



06/26/2024

**City of Grand Rapids  
Small and Micro Cell Wireless Facilities Sites  
Radio Frequency (RF) Power Density Measurements for the Year 2024  
with Retest of 2021 Sites**

**Executive Summary:**

Geotech, Inc. performed broadband power density measurements of existing small and micro cell sites to determine compliance or non-compliance with the existing requirements for the general public as set by the Federal Communications Commission (FCC) and other international agencies. As of May 20, 2024, ninety-seven (97) sites were tested, and the measurements of the maximum power density were less than fifteen (15) percent of the Maximum Permissible Exposure (MPE) limit as set by the FCC. Of the ninety-seven (97) active sites tested in 2024, eighty-four (84) were retested sites of 2021 and previous years, and thirteen (13) were new active sites for 2024.

**Objective:**

Perform small and micro cell radio frequency testing to determine compliance or non-compliance of the Maximum Permissible Exposure (MPE) power densities with the applicable requirements as set by the Federal Communications Commission (FCC) and other international agencies.

Testing shall be performed for existing installations and repeated every three (3) years. New installation shall be tested on a yearly basis and repeated every three (3) years.

**Background Information:**

1. Number of cell sites: As of this date, there are 360 existing and proposed sites.
2. Of the ninety-seven (97) active sites tested in 2024, eighty-four (84) were retested sites of 2021 and previous years, and thirteen (13) were new active sites for 2024.
3. Several types of radio/antenna/pole installations have been installed and/or are proposed. The known radio frequencies of the small/micro cells range from 800 megahertz (MHz) to 6 gigahertz (GHz).
4. The following service providers have, or propose to have small/micro cells within the City limits: Verizon & AT&T (These sites are operated by ACD, Mobilitie, and Zayo).
5. The Federal Communications Commission (FCC) regulates and allocates the radio frequencies. The Institute of Electrical and Electronic Engineers (IEEE) has developed Standard 95.1; which was adopted by the FCC. Similar standards were developed by other agencies; which included the International Commission on Non-Ionizing Radiation

Protection (ICNIRP) and Canada Code 6. These standards define the limits for Maximum Permissible Exposure (MPE) Power Densities (in Watts/Meter Squared) as follows:

	<u>FCC</u> <u>(1.5-100GHz)</u>	<u>INCIRP</u> <u>(2-300GHz)</u>	<u>Canada</u> <u>(6-150GHz)</u>
Occupational	50	50	50
Non-Occupational (General Public)	10	10	10

6. Because the atmosphere is flooded with nearly unlimited radio transmissions from various sources, it may in some cases be difficult to distinguish between existing radiation levels and new small/micro cell radiation levels. Based on these factors, it was decided to perform broadband power density measurements to account for the frequencies ranging from 300KHz to 50GHz; which includes the operating frequencies for the small/micro cells. These measurements identify the existing power densities, and determine compliance or non-compliance with the FCC standards.

7. Ground level Safety: Radio frequency emissions from antennae used for cellular transmissions result in exposure levels on the ground that are typically below the safety limits which were adopted by the FCC based on the recommendations of expert organizations, and endorsed by agencies of the Federal Government responsible for health and safety.

**Testing Procedures and Parameters:**

1. Test Instrument: Narda NBM-550-S with FCC probe #EA5091.
2. Measurements were made at Six (6) feet above ground at distances of 10 feet, 50 feet and 100 feet away from the pole/cell base.
3. Measurements were broadband base and account for radio frequencies ranging from 300KHz to 50GHz.
4. Measurements recorded the maximum readings as a percentage of the Maximum Permissible Exposure (MPE) power densities for occupational permissible limit. These measurements were converted to non-occupational (general public) power densities, and were compared with its MPE limit. Note: the MPE for non-occupational (general public) permissible limit is lower by a factor of 5 in comparison with the occupational permissible limit.

**Testing Results:** Refer to:

1. Attachment #1- Radio Frequency (RF) Power Density Testing - Non- Occupational (2024 New )
2. Attachment #2- Radio Frequency (RF) Power Density Testing - Occupational and Non-Occupational (2024 New and Retests)
3. Attachment #3- Summary of Radio Frequency (RF) Power Density Testing - Non-Occupational (2021 Tests Compared to 2024 Retests)



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**Conclusion:**

The general public exposure, to radio frequency power densities as measured at six (6) feet above ground of the above tested sites, is less than fifteen (15) percent of the Maximum Permissible Exposure set by the FCC.

### Attachment #1- Radio Frequency (RF) Power Density Testing - Non- Occupational (2024 New)

#### City of Grand Rapids/ Small and Micro Cell Radio Frequency (RF) PowerDensity Testing -Non- Occupational

Count	Small Cell	Pole Owner	Site ID	Site Status	Approved Date	Address	Results as Percentage (%) of Maximum Permissible Exposure (MPE) for FCC Non-Occupational Limits								
							Measurements at 6 feet above Ground								
							Direction	Distance from Pole			Direction	Distance from Pole			
10 ft.	50 ft.	100 ft.	10 ft.	50 ft.	100 ft.										
1	Verizon	Verizon	40861	Installation Complete	6/9/2020	2737 Ardmore St. SE	East	0.316	0.211	0.1755	West	0.5975	0.527	0.562	
2	Verizon	CE	40810	Installation Complete	12/16/2020	2005 Burton St. SE	East	0.246	0.281	0.1405	West	0.035	0.1405	0.0705	
3	AT&T	CE	GRRPD 006	Installation Complete	4/8/2021	1950 Burton St. SE	East	0.316	0.8785	0.6675	West	1.1345	0.4215	1.3705	
4	Verizon	CE		40784	Installation Complete	12/16/2020	1826 Philadelphia Ave. SE	North	0.562	1.019	0.562	South	1.1345	0.4215	1.3705
5	Verizon	CE	40782	Installation Complete	12/23/2020	1411 Elliott St. SE	East	0.035	0.1055	0	West	1.3705	2.109	2.074	
6	Verizon	CE	40448	Installation Complete	12/23/2020	416 Eureka Ave. SE	North	1.1245	0.8085	0.9135	South	0.6325	0.457	0.5975	
7	Verizon	CE	40501	Installation Complete	12/16/2020	628 Logan St. SE	East	0.7085	0.5975	0.492	West	0.281	0.211	0.1405	
8	Verizon	CE	40450	Installation Complete	3/1/2021	1200 Sigsbee St. SE	North	0.8085	0.738	0.562	South	0.4215	0.1055	0.246	
9	Verizon	Verizon	40539	Installation Complete		1201 Underwood Ave. SE	East	0.8085	0.773	0.6325	West	0.8085	0.492	0.527	
10	Verizon	CE	40777	Installation Complete	12/16/2020	1204 Burton St. SE	East	0.8435	0.8435	0.7635	West	5.27	1.687	1.2655	
11	Verizon	CE	40761	Installation Complete	12/23/2020	659 Griggs St. SE	East	1.019	0.738	0.738	West	0.748	1.1245	1.0545	
12	AT&T	Verizon	GRRPD 027	Installation Complete	4/12/2021	301 Lafayette Ave. SE	North	0.316	0	0.035	South	0.3865	0	0.1755	
13	Verizon	AT&T	40616	Installation Complete	9/25/2020	396 Cutler St. SW	East	0.6675	0.3865	0.562	West	4.82	0.281	0.3865	

**Notes:**

1. For a complete description of testing procedure, parameters and results- see Full Report
2. All values presented as a percentage of 10watt/mete squared for non-occupational maxium exposure
3. Directio refers to measurement parallel to street direction
4. Measurement at 6 feet above ground represents pedestrian height
5. Above measurements are for active sites as of 5-20-24

**Attachment #2- Radio Frequency (RF) Power Density Testing - Occupational and Non-Occupational**  
**City of Grand Rapids/ Small and Micro Cell Radio Frequency (RF) PowerDensity Testing -Non- Occupational (2024 New Sites & Retests)**

Count	Small Cell	Pole Owner	Site ID	Site Statues	Approved Date	Address	Results as Percentage (%) of Maximum Permissible Exposure (MPE) for FCC Occupational Limits						Results as Percentage (%) of Maximum Permissible Exposure (MPE) for FCC Non-Occupational Limits									
							Measurements at 6 feet above Ground						Measurements at 6 feet above Ground									
							Distance from Pole			Distance from Pole			Distance from Pole			Distance from Pole						
							Direction	10 ft.	50 ft.	100 ft.	Direction	10 ft.	50 ft.	100 ft.	Direction	10 ft.	50 ft.	100 ft.	Direction	10 ft.	50 ft.	100 ft.
1	Verizon	Verizon	8690	Installation Complete	12/16/2020	3000 Alger St. SE	East	0.1757	0.246	0.2952	West	0.5022	0.0984	0.1124	East	0.8785	1.23	1.476	West	2.511	0.492	0.562
2	Verizon	CE	4214	Installation Complete	6/24/2020	3073 Burton St. SE	East	0.3615	0.3964	0.1617	West	0.1827	0.1898	0.1968	East	1.8075	1.982	0.8085	West	0.9135	0.949	0.984
3	Verizon	CE	5013	Installation Complete	6/24/2020	1753 Morningside Dr. SE	North	0.1687	0.2179	0.2531	South	0.239	0.2531	0.2038	North	0.8435	1.0895	1.2655	South	1.195	1.2655	1.019
4	Verizon	CE	4213	Installation Complete	6/9/2020	2927 Hampshire Blvd. SE	East	0.0562	0.1124	0.1827	West	0.0684	0.0422	0.0703	East	0.281	0.562	0.9135	West	0.342	0.211	0.3515
5	Verizon	CE	4192	Installation Complete	6/9/2020	2917 Burton St. SE	East	0.0914	0.0914	0.1617	West	0.1827	0.1898	0.1687	East	0.457	0.457	0.8085	West	0.9135	0.949	0.8435
6	Verizon	CE	4212	Installation Complete	6/9/2020	2737 Ardmore St. SE	East	0.0632	0.0422	0.0351	West	0.1195	0.1054	0.1124	East	0.316	0.211	0.1755	West	0.5975	0.527	0.562
7	Verizon	CE	4191	Installation Complete	7/2/2020	1848 Rosemont Ave. SE	East	0.2764	0.1546	0.246	West	0.2109	0.1968	0.2038	East	1.382	0.773	1.23	West	1.0545	0.984	1.019
8	Verizon	CE	6660	Installation Complete	12/23/2020	2544 Ardmore St. SE	East	0.1867	0.0914	0.1617	West	0.1476	0.1195	0.1898	East	0.9335	0.457	0.8085	West	0.738	0.5975	0.949
9	Verizon	Verizon	8686	Installation Complete	12/16/2020	2356 Burton St. SE	East	0.0562	0.1124	0.0984	West	0.0632	0.0773	0.0141	East	0.281	0.562	0.492	West	0.316	0.3865	0.0705
10	Verizon	CE	4211	Installation Complete	6/24/2020	2340 Onekama Dr. SE	East	1.106	0.0843	0.0773	West	0.0984	0.1054	0.0492	East	5.53	0.4215	0.3865	West	0.492	0.527	0.246
11	Verizon	CE	6666	Installation Complete	12/23/2020	1834 Newkum Ave. SE	North	1.054	0.0351	0.0773	South	0.0211	0.1405	0.1617	North	0.527	0.1755	0.3865	South	0.1055	0.7025	0.8085
12	Verizon	Verizon	8684	Installation Complete	12/16/2020	2005 Burton St. SE	East	0.0492	0.0562	0.0281	West	0.007	0.0281	0.0141	East	0.246	0.281	0.1405	West	0.035	0.1405	0.0705
13	AT&T	AT&T	12702	Installation Complete	4/8/2021	1950 Burton St. SE	East	0.0632	0.1757	0.1335	West	0.1335	0.0773	0	East	0.316	0.8785	0.6675	West	0.6675	0.3865	0
14	Verizon	Verizon	8683	Installation Complete	12/16/2020	1601 Chamberlain Ave. SE	North	0.1195	0.1265	0.0773	South	2.261	0.1476	0.1617	North	0.5975	0.6325	0.3865	South	11.305	0.738	0.8085
15	Verizon	CE	2984	Installation Complete	7/2/2020	1740 Burton St. SE	East	0.1265	0.1054	0.1335	West	0.0843	0.0843	0.0773	East	0.6325	0.527	0.6675	West	0.4215	0.4215	0.3865
16	Verizon	CE	4189	Installation Complete	6/9/2020	1704 Boston St. SE	East	0.3545	0.1546	0.1335	West	0.1476	0.1968	0.2531	East	1.7725	0.773	0.6675	West	0.738	0.984	1.2655
17	Verizon	Verizon	9493	Installation Complete	12/16/2020	1601 Philadelphia Ave. SE	West	0.4112	0.3183	0.1476	South	0.865	0.2835	0.2338	West	2.056	1.5915	0.738	South	4.325	1.4175	1.169
18	Verizon	CE	2965	Installation Complete	6/9/2020	1640 Margaret Ave. SE	North	0.1054	0.8507	0.7511	South	0.2694	0.0984	0.2684	North	0.527	4.2535	3.7555	South	1.347	0.492	1.342
19	Verizon	AT&T	5412	Installation Complete	12/16/2020	1826 Philadelphia Ave. SE	North	0.1124	0.2038	0.1124	South	0.2269	0.0843	0.2741	North	0.562	1.019	0.562	South	1.1345	0.4215	1.3705
20	Verizon	Verizon	7875	Installation Complete	12/23/2020	1411 Elliott St. SE	East	0.007	0.0211	0	West	0.2741	0.4218	0.4148	North	0.035	0.1055	0	West	1.3705	2.109	2.074
21	Verizon	AT&T	10296	Installation Complete	12/23/2020	1448 Colorado Ave. SE	North	0.0472	0.0773	0.1054	South	0.0281	0	0.0422	North	0.236	0.3865	0.527	South	0.1405	0	0.211
22	Verizon	Verizon	7873	Installation Complete	12/16/2020	1400 Adams St. SE	East	0.1476	0.1687	0.1335	West	0.1476	0.2109	0.1546	East	0.738	0.8435	0.6675	West	0.738	1.0545	0.773
23	Verizon	CE	2960	Installation Complete	6/9/2020	1404 Hall St. SE	East	0.1124	0.0914	0.0914	West	0.0632	0.0703	0.1687	East	0.562	0.457	0.457	West	0.316	0.3515	0.8435
24	Verizon	CE	5414	Installation Complete	6/25/2020	1541 Mackinaw Rd. SE	East	0.0141	0.0562	0.0211	West	0.0211	0.1195	0.1265	East	0.0705	0.281	0.1055	West	0.1055	0.5975	0.6325
25	Verizon	AT&T	9091	Installation Complete	12/16/2020	844 Giddings Ave. SE	North	0.5246	0.1898	0.1757	South	0.0843	0.1124	0.0843	North	2.623	0.949	0.8785	South	0.4215	0.562	0.4215
26	Verizon	CE	5818	Installation Complete	6/19/2020	646 Ethel Ave. SE	North	0.1195	0.0984	0.1617	South	0.1195	0.1267	0.1687	North	0.5975	0.492	0.8085	South	0.5975	0.6335	0.8435
27	Verizon	CE	3383	Installation Complete	6/19/2020	553 Diddings Ave. SE	North	0.2249	0.1617	0.232	South	0.0984	0.1124	0.2109	North	1.1245	0.8085	1.16	South	0.492	0.562	1.0545
28	AT&T	Grand Rapids	918	Installation Complete	9/13/2019	1516 Wealthy St. SE	East	0.326	0.1054	0.1406	West	0.0984	0.0914	0.0562	East	1.63	0.527	0.703	West	0.492	0.457	0.281
29	ACD	Grand Rapids	889	Installation Complete	5/24/2019	1143 Wealthy St. SE	East	0.766	0.0492	0.1054	West	0.0703	0.0703	0.1898	East	3.83	0.246	0.527	West	0.3515	0.3515	0.949
30	Verizon	AT&T	4196	Installation Complete	12/23/2020	416 Eureka Ave. SE	North	0.2249	0.1617	0.1827	South	0.1265	0.0914	0.1195	North	1.1245	0.8085	0.9135	South	0.6325	0.457	0.5975
31	Verizon	CE	9092	Installation Complete	12/16/2020	664 Wealthy St. SE	East	0.886	0.0984	0.1195	West	0.1476	0.1335	0.0843	East	4.43	0.492	0.5975	West	0.738	0.6675	0.4215
32	Verizon	CE	2969	Installation Complete	9/30/2020	601 Wealthy St. SE	East	0.1124	0.1757	0.246	West	0.2671	0.2601	0.2882	East	0.562	0.8785	1.23	West	1.3355	1.3005	1.441
33	Verizon	Verizon	7474	Installation Complete	12/16/2020	628 Logan St. SE	East	0.1417	0.1195	0.0984	West	0.0562	0.0422	0.0281	East	0.7085	0.5975	0.492	West	0.281	0.211	0.1405
34	Verizon	AT&T	11094	Installation Complete	3/1/2021	1200 Sigsbee St. SE	North	0.1617	0.1476	0.1124	South	0.0843	0.0211	0.0492	North	0.8085	0.738	0.562	South	0.4215	0.1055	0.246
35	Verizon	CE	3784	Installation Complete	7/2/2020	921 Sherman St. SE	East	0.5388	0.1687	0.1546	West	0.0773	0.1617	0.1195	East	2.694	0.8435	0.773	West	0.3865	0.8085	0.5975
36	Verizon	CE	3373	Installation Complete	3/2/2021	602 Union Ave. SE	North	0.5668	0.1476	0.1827	South	0.2249	0.2741	0.2812	North	2.834	0.738	0.9135	South	1.1245	1.3705	1.406
37	Verizon	CE	4187	Installation Complete	6/19/2020	725 Union Ave. SE	North	0.0984	0.0562	0.1476	South	0.1265	0.1406	0.0843	North	0.492	0.281	0.738	South	0.6325	0.703	0.4215
38	Verizon	Unk	1343	Installation Complete	9/25/2020	921 Bates St SE	East	0.2179	0.232	0.0141	West	0.0843	0.1054	0.0211	East	1.0895	1.16	0.0705	West	0.4215	0.527	1.055
39	Verizon	CE	4201	Installation Complete	7/2/2020	1032 Worden St. SE	East	0.553	0.0422	0.0562	West	0.0773	0.1054	0.0843	East	2.765	0.211	0.281	West	0.3865	0.527	0.4215
40	AT&T	CE	2537	Installation Complete		1023 Alexander St. SE	East	0.1054	0.7633	0.893	West	3.02	0.8082	0.3687	East	0.527	3.8165	4.465	West	15.1	4.041	1.8435
41	Verizon	CE	1345	Installation Complete	9/25/2020	939 Kalamazoo Ave.	North	1.076	0.7934	0.1418	South	0.8366	0.4392	0.3828	North	5.38	3.967	0.709	South	4.183	2.196	1.914
42	Verizon	Verizon	8692	Installation Complete	12/16/2020	803 Watkins St. SE	East	0.3186	0.1843	0.3613	West	0.8928	0.1406	0.1124	East	1.593	0.9215	1.8065	West	4.464	0.703	0.562
43	Verizon	CE	1340	Installation Complete	9/25/2020	1100 Kalamazoo Ave. SE	North	0.3248	0.6648	0.3467	South	0.1898	0.1406	0.1757	North	1.624	3.324	1.7335	South	0.949	0.703	0.8785
44	Verizon	AT&T	5017	Installation Complete	12/23/2020	1125 Cooper Ave. SE	North	0.1265	0.1898	0.1546	South	0.1476	0.1265	0.1335	North	0.6325	0.949	0.773	South	0.738	0.6325	0.6675
45	Verizon	Grand Rapids	2950	Installation Complete		1201 Underwood Ave. SE	East	0.1617	0.1546	0.1265	West	0.1617	0.0984	0.1054	East	0.8085	0.773	0.6325	West	0.8085	0.492	0.527
46	Verizon	AT&T	7877	Installation Complete	12/23/2020	1208 Kalamazoo Ave. SE	North	0.0211	0.1195	0.1195	South	0.1406	0.1124	0.1265	North	0.1055	0.5975	0.5975	South	0.703	0.562	0.6325
47	Verizon	CE	4205	Installation Complete	6/9/2020	928 Adams St. SE	East	0.2906	0.1195	0.1406	West	0.1968	0.1968	0.1827	East	1.453	0.5975	0.703	West	0.984	0.984	0.9135
48	Verizon	CE	4207	Installation Complete	6/25/2020	1420 Eastern Ave. SE	North	0.1546	0.0773	0.1054	South	0.6235	0.1617	0.1406	North	0.773	0.3865	0.527	South	3.1175	0.8085	0.703
49	Verizon	CE	3789	Installation Complete	6/22/2020	616 Oakdale St. SE	East	0.3403	0.156	0.1701	West	0.1898	0.1757	0.2109	East	1.7015	0.78	0.8505	West	0.949	0.8785	1.0545
50	Verizon	CE	10294	Installation Complete	12/23/2020	1450 Marshall Ave. SE	North	0.2759	0.1335	0.1265	South	0.1687	0.1054	0.1657	North	1.3795	0.6675	0.6325	South	0.8435	0.527	0.8285
51	Verizon	AT&T	8281	Installation Complete	12/16/2020	1204 Burton St. SE	East	0.1687	0.1687	0.1527	West	1.054	0.3374	0.2531	East	0.8435	0.8435	0.7635	West	5.27	1.687	1.2655
52	Verizon	Verizon	9491	Installation Complete	12/16/2020	1026 Burton St. SE	East	0.0984	0.1757	0.1617	West	0.3608	0.246	0.2249	East	0.492	0.8785	0.8085	West	1.804	1.23	1.1245
53	Verizon	Verizon	7477	Installation Complete	12/22/2020	1251 Edna St. SE	East	0.1406	0.1757	0.1617	West	0.3609	0.0773	0.1265	East	0.703	0.8785	0.8085	West	1.8045	0.3865	0.6325
54	Verizon	CE	2974	Installation Complete	6/9/2020	2364 Nelson Ave. SE	North	0.1124	0.1617	0.1968	South	0.1546	0.1757	0.1476	North	0.562						

67	Verizon	CE	8289	Installation Complete	9/24/2020	1704 Madison Ave. SE	North	0.1687	0.2109	0.1757	South	0.1406	0.0238	0.1124	North	0.8435	1.0545	0.8785	South	0.703	0.119	0.562
68	Verizon	CE	2961	Installation Complete	6/9/2020	313 Griggs St. SE	East	0.1335	0.1124	0.0914	West	0.1335	0.1195	0.1898	East	0.6675	0.562	0.457	West	0.6675	0.5975	0.949
69	Verizon	CE	2963	Installation Complete	6/9/2020	1966 Madison Ave. SE	North	0.9358	0.333	0.1335	South	0.2901	0.1265	0.1546	North	4.679	1.665	0.6675	South	1.4505	0.6325	0.773
70	Verizon	CE	3776	Installation Complete	6/19/2020	2144 Madison Ave. SE	North	1.489	0.1843	0.1476	South	0.0843	0.0422	0.0281	North	7.445	0.9215	0.738	South	0.4215	0.211	0.1405
71	Verizon	CE	8287	Installation Complete	9/24/2020	2 Baylis St. SW	North	1.126	0.1687	0.1195	South	0.1195	0.1406	0.2249	North	5.63	0.8435	0.5975	South	0.5975	0.703	1.1245
72	Verizon	CE	1337	Installation Complete	10/9/2020	1700 Francis Ave. SE	East	0.0703	0.0351	0.0492	West	0.0211	0.1406	0.1546	East	0.3515	0.1755	0.246	West	0.1055	0.703	0.773
73	Verizon	CE	1346	Installation Complete	9/25/2020	1102 Madison Ave. SE	North	1.02	0.1687	0.246	South	0.1335	0.1335	0.1265	North	5.1	0.8435	1.23	South	0.6675	0.6675	0.6325
74	Verizon	CE	3376	Installation Complete	7/2/2020	632 Lafayette Ave. SE	North	0.6166	0.1195	0.0914	South	0.0773	0.0843	0.0422	North	3.083	0.5975	0.457	South	0.3865	0.4215	0.211
75	AT&T	Grand Rapids	915	Installation Complete	4/12/2021	301 Lafayette Ave. SE	North	0.0632	0	0.007	South	0.0773	0	0.0351	North	0.316	0	0.035	South	0.3865	0	0.1755
76	AT&T	Grand Rapids	919	Installation Complete	9/3/2019	332 Barclay Ave. NE	North	0.1276	0.1054	0.0709	South	0.1265	0.1124	0.1195	North	0.638	0.527	0.3545	South	0.6325	0.562	0.5975
77	AT&T	Grand Rapids	902	Installation Complete	10/23/2018	200 Cherry St. SE	East	0.0773	0.0843	0.0562	West	0.0632	0.1827	0.0773	East	0.3865	0.4215	0.281	West	0.316	0.9135	0.3865
78	AT&T	CE	2536	Installation Complete		245 Jefferson Ave. SE	North	0.1124	0.1687	0.2249	South	0.2249	0.1898	0.2038	North	0.562	0.8435	1.1245	South	1.1245	0.949	1.019
79	ACD	Grand Rapids	474	Installation Complete	9/1/2017	2 Bartlett St. SW	North	0.0703	0.0422	0.0632	West	0.0914	0.0492	0.0562	North	0.3515	0.211	0.316	West	0.457	0.246	0.281
80	ACD	Grand Rapids	894	Installation Complete	5/29/2019	19 Fountain St. NW	North	0.1054	0.1335	0.0914	South	0.1757	0.2249	0.1968	North	0.527	0.6675	0.457	South	0.8785	1.1245	0.984
81	ACD	Grand Rapids	469	Installation Complete	5/24/2019	130 Ottawa Ave. NW	North	0.0141	0	0.0211	South	0.4254	0.0703	0.007	North	0.0705	0	0.1055	South	2.127	0.3515	0.035
82	Verizon	CE	3781	Installation Complete	6/9/2020	563 Monroe Ave. NW	North	0.0562	0.0562	0.0703	South	0.0492	0.0351	0.0632	North	0.281	0.281	0.3515	South	0.246	0.1755	0.316
83	AT&T	City	14740	Installation Complete	6/15/2022	135 Monroe Center	East	0.0632	0.1476	0.0984	West	0.1054	0.0984	0.0984	East	0.316	0.738	0.492	West	0.527	0.492	0.492
84	ACD	Grand Rapids	895	Installation Complete	5/29/2019	49 Ionia Ave. NW	East	0.0914	0.0984	0.0773	West	0.0492	0.0422	0.0632	East	0.457	0.492	0.3865	West	0.246	0.211	0.316
85	AT&T	Grand Rapids	913	Installation Complete	8/31/2020	176 Campau Ave. NW	East	0.0984	0.0492	0.0492	South	0	0	0	East	0.492	0.246	0.246	South	0	0	0
86	AT&T	Grand Rapids	921	Installation Complete	9/3/2019	309 Fulton St. W	East	0.3545	0.2899	0.1898	West	0.467	0.723	0.4679	East	1.7725	1.4495	0.949	West	2.335	3.615	2.3395
87	ACD	Grand Rapids	890	Installation Complete	5/24/2019	236 Grandville Ave. SW	North	0.2692	0.1476	0.1476	South	0.1546	0.1985	0.3687	North	1.346	0.738	0.738	South	0.773	0.9925	1.8435
88	Verizon	CE	3783	Installation Complete	6/19/2020	445 Grandville Ave. SW	North	0.3609	0.3248	0.615	South	1.459	0.4527	0.3324	North	1.8045	1.624	3.075	South	7.295	2.2635	1.662
89	Verizon	CE	3372	Installation Complete	7/2/2020	453 Pleasant St. SW	East	0.1617	0.1968	0.1827	West	0.8633	0.1827	0.1476	East	0.8085	0.984	0.9135	West	4.3165	0.9135	0.738
90	Verizon	CE	3788	Installation Complete	6/9/2020	506 Vries St. SW	North	0.0773	0.1335	0.1406	South	1.17	0.2978	0.0703	North	0.3865	0.6675	0.703	South	5.85	1.489	0.3515
91	Verizon	CE	3371	Installation Complete	6/9/2020	1802 Century Ave. SW	North	0.1195	0.0422	0.0843	South	0.156	0.1195	0.1406	North	0.5975	0.211	0.4215	South	0.78	0.5975	0.703
92	Verizon	CE	2971	Installation Complete	6/9/2020	2153 McKee Ave. SW	North	1.509	0.0984	0.1406	South	0.1687	0.1968	0.1827	North	7.545	0.492	0.703	South	0.8435	0.984	0.9135
93	Verizon	CE	8283	Installation Complete	9/25/2020	396 Cutler St. SW	East	0.1335	0.0773	0.1124	West	0.964	0.0562	0.0773	East	0.6675	0.3865	0.562	West	4.82	0.281	0.3865
94	Verizon	CE	4209	Installation Complete	6/9/2020	1845 Darwin Ave. SW	North	0.1195	0.0843	0.1968	South	0.1035	0.0984	0.0703	North	0.5975	0.4215	0.984	South	0.5175	0.492	0.3515
95	Verizon	CE	1336	Installation Complete	10/9/2020	158 Corinne SW	North	0.0422	0.0141	0.1054	South	0.1124	0.0843	0.0492	North	0.211	0.0705	0.527	South	0.562	0.4215	0.246
96	Verizon	CE	4204	Installation Complete	7/2/2020	221 Hall St. SW	East	0.0632	0.0492	0.0914	West	1.092	0.1124	0.0914	East	0.316	0.246	0.457	West	5.46	0.562	0.457
97	Verizon	CE	4202	Installation Complete	7/2/2020	112 Putnam St. SW	East	0.007	0.0843	0.1124	West	1.425	0.1335	0.0632	East	0.035	0.4215	0.562	West	7.125	0.6675	0.316

Summary of Measurements above as Percentage (%) of Maximum Permissible Exposure (MPE) for FCC Occupational Limits and Non-Occupational Limits												
<b>Max</b>	1.5090	0.8507	0.8930	3.0200	0.8082	0.4679	7.5450	4.2335	4.4650	15.1000	4.0410	2.3395
<b>Min</b>	0.0070	0.0000	0.0000	0.0000	0.0000	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Median</b>	0.1335	0.1265	0.1335	0.1476	0.1195	0.1265	0.6675	0.6325	0.6675	0.7380	0.5975	0.6325
<b>Average</b>	0.2645	0.1544	0.1483	0.2969	0.1502	0.1432	1.3224	0.7721	0.7414	1.4844	0.7511	0.7160

- Notes:
- For a complete description of testing procedure, parameters and results- see Full Report
  - All values presented as a percentage of 10watt/mete squaredd for non-occupational maxium exposure
  - Directio refers to measurement parallel to street direction
  - Measurement at 6 feet above ground represents pedestrian height
  - Above measurements are for active sites as of 5-20-24

Comparison of Maximum Permissible Limits (MPE) vs. Maximum Actual Measurements								
<b>FCC Limits for MPE vs. Actual Measurements</b>				<b>Canada Limits for MPE vs. Actual Measurements</b>				
Occup. Permissible Limit	5	mW/Cm2	50	W/M2	5	mW/Cm2	50	W/M2
Gen. Pub. Permissible Limit	1	mW/Cm2	10	W/M2	1	mW/Cm2	10	W/M2
Max Measurement at 6 Ft Above Ground	0.1510	mW/Cm2	1.51	W/M2	0.1510	mW/Cm2	1.51	W/M2

Measurement Parameters		
Instrument: Narda NBM-550-S with FCC probe #EA5091		
Measurements made at 6 feet above ground at 10 feet, 50 feet and 100 feet from the pole/cell base		
Measurements are broadband base and account for radio frequencies ranging from 300kHz to 50GHz		
Maximum Permissible Exposure (MPE) Power Densities in Watts/Meter Squared		
	FCC (1.5-100GHz)	Canada (6-150GHz)
Occupational	50	50
General Public	10	10

**Attachment #3 - Summary of Radio Frequency (RF) Power Density Testing - Non- Occupational (2021 Tests Compared to 2024 Retests)**

City of Grand Rapids/ Small and Micro Cell Radio Frequency (RF) PowerDensity Testing -Non- Occupational

Count							Results as Percentage (%) of Maximum Permissible Exposure (MPE) for FCC Non-Occupational Limits (2021)						Results as Percentage (%) of Maximum Permissible Exposure (MPE) for FCC Non-Occupational Limits (2024)									
	Small Cell	Pole Owner	Site ID	Site Status	Approved Date	Address	Measurements at 6 feet above Ground						Measurements at 6 feet above Ground									
							Direction	Distance from Pole			Direction	Distance from Pole			Direction	Distance from Pole			Direction	Distance from Pole		
								10 ft.	50 ft.	100 ft.		10 ft.	50 ft.	100 ft.		10 ft.	50 ft.	100 ft.		10 ft.	50 ft.	100 ft.
1	Verizon	Verizon	8690	Installation Complete	12/16/2020	3000 Alger St. SE	East	0.2	0.4285	0.3995	West	0.4855	0.314	0.457	East	0.8785	1.23	1.476	West	2.511	0.492	0.562
2	Verizon	CE	4214	Installation Complete	6/24/2020	3073 Burton St. SE	East	0.4025	0.2905	0.4695	West	0.5365	0.626	0.4915	East	1.8075	1.982	0.8085	West	0.9135	0.949	0.984
3	Verizon	CE	5013	Installation Complete	6/24/2020	1753 Morningside Dr. SE	North	0.4025	0.514	0.3575	South	0.827	0.626	0.6035	North	0.8435	1.0895	1.2655	South	1.195	1.2655	1.019
4	Verizon	CE	4213	Installation Complete	6/9/2020	2927 Hampshire Blvd. SE	East	0.313	0.335	0.201	West	0.134	0.2925	0.439	East	0.281	0.562	0.9135	West	0.342	0.211	0.3515
5	Verizon	CE	4192	Installation Complete	6/9/2020	2917 Burton St. SE	East	0.322	0.4025	0.559	West	0.5365	0.6035	0.6705	East	0.457	0.457	0.8085	West	0.9135	0.949	0.8435
6	Verizon	CE	4191	Installation Complete	7/2/2020	1848 Rosemont Ave. SE	East	0.1425	0.1425	0.314	West	0.057	0.2	0.1425	East	1.382	0.773	1.23	West	1.0545	0.984	1.019
7	Verizon	CE	6660	Installation Complete	12/23/2020	2544 Ardmore St. SE	North	0.1715	0.2855	0.571	South	0.3425	0.4855	0.314	East	0.9335	0.457	0.8085	West	0.738	0.5975	0.949
8	Verizon	Verizon	8686	Installation Complete	12/16/2020	2356 Burton St. SE	East	0.0285	0.4285	0.2855	West	0.2285	0.2	0.114	East	0.281	0.562	0.492	West	0.316	0.3865	0.0705
9	Verizon	CE	4211	Installation Complete	6/24/2020	2340 Onekama Dr. SE	East	0.38	0.3265	0.4915	West	0.268	1.4915	1.38	East	5.53	0.4215	0.3865	West	0.492	0.527	0.246
10	Verizon	CE	6666	Installation Complete	12/23/2020	1834 Newton Ave. SE	North	0.514	0.5425	0.5995	South	0.514	0.514	0.3995	North	0.527	0.1755	0.3865	South	0.1055	0.7025	0.8085
11	Verizon	Verizon	8683	Installation Complete	12/16/2020	1601 Chamberlain Ave. SE	North	0.2	0.2855	0.2285	South	0.114	0.314	0.114	North	0.5975	0.6325	0.3865	South	11.305	0.738	0.8085
12	Verizon	CE	2984	Installation Complete	7/2/2020	1740 Burton St. SE	East	0.1565	0.268	0.1565	West	0.067	0.2235	0.1115	East	0.6325	0.527	0.6675	West	0.4215	0.4215	0.3865
13	Verizon	CE	4189	Installation Complete	6/9/2020	1704 Boston St. SE	East	0.1565	0.201	0.1565	West	0.201	0.246	0.38	East	1.7725	0.773	0.6675	West	0.738	0.984	1.2655
14	Verizon	Verizon	9493	Installation Complete	12/16/2020	1601 Philadelphia Ave. SE	East	0.114	0.0855	0.2	West	0.057	0.057	0.1425	West	2.056	1.5915	0.738	South	4.325	1.4175	1.169
15	Verizon	CE	2965	Installation Complete	6/9/2020	1640 Margaret Ave. SE	North	0.1465	0.878	0.117	South	0.205	0.468	0.556	North	0.527	4.2535	3.7555	South	1.347	0.492	1.342
16	Verizon	AT&T	10296	Installation Complete	12/23/2020	1448 Colorado Ave. SE	North	0.0855	0.2285	0.314	South	0.2285	0.571	0.514	North	0.236	0.3865	0.527	South	0.1405	0	0.211
17	Verizon	Verizon	7873	Installation Complete	12/16/2020	1400 Adams St. SE	East	0.1425	0.3425	0.1715	West	0.057	0.1425	0.3425	East	0.738	0.8435	0.6675	West	0.738	1.0545	0.773
18	Verizon	CE	2960	Installation Complete	6/9/2020	1404 Hall St. SE	East	0.257	0.2855	0.0855	West	0.114	0.1715	0.2855	East	0.562	0.457	0.457	West	0.316	0.3515	0.8435
19	Verizon	CE	5414	Installation Complete	6/25/2020	1541 Mackinaw Rd. SE	East	0.335	3.35	0.2905	West	0.4915	0.4245	0.447	East	0.0705	0.281	0.1055	West	0.1055	0.5975	0.6325
20	Verizon	AT&T	9091	Installation Complete	12/16/2020	844 Giddings Ave. SE	North	0.1425	0.4855	0.0855	South	0.2	0.314	0.514	North	2.623	0.949	0.8785	South	0.4215	0.562	0.4215
21	Verizon	CE	5818	Installation Complete	6/19/2020	646 Ethel Ave. SE	North	0.0295	3.5695	0.0945	South	0.2925	0.117	0.1115	North	0.5975	0.492	0.8085	South	0.5975	0.6335	0.8435
22	Verizon	CE	3383	Installation Complete	6/19/2020	553 Diddings Ave. SE	North	0.8485	0.3805	0.878	South	1.2875	1.112	1.1705	North	1.1245	0.8085	1.16	South	0.492	0.562	1.0545
23	AT&T	Grand Rapids	918	Installation Complete	9/13/2019	1516 Wealthy St. SE	East	0.1115	0.268	0.335	West	0.246	0.1565	0.2925	East	1.63	0.527	0.703	West	0.492	0.457	0.281
24	ACD	Grand Rapids	889	Installation Complete	5/24/2019	1143 Wealthy St. SE	East	0.5365	1.5125	1.855	West	0.4915	0.5365	0.4915	East	3.83	0.246	0.527	West	0.3515	0.3515	0.949
25	Verizon	CE	9092	Installation Complete	12/16/2020	664 Wealthy St. SE	East	0.1715	0.6565	0.3425	West	0.371	0.371	0.5425	East	4.43	0.492	0.5975	West	0.738	0.6675	0.4215
26	Verizon	CE	2969	Installation Complete	9/30/2020	601 Wealthy St SE	East	3.476	0.8225	0.972	West	1.009	0.628	0.6855	East	0.562	0.8785	1.23	West	1.3355	1.3005	1.441
27	Verizon	CE	3784	Installation Complete	7/2/2020	921 Sherman St. SE	East	0.827	0.6035	0.581	West	0.514	0.4245	0.7155	East	2.694	0.8435	0.773	West	0.3865	0.8085	0.5975
28	Verizon	CE	3373	Installation Complete	3/2/2021	602 Union Ave. SE	North	0.1425	0.3425	0.2855	South	0.1425	0.2	0.257	North	2.834	0.738	0.9135	South	1.1245	1.3705	1.406
29	Verizon	CE	4187	Installation Complete	6/19/2020	725 Union Ave. SE	North	0.5365	0.7375	0.827	South	0.939	0.872	0.8495	North	0.492	0.281	0.738	South	0.6325	0.703	0.4215
30	Verizon	Unk	1343	Installation Complete	9/25/2020	921 Bates St SE	East	2.4295	0.628	0.7425	West	0.778	0.6565	0.5995	East	1.0895	1.16	0.0705	West	0.4215	0.527	0.1055
31	Verizon	CE	4201	Installation Complete	7/2/2020	1032 Worden St. SE	East	0.457	0.257	0.257	West	2	0.3425	0.4285	East	2.765	0.211	0.281	West	0.3865	0.527	0.4215
32	AT&T	CE	2537	Installation Complete		1023 Alexander St. SE	East	0.0865	0.26	0.1735	West	0.26	0.1445	0.1735	East	0.527	3.8165	4.465	West	15.1	4.041	1.8435
33	Verizon	CE	1345	Installation Complete	9/25/2020	939 Kalamazoo Ave.	North	0.6855	2.2425	1.1995	South	0.4285	0.7995	0.6855	North	5.38	3.967	0.709	South	4.183	2.196	1.914
34	Verizon	Verizon	8692	Installation Complete	12/16/2020	803 Watkins St. SE	East	0.257	0.1715	0.257	West	0.1425	0.257	0.457	East	1.593	0.9215	1.8065	West	4.464	0.703	0.562
35	Verizon	CE	1340	Installation Complete	9/25/2020	1100 Kalamazoo Ave. SE	North	0.971	0.457	0.257	South	0.2	0.2855	0.2285	North	1.624	3.324	1.7335	South	0.949	0.703	0.8785
36	Verizon	AT&T	5017	Installation Complete	12/23/2020	1125 Cooper Ave. SE	North	0.207	0.3995	0.514	South	0.0855	0.257	0.828	North	0.6325	0.949	0.773	South	0.738	0.6325	0.6675
37	Verizon	AT&T	7877	Installation Complete	12/23/2020	1208 Kalamazoo Ave. SE	East	0.7995	0.9425	0.828	West	1.1135	0.7425	0.9425	North	0.1055	0.5975	0.5975	South	0.703	0.562	0.6325
38	Verizon	CE	4205	Installation Complete	6/9/2020	928 Adams St. SE	East	0.447	0.4025	0.38	West	0.2905	0.2235	0.268	East	1.453	0.5975	0.703	West	0.984	0.984	0.9135
39	Verizon	CE	4207	Installation Complete	6/25/2020	1420 Eastern Ave. SE	North	0.335	0.4915	0.3575	South	0.38	0.4695	0.4245	North	0.773	0.3865	0.527	South	3.1175	0.8085	0.703
40	Verizon	CE	3789	Installation Complete	6/22/2020	616 Oakdale St. SE	East	0.0895	0.2905	0.313	West	0.0895	0.1115	0.067	East	1.7015	0.78	0.8505	West	0.949	0.8785	1.0545
41	Verizon	CE	10294	Installation Complete	12/23/2020	1450 Marshall Ave. SE	North	0.2	0.2	0.2285	South	0.314	0.6565	0.628	North	1.3795	0.6675	0.6325	South	0.8435	0.527	0.8285
42	Verizon	Verizon	9491	Installation Complete	12/16/2020	1026 Burton St. SE	East	0.314	0.2285	0.0855	West	0.371	0.114	0.314	East	0.492	0.8785	0.8085	West	1.804	1.23	1.1245
43	Verizon	Verizon	7477	Installation Complete	12/2/2020	1251 Edna St. SE	East	0.2	0.057	0.314	West	0.7425	0.514	0.371	East	0.703	0.8785	0.8085	West	1.8045	0.3865	0.6325
44	Verizon	CE	2974	Installation Complete	6/9/2020	2364 Nelson Ave. SE	East	0.76	0.7155	0.8045	West	0.335	0.5365	0.5365	North	0.562	0.8085	0.984	South	0.773	0.8785	0.738
45	Verizon	AT&T	3779	Installation Complete	6/19/2020	2490 Eastern Ave. SE	North	0.2235	0.335	0.514	South	0.6035	0.648	0.7375	North	0.246	0.3515	0.281	South	0.9535	0.281	0.492
46	Verizon	Verizon	9492	Installation Complete	12/16/2020	902 S Othillia St. SE	East	0.0855	0.257	0.3995	West	0.457	0.6855	0.6855	East	1.985	0.562	0.457	West	0.4215	0.5975	0.492
47	Verizon	AT&T	3774	Installation Complete	6/9/2020	1020 Merrifield St. SE	East	0.246	0.2905	0.4245	West	0.268	0.3575	0.313	East	0.4215	0.035	0.457	West	0.492	0.6325	0.6675
48	Verizon	CE	3379	Installation Complete	6/9/2020	929 Ardmore St. SE	East	0.4025	0.313	0.4245	West	0.514	0.335	0.4025	East	0.492	0.3865	0.457	West	0.492	0.738	0.457
49	Verizon	CE	1339	Installation Complete	9/28/2020	873 Griggs St. SE	East	0.514	0.371	0.2285	West	0.1715	0.314	0.1715	East	0.3865	0.527	0.3515	West	0.4215	0.562	0.703
50	Verizon	CE	1338	Installation Complete	10/9/2020	1936 Eastern Ave. SE	North	0.057	0.4855	0.2	South	0.1495	0.2	0.2615	North	1.6305	0.6675	0.6325	South	0.9135	0.6675	0.4215
51	Verizon	CE	10295	Installation Complete	12/23/2020	840 Burton St. SE	East	0.486	0.1425	0.1715	West	0.114	0.257	0.2285	East	1.8425	0.949	0.984	West	1.3355	1.406	1.0895
52	Verizon	CE	1328	Installation Complete	9/30/2020	706 Winchell	East	0.5995	0.571	0.371	West	0.1715	0.4285	0.6565	East	3.078	0.773	0.773	West	0.492	0.773	0.5975
53	Verizon	CE	3771	Installation Complete	6/30/2020	603 Burton St. SE	East	0.447	0.5365	0.4695	West	0.38	0.447	0.4915	East	0.0705	0	0	West	1.405	0	0.281
54	Verizon	Verizon	6657	Installation Complete	12/16/2020	1747 College Ave. SE	North	0.1425	0.0285	1.12	South	0.2	0.0285	0.057	North	0.5975	0.4215	0.6675	South	0.527	0.5975	0.8435
55	Verizon	Verizon	7874	Installation Complete	12/16/20																	

65	AT&T	Grand Rapids	902	Installation Complete	10/23/2018	200 Cherry St. SE	East	0.2235	0.2925	0.819	West	2.0775	0.907	1.58	East	0.3865	0.4215	0.281	West	0.316	0.9135	0.3865
66	AT&T	CE	2536	Installation Complete		245 Jefferson Ave. SE	East	0.231	0.5775	0.722	West	0.3755	0.3465	0.3175	North	0.562	0.8435	1.1245	South	1.1245	0.949	1.019
67	ACD	Grand Rapids	474	Installation Complete	9/1/2017	2 Bartlett St. SW	East	0.313	2.253	0.313	West	1.5215	0.4245	0.4025	North	0.3515	0.211	0.316	West	0.457	0.246	0.281
68	ACD	Grand Rapids	894	Installation Complete	5/29/2019	19 Fountain St. NW	North	0.1735	0.4335	0.3175	South	0.1735	0.1155	0.231	North	0.527	0.6675	0.457	South	0.8785	1.1245	0.984
69	ACD	Grand Rapids	469	Installation Complete	5/24/2019	130 Ottawa Ave. NW	North	0.26	0.202	0.0675	South	0.813	1.084	1.2195	North	0.0705	0	0.1055	South	2.127	0.3515	0.035
70	Verizon	CE	3781	Installation Complete	6/9/2020	563 Monroe Ave. NW	North	0.134	2.01	0.559	South	0.1565	0.313	0.179	North	0.281	0.281	0.3515	South	0.246	0.1755	0.316
71	AT&T	City	14740	Installation Complete	6/15/2022	135 Monroe Center	East	0.179	0.313	0.313	West	0.38	0.581	0.447	East	0.316	0.738	0.492	West	0.527	0.492	0.492
72	ACD	Grand Rapids	895	Installation Complete	5/29/2019	49 Ionia Ave. NW	North	1.375	2.2235	0.313	South	1.346	0.8485	1.492	East	0.457	0.492	0.3865	West	0.246	0.211	0.316
73	AT&T	Grand Rapids	913	Installation Complete	8/31/2020	176 Campaue Ave. NW	North	1.7875	1.112	0.556	South	4.4475	0.995	1.463	East	0.492	0.246	0.246	South	0	0	0
74	AT&T	Grand Rapids	921	Installation Complete	9/3/2019	309 Fulton St. W	East	1.258	1.6385	0.995	West	0.995	0.819	0.878	East	1.7725	1.4495	0.949	West	2.335	3.615	2.3395
75	ACD	Grand Rapids	890	Installation Complete	5/24/2019	236 Grandville Ave. SW	North	0.702	0.673	0.6435	South	0.351	0.4245	0.38	North	1.346	0.738	0.738	South	0.773	0.9925	1.8435
76	Verizon	CE	3783	Installation Complete	6/19/2020	445 Grandville Ave. SW	North	0.38	0.5625	0.559	South	0.4975	0.556	0.6435	North	1.8045	1.624	3.075	South	7.295	2.2635	1.662
77	Verizon	CE	3372	Installation Complete	7/2/2020	453 Pleasant St. SW	East	0.514	0.4025	0.4695	West	0.514	0.648	0.562	East	0.8085	0.984	0.9135	West	4.3165	0.9135	0.738
78	Verizon	CE	3788	Installation Complete	6/9/2020	506 Vries St. SW	North	0.6035	0.894	0.626	South	0.6035	0.648	0.581	North	0.3865	0.6675	0.703	South	5.85	1.489	0.3515
79	Verizon	CE	3371	Installation Complete	6/9/2020	1802 Century Ave. SW	North	0.3095	0.268	0.313	South	0.313	0.5055	0.554	North	0.5975	0.211	0.4215	South	0.78	0.5975	0.703
80	Verizon	CE	2971	Installation Complete	6/9/2020	2153 McKee Ave. SW	North	0.313	0.6035	0.6705	South	0.514	0.8495	0.76	North	7.545	0.492	0.703	South	0.8435	0.984	0.9135
81	Verizon	CE	4209	Installation Complete	6/9/2020	1845 Darwin Ave. SW	North	0.201	0.246	0.4245	South	0.2235	0.268	0.201	North	0.5975	0.4215	0.984	South	0.5175	0.492	0.3515
82	Verizon	CE	1336	Installation Complete	10/9/2020	158 Corinne SW	North	0.187	0.71	0.2285	South	0.457	0.5995	0.628	North	0.211	0.0705	0.527	South	0.562	0.4215	0.246
83	Verizon	CE	4204	Installation Complete	7/2/2020	221 Hall St. SW	East	0.1115	0.4915	0.313	West	0.1115	0.1565	0.201	East	0.316	0.246	0.457	West	5.46	0.562	0.457
84	Verizon	CE	4202	Installation Complete	7/2/2020	112 Putnam St. SW	East	0.6705	0.4025	0.38	West	0.648	1.9395	0.648	East	0.035	0.4215	0.562	West	7.125	0.6675	0.316

Radio Frequency (RF) Power												
Max	3.4760	3.5695	1.8550	4.4475	1.9395	1.5800	7.5450	4.2535	4.4650	15.1000	4.0410	2.3395
Min	0.0285	0.0285	0.0285	0.0285	0.0285	0.0570	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000
Median	0.2640	0.3900	0.3263	0.3468	0.4245	0.4430	0.6853	0.6150	0.6675	0.7380	0.6325	0.6675
Average	0.4355	0.5859	0.4266	0.4894	0.4560	0.4869	1.4345	0.8038	0.7818	1.5097	0.7728	0.7260