

10 INDUSTRIAL AVE,
SUITE 3
MORRIS HANCOCK NJ 07430
PHONE: 201.684.0055
FAX: 201.684.0066



April 7, 2023

Members of the Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
75 Wells Road, Wethersfield, CT 06109
Latitude: 41.422107
Longitude: -72.394826
T-Mobile Site#: CTHA506A - Hardening

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas at the 95-foot level of the existing 101-foot monopole tower at 75 Wells Road, Wethersfield, CT. The 101-foot monopole tower is managed by EIP Communications and the property is owned by the Southern New England Telephone Co (Frontier Communications). T-Mobile now intends to add a 48Kw generator to a proposed concrete pad within the existing compound.

Planned Modifications:

Ground:

Install New:

- (1) Generac RD048 48 Kw AC Diesel Generator. Requires (2) 12-minute run cycles by-weekly.
- (1) 10' x 4' concrete pad

The facility was approved by the Connecticut Siting Council in Petition 1012 on December 1st, 2011. T-Mobile's generator project and location was approved in a later Connecticut Siting Council Petition (1521) dated September 30th, 2022. A copy of both petition approvals has been included with this request. The proposed modification complies with previous approvals.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-SOj-73, a copy of this letter is being sent to Mayor Michael Rell, Elected Official, and Denise Bradley, Town Planner, as well as the tower and property owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Eric Breun

Transcend Wireless

Cell: 201-658-7728

Email: ebreun@transcendwireless.com

Attachments

cc: Michael Rell - Mayor of Wethersfield

Denise Bradley - Town Planner

Everest Infrastructure Partners Communications I, LLC - Tower Owner

Southern New England Telephone Co (aka Frontier Communications) - Property Owner

ERIC BREUN
2016587728
1 INTERNATIONAL BLVD.
MAHWAH NJ 07495

1 LBS

1 OF 1

SHIP TO:
EVEREST INFRASTRUCTURE PARTNERS
SUITE 703
NOVA TOWER 2
2 ALLEGHENY CENTER
PITTSBURGH PA 15212



PA 152 9-42



UPS GROUND

TRACKING #: 1Z V25 742 03 9024 2278



BILLING: P/P

Reference #1: CTHA506A

XOL 23.03.35 NV-15 1.4.0A 0-4/2023*



TM

ERIC BREUN
2016587728
1 INTERNATIONAL BLVD.
MAHWAH NJ 07495

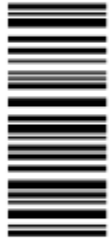
1 LBS

1 OF 1

SHIP TO:
585-777-7859
FRONTIER COMMUNICATIONS
21 WEST AVENUE
SPENCERPORT NY 14559

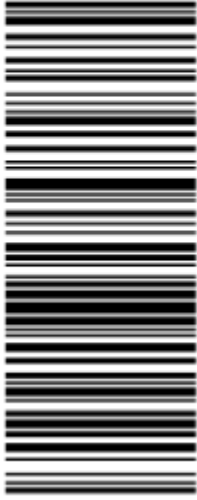


NY 144 9-04



UPS GROUND

TRACKING #: 1Z V25 742 03 9233 2266



BILLING: P/P

Reference #1: CTHA506A

XOL 23.03.35 NV-15 1.4.0A 0-4/2023*



TM

ERIC BREUN
2016587728
1 INTERNATIONAL BLVD.
MAHWAH NJ 07495

1 LBS

1 OF 1

SHIP TO:
TOWN PLANNER
DENISE BRADLEY
505 SILAS DEANE HIGHWAY
WETHERSFIELD CT 06109

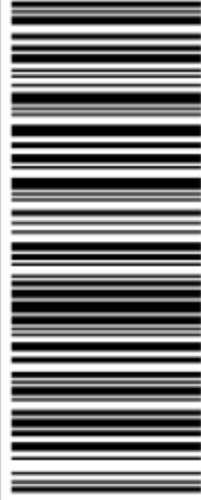


CT 061 9-02



UPS GROUND

TRACKING #: 1Z V25 742 03 9215 6288



BILLING: P/P

Reference #1: CTHA506A

XOL 23.03.35 NV-19 1.4.04 0-0/2023*



TM

ERIC BREUN
2016587728
1 INTERNATIONAL BLVD.
MAHWAH NJ 07495

1 LBS

1 OF 1

SHIP TO:
MICHAEL RELL
505 SILAS DEANE HIGHWAY
WETHERSFIELD CT 06109

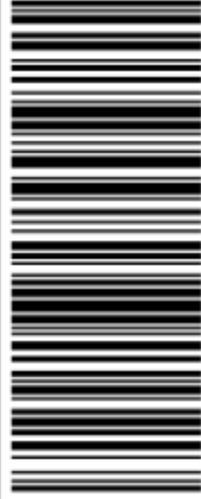


CT 061 9-02



UPS GROUND

TRACKING #: 1Z V25 742 03 9586 9904



BILLING: P/P

Reference #1: CTHA506A

XOL 23.03.35 NV-19 1.4.04 0-0/2023*



TM

Hello, your package has been delivered.

Delivery Date: Wednesday, 04/05/2023

Delivery Time: 10:45 AM

Signed by: CLERK

TRANSCEND WIRELESS

Tracking Number: [1ZV257420395869904](#)

Ship To: MICHAEL RELL
505 SILAS DEANE HIGHWAY
WETHERSFIELD, CT 06109
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

Reference Number: CTHA506A

Hello, your package has been delivered.

Delivery Date: Wednesday, 04/05/2023

Delivery Time: 10:45 AM

Signed by: CLERK

TRANSCEND WIRELESS

Tracking Number: [1ZV257420392156288](#)

Ship To: DENISE BRADLEY
505 SILAS DEANE HIGHWAY
WETHERSFIELD, CT 06109
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

Reference Number: CTHA506A

Hello, your package has been delivered.

Delivery Date: Thursday, 04/06/2023

Delivery Time: 10:42 AM

Signed by: OCEL

TRANSCEND WIRELESS

Tracking Number: [1ZV257420390242278](#)

Ship To: EVEREST INFRASTRUCTURE PARTNERS
2 ALLEGHENY CENTER
NOVA TOWER 2
SUITE 703
PITTSBURGH, PA 15212
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

Reference Number: CTHA506A

Hello, your package has been delivered.

Delivery Date: Thursday, 04/06/2023

Delivery Time: 1:58 PM

Signed by: WAREHOUSE

TRANSCEND WIRELESS

Tracking Number: [1ZV257420392332266](#)

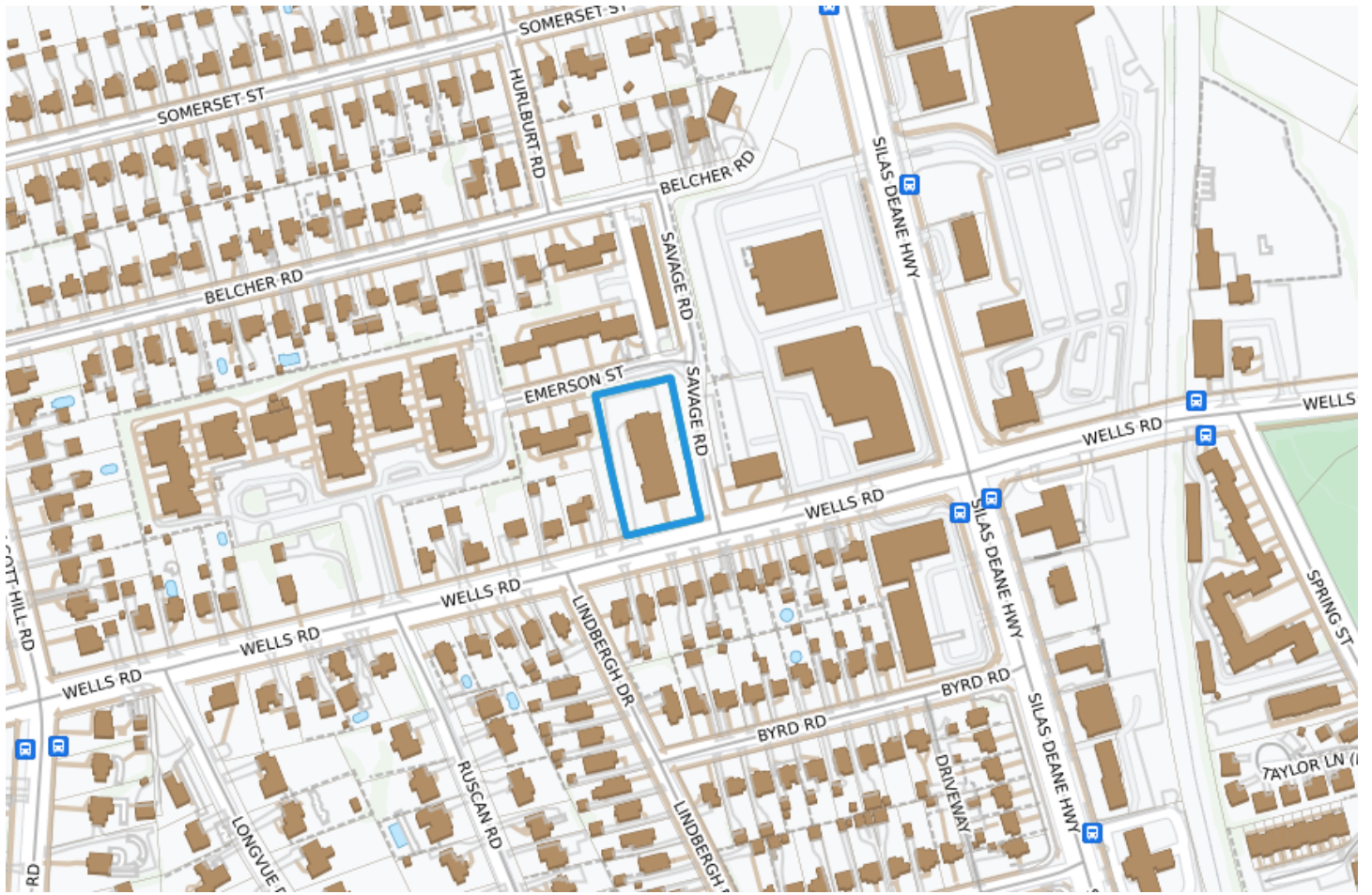
Ship To: FRONTIER COMMUNICATIONS
21 WEST AVENUE
SPENCERPORT, NY 14559
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

Reference Number: CTHA506A



Unique ID: 205069

Wethersfield

Card No: 1 of 1

Location:	75 WELLS RD				Map/Lot:	205 069		Zone:	SRD/A	Date Printed:	08-05-21	
911 Address:					Exempt			Nbhd:	C30	Last Update:	08-05-21	
Owner Of Record						Volume/Page	Date	Sales Type			Valid	Sale Price
SOUTHERN N E TELEPHONE CO C/O FRONTI						0121 /0472	11-30-46				NO	0
PO BOX 2629 ADDISON , TX 75001												
Additional Owners:												
Prior Owner History												
/												
/												
/												
/												
/												
Permit Number	Date	Cost	New Hous	Status	% Comp	Est Completion	Building Permit					
B-20-0245	05-27-20	20,000	No	Closed	100	10-01-20	Upgrade and replacement of equipment at existing telecommunications fac					
B-19-0561	08-29-19	15,000	No	Closed	100	10-01-19	Upgrade and replacement of equipment at existing telecommunications fac					
P-19-0121	06-19-19	82,500	No	Closed	100	08-21-19	REMOVE EXITING UNDERGROUND OIL STORAGE TANK & INSTALL 1 NEW ABOVE GROUN					
B-19-0278	06-11-19	25,000	No	Closed	100	10-01-19	Swap 3 antennas for new models and add 3 new remote radio units to tie					
B-17-502	10-11-18	5,000	No	Closed	100	06-20-18	CELL TOWER WORK (AT&T)					
B-16-545	11-08-16	25,000	No	Permit Issue	100		REMOVE 3 ANTENNA AND REPL WITH 3 NEWER MODELS. ADD 2 NEW RRUS PER SECT					
				State Item Codes					Appraised Value			
Census/Tract	4922	Code	Quantity	Value	Code	Quantity	Value	Total Land Value		594,000		
Dev Map	Dev Lot 3A	22-Comm Bldg	1.00	148,650				Total Building Value		212,351		
Date	05/25/2018	01/25/2019	25-Comm Outbldg	3.00	480,320			Total Outbuilding Value		686,169		
Inspector	EQ		41-PubUtil Land	0.90	415,790			Total Market Value		1,492,520		
Action	Measure	Hearing-No Chng										
Acres							Influence Factors					
Land Type	Acres	490	Rate	Adj	Influence	Total Value	Land Type	Influence	Reason	Comment		
Pub Util Land	0.90	0.00	216,000	1.00	175	594,000	Pub Util Land	175	Intensive Use			
Total	0.90					594,000						
Assessment History (Prior Years as of Oct 1)							490 Appraised Totals					
	Current	2020	2019	2018	2017		Type	Acres	Value	Type	Acres	Value
Land	415,790	415,790	259,870	259,870	92,100							
Building	148,650	148,650	304,570	304,570	286,300							
Outbuilding	480,320	480,320	480,320	480,320	233,500							
Total	1,044,760	1,044,760	1,044,760	1,044,760	611,900					Totals		
Comments												
CELL POLE 4500 A MONTH, 8 CAP RATE 60 X 36 SLATE ROOF; NO OFFICE FIT UP; NO ACCESS TO UQS - STAIRS REMOVED; CONTROL SWITCH BUILDING ZONING CHANGE PER PLANNING												

Unique ID: 205069

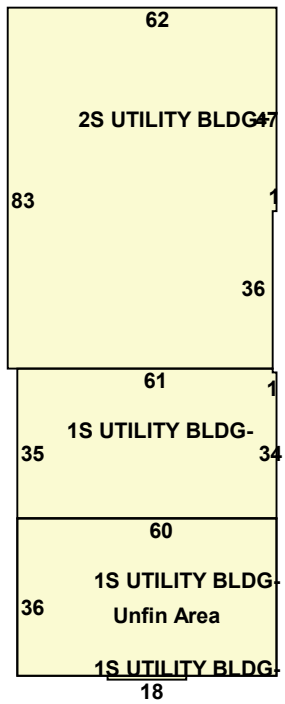
Wethersfield

Location: 75 WELLS RD

Unit

FRONTIER							
Use	Class	Quality	Stry	WH	Area	BG	Units
Utility Bldg	Masonry	B	2	10	14,497	NO	

Commercial Building Description	Description	Area/Qty	Value
Building Use Utility Buildin	Base Value	14,497	453,031
Class Masonry	Central Air	453,031	6,795
Overall Condition Very Good	Unfinished Basement Area	5,110	102,200
Construction Quality B	Value Before Depr.	0	562,027
Stories 2.00	Depr/Adjust Amount	0	123,646
Year Built 1939	Final Value (After Depr)	0	438,381
Remodel			
Percent Complete 100			
GLA 14,497			
Basement			
Basement Area 5110			
Basement Unfinished Area	Grade Factor 0	Physical Depreciation % 22	
HVAC	Functional Depreciation % 0	Economical Depreciation % 0	
Attached Component Computations			
Heating Type Hot Water	Type	Yr Bilt	Condition
Fuel Type Oil	Unfinished Area	1939	Good
Cooling Type Central 100 %			
Interior			
Floors Vinyl Tile			
Walls Plaster			
Wall Height 10			
Exterior			
Exterior Walls Brick			
Roof Cover Tar and Gravel			
Special Features			



Detached Component Computations									
Type	Year	Condition	Area/Qty	Value	Type	Year	Condition	Area/Qty	Value
PreCastConCel	2003	Good	200	7,905					
Paving	1999	Good	2,400	3,264					
Cell Tower	2000	Average	1	675,000					
Total Building Value									
Building 1	Value	487,219							
Valuation Method	I								

Petition No. 1012
MetroPCS
75 Wells Road, Wethersfield, Connecticut
Staff Report
December 1, 2011

On October 26, 2011, the Connecticut Siting Council (Council) received a petition (Petition) from MetroPCS for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to an existing telecommunications facility at 75 Wells Road in Wethersfield. Specifically, MetroPCS seeks to co-locate on an existing 104-foot tall monopole owned by New Cingular Wireless PCS LLC (AT&T). The existing tower, located adjacent to the east side of an existing building, currently supports AT&T. T-Mobile and Verizon have existing leases for tower space but have not located on the tower to date.

MetroPCS seeks to install six panel antennas on t-arms at the 75-foot level of the tower. The tower and foundation would require modifications to support the new equipment.

MetroPCS would install three equipment cabinets adjacent to the existing fenced compound area. The ground equipment would require MetroPCS to expand the existing compound and lease area to the south. The new fenced area would extend 17 feet to the south, then angle 12 feet to the west, terminating at the existing building. The new fence would match the existing. Three new plantings would be installed along the east side of the new fenced area to screen views from Wells Road and Savage Road. Staff recommends one additional evergreen planting along the south side of the compound extension to provide further screening.

There are no wetlands at the site. One evergreen shrub would be removed. The addition of new plantings along the fence line of the compound expansion area would mitigate views of the compound from the south and east. Evergreens along the east side and north side of the existing compound would remain. The maximum worst-case power density including AT&T's existing and T-Mobile's and Verizon's proposed equipment, would be 53 percent of the applicable limit.



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Web Site: portal.ct.gov/csc

**VIA ELECTRONIC MAIL & CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

September 30, 2022

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
kbaldwin@rc.com

RE: **PETITION NO. 1521** – EIP Communications I, LLC petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed replacement and extension of an existing telecommunications facility located at 75 Wells Road, Wethersfield, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on September 29, 2022, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need with the recommendation that current and future tenants maximize the duration of emergency back-up generators to the extent feasible and the following conditions:

1. Approval of any project changes be delegated to Council staff;
2. Submission of the final FAA Determination for the replacement tower prior to commencement of construction;
3. Submission of the final construction/design drawings for the proposed project stamped and signed by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction;
4. Submission of a structural analysis inclusive of AT&T and T-Mobile's antenna upgrades for the replacement tower and foundation, that is stamped and signed by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction;
5. Submission of mount analyses that account for the antenna upgrades for AT&T and T-Mobile;
6. The final structural design drawings shall include a yield point to ensure that the tower setback radius remains within the boundaries of the subject property;
7. Relocate and replace the existing 12-inch cluster pine tree that is to be removed for the Project and indicate its final location in the site plans referenced in Condition No. 3;
8. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;

9. Unless otherwise approved by the Council, the existing monopole shall be removed within 180 days of the installation of the new monopole;
10. Within 45 days after completion of construction, when the existing monopole is removed and the new monopole is operational, the Council shall be notified in writing that construction has been completed;
11. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;
12. Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Town of Wethersfield;
13. Any nonfunctioning equipment on this facility owned and operated by the Petitioner shall be removed within 60 days of the date the antenna ceased to function;
14. The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;
15. If the facility ceases to provide wireless services for a period of one year the Petitioner shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council within 90 days from the one year period of cessation of service. The Petitioner may submit a written request to the Council for an extension of the 90 day period not later than 60 days prior to the expiration of the 90 day period;
16. This Declaratory Ruling may be transferred, provided the facility owner/operator/transferee is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and
17. If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition dated June 15, 2022, and additional information received on August 25, 2022.

Enclosed for your information is a copy of the staff report on this project.

Sincerely,

A handwritten signature in dark ink, appearing to read "Melanie A. Bachman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Melanie A. Bachman
Executive Director

MAB/IN/laf

Enclosure: Staff Report dated September 29, 2022

c: The Honorable Michael L. Rell, Mayor, Town of Wethersfield (michael.rell@wethersfieldct.gov)
Fred Presley, Town Manager, Town of Wethersfield (fred.presley@wethersfieldct.gov)



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

Petition No. 1521
EIP Communications I, LLC
75 Wells Road
Wethersfield, Connecticut
Staff Report
September 29, 2022

Introduction

On June 15, 2022, EIP Communications I, LLC (Everest) submitted a petition to the Connecticut Siting Council (Council) for a declaratory ruling pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k for the proposed replacement and extension of an existing telecommunications facility located at 75 Wells Road, Wethersfield, Connecticut (Petition or Project).

Specifically, Everest proposes to replace and extend the height of the existing telecommunications facility and expand the existing compound/lease area at the site to support the equipment upgrades of the wireless carriers that are currently located on the facility and structurally accommodate the potential collocation of additional tenants.¹ The existing monopole is at capacity and would not be able to structurally accommodate equipment upgrades by the wireless carriers or future collocation by additional tenants.

Pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-40, on or about June 15, 2022, Everest provided notice to the abutting property owners and Town of Wethersfield (Town) officials.

On June 16, 2022, the Council sent correspondence to the Town stating that the Council has received the Petition and invited the municipality to contact the Council with any questions or comments by July 15, 2022. No comments were received.

The Council issued interrogatories to Everest on July 11, 2022. After three extensions, Everest submitted responses to the Council's interrogatories on August 25, 2022.

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, an administrative agency is required to take an action on a petition for a declaratory ruling within 60 days of receipt. On July 21, 2022, pursuant to CGS §4-176(e), the Council voted to set the date by which to render a decision on the Petition as no later than December 12, 2022, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

Existing Facility

This facility was approved by the Town in 1998. The Council issued a Declaratory Ruling to MetroPCS Massachusetts, LLC for modifications to the existing facility on December 1, 2011 in Petition No. 1012.

¹ Dish Wireless expressed interest in collocation on the replacement facility and would submit a tower share request in the future if the replacement facility is approved by the Council.

The existing 101-foot monopole is located on the eastern portion of an approximately 0.89-acre parcel owned by Frontier Communications, Inc. (Frontier) The host parcel is located in the Special Residential District/Single Family Residential zone (SRD/A) and is accessed from Wells Road. The host parcel is developed with one building, a parking area and the existing facility. The facility is located about 7-feet east of the Frontier building and is enclosed within a 3-foot tall chain link fence.

The existing tower currently supports AT&T at the 103.5-foot² level and T-Mobile at the 95-foot level. AT&T's ground equipment is located within an equipment room on the second floor of the Frontier building. T-Mobile's ground equipment is located on a 16-foot by 10-foot concrete pad adjacent to the base of the tower within an existing equipment compound.

Proposed Project

Everest intends to install a new 108.5-foot tall monopole³ approximately 51-feet south of the existing tower location and approximately 18-feet east of the Frontier building. The proposed replacement tower will be designed to accommodate up to four wireless carriers and municipal/emergency service antennas.

The existing 3-foot chain link fence that currently encloses the tower would be removed, and the entire 2,030-square foot lease area would be enclosed within a new 6-foot chain-link fence with privacy slats and a 12-foot wide double gate at the southern end of the facility compound. The proposed replacement tower would have a diameter of 44.5-inches at the base and 24 inches at the top.⁴

The proposed replacement tower would be located about 18 feet from the nearest property line; thus the tower setback radius would extend beyond the host property. Everest believes that its engineering design standards for the tower make a yield point unnecessary.

AT&T would install 12 antennas and 15 RRUs at a centerline height of 105.6-foot above ground level (agl) and T-Mobile would install 9 antennas and 6 RRUs at a centerline height of 95-feet agl on the replacement tower. AT&T's proposed antennas would provide services in the 700/850/1900/2100/3700 MHz frequencies and would be capable of providing 5G services. T-Mobile's proposed antennas would provide its services in the 600/700/1900/2100/3500 MHz frequencies and would also be capable of providing 5G services. The proposed replacement facility would handoff AT&T and T-Mobile signals from the site to adjacent sites in Wethersfield, Hartford, East Hartford, Glastonbury, Rocky Hill and Newington.

Coverage maps indicate that AT&T's equipment upgrade would improve its existing 700 MHz coverage signal strength. T-Mobile's coverage maps indicate that the proposed equipment upgrade would improve its existing signal strength within the existing coverage area.

AT&T and T-Mobile would extend their respective ice bridges to the replacement monopole. There would be no changes to the existing ground equipment. During construction, Everest would utilize a 15-foot wide temporary construction easement extending from the access driveway to the south of the compound.

² AT&T's existing antennas extend to about 106.5-foot above ground level (178.5-feet above mean sea level).

³ Due to differences in elevation the replacement tower will have the same height above mean sea level as AT&T's existing antennas.

⁴ The existing tower has a diameter of 28-inches at the base and 14.6 inches at the top.

Protective plating and a construction fence would be installed to protect existing and proposed fiber ducts during construction. Everest would utilize existing access and utilities to the site.

AT&T currently shares the existing Frontier emergency backup generator located within the building. T-Mobile does not currently have an emergency backup generator installed at the site and does not intend to install one at this time. Both carriers have battery backups capable of supplying power for up to four hours for AT&T and one to two hours for T-Mobile.

Commercial Mobile Radio Service (CMRS) providers are licensed by and are under the jurisdiction and authority of the Federal Communications Commission (FCC). At present, no standards for backup power for CMRS providers have been promulgated by the FCC.

The existing 101-foot monopole would be decommissioned and removed after the replacement tower is fully operational. The existing tower foundation would be left in place to be used as an equipment pad for future tenants.

The total estimated cost of the proposed facility is \$350,000.00. Costs associated with construction, maintenance and operation of the replacement facility will be recovered through rent charged to each tenant located at the facility.

The project would take approximately six to nine months to complete. Work hours/days would be 8 AM to 5 PM, Monday-Friday. Saturday work may be required.

Everest anticipates AT&T and T-Mobile would install their equipment upgrades once the replacement tower is constructed.

Environmental

Construction would occur within existing developed areas. One 12-inch diameter cluster pine tree would be removed for the project. Staff recommends that the cluster pine tree be moved and replanted, consistent with the Council's Declaratory Ruling in Petition No. 1012.

The Project site is not located within a Connecticut Department of Energy and Environmental Protection (DEEP) Natural Diversity Database buffered area. The proposed facility is not within a DEEP designated Aquifer Protection Area.

On March 4, 2022, the U.S. Fish and Wildlife Service (USFWS) determined that there are no critical habitats for threatened or endangered species within the Project area.

The nearest Important Bird Area is the Rocky Hill/Glastonbury Meadows located over a mile southeast of the site. The proposed replacement tower would comply with the USFWS recommended best practices for Communication Tower Design, Siting, Construction, Operation, Maintenance and Decommissioning.

A visibility study determined that the proposed tower extension would have additional visibility of about 1.8 acres (0.09%) within a one mile radius (2,010.6 acres) study area. Additional visibility of the extended tower would be mostly from the east and northeast of the host property. Changes in visibility would be

minimal, as Everest proposes to replace the existing monopole with another monopole of similar height and appearance 51-feet south of the existing monopole location.

The site is not located within a flood zone or proximate to any wetlands. The nearest wetland is located off-site approximately 1,600 feet (0.3 miles) southeast of the replacement tower.

Development of the facility would require 30 cubic yards of cut to drill the caisson foundation and 30 cubic yards of fill for the caisson foundation concrete. Any excess materials would be disposed of off-site. Everest would incorporate appropriate soil erosion and sedimentation control measures consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* prior to the commencement of construction.

The temporary construction access easement will be restored upon completion of construction.

The Old Wethersfield Historic District, a property listed on the National Register of Historic Places, is located approximately 0.18 mile from the site. The State Historic Preservation Office determined that the proposed replacement facility would have no adverse effect on this resource as it is replacing an existing tower of similar height. Everest proposes to paint the replacement tower a light gray similar to the existing tower.

Public Safety

The Project would be constructed in accordance with the Connecticut State Building Code, Telecommunications Industry Association (TIA) 222-H Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the National Electrical Code, the Connecticut State Fire Safety Code, and the Occupational Safety and Health Administration standards (OSHA).

Construction of the replacement tower would not impact or interfere with any existing nearby public utilities. Everest would employ construction standards designed to protect existing utilities and structures including, but not limited to, State building codes; National Fire code; Call before you dig and Occupational Health and Safety requirements.

Access to the facility site would be restricted to the tenants and Everest personnel. Carrier equipment would be fitted with silent intrusion alarms. Climbing pegs on the lower portion of the tower would be removed to deter unauthorized climbing of the tower.

Due to its proximity to an airport, the existing tower is currently marked/lit with a red air navigation beacon installed at the top of the tower in accordance with the recommendation of a 1999 Federal Aviation Administration (FAA) determination. Everest intends to employ the same FAA marking/lighting scheme at the top of the proposed replacement facility or adhere to any recommendations in the final FAA determination regarding a marking/lighting scheme on the proposed facility. Everest would submit the final FAA determination for the proposed Project when it becomes available.

The proposed replacement facility and associated equipment would comply with DEEP Noise Control Standards. The existing emergency backup generator is exempt from DEEP Noise Control Regulations §22a-69-1.8.

AT&T and T-Mobile's antennas would continue to support text-to-911 service and would comply with E911 requirements and the intent of the Warning, Alert and Response Network Act of 2006.

The cumulative calculated power density for the facility would be 80.6 percent of the applicable limit using a -10 dB off-beam adjustment.

Conclusion

If approved, staff recommends the following conditions:

- 1) Approval of any project changes be delegated to Council staff;
- 2) Submission of the final FAA Determination for the replacement tower prior to commencement of construction;
- 3) Submission of the final construction/design drawings for the proposed project stamped and signed by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction;
- 4) Submission of a structural analysis inclusive of AT&T and T-Mobile's antenna upgrades for the replacement tower and foundation, that is stamped and signed by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction;
- 5) Submission of mount analyses that account for the antenna upgrades for AT&T and T-Mobile;
- 6) The final structural design drawings shall include a yield point to ensure that the tower setback radius remains within the boundaries of the subject property;
- 7) Notification of commencement and completion of construction;
- 8) Unless otherwise approved by the Council, the existing monopole shall be removed within 180 days of the installation of the new monopole;
- 9) The Council shall be notified in writing within 45 days of when the existing monopole is removed and the new monopole is operational unless a written request for an extension is submitted to the Council within that timeframe; and
- 10) Relocate and replant the existing 12-inch cluster pine tree that is to be removed for the Project.

Figure 1 - Side by Side simulation of the existing and proposed replacement towers from approximately 398.5 feet to the east



Figure 2 - Existing Site Plan with Proposed Replacement Tower Location

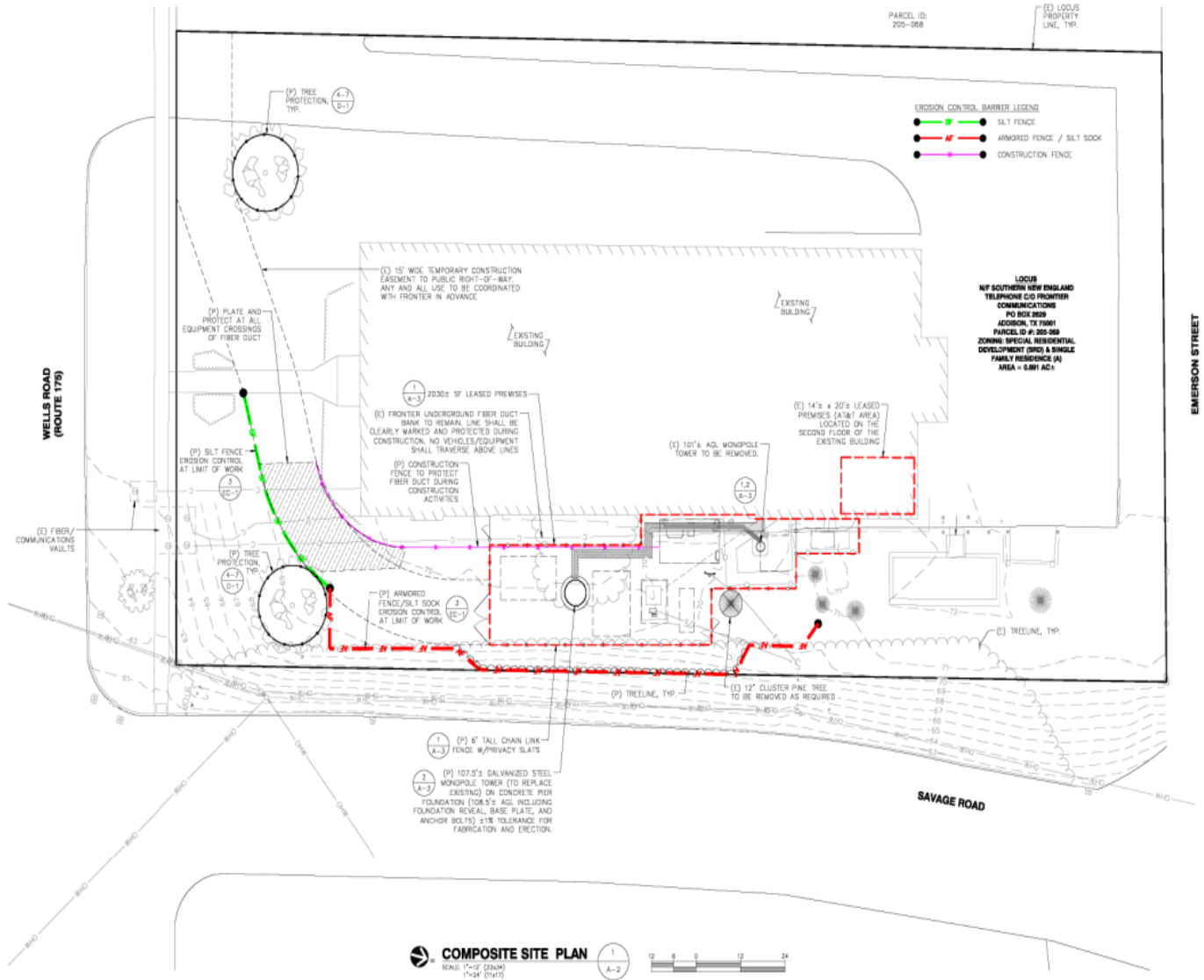


Figure 3 - Proposed Site Plan

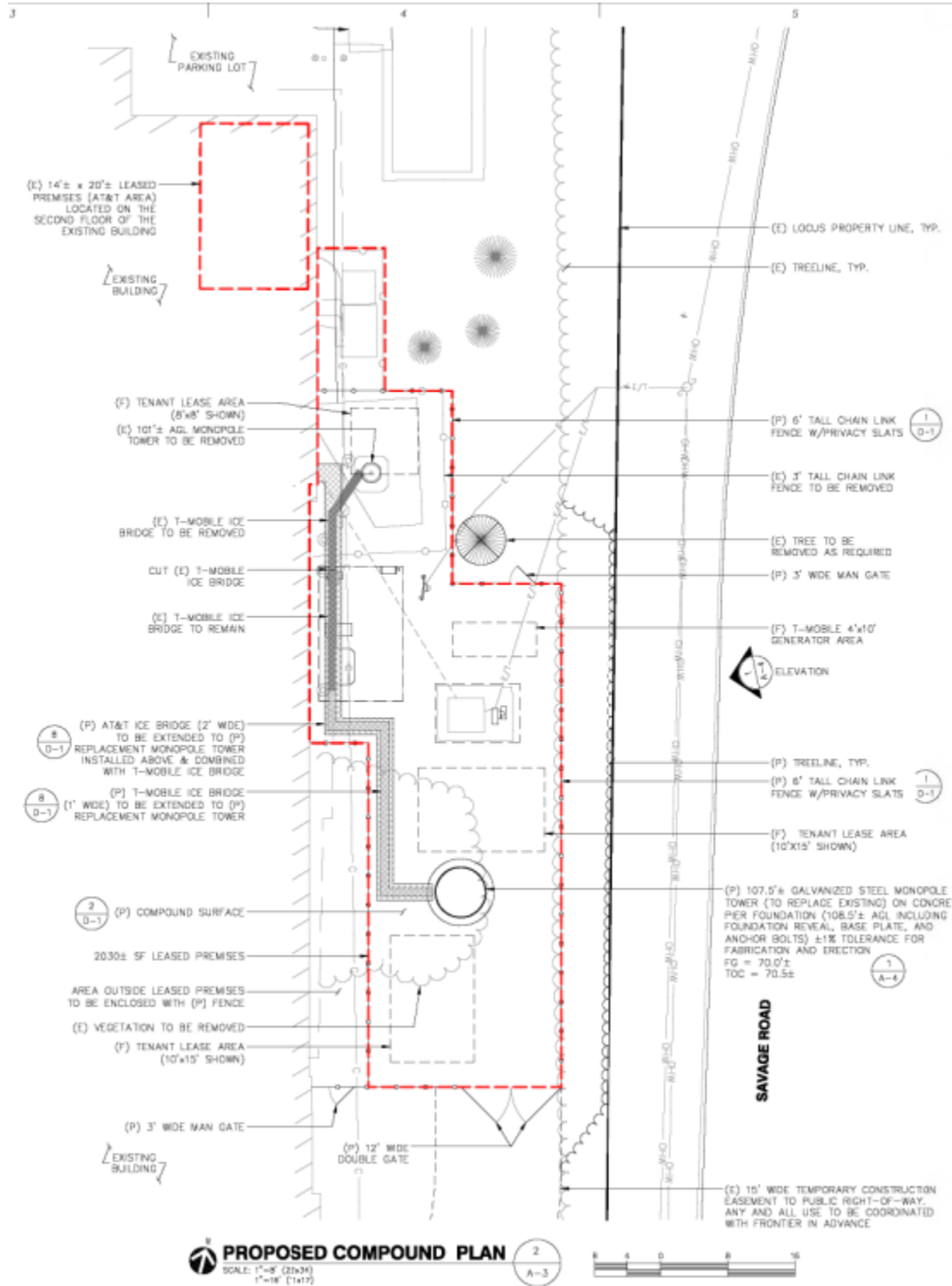
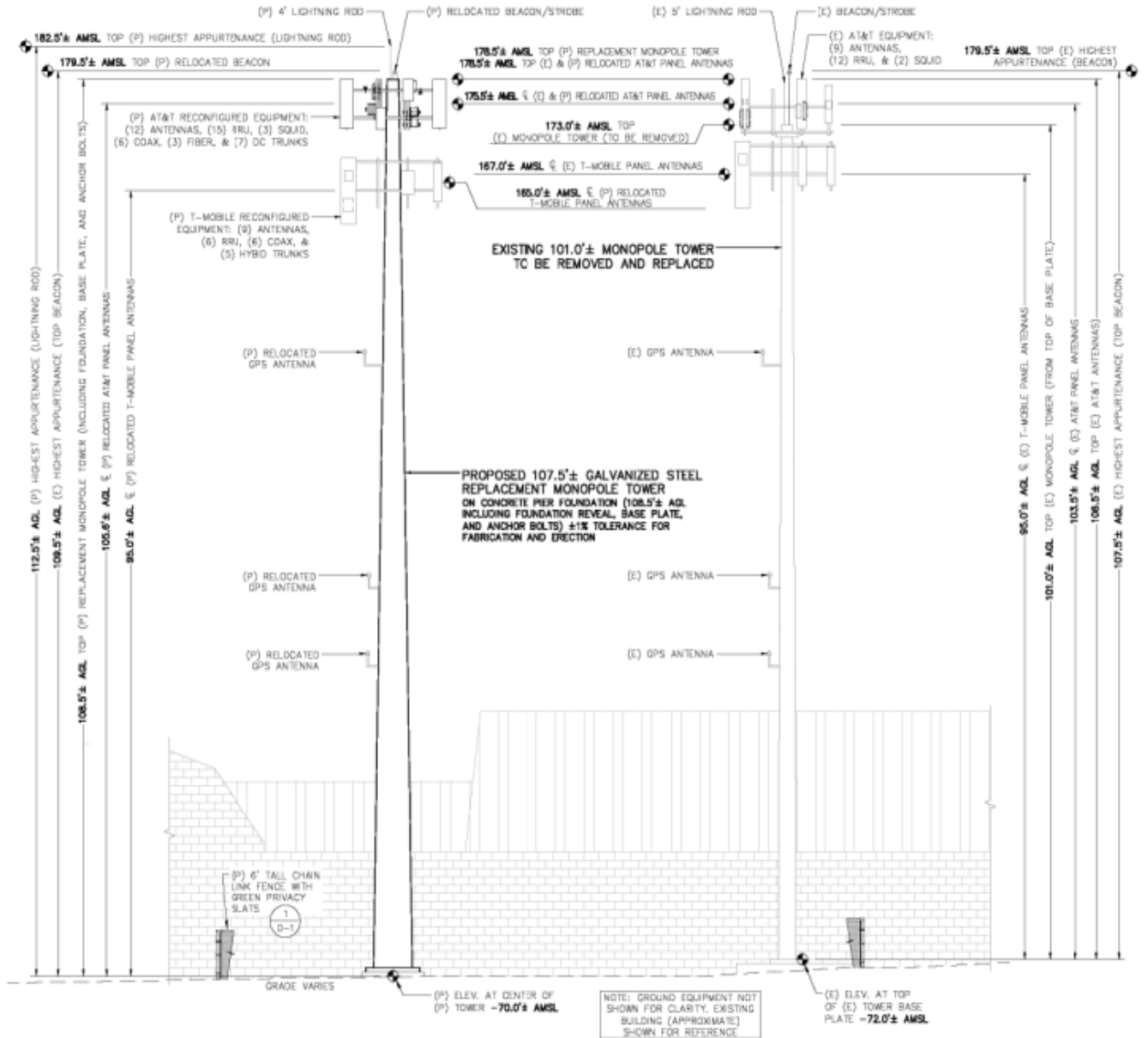


Figure 4 - Proposed Replacement Tower Elevation Drawing



STATE OF CONNECTICUT)

: ss. Southington, Connecticut September 30, 2022

COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the Decision and Staff Report in Petition No. 1521 issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:



Melanie A. Bachman
Executive Director
Connecticut Siting Council

STATE OF CONNECTICUT)

: ss. New Britain, Connecticut September 30, 2022

COUNTY OF HARTFORD)

I certify that a copy of the Connecticut Siting Council Decision and Staff Report in Petition No. 1521 has been forwarded by Certified First Class Return Receipt Requested mail, on September 30, 2022, to all parties and intervenors of record as listed on the attached service list, dated June 15, 2022.

ATTEST:



Lisa Fontaine
Fiscal Administrative Officer
Connecticut Siting Council

LIST OF PARTIES AND INTERVENORS
SERVICE LIST

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Petitioner	E-mail	EIP Communications I, LLC	Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597 Phone (860) 275-8200 kbaldwin@rc.com



SITE NAME: AT&T WETHERSFIELD MONOPOLE

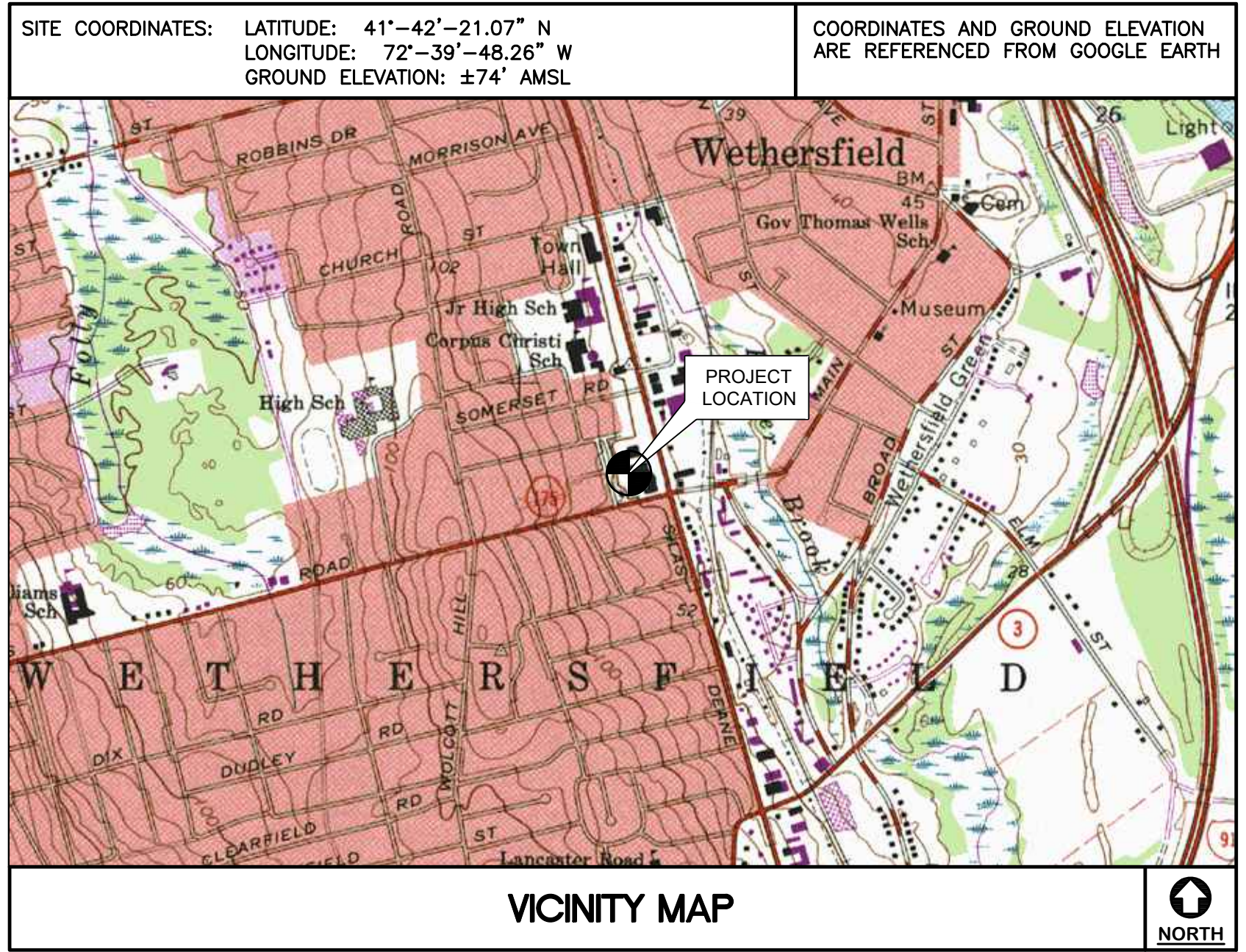
SITE ID: CTHA506A

75 WELLS ROAD

WETHERSFIELD, CT 06109

GENERAL NOTES	
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2022 CONNECTICUT SUPPLEMENT, INCLUDING THE IA/EIA-222 REVISION "H" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES," 2022 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.	10. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
2. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.	11. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
3. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.	12. ANY AND ALL ERRORS, DISCREPANCIES, AND 'MISSED' ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE T-MOBILE CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
4. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.	13. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
5. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL, AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.	14. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
6. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN 'AS-BUILT' SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.	15. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
7. LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.	16. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUITS AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.	17. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
9. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.	18. THE CONTRACTOR SHALL CONTACT 'CALL BEFORE YOU DIG' AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
	19. CONTRACTOR SHALL COMPLY WITH THE OWNER'S ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.

SITE DIRECTIONS	
FROM: 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002	TO: 75 WELLS ROAD WETHERSFIELD, CT 06109
1. HEAD NORTH ON GRIFFIN ROAD S. TOWARD HARTMAN RD.	0.30 MI.
2. TAKE THE 2ND RIGHT ONTO DAY HILL RD.	0.14 MI.
3. TAKE THE 1ST RIGHT ONTO BLUE HILLS AVENUE EXT/CT-187	1.89 MI.
4. TURN LEFT ONTO CT-305/OLD WINDSOR RD.	2.33 MI.
5. MERGE ONTO I-91 S TOWARD HARTFORD	8.33 MI.
6. MERGE ONT US-5 S/CT-15 S via EXIT 28 TOWARD WETHERSFIELD/NEWINGTON/BERLIN TPKE	0.97 MI.
7. MERGE ON SILAS DEANE HWY/CT-99 S via EXIT 85 TOWARD ROCKY HILL/WETHERSFIELD	1.71 MI.
8. TURN RIGHT ONTO WELLS RD/CT-175	0.11 MI.
9. 75 WELLS RD, WETHERSFIELD, CT 06109-3050, 75 WELLS RD IS ON THE RIGHT	



PROJECT SUMMARY
1. THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:
A. INSTALL (1) NEW 48 KW DIESEL FUELED BACK-UP AC GENERATOR ON A PROPOSED 10' x 4' CONCRETE PAD
B. INSTALL (1) 200A AUTOMATIC TRANSFER SWITCH.

PROJECT INFORMATION	
SITE NAME:	AT&T WETHERSFIELD MONOPOLE
SITE ID:	CTHA506A
SITE ADDRESS:	75 WELLS ROAD WETHERSFIELD, CT 06109
APPLICANT:	T-MOBILE NORTHEAST, LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002
CONTACT PERSON:	DAN REID (PROJECT MANAGER) TRANSCEND WIRELESS, LLC (203) 592-8291
ENGINEER OF RECORD:	CEN TEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT 06405 CARLO F. CENTORE, PE (203) 488-0580 EXT. 122
PROJECT COORDINATES:	LATITUDE: 41°-42'-21.07" N LONGITUDE: 72°-39'-48.26" W GROUND ELEVATION: ±74' AMSL SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH.

SHEET INDEX		
SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
N-1	GENERAL NOTES AND SPECIFICATIONS	1
C-1	EQUIPMENT LAYOUT PLANS AND COMPOUND PLAN	1
C-2	TYPICAL EQUIPMENT DETAILS	1
E-1	ELECTRICAL CONDUIT ROUTING AND RISER DIAGRAM	1
E-2	ELECTRICAL SPECIFICATIONS	1

PROFESSIONAL ENGINEER SEAL	
T-MOBILE NORTHEAST LLC AT&T WETHERSFIELD MONOPOLE SITE ID: CTHA506A 75 WELLS ROAD WETHERSFIELD, CT 06109	
DATE:	09/12/21
SCALE:	AS NOTED
JOB NO.	21003.30
TITLE SHEET	
T-1	
Sheet No. 1	of 6

REV.	DATE	BY	DESCRIPTION
0	03/31/23	RJS	CONSTRUCTION DRAWINGS - REVISED PER GEN LOCATION
	10/06/21	TJR	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

NOTES AND SPECIFICATIONS

DESIGN BASIS:

GOVERNING CODE: 2021 INTERNATIONAL BUILDING (IBC) AS MODIFIED BY THE 2022 CONNECTICUT STATE BUILDING CODE.

- DESIGN CRITERIA:
RISK CATEGORY II (BASED ON IBC TABLE 1604.5)
NOMINAL DESIGN SPEED: 97 MPH (Vasd) (EXPOSURE C/ IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-16).

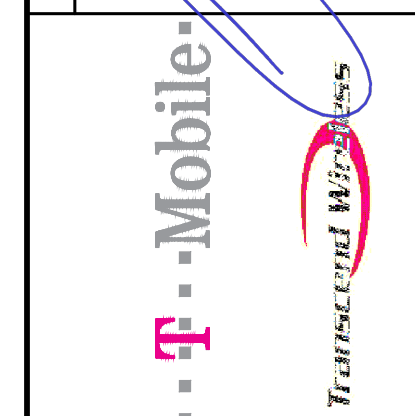
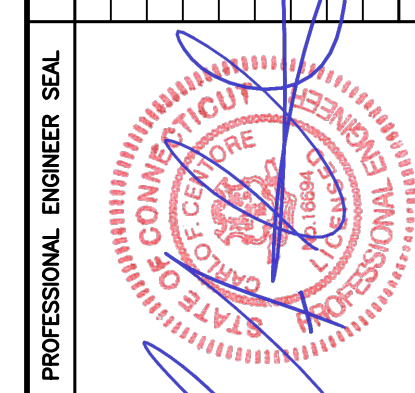
SITE NOTES

- THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
ACTIVE EXISTING UTILITIES, WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY, PRIOR TO PROCEEDING, SHOULD ANY UNCOVERED EXISTING UTILITY PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
THE AREAS OF THE COMPOUND DISTURBED BY THE WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
IF ANY FIELD CONDITIONS EXIST WHICH PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL PROCEED WITH AFFECTED WORK AFTER CONFLICT IS SATISFACTORILY RESOLVED.

GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2022 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "H" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES." 2022 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
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ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
ANY AND ALL ERRORS, DISCREPANCIES, AND "MISSED" ITEMS, ARE TO BE BROUGHT TO THE ATTENTION OF THE SITE OWNER'S CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
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COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
THE CONTRACTOR SHALL CONTACT "DIG SAFE" (DIAL 811) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
CONTRACTOR SHALL COMPLY WITH OWNER'S ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.
THE COUNTY/CITY/TOWN WILL MAKE PERIODIC FIELD OBSERVATION AND INSPECTIONS TO MONITOR THE INSTALLATION, MATERIALS, WORKMANSHIP AND EQUIPMENT INCORPORATED INTO THE PROJECT TO ENSURE COMPLIANCE WITH THE DESIGN PLANS, SPECIFICATIONS, CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.
THE COUNTY/CITY/TOWN MUST BE NOTIFIED (2) WORKING DAYS PRIOR TO CONCEALMENT/BURIAL OF ANY SYSTEM OR MATERIAL THAT WILL PREVENT THE DIRECT INSPECTION OF MATERIALS, METHODS OR WORKMANSHIP. EXAMPLES OF THESE PROCESSES ARE BACKFILLING A GROUND RING OR TOWER FOUNDATION, POURING TOWER FOUNDATIONS, BURYING GROUND RODS, PLATES OR GRIDS, ETC. THE CONTRACTOR MAY PROCEED WITH THE SCHEDULED PROCESS (2) WORKING DAYS AFTER PROVIDING NOTICE UNLESS NOTIFIED OTHERWISE BY THE COUNTY/CITY/TOWN.

Table with 2 columns: REVISIONS, DESCRIPTION. Includes dates like 03/31/23 and 10/06/21.

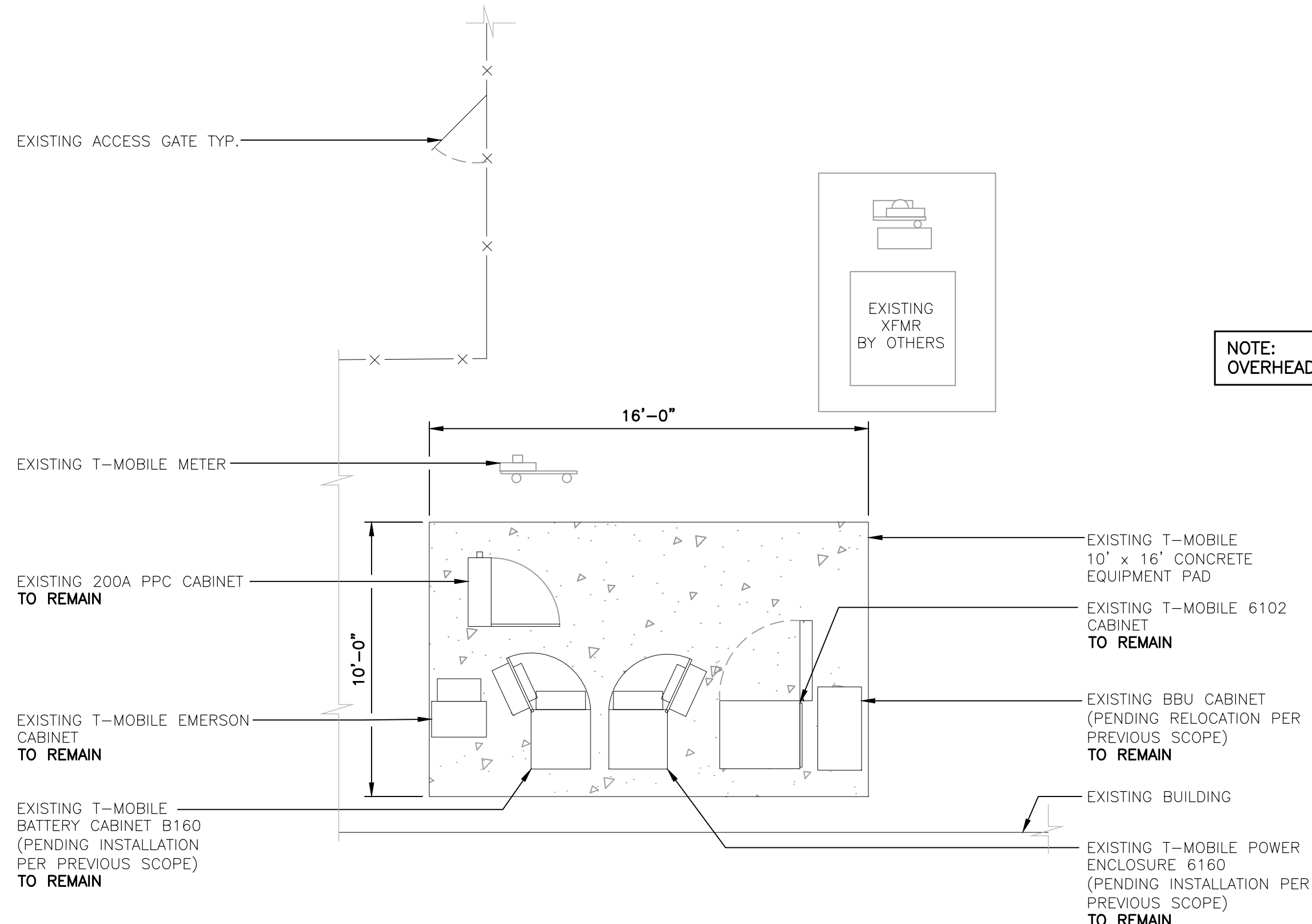


CENTEX engineering
Centered on Solutions
(203) 488-0280
(203) 488-8587 Fax
63-2 North Branford Road
Branford, CT 06405
www.CentexEng.com

T-MOBILE NORTHEAST LLC
AT&T WETHERSFIELD MONOPOLE
SITE ID: CTHA506A
75 WELLS ROAD
WETHERSFIELD, CT 06109

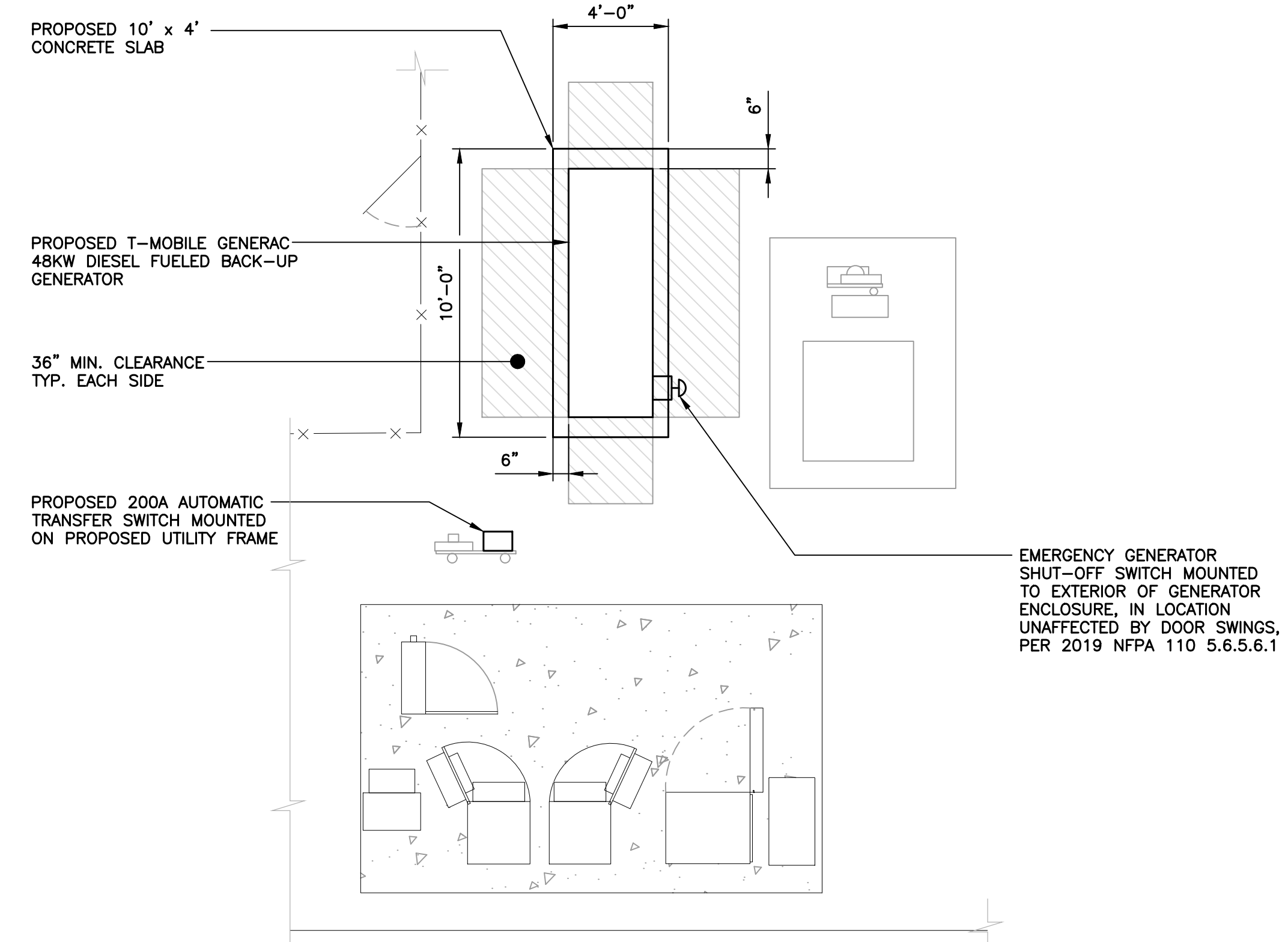
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SCALE: AS NOTED
JOB NO. 21003.30

GENERAL NOTES AND SPECIFICATIONS

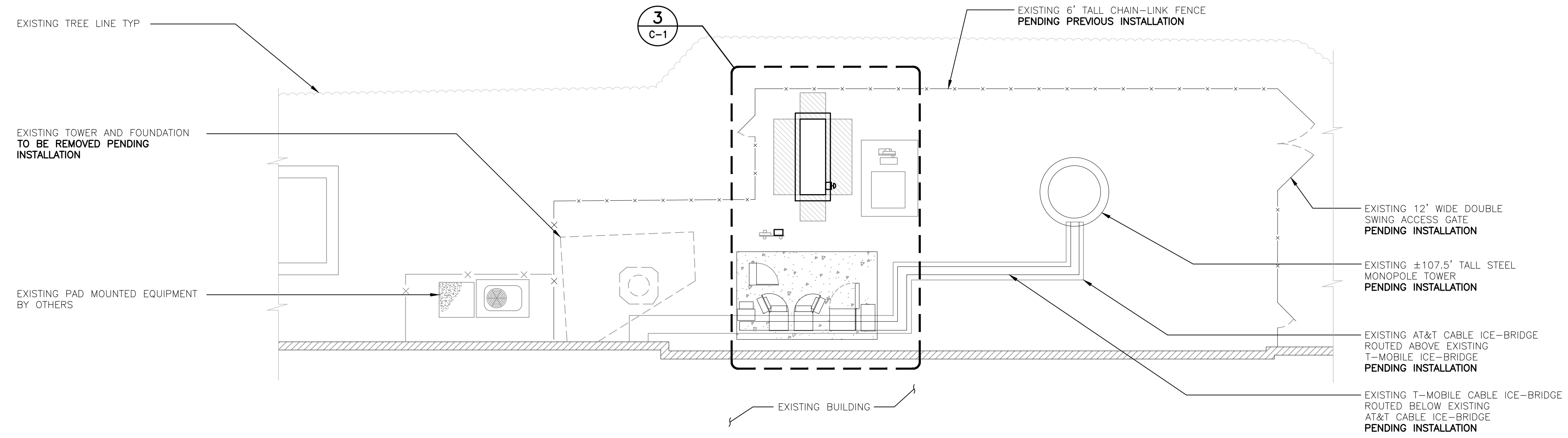


2 EQUIPMENT PLAN - EXISTING
C-1 SCALE: 1" = 5'

NOTE: OVERHEAD ICE BRIDGE NOT SHOWN FOR CLARITY



3 EQUIPMENT PLAN - PROPOSED
C-1 SCALE: 1" = 5'



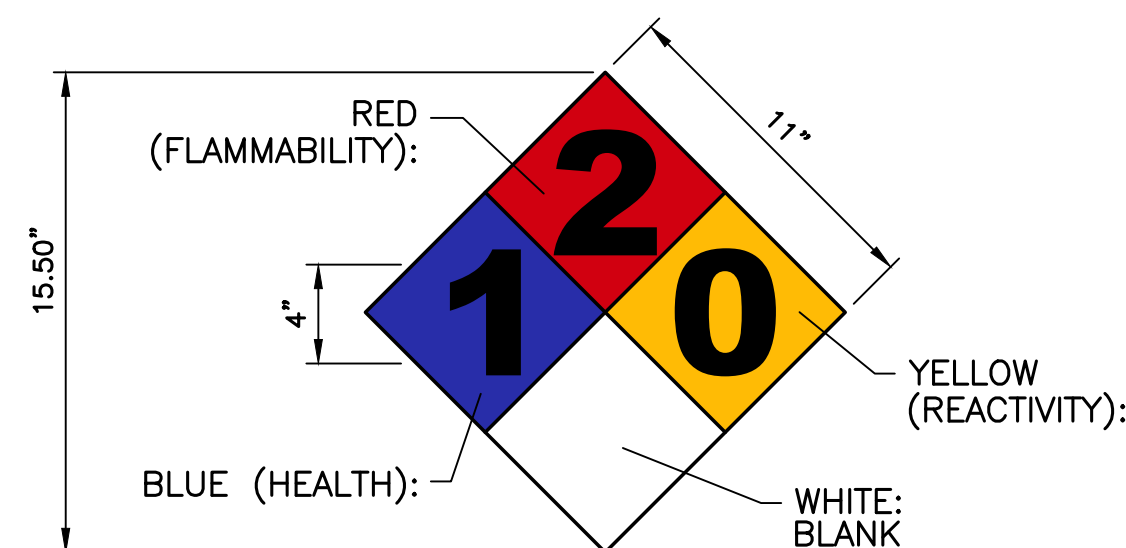
1 PARTIAL COMPOUND PLAN - PROPOSED
C-1 SCALE: 1" = 5'

PROFESSIONAL ENGINEER SEAL	CONSTRUCTION DRAWINGS - REVISED PER GEN LOCATION
	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION
T-Mobile	DATE
03/31/23	TJR
10/06/21	TJR
0	DATE
REV.	DESCRIPTION
<p>CENTER engineering Centered on Solutions™ (203) 488-0380 (203) 488-8587 Fax 63-2 North Branford Road Branford, CT 06405 www.CenterEng.com</p>	
<p>T-MOBILE NORTHEAST LLC AT&T WETHERSFIELD MONOPOLE SITE ID: CTHA506A 75 WELLS ROAD WETHERSFIELD, CT 06109</p>	
DATE:	09/12/21
SCALE:	AS NOTED
JOB NO.	21003.30
EQUIPMENT LAYOUT PLANS AND COMPOUND PLAN	
C-1	
Sheet No. 3	of 6



AUTOMATIC TRANSFER SWITCH					
EQUIPMENT	PHASE	VOLTAGE	ENCLOSURE	AMP	DIMENSIONS
MAKE: GENERAC MODEL: RXSC200A3	1-PHASE	120/240	NEMA-3R	200	17.3"L x 12.5"W

1 AUTOMATIC TRANSFER SWITCH DETAIL
SCALE: NOT TO SCALE



SIGN NAME: REGULATORY, NFPA 704 HAZARD ID
 DESCRIPTION: MOUNT ON GENERATOR ACCESS DOOR. CONSULT WITH GENERATOR MANUFACTURER MSDS SHEET FOR BLUE AND RED POSITIONS
 NOTES:
 1) SIGNS EXPOSED TO WEATHER SHOULD BE CHECKED ANNUALLY FOR READABILITY.
 2) SIGNS MUST BE UPDATED IF CHEMICAL STORAGE OR HAZARD INFORMATION FOR THE LOCATION CHANGES.
 3) THE GC MUST REVIEW WITH LOCAL JURISDICTION WHEN FILING FOR PERMITS, AS EACH JURISDICTION MAY HAVE DIFFERENT REQUIREMENTS AND COMPLY WITH POSTING REQUIREMENTS OR DIRECTIVES FROM THE LOCAL JURISDICTION.

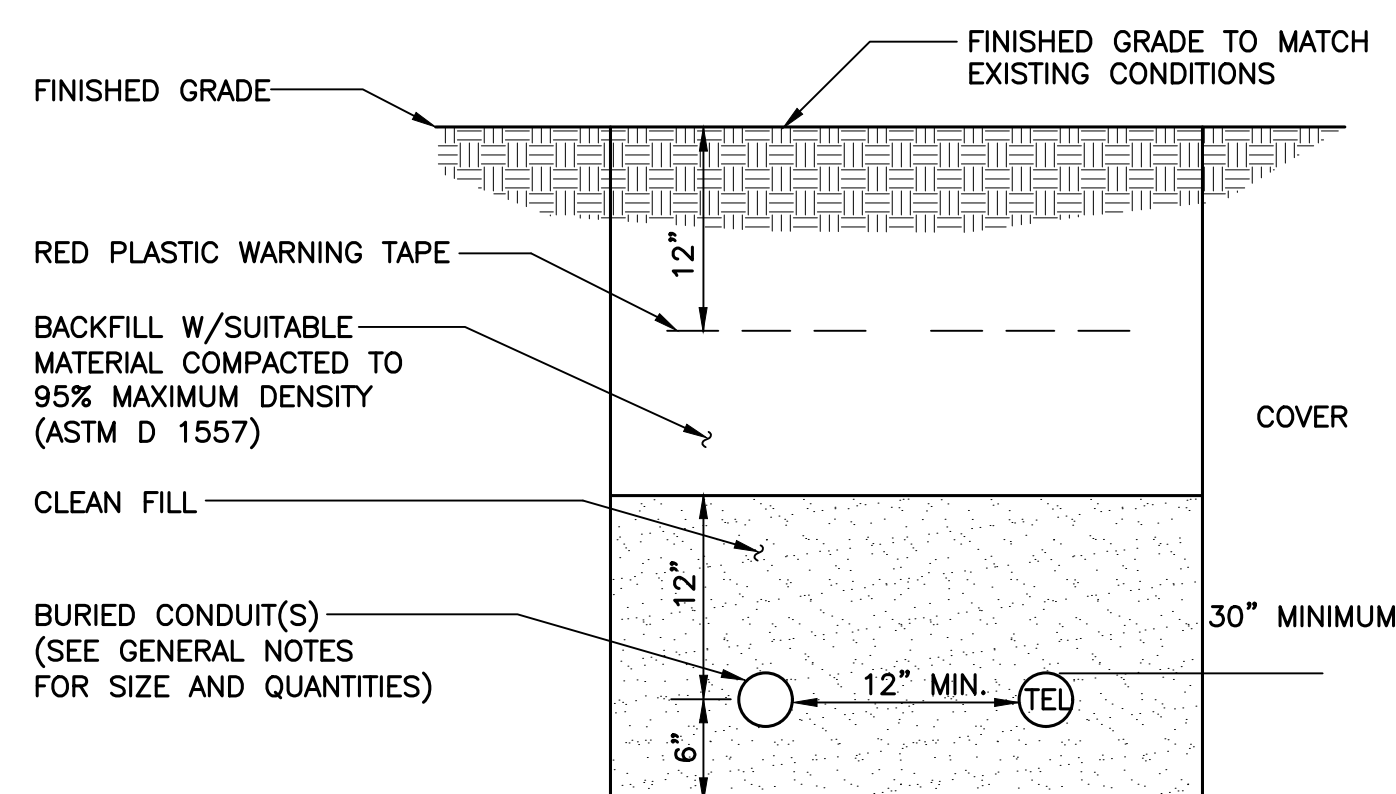
2 NFPA 704 DIAMOND SIGNAGE DETAIL
SCALE: NOT TO SCALE



BACKUP POWER GENERATOR						
EQUIPMENT	POWER GENERATED	FUEL	MODEL NUMBER	FUEL TANK SIZE (GAL)	DIMENSIONS	WEIGHT
MAKE: GENERAC MODEL: RD48	48 KW, AC	DIESEL	7194	229	103.4"L x 35.0"W x 91.7"H	2915 LBS.

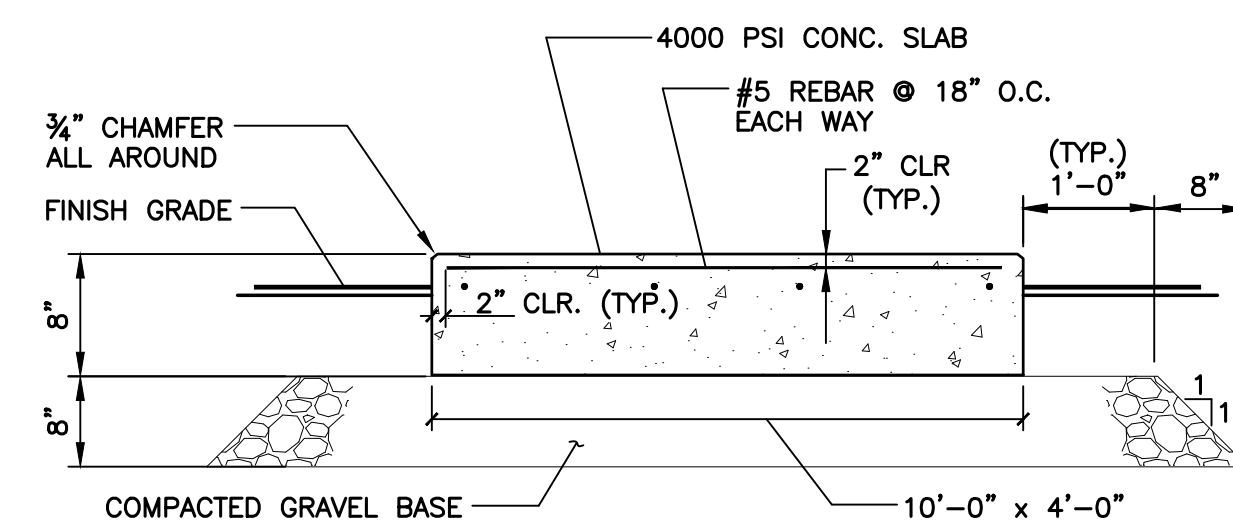
NOTES:
 1. FUEL LEVEL/SECONDARY CONTAINMENT SHALL BE ALARMED AND IN COMMUNICATION WITH T-MOBILE'S NOC.
 2. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION AND ALL OPTIONAL FEATURES WITH T-MOBILE'S CONSTRUCTION MANAGER PRIOR TO ORDERING.

3 PROPOSED GENERATOR DETAIL
SCALE: NOT TO SCALE



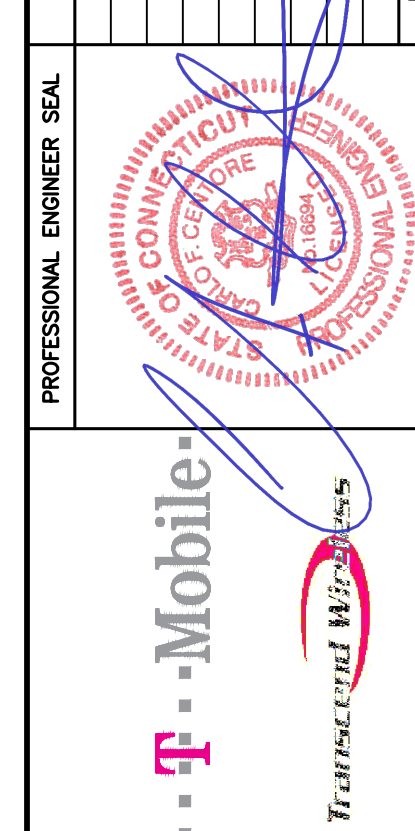
NOTES:
 1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION.
 2. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

4 TYPICAL ELECTRICAL/TEL TRENCH DETAIL
SCALE: NOT TO SCALE



5 TYPICAL CONCRETE PAD DETAIL
SCALE: NOT TO SCALE

REV.	DATE	TJR	RTS	TJR	RTS	DESCRIPTION
0	03/31/23					CONSTRUCTION DRAWINGS - REVISED PER GEN LOCATION
	10/06/21					CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION



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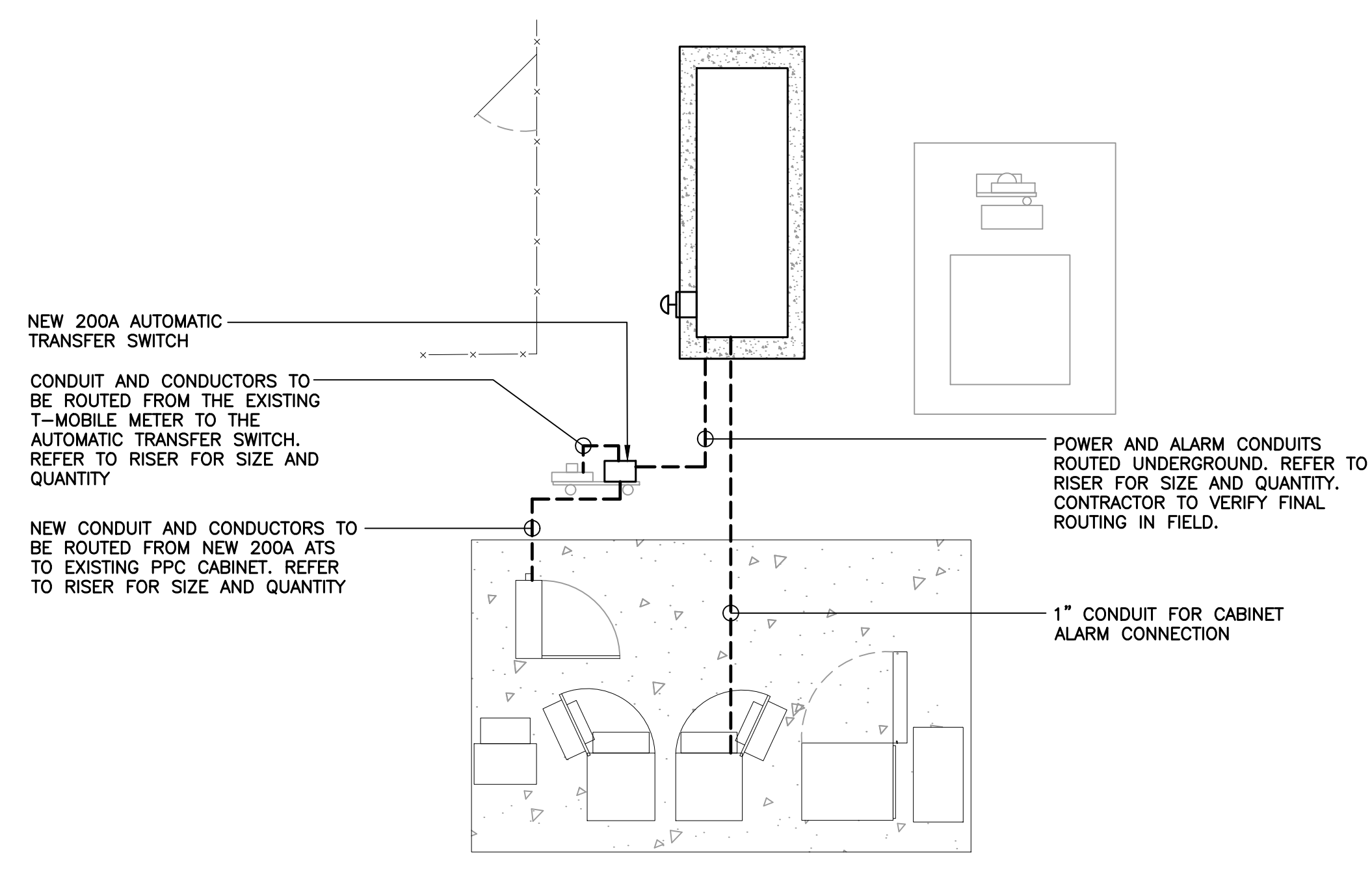
T-MOBILE NORTHEAST LLC
 AT&T WETHERSFIELD MONOPOLE
 SITE ID: CTHA506A
 75 WELLS ROAD
 WETHERSFIELD, CT 06109

DATE: 09/12/21
 SCALE: AS NOTED
 JOB NO. 21003.30

TYPICAL EQUIPMENT DETAILS

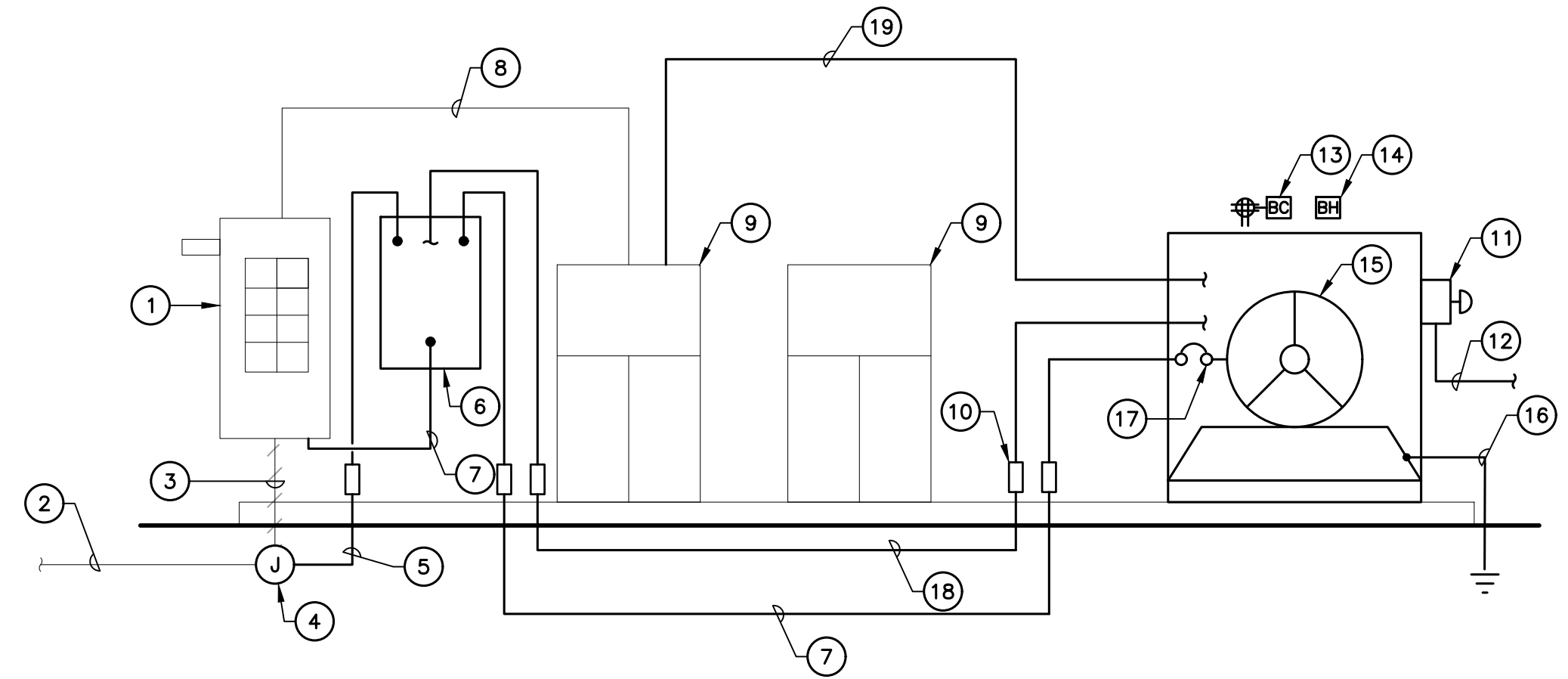
C-2
 Sheet No. 4 of 6

NOTE: CONDUITS SHOWN HEREIN ARE DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE FOR ALL CONDUIT ROUTING REGARDING LENGTH OF RUN, FEASIBILITY, AND SAFETY PROTOCOLS. CONDUITS SHOULD BE INSTALLED IN A MANNER OF LEAST OBSTRUCTION TO EGRESS PATHS/WALKWAYS TO AVOID TRIPPING HAZARDS.



1 ELECTRICAL CONDUIT ROUTING PLAN
E-1 SCALE: 1/4" = 1'

RISER DIAGRAM NOTES	RISER DIAGRAM NOTES
<ul style="list-style-type: none"> ① EXISTING PPC CABINET TO REMAIN. ② EXISTING POWER CONDUIT AND CONDUCTORS PREVIOUSLY SERVING EXISTING PPC. ③ SECTION OF CONDUIT AND CONDUCTORS TO BE REMOVED. ④ JUNCTION BOX SIZED PER NEC. ⑤ EXTEND EXISTING CONDUITS AND CONDUCTORS TO NEW ATS. ⑥ NEW 200A, 2 SOURCE AUTOMATIC TRANSFER SWITCH. ⑦ (3) #3/0 AWG, (1) #6 AWG GROUND, 2-1/2" CONDUIT. ⑧ EXISTING CONDUITS AND CONDUCTORS TO REMAIN ⑨ EXISTING EQUIPMENT CABINETS TO REMAIN. ⑩ EXPANSION COUPLING TYPICAL. 	<ul style="list-style-type: none"> ⑪ REMOTE GENERATOR SHUT OFF SWITCH IN BREAK GLASS ENCLOSURE MOUNTED TO EXTERIOR OF GENERATOR ENCLOSURE PER 2019 NFPA 110 5.6.5.6.1. ⑫ 3/4" CONDUIT AND CONDUCTORS REQUIRED FOR PROPER OPERATION OF EMERGENCY GENERATOR SHUT OFF SWITCH. ⑬ GENERATOR BATTERY CHARGER AND CONVENIENCE GFCI OUTLET WIRED TO EXISTING PANEL. OUTLET TO BE MOUNTED IN WEATHERPROOF ENCLOSURE. ⑭ GENERATOR BLOCK HEATER WIRED TO EXISTING PANEL SERVING T-MOBILE EQUIPMENT. ⑮ EMERGENCY BACK UP GENERATOR. ⑯ GENERATOR GROUNDING PER NEC AND MANUFACTURER'S REQUIREMENTS. BOND TO EXISTING GROUNDING SYSTEM. (MINIMUM OF (1) #2 AWG GROUND) ⑰ GENERATOR OUTPUT CIRCUIT BREAKER. ⑱ 1" CONDUIT FOR GENERATOR CONTROL AND SIGNAL WIRING.



2 ELECTRICAL RISER DIAGRAM
E-1 NOT TO SCALE

			T-MOBILE NORTHEAST LLC AT&T WETHERSFIELD MONOPOLE SITE ID: CTHA506A 75 WELLS ROAD WETHERSFIELD, CT 06109	CONSTRUCTION DRAWINGS - REVISED PER GEN LOCATION CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION DATE REV.
03/31/23 10/06/21	RTS RTS	TJR TJR	DATE DRAWN BY/CHK'D BY	DESCRIPTION
0	0	0	0	0
DATE: 09/12/21 SCALE: AS NOTED JOB NO. 21003.30 ELECTRICAL CONDUIT ROUTING AND RISER DIAGRAM E-1 Sheet No. 5 of 6				

ELECTRICAL SPECIFICATIONS

SECTION 16010

1.02. GENERAL REQUIREMENTS

- A. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFINGEMENT OF SUCH CODES OR REGULATIONS.
- B. THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNERS REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.
- C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES THAT MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR THE SCHEDULING OF ALL INSPECTIONS THAT MAY BE REQUIRED BY THE LOCAL AUTHORITY.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.
- E. NO MATERIAL OTHER THAN THAT CONTAINED IN THE "LATEST LIST OF ELECTRICAL FITTINGS" APPROVED BY THE UNDERWRITERS' LABORATORIES, SHALL BE USED IN ANY PART OF THE WORK. ALL MATERIAL FOR WHICH LABEL SERVICE HAS BEEN ESTABLISHED SHALL BEAR THE U.L. LABEL.
- F. THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.
- G. DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITTAL OF BID.
- H. THE ELECTRICAL CONTRACTOR SHALL SUPPLY THREE (3) COMPLETE SETS OF APPROVED DRAWINGS, ENGINEERING DATA SHEETS, MAINTENANCE AND OPERATING INSTRUCTION MANUALS FOR ALL SYSTEMS AND THEIR RESPECTIVE EQUIPMENT. THESE MANUALS SHALL BE INSERTED IN VINYL COVERED 3-RING BINDERS AND TURNED OVER TO OWNER'S REPRESENTATIVE ONE (1) WEEK PRIOR TO FINAL PUNCH LIST.
- I. ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER AND WILL BE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
- J. ALL EQUIPMENT AND MATERIALS TO BE INSTALLED SHALL BE NEW, UNLESS OTHERWISE NOTED.
- K. BEFORE FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF PRINTS (AS-BUILTS), LEGIBLY MARKED IN RED PENCIL TO SHOW ALL CHANGES FROM THE ORIGINAL PLANS.
- L. PROVIDE TEMPORARY POWER AND LIGHTING IN WORK AREAS AS REQUIRED.
- M. SHOP DRAWINGS:
 - 1. CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF SHOP DRAWINGS ON ALL EQUIPMENT AND MATERIALS PROPOSED FOR USE ON THIS PROJECT, GIVING ALL DETAILS, WHICH INCLUDE DIMENSIONS, CAPACITIES, ETC.
 - 2. CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF ALL TEST REPORTS CALLED FOR IN THE SPECIFICATIONS AND DRAWINGS.
- N. ENTIRE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH OWNER'S SPECIFICATIONS, AND REQUIREMENTS OF ALL LOCAL AUTHORITIES HAVING JURISDICTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH APPROPRIATE INDIVIDUALS TO OBTAIN ALL SUCH SPECIFICATIONS AND REQUIREMENTS. NOTHING CONTAINED IN, OR OMITTED FROM, THESE DOCUMENTS SHALL RELIEVE CONTRACTOR FROM THIS OBLIGATION.

SECTION 16111

1.01. CONDUIT

- A. MINIMUM CONDUIT SIZE FOR BRANCH CIRCUITS, LOW VOLTAGE CONTROL AND ALARM CIRCUITS SHALL BE 3/4". CONDUITS SHALL BE PROPERLY FASTENED AS REQUIRED BY THE N.E.C.
- B. THE INTERIOR OF RACEWAYS/ENCLOSURES INSTALLED UNDERGROUND SHALL BE CONSIDERED TO BE WET LOCATION, INSULATED CONDUCTORS SHALL BE LISTED FOR USE IN WET LOCATIONS. PROVIDE WEATHERPROOF CONSTRUCTION IN WET LOCATIONS.
- C. CONDUIT INSTALLED UNDERGROUND SHALL BE INSTALLED TO MEET MINIMUM COVER REQUIREMENTS OF TABLE 300.5.
- D. PROVIDE RIGID GALVANIZED STEEL CONDUIT (RMC) FOR THE FIRST 10 FOOT SECTION WHEN LEAVING A BUILDING OR SECTIONS PASSING THROUGH FLOOR SLABS
- E. ONLY LISTED PVC CONDUIT AND FITTINGS ARE PERMITTED FOR THE INSTALLATION OF ELECTRICAL CONDUCTORS, SUITABLE FOR UNDERGROUND APPLICATIONS.

CONDUIT SCHEDULE SECTION 16111			
CONDUIT TYPE	NEC REFERENCE	APPLICATION	MIN. BURIAL DEPTH (PER NEC TABLE 300.5) ³
EMT	ARTICLE 358	INTERIOR CIRCUITING, EQUIPMENT ROOMS, SHELTERS	N/A
RMC, RIGID GALV. STEEL	ARTICLE 344, 300.5, 300.50	ALL INTERIOR/ EXTERIOR CIRCUITING, ALL UNDERGROUND INSTALLATIONS.	6 INCHES
PVC, SCHEDULE 40	ARTICLE 352, 300.5, 300.50	INTERIOR/ EXTERIOR CIRCUITING AND GROUNDING SYSTEMS, UNDERGROUND INSTALLATIONS, WHERE NOT SUBJECT TO PHYSICAL DAMAGE. ¹	18 INCHES
PVC, SCHEDULE 80	ARTICLE 352, 300.5, 300.50	INTERIOR/ EXTERIOR CIRCUITING AND GROUNDING SYSTEMS, UNDERGROUND INSTALLATIONS, WHERE SUBJECT TO PHYSICAL DAMAGE. ¹	18 INCHES
LIQUID TIGHT FLEX. METAL	ARTICLE 350	SHORT LENGTHS (MAX. 3FT.) WIRING TO VIBRATING EQUIPMENT IN WET LOCATIONS.	N/A
FLEX. METAL	ARTICLE 348	SHORT LENGTHS (MAX. 3FT.) WIRING TO VIBRATING EQUIPMENT IN WET LOCATIONS.	N/A

¹ PHYSICAL DAMAGE IS SUBJECT TO THE AUTHORITY HAVING JURISDICTION.
² UNDERGROUND CONDUIT INSTALLED UNDER ROADS, HIGHWAYS, DRIVEWAYS, PARKING LOTS SHALL HAVE MINIMUM DEPTH OF 24".
³ WHERE SOLID ROCK PREVENTS COMPLIANCE WITH MINIMUM COVER DEPTHS, WIRING SHALL BE INSTALLED IN PERMITTED RACEWAY FOR DIRECT BURIAL. THE RACEWAY SHALL BE COVERED BY A MINIMUM OF 2" OF CONCRETE EXTENDING DOWN TO ROCK.

SECTION 16123

1.01. CONDUCTORS

- A. ALL CONDUCTORS SHALL BE TYPE THWN (INT. APPLICATION) AND XHHW (EXT. APPLICATION), 75 DEGREE C, 600 VOLT INSULATION, SOFT ANNEALED STRANDED COPPER. #10 AWG AND SMALLER SHALL BE SPLICED USING ACCEPTABLE SOLDERLESS PRESSURE CONNECTORS. #8 AWG AND LARGER SHALL BE SPLICED USING COMPRESSION SPLIT-BOLT TYPE CONNECTORS. #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR FOR LINE VOLTAGE BRANCH CIRCUITS. REFER TO PANEL SCHEDULE FOR BRANCH CIRCUIT CONDUCTOR SIZE(S). CONDUCTORS SHALL BE COLOR CODED FOR CONSISTENT PHASE IDENTIFICATION:

LINE	120/208/240V	277/480V
A	BLACK	BROWN
B	RED	ORANGE
C	BLUE	YELLOW
N	CONTINUOUS WHITE	GREY
G	CONTINUOUS GREEN	GREEN WITH YELLOW STRIPE

- B. MINIMUM BENDING RADIUS FOR CONDUCTORS SHALL BE 12 TIMES THE LARGEST DIAMETER OF BRANCH CIRCUIT CONDUCTOR.

SECTION 16130

1.01. BOXES

- A. FURNISH AND INSTALL OUTLET BOXES FOR ALL DEVICES, SWITCHES, RECEPTACLES, ETC.. BOXES TO BE ZINC COATED STEEL.
- B. FURNISH AND INSTALL PULL BOXES IN MAIN FEEDERS RUNS WHERE REQUIRED. PULL BOXES SHALL BE GALVANIZED STEEL WITH SCREW REMOVABLE COVERS, SIZE AND QUANTITY AS REQUIRED. PROVIDE WEATHERPROOF CONSTRUCTION IN WET LOCATIONS.

SECTION 16140

1.01. WIRING DEVICES

- A. THE FOLLOWING LIST IS PROVIDED TO CONVEY THE QUALITY AND RATING OF WIRING DEVICES WHICH ARE TO BE INSTALLED. A COMPLETE LIST OF ALL DEVICES MUST BE SUBMITTED BEFORE INSTALLATION FOR APPROVAL.
 - 1. 15 MINUTE TIMER SWITCH - INTERMATIC #FF15M (INTERIOR LIGHTS)
 - 2. DUPLEX RECEPTACLE - P&S #2095 (GFCI) SPECIFICATION GRADE
 - 3. SINGLE POLE SWITCH - P&S #CSB20AC2 (20A-120V HARD USE) SPECIFICATION GRADE
 - 4. DUPLEX RECEPTACLE - P&S #5362 (20A-120V HARD USE) SPECIFICATION GRADE
- B. PLATES - ALL PLATES USED SHALL BE CORROSION RESISTANT TYPE 304 STAINLESS STEEL. PLATES SHALL BE FROM SAME MANUFACTURER AS SWITCHES AND RECEPTACLES. PROVIDE WEATHERPROOF HOUSING FOR DEVICES LOCATED IN WET LOCATIONS.
- C. OTHER MANUFACTURERS OF THE SWITCHES, RECEPTACLES AND PLATES MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER.

SECTION 16170

1.01. DISCONNECT SWITCHES

- A. FUSIBLE AND NON-FUSIBLE, 600V, HEAVY DUTY DISCONNECT SWITCHES SHALL BE AS MANUFACTURED BY SQUARE "D". PROVIDE FUSES AS CALLED FOR ON THE CONTRACT DRAWINGS. AMPERE RATING SHALL BE CONSISTENT WITH LOAD BEING SERVED. DISCONNECT SWITCH COVER SHALL BE MECHANICALLY INTERLOCKED TO PREVENT COVER FROM OPENING WHEN THE SWITCH IS IN THE "ON" POSITION. EXTERIOR APPLICATIONS SHALL BE NEMA 3R CONSTRUCTION WITH PADLOCK FEATURE.

SECTION 16190

1.01. SEISMIC RESTRAINT

- A. ALL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH ZONE 2 SEISMIC REQUIREMENTS.

SECTION 16195

1.01. LABELING AND IDENTIFICATION NOMENCLATURE FOR ELECTRICAL EQUIPMENT

- A. CONTRACTOR SHALL FURNISH AND INSTALL NON-METALLIC ENGRAVED BACK-LIT NAMEPLATES ON ALL PANELS AND MAJOR ITEMS OF ELECTRICAL EQUIPMENT.
- B. LETTERS TO BE WHITE ON BLACK BACKGROUND WITH LETTERS 1-1/2 INCH HIGH WITH 1/4 INCH MARGIN.
- C. IDENTIFICATION NOMENCLATURE SHALL BE IN ACCORDANCE WITH OWNER'S STANDARDS.

SECTION 16450

1.01. GROUNDING

- A. ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.
- B. GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE LATEST ACCEPTABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS PER LOCAL INSPECTOR HAVING JURISDICTION.
- C. GROUNDING OF PANELBOARDS:
 - 1. PANELBOARD SHALL BE GROUNDED BY TERMINATING THE PANELBOARD FEEDER'S EQUIPMENT GROUND CONDUCTOR TO THE EQUIPMENT GROUND BAR KIT(S) LUGGED TO THE CABINET. ENSURE THAT THE SURFACE BETWEEN THE KIT AND CABINET ARE BARE METAL TO BARE METAL. PRIME AND PAINT OVER TO PREVENT CORROSION.
 - 2. CONDUIT(S) TERMINATING INTO THE PANELBOARD SHALL HAVE GROUNDING TYPE BUSHINGS. THE BUSHINGS SHALL BE BONDED TOGETHER WITH BARE #10 AWG COPPER CONDUCTOR WHICH IN TURN IS TERMINATED INTO THE PANELBOARD'S EQUIPMENT GROUND BAR KIT(S).
- D. EQUIPMENT GROUNDING CONDUCTOR:
 - 1. EACH EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250-122.
 - 2. THE MINIMUM SIZE OF EQUIPMENT GROUND CONDUCTOR SHALL BE #12 AWG COPPER.
 - 3. EACH FEEDER OR BRANCH CIRCUIT SHALL HAVE EQUIPMENT GROUND CONDUCTOR(S) INSTALLED IN THE SAME RACEWAY(S).
- E. CELLULAR GROUNDING SYSTEM:
 - CONTRACTOR SHALL PROVIDE A CELLULAR GROUNDING SYSTEM WITH THE MAXIMUM AC RESISTANCE TO GROUND OF 10 OHM BETWEEN ANY POINT ON THE GROUNDING SYSTEM AS MEASURED BY 3-POINT GROUNDING TEST. (REFER TO SECTION 16960).
 - PROVIDE THE CELLULAR GROUNDING SYSTEM AS SPECIFIED ON DRAWINGS, INCLUDING, BUT NOT LIMITED TO:
 - 1. GROUND BARS
 - 2. EXTERIOR GROUNDING (WHERE REQUIRED DUE TO MEASURED AC RESISTANCE GREATER THAN SPECIFIED).
 - 3. ANTENNA GROUND CONNECTIONS AND PLATES.
 - F. CONTRACTOR, AFTER COMPLETION OF THE COMPLETE GROUNDING SYSTEM BUT PRIOR TO CONCEALMENT/BURIAL OF SAME, SHALL NOTIFY OWNER'S PROJECT ENGINEER WHO WILL HAVE A DESIGN ENGINEER VISIT SITE AND MAKE A VISUAL INSPECTION OF THE GROUNDING GRID AND CONNECTIONS OF THE SYSTEM.
 - G. ALL EQUIPMENT SHALL BE BONDED TO GROUND AS REQUIRED BY N.E.C., MFG. SPECIFICATIONS, AND OWNER'S SPECIFICATIONS.

SECTION 16470

1.01. DISTRIBUTION EQUIPMENT

- A. REFER TO CONTRACT DRAWINGS FOR DETAILS AND SCHEDULES.

SECTION 16477

1.01. FUSES

- A. FUSES SHALL BE NONRENEWABLE TYPE AS MANUFACTURED BY "BUSSMAN" OR APPROVED EQUAL FUSES RATED TO 1/10 AMPERE UP TO 600 AMPERES SHALL BE EQUIVALENT TO BUSSMAN TYPE LPN-RK (250V) UL CLASS RK1, LOW PEAK, DUAL ELEMENT, TIME-DELAY FUSES. FUSES SHALL HAVE SEPARATE SHORT CIRCUIT AND OVERLOAD ELEMENTS AND HAVE AN INTERRUPTING RATING OF 200 KAIC. UPON COMPLETION OF WORK, PROVIDE ONE SPARE SET OF FUSES FOR EACH TYPE INSTALLED.

SECTION 16960

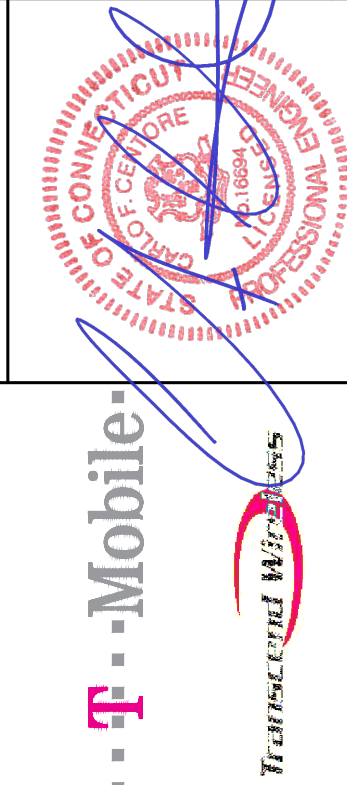
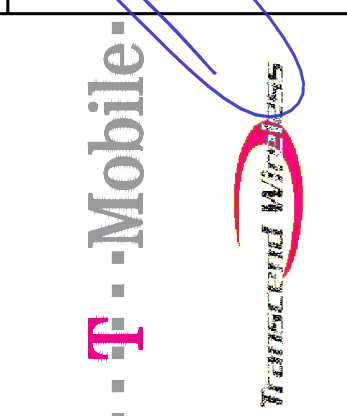
1.01. TESTS BY INDEPENDENT ELECTRICAL TESTING FIRM

- A. CONTRACTOR SHALL RETAIN THE SERVICES OF A LOCAL INDEPENDENT ELECTRICAL TESTING FIRM (WITH MINIMUM 5 YEARS COMMERCIAL EXPERIENCE IN THE ELECTRICAL TESTING INDUSTRY) AS SPECIFIED BY OWNER TO PERFORM:
 - TEST 1: THERMAL OVERLOAD AND MAGNETIC TRIP TEST, AND CABLE INSULATION TEST FOR ALL CIRCUIT BREAKERS RATED 100 AMPS OR GREATER.
 - TEST 2: RESISTANCE TO GROUND TEST ON THE CELLULAR GROUNDING SYSTEM.
- THE TESTING FIRM SHALL INCLUDE THE FOLLOWING INFORMATION WITH THE REPORT:
 - 1. TESTING PROCEDURE INCLUDING THE MAKE AND MODEL OF TEST EQUIPMENT.
 - 2. CERTIFICATION OF TESTING EQUIPMENT CALIBRATION WITHIN SIX (6) MONTHS OF DATE OF TESTING. INCLUDE CERTIFICATION LAB ADDRESS AND TELEPHONE NUMBER.
 - 3. GRAPHICAL DESCRIPTION OF TESTING METHOD ACTUALLY IMPLEMENTED.
- B. THESE TESTS SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF OWNER'S CONSTRUCTION REPRESENTATIVE. TESTING DATA SHALL BE INITIALED AND DATED BY THE CONSTRUCTION REPRESENTATIVE AND INCLUDED WITH THE WRITTEN REPORT/ANALYSIS.
- C. THE CONTRACTOR SHALL FORWARD SIX (6) COPIES OF THE INDEPENDENT ELECTRICAL TESTING FIRM'S REPORT/ANALYSIS TO ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE JOB TURNOVER.
- D. CONTRACTOR TO PROVIDE A MINIMUM OF ONE (1) WEEK NOTICE TO OWNER AND ENGINEER FOR ALL TESTS REQUIRING WITNESSING.

SECTION 16961

1.01. TESTS BY CONTRACTOR

- A. ALL TESTS AS REQUIRED UPON COMPLETION OF WORK, SHALL BE MADE BY THIS CONTRACTOR. THESE SHALL BE CONTINUITY AND INSULATION TESTS; TEST TO DETERMINE THE QUALITY OF MATERIALS, ETC. AND SHALL BE MADE IN ACCORDANCE WITH N.E.C. RECOMMENDATIONS. ALL FEEDERS AND BRANCH CIRCUIT WIRING (EXCEPT CLASS 2 SIGNAL CIRCUITS) MUST BE TESTED FREE FROM SHORT CIRCUIT AND GROUND FAULT CONDITIONS AT 500V IN A REASONABLY DRY AMBIENT OF APPROXIMATELY 70 DEGREES F.
- B. CONTRACTOR SHALL PERFORM LOAD PHASE BALANCING TESTS. CIRCUITS SHALL BE SO CONNECTED TO THE PANELBOARDS SUCH THAT THE NEW LOAD IS DISTRIBUTED AS EQUALLY AS POSSIBLE BETWEEN EACH LOAD AND NEUTRAL. 10% SHALL BE CONSIDERED AS A REASONABLE AND ACCEPTABLE ALLOWANCE. BRANCH CIRCUITS SHALL BE BALANCED ON THEIR OWN PANELBOARDS; FEEDER LOADS SHALL, IN TURN, BE BALANCED ON THE SERVICE EQUIPMENT. REASONABLE LOAD TEST SHALL BE ARRANGED TO VERIFY LOAD BALANCE IF REQUESTED BY THE ENGINEER.
- C. ALL TESTS, UPON REQUEST, SHALL BE REPEATED IN THE PRESENCE OF OWNER'S REPRESENTATIVE. ALL TESTS SHALL BE DOCUMENTED AND TURNED OVER TO OWNER. OWNER SHALL HAVE THE AUTHORITY TO STOP ANY OF THE WORK NOT BEING PROPERLY INSTALLED. ALL SUCH DETECTED WORK SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER AND THE TESTS SHALL BE REPEATED.

PROFESSIONAL ENGINEER SEAL 		T-MOBILE NORTHEAST LLC AT&T WETHERSFIELD MONOPOLE SITE ID: CTHA506A 75 WELLS ROAD WETHERSFIELD, CT 06109	CONSTRUCTION DRAWINGS - REVISED PER GEN LOCATION CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION DATE: 03/31/23 REV. 0 TJR RFS DATE: 10/06/21
CENTEK engineering Centered on Solutions (203) 486-0360 (203) 486-8587 Fax 63-2 North Branford Road Branford, CT 06405 www.CentekEng.com			
DATE: 09/12/21 SCALE: AS NOTED JOB NO. 21003.30		ELECTRICAL SPECIFICATIONS	
E-2		Sheet No. 6 of 6	

Protector™ Series

Diesel Generator Set

INCLUDES:

- Two Line LCD Multilingual Digital Evolution™ Controller (English/Spanish/French/Portuguese) with external viewing window for easy indication of generator status and breaker position.
- Isochronous Electronic Governor
- Sound Attenuated Aluminum Enclosure
- Smart Battery Charger
- UV/Ozone Resistant Hoses
- ±1% Voltage Regulation
- Integrated Base Tank Provides Up to 40 Hours of Run Time
- 5 Year Limited Warranty*
- UL 2200 / UL142 / ULC S601 Listed
- Meets code requirements for External Vent and Fill

Standby Power Rating

- Model RD015 - 15 kW 60 Hz
- Model RD020 - 20 kW 60 Hz
- Model RD030 - 30 kW 60 Hz
- Model RD048 - 48 kW 60 Hz (single phase only)
- Model RD050 - 50 kW 60 Hz (three phase only)



QUIET-TEST™



*Built in the USA using domestic and foreign parts

Meets EPA Emission Regulations
CA/MA Emissions Compliant

* 5 year warranty applicable to U.S. and Territories/Canada. International warranty is 3 year limited.

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- **TEST CRITERIA:**
 - ✓ PROTOTYPE TESTED
 - ✓ SYSTEM TORSIONAL TESTED
 - ✓ NEMA MG1-22 EVALUATION
 - ✓ MOTOR STARTING ABILITY
- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION.** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine. Digital voltage regulation at ±1%.
- **SINGLE SOURCE SERVICE RESPONSE** from Generac's extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.
- **GENERAC TRANSFER SWITCHES.** Long life and reliability are synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems and controls for total system compatibility.

15 • 20 • 30 • 48 • 50 kW**application & engineering data****GENERATOR SPECIFICATIONS**

Type	Synchronous
Rotor Insulation Class	H (15 & 20 kW) or F (30, 48 & 50 kW)
Stator Insulation Class	H
Telephone Interference Factor (TIF)	<50
Alternator Output Leads 1-Phase	3 wire
Alternator Output Leads 3-Phase	6 wire
Bearings	Single Sealed Cartridge
Coupling	Direct, Flexible Disc
Excitation System	Direct

VOLTAGE REGULATION

Type	Electronic
Sensing	Single Phase
Regulation	± 1%
Features	Adjustable Voltage & Gain

GOVERNOR SPECIFICATIONS

Type	Electronic Isochronous
Steady State Regulation	± 0.25%

ELECTRICAL SYSTEM

Battery Charge Alternator	50 Amp (15 & 20 kW) or 70 Amp (30, 48 & 50 kW)
Smart Battery Charger	2 Amp
Recommended Battery (battery not included)	Group 27F, 700 CCA
System Voltage	12 Volts

GENERATOR FEATURES

<p>Revolving field heavy duty generator Directly connected to the engine Operating temperature rise 120°C above a 40°C ambient Class H insulation is NEMA rated Class F insulation is NEMA rated All models fully prototype tested</p>

ENCLOSURE FEATURES

Aluminum weather protective enclosure	Ensures protection against mother nature. Electrostatically applied textured epoxy paint for added durability.
Enclosed critical grade muffler	Quiet, critical grade muffler is mounted inside the unit to prevent injuries and maximize sound dampening.
Small, compact, attractive	Makes for an easy, eye appealing installation.
SAE	Sound attenuated enclosure ensures quiet operation.

(All ratings in accordance with BS5514, ISO3046, ISO8528, SAE J1349 and DIN6271)

15 • 20 • 30 • 48 • 50 kW

application & engineering data

ENGINE SPECIFICATIONS: 15 & 20 kW

Make	Generac
Model	In-line
Cylinders	4
Displacement (Liters)	2.28
Bore (in./mm)	3.46/88
Stroke (in./mm)	3.70/94
Compression Ratio	21.3:1
Intake Air System	Naturally Aspirated
Cylinder Head Type	Cast Iron OHV
Piston Type	Aluminum
EPA Emissions Compliance	Emergency Stationary

ENGINE SPECIFICATIONS: 30 kW

Make	Generac
Model	In-line
Cylinders	4
Displacement (Liters)	2.4
Bore (in./mm)	3.54/90
Stroke (in./mm)	3.70/94
Compression Ratio	21.3:1
Intake Air System	Turbocharged
Cylinder Head Type	Cast Iron OHV
Piston Type	Aluminum
EPA Emissions Compliance	Emergency Stationary

ENGINE SPECIFICATIONS: 48/50 kW

Make	Generac
Model	In-Line
Cylinders	4
Displacement (Liters)	3.4
Bore in/mm	3.86/98
Stroke in/mm	4.45/113
Compression Ratio	18.5:1
Intake Air System	Turbocharged/Aftercooled
Cylinder Head Type	Cast Iron OHV
Piston Type	Aluminum
EPA Emissions Compliance	Emergency Stationary

WEIGHTS AND DIMENSIONS

	15 kW	20 kW	30 kW	48 kW	50 kW
Weight (lb/kg)	1380/626		1927/874	2197/997	
Dimensions (LxWxH) (in/cm)	81 x 31 x 50/205 x 78 x 128		95 x 35 x 57/242 x 89 x 145		

ENGINE LUBRICATION SYSTEM

Oil Pump Type	Gear
Oil Filter Type	Full flow spin-on canister
Crankcase Capacity (quarts/liters)	6.87/6.5 - 15 & 20 kW
	6.8/6.4 - 30 kW
	7.4/7 - 48 & 50 kW

ENGINE COOLING SYSTEM

Type	Pressurized radiator - 15 & 20 kW Closed recovery - 30, 48 & 50 kW
Water Pump	Pre-lubed, self-sealing
Fan Speed (rpm)	1800 - 15 & 20 kW
	2061 - 30 kW
	2029 - 48 & 50 kW
Fan Diameter (in./mm)	18.11/460 (15 & 20 kW) 22/559 (30, 48 & 50 kW)
Fan Mode	Pusher

FUEL SYSTEM

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Pump Type	Mechanical Engine Driven Gear
Injector Type	Mechanical
Fuel Supply Line (mm/in)	7.94/0.31 (ID)
Fuel Return Line (mm/in)	7.94/0.31 (ID)
Fuel Specification	ASTM
Fuel Filtering (microns)	5 - 15, 20 & 30 kW
	10 - 48 & 50 kW

TANK SPECIFICATIONS

Total Size (gallons/liters)	34/128.7 - 15 & 20 kW
	62/234.7 - 30, 48 & 50 kW
Usable Size (gallons/liters)	32/121.1 - 15 & 20 kW
	57/215.8 - 30, 48 & 50 kW
Run Time @ 1/2 Load (hrs)	41 - 15 kW
	31 - 20 kW
	38 - 30 kW
	25 - 48 & 50 kW
Listings	UL142
	ULC-S601

15 • 20 • 30 • 48 • 50 kW

operating data

GENERATOR OUTPUT VOLTAGE/kW - 60 Hz

		kW (Standby)	Amp (Standby)	CB Size
RD015	120/240 V, 1Ø, 1.0 pf	15	62	70
	120/208 V, 3Ø, 0.8 pf	15	52	60
	120/240 V, 3Ø, 0.8 pf	15	45	50
RD020	120/240 V, 1Ø, 1.0 pf	20	83	100
	120/208 V, 3Ø, 0.8 pf	20	69	80
	120/240 V, 3Ø, 0.8 pf	20	60	70
RD030	120/240 V, 1Ø, 1.0 pf	30	125	150
	120/208 V, 3Ø, 0.8 pf	30	104	125
	120/240 V, 3Ø, 0.8 pf	30	90	100
	277/480 V, 3Ø, 0.8 pf	30	45	50
RD048/ RD050	120/240 V, 1Ø, 1.0 pf	48	200	200
	120/208 V, 3Ø, 0.8 pf	50	173	200
	120/240 V, 3Ø, 0.8 pf	50	150	175
	277/480 V, 3Ø, 0.8 pf	50	75	90

SURGE CAPACITY IN AMPS

		Voltage Dip @ < .4 pf	
		15%	30%
RD015	120/240 V, 1Ø	53	129
	120/208 V, 3Ø	37	90
	120/240 V, 3Ø	32	78
RD020	120/240 V, 1Ø	87	211
	120/208 V, 3Ø	59	143
	120/240 V, 3Ø	51	124
RD030	120/240 V, 1Ø	66	168
	120/208 V, 3Ø	59	144
	120/240 V, 3Ø	51	125
	277/480 V, 3Ø	26	64
RD048/ RD050	120/240 V, 1Ø	69	189
	120/208 V, 3Ø	90	218
	120/240 V, 3Ø	78	189
	277/480 V, 3Ø	36	87

ENGINE FUEL CONSUMPTION

		gal/hr	L/hr
RD015	25% of rated load	0.51	1.93
	50% of rated load	0.79	2.99
	75% of rated load	1.14	4.31
	100% of rated load	1.48	5.58
RD020	25% of rated load	0.67	2.6
	50% of rated load	1.05	3.97
	75% of rated load	1.52	5.32
	100% of rated load	1.98	7.48
RD030	25% of rated load	0.92	3.5
	50% of rated load	1.45	5.5
	75% of rated load	1.96	7.4
	100% of rated load	2.74	10.4
RD048/ RD050	25% of rated load	1.35	5.11
	50% of rated load	2.15	8.14
	75% of rated load	3.06	11.58
	100% of rated load	3.98	15.07

STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. 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-3046-1. Design and specifications are subject to change without notice.

15 • 20 • 30 • 48 • 50 kW

operating data

ENGINE COOLING

	15 kW	20 kW	30 kW	48/50 kW
Air flow (inlet air including alternator and combustion air in cfm/cmm)	2824/80	2824/80	3038/86	2824/80
System coolant capacity (gal/liters)	2.8/10.6	2.8/10.6	2.8/10.6	2.8/10.6
Heat rejection to coolant (BTU per hr/MJ per hr)	63,535/67	63,535/67	111,000/117.1	135,900/143.4
Maximum operation air temperature on radiator (°C/°F)	50/122			
Maximum ambient temperature (°C/°F)	50/122			

COMBUSTION REQUIREMENTS

Flow at rated power (cfm/cmm)	84.76/2.4	84.76/2.4	90/2.55	190/5.38
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SOUND EMISSIONS

Sound output in dB(A) at 23 ft (7 m) with generator in exercise mode*	65
Sound output in dB(A) at 23 ft (7 m) with generator operating at normal load*	70

*Sound levels are taken from the front of the generator. Sound levels taken from other sides of the generator may be higher depending on installation parameters.

EXHAUST

Exhaust flow at rated output (cfm/cmm)	98.88/2.8	98.88/2.8	230/6.51	448/12.7
Exhaust temperature at rated output (°C/°F)	604.4/1120	604.4/1120	454.4/850	604.4/1120

ENGINE PARAMETERS

Rated Synchronous RPM	1800			
HP at rated kW	26.4	33.5	49	85

POWER ADJUSTMENT FOR AMBIENT CONDITIONS

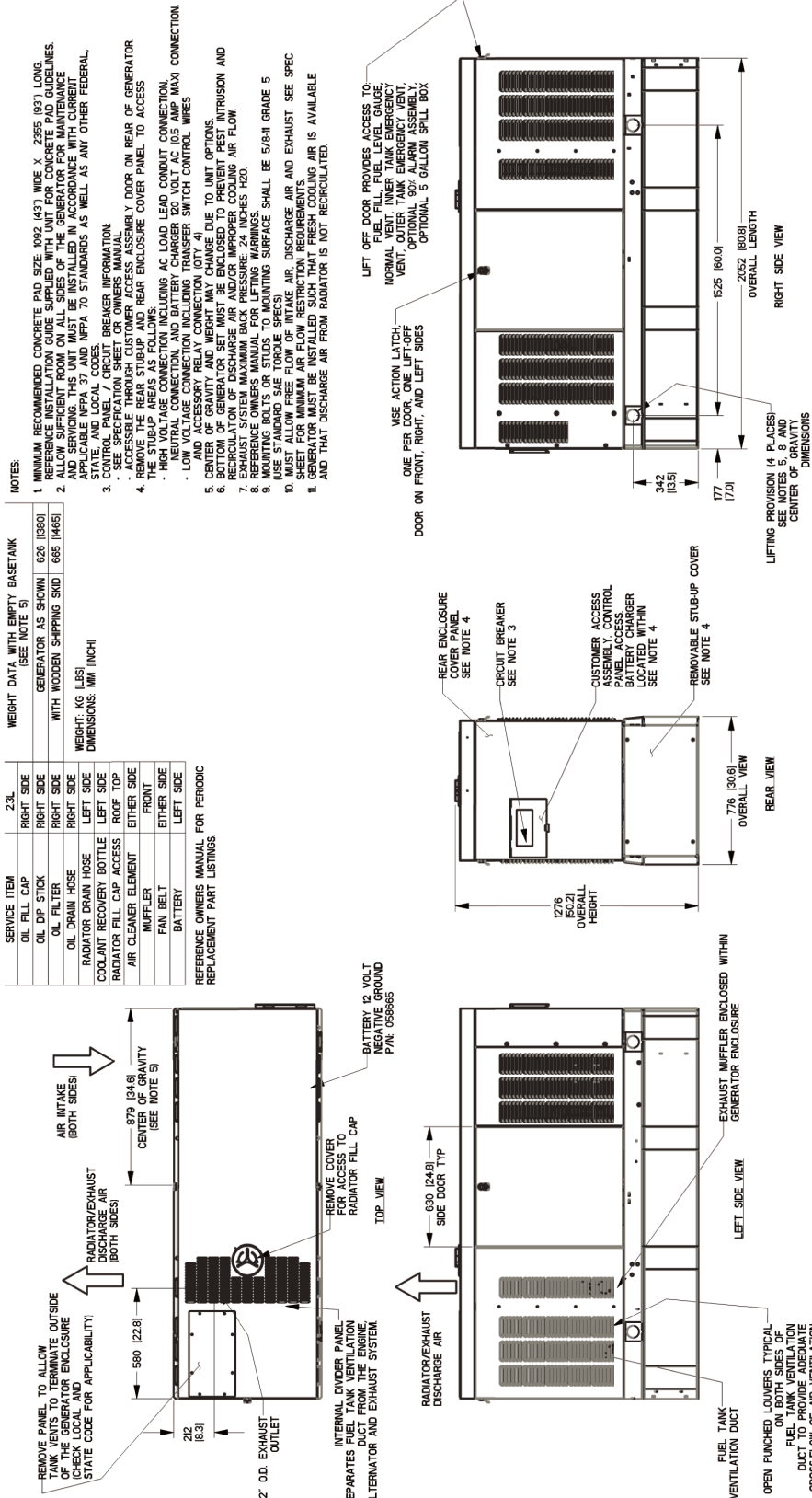
Temperature Deration	3% for every 5 °C above 25 °C or 1.7% for every 5 °F above 77 °F
Altitude Deration (15, 30, 48 & 50 kW)	1% for every 100 m above 915 m or 3% for every 1000 ft above 3000 ft
Altitude Deration (20 kW)	1% for every 100 m above 305 m or 3% for every 1000 ft above 1000 ft

CONTROLLER FEATURES

2-Line Plain Text Multilingual LCD Display	Simple user interface for ease of operation.
Mode Buttons: Auto	Automatic Start on Utility failure. Programmable 7 day exerciser.
Manual	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
Off	Stops unit. Power is removed. Control and charger still operate.
Ready to Run/Maintenance Messages	Standard
Engine Run Hours Indication	Standard
Programmable start delay between 2-1500 seconds	Standard (programmable by dealer only)
Utility Voltage Loss/Return to Utility Adjustable	From 140-171 V/190-216 V
Future Set Capable Exerciser/Exercise Set Error Warning	Standard
Run/Alarm/Maintenance Logs	50 Events Each
Engine Start Sequence	Cyclic cranking: 16 sec on, 7 rest (90 sec maximum duration).
Starter Lock-out	Starter cannot re-engage until 5 sec after engine has stopped.
Smart Battery Charger	Standard
Charger Fault/Missing AC Warning	Standard
Low Battery/Battery Problem Protection and Battery Condition Indication	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Under-Frequency/Overload/Stepper Overcurrent Protection	Standard
Safety Fused/Fuse Problem Protection	Standard
Automatic Low Oil Pressure/High Oil Temperature Shutdown	Standard
Overcrank/Overspeed (@ 72 Hz)/RPM Sense Loss Shutdown	Standard
High Engine Temperature Shutdown	Standard
Internal Fault/Incorrect Wiring Protection	Standard
Common External Fault Capability	Standard
Field Upgradable Firmware	Standard

15 & 20 kW

Drawing #0K7025-C (1 of 2)



2.3L SERVICE ITEM

RIGHT SIDE
OIL FILL CAP
OIL DIP STICK
OIL FILTER
OIL DRAIN HOSE
RADIATOR DRAIN HOSE
COOLANT RECOVERY BOTTLE
RADIATOR FILL CAP ACCESS
AIR CLEANER ELEMENT
MUFFLER
FAN BELT
BATTERY

WEIGHT DATA WITH EMPTY BASE TANK (SEE NOTE 5)

GENERATOR AS SHOWN	628 [1980]
WITH WOODEN SHIPPING SKID	665 [1485]

WRIGHT: KG (LBS)

RIGHT SIDE
RIGHT SIDE
RIGHT SIDE
LEFT SIDE
LEFT SIDE
ROOF TOP
FRONT
FRONT
LEFT SIDE

DIMENSIONS: MM (INCH)

RIGHT SIDE
RIGHT SIDE
RIGHT SIDE
LEFT SIDE
LEFT SIDE
FRONT
FRONT
LEFT SIDE

- NOTES**
- MINIMUM RECOMMENDED CONCRETE PAD SIZE 1092 (43") WIDE X .2865 (93") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
 - ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT STATE AND LOCAL CODES.
 - CONTROL PANEL / CIRCUIT BREAKER INFORMATION:
 - SEE SPECIFICATION SHEET OR OWNERS MANUAL
 - SEE SPECIFICATION SHEET OR OWNERS MANUAL FOR ACCESS TO CONTROL PANEL
 - REMOVE THE REAR STUB-UP AND REAR ENCLOSURE COVER PANEL TO ACCESS THE STUBUP AREAS AS FOLLOWS:
 - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, AND BATTERY CHARGER 120 VOLT AC (105 AMP MAX) CONNECTION
 - CONTROL PANEL AND BATTERY CHARGER (SEE NOTE 4)
 - WARRANTY AND ACCESSORY RELAY CONNECTION (NOT 4)
 - CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS.
 - BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND EXHAUST SYSTEM MUST BE SEPARATE FROM EXHAUST SYSTEM (SEE NOTES 2, 3, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100).
 - REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
 - MOUNTING BOLTS OR STUDS TO MOUNTING SURFACE SHALL BE 5/8-11 GRADE 5 (USE STANDARD SAE TORQUE SPECS).
 - SEE SPECIFICATION SHEET OR OWNERS MANUAL FOR AIR DISCHARGE AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW RESTRICTION REQUIREMENTS.
 - GENERATOR MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND THAT DISCHARGE AIR FROM RADIATOR IS NOT RECIRCULATED.

REMOVE PANEL TO ALLOW AIR FLOW THROUGH OUTSIDE OF THE GENERATOR ENCLOSURE (CHECK LOCAL AND STATE CODE FOR APPLICABILITY)

INTERNAL DIVIDER PANEL SEPARATES FUEL TANK VENTILATION FROM ALTERNATOR AND EXHAUST SYSTEM

REMOVE COVER FOR ACCESS TO RADIATOR FILL CAP

BATTERY 12 VOLT (SEE NOTE 5) P/N: US8665

REMOVE COVER FOR ACCESS TO RADIATOR FILL CAP

630 [24.8] SIDE DOOR TYP

676 [26.6] OVERALL HEIGHT

776 [30.6] OVERALL VIEW

REAR VIEW

REAR ENCLOSURE COVER PANEL SEE NOTE 4

CIRCUIT BREAKER SEE NOTE 3

CUSTOMER ACCESS PANEL ACCESS BATTERY CHARGER BATTERY WITHIN SEE NOTE 4

REMOVABLE STUB-UP COVER SEE NOTE 4

EXHAUST MUFFLER ENCLOSED WITHIN GENERATOR ENCLOSURE

LEFT SIDE VIEW

FUEL TANK VENTILATION DUCT

OPEN PUNCHED LOUVERS TYPICAL ON BOTH SIDES OF FUEL TANK VENTILATION DUCT TO PROVIDE ADEQUATE CROSS-FLOW OF AIR VENTILATION

776 [30.6] OVERALL LENGTH

RIGHT SIDE VIEW

LIFTING PROVISION (4 PLACES) SEE NOTES 5, 8 AND CENTER OF GRAVITY DIMENSIONS

DOOR ON FRONT, RIGHT, AND LEFT SIDES

ONE PER EACH SIDE

SEE ACTION LATCH, NORMAL VENT, INNER TANK EMERGENCY VENT, OUTER TANK EMERGENCY VENT, OPTIONAL 90° ALARM ASSEMBLY, OPTIONAL 5 GALLON SPILL BOX

LIFT OFF DOOR PROVIDES ACCESS TO NORMAL VENT, INNER TANK EMERGENCY VENT, OUTER TANK EMERGENCY VENT, OPTIONAL 90° ALARM ASSEMBLY, OPTIONAL 5 GALLON SPILL BOX

342 [13.5]

177 [7.0]

1525 [60.0]

2052 [80.8] OVERALL LENGTH

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS.

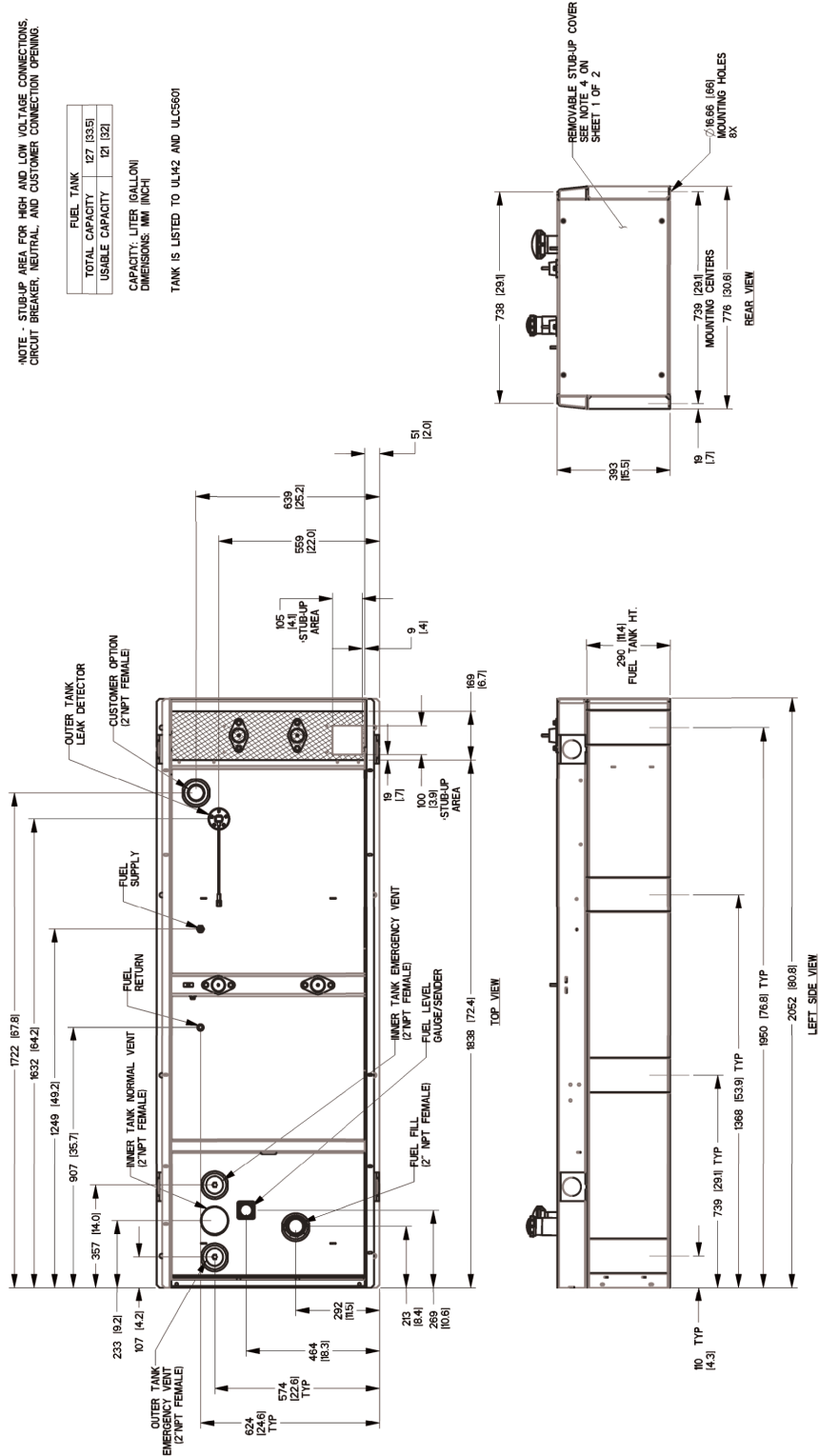
15 & 20 kW

NOTE - STUBUP AREA FOR HIGH AND LOW VOLTAGE CONNECTIONS, CIRCUIT BREAKER, NEUTRAL, AND CUSTOMER CONNECTION OPENING.

FUEL TANK	
TOTAL CAPACITY	127 [33.5]
USABLE CAPACITY	121 [32]

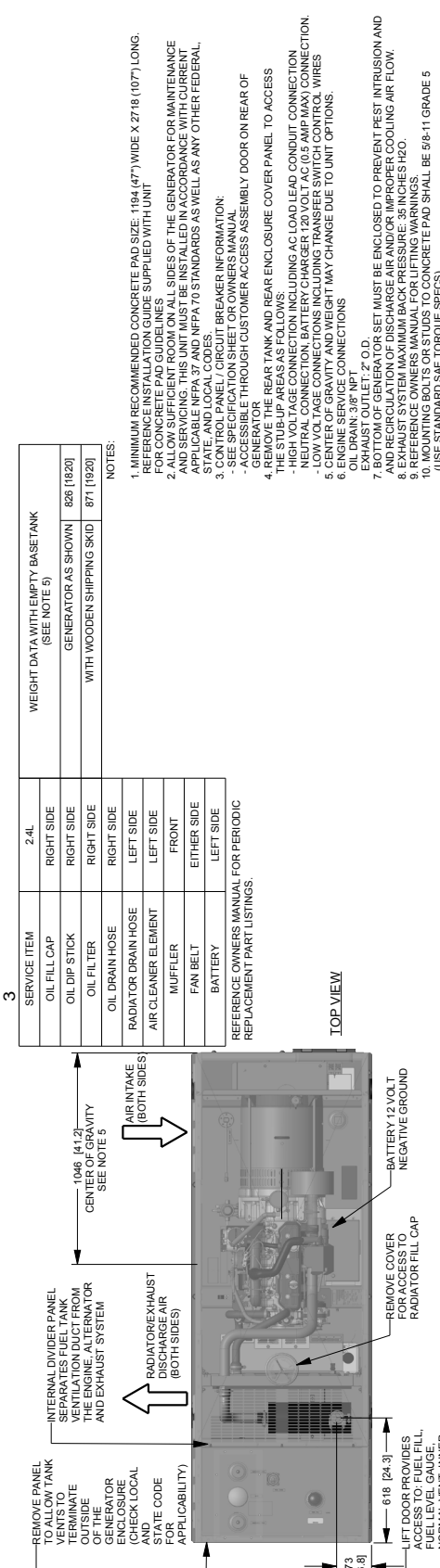
CAPACITY: LITER (GALLON)
DIMENSIONS: MM (INCH)

TANK IS LISTED TO UL142 AND ULCS601



30 kW

Drawing #0K7002-C (1 of 2)

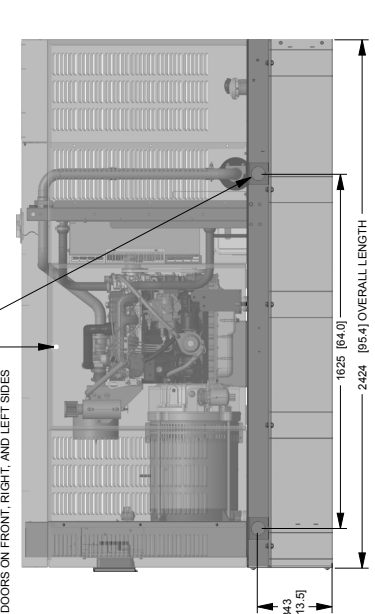


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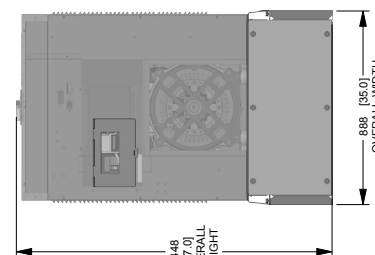
SERVICE ITEM	2.4L	WEIGHT DATA WITH EMPTY BASE/TANK (SEE NOTE 5)
OIL FILL CAP	RIGHT SIDE	GENERATOR AS SHOWN 826 [1820]
OIL DIP STICK	RIGHT SIDE	WITH WOODEN SHIPPING SKID 871 [1920]
OIL FILTER	RIGHT SIDE	
OIL DRAIN HOSE	RIGHT SIDE	
RADIATOR DRAIN HOSE	LEFT SIDE	
AIR CLEANER ELEMENT	LEFT SIDE	
MUFFLER	FRONT	
FAN BELT	EITHER SIDE	
BATTERY	LEFT SIDE	

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS.

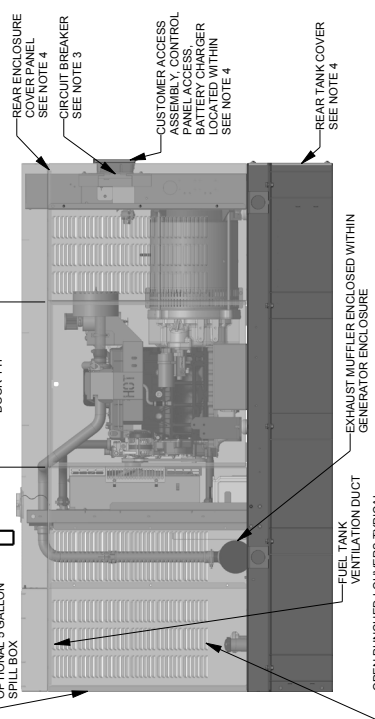
TOP VIEW



RIGHT SIDE VIEW



REAR VIEW



LEFT SIDE VIEW

- NOTES:
1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1194 (47") WIDE X 2718 (107") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT.
 2. ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICE. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODE (NEC) AND LOCAL CODES AS WELL AS ANY OTHER FEDERAL, STATE, AND LOCAL CODES.
 3. CONTROL PANEL / CIRCUIT BREAKER INFORMATION:
 - SEE SPECIFICATION SHEET OR OWNERS MANUAL.
 - ACCESSIBLE THROUGH CUSTOMER ACCESS ASSEMBLY DOOR ON REAR OF THE STUB-UP AREAS AS FOLLOWS:
 - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX) CONNECTION.
 - LOW VOLTAGE CONNECTIONS INCLUDING TRANSFER SWITCH CONTROL WIRES.
 - EXHAUST SYSTEM INCLUDING EXHAUST MUFFLER AND EXHAUST MUFFLER CHARGE AIR.
 - ENGINE SERVICE CONNECTIONS.
 - OIL DRAIN, 3/8" NPT.
 4. REMOVE THE REAR TANK AND REAR ENCLOSURE COVER PANEL TO ACCESS THE STUB-UP AREAS AS FOLLOWS:
 - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX) CONNECTION.
 - LOW VOLTAGE CONNECTIONS INCLUDING TRANSFER SWITCH CONTROL WIRES.
 - EXHAUST SYSTEM INCLUDING EXHAUST MUFFLER AND EXHAUST MUFFLER CHARGE AIR.
 - ENGINE SERVICE CONNECTIONS.
 - OIL DRAIN, 3/8" NPT.
 5. EXHAUST OUTLET: 2" O.D.
 6. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND AIR FLOW THROUGH THE UNIT.
 7. EXHAUST SYSTEM INCLUDING EXHAUST MUFFLER AND EXHAUST MUFFLER CHARGE AIR FLOW.
 8. EXHAUST SYSTEM MAXIMUM BACK PRESSURE: 3.5 INCHES H₂O.
 9. REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
 10. MOUNTING BOLTS OR STUDS TO CONCRETE PAD SHALL BE 5/8-11 GRADE 5 (USE STANDARD SAE TORQUE SPECS)

30 kW

GENERAC®

installation layout

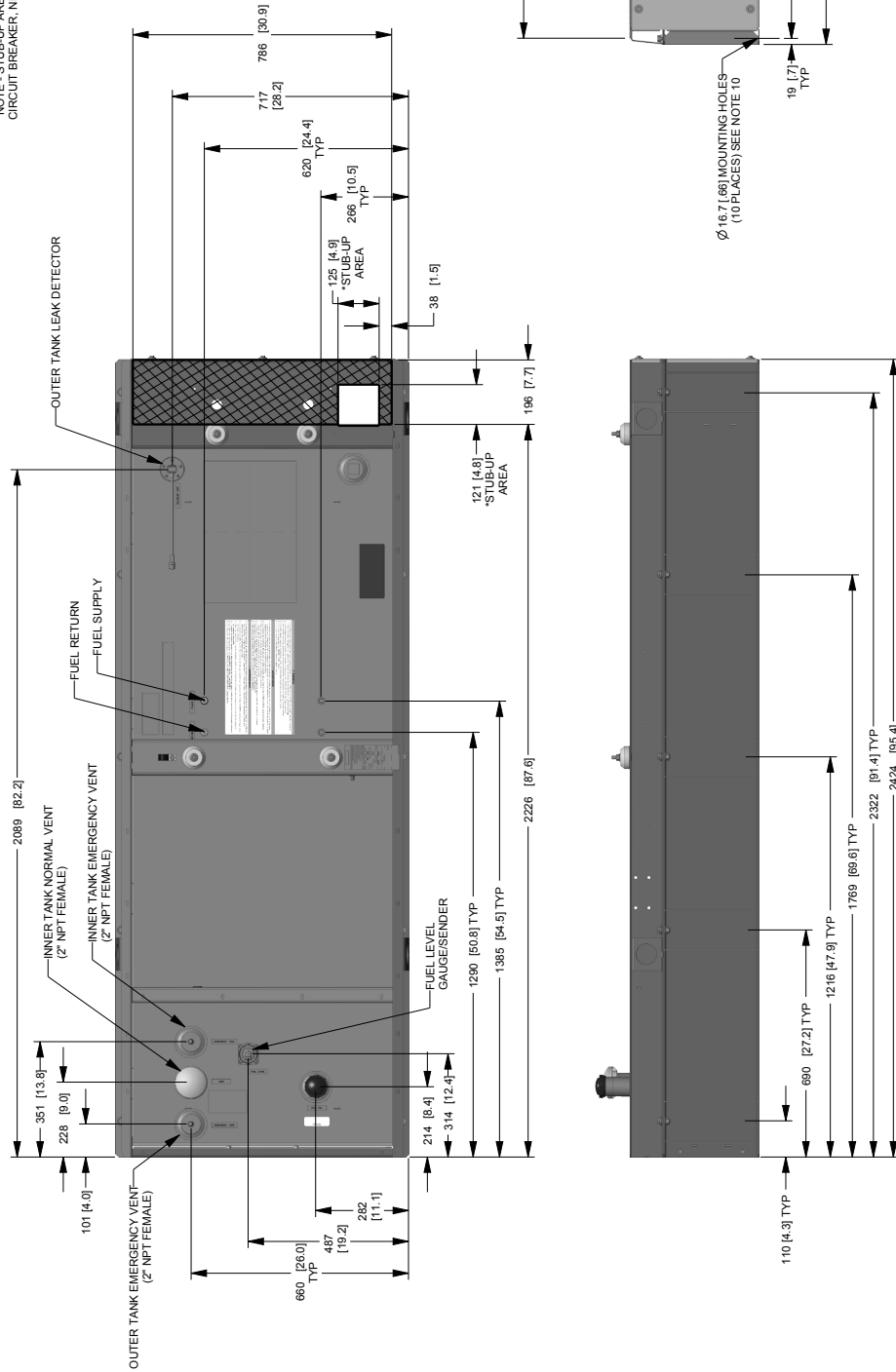
Drawing #0K7002-B (2 of 2)

Protector™ Series

9 of 12

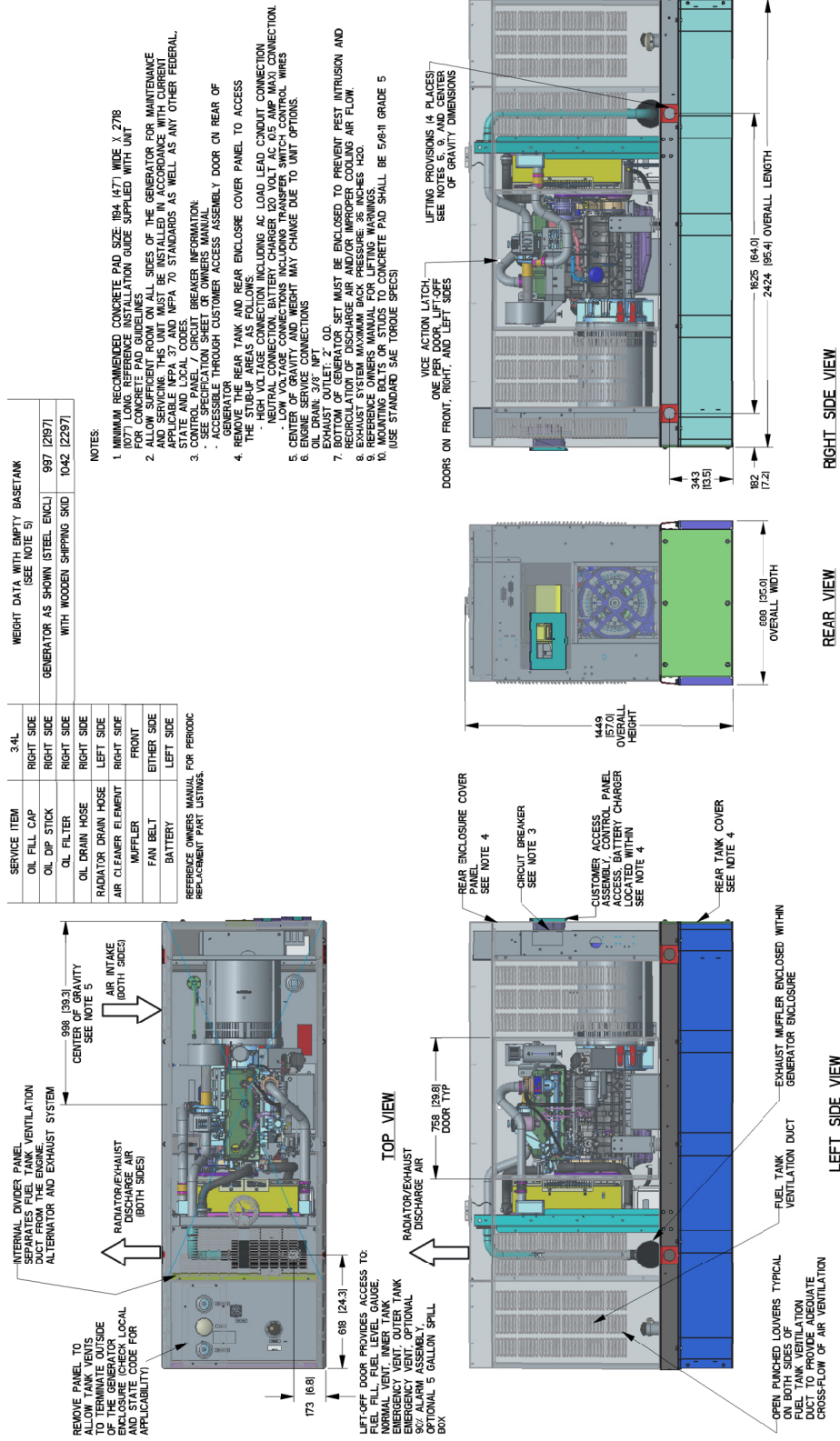
*NOTE - STUB-UP AREA FOR HIGH AND LOW VOLTAGE CONNECTIONS, CIRCUIT BREAKER, NEUTRAL AND CUSTOMER CONNECTION OPENING.

FUEL TANK	
TOTAL CAPACITY	233 [6.1]
USABLE CAPACITY	203 [5.5]
CAPACITY, LITER (GALLON)	
DIMENSIONS: MM (INCH)	
TANK IS LISTED TO UL142 AND UL300 C142.18	



48 & 50 kW

Drawing #0K6968-C (1 of 2)



SERVICE ITEM	34L	RIGHT SIDE	RIGHT SIDE	RIGHT SIDE	RIGHT SIDE	LEFT SIDE	FRONT	ETHER SIDE	LEFT SIDE
OIL FILL CAP									
OIL DIP STICK									
OIL FILTER									
OIL DRAIN HOSE									
RADIATOR DRAIN HOSE									
AIR CLEANER ELEMENT									
MUFFLER									
FAN BELT									
BATTERY									

WEIGHT DATA WITH EMPTY BASETANK (SEE NOTE 5)	GENERATOR AS SHOWN (STEEL ENCL. WITH WOODEN SHIPPING SKID)
997 (2197)	1042 (2297)

- NOTES:**
- MINIMUM RECOMMENDED CONCRETE PAD SIZE: 164" (4.7) WIDE X 278" (7.0) DEEP. SEE CONCRETE PAD GUIDELINES FOR CONCRETE PAD GUIDELINES.
 - ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICE. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT STATE AND LOCAL CODES.
 - CONTROL PANEL / CIRCUIT BREAKER INFORMATION:
 - SEE SPECIFICATION SHEET OR OWNERS MANUAL
 - ACCESS THROUGH CUSTOMER ACCESS ASSEMBLY DOOR ON REAR OF ENCLOSURE
 - REMOVE THE REAR TANK AND REAR ENCLOSURE COVER PANEL TO ACCESS THE STUB-UP AREAS AS FOLLOWS:
 - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CIRCUIT CONNECTION (SEE SPECIFICATION SHEET OR OWNERS MANUAL FOR WIRING CONNECTION)
 - LOW VOLTAGE CONNECTIONS INCLUDING TRANSFER SWITCH CONTROL WIRES
 - ENGINE SERVICE CONNECTIONS
 - EXHAUST OUTLET: 2" OD
 - BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT INTRUSION AND REDUCED DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
 - SEE SPECIFICATION SHEET OR OWNERS MANUAL FOR WIRING CONNECTIONS.
 - REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
 - MOUNTING BOLTS OR STUDS TO CONCRETE PAD SHALL BE 5/8" I GRADE 5 (USE STANDARD SAE TORQUE SPECS)

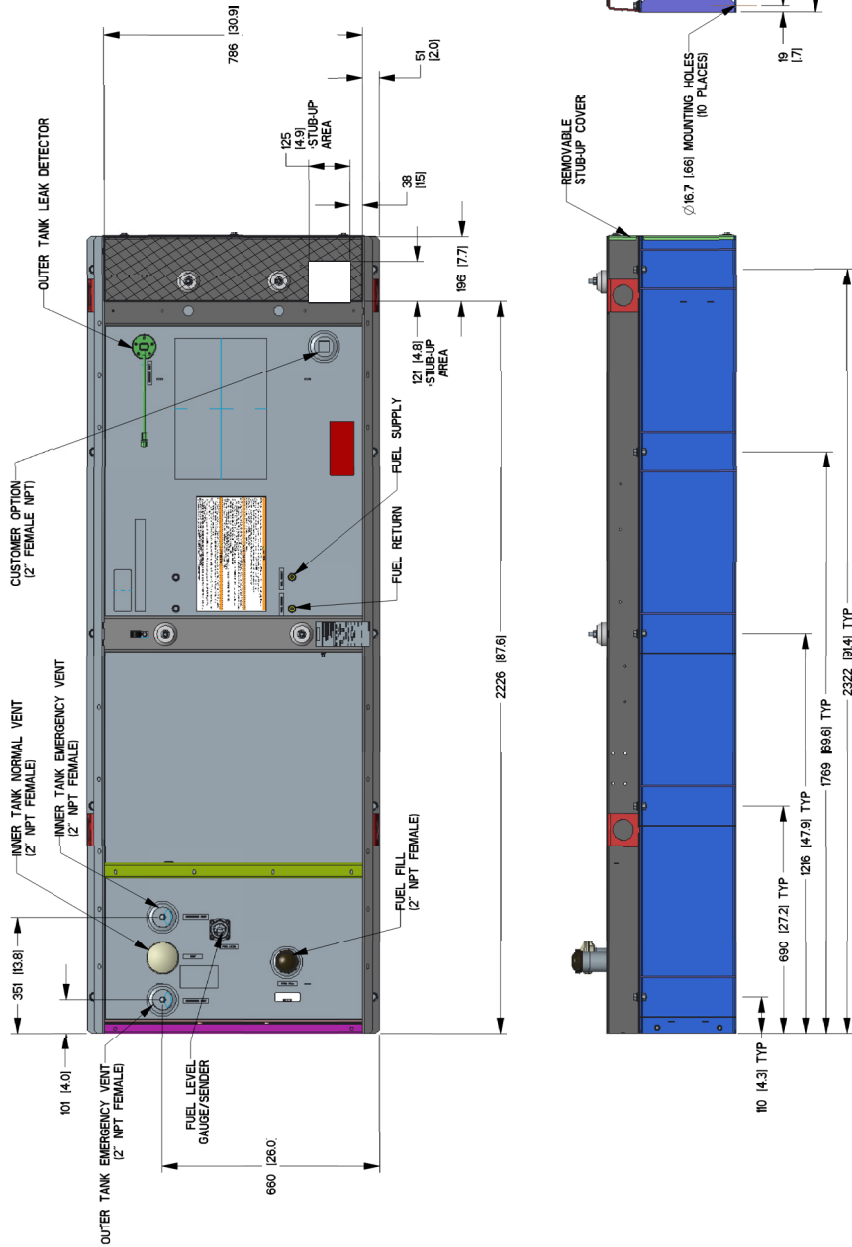
48 & 50 kW

installation layout

Drawing #0K6968-A (2 of 2)

FUEL TANK	
TOTAL CAPACITY	233 [61]
USABLE CAPACITY	209 [55]
CAPACITY: LITER (GALLONS)	
DIMENSIONS: MM (INCH)	
THIS TANK IS LISTED TO UL142 AND ULCS901	

NOTE - STUBUP AREA FOR HIGH AND LOW VOLTAGE CONNECTIONS, CIRCUIT BREAKER, NEUTRAL AND CUSTOMER CONNECTION OPENING.



15 • 20 • 30 • 48 • 50 kW**available accessories**

Model #	Product	Description
G006463-4	Mobile Link™	Generac's Mobile Link allows you to check the status of your generator from anywhere that you have access to an Internet connection from a PC or with any smart device. You will even be notified when a change in the generator's status occurs via e-mail or text message. Note: Harness Adapter Kit required. Available in the U.S. only.
G006478-0	Harness Adapter Kit	The Harness Adapter Kit is required to make liquid-cooled units compatible with Mobile Link™.
G006502-0	Spill Box	The 5-gallon spill box screws into the existing fuel fill port of the base tank. It captures and contains fuel if over fueling or spilling occurs during the fill process.
G006504-0	90% Fuel Level Alarm	The 90% fuel level alarm alerts the fuel fill operator when the tank reaches a 90% fill level by sounding an audible alarm and triggering an LED warning light.
G006505-0 - 15 & 20 kW G006506-0 - 30, 48 & 50 kW	Tank Risers	Tank risers are required in some municipalities to help avoid potential base tank corrosion caused by mounting on rough surfaces.
G006507-0	Fuel Fill Drop Tube	A powder coat painted, steel fuel fill drop tube is required in some municipalities to prevent sparking due to static electricity buildup, which can be caused by the fuel dropping into the tank from the fill area. Using a drop tube also results in submerged filling, which increases the fuel delivery flow rate and reduces vapors, foam and potential tank evaporation.
G006513-0 - 15 & 20 kW G006517-0 - 30 kW G006516-0 - 48 & 50 kW	Stainless Steel Fuel Lines	Some municipalities require the use of stainless steel fuel lines instead of the standard hoses provided with the diesel generator products. These stainless steel lines are fire resistant for additional safety.
G006510-0	E-Stop	E-stop allows for immediate fuel shutoff and generator shutdown in the event of an emergency.
006511-0	Spill Box Drainback Kit	The spill box drainback kit allows fuel that was captured in the 5-gallon spill box to be drained directly back into the fuel tank to avoid vapors.
G006588-1	Vent Extension Support Kit	The vent extension support kit consists of two aluminum plates with the appropriate pipe cutouts to secure the vent extension pipes coming through the top of the generator enclosure. It helps to minimize stress on the NPT fittings integrated on the tank and also helps protect against pests.
G006512-0	Lockable Fuel Cap	The cast iron, lockable fuel cap provides the ability to lock the fuel system to prevent unwanted fuel tampering or fuel siphoning.
G006572-0 - 15 & 20 kW G006571-0 - 30 kW G006570-0 - 48 & 50 kW	Maintenance Kits	The Protector Maintenance Kits offer all the hardware necessary to perform complete maintenance on Generac Protector generators.
G006560-0 - 15 & 20 kW G006559-0 - 30 kW G006558-0 - 48 & 50 kW	Cold Weather Kits	Recommended for generators installed in regions where the temperature regularly falls below 32 °F (0 °C). The Cold Weather Kits consist of a block heater with all necessary mounting hardware and a battery warmer with a thermostat built into the battery wrap.
G005704-0	Paint Kit	If the generator enclosure is scratched or damaged, it is important to touch-up the paint to protect from future corrosion. The paint kit includes the necessary paint to properly maintain or touch-up a generator enclosure.
G006664-0	Local Wireless Remote	Completely wireless and battery powered, Generac's wireless remote monitor provides you with instant status information without ever leaving the house.
G006665-0	Wireless Remote Extension Harness	Recommended for use with the Wireless Remote on units up to 60 kW, required for use on units 70 kW or greater.
G006873-0	Smart Management Module (50 Amps)	Manage large loads by utilizing up to 8 individual Smart Management modules. These devices are installed directly in line with existing appliance wiring for easy installation.