I Spy With My Little Eye
A Train Control Room

Perhaps you’ve spotted one on your commute, a red brick building located along the Dulles Corridor. If you’ve ever wondered, or not, those buildings are wayside facilities that assist with train operation. The little, red brick building we’re talking about today is called the Train Control Room (TCR).

Specifically, TCRs are the facilities located at each station and at interlocking signals and yard turnouts, providing Automatic Train Control (ATC) System functions within a set geographic boundary.

So, now you’ve seen it and you’ve been given a name for it, but what does that really mean?

The ATC System regulates train doors, speed, spacing, stopping and performance using three main functions: ATP, ATO and ATS. Those acronyms may remind you of collegiate “Greek Life,” but they actually serve a vital purpose.

• **Automatic Train Protection (ATP)** – Prevention of collisions and derailments.
• **Automatic Train Operation (ATO)** – Control of train movement and stopping at stations.
• **Automatic Train Supervision (ATS)** – Monitoring and control of train schedule.

If you’ve driven past these red brick buildings, now you know these are wayside facilities. Pictured above is a Train Control Room along the Dulles Corridor. (Courtesy of Chuck Samuelson, DCMP)

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Dulles Metrorail Project’s Precautionary Response to COVID-19 Pandemic

The Airports Authority has put into place many measures to protect the health and safety of all employees and contractors including implementing telework programs for all non-essential personnel. Construction managers and workers continue to work at several locations.

Specific instructions have been provided including, but not limited to:

• Maintain social distancing
• Perform safety briefings outdoors
• Frequent hand-washing
• Limited face-to-face meetings
• Maximum of 10 participants or less during meetings

Any employees indicating feeling sick or unwell are asked to remain home under quarantine.

The Airports Authority is abiding by Virginia Gov. Ralph Northam’s latest mandatory guidelines, which permit construction projects to continue working. We coordinate daily with our contractors to ensure that they enforce these guidelines on all of their subcontractors.

The health and safety of our...
In fact, the ATC System housed by the TCRs incorporates a variety of safety features to ensure that no single issue can result in a dangerous situation. If a malfunction were to occur, the train would decelerate and come to a complete stop.

You may also have heard the term ATC System in reference to the testing and tie-in process currently underway at the Wiehle-Reston Metro Station. This will allow Phase 2 to connect to the existing Silver Line and extend train operation to Dulles Airport and into Loudoun County.

“Prior to the ATC System being commissioned, an extensive test plan is executed, which includes Factory Testing, Wayside Static and Dynamic Tests that verify that the ATC design provides protection, safe train operation and reliability,” said Michael Savina, ATC Oversight with the Dulles Corridor Metrorail Project.

On a completed system, each TCR is linked to the adjacent TCR to provide coordinated ATC System functions. Like a message through the grapevine, this is how the TCRs keep track of information and interact with each other, but we call it a Vital Network Communication System.

Phase 2 was contracted in two parts – the mainline, which includes the track and the stations, and the Rail Yard and Maintenance Facility. Along the mainline, there are 11 TCRs supplied by Hitachi Rail in addition to four TCRs at the Rail Yard supplied by MC Dean.

On Phase 1, the ATC System included 11 mainline TCRs and one additional TCR installed as a part of the West Falls Church Rail Yard expansion.

During your next commute, see if your passengers can spot the TCRs along the Metro line. You’ll have an educational anecdote to share with them to pass the time.

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project staff, contractors and agencies remain our top priority. Project staff will remain in contact with our partners at WMATA, Capital Rail Constructors and with local and state government to monitor the news and updates regarding the COVID-19 outbreak.

It’s still way too soon to determine whether the virus will cause any work disruptions. As the situation becomes more clear, we will release more information on our website (http://www.dullesmetrorail.com) and to our email subscribers (http://www.dullesmetro.com/news-and-updates/traffic-alerts/sign-up-form/)

SILVER LINE PHASE 1 WORK CONTINUES

Silver Line Phase 1 crews perform underdrain installation along Tysons Boulevard. (Courtesy of Dulles Corridor Metrorail Project)