## Robinson+Cole

KENNETH C. BALDWIN

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Also admitted in Massachusetts and New York

May 25, 2023

Melanie A. Bachman, Esq. Executive Director/Staff Attorney Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: Docket No. 498 – Diamond Powers V, LLC – Certificate of Environmental Compatibility and Public Need for the Construction, Maintenance and Operation of a Telecommunications Facility Located at 185 Academy Road, Cheshire, Connecticut

**D&M Plan Modification – 60 kW Generator** 

#### Dear Attorney Bachman:

On January 18, 2022 the Siting Council approved the Docket No. 498 D&M Plan which included details regarding the equipment that Cellco Partnership d/b/a Verizon Wireless ("Cellco") intends to install at 185 Academy Road tower site, including a 30 kW generator. The purpose of this letter is to notify the Council that Cellco now intends to increase the size of its generator from 30 kW to 60 kW. In addition, Cellco also intends to modify its equipment orientation within the facility compound and install its radio equipment and the 60 kW generator on the same 10-foot by 20-foot concrete pad. Attached is a copy of the Kohler 60 kw generator specification sheet and a set of construction drawing showing the reorientation of Cellco's equipment pad (Sheets C-2 and M-1).

If you have any questions or need any additional information regarding these revisions, please do not hesitate to contact me.

Melanie A. Bachman, Esq. May 25, 2023 Page 2

Sincerely,

Kenneth C. Baldwin

#### Copy to:

Christopher B. Fischer, Esq. Kristen Motel, Esq. Scott Von Rein Mike Humphreys Stan Gvinter



Model: KG60

190-600 V

Gas



#### EPA-Certified for 60 Hz Stationary Emergency Applications

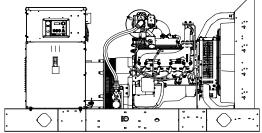
50 Hz

EPA certification not applicable at 50 Hz

60 Hz

#### Ratings Range





#### Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all generator set systems and components. Two- and five-year extended limited warranties are also available.
- Alternator features:
  - The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
  - o The brushless, rotating-field alternator has broadrange reconnectability.

#### **Generator Set Ratings**

				Natural Gas 130°C Rise Standby Rating		LP Gas 130°C Rise Standby Rating	
Alternator	Voltage	Ph	Hz	kW/kVA	Amps	kW/kVA	Amps
	120/208	3	60	54/68	189	54/68	189
	127/220	3	60	57/71	187	57/71	187
	120/240	3	60	54/68	164	54/68	164
	120/240	1	60	44/44	184	44/44	184
	139/240	3	60	60/75	181	60/75	181
	220/380	3	60	49/61	93	49/61	93
	277/480	3	60	60/75	91	60/75	91
4P7BX	347/600	3	60	57/71	69	57/71	69
4P/DA	110/190	3	50	44/55	168	44/55	168
	115/200	3	50	47/59	171	47/59	171
	120/208	3	50	46/58	161	46/58	161
	110/220	3	50	47/59	155	47/59	155
	110/220	1	50	40/40	182	40/40	182
	220/380	3	50	44/55	84	44/55	84
	230/400	3	50	47/59	86	47/59	86
	240/415	3	50	46/58	81	46/58	81
	120/208	3	60	60/75	209	62/78	217
	127/220	3	60	60/75	197	62/78	205
	120/240	3	60	60/75	181	62/78	188
	120/240	1	60	57/57	238	57/57	238
	139/240	3	60	60/75	181	62/78	188
	220/380	3	60	60/75	114	62/78	119
	277/480	3	60	60/75	91	62/78	94
4D0)/	347/600	3	60	60/75	73	62/78	76
4P8X	110/190	3	50	48/60	183	50/63	192
	115/200	3	50	48/60	174	50/63	182
	120/208	3	50	45/56	156	45/56	156
	110/220	3	50	48/60	158	50/63	166
	110/220	1	50	48/48	219	50/50	228
	220/380	3	50	48/60	92	50/63	96
	230/400	3	50	48/60	87	50/63	91
	240/415	3	50	45/56	78	45/56	78

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. Standby Ratings: The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. For dual fuel engines, use the natural gas ratings for both the primary and secondary fuels.

				Natural Gas 130°C Rise Standby Rating		LP Gas 130°C Rise Standby Rating	
Alternator	Voltage	Ph	Hz	kW/kVA	Amps	kW/kVA	Amps
	120/208	3	60	60/75	209	63/79	220
	127/220	3	60	60/75	197	63/79	208
	120/240	3	60	60/75	181	63/79	191
	120/240	1	60	60/60	250	63/63	263
	139/240	3	60	60/75	181	63/79	191
	220/380	3	60	60/75	114	63/79	121
	277/480	3	60	60/75	91	63/79	96
4P10X	347/600	3	60	60/75	73	63/79	77
4P10X	110/190	3	50	53/66	201	53/66	201
	115/200	3	50	53/66	191	53/66	191
	120/208	3	50	53/66	184	53/66	184
	110/220	3	50	53/66	174	53/66	174
	110/220	1	50	50/50	228	63/63	287
	220/380	3	50	53/66	101	53/66	101
	230/400	3	50	53/66	96	53/66	96
	240/415	3	50	53/66	92	53/66	92
4Q10X	120/240	1	60	60/60	250	60/60	250
4Q10X	110/220	1	50	53/53	241	53/53	241

#### **Alternator Specifications**

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Rare-Earth Permanent Magnet
Leads: quantity, type	
4P7BX, 4P8X, 4P10X	12, Reconnectable
4Q10X	4, 110-120/220-240 V
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V, 400 V 4P7BX (12 lead)	180 (60 Hz), 136 (50 Hz)
480 V, 400 V 4P8X (12 lead)	261 (60 Hz), 218 (50 Hz)
480 V, 400 V 4P10X (12 lead)	275 (60 Hz), 220 (50 Hz)
240 V, 220 V 4Q10X (4 lead)	144 (60 Hz), 132 (50 Hz)

- The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
- The brushless, rotating-field alternator has broadrange reconnectability.
- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.

### **Application Data**

#### **Engine**

Engine Specifications	60 Hz	50 Hz	
Manufacturer	Kohler		
Engine: model, type	KG6208 6.2 L		
	Natural A	spiration	
Cylinder arrangement	V-	-8	
Displacement, L (cu. in.)	6.2 (	378)	
Bore and stroke, mm (in.)	101.6 x 95.25	$(4.00 \times 3.75)$	
Compression ratio	10.	5:1	
Rated rpm	1800	1500	
Max. power at rated rpm, kW (HP)	77.0 (103)	64.3 (86)	
Cylinder head material	Cast Aluminum		
Piston type and material	High Silicon Aluminum		
Crankshaft material	Cast	Iron	
Valve (exhaust) material	Forged Steel		
Governor type	Electronic		
Frequency regulation, no-load to full-load	Isochronous		
Frequency regulation, steady state	±1.0%		
Frequency	Fixed		
Air cleaner type, all models	Dry		

#### **Application Data**

#### **Exhaust**

Exhaust System	60 Hz	50 Hz
Exhaust manifold type	D	ry
Exhaust flow at rated kW, m <sup>3</sup> /min. (cfm)	13.5 (478)	11.3 (399)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	690 (	1274)
Maximum allowable back pressure, kPa (in. Hg)	10.2	(3.0)
Exhaust outlet size at engine hookup, mm (in.)	76 (3.	0) OD

#### **Engine Electrical**

Engine Electrical System	60 Hz	50 Hz	
Ignition system	Electronic,	Distributor	
Ignition system	Electronic		
Battery charging alternator:			
Ground (negative/positive)	Nega	ative	
Volts (DC)	1:	2	
Ampere rating	13	30	
Starter motor rated voltage (DC)	1:	2	
Battery, recommended cold cranking			
amps (CCA):			
Qty., rating for - 18°C (0°F)	1, 6	630	
Battery voltage (DC)	1:	2	

#### **Fuel**

Fuel System	60 Hz	50 Hz
Fuel type		, LP Gas, or Fuel
Fuel supply line inlet	1 N	PTF
Natural gas fuel supply pressure, kPa (in. H <sub>2</sub> O)	1.74-2.74 (7-11)	
LPG vapor withdrawal fuel supply pressure, kPa (in. ${\rm H_2O}$ )	1.24-2.74 (5-11)	
Dual fuel engine, LPG vapor withdrawal fuel supply pressure, kPa (in. H <sub>2</sub> O)	1.24	4 (5)
Front Common attack to the stand	N-4 O	1.0.0

Fuel Composition Limits *	Nat. Gas	LP Gas
Methane, % by volume	90 min.	_
Ethane, % by volume	4.0 max.	_
Propane, % by volume	1.0 max.	85 min.
Propene, % by volume	0.1 max.	5.0 max.
C <sub>4</sub> and higher, % by volume	0.3 max.	2.5 max.
Sulfur, ppm mass	25 r	max.
Lower heating value,		
MJ/m <sup>3</sup> (Btu/ft <sup>3</sup> ), min.	33.2 (890)	84.2 (2260)

<sup>\*</sup> Fuels with other compositions may be acceptable. If your fuel is outside the listed specifications, contact your local distributor for further analysis and advice.

#### Lubrication

Lubricating System	60 Hz	50 Hz			
Туре	Full Pre	essure			
Oil pan capacity, L (qt.) §	5.7 (	6.0)			
Oil pan capacity with filter, L (qt.) §	7.1 (	7.5)			
Oil filter: quantity, type §	1, Cartridge				
§ Kohler recommends the use of Kohler Genuine oil and filters.					

#### Cooling

Radiator System	60 Hz	50 Hz	
Ambient temperature, °C (°F) *	50 (122)		
Engine jacket water capacity, L (gal.)	7.3 (1.93)		
Radiator system capacity, including			
engine, L (gal.)	20.8	(5.5)	
Engine jacket water flow, Lpm (gpm)	129 (34.1)	108 (28.5)	
Heat rejected to cooling water at rated			
kW, dry exhaust, kW (Btu/min.)	64.0 (3640)	56.0 (3185)	
Water pump type	Centrifugal		
Fan diameter, including blades, mm (in.)	533 (21)		
Fan, kWm (HP)	2.2 (2.9)	1.3 (1.7)	
Max. restriction of cooling air, intake and			
discharge side of radiator, kPa (in. H <sub>2</sub> O)	0.125	5 (0.5)	
* Enclosure with enclosed silencer reduces ambient temperature			

Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).

#### **Operation Requirements**

Air Requirements	60 Hz	50 Hz
Radiator-cooled cooling air,		
m <sup>3</sup> /min. (scfm) †	136 (4800)	113 (4000)
Combustion air, m <sup>3</sup> /min. (cfm)	5.2 (185)	4.4 (155)
Heat rejected to ambient air:	` ,	, ,
Engine, kW (Btu/min.)	30.9 (1760)	26.5 (1510)
Alternator, kW (Btu/min.)	7.7 (440)	6.9 (390)
† Air density = 1.20 kg/m <sup>3</sup> (0.075 lbm/ft <sup>3</sup> )		

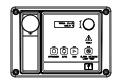
Fuel Consumption ‡	60 Hz	50 Hz
Natural Gas, m <sup>3</sup> /hr. (cfh) at % load	Standby Ratings	
100%	27.6 (975)	22.9 (810)
75%	21.8 (770)	16.9 (600)
50%	15.1 (533)	11.4 (402)
25%	8.3 (292)	6.3 (221)
LP Gas, m <sup>3</sup> /hr. (cfh) at % load	Standby Ratings	
100%	11.6 (410)	10.3 (365)
75%	9.3 (330)	6.5 (229)
50%	6.0 (213)	4.8 (168)
25%	3.9 (141)	3.0 (107)

<sup>‡</sup> Nominal fuel rating: Natural gas, 37 MJ/m³ (1000 Btu/ft.³) LP vapor, 93 MJ/m³ (2500 Btu/ft.³)

LP vapor conversion factors:

8.58 ft.<sup>3</sup> = 1 lb. 0.535 m<sup>3</sup> = 1 kg. 36.39 ft.<sup>3</sup> = 1 gal.

#### **Controllers**



#### APM402 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- Digital display and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-161 for additional controller features and accessories.



KOHLER CO., Kohler, Wisconsin 53044 USA Phone 920-457-4441, Fax 920-459-1646 For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444 KOHLERPower.com

Stan	dar	d Fe	atu	res

- Alternator Protection
- Battery Rack and Cables
- Electronic, Isochronous Governor
- Gas Fuel System (includes fuel mixer, electronic secondary gas regulator, gas solenoid valve, and flexible fuel line between the engine and the skid-mounted fuel system components)
- Integral Vibration Isolation
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation and Installation Literature

#### **Available Options**

	Approvals and Listings CSA Approval IBC Seismic Certification UL 2200 Listing Hurricane Rated Enclosure
	Enclosed Unit Sound Enclosure (with enclosed critical silencer) Weather Enclosure (with enclosed critical silencer)
	Open Unit Exhaust Silencer, Critical (kit: PA-352663) Flexible Exhaust Connector, Stainless Steel
	Fuel System Dual Fuel NG/LPG (automatic changeover) Flexible Fuel Line (required when the generator set skid is spring mounted) Fuel Filter Kit
	Controller Common Fault Relay Two Input/Five Output Module Remote Annunciator Panel Remote Emergency Stop Run Relay Manual Speed Adjust
<u> </u>	Cooling System Block Heater, 1500 W, 110-120 V Required for ambient temperatures below 10°C (50°F) Radiator Duct Flange
<u> </u>	Electrical System Alternator Strip Heater Battery Battery Charger Battery Charger Temperature Compensation Battery Heater Line Circuit Breaker (NEMA1 enclosure)

Line Circuit Breaker with Shunt Trip (NEMA1 enclosure)

	Air Cleaner Restrictor Indicator Certified Test Report Engine Fluids (oil and coolant) Added Rated Power Factor Testing Rodent Guards Open Unit Accessory Kit (stone guards, radiator duct flange, flexible exhaust)
ă	Literature General Maintenance NFPA 110 Overhaul Production
ō	Warranty 2-Year Basic Limited Warranty 5-Year Basic Limited Warranty 5-Year Comprehensive Limited Warranty
	Other Options
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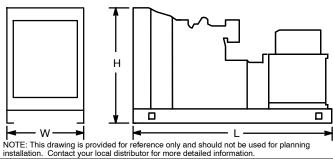
#### **Dimensions and Weights**

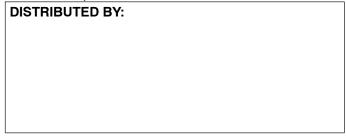
Miscellaneous

Overall Size, L x W x H, mm (in.):

Wide Skid 2200 x 1040x 1172 (86.6 x 40.9 x 46.1) 2200 x 864 x 1172 (86.6 x 34.0 x 46.1) Narrow Skid

Weight (radiator model), wet, kg (lb.): 755 (1665)





# verizon

## **WIRELESS SERVICES FACILITY**

## CHESHIRE EAST CT 185 ACADEMY ROAD CHESHIRE, CT 06410

#### DRAWING INDEX

T-1 TITLE SHEET

SP-1 SITE PLAN

C-1 COMPOUND PLAN & WEST ELEVATION

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S-1 STRUCTURAL PLANS & DETAILS

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E-3 EQUIPMENT GROUNDING PLANS & NOTES

**E-4 GROUNDING DETAILS** 

**B-1 RF BILL OF MATERIALS & EQUIPMENT SPECIFICATIONS** 

**N-1 NOTES & SPECIFICATIONS** 

#### SITE DIRECTIONS

START: 20 ALEXANDER DRIVE

**WALLINGFORD, CONNECTICUT 06492** 

END: 185 ACADEMY ROAD CHESHIRE, CT 06410

1.	TAKE ALEXANDER DR. AND BARNES INDUSTRIAL PARK RD.	
	TO CT-68W	0.6 MI
2.	HEAD SOUTH TOWARD ALEXANDER DR	371 FT
3.	TURN RIGHT	0.1 MI
4.	TURN RIGHT TOWARD ALEXANDER DRIVE	72 FT
4.	TURN RIGHT TOWARD ALEXANDER DRIVE	167 FT
5.	TURN RIGHT ONTO ALEXANDER DRIVE	0.3 MI
6.	TURN RIGHT ONTO BARNES INDUSTRIAL PARK RD	0.1 MI
7.	TURN LEFT AT 1ST CROSS STREET ONTO CT-68 W	4.4 MI
8.	TURN LEFT ONTO CT-68W/CT-70 W (DESTINATION ON THE LEFT)	0.8 MI



LOCATION MAP

#### SITE INFORMATION

VZ SITE NAME: CHESHIRE EAST CT VZ PROJ. FUZE I.D.: 15372347 VZ LOCATION CODE: 470656 VZ PROJECT CODE: 20171649710

> LOCATION: 185 ACADEMY ROAD CHESHIRE, CT 06410

PROJECT SCOPE: INSTALLATION CONSISTS OF SIX (6) PANEL ANTENNAS, THREE

(3) SAMSUNG MT6407-77A ANTENNAS W/INTEGRATED RRHS, SIX (6) DUAL-BAND ORAN REMOTE RADIO HEADS (RRHS) & ONE (1) 120VP MOUNTED TO AN EXIST. 96'-4 AGL MONOPINE TOWER IN ADDITION TO BASE EQUIPMENT CABINETS, 50kW PROPANE EMERGENCY STANDBY POWER GENERATOR & A 500 GAL. PROPANE TANK W/ PROTECTIVE ICE CANOPY LOCATED AT GRADE WITHIN EXIST. (2,116± SF) FENCED COMPOUND AREA.

COORDINATES & GROUND

PREPARED BY MARTIN

INC. DATED MAY 05, 2020.

ELEVATION INDICATED HEREIN

WERE ESTABLISHED FROM A TOPOGRAPHIC LAND SURVEY, AS

SURVEYING ASSOCIATES, LLC.

MAP/LOT: 58-27

LATITUDE: 41° 29' 53.7872"N (41.49827422°N)

LONGITUDE: 72° 53' 39.3902"W (72.89427505°W)

GROUND ELEVATION: 242.7'± AMSL

PROPERTY OWNER: CHESHIRE UNITED METHODIST CHURCH

CHESHIRE, CT 06410

TOWER OWNER: DIAMOND COMMUNICATIONS LLC. 210 MOUNTAIN AVENUE UNIT 619

APPLICANT: CELLCO PARTNERSHIP

d/b/a VERIZON WIRELESS 20 ALEXANDER DRIVE WALLINGFORD, CT 06492

SPRINGFIELD, NJ 07081

LEGAL/REGULATORY COUNSEL: ROBINSON & COLE, LLP

KENNETH C. BALDWIN, ESQ. 280 TRUMBULL STREET HARTFORD, CT 06103

ENGINEER CONTACT: ALL-POINTS TECHNOLOGY CORPORATION, P.C.

567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

860 663-1697

ALL-POINTS
TECHNOLOGY CORPORATION

567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-082
WWW.ALLPOINTSTECH.COM FAX: (860)-663-082

CONSTRUCTION DOCUMENTS



DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY
CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT.
SUITE 311
WATERFORD, CT 06385

OWNER: CHESHIRE UNITED
METHODIST CHURCH
ADDRESS: 185 ACADEMY ROAD
CHESHIRE. CT 06410

CHESHIRE EAST CT

SITE 185 ACADEMY ROAD

ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

DRAWN BY: DRAWN

DATE: 10/05/22 CHECKED BY: JR
VZW PROJECT CODE: 20171649710

VZW PROJECT CODE: 201/1649/10 VZW LOCATION CODE: 470656

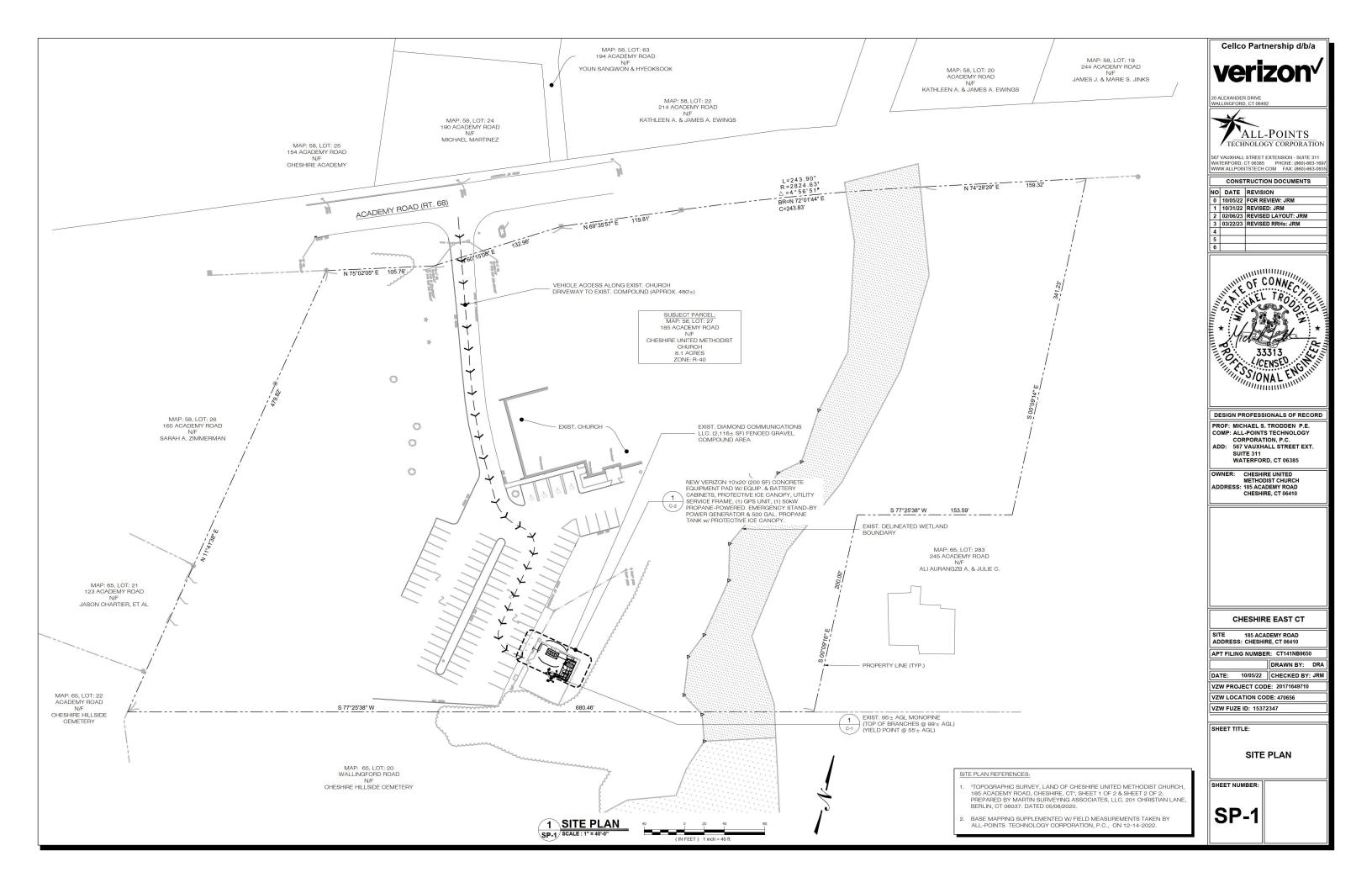
VZW FUZE ID: 15372347

SHEET TITLE

TITLE SHEET

SHEET NUMBER:

T-1



#### EXIST. OVERHEAD UTILITY LINES (TYP.) -NEW VERIZON UNDERGROUND ELECTRIC/TELCO SERVICE FROM EXIST. MULTI-METER CENTER TO NEW VERIZON 500 GALLON LPG TANK ON 6'-4"x12' CONC. PAD w/ PROTECTIVE ICE CANOPY. NEW VERIZON EQUIPMENT PAD E-1 EXIST BOLLARD (TYP 4 PL) -10' NO SPARK ZONE, TYP. EXIST. STEP-DOWN TRANSFORMER NEW UNDERGROUND PROPANE SERVICE TO NEW VERIZON GENERATOR EXIST. MULTI-METER CENTER W/ NEW VERIZON (1) 200A METER & DISCONNECT NEW VERIZON 10×20' (200 SF) CONC. EQUIP. PAD W/ EQUIP. & BATTERY CABINETS, PROTECTIVE ICE CANOPY, UTILITY SERVICE FRAME, (1) GPS UNIT & (1) 50kW PROPANE EMERGENCY STAND-BY POWER GENERATOR W/ PROTECTIVE ICE CANOPY. EXIST, 12' WIDE WOODEN GATE γ= 300°± 6 NEW CABLE ICE BRIDGE EXIST, 95'± AGL MONOPINE (TOP OF BRANCHES @ 99'± AGL) INSTALL (6) NEW VERIZON PANEL ANTENNAS & (3) NEW SAMSUNG MT6407-77A ANTENNAS w/INTEGRATED RRHS, SAMSUNG MID407-7/A AND IRENNAS WI INTEGRATED HARBS, (6) (60°, 180°, 300°), (6) NEW DUAL BAND ORAN RAHS & (1) 120VP ON DOUBLE T-ARM MOUNTS MOUNTED TO 99°± AGL MONOPINE W/ANTENNA CL @ 90°-0°± AGL. REFER TO ANTENNA & APPURTENANCE CONCEALMENT NOTE #1 THIS SHEET. EXIST 8' HIGH WOODEN FUTURE EQUIPMENT AREA EQUIPMENT AREA (12'x20') EXIST. MONOPINE FOUNDATION EXIST. CSC CABINET & VAULT (12'x20') EXIST. (2.116+ SF) FENCED GRAVEL COMPOUND AREA EXIST. EDGE OF PAVEMENT (TYP.) EXIST. UTILITY POLE TO REMAIN (CL&P #724) PROPERTY LINE (TYP.) EXIST, TREE LINE (TYP.)

1 COMPOUND PLAN

C-1 SCALE : 1" = 10'-0

#### SITE PLAN REFERENCES:

- "TOPOGRAPHIC SURVEY, LAND OF CHESHIRE UNITED METHODIST CHURCH, 185 ACADEMY ROAD, CHESHIRE, CT, SHEET 1 OF 2 & SHEET 2 OF 2; PREPARED BY MARTIN SURVEYING ASSOCIATES, LLC, 201 CHRISTIAN LANE, BERLIN, CT 06037. DATED 05/08/2020.
- BASE MAPPING SUPPLEMENTED W/ FIELD MEASUREMENTS TAKEN BY ALL-POINTS TECHNOLOGY CORPORATION, P.C., ON 12-14-2022.

#### EXCAVATION & TRENCHING NOTES

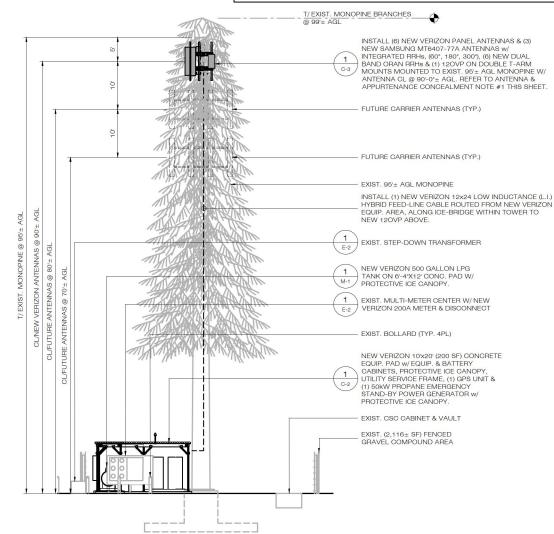
- CONTRACTOR SHALL ENGAGE THE SERVICES OF AN UNDERGROUND UTILITY LOCATING COMPANY TO LOCATE ALL UNDERGROUND UTILITIES, GROUNDING & EQUIPMENT IN THE TRENCHING AREA TO AVOID ANY DAMAGE.
- 2. HAND EXCAVATE WITHIN 5' OF EXIST. UNDERGROUND UTILITIES (V.I.F.) MAINTAIN 18" MIN. OLEARANCE.
- CONTRACTOR TO COORDINATE TRENCHING OPERATIONS W/ OWNER AND/OR MANAGEMENT COMPANY SO AS TO MINIMIZE DISRUPTIONS TO THE EXIST. PROPERTY OPERATIONS.

#### ANTENNA & APPURTENANCE CONCEALMENT NOTE:

 PAINT ANTENNAS, MOUNTS, CABLING & APPURTENANCES TO MATCH MONOPINE. INSTALL VALMONT SOCKS ON ALL NON LS6 ANTENNAS. PAINT LS6 ANTENNAS TO MATCH MONOPINE IN ACCORDANCE w/ LS6 MANUFACTURER INSTALLATION MANUAL REQUIREMENTS. COORDINATE w/ VERIZON CONSTRUCTION MANAGER & OWNER.

#### TOWER STRUCTURAL & MOUNT ANALYSIS NOTES:

- REFER TO STRUCTURAL ANALYSIS REPORT PREPARED BY ALL-POINTS TECHNOLOGY CORPORATION P.C., MARKED REV1, DATED MARCH 22, 2023, AVAILABLE UNDER SEPARATE COVER.
- 2. REFER TO MOUNT ANALYSIS PREPARED BY ALL-POINTS TECHNOLOGY CORPORATION P.C., MARKED REV2, DATED MARCH 22, 2023, AVAILABLE UNDER SEPARATE COVER.





verizon

0 ALEXANDER DRIVE VALLINGFORD, CT 0649



567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697

# | CONSTRUCTION DOCUMENTS | NO | DATE | REVISION | 0 | 10/05/22 | FOR REVIEW: JRM | 1 | 10/31/22 | REVISED: JRM | 2 | 02/06/23 | REVISED LAYOUT: JRM | 3 | 03/22/23 | REVISED RRHs: JRM | 4 |



DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY
CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT.
SUITE 311
WATERFORD, CT 06385

OWNER: CHESHIRE UNITED
METHODIST CHURCH
ADDRESS: 185 ACADEMY ROAD
CHESHIRE, CT 06410

CHESHIRE EAST CT

SITE 185 ACADEMY ROAD ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

DRAWN BY: DRAW

DATE: 10/05/22 CHECKED BY: JRM VZW PROJECT CODE: 20171649710

VZW LOCATION CODE: 470656

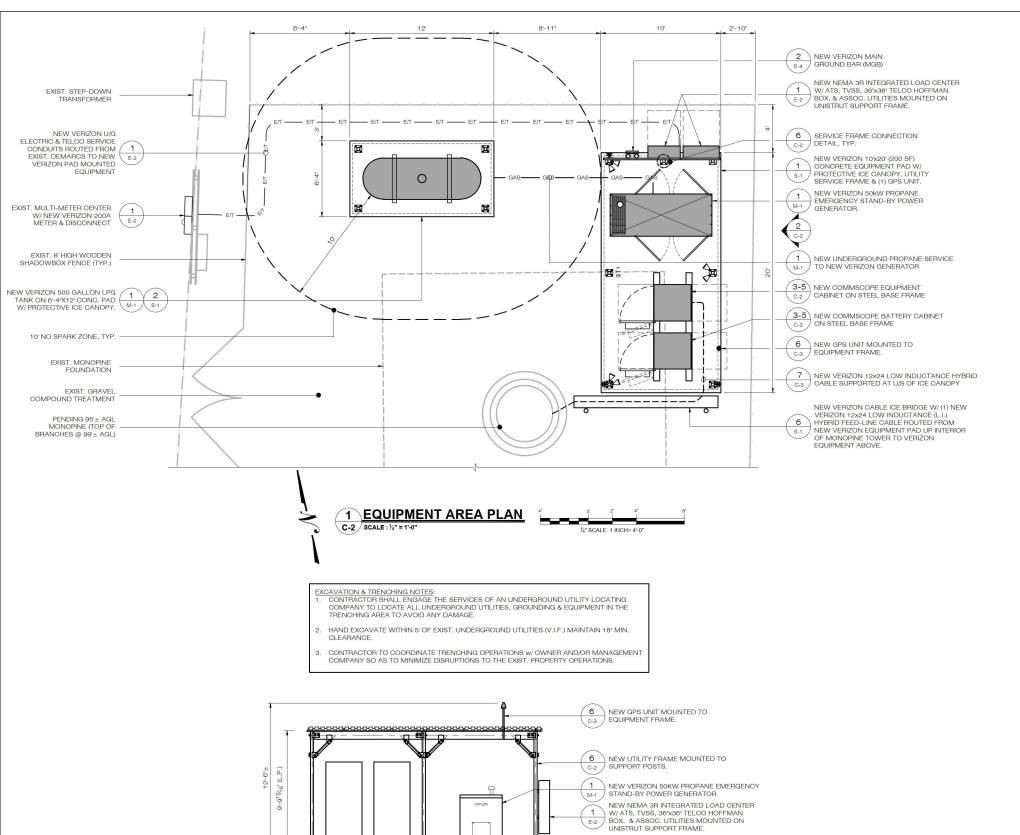
VZW FUZE ID: 15372347

SHEET TITLE:

COMPOUND PLAN & WEST ELEVATION

SHEET NUMBER

C-1



APPROX. EXIST. GRADE \_ @ 242.7'± AMSL

**EASTERN ELEVATION** 

2 EQUIPMENT AREA

C-2 SCALE : 1/4" = 1'-0"

NEW VERIZON 10'x20' (200 SF) CONCRETE

3-5 NEW COMMSCOPE EQUIPMENT CABINET ON STEEL BASE FRAME

3-5 NEW COMMSCOPE BATTERY CABINET

ON STEEL BASE FRAME

EQUIPMENT PAD W/ PROTECTIVE ICE CANOPY, UTILITY SERVICE FRAME & (1) GPS UNIT.

COMMSCOPE
CMC74-36B OUTDOOR
EQUIPMENT CABINET

Hx80.8\*Wx36.2\*Dx43.7\*

36.2\*

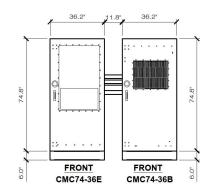
11.8\*

36.2\*

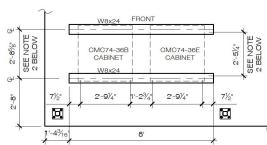
TOP
CMC74-36B

CMC74-36B

# OUTDOOR CABINET CMC74-36E 3 & CMC74-36B PLAN VIEW C-2 SCALE: %" = 1'-0"



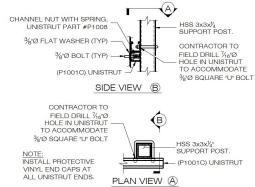
# OUTDOOR CABINET CMC74-36E 4 & CMC74-36B ELEVATION VIEW C-2 SCALE: %" = 1'-0"



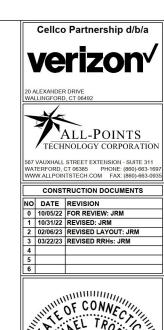
NOTES:

FASTEN W BEAMS TO CONCRETE PAD w/ ½'0 HDG HILTI KWIK BOLT 3 w/ 2' EMBEDMENT @ 24" O.C. MAX, STAGGERED). MIN. 2" FROM W BEAM ENDS
 COORDINATE W BEAM FLANGE SPACING W/ EQUIPMENT CABINET BOLTING PATTERN. MOUNT EQUIPMENT CABINETS TO DUNNAGE FRAME PFR MANUFACTURERS RECOMMENDATIONS

## 5 EQUIPMENT BOLTING PATTERN C-2 SCALE: ½" = 1'-0"



6 SERVICE FRAME CONN. DETAIL
C-2 SCALE: 1½"= 1'-0"





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CHESHIRE EAST CT

SITE 185 ACADEMY ROAD
ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

| DRAWN BY: DRA
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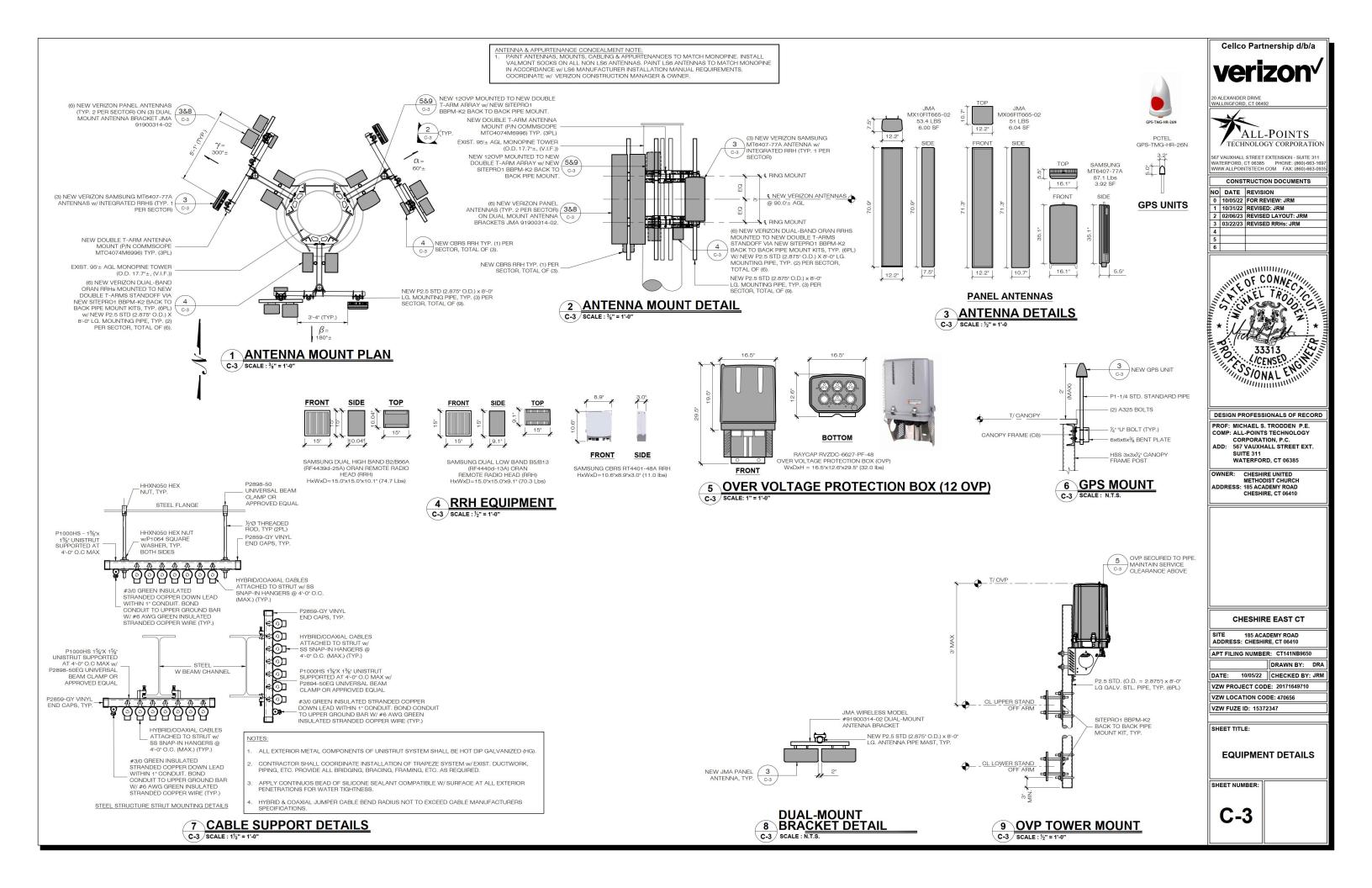
VZW LOCATION CODE: 470656 VZW FUZE ID: 15372347

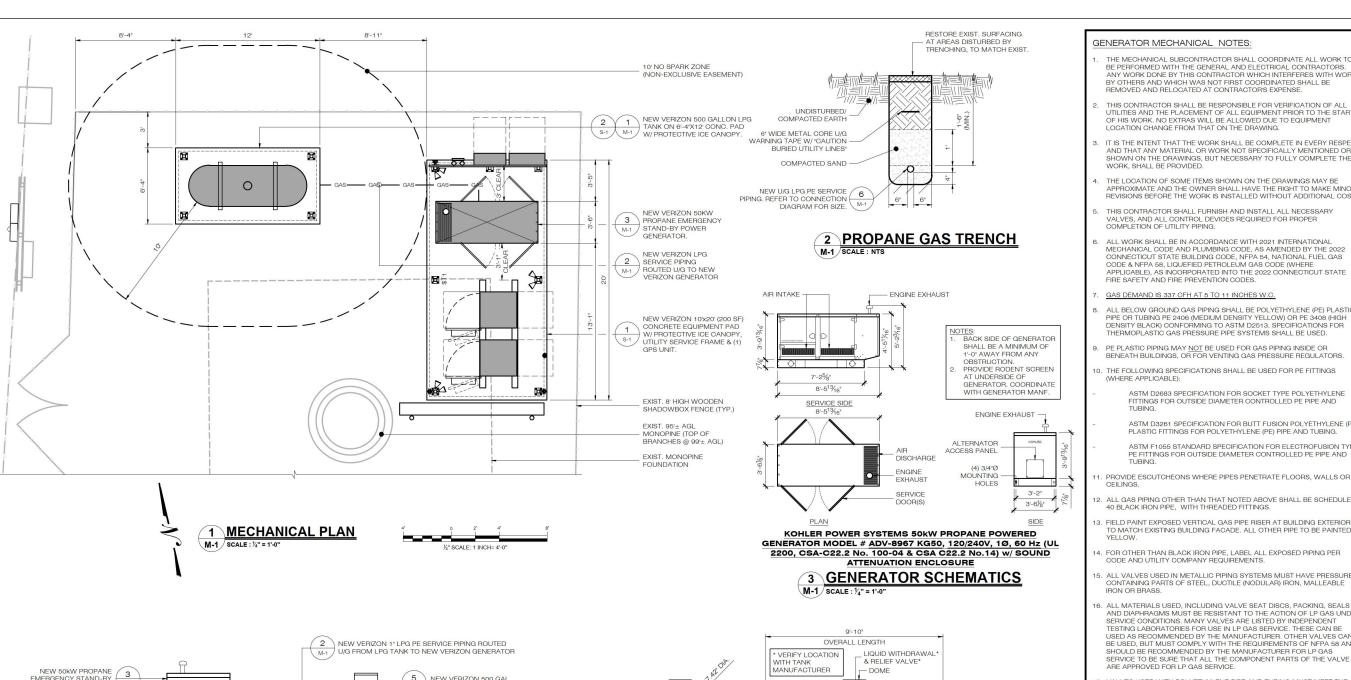
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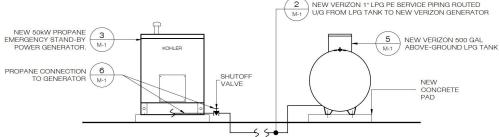
EQUIPMENT AREA PLAN & DETAILS

SHEET NUMBER:

C-2

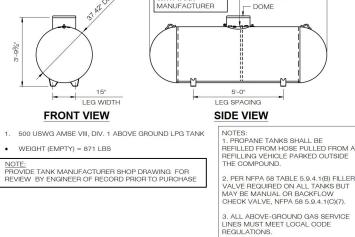






NOTE: ALL VALVES LISED IN METALLIC PIPING SYSTEMS MUST HAVE PRESSURE CONTAINING PARTS OF STEEL DUCTILE (NODUL AR) LP GAS SERVICE TO BE SURE THAT ALL THE COMPONENT PARTS OF THE VALVE ARE APPROVED FOR LP GAS SERVICE. VALVES USED WITH POLYETHYLENE PIPE AND TUBING MUST MEET THE REQUIREMENTS OF ASTM D2513 AND BE SO MARKED.

## **4 PROPANE CONNECTION DIAGRAM**



**5 ABOVE GROUND PROPANE TANK DETAIL** M-1 SCALE : N.T.S.

#### GENERATOR MECHANICAL NOTES:

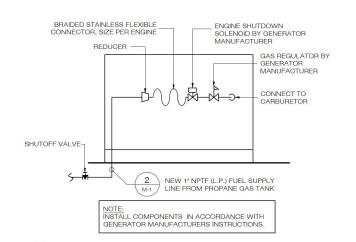
- THE MECHANICAL SUBCONTRACTOR SHALL COORDINATE ALL WORK TO THE MICCHANICAL SUBCONTRACTOR STALL COODINATE ALL WORK TO BE PERFORMED WITH THE GENERAL AND ELECTRICAL CONTRACTORS. ANY WORK DONE BY THIS CONTRACTOR WHICH INTERFERES WITH WORK BY OTHERS AND WHICH WAS NOT FIRST COORDINATED SHALL BE REMOVED AND RELOCATED AT CONTRACTORS EXPENSE.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL UTILITIES AND THE PLACEMENT OF ALL EQUIPMENT PRIOR TO THE START OF HIS WORK. NO EXTRAS WILL BE ALLOWED DUE TO EQUIPMENT LOCATION CHANGE FROM THAT ON THE DRAWING.
- IT IS THE INTENT THAT THE WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS. BUT NECESSARY TO FULLY COMPLETE THE WORK, SHALL BE PROVIDED.
- THE LOCATION OF SOME ITEMS SHOWN ON THE DRAWINGS MAY B APPROXIMATE AND THE OWNER SHALL HAVE THE RIGHT TO MAKE MINOR REVISIONS BEFORE THE WORK IS INSTALLED WITHOUT ADDITIONAL COST.
- THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY VALVES, AND ALL CONTROL DEVICES REQUIRED FOR PROPER COMPLETION OF UTILITY PIPING.
- ALL WORK SHALL BE IN ACCORDANCE WITH 2021 INTERNATIONAL MECHANICAL CODE AND PLUMBING CODE, AS AMENDED BY THE 2022 CONNECTICUT STATE BUILDING CODE, NFPA 54, NATIONAL FUEL GAS CODE & NFPA 58, LIQUEFIED PETROLEUM GAS CODE (WHERE APPLICABLE), AS INCORPORATED INTO THE 2022 CONNECTICUT STATE FIRE SAFETY AND FIRE PREVENTION CODES.
- GAS DEMAND IS 337 OFH AT 5 TO 11 INCHES W.C.
- . ALL BELOW GROUND GAS PIPING SHALL BE POLYETHYLENE (PE) PLASTIC ALL BELOW GHOUND GAS PIPING SHALL BE POLYE HYLENG (PE) PLASTI PIPE OR TUBING PE 2406 (MEDIUM DENSITY YELLOW) OR PE 3408 (HIGH DENSITY BLACK) CONFORMING TO ASTM D2513. SPECIFICATIONS FOR THERMOPLASTIC GAS PRESSURE PIPE SYSTEMS SHALL BE USED.
- PE PLASTIC PIPING MAY <u>NOT</u> BE USED FOR GAS PIPING INSIDE OR BENEATH BUILDINGS, OR FOR VENTING GAS PRESSURE REGULATORS.
- THE FOLLOWING SPECIFICATIONS SHALL BE USED FOR PE FITTINGS (WHERE APPLICABLE):

ASTM D2683 SPECIFICATION FOR SOCKET TYPE POLYETHYLENE FITTINGS FOR OUTSIDE DIAMETER CONTROLLED PE PIPE AND

ASTM D3261 SPECIFICATION FOR BUTT FUSION POLYETHYLENE (PE) PLASTIC FITTINGS FOR POLYETHYLENE (PE) PIPE AND TUBING.

ASTM F1055 STANDARD SPECIFICATION FOR ELECTROFUSION TYPE PE FITTINGS FOR OUTSIDE DIAMETER CONTROLLED PE PIPE AND

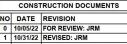
- . PROVIDE ESCUTCHEONS WHERE PIPES PENETRATE FLOORS, WALLS OR
- 40 BLACK IRON PIPE, WITH THREADED FITTINGS. 13. FIELD PAINT EXPOSED VERTICAL GAS PIPE RISER AT BUILDING EXTERIOR TO MATCH EXISTING BUILDING FACADE. ALL OTHER PIPE TO BE PAINTED
- 14. FOR OTHER THAN BLACK IRON PIPE, LABEL ALL EXPOSED PIPING PER CODE AND UTILITY COMPANY REQUIREMENTS.
- . ALL VALVES USED IN METALLIC PIPING SYSTEMS MUST HAVE PRESSURE CONTAINING PARTS OF STEEL, DUCTILE (NODULAR) IRON, MALLEABLE IRON OR BRASS.
- 16. ALL MATERIALS USED, INCLUDING VALVE SEAT DISCS. PACKING. SFAI S ALL MINTERHALS USED, INDUDING VALVE SEAT LIDES, FACKINIA, SEALS AND DIAPHRAGMS MUST BE RESISTANT TO THE ACTION OF LP GAS UNDER SERVICE CONDITIONS. MANY VALVES ARE LISTED BY INDEPENDENT TESTING LABORATORIES FOR USE IN LP GAS SERVICE. THESE CAN BE USED AS RECOMMENDED BY THE MANUFACTURER. OTHER VALVES CAN BE USED, BUT MUST COMPLY WITH THE REQUIREMENTS OF NFPA 58 AND SHOULD BE RECOMMENDED BY THE MANUFACTURER FOR LP GAS SERVICE TO BE SURE THAT ALL THE COMPONENT PARTS OF THE VALVE ARE APPROVED FOR LP GAS SERVICE.
- 17. VALVES USED WITH POLYETHYLENE PIPE AND TUBING MUST MEET THE BEQUIREMENTS OF ASTM D2513 AND BE SO MARKED.



6 GENERATOR CONNECTION DETAIL

Cellco Partnership d/b/a

ALL-POINTS



0 10/05/22 FOR REVIEW: JRM 2 02/06/23 REVISED LAYOUT: JRM 3 03/22/23 REVISED RRHs: JRM



DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E. COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C. ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

CHESHIRE UNITED METHODIST CHURCH ADDRESS: 185 ACADEMY ROAD CHESHIRE, CT 06410

**CHESHIRE EAST CT** 

185 ACADEMY ROAD ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

DRAWN BY: DRA 10/05/22 CHECKED BY: JRN DATE:

VZW PROJECT CODE: 20171649710 VZW LOCATION CODE: 470656

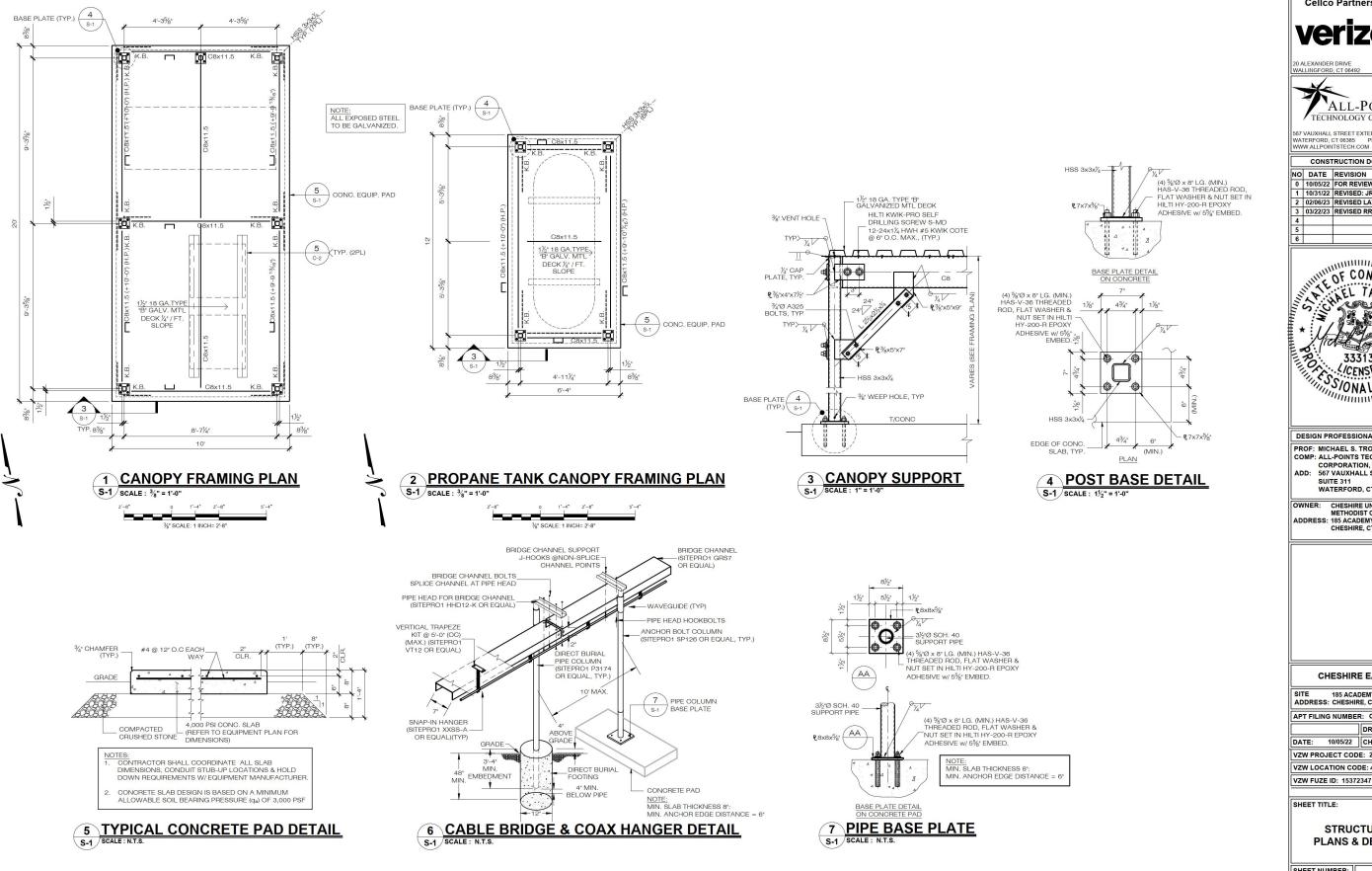
VZW FUZE ID: 15372347

SHEET TITLE:

**MECHANICAL PLAN DETAILS & NOTES** 

SHEET NUMBER

M-1



Cellco Partnership d/b/a verizon

ALLINGFORD, CT 0649



TERFORD, CT 06385 PHONE: (860)-663-VW.ALLPOINTSTECH.COM FAX: (860)-663

#### CONSTRUCTION DOCUMENTS NO DATE REVISION 0 10/05/22 FOR REVIEW: JRM 10/31/22 REVISED: JRM 2 02/06/23 REVISED LAYOUT: JRM 3 03/22/23 REVISED RRHs: JRM



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DRAWN BY: DRA DATE: 10/05/22 CHECKED BY: JRM

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SHEET TITLE:

STRUCTURAL **PLANS & DETAILS** 

SHEET NUMBER:

**S-1** 

SYMBOL	DESCRIPTION	ABBREV.	DESCRIPTION
ď	FUSED DISCONNECT SWITCH (VOLTAGE AS REQUIRED)	AFF	ABOVE FINISHED FLOOR
E — E —	ELECTRICAL CONDUIT & CABLES	AFG	ABOVE FINISHED GRADE
т — т —	TELCO/FIBER CONDUIT & DRAG LINE	AGB	ANTENNA GROUND BAR
	GROUND CONDUIT & WIRE	AWG	AMERICAN WIRE GAGE
φ	DUPLEX RECEPTACLE WITH PANEL DP1 CIRCUIT INDICATED. (MOUNTED 42" AFF)	BCW	BARE COPPER WIRE
$\bigcirc$	ELECTRIC METER AND BASE. COORDINATE WITH UTILITY COMPANY	С	CONDUIT
Т	TRANSFORMER	DP	DISTRIBUTION PANEL
	NON-FUSED DISCONNECT SWITCH (VOLTAGE AS REQUIRED)	ECB	ENCLOSED CIRCUIT BREAKER
চক	GROUND BAR	EGB	EQUIPMENT GROUND BAR
lacktriangle	SPECIAL PURPOSE OUTLET	FACP	FIRE ALARM CONTROL PANEL
$\otimes$	GROUND ROD	GFCI	GROUND FAULT CIRCUIT INTERRUPTER
Ť	GROUND CONNECTION	GRC	GALVANIZED RIGID CONDUIT
ILC	INTEGRATED LOAD CENTER W/ XFER SWITCH	KWH	KILO-WATT-HOUR
\$ <sub>T</sub>	12 HR. TIMER SWITCH (MOUNTED 48" AFG.)	LFMC	LIQUID TIGHT FLEXIBLE METALLIC CONDUI
<b>₩</b> WP	DUPLEX RECEPTACLE WITH GFCI AND WEATHERPROOF COVER 'WHILE IN-USE'	MGB	MASTER GROUND BAR
হত	GROUND BAR	MTS	MANUAL TRANSFER SWITCH
A DA	LIGHT FIXTURE	NF	NON-FUSED
		N.O.	NORMALLY OPEN
		RGS	RIGID STEEL CONDUIT
		SA	SURGE ARRESTOR
		TL	TWIST-LOCK
		UNO	UNLESS NOTED OTHERWISE
		WP	WEATHERPROOF

#### LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER CATALOG/MODEL No.	GENERAL DESCRIPTION	LAMP	MOUNTING	NOTES
Α	RAB LIGHTING INC. LED MODEL # BULLET2X12W.	BULLET FLOOD 2X12W	LED (2480Lm)	SURFACE	1,2
	=	-	l=		==

- ALUMINUM ROUND WEATHERPROOF BOX MCMASTER-CARR MODEL#
- 7219K71.
  ALUMINUM WEATHERPROOF COVER MCMASTER-CARR MODEL# 7219K13.

#### **EQUIPMENT LEGEND**

DESIGNATION DESCRIPTION

IINTEGRATED LOAD CENTER (ILC) - 200A-2P, 120/240VAC, 1 PH. INVIEDRATED LOAD CENTER (ILC) - 2007-27, 120/240VAC, TFR, 3W, W, 200A SERVICE DISCONNECT SWITCH, AUTOMATIC TRANSFER SWITCH AND DOUBLE TVSS (NORMAL POWER AND GENERATOR), NEMA SE ROLLOSURE, MIN. TWO YEAR MANF. WARRANTY, FURNISH BOLT-ON CIRCUIT BREAKERS - TOTAL 42 POLES, 25KAIC

 20A @ 125V, 12 HOUR TIMER SWITCH - MCMASTER-CARR MODEL# 7014K49. (SEE NOTE 2 BELOW).

- DOUBLE GANG WEATHER PROOF OUTLET BOX -MCMASTER-CARR MODEL# 7219K26.
- 3. DOUBLE GANG WEATHER PROOF COVER INTERMATIC MODEL# WP1230C.

- SITE UTILITY NOTES:

  1. CONTRACTOR SHALL ENGAGE THE SERVICES OF AN UNDERGROUND UTILITY LOCATING COMPANY TO LOCATE ALL UNDERGROUND EQUIPMENT IN THE TRENCHING AREA TO AVOID ANY DAMAGE.
- HAND EXCAVATE WITHIN 5' OF EXIST. UNDERGROUND UTILITIES (V.I.F.) MAINTAIN 18' MIN. CLEARANCE.
- CONTRACTOR TO COORDINATE TRENCHING OPERATIONS W/ OWNER AND/OR MANAGEMENT COMPANY SO AS TO MINIMIZE DISRUPTIONS TO THE EXIST. PROPERTY OPERATIONS. REINSTATE FINISHED GRADE TO PRE-CONSTRUCTION CONDITIONS & STANDARDS.

#### **PANEL SCHEDULE**

PANEL NAME/LOCATION: ILC/ VERIZON EQUIPMENT AREA MAIN: 200A, 1P MCB

VOLTAGE/PHASE: 120/240V, 1Ø, 3W INTEGRATED LOAD CENTER (ILC)

PANEL RATING: 200A, 240 VAC

CKT NO.	LOAD DESCRIPTION	TRIP (AMPS)	Р	DEMAND LOAD (AMPS)	A (kVA)	B (kVA)	DEMAND LOAD (AMPS)	Р	TRIP (AMPS)	LOAD DESCRIPTION	CI
1	RECTIFIER #1	30	2	5.83	1.4		5.83	2	30	RECTIFIER #5	2
3	neoticien #1	30	2	5.83		1.4	5.83	2	30	NEOTIFIEN #3	4
5	RECTIFIER # 2	30	2	5.83	1.4		5.83	2	30	RECTIFIER #6	(
7	neoficien # 2	30	2	5.83		1.4	5.83	2	30	NECTIFIEN #0	8
9	RECTIFIER #3	30	2	5.83	1.4		5.83	2	30	RECTIFIER #7	1
11	RECTIFIER #3	30	2	5.83		1.4	5.83	2	30	RECTIFIER #1	1
13	DECTIFIED # 4	30	2	5.83	1.4		5.83	2	30	RECTIFIER #8	1
15	RECTIFIER # 4	30	2	5.83		1.4	5.83	2	30	RECTIFIER #8	1
17	QUADRUPLEX RECEPTACLE	20	1	0.36	0.54		0.18	1	20	GFCI (EQUIPMENT CABINET)	1
19	GFCI (CORNER OF EQUIP. CANOPY)	20	1	0.18		0.36	0.18	1	20	GFCI (TELCO BOX)	2
21	GFCI (CORNER OF EQUIP. CANOPY)	20	1	0.18	1.62		1.44	1	15	GEN BATTERY CHARGER	2
23	GFCI (CORNER OF EQUIP. CANOPY)	20	1	0.18		1.68	1.50	1	15	GEN BLOCK HEATER	2
25	GFCI (CORNER OF EQUIP, CANOPY)	20	1	0.18	0.36		0.18	1	15	GEN GFCI RECEPTACLE	2
27						0.12	0.12	1	15	CANOPY LIGHTING	2
29					0.01		0.01	2	60	TVSS	3
31						0.01	0.01	2	60	1755	3
33											3
35	SPARE	=1	=					0=	-	SPARE	3
37	SPARE		-					-	-	SPARE	3
39	SPARE		1-					1=	-	SPARE	4
41	SPARE	20	-					10	-	SPARE	4
					Α	В	TOTAL				

NOTES

- DOOR DIRECTORY TO BE COMPLETED WITH RESPECT TO THE ACTUAL CIRCUIT DESCRIPTION. BRANCH CB AND CONDUCTOR SIZE AND QUANTITY BASED ON SPECIFIED EQUIPMENT.

  CONFIRM ELECTRICAL REQUIREMENTS PRIOR TO INSTALLATION.

  BRANCH CONDUCTOR SPECIFIED SHALL BE TYPE "THWN" 600V 75 DEG. C RATED COPPER

38.4 TOTAL BATED CAPACITY (kW)

22.3 TOTAL PANEL RATED SPARE CAPACITY (kW)

- STANDARD ACCESSORIES
   COPPER BUSSING ONLY
   COPPER BUSING ONLY
   COPPER EQUIPMENT GROUND KIT
   INSULATED COPPER SOLID NEUTRAL BAR
   BOLT-TON BRANCH CIRCUIT BREAKERS
   DIRECTORY FRAME WITH GLASS/PLASTIC
- LAMINATED ENGRAVED BAKELITE NAMEPLATE

MOUNTING: SURFACE

BREAKER TYPE: BOLT ON AIC RATING: 42K MIN.

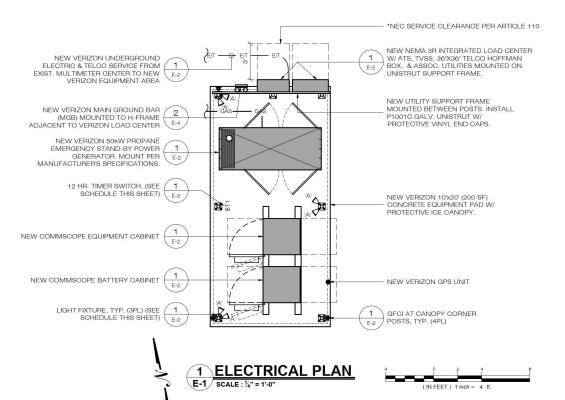
ASCO OR EQUAL

MANUFACTURER:

FRONT DOOR (DOOR-IN-DOOR CONSTRUCTION)

67.8 PANEL AMPS (A)

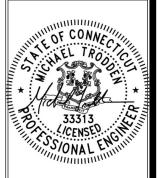
8.13 7.77 16.1 TOTAL PANEL LOAD (kW)







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4									
5									
C									



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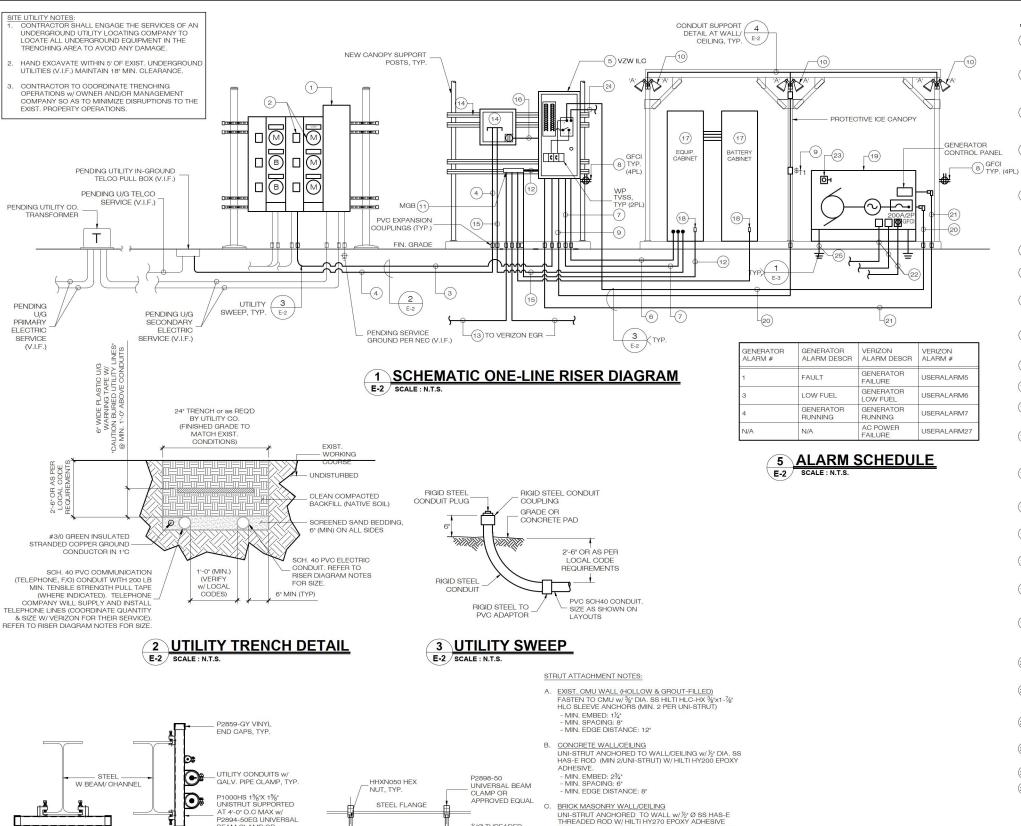
VZW LOCATION CODE: 470656

VZW FUZE ID: 15372347

SHEET TITLE:

ELECTRICAL PLAN **SCHEDULES & NOTES** 

SHEET NUMBER:



½"Ø THREADED ROD, TYP (2PL)

P2859-GY VINYL

END CAPS, TYP.

P1000HS - 15/8"x 15/8" UNISTRUT SUPPORTED

AT 4'-0" O.C MAX

UTILITY CONDUITS, w/

GALV. PIPE CLAMP, TYP

HHXN050 HEX NUT

**BOTH SIDES** 

 $\mathbf{Q}\mathbf{Q}$ 

(MIN. 2 PER BRACKET) w/ LOCK WASHERS AND NUTS.

WD. JOIST CEILING
UNI-STRUT ANCHORED TO U/S OF EXIST. WD. JOIST @

8'-0" O.C. MAX W/ #10X 1½" LG. SIMPSON SD CONNECTOR SCREWS W/ FLAT WASHERS (MODEL

USE STAINLESS STEEL ANCHORS INTO CONCRETE.

USE CARBON STEEL ANCHORS INTO BRICK OR

INSTALL ALL ANCHORS PER MANUFACTURERS

- MIN. 3% EMBED. - MIN. SPACING: 16" (VERT & HORZ.) - MIN. EDGE DISTANCE: 16"

NO. SD10112), TYP. 2 PER STRUT.

MASONBY

2894-50EG UNIVERSAL

ALL EXTERIOR METAL COMPONENTS

OF UNISTRUT SYSTEM SHALL BE HOT

DIP GALVANIZED (HG)Z CONTRACTOR SHALL COORDINATE INSTALLATION OF TRAPEZE SYSTEM V EXIST. DUCTWORK, PIPING, ETC.

PROVIDE ALL BRIDGING, BRACING, FAMING, ETC. AS REQUIRED.

BEAM CLAMP OR

DIP GAL VANIZED (HG)

P2859-GY VINY

P1000HS 15/1X 15/1 UNISTRUT

SUPPORTED AT 4'-0" O.C MAX w/

2898-50EG LINIVERSAL BEAM

CLAMP OR APPROVED EQUAL

UTILITY CONDUITS, w/ GALV. PIPE CLAMP, TYP

E-2

END CAPS, TYP.

**4 UTILITY CONDUIT SUPPORT DETAILS** 

#### **ELECTRICAL ONE-LINE RISER KEY NOTES:**

- 1 PENDING 10, 3W, 120/240V, 2P-800A, 65,000 AIC MAIN CIRCUIT BREAKER & (2) 10, 3W, 120/240V, 120 120/240V, 1200A RATED METER CENTER BRANCH UNITS w/ LEVER BYPASS SOCKETS (V.I.F.).
- NEW 120/240V, 1Ø, 3W KWH MANUAL BY-PASS METER SCHNEIDER ELECTRIC (OR EQUAL) W/200A, 2P TENANT CIRCUIT BREAKER COORDINATE INSTALLATION AND ACTIVATION OF METER WITH UTILITY COMPANY, REFER TO 1/E-1 FOR LOCATION, VERIFY LOCATION OF AFTER WITH LITH ITY COMPANY AND LOCAL ELECTRICAL INSPECTOR, METER SOCKET SHALL BE CLEARLY LABELED "CARRIER NAME" SERVICE ENTRANCE, 200A, 120/240V, 1Ø, 3W.
- (3)#3/0 & (1)#6 G IN 2°C TO SUPPORT 200A, 120/240V, 1Ø, 3W NORMAL POWER SERVICE 3 FROM LOAD SIDE OF VERIZON COMBINATION METER SOCKET TO NORMAL TERMINAL OF VERIZON ILC.
- NEW VERIZON 24 PAIR SINGLE MODE FIBER SERVICE IN 3°C WITH PULL ROPE REMITED UNDERGROUND FROM TELOO DEMARC TO NEW HOFFMAN BOX AND FIBER TEMINATION PANEL (FTP) LOCATED AT VERIZON EQUIPMENT AREA. PROVIDE JUNCTION BOX(ES) AND EXPANSION COUPLINGS AS REQUIRED. FINAL TERMINATION BY OTHERS. COORDINATE INSTALLATION WITH LOCAL UTILITY COMPANY AND AUTHORITY HAVING JURISDICTION (AHJ)
- NEW VERIZON 120/240V, 1 PH, 3W, NEMA 3R INTEGRATED LOAD CENTER W/ 200A-2P MAIN CIRCUIT BREAKER (MCB), AUTOMATIC TRANSFER SWITCH AND DOUBLE TVSS. REFER TO E-1 FOR SPECIFICATIONS. CONTRACTOR SHALL PROVIDE TYPE WRITTEN CARD WITH AS-BUILT BRANCH CIRCUITING AND PROVIDE ONE COPY FOR VERIZON CONSTRUCTION MANAGER AND FURNISH SECOND COPY WITH ILC. PROVIDE LABEL ON FRONT OF PANEL WITH BLACK LETTERS ON WHITE BACKGROUND MARKED 'VERIZON'. MOUNT VERIZON OAD CENTER BETWEEN EQUIPMENT SUPPORT POSTS ON P1001C GALV. UNISTRUT AND INSTALL PROTECTIVE VINYL END CAPS.
- 6 (16) #6 AWG, (1) #8G IN 2° C TO FEED NEW EQUIPMENT CABINET. INSTALL ALL WIRING PER MANUFACTURERS SPECIFICATIONS.
- (7) (2) #12 & (1) #12G IN 3/4" C TO FEED NEW EQUIPMENT CABINET 20A/120V GFCI OUTLET.
- (2) #12 & (1) #12G IN 3/4" C TO FEED NEW 20A/120V GFCI OUTLET (NEMA 5-20R) IN NEMA 3R ENCLOSURE LOCATED AT VERIZON CORNER CANOPY POSTS, INSTALL APPROX. 48" A.F.G. REFER TO EQUIPMENT LEGEND ON DRAWING E-1 FOR SPECIFICATIONS AND 2/E-1
- (2) #12 & (1) #12G IN 3/4" C TO FEED NEW 20A/120V 12 HR TIMER SWITCH IN NEMA 3R ENCLOSURE LOCATED. INSTALL APPROX. 48" A.F.G. REFER TO EQUIPMENT LEGEND ON DRAWING E-1 FOR SPECIFICATIONS AND E-1 FOR LOCATION.
- NEW SERVICE LIGHT FIXTURE. SECURE LIGHT FIXTURE TO J-BOX. REFER TO LIGHTING FIXTURE (10) SCHEDULE ON DRAWING E-1 FOR SPECIFICATIONS AND E-1 FOR LOCATION. WIRE SWITCH TO CONTROL ALL LIGHTS SIMULTANEOUSLY (TYP.)
- (11) MAIN GROUND BAR (MGB). REFER TO E-3 FOR LOCATION AND E-4 FOR DETAILS.
- PROVIDE #6 AWG GREEN INSULATED STRANDED COPPER WIRE IN 1" C AND GROUND VERIZON 12) LOAD CENTER TO MAIN GROUND BAR (MGB). REFER TO DRAWING E-3 FOR LOCATION AND GROUNDING NOTES.
- PROVIDE #3/0 AWG GREEN INSULATED STRANDED COPPER WIRE (EGR) IN 1" C TO EGR (TYP 2PL) BOND METALLIC CONDUIT WITH #6 AWG GREEN INSULATED STRANDED COPPER WIRE AT BOTH ENDS. REFER TO 2/E-1 LOCATION.
- 3° x 3° x 1° NEMA-3R HOFFMAN BOX W/HINGED COVER, LOCKABLE CLASP, ¾° MARINE GRADE PLYWOOD BACKBOARD PAINTED WITH BLACK FIRE RETARDANT INTUMESCENT PAINT MOUNTED INSIDE AND (1) DUPLEX GFCI LOCATED INSIDE ON BOTTOM RIGHT HAND CORNER. MOUNT HOFFMAN BOX BETWEEN EQUIPMENT CANOPY POSTS ON P1001C GALV. UNISTRUT AND INSTALL PROTECTIVE VINYL END CAPS.
- FIBER TELCO SERVICE ROUTED WITHIN 2" FROM TELCO HOFFMAN BOX TO EQUIPMENT CABINET. FINAL TERMINATION BY OTHERS. PROVIDE JUNCTION BOX(ES) WHERE REQUIRED.
- (2)#12 & (1) #12G IN 3/4" C TO FEED NEW 20A/120V GFCI OUTLET (NEMA 5-20R) IN NEMA 3R (16) ENCLOSURE LOCATED WITHIN VERIZON HOFFMAN BOX. INSTALL APPROX. 48" A.F.G. REFER TO F-1 FOR LOCATION.
- VERIZON WIRELESS COMMSCOPE EQUIPMENT & BATTERY CABINETS. COORDINATE INSTALLATION WITH VERIZON CONSTRUCTION MANAGER
- BOND EQUIPMENT & BATTERY CABINET TO MAIN GROUND BAR (MGB) PER EQUIPMENT CABINET MANUFACTURER SPECIFICATIONS. MIN #2 AWG GREEN INSULATED STRANDED COPPER WIRE. INSTALL CABINET INTERNAL GROUNDING PER MANUFACTURERS SPECIFICATIONS.
- NEW VERIZON KOHLER CO. 50kW PROPANE EMERGENCY STANDRY POWER GENERATOR KOHLER MODEL#ADV-8967, 120/240V, 10, 3W, 60 HZ. REFER TO GENERATOR MANUFACTURER FOR INSTALLATION REQUIREMENTS. PROVIDE RODENT SCREEN AT UNDERSIDE OF GENERATOR. COORDINATE WITH GENERATOR MANF
- (3) #3/0 & (1) #6G IN 2" C TO SUPPORT 200A, 120/240V, 1Ø, 3W SERVICE FROM VERIZON (20) GENERATOR TO EMERGENCY TERMINAL LUGS OF ATS
- (2) #12AWG (FOR GENERATOR START SIGNAL) IN 1" C BETWEEN GENERATOR CONTROL PANEL AND ATS CONTROL. REFER TO MANUFACTURERS INSTRUCTION MANUAL FOR 21 ENGINE CONTROL AND MONITORING CIRCUITS WIRING AND TERMINATION REQUIREMENTS.
- PROVIDE (3) BRANCH CIRCUIT FEEDS FOR: BLOCK HEATER, WEATHER RESISTANT DUPLEX GFCI OUTLET (NEMA 5-20R) & ENCLOSURE (NEMA 3R) & BATTERY CHARGER. PROVIDE (6) #12 & (1) #12G IN 1" C TO ILC. SUPPLY FROM (3) 20A/1P CIRCUIT BREAKERS COMPATIBLE WITH ILC.
- PROVIDE ½° C AND CONDUCTORS TO SUPPORT REMOTE GENERATOR SHUT-OFF SWITCH WITH BREAK GLASS ENCLOSURE IN PROXIMITY TO GENERATOR. COORDINATE FINAL LOCATION WITH LOCAL FIRE MARSHALL. INSTALL ALL REQUIRED SIGNAGE.
- (24) PROVIDE 3/4" C FOR ALARM WIRES ROUTED TO TELCO BOARD ALARM TERMINAL BLOCK.
- (25) GROUND GENERATOR PER NEC REQUIREMENTS.
- (GENERAL) USE GRC FOR ALL EXTERIOR APPLICATIONS, INCLUDING SWEEPS.

(GENERAL) COORDINATE ALL OUTAGES WITH OWNER AND PROVIDE TEMPORARY POWER AS REQUIRED

(GENERAL) PAINT ALL EXPOSED EXTERIOR CONDUITS TO MATCH EXTERIOR OF EXIST. BUILDING (WHERE APPLICABLE).

(GENERAL) CONTRACTOR SHALL VERIFY THAT ALL BUILDING/ STRUCTURE GROUNDING ELECTRODES ARE BONDED WITH APPROPRIATELY SIZED CONDUCTORS PER NEC

(GENERAL) ALL ENTRY HOLE(S) TO BE SEALED WATER TIGHT (WHERE APPLICABLE).

Cellco Partnership d/b/a verizon

**ALL-POINTS** 

	CONSTRUCTION DOCUMENTS							
NO	DATE	REVISION						
0	10/05/22	FOR REVIEW: JRM						
1	10/31/22	REVISED: JRM						
2	02/06/23	REVISED LAYOUT: JRM						
3	03/22/23	REVISED RRHs: JRM						
4								
5								



DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E. COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C. ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

CHESHIRE UNITED METHODIST CHURCH ADDRESS: 185 ACADEMY ROAD CHESHIRE, CT 06410

**CHESHIRE EAST CT** 

185 ACADEMY ROAD ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

DRAWN BY: DRA 10/05/22 CHECKED BY: JRN DATE:

VZW PROJECT CODE: 20171649710

VZW LOCATION CODE: 470656

VZW FUZE ID: 15372347

HEET TITLE:

**SCHEMATIC ONE-LINE** RISER DIAGRAM, **DETAILS & NOTES** 

SHEET NUMBER

#### TYPICAL GROUNDING NOTES

- 1 GROUND PER NEC (NFPA-70), NESC AND MANUFACTURERS SPECIFICATIONS
- #3/0 GREEN INSULATED STRANDED COPPER DOWN LEAD BETWEEN UPPER EQUIPMENT GROUND BAR AND LOWER EQUIPMENT GROUND BAR (EGB) AT BASE OF STRUCTURE, ROUTE GROUND ALONGSIDE HYBRID CABLES. COORDINATE W/ VERIZON CONSTRUCTION MANAGER AND OWNER.
- BOND VERIZON MAIN GROUND BAR (MGB) TO NEW EXTERIOR GROUND RING (EGR) W/ #3/0 AWG GREEN INSULATED STRANDED COPPER WIRE (EGR) IN 1° LTFC., TYP (2PL). REFER TO E-4 FOR DETAILS.
- #3/0 GREEN INSULATED STRANDED COPPER DOWN LEAD WITHIN 1\*C BETWEEN ANTENNA SECTOR 43/0 GREEN INSULATED STRAINDED GOFFER BOWN LEAD WITHIN 19 E-4 FOR DETAILS.
- #2 AWG SOLID TINNED BARE COPPER WIRE (STBC) EXTERNAL GROUND RING (EGR) AT PERIMETER OF EQUIP. AREA & BETWEEN GROUND RINGS LOCATED MIN. 30° BELOW GRADE OR 6° BELOW FROST LINE , TYP.
- BOND CANOPY POSTS. STEEL SERVICE FRAME POSTS & STEEL DUNNAGE FRAME (WHERE APPLICABLE) TO VERIZON EXTERIOR GROUND RING (EGR) W/ #2 AWG SOLID TINNED BARE COPPER
- BOND VERIZON INTEGRATED LOAD CENTER & TELCO HOFFMAN BOX TO EQUIPMENT GROUND BAR 7) (EGB) W/#6 AWG GREEN INSULATED STRANDED COPPER WIRE.
- BOND VERIZON WIRELESS FOLIPMENT & BATTERY CARINETS TO VERIZON FOLIPMENT BAR (FGR) H #2 AWG GREEN INSULATED STRANDED COPPER WIRE PER MANUFACTURERS SPECIFICATIONS.
- BOND HYBRID/COAXIAL CABLES TO ANTENNA SECTOR GROUND BARS & EQUIPMENT GROUND BAR (EGB) AT CANOPY W/ #6 AWG GREEN INSULATED STRANDED COPPER WIRE.
- GROUND RRHS, QUAD DIPLEXERS & OVP TO ANTENNA GROUND BAR W/ #6 AWG GREEN INSULATED (10) STRANDED COPPER WIRE PER MANUFACTURERS RECOMMENDATIONS
- BOND ANTENNA MOUNTING PIPE, ANTENNA MOUNTING BRACKETS & FRAMES TO ANTENNA GROUND BAR W/ #2 AWG GREEN INSULATED COPPER WIRE.
- BOND GPS ANTENNA MOUNTING MAST (AS APPLICABLE) TO MAIN GROUND BAR W/ #2 AWG GREEN BOND GPS ANTLING .... INSULATED COPPER WIRE.
- (13) BOND ALL ICE-BRIDGE POSTS TO EXTERNAL GROUND RING (EGR) WITH #2 SOLID TINNED WIRE.
- 4) BOND NEW GENERATOR PER MFR AND NEC REQUIREMENTS, TYP.

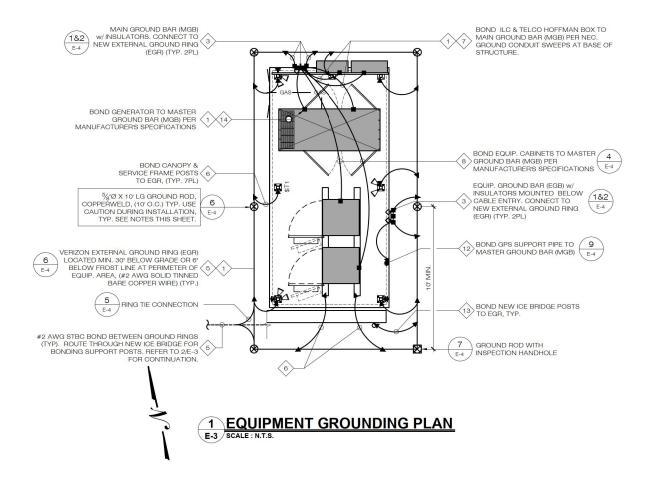
#### GROUNDING GENERAL NOTES:

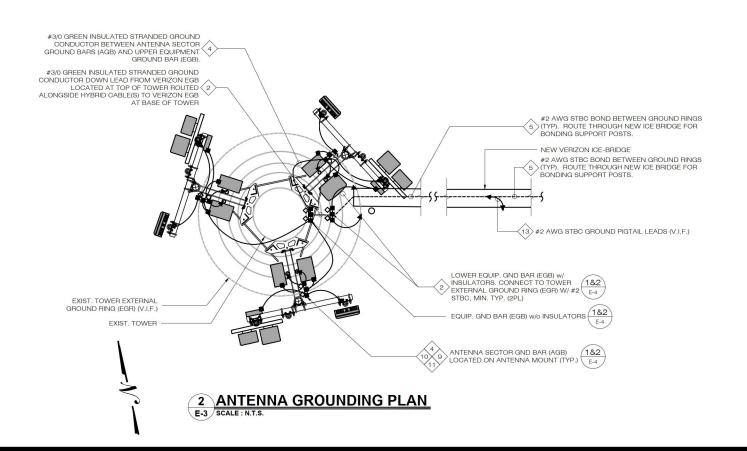
- 1. ALL SURGE SUPPRESSION DEVICES (WHERE APPLICABLE) SHALL BE BONDED TO EQUIPMENT GROUND BAR (EGB) PER MANUFACTURERS SPECIFICATIONS
- 2. ALL IN-GROUND RINGS, RADIALS, AND BONDING CONDUCTORS SHALL BE #2 AWG SOLID BARE TINNED COPPER (SBTC) ALL AT SAME 30 IN. DEPTH OR 6 IN. BELOW FROST LINE WHICHEVER IS GREATER.
- 3. ALL GROUND RINGS SHALL BE MIN 2 FT FROM FOUNDATION BEING ENCIRCLED.
- 4. COMBINE IN-GROUND RINGS, RADIALS, AND BONDING CONDUCTORS INTO SINGLE CONDUCTOR OR ALL PORTIONS PARALLEL 2 FT APART OR CLOSE
- 5. UNLESS NOTED OTHERWISE, ALL ABOVE GROUND CONDUCTORS SHALL BE MIN #6 AWG INSULATED STRANDED COPPER.
- 6. CONDUCTORS BONDING ABOVE-GROUND CONNECTIONS TO IN-GROUND CONNECTIONS SHALL FLEXIBLE NONMETALLIC CONDUIT FOR ALL PORTIONS ABOVE GROUND.
- 7. REFER TO GROUNDING NOTES & SPECIFICATIONS ON SHEET N-1 FOR MORE INFORMATION.

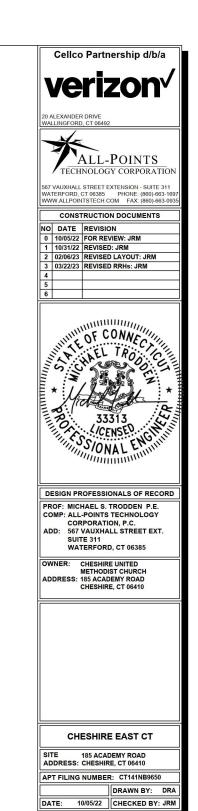
GROUNDING LEGEND							
SYMBOL	DESCRIPTION						
<b>&gt;</b>	EXOTHERMIC WELD						
•	MECHANICAL CONNECTION						
8	GROUND ROD						
	GROUND CONDUCTOR						
	GROUND ROD W/ INSPECTION HAND HOLE						

- SITE UTILITY NOTES:

  1. CONTRACTOR SHALL ENGAGE THE SERVICES OF AN UNDERGROUND UTILITY LOCATING COMPANY TO LOCATE ALL UNDERGROUND EQUIPMENT IN THE TRENCHING AREA TO AVOID ANY DAMAGE
- HAND EXCAVATE WITHIN 5' OF EXIST. UNDERGROUND UTILITIES (V.I.F.) MAINTAIN 18" MIN. CLEARANCE.
- CONTRACTOR TO COORDINATE TRENCHING OPERATIONS W/ OWNER AND/OR MANAGEMENT COMPANY SO AS TO MINIMIZE DISRUPTIONS TO THE EXIST. PROPERTY OPERATIONS







VZW PROJECT CODE: 20171649710

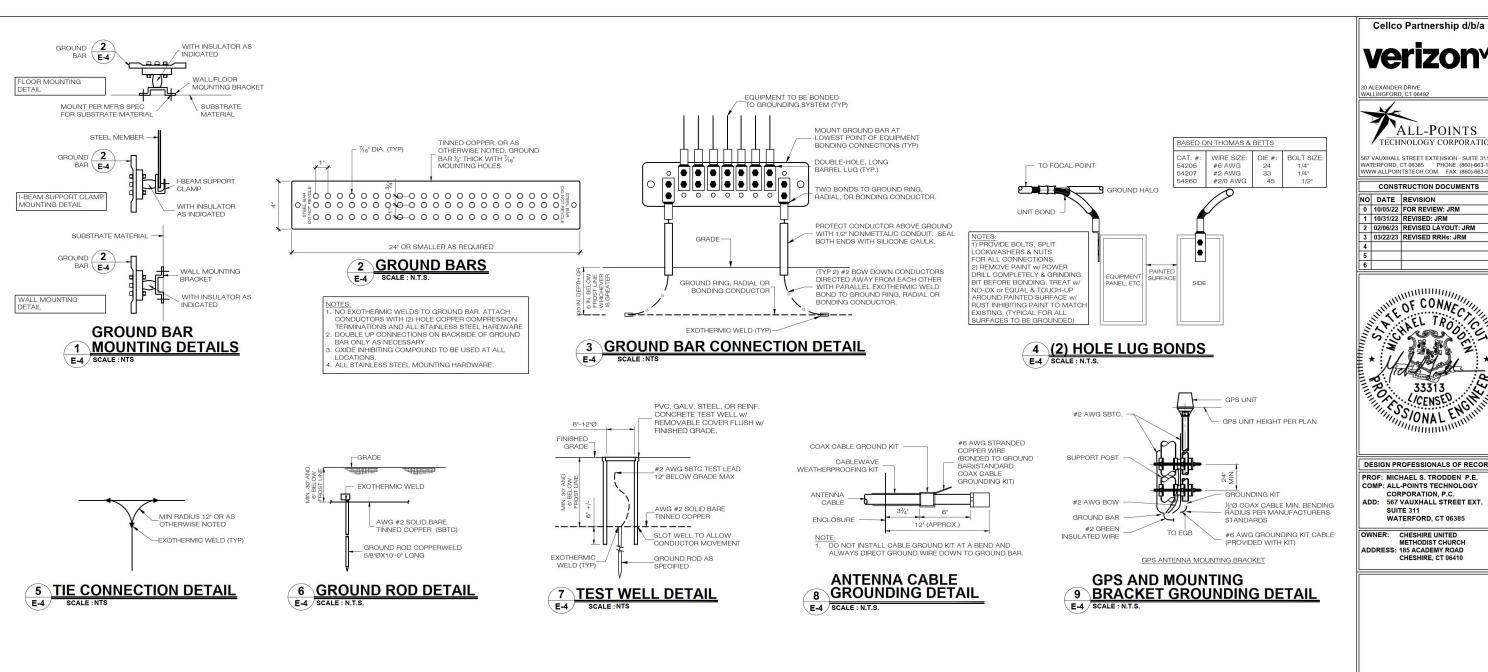
VZW LOCATION CODE: 470656

VZW FUZE ID: 15372347

SHEET TITLE:

**EQUIPMENT GROUNDING PLANS &** NOTES

SHEET NUMBER



verizon ALLINGFORD, CT 0649 **ALL-POINTS** CONSTRUCTION DOCUMENTS NO DATE REVISION 0 10/05/22 FOR REVIEW: JRM 10/31/22 REVISED: JRM 2 02/06/23 REVISED LAYOUT: JRM 3 03/22/23 REVISED RRHs: JRM TE OF CONNEC HAEL TROO 33313 SS/ONAL ENGINE DESIGN PROFESSIONALS OF RECORD PROF: MICHAEL S. TRODDEN P.E. COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C. ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385 OWNER: CHESHIRE UNITED METHODIST CHURCH ADDRESS: 185 ACADEMY ROAD CHESHIRE, CT 06410

CHESHIRE EAST CT

SITE 185 ACADEMY ROAD ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

DRAWN BY: DRA

DATE: 10/05/22 CHECKED BY: JRM

VZW PROJECT CODE: 20171649710

VZW LOCATION CODE: 470656 VZW FUZE ID: 15372347

SHEET TITLE:

GROUNDING **DETAILS** 

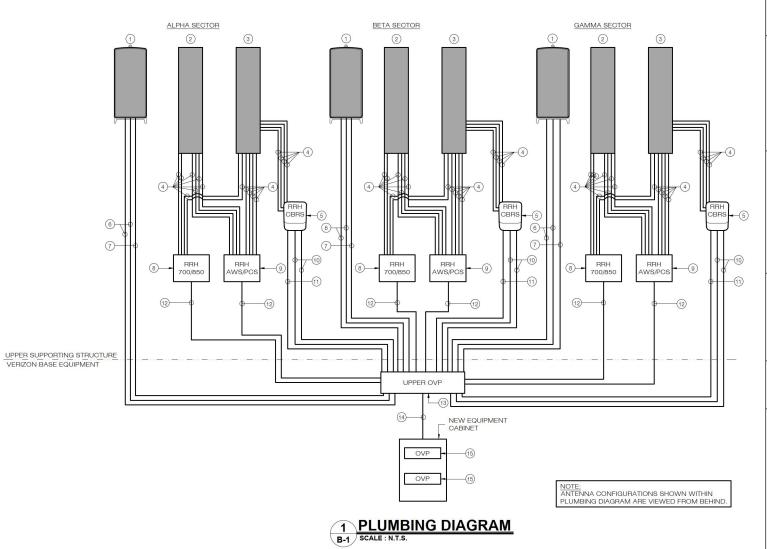
SHEET NUMBER:

EQUIPN	IENT DATA							
EQUIPME	NT SPECIFICATIONS							
SECTOR	ANTENNA MAKE/MODEL	QTY	AZIMUTH	EQUIPMENT STATUS	HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)	WEIGHT (LBS)
ALPHA	SAMSUNG MT6407-77A	1	60°	NEW	35.1 <sup>(5)</sup>	16.1 <sup>(5)</sup>	5.51 <sup>(5)</sup>	87.1 <sup>(2)(</sup>
	700/850/2100: JMA MX06FIT665-02	1	60°	NEW	71.3	12.2	10.7	51.0 <sup>(2)</sup>
	700/850/1900/2100: JMA MX10FIT665-02	1	60°	NEW	70.9	12.2	7.5	53.4 <sup>(2)</sup>
BETA	SAMSUNG MT6407-77A	1	180°	NEW	35.1 <sup>(5)</sup>	16.1 <sup>(5)</sup>	5.51 <sup>(5)</sup>	87.1 <sup>(2)(</sup>
	700/850/2100: JMA MX06FIT665-02	1	180°	NEW	71.3	12.2	10.7	51.0(2)
	700/850/1900/2100: JMA MX10FIT665-02	1	180°	NEW	70.9	12.2	7.5	53.4 (2)
GAMMA	SAMSUNG MT6407-77A	1	300°	NEW	35.1 <sup>(5)</sup>	16.1 <sup>(5)</sup>	5.51 <sup>(5)</sup>	87.1 <sup>(2)(</sup>
	700/850/2100: JMA MX06FIT665-02	1	300°	NEW	71.3	12.2	10.7	51.0(2)
	700/850/1900/2100: JMA MX10FIT665-02	1	300°	NEW	70.9	12.2	7.5	53.4 <sup>(2)</sup>
	APPURTENANCE MAKE/MODEL							
	SAMSUNG B2/B66A ORAN RRH (RF4439d-25A)	3		NEW	15.0	15.0	10.1	74.7
	SAMSUNG B5/B13 ORAN RRH (RF4440d-13A)	3	-	NEW	15.0	15.0	9.1	70.3
	SAMSUNG CBRS RT4401-48 RRH	3	-	NEW	10.6	8.9	3.0	11.0
	RAYCAP RVZDC-6627-PF-48	1	-	NEW	29.5	16.5	12.6	32.0

(1) WEIGHT WITHOUT MOUNTING BHACKET.
(2) ANTENNA DATA BASED ON LATEST VERIZON RFDS.
(3) EQUIPMENT CONFIGURATION AS VIEWED FROM BEHIND.

				BILL OF MATERIALS
	EQUIPMENT DESCRIPTION	QUANTITY	LENGTH	COMMENTS
1	LS6 ANTENNA w/ INTEGRATED RRH	3		(SAMSUNG MT6407-77A)
2	700/850/2100	3		(JMA MX06FIT665-02)
3	700/850/1900/CBRS	3		(JMA MX10FIT665-02)
4	1/2" JUMPER CABLE	48	15 FT	ROUTED FROM RRHS TO ANTENNAS
(5)	CBRS RRH	3		SAMSUNG CBRS RT4401-48A MOUNTED TO NEW ANTENNA MOUNT
6	ANTENNA LINK CABLES	6	15 M	ROUTE FROM UPPER OVP TO LS6 ANTENNA
7	ANTENNA POWER CABLES	3	15 M	PROPIETARY POWER CABLE FROM EXIST. OVP TO LS6 ANTENNA
8	850/700 DUAL BAND RRH	3		SAMSUNG B5/B13 RRH (RF4440d-13A) MOUNTED TO NEW ANTENNA MOUNT
9	PCS/AWS DUAL BAND RRH	3		SAMSUNG B2/B66 RRH (RF4439d-25A) MOUNTED TO NEW ANTENNA MOUNT
10	CPRI CABLES	6	25 FT	ROUTE FROM UPPER OVP TO RRH
11	10 AWG x2 DC POWER CABLE	3	25 FT	PROPIETARY POWER CABLE FROM UPPER OVP TO RRH
(12)	RRH CABLES	6	15M	PROPRIETARY POWER & FIBER CABLES
(13)	UPPER 120VP	1		(RVZDC-6627-PF-48) MOUNTED TO NEW ANTENNA MOUNT
(14)	HYBRID CABLE	1	130± FT	12x24 LOW INDUCTANCE (L.I.) HYBRID FEED-LINE CABLE ROUTED FROM LOWER OVP(s) TO UPPER OVP
(15)	LOWER 60VP	2		(6 OVP) RACK MOUNTED IN NEW EQUIPMENT CABINET

1. INFORMATION SHOWN HEREON IS FOR USE BY VERIZON EQUIPMENT OPERATIONS.
2. INFORMATION IS BASED ON LATEST VERIZON RFDS.
3. \* DENOTES EQUIPMENT DESIGNATED FOR LEASING ONLY\* (WHERE APPLICABLE).
4. INSTALL ALARM BOARDS AT ALL OVPS WHERE REQUIRED. COORDINATE W/VERIZON EQUIPMENT ENGINEERING.
5. INSTALL UP-CONVERTERIS) LOCATED AT BASE OVPS WHERE REQUIRED. COORDINATE W/VERIZON EQUIPMENT ENGINEERING AS NECESSARY.
6. COORDINATE ANTENNA CABLING REQUIREMENTS WITH VERIZON ENGINEERING.
7. CONTRACTOR SHALL INSTALL NEW SIDE-BY-SIDE & DUAL-MOUNT BRACKETS PER ANTENNA MOUNT MANUFACTURER RECOMMENDATIONS, INCLUDING VERIFICATION OF MINIMUM PIPE MAST DIAMETER REQUIRED TO INSTALL NEW MOUNT BRACKETS. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD SHOULD EXIST. PIPE MAST REQUIRE REPLACEMENT TO SUPPORT THE NEW MOUNT BRACKETS.





20 ALEXANDER DRIVE WALLINGFORD, CT 06492



567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385 PHONE: (860)-663-1 WWW.ALLPOINTSTECH.COM FAX: (860)-663-0

#### CONSTRUCTION DOCUMENTS NO DATE REVISION 0 10/05/22 FOR REVIEW: JRM 1 10/31/22 REVISED: JRM 2 02/06/23 REVISED LAYOUT: JRM 3 03/22/23 REVISED RRHs: JRM



DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY
CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT.
SUITE 311
WATERFORD, CT 06385

OWNER: CHESHIRE UNITED METHODIST CHURCH ADDRESS: 185 ACADEMY ROAD CHESHIRE, CT 06410

CHESHIRE EAST CT

SITE 185 ACADEMY ROAD ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650

DRAWN BY: DRA DATE: 10/05/22 CHECKED BY: JRM

VZW PROJECT CODE: 20171649710 VZW LOCATION CODE: 470656

VZW FUZE ID: 15372347

SHEET TITLE:

**RF BILL OF MATERIALS & EQUIPMENT** SPECIFICATIONS

SHEET NUMBER:

**B-1** 

#### DESIGN BASIS: GOVERNING CODES/DESIGN STANDARDS: 021 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE DESIGN CRITERIA:

EISMIC LOAD:

01 GENERAL:

WIND LOADS: LTIMATE BASIC /IND SPEED, V<sub>ULT</sub>: I-SECOND GUST) 120 MPH (2022 CSBC APPENDIX P) POSURE CATEGORY

ICE LOAD IASIC WIND SPEED (V) = 50 MPH (TIA-222-H, ANNEX B) V/ IOE 3-SEC GUST DESIGN ICE THICKNESS (T) = 1.00" (TIA-222-H, ANNEX B)

LIVE LOAD ROOF LIVE LOAD, (LLR) 20 PSF (IBC 2021 TABLE 1607.1) SNOW LOAD 

LO SPACE, SE CONNÉCE ELT PREMOVED AF IERTIS PUPP-VICES PAVE

TO STATION CULTU, SERVICE, STRUCTURE, EQUIPMENT, OR PIXTURE

STRUCTING THE WORK SHALL BE REMOVED ANDOR RÉLOCATED AS

RESERTOS IS ENCOUNTERED DURING WORK EXECUTION,

NOTRACIORS BHALL IMMEDIATELY NOTREY THE CONSTRUCTION

RANGER AND CEASE ALL ACTIVITIES IN AFFECTED AREAS UNTIL

TIPEED BY THE CONSTRUCTION TO REQUIAE OPERAS UNTIL

STREED BY THE CONSTRUCTION TO REQUIAE OPERAS UNTIL

STREED EXECUTION STRUCTURES OF REQUIAE OPERATIONS.

SIST. ELECTRICAL. AND MECHANICAL FIXTURES, PIPMING, WIRING

ID EQUIPMENT DOSTRUCTION THE WORK SHALL BE REMOVED

JOHN BELLOCATED AS DIRECTED BY THE CONSTRUCTION MUST BE

ORTLAND CEMENT: ASTM C150, T1
GGREGATE: ASTM C33, 1 INCH MAX ITER: POTABLE
MIXTURE: NON-CHLORIDE

ATIONA USEO IN THESE SPECIFICATIONS INCLUDE THE INC.

MAERICAN CONCIDETE INSTITUTE

AMERICAN NATIONAL STANDARDS INSTITUTE

AMERICAN INSTITUTE OF STREEL CONSTRUCTION

AMERICAN INSTITUTE OF STREEL CONSTRUCTION

AMERICAN STANDARDS AND TESTING METHODS

CONCIDETE REPROFICENCE STEEL INSTITUTE

INTERNATIONAL CODE COUNCIL EVALUATION SERVICE

INTERNATIONAL CODE COUNCIL EVALUATION

HATIONAL ELECTRICAL CODE

NATIONAL ELECTRICAL CODE

NATIONAL ELECTRICAL CODE

NATIONAL ELECTRICAL SOCIETION

COCUDATIONAL SAFETY AND HEALTH ADMINISTRATION

COUNCIL STANDARD SHALL

INDUMENTATION SHALL

SOCIETION

COUNCIL STANDARD SHALL

DESCRIPTION OF STREET

CONTINUES OF STREET

CONTINUES

CONTINUES USBAL DUCUPATIONAL SAFETY AND HEALTH AUMINISTRATION BRY INDIVIDUAL TRADE, DISPURILAY, AND CONTRACTOR SHALL CLUDE THESE GENERAL SPECIFICATIONS. BE ROINIERS IN SOTT RESPONSIBLE FOR NOR A GUARANTOR OF THE STALLING CONTRACTORS WORK, ADEQUACY OF ANY SITE MICHOEVENT, SUPERVISION OF ANY WORK, AND SAFETY IN, ON, OR OUT THE WORK SITE.

REFERENCE HEREIN TO AN OR EQUAL ITEM, THAT EQUAL ITEM

LE BE PRE-APPROVED BY THE CONSTRUCTION MANAGER BEFORE

IS BROUGHT.

IN OWER SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE IT OF ALL APPLICABLE CODES AND SHALL BE ACCEPTABLE TO ALTHORITIES HAWING JURISDICTION (AHJ). WHERE A COMPLICATE OF ALL APPLICABLE TO THE ACTION OF A COMPLICATION OF A COMPLICA

ANGES IN QUALITY.

NOTES THIS SHEET SHALL APPLY UNLESS SPECIFICALLY NOTED HERWISE ON THE INCLUDED DRAWINGS OR IN SEPARATE PROJECT COFFICIATIONS APPLICABLE. ALL SPECIFICATIONS SHALL BE SIDIENCED REQUIRED UNLESS APPROVED EQUAL BY THE OWNER, INSTRUCTION MANAGER, OR ENGINEER AS APPLICABLE. WORDS "PROVIDE" OR "INSTALL" SHALL MEAN FURNISH AND

. SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE PROMPTLY EN DEEMED TO BE SURPLUS.

TORS SHALL PROVIDE ALL NECESSARY TOOLS, FIXTURES, TERIALS, JOB AIDS, AND PERSONNEL REQUIRED FOR THE THEIR WORK.

L WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS IN THE ADE HAVING JURISDICTION.

HALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE OWNER OR NGINEER.

MATERIALS AND FINAM ITE UNIGINAL DESIGN SHALL BE NOTED.

MATERIALS AND SCUIPMENT SHALL BE NEW, WITHOUT BLEMSH OR SCT. AND SUTFABLE AND LISTED FOR THE INSTALLATION AND SHALL SYSTALLED IN ACCORDANCE WITH ANAUFACTURED OF EQUIPMENT ON MODERATIONS OF SOCIETY OF SOCIETY

4 CONCRETE:

BES SPECIFICATIONS SHALL INCLUDE THE GENERAL ECIFICATIONS HEREN. LOONCRETE CONSTRUCTION SHALL BE DONE IN ACCORDANCE ITH THE AMERICAN CONCRETE INSTITUTE (ACI) CODES 301 & 318. TEST REVISION.

LL CONCRETE EXPOSED TO FREEZING WEATHER SHALL DINTAIN ENTRAINED AIR PER ACI 211 TABLE 4.2.1 OF ACI 318-05. LI REINFORDING STEEL SHALL BE ASTM AB15, GR 60

REFORMED, WELDED WIRE FABRIC SHALL CONFORM TO ASTM
16'S WELDED WIRE FABRIC SHALL CONFORM TO ASTM
16'S WELDED STEEL WIRE FABRIC SHALL CONFORM TO ASTM
16'S WELDED STEEL WIRE FABRIC SHALL BE CLASS B'
VO ALL HOOKS GHALL BE AD STANDARD UND FBINFORDING
18'S SHALL BE COLD BENT WHERE REQUIRED AND TIED (NOT
ELDED).

F FOI I OWING MINIMUM CONCRETE COVER SHALL BE

RE-POLLOWING MINIMUM CONDIFF IE COVER SHALL OVIDED FOR BEINFORCING STEEL:

• CONCRETE CAST AGAINST EARTH = 3 IN,

• CONCRETE EXPOSED TO EARTH OR WEATHER:

• #6 AND LARGER = 2 IN,

• #5 AND SMALLER = 1 1/2 IN,

#85 ANU SMALLEH = 1 1/2/IN.

CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:

SLAB AND WALL = 3/4 IN.

BEAMS AND COLUMNS = 1 1/2 IN.

3/4 IN. CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES FOONCRETE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4. NCRETE SHALL BE PLACED IN A UNIFORM MANNER AND NSOLIDATED IN PLACE.

ONORETE FOOTINGS SHALL BE CAST AGAINST LEVEL, OMPACTED, NON-FROZEN BASE SOIL FREE OF STANDING

ANCHORS:

ONCRETE: MASCHRY MOUNTS SHALL HAVE INJECTION ADHESIVE NON-CHRISE. MASCHRY MOUNTS SHALL BE HELT KWIK BOLT 3 OR EQUAL. MINIMUM POWNERS AND ASSESSED AS SHALL BE HELT KWIK BOLT 3 OR EQUAL. MINIMUM LIBERTON ADHESIVE ANCHORISE. ANCHORISE IN MASCHRY WITH VOIDS SHALL BE LITH HIT HY-70 OR EQUAL. WITH THREADED ROO AND SCREEN TUBES. NON-CHRISE BRICKS APART MINIMUM. SHALL. MAINTAIN 2 COMPLETE OWNERS FROM FREE EXCESS (WHICH EVER IS LESS), AND CONCRETE BRICKS APART MINIMUM. SHALL MAINTAIN 2 COMPLETE SHOWS OF HIS THE SHOW AND SHALL HAVE ANCHORS THAN SHOWN IN STATE AND SHALL BE SHOWN FROM FREE EXCESS (WHICH EVER IS LESS), AND CONCRETE BLOCK SHALL USE 50% MORE ANCHORS THAN SHOWN IN A STALL SHALL MAINTAIN 12'S SHACKNOWN FROM FREE EXCESS, AND SHALL BE ENREDDED HELD THAN SHOWN IN SHALL SHALL SHALL SHALL SHALL SHALL SHALL SHALL MASCHALL SHALL SHALL

HORS SHALL BE INSTALLED PER MANUFACTURERS
OMMENDATIONS AND SHALL NOT BE INSTALLED IN MI

INSTALLED ANCHORS: ESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS REIN.

5 STEEL:

ASTM A592, GR 50 (50 KSI)
ASTM A500, GR B (46 KSI)
ASTM A53, GR C (42 KSI)
ASTM F3125, GRADE A325
TYPE GW-2 (1-1/4"x3/16" BARS)
ASTM A36 (36 KSI)

NOW. O'LELL. NOW AND GO NOW).

O'UNDE CERTIFICATION THAT WELLDERS TO BE USED IN WORK A SENSED AND HAVE SATISFACTORILY PASSED AWS QUALIFICAT ST UNDER THE PROVISIONS OF APPENDIX D, PARTS I AND III O, VIS CODE FOR WELDING IN BUILDING CONSTRUCTION.

BUILDING CONNECTION POINTS ON TO BE CENTERED ON EXISTI RUCTURAL BEARING POINTS AND THE LOCATIONS ARE TO BE FRILL PRIOR TO THE FARBACKTON OF STEEL.

BRIGATION AND ERECTION OF STRUCTORIAL STREET FOR BUILDINGS NASTRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 59 METER GALVANIZED ASTM A 907 BOLTS UNLESS OTHERWISE NOTE STREEL MATERIAL SHALL BE GALVANIZED ATTER FRERICATION IN COPDANIGE WITH ASTM A123 'ZINC (HOT-DIPPED GALVANIZED) ATTAINGS' ON HON AND STEEL PRODUCTS WITH A COATING WEIGHT 22,08°.

CATINGS ON IRON AND STEEL PRODUCTS WITH A COATING WEIGHT OF COSE.

LEGGES AND MISCELLANCE OF MEAD WEIGHT OF COSE.

LEGGES AND MISCELLANCE OF MEAD WEIGHT OF COSE.

LEGGES AND MISCELLANCE OF MEAD WEIGHT OF MEAD AT 150 OF MEAD AT 150

ONTRACTOR TO REMOVE AND RE-INSTALL ALL FIRE PROCFING AS EQUIRED DURING CONSTRUCTION.

HE STEEL STRUCTURE SHALL BE DESIGNED TO BE SELF-SUPPORTING NO STABLE AFTER COMPLETION. IT IS THE CONTRACTORS SOLE ESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE ARTO SEQUENCE AND S

ITS OR A LOOK WASHER.

NITRACTOR SHALL COMELY WITH AWS CODE FOR PROCEDURES, 
PERRANGE AND DUALITY OF WELDS, AND WELDING PROCESSES 
BULL BE COLLIFED IN ACCOPANIOW WITH AWS STANDARD 
AULIFICATION PROCEDURES. ALL WELDING SHALL BE PERFORMED 
AULIFICATION PROCEDURES. ALL WELDING SHALL BE PERFORMED 
FURLET FOR THE PROCEDURES. ALL WELDING SHALL BE PERFORMED 
FIRETORY OF THE PROCEDURES. ALL WELDING SHALL BE PERFORMED 
FIRETORY OF THE PROCEDURES. ALL WELDING SHALL BE 
FOR MINIMAL STEEL STEEL ST. A IN THE AISO: WANDALD OF 
FOR CONSTRUCTION. ATTHE CONFIDENCE HOW SHALL BE 
MAKED TO GALVANIZED COSTING SHALL BE REPARED. SEE NOTE 
AND SHAD ON THE SHAPPING SH L ARC AND GAS WELDING SHALL BE DONE BY A LICENSED AND RTIFIED WELDER IN ACCORDANCE WITH AWS

THERMAL & MOISTURE PROTECTION: ESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS

ESTORPING SHALL, BE NISTALLED IN ACCORD WITH ASTM 6614. 
TO FORCE THE ROOM OF BY THE BEARRED PRODUCTS, ON EQUILA, 
ALL BE USED TO PILL ALL VOIDS AND CAVITIES AND SHALL BE 
USED TO PILL ALL VOIDS AND CAVITIES AND SHALL BE 
ASSOCIATED US. SYSTEM NUMBER 
USED TO PILL SHOW SYSTEM NUMBER 
USED TO PING SHALL BE APPLIED AS SOON AS PRACTICABLE AFTER 
METRATORIS ARE AMORE AND EXCHANGENT INSTALLED. 
BISTORPING SHALL BE APPLIED AS SOON AS PRACTICABLE AFTER 
METRATORIS ARE AMORE AND EXPLORED AND MADE 
ALABLE FOR INSECTION BEFORE APPLIED IN THE PINGE SHAT MAY 
ALBE FOR INSECTION BEFORE APPLIED FINGE SHATE THAT 
MAY 
BE AUGUST AND AND ASSOCIATION OF THE PINGE O ALL BE MADE AVAILABLE AT THE TIME OF INSPECTION.

PUBLICIPS GOOD PERIFERTATION OR RESTORATION SHALL BE
PROPRIED SO THAT ROOF WARRANTY IN PLACE IS NOT
MIRRORISHED. CONTRACTOR SHALL ARRANGE FOR GOWNERS
PROPRIED SONTRACTOR SHALL ARRANGE FOR GOWNERS
REPORTED SHALL ROOFING WARRANGE FOR GOWNERS
REPORTED SHALL ROOFING WARRANGE FOR SHALL ROOFING WORK IF
REPORTED SHALL ROOFING WARRANGE W

PENETRATIONS INTO OR THROUGH BUILDING, SHELTER, EQUIPMENT, INET, AND SIMILAR ENCLOSURE EXTERIOR WALLS, SHALL BE SEALED IS SUCCONE SEALER.

6 ELECTRICAL:

SE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS REIN.

L ELECTRICAL CONDUCTORS:

INSULATION SHALL BE MINIMUM 600V TYPE THHN, THWN-2, OR XHHW.

BRANCH CIRCUIT CONDUCTORS SHALL BE SOFT DRAWN 98%
MINIMUM CONDUCTIVITY PROPERLY REFINED COPPER.

MINIMUM CONDUCTIVITY PROPERLY REFINED COPPER.

\*FEEDED GROUT CONDUCTORS SHALL BE EITHER COPPER OR
ALLIMINUM OF THE APPROPRIATE SIZE FOR THE APPLICATION, OR AS
\*\*SPECIFICALLY NOTED.

\*\*PERMANENTLY LABEL OR TAGA LL. CONDUCTORS WITH THEIR
COPULIT DESIGNATION AT ALL TEMMINATION SIDES, SPLICES, AND
VISIBLE AS PASS-THROUGH IN ALL ENCLOSIVES.

\*\*CONDUCT BESIGNATION AT ALL ENCLOSIVES.

\*\*CONDUCT BESIGNATION AT ALL ENCLOSIVES.

\*\*CONDUCT SIDES SHALL BE LISTED

\*\*CONDUCT SIDES FOR THE APPLICATION ONLY THE POLLCOWING CONDUCTS

\*\*CONDUCT SIDES FOR THE APPLICATION ONLY THE POLLCOWING CONDUCTS

\*\*CONTROL STATES AND LISTED FOR THE APPLICATION SHALL BE

AND SUTTABLE FOR THE APPLICATION ONLY THE POLLOWING DONDUTS OF APPLICATION SHALL DISTOR OR THE APPLICATION SHALL DESTRUCT ON THE POLLOWING DONDUTS ONLY MADE UP WERSHOT TOURS AND CONNECTORS ONLY MADE UP WERSHOT TIGHT.

FEILZIBLE METAL CONDUT FIND, AND LOUDINGHT FLEXIBLE METAL CONDUT (LFMG).

FINAL CONNECTIONS TO VIBRATING OR ADJUSTABLE EQUIPMENT INCLUDING, BUT NOT LIMITED TO LIGHT PORTURES. HAVE UNITS, TRANSFORMERS, MOTORIS, ETC. OR WHERE FOUNDED AND CONNECTIONS, BUT NOT LIMITED TO LIGHT PROTURES. AND COUPLINGS SHALL BE THREADED MADE UP WIRESHOT TIGHT.

RIGHD DOLLYWING, CHARGE OF SHE AND COUPLINGS SHALL BE THREADED MADE UP WIRESHOT TIGHT.

RIGHD DOLLYWING LICHORIS (PMG) SCHEDULE 40 OR SCHEDULE 80.

MAY BE USED FOR SERVICES, EXTERIOR, BELOW GRADE, AND WET LOCATIONS.

OCATIONS. HALL NOT BE USED IN CONCRETE SLABS NOR EXPOSED WITHIN A

CONCECLED INSTALLATIONS ONLY.
 WITHIN A DUCY WITH SMOOTH OR CORRUGATED METAL JACKET.
 AND NO OUTER COVERING OVER THE METAL JACKET.
 AND NO OUTER COVERING OVER THE METAL JACKET.
 METAL SOURCE SHALL CONDUITS SHALL BE CONCECULED EXCEPT TO KE A FINAL CONNECTION TO EQUIPMENT NOT MOUNTED IN OR ANIAST FINISH MATERIAL.

FINISH MAILEMAL.

FEEDER AND BRANCH GIRCUITS SHALL HAVE A SEPARATE 
PERLY SIZED AND MARKED GROUNDING CONDUCTOR, PER 
PLOABLE CODES, THAT BONDS ALL ENCLOSHES, BOXES, ETC. 
NDUIT SHALL NOT BE USED AS A GROUNDING OR BONDING 
NDUCTOR.

DUOTOR

STRING ELECTRIC SERVICE IS TO REMAIN, CONTRACTOR SHALL BE PT THAT IT MEETS PROJECT REQUIREMENTS WITHOUT INFOATOR SHALL SHE PT THAT IT MEETS PROJECT REQUIREMENTS WITHOUT SHORT SHALL OR DEPLACED AS A PART OF THIS K, CONTRACTOR SHALL ORDER FROM, COORDINATE WITH, AND APPROVAL FROM THE ELECTRICAL TUTTO", ALL ESCRIPTICAL PARENTS AND AS APPROVED BY THE LOCAL PARENTS AND AS APPROVED BY THE PARENTS AND AS APPROVED BY THE PARENTS AND AS APPROVED BY THE LOCAL PARENTS AND AS APPROVED BY THE PARENTS AND AS APPROVED BY THE PARENTS AND AS APPROVED BY THE LOCAL PARENT

FIRE-PATED PENETRATIONS SHALL BE SEALED USING A SUITABLE LISTED FIRE SEALING DEVICE OR GROUT THAT WILL MAINTAIN TH RATING OF THE STRUCTURE PENETRATED.

CTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL FINAL MINATIONS TO ALL EQUIPMENT.

GROUNDING:

6 LIGHTNING PROTECTION:

ELEMENT SIZE AS DEVOLUTION OF THE STANDED OR ALL EQUIPMENT SONDING.

INSTALL ALL IN-GROUND CONDUCTORS IN THE SAME HORIZONTAL PLANS OR IN A DOWNWARD DIRECTION AWAY FROM THE TOWER AND EQUIPMENT AREAS.

INSTALL ALL IN-GROUND CONDUCTORS IN THE SAME HORIZONTAL PLANS OR IN A DOWNWARD DIRECT FUNDS AS MUCH AS POSSIBLE.

AND CATE THE PROPERTY OF THE STANDARD AND THE SAME AND

LL ALL IN-GROUND RINGS, RADIALS, BONDS CONNECTING THEM, INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST /HICHEVER IS GREATER DEPTH.

SIDES, BOND TO TOWER BASE, NOT TO VERTICAL TOWER STRUCTURE, AWAY FROM TOWER MOUNTING HARDWARE. EACH BOND SHALL HAVE A CORRESPONDING GROUND ROD ON TH

. HOND SHALL CONSIST OF 2 CONDUCTORS FROM THE TOWER 'S RING WITH EACH CONDUCTOR DIRECTED IN OPPOSITE CITCHOS WITH A PARALLEL CONNECTION ON THE RING ON DISITE SIDES OF THE GROUND ROD.

OPPOSITE SIDES OF THE GROUND ROD.

JUNEARY AREA GROUNDING:

- COMMUNICATION AFREAS ON EARTH SHALL HAVE A GROUND RING.

+ COMMUNICATION AFREAS ON EARTH SHALL HAVE A GROUND RING.

+ SOND ALL EQUIPMENT TO A SINGLE-POINT GROUND (GROUND BRING.)

+ SOND THE EXIPMENT SHALLEL CONTICTIONS TO THE EQUIPMENT GROUND RING WITH MINIMANUA COONDICTIONS ON THE EQUIPMENT OF SHALLEL CONNECTIONS ON THE RING.

+ FOURTH SHALLEL CONNECTIONS OF SHALLEL CONNECTIONS ON THE RING.

+ FOURTH SHALLEL CONNECTIONS OF SHALLEL CONNECTIONS ON THE RING.

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+ FOURTH SHALLEL CONNECTIONS OF SHALLEL CONNECTIONS ON THE CONNECTIONS ON THE CONNECTIONS ON THE CONNECTION OF SHALLEL CONNECTIONS ON THE CONNECTION OF SHALLEL CONNECTIONS OF SH

OUND ROOS:

- SEPARATION SPACE BETWEEN ANY 2 GROUND ROOS SHALL BE NO
CLOBER THAN THEIR DEPTH. THIS APPLIES TO ALL ROOS IN THE
COMPLETE SYSTEM UNDSTITUTED SOL WITH THE TOP AT SAME
DEPTH AS THE RE-GROUND CONDUCTION. IF NOT POSSIBLE TO
INSTALL VERTICALLY, PLACE AS CLOSE TO VERTICAL AS POSSIBLE AND IN A DIRECTION AWAY FROM THE NEXT ALE APPLICATION.

DIALS (TYP. NEW DEDICATED COMMUNICATION SITES):

WHERE FEASIBLE WITH ENOUGH SPACE AVAILABLE, INSTALL A
MINIMUM OF 4, MAXIMUM 10 RING RADIALS.

EACH RADIAL'S LENGTH SHALL BE MIN 20 FT, MAX 80 FT.

 \*DACH PROJULES LENKED IT SHALLS BE WINKEY IT, JANA 50 OF IT
 \*EXTEND RADIALS PERPENDIQULAR FROM MINIGS IN AS STRAIGHT
 LINE AS POSSIBLE, AWAY FROM OTHER RING GROUNDS, RADIALS,
 SONDS, AND SMILLAR
 \*A COMMON PRACTICE IS TO PLACE 4 RADIALS FROM THE TOWER
 RINGT TO THE 4 CORNERS OF THE AVAILABLE AREA. NIMUM, BOND ALL COMPOUND CONDUCTIVE FENCE CORNER

ANTENNAS & CABLES:

ESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS

NICO A1 I'ME EMUIPMENT.

CONTRACTOR SHALL FURNISH AND INSTALL ALL CONNECTORS, IOCIATED CABLE MOUNTING AND GROUNDING HAPDWARE, WALL JUNYS, STANDOFFS, AND ALL ASSOCIATED HARDWARE TO NICO CABLES AND ANTENNAS TO THE MANUFACTURERS AND OWNER CIFICATIONS. ENNA CABLES SHALL BE FOAM DIELECTRIC COAXIAL CABLES AS

NLOWS:

1. 76 CAMETER FOR CASE LENGTHS UP TO 100 FT.

1. 156 CAMETER FOR CASE LENGTHS UP TO 100 FT.

1. 156 CAMETER FOR CASE LENGTHS GREATER THAN 100 FT.

1. 56 CAMETER FOR CASE LENGTHS UP TO 200 FT.

1. 56 CAMETER FOR CASE LENGTHS UP TO 200 FT.

1. 56 CAMETER FOR CASE LENGTHS UP TO 200 FT.

1. 56 CAMETER FOR CASE LENGTHS GREATER THAN 200 FT.

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1. 56 CAMETER FOR CASE LENGTHS GREATER THAN 200 FT.

1. 5

SILE SHALL BE INSTALLED WITH A MINIMUM NUMBER OF BENDS BERE POSSIBLE. CABLE SHALL NOT BE LETT UNTERMINATED AND ALL BE SEALED IMMEDIATELY AFTER BEING INSTALLED. LEXTERIOR CABLE CONNECTIONS SHALL BE COVERED WITH A TERPROOF SPLICING KIT.

NTRACTOR SHALL VERIFY EXACT LENGTH AND DIRECTION OF TRAVE ILE SHALL BE FURNISHED AND INSTALLED WITHOUT SPLICES AND H CONNECTORS AT EACH END.

28 CABLE TRAY:

IESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEHEIN.
ABBLE TRAY SHALL BE MADE OF EITHER CORROSION RESISTANT METAL
OR WITH A CORROSION RESISTANT FINISH.
ABBLE TRAY SHALL BE OF LADDER TRAY TYPE WITH FLAT COVER
AMPED TO SIDE RAILS.

ABLE LADDER SHALL BE SIZED TO FIT ALL CABLES IN ACCORDANCE 1TH NEC AND NEMA 11-15-84.

TITH NEC AND NEMA 11-15-54.

ABLE LADDER TRAYS SHALL BENEMA CLASS 12A BY PW INDUSTRIES,
C. OR EQUAL.

BBLE LADDER TRAY SHALL BE SUPPORTED IN ACCORDANCE WITH
ANUFACTURERS SPECIFICATIONS.

1 EXCAVATION & FILL:

31 EXCAVATION S.FILL;
THESE SECREPICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.
HEREIN THE SECREPICATIONS SHALL GRACE ONLY, AREAS SHOWN TO BE INCOPEED S.A.
CONTRACTOR SHALL GRACE ONLY, VERALS SHOWN TO BE INCOPEED S.A.
OVERLAND WATER FLOW WAVY FROM SITE. A LL MADE SLOPES SHALL NOT BE STEEPER THAN 31 + HOROZOMATAL VERTIONAL, SEDIMENTATION AND EROSION DONTROLS SHOWN AND SECREPIED SHALL BE STEPRED AND STOCKED STRANGEN SHOWN OF STANDISHOOD STOCKED SHALL SHOWN AND SECREPICATION STOCKED SHOWN AND SECREPICATION STOCKED SHOWN OF STRANGEN SHOWN

NCH EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH

VSIST OF SAND.

WIS GRAVEL FILL SHALL PASS WITH THE FOLLOWING SIZE SQUARE
SH SIEVES:
-60% WITH PASS 1/4"

1 SEDIMENTATION & EROSION CONTROL: HESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS

JUDELINES FOR EROSION AND SEDIMENTATION CONTROL.

MINTO PELARING AND GRUBBNOS SHALL BE CLEARLY MARKED
BEFORE COMMENCING WITH SUCH WORK.

EDIMENTATION AND FERSION CONTROL (SEC) NEASURES SHOWN
HALL BE INSTALLED PRIOR TO LAND CLEARING, EXCAVATION OR
HARDING OPERATIONS. RECOURS HERY TO SECOND CHEATING, EXCAVATION OR
HARDING STATEMENT OR LECAN HERY TO THE CONTROL OF THE SECOND SHOW
HALL BE MET PRIOR TO EATH-WORK OPERATIONS.

IS THE CONTRACTORS RESPONSIBLE IT YO MAINTAIN SEO MEASURES
HARDING-OUT DURATION OF PROJECT WITH, DISTURBED LAND IS

AULIES OF THE SEC SYSTEMS SHALL BE CORPRECTED MINELDITATELY
WIND SUPPLEMENTED WITH ADDITIONAL MEASURES AN INSCIDENT
WINDS SHAPPED MEASURES AND SHEED AS SOON.

SOIL SHALL BE SPREAD TO FINISH GRADES AND SEEDED AS SOON FINISHED GRADES ARE ESTABLISHED. STRAW MULCH, JUTE NETTIN MATS SHALL BE USED WHERE THE NEW SEED IS PLACED. CONTROL SEEDING.

AREA TO BE SEEDED SHALL BE LOGGE AND FRABILE TO A DEPTIMATE TO BE SEEDED SHALL BE LOGGE AND FRABILE TO A DEPTIMATE TO SEEDED SHALL BE LOGGE AND FRABILE TO A DEPTIMATE OF SEEDING. APPLY 50 Lbs OF DOLOMTIO LIMESTONE AND 25 Lbs 10-10-10 FRATILIZER PRITO LOGGE SOIL.

NOTO LOGGE SOIL.

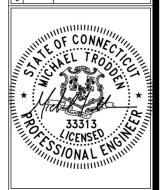
SEEDING AND SEEDING AND DIVERTING AND SHARPOWER.

Cellco Partnership d/b/a **verizon**<sup>v</sup>



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DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E. COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C. ADD: 567 VAUXHALL STREET EXT. WATERFORD, CT 06385

WNER: CHESHIRE UNITED METHODIST CHURCH ADDRESS: 185 ACADEMY ROAD CHESHIRE, CT 06410

CHESHIRE EAST CT

SITE 185 ACADEMY ROAD ADDRESS: CHESHIRE, CT 06410

APT FILING NUMBER: CT141NB9650 DRAWN BY: DRA DATE: 10/05/22 CHECKED BY: JRM

VZW PROJECT CODE: 20171649710 VZW LOCATION CODE: 470656

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> **NOTES & SPECIFICATIONS**

SHEET NUMBER

N-1