REPORT TO THE CITY COUNCIL

DATE: **JULY 14, 2010**

TO: **HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL**

FROM: **GREG RAMIREZ, CITY MANAGER**

BY: **MIKE KAMINO, DIRECTOR OF PLANNING AND COMMUNITY DEVELOPMENT**
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SUBJECT: **DISCUSSION REGARDING THE PREPARATION OF THE CITY'S WIRELESS TELECOMMUNICATIONS FACILITIES ORDINANCE**

A. PURPOSE

The purpose of this staff report is to receive direction from the City Council on the approach to be taken in developing the City's Wireless Telecommunications Facilities (WTF) Ordinance. To provide context, this staff report also summarizes the background leading to the need to prepare a WTF Ordinance and issues that need to be evaluated in creating an Ordinance.

B. BACKGROUND

On October 14, 2009, the City Council adopted Ordinance No. 09-369U, an interim urgency zoning ordinance establishing a temporary moratorium on the approval of permits for wireless telecommunications facilities in the City for forty-five (45) days. The effect was to prohibit the installation of wireless facilities throughout the City while the City undertook studies to review the current codes and update them once it is determined what conditions and standards should be applicable to future permitting of such facilities.

On November 10, 2009, the City Council adopted Ordinance No. 09-370, extending the interim urgency zoning ordinance amendment for an additional ten and one-half months, to the date September 25, 2010, in order to fully accomplish the studies noted above, and to prepare the Ordinance update.

To assist staff in conducting the studies and developing a framework for the Ordinance, the City issued a Request for Proposals and subsequently entered into a professional services agreement with the firm of Kreines & Kreines, Inc. in May 2010. City staff has been coordinating with Mr. Ted Kreines of the firm, who has provided guidance and technical information upon which this staff report is based.

1. Current Municipal Code

While there is no specific WTF Ordinance in the City's Municipal Code, WTF are permitted with a Conditional Use Permit (CUP) in the following zoning districts:

- Business Park – Office Retail (BP-OR)*
- Business Park – Manufacturing (BP-M)

* *Only west of Palo Comado Canyon road, and east of Palo Comado Canyon Road on properties that front Dorothy Drive.*

That is the limit of regulation of WTF in the City. There are no specific development or design standards to which the WTF are subject, rather they must submit to the general development and design standards for all uses and structures in the specific zoning district. For example, a WTF is currently limited to a height of 35 feet, as that is the maximum height allowed in the BP-OR and BP-M districts in general for any structure.

2. Changes in Technology

Analog to 4G

When the current Zoning Ordinance was developed, the cellular technology consisted of analog (first generation or 1G), which has since been overtaken with digital (second generation or 2G). Now, there are very few analog systems operating, and they are mostly in rural areas. Tall towers are also no longer necessary in urban and suburban communities, as the tower casts a signal too far for nearby cell sites to operate without interference. Nonetheless, towers and other original analog type facilities are still visible in some communities, as carriers are reluctant to remove them, and newer technology may be placed on the existing towers.

The technology trend is to move toward more numerous, and more closely located, cell sites with greater bandwidth. This includes 3G and the anticipated 4G technology, as well as even further technological progression. The effect is that the cell facilities are becoming smaller, with new cells filling in the gaps between them. The ultimate horizontal spacing between cell sites is expected to be 80 meters (the length of a football field), and is anticipated to become more common within the next 10-15 years. There are several reasons for this reduction in spacing, including: (1) more bandwidth will be used at each site, resulting in more speed of the signal; (2) the user will need to be closer to the cell site to catch the fast signal or the signal will be missed; and (3) the geographic area served by a speedy signal is much smaller and the "reach" of the signal is smaller.

Examples of current WTF in the City are shown in Attachment A. These include towers/poles, roof mounted on a building (often behind parapet walls), flush mounted on the side of a building, and enclosed within a building.

Other Technologies with Landline Support

Another trend is to use landline to support wireless systems to allow for high bandwidth and high speed connectivity. However, wireless will still need to be delivered via airwaves. There are two methods at present. The femtocell is a miniature cell site within the interior spaces of buildings. It is connected to the underground fiber optic cable along a property line. The benefit of the femtocell is that it delivers a fiber signal faster than wireless, however it costs more, both in terms of the femtocell itself and the monthly charges.

The distributed antenna system (DAS) uses fiber optic cable to interconnect short vertical elements, or "nodes," in the right-of-way, such as street lights or utility poles. A small antenna is placed on the short vertical element. A central switching station building converts the wireless signal to a landline signal. Each carrier is able to use the same fiber optic network as well as each node. The advantage of DAS is its lack of intrusiveness, but the disadvantage is its high cost, which discourages carriers from utilizing this technology.

Significant Gap

A "significant gap" is a coverage concept used by carriers to demonstrate that there is needed coverage between two or more existing cell sites. Carriers create coverage maps indicating where gaps in service are occurring in an area. In the suit of the carrier MetroPCS against the City and County of San Francisco, the Ninth Circuit Court of Appeals found that "a significant gap in service (and thus an effective prohibition of service) exists whenever a provider is prevented from filling a significant gap in its own service coverage." Therefore, a city must allow the closure of significant gaps, as determined by each carrier's service coverage, not overall service coverage in a city. Therefore, coverage by another carrier is not sufficient to meet this requirement.

Often, a city is required to assess whether a carrier's coverage maps are accurate, and there is frequently disagreement between a city and carrier. City analysis of significant gaps requires technical expertise and is often a source of dispute between jurisdictions and providers, as well as being the basis for legal challenges. The carriers have been successful in getting cell sites approved by using the "significant gap" argument, and the concept will likely continue to be used by the carriers to demonstrate a need for service in an area. However, although the significant gap term is still readily used by the carriers, the technological trend is toward a cell site's ability to connect with the user, not cover a territory. As cell sites get closer together, "connectivity" is more important, and the "significant gap" is no longer critical. At some point soon with 3G technology, even more cell sites will be needed throughout these former "gaps." The new sites will be smaller and less noticeable than the early 3G sites. Therefore, the discussion of coverage maps or significant gaps in coverage may be moot.

3. What Cities Can Regulate

The Federal Communications Commission (FCC) was established by the Communications Act of 1934, and is charged with regulating interstate and international communications by radio, television, wire, satellite and cable. The first major overhaul of telecommunications law since 1934 occurred with the establishment of the Federal Telecommunications Act of 1996 (FTA). The primary goal of the Act was to let anyone enter any communications business.

The FTA provides that decisions on permit applications may not "unreasonably discriminate among providers of functionally equivalent services, and that zoning regulations must not prohibit or have the effect of prohibiting the provisions of personal wireless services."

Local governments have the authority to deny a request to construct or modify telecommunications facilities if those facilities do not comply with the FCC's regulations, and local governments may, in the exercise of their zoning authority, impose aesthetic requirements or even prohibit facilities in certain areas.

RFR

While the FTA establishes maximum thresholds for radio frequency radiation (RFR) emissions from cell facilities, it prohibits states and local agencies from regulating the facilities' environmental effects from RFR. It states:

> *No state or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.*

The Act, however, does not preclude local governments from discussing RFR, or monitoring or testing RFR. Therefore, a city may verify that a cell site is installed and maintained in compliance with the federal RFR emissions standards.

Visual Quality

Local governments can also regulate visual impacts from the cell facilities by establishing requirements for height, color, types of equipment, and design that provides disguise, concealment or camouflage.

Immediate Threats to Public Safety, Health, Welfare

Local governments can regulate the facilities from a health, safety and welfare standpoint in terms of immediate threats to life and property. An example is structural safety, and

reducing the incidence of collapse or debris falling. Consequently, cities may establish fall hazard or safety zones around a cell site.

Public Right-of-Way

Cell sites are not considered public utilities. Therefore, a city may also regulate cell sites in the public right-of-way.

Co-Location

Co-location refers to the situation in which the operator of an existing wireless facility (e.g., tower) leases space on the facility to allow another carrier to add new cell attachments. A city can regulate and set standards for co-location. The most noted benefit of co-location is that it limits the demand for new cell sites, and therefore it is less susceptible to citizen opposition. Nonetheless, as discussed above under "Changes in Technology," the industry trend in the coming years will be toward smaller, more closely located and more frequent cell sites. Therefore, co-location may not be as beneficial in the future. Disadvantages of co-location include increased RFR concentrations in one area, as opposed to dispersal, which can approach the limits established by FCC guidelines. Co-location can also be more of a visual impact, since many facilities may be congregated at a certain site. Other concerns, such as bootlegging (carriers adding attachments without permits), or structural stability with the addition of attachments, can be regulated and monitored by a city.

Reasonable Time Frame

Per federal regulation, local governments are also required to act within a reasonable time on a cell facility application. For co-location of facilities, an application to a local agency must be acted upon within 90 days. For a new cell site, the local agency must act within 150 days.

C. APPROACH IN DEVELOPING THE ORDINANCE

The current Zoning Code allows cell facilities subject to a Conditional Use Permit (CUP) in two zoning districts in the City and provides no specific design or development standards. Each application is reviewed on a case-by-case basis through the CUP process with no set standards, but based on informal policy set by previous actions. Therefore, the City is not able to regulate the design and size and other characteristics of the cell sites in a more objective and comprehensive way, since there are no established development and design standards for such uses.

The carriers are limited in where cell facilities can be installed in Agoura Hills. These locations are in certain discrete portions of the City, and, given the varying topography and size of the City, may not be sufficient to provide consistent wireless services throughout the City. Attachment B (Approved and Proposed Wireless Telecommunications Facilities) is a map showing the distribution of WTF facilities in the

City. With a few exceptions, the sites are found along the freeway corridor and south of the freeway, consistent with the BP-M and BP-OR zones. However, there are large areas north of the freeway with no cell sites.

Therefore, the goal in updating the Zoning Code is to address trends in wireless telecommunications technology to allow for the establishment and maintenance of a wireless telecommunications network that adequately serves the needs of the community and enables providers to fill gaps in coverage, and to control the deployment and design of these facilities to protect the public health, safety and welfare, as well as character of Agoura Hills' neighborhoods.

The options for developing a WTF Ordinance are nearly as varied as the number of cities and counties in the state. A WTF Ordinance is created in light of the particular features and circumstances of a community, including, but not limited to, topography, types of land uses and their distributions, and community preferences for design and aesthetics.

Early WTF ordinances often directed WTF to a set of discrete, non-residential zoning districts, with some limited design and development standards. Recently, the trend has been toward allowing WTF in more zoning districts in a city, but directing carriers to certain preferred locations in a given district through incentives and/or criteria that must be met. Overall, design and developments standards are becoming more stringent in an ordinance, but also different levels of such standards can be established depending on the sensitivity of the zoning district. As such, ordinances can encourage the use of certain locations over others. Examples of cities with these types of ordinances are Calabasas (2010), Malibu (2003), La Canada Flintridge (2001), and Goleta (2009).

In the next five years, given growing demand and changes in technology, Agoura Hills will likely continue to receive requests to add on to existing cell facilities (which include existing antennae and towers), as well as some requests for cell sites at new locations. The demand for more sites in different areas will not occur overnight, but will inevitably and gradually expand thereafter. In the next 10-15 years, considering 4G technology, there will likely need to be more cell sites, often smaller in size, and located in closer proximity (i.e., a football field distance) for greater "connectivity" between cell sites (e.g., DAS)., as described previously in this report.

Since WTF technology is clearly moving in a direction of more, smaller cell sites closer together, cities will at some point need to allow for this new technology as part of zoning, in terms of allowing WTF in more locations in the City to create a connective network. The decision for the City Council, then, is at what point the growing trend should be accommodated in the Zoning Code - fully now versus gradually moving with the technology as it advances and therefore creating an ordinance that gets the City "there" in stages. Staff anticipates that any ordinance adopted by the City at this time would need to be revised periodically to accommodate the specific issues that new technology is likely to bring, but cannot yet be understood completely. An ordinance that is more reflective of the anticipated future technology, as opposed to the technology available today only, would likely have more longevity and not need as frequent updates.

Staff proposes an approach that would accommodate WTF technology in the next five years or so, but would likely need to be revised when more advanced technology is prevalent, considering 4G type technology. The recommended approach is to establish provisions for cell sites in commercial zones, in addition to the current BP-OR and BP-M zones. A set of design and development standards would be created to minimize visual impacts from the cell sites. Development and design standards could be established for an individual zoning district, so that they may vary depending on the district, if needed, or they may even be stricter for more sensitive land uses within a given zoning district. Moreover, preferred sites or locations could be identified within these zoning districts.

Non-preferred sites and locations would be for other zoning districts considered less desirable for WTF, and a much higher level of design and development standards would apply in order to locate WTF there. For example, consideration could be given to allowing them in the public right-of-way (ROW) (i.e. limited to arterial and perhaps collector streets), and in parks. There can be a prohibition on private residential lots. Consideration can be made for limited allowance of WTF in the ROW or on church/temple facilities, or on community buildings located in a residential zone. Stricter standards could be created to carefully regulate the WTF in more sensitive locations.

Examples of design and development standards include height; size; "stealthing" or disguising the WTF by certain placement, screening, camouflage, or color choice; requiring that the facility be blended into its surroundings by incorporating the antenna into the design elements of the building by painting or texturing to match the existing structure; requiring adequate landscaping to screen the facility not only from the immediate surroundings, but also from the "line of sight" from passersby; establishing buffers from sensitive uses where WTF cannot be sited; and requiring additional application submittal materials to analyze.

The specific details of the Ordinance would be worked out in the coming months. In particular, issues of co-location, design and development criteria, monitoring of RFR, and establishment of preferred locations in a zone, would be explored further. Following the direction of the City Council, Staff would like to work with a subcommittee of the Council consisting of the Mayor and Mayor Pro Tem, as recommended by the City Manager, to coordinate the details of the Ordinance.

The important aspect of this approach to the Ordinance is that while WTF would be allowed in more places than the current Zoning Code allows, there would also be a strict set of design and development standards to regulate the particular locations where they can be sited, and to regulate the appearance and visual prominence of the WTF, unlike in the current Zoning Code. This approach also creates an incentive to carriers to seek sites and locations that the City considers preferable.

Alternatively, the City Council may decide to not revise the current Zoning Code, and allow WTF in the two zoning districts where such facilities are currently permitted, with each application continuing to be evaluated on a case-by case basis. The Council may

also decide to retain the two zoning districts for WTF use, but create an Ordinance that is limited to only establishing specific application requirements and design and development standards for WTF.

In summary, the process of updating the City's regulations regarding wireless telecommunications is extremely complex, complicated by federal law, growing demand, rapidly changing technology, existing circumstances in Agoura Hills, and the City's geography and topography. This report outlines the approach recommended by staff, but there are numerous details and options within that approach that must be explored and analyzed further by staff, with the assistance of the Council ad-hoc committee, the City Attorney and the City's consultant.

RECOMMENDATION

Staff recommends the City Council provide direction on the proposed approach to creating the Wireless Telecommunications Facilities Ordinance, and appoint a subcommittee composed of the Mayor and Mayor Pro Tem to work with staff on the Ordinance.

Attachments:
A. Photos of Types of WTF in the City
B. Map of Approved and Proposed Wireless Telecommunications Facilities

Attachment A

Types of WTF in the City

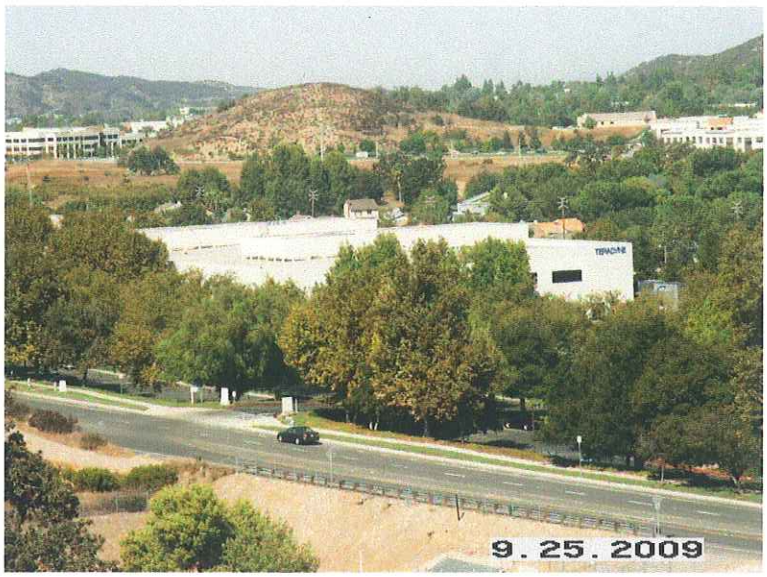
Side Mounted on Building

White Panels Side Mounted on Agoura Town Center Building Wall

Enclosed in Building

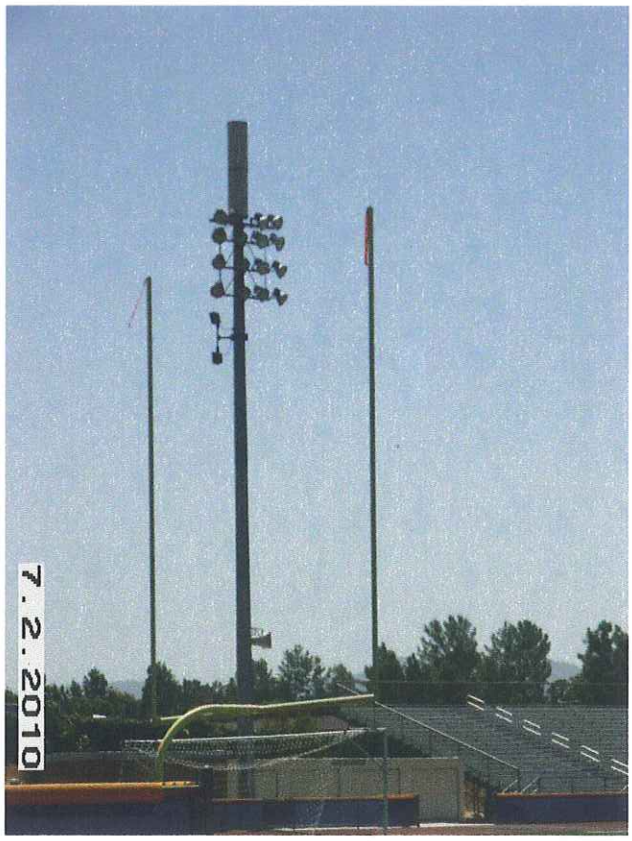
WTF to Right of Renaissance Hotel Sign, Fully Enclosed in Building

Roof Mounted Behind Parapet of Building



Equipment Screened by Roof Parapet Wall on Former Teradyne Building

Tower



Equipment Enclosed in Cylinder on Top of Stadium Lighting at Agoura High School

Attachment B

Approved and Proposed Wireless Telecommunication Facilities (As of April 2010)