

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRAFFIC OPERATIONS
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*Flex your power!
Be energy efficient!*

August 26, 2009

Mr. Michael Brinskele
Chief Executive Officer
Broadband Associates International
4120 Douglas Boulevard, #306-200
Granite Bay, CA 95746

Dear Mr. Brinskele:

Thank you for the micro-trenching demonstration held on June 30, 2009. The California Department of Transportation (Caltrans) supports the expansion of the broadband network to underserved areas of the State. The demonstration and the presentation showed how fiber could be installed at shallow depths of 6 to 9 inches. The fiber's ease of removal was also demonstrated.

While Caltrans supports new product development and innovative technologies, we would like to share our concerns about micro-trenching in a high speed corridor with heavy truck traffic. Caltrans must ensure that the integrity of the State Highway System is maintained when broadband facilities are accommodated within the State right-of-way. The desire is to have a balance between safeguarding the State's infrastructure and protecting your investment and broadband service to the citizens of California.

Caltrans staff has done a great deal of research to learn more about micro-trenching technology. They have reviewed data contained on the web sites of TeraSpan and Lite Access Technologies Incorporated, industry leaders in the manufacture and deployment of microducts. They have contacted several other states directly and reviewed responses from twelve states to an electronic query sent out on the American Association of State Highway and Transportation Officials network commenting on whether their State Department of Transportation allows micro-trenching. None of the states surveyed have allowed micro-trenching in the pavement of their state highways. Mr. Barry Piesner of your firm also confirmed this in a telephone conversation with Don Fogle and me sometime ago.

Broadband Associates informed us that one or all of the firms participating in the micro-trenching demonstration had recently laid about 30 miles of fiber for the City of Winnipeg, Manitoba, Canada. When the City of Winnipeg was contacted, the Supervisor of Underground Structures informed us that he was quite unhappy with the work.

His concerns included:

- Much of the fiber was placed in sidewalks where the slot was cut 4 inches from the face. There are now concerns that the sidewalk will separate at the cut.
- That micro-trenching will reduce the lifespan of the pavement.
- Spending 50 percent of his time dealing with issues related to micro-trenching.

The information we have collected and reviewed suggests that municipalities may have allowed micro-trenching because speeds are lower and there are already curbs, gutters, and sidewalks in place. The same information has led Caltrans to conclude that the use of micro-trenching technology in a high speed corridor with heavy truck traffic is not a good idea. Caltrans will not approve micro-trenching within its pavement.

Your request to consider a depth of cover less than 42 inches is also denied. Any broadband fiber and conduits must be installed with 42 inches of cover when placed in the State right-of-way under encroachment permit. This depth will minimize potential conflicts between Caltrans operations and those of your company. This will also establish a baseline depth of cover for all utilities as well. The decision is consistent with directions given to other broadband providers in the past. Where terrain conditions make it infeasible to do traditional trenching, such as in rocky areas and where there are steep side slopes, an alternate method of installation may be proposed by submitting the "Encroachment Exception Request" with your completed encroachment permit application. Micro-trenching may be allowed in those limited areas so long as other reasonable alternatives have been considered.

Caltrans has shared with you the process for applying for an exception. The "Exception to Caltrans Policy" document provided to Caltrans staff by Broadband Associates International at the demonstration is considered conceptual in nature. An exception request should be submitted with an encroachment permit application. A complete submittal including plans, mapping, reports and other project documentation facilitates simultaneous review. Please note that exception requests based on cost savings alone are extremely difficult to approve. For that to happen, a cost comparison must be provided between the realistic alternatives that can be used for this project as well as a description of the other problems encountered such as rocky terrain and the options being considered to address them. Every effort should be made to keep the proposed encroachment as far away from the traveled way as possible and outside the clear recovery area. Aerial installations may be similar in cost or less than the proposed method of installation of fiber optic cables, and the reasons for the installation method proposed needs to be fully explained. For a project of this length, it would be helpful to understand exactly what types of installations (aerial, micro-trench, standard trench, etc.) are proposed within clearly defined highway segments. The exception request should also address the fact that you are proposing a longitudinal encroachment with service points in an access-controlled highway. A decision on an exception will be made only after all the necessary project documents are submitted and evaluated.

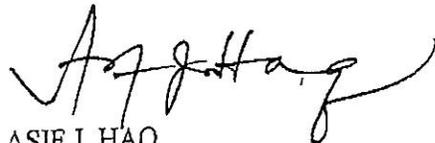
We understand the importance and necessity of deploying broadband to rural communities, as

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well as the critical timeline of your proposal. It is Caltrans' desire that this corridor be opened or excavated one time with enough conduits/ducts installed so that any future providers can have access to the corridor without additional excavation. While your company is the first to approach us about installation on Route 299, other broadband providers may want similar access. If so, they may need to be accommodated. Please let us know if you have been approached by other providers on this project.

We appreciate your patience and look forward to your proactive response in providing the necessary submittal information to support your proposal. We have spent a significant amount of time reviewing micro-trenching and options to the 42 inch depth of cover. We are unable to justify a change from our policy without reviewing a detailed encroachment permit exception request. We are attaching a copy of the broadband encroachment permit application form and instructions, Table 6.0 from the "Encroachment Permits Manual" listing the requirements for Longitudinal Telecommunications Encroachments on controlled-access right-of-way, and the "Encroachment Exception Request Submittal Guidelines" listing the issues that need to be explained to adequately justify an exception. Although the exception request will be forwarded to Headquarters by the district permit engineer following district review, the information contained in the request will be compiled from information submitted by you. Thank you for working with us as we explore new alternatives to our existing processes and requirements. If you have any additional questions, please contact me at (916) 654-6099.

Sincerely,



ASIF J. HAQ
Assistant Chief
Division of Traffic Operations

Attachments

- c: Barry Piesner, Broadband Associates International
Don Fogle, Chief Office of Encroachment Permits and Outdoor Advertising