notify ECSS at least 60 days before project completion to allow time for submitting GetIT request.

Learning and Meeting Spaces

The role of ECSS in projects that include learning and meeting spaces is as follows:

- **Program Phase:** To participate in setting the budget for AV.
- **Associate A/E Selection Phase:**
 - Non-University-designed projects: To be involved in developing qualifications, reviewing credentials, and approving final selection of non-contract AV external consultants.
 - University-designed projects: To have the option of acting as AV consultant or selecting an external consultant to be funded by the project.
- **Schematic Phase:** To identify specific AV needs for inclusion in design/development documents, and to review and approve plans.
- **Design Phase:** To guide, review, and approve detailed designs.
- **Bid and Award:** To review and approve the Statement of Work, certify AV vendors, review bid documents, and collaborate on vendor selection.
- **Commissioning:** To represent the University in accepting the system and implementing it.

Appendix: Design Procedures for Communication Jack Numbering

Communication Outlet Identifiers

Each communication outlet is labeled with an 11-character identification; for example, five characters, a dash (“-”), a letter, and a four-digit number. Every single-gang voice/data faceplate has two 11-character labels, one for the top outlet and one for the bottom outlet. Every double-gang voice/data faceplate has four 11-character labels, two for the top outlets and two for the bottom outlets.

The first five characters of the number represent the room number of the TR that feeds the communication outlet location. The letter is a code for the floor on which the outlet is located, with “A” representing the lowest floor in the building, “B” representing the next floor up, and so forth. The next four digits represent the termination location of the cable on the 110 blocks for UTP voice outlets; Legrand/Ortronics patch panels for UTP data outlets, and fiber patch panels for fiber outlets.

Each IDF/TR has a block of numbers assigned to it in the range of 0001 to 3999. These are sequential numbers starting at 0001. If the building has more than one TR, each TR is assigned the same block of numbers; for example, 0001 through 3999 for TR number 1, 0001 through 3999 for TR number 2, and so on, as required.

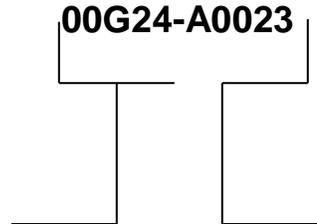
The block of numbers is assigned as follows: 0001 to 2999 for UTP voice outlets and UTP data outlets, and 3000 to 3999 for fiber to the desktop outlets. UCIT assigns these blocks to each TR during the Infrastructure Design phase.

UTP voice outlets are labeled sequentially with odd numbers from the block of assigned numbers for the associated TR, beginning with 0001, 0003, 0005, and so on, as required. UTP data outlets are labeled sequentially with even numbers from the block of assigned numbers for the associated TR, beginning with 0002, 0004, 0006, and so on, as required. Fiber to the desktop outlets are labeled sequentially from the block of numbers assigned for the associated TR, beginning with 3000, 3001, 3002, and so on, as required.

Example Identifiers

Example 1: UTP Voice Outlet

Alphanumerics 1, 2, 3, 4, 5 identify room number "G24" as the TR feeding this UTP voice outlet located on floor A (character 7), the lowest floor in the building.

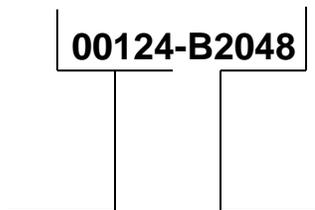


Digits 8, 9, 10, 11: The odd number identifies this outlet as a UTP voice outlet. The position on the 110 block is counted sequentially with odd numbers from left to right and top to bottom.

Example Identifiers

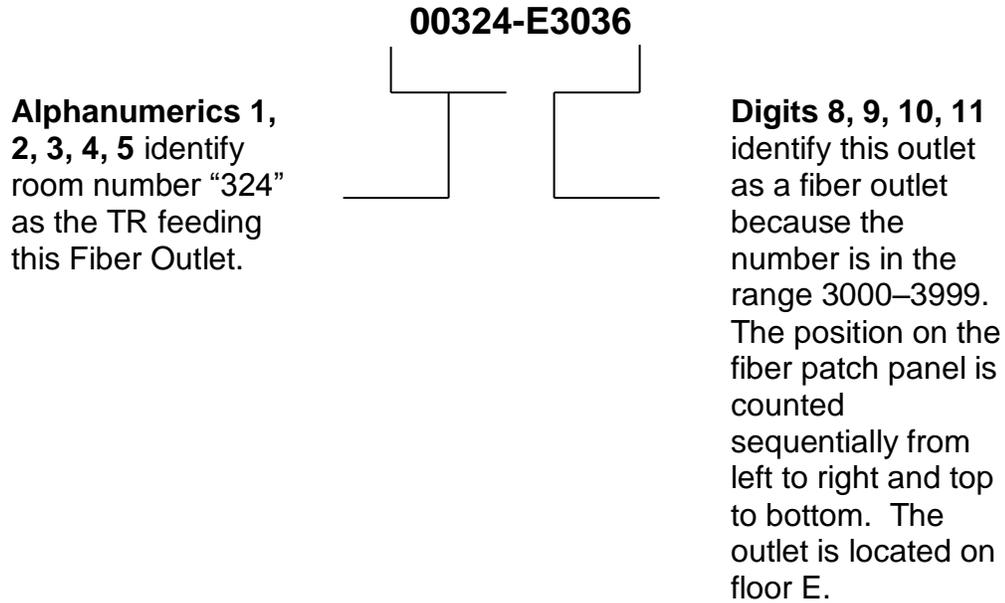
Example 2: UTP Data Outlet (Wireless Also)

Alphanumerics 1, 2, 3, 4, 5 identify room number "124" as the TR feeding this UTP data outlet on floor B.



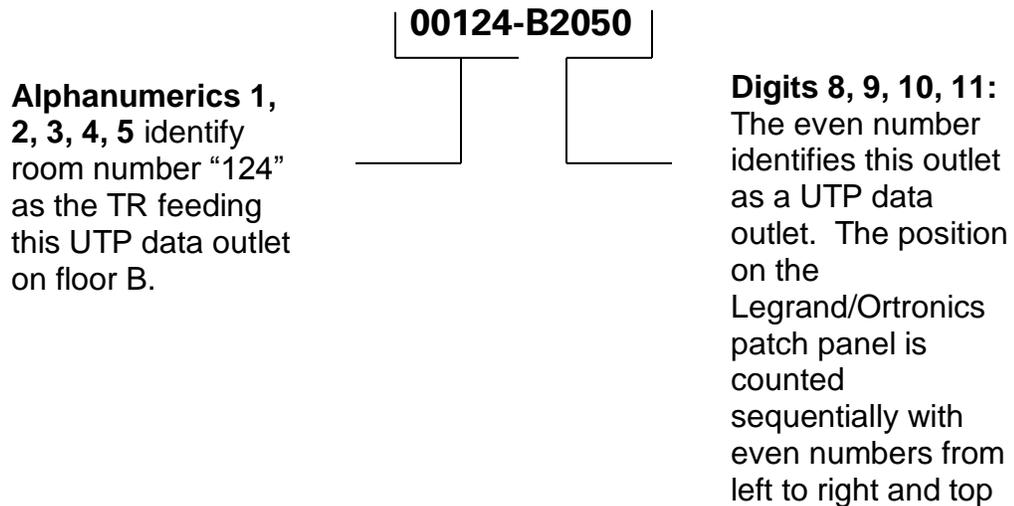
Digits 8, 9, 10, 11: The even number identifies this outlet as a UTP data outlet. The position on the Legrand/Ortronics patch panel is counted sequentially with even numbers from left to right and top

Example 3: Fiber to the Desktop Outlet



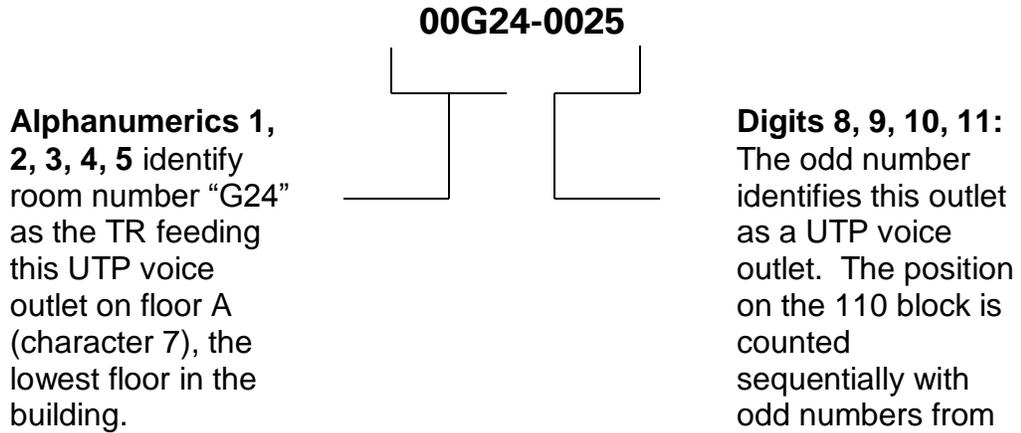
Example 4: Door Access Outlet

Door access cables and outlets are installed, terminated, and utilized in the same manner as standard data outlets, and should be labeled as such.



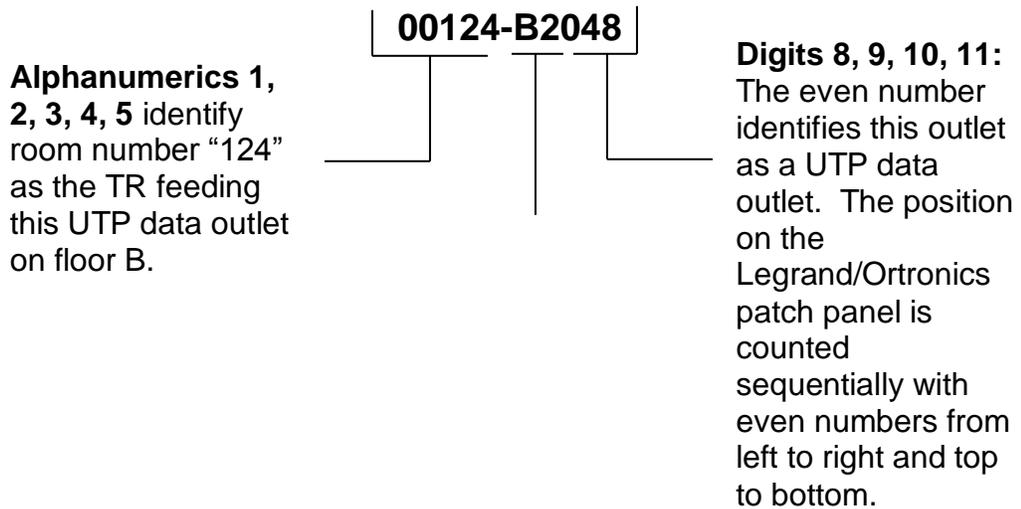
Example 5: Fire Alarm Outlet

Fire alarm cables and outlets are currently installed, terminated, and utilized in a manner similar to standard voice outlets, and should be labeled as such.



Example 7: Bearcat-Card Outlet

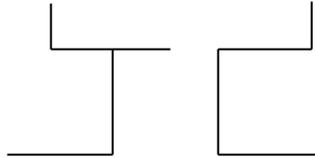
Communications cables and outlets for Bearcat-Card services are installed, terminated, and utilized in the same manner as standard data outlets, and should be labeled as such.



Example 8: Emergency Help Phone or Area of Rescue Outlet

Emergency Help Phone and Area of Rescue communication cables and outlets are installed, terminated, and utilized in the same manner as a standard voice outlet and should be labeled as such.

Alphanumerics 1, 2, 3, 4, 5 identify room number "G24" as the TR feeding this UTP voice outlet on floor A (character 7), the lowest floor in the building.



Digits 8, 9, 10, 11: The odd number identifies this outlet as a UTP voice outlet. The position on the 110 block is counted sequentially with odd numbers from left to right and top to bottom.

00G24-A0075