

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of:)
)
Request by the City of Pueblo, Colorado)
for a Waiver of the Commission's Rules to)
Allow Establishment of a 700 MHz) PS Docket No. 06-229
Interoperable Public Safety Broadband)
Network in the State.)
)

REQUEST FOR WAIVER

Pursuant to Section 1.925 of the Commission's rules, the City of Pueblo, Colorado (Pueblo) submits this Petition for Waiver to allow for early construction and deployment of an interoperable 700 MHz public safety broadband network in the City and County of Pueblo, Colorado. The City of Pueblo will partner with Pueblo County to implement a County-wide 700 MHz public safety LTE network and is filing this waiver request on behalf of the City of Pueblo and Pueblo County.¹ Together we will establish a governance structure to construct, maintain and operate this public safety grade network. This Pueblo County broadband network will be open to serve multiple public safety agencies of towns and local jurisdictions within the County, including campus public safety for Colorado State University and Pueblo Community College, both located in the County. The network can utilize existing mission critical voice communications infrastructure and antenna sites within the City and County to enable the addition of broadband capabilities in a cost-effective and timelier manner. City of Pueblo also

¹ On April 3, 2012, Pueblo County passed a resolution, Resolution No. 12-112, giving the City of Pueblo permission to file this Request for Waiver on its behalf and offering its support and acknowledgment of the Request for Waiver. A copy of Resolution No. 12-112 is attached hereto.

subsequently plans to facilitate the establishment of a governance structure to enable the expansion of the 700 MHz public safety LTE network for the immediately adjacent Counties in the southeast part of the State of Colorado, defined herein as the South Region of the Colorado All Hazards Emergency Management Regions (AHEMR). Further expansion may include the other AHEMR regions and a Statewide 700 MHz public safety broadband network in the future. This public safety mobile broadband network will be designed to be fully compatible with the Commission's requirements and fully interoperable with a nationwide 700 MHz public safety broadband network as well as other regional and statewide 700 MHz public safety broadband networks implemented in proximity to Pueblo County.

Under the current rules, the City of Pueblo must obtain a waiver from the Commission to allow for early construction and deployment of such a broadband network in the 763-768 MHz and 793-798 MHz public safety band, originally licensed to the Public Safety Spectrum Trust (PSST). The U.S. Congress recently passed and President Obama signed H.R. 3630, the Middle Class Tax Relief and Job Creation Act of 2012, on Feb. 22, 2012, which additionally reallocates the D Block spectrum (758-763 MHz and 788-793 MHz) to public safety for the public safety broadband network. The City of Pueblo is therefore seeking authority to include the entire 758-768 MHz and 788-798 MHz public safety broadband spectrum band in the early buildout of a County-wide broadband network. As defined in H.R. 3630, the State of Colorado is to apply to the National Telecommunications and Information Administration (NTIA) to lease this spectrum from the First Responder Network Authority (FirstNet), which will be assigned this 10+10 MHz nationwide spectrum license. The City of Pueblo will work with the

State to provide spectrum access needed to implement this regional network. The Commission has previously granted waivers to other jurisdictions for the use of the 700 MHz public safety broadband spectrum. The City of Pueblo seeks similar considerations. As addressed in this request, a grant of the requested waiver to Pueblo is in the public interest and will lead to the early deployment of critical public safety grade broadband communications, thereby improving communications for first responders and providing interoperability across multiple agencies in Pueblo County, Colorado.

I. Background

The City and County of Pueblo are located in south center of Colorado along the eastern slope and just south of El Paso County and the City of Colorado Springs. The first responders in the City of Pueblo currently number just over 200 sworn police officers and 140 fire fighters and emergency medical technicians (EMTs) staffing 12 fire stations, protecting the lives and property of 105,000 residents and thousands of visitors per year. The City's 911 Communications Center placed over 130,000 dispatches to our first responders last year. It provides supplemental communications services for many City departments in addition to providing mutual aid for other area agencies, including the County Sheriff, the Colorado State Patrol, Pueblo Rural Fire Department and Pueblo Animal Services. At the County level, the Pueblo County Sheriff's Office Emergency Services Communications Center responded to over 22,000 calls, dispatching the appropriate law enforcement, fire and EMS agency throughout the County, except for calls within the City of Pueblo limits handled by the City's 911 Communications Center. The 189 sworn officers of the Sheriff's Office Law Enforcement Bureau are responsible for responding to the rest of the County, except for the City of Pueblo. In total, public

safety agencies throughout the County protect the lives and property of over 160,000 citizens and over two million visitors annually.

At over 10,000 acres of land and 4,600 acres of water, Lake Pueblo State Park, located totally within Pueblo County, hosts 1.7 to 2 million visitors per year and ranks as one of the top three parks in Colorado in total number of visitors. Pueblo County is also home to Colorado's largest single event, the Colorado State Fair, which boasts over 500,000 attendees annually during the 11 day event held in late summer, as well as other annual events such as the Wild West Fest rodeo and the Rocky Mountain Street Rod Nationals.

Pueblo County is also home to Colorado State University (CSU), with 6,000 students and a new stadium that holds over 12,000, and the main campus of Pueblo Community College (PCC) with 5,000 students. The County Sheriff's Office provides for CSU campus security while PCC has its own campus security police. Nationally recognized medical facilities such as Parkview Medical Center and the St. Mary-Corwin Medical Center are also proud to call the City and County as their home. Together they serve 350,000 residents in Pueblo and the surrounding counties, and have over 20,000 admissions and 100,000 emergency room visits annually. Pueblo Memorial Airport serves general aviation, a commercial airline and the U.S. Air Force's Initial Flight Screening (IFS) program with three runways and approximately 100,000 aircraft operations annually.

There are two major federal facilities within the area that significantly contribute to the urgent requirement for a public safety grade LTE broadband network in Pueblo County and its neighboring Counties. These are the Pueblo Chemical Depot and the 13

federal and state prisons in neighboring Fremont County.

1. The Pueblo Chemical Depot (PCD), located in eastern Pueblo County, is one of nine U.S. Army installations within the U.S. Army Chemical Materials Agency (CMA) in this country that currently store chemical weapons. The PCD occupies about 23,000 acres and comprises 7% of the county's original chemical material stockpile. Currently, the Department of Defense has commissioned the construction of the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) to safely dispose of these weapons through neutralization and biotreatment. The CMA and PCD are committed to the safe and secure storage of the chemical weapons until this disposal is completed. They work closely with the Colorado Chemical Demilitarization Citizen's Advisory Commission (CCDCAC) and its Chemical Stockpile Emergency Preparedness Program (CSEPP) to keep the public informed and involved in the program, and develop emergency response plans with State and local public safety, and provide them with chemical accident response equipment and warning systems.
2. Neighboring Fremont County is known as Colorado's Correctional Capital and both State and federal institutions are located within the county. The Florence Federal Correctional Complex comprises of a number of federal correctional facilities and is located about 40 miles west of the City of Pueblo. Included in the Complex are the United States Penitentiary (US Pen) and Administrative Maximum Penitentiary (ADX). The felons incarcerated here have committed the worst possible crimes and have the longest sentences. They may be high profile criminals or high escape risks. Or, they may simply have "earned" their way into

what inmates consider the toughest place possible through bad behavior. The Complex also includes a minimum security satellite prison camp outside of the ADX. The prison camp houses lower level male felons whose crimes did not involve serious violence (no weapons used) and about 60% of those incarcerated here are drug offenders. There is also a medium security facility within the complex called the Federal Correctional Institution or "FCI Florence." Almost 2,900 federal inmates are incarcerated in these prisons.

In addition, the largest nine State of Colorado correctional facilities operate in Fremont County, incarcerating almost 4,700 prisoners. Included are the 1,200 inmate Fremont Correctional Facility, which is currently undergoing expansion to be able to hold even more offenders, the Colorado State Penitentiary which is a close custody, administrative segregated facility reserved for the highest risk and most difficult to manage offenders, and the 5600-acre parcel of land known as East Cañon Correctional Complex which contains seven prisons and a wide variety of inmate programs and agribusiness projects.

First responders within the City and County of Pueblo operate on the State of Colorado P25 statewide communications network for mission critical voice communications. The system provides coverage throughout the 41 square miles of the City, using a dedicated public safety grade infrastructure that includes eight tower sites, of which three are State sites. The first responders in the rest of Pueblo County also operate County-wide on the State P25 network. The County infrastructure includes two County tower sites and two State sites.

A major share of the time and cost of implementing any communications network relates to the build out of communications infrastructure, including antenna site acquisition and construction. Pueblo proposes leveraging the above site facilities, which normally include the communications tower, site equipment housing buildings, and necessary backup power provisions that are part of a backhaul network for site interconnection. These existing communications tower sites can also be used to support broadband antennas and house broadband network equipment for the public safety broadband network. In addition to these narrowband operation sites, broadband networks generally require an additional number of sites due broadband communications coverage and range characteristics. Both the City and County currently have access to additional site properties that can be used to support such additional LTE sites. Use of these existing narrowband resources and expansion site properties can significantly reduce the timetable and cost of broadband system deployment.

Under the current rules, the City of Pueblo, in partnership with Pueblo County, must obtain a waiver from the Commission to implement its planned public safety broadband network and therefore submits this waiver request. The Commission has previously granted 21 waivers to other jurisdictions still active for early broadband network deployment and use of the 700 MHz public safety broadband spectrum². The City of Pueblo seeks similar consideration.

² Order, *In the Matter of Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Broadband Networks*, PS Docket No. 06-229, released May 12, 2010 which granted 21 waiver requests from local and state jurisdictions, of which 20 waivers are still active, and a subsequent Order in the same proceeding released May 12, 2011 which granted a waiver for early deployment to the State of Texas.

II. This Waiver Request Supports the Requirements of Public Safety

Pueblo stresses that existing public safety systems are essential for mission critical voice operations. However, as recognized by the Commission, these systems are inadequate for transporting the higher speed data and video information required by our first responders.

Deployment of the public safety broadband network in the City and County of Pueblo will enhance first responder response in day-to-day emergencies, task force and mutual aid operations, as well as in natural and man-made disasters, through support of a full range of interoperable IP multimedia applications, including:

- Real-time Streaming Video (surveillance & patrol car access)
- Digital Imaging
- Automatic Vehicle Location
- Computer Aided Dispatching
- Email
- Mapping/GIS
- Remote Database Access
- Report Management System Access
- Text Messaging
- Telemetry/Remote Diagnostics
- Web Access

A 700 MHz mobile public safety broadband network in Pueblo will support applications that currently cannot be supported over existing narrowband technologies. Allowing our law enforcement officers remote access to databases, remote form entry/reporting and web access will increase officer efficiency, reduce paperwork and allow officers to spend more of their time on patrol. In addition, tasks that consume

substantial dispatcher and officer time to perform routine database lookups and dispatch messaging can also be off-loaded to broadband spectrum, significantly reducing narrowband channel load and providing increased voice capacity.

Broadband networks will allow mission-critical information to be exchanged in real-time, anytime, and anywhere coverage is built out. Availability of images (building plans, fingerprints, mug shots, crime scene photos), download of real-time videos to vehicles en-route to or at the incident scene, upload of live videos from police and fire department vehicles, and access to incident management databases provide a common operating picture for incident commanders as well as first responders, enhancing both incident response and first responder safety.

The use of a public safety grade LTE broadband network on dedicated 700 MHz public safety spectrum will provide greater reliability and certainty for first responders in emergencies, natural and man-made disasters, as well as day to day operations than normally provided on commercial carrier networks which must be shared with large numbers of consumer users. To realize these vital benefits, the City of Pueblo urges the Commission to expeditiously grant this waiver request and authorize us to implement and operate a County-wide broadband network which can be integrated into the larger nationwide deployment, once it is in place.

Upon deployment of a County-wide broadband network, the City of Pueblo plans to facilitate the establishment of a governance structure with the Counties represented in the South Region of the Colorado All Hazards Emergency Management Regions. As shown in Appendix A, in addition to Pueblo, these include the Counties of Fremont, Custer, Huerfano and Las Animas. This governance structure will enable the expansion

of the 700 MHz public safety LTE network into these immediately adjacent Counties, and subsequently lead to likely further 700 MHz public safety LTE network expansion in to the other All Hazards Emergency Management Regions in the State of Colorado.

III. The Waiver Request is in the Public Interest

The City of Pueblo strongly believes that the public interest will be served by allowing the City and County of Pueblo to implement the early deployment of an interoperable LTE broadband network in support of public safety communications. The need for first responder access to public safety grade broadband communications is an urgently required addition to our mission critical voice communications networks. Public safety law enforcement, firefighters, emergency medical providers, and other vital government service providers in Pueblo County must be provided with broadband communications tools that enable our first responders to better protect and serve our citizens and visitors. Our first responders must have better communications access than the criminal elements within our society who currently have open availability to communications far beyond voice communications.

The Commission's rules require that to obtain a waiver, a petitioner must demonstrate either that (1) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the present case, and that a grant of the waiver would be in the public interest, or (2) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative. Under either of these standards, the waiver request to allow the Pueblo to deploy a public safety broadband network in advance of the National Public Safety Broadband Network is

justified.

The underlying purpose of the Commission's rules for the 700 MHz public safety broadband spectrum was to provide for the expeditious deployment of new interoperable broadband communications capabilities for public safety agencies that would leverage technologies used in the commercial market. The Commission rules in place had envisioned that the public safety broadband network would be deployed under a public/private partnership by the auction winner of the adjacent "D block" spectrum.

Those rules severely limit and discourage any local agency deployment. Under these rules, the D block licensee will have the "exclusive right to build and operate the Shared Wireless Broadband Network encompassing both the PSST and D spectrum blocks."³ However, the failure of the D block auction in 2008 introduced significant delays in that plan. In its Third Report and Order, the Commission noted the significantly changed circumstances since the unsuccessful attempt to implement a mandatory public/private partnership in 2008 and issued a "stay" of existing mandatory partnership rules. In doing so, the Commission also noted that during the pendency of the current rulemaking, public safety entities seeking authorization for early deployment must still apply for a waiver.⁴ The public safety agencies in the City and County of Pueblo cannot wait for the deployment of a full coverage nationwide network from which local public safety entities can obtain broadband services, because such implementation will likely be years away.

The legislation to reallocate the 5+5 MHz D Block to public safety was passed on

³ 47 CFR, Sections 27.1330 and 90.143 of the FCC rules.

⁴ *Third Report and Order and Fourth Further Notice of Proposed Rulemaking*, PS Docket 06-229, released January 26, 2011 at paragraph 14.

February 17, 2012 by the U.S. Congress in H.R. 3630, The Middle Class Tax Relief and Job Creation Act of 2012. President Obama signed H.R. on Feb. 22, 2012, which now provides a total of 10 + 10 MHz of spectrum for the public safety broadband network. The First Responder Network Authority (FirstNet), an independent authority established by the legislation within the National Telecommunications and Information Administration (NTIA). FirstNet will hold the 10 year license for the public safety D Block spectrum and the additional 5+5 MHz of public safety broadband spectrum currently licensed to the PSST.

The City of Pueblo is seeking authority to include the entire 758-768 MHz and 788-798 MHz public safety broadband spectrum band in the early buildout of a County-wide broadband network. As defined in H.R. 3630, the State of Colorado is to apply to the NTIA to lease this spectrum from FirstNet, which will be assigned this 10+10 MHz nationwide spectrum license. The City of Pueblo will work with the State to provide spectrum access needed to implement this regional network. Grant of the requested waiver will allow the City of Pueblo and Pueblo County to pursue public funding and/or its own public/private partnership to commence construction and deployment of a broadband system pursuant to the further conditional requirements of the Commission. While Pueblo awaits resolution of the Commission's proceeding, the need for deployment of broadband technologies remains critical in this area.

LTE is a commercial open standard technology which is being deployed by commercial wireless operators in the commercial portions of the 700 MHz band today. Pueblo agrees with the Commission and with leading public safety entities such as the Association of Public-Safety Communications Officials International. (APCO), the

National Public Safety Telecommunications Council (NPSTC) and the PSST, as well as the industry, that the selection of LTE as the common air interface technology for use in the public safety 700 MHz band is an essential first step towards achieving the goal of nationwide interoperability. With a grant of the requested waiver, the City of Pueblo in partnership with Pueblo County is planning deployment of a County-wide LTE network to support public safety operations in the County. This LTE system will be deployed to operate on a paired assignment of broadband channels in the public safety broadband block between 788-798 MHz for mobile transmission and 758-768 MHz for base station transmission. The equipment deployed in the band will be compliant with the 3GPP Release 8 standards, as mandated by the previous Commission interoperability requirements for waiver grantees.⁵

Moreover, at a minimum, the public safety grade LTE network deployed in the public safety broadband block will initially support the applications specified in the Waiver Order: (1) Internet access, (2) VPN access to any authorized site and to home networks, (3) a status or information “homepage,” (4) access to responders under the Incident Command System, and (5) field-based server applications.

We agree with the Commission, public safety, equipment manufacturers and commercial wireless service providers that roaming is a “fundamental requirement.” We will support access to all interoperable 700 MHz public safety authorized users in the 758-768/788-798 MHz band and will support access by visiting local, state, and tribal public safety and Federal authorized users. We further agree to adhere to the interoperability criteria that the Commission establishes in its rules and subsequent

⁵ The LTE standard is progressing with additional updates beyond release 8. If allowed by the Commission, a later release of the LTE standard could also be considered for deployment.

Orders.⁶ This public safety mobile broadband network will be designed to be fully compatible with the Commission's requirements and fully interoperable with a nationwide 700 MHz public safety broadband network as well as other regional and statewide 700 MHz public safety broadband networks implemented in proximity to Pueblo County.

Grant of the requested waiver for early deployment of a public safety grade broadband network will resolve the problem faced by public safety agencies operating in Pueblo County in accessing the 700 MHz public safety broadband spectrum. The public interest will be served by the Commission's grant of the Pueblo requested waiver by allowing us to move forward and implement an interoperable public safety broadband network, built to meet the unique needs of the public safety agencies in Pueblo County, in the 758-768/788-798 MHz band without further delay. As noted herein, the City of Pueblo will subsequently define the governance structure for the South Region of the Colorado AHEMR (see Appendix A) to enable the further expansion of the 700 MHz public safety LTE network into our neighboring Counties. Further expansion of the governance structure to include the other AHEMR regions may lead to a Statewide 700 MHz public safety broadband network in the future.

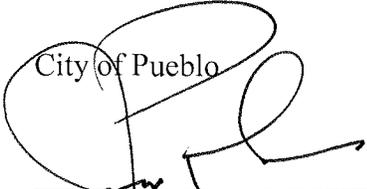
IV. Conclusion

The City of Pueblo respectfully requests the Commission to promptly review and grant this Petition for Waiver to allow for early construction and deployment of an interoperable 700 MHz public safety broadband network in the City and County of Pueblo. Grant of the requested waiver allows Pueblo to leverage the established the

⁶ Such as the *Order*, PS Docket 06-229, on use of common PLMN ID, released January 9, 2012.

infrastructure and tower sites of the existing public safety narrowband voice networks. It will permit implementation of public safety broadband communications capabilities such as high speed data and video, as an addition to current mission critical voice communications. Expeditious grant of this waiver will allow deployment of an interoperable broadband network in the 758-768/788-798 MHz band in accordance with the Commission's requirements. Most importantly, expeditious grant of this waiver is in the public interest, will increase our first responders' safety and efficiency, and will enhance their ability to better protect the lives and property of the County's 160,000 citizens and over two million visitors. Finally, Commission grant of this waiver will further both public safety's and the Commission's goal to deploy a nationwide interoperable 700 MHz public safety broadband network.

Respectfully submitted,

City of Pueblo


Jerry Pacheco
City Manager
Date: 4/12/12

Appendix A

