

CONNECTICUT SITING COUNCIL

IN RE:)
PETITION OF NEW CINGULAR)
WIRELESS PCS, LLC ("AT&T") TO THE) PETITION NO. 1101
CONNECTICUT SITING COUNCIL FOR A)
DECLARATORY RULING THAT NO) JUNE 19, 2014
CERTIFICATE OF ENVIRONMENTAL)
COMPATIBILITY AND PUBLIC NEED IS)
REQUIRED TO INSTALL A STEALTH)
ROOFTOP WIRELESS)
TELECOMMUNICATIONS TOWER ON)
THE EXISTING BUILDING LOCATED AT)
79 PARK AVENUE, DANBURY,)
CONNECTICUT)

NEW CINGULAR WIRELESS, PCS LLC (AT&T)
SUPPLEMENTAL SUBMISSION

The following supplemental information is submitted on behalf of the Petitioner, New Cingular Wireless PCS, LLC ("AT&T"):

Attachment A: Signed/Sealed Drawings

Included in Attachment A is a CT P.E. signed/sealed copy of the drawings, prepared by Dewberry Engineers Inc., last revised April 24, 2014.

Attachment B: Signed/Sealed Structural Analysis

Included in Attachment B is a CT P.E. signed/sealed copy of the Structural Analysis, prepared by Dewberry Engineers Inc., dated April 24, 2014.

Attachment C: Rooftop Radio Frequency Exposure Report

Included in Attachment C is a copy of C Squared Systems, LLC, rooftop MPE Analysis, dated June 16, 2014, evidencing compliance with applicable FCC regulations related to the existing penthouse apartments and the proposed installation of AT&T's antennas on the rooftop of the building, a topic discussed at the June 10, 2014 site visit.

Attachment D: Wireless Service Report

Included in Attachment D is an Incremental Coverage & Offload Analysis, prepared by C Squared Systems, LLC, dated June 12, 2014, which is being provided as a follow up to discussions at the June 10, 2014 site visit, and includes further information about the coverage area. As noted in the report, thousands of residents in this area of Danbury would be provided with reliable 4G LTE services and the site would offload congestion in AT&T's network from sites that are located along Route 7 near the Danbury Fair Mall and in Downtown Danbury.

Additionally, it is noted that the intended coverage area includes a public school (Park Avenue Elementary) which has over 400 hundred students, staff and events attended by the public. While Petitioner's project is not intended as an education initiative (such as an in-school WiFi system), it is respectfully submitted that the proposed facility furthers school safety and other U.S. policies regarding wireless broadband availability in and around schools. In this regard, Petitioner refers the Siting Council to the U.S. Department of Education's 2010 National Education Technology Plan, *Transforming American Education: Learning Powered by Technology*, Section 4.0 entitled Infrastructure and the following excerpt. <http://www.ed.gov/technology/netp-2010/infrastructure-access-and-enable>.

Reaching Our Goal

4.0 Infrastructure:

All students and educators will have access to a comprehensive infrastructure for learning when and where they need it.

To meet this goal, we recommend the following actions:

4.1 Ensure students and educators have broadband access to the Internet and adequate wireless connectivity both in and out of school.

Students and educators need adequate broadband bandwidth for accessing the Internet and technology-based learning resources. Adequate should be defined as the ability to use the Internet in school, in the surrounding campus, throughout the community, and at home. It should also include simultaneous use of high-bandwidth resources, such as multimedia, communication and collaboration environments, and communities. Crucial to providing such access are the broadband initiatives being individually and jointly managed by various federal agencies.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'C. B. Fisher', with a long horizontal flourish extending to the right.

Christopher B. Fisher, Esq.

Counsel for Petitioner

Cuddy & Feder, LLP

445 Hamilton Avenue

White Plains, NY 10601

(914) 761-1300

CERTIFICATE OF SERVICE

I hereby certify that on this day, an original and fifteen copies of the foregoing was sent electronically and by overnight mail to the Connecticut Siting Council.

Dated: June 19, 2014

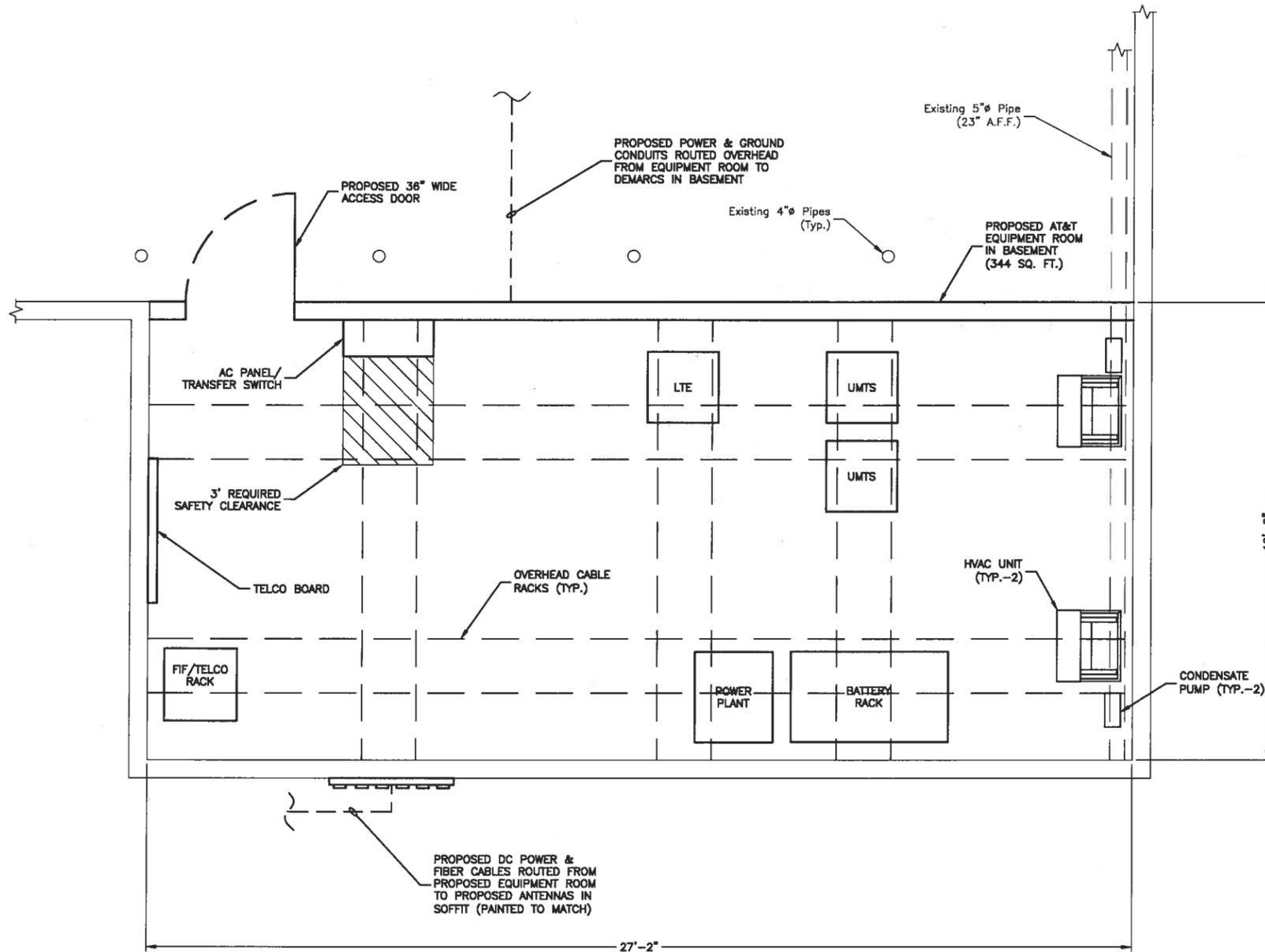
A handwritten signature in black ink, appearing to read 'C.B. Fisher', is written over a horizontal line.

Christopher B. Fisher

Commissioner of the Superior Court

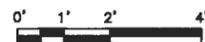
ATTACHMENT A

PARCEL ID	NAME	MAILING ADDRESS			
H15128-29	GAZI A. & ROWSON S. AHMED	57 LINRON DRIVE, DANBURY, CT 06810	H15124-103	ACF PROPERTIES LLC	7 NEW ST STE 100, DANBURY CT 06810
H15128-23	MOHAMMED ALAM	45 LINRON DRIVE, DANBURY, CT 06810	H15124-26	ALAIN GRETA SIMONE TR	45 SULLIVANS FARM, NEW MILFORD CT 06776
H15128-39	CONSTANTIN ALBU	11 GRACE COURT, BETHEL, CT 06801	H15124-129	ALONSO ADELE	93 PARK AVE # 2006, DANBURY CT 06810
H15128-34	ADNAN ATTA	3 HOMESTEAD AVENUE, DANBURY, CT 06810	H15124-95	ARDINO MARK & ERIN	93 PARK AVE #1601, DANBURY CT 06810
H15128-37	ALEXIS BALCHUNAS	73 LINRON DRIVE, DANBURY, CT 06810	H15124-97	AUSTIN RACHAEL	93 PARK AVE #1603, DANBURY CT 06810-7627
H15128-60	OSCAR & LUCELLY BATRES	10 OIL MILL TERRACE, DANBURY, CT 06810	H15124-83	BAILEY DAVID P & MERRILEE	93 PARK AVE #1104, DANBURY CT 06810-7628
H15128-30	FATEMA BEGUM	59 LINRON DRIVE, DANBURY, CT 06810	H15124-10	BARRETT TIMOTHY J	PO BOX 3844, DANBURY CT 06813
H15128-83	LISA BROOKS	16 OIL MILL TERRACE, DANBURY, CT 06810	H15124-108	BERGER GEORGES L, COLETTE A	93 PARK AVE APT 1707, DANBURY CT 06810
H15128-7	DANIEL BUENO & MARIA TAVEREZ	13 LINRON DRIVE, DANBURY, CT 06810	H15124-73	BOHREN MARGARET M	93 PARK AVE APT 1302, DANBURY CT 06810
H15128-67	HUYNH XUAN & TANH THI BUI	3 JACOBS LANE, BETHEL, CT 06801	H15124-125	BOLNICK BRETT	93 PARK AVE #2002, DANBURY CT 06810
H15128-5	TUAN & LE NGOC BUI	9 LINRON DRIVE, DANBURY, CT 06810	H15124-116	BOLOGNA DOMENICK & MARIE J	62 STONEHEDGE DR NO. GREENWICH CT 06831-3216
H15128-77	ROLANDO & ROSARIO BUSI	1037 MAIN STREET, RAHWAY, NJ 07065	H15124-144	BRAMEN FRANCES O	93 PARK AVE # 305, DANBURY CT 06810-7628
H15128-9	CHRISTINE CARLUCCI	17 LINRON DRIVE, DANBURY, CT 06810	H15124-21	BRAMEN FRANCES O	93 PARK AVE # 305, DANBURY CT 06810-7628
H15128-27	SIM AY & LAM MEN CHANG	53 LINRON DRIVE, DANBURY, CT 06810	H15124-50	BRANDT KRISTINA L	81-95 PARK AV #908, DANBURY CT 06810
H15128-49	JOSEPH J COVELLO	97 LINRON DRIVE, DANBURY, CT 06810	H15124-22	BREIDSTER ROBERT J; DELL'ANGELO APRIL	93 PARK AV #308, DANBURY CT 06810
H15128-44	SIRLENE VALOIS DASSUNCAO	87 LINRON DRIVE, DANBURY, CT 06810	H15124-58	BRUCALIERE JENNIE	93 PARK AV #1007, DANBURY CT 06810
H15128-72	ROBERTO & DIGIORGIO DELEON	49 PARK AVENUE, APT. P49, DANBURY, CT 06810	H15124-31	BRUNO JEFFREY C & CHRISTOPHER L	45 CODFISH HILL RD, BETHEL CT 06801
H15128-38	MARIA NEUSA DEMACEDO	30 ROUND TREE DRIVE, APT. 1, NAUGATUCK, CT 06770	H15124-49	BRUNO JEFFREY C & CHRISTOPHER L	45 CODFISH HILL RD, BETHEL CT 06801
H15128-43	MARIA NEUSA DEMACEDO	31 CORNWALL AVENUE, PROSPECT, CT 06712	H15124-148	C/O JEFFREY BRUNO	45 CODFISH HILL RD, BETHEL CT 06801
H15128-46	MARIA NEUSA DEMACEDO	30 ROUND TREE DRIVE, APT. 1, NAUGATUCK, CT 06770	H15124-105	CASTALDO MARIE A TRUSTEE	93 PARK AVE APT 1704, DANBURY CT 06810-7625
H15128-52	WAYNE T. EBER	103 LINRON DRIVE, DANBURY, CT 06810	H15124-168	CASTALDO MARIE TRUSTEE	1704 VILLAGE SQUARE, DANBURY CT 06810-7625
H15128-70	ANGELA K. EBRON	30 OIL MILL TERRACE, DANBURY, CT 06810	H15124-136	CHAPMAN MELISSA T	93 PARK AVE #303, DANBURY CT 06810
H15128-51	OSVALDO ESPINAL	101 LINRON DRIVE, DANBURY, CT 06810	H15124-19	CHAPMAN MELISSA T	93 PARK AVE #303, DANBURY CT 06810
H15128-25	ROSEMARIE G. FEELEY	49 LINRON DRIVE, DANBURY, CT 06810	H15124-30	CHRISTIANSEN NANCY J	93 PARK AV #603, DANBURY CT 06810
H15128-59	MATTHEW FERACO	8 OIL MILL TERRACE, DANBURY, CT 06810	H15124-13	COGGINS TRACY TR	93 PARK AVE #205, DANBURY CT 06810
H15128-16	BERNARDA & PEREZ GENAO	3 LINRON DRIVE, DANBURY, CT 06810	H15124-7	COLSON ROY W	93 PARK AVE # 107, DANBURY CT 06810
H15128-41	NGUYET XUAN HA	81 LINRON DRIVE, DANBURY, CT 06810	H15124-72	CORBETT JUDITH	93 PARK AVE #1301, DANBURY CT 06810-7626
H15128-68	MARION HARRINGTON	26 OIL MILL TERRACE, DANBURY, CT 06810	H15124-79	CORLEW MARLA & GARY	93 PARK AVE #1308, DANBURY CT 06810
H15128-48	TU N. & LUU MUI HO	95 LINRON DRIVE, DANBURY, CT 06810	H15124-24	CORONA AMANDA	41 DRIFTWAY RD, DANBURY CT 06811
H15128-33	ANN MARIE & SHEILAH M. HOELSCHER	65 LINRON DRIVE, DANBURY, CT 06810	H15124-156	COSTA ELIZABETH L	81-95 PARK AV #1402, DANBURY CT 06810
H15128-76	JAUNA F. JAQUEZ	57 PARK AVENUE, DANBURY, CT 06810	H15124-81	COSTA ELIZABETH L	81-95 PARK AV #1402, DANBURY CT 06810
H15128-19	GEORGE J. KANATHARA & ZACHARIA CHARM	12 LOIS STREET, DANBURY, CT 06811	H15124-150	COSTA JAMR S & SOARES; CLEUNICE P	93 PARK AVE # 102, DANBURY CT 06810
H15128-53	GEORGE J. KANATHARA & ZACHARIA CHARM	12 LOIS STREET, DANBURY, CT 06811	H15124-2	COSTA JAMR S & SOARES; CLEUNICE P	93 PARK AVE # 102, DANBURY CT 06810
H15128-18	RON KALB & PAUL SIEGEL C/O SIEGEL AGENCY	54 MAIN STREET, STE. 4, DANBURY, CT 06810	H15124-115	COTTER ELIZABETH F	93 PARK AV #1806, DANBURY CT 06810
H15128-24	RON KALB & PAUL SIEGEL C/O SIEGEL AGENCY	54 MAIN STREET, STE. 4, DANBURY, CT 06810	H15124-158	COTTER ELIZABETH F	93 PARK AV #1508, DANBURY CT 06810
H15128-10	VASSANT M. KAMATHAMAMAI	12 WOLF ROAD, CROTON ON HUDSON, NY 10520	H15124-110	DAVID JOSEPH E	93 PARK AVE APT 1801, DANBURY CT 06810-7627
H15128-28	MOHAMMED B. KARIM	55 WILDMAN STREET, #608, DANBURY, CT 06810	H15124-154	DAVID JOSEPH E	93 PARK AVE APT 1801, DANBURY CT 06810-7627
H15128-45	YEE KOUCHE	89 LINRON DRIVE, DANBURY, CT 06810	H15124-20	DELAHANTY NICHOLAS M	93 PARK AVE # 304, DANBURY CT 06810
H15128-74	DOROTHY H. KROHA	4 GOVERNORS LANE, BETHEL, CT 06801	H15124-108	DELANCY JACQUES & HELEN	2 MARIANNA FARM ROAD, DANBURY CT 06811
H15128-31	DENNY LAPAK	81 LINRON DRIVE, DANBURY, CT 06810	H15124-48	DESOUZA LARA BARRROS & RAFAEL; MIRANDA	81-95 PARK AV #904, DANBURY CT 06810
H15128-6	MANUEL R. LEMA	11 LINRON DRIVE, DANBURY, CT 06810	H15124-168	DONIGAN MATTHEW D & ANDREA M	93 PARK AVE #1508, DANBURY CT 06810
H15128-14	LINRON GARDENS CONDOMINIUM ASSOCIATION INC.	P.O. BOX 690, SOUTHURY, CT 06488	H15124-86	DONIGAN MATTHEW D & ANDREA M	93 PARK AVE #1508, DANBURY CT 06810
H15128-62	CLAUDE LOICOLA & MARIA MATZKIN	6 WOLF ROAD, CROTON ON HUDSON, NY 10520	H15124-86	DOS SANTOS ROGERIO	93 PARK AVE #1407, DANBURY CT 06810
H15128-13	RUSSELL T. & CHRISTINE L. LOPEZ	25 LINRON DRIVE, DANBURY, CT 06810	H15124-82	DUNLAP MATTHEW & SNIKEZ JENNIE	58 BRENTWOOD RD, CARMEL NY 10512
H15128-1	CUONG C. LUONG & MUOI HA LAM	1 LINRON DRIVE, DANBURY, CT 06810	H15124-117	EMMONS CAROLE L	93 PARK AVE APT 1908, DANBURY CT 06810
H15128-81	GARY LUPIENSKI	8 ROCKWELL ROAD, DANBURY, CT 06811	H15124-159	EMMONS CAROLE L	1808 VILLAGE SQUARE, DANBURY CT 06810
H15128-40	JAY CHAY CUONG & CHIM LY	79 LINRON DRIVE, DANBURY, CT 06810	H15124-101	ENGSTROM STEFANIE R	93 PARK AVE APT 1607, DANBURY CT 06810
H15128-75	ANDREW P. MANNETTA	55 LINRON DRIVE, DANBURY, CT 06810	H15124-74	EVELENO ELIZABETH	93 PARK AVE # 1303, DANBURY CT 06810
H15128-17	GEORGE MARMARAS	33 LINRON DRIVE, DANBURY, CT 06810	H15124-27	EVELENO GEORGE M	93 PARK AVE #404, DANBURY CT 06810
H15128-83	RAFAEL & BELKIS MARTINEZ	71 LINRON DRIVE, DANBURY, CT 06810	H15124-92	FARMER WILLIAM & SUSAN	93 PARK AVE #1506, DANBURY CT 06810
H15128-58	GERALDO & MONICA MARTINS	2 OIL MILL TERRACE, DANBURY, CT 06810	H15124-114	FERRIS ROGER M	93 PARK AVE #1805, DANBURY CT 06810-7627
H15128-58	EDWARD & DENY MENA	8 OIL MILL TERRACE, DANBURY, CT 06810	H15124-9	FLOMIO JULIE	93 PARK AV #202, DANBURY CT 06810
H15128-68	CARRIE MOULTRIE	22 OIL MILL TERRACE, DANBURY, CT 06810	H15124-80	FRAWLEY JUDI & GREGORY J	93 PARK AVE #103, DANBURY CT 06810
H15128-69	SCOTT NEVILLE	28 OIL MILL TERRACE, DANBURY, CT 06810	H15124-80	GAIKWAD RAJEEV & JANHAVI	93 PARK AVE # 1401, DANBURY CT 06810
H15128-54	ALANXERRE F. OLIVEIRA	107 LINRON DRIVE, DANBURY, CT 06810	H15124-37	GARRISON TERESA A	93 PARK AVE #703, DANBURY CT 06810
H15128-73	LUIZ A. & JULIANA M. T. PANGAIO	8 PELL MELL DRIVE, BETHEL, CT 06801	H15124-59	GERNER CAROL J	447 FISHROCK RD, SOUTHURY CT 06488
H15128-64	BOBBI-JO PELLETIER	18 OIL MILL TERRACE, DANBURY, CT 06810	H15124-136	GLORIOSO STEVEN W & MICHAEL W	93 PARK AVE #1505, DANBURY CT 06810
H15128-79	EMILIO PEREZ	63 LINRON DRIVE, DANBURY, CT 06810	H15124-91	GLORIOSO STEVEN W & MICHAEL W	93 PARK AVE #1505, DANBURY CT 06810
H15128-84	MARTA PEREZ	73 LINRON DRIVE, DANBURY, CT 06810	H15124-111	GRAY BARBARA A	93 PARK AVE APT 1802, DANBURY CT 06810-7627
H15128-57	ROSA E. PEREZ	4 OIL MILL TERRACE, DANBURY, CT 06810	H15124-51	GREEN PATRICIA J	93 PARK AV # 907, DANBURY CT 06810
H15128-35	DHANRAJI PERSAUD	69 LINRON DRIVE, DANBURY, CT 06810	H15124-152	HABASHY FARES L & DEIF HALA	93 PARK AVE #704, DANBURY CT 06810
H15128-42	ROSETTA MALA DEVI PERSAUD	83 LINRON DRIVE, DANBURY, CT 06810	H15124-38	HABASHY FARES L & DEIF HALA	93 PARK AVE #704, DANBURY CT 06810
H15128-65	OMESH PRASHAD	20 OIL MILL TERRACE, DANBURY, CT 06810	H15124-167	HANLON DAVID J & KAREN E	6 BROOKFIELD MEADOWS, BROOKFIELD CT 06804
H15128-2	SIGFRIDO RIVERA	3 LINRON DRIVE, DANBURY, CT 06810	H15124-82	HANLON DAVID J & KAREN E	6 BROOKFIELD MEADOWS, BROOKFIELD CT 06804
H15128-78	FERNANDO & ANACENIA RODRIGUEZ	81 LINRON DRIVE, DANBURY, CT 06810	H15124-127	HEALEY GERARD M & CYNTHIA K	93 PARK AVE APT 2004, DANBURY CT 06810
H15128-22	JUAN J. RODRIGUEZ	43 LINRON DRIVE, DANBURY, CT 06810	H15124-164	HEALEY GERARD M & CYNTHIA K	93 PARK AVE # 2004, DANBURY CT 06810
H15128-21	NITHAL & FERNANDA SALHA	43 LINRON DRIVE, DANBURY, CT 06810	H15124-6	HILL BRAXTON W & ANNIE M	93 PARK AVE APT 106, DANBURY CT 06810-7628
H15128-11	RON KALB & PAUL SIEGEL C/O SIEGEL AGENCY	290 WELLOW SPRINGS, NEW MILFORD, CT 06776	H15124-35	HILLMANN LAURIE A	93 PARK AVE # 808, DANBURY CT 06810
H15128-15	SHARON SIEGEL	54 MAIN STREET, STE. 4, DANBURY, CT 06810	H15124-28	HYMAN SAMUEL R & ALICE G	93 PARK AVE #601, DANBURY CT 06810-7628
H15128-71	SILVIO SCARES JR.	12 KELLOGG STREET, BETHEL, CT 06801	H15124-141	JASNSKI STANLEY R & MARY C	11 SO MEADOW DR, DANBURY CT 06811
H15128-50	EDVIN R. SOTO & TERESA GUZMAN SANCHEZ	32 OIL MILL TERRACE, DANBURY, CT 06810	H15124-141	JASNSKI STANLEY R & MARY C	11 SO MEADOW DR, DANBURY CT 06811
H15128-32	IVANETE SOUZA	99 LINRON DRIVE, DANBURY, CT 06810	H15124-100	JUSTINIANO DANE; C/O DIANE OWENS	11 METTLER STREET, WOODBRIDGE CT 06525
H15128-8	LYNDA J. STREAMAN	63 LINRON DRIVE, DANBURY, CT 06810	H15124-142	KELLY CAROL M	10 SO KING ST, DANBURY CT 06811
H15128-26	SUA Y. & SUA BO XIEM	18 COLONIAL DRIVE, BETHEL, CT 06801	H15124-142	KELLY CAROL M	10 SO KING ST, DANBURY CT 06811
H15128-47	LIBIO ROQUE TEVISOL	51 LINRON DRIVE, DANBURY, CT 06810	H15124-76	KRAMER JEFFREY I	13 LINCOLN LA, RIDGEFIELD CT 06877
H15128-3	PETER VECCHIO	5 NABBY ROAD, #A-33, DANBURY, CT 06811	H15124-70	LAPORTA THOMAS D & KATE E	81-95 PARK AV #1205, DANBURY CT 06810
H15128-55	VICTOR VELAZQUEZ & ADRIANA RIVERA	5 LINRON DRIVE, DANBURY, CT 06810	H15124-118	LATERRA PAUL & TRACEY A	12 CEDAR DR, BETHEL CT 06801
H15128-12	VENTURE GROUP LLC	109 LINRON DRIVE, DANBURY, CT 06810	H15124-143	LEPRE THOMAS P	93 PARK AVE APT 802, DANBURY CT 06810
H15128-81	BRITTA C. WASLOFF	14 LAKE TERRACE DRIVE, DANBURY, CT 06811	H15124-42	LEPRE THOMAS P	93 PARK AVE APT 802, DANBURY CT 06810
H15128-80	BASIL A. & REGINA A. WATSON	12 OIL MILL TERRACE, DANBURY, CT 06810	H15124-131	LION'S DEN LLC	45 CODFISH HILL RD, BETHEL CT 06801
H15128-4	THOMAS G. & MICHAEL E. WEST	65 PARK AVENUE, #2, DANBURY, CT 06810	H15124-8	LOZADA JESUS & GSELA	93 PARK AV #108, DANBURY CT 06810
H15128-20	JACOB C. WILLIAMS & ZEENA JACOB	21 SECOND AVENUE, DANBURY, CT 06810	H15124-140	LYNCH CHRISTIE ANN	93 PARK AVE # 208, DANBURY CT 06810-7628
H15128-82	ANNUNZIATA WOOLFREY	11 WESTMINSTER ROAD, DANBURY, CT 06811	H15124-16	LYNCH CHRISTIE ANN & THOMAS J	93 PARK AVE #208, DANBURY CT 06810-7628
H15128-85	CHIU & LAI YING YUNG	12 SILANO DRIVE, OXFORD, CT 06478	H15124-123	MAGUIRE BRUCE JR & JILL	44 COLONIAL LA, RIDGEFIELD CT 06877
H15128-36	JIANZHI & HOU AHE ZHU	73A PARK AVENUE, DANBURY, CT 06810	H15124-155	MAGUIRE BRUCE JR & JILL	44 COLONIAL LA, RIDGEFIELD CT 06877
H15179	ANN MARIE CIOFFI & NEVILLE SEAVY	71 LINRON DRIVE, DANBURY, CT 06810	H15124-43	MARALAPPANAVAR MALLIKARJUN; POLICEPATIL SADGUNABAI	93 PARK AVE # 803, DANBURY CT 06810
H15178	SEUCHAND & HANSWATTIE SUMAR	58 PARK AVENUE, DANBURY, CT 06810	H15124-104	MCCULLOCH TIMOTHY D & ITRI, CATHY	93 PARK AVE APT 1703, DANBURY CT 06810
H15180	DANTE ALBANESE	54 PARK AVENUE, DANBURY, CT 06810	H15124-78	MCDONALD ROSALIE F	93 PARK AVE #1307, DANBURY CT 06810-7626
		58 PARK AVENUE, DANBURY, CT 06810	H15124-12	MEHTA ARVIND J & PRAGNA ARVIND	93 PARK AVE APT 204, DANBURY CT 06810-7628
			H15124-145	MEHTA ARVIND J & PRAGNA ARVIND	93 PARK AVE APT 204, DANBURY CT 06810-7628
H15124-36	MERCADO HECTOR JR & NICASTRO, WANDA		H15124-36	MERCADO HECTOR JR & NICASTRO, WANDA	P O BOX 2154, DANBURY CT 06813-2154
H15124-52	METZGER MELINDA A		H15124-52	METZGER MELINDA A	93 PARK AVE #1001, DANBURY CT 06810
H15124-60	MILETO RICHARD M, O'NEILL-MILETO MARGARETA		H15124-60	MILETO RICHARD M, O'NEILL-MILETO MARGARETA	93 PARK AVE #1101, DANBURY CT 06810-7626
H15124-67	MINEO NANCY		H15124-67	MINEO NANCY	93 PARK AV #1202, DANBURY CT 06810
H15124-71	MOGOLLON JUAN C		H15124-71	MOGOLLON JUAN C	93 PARK AVE #1206, DANBURY CT 06810
H15124-126	MOLENDUK MARY ANN		H15124-126	MOLENDUK MARY ANN	93 PARK AVE #2003, DANBURY CT 06810
H15124-165	MOLENDUK MARY ANN		H15124-165	MOLENDUK MARY ANN	93 PARK AVE #2003, DANBURY CT 06810
H15124-65	MOLINEAUX MELANIE		H15124-65	MOLINEAUX MELANIE	81 PARK AV #1004, DANBURY CT 06810
H15124-149	MOLINEAUX MELANIE		H15124-149	MOLINEAUX MELANIE	81 PARK AV #1004, DANBURY CT 06810
H15124-121	MORABITO KIMBERLY A		H15124-121	MORABITO KIMBERLY A	93 PARK AVE #1903, DANBURY CT 06810
H15124-120	MUENZEN CARY		H15124-120	MUENZEN CARY	93 PARK AVE #1902, DANBURY CT 06810-7627
H15124-98	MUFTI UZAIR A & SAWAT AHMED		H15124-98	MUFTI UZAIR A & SAWAT AHMED	81 PARK AVE #1804, DANBURY CT 06810
H15124-61	MURRAY ANN & GERARD R		H15124-61	MURRAY ANN & GERARD R	20 MAPLE ROW, BETHEL CT 06801
H15124-29	NEVES BRIETNER		H15124-29	NEVES BRIETNER	93 PARK AVE #602, DANBURY CT 06810
H15124-93	NEWBURY ENTERPRISES LLC		H15124-93	NEWBURY ENTERPRISES LLC	10 LIBRARY PLACE #265, BETHEL CT 06801
H15124-93	OCAMPOS ANGEL & JUAN ANGEL, MARTA		H15124-93	OCAMPOS ANGEL & JUAN ANGEL, MARTA	93 PARK AVE #1507, DANBURY CT 06810
H15124-85	ONEILL PATRICIA		H15124-85	ONEILL PATRICIA	93 PARK AVE #1108, DANBURY CT 06810
H15124-68	OSTROVE GERTRUDE		H15124-68	OSTROVE GERTRUDE	93 PARK AVE #1201, DANBURY CT 06810
H15124-5	OWEN LOUIE S III & DAVID G		H15124-5		



EQUIPMENT PLAN

SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"



1

NOTES:

1. NORTH SHOWN AS APPROXIMATE.
2. NOT ALL EXISTING & PROPOSED INFORMATION SHOWN FOR CLARITY.
3. POWER TO BE TAKEN FROM EXISTING HOUSE PANEL WITH SUBMETER. FINAL ELECTRICAL DESIGN TO BE DETERMINED.
4. RUN CONDENSATE LINES TO EXISTING DRAIN.
5. PROPOSED EQUIPMENT ROOM IS TO BE 2 HR FIRE RATED.
6. PROPOSED WALL TO RUN FROM FLOOR TO CEILING.
7. EXISTING LINES IN EQUIPMENT ROOM AREA TO BE REMOVED.



500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067



500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067

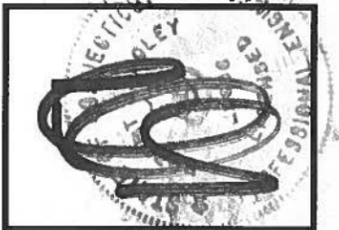
**CT2315B
DANBURY SUMMIT
PARK WEST
APARTMENTS**

SITING COUNCIL

B 04/24/14 REVISED PER COMMENTS
A 01/13/14 PRELIMINARY SUBMISSION



Dewberry Engineers Inc.
800 PARSIPPANY ROAD
SUITE 301
PARSIPPANY, NJ 07054
PHONE: 973.738.8400
FAX: 973.738.8710



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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ALTER THIS DOCUMENT.

DRAWN BY:	JC
REVIEWED BY:	BSH
CHECKED BY:	GHN
PROJECT NUMBER:	50055106
JOB NUMBER:	50081016
SITE ADDRESS:	

79 PARK AVENUE
DANBURY, CT 06810

SHEET TITLE

EQUIPMENT PLAN

SHEET NUMBER

Z-8



500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067



500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067

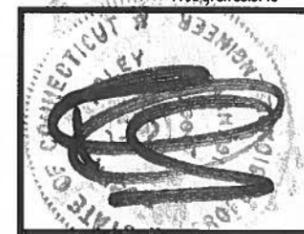
**CT2315B
DANBURY SUMMIT
PARK WEST
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B 04/24/14	REVISED PER COMMENTS
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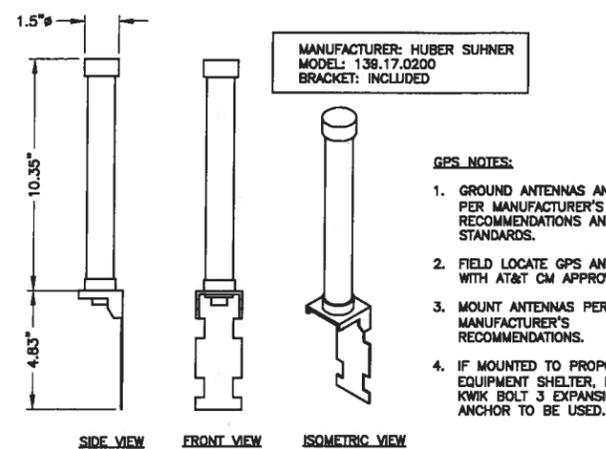
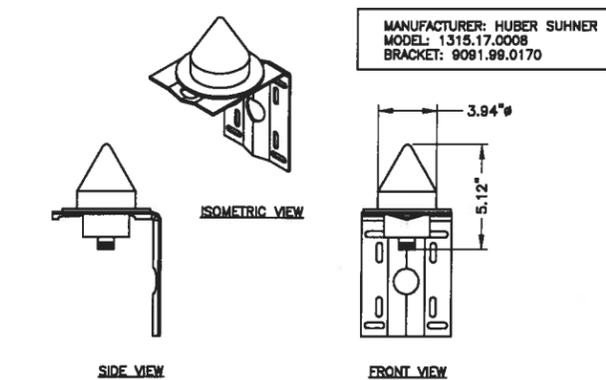
DRAWN BY:	JC
REVIEWED BY:	BSH
CHECKED BY:	GHN
PROJECT NUMBER:	50055106
JOB NUMBER:	50081016
SITE ADDRESS:	

79 PARK AVENUE
DANBURY, CT 06810

SHEET TITLE

CONSTRUCTION DETAILS I

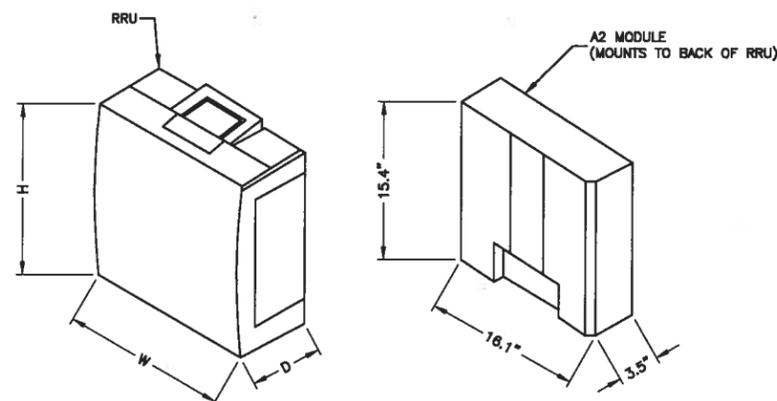
SHEET NUMBER



GPS NOTES:

- GROUND ANTENNAS AND MOUNTS PER MANUFACTURER'S RECOMMENDATIONS AND AT&T STANDARDS.
- FIELD LOCATE GPS ANTENNAS WITH AT&T CM APPROVAL.
- MOUNT ANTENNAS PER MANUFACTURER'S RECOMMENDATIONS.
- IF MOUNTED TO PROPOSED EQUIPMENT SHELTER, HILT 1/4" KWIK BOLT 3 EXPANSION ANCHOR TO BE USED.

GPS ANTENNA DETAIL 1
SCALE: N.T.S.

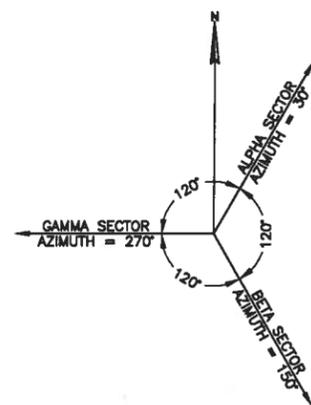


RRU MODEL & DIMENSIONS	
ERICSSON MODEL #	DIMENSIONS (HxWxD)
RRUS-11	19.7"x17.0"x7.2"
RRUS-12	20.4"x18.8"x7.5"
RRUS-E2	20.4"x18.8"x7.5"
RRUS-32	29.9"x13.3"x6.7"

RRU NOTES:

- GROUND EQUIPMENT AND MOUNTS PER MANUFACTURER'S RECOMMENDATIONS AND AT&T STANDARDS.
- MOUNT EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS.
- CONFIRM REQUIRED EQUIPMENT WITH LATEST RFDS.

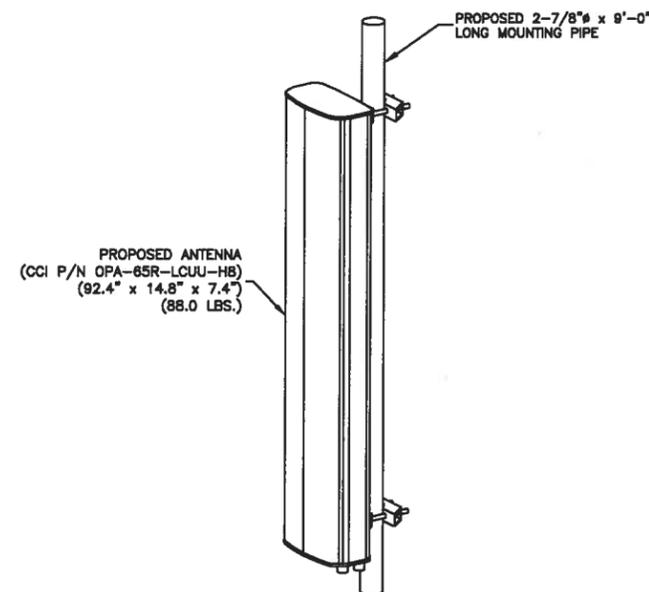
RRU & A2 MODULE 4
SCALE: N.T.S.



ANTENNA NOTES:

- AZIMUTHS BASED ON APPROXIMATE TRUE NORTH.
- CONTRACTOR TO VERIFY FINAL AZIMUTHS WITH RF ENGINEER PRIOR TO ANTENNA INSTALLATION.

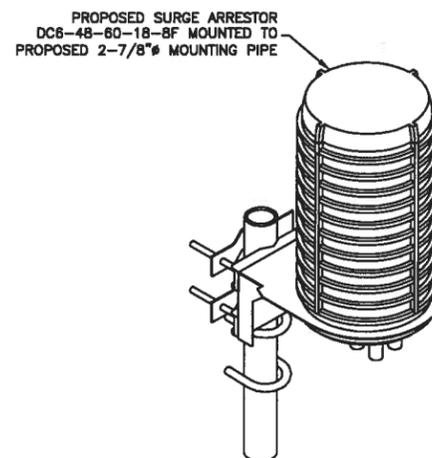
ANTENNA ORIENTATION KEY 2
SCALE: N.T.S.



NOTE:

- CONTRACTOR TO VERIFY SPECIFIC ANTENNA MODELS WITH AT&T APPROVED RFDS.

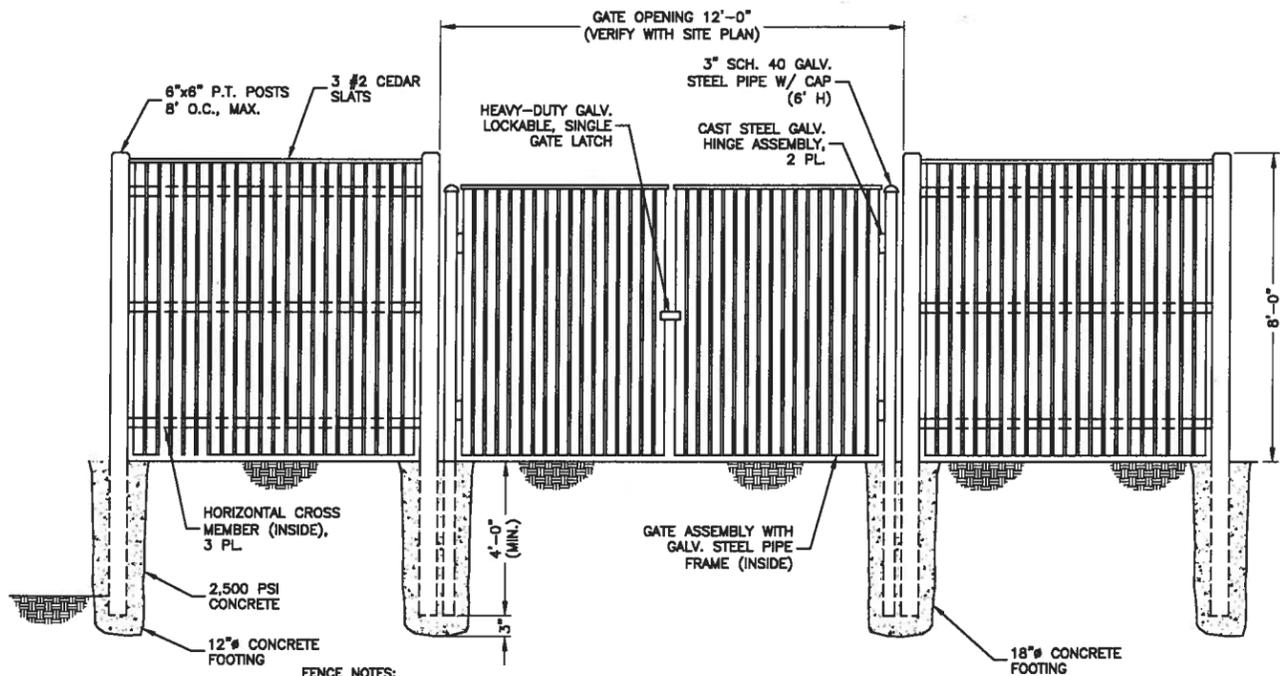
ISOMETRIC ANTENNA DETAIL 3
SCALE: N.T.S.



NOTE:

- ALL ANTENNAS, COAX AND ANTENNA SUPPORT EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH STRUCTURAL ANALYSIS AND FINAL RF DATA SHEET.

SURGE ARRESTOR MOUNTING DETAIL 5
SCALE: N.T.S.

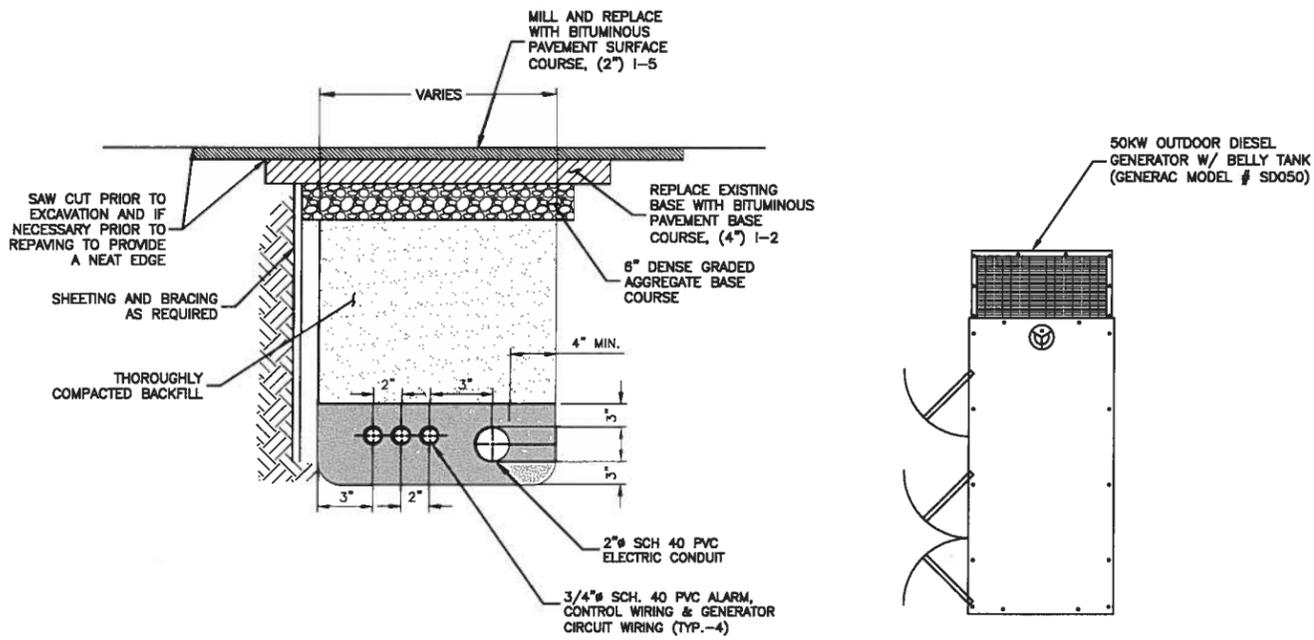


FENCE NOTES:

1. ALTERNATE FOOTINGS FOR ALL FENCE POSTS IN LEDGE: IF LEDGE IS ENCOUNTERED AT GRADE, OR AT A DEPTH SHALLOWER THAN 3'-6", CORE DRILL AN 8" DIA HOLE 18" INTO THE LEDGE, CENTER POST IN THE HOLE AND FILL WITH CONCRETE OR GROUT. IF LEDGE IS BELOW FINISH GRADE, COAT BACKFILLED SECTION OF POST WITH COAL TAR, AND BACKFILL WITH WELL-DRAINING GRAVEL.
2. INSTALL SWALE AROUND COMPOUND (MIN. DEPTH: 6") TO ALLOW FOR DRAINAGE.

STOCKADE WOOD FENCE DETAIL
SCALE: N.T.S.

1



GENERATOR SERVICE TRENCH CONDUIT
SCALE: N.T.S.

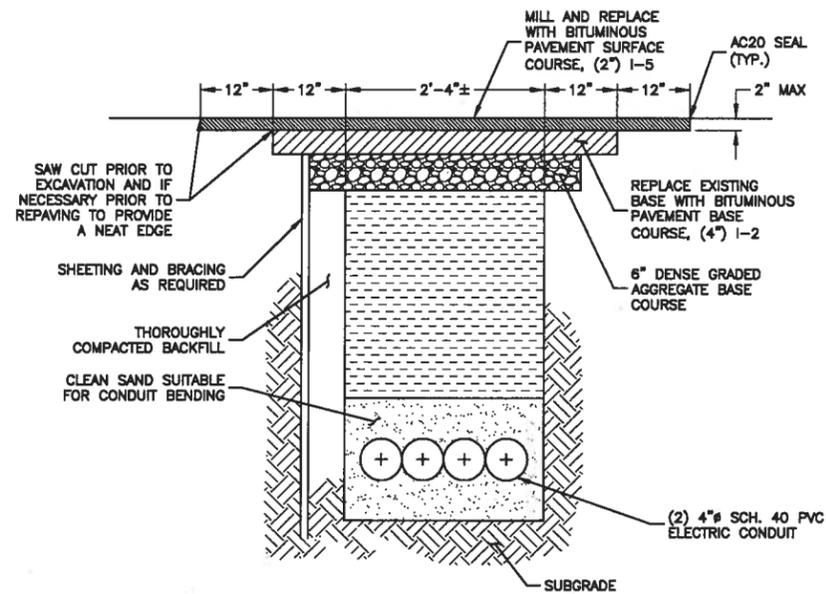
3

GENERATOR PLAN
SCALE: N.T.S.

4

GENERATOR ELEVATION
SCALE: N.T.S.

5



CONSTRUCTION NOTES:

1. ANY SUPERFICIAL SURFACE DAMAGE CAUSED BY THE CONTRACTOR OUTSIDE THE LIMIT SHOWN, SHALL BE PAVED WITH SURFACE COURSE. WHEN THE BASE COURSE OF THE EXISTING PAVEMENT IS DAMAGED BEYOND THE LIMIT SHOWN THE CONTRACTOR SHALL EXCAVATE 6 INCHES BEYOND THE DAMAGED AREA AND REPLACE IT WITH BITUMINOUS STABILIZED BASE COURSE.
2. SITE ACCESS TO REMAIN OPEN AT ALL TIMES DURING CONSTRUCTION.
3. IF CURRENT AS-BUILT DRAWINGS ARE NOT AVAILABLE, CONTRACTOR SHALL HAND DIG U/G TRENCHING.

JOINT SERVICE TRENCH BURIED CONDUIT (ELECTRIC/TELEPHONE)

SCALE: N.T.S.

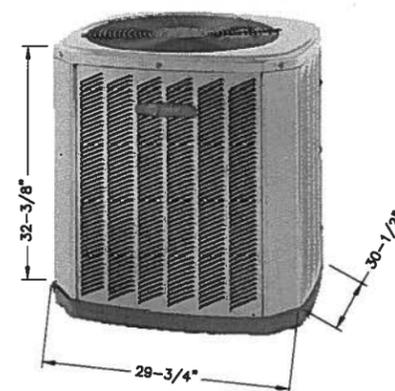
2

NOTES:

1. AC SYSTEM BASED ON A TRANE SPLIT SYSTEM.
2. PROVIDE THE FOLLOWING:
 - COMPRESSOR START ASSIST
 - CYCLE PROTECTOR
 - TIME DELAY RELAY
 - SOUND BLANKET
 - FILTER RACK & FILTERS
 - ACCUMULATOR
 - CRANKHOUSE HEATER
 - WINTER START CONTROL
 - EVAPORATOR FREEZE THERMOSTAT
 - LOW AMBIENT CONTROLLER
 - SOLENOID KIT
 - HOT GAS BYPASS
3. PRESSURE CONTROL SHALL BE IN SERIES WITH THE CONDENSER MOTOR IN ORDER TO PROVIDE OPERATION DOWN TO 0°F.
4. ALL UNITS AND COMPONENTS CAN BE REPLACED WITH AN EQUAL UNIT, AS APPROVED BY ENGINEER.

INSTALLATION NOTE:

1. ALLOW 12" ON TWO SIDES, UNRESTRICTED ON REMAINING SIDES FOR CLEARANCE.



OUTDOOR UNIT NO.	
MODEL NO.	4TMM3060A
CAPACITY	5 TONS
CONDENSING UNIT	
FAN MOTOR RATED HP	1-1/3
FAN NOMINAL CFM	3900
ELECTRICAL DATA	
VOLTS/PH	208/230/1/80
CKT BKR AMPS	80

CONDENSING UNIT
SCALE: N.T.S.

6



500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067



500 ENTERPRISE DRIVE SUITE 3A
ROCKY HILL, CT 06067

**CT2315B
DANBURY SUMMIT
PARK WEST
APARTMENTS**

SITING COUNCIL

B 04/24/14 REVISED PER COMMENTS
A 01/13/14 PRELIMINARY SUBMISSION



Dewberry Engineers Inc.

600 PARSIPPANY ROAD
SUITE 301
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ROBERT J. FOMEY, P.E.
CT LICENSE NO. PEN.0029056
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DRAWN BY:	JC
REVIEWED BY:	BSH
CHECKED BY:	GHN
PROJECT NUMBER:	50055106
JOB NUMBER:	50061018
SITE ADDRESS:	

79 PARK AVENUE
DANBURY, CT 06810

SHEET TITLE

CONSTRUCTION DETAILS II

SHEET NUMBER

Z-10

ATTACHMENT B

April 24, 2014

Tim Burks
AT&T Mobility
500 Enterprise Dr. Suite 3A
Rocky Hill, CT 06067

RE: Structural Evaluation for Proposed Stealth Tower
Site Name: CT2315B - Danbury Summit Park West Apartments
Site Address: 79 Park Ave., Danbury, CT 06810
Dewberry Job Number: 50061016

Dear Mr. Burks:

Pursuant to your request, Dewberry Engineers Inc. has evaluated the structural impact of the installation of proposed Stealth Penthouse on the top of an existing staircase at the existing facility located at the above referenced address by AT&T Mobility. The existing structure is a wood built stair tower. Dewberry Engineers Inc. has reviewed the following documents in preparing this evaluation:

- Preliminary Submission prepared by Dewberry Engineers, Inc. dated 4/13/14

AT&T proposes that the following compliment of equipment is to be installed at the site:

- 10'-3"x13'-3"x14'-3" tall stealth tower with 12 antennas, 18 RRHs, and 9 surge arrestors total located inside the proposed stealth tower

These proposed antennas are to be at a centerline elevation of approximately 47'-6" above ground level.

The stealth tower will increase the shear and vertical loading on the existing structure. Using the assumption that the original building was built to standard code practices, the existing structure has the capacity to support the added structure on the existing stair tower.

Lateral transfer from the stair projection to the lower roof diaphragm must be reinforced due to the increased lateral force induced by the new stealth enclosure.

We have attached supporting calculations for your use.

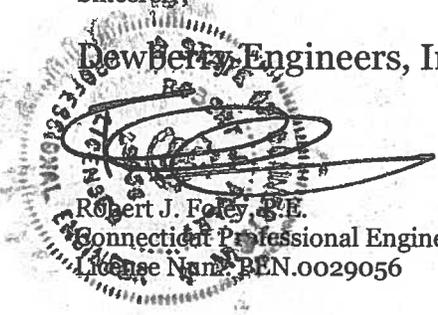
Dewberry Engineers Inc. reserves the right to add to or modify this evaluation if more information becomes available. The conclusions reached by Dewberry Engineers Inc. in this report are only applicable to the previously mentioned existing structural elements supporting the proposed AT&T Mobility wireless telecommunications installation. Any deviation of the support condition, loading, location, placement, equipment configuration, etc., will require Dewberry Engineers Inc. to generate an additional structural evaluation. Further, no structural qualification is made or implied by this report of any existing structural elements not directly supporting the proposed installation and construction described herein.

If you have any questions regarding this matter, please contact me at our Parsippany, NJ office at (973) 739-9400.

AT&T Mobility
Danbury Summit park West Apartments
Site Number CT2315B
Dewberry Project Number: 50061016
April 24, 2014
Page 2 of 2

Sincerely,

Dewberry Engineers, Inc.



Robert J. Foley, S.E.
Connecticut Professional Engineer
License No. PEN.0029056



Project Danbury Summit Park West Apartments				Job No. 50061016	
Section Addition of new stealth enclosure on existing stair tower				Sheet no./rev. 1	
Calc. by CLP	Date 4/22/2014	Chk'd by NEB	Date 4/23/2014	App'd by MJM	Date 4/23/2014

Check weight to resist uplift from new structure

Roof Structure

2x8 @ 16' oc	1.6 psf
3/4" plywood (estimate)	1.5 psf
Roofing (min)	<u>1.7 psf</u>
4.8 psf x (10.5x14.3) = 720.72 lbs	
Area of roof	

Load to each corner 720.72lbs / 4 = 180.18lbs

Wall Structure

2x4 @ 16' oc	1 psf
5/8" wall board	2.5 psf
3/4" Gyp board (2 layers)	<u>4 psf</u>
7.5 psf x [(10.5+14.3)(1/2)] x 9.6' height above main roof = 890 lbs	

Stealth enclosure estimated weight is included in Risa as 6 psf

Dead Loading of Antennas is not used for uplift resistance because it can be removed.

Total weight resisting	
Uplift (top floor wt only)	1070.8 lbs > 711 lbs Uplift from Risa OK 1.5 SF uplift

Check worst case addition of Wind loading, E/W Direction

Current wind load on diaphragm
 $(5' \times 68' \times 20\text{psf}) + (14.3' \times 60' \times 20\text{psf}) + (8.5' \times 10.5' \times 20\text{psf}) = 25,985 \text{ lbs}$ /218' 119.19 lb/ft

New addition additional wind load on diaphragm
 $(14.5' \times 10.5' \times 20 \text{ psf}) = 3,045 \text{ lbs}$
 Total wind with the additional wind = 25,985 lb + 3045 lb = 29,030 lbs /218' 133 lb/ft

-Both of these values are lower than the lowest value in the IBC 2009 table 2306.2.1(1) for unblocked diaphragms assuming the 40% increase allowed for wind design in IBC 2009 section 2306.2.1.

The current wind loading on the existing pop up structure of the stair tower

$8.5' \times 10.5' \times 20 \text{ psf} = 1785 \text{ lbs}$
 $8.5' \times 14.3' \times 20 \text{ psf} = 2431 \text{ lbs} / 2 \text{ sides} = 1215.5 \text{ lbs} / 10.5' = 115.76 \text{ lbs/ft}$

The new additional wind loading on the pop up structure of the stair tower

$14.5' \times 10.5' \times 20 \text{ psf} = 3045 \text{ lb}$
 $14.5' \times 14.3' \times 20 \text{ psf} = 4147 \text{ lb} + 2431\text{lbs} = 6578 \text{ lbs} / 2 \text{ sides} = 3289 \text{ lb} / 10.5' = 313.23 \text{ lbs/ft}$
 existing

This would require the pop up wall structure of the stair tower above the main roof to consist of a min of 3/8" Struct 1 plywood with 8d nails at 6" oc from IBC 2006 section 2306.3 w/ the 40% increase stated in section 2306.3. This requirement is less than what is typical construction so it is ok.

ATTACHMENT C



C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
(603) 644-2800
support@csquaredsystems.com



RADIO FREQUENCY EXPOSURE REPORT

CT2315B

DANBURY SUMMIT PARK WEST APARTMENTS

**79 PARK AVENUE
DANBURY, CT 06810**

June 16, 2014

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed installation of AT&T antennas within a stealth penthouse to be mounted on the building located at 79 Park Avenue in Danbury, CT. Figure 1 below is a view of the facility.

AT&T is proposing the following:

- 1) Install twelve multi-band antennas (700/850/1900/2300 MHz) for their UMTS and LTE networks (four per sector).



Figure 1: View of Summit Park West Apartment Building

Site Address	79 Park Avenue, Danbury, CT
Latitude	41° 23' 11.72 "N
Longitude	73° 27' 48.91" W
Site Elevation AMSL	505.9'
Main Roof Height AGL	28.8'
LTE License Information	WPWV368, WQIZ617, WQJU459
Cellular License Information	KNKA256
PCS License Information	WPSL626, WQGG892, KNLG502
WCS License Information	KNLB297, KNLB204, KNLB312, WPQL636

Table 1: Site Specific Data

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment B of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment provided they are fully aware of the potential for exposure, and are able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels considered acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population / uncontrolled exposure and for occupational / controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

3. Antenna Inventory

Table 2 below details AT&T's proposed antenna configuration for the rooftop of 79 Park Avenue. These antennas were utilized to perform the theoretical calculations as described in the Modeling Procedure section of this report. The height of the main roof is 28.8' AGL, and the height of the penthouse ridgeline is 44.6' AGL, as shown in the Dewberry Engineers Inc. Zoning Drawings dated 01/13/2014.

Operator	Sector	TX Freq. (MHz)	Power at Antenna (Watts)	Ant Gain (dBi)	Power EIRP (Watts)	Antenna Model	Beam Width	Length (feet)	Antenna Centerline Height (ft.)
AT&T	Alpha	850	40	16.2	1667.5	HPA-65R-BUU-H8	61	7.7	47.5
		1900	40	17.1	2051.5		62		
		700	60	15.3	2033.1	HPA-65R-BUU-H8	65	7.7	47.5
		2300	60	17.7	3533.1		60		
		850	60	16.2	2501.2	HPA-65R-BUU-H8	61	7.7	47.5
		700	60	15.3	2033.1	HPA-65R-BUU-H8	65	7.7	47.5
		1900	120	17.1	6154.3		62		
	Beta	850	40	16.2	1667.5	HPA-65R-BUU-H8	61	7.7	47.5
		1900	40	17.1	2051.5		62		
		700	60	15.3	2033.1	HPA-65R-BUU-H8	65	7.7	47.5
		2300	60	17.7	3533.1		60		
		850	60	16.2	2501.2	HPA-65R-BUU-H8	61	7.7	47.5
		700	60	15.3	2033.1	HPA-65R-BUU-H8	65	7.7	47.5
		1900	120	17.1	6154.3		62		
	Gamma	850	40	16.2	1667.5	HPA-65R-BUU-H8	61	7.7	47.5
		1900	40	17.1	2051.5		62		
		700	60	15.3	2033.1	HPA-65R-BUU-H8	65	7.7	47.5
		2300	60	17.7	3533.1		60		
		850	60	16.2	2501.2	HPA-65R-BUU-H8	61	7.7	47.5
		700	60	15.3	2033.1	HPA-65R-BUU-H8	65	7.7	47.5
		1900	120	17.1	6154.3		62		

Table 2: Proposed Antenna Inventory

4. Calculated Values

4.1. Modeling Procedure for the Calculations on Rooftop

The emission field calculation results displayed in the following figures were generated using proprietary computer software modeling prediction tool, PDCalc, as developed and provided by C Squared Systems, LLC. PDCalc uses the following power density calculation formulas:

Dish Antennas:

Near Field

$$\text{End of Near Field} = \frac{D^2}{(4 \times \lambda)}$$

$$\text{Power Density Near} = \text{PDN} = \frac{16 \times A \times P}{\pi \times D^2}$$

Where:

D = Antenna Diameter

λ = Wavelength

A = Aperture Efficiency

P = Power Input to the Antenna

- 20 dB of attenuation is added for any points greater than one antenna diameter from the main beam.

Transition Region:

$$\text{End of Transition Region} = \frac{D^2}{\lambda} \times \text{FarFieldFactor}$$

$$\text{Power Density Transition} = \frac{\text{PDN} \times \text{Near Region}}{R}$$

Where:

D = Antenna Diameter

FarFieldFactor = multiplier which expands or contracts transition region to determine start of Far Field

λ = Wavelength

PDN = Power Density Near

R = Radial Distance

$$\text{Near Region} = \frac{D^2}{(4 \times \lambda)}$$

- 20 dB of attenuation is added for any points greater than one antenna diameter from the main beam.

Far Field:

$$\text{Power Density} = \left(\frac{\text{EIRP}}{\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

Off Beam Loss is determined by the selected antenna patterns

R = Radial Distance

Directional and Omni Antennas:

Near Field:

$$S = \frac{P_i \times K(H_a, L_a)}{20 \times \pi \times L_a \times R_h \times \left(\frac{BW}{360}\right)}$$

Where:

S = Power Density in mw/cm^2

P_i = Actual (or worst case assumed) power delivered to the antenna (watts)

$K(H_a, L_a)$ = Correction factor for antenna mounting height

H_a = Antenna mounting height in feet

L_a = Antenna length in meters

R_h = the horizontal distance along roof from antenna to point of interest

BW = Antenna beamwidth

$$K(H_a, L_a) = \begin{cases} 0.99013 - 0.14656 \times H_a & \text{for } 0 \leq H_a \leq 6 \\ 1/H_a & \text{for } H_a > 6 \end{cases}$$

➤ If the horizontal distance from the bottom of the antenna is < 1 foot, then 1 foot is used for the distance.

In order to deal with directional antennas, a modified cylindrical model is used. This is done by approximating the horizontal pattern with a model that is conservative, and applying the results to the cylindrical model above. The equation to be used is:

$$A = \cos^n\left(\frac{\phi}{2}\right)$$

Where:

A = Attenuation

ϕ = Angle between antenna azimuth and point in question

n = Factor to shape the function for a particular beamwidth

BW = Antenna beamwidth

By setting the attenuation equal to 0.5 at the half power point ($\phi = BW/2$), n can be solved. However, in order to ensure that the attenuation model is conservative, n is solved when $\phi = (BW/2) \times (4/3)$. This essentially assumes a larger beamwidth for margin. Therefore, solving for n , we have

$$n = \frac{\ln(0.5)}{\ln(\cos(BW/3))}$$

As a result, antennas with a beamwidth wider than 270° will be treated as an omni-directional antenna. Finally, the maximum attenuation is capped at 15 dB to assure a conservative result in the rear of the antenna.

Far Field:

$$\text{Power Density} = \left(\frac{EIRP}{\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

EIRP = Effective Isotropic Radiated Power Watts

R = Radial Distance = $\sqrt{(H^2 + V^2)}$ meters

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

4.2. Calculated Results for Rooftop Emissions

Figure 2 below shows the predicted RF environment based on AT&T's proposed antenna configuration. These worst-case calculations assume that all transmitters are simultaneously operating at full power, that there is 0 dB of cable loss, and 0 dB of building penetration loss into the penthouse apartments. The calculation point for this mapping is 6 feet above the main rooftop level to model the RF power density at the head of a person standing on the rooftop, on the penthouse patios, and within the penthouse apartments.

As mentioned above, the calculations include 0 dB of building attenuation loss. A conservative value of 10 dB can be applied to represent building attenuation loss, thus making percent of MPE levels inside the penthouse apartments 10x lower than the calculated values.



Figure 2: Predicted Power Density Levels on Main Rooftop – Post AT&T Installation

Figure 3 below shows the predicted RF environment on the penthouse rooftop, based on AT&T's proposed antenna configuration. The calculation point for this mapping is 6 feet above the penthouse rooftop level to model the RF power density at the head of a person standing on the penthouse rooftop.



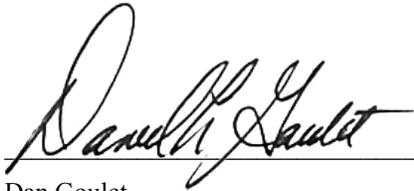
Figure 3: Predicted Power Density Levels on Penthouse Rooftop – Post AT&T Installation

5. Summary of Findings

The predicted analysis for the rooftop of 79 Park Avenue finds that there are no areas of the main rooftop, penthouse apartments, penthouse patios or penthouse rooftop that exceed the General Population/Uncontrolled exposure limit as defined by the FCC. The analysis concludes that the maximum percent of MPE calculated to occur at the penthouse apartments is less than 10% of the General Population/Uncontrolled limit. Please note that this value does not include building attenuation, which would further decrease the power density and corresponding %MPE within the penthouse apartments. The low power density levels are due to the directional nature of AT&T's planned antenna design and the orientation of the antennas on the rooftop.

6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1, ANSI/IEEE Std C95.7 and FCC OET Bulletin 65 Edition 97-01.



Dan Goulet
C Squared Systems, LLC

June 16, 2014

Date

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

ANSI C95.1-1982, American National Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz. IEEE-SA Standards Board

IEEE Std C95.3-1991 (Reaff 1997), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave. IEEE-SA Standards Board

IEEE Std C95.7-2005, IEEE Recommended Practice for Radio Frequency Safety Programs, 3 kHz to 300 GHz. IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure¹

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure²

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

Table 3: FCC Limits for Maximum Permissible Exposure

¹ Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

² General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

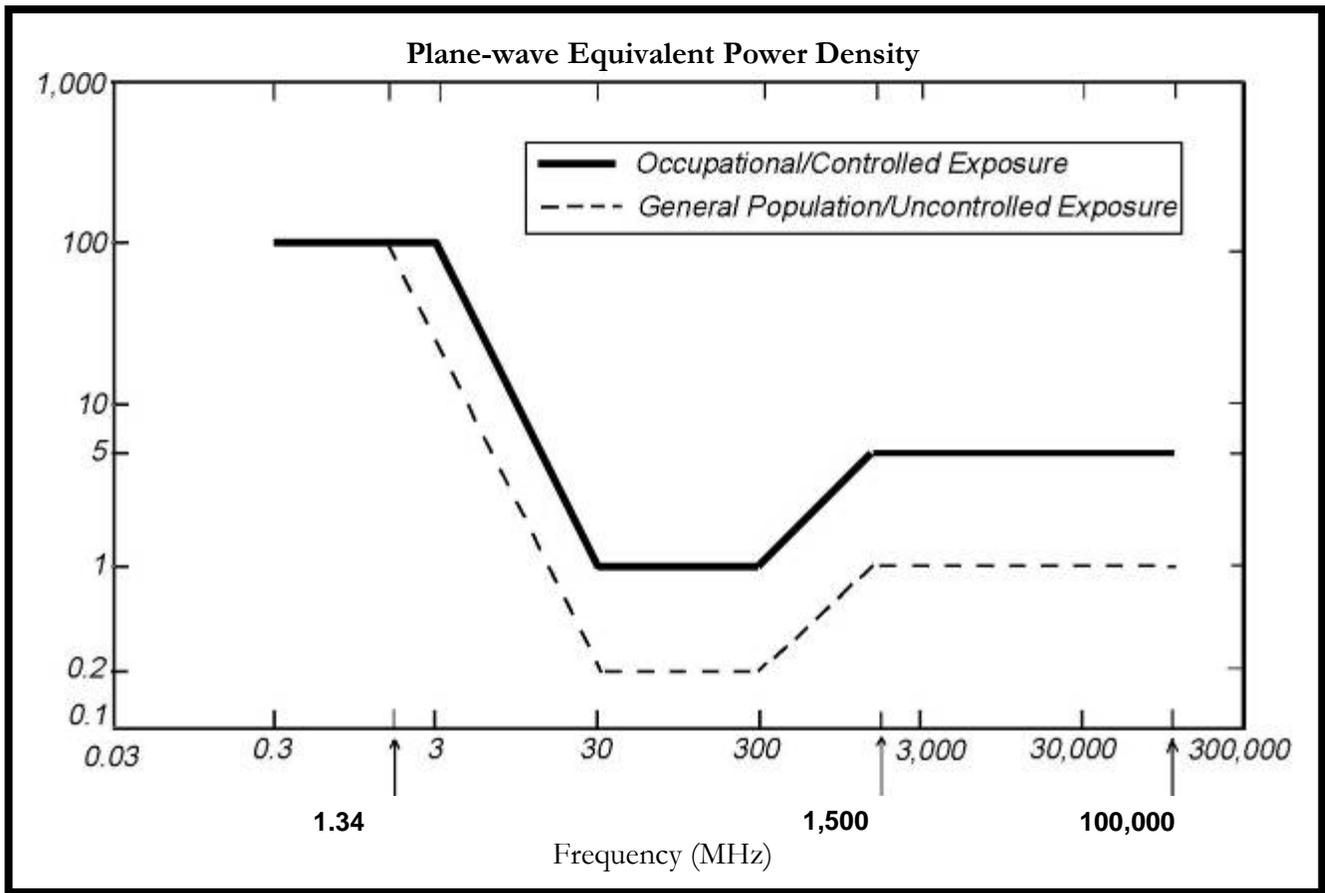


Figure 4: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

ATTACHMENT D

Incremental Coverage & Offload Analysis

CT2315B
79 Park Avenue, Danbury, CT



June 12, 2014



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1. Incremental Coverage & Offload Analysis (CT2315B – Danbury)

Table 1 below lists the incremental coverage statistics that were compiled for each frequency band of the proposed site.

	Incremental Coverage from Proposed Site (700 MHz)		Incremental Coverage from Proposed Site (1900 MHz)	
	Population Coverage: ¹	(≥ -83 dBm)	2,367	(≥ -86 dBm)
(≥ -93 dBm)		577	(≥ -96 dBm)	1,525
Area Covered (mi ²):	(≥ -83 dBm)	0.45	(≥ -86 dBm)	0.43
	(≥ -93 dBm)	0.39	(≥ -96 dBm)	0.51
Roadway Coverage (mi):	Main:	0.10	Main:	0.34
	Secondary:	2.47	Secondary:	4.26
	Total:	2.57	Total:	4.60

Table 1: Coverage Statistics

Table 2 below provides quantitative data concerning the predicted capacity relief at the sector level, of the sites currently serving the targeted area of Danbury, as impacted by the proposed site. Population figures (POPs) represent the covered residential population based upon the 2010 US Census Data. The below analysis utilized thresholds of -93 dBm for 700 MHz, and -96 dBm for 1900 MHz, which are the minimum acceptable levels required to meet customer expectations for 4G service.

Sector	Current		With "CT2315B"		Offload Summary	
	Total Pops	Area (mi ²)	Total Pops	Area (mi ²)	Total Pops Offloaded	Area Offloaded (mi ² /%)
700 MHz Band (-93 dBm)						
CT2124 Gamma (270°)	5038	0.43	4216	0.35	822 (16.32%)	0.08 (18.6%)
CT2133 Alpha (20°)	1824	1.14	659	0.90	1165 (63.87%)	0.24 (21.05%)
CT5070 Alpha (0°)	3502	0.68	1564	0.49	1938 (55.34%)	0.19 (27.94%)
1900 MHz Band (-96 dBm)						
CT2124 Beta (150°)	4306	0.61	3833	0.52	473 (10.98%)	0.09 (14.75%)
CT2133 Alpha (20°)	1592	0.97	456	0.80	1136 (71.36%)	0.17 (17.53%)
CT5070 Alpha (0°)	4410	0.84	2540	0.63	1870 (42.4%)	0.21 (25%)
CT5073 Gamma (270°)	12883	2.48	11703	2.35	1180 (9.16%)	0.13 (5.24%)

Table 2: Offload Statistics

¹ Population figures are based upon 2010 US Census Block Data