


Exhibit 6

SITE ADDRESS
1619 W SUNNYSIDE AVE
CHICAGO, IL 60640
(ALLEY EAST OF N PAULINA ST)

[illegible]

DIG ALERT	
	
CALL DIGGER FOR UNDERGROUND UTILITIES PRIOR TO DIGGING 811 OR (312) 744-7000	
PROJECT DESCRIPTION	
END USER PROPOSES TO INSTALL EQUIPMENT ON AN EXISTING WOOD UTILITY POLE WITHIN THE EXISTING PUBLIC RIGHT OF WAY.	
CODES	
2015 INTERNATIONAL BUILDING CODE 2017 NATIONAL ELECTRICAL SAFETY CODE	
DRAWING INDEX	
SHEET NO.	SHEET TITLE
CHP30424-01	NODE COVER SHEET
CHP30424-02	EXISTING POLE ELEVATIONS
CHP30424-03	PROPOSED POLE ELEVATIONS
CHP30424-04	EQUIPMENT DETAILS
CHP30424-05	EQUIPMENT DETAILS
CHP30424-06	EQUIPMENT DETAILS
CHP30424-07	RF SCHEMATIC
CHP30424-08	ELECTRICAL DETAILS
ARCHITECT/ENGINEER	
KCM ENGINEERING, LLC 1000 WEST WILMOT AVE. 600 CHICAGO, IL 60601 CONTACT: LEE JACOBSON PROJECT MANAGER TEL: (312) 765-2188	

<p>PLAN VIEW — INTERSECTION</p>		<p>POLE ELEVATION — LOOKING SOUTH</p>
<p>LOCATION MAP</p>		<p>POLE ELEVATION — LOOKING NORTH</p>

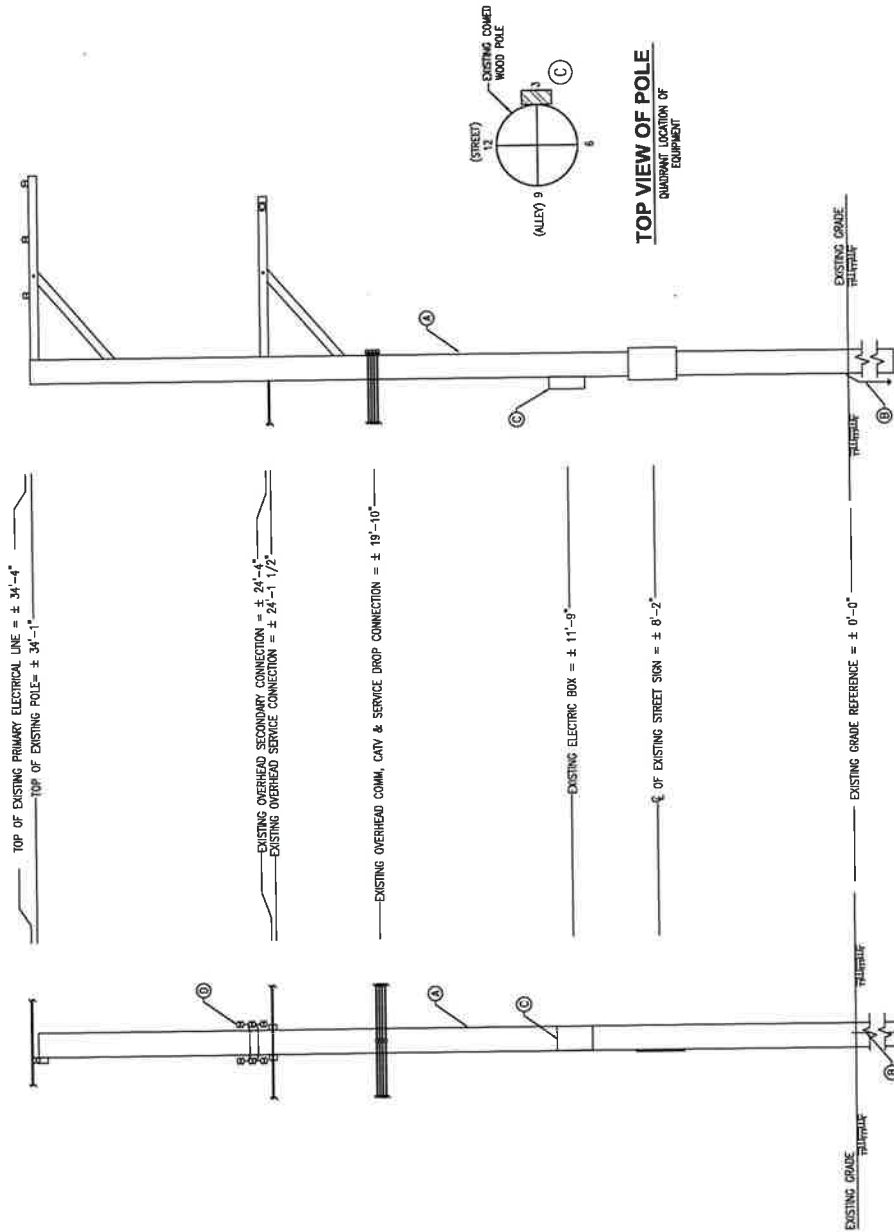
GENERAL NOTES	
<p>THE FACILITY IS UNHABITED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL BE THE RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SOILS OR SOLIDS WILL BE REMOVED. DISPOSAL IS REQUIRED AND NO COMMERCIAL SERVICE IS PROPOSED.</p>	
SITE INFORMATION	
APPLICANT:	CHOWIN DIGEST NG CORP., LLC
CHOWIN ADDRESS:	947 PARKVIEW BOULEVARD LOMBARD, ILLINOIS 60148 (630) 967-1102
UTILITIES:	COMED COMED CONTRACT # 100000000000000000 ACT # 08450-44413
SITE ID:	CPH000024
SQ:	469413
HAB ID:	C1217689
PROPERTY OWNER:	PUBLIC RIGHT OF WAY
SITE ADDRESS:	1610 W. CHAUNCEY AVE CHICAGO, IL 60640
COUNTY:	COOK
JURISDICTION:	CHICAGO
LATITUDE:	41.983109
LONGITUDE:	-87.670045
LAY/LONG DATUM:	NAD 83
GROUND ELEV. (FT. AGLS):	4599
VERTICAL DATUM:	NAD 86
IMPORTANT NOTICE	
<p>THE EXISTING CONDITIONS REPRESENTED HEREIN ARE BASED ON VISUAL OBSERVATIONS AND INFORMATION PROVIDED BY OTHERS. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. ANY CONDITIONS OR DISCREPANCIES PRIOR TO CONSTRUCTION.</p>	

PUBLIC VERSION

GENERAL CONTRACTOR NOTES:
1. EXISTING EQUIPMENT TO REMAIN UNLESS NOTED OTHERWISE.

EQUIPMENT KEY

- (A) EXISTING CLASS 4 COMED WOOD POLE
- (B) EXISTING GROUND ROD AND #6 CU GROUND CONDUCTOR
- (C) EXISTING ELECTRIC BOX, TO REMAIN
- (D) EXISTING BUSBAR, TO BE REMOVED



EXISTING POLE ELEVATIONS

SCALE: NOT TO SCALE

1



PROJECT NO. 11-00157

NO.	DATE	REVISIONS	BY
1	11/11/19	1	CHP
2	11/11/19	2	CHP
3	11/11/19	3	CHP
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100	11/11/19	100	CHP



CH21765B
4801 N RAVENSWOOD AVE
CHICAGO, IL 60640

DESIGNED BY: JMS
PROJECT NO: 11-00157
REVISION NO: 1
APPROVED BY: JMS
SHEET NAME: EXISTING POLE ELEVATIONS

CHP30424-02

CHP30424-02

GENERAL CONSTRUCTION NOTES:
1. STRUCTURE OF THIS POLE WITH NEW EQUIPMENT HAS BEEN EVALUATED TO VERIFY THAT THIS POLE HAS THE CAPACITY TO ADEQUATELY SUPPORT THE EQUIPMENT.

TOP OF NEW ANTENNA = $\pm 41'-1"$
 \pm OF PROPOSED ANTENNA = $\pm 40'-1"$

TOP OF EXISTING PRIMARY ELECTRICAL LINE = $\pm 34'-4"$
 TOP OF EXISTING POLE = $\pm 34'-1"$

EXISTING OVERHEAD SECONDARY CONNECTION = $\pm 24'-1"$
 EXISTING OVERHEAD SERVICE CONNECTION = $\pm 24'-1 1/2"$

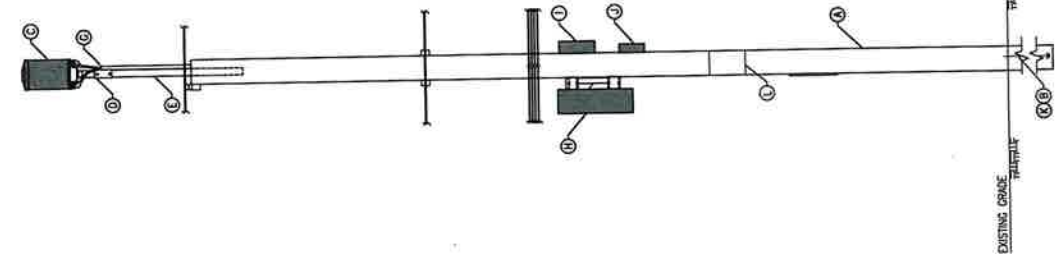
EXISTING OVERHEAD COMA, CATV & SERVICE DROP CONNECTION = $\pm 19'-10"$
 TOP OF PROPOSED SHROUD = $\pm 18'-10"$
 TOP OF PROPOSED FIBER DIST PANEL = $\pm 18'-9"$

BOTTOM OF FIBER DIST PANEL = $\pm 17'-3"$
 TOP OF PROPOSED AC LOAD PANEL = $\pm 15'-3"$
 BOTTOM OF PROPOSED SHROUD = $\pm 15'-8 1/2"$
 BOTTOM OF AC LOAD PANEL = $\pm 15'-2 1/2"$

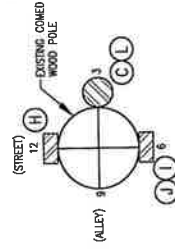
\pm OF EXISTING ELECTRIC BOX = $\pm 11'-9"$

\pm OF EXISTING STREET SIGN = $\pm 8'-2"$

EXISTING GRADE REFERENCE = $\pm 0'-0"$



LOOKING AT 9:00 (EAST)



TOP VIEW OF POLE
QUADRANT LOCATION OF EQUIPMENT

NOTE:
CONTRACTOR SHALL ONLY INSTALL SECOND GROUND ROD AS SHOWN IF THE EXISTING GROUND ROD IS NOT PRESENT OR IT IS DEEMED NECESSARY PER MANY TEST RESULTS BY CROWN.

LOOKING AT 12:00 (SOUTH)

EQUIPMENT KEY

- (A) EXISTING CLASS 4 COMED WOOD POLE
 (B) EXISTING GROUND ROD AND #6 CU GROUND CONDUCTOR
 (C) AMPHENOL PSEUDO OMNI CANISTER ANTENNA
 24.07114" (HOMAX) - 35 LBS.
 VOLUME = 2.3 CU. FT.
 OR
 CAUTIONICS OUTDOOR PSEUDO OMNI CANISTER ANTENNA
 MODEL EXTENT P6480,
 24.7"x10.0" (HOMAX) - 19 LBS.
 VOLUME = 1.12 CU. FT.
 (D) NOKIA 2870 POLE EXTENSION MOUNT
 MODEL 102-2016-5 REV D OR REV E
 15 LBS
 (9 LBS W/ ADAPTER REMOVED FOR CAUTIONICS ANTENNA)
 (E) 4/4 COMED WOOD POLE TOP EXTENSION 3.5X3.5"x
 LENGTH AS REQUIRED W/ CHAMFERED TOP W/ BOLTS -
 21 LBS
 (F) PROPOSED U-GUARD FOR #2 COVERED
 COPPER GROUND WIRE
 (G) PROPOSED TOP OF THE U-GUARD COVERING THE METAL
 SHEATHED COMA CABLES, BOTTOM OF ANTENNA BRACKET,
 AND BOTTOM OF THE U-GUARD COVERING THE METAL SHEATHED
 ABOVE THE SUPPLY CONDUCTORS
 (H) NOKIA "3 UNIT FACE OUT" SMALL CELL SITE SOLUTION
 SHROUD W/ BOLTS
 37.4"x12.5"x12" (HMM) - 100 LBS
 AREA OF DISPLACEMENT = 136.5 SQ. IN.
 VOLUME = 5.520.3 CU. IN.
 (I) PROPOSED CHARLES FIBER INTERCONNECT TERMINALS
 (CFTI-C) MOUNTED W/ BOLTS
 18"x18"x4" (HMM) - 15.0 LBS
 AREA OF DISPLACEMENT = 187.1 SQ. IN.
 VOLUME = 194.00 CU. IN.
 (J) PROPOSED LOAD CENTER PART #0812L10099
 W/ BOLTS, 12.65"x8.85"x2.27" (HMM) - 9.08 LBS
 AREA OF DISPLACEMENT = 83.43 SQ. IN.
 VOLUME = 473.66 CU. IN.
 (K) NEW 5/8" x 8' LONG COPPER-CLAD STEEL ROD
 BURRED 3'-4" BELOW GRADE & TIED TOGETHER
 W/ #6 AWC VERTICAL GROUND ROSS (VGR) W/ #6 AWC
 TIED TO EXISTING GROUND RODS. ALL RODS TO BE
 EQUIPPED ON POLE USE INTERFERABLE COMPRESSION
 CLAMPS TO MOUNT VGR TO POLE & GROUND KITS ON
 CONICAL CABLES.
 (L) EXISTING ELECTRIC BOX, TO REMAIN

TOTALS

TOTAL EQUIPMENT WEIGHT	195.08 LBS.
TOTAL VOLUME OF EQUIPMENT	6.89 CU. FT.



PROPOSED POLE ELEVATIONS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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CH21765B
4801 N RAVENSWOOD AVE
CHICAGO, IL 60640

PREPARED BY: CH2
PROJECT NO: 444
DESIGNED BY: JMS
APPROVED BY: JMS
DATE: 11/02/2019

PROPOSED POLE ELEVATIONS

CHPH30424-03

Amphenol
Antennas

10/11/2018 10:00 AM

Project: 10/11/2018 10:00 AM

Project: 10/11/2018 10:00 AM

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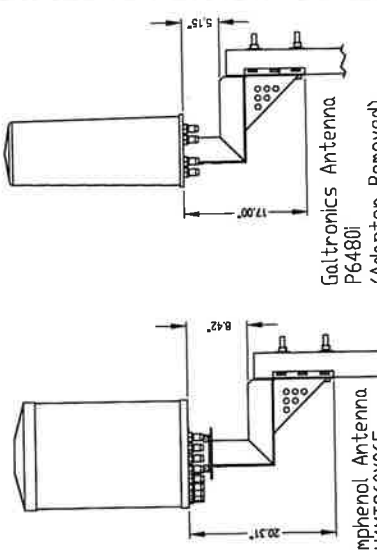
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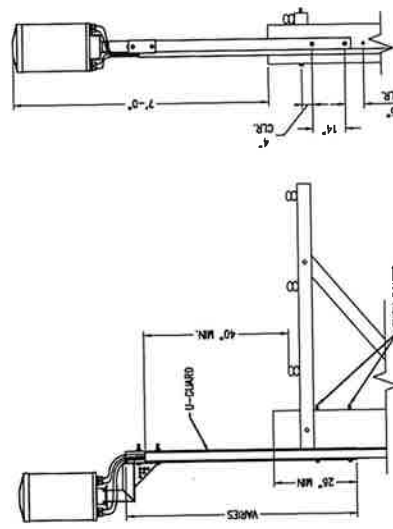
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ANTENNA MOUNT DETAIL



POLE EXTENSION DETAIL

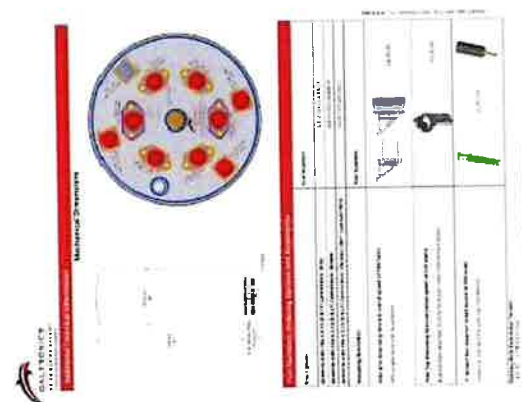
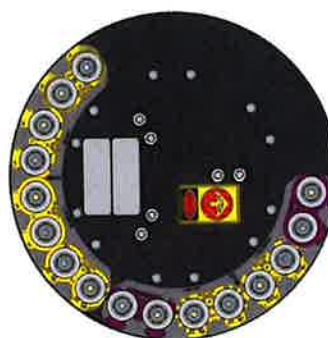
PROPOSED EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE

2

PROPOSED EQUIPMENT SPECIFICATIONS

SCALE: NOT TO SCALE



PREPARED BY
CROWN CASTLE

PREPARED BY
IKD&J ENGINEERING
35 E WASHINGTON AVE
CHICAGO, IL 60601

PREPARED BY
ORION ENGINEERS

PROJECT NO.
CH21765B

PROJECT NAME
4801 N RAVENWOOD AVE
CHICAGO, IL 60640

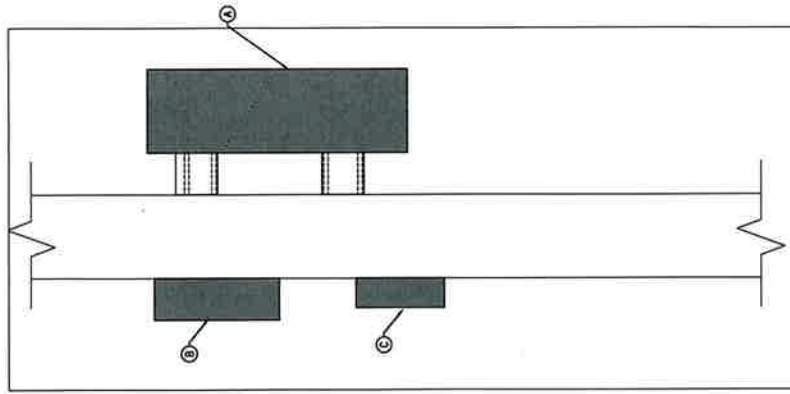
APPROVED BY
JUS

EQUIPMENT DETAILS

CH21765B
4801 N RAVENWOOD AVE
CHICAGO, IL 60640

CH21765B
4801 N RAVENWOOD AVE
CHICAGO, IL 60640

CH21765B
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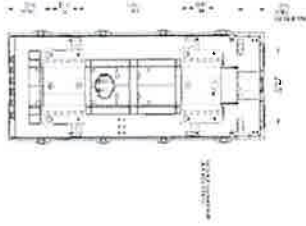
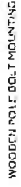


NOTE:
FOR EQUIPMENT LAYOUT SEE PROPOSED POLE ELEVATIONS SHEET.
LOCATION AND CONNECTION OF EQUIPMENT MAY VARY.

EQUIPMENT POLE MOUNT DETAIL

PROPOSED EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE



TOP VIEW



BOTTOM VIEW






- (A) NOKIA "3 UNIT FACE OUT" SMALL CELL SHROUD
37.4"±12.3"±12.0"± (HxWxD)

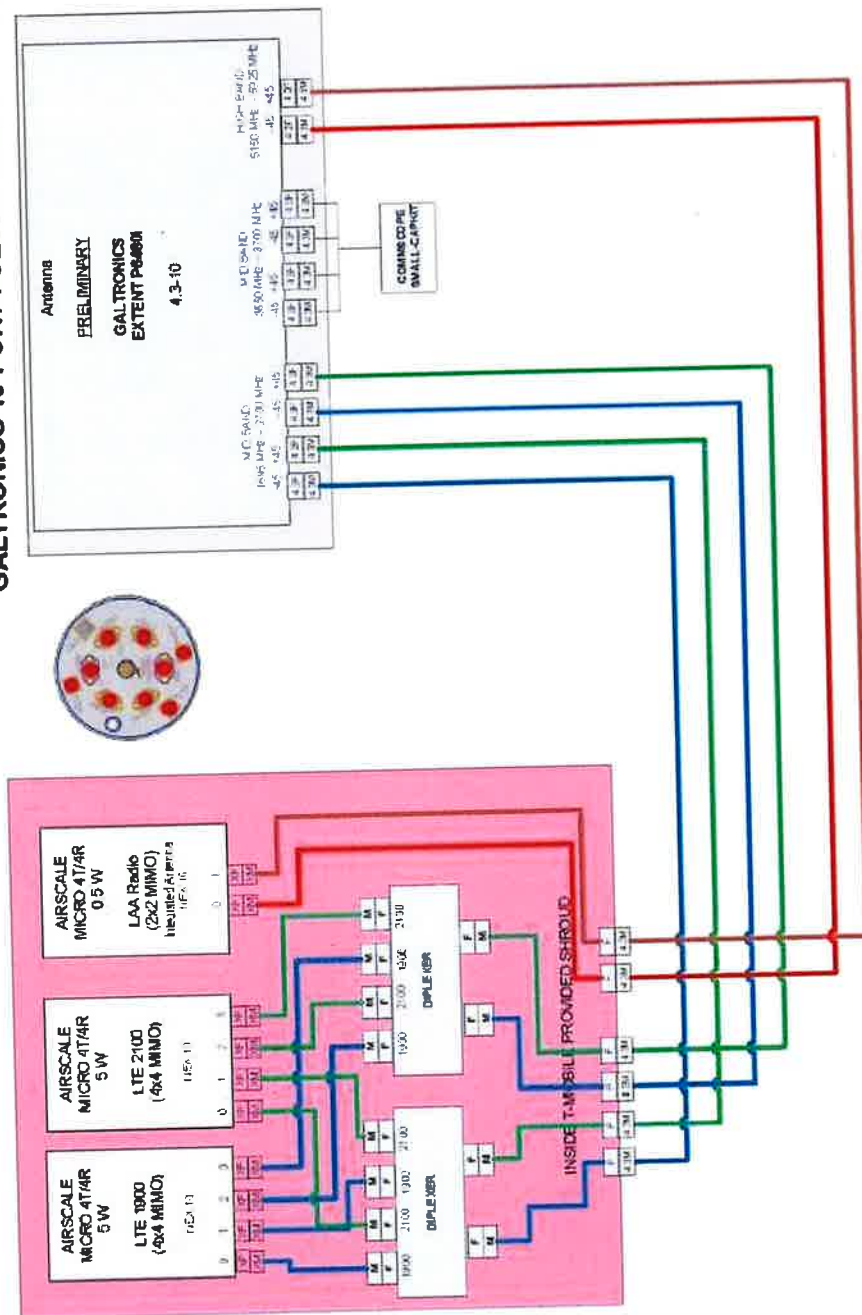


CFIT-C

- ⑧ CHARLES FIBER INTERCONNECT TERMINALS
18.0" x 18.0" x 6.0" (HxWxD)

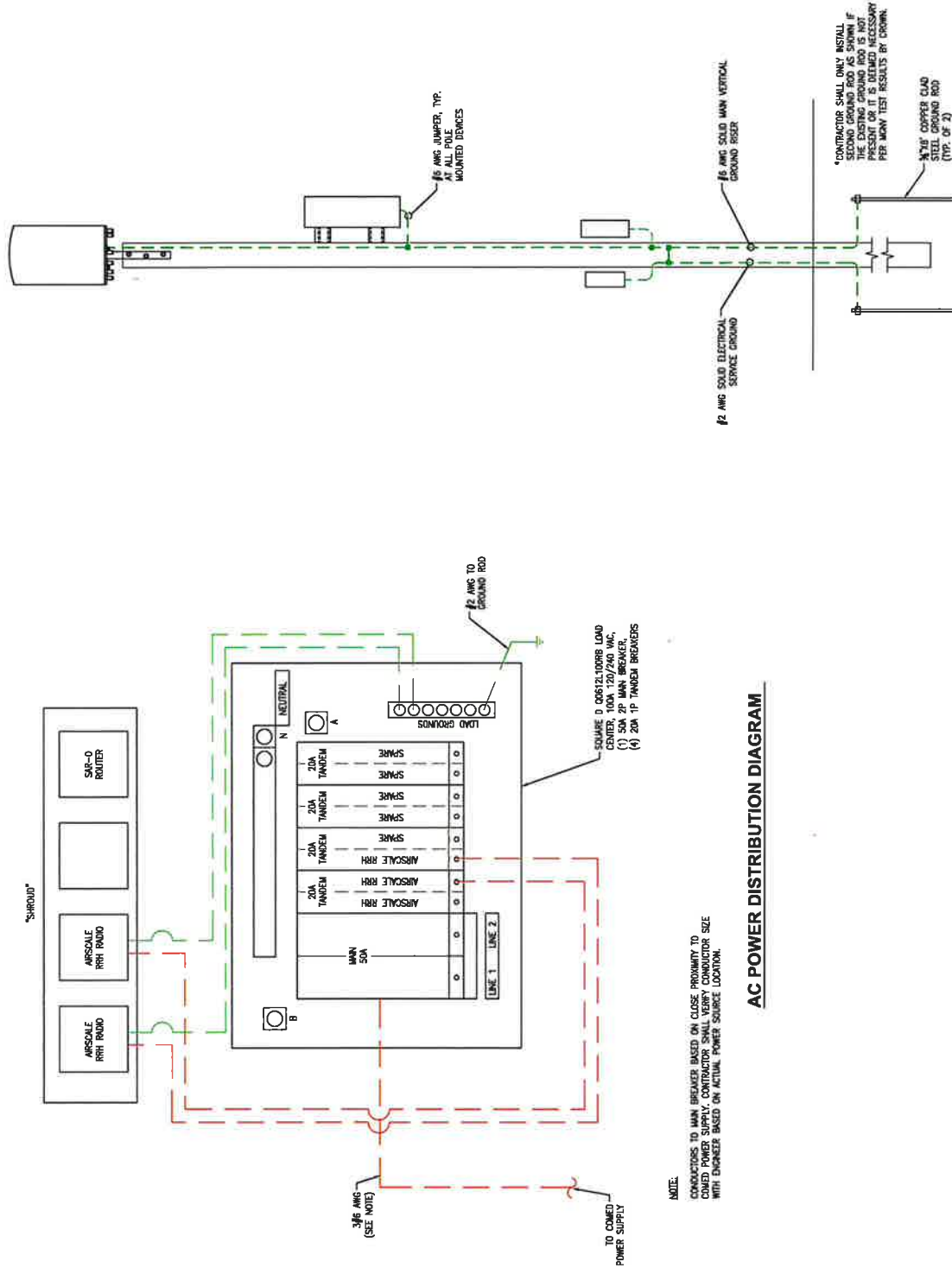


 <p>CROWN CASTLE</p>	 <p>KDM ENGINEERING 355 W. NORTH AVE. SUITE 600 CHICAGO, IL 60601</p>	 <p>ORION ENGINEERS</p>			<table border="1"> <tr> <td colspan="2">16-000000-000000</td> </tr> <tr> <td>1</td> <td>1</td> </tr> <tr> <td>2</td> <td>2</td> </tr> <tr> <td>3</td> <td>3</td> </tr> <tr> <td>4</td> <td>4</td> </tr> <tr> <td>5</td> <td>5</td> </tr> <tr> <td>6</td> <td>6</td> </tr> <tr> <td>7</td> <td>7</td> </tr> <tr> <td>8</td> <td>8</td> </tr> <tr> <td>9</td> <td>9</td> </tr> <tr> <td>10</td> <td>10</td> </tr> <tr> <td>11</td> <td>11</td> </tr> <tr> <td>12</td> <td>12</td> </tr> <tr> <td>13</td> <td>13</td> </tr> <tr> <td>14</td> <td>14</td> </tr> <tr> <td>15</td> <td>15</td> </tr> <tr> <td>16</td> <td>16</td> </tr> <tr> <td>17</td> <td>17</td> </tr> <tr> <td>18</td> <td>18</td> </tr> <tr> <td>19</td> <td>19</td> </tr> <tr> <td>20</td> <td>20</td> </tr> <tr> <td>21</td> <td>21</td> </tr> <tr> <td>22</td> <td>22</td> </tr> <tr> <td>23</td> <td>23</td> </tr> <tr> <td>24</td> <td>24</td> </tr> <tr> <td>25</td> <td>25</td> </tr> <tr> <td>26</td> <td>26</td> </tr> <tr> <td>27</td> <td>27</td> </tr> <tr> <td>28</td> <td>28</td> </tr> <tr> <td>29</td> <td>29</td> </tr> <tr> <td>30</td> <td>30</td> </tr> <tr> <td>31</td> <td>31</td> </tr> <tr> <td>32</td> <td>32</td> </tr> <tr> <td>33</td> <td>33</td> </tr> <tr> <td>34</td> <td>34</td> </tr> <tr> <td>35</td> <td>35</td> </tr> <tr> <td>36</td> <td>36</td> </tr> <tr> <td>37</td> <td>37</td> </tr> <tr> <td>38</td> <td>38</td> </tr> <tr> <td>39</td> <td>39</td> </tr> <tr> <td>40</td> <td>40</td> </tr> <tr> <td>41</td> <td>41</td> </tr> <tr> <td>42</td> <td>42</td> </tr> <tr> <td>43</td> <td>43</td> </tr> <tr> <td>44</td> <td>44</td> </tr> <tr> <td>45</td> <td>45</td> </tr> <tr> <td>46</td> <td>46</td> </tr> <tr> <td>47</td> <td>47</td> </tr> <tr> <td>48</td> <td>48</td> </tr> <tr> <td>49</td> <td>49</td> </tr> <tr> <td>50</td> <td>50</td> </tr> <tr> <td>51</td> <td>51</td> </tr> <tr> <td>52</td> <td>52</td> </tr> <tr> <td>53</td> <td>53</td> </tr> <tr> <td>54</td> <td>54</td> </tr> <tr> <td>55</td> <td>55</td> </tr> <tr> <td>56</td> <td>56</td> </tr> <tr> <td>57</td> <td>57</td> </tr> <tr> <td>58</td> <td>58</td> </tr> <tr> <td>59</td> <td>59</td> </tr> <tr> <td>60</td> <td>60</td> </tr> <tr> <td>61</td> <td>61</td> </tr> <tr> <td>62</td> <td>62</td> </tr> <tr> <td>63</td> <td>63</td> </tr> <tr> <td>64</td> <td>64</td> </tr> <tr> <td>65</td> <td>65</td> </tr> <tr> <td>66</td> <td>66</td> </tr> <tr> <td>67</td> <td>67</td> </tr> <tr> <td>68</td> <td>68</td> </tr> <tr> <td>69</td> <td>69</td> </tr> <tr> <td>70</td> <td>70</td> </tr> <tr> <td>71</td> <td>71</td> </tr> <tr> <td>72</td> <td>72</td> </tr> <tr> <td>73</td> <td>73</td> </tr> <tr> <td>74</td> <td>74</td> </tr> <tr> <td>75</td> <td>75</td> </tr> <tr> <td>76</td> <td>76</td> </tr> <tr> <td>77</td> <td>77</td> </tr> <tr> <td>78</td> <td>78</td> </tr> <tr> <td>79</td> <td>79</td> </tr> <tr> <td>80</td> <td>80</td> </tr> <tr> <td>81</td> <td>81</td> </tr> <tr> <td>82</td> <td>82</td> </tr> <tr> <td>83</td> <td>83</td> </tr> <tr> <td>84</td> <td>84</td> </tr> <tr> <td>85</td> <td>85</td> </tr> <tr> <td>86</td> <td>86</td> </tr> <tr> <td>87</td> <td>87</td> </tr> <tr> <td>88</td> <td>88</td> </tr> <tr> <td>89</td> <td>89</td> </tr> <tr> <td>90</td> <td>90</td> </tr> <tr> <td>91</td> <td>91</td> </tr> <tr> <td>92</td> <td>92</td> </tr> <tr> <td>93</td> <td>93</td> </tr> <tr> <td>94</td> <td>94</td> </tr> <tr> <td>95</td> <td>95</td> </tr> <tr> <td>96</td> <td>96</td> </tr> <tr> <td>97</td> <td>97</td> </tr> <tr> <td>98</td> <td>98</td> </tr> <tr> <td>99</td> <td>99</td> </tr> <tr> <td>100</td> <td>100</td> </tr> </table>	16-000000-000000		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	16	17	17	18	18	19	19	20	20	21	21	22	22	23	23	24	24	25	25	26	26	27	27	28	28	29	29	30	30	31	31	32	32	33	33	34	34	35	35	36	36	37	37	38	38	39	39	40	40	41	41	42	42	43	43	44	44	45	45	46	46	47	47	48	48	49	49	50	50	51	51	52	52	53	53	54	54	55	55	56	56	57	57	58	58	59	59	60	60	61	61	62	62	63	63	64	64	65	65	66	66	67	67	68	68	69	69	70	70	71	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80	80	81	81	82	82	83	83	84	84	85	85	86	86	87	87	88	88	89	89	90	90	91	91	92	92	93	93	94	94	95	95	96	96	97	97	98	98	99	99	100	100	<p>16-000000-000000</p>	<p>CH21765B 4801 N BAKERSWOOD AVE CHICAGO, IL 60640</p>	<p>2017/10/10 AJS JMS</p>	<p>EQUIPMENT DETAILS</p>	<p>CHHP30424 -05</p>
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**AirScale Solution
Node Wiring Diagram
Galtronics 10 Port Pseudo Omni Antenna**

Customer:	T-MOBILE
Location:	Chicago- P2/P3
CC Engineer:	W
Date:	10/17/2017



NOTE:

CONDUCTORS TO MAIN BREAKER BASED ON CLOSE PROXIMITY TO COMED POWER SUPPLY. CONTRACTOR SHALL VERIFY CONDUCTOR SIZE WITH ENGINEER BASED ON ACTUAL POWER SOURCE LOCATION.

AC POWER DISTRIBUTION DIAGRAM



cm-ok-6/14/18

SITE ID / RRH SITE ID / HUB ID
CHPH33541 / CH3216BA_21LAB / CH92302A

SITE ADDRESS

5006 WEST 22ND PL
CICERO, IL 60804
(ALLEY WEST OF 50TH AVE)

RF OK - 06/13/2018

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. VISUAL OBSERVATIONS AND INFORMATION PROVIDED BY OTHERS. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT ANY CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.

SITE INFORMATION

APPLICANT: CROWN CASTLE INC CENTRAL LLC
CROWN ADDRESS: 947 PARKVIEW BOULEVARD
LOMBARD, ILLINOIS 60148
(647) 967-1102

UTILITIES: COMED PHONE
CROWN CONTRACT
ACT #

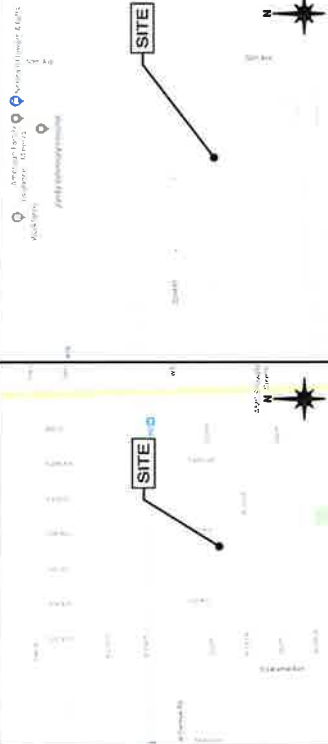
SITE ID: CHPH33541
SCL: 470759
HUB ID: CH92302A
PROPERTY OWNER: PUBLIC RIGHT OF WAY
SITE ADDRESS: 5006 WEST 22ND PL
CICERO, IL 60804

COUNTY: COOK
JURISDICTION: COOK/COOK COUNTY
LATITUDE: 41.85046
LONGITUDE: -87.746794
LAT/LONG INITIAL: HND 83
GROUND ELEV. (FT. AMSL): 3466
VERTICAL INITIAL: HND 88

IMPORTANT NOTICE

THE EXISTING CONDITIONS REPRESENTED HEREIN ARE BASED ON VISUAL OBSERVATIONS AND INFORMATION PROVIDED BY OTHERS. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT ANY CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.

LOCATION MAP

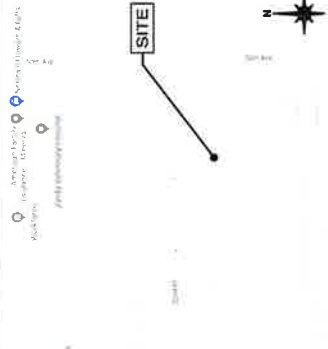


POLE ELEVATION - LOOKING NORTH



EXISTING POLE

PLAN VIEW - INTERSECTION



POLE ELEVATION - LOOKING SOUTH



EXISTING POLE

DIG ALERT



CALL 800-882-0723
FOR UNDERGROUND UTILITIES PRIOR TO DIGGING
800-882-0723
800-882-0723

PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL EQUIPMENT ON AN EXISTING
UTILITY POLE WITHIN THE EXISTING PUBLIC RIGHT OF
WAY.

CODES

2015 INTERNATIONAL BUILDING CODE
2017 NATIONAL ELECTRICAL SAFETY CODE

DRAWING INDEX

SHEET NO:	SHEET TITLE
CHPH33541-01	NODE COVER SHEET
CHPH33541-02	EXISTING POLE ELEVATIONS
CHPH33541-03	PROPOSED POLE ELEVATIONS
CHPH33541-04	EQUIPMENT DETAILS
CHPH33541-05	EQUIPMENT DETAILS
CHPH33541-06	EQUIPMENT DETAILS
CHPH33541-07	RF SCHEMATIC
CHPH33541-08	ELECTRICAL DETAILS

ARCHITECT/ENGINEER

KOM ENGINEERING, LLC
35 E. WACKER, SUITE 800
CHICAGO, IL 60601
CONTACT: LEE JACOBSON
PROJECT MANAGER
TEL (312) 763-2188



CH92302A
5104 W 26TH STREET
CICERO, IL 60804

PROJECT NO.: 20171018
DESIGNED BY: AB
APPROVED BY: JVS
SHEET NAME:

NODE COVER SHEET

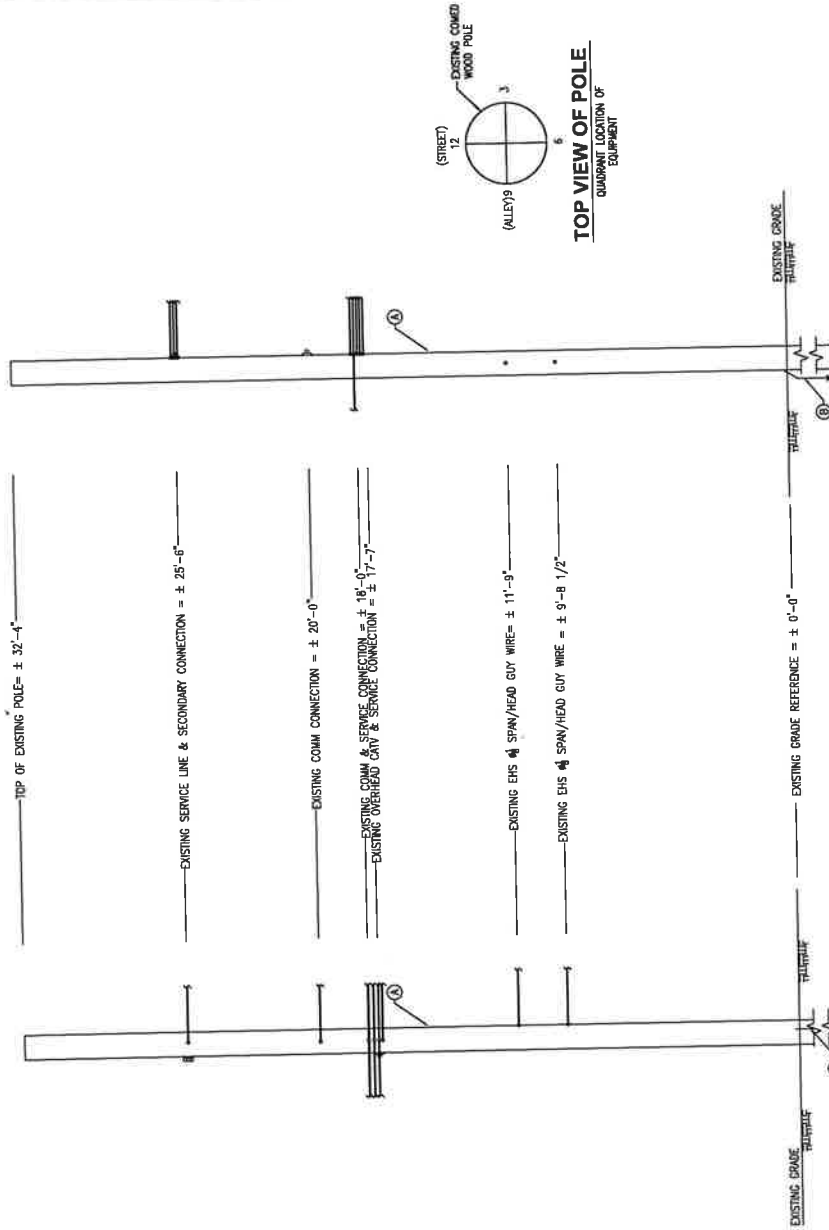
CHPH33541-01

PUBLIC VERSION

GENERAL CONTRACTOR NOTES:
1. EXISTING EQUIPMENT TO REMAIN UNLESS NOTED OTHERWISE.

EQUIPMENT KEY

- (A) EXISTING CLASS 4 COMED WOOD POLE
- (B) EXISTING GROUND ROD AND #6 CU GROUND CONDUCTOR



LOOKING AT 6:00 (NORTH)

LOOKING AT 9:00 (EAST)

EXISTING POLE ELEVATIONS

SCALE: NOT TO SCALE

1



NO.	DESCRIPTION	DATE	BY
1	ISSUED FOR PERMIT	11/02/2019	CHP
2	REVISED		
3	REVISED		
4	REVISED		
5	REVISED		
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7	REVISED		
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CH92302A
5104 W 28TH STREET
CICERO, IL 60604

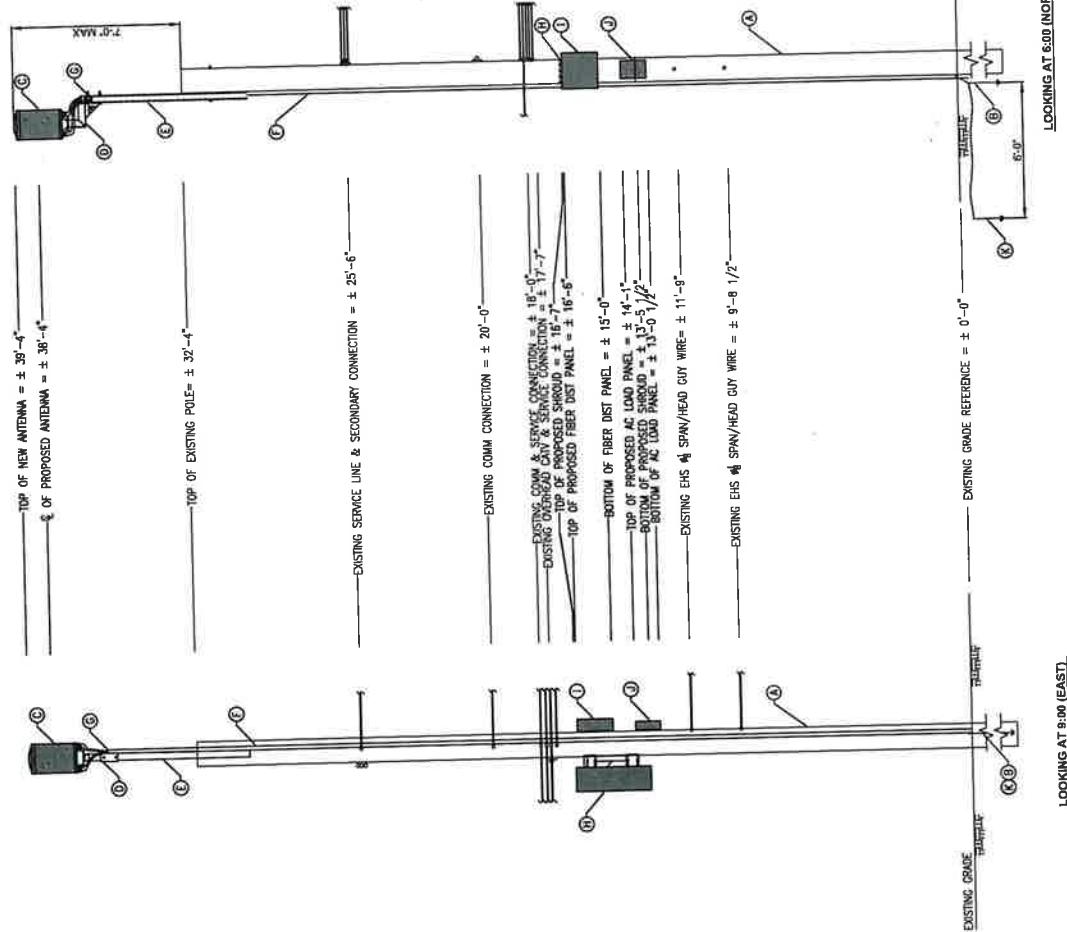
PROJECT NO.
DRAWN BY
CHECKED BY
APPROVED BY

EXISTING POLE ELEVATIONS

CHPH33541-02

05-000150

GENERAL CONTRACTOR NOTES:
1. STRUCTURE OF THIS POLE WITH NEW EQUIPMENT HAS BEEN EVALUATED TO VERIFY THAT THIS POLE HAS THE CAPACITY TO ADEQUATELY SUPPORT THE EQUIPMENT.



EQUIPMENT KEY

- | | |
|----------|--|
| A | EXISTING CLASS 4 COWED WOOD POLE |
| B | EXISTING GROUND ROD AND #6 CU GROUND CONDUCTOR |
| C | APPROXIMATE PULSED OMNI CANISTER ANTENNA,
VOLUME = 3.5 LBS.
HEIGHT = 2.3 CU FT. |
| D | OR
GALVANNEE OUTDOOR PULSED OMNI CANISTER ANTENNA
MODEL EXTENT P9480L
24.7Y1100' (HDA) - 18 LBS.
VOLUME = 1.12 CU FT. |
| E | ADA 3870 POLE DISPENSER MOUNT
MODEL 102-1019-5 REV D OR REV E
15 LBS.
(9 LBS. W/ ADAPTER REMOVED FOR GALVANNEE ANTENNAS) |
| F | 4"X4 CEDAR WOOD POLE TOP EXTENSION 3.5X3.5"
HEIGHT AS REQUIRED W/ CHAMFERED TOP W/ BOLTS -
21 LBS |
| G | PROPOSED U-GUARD FOR #2 COVERED
COPPER GROUND WIRE |
| H | PROPOSED TOP OF THE U-GUARD COVERING THE METAL
SHEATHED COAX CABLES, BOTTOM OF ANTENNA BRACKET
AND BOTTOM OF ANTENNA CONDUIT TO BE A MINIMUM OF 40"
ABOVE THE SUPPLY CONDUCTIONS |
| I | NOWA "J" UNIT FACE OUT SMALL CELL SITE SOLUTION
NBSWA "J" BOLTS
37.4"X12.3"X12" (NHWAO) - 100 LBS
AREA OF DISPLACEMENT = 156.5 SQ. IN.
VOLUME = 5.5203 CU. IN. |
| J | PROPOSED CHARLES FLIER INTERCONNECT TERMINALS
(CFLI-C) MOUNTED W/ BOLTS
18"X16"X6" (NHWAO) - 15.0 LBS
AREA OF DISPLACEMENT = 116.71 SQ. IN.
VOLUME = 1.9410 CU. IN. |
| K | PROPOSED LOAD CENTER PRT #05612.1006B
W/ BOLTS, 12.65"X6.5"X4.27" (NHWAO) - 9.18 LBS
AREA OF DISPLACEMENT = 83.43 SQ. IN.
VOLUME = 479.66 CU. IN.
NBSW 3/8"x6" LONG COPPER-CAD STEEL ROD
BUSHED 3/16" BELOW GROUND & TIED TOGETHER
W/ #14 AND VERTICAL GROUND RISER (NBSW) W/ #6 AND
BONDING CONNECTIONS GROUNDING ALL WIRING
COMMENT ON POLE FOR THE WIRING DISPOSITION
FOR THE WIRING TO POLE & GROUND WITS ON
COAXIAL CABLES. |

TOTALS	
TOTAL EQUIPMENT WEIGHT	195.68 LBS.
TOTAL VOLUME OF EQUIPMENT	6.89 CU. FT.

PROPOSED POLE ELEVATIONS

CHPH33541-03

PROPOSED POLE ELEVATIONS - CONFIGURATION 2

(4x) 1695-2700 / (2x) 3550-3700 / (2x) 5150-5925 MHz



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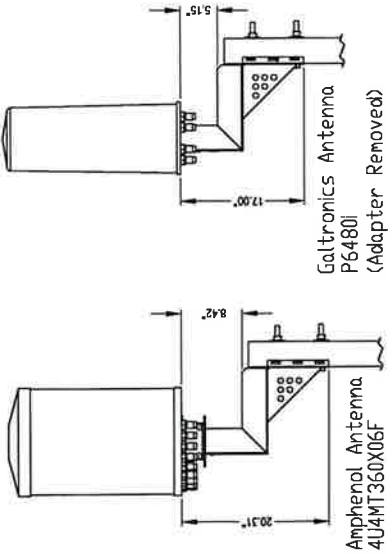
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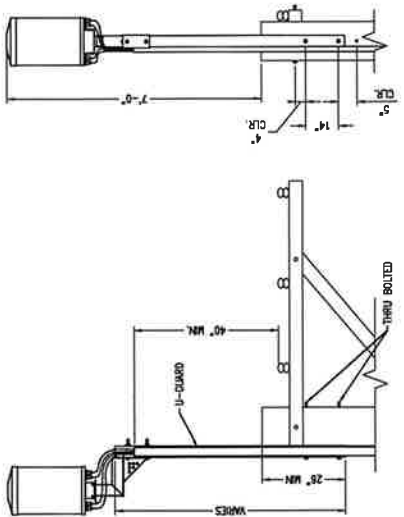
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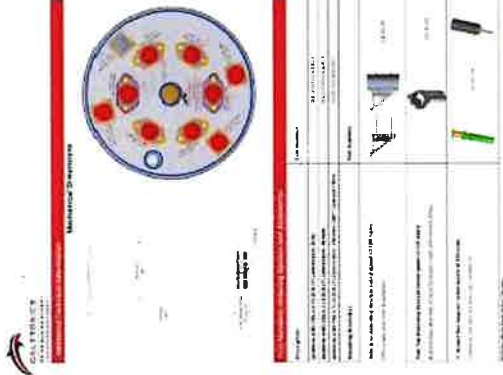
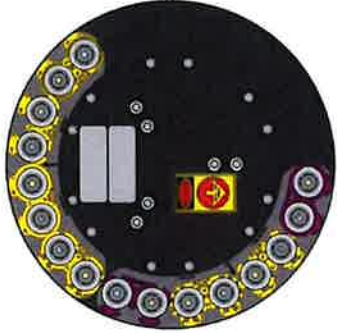
Amphenol



ANTENNA MOUNT DETAIL



POLE EXTENSION DETAIL



(4x) 1695-2700 / (2x) 3550-3700 / (2x) 5150-5925 MHz



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(4x) 1695-2700 / (2x) 3550-3700 / (2x) 5150-5925 MHz



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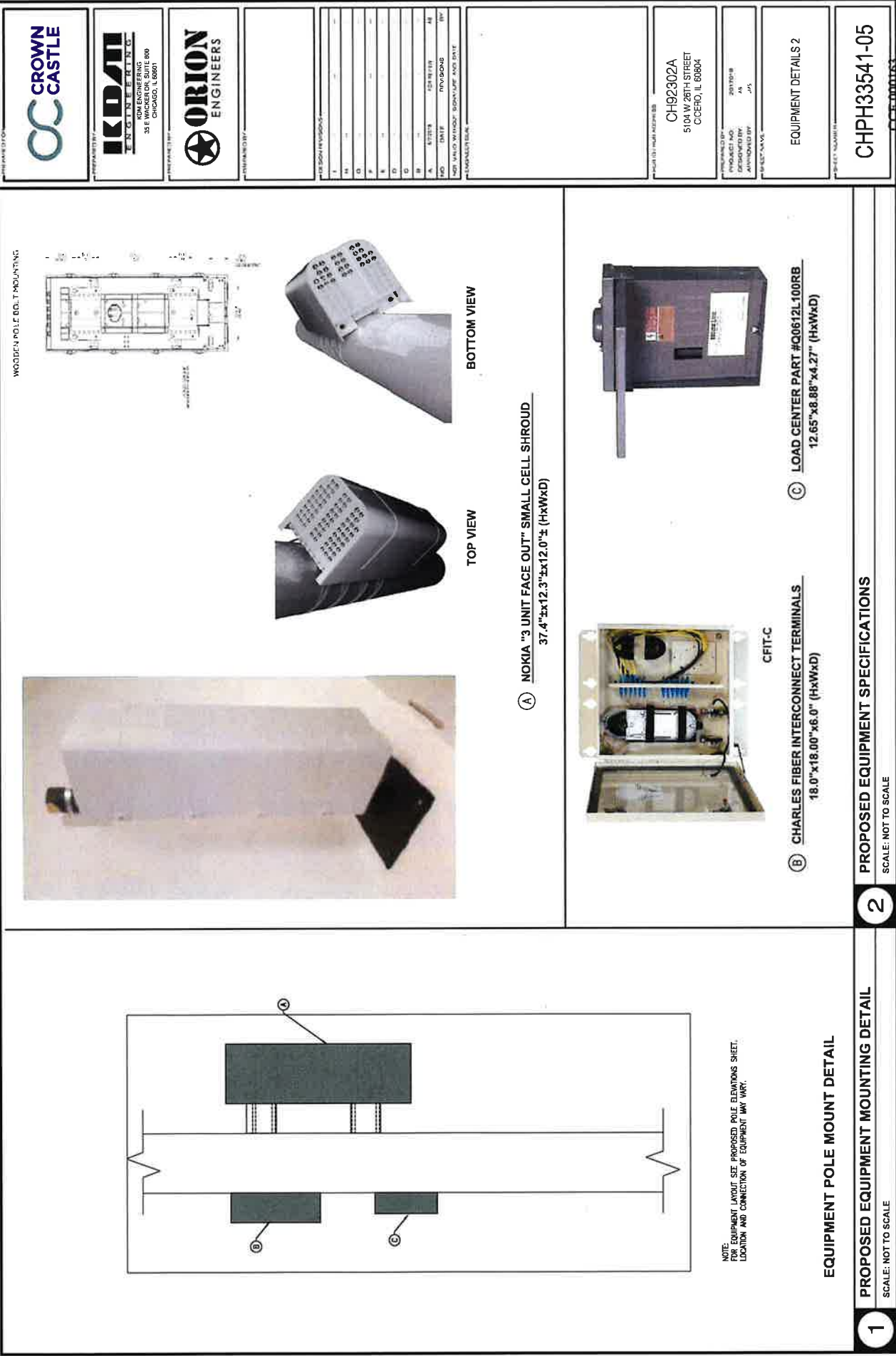
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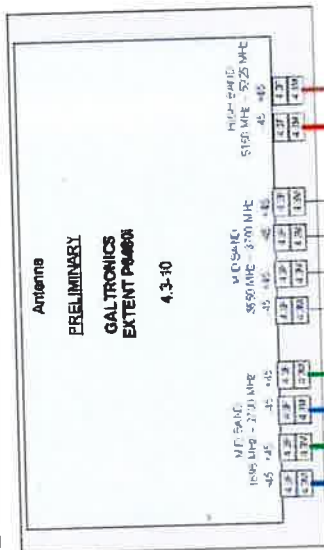
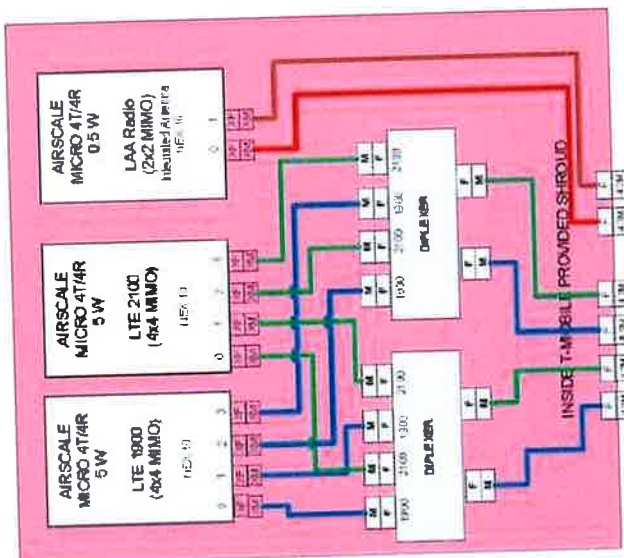
Amphenol





TMQ P2/P3- 4x4 MIMO

GALTRONICS 10 PORT PSEUDO OMNI ANTENNA



Customer: T-MOBILE
Location: Chicago- P2/P3
CO Engineer: W
Date: 10/17/2017

AirScale Solution Node Wiring Diagram Galtronics 10 Port Pseudo Omni Antenna

RF SCHEMATIC

SCALE: NOT TO SCALE

1

DRAWINGS PLOTTED TO SCALE ON 11x17 SHEETS

NO.	DATE	REVISIONS	BY
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UNLESS OTHERWISE SPECIFIED

CH-92302A
5101 W 28TH STREET
OCCO, IL 60004

CH-92302A
5101 W 28TH STREET
OCCO, IL 60004

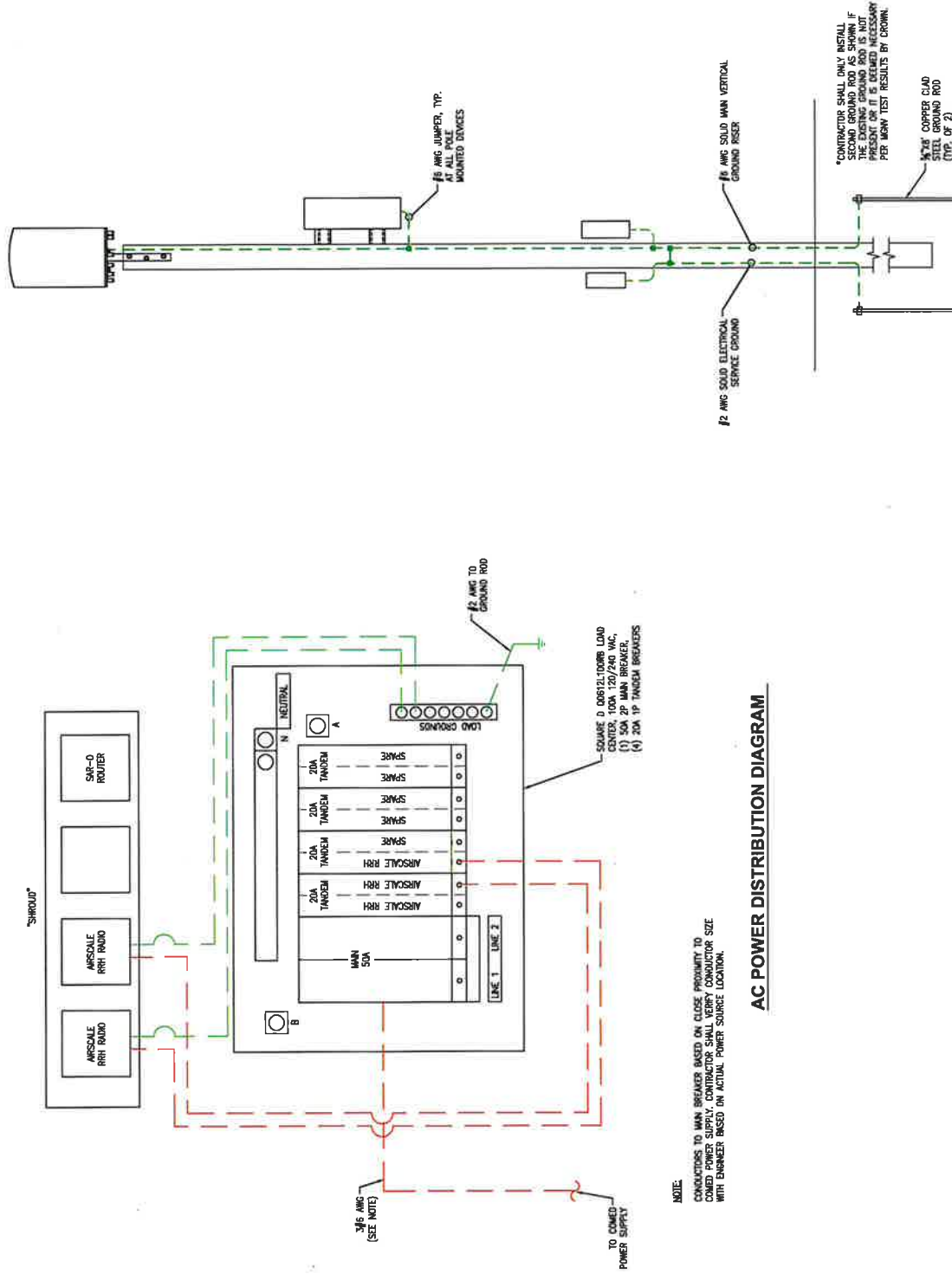
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5101 W 28TH STREET
OCCO, IL 60004

CH-92302A
5101 W 28TH STREET
OCCO, IL 60004

CH-92302A
5101 W 28TH STREET
OCCO, IL 60004



AC POWER DISTRIBUTION DIAGRAM

NOTE: CONDUCTORS TO MAIN BREAKER BASED ON CLOSE PROXIMITY TO COMED POWER SUPPLY. CONTRACTOR SHALL VERIFY CONDUCTOR SIZE WITH ENGINEER BASED ON ACTUAL POWER SOURCE LOCATION.

ELECTRICAL DETAILS

SCALE: NOT TO SCALE

(A) EXISTING CLASS 2 COMED WOOD POLE
(B) EXISTING GROUND ROD AND #6 CU GROUND CONDUCTOR.
(C) EXISTING U-GUARD (COVERING FIBER & POWER CABLE) ABOVE GRADE.
(D) EXISTING CITY STREET LIGHT (TO REMAIN)
(E) EXISTING METER SOCKET (TO REMAIN)

[illegible]

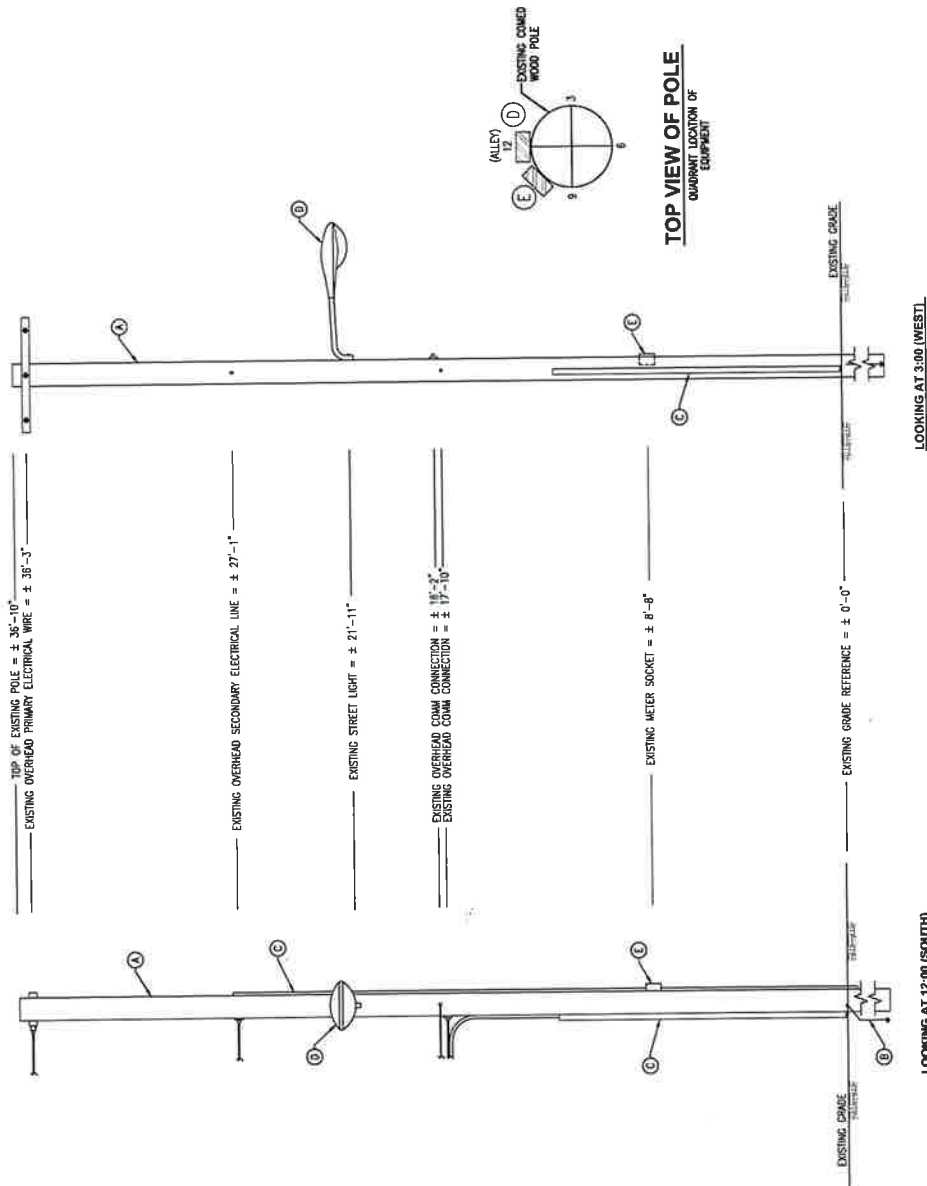
SELL COA NO 194 008994
Exp: 11/30/19

CH90XSC70
3941 N RAVENSWOOD AVE
CHICAGO, IL 60613

PROJECT NO.
DATE
BY
APPROVED BY

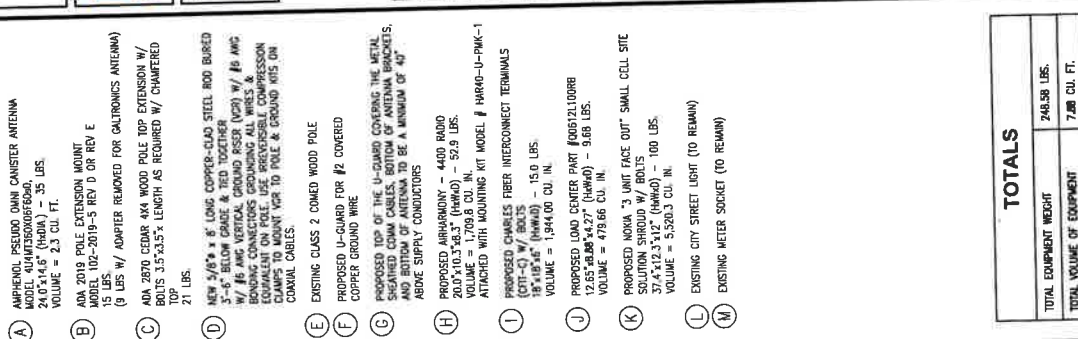
**EXISTING POLE
ELEVATIONS**

CH90XSC70-02



EXISTING POLE ELEVATIONS

SCALE: NOT TO SCALE



TOTALS	
TOTAL EQUIPMENT WEIGHT	248.58 LBS.
TOTAL VOLUME OF EQUIPMENT	7.86 CU. FT.

CONTRACTOR SHALL ONLY INSTALL SECOND GROUND ROD AS SHOWN IF THE EXISTING GROUND ROD IS NOT PRESENT OR IT IS DEEMED UNSOUND BY LOCAL TEST RESULTS BY COMPANY

NECESSARY PER MOUNT TEST RESULTS OF CHAIRS

SCALE: NOT TO SCALE

EQUIPMENT KEY

- GENERAL CONTRACTOR NOTES:

- (A) W/PERIOD, P/SLIDING, D/W/ CANISTER ANTENNA
MODEL ALUMINUM/PERFERO,
24.0"x14.6" (HxW) - 35 LBS.
VOLUME = 2.3 CU. FT.
- (B) JOM 2018 POLE EXTENSION MOUNT
15 LBS.
JOM 2012-2015-5 RED D OR RED E
(9 LBS W/ ADAPTER REQUIRED FOR GALVANICS ANTENNA)
- (C) JOM 2670 CDMA 4X4 MOUNT POLE TOP EXTENSION W/
TOP
BOLTS 3.5"x3.5" LENGTH AS REQUIRED W/ DAMPERED
TOP 27 LBS.
- (D) NEW 3/8"x1/8" 6' LONG COPPER-CLAD STEEL ROD BURRED
5'-6" BENEATH GRADE & TIED TOGETHER
W/ #6 AND VERTICAL GROUND RODS (EACH W/ #6 W/MS,
BENDING CONTRACTORS TO BE PROVIDED), COMPRESSION
CLAMPS TO MOUNT W/RO TO POLE & GROUND KITS ON
CANAL CABLES.
- (E) EXISTING CLASS 2 COATED MOUNT POLE
- (F) PROPOSED U-GUARD FOR #2 COVERED
COPPER GROUND WIRE
- (G) PROPOSED TOP OF THE U-GUARD COVERING THE METAL
SUPPORT CABLES, BOTTOM OF ANTENNA BRACKETS,
AND BOTTOM OF ANTENNA TO BE A MINIMUM OF 4" ²
ABOVE SUPPLY CONDUCTORS
- (H) PROPOSED ANTI-RUNAWAY - 4400 R800
24"x10.3"x4.3" (HxW) - 5.9 LBS.
VOLUME = 1.0 CU. IN.
ATTACHED WITH ANGLING KIT MODEL # HARGO-U-PWK-1
- (I) PROPOSED CHARLES FIBER INTERCONNECT TERMINALS
(10T-10W) W/ BOLTS
18"x18"x6" (HxW) - 15.0 LBS.
VOLUME = 1.944 CU. IN.
- (J) PROPOSED LOW CENTER PIER J0812100R
12.65'x4.8"x4.27" (HxW) - 9.68 LBS.
VOLUME = 478.66 CU. IN.
- (K) PROPOSED KORA 3" JUNT FACE OUT SMALL CELL SITE
SOLUTIONS
12"x12"x12" (HxW) - 100 LBS.
VOLUME = 5.930 CU. IN.
- (L) EXISTING CITY STREET LIGHT (TO REMAIN)
- (M) EXISTING METER SOCKET (TO REMAIN)

CROWN
CASTLE

KDVI
ENGINEERING

Structural
ENGINEERING

1815 W. 64TH, RD. SUITE 100, HAWTHORNE, IL 60056
(708) 218-1307

ISSUED FOR REVIEW	AT
	BY
	REVISIONS
	DATE
	100% VALUE WITHOUT SIGNATURE AND DATE



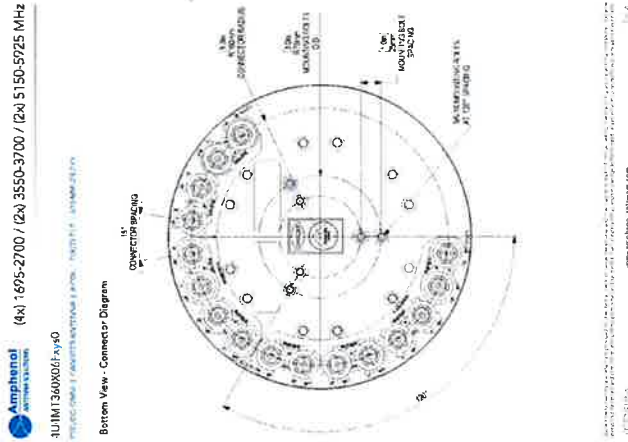
SEIL COA NO 184 006994
Exp: 11/30/19

CH90XSC70
3941 N RAVENSWOOD AVE
CHICAGO, IL 60613

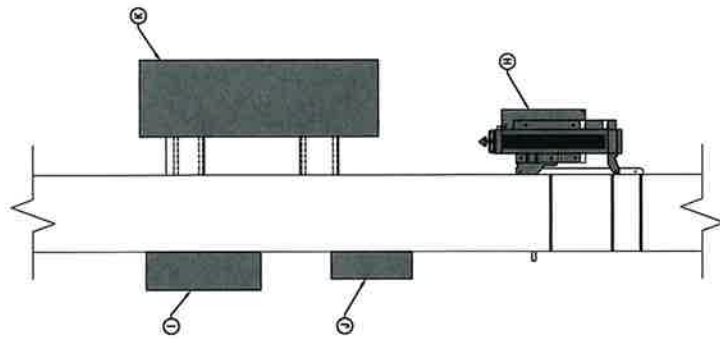
PROJECT NO	10178 00
DESIGNED BY	A T
APPROVED BY	M A T

PROPOSED POLE
ELEVATIONS

CH90XSC70-03



WOODEN POLE BOLT MOUNTING

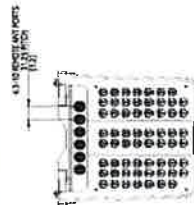
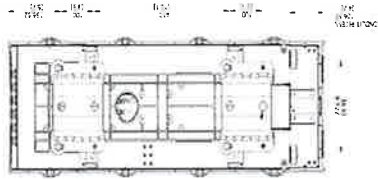


NOTE:
FOR EQUIPMENT LAYOUT SEE PROPOSED POLE ELEVATIONS SHEET.
LOCATION AND CONNECTION OF EQUIPMENT MAY VARY.

EQUIPMENT POLE MOUNT DETAIL

PROPOSED EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE



TOP VIEW



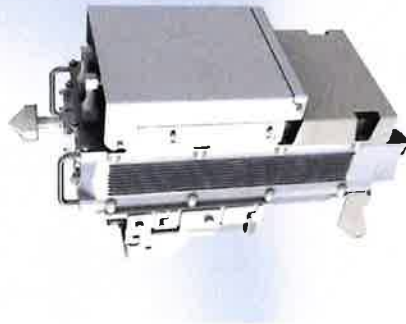
BOTTOM VIEW

(K) NOKIA "3 UNIT FACE OUT" SMALL CELL SHROUD
37.4"±12.3"±12.0"± (HxWxD)



CEIT.C

① **CHARLES FIBER INTERCONNECT TERMINALS**
18.00"x18.0"x6.0" (HxWxD)



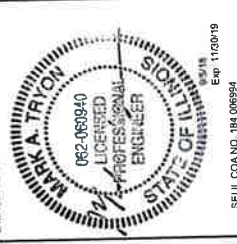
(H) AIRHARMONY - 4400 RADIO
20.0"±10.3"x8.3"± (HxWxD)



① LOAD CENTER PART #Q0612L100RB
12.65"x8.88"x4.27" (HxWxD)



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CH90XSC70
3941 N RAVENSWOOD AVE
CHICAGO, IL 60613

PREPARED BY	DATE
INSTRUCT NO	00
DESIGNED BY	A T
APPROVED BY	M A T
IN-SET NAME	

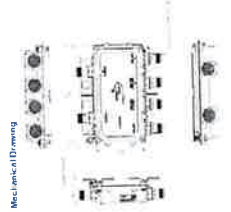
EQUIPMENT DETAILS

CH90XSC70-06

Product Specifications



Construction Materials	
<p>Concrete: 1000 kg/m³</p> <p>Reinforcement: 7850 kg/m³</p> <p>Steel: 7850 kg/m³</p> <p>Brick: 1800 kg/m³</p> <p>Gravel: 1500 kg/m³</p> <p>Sand: 1600 kg/m³</p>	<p>Concrete: 1000 kg/m³</p> <p>Reinforcement: 7850 kg/m³</p> <p>Steel: 7850 kg/m³</p> <p>Brick: 1800 kg/m³</p> <p>Gravel: 1500 kg/m³</p> <p>Sand: 1600 kg/m³</p>

MI-54111
4 2 Dipter AWB+VWCS PCB

Product Specifications



General Specifications

Material: S235
 Yield strength: 235 N/mm²
 Tensile strength: 360 N/mm²
 Elongation: 26%

Bending Curve

Yield strength: 235 N/mm²
 Bending moment: 1.5 kNm

Mechanical Specifications

Property	Value
Yield strength	235 N/mm²
Tensile strength	360 N/mm²
Elongation	26%

Fundamental Specifications

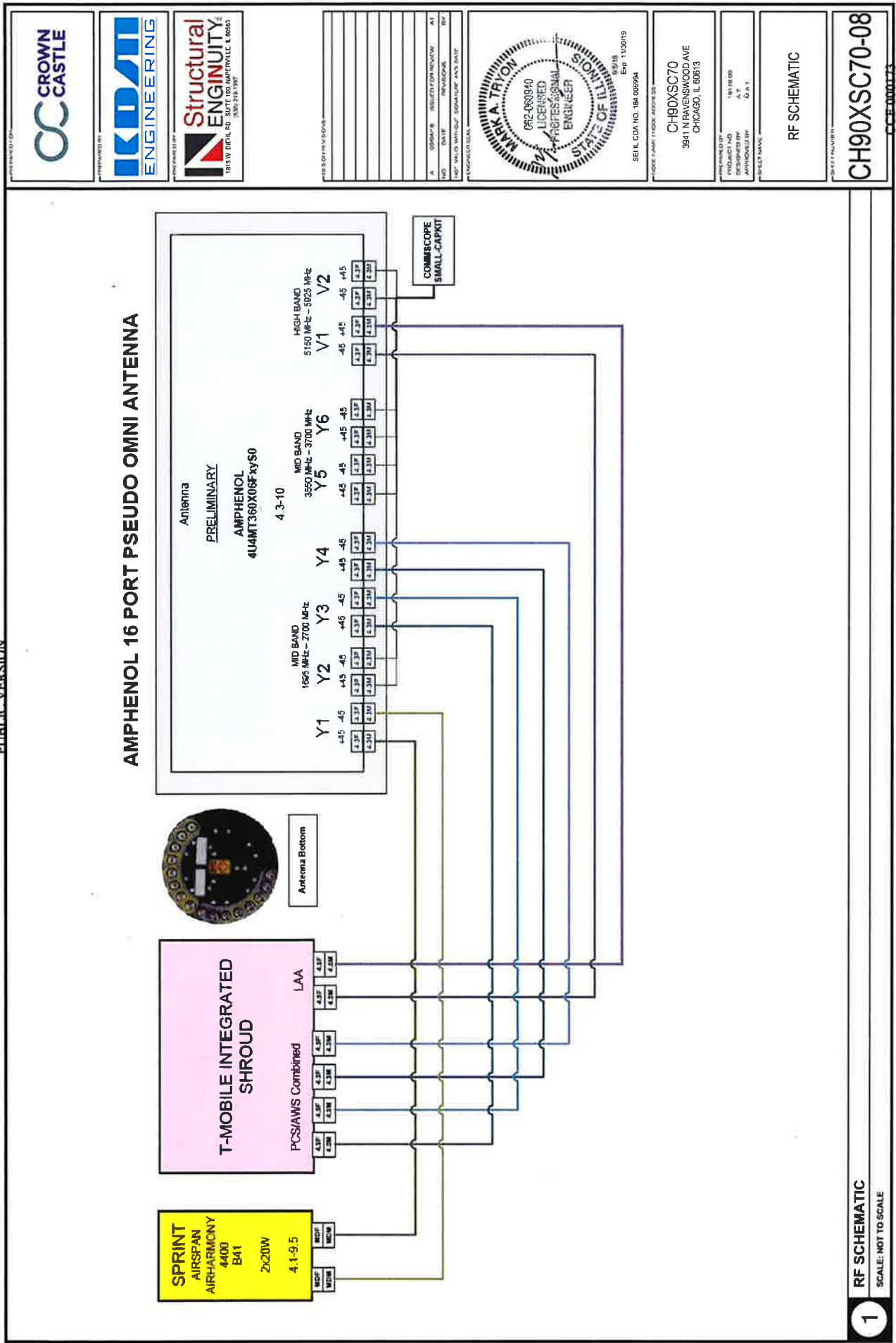
Property	Value
Yield strength	235 N/mm²
Tensile strength	360 N/mm²
Elongation	26%

UXP-4MT-12S

[illegible]

PROPOSED EQUIPMENT SPECIFICATIONS

SCALE: NOT TO SCALE



CROWN CASTLE

KID ENGINEERING

Structural ENGINEERING
1815 W. DICKINSON RD. SUITE 100 AMPELWALL, IL 60553
312.748.1897

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	08/08/18	ISSUED FOR REVIEW	A.T.
2	08/08/18	REVISED	A.T.
3	08/08/18	REVISED	A.T.
4	08/08/18	REVISED	A.T.
5	08/08/18	REVISED	A.T.
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9	08/08/18	REVISED	A.T.
10	08/08/18	REVISED	A.T.

MARK A. TRYON
082-080840
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

SEAL COA NO. 184 008994
Exp. 11/30/19

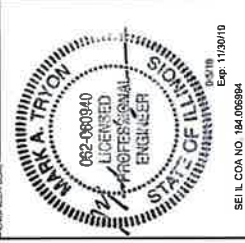
CH90XSC70
3941 N. RAVENSWOOD AVE
CHICAGO, IL 60613

RF SCHEMATIC

CH90XSC70-08



REVISIONS			
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1	08/12/19	ISSUED FOR PERMIT	AT
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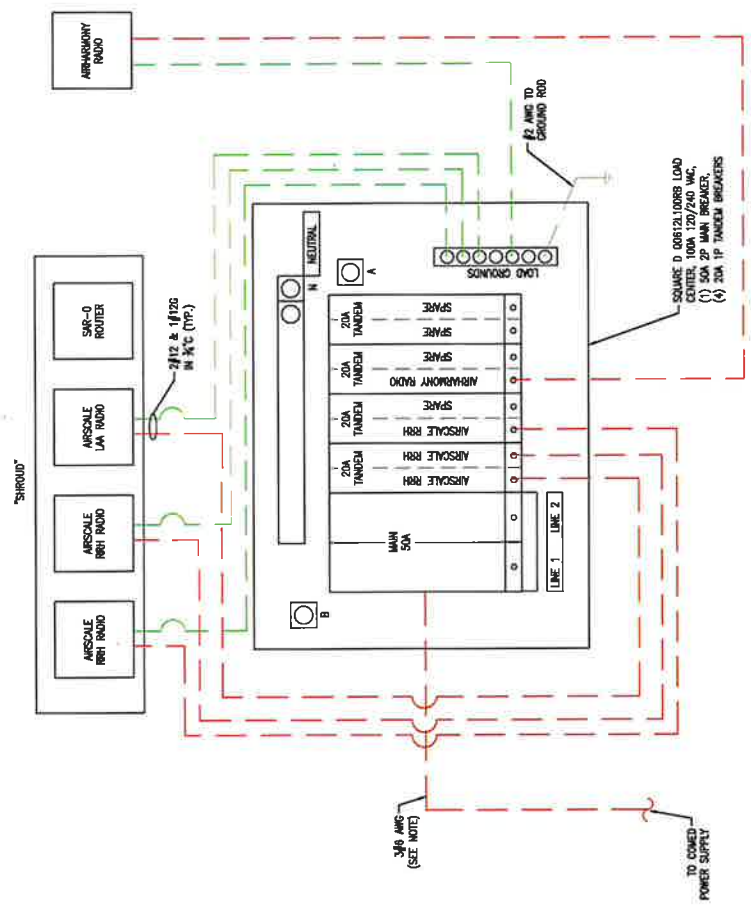
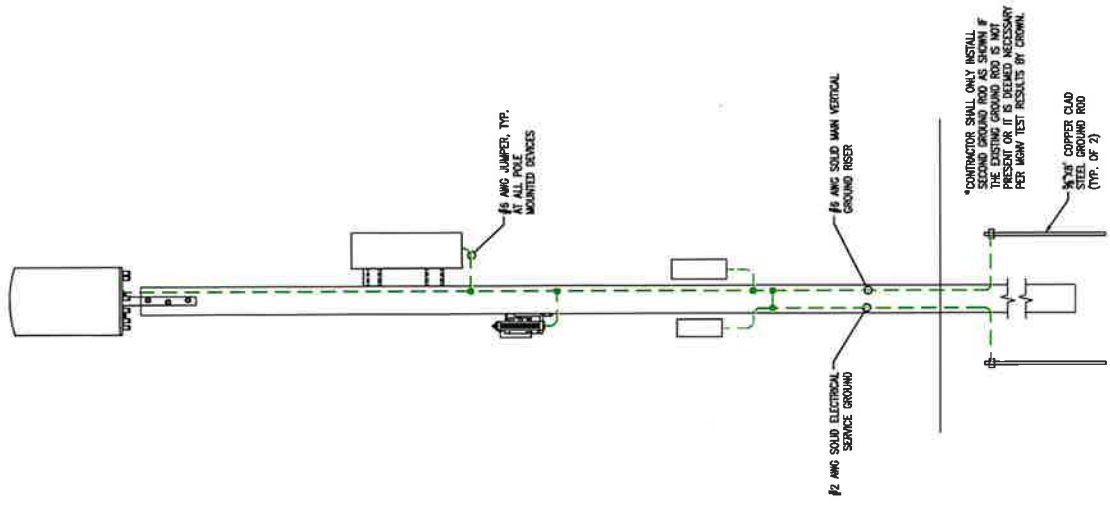


CH90XSC70
3941 N PAVENWOOD AVE
CHICAGO, IL 60613

PROJECT NO.
1811160
DESIGNED BY
A.T.
APPROVED BY
M.A.T.
DATE
10/15/19

ELECTRICAL DETAILS

CH90XSC70-09
SHEET 1 OF 17



NOTE:
CONDUCTORS TO MAIN BREAKER BASED ON CLOSE PROXIMITY TO
COMED POWER SUPPLY. CONTRACTOR SHALL VERIFY CONDUCTOR SIZE
WITH ENGINEER BASED ON ACTUAL POWER SOURCE LOCATION.

AC POWER DISTRIBUTION DIAGRAM

PUBLIC VERSION

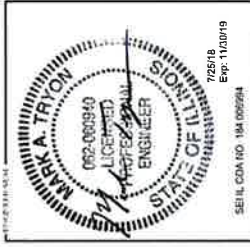


NODE NAME
CH90XSQ06
NODE SITE ADDRESS
**6573 N TROY ST
CHICAGO, IL 60645**
HUB ID
CH03XC291

RF OK - 08/06/2018



APPROVED FOR CONSTRUCTION
DATE: 08/06/2018
BY: [Signature]
FOR: [Signature]
PROJECT: [Signature]
DATE: 08/06/2018
BY: [Signature]
FOR: [Signature]
PROJECT: [Signature]



PROJECT NO: CH90XSQ06
6573 N TROY ST
CHICAGO, IL 60645

DATE: 08/06/2018
BY: [Signature]
FOR: [Signature]

NODE COVER SHEET

CH90XSQ06-01

GENERAL NOTES THE FACILITY IS UNARMED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. NO SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE, NO SANITARY SEWER SERVICE, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.	PLAN VIEW - INTERSECTION 	DIG ALERT Know what's below. Call before you dig. CALL DIGGER FOR UNDERGROUND UTILITIES PRIOR TO DIGGING 811 OR 312-744-7000
SITE INFORMATION APPLICANT: CROWN CASTLE NE CENTRAL, LLC CROWN ADDRESS: 947 PARKWAY DRIVE LOMAVILLE, MISSOURI 64114 (817) 887-1102 OWNED: MARK J. JOHNSON 773 509-3412 773 509-3412 ACT # 1627-7000 NODE NAME: CH90XSQ06 SQ#: 434510 HUB ID: CH03XC291 PROPERTY OWNER: PUBLIC RIGHT-OF-WAY SITE ADDRESS: 6573 N TROY ST COUNTY: COOK JURISDICTION: CHICAGO LATITUDE: 42 0' 1.87" (42.000537) LONGITUDE: -87 42' 27.85" (-87.7071863) LAT/LONG INITIAL: N40 E3 GROUND ELEV. (FT. AMSL): 595 VERTICAL INITIAL: N40 E3	POLE ELEVATION - LOOKING NORTH 	PROJECT DESCRIPTION END USER PROPOSES TO INSTALL EQUIPMENT ON AN EXISTING WOOD UTILITY POLE WITHIN THE EXISTING RIGHT-OF-WAY.
IMPORTANT NOTICE THE EXISTING CONDITIONS REPRESENTED HEREIN ARE BASED ON VISUAL OBSERVATIONS AND INFORMATION PROVIDED BY OTHERS. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT ANY CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.	POLE ELEVATION - LOOKING SOUTH 	CODES 2015 INTERNATIONAL BUILDING CODE 2014 NATIONAL ELECTRICAL CODE
		DRAWING INDEX SHEET NO. SHEET TITLE CH90XSQ06-01 NODE COVER SHEET CH90XSQ06-02 EXISTING POLE ELEVATIONS CH90XSQ06-03 PROPOSED POLE ELEVATIONS CH90XSQ06-04 EQUIPMENT DETAILS CH90XSQ06-05 EQUIPMENT DETAILS CH90XSQ06-06 EQUIPMENT DETAILS CH90XSQ06-07 RF SCHEMATIC CH90XSQ06-08 ELECTRICAL DETAILS
		ARCHITECT/ENGINEER ION ENGINEERING, LLC 33 E WACKER, SUITE 800 CHICAGO, IL 60601 CONTACT: LEE JACOBSON PROJECT MANAGER TEL: (312) 783-2188

1. EXISTING EQUIPMENT IS TO REMAIN ON POLE UNLESS OTHERWISE NOTED.



(A)	EXISTING CLASS 4 COMED WOOD POLE
(B)	EXISTING GROUND ROD AND #6 CU GROUND CONDUCTOR.
(C)	EXISTING 6" U-GUARD (COVERING FIBER & POWER CABLE) ABOVE GRADE
(D)	EXISTING ANTENNA
(E)	EXISTING POLE EXTENSION MOUNT
(F)	EXISTING 4X4 WOOD POLE TOP EXTENSION
(G)	EXISTING CITY STREET LIGHT (TO REMAIN)
(H)	EXISTING FIBER TERMINALS
(I)	EXISTING DISCONNECT BOX
(J)	EXISTING SHROUD

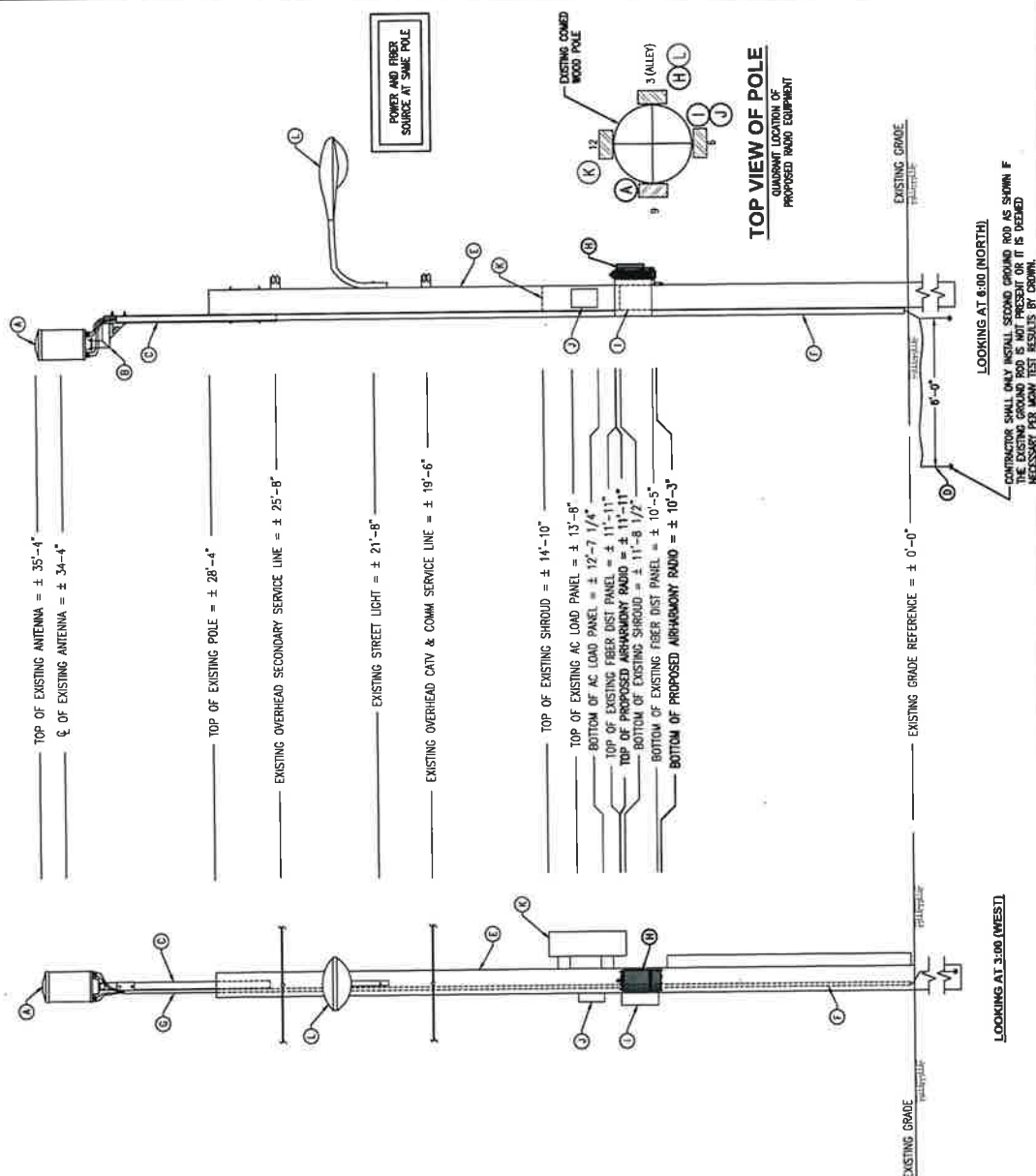
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0.01	0.01
0.02	0.02
0.03	0.03
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0.05	0.05
0.06	0.06
0.07	0.07
0.08	0.08
0.09	0.09
0.10	0.10
0.11	0.11
0.12	0.12
0.13	0.13
0.14	0.14
0.15	0.15
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0.17	0.17
0.18	0.18
0.19	0.19
0.20	0.20
0.21	0.21
0.22	0.22
0.23	0.23
0.24	0.24
0.25	0.25
0.26	0.26
0.27	0.27
0.28	0.28
0.29	0.29
0.30	0.30
0.31	0.31
0.32	0.32
0.33	0.33
0.34	0.34
0.35	0.35
0.36	0.36
0.37	0.37
0.38	0.38
0.39	0.39
0.40	0.40
0.41	0.41
0.42	0.42
0.43	0.43
0.44	0.44
0.45	0.45
0.46	0.46
0.47	0.47
0.48	0.48
0.49	0.49
0.50	0.50
0.51	0.51
0.52	0.52
0.53	0.53
0.54	0.54
0.55	0.55
0.56	0.56
0.57	0.57
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0.59	0.59
0.60	0.60
0.61	0.61
0.62	0.62
0.63	0.63
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0.65	0.65
0.66	0.66
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0.69	0.69
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0.87	0.87
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0.89	0.89
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0.91	0.91
0.92	0.92
0.93	0.93
0.94	0.94
0.95	0.95
0.96	0.96
0.97	0.97
0.98	0.98
0.99	0.99
1.00	1.00

CH90XSQ06-02

STRUCTURE OF THIS POLE WITH NEW EQUIPMENT HAS BEEN EVALUATED TO VERIFY THAT THIS POLE HAS THE CAPABILITY TO ADEQUATELY SUPPORT THE EQUIPMENT.

EQUIPMENT KEY

- | | |
|---|---|
| A | EXISTING ANTENNA |
| B | EXISTING POLE EXTENSION MOUNT |
| C | EXISTING 4X4 WOOD POLE TOP EXTENSION |
| D | NEW 5/8" x 8' LONG COPPER-CLAD STEEL ROD
BURRED 3/8" DIA. (SEE NOTE 1)
BOLTED TO THE VERTICAL GROUND RISSER (NGR) W/ #6 AWG
BONDING CONNECTIONS GROUNDING ALL WIRES &
EQUIVALENT ON POLE. USE IRREVERSIBLE COMPRESSION
CLAMPS TO MOUNT VGR TO POLE & GROUND KITS ON
CONICAL CABLES. |
| E | EXISTING CLAS 4 COMED WOOD POLE |
| F | EXISTING U-GUARD |
| G | EXISTING U-GUARD COVERING |
| H | PROPOSED AIRMAYMON - 4400 RADIO
20.0"x10.3"x4.3" (AWMD) = 52.9 LB.
VOLUME = 1,709.8 CU. IN. |
| I | EXISTING FIBER TERMINALS |
| J | EXISTING DISCONNECT BOX |
| K | EXISTING SHROUD |
| L | EXISTING AT&T TERMINAL BOX (TO REMAIN) |



BOOKING AT 3:00 (WEST)

PROPOSED POLE ELEVATIONS

SCALE: NOT TO SCALE

E

[illegible]

SEI IL COA NO 184 006994

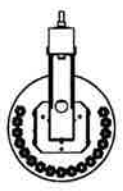
CH90XSQ06
G573 N TROY ST
CHICAGO, IL 60645

1991 PUBLISHED BY PROGRESSIVE BOOKS 1200 N. 1ST ST. APT. 100, PHOENIX, AZ 85004	PRINTED IN U.S.A. G.A.
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PROPOSED POLE
ELEVATIONS

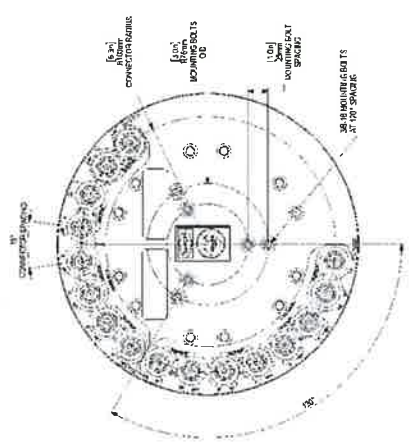
CH90XSQ06-03

THE UNIVERSITY OF CHICAGO



PROPOSED EQUIPMENT MOUNTING DETAIL

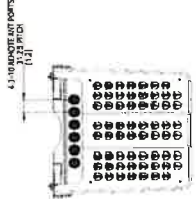
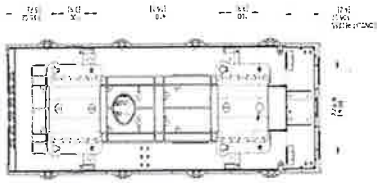
SCALE: NOT TO SCALE

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PUBLIC VERSION

WOODEN POLE BOLT MOUNTING

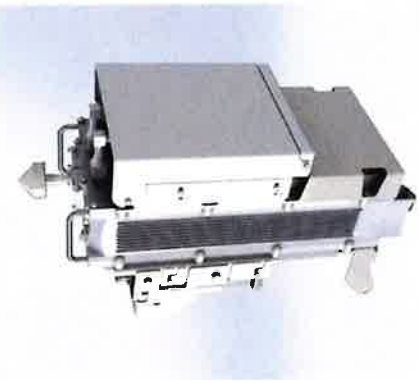


TOP VIEW



BOTTOM VIEW

- (K) NOKIA "13" UNIT FACE OUT" SMALL CELL SHROUD
37.4"x12.3"x12.0"± (HxWxD)



- (H) AIRHARMONY - 4400 RADIO
20.0"x10.3"x8.3"± (HxWxD)

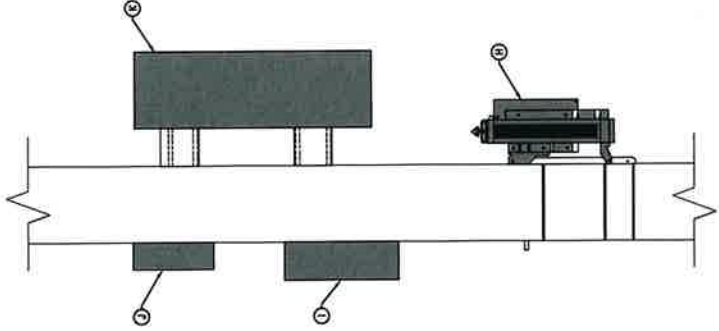


CFIT-C

- (I) CHARLES FIBER INTERCONNECT TERMINALS
18.00"x18.0"x6.0" (HxWxD)



- (J) LOAD CENTER PART #Q0612L100RB
12.65"x8.88"x4.27" (HxWxD)



NOTE:
FOR EQUIPMENT LAYOUT SEE PROPOSED POLE ELEVATIONS SHEET.
LOCATION AND CONNECTION OF EQUIPMENT MAY VARY.

EQUIPMENT POLE MOUNT DETAIL

1 PROPOSED EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE

2 PROPOSED EQUIPMENT SPECIFICATIONS

SCALE: NOT TO SCALE



1	REVISION	DATE	BY	CHKD
2	REVISION	DATE	BY	CHKD
3	REVISION	DATE	BY	CHKD
4	REVISION	DATE	BY	CHKD
5	REVISION	DATE	BY	CHKD
6	REVISION	DATE	BY	CHKD
7	REVISION	DATE	BY	CHKD
8	REVISION	DATE	BY	CHKD
9	REVISION	DATE	BY	CHKD
10	REVISION	DATE	BY	CHKD



SEAL COA NO. 184 06694
7/25/18
Exp. 11/20/19

CH90XSQ06
6573 N. IRVING ST.
CHICAGO, IL 60635

PREPARED BY: [Name]
CHECKED BY: [Name]
DATE: [Date]

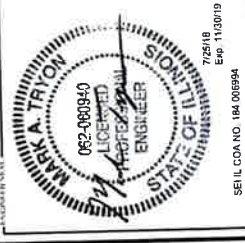
EQUIPMENT DETAILS

CH90XSQ06-05

PUBLIC VERSION



DATE	10/10/06
BY	W. J. HARRIS
CHECKED	W. J. HARRIS
APPROVED	W. J. HARRIS
SCALE	AS SHOWN
PROJECT	CH90XSQ06-07
SHEET	1 OF 1



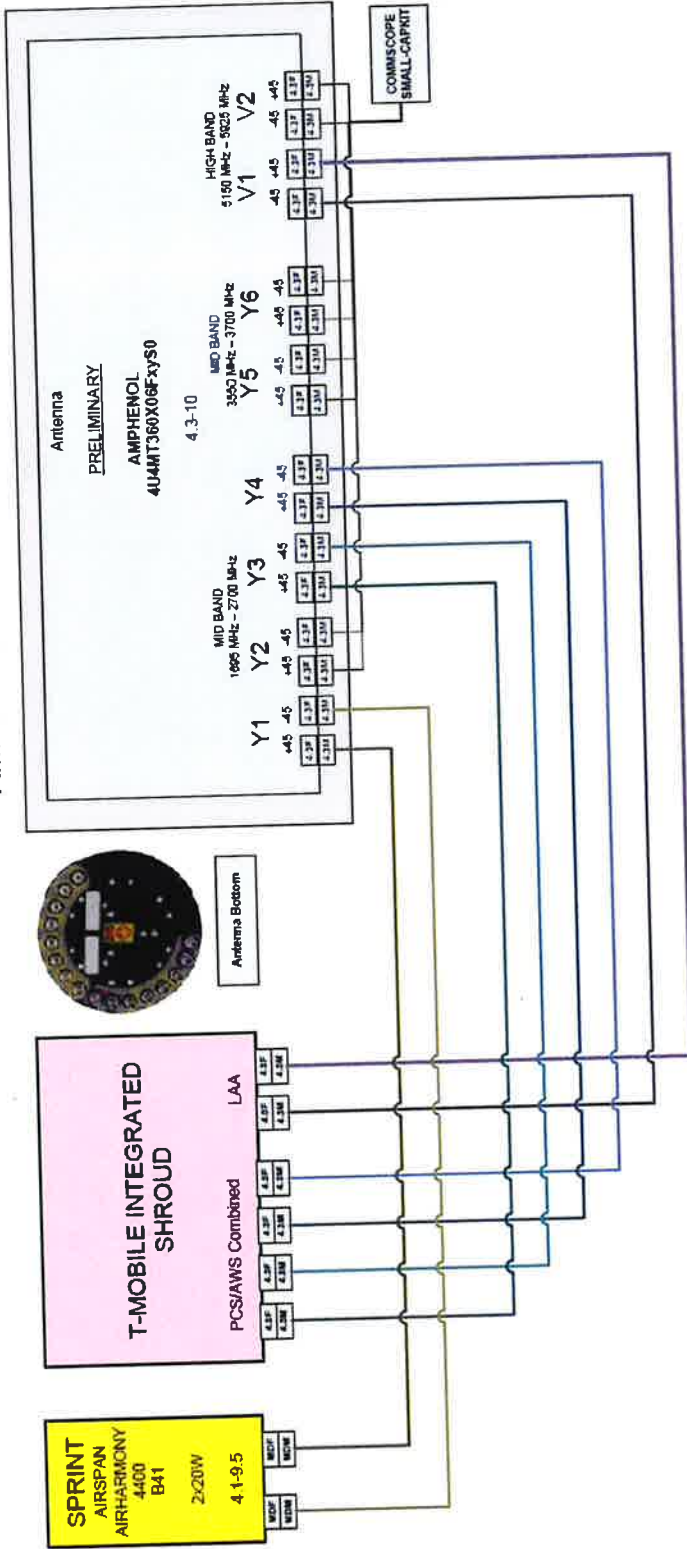
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7/25/16
Exp. 11/30/19

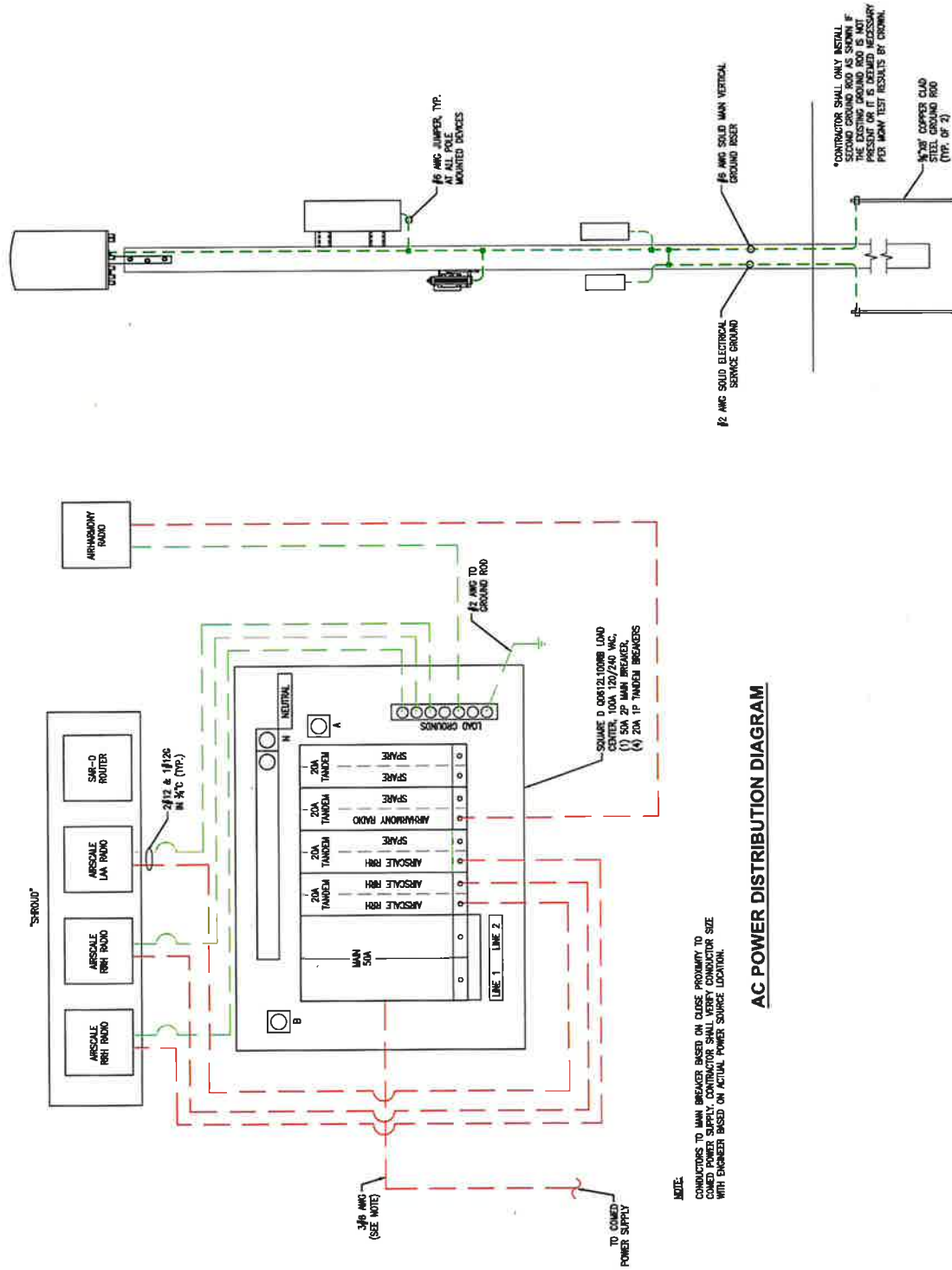
CH90XSQ06
6573 N. TROY ST.
CHICAGO, IL 60615

RF SCHEMATIC

CH90XSQ06-07

AMPHENOL 16 PORT PSEUDO OMNI ANTENNA





NOTE: CONDUCTORS TO MAIN BREAKER BASED ON CLOSE PROXIMITY TO COMED POWER SUPPLY. CONTRACTOR SHALL VERIFY CONDUCTOR SIZE WITH ENGINEER BASED ON ACTUAL POWER SOURCE LOCATION.

AC POWER DISTRIBUTION DIAGRAM

* CONTRACTOR SHALL ONLY INSTALL SECOND GROUND ROD AS SHOWN IF THE EXISTING GROUND ROD IS NOT PRESENT OR IT IS DEEMED NECESSARY PER MOMI TEST RESULTS BY CROWN.

- 1/2" X 8" COPPER CLAD STEEL GROUND ROD (TYP. OF 2)

ELECTRICAL DETAILS

SCALE: NOT TO SCALE

— *not a student here* —

[illegible]

SEIL COA NO 184 008994
Exp 11/30/19
7/25/18

C190XSQ06
6573 N IROY ST
CHICAGO, IL 60645

**SALCI E MODALITÀ
DEI CHIN: 5000**

ELECTRICAL DETAILS

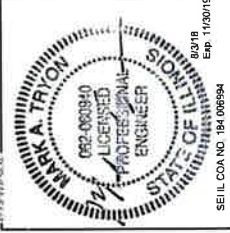
CH90XSQ06-08

7-27-2019

PUBLIC VERSION



NODE NAME
CH90XSR50
NODE SITE ADDRESS
**2948 W 43RD ST
CHICAGO, IL 60632**
HUB ID
CH01XC245



CH90XSR50
2948 W 43RD ST
CHICAGO, IL 60632

PROJECT NO.
DATE
APPROVED BY
DATE

NODE COVER SHEET

CH90XSR50-01

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT CHANGES TO THE EXISTING ENVIRONMENT. NO SANITARY SEWER SERVICE, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

SITE INFORMATION

APPLICANT: CROWN CASTLE INC. CORP., LLC
CROWN ADDRESS: 147 PARKVIEW BOULEVARD
CHICAGO, IL 60632
(847) 881-1102

UTILITIES: COMED
AMPA DITCH
(773) 533-4108
CHICAGO WATER DEPT.
ACT. # 01231-3328

NODE NAME: CH90XSR50
SCL: 434479

HUB ID: CH01XC245

PROPERTY OWNER: PUBLIC RIGHT-OF-WAY
SITE ADDRESS: 2948 W 43RD ST

COUNTY: COOK
JURISDICTION: CHICAGO

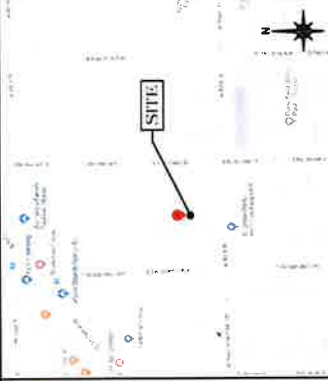
LATITUDE: 41° 46' 56.06" (41.8157467)
LONGITUDE: -87° 41' 55.30" (-87.698947)

LAT/LONG DATUM: NAD 83
GROUND ELEV. (FT. MSL.): 593'
VERTICAL DATUM: NAD 86

IMPORTANT NOTICE

THE EXISTING CONDITIONS REPRESENTED HEREIN ARE BASED ON THE INFORMATION PROVIDED BY THE CLIENT. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT ANY CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.

LOCATION MAP



PLAN VIEW - INTERSECTION



DIG ALERT

811
Know what's below.
Call before you dig.
CALL DIGGER FOR UNDERGROUND UTILITIES PRIOR TO DIGGING
811 OR 312-744-7000

PROJECT DESCRIPTION

END USER PROPOSES TO INSTALL EQUIPMENT ON A NEW WOOD UTILITY POLE WITHIN THE EXISTING RIGHT-OF-WAY.

CODES

2015 INTERNATIONAL BUILDING CODE
2014 NATIONAL ELECTRICAL CODE

DRAWING INDEX

SHEET NO.	SHEET TITLE
CH90XSR50-01	NODE COVER SHEET
CH90XSR50-02	EXISTING POLE ELEVATIONS
CH90XSR50-03	PROPOSED POLE ELEVATIONS
CH90XSR50-04	EQUIPMENT DETAILS
CH90XSR50-05	EQUIPMENT DETAILS
CH90XSR50-06	EQUIPMENT DETAILS
CH90XSR50-07	RF SCHEMATIC
CH90XSR50-08	ELECTRICAL DETAILS

ARCHITECT/ENGINEER

VDM ENGINEERING, LLC
35 E. WACKER, SUITE 900
CHICAGO, IL 60601
PROJECT MANAGER: LEE HARRISON
TEL: (312) 763-2198

POLE ELEVATION - LOOKING NORTH

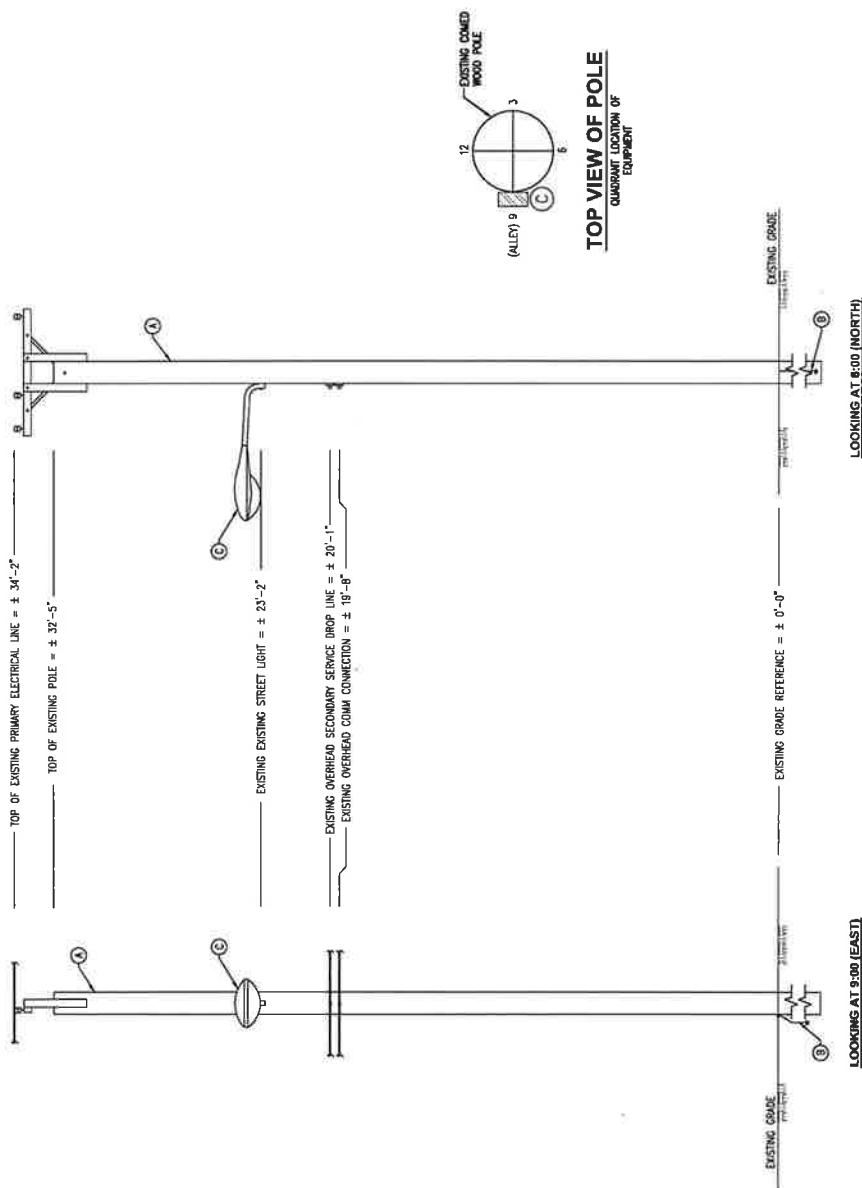


POLE ELEVATION - LOOKING NORTHEAST

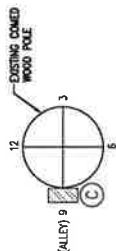


FEDERAL CONTRACTOR NOTES:

1. EXISTING SBA EQUIPMENT TO BE REMOVED AS NOTED.
2. NON-SBA/CROWN OWNED EQUIPMENT IS TO REMAIN ON POLE UNLESS OTHERWISE NOTED.



TOP VIEW OF POLE



LOOKING AT 6:00 (NORTH)

LOOKING AT 9:00 (EAST)

EXISTING POLE ELEVATIONS

SCALE: NOT TO SCALE

EQUIPMENT KEY

- (A) EXISTING CLASS 4 COMED WOOD POLE
(B) EXISTING GROUND ROD AND #6 CU GROUND CONDUCTOR
(C) EXISTING CITY STREET LIGHT (TO REMAIN)

[illegible]

SEIHL COA NO 184 006984
Exp 11/30/19

CHICAGO, IL 60632
2948 W 43RD ST
CHICAGO, IL 60632

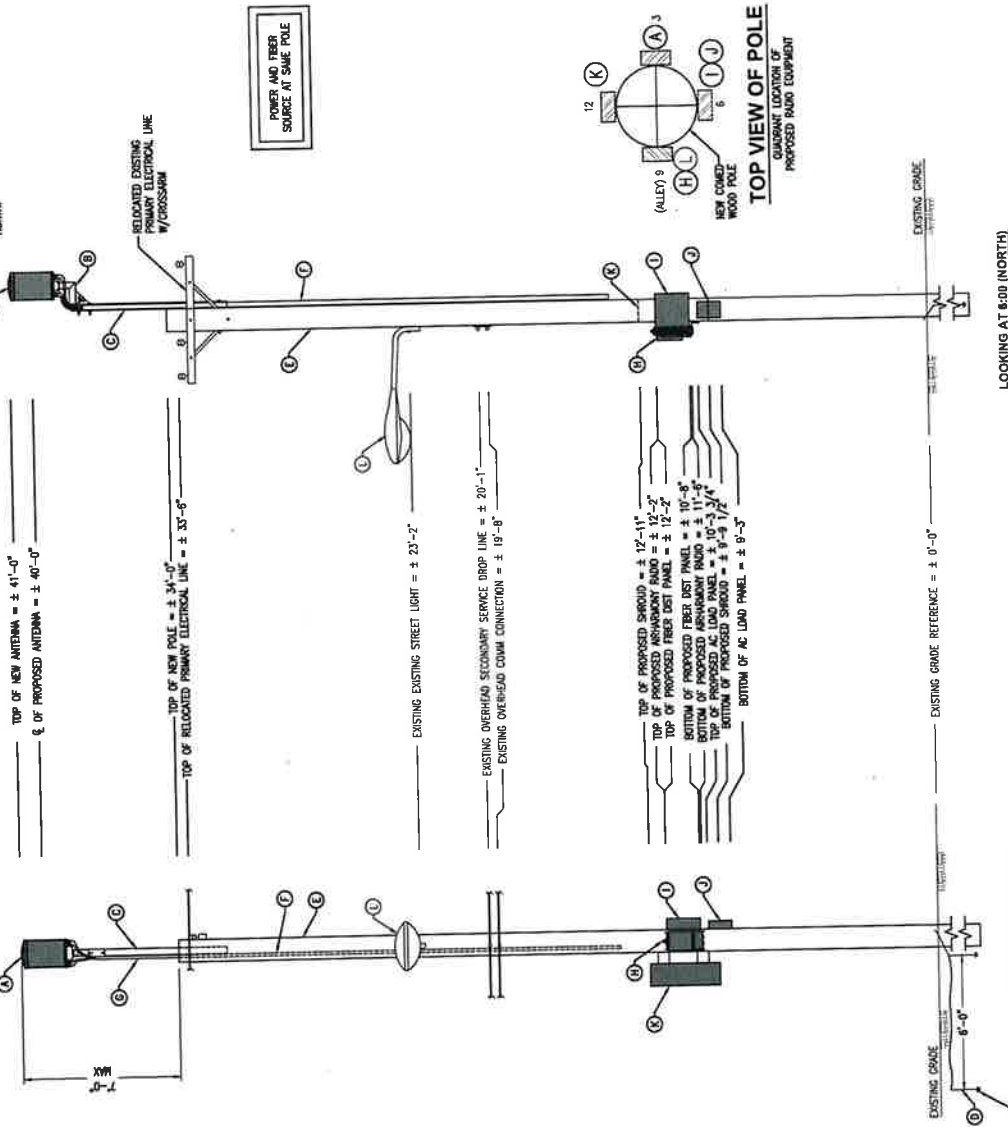
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93	5
94	5
95	5
96	5
97	5
98	5
99	5
100	5

EXISTING POLE
ELEVATIONS

CH90XSR50-02

ALUMINATANKS

- GENERAL CONTRACTOR NOTES:
- EXISTING POLE IS REPLACED DUE TO BAD CONDITION.
 - EXTERNAL ANTENNA AND RADIO EQUIPMENT.
 - STRUCTURAL ENGINEER HAS REVIEWED THE EQUIPMENT HAS BEEN INCLUDED TO VERIFY THAT THIS POLE HAS THE CAPABILITY TO ADEQUATELY SUPPORT THE EQUIPMENT.
 - ANTENNA ALPHA SECTOR ALWAYS POINTED DUE NORTH.



CONTRACTOR SHALL ONLY INSTALL SECOND GROUND ROD AS SHOWN IF THE EXISTING GROUND ROD IS NOT PRESENT OR IT IS DEEMED NECESSARY FOR MANY TEST RESULTS BY CROWN.

PROPOSED POLE ELEVATIONS

SCALE: NOT TO SCALE

EQUIPMENT KEY

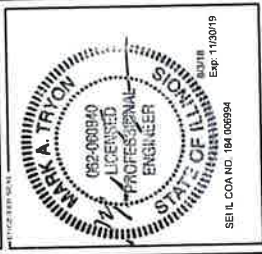
- AMPHENOL PSEUDO QMM CANISTER ANTENNA MODEL ALUMINUM/ROOF/ROD, 24.0"x14.6" (HWD), - 35 LBS. VOLUME = 2.3 CU. FT.
- ADA 2019 POLE EXTENSION MOUNT MODEL 102-2019-5 REV D OR REV E 15 LBS W/ ADAPTER REQUIRED FOR GALVANICS ANTENNA (9 LBS W/ ADAPTER REQUIRED FOR GALVANICS ANTENNA)
- ADA 2870 CEDAR 4X4 WOOD POLE TOP EXTENSION W/ BOLTS 3.5"x3.5", LENGTH AS REQUIRED W/ CHAMFERED TOP 21 LBS.
- NOM 5/8"x8' LONG COPPER-CLAD STEEL ROD BUNDLED 3'-6" BELOW GRADE & TIED TOGETHER W/ #6 AWC VERTICAL GROUND RISER (VGR) W/ #6 AWC BENDING CONNECTORS GRADING ALL WIRES & EQUIPMENT ON POLE. EQUIPMENT SHALL BE MOUNTED TO POLE & GROUND RODS ON CONICAL CABLES.
- NEW CLASS 4-40 FT SP COATED WOOD POLE
- PROPOSED U-GUARD FOR #2 COVERED COPPER GROUND WIRE
- PROPOSED TOP OF THE U-GUARD COVERING THE UTILITIES, AND BOTTOM OF ANTENNA TO BE A MINIMUM OF 40" ABOVE SUPPLY CONDUCTORS
- PROPOSED AIRWAYWAY - 4400 RADIO 20.0"x10.5"x9.5" (HWD) - 32.5 LBS. VOLUME = 1,109.8 CU. IN.
- PROPOSED CHARLES FIBER INTERCONNECT TERMINALS (CFT-C) W/ BOLTS 18"x18"x6" (HWD) - 15.0 LBS. VOLUME = 1,944.00 CU. IN.
- PROPOSED LOAD CENTER PART #006121.00RB 12.65"x6.88"x4.27" (HWD) - 5.68 LBS. VOLUME = 479.66 CU. IN.
- PROPOSED NOMA "3 UNIT FACE OUT" SMALL CELL SITE SOLUTION SHROUD W/ BOLTS 37.4"x12.3"x12" (HWD) - 100 LBS. VOLUME = 5,520.3 CU. IN.
- EXISTING CITY STREET LIGHT (TO REMAIN)

TOTALS

TOTAL EQUIPMENT WEIGHT	146.58 LBS.
TOTAL VOLUME OF EQUIPMENT	4.69 CU. FT.



NAME	MARK A. TRYON
PROFESSION	PROFESSIONAL ENGINEER
STATE	ILLINOIS
NO. 002-000040	
EXPIRATION DATE	EXP. 11/30/2019

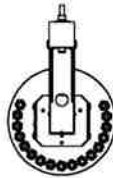


REGISTERED NAME: CROWN CASTLE
 ADDRESS: 2518 N. 73RD ST.
 CHICAGO, IL 60632

PROPOSED POLE ELEVATIONS

CH90XSR50-03

SCALE: NOT TO SCALE



PROPOSED EQUIPMENT MOUNTING DETAIL

2

SCALE: NOT TO SCALE

[illegible]

MacQuinn, J.

Amphenol
Solutions for You

4U-MT36CX065-xy40

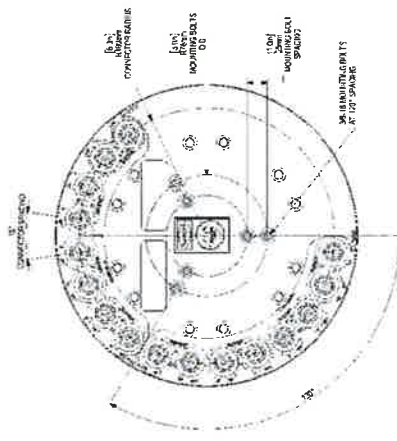
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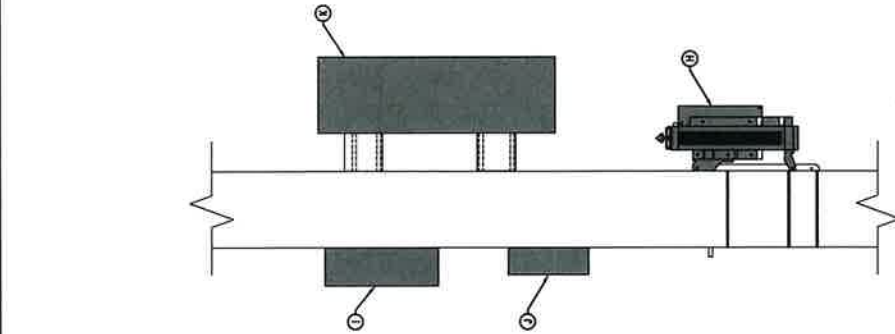
Amphenol
ANTENNAS

4U4VT360X06F-K50

(2x) 1695-2700 / (2x) 3550-3700 / (2x) 5150-5925 MHz

RETO: CWA : CAJAYRANTENNA LUTJA : EBERGHE : 0130MCH 01M

[illegible]



NOTE:
FOR EQUIPMENT LAYOUT SEE PROPOSED POLE ELEVATIONS SHEET.
LOCATION AND CONNECTION OF EQUIPMENT MAY VARY.

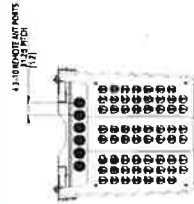
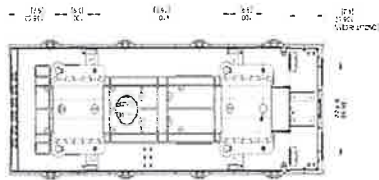
EQUIPMENT POLE MOUNT DETAIL

1 PROPOSED EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE



WOODEN POLE BOLT MOUNTING



TOP VIEW



BOTTOM VIEW

(K) NOKIA "3 UNIT FACE OUT" SMALL CELL SHROUD
37.4"x12.3"x12.0"± (HxWxD)



(H) AIRHARMONY - 4400 RADIO
20.0"x10.3"x8.3"± (HxWxD)



CFIT-C

(1) CHARLES FIBER INTERCONNECT TERMINALS
18.00"x18.0"x6.0" (HxWxD)



(J) LOAD CENTER PART #Q0612L100RB
12.65"x8.88"x4.27" (HxWxD)

CROWN CASTLE

K&J ENGINEERING

Structural ENGINEERING

DATE	10/10/2019
TIME	10:10:19
PROJECT	CH90XSR50-05
DESCRIPTION	CH90XSR50-05
LOCATION	CHICAGO, IL 60632
CLIENT	CHICAGO, IL 60632
DESIGNER	CHICAGO, IL 60632
DATE	10/10/2019
TIME	10:10:19
PROJECT	CH90XSR50-05
DESCRIPTION	CH90XSR50-05
LOCATION	CHICAGO, IL 60632
CLIENT	CHICAGO, IL 60632
DESIGNER	CHICAGO, IL 60632

SEAL NO. 002-000940
MARK A. TRYON
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
EXPIRATION DATE 11/30/19

CH90XSR50
2018 W 43RD ST
CHICAGO, IL 60632

CH90XSR50
2018 W 43RD ST
CHICAGO, IL 60632

CH90XSR50-05

CH90XSR50-05



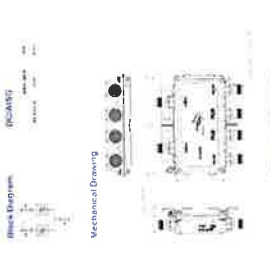
MI-54111
4.7 Ohm 5% BSMCSRPS

Specifications

Part Number	MI-54111
Resistance	4.7 Ohms
Power Rating	0.5W
Temperature Coefficient	±100 ppm/°C
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +175°C
Humidity	5% to 95% RH
Lead Length	0.100" (2.54mm)
Lead Spacing	0.090" (2.29mm)
Case Length	0.150" (3.81mm)
Case Width	0.050" (1.27mm)
Case Height	0.020" (0.51mm)
Weight	0.001g



MI-54111
4.7 Ohm 5% BSMCSRPS



Product Specifications

COMSCOPE



MI-54111
4.7 Ohm 5% BSMCSRPS

General Specifications

Part Number	MI-54111
Resistance	4.7 Ohms
Power Rating	0.5W
Temperature Coefficient	±100 ppm/°C
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +175°C
Humidity	5% to 95% RH
Lead Length	0.100" (2.54mm)
Lead Spacing	0.090" (2.29mm)
Case Length	0.150" (3.81mm)
Case Width	0.050" (1.27mm)
Case Height	0.020" (0.51mm)
Weight	0.001g

Electrical Specifications

Resistance	4.7 Ohms
Power Rating	0.5W
Temperature Coefficient	±100 ppm/°C
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +175°C
Humidity	5% to 95% RH
Lead Length	0.100" (2.54mm)
Lead Spacing	0.090" (2.29mm)
Case Length	0.150" (3.81mm)
Case Width	0.050" (1.27mm)
Case Height	0.020" (0.51mm)
Weight	0.001g



Table with 2 columns: Item, Description

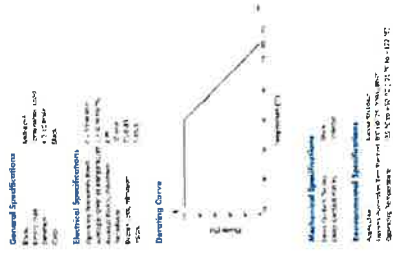
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20	RESISTOR

Product Specifications

COMSCOPE



MI-54111
4.7 Ohm 5% BSMCSRPS



Product Specifications



MI-54111
4.7 Ohm 5% BSMCSRPS

General Specifications

Part Number	MI-54111
Resistance	4.7 Ohms
Power Rating	0.5W
Temperature Coefficient	±100 ppm/°C
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +175°C
Humidity	5% to 95% RH
Lead Length	0.100" (2.54mm)
Lead Spacing	0.090" (2.29mm)
Case Length	0.150" (3.81mm)
Case Width	0.050" (1.27mm)
Case Height	0.020" (0.51mm)
Weight	0.001g

Electrical Specifications

Resistance	4.7 Ohms
Power Rating	0.5W
Temperature Coefficient	±100 ppm/°C
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +175°C
Humidity	5% to 95% RH
Lead Length	0.100" (2.54mm)
Lead Spacing	0.090" (2.29mm)
Case Length	0.150" (3.81mm)
Case Width	0.050" (1.27mm)
Case Height	0.020" (0.51mm)
Weight	0.001g

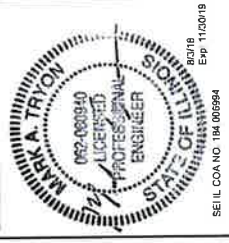
Derating Curve

Mechanical Specifications

Part Number	MI-54111
Resistance	4.7 Ohms
Power Rating	0.5W
Temperature Coefficient	±100 ppm/°C
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +175°C
Humidity	5% to 95% RH
Lead Length	0.100" (2.54mm)
Lead Spacing	0.090" (2.29mm)
Case Length	0.150" (3.81mm)
Case Width	0.050" (1.27mm)
Case Height	0.020" (0.51mm)
Weight	0.001g

Recommended Specifications

Part Number	MI-54111
Resistance	4.7 Ohms
Power Rating	0.5W
Temperature Coefficient	±100 ppm/°C
Operating Temperature	-55°C to +125°C
Storage Temperature	-55°C to +175°C
Humidity	5% to 95% RH
Lead Length	0.100" (2.54mm)
Lead Spacing	0.090" (2.29mm)
Case Length	0.150" (3.81mm)
Case Width	0.050" (1.27mm)
Case Height	0.020" (0.51mm)
Weight	0.001g

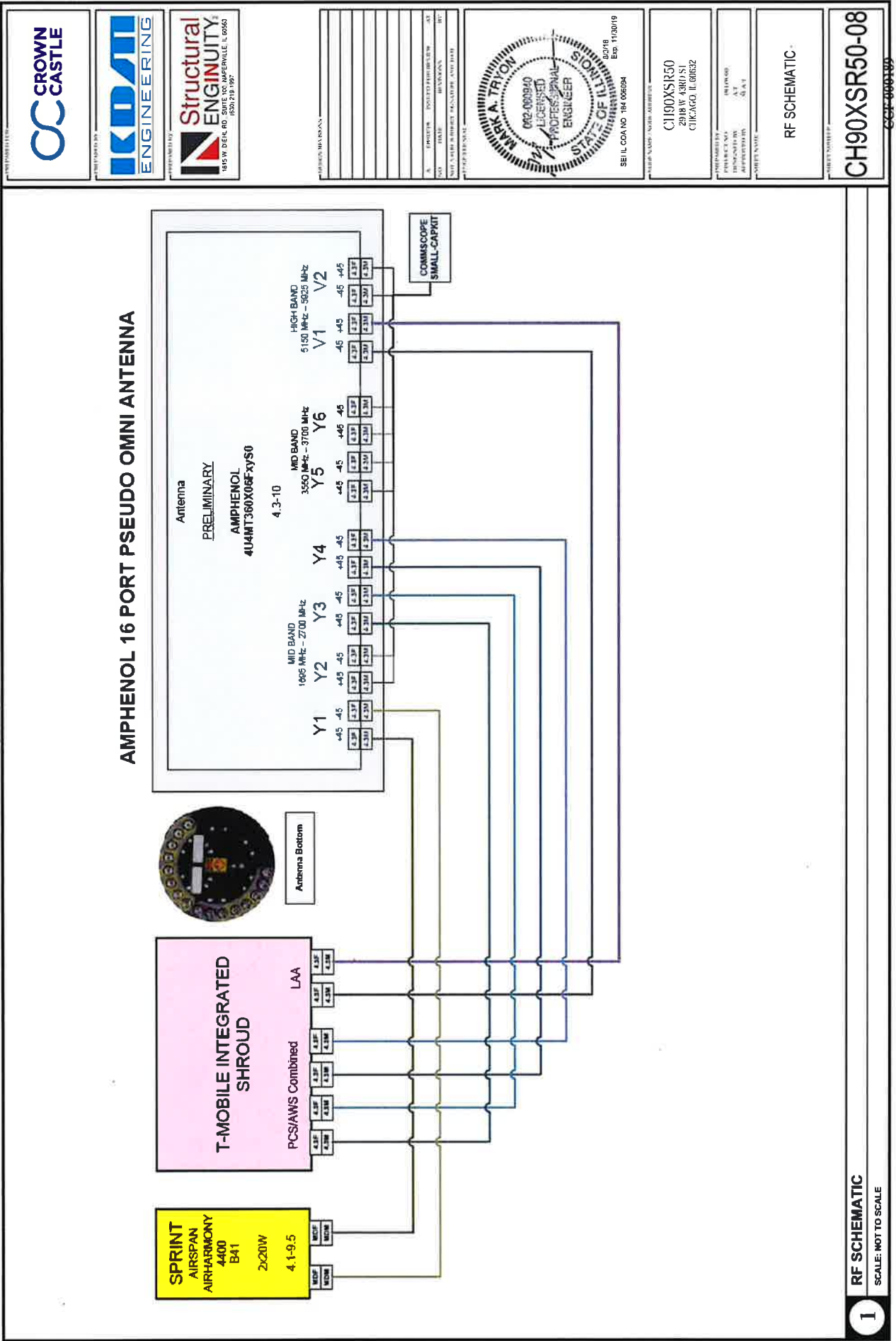


C1190XSR50
2848 W 43RD ST
CHICAGO IL 60632

PROJECT NO. 11919100
DESIGNED BY J.S.T.
CHECKED BY J.S.T.

EQUIPMENT DETAILS

CH90XSR50-06
COP-0000188





CONDUCTORS TO MAIN BREAKER BASED ON CLOSE PROXIMITY TO
 COMED POWER SUPPLY. CONTRACTOR SHALL VERIFY CONDUCTOR SIZE
 WITH ENGINEER BASED ON ACTUAL POWER SOURCE LOCATION.

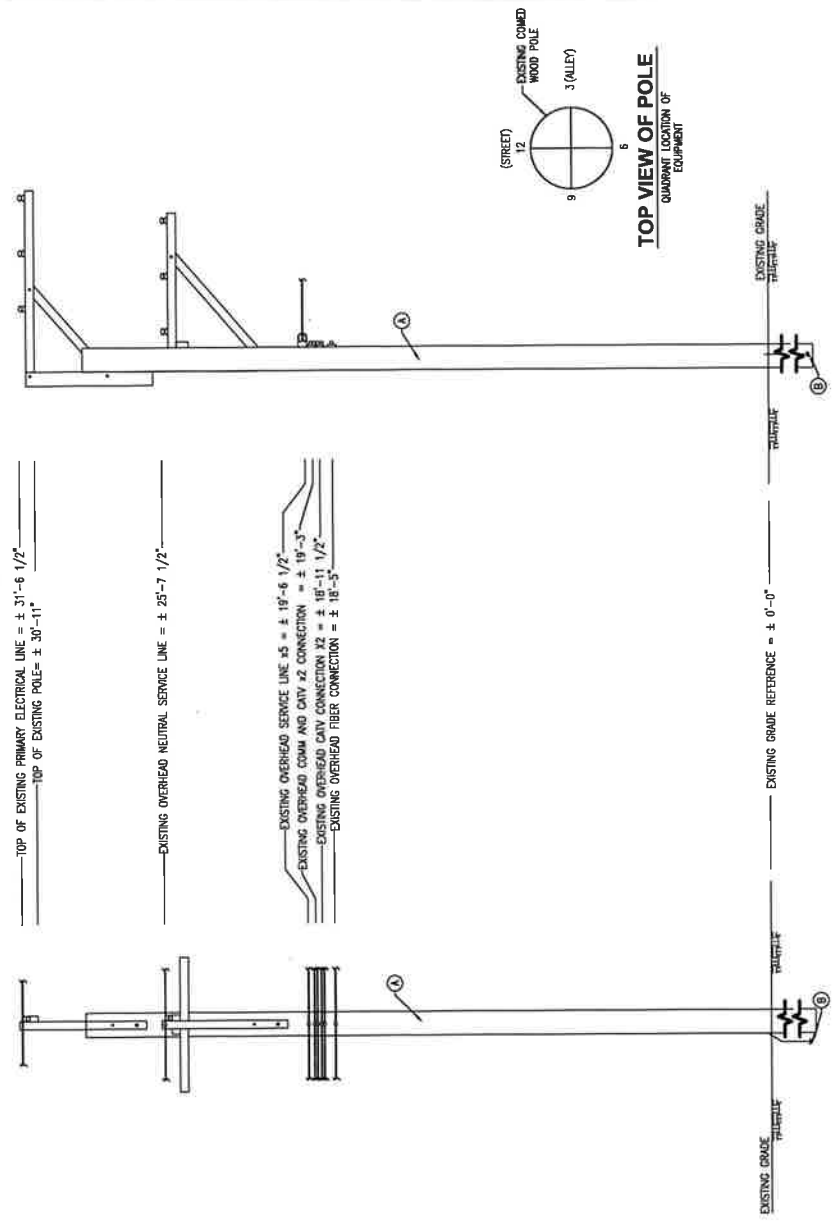
AC POWER DISTRIBUTION DIAGRAM

PUBLIC VERSION

GENERAL CONTRACTOR NOTES:
1. EXISTING EQUIPMENT TO REMAIN UNLESS NOTED OTHERWISE.

EQUIPMENT KEY

- (A) EXISTING CLASS 3 COMED WOOD POLE
- (B) EXISTING GROUND ROD AND #6 CU GROUND CONDUCTOR



EXISTING POLE ELEVATIONS

SCALE: NOT TO SCALE

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CH31183A
1412 W CHASE AVE
CHICAGO, IL 60626

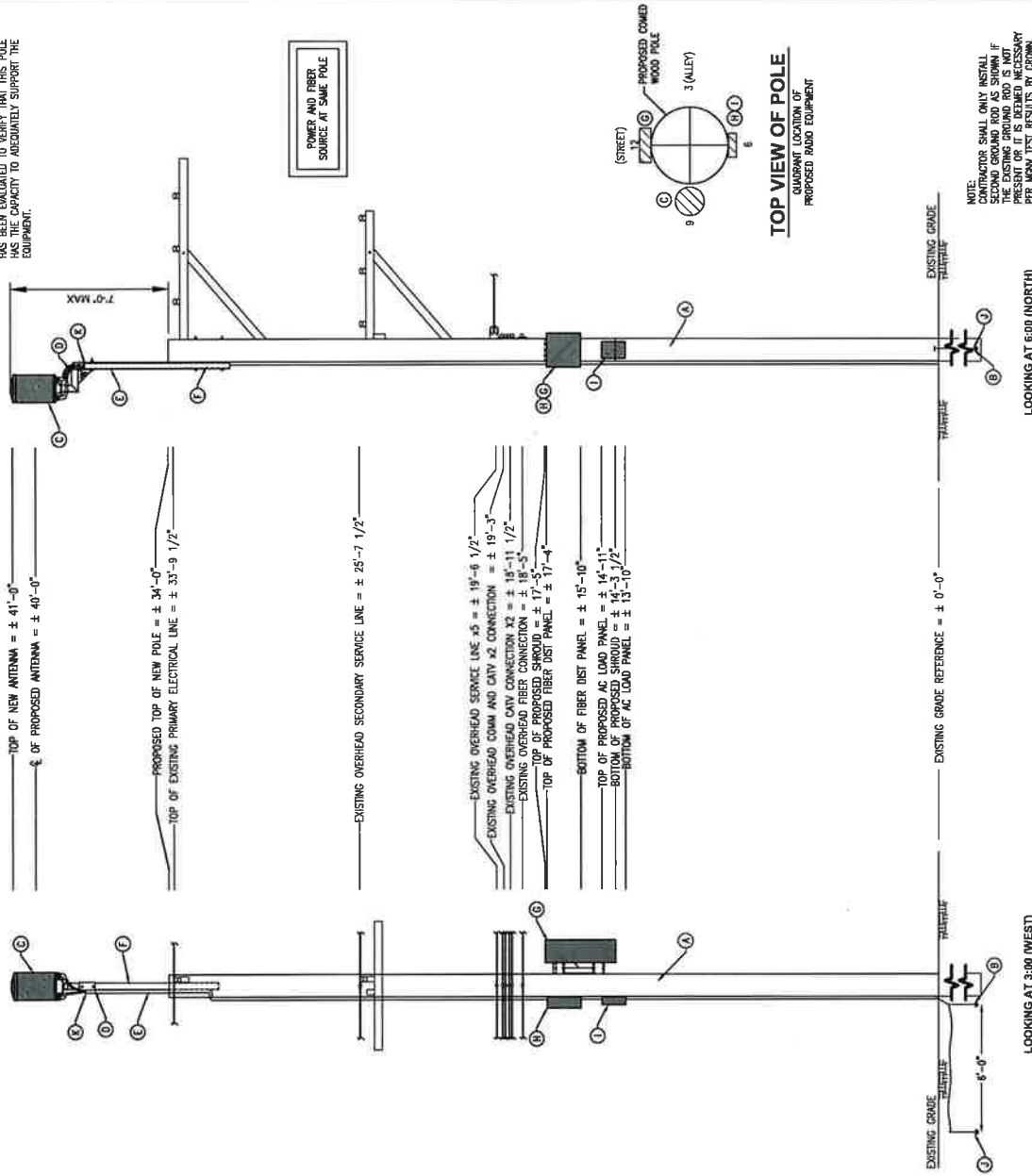
PROJECT NO:
DESIGNED BY:
APPROVED BY:
JCS

EXISTING POLE ELEVATIONS

CHPH30017-02

0000000000

- GENERAL CONTRACTOR NOTES:
1. NEW POLE SHALL BE MADE READY TO FIT PROPOSED EXTERNAL ANTENNA AND RADIO EQUIPMENT.
 2. CONTRACTOR SHALL VERIFY THAT THIS POLE HAS THE CAPACITY TO ADEQUATELY SUPPORT THE EQUIPMENT.



EQUIPMENT KEY

- (A) PROPOSED CLASS 2 HEAVY COMED WOOD POLE
- (B) EXISTING GROUND ROD AND #6 CU GROUND CONDUCTOR
- (C) AURICULAR PSEUDO DUAL CHANISTER ANTENNA MODEL 1467 (HMA) - 35 LBS. VOLUME = 2.3 CU. FT.
- OR
- (D) GALTRONICS OUTDOOR PSEUDO DUAL CHANISTER ANTENNA MODEL EXTENT P688A, 24.7X10.0" (HMA) - 19 LBS. VOLUME = 1.12 CU. FT.
- (E) ADA 2870 POLE EXTENSION MOUNT MODEL 102-2019-5 REV D OR REV E 15 LBS. (9 LBS W/ ADAPTER REMOVED FOR GALTRONICS ANTENNA)
- (F) 4X4 CEDAR WOOD POLE TOP EXTENSION 3.5X3.5X7X LENGTH AS REQUIRED W/ CHAMFERED TOP W/ BOLTS
- (G) PROPOSED U-GUARD FOR #2 COVERED COPPER GROUND WIRE
- (H) NOVA "3" UNIT FACE OUT SMALL CELL SITE SOLUTION SHROUD W/ BOLTS 37.4X12.3X12" (HMA) - 100 LBS. AREA OF DISPLACEMENT = 156.5 SQ. IN. VOLUME = 5520.3 CU. IN.
- (I) PROPOSED CHARLES FIBER INTERCONNECT TERMINALS (CTI-C) MOUNTED W/ BOLTS 19X19X6" (HMA) - 15.0 LBS. AREA OF DISPLACEMENT = 118.71 SQ. IN. VOLUME = 1544.00 CU. IN.
- (J) PROPOSED LOAD CENTER PART #00612L10069 W/ BOLTS, 12.85X8.85X4.27" (HMA) - 9.48 LBS. AREA OF DISPLACEMENT = 63.43 SQ. IN. VOLUME = 475.66 CU. IN.
- (K) NEW 5/8" x 6' LONG COPPER-CLAD STEEL ROD BURIED 3'-6" BELOW GRADE & TIED TOGETHER W/ #6 AND VERTICAL GROUND RISER (VGR) W/ #6 AWG BONDING CONNECTORS GROUNDING ALL WIRES & CONDUCTORS TO THE GROUND. CLAMP TO MOUNT VGR TO POLE & GROUND KITS ON CONICAL CABLES.
- (L) PROPOSED TOP OF THE U-GUARD COVERING THE METAL SHEATHED CONICAL CABLES, BOTTOM OF ANTENNA BRACKETS, AND BOTTOM OF ANTENNA TO BE A MINIMUM OF 40" ABOVE SUPPLY CONDUCTORS.

TOTALS	
TOTAL EQUIPMENT WEIGHT	174.88 LBS.
TOTAL VOLUME OF EQUIPMENT	6.88 CU. FT.

PREPARED BY: **CROWN CASTLE**

PREPARED BY: **ICD**
ICD ENGINEERING
335 E. WACKER DR. SUITE 800
CHICAGO, IL 60601

PREPARED BY: **ORION ENGINEERS**

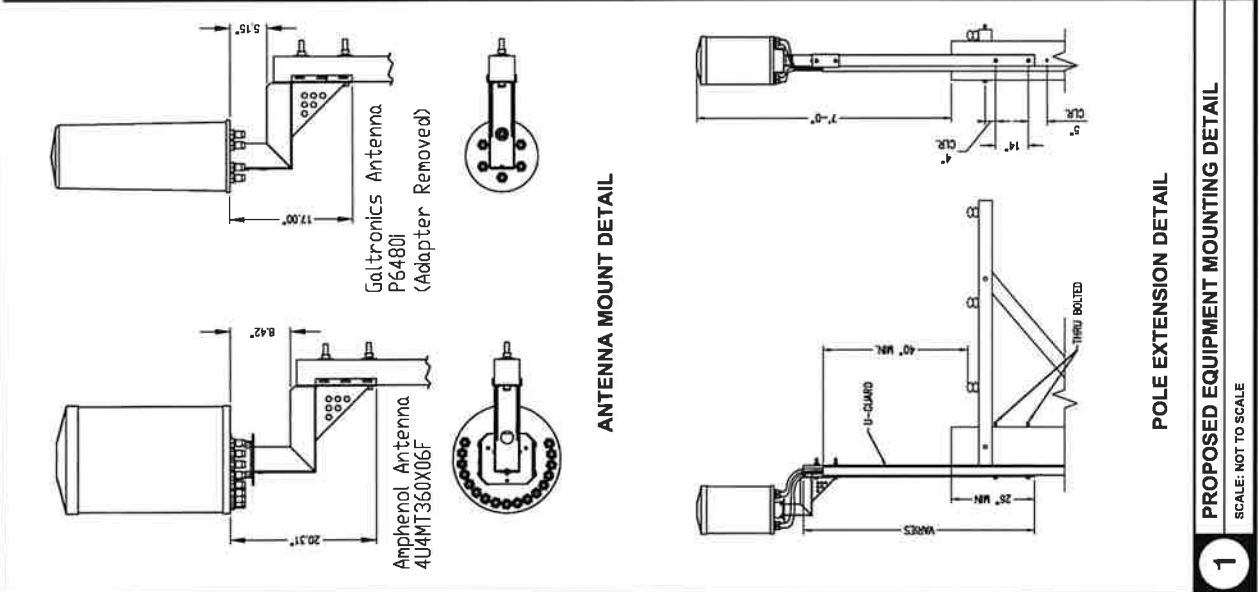
PROJECT NO: 110202019
PROJECT NAME: 1413 W. CHASE AVE
CHICAGO, IL 60625

DESIGNED BY: JVS
CHECKED BY: JVS
APPROVED BY: JVS

PROPOSED POLE ELEVATIONS

CHPH30017-03

Drawings plotted to scale on 11x17 sheets. The drawing shall not be used without written consent of the Engineer, LLC. The Engineer, LLC, is not responsible for any errors or omissions in this drawing.



Amphenol
4U4MT360X06F

Galtronics
PG480i

Technical Specifications

Parameter	Value
Frequency Range	1.5 - 1.6 GHz
Power Handling	100 W
Impedance	50 Ohms
Dimensions	1.5" x 1.5" x 1.5"
Weight	0.5 lbs

Galtronics PG480i

Parameter	Value
Frequency Range	1.5 - 1.6 GHz
Power Handling	100 W
Impedance	50 Ohms
Dimensions	1.5" x 1.5" x 1.5"
Weight	0.5 lbs

Amphenol 4U4MT360X06F

Parameter	Value
Frequency Range	1.5 - 1.6 GHz
Power Handling	100 W
Impedance	50 Ohms
Dimensions	1.5" x 1.5" x 1.5"
Weight	0.5 lbs

CROWN CASTLE

IKDAM ENGINEERS
311 W. Wacker Dr. Suite 800
Chicago, IL 60601

ORION ENGINEERS

CHPH30017-04

EQUIPMENT DETAILS

CHH31183A
1412 W CHASE AVE
CHICAGO, IL 60626

PROJECT NO. 21019
DESIGNED BY WJW
APPROVED BY JWS
SHEET NAME EQUIPMENT DETAILS

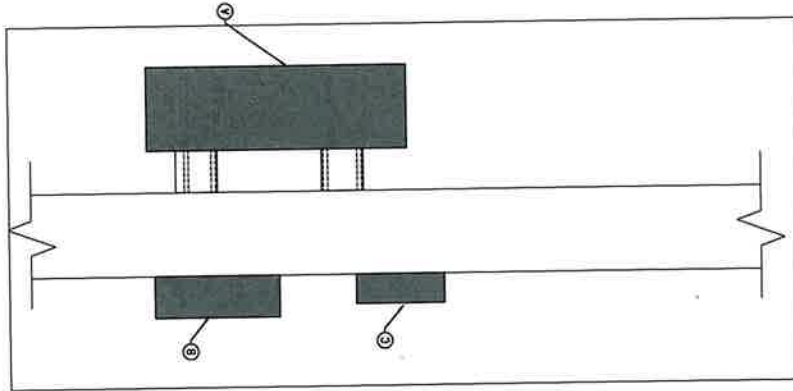
PROPOSED EQUIPMENT SPECIFICATIONS

SCALE: NOT TO SCALE

ANTENNA MOUNT DETAIL

POLE EXTENSION DETAIL

NOTES: The drawings and the design shown are the property of Orion Engineers, LLC. The reproduction, copying, or use of this drawing without written consent is prohibited and any infringement will be subject to legal action.



NOTE:
FOR EQUIPMENT LAYOUT SEE PROPOSED POLE ELEVATIONS SHEET.
LOCATION AND CONNECTION OF EQUIPMENT MAY VARY.

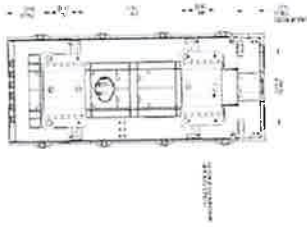
EQUIPMENT POLE MOUNT DETAIL

1 PROPOSED EQUIPMENT MOUNTING DETAIL

SCALE: NOT TO SCALE



WOODEN POLE BOLT MOUNTING



TOP VIEW



BOTTOM VIEW

A NOKIA "3 UNIT FACE OUT" SMALL CELL SHROUD
37.4"x12.3"x12.0"± (HxWxD)



CFT-C

B CHARLES FIBER INTERCONNECT TERMINALS
18.0"x18.00"x6.0" (HxWxD)



C LOAD CENTER PART #Q0612L100RB
12.65"x8.88"x4.27" (HxWxD)



PROJECT NO.	CH31183A
PROJECT NAME	1412 W CHASE AVE
PROJECT LOCATION	CHICAGO, IL 60626
PROJECT DATE	01/11/2017
PROJECT STATUS	IN PROGRESS
PROJECT DESCRIPTION	37.4"x12.3"x12.0"± (HxWxD)
PROJECT DRAWING NO.	CHPH30017-05
PROJECT DRAWING DATE	01/11/2017
PROJECT DRAWING BY	CHPH30017-05
PROJECT DRAWING CHECKED BY	CHPH30017-05
PROJECT DRAWING APPROVED BY	CHPH30017-05
PROJECT DRAWING SCALE	1:1
PROJECT DRAWING SHEET NO.	1
PROJECT DRAWING SHEET TOTAL	1

CH31183A
1412 W CHASE AVE
CHICAGO, IL 60626

PROJECT NO.
PROJECT NAME
PROJECT LOCATION
PROJECT DATE
PROJECT STATUS
PROJECT DESCRIPTION
PROJECT DRAWING NO.
PROJECT DRAWING DATE
PROJECT DRAWING BY
PROJECT DRAWING CHECKED BY
PROJECT DRAWING APPROVED BY
PROJECT DRAWING SCALE
PROJECT DRAWING SHEET NO.
PROJECT DRAWING SHEET TOTAL

EQUIPMENT DETAILS

CHPH30017-05

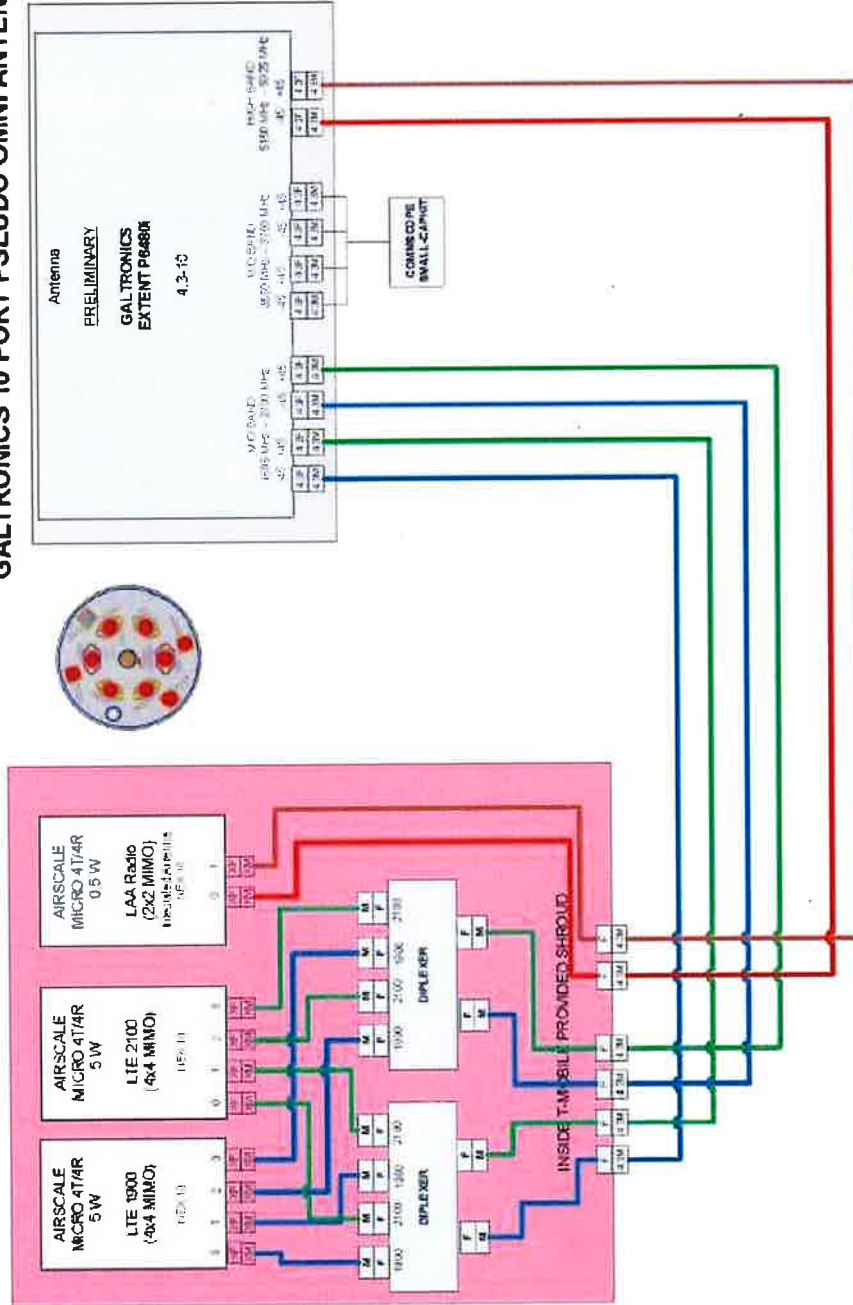
2 PROPOSED EQUIPMENT SPECIFICATIONS

SCALE: NOT TO SCALE

TMO P2/P3- 4x4 MIMO



GALTRONICS 10 PORT PSEUDO OMNI ANTENNA



Customer: T-MOBILE
Location: Chicago- P2/P3
CO Engineer: W
Date: 10/17/2017

AirScale Solution Node Wiring Diagram Galtronics 10 Port Pseudo Omni Antenna

1 RF SCHEMATIC

SCALE: NOT TO SCALE




NO.	DESCRIPTION	DATE	BY	CHKD.	APP'D.
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CH3183A
1412 W CHASE AVE
CHICAGO, IL 60626

PROJECT NO.
PROJECT NAME
PROJECT DATE

RF SCHEMATIC

CHPH30017-07



CROWN CASTLE

ICD

INTEGRATED COMMUNICATIONS DESIGN

30 E. WILSON DR., SUITE 200
CHICAGO, IL 60601

ORION ENGINEERS

PROJECT NO. CH31183A

1412 W. CHASE AVE
CHICAGO, IL 60626

DESIGNED BY: [Signature]

APPROVED BY: [Signature]

DATE: [Date]

PROJECT NO. CH31183A

1412 W. CHASE AVE
CHICAGO, IL 60626

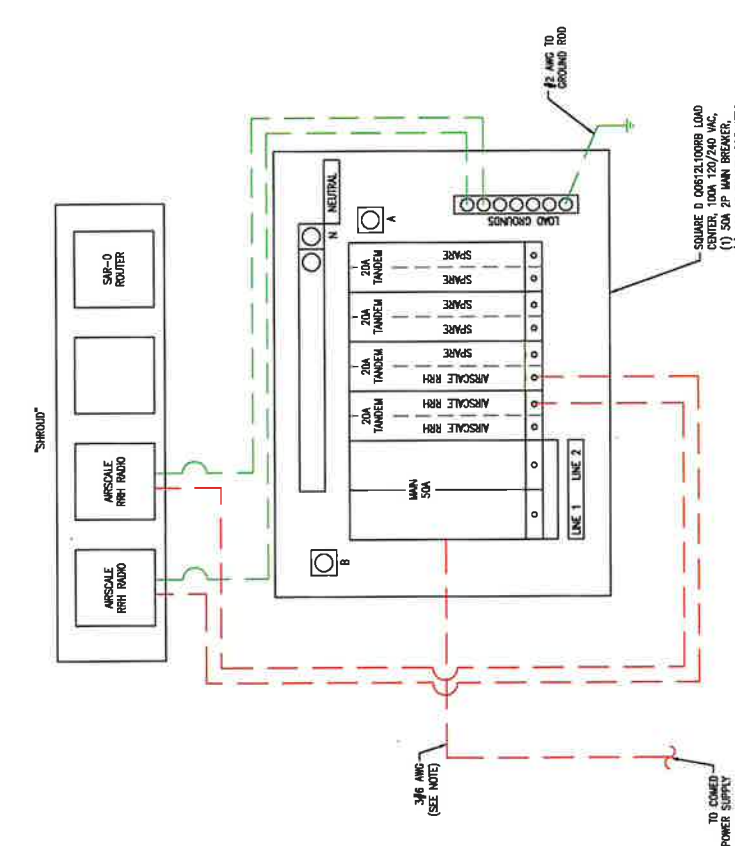
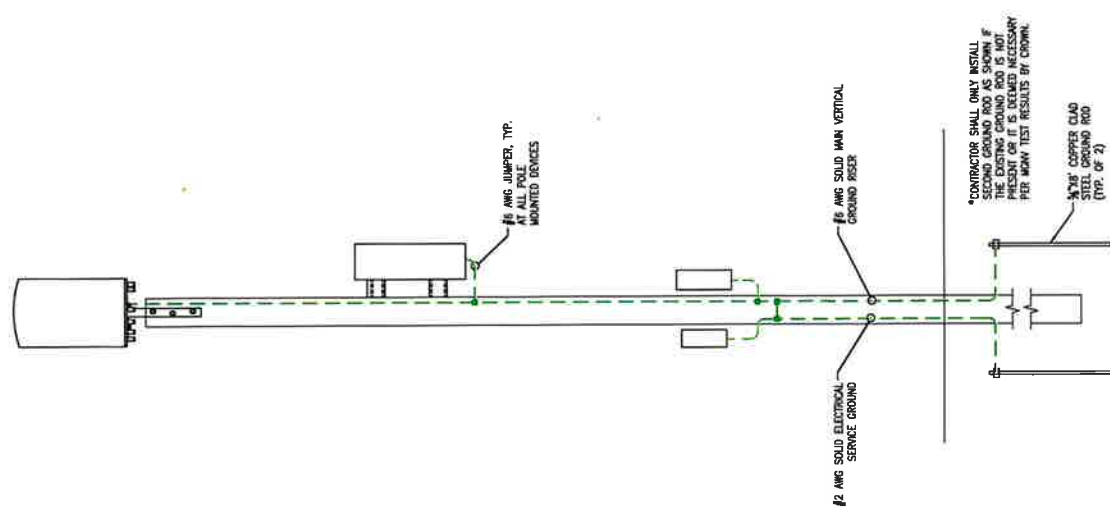
DESIGNED BY: [Signature]

APPROVED BY: [Signature]

DATE: [Date]

PROJECT NO. CH31183A

1412 W. CHASE AVE
CHICAGO, IL 60626



NOTE:
CONDUCTORS TO MAIN BREAKER BASED ON CLOSE PROXIMITY TO COMED POWER SUPPLY. CONTRACTOR SHALL VERIFY CONDUCTOR SIZE WITH ENGINEER BASED ON ACTUAL POWER SOURCE LOCATION.

AC POWER DISTRIBUTION DIAGRAM

ELECTRICAL DETAILS

SCALE: NOT TO SCALE