Summary of Provider Interviews: Challenges and Opportunities for Broadband Infrastructure Deployment

We have conducted interviews with fixed and wireless broadband providers in the region. Providers shared both permitting process challenges and examples of city processes that are working well.

Broadband providers, whether fixed or wireless, all need to continue to expand their fiber footprint. The summary of findings about fiber permitting therefore applies to all providers.

The findings about permitting for 5G deployments are specific to wireless broadband providers.

For both fiber and 5G, we found that the operators' comments and feedback were focused on cities and urban areas, with very little discussion on fiber and 5G deployment in rural and unincorporated communities. In much of the urban areas in the region, fiber is already widely deployed by all providers. This is not the case for rural portions of the county. Similarly, initial 5G deployments are targeting urban areas.

Challenges identified generally fall under these categories:

Broadband Master Plans: Cities that have developed and published a broadband master plan have addressed some of the issues identified here. Other jurisdictions will benefit from addressing these issues.

1. *Lack of Organized and Accessible Information on Permitting:* Providers appreciate when information on procedures, timelines, and fees for permitting is clear, published, organized, and easily accessible. Certain jurisdictions have implemented online permit application and tracking.

2. *Inconsistency (within and between jurisdictions):* Providers appreciate consistency of permitting procedures, processes, and timelines across the region, and consistency across reviewers within the same jurisdiction.

3. *Uncertain Timelines:* Most often due to limited capacity, the wait times for permit approvals are uncertain and can be inordinately long. This makes planning and deployment difficult and slows down broadband projects.

4. *Cost of Permitting:* Providers understand that permitting costs must cover staff time, but inordinately high or uncertain cost structures discourage broadband projects.

5. *Restrictive Policies and Prohibitive Conditions*: Particularly for 5G cell siting, some jurisdictions are imposing restrictive policies and prohibitive conditions that are inconsistent with federal guidelines.

Opportunities identified for Facilitating Broadband Deployment

Jurisdictions can adopt best practices, simplify and streamline the permitting process, and provide predictability that encourages investment and faster deployment.

1. *Streamline, Centralize, and Modernize Permitting:* Create an efficient and organized permit application process and make information on the process accessible and easy to understand. Institute online application systems. Develop a one-stop-shop approach with permits approved

in a single department. Creating a clear path for providers can significantly reduce time, cost, and miscommunication. Streamline Riverside is an example of consolidated permitting and an easy to use online portal.

2. *Cost and Time Certainty:* Establish reasonable and standard permit fees and process permits expeditiously. Create a simplified, standardized, and repeatable process for routine projects. Allow providers to pay an additional fee for expedited permitting.

3. *Batching/master permitting:* Create a process that allows for a single application and permit to cover multiple sites. Annual Facility Access Encroachment Permits have worked well to alleviate unnecessarily redundant counter transactions for standard projects that don't impede public right of way or require roadway excavation.

4. *Cross jurisdictional consistency and coordination:* Reduce inconsistencies in policies and permitting practices by creating common model policies and permit practices across the region. SANDAG should facilitate coordination across jurisdictions.

5. *Design Guidelines and Standards for Wireless*: Create pre-approved designs and standards for wireless cell siting on existing poles. Organize existing poles and towers into a small number of categories for the purpose of permitting. Work with providers on developing guidelines and standards that minimize visual impacts without being overly restrictive and burdensome. Compliance with design guidelines and standards should provide streamlined, over-the-counter application processing. The City of Lemongrove is an example of a City that has an Encroachment Policy and Set Fees for Wireless Facilities within the Public Right of Way. The Policy complies with the 2018 FCC Order for Small Cell Wireless Facilities, and provides design standards and an easy application with checklist.

6. *Design Guidelines and Standards for Microtrenching:* Some providers are using microtrenching for faster and less expensive fiber deployment where permitted by the jurisdiction. There is no standard definition about width and depth. Jurisdictions and providers have concerns with damage to infrastructure and to deployed fiber. Los Angeles has recently published a microtrench standard that should be studied and adopted where suitable.

7. *GIS based inventory and maps of infrastructure:* Inventory and map existing infrastructure and assets (fiber, wet and dry utilities, poles, etc.) and make that information accessible.

8. *Colocation and leveraging existing assets:* Minimize the need to add new infrastructure by creating a clear process for accessing municipal assets that are valuable to providers. Inventory public assets that can be leveraged such as fiber, conduit, streetlights, and city facilities that could be used to deploy technology. Using existing infrastructure substantially reduces the capital costs of network deployment. Create a standard process for gaining access to assets that can be shared (for example, develop standard leasing agreements for conduit). The City of Riverside is an example of City that leases dark fiber to telecommunications companies, wireless operators, enterprise networks, data centers and others with critical, high capacity needs. Comprehensive information on participating in the program is available on their website.

9. *Broadband Master Planning:* Develop Broadband Master Plans that identify gaps and create a clear roadmap that steers future public and private investments in infrastructure to address those gaps. The City of Chula Vista is an example of a City that has a Telecommunications Master Plan

Debatable practices:

Dig Once or Dig Smart– This policy is good in theory but has not translated well into practice. The process for implementing dig once policy has not been well defined and frequently there isn't enough time and information provided to providers to take advantage of the opportunity. Dig once might be more appropriate for larger scale projects, like major transportation infrastructure projects that require more planning and coordination.