**North Carolina ‘Dig Once’ Policy Proposal**

*North Carolina Broadband Infrastructure Office, NCDIT*

December, 2017

**Policy Objective:** Increase broadband infrastructure access for residents and businesses by lowering capital costs incurred by internet service providers (ISP) by aligning NCDOT road projects with broadband deployment projects.

**Policy Benefits:** Digging a trench and installing cables represent the costliest part of expanding broadband infrastructure for ISPs. Installation of communications infrastructure in a trench dug for a road project would significantly reduce ISP costs and create the incentive to expand broadband to unserved or underserved areas. States adopting ‘dig once’ policies have expanded the reach of high-speed internet infrastructure, such as fiber optic cables, benefitting rural areas.

In addition to lowering capital expenditures, these policies would allow NCDOT better management of the ROWs by reducing the number of number and scale of excavations when installing telecommunications infrastructure and by designating appropriate pathways. A policy would create uniformity across all regional divisions.

**Policy Options:** Federal and state ‘dig once’ policies aim to leverage the opportunity to install conduit and/or cables during road building or expansion projects. Two possible considerations include:

* **NCDOT Installed Conduit:** NCDOT installs multiple or segmented conduit during projects and enters into a “cost-basis lease” agreement for use by ISPs. NCDOT lets internet service providers (ISPs) use NCDOT conduit for fiber-optic cables in exchange for NCDOT access to cables for traffic signaling, smart transportation initiatives, and other purposes.
  + - NCDOT could contract with MCNC or another neutral entity to construct and manage operations, maintenance, and administrative duties.
    - Funding for laying conduit could be covered by lease or sale of conduit to private sector ISPs.
* **Project Notification:** Notify ISPs of new road projects eligible for ISP facility installation when the project is announced and include standards, locations, and estimated costs. BIO could provide notifications to all ISPs quarterly. NCDOT could hold bi-annual meetings with ISPs to review new projects and work through anticipated issues.

**Next Steps**

* + NCDOT-BIO meeting to discuss benefits, barriers, and options for an state-wide policy
  + Determine appropriate vehicle for advancing a ‘dig once’ policy (e.g., directives by governor’s office or cabinet Secretaries)
  + Develop a draft policy for review and approval by NCDOT and Governor’s office
  + BIO identifies key areas of the state for conduit installation and match those with upcoming NCDOT projects throughout the state
  + BIO will work with the League of Municipalities (NCLM) and the North Carolina Association of County Commissioners (NCACC) to create local ‘dig once’ policies

**Other States** (approximately 7 states have a ‘dig once’ policy)

**Utah** – UDOT has a policy and practice to install oversize conduit during road construction, facilitating later broadband expansion. UDOT owns the conduit and leases to ISPs.

**Arizona** –Arizona law allows the DOT to coordinate the installation of multi-user conduit in state highway rights of way. The statute clearly states that the policy is targeted at rural broadband deployments, applying only to road construction or expansion outside cities or towns with a population of more than 10,000. A cost-sharing mechanism requires ISPs to pay a “cost-based rate” to lease conduit.

**Minnesota** – MDOT has created a process that allows broadband providers to install copper or fiber-optic cable when state rights of way are open for other purposes. Minnesota has a statute in place that authorizes this practice.

**California** - California recently passed legislation that requires the DOT to notify companies working on broadband deployment of highway construction projects. By January 1, 2018 DOT must develop guidelines to facilitate the installation of broadband conduit on state highway rights-of-way.

**Municipalities**

**Boston** has a “joint build” policy that requires all telecoms to install their cable in shared underground conduits on a shared-cost basis. This policy also designates a “lead company” that is tasked with coordinating efforts between all telecoms involved in the installation process, planning and implementing the installation.

**San Francisco** allows for a roadside trench to be left open after construction ends. This trench is later used to bury conduit and is shared among broadband providers, if possible, to avoid the costs associated with additional excavation in areas where the entire right of way is paved.

**Federal**

[U.S. Executive Order 13616](http://www.gpo.gov/fdsys/pkg/FR-2012-06-20/pdf/2012-15183.pdf), issued in 2012, directed the U.S. Department of Transportation to review ‘dig once’ requirements and to work with state and local governments to assist in the development and implementation of best practices, including ‘dig once’ polices.