



Lake Geneva Utility Commission

MUNICIPAL WATER AND WASTEWATER SERVICES

361 W Main Street
P.O. Box 187
Lake Geneva, WI 53147
262-248-2311
www.lgutilitycommission.com

Dennis Lyon – President
Josh Gajewski – Utility Director
Jeff Ecklund – Water Superintendent
Ken Bauman – Wastewater Superintendent

LAKE GENEVA UTILITY COMMISSION MONDAY MARCH 20, 2023 4:00 PM COUNCIL CHAMBERS - CITY HALL, 626 GENEVA STREET

CITY HALL WILL BE OPEN TO THE PUBLIC DURING ALL MEETINGS. MEETINGS WILL BE HELD VIRTUALLY AS WELL AS IN PERSON. IF YOU WISH TO LISTEN OR WATCH THE MEETING YOU MAY DO SO BY USING THE FOLLOWING:

1. Links to the Lake Geneva Utility Commission's live video stream can be found at www.cityoflakegeneva.com/video
2. Television: Watch live broadcast of the meeting on Spectrum Cable Channel 25
3. Listen to audio via phone: (602) 333-2017 (Long distance rates may apply) (888) 204-5987 (Toll Free) **Access Code: 9746153**

AGENDA

1. Call Meeting to Order
2. Roll Call
3. Comments from the public as allowed by Wis. Statutes §19.84 (2), limited to items on this agenda except for public hearing items. Comments will be limited to 5 minutes.
4. Approve Utility Commission Minutes from February 20, 2023 as prepared and distributed
5. Acknowledgement of Correspondence
6. Approval of February 2023 Financials
7. Approval of the February 2023 Bills
8. Directors Report
9. Discussion/Action on request by Pioneer Estates of Lake Geneva to extend water and sewer service on parcels MB 700002 and MB 700003 in the Town of Bloomfield
10. Discussion/Action on acceptance of water and sanitary sewer improvements – Symphony Bay Phase 3
11. Discussion/Action on an Equipment Transfer Agreement at Host Tower proposed by T-Mobile/Sprint
12. Discussion/Action on proposed T-Mobile equipment upgrade at Host Tower
13. Motion to go into closed session pursuant to Wis. Stat. 19.85(1)(e) Deliberating or negotiating the purchasing of public properties, the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session
14. Motion to return to open session pursuant to Wis. Stat. 19.85(2) and take action on any items discussed in the closed session
15. Adjourn

Lake Geneva Utility Commission Minutes
Lake Geneva Utility Commission Meeting
Monday February 20, 2023, 4:00pm
Council Chambers, City Hall – 626 Geneva St

THIS MEETING WAS HELD IN PERSON

Call Meeting to Order – Klein called the meeting to order at 4:00pm

Roll Call – Klein, Howell, Nord, Binn & Stanczak

Staff in Attendance – Gajewski & Busch

Appointment of Meeting Chairperson

Howell/Nord motion to appoint Klein as chairperson. Passed 5-0.

Comments from the public as allowed by Wis. Statutes §19.84 (2), limited to items on this agenda except for public hearing items. Comments will be limited to 5 minutes.

None

Approve Utility Commission Minutes from January 16 & February 8, 2023 as prepared and distributed

Binn/Howell motion to approve. Passed 5-0.

Acknowledgement of Correspondence

None

Approval of January 2023 Financials

Nord/Binn motion to approve. Passed 5-0.

Approval of January 2023 Bills

Howell/Stanczak motion to approve. Passed 5-0.

Directors Report

Gajewski gave an overview of the submitted Directors Report. He advised that the large meter testing program was finding large meters that are not accurately recording lower flows. This is most likely a factor in our high water-loss numbers. There are also instances where meters are oversized for the actual demand from the building, and we are working to get those meters replaced with ones of a more appropriate size. As the wastewater team go through CCTV footage of the sewer mains, we will be notifying customers in situations where we find that their sewer laterals contain blockages of roots, etc. in order to proactively avoid sewer backups. The public information meeting for Wrigley & Cook and Mariane Terrace & Pine Tree Lane is scheduled for Wednesday February 21. Klein mentioned that it was Ash Wednesday that day and we should avoid scheduling meetings of this type on holidays.

Discussion/Action on the Utilities Impact Fee Technical Memorandum prepared by Ruekert-Mielke

Gajewski gave an overview of the memorandum and the information used as part of the process of drafting it. Water mains of 8” or less have always been seen as developer cost but anything over that size would have an upsize cost to the utility. Gajewski said it would be prudent to review impact fees regularly to keep up to date on what is going on within the distribution system and to be aware of future needs. The next step is to combine the technical memorandum with the financial data and

submit it to FLR in March for review. Both water and sewer will have recommended increases in the impact fees. Discussion was had on how that calculation is made and what limits there are. The Utility does not have the authority to set the fees, only the City Council can do that, but any change does need to be justifiable. This is draft four of the report and staff recommend that this draft be approved to move forward.

Howell/Binn motion to approve this draft as presented to move forward. Passed 5-0.

Discussion/Action on Amendment 1 to the Professional Services Agreement with MSA Professional Services for construction related services for the Mariane Terrace and Pine Tree Lane Improvement Project

The amendment to the agreement is for the addition of construction related services such as field inspections and processing pay requests. The original PSA was for design and bidding but did not include construction related services as we weren't sure if the project would definitely go ahead. At this point the project has been bid and awarded so staff recommend approval of the amendment.

Nord/Binn motion to approve amendment #1 to the Professional Services Agreement. Passed 5-0.

Discussion/Action on a Professional Services Agreement with MSA Professional Services for preliminary evaluation of utility-related improvements along the WisDOT STH 50 project corridor

Gajewski said that design plans need to be submitted to the DOT by the end of this year so it's in our best interests to get this moving. This agreement would allow MSA to review sizing of the water and sewer mains along the Highway 50 corridor and update the overall system model, as well as provide a digital copy of our fire flow table. He recommends approval.

Howell/Binn motion to approve the Professional Services Agreement. Passed 5-0.

Discussion/Action on the proposed utility improvements for Symphony Bay Phase 7 and issuance of an Owner Letter of Approval

Gajewski said phase 7 is the last phase of this project. The plat, GDP & PIP were all approved by the Plan Commission and Council. If the Utility Commission approve this tonight he would issue an owner letter of approval to Symphony Bay which can then be submitted to the DNR. Staff have been involved in reviewing the plans for this phase and all requested revisions have been made. Staff recommend approval.

Binn/Stanczak motion to approve. Passed 5-0.

Discussion /Action on the proposed Verizon Wireless improvements at Host Tower

Gajewski said this is for upgrades to transition to 5G. There have been three sets of plans back and forth between Verizon, Dixon Engineering and the Utility but now the structural analysis, mount analysis and upgrade plans have all been reviewed and approved by Dixon. Staff recommend approval.

Binn/Nord motion to approve. Passed 5-0.

Adjourn

Klein/Binn motion to adjourn at 4:34pm. Passed 5-0.

**THESE MINUTES ARE NOT OFFICIAL UNTIL APPROVED BY
THE LAKE GENEVA UTILITY COMMISSION**

LAKE GENEVA UTILITY COMMISSION

BUDGET COMPARISON THRU:

2 / 2023

FUND 61 - WASTEWATER UTILITY

					YTD % of Budget 16.7%	Prior YTD 2022	Prior YTD 5 Year Avg.
REVENUES	Current Period	YTD	2023 Budget	YTD vs Budget			
INTEREST EARNED	0	19,397	69,600	-50,203	27.87%	507	1,991
CUSTOMER SALES	20,026	45,003	2,104,937	-2,059,934	2.14%	43,410	34,928
OTHER REVENUE	732	2,178	11,225	-9,047	19.40%	1,857	1,498
CAPITAL CONTRIBUTIONS	1,865	1,865	205,150	-203,285	0.91%	16,785	23,126
TOTAL REVENUES	22,622	68,443	2,390,912	-2,322,469	2.86%	62,559	61,544
EXPENSES							
TOTAL OUTSIDE SERVICES	21,722	35,934	408,455	-372,521	8.80%	30,654	27,627
TOTAL OPERATING EXPENSES	3,783	6,489	45,550	-39,061	14.25%	2,531	3,084
TOTAL INSURANCE	0	0	29,450	-29,450	0.00%	0	-1,023
TOTAL SALARY & BENEFITS	48,908	116,021	668,150	-552,129	17.36%	97,757	77,461
TOTAL LAB SUPPLIES	43	9,714	21,250	-11,536	45.71%	12,806	4,859
TOTAL MISCELLANEOUS EXPENSE	36	36	1,000	-964	3.60%	6	23
TOTAL MAINTENANCE	11,287	13,448	301,600	-288,152	4.46%	8,281	7,355
TOTAL OPERATION & MAINTENANCE EXPENSES	85,779	181,643	1,475,455	-1,293,812	12.31%	152,035	119,384
REVENUES OVER O&M EXPENSES	-63,157	-113,200	915,457	-1,028,657		-89,475	-57,840
TOTAL CAPITAL OUTLAY	2,156	2,156	1,324,700	-1,322,544	0.16%	68,827	41,385
REVENUES OVER TOTAL EXPENSES	-65,313	-115,356	-409,243	293,887		-158,302	-99,225
TOTAL CASH TRANSFERS	7,460	7,460	-413,250	420,710	-1.81%	354,085	103,193
NET CHANGE IN CASH BALANCE	-72,773	-122,816	4,007	-126,823		-512,387	-202,418

<u>FUND CASH AND INVESTMENT SUMMARY</u>	<u>Opening Balance</u>	<u>Period Activity</u>	<u>Ending Balance</u>
Wastewater Utility Fund Cash	606,584	-42,529	564,055
LGIP #10 - Capital Project Fund	2,837,882	0	2,837,882
LGIP #11 - Debt Service Fund	0	0	0
LGIP #12 - Impact Fee Fund	1,256,396	0	1,256,396
LGIP #13 - Equipment Replacement Fund	1,283,068	0	1,283,068
TOTAL WASTEWATER CASH AND INVESTMENT	5,983,930	-42,529	5,941,401

LAKE GENEVA UTILITY COMMISSION

BUDGET COMPARISON THRU:

2 / 2023

FUND 62 - WATER UTILITY

REVENUES	Current Period	YTD	2023 Budget	YTD vs Budget	YTD % of Budget 16.7%	Prior YTD 2022	Prior YTD 5 Year Avg.
INTEREST EARNED	0	11,060	61,200	-50,140	18.07%	276	1,249
CUSTOMER SALES	11,960	26,984	1,833,474	-1,806,490	1.47%	35,215	27,790
OTHER REVENUE	4,009	98,298	306,498	-208,200	32.07%	94,032	86,709
CAPITAL CONTRIBUTIONS	1,690	1,690	185,900	-184,210	0.91%	15,210	20,077
TOTAL REVENUES	17,659	138,032	2,387,072	-2,249,040	5.78%	144,733	135,825
EXPENSES							
TOTAL SOURCE OF SUPPLY - OPERATION	6,303	8,452	69,850	-61,398	12.10%	7,449	6,506
TOTAL SOURCE OF SUPPLY - MAINTENANCE	708	2,570	66,500	-63,930	3.86%	1,835	1,596
TOTAL PUMPING EXPENSE - OPERATION	6,803	7,359	83,500	-76,141	8.81%	7,291	5,591
TOTAL PUMPING EXPENSE - MAINTENANCE	552	1,332	45,950	-44,618	2.90%	641	908
TOTAL WATER TREATMENT - OPERATION	10,007	15,645	116,900	-101,255	13.38%	11,679	8,592
TOTAL WATER TREATMENT - MAINTENANCE	11,427	16,694	76,000	-59,306	21.97%	16,237	12,474
TOTAL TRANS. & DISTRIBUTION - OPERATION	3,652	8,616	63,900	-55,284	13.48%	5,068	5,773
TOTAL TRANS. & DISTRIBUTION - MAINTENANCE	6,663	31,236	194,150	-162,914	16.09%	38,819	20,269
TOTAL CUSTOMER ACCOUNTS	7,319	16,471	76,025	-59,554	21.67%	10,304	8,826
TOTAL ADMIN & GENERAL OPERATIONS	32,137	88,174	463,540	-375,366	19.02%	64,830	49,854
TOTAL OTHER EXPENSES	25,000	50,000	310,000	-260,000	16.13%	50,000	46,283
TOTAL OPERATION & MAINTENANCE EXPENSES	110,571	246,551	1,566,315	-1,319,764	15.74%	214,153	166,673
REVENUES OVER O&M EXPENSES	-92,912	-108,518	820,757	-929,275		-69,420	-30,848
TOTAL CAPITAL OUTLAY	27,576	27,576	576,000	-548,424	4.79%	-3,918	13,712
REVENUES OVER TOTAL EXPENSES	-120,488	-136,094	244,757	-380,851		-65,502	-44,560
TOTAL CASH TRANSFERS	6,760	6,760	241,600	-234,840	2.80%	99,010	69,966
NET CHANGE IN CASH BALANCE	-127,248	-142,854	3,157	-146,011		-164,512	-114,526

FUND CASH AND INVESTMENT SUMMARY	<u>Opening Balance</u>	<u>Period Activity</u>	<u>Ending Balance</u>
Water Utility Fund Cash	483,838	-39,401	444,437
LGIP #1 - Capital Project Fund	1,663,932	0	1,663,932
LGIP #2 - Impact Fee Fund	614,149	0	614,149
LGIP #3 - Equipment Replacement Fund	788,366	0	788,366
TOTAL WATER FUND CASH AND INVESTMENT	3,550,285	-39,401	3,510,884

Report Criteria:

Detail report.

Invoices with totals above \$5000.00 included.

Paid and unpaid invoices included.

Invoice Detail.GL account (2 Characters) = "61","62"

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
61				
JMB & ASSOCIATES				
39863	03/14/2023	OX DITCH DRIVES #1-4	61-00-00-10700 CONSTRUCTION WORK IN PROCESS	11,479.00
Total JMB & ASSOCIATES:				11,479.00
ALLIANT ENERGY				
280954000023	03/01/2023	HASKINS ST SEWER PLANT	61-00-00-52520 UTILITY-ELECTRICITY-PLANT	14,420.32
Total ALLIANT ENERGY:				14,420.32
AMAZON CAPITAL SERVICES				
89C4-JAN 202	02/01/2023	WEBCAMS	61-00-00-53050 COMPUTER EXPENSE	114.88
89C4-JAN 202	02/01/2023	BACK UP HARD DRIVE	61-00-00-53050 COMPUTER EXPENSE	49.99
89C4-JAN 202	02/01/2023	RUBBER BOOTS	61-00-00-53900 FIRST AID & SAFETY SUPPLIES	139.25
Total AMAZON CAPITAL SERVICES:				304.12
SABEL MECHANICAL LLC				
230116	03/09/2023	EFFL PUMP #3 REBUILD-MAINT	61-00-00-93604 MAINT-EFFLUENT EQUIP	16,995.35
Total SABEL MECHANICAL LLC:				16,995.35
AMAZON CAPITAL SERVICES				
89C4-JAN 202	02/01/2023	CAMEL -JETTER MAINT.	61-00-00-93700 MAINT-VEHICLES & EQUIP	57.99
Total AMAZON CAPITAL SERVICES:				57.99
Total 61:				43,256.78
62				
CORE & MAIN LP				
S350949	02/15/2023	2" BRASS FLANGES	62-00-00-15000 MATERIAL-SUPPLIES	540.00
S279154	02/01/2023	2" OMNI C2 METERS	62-00-00-34600 METERS	6,380.00
S350949	02/15/2023	LARGE METERS	62-00-00-34600 METERS	6,380.00
Total CORE & MAIN LP:				13,300.00
MARTELLE WATER TREATMENT				
24728	02/15/2023	SODIUM HYPOCHLORITE	62-00-00-60200 CHEMICALS	1,026.96
24728	02/15/2023	HYDROFLUOSILICIC ACID, CHL	62-00-00-64100 CHEMICALS	4,991.64
Total MARTELLE WATER TREATMENT:				6,018.60
AMAZON CAPITAL SERVICES				
89C4-JAN 202	02/01/2023	WEBCAMS	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	57.44
Total AMAZON CAPITAL SERVICES:				57.44
Total 62:				19,376.04

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
Grand Totals:				62,632.82

Dated: _____

Mayor: _____

City Council: _____

City Recorder: _____

Report Criteria:

Detail report.

Invoices with totals above \$5000.00 included.

Paid and unpaid invoices included.

Invoice Detail.GL account (2 Characters) = "61","62"

Report Criteria:

Detail report.

Invoices with totals above \$0.00 included.

Paid and unpaid invoices included.

Invoice Detail.GL account (2 Characters) = "61","62"

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
61				
JMB & ASSOCIATES				
39863	03/14/2023	OX DITCH DRIVES #1-4	61-00-00-10700 CONSTRUCTION WORK IN PROCESS	11,479.00
Total JMB & ASSOCIATES:				11,479.00
NORTHERN LAKE SERVICE INC				
2301653	02/18/2023	WEEKLY NITROGEN TESTING	61-00-00-52100 LABORATORY SERVICES	293.79
2302075	02/27/2023	WEEKLY NITROGEN TESTING	61-00-00-52100 LABORATORY SERVICES	293.79
2302450	03/09/2023	WEEKLY NITROGEN TESTING	61-00-00-52100 LABORATORY SERVICES	293.79
Total NORTHERN LAKE SERVICE INC:				881.37
WE ENERGIES				
4504437762	03/10/2023	HASKINS ST DEWATERING BLD	61-00-00-52500 UTILITY-GAS-PLANT	352.18
4504595084	03/10/2023	HASKINS ST WWTF-SEWER PL	61-00-00-52500 UTILITY-GAS-PLANT	686.55
4505259835	03/10/2023	HASKINS ST WEST BLDG-STOR	61-00-00-52500 UTILITY-GAS-PLANT	301.59
4469708947	02/10/2023	LAGRANGE DR LIFT STN	61-00-00-52505 UTILITY-GAS-COLLECTION SYSTEM	21.95
4470536313	02/13/2023	BIG FOOT LIFT STATION	61-00-00-52505 UTILITY-GAS-COLLECTION SYSTEM	14.03
4502922545	03/09/2023	EDGEWOOD DR LIFT STN	61-00-00-52505 UTILITY-GAS-COLLECTION SYSTEM	12.84
Total WE ENERGIES:				1,389.14
ALLIANT ENERGY				
143875000023	03/01/2023	191 HASKINS ST DEWATER BLD	61-00-00-52520 UTILITY-ELECTRICITY-PLANT	279.24
280954000023	03/01/2023	HASKINS ST SEWER PLANT	61-00-00-52520 UTILITY-ELECTRICITY-PLANT	14,420.32
507753000023	03/01/2023	361 W MAIN ST SIGN	61-00-00-52520 UTILITY-ELECTRICITY-PLANT	32.00
974671000023	03/01/2023	361 MAIN ST HALLWAY	61-00-00-52520 UTILITY-ELECTRICITY-PLANT	109.56
055361000023	02/01/2023	361 MAIN ST CC LIFT	61-00-00-52525 UTILITY-ELECTRICITY-COLL SYS	72.81
055361000023	03/01/2023	361 MAIN ST CC LIFT	61-00-00-52525 UTILITY-ELECTRICITY-COLL SYS	73.37
141180000023	02/01/2023	LAGRANGE DR LIFT STN	61-00-00-52525 UTILITY-ELECTRICITY-COLL SYS	259.81
141180000023	03/01/2023	LAGRANGE DR LIFT STN	61-00-00-52525 UTILITY-ELECTRICITY-COLL SYS	284.34
277971000023	02/01/2023	MARIANE TER LIFT STN	61-00-00-52525 UTILITY-ELECTRICITY-COLL SYS	32.23
277971000023	03/01/2023	MARIANE TER LIFT STN	61-00-00-52525 UTILITY-ELECTRICITY-COLL SYS	38.75
307955000023	03/01/2023	MAXWELL ST LIFT STN	61-00-00-52525 UTILITY-ELECTRICITY-COLL SYS	26.77
327113000023	03/01/2023	BAYVIEW DR LIFT STN	61-00-00-52525 UTILITY-ELECTRICITY-COLL SYS	52.08
599411000023	03/01/2023	361 STATE ROAD 120 BIG FOOT	61-00-00-52525 UTILITY-ELECTRICITY-COLL SYS	278.84
962961000023	03/01/2023	EDGEWOOD DR LIFT STN	61-00-00-52525 UTILITY-ELECTRICITY-COLL SYS	220.55
Total ALLIANT ENERGY:				16,180.67
AMAZON CAPITAL SERVICES				
89C4-JAN 202	02/01/2023	WEBCAMS	61-00-00-53050 COMPUTER EXPENSE	114.88
89C4-JAN 202	02/01/2023	BACK UP HARD DRIVE	61-00-00-53050 COMPUTER EXPENSE	49.99
Total AMAZON CAPITAL SERVICES:				164.87
VELOCITY				
2023029	02/27/2023	OFFICE 365 SEATS AND CLOUD	61-00-00-53050 COMPUTER EXPENSE	248.50
2023030	02/27/2023	IT SERVICES 1/12/2023	61-00-00-53050 COMPUTER EXPENSE	180.00

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
Total VELOCITY:				428.50
CHARTER COMMUNICATIONS				
012395102112	02/11/2023	FEB INTERNET SVC	61-00-00-53100 OFFICE SUPPLIES EXPENSE	79.98
Total CHARTER COMMUNICATIONS:				79.98
JJ KELLER & ASSOCIATES				
9107816631	02/24/2023	FEDERAL,STATE POSTERS	61-00-00-53100 OFFICE SUPPLIES EXPENSE	75.92
Total JJ KELLER & ASSOCIATES:				75.92
MARTIN BUSINESS GROUP				
1294280	02/20/2023	SERVICE CONTRACT/COPIES	61-00-00-53100 OFFICE SUPPLIES EXPENSE	112.55
Total MARTIN BUSINESS GROUP:				112.55
AT&T				
262248865602	02/13/2023	FEBRUARY 2023 TELEPHONE B	61-00-00-53110 TELEPHONE EXPENSE	114.74
Total AT&T:				114.74
AT&T LONG DISTANCE				
816988240-01	02/04/2023	262-248-0589 JAN	61-00-00-53110 TELEPHONE EXPENSE	1.20
Total AT&T LONG DISTANCE:				1.20
FIRST NATIONAL BANK OF OMAHA				
554328630552	02/24/2023	VONAGE PHONE SVC 2/23/2023	61-00-00-53110 TELEPHONE EXPENSE	134.36
Total FIRST NATIONAL BANK OF OMAHA:				134.36
US CELLULAR				
0560077660	02/04/2023	WWTF MONTHLY PHONE BILL	61-00-00-53110 TELEPHONE EXPENSE	103.10
Total US CELLULAR:				103.10
PITNEY BOWES GLOBAL LEASE				
3317076809	02/24/2023	POSTAGE METER LEASE ACCT	61-00-00-53120 POSTAGE	86.52
Total PITNEY BOWES GLOBAL LEASE:				86.52
UNITED STATES POST OFFICE				
USPS0228202	02/20/2023	2023 BULK POSTAGE PERMIT #	61-00-00-53120 POSTAGE	145.00
Total UNITED STATES POST OFFICE:				145.00
HOME DEPOT CREDIT				
3021059	02/08/2023	PVC CEMENT-SHOP TOOLS-PL	61-00-00-53500 OPERATIONS TOOLS & EQUIP	10.94
5161435	02/06/2023	7/16" HOLE SAW-PLUMBING PR	61-00-00-53500 OPERATIONS TOOLS & EQUIP	25.97
Total HOME DEPOT CREDIT:				36.91
AMAZON CAPITAL SERVICES				
89C4-JAN 202	02/01/2023	RUBBER BOOTS	61-00-00-53900 FIRST AID & SAFETY SUPPLIES	139.25

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
Total AMAZON CAPITAL SERVICES:				139.25
CINTAS CORP				
5149018675	03/10/2023	RESTOCK FIRST AID SUPPLIES	61-00-00-53900 FIRST AID & SAFETY SUPPLIES	69.33
Total CINTAS CORP:				69.33
USA BLUEBOOK				
280248	02/24/2023	THERMOMETER-LAB EQUIPME	61-00-00-64000 LABORATORY SUPPLIES	55.20
Total USA BLUEBOOK:				55.20
BAY LOCK SERVICE				
50080	02/22/2023	MASTER KEYS "WASTEWATER"	61-00-00-65500 MAINT OF OTHER PLANT	36.00
Total BAY LOCK SERVICE:				36.00
KAPUR & ASSOCIATES INC				
117443	02/01/2023	UPDATE WATER SERVICE LINE	61-00-00-92300 OUTSIDE SERVICES EMPLOYED	362.50
Total KAPUR & ASSOCIATES INC:				362.50
AURORA HEALTH CARE				
48492	03/05/2023	DOT DRUG SCREEN	61-00-00-92600 EMPLOYEE BENEFITS	50.00
Total AURORA HEALTH CARE:				50.00
SECURIAN FINANCIAL GROUP				
MAR LIFE 202	03/01/2023	MAR LIFE INS 2023	61-00-00-92630 LIFE INSURANCE EXPENSE	7.56
Total SECURIAN FINANCIAL GROUP:				7.56
DUNN LUMBER				
1346058	03/06/2023	PROCESS BLDG WATERLINE M	61-00-00-93503 MAINT-PROCESS BLDG	107.77
Total DUNN LUMBER:				107.77
HOME DEPOT CREDIT				
5161434	02/06/2023	HOLE SAW-PROCESS BLDG MA	61-00-00-93503 MAINT-PROCESS BLDG	10.97
5521640	02/06/2023	PIPE CLAMPS & HOLE SAW-PR	61-00-00-93503 MAINT-PROCESS BLDG	42.44
3021059	02/08/2023	CRACK FILLER/DUCT TAPE-DE	61-00-00-93507 MAINT-DEWATERING-B/PRESS BLDG	81.88
Total HOME DEPOT CREDIT:				113.35
CITY ELECTRIC				
LKG/084042	03/06/2023	COIL-PROCESS EQUIP MAINT-E	61-00-00-93603 MAINT-PROCESS EQUIP	68.52
Total CITY ELECTRIC:				68.52
DUNN LUMBER				
1338672	02/22/2023	DRILL BITS-PROCESS VFDS MA	61-00-00-93603 MAINT-PROCESS EQUIP	9.39
1339313	02/23/2023	CORD, TURNBUCKLE,NUTS/BO	61-00-00-93603 MAINT-PROCESS EQUIP	23.70
1341337	02/27/2023	NUTS & BOLTS-PROCESS-PUM	61-00-00-93603 MAINT-PROCESS EQUIP	18.78
Total DUNN LUMBER:				51.87

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
SABEL MECHANICAL LLC				
230116	03/09/2023	EFFL PUMP #3 REBUILD-MAINT	61-00-00-93604 MAINT-EFFLUENT EQUIP	16,995.35
Total SABEL MECHANICAL LLC:				16,995.35
AMAZON CAPITAL SERVICES				
89C4-JAN 202	02/01/2023	CAMEL -JETTER MAINT.	61-00-00-93700 MAINT-VEHICLES & EQUIP	57.99
Total AMAZON CAPITAL SERVICES:				57.99
BUMPER TO BUMPER AUTO PARTS				
662-469189	02/23/2023	BATTERY-PLANT GENERATOR-	61-00-00-93700 MAINT-VEHICLES & EQUIP	297.87
662-469190	02/23/2023	WIRE ACCESSORIES-PLANT G	61-00-00-93700 MAINT-VEHICLES & EQUIP	3.89
662-469916	03/14/2023	AIR FILTER-GENERATOR MAIN	61-00-00-93700 MAINT-VEHICLES & EQUIP	32.81
Total BUMPER TO BUMPER AUTO PARTS:				334.57
CITY ELECTRIC				
LKG/084014	03/03/2023	BACK UP GENERATOR MAINT-	61-00-00-93700 MAINT-VEHICLES & EQUIP	71.46
LKG/084139	03/08/2023	MILITARY GENERATOR MAINT	61-00-00-93700 MAINT-VEHICLES & EQUIP	18.93
Total CITY ELECTRIC:				90.39
DUNN LUMBER				
1343418	03/01/2023	MOBILE GENERATOR MAINT-PI	61-00-00-93700 MAINT-VEHICLES & EQUIP	69.12
Total DUNN LUMBER:				69.12
HOME DEPOT CREDIT				
1023306	03/02/2023	MOBILE GENERATOR MAINT(MI	61-00-00-93700 MAINT-VEHICLES & EQUIP	128.90
Total HOME DEPOT CREDIT:				128.90
ITU ABSORB TECH INC				
8083924	03/03/2023	SHOP RAGS	61-00-00-93700 MAINT-VEHICLES & EQUIP	32.20
Total ITU ABSORB TECH INC:				32.20
WELDERS SUPPLY CO				
10341352	02/10/2023	ACETYLENE & ARGON-SHOP G	61-00-00-93700 MAINT-VEHICLES & EQUIP	180.00
Total WELDERS SUPPLY CO:				180.00
BUMPER TO BUMPER AUTO PARTS				
662-469111	02/21/2023	CIRCULATION HTR-EDGEWOOD	61-00-00-93800 MAINT-LIFT STATIONS	108.59
Total BUMPER TO BUMPER AUTO PARTS:				108.59
DUNN LUMBER				
1337537	02/21/2023	AC CORD-EDGEWOOD LS MAI	61-00-00-93800 MAINT-LIFT STATIONS	10.77
Total DUNN LUMBER:				10.77
DOWN TO EARTH				
8038	02/28/2023	2/24 BIGFOOT LS FORCEMAIN	61-00-00-93810 MAINT-MAINS	3,450.00

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
Total DOWN TO EARTH:				3,450.00
PATS SERVICES INC				
968758	02/24/2023	BIG FOOT LS FORCEMAIN BRE	61-00-00-93810 MAINT-MAINS	832.50
Total PATS SERVICES INC:				832.50
SCHMITZ READY MIX INC				
103148A-IN	02/28/2023	BIGFOOT LS FORCEMAIN BREA	61-00-00-93810 MAINT-MAINS	2,610.00
Total SCHMITZ READY MIX INC:				2,610.00
ALLIANT ENERGY				
252422000023	02/01/2023	E STATE ROAD 50 GATE	61-00-00-93820 MAINT-RECEIVING STATION	17.67
252422000023	03/01/2023	E STATE ROAD 50 GATE	61-00-00-93820 MAINT-RECEIVING STATION	16.00
054885000023	02/01/2023	E STATE ROAD 50 SEEPAGE	61-00-00-93830 MAINT-SEEPAGE CELLS/POND	110.10
054885000023	03/01/2023	E STATE ROAD 50 SEEPAGE	61-00-00-93830 MAINT-SEEPAGE CELLS/POND	143.29
Total ALLIANT ENERGY:				287.06
Total 61:				57,662.62
62				
CORE & MAIN LP				
S350949	02/15/2023	2" BRASS FLANGES	62-00-00-15000 MATERIAL-SUPPLIES	540.00
S279154	02/01/2023	2" OMNI C2 METERS	62-00-00-34600 METERS	6,380.00
S310777	02/03/2023	T C FXU'S	62-00-00-34600 METERS	4,483.70
S350949	02/15/2023	LARGE METERS	62-00-00-34600 METERS	6,380.00
S384537	02/17/2023	FXU RADIOS	62-00-00-34600 METERS	4,348.99
Total CORE & MAIN LP:				22,132.69
MARTELLE WATER TREATMENT				
24728	02/15/2023	SODIUM HYPOCHLORITE	62-00-00-60200 CHEMICALS	1,026.96
Total MARTELLE WATER TREATMENT:				1,026.96
ADVANCE AUTO PARTS				
719330548938	02/23/2023	BACK UP GENERATOR BATTER	62-00-00-60300 MISC EXPENSES & UTILITY	119.25
Total ADVANCE AUTO PARTS:				119.25
ALLIANT ENERGY				
145511000023	03/01/2023	361 MAIN ST WELL 2	62-00-00-60300 MISC EXPENSES & UTILITY	929.86
327391000023	03/01/2023	WAVERLY ST WELL 4	62-00-00-60300 MISC EXPENSES & UTILITY	586.84
348370000023	03/01/2023	WAVERLY ST WELL 3	62-00-00-60300 MISC EXPENSES & UTILITY	644.03
972745000023	03/02/2023	HASKINS ST WELL 5	62-00-00-60300 MISC EXPENSES & UTILITY	447.34
Total ALLIANT ENERGY:				2,608.07
DUNN LUMBER				
1341335	02/27/2023	MOUSE TRAPS WELLHOUSES	62-00-00-60300 MISC EXPENSES & UTILITY	20.06
Total DUNN LUMBER:				20.06

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
HD SUPPLY INC				
291386	03/07/2023	CHEMICAL PUMPS-REPLACEM	62-00-00-60300 MISC EXPENSES & UTILITY	424.40
Total HD SUPPLY INC:				424.40
WE ENERGIES				
4504794609	03/10/2023	WAVERLY ST WELLHOUSE #4	62-00-00-60300 MISC EXPENSES & UTILITY	58.57
4504964301	03/10/2023	HASKINS ST WELLHOUSE #5	62-00-00-60300 MISC EXPENSES & UTILITY	99.81
Total WE ENERGIES:				158.38
DUNN LUMBER				
1339210	02/23/2023	VINYL TUBE/CLAMP-WELL #5 G	62-00-00-61400 WELLS MAINTENANCE	68.72
Total DUNN LUMBER:				68.72
ALLIANT ENERGY				
347962000023	03/01/2023	DODGE ST BOOSTER	62-00-00-62300 PUMPING POWER PURCHASED	173.72
576425000023	03/01/2023	MAIN ST ENGINE ROOM	62-00-00-62300 PUMPING POWER PURCHASED	4,565.32
717061000023	03/01/2023	1401 CENTER ST BOOSTER	62-00-00-62300 PUMPING POWER PURCHASED	263.96
Total ALLIANT ENERGY:				5,003.00
WE ENERGIES				
4504871508	03/10/2023	WATER DEPT MAIN BLDG	62-00-00-62300 PUMPING POWER PURCHASED	892.72
4505032887	03/10/2023	CENTER ST BOOSTER STN	62-00-00-62300 PUMPING POWER PURCHASED	57.45
Total WE ENERGIES:				950.17
DUNN LUMBER				
1350435	03/13/2023	HOSE BIBB & ADAPTER-CHEM	62-00-00-62600 MISCELLANEOUS EXPENSE	33.30
1350831	03/13/2023	NUTS/BOLTS/SEAL/CONDUIT/PI	62-00-00-62600 MISCELLANEOUS EXPENSE	8.67
Total DUNN LUMBER:				41.97
MARTELLE WATER TREATMENT				
24728	02/15/2023	HYDROFLUOSILICIC ACID, CHL	62-00-00-64100 CHEMICALS	4,991.64
Total MARTELLE WATER TREATMENT:				4,991.64
ALLIANT ENERGY				
974671000023	03/01/2023	361 MAIN ST HALLWAY	62-00-00-64200 LABOR & EXPENSES (LAB)	109.57
Total ALLIANT ENERGY:				109.57
COLE-PARMER				
3375526	02/16/2023	NIST THERMOMETER - 5YR CA	62-00-00-64200 LABOR & EXPENSES (LAB)	245.24
Total COLE-PARMER:				245.24
IDEXX DISTRIBUTION CORP				
3124060877	02/27/2023	150ML STERILE BACT BOTTLES	62-00-00-64200 LABOR & EXPENSES (LAB)	275.87
3124110357	02/28/2023	QUANTI-CULT - BACTI LAB QUA	62-00-00-64200 LABOR & EXPENSES (LAB)	330.25
Total IDEXX DISTRIBUTION CORP:				606.12

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
NORTHERN LAKE SERVICE INC				
2302261	03/03/2023	MANGANESE MONTHLLY	62-00-00-64200 LABOR & EXPENSES (LAB)	42.91
Total NORTHERN LAKE SERVICE INC:				42.91
WI STATE LABORATORY OF HYGIENE				
736867	02/28/2023	FLOURIDE SPLIT SAMPLE	62-00-00-64200 LABOR & EXPENSES (LAB)	28.00
Total WI STATE LABORATORY OF HYGIENE:				28.00
CAPITAL ONE				
523026572745	01/26/2023	UNIFORM HANGERS/PLANT	62-00-00-64300 MISC EXPENSE	138.42
Total CAPITAL ONE:				138.42
HOME DEPOT CREDIT				
2162539	03/01/2023	ELEC SUPP-MISC PLANT-BOX	62-00-00-65100 PLANT MAINTENANCE	2.24
3021087	02/08/2023	TRMT PLANT HANGERS, CHAIN	62-00-00-65100 PLANT MAINTENANCE	34.50
3021139	02/08/2023	NUTS/BOLTS	62-00-00-65100 PLANT MAINTENANCE	4.23
Total HOME DEPOT CREDIT:				40.97
DRIVE SYSTEMS TECHNOLOGY INC				
22604	02/16/2023	VFD 3A DISPLAY REPLACEMEN	62-00-00-65200 MAINT WATER TREATMENT EQUIP	232.75
Total DRIVE SYSTEMS TECHNOLOGY INC:				232.75
SMITH ECOLOGICAL SYSTEMS COMPANY				
24190	03/15/2023	CHLORINE INJECTOR REBUILD	62-00-00-65200 MAINT WATER TREATMENT EQUIP	1,072.80
Total SMITH ECOLOGICAL SYSTEMS COMPANY:				1,072.80
ALLIANT ENERGY				
098433000023	03/01/2023	750 WILD RIDGE DR WATER TO	62-00-00-66100 MAINT OPS-STANDPIPES	105.96
520171000023	03/01/2023	1887 DODGE ST TOWER	62-00-00-66100 MAINT OPS-STANDPIPES	142.87
Total ALLIANT ENERGY:				248.83
HOME DEPOT CREDIT				
1161702	02/10/2023	RETURN WINTER WORK GLOV	62-00-00-66500 MISC EXPENSE LICENSE & TOOLS	179.97-
1380110	02/10/2023	WORK SAFETY GLOVES	62-00-00-66500 MISC EXPENSE LICENSE & TOOLS	159.97
3970116	02/08/2023	WINTER WORK GLOVES	62-00-00-66500 MISC EXPENSE LICENSE & TOOLS	179.97
Total HOME DEPOT CREDIT:				159.97
DUNN LUMBER				
1330691	02/09/2023	GALV PIPE FITTINGS	62-00-00-67500 MAINT SERVICES & CURB BOX	40.54
1335563	02/17/2023	GALV FITTINGS-CB REPAIRS	62-00-00-67500 MAINT SERVICES & CURB BOX	49.92
Total DUNN LUMBER:				90.46
HOME DEPOT CREDIT				
1023311	03/02/2023	CB LOCATION MARKERS	62-00-00-67500 MAINT SERVICES & CURB BOX	25.96
Total HOME DEPOT CREDIT:				25.96

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
DUNN LUMBER				
1337676	02/21/2023	VINYL TUBE-LARGE METER TE	62-00-00-67600 MAINT OF METERS	34.00
Total DUNN LUMBER:				34.00
FASTENAL COMPANY				
WIELK175936	03/02/2023	LARGE METERS NUTS/BOLTS	62-00-00-67600 MAINT OF METERS	340.83
Total FASTENAL COMPANY:				340.83
SOUTHEAST LOCK SUPPLY LLC				
6387	03/13/2023	LOCKS FOR METER BYPASSES	62-00-00-67600 MAINT OF METERS	410.30
Total SOUTHEAST LOCK SUPPLY LLC:				410.30
DOWN TO EARTH				
8039	03/13/2023	BROAD ST HYDRANT REPLACE	62-00-00-67800 MAINT FOUNTAINS & MISC PLANT	2,946.00
Total DOWN TO EARTH:				2,946.00
HOME DEPOT CREDIT				
4022019	02/17/2023	PLUMBING FITTINGS/ACCESSO	62-00-00-67800 MAINT FOUNTAINS & MISC PLANT	38.55
Total HOME DEPOT CREDIT:				38.55
UNITED STATES POST OFFICE				
USPS0228202	02/20/2023	2023 BULK POSTAGE PERMIT #	62-00-00-90300 RECORDS & COLLECTION EXPENSE	145.00
Total UNITED STATES POST OFFICE:				145.00
AMAZON CAPITAL SERVICES				
89C4-JAN 202	02/01/2023	WEBCAMS	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	57.44
Total AMAZON CAPITAL SERVICES:				57.44
AT&T				
262248865602	02/13/2023	FEBRUARY 2023 TELEPHONE B	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	114.74
Total AT&T:				114.74
AT&T LONG DISTANCE				
816988240-01	02/04/2023	262-248-8617 JAN	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	.36
Total AT&T LONG DISTANCE:				.36
CAPITAL ONE				
223037696694	02/06/2023	LYSOL WIPES	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	5.97
Total CAPITAL ONE:				5.97
CHARTER COMMUNICATIONS				
010682402212	02/21/2023	WATER FEBRUARY INTERNET	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	119.98
Total CHARTER COMMUNICATIONS:				119.98
FIRST NATIONAL BANK OF OMAHA				
052270230593	02/28/2023	AMERICAN WATER WORKS-AN	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	418.00

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
554328630552	02/24/2023	VONAGE PHONE SVC 1/23/2023	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	134.36
Total FIRST NATIONAL BANK OF OMAHA:				552.36
JJ KELLER & ASSOCIATES				
9107816631	02/24/2023	FEDERAL,STATE POSTERS	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	75.91
Total JJ KELLER & ASSOCIATES:				75.91
MARTIN BUSINESS GROUP				
1294280	02/20/2023	SERVICE CONTRACT/COPIES	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	112.54
Total MARTIN BUSINESS GROUP:				112.54
PITNEY BOWES GLOBAL LEASE				
3317076809	02/24/2023	POSTAGE METER LEASE ACCT	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	86.52
Total PITNEY BOWES GLOBAL LEASE:				86.52
US CELLULAR				
0560077660	02/04/2023	WATER MONTHLY PHONE BILL	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	191.48
Total US CELLULAR:				191.48
VELOCITY				
2023029	02/27/2023	OFFICE 365 SEATS AND CLOUD	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	248.50
2023030	02/27/2023	IT SERVICES 1/12/2023	62-00-00-92100 OFFICE SUPPLIES & EXPENSE	180.00
Total VELOCITY:				428.50
CLEAN WATER ENGINEERING LLC				
1025	02/21/2023	CROSS CONNECTION INSPECT	62-00-00-92300 OUTSIDE SERVICES EMPLOYED	2,958.00
Total CLEAN WATER ENGINEERING LLC:				2,958.00
KAPUR & ASSOCIATES INC				
117443	02/01/2023	UPDATE WATER SERVICE LINE	62-00-00-92300 OUTSIDE SERVICES EMPLOYED	362.50
Total KAPUR & ASSOCIATES INC:				362.50
SECURIAN FINANCIAL GROUP				
MAR LIFE 202	03/01/2023	MAR LIFE INS 2023	62-00-00-92630 LIFE INSURANCE EXPENSE	12.91
Total SECURIAN FINANCIAL GROUP:				12.91
BAY LOCK SERVICE				
50077	02/14/2023	MASTER KEYS "WATER"	62-00-00-93000 MISCELLANEOUS GENERAL EXP	72.00
Total BAY LOCK SERVICE:				72.00
CAPITAL ONE				
183032618781	02/01/2023	HEATERS	62-00-00-93000 MISCELLANEOUS GENERAL EXP	88.36
Total CAPITAL ONE:				88.36
CINTAS CORP				
5149018677	03/10/2023	RESTOCK FIRST AID SUPPLIES	62-00-00-93000 MISCELLANEOUS GENERAL EXP	73.28

Invoice Number	Invoice Date	Description	GL Account and Title	Net Invoice Amount
Total CINTAS CORP:				73.28
ADVANCE AUTO PARTS				
719330594544	02/28/2023	OIL DRY-TREATMENT PLANT	62-00-00-93200 MAINTENANCE OF GENERAL PLANT	36.94
Total ADVANCE AUTO PARTS:				36.94
DUNN LUMBER				
1334147	02/15/2023	BRACKETS-TREATMENT PLANT	62-00-00-93200 MAINTENANCE OF GENERAL PLANT	8.52
1334521	02/15/2023	PLUMBING-TREATMENT PLANT	62-00-00-93200 MAINTENANCE OF GENERAL PLANT	45.52
Total DUNN LUMBER:				54.04
HOME DEPOT CREDIT				
5175000	02/16/2023	RETURN LUMBER	62-00-00-93200 MAINTENANCE OF GENERAL PLANT	74.67-
6021790	02/15/2023	LUMBER	62-00-00-93200 MAINTENANCE OF GENERAL PLANT	74.67
6174954	02/15/2023	PLUMBING REPLACE-TRMT PL	62-00-00-93200 MAINTENANCE OF GENERAL PLANT	114.88
Total HOME DEPOT CREDIT:				114.88
MID AMERICAN RESEARCH CHEMICAL				
0783274-IN	02/10/2023	WD40 - BULK & WASP SPRAY	62-00-00-93200 MAINTENANCE OF GENERAL PLANT	397.19
Total MID AMERICAN RESEARCH CHEMICAL:				397.19
Total 62:				50,417.89
Grand Totals:				108,080.51

Customer
Refunds

	55.59
+	35.58
	<u>108,171.68</u>

Dated: _____

Mayor: _____

City Council: _____

City Recorder: _____



Lake Geneva Utility Commission

MUNICIPAL WATER AND WASTEWATER SERVICES

361 W Main Street
P.O. Box 187
Lake Geneva, WI 53147
262-248-2311
www.lgutilitycommission.com

Dennis Lyon – President
Josh Gajewski – Utility Director
Jeff Ecklund – Water Superintendent
Ken Bauman – Wastewater Superintendent

TO: Lake Geneva Utility Commission
FROM: Josh Gajewski, Utility Director
SUBJECT: March 2023 Director's Report

OPERATIONS UPDATE

WATER OPERATIONS

Staff have continued with our large meter testing program and have also resumed our meter replacement program and processed the outstanding requests for water-only meters.

The Pine Tree and Mariane Improvement Project started the week of 3/13, with water main work starting on the 15th. As of the drafting of this report, crews are being mobilized to make a repair to the existing water system on Pine Tree Lane, likely a service leak but potentially a main break.

Staff completed portions of our annual compliance samples, along with the first round of sampling requirements from the ortho-polyphosphate change in late 2022. We will be performing our first compliance sample collection for PFAS in the next month, with the expectation that results will mirror our investigatory sampling in 2022, which did not exceed current health guidance levels. EPA has recently added 4 additional PFAS contaminants to their proposed drinking water standard.

WASTEWATER OPERATIONS

As part of the Pine Tree and Mariane project, staff resumed working with the HOA to discuss the terms of the existing utility easement that was found for the parcel where our lift station is located. Additional discussion is anticipated over the coming months to coordinate any work alongside the other contract work.

With the City's recent purchase of the Hillmoor property, staff have begun working to reclaim and restore various easement corridors that had become overgrown and encroaching over recent years. We hope to have estimates back for the clearing work within the next few weeks and have the work completed prior to the start of summer.

Staff will be hosting a class tour of students from Badger High School on March 22nd.

OFFICE & ADMINISTRATION

Received notice from Walworth County Highway Department that they are looking to complete a paving project on CTH H, between Interchange North and George Street. Utility and DPW staff will be meeting with the County's Public Works Director in late March to discuss the details and timing of the project.

The proposed revisions to the Impact Fee Report were reviewed by FLR and Council and a public hearing has been set to take place on April 24th, where an ordinance will be discussed for the adoption of the changes.

9. Pioneer Estates Request for Expansion of Service

Staff was contacted by representatives of Pioneer Estates regarding a proposed expansion of their facilities and a pending request for rezoning with the Town of Bloomfield. Generally, the proposal would include razing an existing home and replacing it with three mobile home units. Additionally, the proposal includes the construction of a maintenance shop with restroom facilities and the connection of an existing home to municipal utilities, while the private well and septic would be abandoned.

There are existing agreements for water and sanitary sewer service, dated May 3, 1989, between Pioneer, the City, and the Utility. Staff will provide additional details of the agreements, along with required and recommended updates to be made at this time.

Action is recommended to conditionally approve the conceptual expansion of service to Pioneer Estates of Lake Geneva.

Conditions of the approval are suggested to include:

1. *Approval of the request for rezoning with the Town of Bloomfield,*
2. *Approval of the expansion of service by the City Council,*
3. *Approval of the construction plans by the Utility, and*
4. *Drafting a revised memorandum of understanding for utility service between Pioneer and the Utility.*

10. Acceptance of Water and Sewer Improvements – Symphony Bay Phase 3

The referenced utility improvements were installed and inspected in 2021 along Bowing Way. The Developer has requested to initiate the process for the dedication of the related improvements to the Utility. An itemized inventory of the improvements and a letter of recommendation from Kapur have been prepared and included in packets for Commissioner review.

Action is recommended to accept the water and sanitary improvements that have been completed in Phase 3 of the Symphony Bay Development.

11. Equipment Transfer Agreement – T-Mobile/Sprint – Host Tower

As part of the company merger, T-Mobile/Sprint has provided notice to the Utility that it will not renew its upcoming 5-year lease period. As part of the upcoming site decommissioning, they have proposed to leave some improvements on-site at the close of their lease. Staff has reviewed the proposal, along with the City Attorney, and sees no conflict with what is being proposed to remain at the site.

Action is recommended to approve the Equipment Transfer Agreement with Sprint Spectrum.

12. T-Mobile Equipment Upgrades – Host Tower

Plans were received from T-Mobile and reviewed by Utility Staff and Dixon Engineering. After the requested revisions were made and resubmitted by T-Mobile, a letter of recommended approval was issued by Dixon in February.

Action is recommended to approve the proposed equipment upgrades by T-Mobile at the Host Tower.



25 NORTH WISCONSIN STREET
ELKHORN, WI 53121

DANIEL R. KEHOE
Architect
262-723-2660

WILLIAM R. HENRY
Architect-P.E.
262-723-4399

March 13, 2023

City of Lake Geneva
Utility Commission
361 W. Main Street
P.O. Box 187
Lake Geneva, WI 53147

Attn: Mr. Josh Gajewski
Utility Director

Re: Proposed Improvements at
PIONEER ESTATES OF LAKE GENEVA
Lake Geneva, Wisconsin
Job No. 2227

Dear Mr. Gajewski:

Pioneer Estates of Lake Geneva has been served by municipal water from the City of Lake Geneva since the early 1990s. Sanitary service has also been provided through an on-site lift station and force main returning to a manhole at the intersection of South Street/Bloomfield Road and Wells Street.

Pioneer Estates of Lake Geneva occupies tax parcels MB 700002, MB 700002B, MB 700002C, and MB 700002E in the Town of Bloomfield (see attached overall aerial photograph and property information sheets) and totals approximately 57.94 acres. A maximum of 267 dwelling units are currently located on the properties as follows.

- 262 Manufactured homes
 - 1 Single family residence
 - 1 Duplex residence
 - 2 Residential units attached to other structures (one each at the office/community center and an existing maintenance building)

Most of the site is zoned R-6 Planned Manufactured Home Residence District. A small portion of the tax parcel MB 700002 along County Highway H is zoned B-2 General Business District. The owner has submitted applications to the Town of Bloomfield to rezone the B-2 area to R-6, demolish the existing single family residence, and place three new manufactured homes with decks and garages (attached and detached) as shown on the attached sheet C102. One of the new manufactured homes would be served by the water service and sanitary lateral presently connected to the existing single family residence to be demolished. The owner requests to serve the proposed two additional manufactured homes with new water services and sanitary laterals extended from the existing municipal water and sanitary sewer systems serving the present development.

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March 13, 2023
Mr. Josh Gajewski, Utility Director

Tax parcel MB 700003 is located south of and contiguous to the mobile home park (see attached property information sheet). It is presently zoned A-2 Agricultural Land District. The parcel contains approximately 3.0 acres with a single family residence, which is served by a private well and septic system. The owner has submitted applications to the Town of Bloomfield to rezone this A-2 parcel to R-6 and construct a new maintenance building of approximately 3,600 SF. The new building is to have a heated portion of approximately 2,160 SF to be used for equipment storage. A toilet room is proposed for the convenience of the work crew. The remaining portion of the building, approximately 1,440 SF, is to be covered and enclosed on three sides for material storage. The owner requests to serve the proposed new maintenance building with water and sanitary services extended from the existing municipal water and sanitary sewer systems. See attached sheet C103.

The existing single family residence is to remain on tax parcel MB 700003. The owner requests the option to also serve the residence with water and sanitary services extended from the existing municipal water and sanitary sewer systems. Again, see attached sheet C103. These would take the place of water and sanitary services that previously were connected to a dwelling unit, located immediately south of unit 570, which was demolished several years ago.

We request this matter be placed on the Utility Commission agenda for its March 20, 2023 meeting. As requested, we are available to meet this week and discuss Pioneer Estates further either Thursday after 2:00 p.m. or anytime Friday after 9:00 a.m. Let me know which you prefer.

Very truly yours,

KEHOE-HENRY & ASSOCIATES, INC.

William R. Henry

William R. Henry
Architect-P.E.

cc: Dan Daniels
Herb Schulten
file

Enc.: Rezone and CUP application packets submitted to
Town of Bloomfield March 1, 2023

VILLAGE/TOWN OF BLOOMFIELD

COST RECOVERY

Owner Name: PIONEER ESTATES of LAKE GENEVA

Owner Address: 4454 S 13TH STREET
MILWAUKEE, WI 53221

I/We, the undersigned, do hereby understand and agree that as an applicant or petitioner of the Village/Town of Bloomfield, I/We will be responsible for all normal fees payable by an applicant or petitioner (e.g. application fees, engineer fees, attorney fees, etc.). I/We further understand and agree to be responsible for any additional or consequential costs to the municipality as a result of my/our application or petition (i.e. engineering, legal, or other professional services). All fees and costs shall be paid within thirty (30) days of invoice and must be paid prior to the issuance of any permit or license. If payment is not made, said fees and costs may be assessed against the real property as a special charge.

I/We understand that the Village/Town of Bloomfield by and through their agents, representatives (elected or appointed), employees, successors or assignees make no representations of their findings.

I/We forever hold them harmless of all liability whether founded in tort or contract and as such agree to indemnify them from all claims arising out of these transactions.

Don Daniels
Owners Name


Owners Signature

2/27/23
Date

William R. Henry, ARCAT-PE
Applicant/Agent Name


Applicant/Agent Signature

3.1.2023
Date

VILLAGE/TOWN OF BLOOMFIELD

VILLAGE: PO BOX 609 – TOWN: PO BOX 704, PELL LAKE, WI 53157
Planning and Zoning Office (262) 279-6039 Ext. 3 • Fax (262) 279-0196

APPLICATION FOR REZONE

X Town _____ Village

Fee: See Schedule

\$ 575.00 PUBLIC HEARING FEE - REZONE HEARING: RESIDENTIAL

Please note: A completed application, along with a plat of survey, or plot plan, and fees must be received by the Zoning Administrator no later than the last day of any month in order to be put on the Planning and Zoning Commission's next agenda.

Property Owner: PIONEER ESTATES OF LAKE GENEVA

Tax Parcel Number: MB 700002 & MB 700003

To the Village/Town of Bloomfield Board:

The undersigned hereby petitions the Village/Town of Bloomfield Board to amend the Village/Town of Bloomfield's Municipal Code as follows:

Present Zoning: MB 700002 B-2 GENERAL BUSINESS MB 700003 A-2 AGRICULTURAL LAND

Requested Zoning: R-6 PLANNED MANUFACTURED HOME RESIDENCE

Residential Rezones:

~~Number of proposed lots:~~ MB 700002 MB 700003

Number of proposed units: 3 NEW UNITS 1 EXIST'G SGL FAMILY RESIDENCE
& PROPOSED MAINTENANCE BLDG

Commercial and Industrial Rezones:

Total proposed gross floor area (all buildings): _____

Site area (Acres): _____

Legal Description: (Written Metes and Bounds Description of the land to be rezoned)

SEE ATTACHED REZONE EXHIBITS A & B.

PROPERTY OWNER

PIONEER ESTATES OF LAKE GENEVA

(Name) DON DANIELS

4454 S 13TH STREET

(Mailing Address)

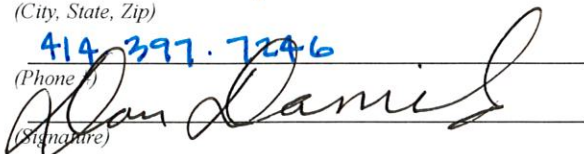
MILWAUKEE, WI 53221

(City, State, Zip)

414.397.7246

(Phone #)

(Signature)



APPLICANT INFORMATION

(if other than property owner)

KENEF-HENRY & ASSOCIATES, INC.

(Name) WILLIAM R. HENRY

25 N WILCONSON STREET

(Mailing Address)

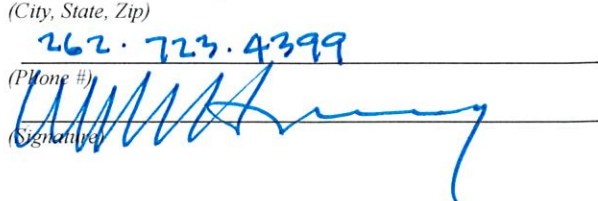
ELKHORN, WI 53121

(City, State, Zip)

262.723.4399

(Phone #)

(Signature)



Statement of proposed property, with pertinent facts regarding the size of area involved, extent of development, type of operation, etc.:

SEE ATTACHED.

Submit a plat of survey, or plot plan (if applicable) of the property to be rezoned, drawn to scale, showing:

1. Dimensions and location of existing and proposed structures. Identify (label) their use and indicate their distance (setbacks) from lot lines.
2. Lot layout, where rezoned is intended for subdivision or condominium development. Show number and size of lots, interior roads, out lots, proposed parking, and open space, etc.
3. Drainage areas, floodplains, rivers, streams, lakes, forested areas, and any other natural features.

More information may be requested by the Planning and Zoning Commission if deemed necessary to properly evaluate your request. THE LACK OF INFORMATION SUBMITTED SHALL IN ITSELF BE SUFFICIENT CAUSE TO DENY A PETITION. If you have any questions regarding this procedure, please contact the Zoning Administrator at 262-279-6039 ext. 3.

IT IS NECESSARY FOR THE APPLICANT OR A REPRESENTATIVE TO BE PRESENT AT THE HEARING, FAILURE TO APPEAR SHALL RESULT IN THE REZONE PETITION EITHER BEING POSTPONED OR DENIED. THE REZONE APPLICANT CANNOT REPETITION FOR THE REZONE FOR ONE YEAR FROM THE DATE OF PUBLIC HEARING.


(Property Owner Signature)

2/27/23
(Date)

SEE ATTACHED.

COST RECOVERY AGREEMENT

I/We, the undersigned, do hereby understand and agree that as an applicant or petitioner of the Village/Town of Bloomfield, I/We will be responsible for all normal fees payable by an applicant or petitioner (e.g. application fees, engineer fees, attorney fees, etc.). I/We further understand and agree to be responsible for any additional or consequential costs to the municipality as a result of my/our application or petition (i.e. engineering, legal, or other professional services). All fees and costs shall be paid within thirty (30) days of invoice and must be paid prior to the issuance of any permit or license. If payment is not made, said fees and costs may be assessed against the real property as a special charge.


(Property Owner Signature)

2/27/23
(Date)

ONLY TO BE COMPLETED IF REZONING IS OUT OF A-1 DISTRICT:

I understand that if the A-1 land proposed for rezoning has been enrolled in the Farmland Preservation Tax Credit Program, there may be a payback of credits received due to the State of Wisconsin

(Property Owner Signature)

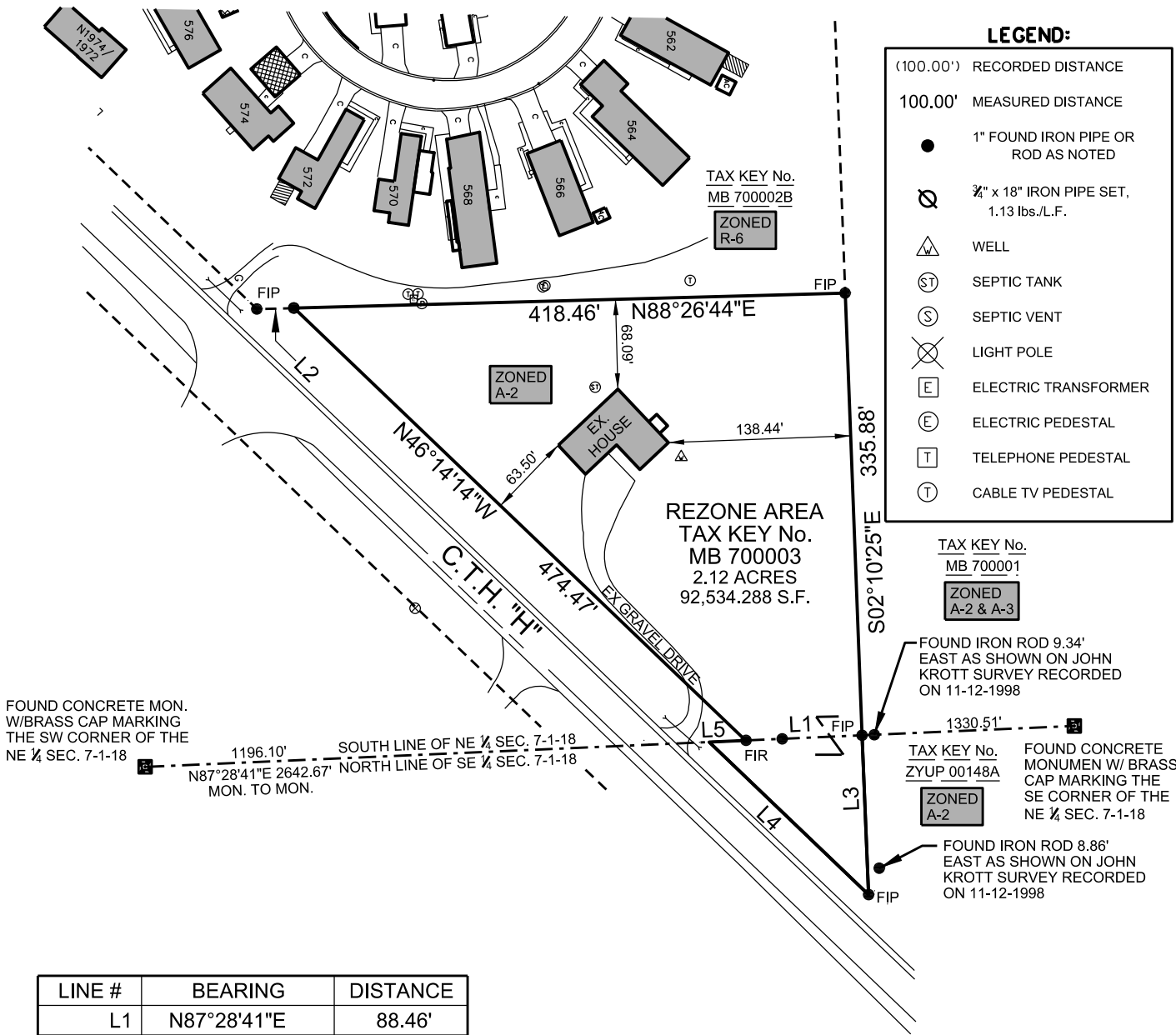
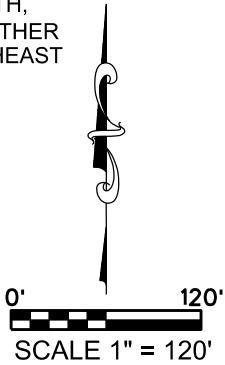
(Date)

**TOWN ONLY

**The Town Board can deny any rezoning petition. The Town Board denies a rezoning by submitted a denial resolution to the County within required time limits. The County cannot grant any rezoning if denied by the Town Board. Therefore, the petitioner must go before the Town Board on the proposed rezoning before appearing at County. The County shall not hold a public hearing without first receiving a written Town decision.

REZONE EXHIBIT A

AREA TO BE REZONED BEING PART OF THE NORTHEAST ¼ OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 18 EAST AND PART OF SOUTHEAST ¼ OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 18 EAST, TOWN OF BLOOMFIELD, WALWORTH COUNTY, WISCONSIN, BEING FURTHER DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID NORTHEAST 1/4; THENCE S87°28'41"W ALONG THE SOUTH LINE OF SAID NORTHEAST 1/4, 1330.51' TO A FOUND IRON PIPE SAID POINT BEING THE POINT OF BEGINNING; THENCE S02°22'22"E, 121.05' TO A FOUND IRON PIPE; THENCE N46°14'14"W, 167.49' TO A POINT; THENCE N87°30'10"E, 27.60' TO A FOUND IRON ROD; THENCE N46°14'14"W, 474.47' TO A FOUND IRON ROD; THENCE N88°26'44"E, 418.46' TO A FOUND IRON PIPE ON THE EAST LINE OF SAID NORTHEAST 1/4; THENCE S02°10'25"E ALONG SAID EAST LINE, 335.88' TO THE POINT OF BEGINNING. SAID AREA TO BE REZONED CONTAIN 2.12 ACRE MORE OR LESS. (92,534.288 S.F.)



LINE #	BEARING	DISTANCE
L1	N87°28'41"E	88.46'
L2	N88°26'44"E	28.13'
L3	S02°22'22"E	121.05'
L4	N46°14'14"W	167.49'
L5	N87°30'10"E	27.60'

FILE NAME: 2023-010 PIONEER MOBIL HOMES REZONE EXHIBITS.DGN

SURVEY MADE FOR:

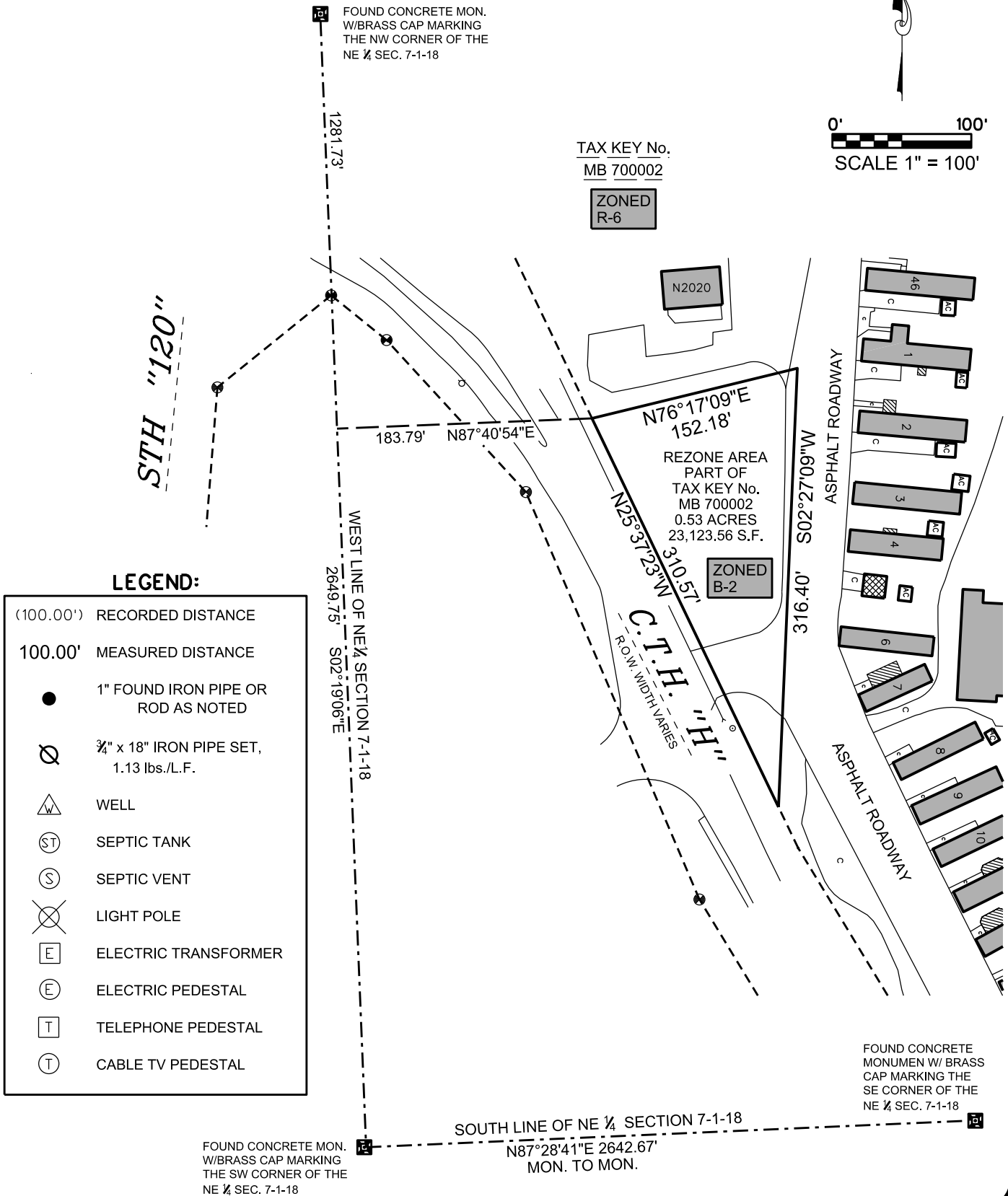
PIONEER ESTATES
OF LAKE GENEVA
4454 S 13TH ST
MILWAUKEE WI 53221

DATE	ITEM
02/28/2023	REZONE EXHIBIT



REZONE EXHIBIT B

AREA TO BE REZONED BEING PART OF THE NORTHEAST ¼ OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 18 EAST, TOWN OF BLOOMFIELD, WALWORTH COUNTY, WISCONSIN, BEING FURTHER DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID NORTHEAST 1/4; THENCE S02°19'06"E ALONG THE WEST LINE OF SAID NORTHEAST 1/4, 1281.73' TO A POINT; THENCE N87°40'54"E, 183.79' TO A POINT ON THE EAST LINE OF C.T.H. "H", SAID POINT BEING THE POINT OF BEGINNING; THENCE N76°17'09"E, 152.18' TO A POINT; THENCE S02°27'09"W, 316.40' TO A POINT ON THE WESTERLY RIGHT OF WAY FOR C.T.H. "H"; THENCE N25°37'23"W ALONG SAID WESTERLY RIGHT OF WAY, 310.57' TO THE POINT OF BEGINNING. SAID AREA TO BE REZONED CONTAIN 0.53 ACRES MORE OR LESS. (23,123.56 S.F.)



FILE NAME: 2023-010 PIONEER MOBILE HOMES REZONE EXHIBIT.DGN

SURVEY MADE FOR:
PIONEER ESTATES
OF LAKE GENEVA
4454 S 13TH ST
MILWAUKEE WI 53221

DATE	ITEM
02/28/2023	REZONE EXHIBIT



V²G
SURVEYING, LLC
123 WOLF RUN - SUITE 4
MUKWONAGO, WI 53149
(262) 378-5097

March 1, 2023

Proposed Improvements at
Pioneer Estates of Lake Geneva
Lake Geneva, Wisconsin
Job No. 2227

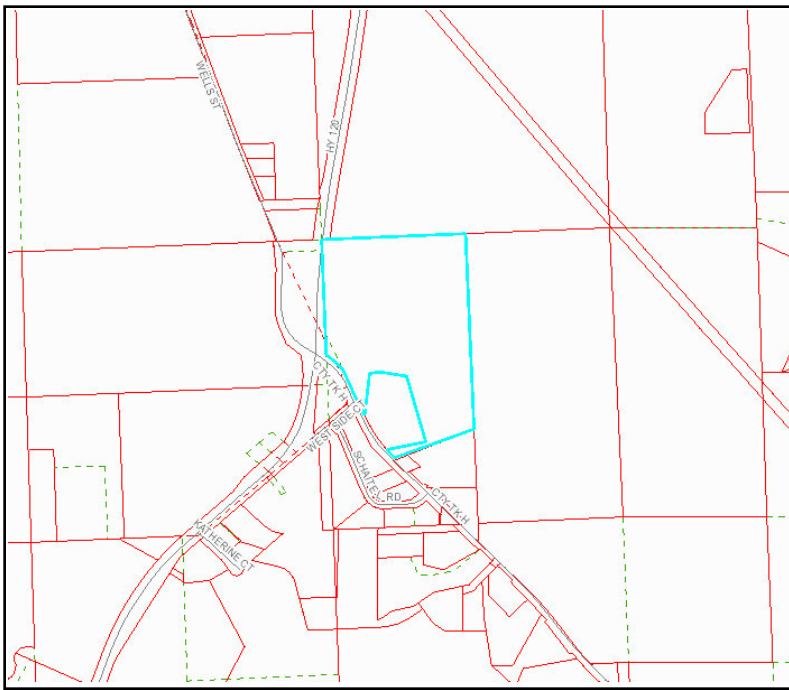
STATEMENT OF PROPOSED PROPERTY IMPROVEMENTS

Pioneer Estates of Lake Geneva occupies tax parcels MB 700002, MB 700002B, MB 700002C, and MB 700002E (see attached overall aerial photograph and property information sheets) and totals approximately 57.94 acres. A maximum of 267 dwelling units are currently located on the properties as follows.

- | | |
|-----|---|
| 262 | Manufactured homes |
| 1 | Single family residence |
| 1 | Duplex residence |
| 2 | Residential units attached to other structures (1 each at the office/community center and an existing maintenance building) |

Most of the site is zoned R-6 Planned Manufactured Home Residence District. A small portion of the tax parcel MB 700002 along County Highway H is zoned B-2 General Business District. The owner wishes to rezone the B-2 area to R-6, demolish the existing single family residence, and place three new manufactured homes with decks and garages (attached and detached) as shown on the attached sheet C102. The three new dwelling units shall be connected to the existing municipal water and sanitary sewer systems serving the present development.

Tax parcel MB 700003 is located south of and contiguous to the mobile home park (see attached property information sheet). It is presently zoned A-2 Agricultural Land District. The parcel contains approximately 3.0 acres with a single family residence, which is served by a private well and septic system. The owner wishes to rezone this A-2 parcel to R-6 and construct a new maintenance building of approximately 3,600 SF. The new building is to have a heated portion of approximately 2,160 SF to be used for equipment storage. A toilet room is proposed for the convenience of the work crew. The remaining portion of the building, approximately 1,440 SF, is to be covered and enclosed on three sides for material storage. The new maintenance building shall be connected to the existing municipal water and sanitary sewer systems. The existing water and sewer systems may also be extended to the single family residence, which is to remain on the property. See attached sheet C103.



Walworth County, WI Land Information Division

Property Details

Municipality: TOWN OF BLOOMFIELD
Parcel Number: MB 700002
School District: 2884-LAKE GENEVA-GENOA CITY U
Zoning District:

Owner Information

Owner Name: PIONEER ESTATES OF LAKE GENEVA
Owner Name 2:
Mailing Address: 4454 S 13TH ST

MILWAUKEE WI, 532210000

2022 Valuation Information

Land: \$1,157,500.00
Improvements: \$1,877,700.00
Total: \$3,035,200.00
Acres: 46.3000
Fair Market Value: \$4,052,700.00
Assessment Ratio: 0.7489290890
Mill Rate: 0.0197339600

Tax Information

First Dollar Credit: \$67.63	School Credit: \$6,259.77
Special Assessment: \$0.00	Lottery Credit: \$0.00
Delinquent Utility Charge: \$0.00	Special Charges: \$0.00
Managed Forest Land Taxes: \$0.00	Private Forest Crop Taxes: \$0.00
Total Billed: \$59,828.88	Woodland Tax Law Taxes: \$0.00
Net Tax: \$59,828.88	

Tax Jurisdictions

GATEWAY TECHNICAL \$2583.64
WALWORTH COUNTY \$12374.41
TOWN OF BLOOMFIELD \$18883.49
LAKE GENEVA-GENOA CITY UHS \$10205.32
LAKE GENEVA J1 SCHOOL DIST \$15849.65

Elected Officials / Voting Districts

Supervisory District: Kenneth H. Monroe (D10)
State Representative: Tyler August (R) (Wisconsin's 32nd Assembly District)
State Senator: Stephen Nass (R) (Wisconsin's 11th Senate District)
US Representative: Bryan Steil (R) (Wisconsin's 1st District)
US Senator: Ron Johnson (R), Tammy Baldwin (D)

Special Assessments / Charges

Soil Classification

<u>Soil Type</u>	<u>Soil Name</u>	<u>Acres</u>
CeC2	CASCO LOAM, 6 TO 12 PERCENT SLOPES, ERODED	16.3437
MmA	MATHERTON SILT LOAM, 1 TO 3 PERCENT SLOPES	12.7811
FsB	FOX SILT LOAM, 2 TO 6 PERCENT SLOPES	5.9743
SeB	:S SILT LOAM, GRAVELLY SUBSTRATUM, 2 TO 6 PERCE	3.4138

Property Address

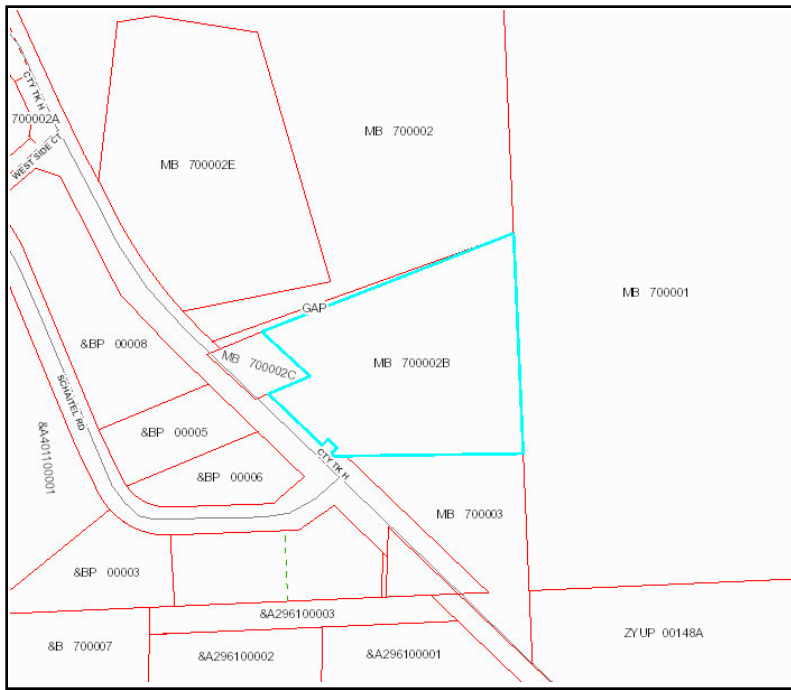
100 CTY TK H LAKE GENEVA
101 CTY TK H LAKE GENEVA
102 CTY TK H LAKE GENEVA
103 CTY TK H LAKE GENEVA
104 CTY TK H LAKE GENEVA
105 CTY TK H LAKE GENEVA
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108 CTY TK H LAKE GENEVA
109 CTY TK H LAKE GENEVA
110 CTY TK H LAKE GENEVA
111 CTY TK H LAKE GENEVA
112 CTY TK H LAKE GENEVA

Legal Description

PT NE 1/4 SEC 7 T1N R18E DESC AS: COM 860.90' N OF SE COR W 1/2 NE 1/4 SEC 7, S69D70' W 789.47' TO C/L HWY H, NWLY ALG HWY TO N-S 1/4 LN, N TO N LN SEC 7, E TO 1/16 LN, S TO POB. EXC. MB 7-2E DESC IN VOL 52 RECORDS PG 329. EXC. LAND TO COUNTY FOR HWY DESC UNDER DOC. #285801, VOL 630 PG 3335 ALSO COM NW COR NE 1/4 SEC 7, S2D19'06"E 855.05' TO POB, S2D19'06"E 199.19', S55D40'12"E 23.87', ALG CURVE, CHORD S48D25'02"E 172.56', N25D37'23"W 362.68' TO POB.

Disclaimer

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Walworth County, WI Land Information Division

Property Details

Municipality: TOWN OF BLOOMFIELD
Parcel Number: MB 700002B
School District: 2884-LAKE GENEVA-GENOA CITY U
Zoning District:

Owner Information

Owner Name: PIONEER ESTATES OF LAKE GENEVA
Owner Name 2:
Mailing Address: 4446 S 13TH ST

MILWAUKEE WI, 532210000

2022 Valuation Information

Land: \$142,500.00
Improvements: \$167,200.00
Total: \$309,700.00
Acres: 5.7000
Fair Market Value: \$413,600.00
Assessment Ratio: 0.7489290890
Mill Rate: 0.0197339600

Tax Information

First Dollar Credit: \$67.63	School Credit: \$638.72
Special Assessment: \$0.00	Lottery Credit: \$0.00
Delinquent Utility Charge: \$0.00	Special Charges: \$153.72
Managed Forest Land Taxes: \$0.00	Private Forest Crop Taxes: \$0.00
Total Billed: \$6,197.71	Woodland Tax Law Taxes: \$0.00
Net Tax: \$6,043.99	

Tax Jurisdictions

GATEWAY TECHNICAL \$263.63
WALWORTH COUNTY \$1262.64
TOWN OF BLOOMFIELD \$1926.80
LAKE GENEVA-GENOA CITY UHS \$1041.31
LAKE GENEVA J1 SCHOOL DIST \$1617.24

Elected Officials / Voting Districts

Supervisory District: Kenneth H. Monroe (D10)
State Representative: Tyler August (R) (Wisconsin's 32nd Assembly District)
State Senator: Stephen Nass (R) (Wisconsin's 11th Senate District)
US Representative: Bryan Steil (R) (Wisconsin's 1st District)
US Senator: Ron Johnson (R), Tammy Baldwin (D)

Special Assessments / Charges

GARBAGE/RECYCLE \$153.72

Soil Classification

<u>Soil Type</u>	<u>Soil Name</u>	<u>Acres</u>
FsB	FOX SILT LOAM, 2 TO 6 PERCENT SLOPES	4.2872
CeC2	CASCO LOAM, 6 TO 12 PERCENT SLOPES, ERODED	1.0834

Property Address

554 CTY TK H LAKE GENEVA
555 CTY TK H LAKE GENEVA
556 CTY TK H LAKE GENEVA
557 CTY TK H LAKE GENEVA
558 CTY TK H LAKE GENEVA
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564 CTY TK H LAKE GENEVA
566 CTY TK H LAKE GENEVA
568 CTY TK H LAKE GENEVA
570 CTY TK H LAKE GENEVA

Legal Description

PT NE 1/4 SEC 7 T1N R18E DESC AS: COM 330' N OF SE COR W 1/2 NE 1/4 SEC 7, W 491.84' TO C/L HWY 12, NWLY 204.95', N69D51' E 142.12', N45D W 159.05', N69D54'E 647.35', S 530.90' TO POB. 5.7 A M/L

Disclaimer

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Walworth County, WI Land Information Division

Property Details

Municipality: TOWN OF BLOOMFIELD
Parcel Number: MB 700002C
School District: 2885-LAKE GENEVA J1 SCHOOL DIS
Zoning District:

Owner Information

Owner Name: PIONEER ESTATES OF LAKE GENEVA
Owner Name 2:
Mailing Address: 4446 S 13TH ST

MILWAUKEE WI, 532210000

2022 Valuation Information

Land: \$10,000.00
Improvements: \$120,500.00
Total: \$130,500.00
Acres: 0.4000
Fair Market Value: \$174,300.00
Assessment Ratio: 0.7489290890
Mill Rate: 0.0197339600

Tax Information

First Dollar Credit: \$67.63	School Credit: \$269.14
Special Assessment: \$0.00	Lottery Credit: \$0.00
Delinquent Utility Charge: \$0.00	Special Charges: \$153.72
Managed Forest Land Taxes: \$0.00	Private Forest Crop Taxes: \$0.00
Total Billed: \$2,661.38	Woodland Tax Law Taxes: \$0.00
Net Tax: \$2,507.66	

Tax Jurisdictions

GATEWAY TECHNICAL \$111.09
WALWORTH COUNTY \$532.04
TOWN OF BLOOMFIELD \$811.91
LAKE GENEVA-GENOA CITY UHS \$438.78
LAKE GENEVA J1 SCHOOL DIST \$681.47

Elected Officials / Voting Districts

Supervisory District: Kenneth H. Monroe (D10)
State Representative: Tyler August (R) (Wisconsin's 32nd Assembly District)
State Senator: Stephen Nass (R) (Wisconsin's 11th Senate District)
US Representative: Bryan Steil (R) (Wisconsin's 1st District)
US Senator: Ron Johnson (R), Tammy Baldwin (D)

Special Assessments / Charges

GARBAGE/RECYCLE \$153.72

Soil Classification

<u>Soil Type</u>	<u>Soil Name</u>	<u>Acres</u>
FsB	FOX SILT LOAM, 2 TO 6 PERCENT SLOPES	0.3354
CeC2	CASCO LOAM, 6 TO 12 PERCENT SLOPES, ERODED	0.1359

Property Address

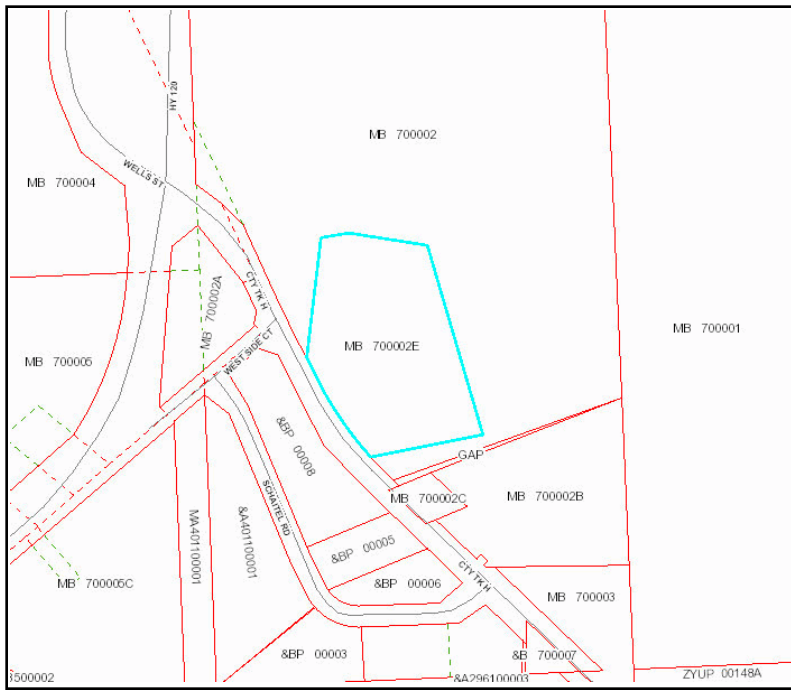
N1972 CTY TK H LAKE GENEVA
N1974 CTY TK H LAKE GENEVA

Legal Description

PT NE 1/4 SEC 7 T1N R18E DESC AS: COM SE COR W 1/2 NE 1/4 SEC 7, N 330', W 491.4' TO PT N45D W 364' TO POB, N69D57' E 142.12', S45D E 159.05', S69D57' W 142.12', N45D W 159.05' TO POB. R/W GRANT UNDER DOC. #235745, VOL 574 PG 881

Disclaimer

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Walworth County, WI Land Information Division

Property Details

Municipality: TOWN OF BLOOMFIELD
Parcel Number: MB 700002E
School District: 2884-LAKE GENEVA-GENOA CITY U
Zoning District:

Owner Information

Owner Name: PIONEER ESTATES OF LAKE GENEVA
Owner Name 2:
Mailing Address: 4446 S 13TH ST

MILWAUKEE WI, 532210000

2022 Valuation Information

Land: \$138,500.00
Improvements: \$310,900.00
Total: \$449,400.00
Acres: 5.5400
Fair Market Value: \$600,000.00
Assessment Ratio: 0.7489290890
Mill Rate: 0.0197339600

Tax Information

First Dollar Credit: \$67.63	School Credit: \$926.84
Special Assessment: \$0.00	Lottery Credit: \$0.00
Delinquent Utility Charge: \$0.00	Special Charges: \$153.72
Managed Forest Land Taxes: \$0.00	Private Forest Crop Taxes: \$0.00
Total Billed: \$8,954.53	Woodland Tax Law Taxes: \$0.00
Net Tax: \$8,800.81	

Tax Jurisdictions

GATEWAY TECHNICAL \$382.54
WALWORTH COUNTY \$1832.19
TOWN OF BLOOMFIELD \$2795.94
LAKE GENEVA-GENOA CITY UHS \$1511.03
LAKE GENEVA J1 SCHOOL DIST \$2346.74

Elected Officials / Voting Districts

Supervisory District: Kenneth H. Monroe (D10)
State Representative: Tyler August (R) (Wisconsin's 32nd Assembly District)
State Senator: Stephen Nass (R) (Wisconsin's 11th Senate District)
US Representative: Bryan Steil (R) (Wisconsin's 1st District)
US Senator: Ron Johnson (R), Tammy Baldwin (D)

Special Assessments / Charges

GARBAGE/RECYCLE \$153.72

Soil Classification

<u>Soil Type</u>	<u>Soil Name</u>	<u>Acres</u>
CeC2	CASCO LOAM, 6 TO 12 PERCENT SLOPES, ERODED	4.5319
CfD3	CO SOILS, 12 TO 20 PERCENT SLOPES, SEVERELY ERC	1.1813
FsB	FOX SILT LOAM, 2 TO 6 PERCENT SLOPES	0.7231

Property Address

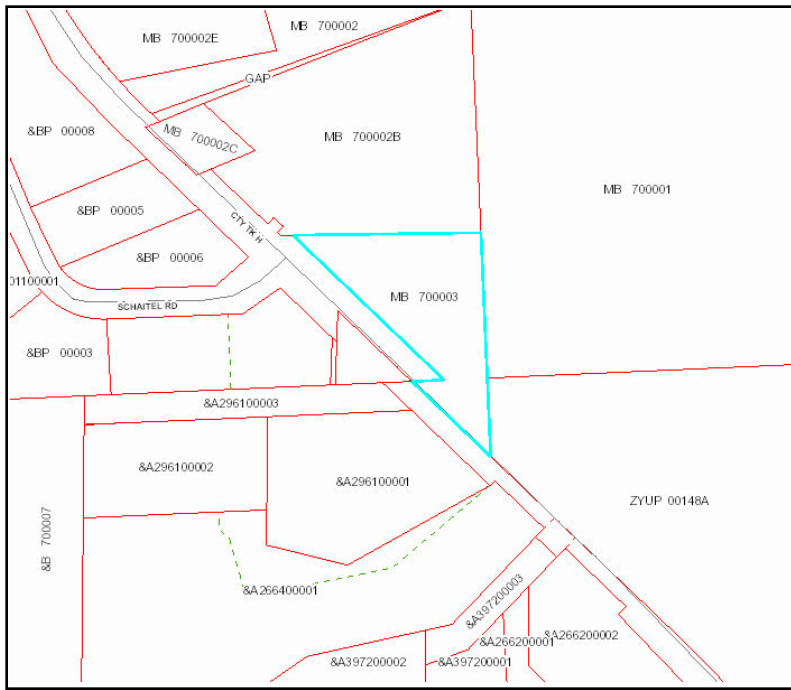
1 CTY TK H LAKE GENEVA
10 CTY TK H LAKE GENEVA
11 CTY TK H LAKE GENEVA
12 CTY TK H LAKE GENEVA
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14 CTY TK H LAKE GENEVA
15 CTY TK H LAKE GENEVA
16 CTY TK H LAKE GENEVA
17 CTY TK H LAKE GENEVA
18 CTY TK H LAKE GENEVA
2 CTY TK H LAKE GENEVA
20 CTY TK H LAKE GENEVA
21 CTY TK H LAKE GENEVA

Legal Description

PT NE 1/4 SEC 7 T1N R18E DESC AS: COM W 1/16 COR W 1/2 NE 1/4 SEC 7, N77D22'E 338.12' TO POB, N78D02'E 89.70' S83D39'E 250.96', S18D45'E 625.08', S76D06'W 361.86' TO E LN HWY H, S46D16'W TO C/L HWY, CONT ON & ALG C/L HWY 382.3', N4D12' E 70.30', N4D12' E 312.98' TO POB. EXC. LAND TO COUNTY FOR HWY DESC UNDER DOC. #285801, VOL 630 PG 3335

Disclaimer

The information provided in this property information page is not official information. All official tax information is recorded in the Walworth County Treasurer's Office. To verify tax payment/payoff status, contact the Walworth County Treasurer's Office at 262-741-4251.



Walworth County, WI Land Information Division

Property Details

Municipality: TOWN OF BLOOMFIELD
Parcel Number: MB 700003
School District: 2885-LAKE GENEVA J1 SCHOOL DIS
Zoning District:

Owner Information

Owner Name: PIONEER ESTATES OF LAKE GENEVA
Owner Name 2:
Mailing Address: 4454 S 13TH ST

MILWAUKEE WI, 532210000

2022 Valuation Information

Land: \$67,500.00
Improvements: \$131,600.00
Total: \$199,100.00
Acres: 3.0000
Fair Market Value: \$265,800.00
Assessment Ratio: 0.7489290890
Mill Rate: 0.0197339600

Tax Information

First Dollar Credit: \$67.63	School Credit: \$410.62
Special Assessment: \$0.00	Lottery Credit: \$0.00
Delinquent Utility Charge: \$0.00	Special Charges: \$153.72
Managed Forest Land Taxes: \$0.00	Private Forest Crop Taxes: \$0.00
Total Billed: \$4,015.12	Woodland Tax Law Taxes: \$0.00
Net Tax: \$3,861.40	

Tax Jurisdictions

GATEWAY TECHNICAL \$169.48
WALWORTH COUNTY \$811.72
TOWN OF BLOOMFIELD \$1238.70
LAKE GENEVA-GENOA CITY UHS \$669.44
LAKE GENEVA J1 SCHOOL DIST \$1039.69

Elected Officials / Voting Districts

Supervisory District: Kenneth H. Monroe (D10)
State Representative: Tyler August (R) (Wisconsin's 32nd Assembly District)
State Senator: Stephen Nass (R) (Wisconsin's 11th Senate District)
US Representative: Bryan Steil (R) (Wisconsin's 1st District)
US Senator: Johnson, Ron

Special Assessments / Charges

GARBAGE/RECYCLE \$153.72

Soil Classification

<u>Soil Type</u>	<u>Soil Name</u>	<u>Acres</u>
CeC2	CASCO LOAM, 6 TO 12 PERCENT SLOPES, ERODED	2.3024
FsB	FOX SILT LOAM, 2 TO 6 PERCENT SLOPES	0.0451

Property Address

N1968 CTY TK H LAKE GENEVA

Legal Description

PT NE 1/4 & SE 1/4 SEC 7 T1N R18E DESC AS: COM SE COR W 1/2 NE 1/4 SEC 7, N 330', W TO C/L HWY, SELY ALG HWY TO E-W 1/4 LN, E TO POB. ALSO PT NW 1/4 SE 1/4 SEC 7. R/W GRANT, DOC. #224658 VOL 548 PG 707. EXC. LAND TO COUNTY FOR HWY DESC UNDER DOC. #285076, VOL 630 PG 1644.

Disclaimer

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VILLAGE/TOWN OF BLOOMFIELD

VILLAGE: PO BOX 609 – TOWN: PO BOX 704, PELL LAKE, WI 53157
Planning and Zoning Office (262) 279-6039 Ext. 3 • Fax (262) 279-0196

APPLICATION FOR CONDITIONAL USE PERMIT

X Town _____ Village
Fee: \$600.00

Please note: A completed application, along with a plat of survey, scale map or site plan, all required information (listed on page 2), and fees must be received by the Zoning Administrator no later than the last day of any month in order to be put on the Planning and Zoning Commission's next agenda.

The undersigned hereby applies to the Village/Town of Bloomfield's Planning and Zoning Commission pursuant to the Municipal Code, for a Conditional Use Permit and represent as follows:

OWNER OF SITE

PIONEER ESTATES of LAKE GENEVA
(Name) DAN DANIELS
4454 S 13TH STREET
(Mailing Address)
MILWAUKEE, WI 53221
(City, State, Zip)
414. 397. 7246
(Phone #)
N1968 COUNTY HIGHWAY H
(Site Address) LAKE GENEVA, WI

APPLICANT INFORMATION

(if other than property owner)
KENOE-HENRY & ASSOCIATES, INC.
(Name) WILLIAM R. HENRY
29 N WISCONSIN STREET
(Mailing Address)
ELKHORN, WI 53121
(City, State, Zip)
262. 723. 4399
(Phone #)
N1968 COUNTY HIGHWAY H
(Site Address) LAKE GENEVA, WI

Tax Key # of Site: MB 70003

Zoning District: R-6 (REZONE PENDING)

Legal Description of Site: SEE ATTACHED

Type of Structure (if any): EXISTING SINGLE FAMILY RESIDENCE TO REMAIN AND
NEW MAINTENANCE BUILDING.

Proposed use of Structure or Site in Detail: SEE ATTACHED STATEMENT of PROPOSED PROPERTY IMPROVEMENTS.

I understand that if a non-agricultural conditional use is granted in the A-1 Zoning District that has been enrolled in the Farmland Preservation Tax Credit Program, there may be a payback of credits received due the State of Wisconsin.

Dan Daniels
(Property Owner's Signature)

William R. Henry
(Applicant's Signature)

The following information must be submitted before this application will be processed:

- ☒ Fee of \$600.00 made payable to: Bloomfield Treasurer
- ☒ Plat of Survey or scale map of subject site
- ☒ Site Plan showing location of buildings, roads, and other pertinent facilities
- ☒ Highway access locations
- ☒ Waste Disposal Plan - EXISTING VENDOR WILL SERVE THE NEW MAINTENANCE BUILDING.
- ☒ Operational Plan - NO CHANGE IN EXISTING OPERATIONS.
- ☒ Number of employees or users to be accommodated: NO ADDITIONAL EMPLOYEES.
- ☒ Special plans required to control the following: Screening, tree cutting, earthmoving, dust, noise, air, and water pollution, fire, explosion, glare, heat, radioactivity, electrical disturbance, or vibration. AS MAY BE REQUIRED BY TOWN.
- ☒ Storm Water/Erosion Control Plan TO BE SUBMITTED BY CONTRACTOR PER TOWN REQUIREMENTS.
- ☒ Landscape Plan OR TO BE SUBMITTED BY OTHERS AT A LATER DATE.
- ☒ Signage Plan - NO CHANGE IN EXISTING SIGNAGE.
- ☒ Lighting Plan - TO BE SUBMITTED BY OTHERS AT A LATER DATE.
- ☒ Start up and completion date for installation of all improvements (TENTATIVE)

Start up: _____

Completion: _____

PHASE I: DEMO HOUSE & ADD 3 UNITS: APRIL 2023
PHASE II: MAINT. BLDG: JULY 2023

NOVEMBER 2023
SPRING 2024

FAILURE TO APPEAR SHALL RESULT IN THE HEARING EITHER BEING POSTPONED AND/OR THE CONDITIONAL USE APPLICATION BEING POSTPONED OR DENIED.


(Property Owner's Signature)

2/27/23
(Date)

SEE ATTACHED COST RECOVERY AGREEMENT

I/We, the undersigned, do hereby understand and agree that as an applicant or petitioner of the Village/Town of Bloomfield, I/We will be responsible for all normal fees payable by an applicant or petitioner (e.g. application fees, engineer fees, attorney fees, etc.). I/We further understand and agree to be responsible for any additional or consequential costs to the municipality as a result of my/our application or petition (i.e. engineering, legal, or other professional services). All fees and costs shall be paid within thirty (30) days of invoice and must be paid prior to the issuance of any permit or license. If payment is not made, said fees and costs may be assessed against the real property as a special charge.

(Property Owner's Signature)

(Applicant/Agent Signature)

(Property Owner's Printed Name)

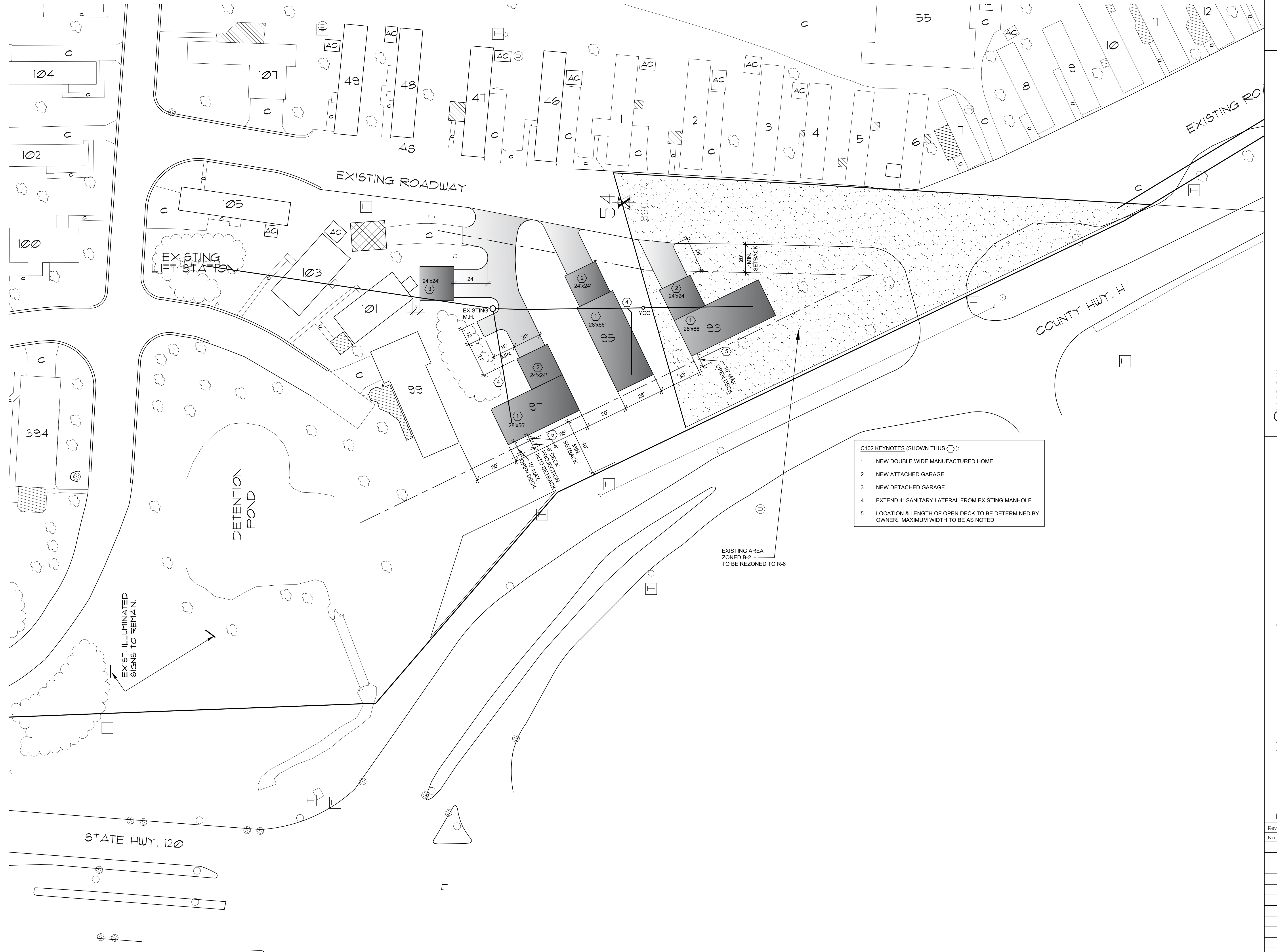
(Applicant/Agent Printed Name)

The Village/Town of Bloomfield's Planning and Zoning Commission may request more information if deemed necessary to properly evaluate your request. THE LACK OF INFORMATION REQUESTED SHALL IN ITSELF BE SUFFICIENT CAUSE TO DENY A PETITION. It is strongly suggested that all applicants schedule a pre-application review of their completed application with the Zoning Administrator, prior to submittal to the Planning and Zoning Commission. If you have any questions regarding the procedure, please contact the Zoning Administrator at 262-279-6039 ext. 3.

	Date:	Description:
Project number	2227	
Type	PR	
Scheduled	3/1/2023	
Status number	C101	



Dispositions:	
Date:	Description:
Project number:	2227
Type:	PR
Entered:	3/1/2023
Estimate number:	C102

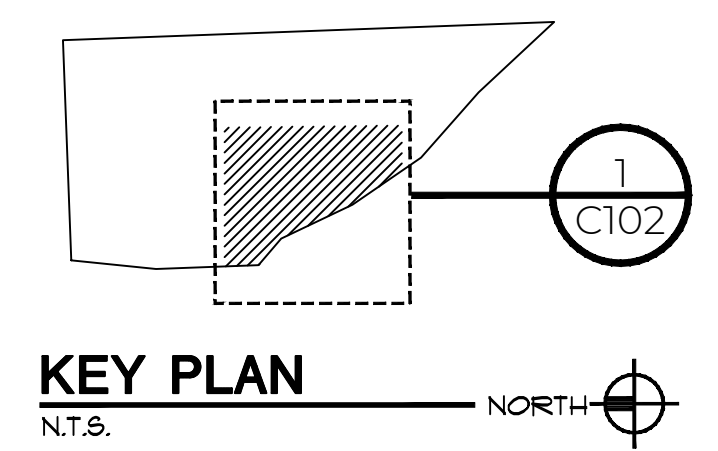


PARTIAL SITE PLAN -
PROPOSED NEW UNITS - PHASE I

1
C102

Scale 1" = 30'-0"

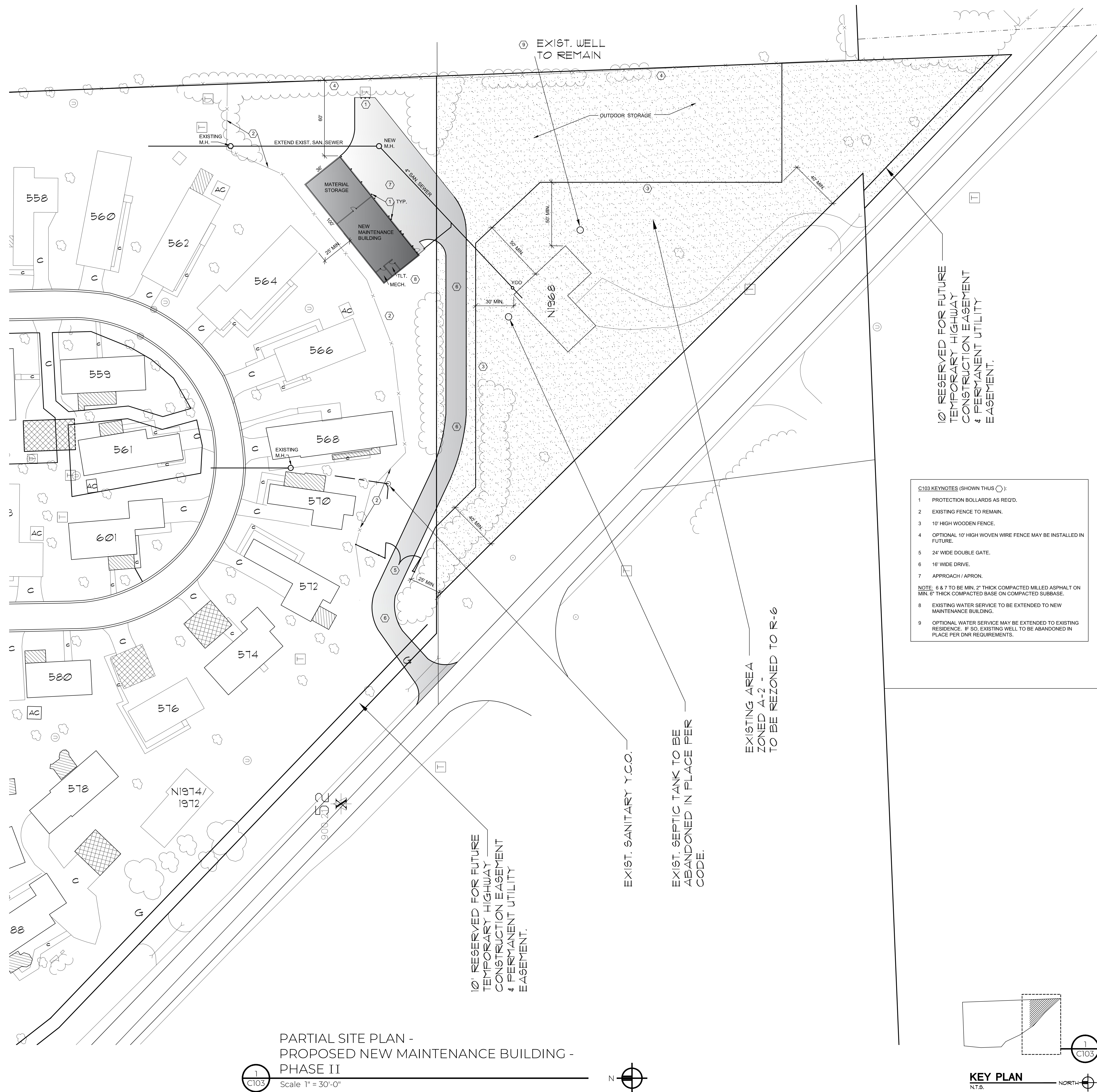
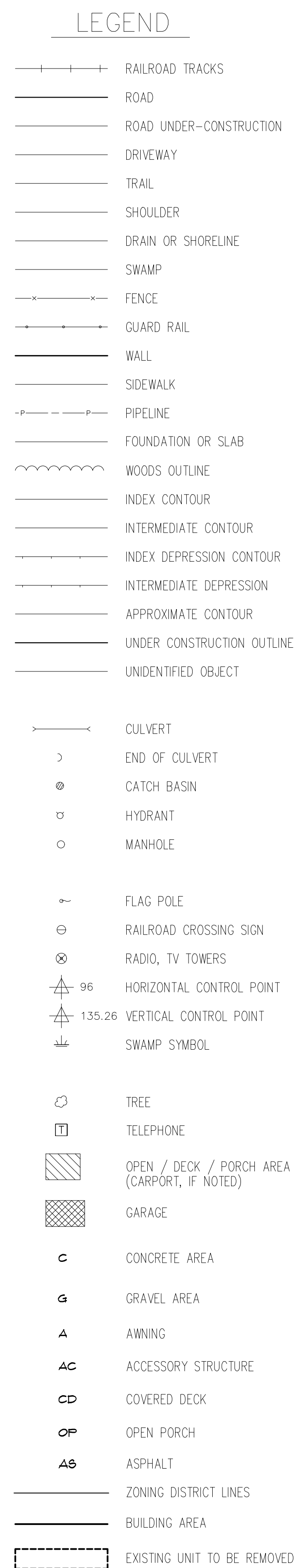
N



Owner:
Pioneer Estates of Lake Geneva
4454 S 13th Street
Milwaukee, Wisconsin 53221

Proposed Improvements At Pioneer Estates of Lake Geneva

Revisions:		
No.	Date:	Description:
Project Number	2227	
Set Type	PR	
Date Issued	3/1/2023	
Sheet Number	C103	



Memo to City of Lake Geneva

To: Josh Gajewski – Utility Director **Date:** February 27, 2023

From: Naomi Rauch, P.E.
262-758-6032

CC: Dave Nord – City Administrator
Dan Draper – City Attorney
Mike Timmers P.E. – Kapur & Associates, Inc.
Greg Governatori P.E. – Kapur & Associates, Inc.

Subject: Symphony Bay Phase 3 – Utility Approval Recommendation

The utility items have been completed in Symphony Bay Phase 3.

The sanitary sewer, water main, and fire hydrants, within the public rights of way, have been installed, tested, and approved pursuant to State of Wisconsin and City of Lake Geneva standards and approved construction documents for the above listed project. Inspection and testing of utility installation has been completed and all as-built drawings have been received & updated in GIS.

The work has been acceptably completed and it is Kapur's recommendation that the public improvements be accepted as public infrastructure.

The general list of utilities that are recommended for acceptance are located in Bowing Way (from Cappella Way to South Property line of Lot 61). The City currently retains a letter of credit in the amount of \$97,369.92 that covers the required maintenance bond of 20% of the improvements per the developer's agreement.

If you have any questions or comments, please feel free to contact me!

CITY OF LAKE GENEVA - SANITARY SEWER ACCEPTED IN 2023

Prepared by: Kapur & Associates, Inc.

Symphony Bay Phase 3 (installed in 2021)

Location	4" PVC Lateral (LF)	8" PVC Main (LF)	48" SAN MH (EA)
Bowing Way - STUB FROM SAN MH 1 to SAN MH 43		328.0	
Bowing Way - SAN MH 43 to SAN MH 42		394.0	
Bowing Way - SAN MH 42 to SAN MH 41		307.0	
Bowing Way - SAN MH 1 TO SAN MH 41			3.0
Bowing Way - Lot #24	30.0		
Bowing Way - Lot #25	30.0		
Bowing Way - Lot #26	30.0		
Bowing Way - Lot #27	30.0		
Bowing Way - Lot #28	30.0		
Bowing Way - Lot #29	30.0		
Bowing Way - Lot #30	30.0		
Bowing Way - Lot #31	30.0		
Bowing Way - Lot #32	30.0		
Bowing Way - Lot #33	30.0		
Bowing Way - Lot #34	30.0		
Bowing Way - Lot #35	30.0		
Bowing Way - Lot #36	30.0		
Bowing Way - Lot #37	30.0		
Bowing Way - Lot #38	30.0		
Bowing Way - Lot #39	30.9		
Bowing Way - Lot #40	33.1		
Bowing Way - Lot #41	35.2		
Bowing Way - Lot #42	37.3		
Bowing Way - Lot #43	39.4		
Bowing Way - Lot #44	36.5		
Bowing Way - Lot #45	28.0		
Bowing Way - Lot #46	38.8		
Bowing Way - Lot #62	22.0		
Bowing Way - Lot #63	24.1		
Bowing Way - Lot #64	26.2		
Bowing Way - Lot #65	28.4		
Bowing Way - Lot #66	30.0		
Bowing Way - Lot #67	30.0		
Bowing Way - Lot #68	30.0		
Bowing Way - Lot #69	30.0		
Bowing Way - Lot #70	30.0		
Bowing Way - Lot #71	30.0		
Bowing Way - Lot #72	30.0		
Bowing Way - Lot #73	30.0		
Bowing Way - Lot #74	30.0		
Bowing Way - Lot #75	30.0		
Bowing Way - Lot #76	30.0		
Bowing Way - Lot #77	30.0		
Bowing Way - Lot #78	30.0		
Bowing Way - Lot #79	30.0		
Bowing Way - Lot #80	30.0		
Quantity Total	1279.9	1029.0	3.0
Estimated cost per unit	\$ 50.00	\$ 68.00	\$ 3,500.00
Cost Total	\$ 63,995.00	\$ 69,972.00	\$ 10,500.00

TOTAL SANITARY SEWER COST \$ - ACCEPTED IN 2023

\$

144,467.00**\$80,472.00**

CITY OF LAKE GENEVA - WATERMAIN ACCEPTED IN 2023

Prepared by: Kapur & Associates, Inc.

Symphony Bay Phase 3 (installed in 2021)

Location	6" Hydrant Lead (LF)	6" PVC Main (LF)	8" PVC Main (LF)	6" Wat. Hyd. Valve (EA)	8" Water Valve (EA)	Hydrant (EA)
Bowing Way - 8"x6" HYD Tee Stub (STA 104+02) to Stub (STA 92+79)	9.0		1099.4	3.0	1.0	3.0
Quantity Total	9.0	0.0	1099.4	3.0	1.0	3.0
Estimated cost per unit	\$ 85.00	\$ -	\$ 57.00	\$ 1,000.00	\$ 1,870.00	\$ 5,620.00
Cost Total	\$ 765.00	\$ -	\$ 62,665.23	\$ 3,000.00	\$ 1,870.00	\$ 16,860.00

TOTAL WATERMAIN COST \$ - ACCEPTED IN 2023 \$ 85,160.23

CITY OF LAKE GENEVA - WATER SERVICES* ACCEPTED 2023

Prepared by: Kapur & Associates, Inc.

Symphony Bay Phase 3 (installed in 2021)

Location	1" PVC Service (LF)	Curb & Corp Stops (EA)
Bowing Way - Lot #24	50.0	1.0
Bowing Way - Lot #25	50.0	1.0
Bowing Way - Lot #26	49.9	1.0
Bowing Way - Lot #27	49.9	1.0
Bowing Way - Lot #28	49.9	1.0
Bowing Way - Lot #29	49.8	1.0
Bowing Way - Lot #30	49.8	1.0
Bowing Way - Lot #31	49.7	1.0
Bowing Way - Lot #32	49.7	1.0
Bowing Way - Lot #33	49.5	1.0
Bowing Way - Lot #34	49.5	1.0
Bowing Way - Lot #35	49.4	1.0
Bowing Way - Lot #36	49.4	1.0
Bowing Way - Lot #37	49.3	1.0
Bowing Way - Lot #38	48.6	1.0
Bowing Way - Lot #39	47.9	1.0
Bowing Way - Lot #40	48.4	1.0
Bowing Way - Lot #41	48.9	1.0
Bowing Way - Lot #42	49.4	1.0
Bowing Way - Lot #43	49.9	1.0
Bowing Way - Lot #44	50.8	1.0
Bowing Way - Lot #45	50.1	1.0
Bowing Way - Lot #46	50.5	1.0
Bowing Way - Lot #62	10.5	1.0
Bowing Way - Lot #63	10.9	1.0
Bowing Way - Lot #64	11.4	1.0
Bowing Way - Lot #65	11.9	1.0
Bowing Way - Lot #66	11.9	1.0
Bowing Way - Lot #67	10.8	1.0
Bowing Way - Lot #68	10.6	1.0
Bowing Way - Lot #69	10.6	1.0
Bowing Way - Lot #70	10.6	1.0
Bowing Way - Lot #71	10.5	1.0
Bowing Way - Lot #72	10.4	1.0
Bowing Way - Lot #73	10.3	1.0
Bowing Way - Lot #74	10.2	1.0
Bowing Way - Lot #75	10.2	1.0
Bowing Way - Lot #76	10.3	1.0
Bowing Way - Lot #77	10.1	1.0
Bowing Way - Lot #78	10.1	1.0
Bowing Way - Lot #79	10.1	1.0
Bowing Way - Lot #80	10.0	1.0
Quantity Total	1341.3	42.0
Estimated cost per unit	\$ 35.00	\$ 535.00
Cost Total	\$ 46,946.20	\$ 22,470.00

TOTAL WATER SERVICES COST \$ - ACCEPTED 2023 \$ 69,416.20

EQUIPMENT TRANSFER AGREEMENT

This EQUIPMENT TRANSFER AGREEMENT (this “**Agreement**”) is made and entered into as of the date of the last party to execute this Agreement (the “**Effective Date**”), by **Sprint Spectrum Realty Company, LLC**, a Delaware limited liability company (formerly limited partnership), successor in interest to Sprint Spectrum LP, or any affiliate or successor in interest (“**Transferor**”), in favor of **Lake Geneva Utility Commission**, acting on behalf and for the City of Lake Geneva, a Wisconsin municipal corporation (“**Transferee**”). Transferor and Transferee shall individually be referred to as a “**Party**” and collectively as the “**Parties**”.

WHEREAS, the Parties (or their respective predecessors in interest) entered into a License Agreement dated January 10, 2000, as may have been amended (collectively, the “**Lease**”) for Transferor to utilize certain portions of **1003 Host Drive, Lake Geneva, WI 53147** (the “**Property**”);

WHEREAS, a Notice of Non-Renewal was sent to Transferee on December 23, 2022, stating that the Lease would expire effective January 23, 2025 (“**Lease Expiration Date**”). The Parties agree that no further notice is required evidencing the end of Transferor’s tenancy at the Property. The Parties further agree that title to the Transferred Property (as defined below) shall pass to Transferee on the Effective Date (as defined below) and the Transferred Property shall not be removed by Transferor. On the Lease Expiration Date, all Rent and other fees payable under the Lease shall cease;

WHEREAS, this Agreement specifically relates to the Transferred Property and does not affect, amend or limit any other rights or obligations of the Parties under the Lease;

NOW, THEREFORE, in consideration of the terms, conditions, covenants and mutual promises set forth herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto, intending to be legally bound, hereby agree as follows:

1. Equipment and Surrender Obligations.

- a) **Surrender Obligations and Transfer of Title.** Transferee agrees that Transferor shall surrender the premises in an “*as-is*” condition. Transferor shall leave, convey, transfer, and assign all equipment, leasehold improvements, and related items installed on the Property listed in **Exhibit A** (“**Transferred Property**”). Title to all Transferred Property automatically passes to Transferee and Transferee accepts the Transferred Property on an “*as is*” basis. Transferor shall remove its equipment not specified on Exhibit A (“**Transferor’s Surrender Work**”).

- b) **Cooperation and Access.** Transferee agrees to cooperate with Transferor regarding any necessary actions, including obtaining any required permits or other approvals. Transferor shall have the right of access to the Property at no cost, on a twenty-four (24) hours a day, seven (7) days per week basis.
 - c) **Mutual Release.** Transferor and Transferee release and waive any claims against the other Party and such Party's successors, assigns, parent, subsidiaries and affiliates, arising out of the Lease and Transferor's Surrender Work, excepting any Security Deposit, prepaid-rent, rent credits or abatements owed to Lessee.
2. **Covenants of Transferor.** Transferor hereby covenants with, and represents and warrants to, Transferee that, as of the Effective Date:
- a. Transferor is lawfully seized and possessed of the Transferred Property;
 - b. Transferor has the right to sell, transfer and convey the Transferred Property to Transferee;
 - c. The Transferred Property at the Site(s) is, and shall be transferred to Transferee, free and clear of all security interests, liens, and other encumbrances of any type or description.

EXCEPT AS EXPRESSLY SET FORTH HEREIN, TRANSFEROR MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF CONDITION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

3. **Miscellaneous.**

- a. This Agreement supersedes all prior discussions and agreements between the Parties with respect to the transfer of the Transferred Property and other matters contained herein, and this Agreement contains the sole and entire understanding and agreement between the Parties with respect thereto. In the event of any inconsistency or conflict between the terms and provisions of this Agreement and the Lease, this Agreement shall control.
- b. The Parties agree to use reasonable commercial efforts to execute and deliver such additional documents and to do such other acts as may be reasonably necessary or advisable to more fully implement or evidence the transactions contemplated by this Agreement.

- c. If any provision of this Agreement is unlawful or unenforceable under applicable law, the other provisions and the unlawful or unenforceable provision shall remain in effect to the extent permitted under applicable law. This Agreement shall be binding upon the Parties and their respective successors and assigns. This Agreement shall be governed by and construed and enforced in accordance with the internal substantive laws of the state where the Property is located, regardless of conflict of law principles. The use of the word “or” herein is not exclusive. The recitals set forth in the preamble of this Agreement are hereby incorporated into this Agreement as if fully set forth herein. Any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in interpreting this Agreement.
- d. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same Agreement. Signed electronic copies of this Agreement (including signatures provided by PDF or DocuSign) shall be legally binding and deemed as originals.
- e. The signatories represent and warrant that he or she is duly authorized to execute this Agreement on behalf of their respective Party.

(Remainder of Page Intentionally Left Blank)

IN WITNESS WHEREOF, this Agreement has been executed by the Parties and is effective on the date of the last Party to sign this Agreement, as evidenced below:

Transferor:

Sprint Spectrum Realty Company, LLC,
a Delaware limited liability company

Transferee:

Lake Geneva Utility Commission,
acting on behalf and for the
City of Lake Geneva,
a Wisconsin municipal corporation

By: _____

Name: _____

Title: _____

Date: _____

By: _____

Name: Josh Gajewski

Title: _____

Date: _____

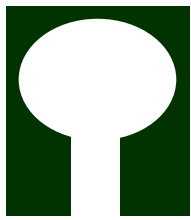
EXHIBIT A

Transferred Property

The following equipment Facilities will be left in place and become part of the property being transferred to the Transferee/Lessor by way of this Agreement.

- 1. Existing wall-mounted cabling brackets on interior of the tower to remain.**
- 2. Leave Conduits entering tank from meter.**
- 3. Cap all openings on tower.**
- 4. Everything Welded to the tank stays.**

Site Address: 1003 Host Drive, Lake Geneva, WI 53147
Site ID: ML33XC024
Lease ID: ML33XC024-C-001
Landlord Site ID: 1003HostDrive



DIXON

**ENGINEERING & INSPECTION SERVICES
FOR THE COATING INDUSTRY**

4811 S. 76th Street
Suite 109
Greenfield, WI 53220
Telephone: (414) 529-1859
Fax: (414) 282-7830

February 22, 2023

RE: Lake Geneva Utility Commission
T-Mobile (ML70554A)
Host Composite Tank
Review #3 (Final)

Mr. Josh Gajewski
Utility Director
Lake Geneva Utility Commission
361 Main Street
Lake Geneva, WI 53147

Dear Mr. Gajewski:

Dixon Engineering, Inc. (DIXON) has reviewed the revised design drawings and the revised structural calculations (tank) for the T-Mobile upgrade on the Host composite tank located in Lake Geneva, Wisconsin. The documents reviewed include:

- The revised design drawings for the project were completed by W-T Group and they are dated February 7, 2023 (Rev. 2).
- The revised structural calculations (tank) were completed by W-T Group (Structural Engineering) and they are dated February 7, 2023.

This is the third review by DIXON for this project. In the second review DIXON found several items (B & C) that needed to be addressed. The following is a comment regarding each of the items as they were addressed in the revised documents.

- B. The revised structural calculations (tank) have been reviewed and found to be in order.
1. The revised structural calculations (tank) are stamped and signed by a Licensed Professional Engineer in the State of Wisconsin.
 2. This document with the date is referenced on Sheet A-1 and on Sheet A-2 in the revised design drawings.
 3. The revised document finds “the existing antenna water tank is structurally adequate to support existing/proposed antennas”.
 4. This item was previously addressed.
 5. This item was previously addressed.
 6. These items (i & ii) have been addressed.
- C. The revised design drawings are stamped and signed by a Licensed Professional Engineer in the State of Wisconsin.

DIXON does not find any reasons for further review of these design drawings or structural documents. If completed per the approved design drawings, the upgrade antenna installation for T-Mobile will not affect the Host composite tank with respect to OSHA (safety), tank operations, or water quality.

DIXON has to schedule and lead a preconstruction meeting at the site prior to the start of any work on the project. During the installation portion of the project, DIXON has two installation inspections contracted to be completed for this project.

Lake Geneva Utility Commission
T-Mobile (ML70554A)
Host Composite Tank
Review #3 (Final)
Page 2

If you have any questions, you can call me at 920-470-0957.

FOR DIXON ENGINEERING, INC.,

A handwritten signature in black ink, appearing to read "Joseph T. Hoban". The signature is fluid and cursive, with the first name "Joseph" and last name "Hoban" clearly distinguishable.

Joseph T. Hoban, P.E.
Vice President

c: James Rowley, DIXON
Chris Kreiner, DIXON
Kayla Mulcahy, DIXON

February 7, 2023

Mr. Josh Gajewski
Utility Director
Lake Geneva Utility Commission
361 Main Street
Lake Geneva, WI 53147

RE: Lake Geneva Utility Commission
T-Mobile (ML70554A)
Host Composite Tank
Review #2

Dear Mr. Gajewski

Please find our responses (***in bold***) to the Dixon Review Comments (Structural Review), dated January 7, 2023 for the above referenced project.

City Comments per Structural Calculations (Mount Analysis):

- A. No revisions were required for the structural calculations (mount analysis).

Response: N/A

City Comments per Structural Calculations (Tank):

- B. The revised structural calculations (tank) have been reviewed and there are revisions required.

Response: N/A

1. The revised structural calculations (tank) are stamped and signed by a Licensed Professional Engineer in the State of Wisconsin.

Response: N/A

2. This document with the date is referenced on Sheet A-1 and on Sheet A-2 in the design drawings. This date needs to be updated to match the final structural calculations (tank) for the project.

Response: This change is coordinated with the design drawings.

3. The document finds "the existing antenna water tank is structurally adequate to support existing/proposed antennas".

Response: N/A

4. This item has been addressed.

Response: N/A

5. This item has been addressed.

Response: N/A

6. The response is generally an acceptable approach. The International Existing Building Code (IEBC) includes provisions that allow for additions that apply less than 5% additional stress due to gravity loads and less than 10% additional stress due to wind loads, without the need to specifically analyze the structure. Because the core structure is not changing, a simple comparison of added load due to appurtenances that were installed after the original construction (antennas, roof handrails, etc...) vs. the original design loads (pedestal, tank, etc...) is an acceptable method to determine if the addition meets the IEBC requirements.
- i. The calculations show that the horizontal wind load is increased by 9.5% and the vertical load is increased 0.6% and satisfies the IEBC requirements. This is an acceptable check in regard to the horizontal base shear, however the overturning moment is typically the governing factor in these installations due to the moment arm created from placing the antenna installation at the top of the tower. The calculations should compare the overturning moment applied by the antenna installation and other appurtenances installed after the original construction with the original applied overturning moment.

Response: The calculations, on pages 3 and 47, show a comparison of the original overturning moment on the tank and the overturning moment increase due to appurtenances/mounts.

- ii. Using the loading provided in the calculations, it does not appear that this will meet the IEBC requirement when comparing the overturning moments. That being said, the calculated antenna loading provided seems quite a bit higher than we would anticipate and we would suspect that this installation would meet the requirements with refined calculations. WT Group needs to revisit the load calculations and make sure they accurately reflect the current state of the structure as well as the proposed and existing antenna installation.

Response: The calculations are revised to reflect the current state of the structure (to the best of our knowledge). The structure satisfies IEBC requirements for gravity loads, lateral loads, and overturning moment.

City Comments per Design Drawings:

- C. The revised design drawing are stamped and signed by a Licensed Professional Engineer in the State of Wisconsin.

Response: N/A

- D. This item has been addressed.

Response: N/A

- E. This item has been addressed.

Response: N/A

- F. This item has been addressed.

Response: N/A

- G. This item has been addressed.

Response: N/A

If you have any questions, please contact us at (224) 293-6302

Sincerely,
The W-T Group, LLC

A handwritten signature in black ink, reading "Geoffrey Golly". The signature is written in a cursive, flowing style.

Geoffrey Golly
Project Engineer, Structural Engineering

SITE NUMBER: ML70554A

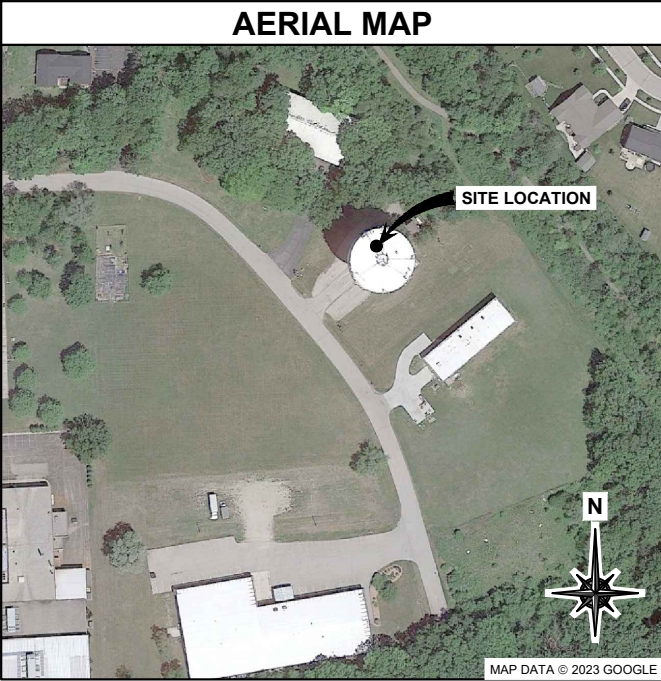
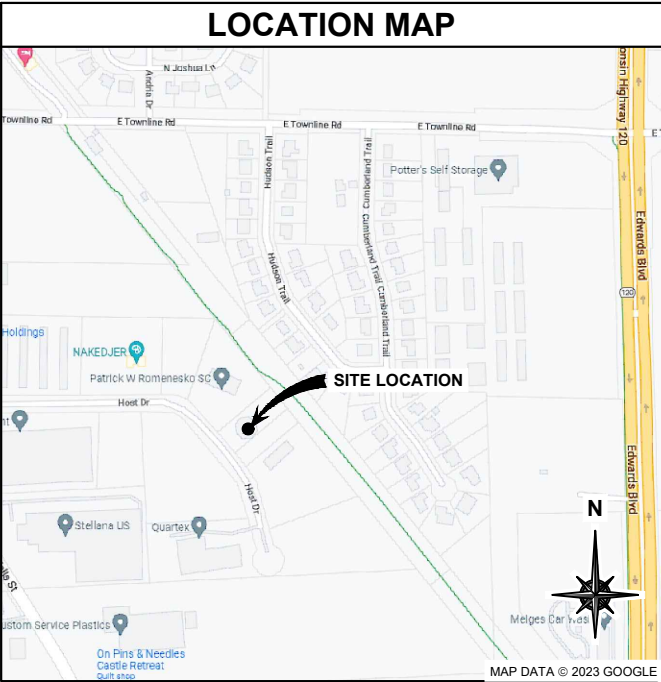
SITE NAME: HOST WT LAKE GENEVA

SITE TYPE: WATER TANK

JURISDICTION: CITY OF LAKE GENEVA

CITY: LAKE GENEVA

COUNTY: WALWORTH



PROJECT DESCRIPTION

NO NEW WATER OR SEWER IS REQUIRED AS FACILITY IS UNMANNED.

EXISTING BUILD OUT:

6 ANTENNAS, 3 RRU'S, 3 TOWER OVP'S, 3 BREAKOUT BOXES, 3 HCS 2.0 TRUNKS, 1 SITE SUPPORT CABINET, 1 BATTERY CABINET, 1 SYSTEM MODULE IN SSC, 2 AMIA'S IN SSC

FINAL BUILD OUT:

6 ANTENNAS, 6 RRU'S, 3 TOWER OVP'S, 3 BREAKOUT BOXES, 3 HCS 2.0 TRUNKS, 1 SITE SUPPORT CABINET, 1 BATTERY CABINET, 2 AMIA'S IN SSC

SCOPE OF WORK:

ANTENNA LOCATION

- REMOVE (3) EXISTING ANTENNAS (1 PER SECTOR)
- UTILIZE EXISTING ANTENNA MOUNTS (1 PER SECTOR)
- UTILIZE (3) EXISTING BREAKOUT BOXES (1 PER SECTOR)
- UTILIZE (3) EXISTING AHFIG'S (1 PER SECTOR)
- INSTALL (3) NEW ANTENNAS (1 PER SECTOR)
- INSTALL (3) NEW AHLOA'S (1 PER SECTOR)

TRANSMISSION LINES

- UTILIZE (3) EXISTING HCS 2.0 TRUNKS (1 PER SECTOR)
- INSTALL NEW RF JUMPERS FOR NEW RRU'S

EQUIPMENT LOCATION

- UTILIZE (2) EXISTING ASIB CORE MODULES. RE-PURPOSE AS NEEDED
- UTILIZE (2) EXISTING ABIA CAPACITY MODULES. RE-PURPOSE AS NEEDED
- UTILIZE (3) EXISTING ABIC CAPACITY MODULES. RE-PURPOSE AS NEEDED
- UTILIZE (1) EXISTING ASIL CORE MODULE. RE-PURPOSE AS NEEDED
- UTILIZE (2) EXISTING ABIO CAPACITY MODULES. RE-PURPOSE AS NEEDED
- UTILIZE (1) EXISTING GSM PCS FSMF SYSTEM MODULE IN EXISTING SSC
- UTILIZE (2) EXISTING AMIA'S IN EXISTING SSC
- UTILIZE (1) EXISTING HPL3 SITE SUPPORT CABINET
- UTILIZE (1) EXISTING LB3 BATTERY CABINET
- UTILIZE (1) EXISTING FSEB IN EXISTING SSC
- UTILIZE (3) EXISTING TOWER OVP'S
- UTILIZE (1) EXISTING PPC
- UTILIZE (2) EXISTING CIENA'S
- UTILIZE (1) EXISTING FYGA GPS ANTENNA
- UTILIZE EXISTING CSR IXRE V1 IN EXISTING SSC
- UTILIZE (1) EXISTING 200A 4-POLE BREAKER IN EXISTING PPC FOR EXISTING SSC

APPLICABLE CODES

BUILDING CODE:
2015 INTERNATIONAL BUILDING CODE

ELECTRICAL CODE:
2017 NATIONAL ELECTRICAL CODE

PROJECT TYPE

L600

PROJECT LOCATION

COORDINATES (NAD83):
LAT: 42.57920800°
LONG: -88.41719400°

SITE ADDRESS:
1003 HOST DRIVE
LAKE GENEVA, WI 53147
WALWORTH COUNTY

DATA OBTAINED FROM T-MOBILE RFDS

CONTACTS

APPLICANT:
T-MOBILE
1400 OPUS PLACE
DOWNERS GROVE, IL 60515
TEL: T.B.D.
CONTACT: T.B.D.

PROPERTY OWNER:
LAKE GENEVA UTILITY COMMISSION
361 W. MAIN STREET
LAKE GENEVA, WI 53147
TEL: (262) 248-2311
CONTACT: JOSH GAJEWSKI

PROJECT TEAM

A&E:
WT GROUP, LLC
2675 PRATUM AVENUE
HOFFMAN ESTATES, IL 60192
CONTACT: DAVID VAN LIESHOUT
TEL: (224) 293-6333
FAX: (224) 293-6444

STRUCTURAL ENGINEER:
WT GROUP, LLC
2675 PRATUM AVENUE
HOFFMAN ESTATES, IL 60192
TEL: (224) 293-6333
FAX: (224) 293-6444

SHEET INDEX

SHEET NUMBER:	DESCRIPTION:
T-1	TITLE SHEET
T-2	GENERAL NOTES & SPECIFICATIONS
T-3	GENERAL NOTES & SPECIFICATIONS
C-1.1	OVERALL SITE PLAN
C-1.2	ENLARGED SITE PLAN
C-2	EXISTING & NEW SITE PLANS
A-1	ELEVATION
A-2	ANTENNA PLANS & SCHEDULE
A-3	EQUIPMENT SPECIFICATIONS
A-4	EQUIPMENT SPECIFICATIONS
A-5	RF PLUMBING DIAGRAM
GR-1	GROUNDING DETAILS
GR-2	GROUNDING DETAILS

APPROVALS

PENDING APPROVAL OF THE JURISDICTION, THE FOLLOWING PARTIES HAVE REVIEWED THE DESIGN WITHIN THEIR FUNCTIONAL RESPONSIBILITIES AND HAVE APPROVED THIS PROJECT FOR CONSTRUCTION. CONTRACTORS MAY NOT START CONSTRUCTION WITHOUT A NOTICE TO PROCEED (NTP).

	PRINT NAME	SIGNATURE	DATE
LANDLORD			
PRECON. MGR			
DEVELOP. MGR			
CONST. INSP.			
A&E MGR.			
RF ENGINEER			
OPERATIONS			
ZONING REP			
UTILITIES			

GENERAL REQUIREMENTS:

1.1 INTENT

1. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
2. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH.
3. THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
4. THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
5. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

1.2 CONFLICTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
2. THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING WHICH SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
3. NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.

1.3 CONTRACTS AND WARRANTIES

1. CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.

1.4 STORAGE

1. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.
2. THE BTS MUST BE STORED INSIDE UNTIL THERE IS POWER ON SITE.

1.5 CLEAN UP

1. THE CONTRACTORS SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY FOR USE.
2. EXTERIOR: VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
- A. REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
- B. IF NECESSARY TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.
3. INTERIOR: VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER FROM WALLS/FLOOR/CEILING.
- A. REMOVE ALL TRACES OF SPLASHED MATERIAL FROM ADJACENT SURFACES.
- B. REMOVE PAINT DROPPINGS, SPOTS, STAINS AND DIRT FROM FINISHED SURFACES.

1.6 CHANGE ORDER PROCEDURE

1. CHANGE ORDERS MAY BE INITIATED BY THE OWNER AND/OR THE CONTRACTOR INVOLVED. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE OWNER SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT TO THE OWNER WITHIN 72 HRS FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES IN SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED AND APPROVED BY THE OWNER SHALL PLACE FULL RESPONSIBILITY OF THESE ACTIONS ON THE CONTRACTOR.

1.7 RELATED DOCUMENTS AND COORDINATION

1. GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

1.8 SHOP DRAWINGS

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR APPROVAL.
2. ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.

1.9 PRODUCTS AND SUBSTITUTIONS

1. SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
2. SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.

1.10 QUALITY ASSURANCE

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

1.11 ADMINISTRATION

1. BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
2. SUBMIT A BAR TYPE PROGRESS CHART NOT MORE THAN 3 DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OR UNIT OF WORK TO BE PERFORMED AT SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK AND SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE WORK.
3. PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE (THOUGH NOT LIMITED TO) THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).
4. CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.
5. DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL SAFETY REQUIREMENTS IN THEIR AGREEMENT.
6. PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE OWNER.
7. COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
8. NOTIFY THE OWNER / PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.

1.12 INSURANCE AND BONDS

1. CONTRACTOR SHALL AT THEIR OWN EXPENSE CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED AND SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER. REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.
2. THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.
3. CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.

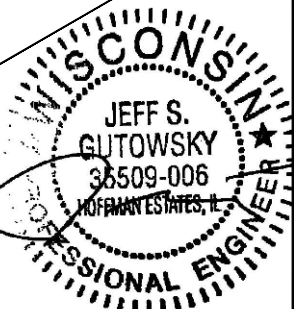
ANTENNA INSTALLATION:

1.1 REQUIREMENTS OF REGULATOR AGENCIES

1. FURNISH U.L. LISTED EQUIPMENT WHERE SUCH LABEL IS AVAILABLE, INSTALL IN CONFORMANCE WITH U.L. STANDARDS WHERE APPLICABLE.
2. INSTALL ANTENNA, ANTENNA CABLES, GROUNDING SYSTEM IN ACCORDANCE WITH DRAWINGS AND SPECIFICATION IN EFFECT AT PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES, SPECIAL CODES HAVING JURISDICTION OVER SPECIFIC PORTIONS OF WORK. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:
- A. TIA - TELECOMMUNICATIONS INDUSTRY ASSOCIATION TIA-222-G. STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- B. FAA - FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR AC 70/7460-IH, OBSTRUCTION MARKING AND LIGHTING.
- C. FCC - FEDERAL COMMUNICATIONS COMMISSION RULES AND REGULATIONS FORM 715, OBSTRUCTION MARKING AND LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES AND FORM 715A, HIGH INTENSITY OBSTRUCTION LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES.
- D. AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
- E. NEC - NATIONAL ELECTRICAL CODE - ON TOWER LIGHTING KITS.
- F. UL - UNDERWRITER'S LABORATORIES APPROVED ELECTRICAL PRODUCTS.
- G. IN ALL CASES, PART 77 OR THE FAA RULES AND PARTS 17 AND 22 OF THE FCC RULES ARE APPLICABLE AND IN THE EVENT OF CONFLICT, SUPERSEDE ANY OTHER STANDARDS OR SPECIFICATIONS.
- H. LIFE SAFETY CODE NFPA -101.



10370 Wacker Drive
Rosemont, IL 60018
Tel: 630.251.1000
Fax: 630.251.1299

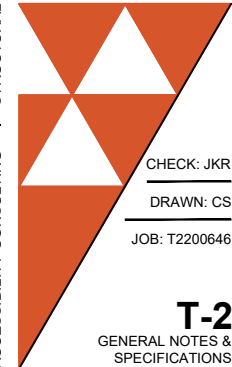


EXPIRES: 07/31/24 SIGNED: 02/07/23

REVISIONS

REV.	ISSUED FOR	DATE	BY
A	FOR CLIENT REVIEW	06/13/22	CS
0	FINALS	08/05/22	APK
1	REVISION	11/23/22	APK
2	REVISION	02/07/23	APK

AQUATIC \ DESIGN & PROGRAM MANAGEMENT
CIVIL \ TELECOMMUNICATION \ MECHANICAL
PLUMBING \ ELECTRICAL \ LAND SURVEYING
ACCESSIBILITY CONSULTING \ STRUCTURAL



CHECK: JKR

DRAWN: CS

JOB: T2200646

T-2
GENERAL NOTES &
SPECIFICATIONS

T-Mobile

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Engineering • Design • Consulting

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GENERAL ELECTRIC PROVISION:

1.

SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2.

CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATIONS TEST, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
3.

EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANEL BOARD, PULL BOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.).
4.

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
5.

ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU.
6.

ALL CONDUIT INSTALLED SHALL BE SURFACE MOUNTED OR DIRECT BURIAL UNLESS OTHERWISE NOTED.
7.

CONTRACTOR SHALL CARRY OUT THEIR WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A.
8.

CONTRACTOR TO OBTAIN ALL PERMITS, PAY PERMIT FEES, AND BE RESPONSIBLE FOR SCHEDULING INSPECTIONS.
9.

COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
10.

ALL CONDUIT SHALL HAVE A PULL WIRE OR ROPE.
11.

PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS.
12.

ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC., SHALL BE TURNED OVER TO THE OWNER AT JOB COMPLETION.
13.

USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURES.
14.

ALL CONDUCTORS SHALL BE COPPER.
15.

ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
16.

THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
17.

PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
18.

PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH APPLICABLE LOCAL BUILDING CODES.
19.

WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS.
20.

GROUNTING CONDUCTORS SHALL BE SOLID TINNED COPPER UNLESS OTHERWISE NOTED.
21.

ALL MATERIALS SHALL BE U.L. LISTED.

22.

CONDUIT
- A.

RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3
- B.

ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTING SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
- C.

FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT SHALL HAVE FULL SIZE EQUIPMENT GROUND WIRE.
- D.

CONDUIT RUNS SHALL BE SURFACE MOUNTED UNLESS INDICATED OTHERWISE. CONDUIT INDICATED SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE OWNER PRIOR TO INSTALLING. NO HORIZONTAL CONDUITS SHALL BE BELOW 7'-6" A.F.F. NO BX OR ROMEX CABLE IS PERMITTED.
- E.

PARALLEL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 30" BELOW GRADE - STACKED UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE.
- F.

ABOVE GROUND CONDUIT SHALL BE P.V.C. SCHEDULE 80 (UNLESS NOTED OTHERWISE).
23.

ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
24.

UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUND TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.

GENERAL PAINT NOTES:

SURFACE PREPARATION (EXTERIOR & DRY INTERIOR):

- ABRASIVE BLAST CLEAN ALL NEW STEEL COMPONENTS TO AN SSPC-SP6 "COMMERCIAL BLAST CLEANING" CONDITION PRIOR TO APPLICATION OF PRIMER COAT.
- AFTER WELDING OR CUTTING, CLEAN ALL DAMAGED SURFACES IN ACCORDANCE WITH SSPC-SP3 "POWER TOOL CLEANING" CONDITION PRIOR TO APPLICATION OF PRIME COAT.

COATING (EXTERIOR):

- THE EXTERIOR PAINT REPAIR SYSTEM WILL BE ONE PRIME COAT OF TNE MEC SERIES N140, ONE INTERMEDIATE COAT OF TNE MEC SERIES 1095, AND ONE TOPCOAT OF TNE MEC SERIES 1095. PAINT THE EXTERIOR TO MATCH THE EXISTING TOPCOAT COLOR.
- THE THREE-COAT SYSTEM WILL BE APPLIED AT 3.0 - 4.0 MILS PER COAT, TO A THICKNESS OF 9.0 - 12.0 MILS.

COATING (DRY INTERIOR):

- THE DRY INTERIOR PAINT REPAIR SYSTEM WILL BE THREE COATS OF TNE MEC SERIES N140. PAINT THE DRY INTERIOR TO MATCH THE EXISTING TOPCOAT COLOR.
- THE THREE-COAT SYSTEM WILL BE APPLIED AT 3.0 - 4.0 MILS PER COAT, TO A THICKNESS OF 9.0 - 12.0 MILS.

NOTES:

- FOLLOW ALL PAINT MANUFACTURERS' RECOMMENDATIONS WHEN USING THEIR PRODUCTS.

INSTALLATION NOTES:

- NOTES:
- GC TO VERIFY THE FANS ON THE FSMF MODULE ARE FLIPPED IN THE EXISTING HPL3 SITE SUPPORT CABINET TO ALLOW PROPER COOLING OF THE MODULES.
- DURING PRE-CONSTRUCTION SCOPE WALK, GC SHALL FIELD MEASURE AND DETERMINE REQUIRED HCS 2.0 CABLE LENGTHS TO EACH SECTOR. PROVIDE LENGTHS BACK TO T-MOBILE TO ENSURE IT IS CAPTURED ON THE RFDS AND T-MOBILE BOM.
- SSC USED BATTERIES WITH CONNECTION HARDWARE TO BE RELOCATED INSIDE NEW BBU.
- GC TO ENSURE ALL CONDUITS NO LONGER BEING USED ARE DECOMMISSIONED AND HOLES ARE PROPERLY SEALED AND WEATHERPROOFED.
- GC SHALL REFERENCE THE MOST CURRENT ESOA600-HCU01, HPL3 USER MANUAL FOR THE EXISTING HPL3 & BBU CABINETS.
- GPS CABLE SHALL BE RE-ROUTED THROUGH THE TROUGH OR OVP AND THE 2" FIBER CONDUIT TO THE HPL3.
- GC SHALL ENSURE THE OVP'S ARE INSTALLED AND WIRED PER MANUFACTURER SPECIFICATION. HCS 1.0 SHALL BE EQUIPPED WITH (4) SETS OF (2) #6 AWG (BLUE AND BLACK INSULATED) PROTECTED BY A 200A DC BREAKER IN THE SSC. HCS 2.0 SHALL BE EQUIPPED WITH (3) SETS OF (2) #2 AWG (BLUE AND BLACK INSULATED) PROTECTED BY A 100A DC BREAKER ((3) TOTAL 100A BREAKERS).
- ALL UNUSED OR VACATED WALL PENETRATIONS THROUGHOUT THE CABLE ROUTE TO THE SILO SHALL BE SEALED AND FIRESTOPPED. USE HILTI FIRESTOP PUTTY OR AS DIRECTED BY THE T-MOBILE CM.



Know what's below.
Call before you dig.



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811

CHECK: JKR
DRAWN: CS
JOB: T2200646

T-3

GENERAL NOTES & SPECIFICATIONS

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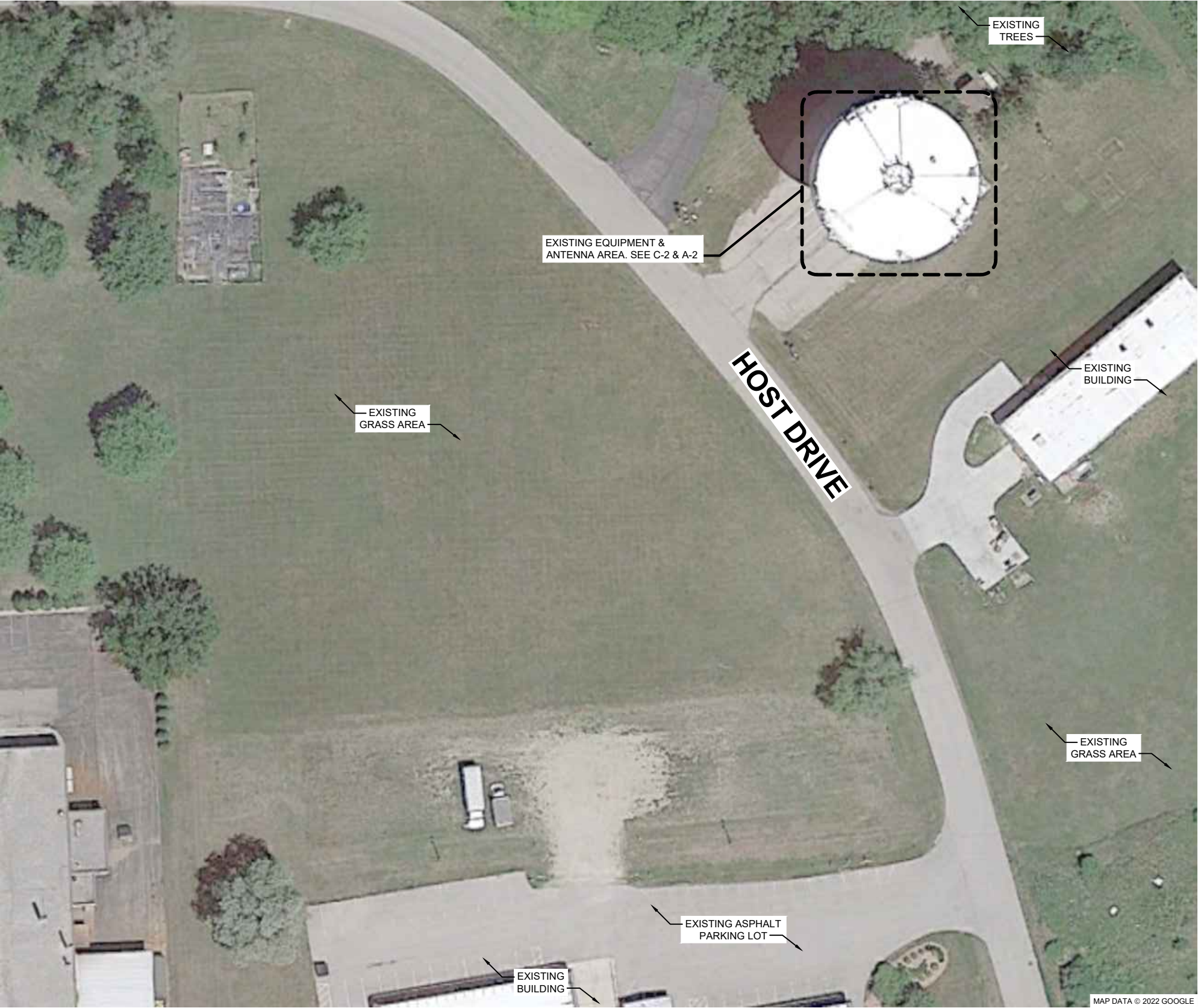
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IMPORTANT SITE NOTES:

1. CONTRACTOR WILL NOT START CONSTRUCTION UNTIL AFTER THEY HAVE RECEIVED THE PRE-CON PACKAGE AND HAVE A PRE-CON WALK WITH THE PROJECT MANAGER.
2. CONTRACTOR TO HIRE PUBLIC (811) AND PRIVATE LOCATING SERVICE IN ORDER TO LOCATE AND PROTECT ALL SURFACE UTILITIES. DO NOT SCALE OFF THESE PLANS FOR ANY BELOW GRADE UTILITIES
3. CONTRACTOR SHALL VERIFY ALL EXISTING BURIED AND OVERHEAD UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL REPAIR ALL DAMAGED UTILITIES AT HIS OWN COST AND COORDINATE ANY REPAIRS WITH RESPECTIVE UTILITY COMPANY.
4. CONTRACTOR TO VERIFY ALL HEIGHTS AND AZIMUTHS IN FIELD PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY T-MOBILE AND ENGINEERING FIRM OF ANY DISCREPANCIES BEFORE PROCEEDING.
5. CONTRACTOR SHALL RESTORE AND REPAIR ANY DAMAGED AREAS CAUSED BY CONSTRUCTION.



OVERALL SITE PLAN

SCALE: 1" = 60'-0"

1

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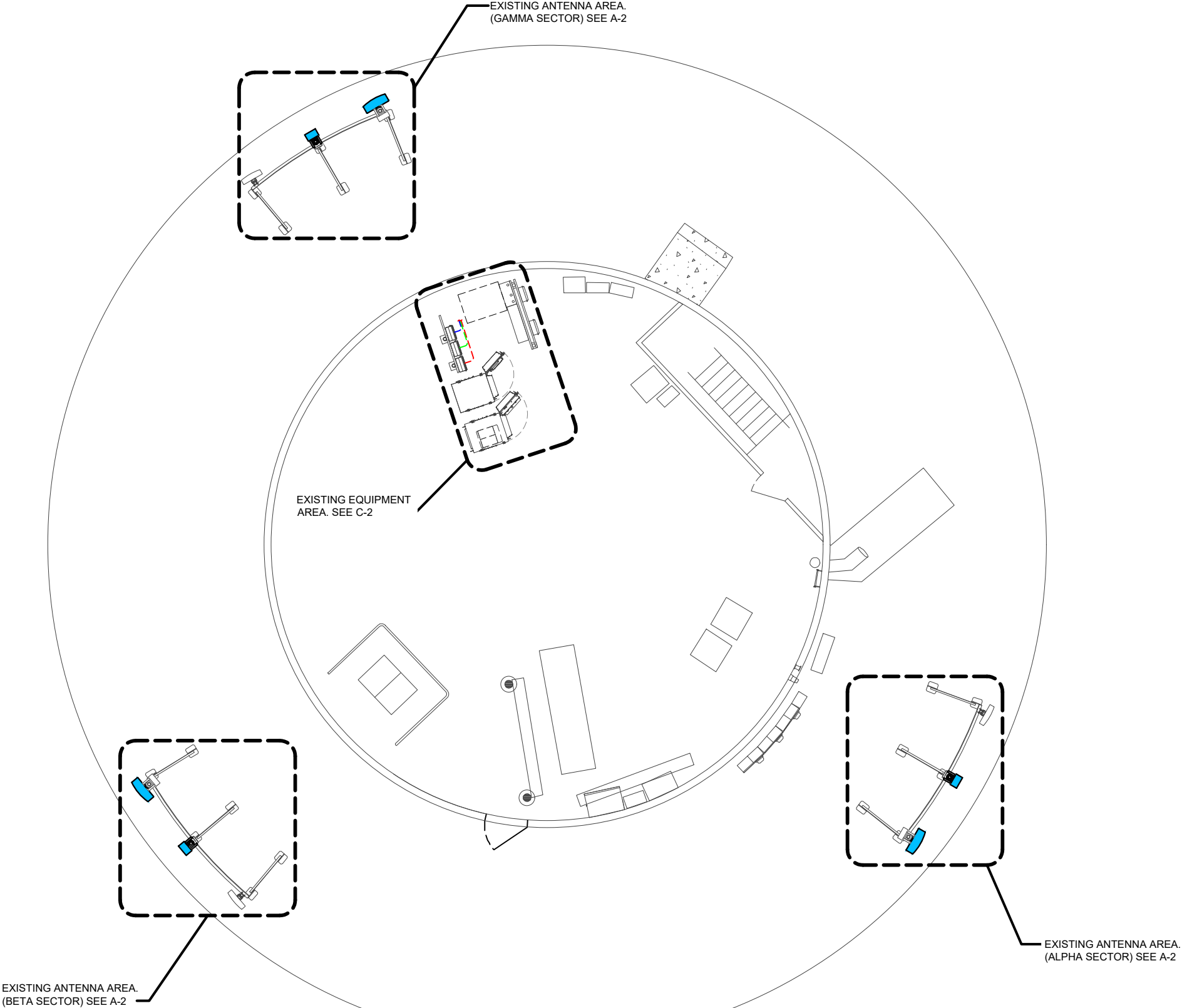
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C-1.1
OVERALL SITE PLAN

IMPORTANT SITE NOTES:

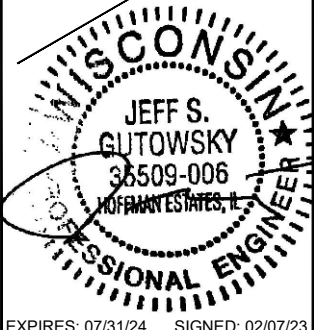
1. FLEXI MODULE FANS - SINCE AIRFLOW ON THESE CABINETS FLOWS FROM FRONT TO BACK, THE FLEXI FANS NEED TO BE FLIPPED, AND ALL FLEXI EQUIPMENT FULLY CLEANED TO PERMIT AIRFLOW DIRECTION WITHIN THE HPL3. (BY DEFAULT, FLEXI MODULE AIRFLOW IS FROM BACK TO FRONT) FLEXI SLEEVES NEED TO BE INSTALLED WITH ALL FLEXI MODULES. PHOTO PROOF OF FAN ROTATION AND CHASSIS CLEANED IS REQUIRED.
2. ORION CONTROLLERS ARE CABINET SPECIFIC! NEVER UPLOAD OR UPDATE SW TO THESE CONTROLLERS OR EVEN COPY CONFIGURATION FROM ANY OTHER ORION CONTROLLERS. THESE NEW CONTROLLERS COME WITH SPECIFIC SW THAT IS NOT BACKWARDS COMPATIBLE. DOING SO WILL DAMAGE THE CONTROLLER AND VOID THE WARRANTY.
3. NEVER USE TELCOFLEX WIRE TO RUN AC FEEDS (NOT APPROVED). ALWAYS USE THHN WIRE TO DELIVER AC POWER FROM THE PPC. PROPER AC/DC WIRE COLOR CODING NEEDS TO BE ADHERED TO.
4. A 3" MEYER HUB WITH REDUCER TO RIGID LL AT THE HPL3 IS USED TO RUN THE (3 EA) 3/0 & (1 EA) #4 TO THE PPC, TO WIRE THE 200A AC INPUT BREAKER. SITES EVENTUALLY WILL BE PREPPED FOR A SECOND POWER RUN FROM BACK OF CAB TO PPC. REFER TO CD'S FOR THIS UPDATE.
5. FOR HPL3 CABINETS, TEMPERATURE AND VOLTAGE COMPENSATION PROBS ARE SPECIFICALLY ADDRESSED IN DELTA'S HPL3 BATTERY IOM MANUAL (PAGES 14-18). IT IS STRONGLY ADVISED TO REVIEW/FOLLOW THESE INSTALLATION STEPS TO ENSURE OPTIMAL PERFORMANCE FROM THESE PROBS.
6. REMEMBER TO RUN THE ETHERNET ALARM CABLE FROM THE HPL3 TO BATTERY CABINET. REFER TO HPL3 DELTA USER MANUAL SECTION 3.1 0. FAILURE TO FOLLOW THIS INSTALLATION TASK WILL CAUSE THE CABINET TO OVERHEAT.
7. BE SURE TO INSTALL THE DC CABLE FROM THE HPL3 TO LB3 FOR CLIMATE CONTROL - REFER TO LB3 DELTA USER MANUAL SECTION 3.9. FAILURE TO DO SO WILL RESULT IN LB3 OVERHEATING.
8. DO NOT FORGET TO RUN/INSTALL A CAT5 CABLE FROM THE ORION CONTROLLER TO CELL SITE ROUTER (IXRe/SAS) AND INTEGRATE.
9. SUPPLY & INSTALL LOCP RELAY CONDUIT, CONNECTORS AND ALARM CABLE, FROM HPL3 TO PPC. IF PPC HAS LOCP RELAY ALREADY INSTALLED, PROPERLY WIRE UP AND ALARM IN FSEB/FSEE.
10. FIBER MUST BE INSTALLED INSIDE FLEXIBLE CONDUIT (NO MORE THAN 6' FLEXIBLE ALLOWED TOTAL PER PATH) TO PREVENT ANIMAL/INSECT DAMAGE FROM CHEWING ON THE SOY-BASED FIBER JACKETS.
11. ENSURE PROPER CABINET SUPPORTS ARE INSTALLED AND CABS ARE ANCHORED PROPERLY.
12. MAKE SURE PROPER CABLE / CONDUIT SUPPORTS ARE USED. NO DRILLING INTO THE CABINET IS ALLOWED.
13. VERIFY ALL ENVIRONMENTAL TESTING OF HEATERS & FANS IS COMPLETE BEFORE SITE IS CONSIDERED CX COMPLETE.



ENLARGED SITE PLAN

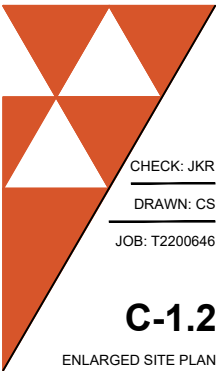
SCALE: 1" = 60'-0"

1



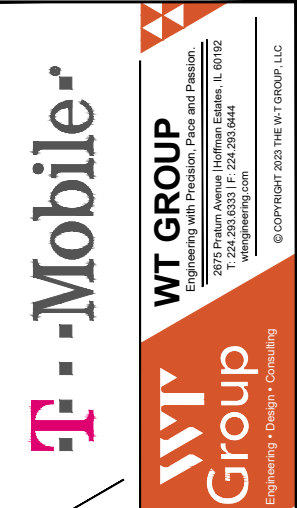
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C-1.2

ENLARGED SITE PLAN



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LEGEND

EXISTING EQUIPMENT

REMOVED EQUIPMENT

RELOCATED EQUIPMENT

NEW EQUIPMENT

NOTES:

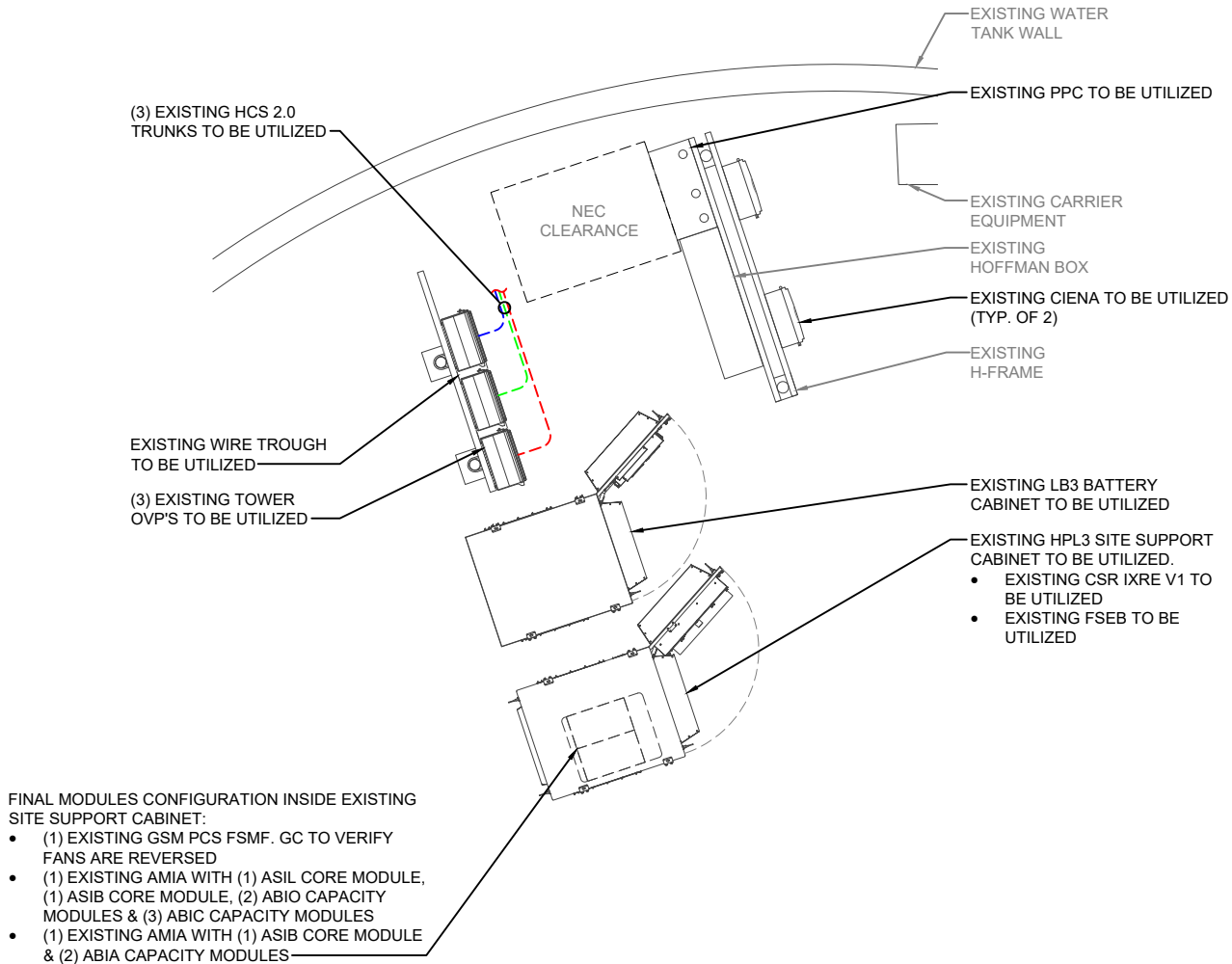
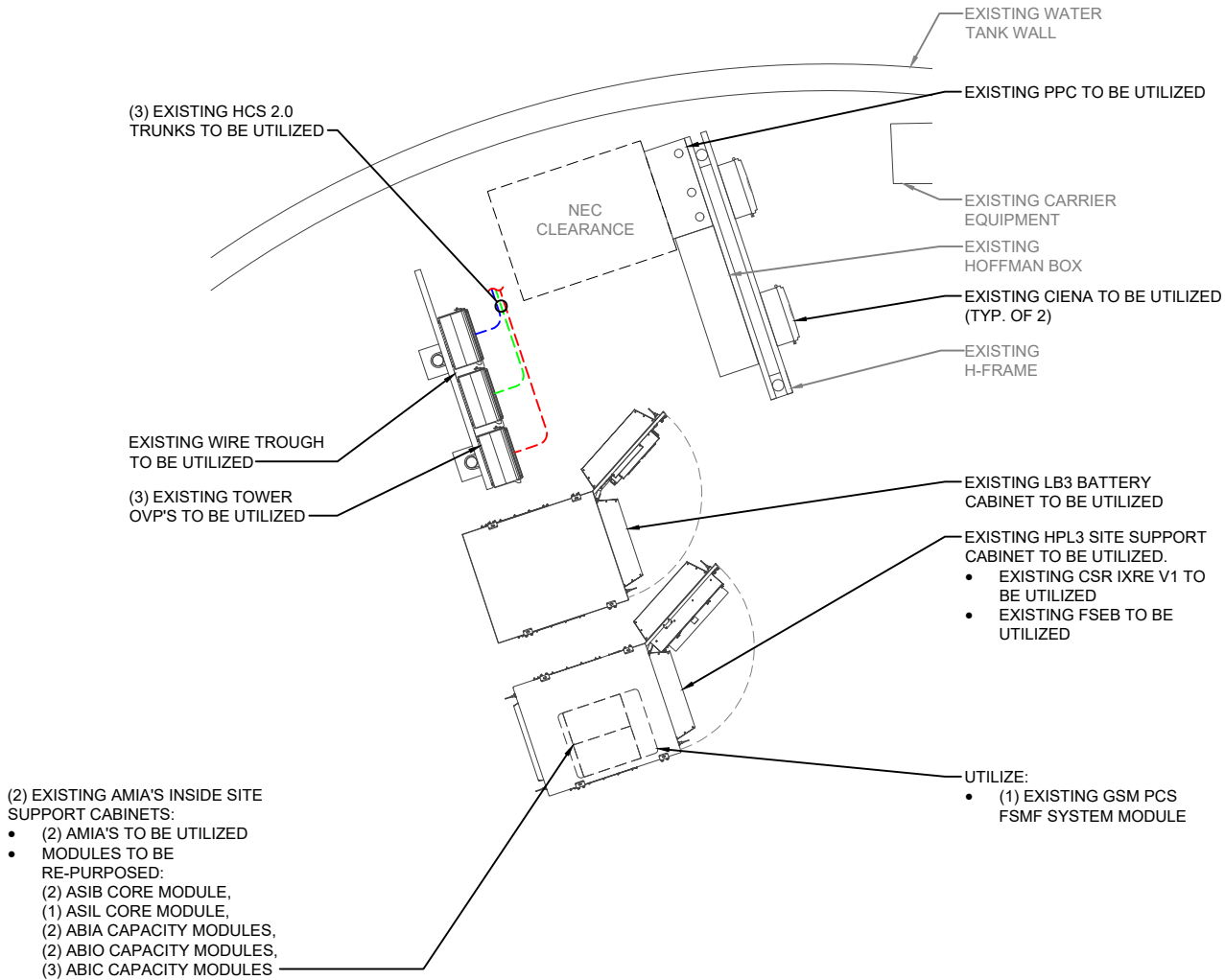
1. (1) EXISTING TOWER OVP & (1) EXISTING HCS 2.0 TRUNK TO FEED (1) EXISTING BREAKOUT BOX "A", (1) NEW AHLOA, (1) EXISTING AHFIG & (1) EXISTING AEHC ANTENNA

2. (1) EXISTING TOWER OVP & (1) EXISTING HCS 2.0 TRUNK TO FEED (1) EXISTING BREAKOUT BOX "B", (1) NEW AHLOA, (1) EXISTING AHFIG & (1) EXISTING AEHC ANTENNA

3. (1) EXISTING TOWER OVP & (1) EXISTING HCS 2.0 TRUNK TO FEED (1) EXISTING BREAKOUT BOX "C", (1) NEW AHLOA, (1) EXISTING AHFIG & (1) EXISTING AEHC ANTENNA

SEE A-5 FOR RF PLUMBING DIAGRAM.

*REFER TO INSTALLATION NOTES ON T-3



EXISTING SITE PLAN

SCALE: 1/4" = 1'-0"

1

NEW SITE PLAN

SCALE: 1/4" = 1'-0"

2

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36509-006

PROFESSIONAL ENGINEER

EXPIRES: 07/31/24

SIGNED: 02/07/23

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JOB: T2200646

C-2

EXISTING & NEW SITE PLANS

- IMPORTANT SITE NOTES:
1. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING FINAL RF CONFIGURATION AND NOTIFY T-MOBILE AND ENGINEERING FIRM WITH ANY DISCREPANCIES.
 2. CONTRACTOR SHALL VERIFY ALL FINAL CONNECTION LOCATIONS WITH T-MOBILE ENGINEER, RF ENGINEER, AND NET-OPS PRIOR TO INSTALLATION.
 3. CONTRACTOR TO USE PROPER TORQUE WRENCH WHEN INSTALLING AND TIGHTENING CONNECTORS TO INSURE PROPER FIT.
 4. CONTRACTOR TO ARRANGE NEW MODULES/EQUIPMENT TO AVOID INTERFERING WITH SAFETY CLIMB.

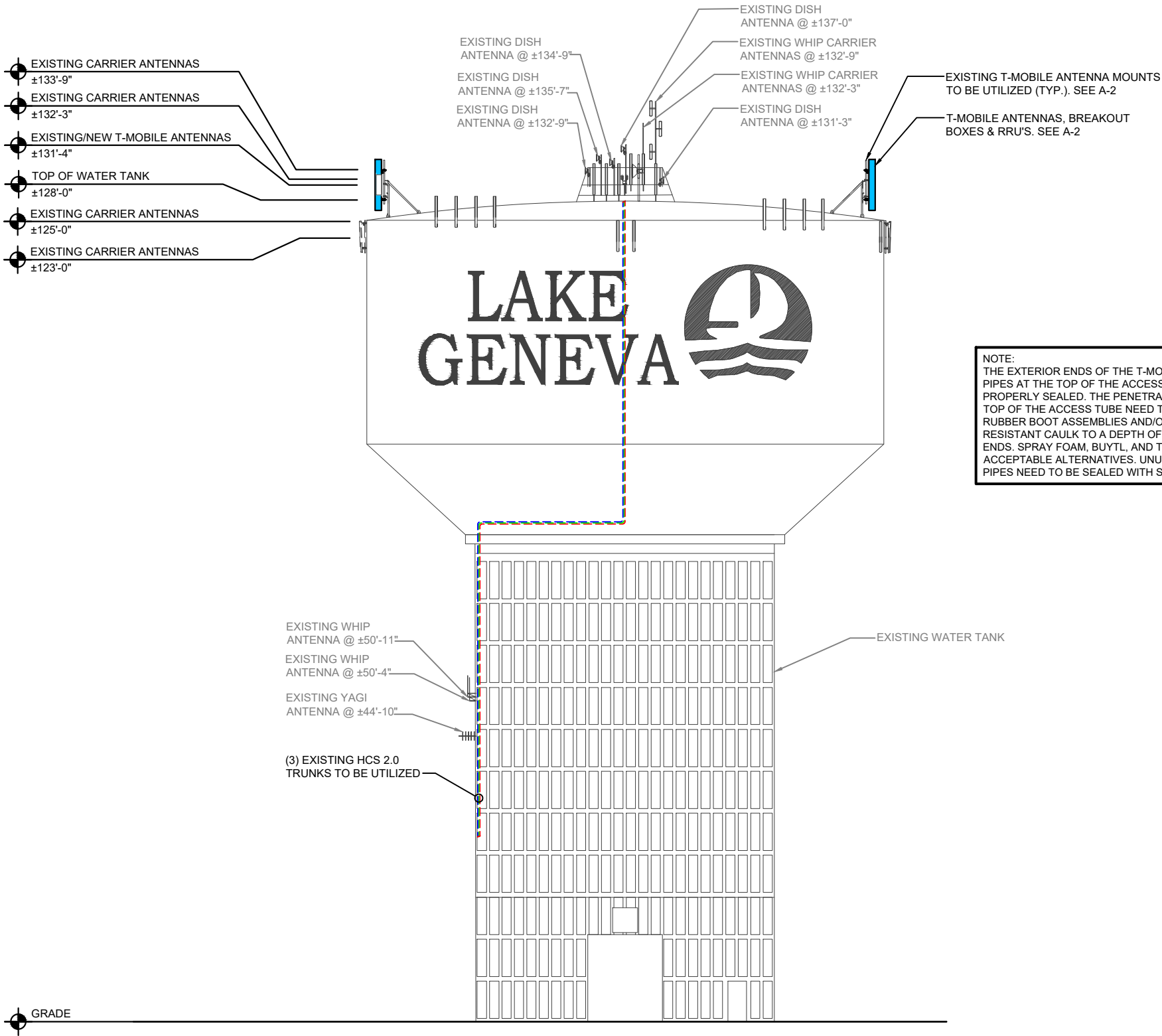
NOTE:
EXISTING CABLES RUNNING UP INTERIOR OF TOWER.

NOTE:
A STRUCTURAL ANALYSIS OF THE ANTENNA MOUNT HAS BEEN COMPLETED BY THE W-T GROUP, LLC ON 08/04/22. THE LOCATION AND MOUNTING OF THE ANTENNAS SHOWN IN THE STRUCTURAL ANALYSIS SHALL SUPERSEDE THESE DRAWINGS.

NOTE:
A STRUCTURAL ANALYSIS OF THE TOWER OR STRUCTURE HAS BEEN COMPLETED BY THE W-T GROUP, LLC ON 02/07/23. THE LOCATION AND MOUNTING SHOWN IN THE STRUCTURAL ANALYSIS SHALL SUPERSEDE THESE DRAWINGS.

LEGEND

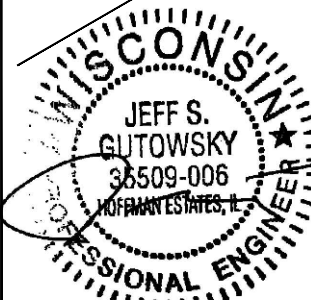
- EXISTING EQUIPMENT
- REMOVED EQUIPMENT
- RELOCATED EQUIPMENT
- NEW EQUIPMENT



NOTE:
THE EXTERIOR ENDS OF THE T-MOBILE PENETRATION PIPES AT THE TOP OF THE ACCESS TUBE NEED TO BE PROPERLY SEALED. THE PENETRATION PIPES AT THE TOP OF THE ACCESS TUBE NEED TO BE SEALED WITH RUBBER BOOT ASSEMBLIES AND/OR WEATHER RESISTANT CAULK TO A DEPTH OF 2" ON THE EXTERIOR ENDS. SPRAY FOAM, BUYTL, AND TAP ARE NOT ACCEPTABLE ALTERNATIVES. UNUSED PENETRATION PIPES NEED TO BE SEALED WITH SOLID RUBBER BOOTS.



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ELEVATION

SCALE: 1" = 20'-0"

1

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A-1

ELEVATION

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LEGEND

EXISTING EQUIPMENT

REMOVED EQUIPMENT

RELOCATED EQUIPMENT

NEW EQUIPMENT

NOTE:
A STRUCTURAL ANALYSIS OF THE ANTENNA MOUNT HAS BEEN COMPLETED BY THE W-T GROUP, LLC ON 08/04/22. THE LOCATION AND MOUNTING OF THE ANTENNAS SHOWN IN THE STRUCTURAL ANALYSIS SHALL SUPERSEDE THESE DRAWINGS.

NOTE:
A STRUCTURAL ANALYSIS OF THE TOWER OR STRUCTURE HAS BEEN COMPLETED BY THE W-T GROUP, LLC ON 02/07/23. THE LOCATION AND MOUNTING SHOWN IN THE STRUCTURAL ANALYSIS SHALL SUPERSEDE THESE DRAWINGS.

ANTENNA & CABLE SCHEDULE						
SECTOR	ALPHA		BETA		GAMMA	
LOCATION	A-2	A-1	B-2	B-1	C-2	C-1
TECHNOLOGY	LTE 5G B41	LTE AWS/ GSM PCS/ LTE PCS/ N1900/ N2100/ LTE 600/ N600	LTE 5G B41	LTE AWS/ GSM PCS/ LTE PCS/ N1900/ N2100/ LTE 600/ N600	LTE 5G B41	LTE AWS/ GSM PCS/ LTE PCS/ N1900/ N2100/ LTE 600/ N600
AZIMUTH	120°		230°		330°	
RAD CENTER	±131'-4"		±131'-4"		±131'-4"	
COLOR CODING	RED	RED (1-8)	GREEN	GREEN (1-8)	BLUE	BLUE (1-8)
MODEL #	AEHC (ACTIVE ANTENNA-MASSIVE MIMO)	COMMSCOPE FFVV-65C-R3-V1	AEHC (ACTIVE ANTENNA-MASSIVE MIMO)	COMMSCOPE FFVV-65C-R3-V1	AEHC (ACTIVE ANTENNA-MASSIVE MIMO)	COMMSCOPE FFVV-65C-R3-V1
MECHANICAL DOWNTILT	0	0	0	0	0	0
ELECTRICAL DOWNTILT	2	2,2,2,2	2	2,2,2,2	2	2,2,2,2
RRU TYPE	AEHC (INTEGRATED)	AHFIG AHLOA	AEHC (INTEGRATED)	AHFIG AHLOA	AEHC (INTEGRATED)	AHFIG AHLOA
HCS DIA. & TYPE	SHARED HCS 2.0 TRUNK	EXISTING HCS 2.0 TRUNK	SHARED HCS 2.0 TRUNK	EXISTING HCS 2.0 TRUNK	SHARED HCS 2.0 TRUNK	EXISTING HCS 2.0 TRUNK
HCS ACTUAL LENGTH	-	-	-	-	-	-
HCS FACTORY LENGTH	-	150'-0"	-	150'-0"	-	150'-0"
HYBRID JUMPER TYPE FROM BREAKOUT BOX TO RRU/ANTENNA	HCS 2.0	HCS 2.0	HCS 2.0	HCS 2.0	HCS 2.0	HCS 2.0
HYBRID JUMPER LENGTH	±15'-0"	±15'-0" / ±15'-0"	±15'-0"	±15'-0" / ±15'-0"	±15'-0"	±15'-0" / ±15'-0"
JUMPER TYPE FROM RRU TO ANTENNA	-	1/2" COAX	-	1/2" COAX	-	1/2" COAX
JUMPER LENGTH	-	±15'-0" / ±15'-0"	-	±15'-0" / ±15'-0"	-	±15'-0" / ±15'-0"

NOTE:
ANTENNA INFORMATION OBTAINED FROM T-MOBILE RF DATA CONFIGURATION SHEET DATED 02/08/2022. CONTRACTOR TO OBTAIN THE MOST CURRENT & FINAL RFDS FROM T-MOBILE FOR AZIMUTH SETTINGS PRIOR TO CONSTRUCTION

NOTE:
THE EXTERIOR ENDS OF THE T-MOBILE PENETRATION PIPES AT THE TOP OF THE ACCESS TUBE NEED TO BE PROPERLY SEALED. THE PENETRATION PIPES AT THE TOP OF THE ACCESS TUBE NEED TO BE SEALED WITH RUBBER BOOT ASSEMBLIES AND/OR WEATHER RESISTANT CAULK TO A DEPTH OF 2" ON THE EXTERIOR ENDS. SPRAY FOAM, BUYTL, AND TAP ARE NOT ACCEPTABLE ALTERNATIVES. UNUSED PENETRATION PIPES NEED TO BE SEALED WITH SOLID RUBBER BOOTS.

EXISTING ANTENNA PLAN

SCALE: NONE

1

NEW ANTENNA PLAN

SCALE: NONE

2

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36509-006

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A-2

ANTENNA PLANS & SCHEDULE

NOT USED

SCALE: NONE

1

NOT USED

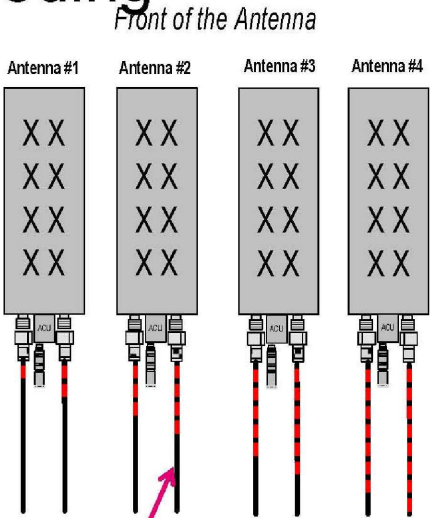
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2

Coax Color Coding

- Antennas will be labeled (back of antenna view) Right to left 1 - X ports
- Coax/Jumper lines will be identified by sector color and by number of bands around the coax/jumper

Sector A	Red
Sector B	Green
Sector C	Blue
Sector D	Yellow
Sector E	White
Sector F	Purple
LMU	Brown + Sector Color Bands (1,2)
Fiber ID	Gray
Unused Coax	Pink
Microwave	Orange
PWE T-1's + GPS	ID w/Label Maker
Downlink cable	

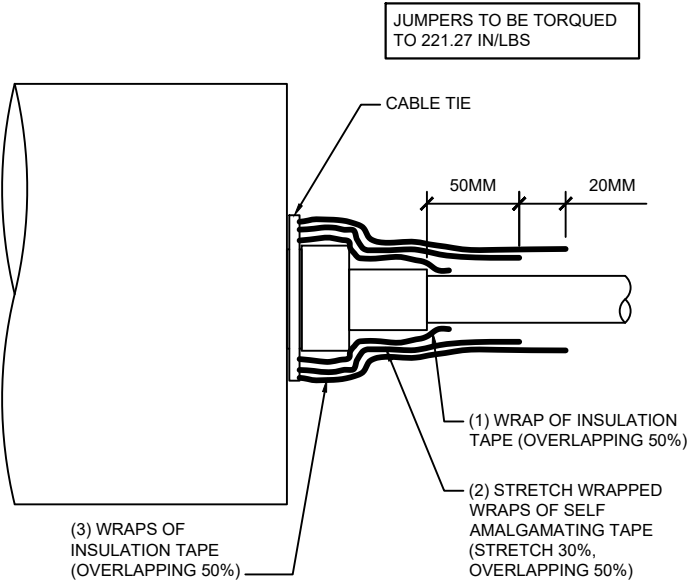


Example – Coax with *four bands of RED* tape will represent *Alpha sector* and *the 4th port of antenna*.

COAX COLOR CODING

SCALE: NONE

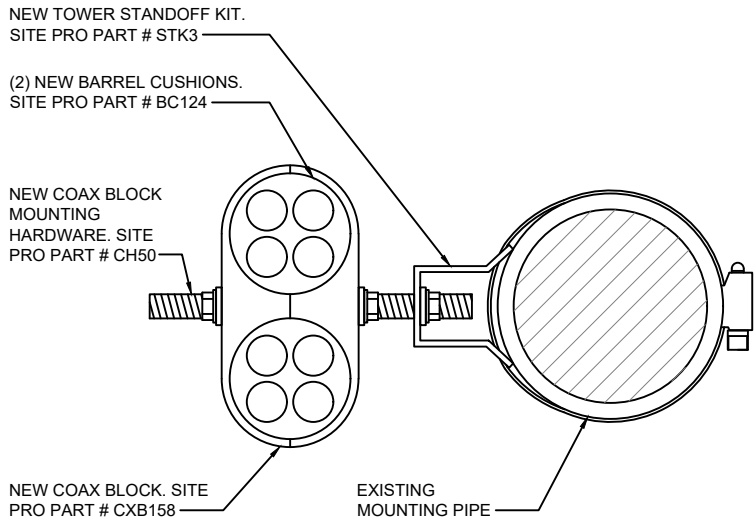
3



RF JUMPER CONNECTION DETAIL

SCALE: NONE

4



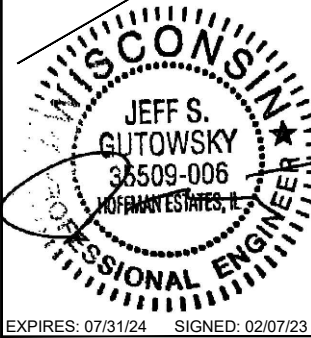
RF JUMPER MOUNTING DETAIL

SCALE: NONE

5



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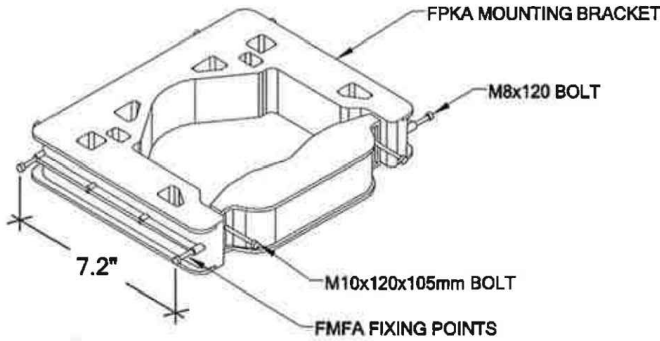
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Supported Frequency bands	3GPP Band 12/71
Frequencies	Band 12 adjusted: UL 698 – 716 MHz, DL 728 – 746 MHz Band 71: UL 663 MHz – 698 MHz, DL 617 MHz – 652 MHz
Number of TX/RX paths/pipes	4 pipes; 2T2R, 2T4R, 4T4R for both bands
Instantaneous Bandwidth IBW	17 MHz for B12 and 35MHz for B71 1 MHz below B12 NB IoT future use
Occupied Bandwidth OBW	UL 53MHz contiguous DL B12 17MHz + 1 MHz NB IoT future use. B71 35MHz
Output Power	60W per TX shared between bands
Supply Voltage / Range	DC-48 V / -36 V to -60 V
Typical Power Consumption	640W [ETSI Busy Hour Load at 4TX@60W] 450W [ETSI Busy Hour Load at 4TX@20W]
Antenna Ports	4 ports, 4.3-10+
Optical Ports	2 x CPRI 9.8 Gbps
ALD Control Interfaces	AISG3.0 and RET (DC on ANT1 & ANT3)
Other Interfaces	External Alarm MDR-26 (4 inputs, 1 Output) DC Circular Power Connector
Physical	560 mm x 308 mm x 189 mm* Approximately 38kg with no covers or brackets **
Operating Temperature Range	-40°C to 55°C (with no solar load)
Surge Protection	Class II 5A
Installation Options	Pole, Wall, Book Mount

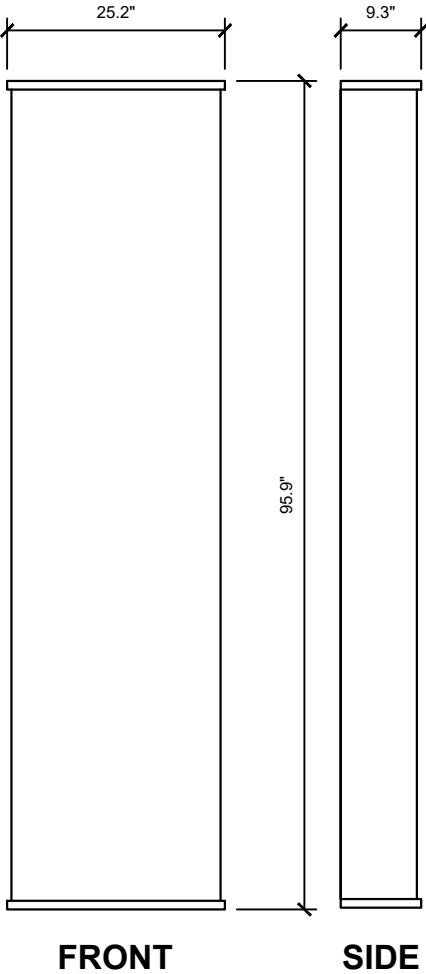
* = 22.05" x 12.13" x 7.44"
** = 83.76 lbs



AHLOA DETAIL	1
SCALE: NONE	



FPKA BRACKET DETAIL	2
SCALE: NONE	



COMMSCOPE FFVV-65C-R3-V1
SIZE (L x W x D): 95.9" x 25.2" x 9.3"
WEIGHT (W/O MOUNTING KIT): 124.6 LBS

NOT USED	3
SCALE: NONE	

ANTENNA DETAIL	4
SCALE: NONE	

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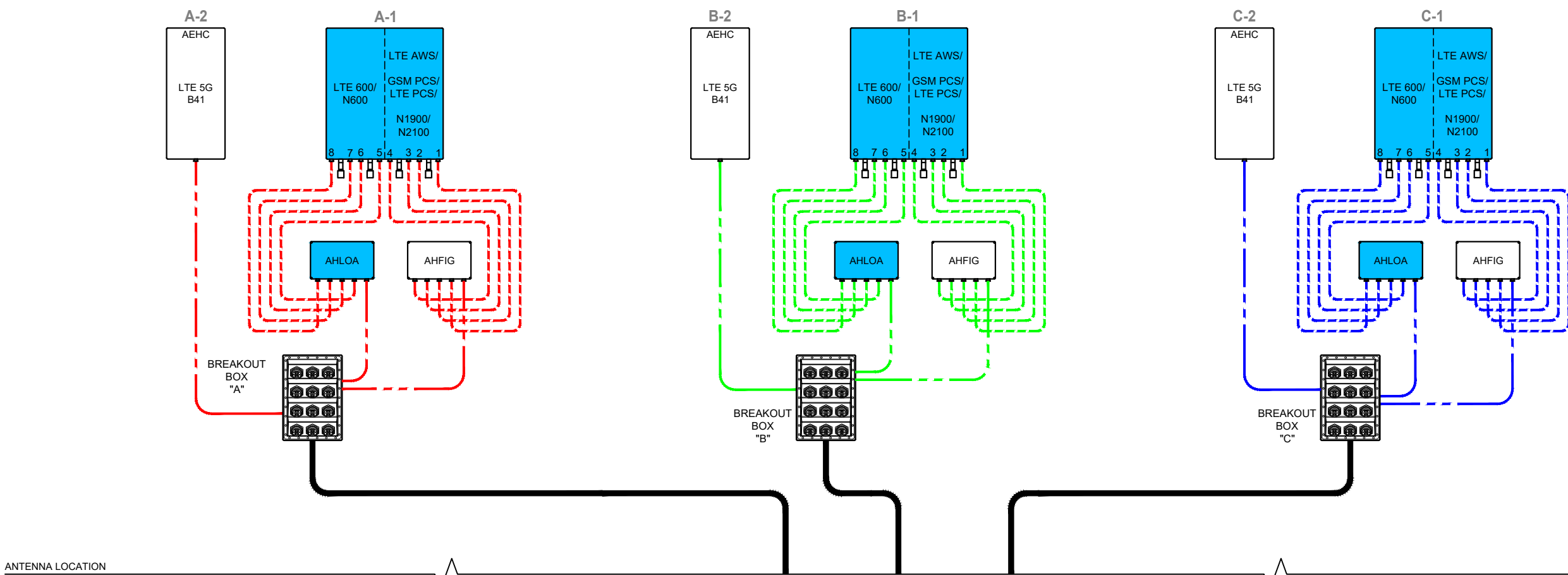
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REV.	ISSUED FOR	DATE	BY
A	FOR CLIENT REVIEW	06/13/22	CS
0	FINALS	08/05/22	APK
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CIVIL \ TELECOMMUNICATION \ MECHANICAL
PLUMBING \ ELECTRICAL \ LAND SURVEYING
ACCESSIBILITY CONSULTING \ STRUCTURAL

CHECK: JKR
DRAWN: CS
JOB: T2200646

A-4
EQUIPMENT
SPECIFICATIONS



ANTENNA LOCATION

EQUIPMENT LOCATION

COMPLETE SCOPE OF WORK

ANTENNA LOCATION

- REMOVE (3) EXISTING ANTENNAS (1 PER SECTOR)
- UTILIZE EXISTING ANTENNA MOUNTS (1 PER SECTOR)
- UTILIZE (3) EXISTING BREAKOUT BOXES (1 PER SECTOR)
- UTILIZE (3) EXISTING AHFIG'S (1 PER SECTOR)
- INSTALL (3) NEW ANTENNAS (1 PER SECTOR)
- INSTALL (3) NEW AHLOA'S (1 PER SECTOR)

TRANSMISSION LINES

- UTILIZE (3) EXISTING HCS 2.0 TRUNKS (1 PER SECTOR)
- INSTALL NEW RF JUMPERS FOR NEW RRU'S

EQUIPMENT LOCATION

- UTILIZE (2) EXISTING ASIB CORE MODULES. RE-PURPOSE AS NEEDED
- UTILIZE (2) EXISTING ABIA CAPACITY MODULES. RE-PURPOSE AS NEEDED
- UTILIZE (3) EXISTING ABIC CAPACITY MODULES. RE-PURPOSE AS NEEDED
- UTILIZE (1) EXISTING ASIL CORE MODULE. RE-PURPOSE AS NEEDED
- UTILIZE (2) EXISTING ABIO CAPACITY MODULES. RE-PURPOSE AS NEEDED
- UTILIZE (1) EXISTING GSM PCS FSMF SYSTEM MODULE IN EXISTING SSC
- UTILIZE (2) EXISTING AMIA'S IN EXISTING SSC
- UTILIZE (1) EXISTING HPL3 SITE SUPPORT CABINET
- UTILIZE (1) EXISTING LB3 BATTERY CABINET
- UTILIZE (1) EXISTING FSEB IN EXISTING SSC
- UTILIZE (3) EXISTING TOWER OVP'S
- UTILIZE (1) EXISTING PPC
- UTILIZE (2) EXISTING CIENA'S
- UTILIZE (1) EXISTING FYGA GPS ANTENNA
- UTILIZE EXISTING CSR IXRE V1 IN EXISTING SSC
- UTILIZE (1) EXISTING 200A 4-POLE BREAKER IN EXISTING PPC FOR EXISTING SSC
- SWEEP TEST EXISTING COAX LINES & ANTENNA USED FOR FINAL BUILD
- RESTORE EXISTING GROUNDS AS NEEDED FOR EXISTING COAX LINES & ANTENNAS USED FOR FINAL BUILD
- OBTAIN CURRENT RFDS WITHIN 48 HOURS PRIOR TO CONSTRUCTION
- FOLLOW PORT MATRIX PER RF CONFIGURATION
- FOLLOW CURRENT T-MOBILE STANDARD OPERATION PROCEDURE
- RETURN ALL UNUSED NEW & OLD EQUIPMENT MATERIALS/EQUIPMENT TO WAREHOUSE IN THE SAME CONDITION WHEN IT WAS REMOVED
- PROVIDE CLOSEOUT PACKAGE WITHIN 72 HOURS AFTER SITE COMPLETION
- CLOSE ANY OPEN PERMITS AFTER SITE COMPLETION

NOTE:
CONTRACTOR TO REFER TO THE RADIO
AND ANTENNA INSTALLATION MOPs FOR
THE CORRECT PLUMBING DIAGRAM

NOTE:
CONTRACTOR TO OBTAIN THE MOST
CURRENT RFDS FROM T-MOBILE PRIOR
TO CONSTRUCTION

LEGEND

	ALPHA CABLES
	BETA CABLES
	GAMMA CABLES
	RF JUMPER
E	DC POWER CABLES
F	FIBER JUMPERS
	POWER & FIBER JUMPER
	ALARM CABLE
	AISG RET CABLE
	HYBRID CABLE
	COAX CABLE
	RELOCATED EQUIPMENT
	NEW EQUIPMENT
	EXISTING EQUIPMENT

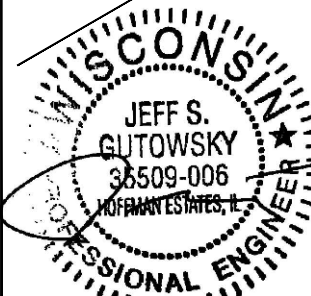
RF PLUMBING DIAGRAM

SCALE: NONE

1



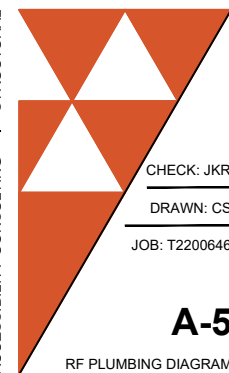
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CHECK: JKR
DRAWN: CS
JOB: T2200646

A-5

RF PLUMBING DIAGRAM

T-Mobile

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GROUNDING STANDARDS:

1.0 DEFINITIONS

AGB: ANTENNA GROUND BAR

AWG: AMERICAN WIRE GAUGE

CADWELDING: AN EXOTHERMIC WELDING PROCESS WHICH CREATES POSITIVE CONTACT OF POSITIVE CONTACT OF GROUNDING CONDUCTORS

EMT: ELECTRICAL METAL TUBING (LIGHT GAUGE METALLIC CONDUIT)

MGB: MASTER GROUND BAR

PVC: POLYVINYL CHLORIDE CONDUIT

RFI: RADIO FREQUENCY INTERFERENCE

TGB: TOWER GROUND BAR

THWN: LETTER TYPE DESIGNATION FOR CONDUCTOR INSULATION THAT IS A MOISTURE AND HEAT RESISTANT THERMOPLASTIC WITH A MAXIMUM OPERATING TEMPERATURE OF 75 DEGREES CELSIUS OR 167 DEGREES FAHRENHEIT

T/I: TENANT IMPROVEMENT

2.0 BACKGROUND

2.1 AREAS OF CONCERN: WHEN DESIGNING A GROUNDING SYSTEM FOR A MOBILE RADIO FACILITY THERE ARE FOUR INTERRELATED AREAS OF CONCERN. THE BASIC OBJECTIVE FOR EACH IS:

- 1. LIGHTNING PROTECTION -TO MAINTAIN ALL EQUIPMENT AT THE SAME POTENTIAL DURING A LIGHTNING IMPULSE.
- 2. RFI FOR NOISE INDUCTION CONTROL -TO ESTABLISH THE LOWEST POSSIBLE IMPEDANCE AMONG ALL EQUIPMENT.
- 3. ELECTROSTATIC CONTROL -TO REDUCE ELECTROSTATIC DISCHARGE PROBLEMS.
- 4. PERSONNEL SAFETY -TO MAINTAIN A MINIMUM VOLTAGE DIFFERENCE BETWEEN ANY TWO METALLIC OBJECTS WHICH PERSONNEL MIGHT CONTACT SIMULTANEOUSLY.

2.2 A/C GROUNDING: IN THIS GROUNDING SYSTEM THE A/C SERVICE GROUND SHALL BE KEPT ISOLATED FROM THE EQUIPMENT FRAME WORK AND LIGHTNING PROTECTION GROUND SYSTEMS EXCEPT FOR ONE SPECIFIC POINT. THIS POINT IS THE MAIN GROUNDING POINT OF THE SYSTEM. THIS WOULD TYPICALLY BE CONNECTING THE A/C SERVICE GROUND AT THE COMMERCIAL POWER RISER POLE DISCONNECT/METER BASE TO THE EXTERNAL GROUND RING. ALL GROUNDING CONNECTIONS INSIDE OF CABINETS SHALL BE SCRAPED TO BARE METAL AND COATED WITH NOALOX.

2.3 LIGHTNING CONSIDERATIONS: LIGHTNING DAMAGE OCCURS FROM EITHER INDUCTION OR FROM AN ACTUAL DIRECT STRIKE TO THE BUILDING, USUALLY TAKEN THROUGH THE TOWER AND/OR ANTENNAS. STRIKES TO OTHER NEARBY OBJECTS INDUCE HIGH ENERGY INTO POWER OR TELEPHONE CABLES ENTERING THE BUILDING. THIS TYPE OF EFFECT HISTORICALLY CAUSES MOST OF THE DAMAGE TO THE BUILDING AND ITS CONTENTS.

3.0 STATION GROUNDING SYSTEM

3.1 MATERIALS:

- 1. #2 AWG, BARE SOLID TINNED COPPER WIRE. FOR ALL EXTERIOR CONDUCTORS AND TOWER GROUND BAR CONDUCTORS OR AS OTHERWISE SPECIFIED. GROUNDS TO THE RF MODULES SHALL BE NO. 6 STANDARD GREEN INSULATED JUMPERS. THE GROUND WIRE TO THE MGB SHALL BE GREEN JACKETED STRANDED #2 TINNED WIRE BURNDY CONNECTED TO THE BUSS BAR AND CONNECTED TO THE GROUND RING ON A GROUND ROD.
- 2. #2 AWG, INSULATED STRANDED COPPER CABLE IS ACCEPTABLE FOR INTERIOR GROUND BAR CONDUCTORS ON TENANT IMPROVEMENT SITES.
- 3. 5/8" X 10" GROUND RODS OF SOLID COPPER, STAINLESS STEEL OR COPPER CLAD HIGH STRENGTH STEEL.
- 4. ABOVE GRADE CONNECTIONS SHALL BE BURNDY HYGROUND COMPRESSION. BELOW GRADE CONNECTIONS SHALL BE EXOTHERMIC WELD OR OTHER APPROVED EXOTHERMIC WELDING SYSTEM FOR BONDING AS SPECIFIED.
- 5. XIT OR ADVANCED GROUNDING ELECTRODE (AGE). ALL CHEMICAL GROUND RODS SHALL BE UL APPROVED.
- 6. SOLID COPPER PLATES OF MINIMUM 3'X3'X1/4" SIZE AS SPECIFIED.
- 7. NOALOX OR APPROVED EQUAL CONDUCTIVE MEDIUM MATERIAL SHALL BE USED IN ALL MECHANICAL CONNECTIONS.
- 8. #2 AWG STRANDED INSULATED (GREEN) FOR ALL INTERNAL EQUIPMENT GROUNDING.
- 9. MECHANICAL FASTENERS (I.E., DOUBLE LUGS, SPLIT BOLTS PARALLEL CONNECTORS) SHALL BE BRONZE, BRASS, COPPER OR STAINLESS STEEL AND HAVE NOALOX BETWEEN CONDUCTOR AND CONNECTION.
- 10. BOLTS, NUTS AND SCREWS USED TO FASTEN MECHANICAL CONNECTORS SHALL BE STAINLESS STEEL WITH STAR TYPE STAINLESS STEEL LOCK WASHERS.
- 11. ALL LUG TUBE FASTENERS SHALL PROVIDE TWO HOLES TO ALLOW A DOUBLE BOLT CONNECTION.

3.2 MASTER GROUND BAR (MGB): THE PURPOSE OF THE MASTER GROUND BAR IS TO GROUND THE BTS AND ANY OTHER METALLIC OBJECTS AROUND THE BTS. IF AN MGB IS NOT PROVIDED WITH THE BTS, THE MGB SHALL BE AS FOLLOWS: THE MGB IS A COPPER BAR MEASURING 4"W X 24"L X 1/4" LOCATED AS CLOSE TO THE BTS AS POSSIBLE. THE MGB SHALL HAVE A MINIMUM NUMBER OF (28) 3/8" HOLES. GROUND BAR SHALL BE SUPPORTED BY MOUNTING BRACKETS WITH INSULATOR STANDOFFS. (2) #2 TINNED SHALL BE MECHANICALLY ATTACHED (2-HOLE COMPRESSION LUG 3/8" HOLES, 1" CENTER TO CENTER SPACING) TO THE MGB AND DOWN LEADS THEN TAKEN THROUGH CONDUIT TO THE GROUND RING. THIS CONDUCTOR SHALL BE KEPT SEPARATE AND ISOLATED UNTIL TERMINATING AT THE MAIN GROUNDING POINT, (I.E. EXTERIOR GROUND RING OR BUILDING STEEL).

3.3 ANTENNA GROUND BAR (AGB): THE PURPOSE OF THE ANTENNA GROUND BAR IS PRIMARILY FOR LIGHTNING PROTECTION. COAXIAL CABLE IS USUALLY THE ONLY ITEM GROUNDED TO THIS BAR. HOWEVER IT IS ACCEPTABLE TO BOND EXTERIOR; CABLE TRAY, WAVE GUIDE PORTS AND CANTILEVERED WAVE GUIDE BRIDGES TO THE AGB. THE AGB IS A COPPER BAR MEASURING 4"W X 24"L X 1/4". THERE SHALL BE TWO AGBS, ONE LOCATED AT THE TOP OF THE TOWER AT THE START OF THE VERTICAL RUN OF COAX, THE OTHER AT THE BOTTOM OF THE VERTICAL RUN OF COAX BEFORE IT MAKES ITS BEND. (IF THE TOWER IS OVER 200' THERE SHALL BE A THIRD AGB LOCATED AT HE MIDDLE OF THE TOWER).THE AGB SHALL HAVE A MINIMUM OF (28) 3/8" HOLES. GROUND BARS SHALL BE SUPPORTED BY MOUNTING BRACKETS WITH INSULATOR STANDOFFS. USE #2 AWG SOLID TINNED WIRE W/ 2-HOLE SHORT BARREL COMPRESSION LUGS 3/8" HOLES, 1" CENTER TO CENTER SPACING). THIS CONDUCTOR SHALL BE KEPT SEPARATE AND ISOLATED UNTIL TERMINATING AT THE MAIN GROUNDING POINT (I.E. EXTERIOR GROUND RING, OR BUILDING STEEL.)

3.4 SURGE ARRESTOR GROUND BAR: THE PURPOSE OF THE SURGE ARRESTOR GROUND BAR IS FOR LIGHTING PROTECTION. THE SURGE ARRESTOR GROUND BAR IS A BENT (3" X 3") X 1/4" X 24" COPPER BAR. IT IS LOCATED ON THE WAVEGUIDE BRIDGE SUPPORT CLOSEST TO THE EQUIPMENT. ONE FACE OF THE BAR SHALL HAVE A MINIMUM OF (28) 3/8" DIA. HOLES. HOLES SHALL BE IN PAIRS THAT ARE 1" CENTER TO CENTER. THE OTHER FACE SHALL HAVE 3/8" DIA HOLES AS REQUIRED TO ATTACH AND GROUND COAXIAL SURGE ARRESTORS. THE GROUND BAR SHALL BE SUPPORTED BY MOUNTING BRACKETS WITH INSULATOR STANDOFFS.

3.5 ANTENNA GROUNDING: EACH ANTENNA COAXIAL CABLE SHALL TYPICALLY BE GROUNDED AT THREE POINTS USING A HARD-SHELL COAXIAL CABLE KIT FROM THE MANUFACTURER OF THE ANTENNA CABLE. A TYPICAL INSTALLATION SHALL BE AS FOLLOWS:

- A. THE FIRST GROUND CONNECTION SHALL OCCUR AS CLOSE TO THE ANTENNA AS POSSIBLE, BELOW THE FIRST POINT THE COAX CABLE BEGINS TO RUN VERTICAL DOWN THE TOWER. THIS GROUND SHALL TERMINATE DIRECT TO THE TOP AGB. ON A T/I, GROUND TO THE AGB AT THE ANTENNA MOUNTS.
- B. THE SECOND GROUND SHALL BE MADE AT THE BOTTOM OF THE VERTICAL RUN OF THE COAXIAL CABLE AS IT TURNS OUT AWAY FROM THE TOWER TOWARDS THE BTS. THIS GROUND SHALL BE TERMINATED AT THE TGB. THE TGB SHALL HAVE TWO (2) LEADS OF #2 AWG BARE TINNED SOLID COPPER WIRE, AND SHALL TERMINATE AT THE TOWER GROUND RING. THESE SHALL BE ENCASED IN PVC PIPE.
- C. THE THIRD GROUND SHALL BE ON THE SURGE ARRESTOR. GROUND TO BE ATTACHED TO THE CABLE ON STRAIGHT RUNS (NOT WITHIN BENDS) AND BE WEATHERPROOFED PER THE MANUFACTURER'S SPECIFICATIONS. THE SURGE ARRESTORS SHALL BE GROUNDED TO THE GROUND BAR. THE SAGB SHALL HAVE TWO (2) LEADS OF #2 AWG BARE TINNED SOLID COPPER WIRE, AND SHALL TERMINATE AT THE TOWER GROUND RING. THESE SHALL BE ENCASED IN PVC PIPE.

3.6 EXOTHERMIC WELD & BURNDY CONNECTIONS

EXOTHERMIC WELDS AND BURNDY CONNECTIONS SHALL BOND ALL UNDERGROUND AND DAMP LOCATION CONNECTIONS, SHELTER SKID GROUNDS, TOWER OR MONOPOLE GROUNDS, FENCING CORNER AND GATE POSTS, ANTENNA GROUND BARS, (AGB) SURGE ARRESTOR GROUND BAR, AND THE MASTER GROUND BAR (MGB). MECHANICAL CONNECTIONS SHALL BE TYPICALLY USED TO BOND ALL INTERIOR EQUIPMENT, COAX CABLE BRIDGES AND COAXIAL CABLE GROUND KITS. ALL LUG TYPE MECHANICAL CONNECTORS TO THE MGB OR AGB SHALL BE TWO HOLE TYPE CONNECTED WITH STAINLESS STEEL BOLTS AND NUTS WITH STAINLESS STEEL LOCK WASHERS AND NOALOX ON EITHER SIDE OF THE BUSS BAR.

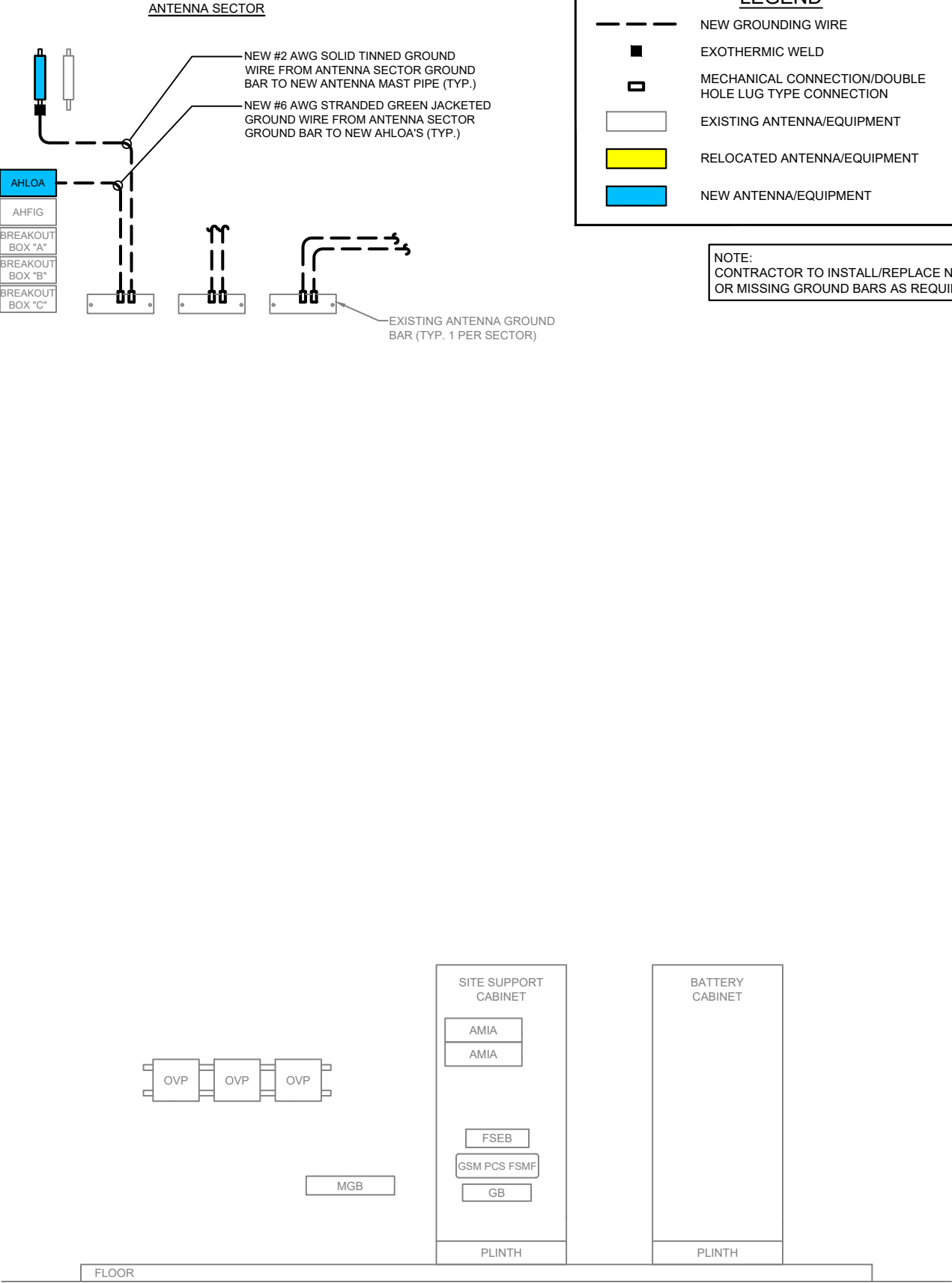
3.7 LIMITS OF BEND RADIUS: IT IS IMPORTANT THAT THE GROUNDING CONDUCTOR CONNECTING THE INSIDE AND OUTSIDE GROUND SYSTEMS BE AS STRAIGHT AS POSSIBLE, WITH NO TURN OR BEND SHORTER THAN ONE FOOT RADIUS WITH A THREE FOOT RADIUS PREFERRED. NO RIGHT ANGLE OR SHARP BENDS SHALL BE ALLOWED.

3.8 BONDING PREPARATION & FINISH: ALL SURFACES REQUIRE PREPARATION PRIOR TO BONDING OF EITHER EXOTHERMIC WELD OR BURNDY FASTENERS. GALVANIZED SURFACES SHALL BE GROUND OR SANDED TO THE POINT OF EXPOSING THE STEEL SURFACE BELOW. PRIOR TO BONDING THE GROUND CONDUCTOR. FOR OTHER SURFACES INCLUDING COPPER BUSS BARS ALL PAINT, RUST TARNISH AND GREASE SHALL BE REMOVED PRIOR TO BONDING THE GROUND CONDUCTOR. EXOTHERMIC WELD TYPE BONDS SHALL BE FINISHED WITH THE APPLICATION OF COLD GALVANIZATION AND WHEN APPLICABLE, FINISH PAINTED WITH AN APPROPRIATE COLOR AS REQUIRED. MECHANICAL TYPE BONDS ON BUSS BARS SHALL BE FINISHED WITH THE APPLICATION OF NOALOX OR OTHER APPROVED CONDUCTIVE MEDIUM MATERIAL BETWEEN CONNECTOR AND BUSS BAR. MECHANICAL TYPE BONDS ON ALL OTHER SURFACES SHALL BE FINISHED WITH THE APPLICATION OF COLD GALVANIZATION AND/OR THE APPROPRIATE PAINT TO MATCH AS REQUIRED.

3.9 TESTING: THE OUTSIDE GROUND RING SHALL BE TESTED AFTER INSTALLATION BUT PRIOR TO BACKFILLING THE GROUND RING TRENCH. THE GROUND FIELD RESISTANCE SHALL MEASURE 5 OHMS OR LESS TO GROUND. ANY DIFFICULTY IN ACHIEVING THIS LEVEL OF RESISTANCE MUST BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER. THE RESISTANCE TO GROUND SHALL BE MEASURED USING THE FALL OF POTENTIAL METHOD. TESTING SHALL BE PERFORMED BY AN OWNER PROVIDED INDEPENDENT TESTING LABORATORY FROM WHICH A WRITTEN REPORT SHALL BE PRODUCED FOR REVIEW BY THE PROJECT MANAGER.

3.10 GENERAL NOTES:

- 1. ALL ELECTRICAL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE.
- 2. ALL GROUNDING SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE.
- 3. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED.
- 4. CONTRACTOR TO OBTAIN ALL PERMITS, PAY PERMIT FEES, AND BE RESPONSIBLE FOR SCHEDULING INSPECTIONS.
- 5. PROVIDE ALL LABOR AND MATERIAL DESCRIBED ON THIS DRAWING, AND ALL ITEMS INCIDENTAL TO COMPLETING AND PRESENTING THIS PROJECT AS FULLY OPERATIONAL.
- 6. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE ("EXOTHERMIC WELD") TO ANTENNA MASTS, AND THE GROUND BARS. REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS.
- 7. GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH COAX CABLE GROUNDING KITS & INSTALL WEATHER PROOFING KIT AT EACH CONNECTION.
- 8. ALL EQUIPMENT FURNISHED BY OTHERS SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ETC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WIRE DIAGRAMS AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF EQUIPMENT PRIOR TO ROUGH-IN OF CONDUIT AND WIRING TO AVOID CONFLICTS WHERE APPLICABLE.
- 9. GROUNDING CONDUCTORS SHALL BE COPPER OR SOLID TINNED COPPER. ALL CONNECTIONS MADE BELOW GRADE SHALL BE SOLID TINNED COPPER. ALL CONNECTIONS ABOVE GRADE STRANDED IS PERMITTED.
- 10. ALL EXOTHERMIC WELDS ABOVE FINISHED GRADE SHALL BE PAINTED WITH CO-GALVANIZED ZINC ENRICHED PAINT TO MATCH COLOR OBJECT BONDED TO.
- 11. CONNECT COAX GROUND KITS TO MASTER GROUND BAR AT BASE OF TOWER.
- 12. CONNECT COAX GROUND KITS TO GROUND BUS AT TOP OF TOWER.
- 13. CONNECT RF MODULE GROUND TO GROUND BUS AT TOP OF TOWER.
- 14. PLAN DRAWINGS SHOWN HEREIN DO NOT NECESSARILY DEPICT ELECTRICAL REQUIREMENTS OF INDIVIDUAL EQUIPMENT AND DEVICES SUCH AS THE EQUIPMENT GROUNDING REQUIREMENTS, POWER REQUIREMENTS AND TELCO RACEWAY REQUIREMENTS.
- 15. PLAN DRAWINGS SHOWN HEREIN ARE DIAGRAMMATIC AND DO NOT NECESSARILY DEPICT THE EXACT EQUIPMENT QUANTITIES, LOCATION, LAYOUT AND CONFIGURATION. REFER TO ARCHITECTURAL PLANS FOR EXACT EQUIPMENT LOCATION, LAYOUT AND CONFIGURATION.
- 16. NUMBER OF ANTENNAS REPRESENTED IN THIS DETAIL ARE FOR SHOWING CLARITY OF GROUND SYSTEM REQUIREMENTS ONLY. SEE RF INFO FOR ANTENNA QUANTITY.
- 17. CONTRACTOR TO 'NOALOX' ALL CONNECTIONS TO GROUND BARS.



LEGEND

- NEW GROUNDING WIRE
- EXOTHERMIC WELD
- MECHANICAL CONNECTION/DOUBLE HOLE LUG TYPE CONNECTION
- EXISTING ANTENNA/EQUIPMENT
- RELOCATED ANTENNA/EQUIPMENT
- NEW ANTENNA/EQUIPMENT

NOTE: CONTRACTOR TO INSTALL/REPLACE NEW OR MISSING GROUND BARS AS REQUIRED.

GROUNDING RISER

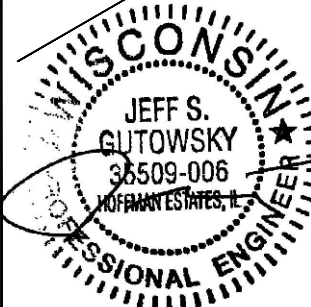
SCALE: NONE

1

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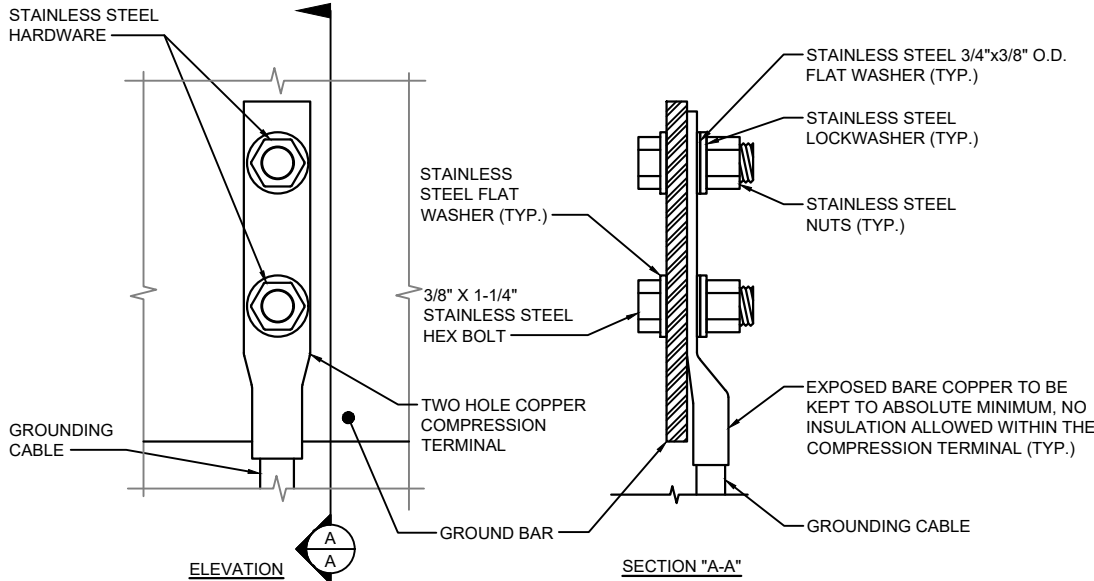
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CHECK: JKR
DRAWN: CS
JOB: T2200646
GR-1
GROUNDING DETAILS



1. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS
2. NO CRIMPING OF SOLID #2. USE EXOTHERMIC WELD ONLY

GROUND BAR CONNECTION DETAIL

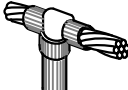
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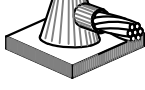
NOTE:
THE FOLLOWING SYMBOLS SHOWN ARE HARGER
ULTRAWELD EXOTHERMIC CONNECTIONS WITH PART
NUMBERS BELOW. THESE CONNECTIONS MAY BE
CROSS-REFERENCED WITH CADWELD CONNECTIONS
WHICH ARE SHOWN IN PARENTHESIS



GT
(GR)



GO
(GT)



HB
(HS)



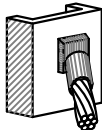
HD
(HA)



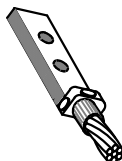
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(SS)



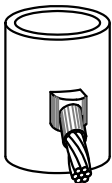
XX
(XA)



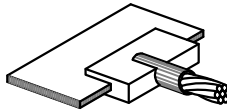
VA
(VH)



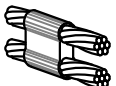
LE
(GL)



VA
(VS)



BD, BE, BU
(LJ)



PT
(PT)



RT
(TA)

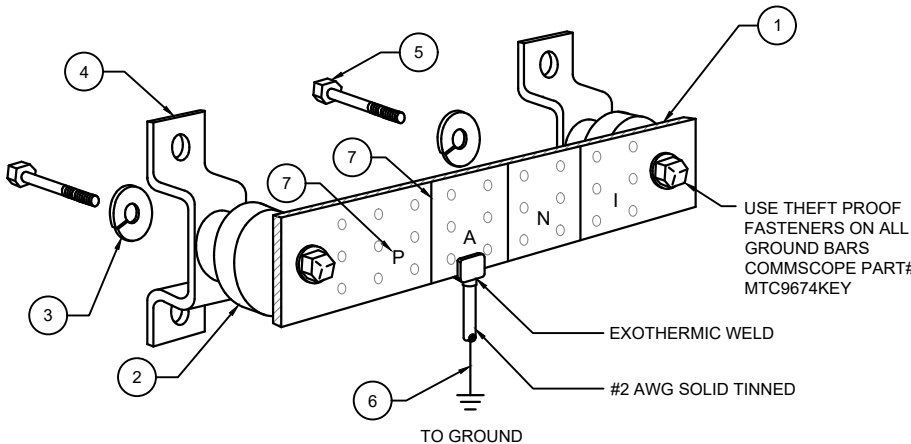
EXOTHERMIC WELD TYPES

SCALE: NONE

2

KEY NOTES:

1. 1/4" THK ELECTRICAL TINNED GROUND BAR HARGER OR APPROVED EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
2. INSULATORS (UNLESS NOTED OTHERWISE)
3. 3/8" STAINLESS STEEL LOCKWASHERS
4. WALL MOUNTING BRACKET
5. 3/8" STAINLESS STEEL BNLF BOLTS
6. EXOTHERMICALLY WELD #2 AWG BARE TINNED SOLID COPPER CONDUCTOR TO GROUND BAR. ROUTE CONDUCTOR TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD
7. CONTRACTOR SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "N", "I") WITH 1" HIGH LETTERS



EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR
SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT
WILL IDENTIFY ITS ORIGIN AND DESTINATION

SECTION "P" - SURGE PRODUCERS

- COLLECTOR GROUND BAR
- GENERATOR FRAMEWORK (IF AVAILABLE)
- TELCO GROUND BAR
- COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND
- FIBER GROUND BAR
- EQUIPMENT ROOM COLLECTOR GROUND BAR
- HVAC
- RECTIFIER FRAMES

SECTION "A" - SURGE ABSORBERS

- INTERIOR GROUND RING
- EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING)
- METALLIC COLD WATER PIPE (IF AVAILABLE)
- BUILDING STEEL (IF AVAILABLE)
- AC POWER

SECTION "N" - NON-ISOLATED GROUND ZONE EQUIPMENT

- MISCELLANEOUS NON-ISOLATED GROUND ZONE EQUIPMENT
- CABLE TRAY SYSTEM
- EQUIPMENT FRAMES
- BATTERY RACKS
- DC POWER

SECTION "I" - ISOLATED GROUND ZONE

- ISOLATED EQUIPMENT FRAMES
- ISOLATED GROUND BAR - IGB

NOTES:
-EXTERIOR GROUND BARS TO BE TIN PLATED
-HARDWARE SHALL BE STAINLESS STEEL
-CONTRACTOR SHALL GROUP INCOMING WIRES
-CONTRACTOR TO APPLY 'KOPR-SHIELD' TO ALL CONNECTIONS

NOTE:
CONTRACTOR TO INSTALL/REPLACE NEW
OR MISSING GROUND BARS AS REQUIRED.

GROUND BAR DETAIL

SCALE: NONE

3



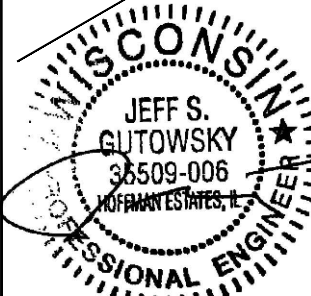
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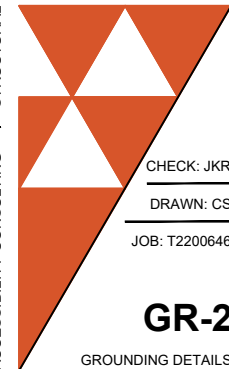


EXPIRES: 07/31/24 SIGNED: 02/07/23

REVISIONS

REV.	ISSUED FOR	DATE	BY
A	FOR CLIENT REVIEW	06/13/22	CS
0	FINALS	08/05/22	APK
1	REVISION	11/23/22	APK
2	REVISION	02/07/23	APK

AQUATIC \ DESIGN & PROGRAM MANAGEMENT
CIVIL \ TELECOMMUNICATION \ MECHANICAL
PLUMBING \ ELECTRICAL \ LAND SURVEYING
ACCESSIBILITY CONSULTING \ STRUCTURAL



CHECK: JKR

DRAWN: CS

JOB: T2200646

GR-2

GROUNDING DETAILS