PERMITTING SUCCESS

CLOSING THE DIGITAL DIVIDE THROUGH LOCAL BROADBAND PERMITTING

by DREW GARNER

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Broadband Delivers Opportunities and Strengthens Communities

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EXECUTIVE SUMMARY

Broadband is essential for modern life. It is fundamental for education, health care, employment, entrepreneurship, community development, entertainment, real estate, government services, and public safety. Communities without broadband—roughly 8 percent of the country[1]—are at a severe disadvantage compared with their connected peers. And this gap will only widen as our lives continue to shift online and technological innovations increasingly require connectivity.

The bipartisan Broadband Equity, Access, and Deployment (BEAD) program was designed to close this digital divide. BEAD, a component of the Infrastructure Investment and Jobs Act, allocates $42.5 billion to build broadband networks throughout rural America. Not only is BEAD the single largest broadband program in U.S. history, it comes during a period in which investment in broadband is already at record levels.[2] This historic level of funding creates an opportunity to bring high-speed internet access to every community in the country.

However, historic levels of funding will also generate historic levels of construction, and this will put enormous pressure on local governments. Local governments are generally responsible for approving the construction of infrastructure within municipal boundaries. They do this through their local permitting processes, which can involve reviewing permit applications, inspecting permitted work, and coordinating municipal activity. These processes take time and resources, and not every government is equipped for the coming wave of construction.[3] This is especially true in rural areas, where municipal resources are lowest and BEAD activity will be highest.

This paper is intended to help local governments and Internet Service Providers (ISP) navigate this challenge and develop permitting processes that will maximize the impact of BEAD and all future broadband investments. The paper's findings were identified during a national summit on local permitting processes, which was attended by representatives from local, state, and federal governments, ISPs, civil society organizations, philanthropies, and other key stakeholders.[4] By developing effective and efficient permitting processes, ISPs and local governments can help ensure that every community in America receives the full benefits of modern connectivity.

FINDING 1:
Foster Partnership Between the Permit Seeker and the Permitting Authority

MEET EARLY and OFTEN: ISP and municipal officials should hold pre-design meetings to ensure that both parties' priorities are addressed in project plans. ISPs, local governments, other utilities, and locate services should establish communication channels among themselves and with any other stakeholders in the permitting and construction process.

DISCUSS the RESPONSIBILITIES and REALITIES of LOCAL GOVERNMENT: ISPs and municipal officials should discuss factors that influence local permitting, such as protecting public safety, mitigating disruption to resident lives, coordinating the right-of-way, respecting community preferences, and working within municipal staff capacity. For example, in BEAD's rural areas, some permitting offices are staffed by one person on a part-time or volunteer basis. Such constraints should be acknowledged early and addressed by project plans.

UNDERSTAND the PROPOSED DEPLOYMENT: ISPs should articulate the scope, timeline, and method of construction for their projects. Local governments should clarify municipal capacity to process permits and complete inspections. Mutual understanding on these topics is fundamental to strong partnerships and efficient allocation of resources.

ESTABLISH TRUST and ACCOUNTABILITY: Prior to construction, ISPs and local governments should agree on specific restoration requirements, workforce quality controls, and neutral intermediaries. Establishing such agreements early will help ensure a smooth and amicable deployment process.

FINDING 2:
Maximize Resources Available to the Permitting Authority

ESTABLISH MODELS for PROVIDING SUPPORT to PERMITTING AUTHORITIES: To increase capacity, permitting authorities will need additional resources. These resources can take a variety of forms (e.g., funding, staff, technical assistance, case studies, relaxed timelines) and come from a variety of sources (e.g., the applicant, the state, other local governments, federal grant programs). Federal, state, and local governments, as well as ISPs, should explore these options to maximize the impact of broadband investments.

LIMIT EXCESSIVE DEMAND on PERMITTING RESOURCES: ISPs should factor local permitting capacity into project plans. Local governments should foster coordination among all permit seekers and, where necessary, implement policies that discourage non-priority applications.

MAXIMIZE THE "RETURN ON INVESTMENT" of PERMITTING: ISPs, along with federal and state agencies, should help local governments take advantage of the valuable data and opportunities that arise during the permitting and construction process. Local governments should use permit data to coordinate with other infrastructure projects.

FINDING 3:
Ensure Transparency and Consistency in Permitting Processes

MODERNIZE APPLICATION PROCESSES: Local governments should document all permitting requirements and make them accessible online. To the extent possible, local governments should accept electronic submissions, utilize e-permitting portals, and provide regular updates about the status of applications.

REDUCE UNNECESSARY DUPLICATION: Local governments should evaluate their permitting processes to ensure that there are no unnecessarily duplicative requirements and that scrutiny is focused on plans that differ from the norm or do not utilize existing permits.

CASE STUDIES:

Key concepts from this paper are further explored in the case studies starting on page 31.

CASE STUDY 1: Ting's Master Agreement.[5] Ting prioritizes strong partnerships when entering a new community. The company's approach relies on early outreach to the local government, comprehensive discussions about all elements of the proposed deployment, and identification of areas for mutual benefit. These discussions are codified into "master agreements." This process is exemplified by Ting's work with Greenwood Village, Colorado.

CASE STUDY 2: Mesa's Consultant Reimbursement Agreement. In 2022, the city of Mesa, Arizona, prepared for a wave of broadband deployment by adopting an innovative model to increase municipal permitting capacity. Mesa's model allows ISPs to pay the city to hire contractors who then review ISP permit applications. This model effectively allows an ISP to increase municipal permitting capacity on demand.

CASE STUDY 3: Funding Opportunities Within BEAD. BEAD is a historic opportunity to bring connectivity to communities who need it most. However, many of these communities will need help managing the historic wave of construction. BEAD can provide this help in multiple ways, such as direct funding and workforce development.

CASE STUDY 4: Permitting in Leawood, Kansas. The county's award-winning mapping tool is available online and allows users to track locations already served or slated to be served by broadband and other utilities. The map enables city staff and permit seekers to identify the most suitable locations and routes for network build-out. With the county's maps and data available online, this mapping system provides users the ability to make informed decisions with improved efficiency at less cost.

GLOSSARY

Aerial Deployment: The installation of broadband infrastructure, such as fiber-optic cables, on utility poles above ground. This method is often quicker and less expensive than underground deployment but may be more susceptible to environmental damage.

Broadband Equity, Access, and Deployment Program (BEAD): A $42.5 billion grant program funded by the Infrastructure Investment and Jobs Act that will enable states and territories to construct reliable broadband networks in rural areas across the United States.

Conduit: A protective tube through which wiring can be run. Conduits may be installed aerially or underground to safeguard cables from damage and facilitate maintenance and upgrades.

Facilities: The physical infrastructure used in broadband and other utility networks, including conduits, underground and aerial wiring, access points, buildings, and other structures.

Greenfield Deployment: A network deployment or expansion into an area where there is no existing infrastructure.

Internet Service Provider (ISP): A company that provides individuals and organizations access to the internet and related services. ISPs offer various types of connections, such as fiber-optic, cable, DSL, and satellite, to deliver internet connectivity.

Locate Services: Services that identify and mark the locations of existing underground utilities and infrastructure before excavation or construction. These services help prevent accidental damage to existing networks and ensure safe deployment of new infrastructure.

National Telecommunications and Information Administration (NTIA): A U.S. government agency within the Department of Commerce responsible for, among other things, implementing the BEAD program.

Overlashing: The process of tying additional cables to the existing cables that are already attached to utility poles.

Right-of-way: A legal right to pass through property owned by another party. For broadband deployment, right-of-way refers to the legal permissions required to install infrastructure along roads, utility lines, or other public or private properties.

Underground Deployment: The installation of broadband infrastructure below ground, typically by burying cables and/or conduits in trenches or by using directional boring. Access points, such as “handholds,” may be installed to facilitate maintenance and future work after the ground is closed. Underground deployment offers greater protection from weather and physical damage but can be more costly, time consuming, and disruptive.

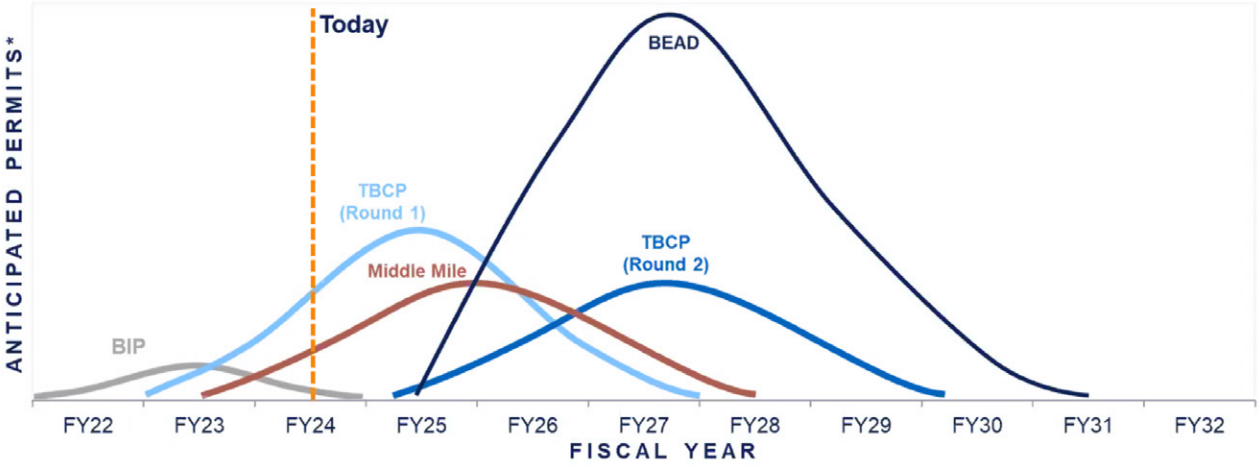
Utilities: Companies or entities that provide essential services such as electricity, gas, water, and telecommunications to the public. Utilities often share infrastructure, such as poles and conduits, with ISPs for the deployment of internet services.

INTRODUCTION

This paper is intended to shed light on one of the most frequently discussed topics in broadband: local governments' construction permitting processes. These processes are about to experience perhaps their biggest test ever as billions of federal dollars drive a historic wave of broadband deployment. As depicted in the graph below, this wave will primarily result from the Broadband Equity, Access, and Deployment (BEAD) program, a $42.5 billion component of the Infrastructure Investment and Jobs Act designed to build high-speed networks in rural America.

CONCEPTUAL TIMELINE for BROADBAND PERMIT APPLICATIONS

The highest volume of permitting activity is anticipated for projects funded by the BEAD Program. BEAD projects are expected to begin execution in 2024, with permitting activity expected to reach its peak in late 2026 to 2028.



Source: National Telecommunications and Information Administration (NTIA). Note: the graph is conceptual in nature and does not accurately depict magnitudes. But if it did, the BEAD peak would be at least twice as high.

In preparation for this permitting activity, and with an eye toward maximizing the impact of all future broadband investments, Brightspeed, the Fiber Broadband Association, GFiber, and NTCA—The Rural Broadband Association partnered with the American Association for Public Broadband, the Benton Institute for Broadband & Society, and Georgetown Law Institute for Technology Law & Policy to convene a summit on local permitting. The goal of this summit was to gather a diverse set of permitting experts, put them in conversation with one another, and identify areas of consensus and disagreement.

There is no single local permitting process, and thus there can be no one-size-fits-all solution to permitting challenges. Each local government has a unique permitting process (e.g.,

staff, timelines, inspections, requirements). Each community has unique characteristics (e.g., different water tables, surface components, population densities). And each ISP has unique methods for providing service (e.g., construction processes, transmission technologies, project design).

Nevertheless, there are still a set of common principles that can make permitting more efficient and effective. Those principles, as defined by summit participants, are explored in this paper. Broadband, like other utilities, is essential for modern life. Local permitting is essential to protect public safety and existing infrastructure during broadband deployment. Therefore, efficient, effective permitting benefits both communities and the ISPs that serve them.

METHODOLOGY: The Local Broadband Permitting Summit

The contents of this paper reflect insights from nearly 30 of the nation's leading permitting experts.[6] These experts were selected for their ability to represent the perspectives of specific permitting stakeholders, including local governments, local permitting authorities, state broadband offices, governors' offices, federal agencies, philanthropies, civil society organizations, engineering firms, private landowners, co-operative utilities, and ISPs of various sizes and business models. These experts were convened for a permitting summit at Georgetown Law Institute for Technology Law & Policy in Washington, DC, and they were asked to discuss their top priorities for local broadband permitting as well as any associated challenges and solutions.

To facilitate the discussion, the summit relied on three tools: a survey, a moderator, and a structured agenda.[7] The survey was deployed before the summit and asked attendees a range of open-ended questions to help define the topics. The moderator led attendees through the agenda and enforced a code of conduct designed to keep the discussion productive. The agenda, described below, was designed to identify areas of consensus among attendees:

1. Attendees were divided into one of three "sector-specific" breakout groups: Local Governments, State and Federal Entities, or Infrastructure Providers. Group designations were made via attendee self-selection and determinations by the hosts (in all cases, self-selection and host determinations matched). Each sector-specific breakout group was tasked with identifying its sector's top three priorities for the permitting process.
2. The sector-specific breakout groups reconvened and shared their priorities with the full group. A list of six unique priorities were identified after duplicates were eliminated.
3. Attendees were then divided into three "mixed" breakout groups. Each mixed group had roughly equal representation from members of each sector (one-third each from Local Government, State and Federal, and Infrastructure Provider; experts from civil society and philanthropy were placed with the sector that best reflected their work on permitting). These mixed groups were asked to identify challenges and solutions associated with each of the six priorities. In this way, the three separate groups attempted to answer the same set of questions.

4. The mixed breakout groups reconvened, and a full group discussion with all attendees was held. For each priority, the mixed groups shared the challenges and solutions they had identified. The full group discussed each item, and points of consensus and disagreement were explored by the moderator.

This paper is organized around the main findings that emerged during the summit. It has also been supplemented by a follow-up survey and conversations with select attendees.

ACKNOWLEDGED LIMITATIONS

Permitting is a complex subject, and not all facets could be addressed during the convening or in this paper. Some topics (e.g., responsibility for locating underground facilities) were discussed, but consensus was not identified. Other topics (e.g., pole attachments, railroad crossings, federal and state permitting, environmental and historic reviews) were identified as posing significant challenges, but they were excluded in order to keep discussion focused on local permitting. However, in many cases, the findings from the summit and in this paper can offer useful insight on those issues.

Additionally, the findings discussed in this paper may not take into consideration the limitations of state or federal laws and/or regulations that might impact a local government's ability to implement one or more of this paper's findings. State laws and regulations vary dramatically with respect to potential limitations on local government action.

When considering this paper's findings, local governments and ISPs alike must also be aware of the potential impacts of federal laws and regulations, such as 47 USC § 224, 253, and 332, and the related FCC rules and orders. With the reclassification of broadband services as a telecommunications service, access to a community's rights-of-way by broadband providers will subject local governments to compliance with these statutes, rules, and orders. These laws and regulations, among other things:

- Ban state and local regulations or requirements that prohibit or have the effect of prohibiting the provision of telecommunications services; but
- Preserve state and local government's authority to impose nondiscriminatory rights-of-way regulations.

As such, any local rights-of-way regulations that are different from, or more favorable to, broadband providers than other telecommunications providers—whether in the local governments' regulations or in separate agreements with broadband providers—may be deemed discriminatory and undermine this preservation of authority.

While this paper encourages local governments and ISPs alike to explore means to expedite broadband deployments, local governments and ISPs must be aware of the constraints federal and state laws and regulations can have on each party's ability to achieve those goals.

FINDING 1: Foster Partnership Between the Permit Seeker and the Permitting Authority

A broadband network can have a lifespan of over 30 years. Entire generations will grow up using the network for everything from their education to their employment. ISP and government officials will collaborate throughout the network's entire lifespan, navigating emergencies, modernizing systems, addressing outages, adding connections, and performing ongoing maintenance. Every person and organization with a stake in the network—investors, residents, health care providers, educators, government agencies, farmers, local businesses—benefits when municipal and ISP officials have a strong working relationship.

During the summit, such relationships were identified as fundamental to an effective permitting process. However, participants emphasized different aspects of the relationship: local governments highlighted the need for respect and accountability, infrastructure providers sought responsiveness and consistency, and state and federal representatives prioritized coordination and synergy. Encouragingly, these differences were a matter of emphasis, not underlying merit.

To be implemented, the ideas discussed in this section primarily require additional communication rather than additional funding. This makes them distinct from ideas later in the paper. However, that should not imply that they are easier to achieve; strong partnerships require commitment, mutual understanding, and earned trust—qualities that must be actively sustained over the long lifespan of a network.

Meet Early and Often

Universal access to fast, reliable, and affordable broadband service is a goal shared by virtually all permitting stakeholders. But even when everyone is rowing in the same direction, getting to the destination still requires coordination. Permit seekers and permitting authorities should establish strong communication channels. Not only will such engagements make the project more successful, but they can also give the ISP an edge in grant applications that award points for local coordination (including many state BEAD programs).

PRE-DESIGN MEETING:[8] Before announcing a project, before beginning design, before submitting an application, ISPs should meet with the local government, early and often. The goal of such meetings should be to create mutual understandings about the project's design, construction process, and area of service. What are the ISP's goals? What are the community's goals? Where is there overlap? Where is there conflict? What, if any, existing requirements does the local government have regarding infrastructure projects? Some local governments may already address these issues with existing requirements, such as franchise agreements. But for those that do not, the results of pre-design meetings can be memorialized in "master agreements," which outline roles and responsibilities for both the ISP and the local government. Some local governments may already have such requirements in place (for more, see Case Study 1: Ting's Master Agreement).

MEET WITH UTILITIES AND LOCATION SERVICES: In addition to meeting with the local government, ISPs and their contractors should meet with local utilities (e.g., electric, water, sewer, gas, telecom, cable) and location services (e.g., 811 or the local equivalent). These entities will likely understand the local permitting processes and have insights that come only through experience. Moreover, these entities may be planning their own projects within the ISP's proposed area, and coordination with those projects may reduce overall costs and disruptions to the community. Finally, these entities will be key partners during construction, and established channels of communication will allow feedback to flow between crews, locators, and utilities.

DESIGNATE SINGLE POINTS OF CONTACT: The permitting authority, the permit seeker, and all relevant subcontractors should designate a single point of contact (SPOC) for their respective organizations. This individual should be equipped to quickly address issues and/or route issues to the appropriate channel. These SPOCs should remain accessible for the duration of the project—from pre-application to post-construction—to ensure that all parties are fully supported.

Understand the Responsibilities and the Realities of Local Government

When approaching a local government, an ISP should be sensitive to a local government's many responsibilities and its limited resources, particularly in smaller communities. Some jurisdictions may have just one person who manages all permits—for rights-of-way, land use, construction, and so on. Others may have only part-time staff or volunteers. And still others may have key priorities, like commercial development, that absorb limited permitting resources. Understanding these realities will not only lead to a stronger relationship but also help the ISP know when to ask for flexibility and when to be flexible itself. (For more, see Appendix E: NTIA Slides on Local Permitting.)

PRIORITIZE PUBLIC SAFETY: A local government's main priority is public safety, and, in many cases, permitting requirements are rooted in public-safety concerns. These concerns include the applicants' financial and operational viability: Are they insured and bonded and in compliance with worker safety rules? What is the full scope of the project and its timeline? Does the ISP have a plan for managing traffic around its site and concur with proper street excavation and restoration requirements? Is the ISP able to manage its work within the hours and boundaries prescribed?

ISPs should explore these concerns and, where appropriate, help the government understand the true risks associated with the construction process. At the same time, ISPs should anticipate that deviations from public-safety requirements may demand substantial justification, resources, and time-consuming procedural changes.

MITIGATE HARMFUL IMPACTS: A local government is responsible for mitigating the consequences of construction—traffic, property damage, resident complaints, and construction hazards (including gas leaks, cave-ins, and sinkholes). ISPs can minimize these consequences by working with location services, notifying residents of construction early, ensuring that all subcontractors are easily identifiable and responsive to complaints, and providing regular forecasts and updates about construction activity (for more, see Case Study 1: Ting's Master Agreement). Additionally, when it comes to private property, ISPs and local governments may partner with local institutions, such as farm bureaus, that are able to develop templates for land use agreements that contemplate local priorities, such as protection of agricultural drainage tile.

COORDINATE STAKEHOLDERS: A local government is responsible for all permit holders in the right-of-way, not just the ISP. As noted by a summit attendee, "It's an everything permitting office, not just a broadband permitting office."

Local governments juggle roadway work for gas, electric, water, and sewer utilities as well as telephone, cable, and broadband providers. Additionally, they manage scheduled work for new roads, bridges, culverts, and storm drains. Taken together, there may be little room left for additional work and disruption. Given this, local governments and ISPs can benefit by coordinating different projects to avoid repeated bouts of restoration and traffic closure.

RESPECT CONSTITUENT PRIORITIES: Some permit requirements are expressions of a community's aesthetic, environmental, health, and resiliency priorities. These requirements may seem burdensome, but local governments are responsible for upholding the rules their communities establish and, thus, may have limited ability to make adjustments. Acknowledging the position of local government—that the requirements are not simply the result of bureaucracy but instead reflect a community's preference—will help foster a healthy partnership.

Understand the Proposed Deployment

Broadband technology and construction methods are constantly evolving. ISPs should help local governments understand how and when the proposed deployment will impact their communities, and why the resulting high-speed internet service is worth the disruption.

TEACH BROADBAND 101: ISPs should remember that broadband is technical and, relative to other utilities, fairly new technology. When approaching a local government, do not assume prior knowledge. Explain the nuances of the proposed service (e.g., its speed, cost, availability, and scalability) and the benefits of a better-connected community (e.g., improved employment, health care, education, government services, property values, and business investment).

EXPLAIN PROPOSED CONSTRUCTION METHODS: The ISP should ensure that it provides the local government with a clear explanation of the construction methods the ISP proposes to use—trenching, microtrenching, boring, aerial attachments—and their effect on the community's landscape, infrastructure, and residents. The better a local government understands the disruption, the better it can evaluate and prepare for the consequences should it approve that construction method. Such transparency strengthens trust and improves communication between the government and the ISP, benefiting both.

FORECAST NEEDS: The ISP should share both long- and short-term forecasts of its permitting requests and construction plans with the local government and utility locators (e.g., 12 months with regular status updates). Such forecasts will help the local government expand or reallocate capacity and provide an opportunity to flag potential conflicts. Forecasts will also allow the local government to notify residents and agencies about upcoming disruptions.

IDENTIFY MUTUAL BENEFITS: Permitting and construction processes create opportunities for a local government to collect valuable data and align fiber infrastructure with municipal objectives. ISPs should highlight these opportunities and help the local government take advantage of them (see **Finding 2: Articulate the "Return on Investment" of Permitting**).

Establish Trust and Accountability

Trust allows for flexibility and rapid resolution of issues. Accountability promotes diligence and, when necessary, restitution. Together, these qualities are the basis of a productive, long-term partnership. But fostering trust and accountability between new partners can require detailed discussion and explicit commitments.

COMMIT to RESTORATION REQUIREMENTS and EXPECTATIONS: Before construction, ISPs and local governments should agree to expectations for the restoration of construction sites. This may require a review of existing municipal ordinances governing restoration or, if there are none, agreement to new terms. Either way, both parties should share an understanding about the time frame and criteria for all elements of restoration, including temporary patching, truck and material staging areas, types of replacement sod and flora, cleanup of locate markers, and processes for remediation in the event of issues (for more, see **Case Study 1: Ting's Master Agreement**).

IMPLEMENT WORKFORCE QUALITY CONTROL: Construction is often completed by contractors, so ISPs should confirm the qualifications and reputation of their contractors, and relevant crew members should participate in 811 center training courses and attend utility coordinating committees. All contractors and subcontractors should be properly identified, and on-site points of contact should have the authority to stop work should the need arise.

IDENTIFY NEUTRAL INTERMEDIARIES: Local governments and ISPs should identify neutral third parties that can help resolve disputes or mediate negotiations. Such parties may include state broadband offices, federal program officers, or local farm bureaus.

FINDING 2: Maximize Resources Available to the Permitting Authority

Local governments must expend resources to process permit applications. Therefore, to increase permit processing capacity, local governments will need additional resources. This simple maxim was the most consistent theme of the summit, and it had implications for many of the proposed solutions.

The exact definition of "resources" varied from participant to participant. Some suggestions, such as additional funding and staffing, were aimed at increasing the overall capacity of permitting authorities; other suggestions, such as reallocation of resources and better coordination and use of data, would optimize capacities that already exist; and still other suggestions, such as limits on unnecessary permit applications, were focused on reducing the need for resource expenditure.

However, virtually all suggestions required action, investment, or accommodation from the permitting authority itself. And, critically, not all authorities are in a position to make this happen. This is particularly true for rural towns and counties, which are the most likely to be impacted by BEAD but also the least able to quickly increase staff. Thus, any effort to maximize resources should be viewed as a precondition, not a panacea, to increase permitting capacity. (For more, see **Appendix E: NTIA Slides on Local Permitting.**)

Establish Models for Providing Support to Permitting Authorities

The following models describe methods by which resources can be provided to permitting authorities. These models are not mutually exclusive and, in many cases, synergize. For example, permitting authorities could accept provider funding via Model 1 and then use that funding to hire state-approved contractors from Model 2.

MODEL 1: APPLICANT SUPPORT: The permit seeker can provide funding to the permitting authority, allowing the permitting authority to hire temporary staff and increase permit processing capacity. This model has the advantage of increasing the amount of

resources available to the permitting authority during periods of increased permitting demand. This model is also relatively easy to implement because it is, essentially, a straightforward exchange of funding between the two parties involved with the permit. In many cases, permit seekers already fund the permitting authority via fees and/or reimbursement for work, and this model can fit within that existing exchange.

However, the appearance of impropriety is a major concern for local governments. Precaution must be taken to ensure that the permit seeker does not receive preferential treatment, and the permitting authority must consider whether the additional resources are used exclusively on the permit seeker's application or if they can be used on other projects. State and federal governments can help navigate these issues by providing model agreements and oversight.

Many ISPs expressed a willingness to engage in this model—"time is money, so we're paying one way or the other"—but its effectiveness will be determined by the permitting authority's ability to hire and integrate qualified staff. In some areas, particularly low-density areas targeted by BEAD, this may take substantial amounts of time (for more, see Case Study 2: Mesa's Consultant Reimbursement Agreement).

MODEL 2: STATE SUPPORT: The state government can provide a variety of resources to the permitting authority, including additional funding, technical assistance, case studies, and suggestions about staffing to support permit application processing. This model has the advantage of increasing the amount of available resources without generating the appearance of impropriety.[9]

To the extent that this model requires additional funding, it may be limited by the state government's own resource constraints. Critically, the state may be able to directly use funding from federal grant programs, as explored in Case Study 3, or the state could repurpose tax revenue generated by income from grant awards. Alternatively, the state can permanently fund positions in the state broadband office, department of transportation, or other agencies that support local broadband permitting. In preparation for BEAD, Missouri has created such a position at the state broadband office.

MODEL 3: LOCAL SUPPORT: Local permitting authorities can partner to improve coordination and share staff capacity across combined regions. This model's main advantage is that it does not necessarily require additional resources. Rather, it reallocates existing resources around local spikes in demand.

Relative to other models, this model offers a cost-effective and expeditious way to increase permitting capacity because the requisite resources—trained staff—already exist.

Additionally, resource-pooling agreements within and between local governments can reduce overall workload by identifying areas for better coordination, standardization, and deduplication (for examples of better coordination, see **Finding 1**; for examples of standardization and deduplication, see **Finding 3**).

However, since this model is designed to reallocate rather than increase resources, it may struggle when demand increases across the board, as may be the case with BEAD.

MODEL 4: FEDERAL SUPPORT: The NTIA and other federal broadband agencies can, to the extent of their authority, relax program timelines (where not statutorily mandated) and/or allow federal grant funds to be used in support of local permitting. Like Model 1, this model would synchronize the provision of additional resources to the increases in permitting demand, because both the resource and the demand would be generated by the same grant program. Like Model 2, this model would protect the impartiality of permitting authorities, because the additional resources would come from a third party. Like Model 3, this model would maximize existing resources by extending timelines and thereby reducing concurrent spikes in permitting demand.

A main consequence of this model is that it would reduce the resources available for core grant purposes (i.e., paying for infrastructure) and/or delay the arrival of broadband service to communities. However, these same consequences will arise if local governments have insufficient permitting capacity. Thus, federal officials should allow flexibility where possible, since state and local officials are well positioned to consider the trade-offs between different uses of funds (for more, see **Case Study 3: Funding Opportunities Within BEAD**).

Limit Excessive Demand on Permitting Resources

Permitting authorities have a finite capacity to process applications, but permit seekers may have an incentive to apply for all the permits they might need. Applying for permits in bulk can be more efficient for permit seekers and municipalities, but it can also be used to block competitors. This dynamic leads to situations in which permitting authorities receive more applications than they can process, leading to delays. The following solutions were suggested to address these issues while avoiding the need to unnecessarily "throttle" applications:

COORDINATION BETWEEN PERMIT SEEKERS and PERMITTING AUTHORITIES: It is in the permit seekers' best interest to understand the permitting authority's capacity and tailor the number and size of applications accordingly—in other words, "only apply for what you plan to build next." Such coordination can be accomplished through early meetings between the ISP and the permitting authority.

Similarly, the permitting authority can lessen its own workload by requiring fewer permits for projects within established rights-of-way or along an applicant's existing infrastructure (see Finding 3), or by granting permits for larger work areas. ISPs and local governments should meet early to discuss the government's capacity to process permits and manage construction, and these constraints should be factored into project plans.

COORDINATION AMONG PERMIT SEEKERS: When multiple permit seekers are active in an area, the local government should set up coordinating meetings between applicants. Otherwise, the applicants may compete to have their permits "first in line" and end up overwhelming the permitting authority, to the detriment of all. Realistically, some applicants may find it advantageous if an overloaded permitting authority effectively delays encroachment from competition. But, over time, exploitation of this tactic may necessitate defensive policies from the local government.

POLICIES TO PROTECT THE CAPACITY of PERMITTING AUTHORITIES:[10] Permitting authorities might limit submission of non-priority applications by imposing consequences on applicants who do not make timely use of their permits. Such consequences may include fines and/or delays in the processing of future applications.

Similarly, a permitting authority may limit the overall number and/or scope of permits granted at a single time. Such policies can help keep construction, and all its associated disruptions, at tolerable levels for residents and the local government. However, when applied uniformly to all permit seekers, such policies were identified as an issue by ISPs because they slow the construction process and thereby increase costs and delay residents' access to service. To address this trade-off, local governments can prioritize permitting limits on those ISPs that create the most disruption and/or require the most municipal resources (for example, ISPs that fail to complete restoration in a timely manner or do not accommodate municipal capacity in construction plans; construction methods that require on-site municipal inspectors). As explored in Finding 2 and Case Study 2, local governments can also increase municipal permitting capacity, reducing the need for permitting limits.

Articulate the "Return on Investment" of Permitting

The permitting process creates opportunities to collect valuable data and align broadband access with municipal goals. However, not all local governments have the capacity to benefit from these opportunities, and such limitations reduce a government's incentive to invest in its permitting process. Therefore, ISPs, states, and federal agencies should articulate the value of permitting and help local governments reap its benefits.

COLLECT "AS-BUILT" LOCATION DATA: As part of the design and construction process, ISPs and location services are generally required to identify the exact location of new and existing facilities. This creates opportunities for local governments to precisely map the "as-built" location of underground infrastructure. Such maps are valuable because they can help local governments protect existing utilities and make future investments easier and more attractive. ISPs, states, and federal agencies can help local governments create these maps, or they can foster partnerships between local governments and supporting organizations, such as 811 services and universities. However, when using and/or sharing "as-built" data, local governments should work with ISPs to understand any potential confidentiality issues.

DIGITIZE INFORMATION from PERMITS: Information from permit applications (specifically, where and when construction will occur) can be used to create valuable construction coordination and public awareness tools. These tools can be used to notify other utilities about work in the right-of-way, schedule road repair to prevent multiple rounds of resurfacing, and increase public awareness about the timeline and location of planned construction.

ALIGN MUNICIPAL and PROVIDER GOALS: ISPs should review the local government's strategic plans for goals related to broadband expansion; tying an application to these plans will help contextualize the project within the community's existing priorities. Similarly, ISPs might adapt their project design to support municipal goals, such as smart grid technologies, improved bandwidth for public safety facilities, and public Wi-Fi at parks and other anchor institutions. Finally, local governments should foster coordination between different projects to reduce repeated bouts of construction.

FINDING 3: Ensure Transparency and Consistency in the Permitting Processes

There is no single recommendation that is applicable to all permitting processes in the country. For better or worse, each permitting process is unique, and no permitting authority should be faulted for problems outside its jurisdiction. Owing, in part, to this variance, summit participants were less able to find consensus about which specific process reforms were needed.

That said, some recommendations were viewed more favorably. Generally, these were the recommendations designed to bring permitting processes in line with the functionality expected of modern digital systems. As such, the recommendations may seem obvious. Indeed, permitting offices themselves are likely already aware of them. But, as explored in **Finding 2**, obvious recommendations nevertheless require significant resources to implement. Thus, the following recommendations should be read as both "where applicable" and "where possible."

However, local governments are still encouraged to give these recommendations serious consideration. One point of universal consensus among summit participants was that broadband is an essential service. Thus, to the extent that reasonable improvements to any permitting process will expand access to broadband, permitting authorities should seek to implement them. (For more, see **Appendix E: NTIA Slides on Local Permitting**.)

Modernize Application Processes

Where resources allow, permitting authorities should ensure that their permitting processes meet the following criteria:

DOCUMENTED PROCESSES: At a minimum, application processes and requirements should be documented in writing. To the extent possible, these documents should be available at a single easy-to-find location online, in the form of an online permitting

manual. Such documentation should include the requisite permit forms, requirement checklists, points of contact, engineering specifications, and fee structures.

Comprehensive documentation allows applicants to submit more-complete applications, which benefits all parties by reducing duplicative work, errors, and delays. It also eliminates situations in which critical pieces of information are known by only a select few individuals, who may not always be available. Finally, the act of creating a permitting manual can, itself, help identify redundancy and promote consistency across a jurisdiction.

SUPPORT FOR ONLINE SUBMISSIONS: Some permitting authorities require applicants to submit documents and/or signatures in physical paper form. This process is cumbersome for both the applicant and the permitting authority, and it exacerbates delays. To the extent possible, the permitting process should allow for the electronic submission of information via portal, email, or otherwise.

TRANSPARENCY ON THE STATUS OF APPLICATIONS: Permits are like the starter pistol for a relay of deployment activities—engineering, utility locates, construction, traffic control, service delivery—and so delays in permitting have cascading and costly consequences. Thus, any visibility into the progress of a permit application has compounding value for the applicant and all associated stakeholders. When applicants have insight into their application's status, they can better plan their deployment, ensure completeness of applications, and meet deadlines (or identify deadlines that are unrealistic).

Permitting authorities have successfully achieved transparency via online permitting portals. Permitting portals have a variety of features, including online document submission, application checklists, and automated stakeholder notifications. Implementing such portals may require additional resources, but better stakeholder coordination, planning, and the potential to facilitate additional investment may offset these costs over time (for more, see **Case Study 4: Permitting in Leawood, Kansas**).

Reduce Unnecessary Duplication

The permitting process, with its complexity and multiple points of approval, is prone to duplicative requirements. Not all duplication is bad (some provides essential redundancy and oversight), but unnecessary duplication is wasteful for both the applicant and the permitting authority. Thus, duplication should be evaluated and, where unnecessary, eliminated.

UPDATING APPLICATIONS AFTER SUBMISSION: Occasionally, due to error or design alteration, an applicant may need to adjust a previously submitted application. Where prudent, the permitting authority should seek to incorporate the adjustment "in process" rather than requiring the applicant to restart the application from an earlier stage. To maintain fairness and transparency, the permitting authority can document its criteria for determining when an adjustment will trigger a more comprehensive review.

REDUCED REQUIREMENTS for PREVIOUSLY ANALYZED AREAS: Some types of deployment (e.g., aerial overlashing to existing wires, feeding through existing conduit) require little to no alteration of the terrain. Other types of deployment (e.g., building in previously disturbed rights-of-way) may only alter terrain that has already been approved for construction. In both cases, the project will likely be less intrusive than a greenfield deployment, and so the full permitting process may involve unnecessary reviews. In these instances, the local government should consider if reduced reviews are appropriate.

That said, and as discussed in Finding 1, when the requirements are rooted in the community's policy preferences, it may be harder to reduce application requirements. For example, some communities seek to move overhead utilities underground. In these communities, permitting authorities may be less able to loosen requirements around aerial deployment, even if those requirements seem duplicative or unnecessary. Local governments should inform ISPs about such community preferences early in the permitting process so that the ISP can evaluate its project design accordingly.

CONCLUSION

A collaborative relationship between an ISP, a local government, and the served community is essential for the successful deployment of a broadband network. When built on mutual respect, accountability, and open communication, this relationship ensures that all parties can effectively navigate the complexities of broadband deployment. An ISP should approach each community with the goal of establishing a strong partnership and reflecting local priorities in the network's design and construction.

Similarly, local governments should foster broadband deployment by investing in their permit application processes and reducing unnecessary requirements where possible. Such investments can generate valuable data for the local government, minimize disruptive construction, improve coordination among utilities and businesses, and provide better connectivity to residents.

However, achieving these goals requires adequate resources. Local governments need sufficient funding, staffing, and technological tools to handle the increased workload necessary to efficiently permit broadband deployment. Support from state and federal agencies, as well as collaborative efforts among local governments, can provide the necessary resources to maximize local permitting capacity.

Collectively, these efforts will promote the long-term growth and well-being of community residents and the ISPs that serve them. To realize these benefits, ISPs, local governments, and state and federal agencies should consider the following actions:

Checklist for ISPs

- [ ] Research permit requirements and meet with the local permitting agency before applying for permits. To the extent possible, address the government's goals and concerns in the project's plan.
- [ ] Ensure that the local government entity and community understand the project's construction processes, timelines, and scope of work. Provide ongoing updates as the project progresses.
- [ ] Work with the local government and community to review and ensure mutual understanding about restoration requirements.

- [ ] Establish single points of contact at the ISP and among contractors to help the local government quickly resolve issues.
- [ ] Ensure that relevant ISP staff and contractors attend meetings of utility coordinating committees and training courses.
- [ ] Understand and respect the competing priorities of local government and how they impact local decision-making.
- [ ] Provide early and repeated notifications to residents prior to construction.
- [ ] Where appropriate, provide funding for additional capacity at the permitting authority.

Checklist for Local Governments

- [ ] Ensure that ISPs understand local ordinances, policies, and other characteristics of rights-of-way that will influence deployment projects.
- [ ] Establish single points of contact at government agencies to help ISPs and contractors quickly resolve issues.
- [ ] Convene meetings between ISPs, utilities, and locate services to promote coordination and reduce repeat excavations.
- [ ] Ensure that permitting requirements are documented and available online.
- [ ] Where possible, accept electronic submission of documents and signatures.
- [ ] Where possible, adopt e-permitting platforms and provide transparency into the status of permit applications.
- [ ] Review permitting processes for unnecessary duplication and requirements.
- [ ] Coordinate with other governments to share permitting capacity and standardize forms and processes.
- [ ] Where possible, expand local permitting capacity by accepting resources from the permit seeker and/or state and federal agencies.

Checklist for State and Federal Agencies

- [ ] Provide funding and technical assistance to local permitting authorities.
- [ ] Develop case studies that demonstrate effective local permitting models and methods for generating return on investment from the permitting and construction processes.
- [ ] Relax grant timelines to reduce likelihood of concurrent spikes in permitting demand.
- [ ] Convene stakeholder roundtables to facilitate coordination.
- [ ] Serve as neutral intermediaries to help resolve disputes between ISPs, local governments, and other stakeholders.

CASE STUDIES

CASE STUDY 1: Ting's Master Agreement

Ting is a fiber internet provider that currently operates in six states. When entering a new community, Ting focuses on building a strong partnership with the local government. These partnerships are built by establishing a mutual understanding about the broadband deployment, which Ting often codifies in a "master agreement" with the local government. Critically, these agreements are approached in the spirit of partnership, not negotiation.

One such master agreement was established between Ting and the town of Greenwood Village, Colorado. Greenwood Village is a small, prosperous community of roughly 15,000 within the Denver metropolitan area. In 2023, Greenwood Village signed a master agreement with Ting to bring fiber service to all residents. As part of the agreement, Ting and Greenwood Village addressed many key topics of broadband deployment. For example:

RESIDENT COMMUNICATIONS: Ting committed to sending regular notifications to property owners before starting construction. Initially, Ting would send a mailer with an overview of its services and the planned construction process, including descriptions of the trucks residents would see in their streets. Following this initial contact, Ting would send a second mailer, followed by door hangers prior to construction. Each communication included a phone number for Ting so that residents could inquire about work being done near their property. Together, these repeated notifications with contact information prevented unnecessary complaints to the local government.

FIBER FOR MUNICIPAL NETWORKS and INSTITUTIONS: Ting committed to bring fiber to specific locations requested by Greenwood Village. Because these locations were identified early in the planning process, Ting was able to incorporate them into the network design and construction plan in such a way that they added minimal cost to the overall project. Thus, upon project completion, Ting would be able to give the fiber to the town for inclusion within municipal networks or for use providing Wi-Fi in public spaces.

RESTORATION AGREEMENTS: Greenwood Village is a well-maintained town that sought to protect its aesthetic qualities. As such, it was very important that Ting fully restore construction sites to their original condition. But defining the precise nature of "full restoration" and determining responsibility for each detail required extensive discussion during the master-agreement process. For example, Ting and Greenwood Village worked

extensively to define a process for removing utility locate markings, including reviewing state law and local ordinance, evaluating different types of paint (and ultimately arriving at a water-soluble solution for easier cleanup), and coordinating Ting's locate crews with municipal cleanup crews.

PROJECT SCOPE and DESIGN: Ting's master agreement described the construction methodology (e.g., the type of boring and/or depth of trenching), the types and quantity of material that would be used (e.g., conduits, handholds), and the number of permits and work zones that would be requested. This level of detail allowed Greenwood Village to understand if the pace of deployment would align with municipal capacity to issue permits. Not only did this make the construction process more manageable for the town, it allowed Ting to consider whether to offer supplementary funding to help the town expand its permitting capacity.[11]

In Ting's experience, the conversations that precede a master agreement can be challenging, but they are the foundation on which a network is built. To be successful, both parties should approach each other amicably, in good faith, and without ultimatums. When done properly, master agreements not only facilitate smooth deployment and network operation but also enhance the ISP's reputation when offering service to residents.

CASE STUDY 2: Mesa's Consultant Reimbursement Agreement

In 2022, Mesa—the third-largest city in Arizona—launched a Request for Information (RFI) to solicit ISP interest in building a citywide fiber network. The response was so strong that Mesa found itself with multiple ISPs willing to build competitive networks throughout the city. This created an opportunity to fulfill the city council's goal of leveraging private investment to bring high-speed internet access to every home and business in Mesa.

However, managing this amount of construction would be challenging for the city's permitting officials. Mesa is typically able to issue permits within eight business days, but ISPs were concerned about the potential for delays and wanted to guarantee faster turnaround. After all, without a consistent pace of construction, their crews may sit idle or find other work.

Mesa's existing options for expediting permitting would likely be insufficient. The city allows permit seekers to pay an "expedited review fee" to bump their application up in the queue,

but, given the volume of expected work, this process would likely be overwhelmed. Mesa could also have hired additional permitting staff, but such positions are typically long term, whereas the increased demand for permitting would be temporary.

In short, Mesa had an opportunity to realize one of its core goals—multiple citywide fiber ISPs—but existing municipal capacity would make it hard to fully realize.

Fortunately, Mesa found an innovative solution: the Consultant Reimbursement Agreement. This agreement, which has now become a standard part of the city's license agreements, allows ISPs to pay for the hiring of city contractors to help review ISP permit applications. These agreements effectively give ISPs the ability to increase municipal permitting capacity on demand. The precise contractual language is as follows:

> ***The City will comply with all applicable laws and act in accordance with its standard procedures in reviewing and processing all applications for permits submitted under this License. If Licensee desires greater control over the speed of the permitting process, then Licensee may, by separate agreement, request that City engage an independent consultant to work alongside City staff, and who will be solely dedicated to the processing of Licensee's applications.***

To implement these agreements, Mesa contracts with approved engineering firms from the city's "Job Order Contracting List." See Mesa's template contract **here**. As needed, Mesa can expand these agreements to cover additional services, like inspections and bore monitoring. Separate from fees related to consultant reimbursement, Mesa also collects the city's standard fees for plan review and inspection services. See Mesa's fee schedule **here**.

Mesa's Consultant Reimbursement Agreement offers an innovative and flexible approach to increasing permitting capacity during periods of increased demand. This gives both ISPs and residents certainty that networks will be deployed without unnecessary delay.

CASE STUDY 3: Funding Opportunities Within BEAD

The BEAD program will bring high-quality connectivity to unserved and underserved locations in communities across the country. However, these communities include the nation's smallest and most remote, and, as such, they may be ill equipped to handle the increase in permitting requests generated by concurrent federally funded infrastructure initiatives. Thus, permitting for BEAD may intensify permitting demand in areas that may be least prepared to handle it.

Fortunately, BEAD contains opportunities to support local permitting capacity:

DEPLOYMENT FUNDS: The vast majority of BEAD's $42.5 billion will be spent on last-mile broadband deployment, and eligible expenses include permitting and personnel costs. Per the BEAD Notice of Funding Opportunity (NOFO) section IV.B.7.a.(ii), relevant eligible expenses are:

4. Engineering design, permitting, and work related to environmental, historical, and cultural reviews.
5. Personnel costs, including salaries and fringe benefits for staff and consultants providing services directly connected to the implementation of the BEAD Program (such as project managers, program directors, and subject matter experts).
....
8. Workforce development, including Registered Apprenticeships and pre-apprenticeships, and community college and/or vocational training for broadband-related occupations to support deployment, maintenance, and upgrades.

State broadband offices should consider using BEAD funds to train and hire engineering and permitting personnel to support state and local governments. Also, state broadband offices should consider allowing ISPs to include the cost of "reimbursement agreements" in their BEAD applications.[12] To facilitate these activities, the National Telecommunications and Information Administration (NTIA) should consider releasing guidance and case studies on supporting local permitting.

CASH and IN-KIND MATCHING: Generally, ISPs are required to match 25 percent of the amount they receive from BEAD (except when building in areas that are uniquely expensive; see each state's definition of "Extremely High Cost Per Location Threshold" for specifics). This match can be in the form of cash or in-kind contributions, and it can be provided by the applicant itself or by a local government (see NOFO section III.B).

BEAD applicants should consider how costs associated with permitting can count toward the applicant's match requirement. For example, applicants could count fees (either paid or waived) for rights-of-way, conduits, and easements. Or applicants could count costs associated with reimbursing a local government for the hiring of permitting and/or inspection contractors.[13]

BEAD is a historic opportunity to bring connectivity to the communities who need it most. However, these communities will need help managing the historic levels of construction. Fortunately, BEAD can provide this support, and the NTIA can provide guidance to help states, ISPs, and local governments take advantage of it.

CASE STUDY 4:
Permitting in Leawood, Kansas

The small city of Leawood, Kansas (population 33,713), takes great pride in its permitting processes. A large section of the city's **website** is dedicated to right-of-way construction permits. The website includes comprehensive information about, among other things, how to apply for a business license and a permit, bonding and insurance requirements, and construction standards. The application for a permit is available online, although it must be submitted via email. While the website does provide functionality to search for permits and inspections, the city is working to upgrade its software to allow online submission of applications and portal access for full-scale tracking of all permits and inspections.

With a staff of 14, Leawood's Public Works Administration office consists of engineers, project and contract managers, project inspectors, permitting specialists, and customer service representatives. Dedicated project teams may be assigned for large-scale projects. A project team typically consists of two staff (a project manager and a field manager) who conduct preconstruction meetings with permit seekers and then hold weekly virtual meetings thereafter until the project is proceeding smoothly (and potentially continuing through the entire project). Additional in-house meetings may also be conducted as necessary. The office has found that early preconstruction meetings, accurate project maps from applicants, and consistent communication between the city and the applicant are of utmost importance and form the basis for a partnership rather than an adversarial relationship.

While there is no local ordinance or state law mandating a time frame by which a permit must be granted or denied, the project team aims to process and issue permits within one to two business days once an application and map have been received.

The county-developed Automated Information Mapping System, referred to as Johnson County AIMS, is an online tool that Leawood notes to be an instrumental resource. The winner of numerous awards, AIMS is a GIS (Geographic Information System) online mapping system that connects data to a map, integrating location data (where things are) with all types of descriptive information (what things are like). This feature allows users to track locations and specific addresses already served or slated to be served by broadband and other utilities, enabling city staff and permittees to identify the most suitable locations and routes for network build-out. By making the county's maps and data available online, AIMS provides users the ability to make informed decisions with improved efficiency at less cost. You can explore AIMS **here**.

APPENDICES

APPENDIX A: Summit Participants*

Pamela Arluk, Vice President and Associate General Counsel, NCTA—The Internet & Television Association

Jordan Arnold, Policy Advisor, Executive Office of the President (EOP)

Dana Bailey, Director of State & Local Government Affairs, Lumen

Gary Bolton, President and CEO, Fiber Broadband Association

David Burns, Assistant Executive Director, United States Conference of Mayors

Tom Curtin, Infrastructure Program Director, National Governors Association (NGA)

Nate Denny, Deputy Secretary, North Carolina Department of Information Technology

Seamus Dowdall, Associate Legislative Director, National Association of Counties (NACO)

Bailey Edenburn-Conrady, Manager, Champaign County Farm Bureau

Ceilidh Gao, Senior Research Associate, Communications Workers of America (CWA)

Lori Greco, Right of Way Manager, City of Mesa, Arizona

Darrel Hegar, Head of Market Operations, Google Fiber

Sherry Hessenthaler, Chief Development Officer, Brightspeed

Ryan Johnston, Senior Policy Counsel, Next Century Cities (NCC)

Eric Keber, Vice President of Government Affairs, WTA—Advocates for Rural Broadband

Angie Kronenberg, President, INCOMPAS

Gerard Lederer, Partner, Best Best & Krieger, LLC

Mike Lynch, Legislative & Regulatory Affairs Director, National Association of Telecommunications Officers and Advisors (NATOA)

Patrick Mulhearn, Director of Public Policy & New Markets, Ting Internet

Brian O'Hara, Senior Director of Regulatory Affairs, National Rural Electric Cooperative Association (NRECA)

Angelina Panettieri, Legislative Director, Information Technology and Communications, National League of Cities (NLC)

Anthony Pugh, President of Engineering, Dycom Industries

Paul Raak, Vice President of Government Affairs, USTelecom

Jill Springer, Senior Policy Advisor for Permitting, National Telecommunications and Information Administration (NTIA)

Jesse Suders, Infrastructure Program Manager, Pennsylvania Broadband Development Authority

Jake Varn, Associate Manager, The Pew Charitable Trusts

Nancy Werner, Partner, Bradley Werner, LLC

*Participation in the summit does not imply endorsement of this paper's findings.

APPENDIX B: Summary of Survey Responses — Local Government

SUMMIT GOALS

- Learn about successes in other regions and industries
- Understand the perspectives of providers and higher levels of government
- Identify the roles of government and/or providers in implementing improvements

CHALLENGES with BROADBAND PERMITTING

- Deviating from normal processes requires additional resources
- Large permits require significant resources (e.g., traffic control, resident complaints)
- Limited capacity to handle spikes in permitting demand
- The presumption that there will be problems with permitting (most are completed on time)
- Local goals not always considered (e.g., serving unserved areas, public ownership of network)
- Lack of proactive engagement from providers (e.g., unclear plans, limited coordination)
- Responsiveness from providers (e.g., addressing resident complaints, issues with work)
- Proper cleanup and restoration
- Lack of awareness of government's other responsibilities (e.g., public safety)
- Variable quality among subcontractors
- Disregard for local rules and property rights
- Attempts to preempt local authority
- Trust issues

AREAS WHERE LOCAL GOVERNMENTS COULD IMPROVE

- Reduce cost for easement filings
- Understand and uphold state laws around land ownership
- Make permitting and Rights of Way (ROW) requirements easy to find online
- Work with experts (e.g., national associations) for assistance/education in making improvements

OTHER KEY STAKEHOLDERS

- Federal land management agencies
- Railroads
- Vendors (e.g., providers that offer digital services to cities, permit seekers, and/or residents)

APPENDIX B:
Summary of Survey Responses — Infrastructure Providers

SUMMIT GOALS

- Understand local perspective and capacity issues
- Learn from others' successes and challenges
- Identify opportunities for standardization
- Establish guidance for communicating with municipalities and permitting authorities.

CHALLENGES with BROADBAND PERMITTING

- Variation in permit requirements between municipalities
- Multiple points of contact for permit approval
- High permitting fees and/or fees disconnected from cost to manage ROW
- Limited electronic submission of documents
- Lack of early communication, overviews of entire permitting process, and dashboards
- Lack of transparency about other planned projects (e.g., roadwork, utility work)
- Limited scope of permits and/or limited number of total permits
- Preferential treatment for other utilities (e.g., electric)
- Lack of categorical exclusions in existing ROWs
- Limited capacity among permitters
- Lack of responsiveness from permitters
- Overall multitude of permits—federal, state, local, tribal, railroad

AREAS WHERE INFRASTRUCTURE PROVIDERS COULD IMPROVE

- Consistent and comprehensive communication with municipalities
- Early and clear articulation about scale of the build

- Limit requests to only necessary permit
- Submit complete applications
- Build stronger relationships with municipalities

OTHER KEY STAKEHOLDERS

- Utility owners
- Locate vendors
- Arborists
- State legislatures
- State DOTs
- State historic preservation offices and environmental protection offices
- Federal land management agencies

APPENDIX B: Summary of Survey Responses — State and Federal

SUMMIT GOALS

- Understand other sectors' perspectives
- Establish a positive dialogue between stakeholders
- Identify intersection of permitting and worker/public safety

CHALLENGES with BROADBAND PERMITTING

- Prioritization; many issues are occurring simultaneously
- Capacity at all levels of government
- Lack of statewide permitting dashboards
- Pole access and pole replacement
- Lack of coordination between energy/utilities and telecom sectors
- Tribal consultations
- Ensuring safety for workers, contractors, and public
- Transparency about subcontractors
- Administrative burdens

AREAS WHERE STATE and FEDERAL ENTITIES COULD IMPROVE

- Educate the public and public interest advocates about how these issues relate to their goals for universal, affordable, high-speed broadband.
- Join advocacy to effect change
- Better communication

OTHER KEY STAKEHOLDERS

- Tribal entities
- Vendors and developers of permitting software

APPENDIX C:
Summit Ground Rules and Expectations

GROUND RULES

- Focus on solutions. We have a shared goal! Be polite and empathetic.
- Be concise and specific, and include examples when possible.
- Keep an open mind and spirit of collaboration.
- One person at the participant table per organization.

EXPECTATIONS OF ATTENDEES

- Actively participate in the conversation. Find consensus where possible; flag roadblocks where not.
- Clearly highlight your organization's priorities.
- (Post Summit) Review and consider endorsing the resulting recommendations.
- (Post Summit) Distribute the recommendations, join advocacy.

APPENDIX D:
Summit Agenda

MAY 9, 2024 8:30 AM – 3:00 PM

GEORGETOWN LAW INSTITUTE FOR TECHNOLOGY LAW & POLICY
500 First Street NW, Classroom 750,
Washington, DC 20001

I. 8:30 - 9:00 CHECK-IN; COFFEE and BREAKFAST AVAILABLE

II. 9:00 - 10:00 OPENING REMARKS, INTRODUCTIONS, SUMMIT OVERVIEW

III. 10:00 - 10:30 SETTING the STAGE

- Review survey responses
- Highlight stories from survey
- Divide into groups, ask volunteer notetakers for each group

IV. 10:30 - 11:45 BREAKOUT SESSION ROUND 1

- First breakout: three sector-specific groups (50 mins)
- Sector groups — infrastructure providers, local governments, state and federal
- Each group determines top three priorities
- Full group (25 mins)
- Groups reconvene
- Each sector's group shares its priorities and adds to collaborative board

V. 11:45 - 12:15 LUNCH

VI. 12:15 - 1:15 BREAKOUT SESSION ROUND 2

- Second breakout: three mixed sector groups (50 mins)
- Mixed groups — each group is an even mixture of the sectors
- Discuss priorities and identify solutions and challenges
- Full group (10 mins)
- Groups reconvene

VI. 1:15 - 2:30 RECOMMENDATIONS and ACTION ITEMS

- Full group discussion
- Each mixed group shares solutions/challenges and adds to collaborative board
- Full group discussion of each priority and associated solutions/challenges
- Gauge consensus/dissent, potential impact, likelihood of success, needed resources

VII. 2:30 - 3:00 NEXT STEPS and GAP ANALYSIS

- Full group discussion
- Identify key topics left unaddressed and missing stakeholder

APPENDIX D:
Opening Remarks of Natalie G. Roisman

Executive Director of the Georgetown Law Institute for Technology Law & Policy,
to the Broadband Permitting Summit, May 9, 2024

On behalf of the Georgetown Law Institute for Technology Law & Policy, I am delighted to welcome you to the broadband permitting summit. By joining us in this room today, you are showing a desire to be part of the solution to a difficult challenge: bringing broadband to all Americans. Thank you.

When I left private practice to come to Georgetown, I had many reasons. One of them was that I sought a position that would allow me to help move the proverbial needle rather than going in circles with the same old talking points. So when our Tech Institute distinguished fellow—and my longtime friend—Gigi Sohn came to me with this idea, I was eager for the Institute to be a part of it. I believed that by bringing together diverse perspectives and experiences here at Georgetown, with the common goal of identifying ways that local permitting processes might be improved, we could make progress that has been elusive to date.

I'm grateful to Gigi, the Benton Institute for Broadband & Society, the Fiber Broadband Association, and its members for making it possible for us to spend the day here on campus together. I look forward to hearing your thoughts and recommendations and to watching as this process unfolds. I thank you for your time and contributions and applaud you all for taking this on.

APPENDIX D:
Opening Remarks of Gary Bolton

President and CEO, Fiber Broadband Association, to the Broadband Permitting Summit, May 9, 2024

I want to welcome everyone to "Permitting-palooza!" We're here today because our country is facing the largest-ever bipartisan government investment to bring high-speed internet to every single American. We all share a desire to see this investment succeed. We also share a recognition that permitting will play a big role in getting to that success.

So, today, we bring this group together in the spirit of collaboration and common cause. Our hope is that, by working together, we can identify pathways that support efficient processes for the benefit of all of us involved with broadband permitting.

But why is today different? Everyone in this room has been at the table for similar conversations for many years, even decades.

Today is different because of the momentous opportunity before us.

As The Pew Research Center recently pointed out, one issue in virtually every state broadband plan submitted to NTIA for the BEAD program mentions a need to achieve an effective permitting process.

We have infrastructure providers, state, federal, and local government represented in an academic setting with the Benton Institute helping us think through how we all collaborate to find ways to support one another and identify pathways forward.

You will also have an opportunity to participate in breakout sessions, a setting for the exchange of genuine ideas and not just a forum where you are expected to have answers.

We should all feel very excited about the history we are making and the history we can achieve here today.

APPENDIX E:
NTIA Slides on Local Permitting[14]

Agenda

1 Permitting Overview

2 Importance of Local Permitting

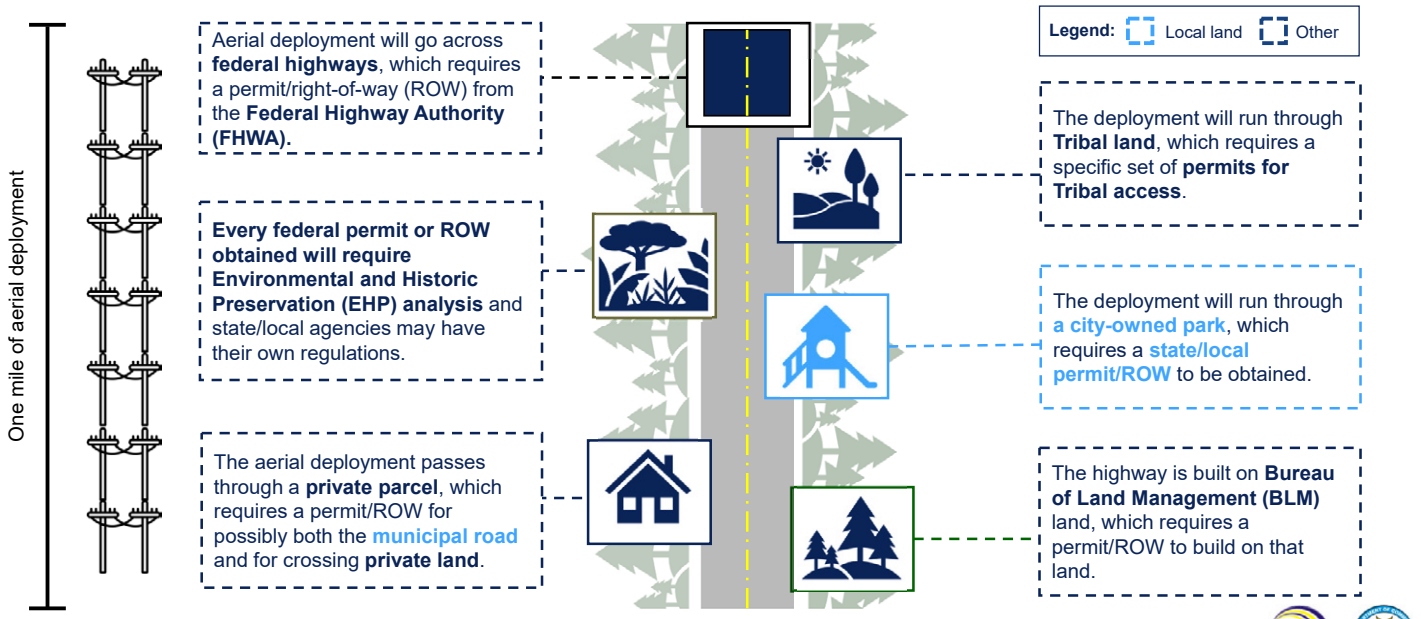
3 Local Permitting Challenges

4 Strategies for Streamlining

Permitting Overview

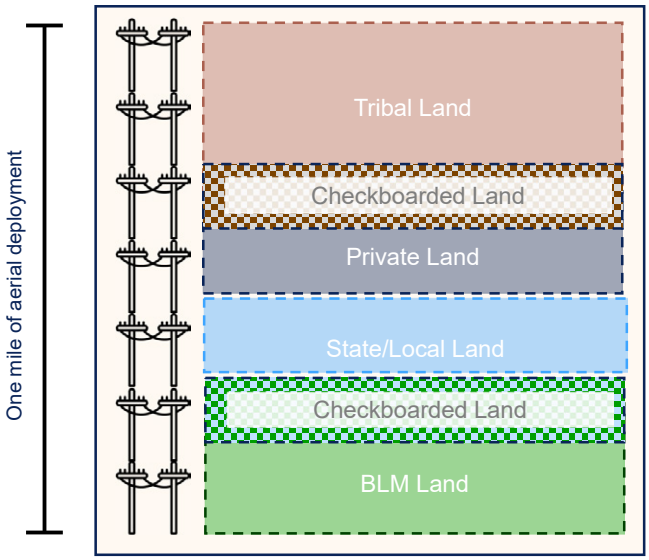
Permitting Landscape

Construction of a simple one-mile broadband deployment can require various local, state, and/or federal permits. Deployment that runs through local land will require coordination with state/local governments to obtain permits.



Jurisdictional Deployment Challenges

Adjacent land in the U.S. may have multiple owners, requiring applicants to obtain various approvals and permits to deploy broadband.



What types of authorizations may be required for broadband?

- **Federal lands.**
- **State lands.**
- **Local jurisdictions.**
- **Tribal lands**.
- **Checkerboarded lands.** *Checkerboarding refers to land ownership that is intermingled between two or more owners, which results in a checkerboard pattern across the given area.*
- **Private lands.**

What is Local Permitting?

Local permitting may include permits, authorizations, easements, and rights-of-way applications required from towns, counties, and other municipal government.

TYPES OF PERMITS

- Federal
- State
- **Local**
- Private

EXAMPLES OF LOCAL PERMITTING INTERESTS

- ***Education-related Agencies*** *(i.e., Local School Counties/Districts)*
- ***Public Safety Entities*** *(i.e., Local Police Department, Local Department of Health and Human Resources)*
- ***Environmental Resource Agencies*** *(i.e., City Department of Parks and Recreation, local parks/forests)*
- ***Transportation and Infrastructure*** *(i.e., county and local roads/bridges)*
- ***Historic Preservation Groups*** *(i.e., Historic Preservation Commissions)*
- ***Utilities*** *(i.e., public and private utility owners, 811 and coordination services)*

Importance of Local Permitting

Local Permitting Responsibilities

Local governments such as county governments, municipal governments, and regional planning agencies hold responsibility to ensure safety, consistency, and fair access of resources to local constituents.

LOCAL PERMITTING RESPONSIBILITIES

- **Oversee Land, Infrastructure, and Utilities**: Local governments review applications, assess compliance with regulations, and grant or deny permits related to locally owned land, utilities, and infrastructure (such as roads, bridges, etc.) to coordinate deployment efforts with community access to resources.
- **Inspect and Check Compliance**: Local governments complete compliance checks to confirm consistent observance of local safety and environmental regulations such as materials dumping, drainage, and noise ordinances.
- **Manage Community Expectations**: Local governments integrate community voice into planning efforts, manage interruptions to day-to-day economic and residential operations, and coordinate with local organizations to promote community safety and encourage buy-in for infrastructure deployment.

Some local permitting processes may overlap with state/territory, Tribal, private, and federal approvals. Grantees must obtain **all necessary permits, easements, authorizations, and inspections** before deployment.

Importance of Local Permitting to Communities

Effective permitting at the local level supports local infrastructure, integrates citizen voices into the design, and protects worker and community safety.

INFRASTRUCTURE COORDINATION

Local governments own and operate significant portions of infrastructure, especially in rural areas.

The National Association of Counties estimates that counties own 38% of bridges and maintain 44% of public road miles, many of which may need to be accessed via right-of-way easements during broadband deployment and permitting processes.[1]

STAKEHOLDER ENGAGEMENT

Local governments are key to coordinating stakeholder engagement within communities.

Transparency and accountability are highly valued in local governments. Partnering with local governments can foster community buy-in, encourage a diversity of ideas, and promote a cycle of trust between citizens and their local governments.

SAFETY IN COMMUNITIES

Local permitting provides regulation and oversight to protect workers and the public during deployment activities.

Local permitting and regulations prevent disruptions to local ecosystems and economies, through initiative such as the 811 “call before you dig” hotline to avoid impact to existing utilities lines.

1: National Associations of Counties, “The County Role In Infrastructure,” July 2021 https://www.naco.org/sites/default/files/documents/County-Role-in-Infrastructure.pdf

Importance of Utility Coordination

Early engagement with utility owners can help project teams identify possible issues early, increase deployment efficiency, and save time and money.

OVERVIEW OF UTILITY COORDINATION

Project teams should coordinate plans for broadband deployment with utility owners. Early and regular communication with utility owners can help project teams obtain information and resources that will help them avoid impacts on existing utilities, encourage information sharing among multiple stakeholders, and save time and money in the process.

UTILITY COORDINATION GUIDANCE

- ✓ Engage utility owners early so they can coordinate utility work with broadband projects and comply with the dig once policy
- ✓ Request a no-conflict letter or e-mail from utility owners as part of the permitting process
- ✓ Use State DOT offices for assistance with utility coordination and to facilitate communication with utility owners

BENEFITS OF UTILITY COORDINATION

Protect Existing Infrastructure: Project teams should work with utility owners, utility service mapping groups, and public utility locating (811) services to obtain utility data and confirm that their broadband deployment plans will not cause negative impacts to existing infrastructure.

Reduce Deployment Time and Costs: Proper planning and coordination with utility owners will help project teams build more efficiently, which can save time and money associated with site relocations and damaged utilities.

Local Permitting Challenges

Overview of Local Permitting Challenges

Local governments and project teams may encounter challenges during the permitting process which can increase costs and delay deployments.

LOCAL GOVERNMENT CHALLENGES

Resource Constraints
Limited personnel can slow down processes.

Technological Limitations
Working with inefficient, paper-based permitting systems.

Workload Increase
Agencies will be managing a larger-than-average number of permitting requests.

PROJECT TEAM CHALLENGES

Jurisdictional Differences
Difficult to navigate multiple processes and approval systems.

Access and Infrastructure Challenges
Navigation of shared infrastructure and property access may require extra work.

Ready Pole Access
Local utility poles may not be suitable or prepared for broadband attachments.

Permitting Challenges | Local Governments

Local governments face several challenges that may hinder their ability to quickly facilitate the issuance of permits related to broadband grant funding, such as NTIA's Internet For All programs.

LOCAL GOVERNMENT CHALLENGES

Resource Constraints: Local governments often operate under tight budgets with limited personnel. This can limit their ability to invest in new technologies or hire additional staff to expedite the permitting process.

Technological Limitation: Many local governments rely on paper-based systems for permits, which can be outdated or cumbersome. For them to transition to a digital system that is integrated across departments can be costly and complex, particularly for smaller jurisdictions.

Workload Increase: With the influx of new permitting requests due to federal infrastructure programs, local governments will have to manage an increased workload. They will have to respond to increased pressure from project teams and outside agencies to meet permitting deadlines and expedite their processes.

Strategies for Streamlining

Streamlining Strategies | Local Governments

Local governments can incorporate strategies and proven practices to streamline processes and reduce barriers to broadband deployment.

EXAMPLES

Increase Communication
To support well-resourced, effective, and timely permit processing, local governments should **provide regular and proactive communication** with project teams to explain permit requirements and encourage mutual transparency.

Consolidate Permits
Local agencies that consolidate permits can **increase the efficiency and speed** of permitting review processes. For example, municipalities can create one 'general permit' to address duplicative permits.

Allow E-Permitting
Some counties have already **implemented online/e-permitting to streamline the process** which allow applicants to fill out applications online, track them, and correct them if necessary. E-permitting helps applicants understand all requirements up front, which can **reduce applicant confusion**.

Automate Processes
To alleviate staffing and capacity constraints, local agencies should consider how to **automate internal and external processes**. Digital permitting and robotic process automation are some of the strategies local governments have adopted to minimize impacts from staffing limits.

Streamlining Strategies | E-Permitting Case Studies

Many cities have implemented web portals and tracking tools to help streamline permitting applications and approval processes in their state.

CASE STUDIES:

City of Bellevue, Washington

The City of Bellevue developed a web portal with 13 other participating jurisdictions to accept permit applications online. The portal allows applicants to search for the permit they want, apply for the permit online, and track pending applications to make permitting more accessible for applicants. The city also offers predevelopment services to provide assistance and feedback about a project before submitting an application.

City of Rancho Cordova, California

The City of Rancho Cordova in California adopted a new enterprise permitting, planning, code management, and licensing solution to replace their outdated software and paper-based processes for permitting. The new solution allows citizens to easily connect and engage online and mitigates delays in project progress. The city also provides a user-friendly digital guide that helps citizens navigate the online permitting and licensing process.

Source: "Permits," City of Bellevue, https://bellevuewa.gov/city-government/departments/development/permits
Source: "Rancho Cordova Online," City of Rancho Cordova, https://www.cityofranchocordova.org/residents/resident-services/apply-for-a-license-or-permit-residents/rancho-cordova-online

Permitting Challenges | Project Teams

Project teams may face difficulty navigating the varying application processes across local governments, leading to delays and increased deployment cost.

PROJECT CHALLENGES

Jurisdictional Differences: The rules and regulations that govern permitting can vary significantly from one jurisdiction to another, adding complexity for project teams operating across multiple areas. Project teams will need to navigate each process and have an appropriate timeline to overcome this logistical challenge.

Access and Infrastructure Challenges: Project teams may face significant hurdles sharing existing infrastructure with other service providers or gaining land access and rights-of-way permissions, especially for deployment that crosses private property (such as farm easements) or protected lands (such as parks and wildlife preserves).

Ready Pole Access: Project teams may face challenges when existing utility poles require replacement or are not structurally suitable for broadband installation. Project crews are not generally licensed to make updates to power lines, so they must wait for pole owners, which causes construction delays.

Streamlining Strategies | Project Teams

Project teams can incorporate proven permitting strategies and practices to effectively prepare for local permitting.

RECOMMENDED PRACTICES

Consult with Experts
Choosing a site that minimizes impacts may reduce the number of permits required. Project teams may hire, contract, or otherwise retain staff with relevant NEPA qualifications to provide environmental impact expertise and improve the efficiency of the permitting process.

Plan Application Ahead
Work with the local planning department or state permitting agency to gain project and site feedback before applying. Project teams should stay on top of deadlines, consistently review application statuses, and schedule meetings with relevant agencies before submitting the application to confirm completeness and expedite the application review process.

Standardize Service Agreement Process
Project teams should adopt master or franchise service agreements with municipalities to obtain permissions to build on existing infrastructure. MSAs help businesses that require multiple agreements with a single client negotiate terms once, which can expedite the contract negotiation process, provide increased transparency, and potentially lower contracting costs.

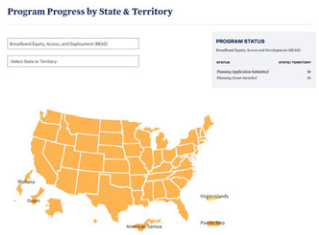
Source: "What Is A Master Service Agreement and Why Do You Need One?" NOLO, https://www.nolo.com/legal-encyclopedia/what-is-a-master-service-agreement-and-when-do-you-need-one.html

Additional Resources

NTIA provides resources on the Internet For All program, BEAD, and permitting guidance to support successful broadband deployment.

Internet For All Website

For detailed program information about the Internet For All Grants, use InternetForAll.gov to search by program.



Interactive Funding Map

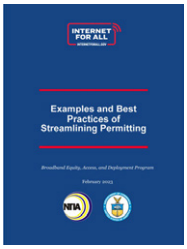
BEAD Program Resources

NTIA offers BEAD Program Resources including policy guidance and technical assistance.

BEAD Initial Proposal Progress Dashboard

NTIA Permitting Guidance

NTIA has compiled a Permitting Technical Assistance page on available permitting and EHP resources.



Permitting Best Practices: Case Studies

For more information, visit the BroadbandUSA State and Local Government webpage.


INTERNET
FOR ALL

Thank You


NTIA


DEPARTMENT OF COMMERCE
UNITED STATES OF AMERICA

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ENDNOTES

1 Percentage of residential locations with access to wired and/or licensed fixed wireless service and speeds of ≥100/20mbps, according to the FCC National Broadband Map.

2 In addition to BEAD, there are many other active broadband initiatives, e.g., the American Rescue Plan Act, the Rural Digital Opportunity Fund, the Enhanced Alternative Connect America Cost Model, the Rural Development Broadband ReConnect Program, and other programs in the Infrastructure Investment and Jobs Act.

3 Local permitting capacity is also under pressure from other types of infrastructure (e.g., electric, water, transportation), which are also experiencing record levels of investment.

4 For the list of summit attendees, see Appendix A. The summit was moderated by Gigi Sohn, executive director of the American Association of Public Broadband, Benton Senior Fellow & Public Advocate and a Distinguished Fellow at the Georgetown Law Institute for Technology Law & Policy ("Tech Institute"). The summit was hosted by the Tech Institute, with financial support provided by Brightspeed, the Fiber Broadband Association, GFiber, Lumen, and NTCA—The Rural Broadband Association. The paper was edited and published by the Benton Institute for Broadband & Society. The donors contributed their funds as gifts to support the logistics of the convening, and there were no promised results.

5 Summit moderator Gigi Sohn is a director of Ting's parent company Tucows. She played no role in choosing to include Ting's master agreement.

6 A list of summit attendees can be found in Appendix A. Note that participation in the summit does not imply endorsement of this paper's findings.

7 The summit was moderated by Gigi Sohn, executive director of the American Association for Public Broadband, Benton Senior Fellow & Public Advocate and Distinguished Fellow with the Georgetown Law Institute for Technology Law & Policy. Appendix B contains a summary of survey results, Appendix C contains the code of conduct, and Appendix D contains the summit agenda and opening remarks.

8 The FCC has interpreted Section 332 of the Act such that local governments' request for pre-application meetings may be viewed as commencing the applicable shot clocks for wireless deployments.

9 Summit participants representing local officials and interests are skeptical that state support is a viable model, expressing concern that "the state/local relationship isn't necessarily supportive in all states…. Influence-driven politics have put many state-local relationships into a place where collaboration is explicitly unwelcome and undesired."

10 The FCC has interpreted Section 253 of the Telecommunication Act to prohibit local government policies that prevent or establish a moratorium on the acceptance, processing, or approval of applications or permits to deploy telecommunications (and thus broadband) services and/or facilities. Such a prohibition may negatively impact local governments' ability to implement principles designed to limit permits or to manage permit processing capacity.

11 For more, see **Case Study 2: Mesa's Consultant Reimbursement Agreement**.

12 For more, see **Case Study 2: Mesa's Consultant Reimbursement Agreement**.

13 For more, see **Case Study 2: Mesa's Consultant Reimbursement Agreement**.

14 The slides are **publicly available** and are reprinted with permission.

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