DEPARTMENT OF GENERAL SERVICES
BUREAU OF CAPITAL OUTLAY MANAGEMENT
Serving Government. Serving Virginians.

# BCOM Newsletter

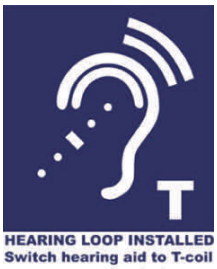
**Issue # 15**

**March 2016**

*In this Issue:*



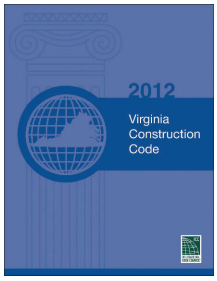
## Assistive Listening Systems



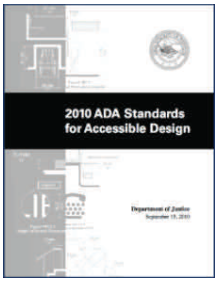

Assistive listening systems are required in assembly use state buildings, including rooms or spaces used for assembly purposes within state buildings where audible communications are integral to the use of the space. Applications include any building, room or space used for assembly purposes that utilizes audio amplification systems. The assembly spaces can range in size from individual rooms (including spaces used for assembly purposes with 50 or less occupants) to large venues with public address (PA) systems.

### Building Code and ADA Technical Standards

The 2012 edition of the *Virginia Construction Code*, Section 1108.2.7 addresses scoping for required assistive listening systems. The 2010 edition of the ADA Standards for Accessible Design, Section 706 addresses technical details for these systems. Both of these documents are applicable.




The *Virginia Construction Code* prescribes the minimum number of receivers, based on seating capacity, as well as the number of receivers that must be hearing aid compatible. There are some exceptions to the minimum numbers of required receivers, and special requirements for ticket windows and PA systems at large stadiums, arenas and grandstands. In arenas and stadiums with ticket windows, at least one window at each ticket location shall have an assistive listening system. Additionally, for large venues of 15,000 seats or more where audible public announcements are made, the public announcements shall also be provided by prerecorded or real-time captions. Assistive listening systems are required in all courtrooms.




The *ADA Standards for Accessible Design* describes recognized technologies and provides technical standards for receiver jacks, hearing aid compatibility for receivers, sound pressure level, signal-to-noise ratio and peak clipping level. The Access Board recommends professional design for complex systems and has published technical assistance on assistive listening systems and devices.

## Technology

Various technologies exist to meet this requirement. The system technology should be selected based on the venue requirements. Assistive listening systems should be considered and incorporated into the design if appropriate during the design development.

Hardwired and wireless systems are both acceptable and widely used. All systems require basic equipment that include transmitter(s) and receiver(s). Wireless systems are most predominant. There are three main wireless technologies in use at this time, each with advantages and disadvantages relative to application and inherent properties. The wireless technologies are:

**RF or FM -** sound over radio waves/frequencies

**IR -** sound over infrared light waves (think TV remote controller)

**IL -** sound over a magnetic field assembly to telecoil (t-coil) equipped hearing aids and cochlear implants

**RF**

Least expensive (Cost = $1X)
Use indoors or outdoors
Signals go through walls, 1000 feet range, no containment of signal (i.e. not private)
Multi-channel capability (more than one language can be transmitted simultaneously)
Requires inventory control and maintenance (receiver batteries, cleaning)
Can be obtrusive to others nearby
Accessory receiver can be used to achieve hearing aid compatibility and meet code requirements

**IR**

Cost = $2X-3X
Indoors best, limited outdoor application
Signal not traverse walls (private)
Multi-channel capability (multiple language, or multiple programs in same building without interference)
Requires inventory control and maintenance (receiver batteries, cleaning)
Can be obtrusive to others nearby
Accessory receiver can be used to achieve hearing aid compatibility and meet code requirements

**IL**

Cost = $5X-10X
Indoors or outdoors
Least intrusive to users with t-coil equipped hearing aids, meets hearing aid compatibility without extra user-components if t-coil equipped (user can wear neck-loop adapter if hearing aid not t-coil equipped)
Retrofit application can be difficult and costly
Less inventory and maintenance due to direct interface with hearing aids (most current technology hearing aids have t-coil technology)
Limited to single channel or audio input (one language or program at a time)
Unless using neck loop to RF or IR receiver (for those without t-coil) is not audible to others ❑

## Allowable Opening Force for Egress Doors

BCOM reviewers are frequently asked, what is the allowable opening force for egress doors?

This is an important issue as the doors are often too heavy for persons with disabilities or limited strength to open. The current building code, the *2012 Virginia Uniform Statewide Building Code*, and the current design standard for accessibility, the *2010 ADA Standards for Accessible Design* published September 15, 2010, address the door opening force requirements.

The force for pushing or pulling open interior swinging egress doors, other than fire doors, shall not exceed 5 pounds. The operating force is permitted to be higher for exterior doors and fire doors. Exterior doors are exempt from the 5 pound requirement because air pressure differentials and strong winds may prevent doors from automatically closing. Fire doors are exempt from the 5 pound requirement because fire doors are required to close and latch shut. For these doors, a maximum of 15 pounds is required to release the latch, 30 pounds to set the door in motion, and 15 pounds to swing the door to the full-open position. See *Virginia Construction Code*, Section 1008.1.3.

Pressure gages similar to the above are often used to measure opening force.

This short Youtube video clip illustrates an opening force pressure test. ❑

## Communication Tower Reviews, Permits & Fees

DEB/BCOM reviews and permits communication towers constructed on Commonwealth of Virginia property. This includes both new communication towers and the addition of antennae or other modifications to existing towers. Building Permits (CO-17TWR) and Certificates of Use (CO-13.3TWR) for towers are issued via the BITS web application.

Review and permitting fees for towers procured by state agencies for their own use (or for use by other state agencies) are billed to the state agency on whose property the tower is located. The fees are billed through the Bureau's normal monthly billing process at the internal service fund hourly rate approved by the General Assembly. BCOM's reviews commence immediately upon the receipt of plans and specifications. Permit and certificate data is entered into BITS by the state agency.

Review and permitting fees for towers procured by non-state entities (e.g., cellular companies) are now billed directly to the non-state procuring entity. The fees are pre-billed on a lump sum basis. Reviews commence following the receipt of payment. The non-state entity does not access BITS, but rather completes a questionnaire providing applicable data for the permits. BCOM staff create the tower permits and certificates. Copies of these approved documents will be issued to both the non-state procuring entity and the agency on who property the tower is located.

To facilitate reviews of both types of tower projects, BCOM recently assigned a special "tower team". DGS's Division of Real Estate Services (DRES) may also be involved with tower projects from a leasing or acquisition perspective. While BCOM and DRES coordinate services for tower projects, DRES' reviews and fees are separate and distinct from BCOM's reviews and fees; however, if a lease agreement is required, BCOM's tower permits will not be issued prior to lease execution.

For questions on BCOM's tower reviews and fees, please email: Amanda.Lee@dgs.virginia.gov

For questions on DRES' tower reviews and fees, please email: Michael.Nolan@dgs.virginia.gov ❑

## How to Structure an A/E Contract for a Pool-funded Project

Drafting an A/E contract for a Pool-funded project requires some unique considerations. A typical Non-Pool funded project includes the following phases:

1. Schematic Phase
2. Preliminary Design Phase
3. Working Drawings (Construction Documents) Phase
4. Bidding Phase
5. Construction Phase Services

While a Pool-funded project may have the same phases, it requires a contractual separation between the Preliminary Design and the Working Drawing Phases and the potential to adjust the Design-To amount after the Schematic and Preliminary Phases.

To understand the reasons for this, we must first look at the Commonwealth of Virginia's Pool Process. There are three types of Pools:

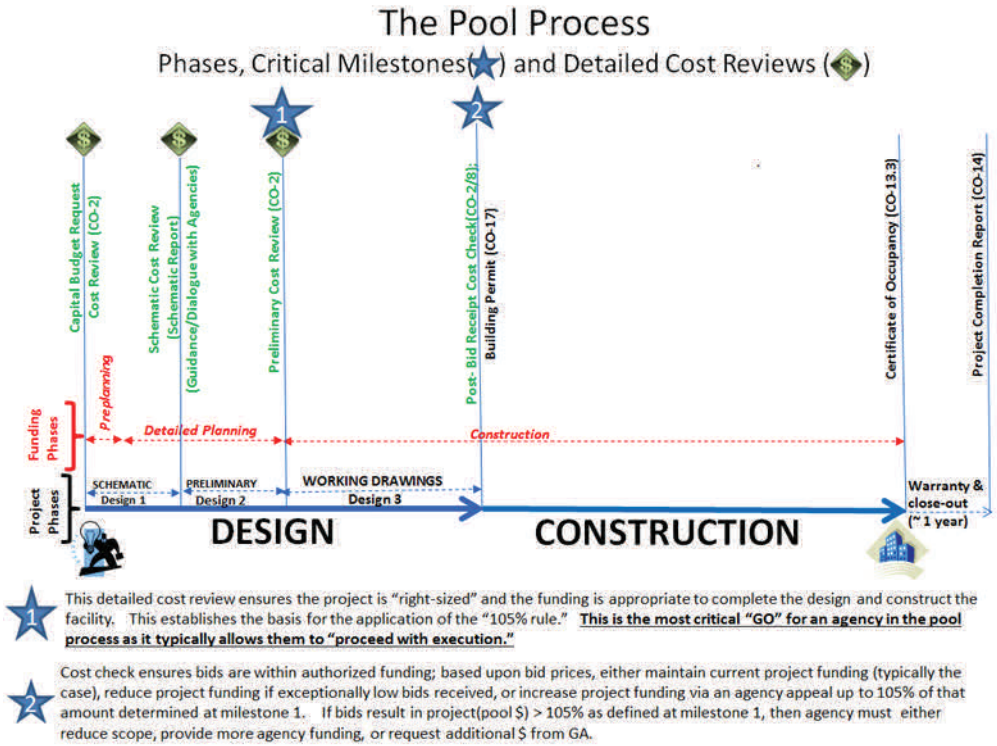
A. Preplanning Pools
B. Detailed Planning Pools
C. Construction Pools

Preplanning is a stand-alone design contract. Agencies use the recommendations in the Preplanning study to request further funding for the project. Although the design consultant engaged for the Preplanning Study may be selected for the subsequent design phases, there is no contractual obligation for same.

A project included in a Detailed Planning pool is authorized by the General Assembly to:

1. Prepare architectural and engineering documents through the Schematic and Preliminary Design stages.
2. Follow the Pool Process to establish an approved project funding amount.

The completion of Detailed Planning is the first critical milestone as illustrated in the diagram below.



The break between Detailed Planning and Working Drawings allows the Construction Pool to more accurately reflect construction costs but could halt the A/E contract if the project is not included in a future Construction Pool. The CO-3 (form DGS-30-16) includes the following clause in the A/E contract to deal with this required break:

> *The A/E is authorized to complete the A/E services through the Preliminary Design Phase. The A/E shall not proceed beyond this Preliminary Design, and the Owner shall have no responsibility to pay for services beyond the Preliminary Design Phase, unless the Owner states to the A/E, in writing, that "The A/E is hereby authorized to proceed beyond the Preliminary Design Phase."*

Projects included in a Construction Pool are authorized as follows:

1. If Detailed Planning has not previously been completed, then:
   a) Prepare architectural and engineering documents through the Schematic and Preliminary Design stages.
   b) Follow the Pool Process to establish an approved project funding amount.

2. Proceed through Working Drawings and Construction, as outlined in the previous diagram, within the established project budget.

BCOM recommends that agencies negotiate an A/E contract for all services to identify all of the design fees up front for the project. The clause outlined above stops the project if it is not included in a Construction Pool.

Another unique aspect of a Pool project is the Design-To amount. With Non-Pool projects, this is a static part of the A/E contract. For Pool projects, the Design-To amount may need to change after the Schematic and Preliminary Phases. This can be accommodated in the Memorandum of Understanding for A/E Contract (Form DGS-30-258), wherein agencies can spell-out the following:

1. This is a Pool-funded project that has been funded for Detailed Planning only.
2. The target construction design-to budget for the Schematic Phase shall be $_____
3. After the Schematic Cost Review, a revised design-to amount shall be established.
4. After the Preliminary Cost Review, the final design-to amount shall be established. ❑

## VCCO Certifications

Congratulations to the following individuals who recently passed the VCCO Certification Exam:

- **Ethel Edwards with Norfolk State University**
- **Rob Johnston with the University of Mary Washington**

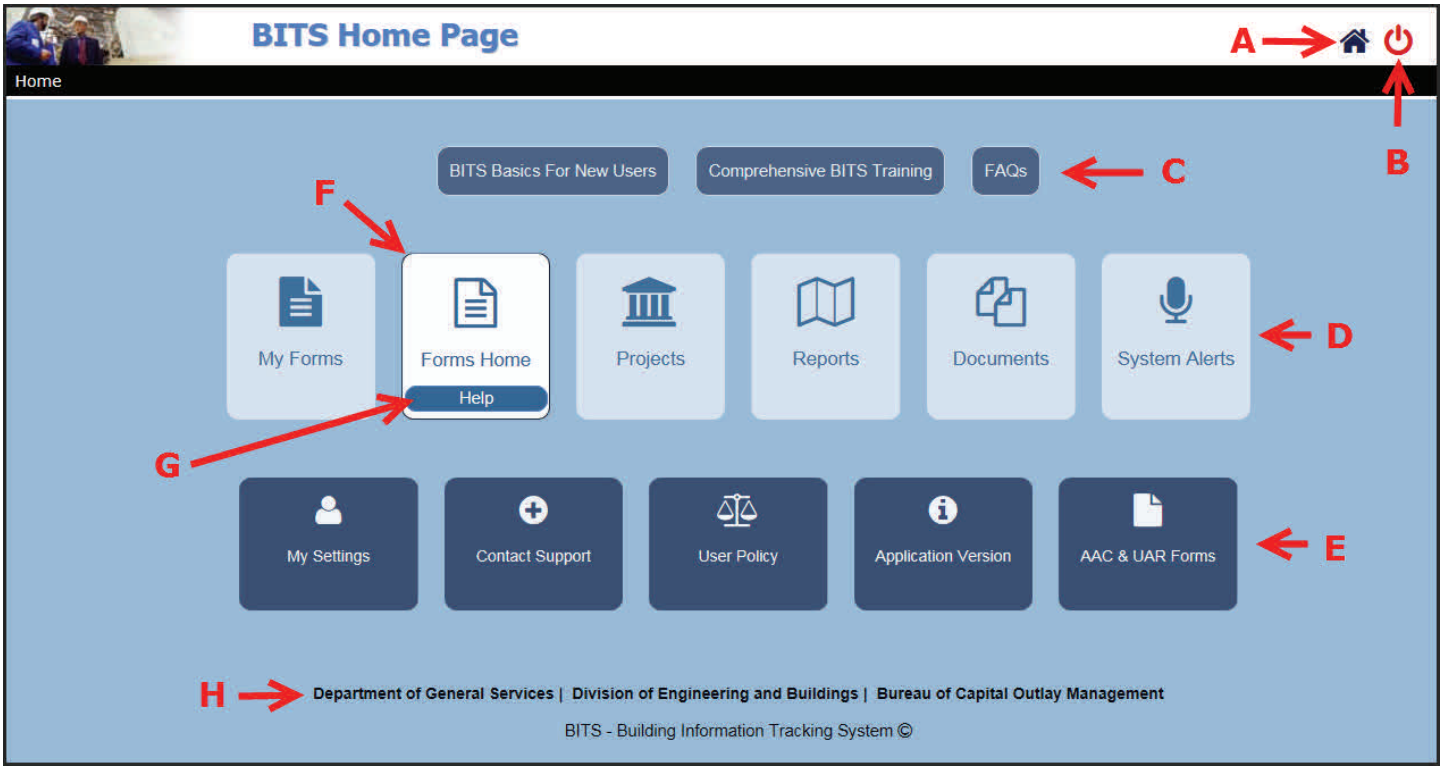
Virginia Construction Contracting Officers are state and local government employees who have completed the necessary training and successfully passed a multi-part examination focused on state procurement law, policy and procedures. VCCOs perform several keys functions in delivering projects including the procurement of professional services; the receipt, opening and review of bids; and in some cases the approval of CO-8 forms for recommending the award of construction contracts.

For more information on CPSM and VCCO seminars, visit the Seminars page on the Bureau of Capital Outlay Management's website. ❑

# BITS Version 1.5.7 and Document Access

A new version of the DGS Building Information and Tracking System (**BITS**) will be released in early April. Two significant enhancements of note to agency users are illustrated below:

## 1) New BITS Home Page:




**A.** The new, simplified BITS "Home Page" now also serves as the BITS Main Menu. The Home Page (and Main Menu) can always be accessed by simply clicking on the Home icon from any other BITS page.
**B.** The On/Off icon is for logging out of BITS.
**C.** The darker buttons on the first row above access BITS training materials and answers to frequently asked questions.
**D.** The lighter buttons on the second row above access the most frequency used BITS pages.
**E.** The darker buttons on the third row above access less frequency used BITS pages.
**F.** To access a specific BITS page, just hover the cursor over a button's icon and click the mouse to access that page.
**G.** To access BITS training information for a specific BITS page, click the embedded "Help" button.
**H.** In addition to identifying BITS as a DGS/DEB/BCOM system, each of these labels also serve as a link to that entity's public webpage. For example, to access BCOM's publicly-accessible website, just click on the "Bureau of Capital Outlay Management" label.

## 2) Document Access:

Agency users who have been granted "document access" permissions by their BITS Agency Access Coordinator will now be able to view any documents that BCOM reviewers have marked as agency-accessible. NOTE: This feature is not intended to take the place of BCOM's Lead Reviewers continuing to email review comments and other documents, but rather is intended as a means to allow agency users easy access to view pertinent project documents for historical purposes.

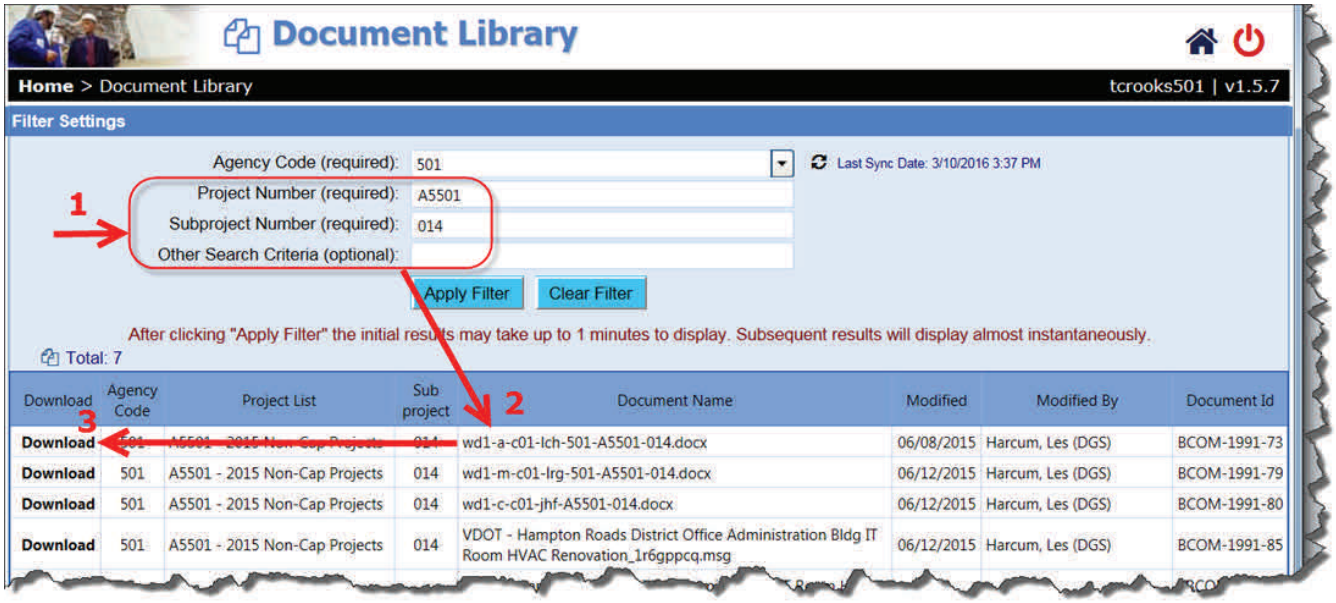
Please refer to the next page for an overview of the Documents Page and the associated user interface.

Below is an example screenshot of the new "Documents" page. The user interface works as follows:

1. The user keys in the 5-digit Project and the 3-digit Subproject code. The user's agency is known from the user's BITS account information. The user can only view documents for their agency's projects. Other search criteria may be optionally entered, to further narrow the returned document results.

2. Based on the search criteria the user entered, BITS queries and returns the names of any associated project documents from the Bureau's document management system that BCOM's review staff have marked as agency-accessible. ( NOTE: The initial document query in a given BITS session may take up to one minute, but thereafter the results are displayed almost instantaneously.)

3. To view and/or save a copy of a specific document, the user clicks the "Download" button.

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## CPSM Forms Update

The following CPSM forms were recently revised and are available for download:

- **DGS-30-200 (GC-1) Change Order Estimate (General Contractor)** (Revised 03-16)
- **DGS-30-204 (SC-1) Change Order Estimate (Subcontractor)** (Revised 03-16)
- **DGS-30-208 (SS-1) Change Order Estimate (Sub-subcontractor)** (Revised 03-16)
- **DGS-30-276 Weekly and Daily Inspection Report** (Revised 03-16)
- **DGS-30-288 Rolling Punch List** (Revised 03-16)

Please download Form **DGS-30-000, Capital Outlay Forms Master List** for a complete listing of the latest version of each CPSM form. All current forms may be downloaded from the DGS Forms Center. If a prior version of a form is required, please contact capout@dgs.virginia.gov. ❑