ATTACHMENT I

Public Works Memorandum

To: Richard Yee, P.E., City of Pasadena
From: Jonathan L. Kramer
Date: November 7, 2011
RE: Proposed T-Mobile Wireless Site in the Public Right-of-Way
Location: Northeast corner of California Boulevard at Grand Avenue

At the direction of the City of Pasadena in this memorandum I compare the current project design for this proposed site at the corner of California Boulevard and Grand Avenue on a guy pole with the one remaining alternative site on a City-owned traffic signal at the intersection of Orange Grove Boulevard and California Boulevard. I also provide the City with an independent, detailed analysis of radio frequency emissions safety compliance with federal and state rules at both the requested site and the alternative site.

California/Grand Project Comments

In the intervening time between my August Memorandum and today the City's Public Works Department and I have conducted engineering discussions with T-Mobile by email and face-to-face regarding this proposed site at the northeast corner of California Boulevard at Grand Avenue. I refer to this site as the "requested site" throughout this memo.

Based on the multiple contacts with T-Mobile over the past 60 days the following has occurred:

1. We have determined that T-Mobile's initial site design for its requested site at northeast corner of California Boulevard at Grand Avenue was based on general engineering and design principles for sites on the type of pole at the location. The result was that T-Mobile did not initially propose the design with the least impact on the community to provide the service in the target area surrounding the project site. That initial less-than-optimal design is reflected in the photo simulation at Figure 1 of Attachment 1 to this memorandum.

2. Since submitting its initial design, and after consultation with the City's Public Works Department and its advisors, T-Mobile has substantially redesigned the site to materially reduce the overall footprint of the visible portion of the project. The reduced design eliminates the excessive bulk of the initial design. Specifically, the placement of the riser conduit on stand-off arms attached to the pole as been eliminated in favor of a flush attachment to the body of pole (which T-Mobile now proposes to replace with a new, like diameter pole), as well as the elimination of the visible GPS antenna. The reduced current design for the project is reflected in the photo simulation at Figure 2 of Attachment 1 to this memorandum.

Orange Grove/California Alternative Site Comments

The City has requested that T-Mobile consider and report on a number of potential alternatives to its requested site at California/Grand. Based on my analysis of the requested site and the most viable alternatives, the only alternative worthy of in-depth consideration would be a wireless site with antennas located on top of a City-owned traffic signal at the intersection of Orange Grove Boulevard and California Boulevard. This alternative location, about 1,050 feet away from T-Mobile's requested site, is photo-simulated in Figure 3 of Attachment 1.

The propagation maps submitted into the administrative record for the alternative site show the location of the site is on the eastern edge of the area to be targeted by T-Mobile. This alternative location would result in a signal pattern that is distorted from the normal three-sector design employed for this type of site.

Moreover, although I have noted above that the distance between the two sites is only about 1, 050 feet, there is a difference of about 42 vertical feet in ground level between the two sites. For signal propagation purposes at this specific and limited coverage area, a difference of 42 feet is significant. Additionally, the ground level change is not uniform. About 50% of the change in ground level height occurs in the first 1/3 of the distance from the requested site to the alternative site creating a topographic shelf that creates additional signal degradation from the alternative site. The ground level changes are shown in Attachment 1 at Figures 4 through 6, which I created to show the shelf effect. This shelf effect becomes most pronounced at and west of La Loma Road where it intersects with California Avenue.

In addition to the coverage challenges just discussed, the added 42 feet in ground height at the alternative site forces the antenna pattern distortion discussed above to prevent interference with other T-Mobile sites primarily to the east of the alternate site. The site-to-site interference issue does not similarly occur with the requested site because of its lowered elevation and the natural shielding that the topography provides towards the east.

Even if the City adopts this alternative site in lieu of the requested site, T-Mobile has informed the City that an additional new wireless site would be immediately necessary somewhere to the southern portion of the desired coverage area. This additional site would be required to complete the coverage pattern that would be afforded from a single site on the guy pole at California Boulevard and Grand Avenue. The location for this additional site would most likely be placed on an existing or new pole in the public right-of-way.

My review of the signal propagation maps, and considering the substantial ground height differences between the requested site and the alternative site, lead me to conclude T-Mobile would need to almost immediately request an

additional site to the south of the requested location. This additional site would be needed to fill-in T-Mobile's desired coverage that would not be afforded by a wireless site located at Orange Grove and California.

The alternative site considered on the City-owned traffic signal at the intersection of Orange Grove Boulevard and California Boulevard would require the installation of a radome with a greater volume as compared with the requested site. This larger radome would be necessary to house the different antennas needed to shape and focus the signal to fill a portion of the target area while minimizing interference with nearby sites to the east.

The installation of the radome on the traffic signal standard would also require the replacement of the current tapered traffic signal standard with one of a substantially greater diameter that is not tapered. I note that the use of a non-tapered pole at only one corner of the intersection would present its own visual discontinuity at the intersection as the remaining 3 traffic signal poles are tapered.

RF Safety Compliance

Federal Rules Compliance

The FCC completely occupies the field as to setting RF safety standards in the United States. The City is not permitted to set its own standards regardless of whether higher, lower, or even the same as the FCC's standards. The Commission does, however, permit the City to determine whether a proposed wireless project meets the required FCC 47 CFR §1.1307 *et seq.* (the "FCC rules") and FCC Office of Engineering and Technology Bulletin 65 ("OET Bulletin 65") RF safety requirements.

Under the FCC rules, certain types of wireless projects are deemed to be "categorically excluded" thus not subject to further RF evaluation under the rules due to identified factors including whether the antenna supporting structure is not an occupied building or shared to perform some other function and the lowest portion of the transmitting antenna is at least 10 meters above ground.

The requested T-Mobile facility at California and Grand does not qualify for categorical exclusion under the FCC rules because the antennas are mounted on a structured shared by other non-wireless users. An analysis of the planned emissions is necessary to determine whether the proposed site will comply with the FCC rules.

At my request, T-Mobile has provided me with the frequency and power output from each sector of antenna proposed at the requested site. That information is sufficient for me to independently determine whether the requested site, if approved by the City, will comply with the FCC rules once constructed.

Based on the frequency and proposed power to be emitted from T-Mobile's transmitting antennas, there will be a controlled access zone of approximately 9 feet 5 inches extending outward from the radome at the height of the internal antennas (about 47 feet 10 inches above ground level). The emissions are to be aimed horizontally and not downwards because of the horizontal transmission characteristics of the proposed antennas.

The existence of a controlled zone created by the proposed antennas does not mean that the project violates the FCC rules; rather, it merely requires that the wireless carrier take affirmative steps to restrict access to the controlled zones.

In this case, the entirety of the controlled zones for the antennas will be completely contained within inaccessible airspace at the same level as the antennas, nearly 48 feet in the air.

Accordingly, under the FCC rules, the Applicant must provide notice signage to comply with the rules.

State Rules Compliance

The California Public Utilities Commission has developed its own rules regarding placement of wireless facilities on shared utility poles. Those rules are found at CPUC General Order 95 Rule 94 ("Rule 94"), and are applicable if the requested site is on a shared utility pole.

For the purposes of compliance with Rule 94, T-Mobile must place its antennas at least 2 feet away from any other user on the same pole. I have reviewed T-Mobile's most current design plans for the requested site submitted to the City on November 2, 2011. Those plans indicate that T-Mobile has designed the project to comply with Rule 94. Additionally, T-Mobile correctly notes at Sheet A-4, Panel 3 of the plans that it must and will place a notice sign on the pole compliant with Rule 94.

Preliminary RF Analysis for the Alterative Site

Because of the coverage challenges related to height and topography at the Orange Grove and California alternative site, I have not requested T-Mobile to provide specific RF emissions data for that site. I have, however, conducted a worst-cast analysis presuming that T-Mobile was to emit the maximum power permitted it by the FCC in its frequency bands.

My preliminary analysis of compliance with the FCC's standards discloses that the entirety of the controlled zone would be contained within inaccessible airspace above the intersection of Orange Grove and California at about the same height as the antennas that would be mounted above the traffic light standard.

As to the alternative site, Rule 94 is inapplicable as the traffic signal standard is not a structure subject to CPUC General Order 95.

Conclusions Regarding RF Safety

Based on the information provided to the administrative record by T-Mobile, and my analysis of the proposed emissions disclosed by T-Mobile, it is my opinion that T-Mobile has appropriately designed the requested site to comply with the federal RF emissions safety rules and the state safety rules for constructing wireless sites on shared utility poles.

Having demonstrated to the City its planned compliance with the controlling federal and state rules regarding RF emissions safety, I conclude that there is no RF safety basis upon which the requested site should be denied by the City.

Conclusions

I have reviewed the City's administrative record in this matter. I have participated in the engineering discussions between the City and T-Mobile. I have conducted my own evaluation of the coverage assertions made by T-Mobile. Based on my involvement with this project as the City's expert, I present the following conclusions to the City:

1. At the direction of the City, T-Mobile has redesigned its requested site in the Public Right-of-Way at the northeast corner of California Boulevard at Grand Avenue to eliminate the visual discontinuities contained in its original design, most notably the elimination of the conduit stand-off arms and the elimination of the GPS antenna above the conduit. T-Mobile now also proposes to replace the existing legacy wood pole with a new pole of the same diameter.

2. The only realistic alternative to the requested site that proved worthy of in-depth consideration was a on a City-owned traffic signal at the corner of Orange Grove and California. However that alternative site, by itself, would be ineffective in providing comparable signal coverage to the requested site. If the alternative site is approved by the City, the likelihood is that T-Mobile will request another wireless site to the south of the requested site to complete its coverage goal for the service area. I conclude that the least impact on the entire community would result from a wireless site at the requested location.

3. The requested site at California and Grand will in all ways comply with the federal RF emissions requirements, as well as the state rules for wireless sites on utility poles. There is no basis for the City to deny requested site based on radio frequency safety considerations. I anticipate reaching the same conclusion as to federal compliance should the alternative site be approved.

4. It is my opinion that the requested site at the northeast corner of California Boulevard at Grand Avenue provides the only single location solution to meet T-Mobile's objectives.

For your convenience, I have attached my current Statement of Professional Qualifications as Attachment 2.

/jlk

ATTACHMENT 1

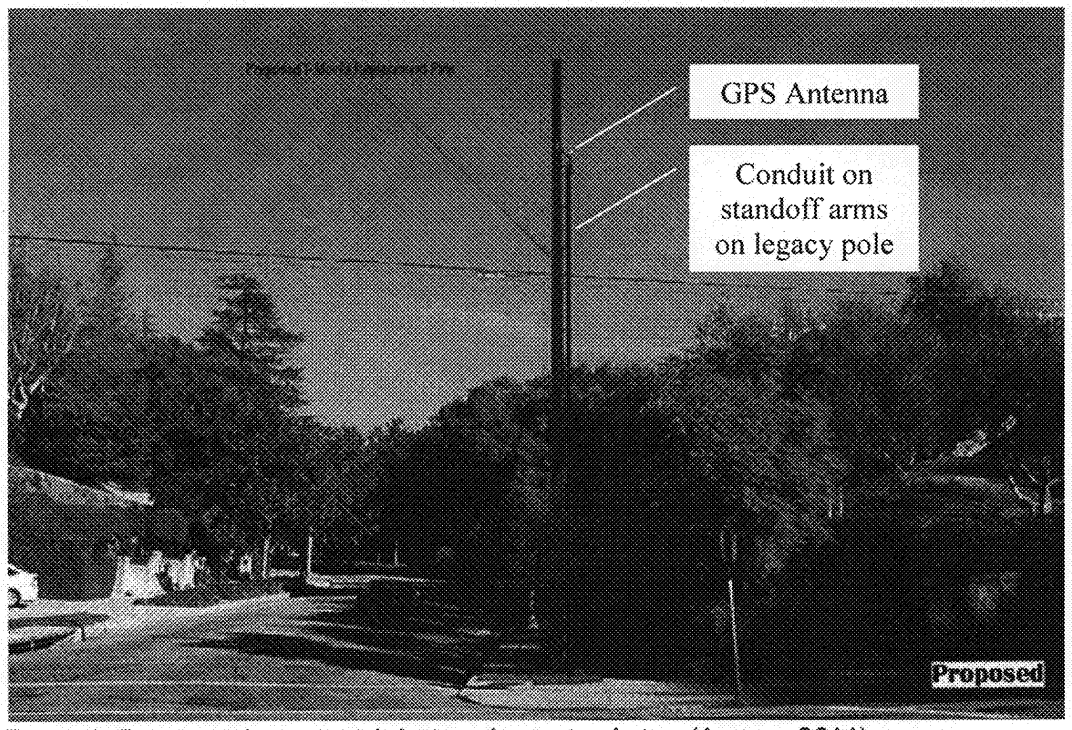

Figure 1: Requested site, initial design photo simulation (August, 2011)

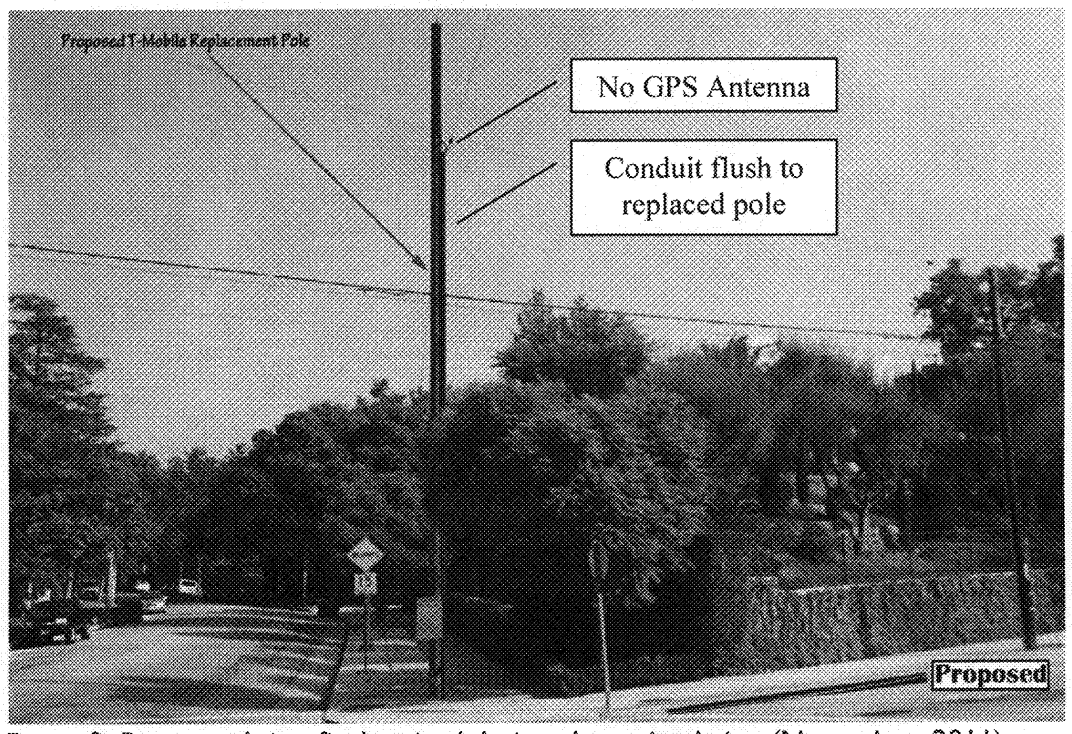

Figure 2: Requested site, final revised design photo simulation (November, 2011)

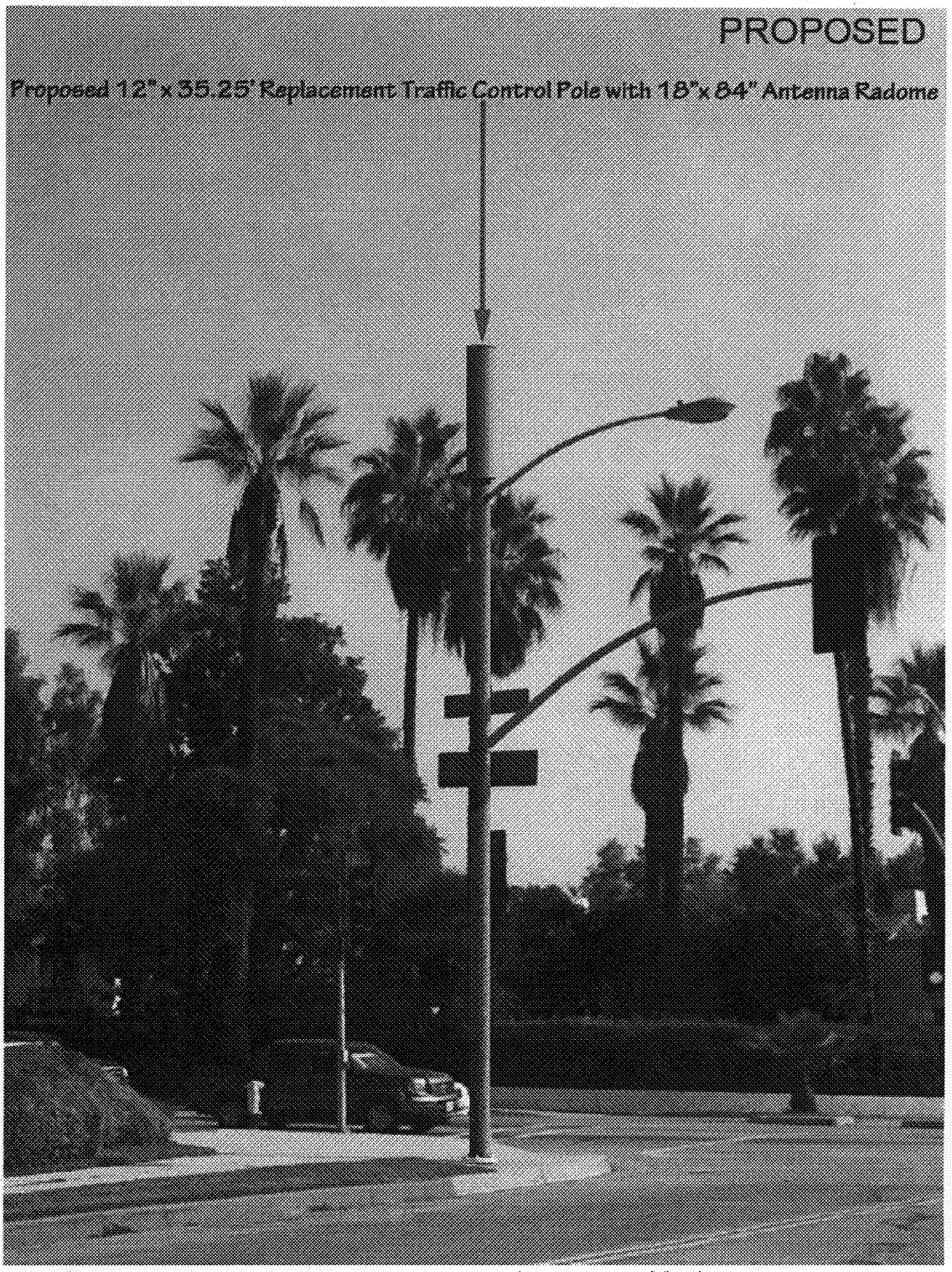

Figure 3: Alternative site, design photo simulation (November, 2011)

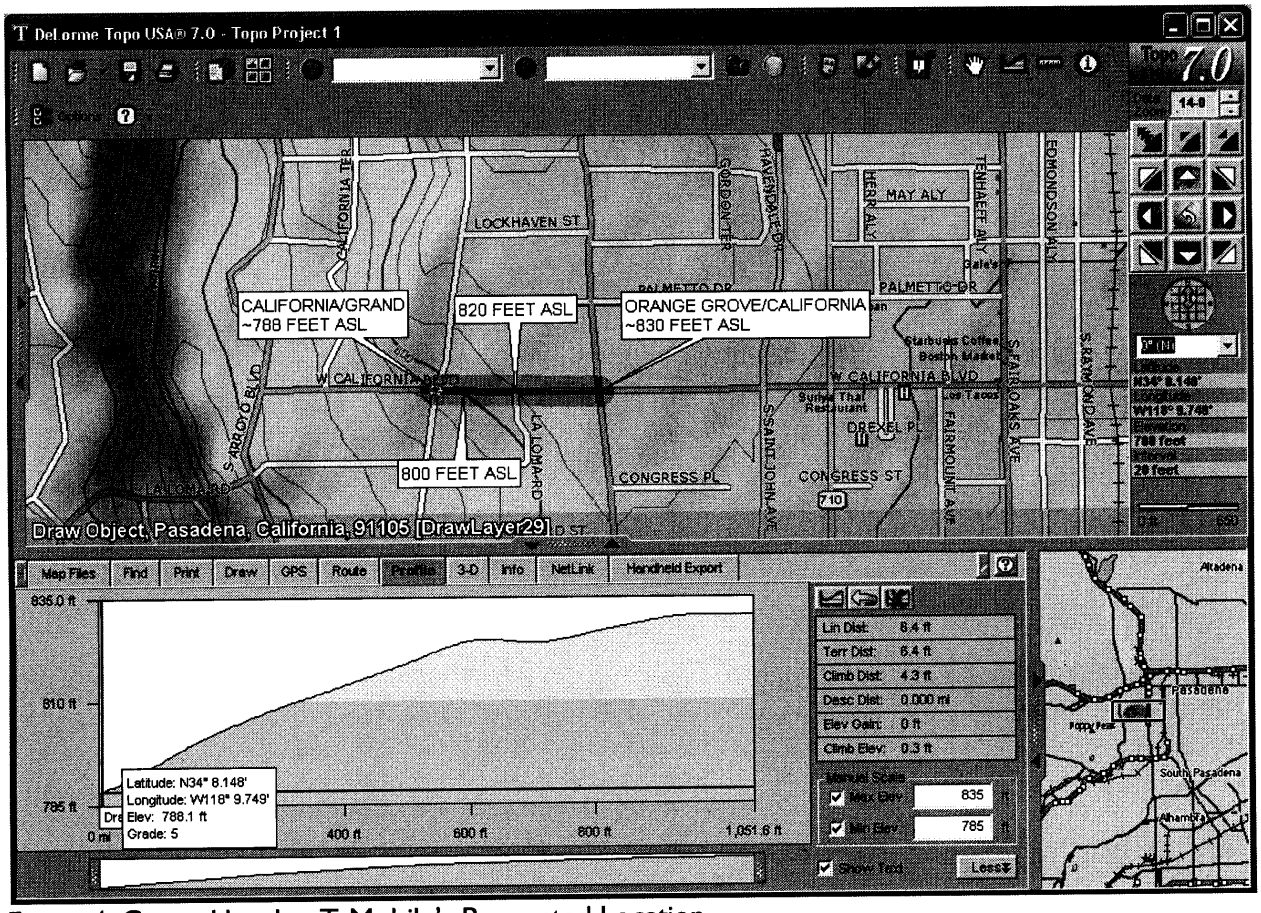

Figure 4: Ground level at T-Mobile's Requested Location

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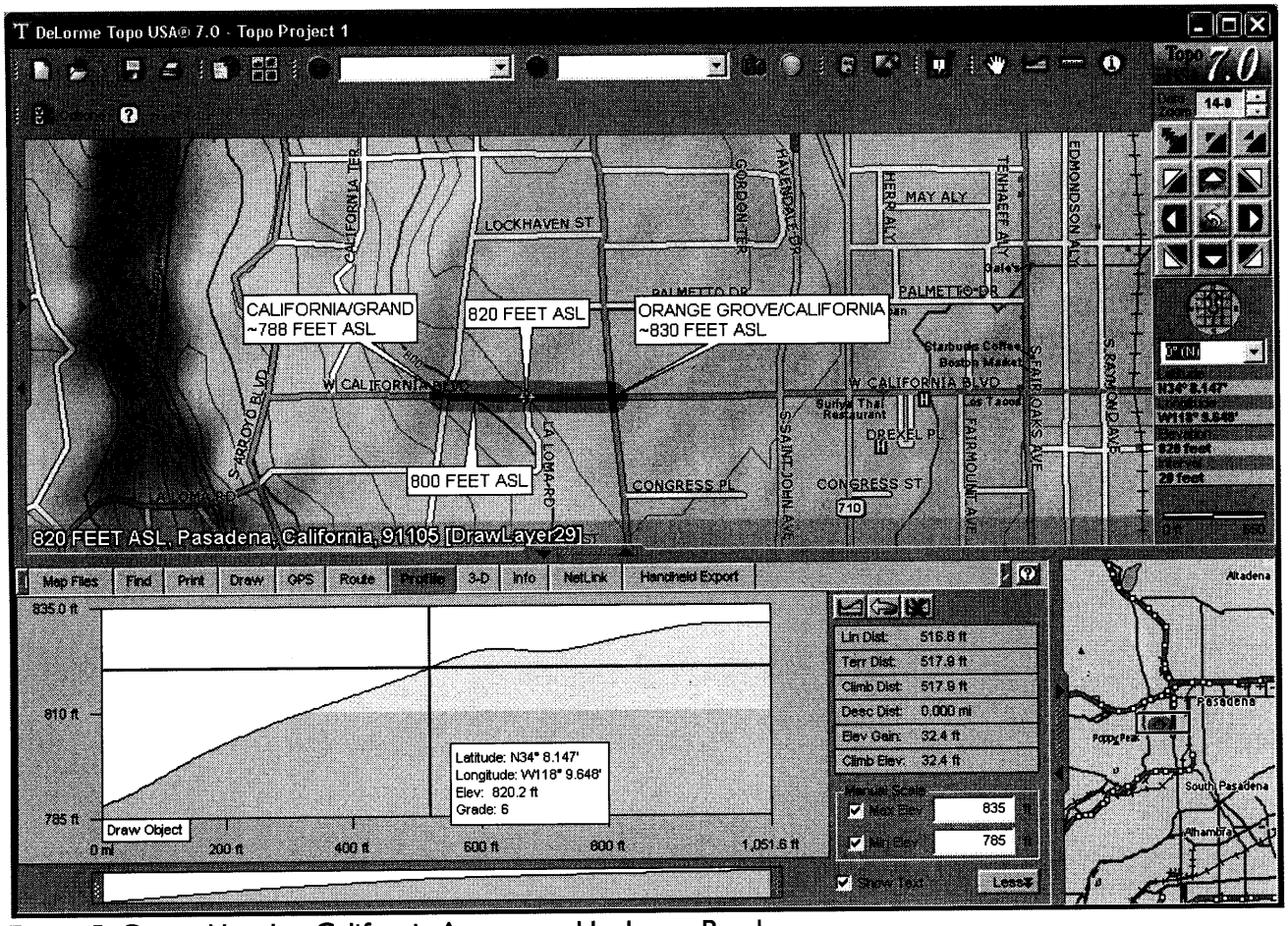

Figure 5: Ground level at California Avenue and La Loma Road

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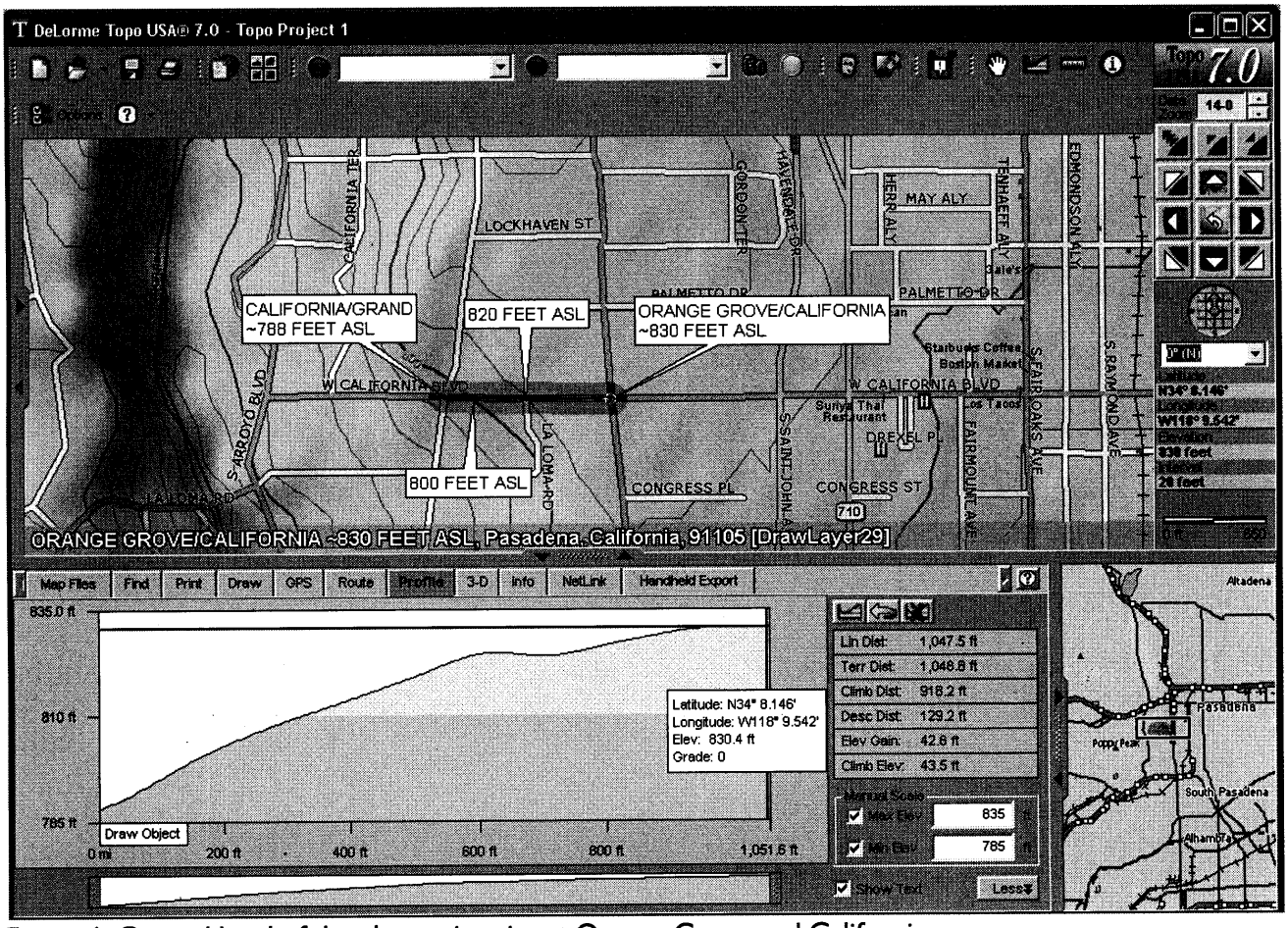

Figure 6: Ground level of the alternative site at Orange Grove and California

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Attachment 2

Statement of Professional Qualifications for
Jonathan L. Kramer, Esq., J.D., FSCTE, BTS, BPS, BDS, CBT

Note that for this assignment, I am providing wireless siting expert services to the City, but I am not providing legal services to the City. In Attachment 2, I include my legal credentials for completeness of the submission.

<Attachment 2 inserted behind this divider>

Statement of Professional Qualifications for
Jonathan L. Kramer, Esq.

J.D., FSCTE, BTS, BPS, BDS, CBT

Kramer Telecom Law Firm, PC (Law Firm)
Kramer.Firm, Inc. (Technology Consulting Firm)
Kramer@TelecomLawFirm.com ≡ Kramer@KramerFirm.com
2001 S. Barrington Avenue, Suite 306
Los Angeles, CA USA 90025-5379
Main Telephone: (310) 312-9900
Direct Telephone: (310) 405-7333

2006 – Present	Principal Attorney, Kramer Telecom Law Firm, P.C. (Los Angeles, CA)
1999 – Present	Principal Technologist, Kramer.Firm, Inc. (Los Angeles, CA)
1987 – 1999	President, Communications Support Corp. (El Toro, CA; Los Angeles, CA)
1984 – 1987	Owner, Communicable Consultants (El Toro, CA)
1982 – 1984	Regional Technical Manager, Storer Communications (Southern California Region) (Laguna Niguel, CA)
1982 – 1982	Engineering Manager, Western Cable Services, Inc. (Ventura, CA)
1979 – 1982	System Engineer, Warner Cable of Malibu (Malibu, CA)
1978 – 1979	Self employed radio telecommunications engineer (Malibu, California)
1976 – 1978	Field Technician, Motorola Communications & Electronics Area F Project Management (California, Nevada, Arizona, New Mexico)
1973 – 1974	Rovafone of Los Angeles (Woodland Hills, CA)

Admitted as an Attorney by the State Bar of California (SBN 244074)
Admitted as an Attorney by the United States District Court, Central District of California
Attorney Member, Federal Communications Bar Association
Attorney Member, International Municipal Lawyers Association
Attorney Member, Los Angeles County Bar Association
Attorney Member, Second Life Bar Association

Licensed by the Federal Communications Commission: General Radiotelephone Operator License, with Ship Radar and Broadcast endorsements; Previously licensed as a Second Class Radio Telephone Operator, Sept. 1975; First Class Radiotelephone Operator, Nov. 1977; General Radiotelephone Operator License, June 1987; Global Maritime Distress and Safety System Operator / Maintainer License, with Ship Radar Endorsement; Restricted Radiotelephone licensee; Amateur radio operator since November 1970 currently licensed as an Extra Class operator.

Licensed by the California Contractors State License Board for low voltage communications (Class C7). License No. 433113. Licensed since 1982.

Life member of the American Radio Relay League; ARRL book article author and review editor on cable television RF interference matters; Appointed Volunteer Counsel of the ARRL.

Former wireless technology advisor to and testifying expert before the FCC State & Local Government Advisory Committee

Co-author, co-editor of "A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance", a wireless technology advisory to local governments based on OET Bulletin 65 published by the FCC, Spring 2000 (download from: http://www.FCC.gov/oet/rfsafety)

Former Chairperson, International Right of Way Association Wireless Committee

Former National Board of Directors member, National Association of Telecommunications Officers and Advisors (NATOA), an affiliate of the National League of Cities (Terms: 1997-2000, 1992-1994)

Former Co-chair of the Joint Task Force on Technical Standards Committee, appointed by NATOA, National League of Cities, and US Conference of Mayors to develop the national technical standards for cable television systems adopted by the FCC in February 1992

NATOA's only twice-honored Member of the Year (1997 and 1991)

Former Executive Committee Board Member State Bar of California
Public Law Section (2008-2011)

Immediate Past President, States of California and Nevada Chapter of NATOA (SCAN NATOA) (2006-2008); founding member of that Chapter. Chapter President: 2009-2010.

Charter Member, California Wireless Association (CALWA)

Former Co-chair of National Technical Standards committee appointed by NATOA, National League of Cities, and US Conference of Mayors to develop the national technical standardized testing manual to determine compliance with the FCC rules

Fellow Member of Society of Cable Telecommunication Engineers, United Kingdom society (FSCTE designation).

Senior Member of Society of Cable Telecommunications Engineers, United States society (SCTE-US). SCTE-US Senior Member since April 1993; member since 1981.

Member of the Professional Development Committee of the SCTE, which develops and supervises all professional safety and technical training and education conducted by the SCTE within the U.S. and internationally.

Certified as a Broadband Transport Specialist (BTS designation) by the SCTE-US.

Certified as a Broadband Distribution Specialist (BDS designation) by the SCTE-US.

Certified as a Broadband Premises Specialist (BPS designation) by the SCTE-US.

Member, SCTE's Loyal Order of the 704 (Membership restricted to recognized cable engineers with a minimum of 30 years in CATV engineering experience)

Co-Chair, SCTE's WG7 Committee developing standardized cable TV industry interpretations to the National Electrical Code

Member, Society of Broadcast Engineers (member since 2008)

Awarded recognition as a "Certified Broadcast Technologist" by the Society of Broadcast Engineers (2009).

Awarded recognition as a "Public Safety Radio Technician" by the Association of Public-Safety Communications Officials – International, Inc. (APCO)

Elected Life Member, American Radio Relay League (member since 1971)

Witness before the FCC's State & Local Government Advisory Committee on OET 65, March 2000

Witness before the FCC in Cable TV re-regulation hearings, March 1990, representing NATOA, USCM, NACO, ICMA.

Testifying expert witness in federal and state court cases regarding cable television technology, and federal and state court cases regarding wireless technology.

Technology speaker at every NATOA National Conference from 1988 to 2000, and 2002 to 2004; Technology speaker at many regional and local NATOA and SCAN NATOA meetings

Communications technology speaker at Society of Cable Telecommunications Engineers conferences, and cable industry conferences

Published author of book and magazine articles on communications technology, plant safety, construction and administration

Cable system engineering and technical management experience six years before forming Kramer.Firm, Inc.; Chief Technician, Technical Manager, Regional Engineer.

Former Field Engineering Representative for Motorola Communications and Electronics, Area F Program Management team — Areas of experience include microwave radio; baseband RF and audio; digital signaling; UHF and VHF two-way radio (including high stability Simulcast® radio operations); telephony; and command and control communications.

Juris Doctor Degree *cum laude*, Abraham Lincoln University School of Law, Los Angeles (2001).

LL.M. I.T. Law and Telecommunications Law candidate, University of Strathclyde (expected graduation in Fall 2012).

AS Degree in Radio Communications (with honors), Los Angeles Trade Technical College.

Undergraduate education at CSUN, UCLA, and WLAC.

* * *

The following is a partial list of the over 700 governments and agencies which have relied upon Mr. Kramer's broadband and/or radio-telecommunications advice as a telecommunications technology advisor/inspector since 1984, and/or as an attorney since 2006:

Selected Federal Agencies – States – Local Agencies – National Associations

Federal Communications Commission
U.S. Department of Justice
National Association of
Telecommunications Officers and Advisors
Soc. of Cable Telecom. Engineers
United States Army, Ft. Irwin, CA
U.S. Marine Corps, Twentynine Palms, CA
U.S. Marine Corps, San Diego, CA
U.S. Navy; Monterey, CA
U.S. Navy, San Diego, CA
U.S. Navy, Lemoore, CA
United States Conference of Mayors
National Association of Counties
National League of Cities
State of Michigan PUC
State of Connecticut DPUC
Connecticut Siting Council
League of California Cities
Los Angeles Police Department
Otay Water District
Las Virgines School District
Oxnard Union School District
Communications Workers of America

Selected Local Governments and Government Associations

Addison, Illinois
Aiken County, South Carolina
Albany, California
Albuquerque, New Mexico
Alcoa, Tennessee
Aliso Viejo, California
Anaheim, California
Antioch, California
Apache Junction., Arizona
Arcadia, California
Aurora, Illinois
Austin, Texas
Avon, Ohio
Azusa, California
Baldwin Park, California
Barrington, Illinois
Bartlett, Illinois
Bellbrook, Ohio
Bellflower, California
Bellingham, Washington
Benica, California
Berkeley, California
Beverly Hills, California
Big Bear Lake, California
Big Cypress Indian Reservation, Florida
Birmingham, Alabama
Bloomingdale, Illinois
Blount County, Tennessee
Bolingbrook, Illinois
Bozrah, Connecticut
Branford, Connecticut
Brentwood, California
Brighton Indian Reservation, Florida
Bronxville, New York
Buena Park, California
Buffalo Grove, Illinois
Burr Ridge, Illinois
Butte County, California
Calabasas, California
Calimesa, California
Canandaigua, New York
Canton, Michigan
Capitola, California
Carol Stream, Illinois
Carson, California
Cedar Lake, Indiana
Centerville, Ohio
Cerritos, California
Chelan, Washington
Cheshire, Connecticut
Chester, Connecticut
Chico, California
Chino Hills, California
Chino, California
Chula Vista, California
Clarendon Hills, Illinois
Cleveland Heights, Ohio
Clinton, Connecticut
Colchester, Connecticut
Colton, California
Columbia Heights, Michigan
Commerce, California

Concord, California
Cornwall, Connecticut
Corona, California
Culver City, California
Cypress, California
Darien, Connecticut
Darien, Illinois
Davis, California
Decatur, Alabama
Deep River, Connecticut
Deerfield Beach, Florida
Denver, Colorado
Diamond Bar, California
Downers Grove, Illinois
Duarte, California
Dublin, California
Dubuque, Iowa
DuPage County, Illinois
Durango, Colorado
Durham, Connecticut
Dyer, Indiana
East Haven, Connecticut
Eagan, Michigan
East Granby, Connecticut
East Windsor, Connecticut
Eastchester, New York
Easton, Connecticut
El Monte, California
Elburn, Illinois
Elk Grove Village, Illinois
Elmhurst, Illinois
Encinitas, California
Enfield, Connecticut
Escondido, California
Essex, Connecticut
Fairfax, California
Federal Way, Washington
Flora, Illinois
Fort Wayne, Indiana
Franklin, Connecticut
Franklin, Kentucky
Fremont, California
Fullerton, California
Galena, Illinois
Garden Grove, California
Gardena, California
Germantown, Ohio
Glen Ellyn, Illinois
Glendale Heights, Illinois
Glendale, California
Glenwood, Illinois
Goleta, California
Goshen, Connecticut
Granby, Connecticut
Greenville, Illinois
Greenwich, Connecticut
Griffith, Indiana
Guilford, Connecticut
Hacienda Heights, California
Haddam, Connecticut
Half Moon Bay, California
Hanover Park, Illinois
Hartland, Connecticut
Hermosa Beach, California
Hesperia, California
Hidden Hills, California
Highland Park, Illinois
Highland, California
Highland, Indiana
Hillsborough, California
Hinsdale, Illinois
Hobart, Illinois
Hoffman Estates, Illinois
Hollywood, Florida
Homewood, Alabama
Homewood, Illinois
Huntington Beach, California
Hunts Point, Washington
Immokale Indian Reservation., Florida
Indian Wells, California
Inglewood, California
Irvine, California
Itasca, Illinois
Kettering, Ohio
Killingworth, Connecticut
King County, Washington
La Canada Flintridge, California
La Grange, Illinois
La Habra Heights, California
La Mesa, California
La Puente, California
La Quinta, California
Lacy, Washington
Laguna Beach, California
Laguna Niguel, California
Lake County, Illinois
Lake County, Indiana
Lake Station, Indiana
Lakewood, Ohio
Lemont, Illinois
Lisbon, Connecticut
Lisle, Illinois
Litchfield, Connecticut
Live Oak, Texas
Livermore, California
Lombard, Illinois
Lompoc, California
Lone Tree, Colorado

Longmont, Colorado
Long Beach, California
Los Alamos, California
Los Altos, California
Los Angeles County, California
Los Angeles, California
Louisville, Colorado
Loveland, Colorado
Lowell, Indiana
Lynchburg, Virginia
Madison, Connecticut
Malibu, California
Manhattan Beach, California
Maryville, Tennessee
Mentor, Ohio
Merced, California
Meriden, Connecticut
Merrillville, Indiana
Miamisburg, Ohio
Middlebury, Connecticut
Milpitas, California
Minooka, Illinois
Mission Viejo, California
Modesto, California
Monterey County, California
Moreno Valley, California
Morris, Connecticut
Mount Carmel, Illinois
Mount Orab, Ohio
Mount Prospect, Illinois
Mountain View, California
Mundelein, Illinois
Munster, Indiana
Naperville, Illinois
New Canaan, Connecticut
New Haven, Connecticut
New Martinsville, West Virginia
New Orleans, Louisiana
Newport Beach, California
Newton Falls, Ohio
Niles, Illinois
No. Aurora, Illinois
No. Branford, Connecticut
No. Haven, Connecticut
Norfolk, Virginia
North Aurora, Illinois
Norwalk, Connecticut
Norwich, Connecticut
Oak Brook, Illinois
Oak Park, Illinois
Oakbrook Terrace, Illinois
Oakwood, Ohio
Oceanside, California
Ojai, California
Old Saybrook, Connecticut
Olean, New York
Olympia, Washington
Opelika, Alabama
Orange County, California
Orange, California
Oxnard, California
Paducah, Kentucky
Palm Springs, California
Palos Verdes Estates, California
Paris, Illinois
Park Forest, Illinois
Pasadena, California
Peoria County, Illinois
Philadelphia, Pennsylvania
Piedmont, California
Piqua, Ohio
Placentia, California
Plymouth, Connecticut
Plymouth, Minnesota
Port Townsend, Washington
Portland, Oregon
Portola Valley, California
Poway, California
Preston, Connecticut
Prospect, Connecticut
Redding, Connecticut
Redondo Beach, California
Rialto, California
Richmond, California
Riverside, California
Rochester, Michigan
Rolling Hills Estates, California
Rolling Meadows, Illinois
Roselle, Illinois
Roseville, Michigan
Salem, Illinois
San Antonio, Texas
Santa Barbara, California
Santa Barbara County, California
San Bernardino, California
San Bernardino County, California
San Clemente, California
San Diego County, California
San Diego, California
San Francisco, California
San Juan Capistrano, California
San Luis Obispo County, California
San Luis Obispo, California
San Marcos, California
San Rafael, California
Santa Ana, California
Santa Barbara County, California
Santa Clara, California

Santa Clarita, California
Santa Cruz County, California
Santa Cruz, California
Santa Fe, New Mexico
Santa Maria, California
Santa Monica, California
Schaumburg, Illinois
Schererville, Indiana
Seattle, Washington
Simi Valley, California
Sistersville, West Virginia
Solana Beach, California
Solon, Ohio
Somers, Connecticut
Southington, Connecticut
Spokane, Washington
Springboro, Ohio
St. Charles, Illinois
St. John, Indiana
St. Louis, Missouri
Stafford, Connecticut
Suffield, Connecticut
Sugar Grove, Illinois
Sunnyvale, California
Sutter County, California
Temecula, California
Thousand Oaks, California
Thurston County, Washington
Tiburon, California
Tipp City, Ohio
Torrance, California
Torrington, Connecticut
Troy, Ohio
Tuckahoe, New York
Tucson, Arizona
Tumwater, Washington
Tustin, California
Union, Connecticut
Vail, Colorado
Ventura County, California
Victoria, Texas
Villa Park, California
Villa Park, Illinois
Virginia Beach, Virginia
Wallingford, Connecticut
Walnut, California
Walnut Creek, California
Warren, Connecticut
Warrenville, Illinois
Waterbury, Connecticut
Waterford, Minnesota
Watertown, Connecticut
Wayne, Illinois
West Allis, WI
West Carrollton, Ohio
West Chicago, Illinois
West Covina, California
West Frankfort, Illinois
West Hollywood, California
West Milton, Ohio
West Palm Beach, Florida
Westbrook, Connecticut
Westmont, Illinois
Weston, Connecticut
Westport, Connecticut
Wheaton, Illinois
White Plains, New York
Willowbrook, Illinois
Wilmette, Illinois
Wilton, Connecticut
Windsor Locks, Connecticut
Winfield, Illinois
Wolcott, Connecticut
Wood Dale, Illinois
Woodridge, Illinois
Yorba Linda, California

Litigation Where Jonathan L. Kramer Served as a
Testifying or Non-Testifying Expert and/or as a Trial Consultant

(Wireless Communications)

T-Mobile v. City of Thousand Oaks (Retained by City)
T-Mobile v. County of Los Angeles (Retained by County)
T-Mobile v. City of Los Angeles (Retained by City)
T-Mobile v. City of Albuquerque (Retained by City)
Omnipoint Communications, Inc. v. City of Huntington Beach (Retained by City)
T-Mobile West Corporation v. City of Huntington Beach (T-Mobile 1) (Retained by City)
T-Mobile West Corporation v. City of Huntington Beach (T-Mobile 2) (Retained by City)
Armstrong/McEachron v. Cazcom (Retained by Armstrong)
MetroPCS v. City and County of San Francisco (Retained by City)
Bay Area Cellular v. City and County of San Francisco (Retained by City)
Sprint v. City of Palos Verdes Estates (Retained by City)

Sprint v. City of La Canada Flintridge (Retained by City)
T-Mobile v. City of Gardena (Retained by City)
AT&T Wireless v. City of San Diego (Retained by City)
New Cingular Wireless v. City of Simi Valley (Retained by City)
Nextel v. City of San Diego (Retained by City)
AT&T Wireless v. City of Carlsbad (Retained by City)
Omnipoint v. Garden City, Michigan (Retained by City)
GTE Mobilnet v. City and County of San Francisco (Retained by City)
Illinois RSA 3 v. Peoria County (Retained by County)

(Wired Communications)

NextG Networks v. City and County of San Francisco (Retained by City)
Mejia-Gutierrez v. Comcast (Retained by intervenor Seabright Insurance Co.)
Qwest v. City of Santa Fe (Retained by City)
NewPath Networks v. City of Davis (Retained by City)
Marcus Cable Associates v. City of Glendale (Retained by City)
Evergreen v. San Diego Gas & Electric, et al (Retained by Evergreen)
NextG Networks v. City of Huntington Beach (Federal) (Retained by City)
NextG Networks v. City of Huntington Beach (State) (Retained by City)
Sunesys, LLC v. City of Huntington Beach (State)
NewPath Networks v. City of Irvine (Retained by City)
Adelphia Cable v. City of Thousand Oaks (Retained by City)
Malencon v. Cox Communications (Retained by Malencon)
Roddy King v. AT&T (Retained by King)
Schaff Dev. Group v. S.E. Fla. Cable, Inc., dba Adelphia Cable (Retained by Schaff)
Qwest v. City of Berkeley (Retained by City)
Playboy Enterprises v. United States (Retained by FCC, U.S. Department of Justice)
Jones Intercable v. City of Chula Vista (Retained by City)
Sierra East Television v. Westar Cable (Retained by Sierra East)
Booth American v. United States (Retained by Department of Justice)
D.B. Cable v. Kalma Busk (Retained by Busk)

Selected Published Articles by Jonathan L. Kramer

A Practical Guide to Radio Frequency Emissions Safety	State Bar of California	2009
Radio Frequency Emissions Safety – A Practical and Practice Guide	Nat. Assoc. of Telecom Off. and Advisors	2009
Use a Cell Phone Jammer and Get Jammed Up With the FCC	Ezinearticles.com	2008
Your California Cable TV Company Missed an Appointment? The Law Protects Cable TV Subscribers	Ezinearticles.com	2008
A Modern Game of Hide and Seek	AGL Magazine	2007
Give Me Your Bond	Communications Technology Magazine	2007

Picture Quality in the Digital World: A lost Science?	NATOA Journal	2007
Effective Management of a Cable TV Rebuild/Upgrade in Your Community	NACO County News	2004
Leveling the Playing Field for Cable TV Franchise Renewals	Public Management Magazine	2003
A Local Government Official's Guide to Transmitting Antenna RF Emission Safety: Rules, Procedures, and Practical Guidance	Federal Communications Commission	2000

Selected Lectures - Universities, Colleges, School Districts

Yale University, New Haven, CT
USC Annenberg School of Communications, Los Angeles, CA
University of Alabama, Birmingham, AL
Pepperdine University, Malibu, California
Orange Coast College, Orange County, CA
Rancho Santiago College, Santa Ana, CA

Selected Lectures – Legal, Industry, and Professional Organizations

Speaking Engagement	Conference or Event	Year
Wireless Lease Buyouts: A Government Perspective	International Municipal Lawyers Association	2011
Current Issues in Wireless Lease Buyouts	Lorman Educational Services	2011
Is There Such A Thing As A Good Wireless Ordinance?	AGL Regional Conf. – Denver	2011
Current Issues in WiMax, 4G and LTE Leases	Lorman Educational Services	2011
Wireless Facilities Siting Update	SCAN NATOA	2011
Current Issues in Cell Tower Leasing	Lorman Educational Services	2011
Wireless 101 for Attorneys	New Mexico Municipal League	2010
Cell Tower Leasing Issues	International Municipal Lawyers Association	2010
Current Issues in Cell Tower Regulation and Zoning Rules	Lorman Educational Services	2010

Speaking Engagement	Conference or Event	Year
Is There Such A Thing As A Good Wireless Ordinance?	AGL Regional Conf. – San Francisco	2010
Follow-up to Wireless Facilities Siting	NATOA	2010
Wireless Update	SCAN NATOA	2010
Major Issues in WiMAX Tower Leases and Zoning	Lorman Education Services	2010
Current Issues in Wireless Siting	Gateway Cities Council of Governments	2010
Wireless Issues Update	League of California Cities City Attorneys' Conf.	2010
Recent Wireless Siting Developments	Amer. Plan. Assoc. Orange County (CA) Chapter	2010
Educational Seminar Panel	California Wireless Association	2010
Current Issues in Cell Tower Leasing	Lorman Educational Services	2010
Educational Seminar Panel	California Wireless Association	2010
New FCC Cell Tower Zoning 'Shot-Clock' Order: Issues and Guidance to Effectively Deal With Federally-Imposed Zoning Deadlines	International Municipal Lawyers Association	2009
FCC Declaratory Ruling on Wireless Siting	eNATOA Conference	2009
Technology Solutions for Small Law Firms	Provisors LLP M	2009
Major Issues in WiMAX Tower Leases and Zoning	Lorman Education Services	2009
Current Issues in Cell Tower Leasing	Lorman Education Services	2009
Top Tech Topics for a Law Practice	State Bar of California	2009
"I'm from the Government [Planning Department] and I'm here to help you"	Amateur Radio Club of El Cajon	2009

Speaking Engagement	Conference or Event	Year
The National Electrical Code: Why comply?	SCTE Live Learning	2009
DTV Transition: Last Steps	SCTE Live Learning	2009
"Tower Siting: Getting to Win/Win for Localities and for Carriers"	California Wireless Association	2009
Telecom 101: What Every Practioner Should Know	State Bar of California Section Education Institute	2009
Secret Life of PDA: Ethical Considerations	State Bar of California Section Education Institute	2009
Cable TV Law Update - Cable Television Unraveled	Pennsylvania Bar Institute	2008
Wireless Telecommunications Law Update: Current Issues in Cell Tower Regulation	Lorman Education Services	2008
Automated Photo Red Light Enforcement Users Group	Los Angeles Police Department	2008
"I'm From the Government (Planning Department) and I'm Here to Help You"	Palomar (California) ARC Meeting	2008
"Surfin' Telecommunication Choices: A New World, A New Direction"	SCAN NATOA Annual Conference	2008
FCC Regulations Regarding Cable TV	SCTE Show Me Chapter	2008
Mobile Security and Ethical Issues for Attorneys	State Bar of California Annual Conference	2008
"I'm From the Government (Planning Department) and I'm Here to Help You"	ARRL Southwest Division Conference	2007
AT&T Project Lightspeed	League of California Cities Policy Conference	2007
Right of Way Furniture	SCAN NATOA Annual Conference	2007

Speaking Engagement	Conference or Event	Year
Wild Wired (and Wireless) West	State Bar of California Annual Conference	2007
Wireless telecommunications planning	APA National Conference	2006
Ask the Experts	SCAN NATOA Conf.	2006
Wireless and Wired Telecommunications Law Update	League of California Cities City Attorneys Section Conference	2006
Wireless Case Mock Hearing	PCIA Annual Conference	2006
PEG Programming	Alliance for Community Media	2005
Wireless Siting 101	Association of Environmental Professionals - Orange County Chapter	2005
A Sea Change in Wireless Siting	California APA Conference	2005
Cable TV and Wireless Regulation and Law Update	Florida Cable and Telecommunications Law Local Government Workshop	2005
Emerging and Competing Broadband Technology	NATOA National Conference	2005
"Future of Cable Television"	SCAN NATOA Annual Conference	2005
Wireless Siting Planning: A Government Perspective	APA - Regional Planning Conference	2004
Cable TV Regulation: Local, State, and Federal Regulation	City of Kent (WA) Cable TV Conference	2004
Telecommunications Law Update	City Attorneys Association of San Diego County	2004

Speaking Engagement	Conference or Event	Year
Cable TV and Wireless Regulation and Law Update	Florida Cable and Telecommunications Law Local Government Workshop	2004
Telecommunications Safety Code Violations: A Field Guide for Attorneys	IMLA Annual Conference	2004
Keynote Lecture on Telecommunications Grounding	Thomas & Betts Power And Grounding Council Meeting	2004
Cable TV and Wireless Regulation and Law Update	Florida Cable and Telecommunications Law Local Government Workshop	2003
How to Get A Wireless Tower Siting Permit Application Denied!	IRWA Chapter 1 Conference	2003
Maximizing Wireless Resources	NATOA Annual Conference	2003
Right of Way Considerations for Local Governments	Law Seminars International - Early Stage Due Diligence Technology Considerations	2002
When Bad Things Happen to Good Cable Systems	Center for International Legal Studies International Info Tech, Media, and Telecom Law Conference	2002
New FCC Technical Standards	NCTA Education Conference	2002
Conference on Telecommunications Policy and Opportunities 2001	Westside Summit Cities	2001
Hiding Cell Phone Sites In Plain Sight Now you see 'um...now you don't!	NATOA 2001 Annual Conference	2001
ANTENNA AND TOWER SITING: Final Frontier	SCAN NATOA Conf.	2001

Speaking Engagement	Conference or Event	Year
Wireless Siting: Policy Issues and Practical Solutions - A Municipal View	Law Seminars International The Third Annual Conference on Local Telecommunications Infrastructure	2001
Cable TV Regulation	NATOA Annual Conference	2000
Cable TV Regulation	NATOA Annual Conference	1999
Cable TV Regulation	NATOA Annual Conference	1998
Cable TV Regulation	NATOA Annual Conference	1997
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Cable TV Regulation	NATOA Annual Conference	1990
Cable TV Regulation	NATOA Annual Conference	1989
Cable TV Regulation	Michigan NATOA Conference	1987

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