

Northeast Site Solutions Victoria Masse 420 Main St Unit 1 Box 2 Sturbridge, MA 01566 victoria@northeastsitesolutions.com

March 22, 2022

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

RE: Notice of Exempt Modification 864 Opening Hill Road, Madison CT Latitude: 41.35731667 Longitude: -72.63876111 T-Mobile Site#: CT11394A_NHP

Dear Ms. Bachman:

T-Mobile currently has six (6) antenna at the 130-foot level of the existing 180-foot self-support lattice tower. The property is owned by North Madison Volunteer Fire Co. and the Tower is owned by American Tower. T-Mobile now intends to add a 48Kw generator to a new 4'X10' concrete pad within a fenced compound.

Planned Modifications: Ground work only-Install New: (1) GENERAC RD 48KW AC DIESEL GENERATOR – 233-gallon double walled self-contained tank with fuel sensor. Requires two (2) 12-minute run cycles bi-weekly. (1) 4'X10' Concrete Pad This facility was approved by the Town of Madison on April 17, 1997 by a Special Exception permit for a replacement tower of 180 feet, and a subsequent approval granted May, 20, 1999 for an expended compound for Nextel and Sprint PCS's base station equipment.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.S.C.A. § 16-50j-73, a copy of this letter is being sent to First Selectman Peggy Lyons, John DeLaura, Chief Zoning Enforcement Officer for the Town of Madison, as well as the property owner and the tower 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. \S 16-50j-72(b)(2).

Sincerely,

Victoria Masse

Victoria Masse Mobile: 860-306-2326 Fax: 413-521-0558 Office: 420 Main Street, Unit 2, Sturbridge MA 01566 Email: victoria@northeastsitesolutions.com

420 Main Street, Unit 1 Box 2, Sturbridge, MA 01566

Attachments cc: Peggy Lyons, First Selectman 8 Campus Drive Madison, CT 06443

John DeLaura, Chief Zoning Enforcement Officer 8 Campus Drive Madison, CT 06443

North Madison Volunteer Fire Department Inc.- property owner 864 Opening Hill Road Madison, CT 06443

American Tower- Tower Owner 10 Presidential Way Woburn, MA 01801

Exhibit A



TOWN OF MADISON CONNECTICUT LAND USE OFFICE

8 CAMPUS DRIVE MADISON, CONNECTICUT 06443-2563 (203) 245-5632 FAX (203) 245-5613

MADISON PLANNING AND ZONING COMMISSION

CERTIFICATION OF SPECIAL EXCEPTION PERMIT OR MODIFICATION OF SPECIAL EXCEPTION PERMIT

APPL. NO.: 97-5D

DATE OF APPROVAL: April 17, 1997

This certifies that on the above date a MODIFICATION OF SPECIAL EXCEPTION PERMIT was granted by the Madison Planning and Zoning Commission to:

OWNER OF RECORD: North Madison Volunteer Fire Department

under the provisions of Sec. <u>4.7</u> of the Zoning Regulations of the Town of Madison on property located at:

STREET ADDRESS OR LOCATION: 864 OPENING HILL ROAD

<u>TO ALLOW:</u> Construction of a 180 ft. communications tower to replace existing tower, installation of equipment building and emergency back-up generator waiving requirements of 1) a traffic study; 2) a waste water report and engineering study; and 3) final floor plans for the equipment building. The temporary installation of the "Cell on Wheels" was also approved. This approval is conditioned on plastic slats being placed in the chain link fence to obscure the view of the materials enclosed.

In accordance with Section 4.6 of said Regulations, this approval and permit are conditioned upon completion of all proposed improvements in accordance with approved plans within five years from date of approval, and shall become null and void in the event of failure to complete such improvements within said five year period or any extension thereof granted by the Commission.

Appl.: Owner

Received f	for Record			Zoning Commission	
at		h	m	291	
	Signature of !	Town Clerk		FRM. SEPERMI	T 6/91

INLAND WETLANDS AGENCY . PLANNING AND ZONING COMMISSION . ZONING BOARD OF APPEALS



TOWN OF MADISON CONNECTICUT LAND USE OFFICE

8 CAMPUS DRIVE MADISON, CONNECTICUT 06443-2563 (203) 245-5632 FAX (203) 245-5613

May 24, 1999

CERTIFIED MAIL

North Madison Volunteer Fire Company, Inc. 864 Opening Hill Road Madison, CT 06443

Re: Application #99-26D: 864 OPENING HILL ROAD. Request for Modification of Special Exception Permit to allow relocation of the site for emergency generator, enlarge the fenced coumpound, change the style of the fence, add landscaping and permit Nextel Communications ands Sprint PCS to install radio equipment shelters inside the enlarged compound.

Gentlemen:

At their regular meeting on May 20, 1999, the Planning and Zoning Commission approved the application above referenced as presented at the meeting.

Before this Modification of Special Exception Permit will become effective, it is necessary to file a Certificate in the Land Records of the Town for which there is a \$10.00 filing fee. At your earliest convenience, please forward this amount to our office so that we may file this Certificate in your behalf. Your check should be made payable to the Town of Madison.

When this Certificate is filed at the end of the appeal period, you may apply for building permits through normal Building Department procedures.

Very truly yours,

1. 4 mcmi

William McMinn Planning and Zoning Administrator

: drk

Copy to: Ronald C. Clark, Nextel Communications

Exhibit B

864 OPENING HILL RD

Location	864 OPENING HILL RD	MBLU	134/ 17/ / /
Acct#	00665700	Owner	NORTH MADISON VOLUNTEER FIRE COMPANY INC
Assessment	\$938,700	Appraisal	\$1,341,000
PID	7027	Building Count	1

Current Value

Appraisal					
Valuation Year	Building	Extra Features	Outbuildings	Land	Total
2018	\$1,211,400	\$0	\$7,000	\$122,600	\$1,341,000
Assessment					
Valuation Year	Building	Extra Features	Outbuildings	Land	Total
2018	\$848,000	\$0	\$4,900	\$85,800	\$938,700

Parcel Addreses

Additional Addresses			
Address	City, State Zip	Туре	
864 OPENING HILL RD		Primary	

Owner of Record

Owner	NORTH MADISON VOLUNTEER FIRE COMPANY INC	Sale Price	\$0
Co-Owner		Book & Page	44/ 130
Care Of		Sale Date	

Ownership History

Ownership History			
Owner	Sale Price	Book & Page	Sale Date
NORTH MADISON VOLUNTEER FIRE COMPANY INC	\$0	44/ 130	

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Building Information

Building 1 : Section 1

Year Built:	1971	
Living Area:	10,480	

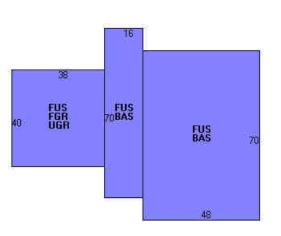
Building Attributes		
Field	Description	
STYLE	Fire Station	
MODEL	Commercial	
Stories:	2	
Exterior Wall 1	Brick Veneer	
Exterior Wall 2	Vinyl Siding	
Roof Structure	Gambrel	
Roof Cover	Asphalt Shngl.	
Interior Wall 1	Minim/Masonry	
Interior Wall 2	Plywood Panel	
Interior Floor 1	Concr-Finished	
Interior Floor 2	Carpet	
Heating Fuel	Oil	
Heating Type	Hot Water	
АС Туре	None	
Bldg Use	Municipal Fire	
Total Rooms		
Total Bedrms	00	
Total Baths	0	
Fireplace		
Xtra Fireplaces		
Heat/AC	None	
Frame Type	Masonary	
Baths/Plumbing	Average	
Ceiling/Wall	None	
Rooms/Prtns	Average	
Wall Height	10	

Building Photo



(http://images.vgsi.com/photos/MadisonCTPhotos//\01\01\63/75

Building Layout



(http://images.vgsi.com/photos/MadisonCTPhotos//Sketches/702

Building Sub-Areas (sq ft)				
Code	Description	Gross Area	Living Area	
FUS	Finished Upper Story	6,000	6,000	
BAS	First Floor	4,480	4,480	
FGR	Garage	1,520	0	
UGR	Basement Garage	1,520	0	
		13,520	10,480	

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Extra Features

Extra Features

No Data for Extra Features

Land

Land Use

Land Line Valuation

 Use Code
 903L

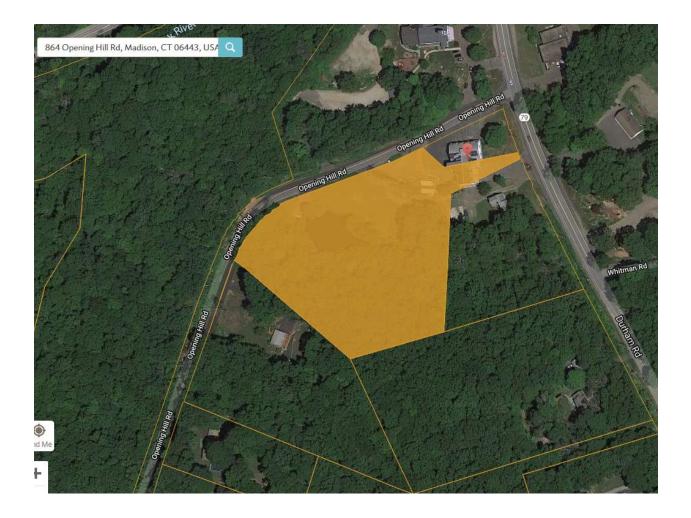
 Description
 Municipal Fire

 Zone
 RU-1

Outbuildings

			Outbuildings			
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
PAV1	Paving Asphalt			10000 S.F.	\$7,000	1

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864 Opening Hill Rd, Madison, CT 06443

Exhibit C

T · · Mobile ·

PROJECT TITLE: NATIONAL HARDENING

SITE ADDRESS: 846 OPENING HILL ROAD MADISON, CT 06443 ATC SITE NUMBER: 383660

PROJECT NOTES:

THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION HANDICAPPED ACCESS IS NOT REQUIRED.

POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED. NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.

DEVELOPMENT AND USE OF THE SITE WILL CONFORM TO ALL APPLICABLE CODES, ORDINANCES AND SPECIFICATIONS.

CODE COMPLIANCE:

ALL WORK SHALL COMPLY WITH THE CURRENT NATIONAL AND CONNECTICUT STATE BUILDING AND LIFE SAFETY CODES. SUPPLEMENTS AND AMENDMENTS INCLUDING BUT NOT LIMITED TO THE LATEST EDITION OF

CONNECTICUT STATE BUILDING CODE (CSBC).

ANSI/TIA-222-G STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS

NATIONAL ELECTRICAL CODE (NEC) FOR POWER AND GROUNDING REQUIREMENTS.

OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).

NFPA - NATIONAL FIRE PROTECTION ASSOCIATION

ticut - Call Before You Dig Advance Notice:

Minimum of 2 working days in advance, no more than 30 days in advance

CONTRACTOR'S NOTES:

1-800-922-4455

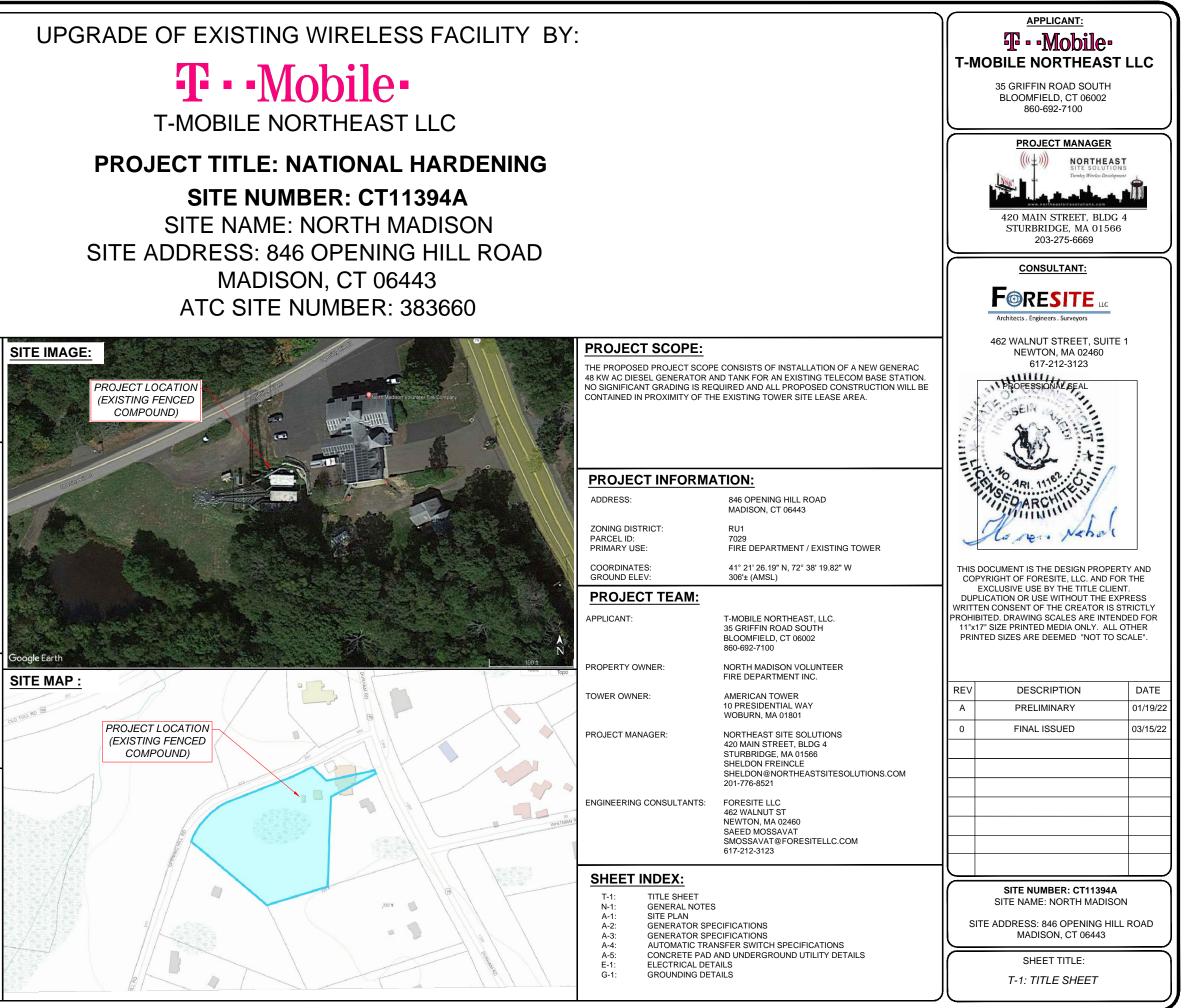
811 01

Call before on a

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY TO

THE ARCHITECT/ENGINEER PLACES THE RESPONSIBILITY ON THE CONTRACTOR
CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.

APPROVALS:	
APPROVALS: FSA CM	DATE
	0.175
	DATE
FOPS	DATE
RF ENGINEER FOPS T-MOBILE ENGINEERING AND DEV	ELOPMENT DATE
	DATE
	DATE



GENERAL NOTES:

THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.

THE ARCHITECT/ENGINEER HAS MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.

THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CLIENT'S REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK

THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.

6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S / VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS DURING CONSTRUCTION.

THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT SECTIONS OF THE BASIC STATE BUILDING CODE, LATEST EDITION, AND ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJEC

THE CONTRACTOR SHALL NOTIFY THE CLIENT'S REPRESENTATIVE IN WRITING WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE CLIENT'S REPRESENTATIVE

10. THE WORK SHALL CONFORM TO THE CODES AND STANDARDS OF THE FOLLOWING AGENCIES AS FURTHER CITED HEREIN

ASTM: AMERICAN SOCIETY FOR TESTING AND MATERIALS, AS PUBLISHED IN "COMPILATION OF ASTM STANDARDS BUILDING CODES" OR LATEST EDITION

B. AWS: AMERICAN WELDING SOCIETY INC. AS PUBLISHED IN "STANDARD D1.1-08, STRUCTURAL WELDING CODE" OR LATEST EDITION.

AISC: AMERICAN INSTITUTE FOR STEEL CONSTRUCTION AS PUBLISHED IN "CODE FOR STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES": "SPECIFICATIONS FOR THE DESIGN. FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" (LATEST EDITION).

11. BOLTING:

BOLTS SHALL BE CONFORMING TO ASTM A325 HIGH STRENGTH, HOT DIP GALVANIZED WITH ASTM A153 HEAVY HEX TYPE NUTS.

BOLTS SHALL BE 3/4" MINIMUM (UNLESS OTHERWISE NOTED) B.

ALL CONNECTIONS SHALL BE 2 BOLTS MINIMUM. С.

12. FABRICATION:

FABRICATION OF STEEL SHALL CONFORM TO THE AISC AND AWS STANDARDS AND CODES (LATEST EDITION). A.

ALL STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 (LATEST B EDITION), UNLESS OTHERWISE NOTED

13. ERECTION OF STEEL:

PROVIDE ALL ERECTION EQUIPMENT, BRACING, PLANKING, FIELD BOLTS, NUTS, WASHERS, DRIFT PINS, AND SIMILAR MATERIALS WHICH DO NOT FORM A PART OF THE COMPLETED CONSTRUCTION BUT ARE NECESSARY FOR ITS PROPER ERECTION.

ERECT AND ANCHOR ALL STRUCTURAL STEEL IN ACCORDANCE WITH AISC REFERENCE STANDARDS. ALL WORK SHALL BE ACCURATELY SET TO ESTABLISHED LINES AND ELEVATIONS AND RIGIDLY FASTENED IN PLACE WITH SUITABLE ATTACHMENTS TO THE CONSTRUCTION OF THE BUILDING.

TEMPORARY BRACING, GUYING AND SUPPORT SHALL BE PROVIDED TO KEEP THE STRUCTURE SAFE AND ALIGNED AT ALL TIMES DURING CONSTRUCTION, AND TO PREVENT DANGER TO PERSONS AND PROPERTY. CHECK ALL TEMPORARY LOADS AND STAY WITHIN SAFE CAPACITY OF ALL BUILDING COMPONENTS.

14. RELATED WORK, FURNISH THE FOLLOWING WORK AS SPECIFIED UNDER CONSTRUCTION DOCUMENTS, BUT COORDINATE WITH OTHER TRADES PRIOR TO BID

A. FLASHING OF OPENING INTO OUTSIDE WALLS

- SEALING AND CAULKING ALL OPENINGS B.
- C. PAINTING
- D. CUTTING AND PATCHING

15. REQUIREMENTS OF REGULATORY AGENCIES:

A. FURNISH U.L. LISTED EQUIPMENT WHERE SUCH LABEL IS AVAILABLE. INSTALL IN CONFORMANCE WITH U.L. STANDARDS WHERE APPLICABLE.

INSTALL ANTENNA, ANTENNA CABLES, GROUNDING SYSTEM IN ACCORDANCE WITH DRAWINGS AND SPECIFICATION IN в EFFECT AT PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES, AND SPECIAL CODES, HAVING JURISDICTION OVER SPECIFIC PORTIONS OF WORK. THIS WORK INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING

C. TIA-EIA - 222 (LATEST EDITION). STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.

D. FAA - FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR AC 70/7460-IH, OBSTRUCTION MARKING AND LIGHTING.

E FCC - FEDERAL COMMUNICATIONS COMMISSION RULES AND REGULATIONS FORM 715, OBSTRUCTION MARKING AND LIGHTING SPECIFICATION FOR ANTENNA STRUCTURES AND FORM 715A. HIGH INTENSITY OBSTRUCTION LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES.

F. AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS (LATEST EDITION)

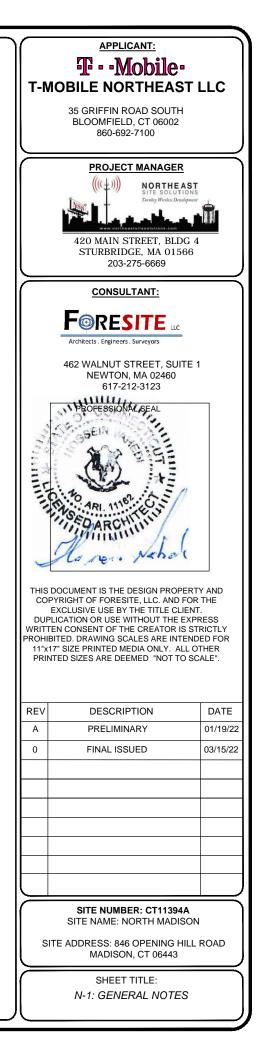
G. NEC - NATIONAL ELECTRICAL CODE - ON TOWER LIGHTING KITS.

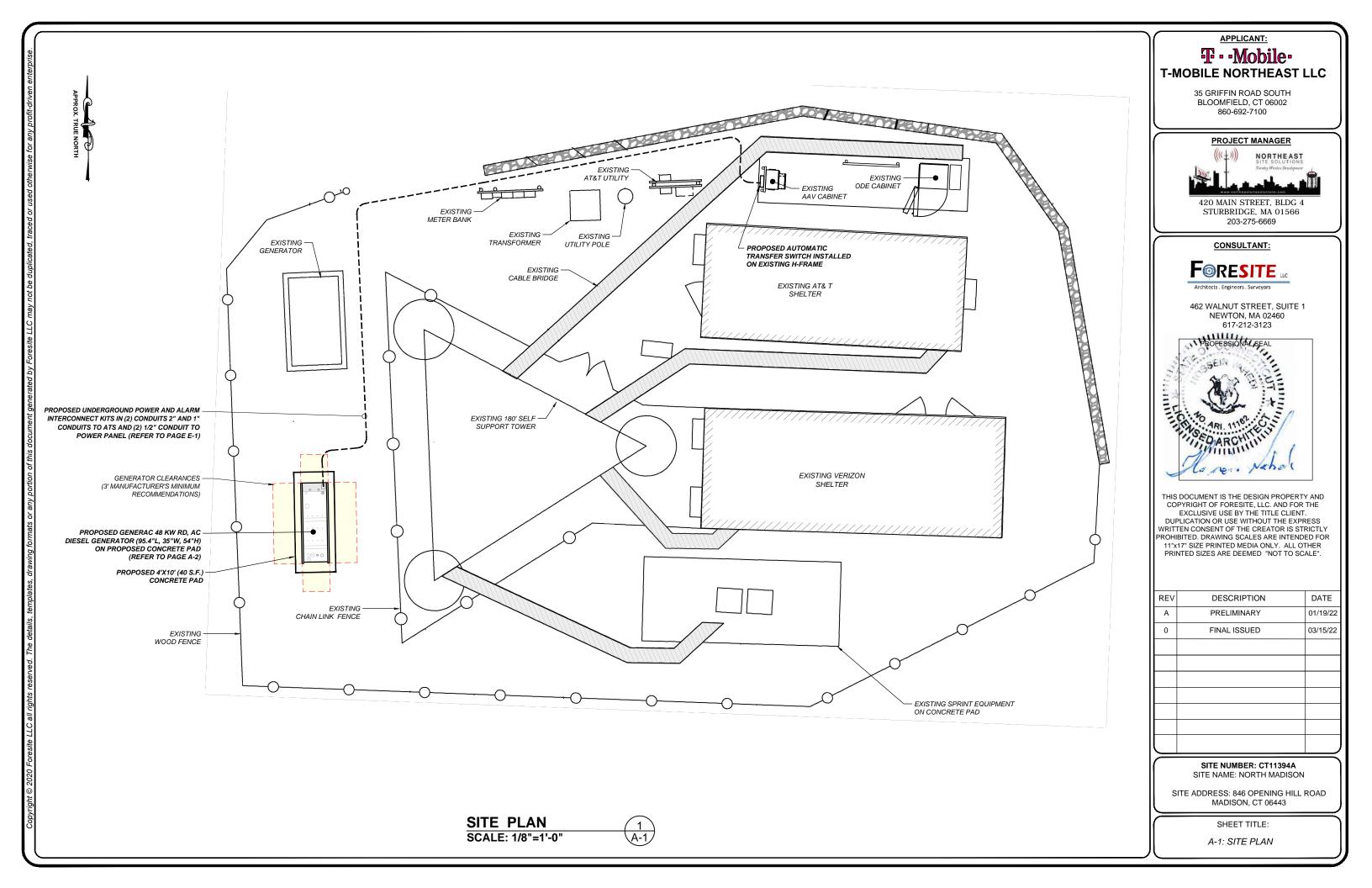
H. UL - UNDERWRITER'S LABORATORIES APPROVED ELECTRICAL PRODUCTS.

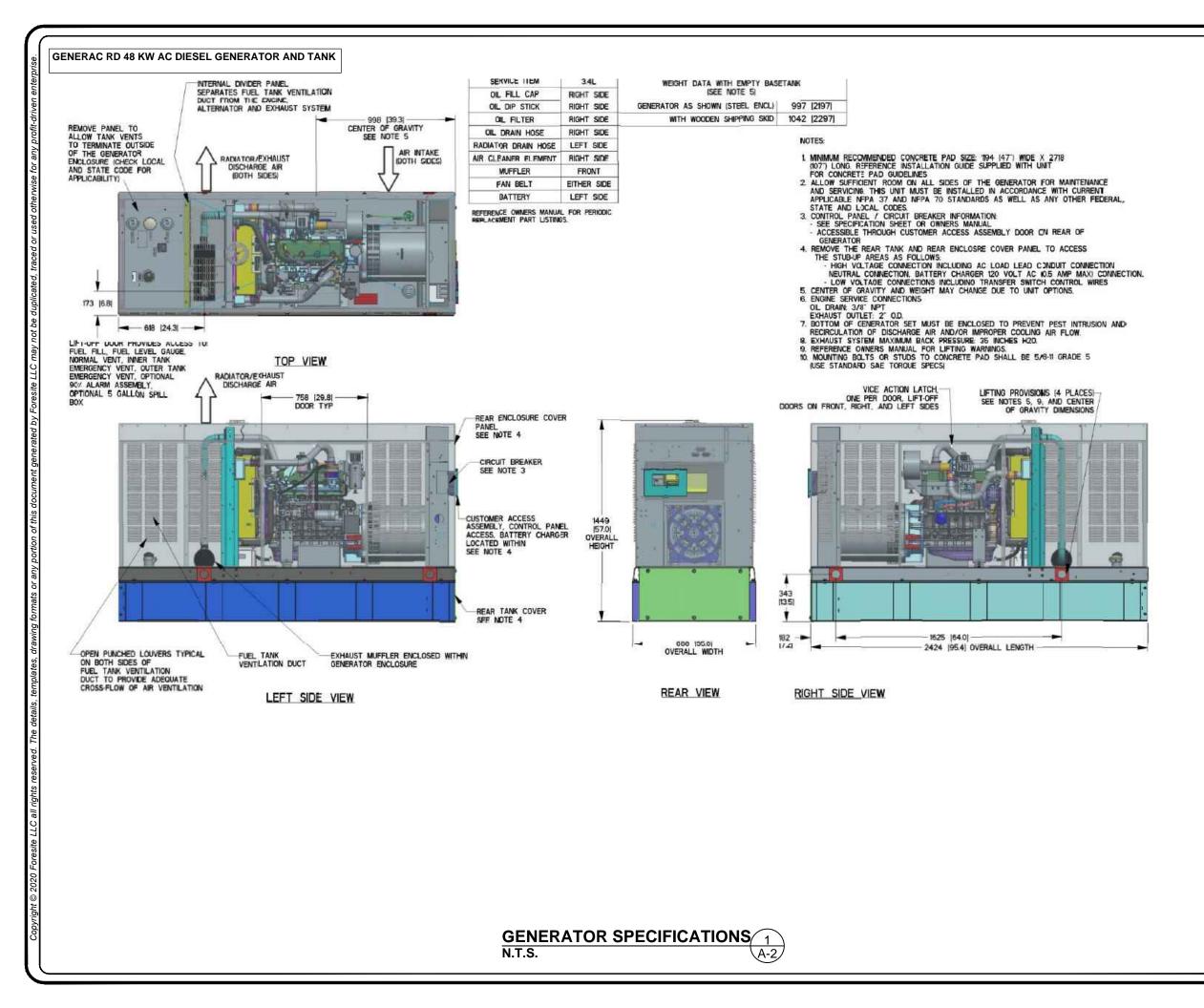
IN ALL CASES, PART 77 OF THE FAA RULES AND PARTS 17 AND 22 OF THE FCC RULES ARE APPLICABLE AND IN THE EVENT OF CONFLICT, SUPERSEDE ANY OTHER STANDARDS OR SPECIFICATIONS.

J. 2018 LIFE SAFETY CODE NFPA - 101.

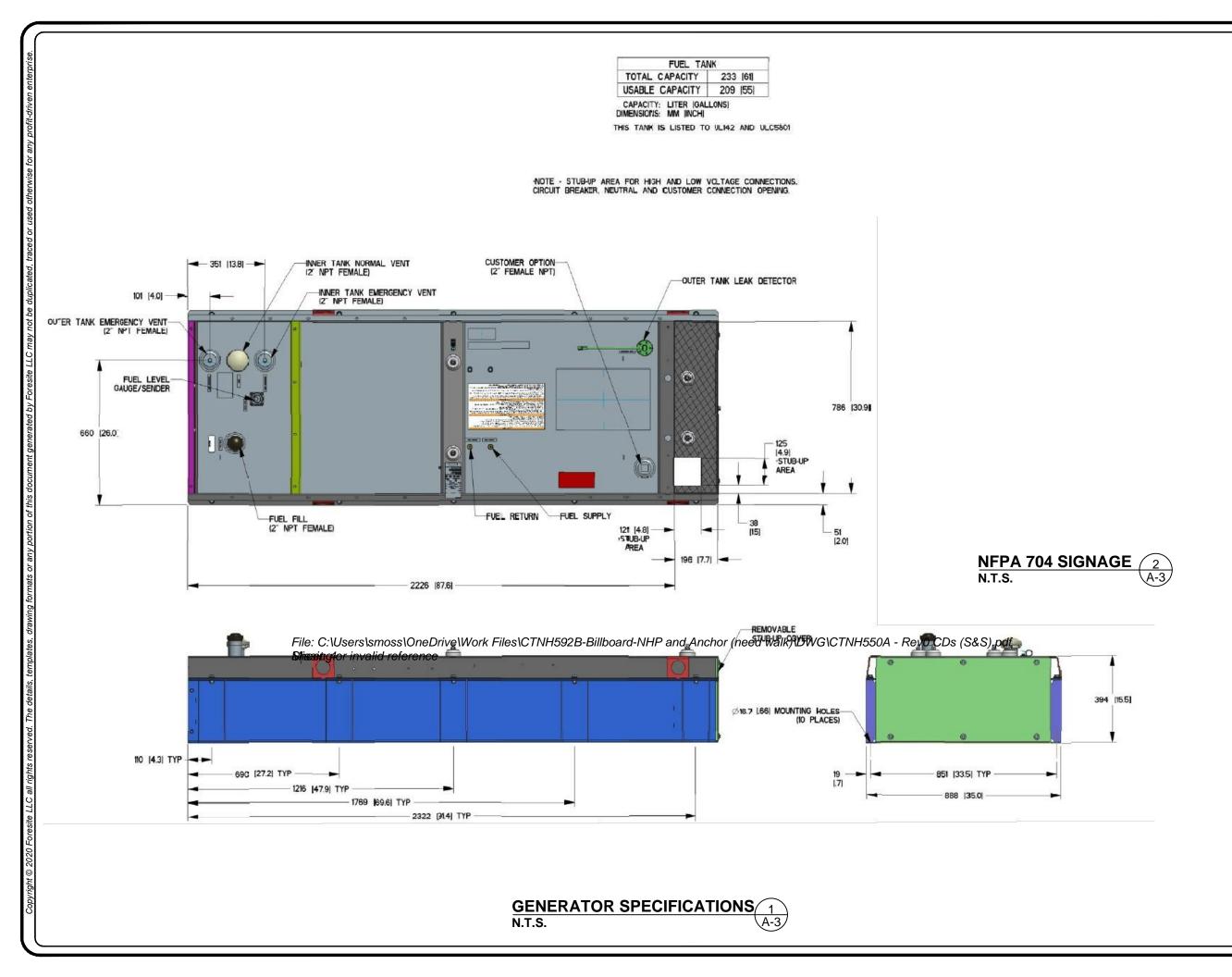


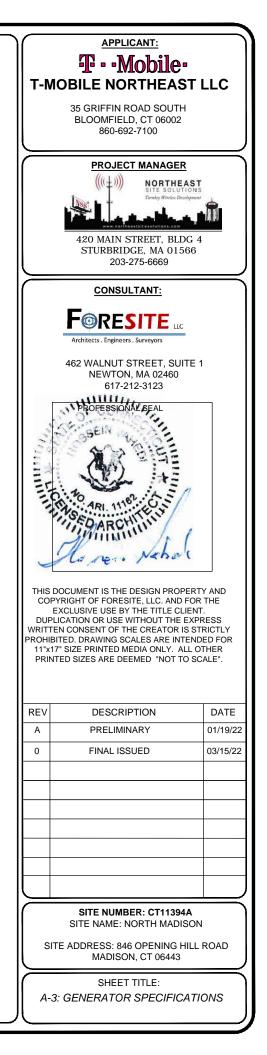


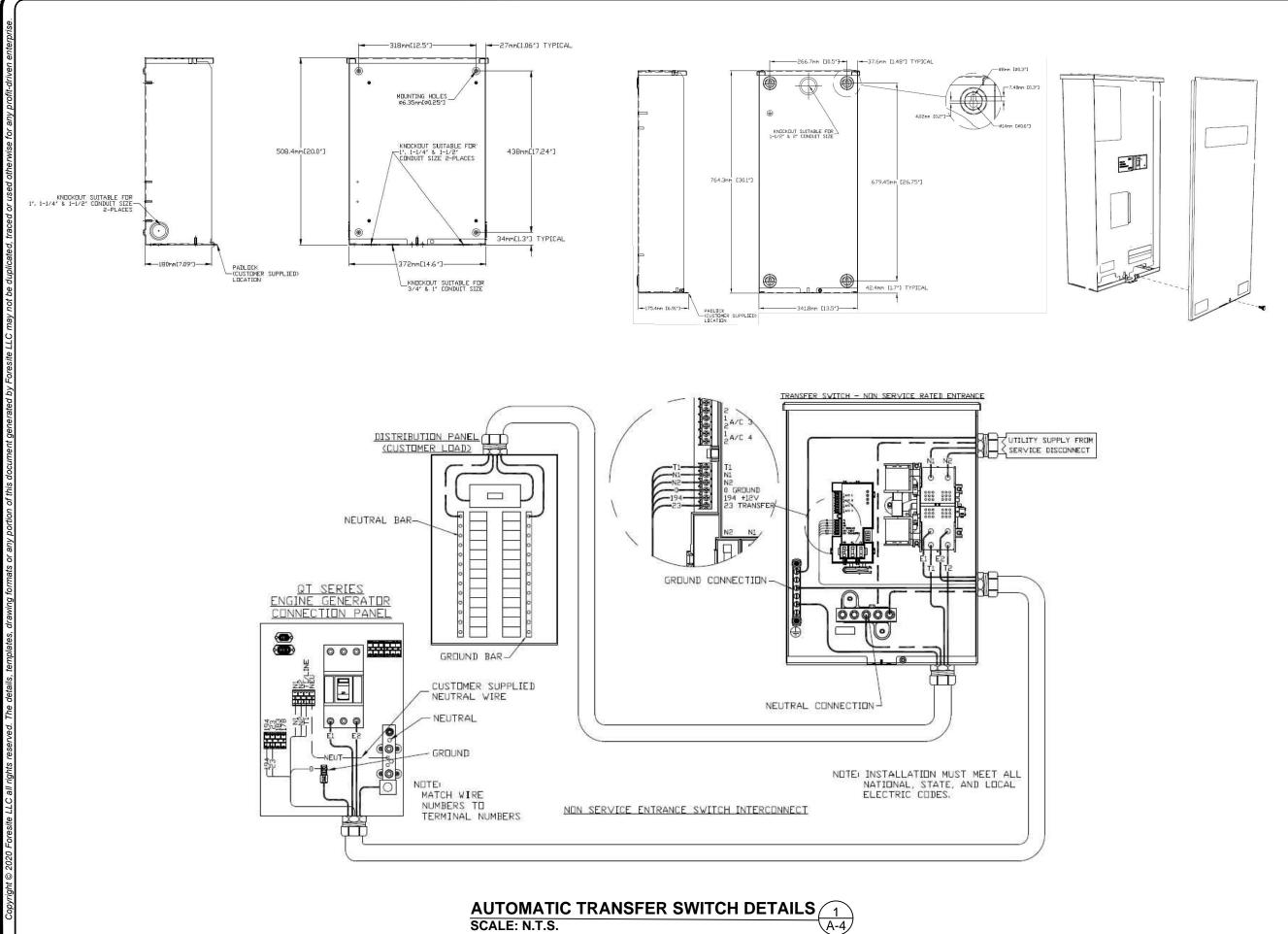




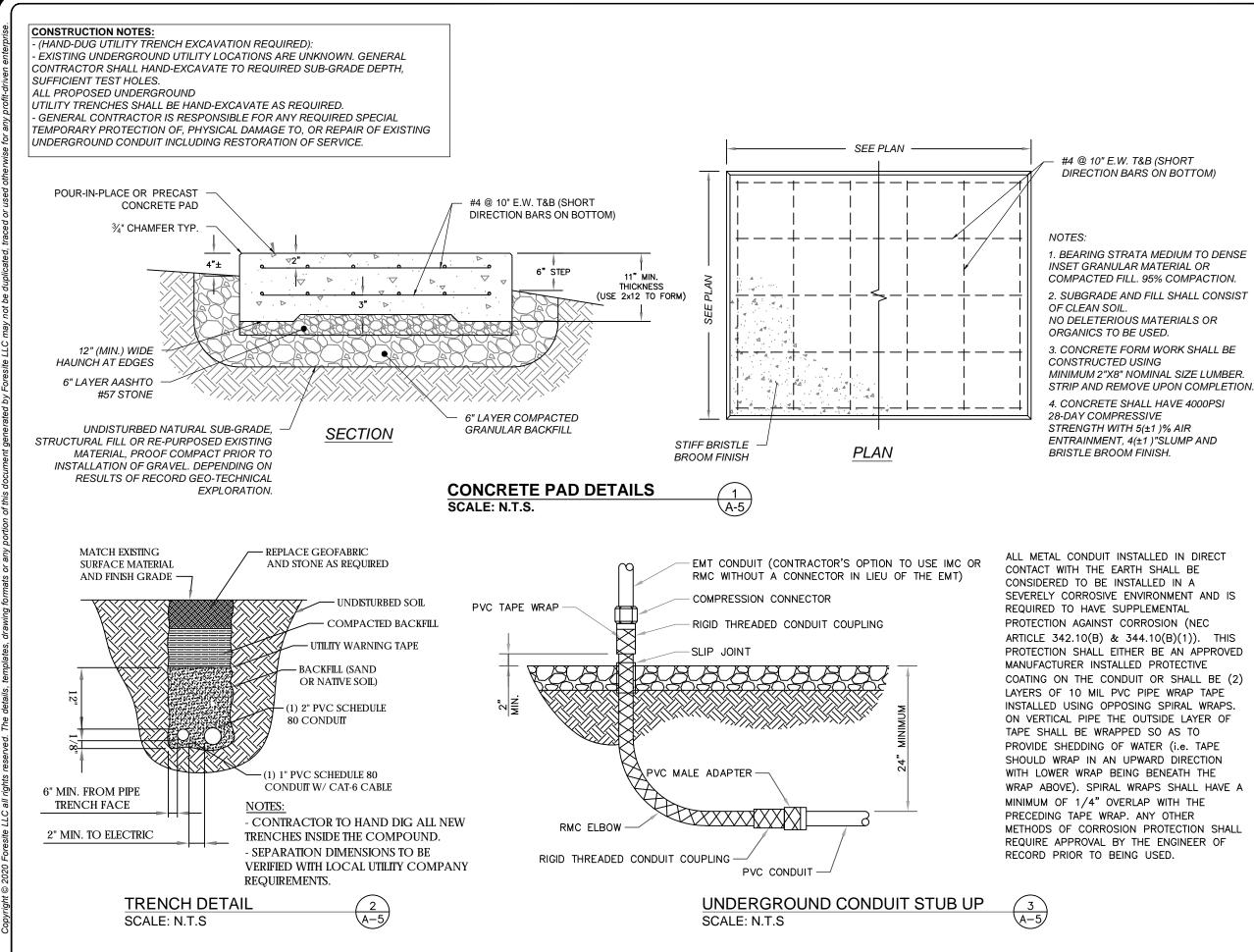
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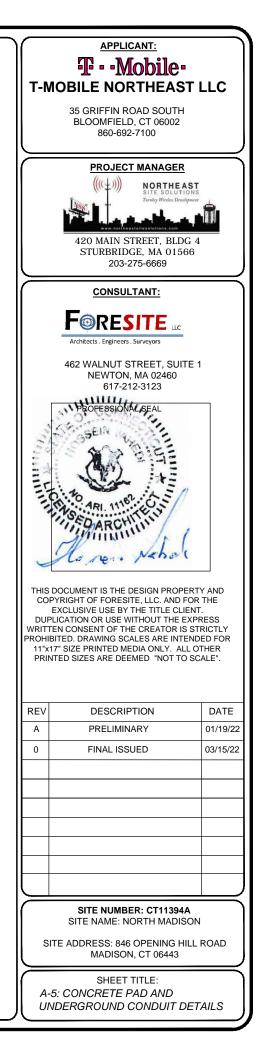






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GENERAL ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES INCLUDING LATEST EDITIONS OF: NEPA - NATIONAL FIRE PROTECTION ASSOCIATION

UL - UNDERWRITERS LABORATORIES

NEC - 2017 NATIONAL ELECTRICAL CODE NEMA - NATIONAL ELECTRIC

MANUFACTURERS ASSOCIATION

OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT IBC - 2015 INTERNATIONAL BUILDING CODE

2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PRODUCED PER SPECIFICATION REQUIREMENTS.

3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.

4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS

5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) ND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.

6. RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.

7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THIN INSULATION.

8. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NAME 3R ENCLOSURE.

9. GROUNDING SHALL COMPLY WITH NEC ART. 250.

10. GROUNDING COAX CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURES COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER

11. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSTALLATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE GROUND

12. ALL GROUND CONNECTION TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL

13. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AS RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY BOND ANY METER OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.

14. CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PROCEDURES (COAXIAL CABLE GROUND KITS. TELCO AND POWER PANEL GROUND); (GROUNDING ELECTRODE RING OR BUILDING STEEL); NON-SURGING OBJECTS (EGB GROUND IN RBS UNIT).

15. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS

16. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTION.

17. TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.

18. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.

19. VERIFY PROPOSED SERVICE UPGRADE WITH LOCAL UTILITY COMPANY PRIOR TO CONSTRUCTION

20. EXISTING UNDERGROUND UTILITY LOCATIONS ARE UNKNOWN. GENERAL CONTRACTOR SHALL HAND-EXCAVATE TO REQUIRED SUB-GRADE DEPTH, SUFFICIENT TEST HOLES OR AS DIRECTED / REQUIRED BY CONSTRUCTION MANAGER. ALL PROPOSED UNDERGROUND UTILITY TRENCHES SHALL BE HAND-EXCAVATE AS REQUIRED. GENERAL CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED SPECIAL TEMPORARY PROTECTION OF. PHYSICAL DAMAGE TO. OR REPAIR OF EXISTING UNDERGROUND CONDUIT INCLUDING RESTORATION OF SERVICE

21. PROVIDE SLIP JOINS WHERE CONDUITS TRANSITION FROM UNDERGROUND TO ABOVE GROUND.

NOTES:

DIAGRAM AS SHOWN. IS A GENERIC ROUTING SCHEMATIC BASED ON AVAILABLE INFORMATION AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS. CONTRACTOR SHOULD INSTALL THE GENERATOR, EQUIPMENT AND CONNECTIONS BASED ON VERIFIED ELECTRICAL AUDITS AND PER MANUFACTURER'S INSTALLATION GUIDELINES AS WELL AS ALL APPLICABLE LOCAL AND NATIONAL CODES AND REQUIREMENTS

GROUNDING NOTES:

GROUNDING SHALL COMPLY WITH NEC ART. 250 AND MANUFACTURER'S RECOMMENDATIONS. TIE INTO THE EXISTING GROUNDING SYSTEM

2. CONTRACTOR SHALL INSTALL GROUND RODS ON ALL UNDERGROUND GROUNDING RUNS LONGER THAN 10'. GROUND RODS WILL BE INSTALLED ON 20' CENTERS MAXIMUM.

3. ALL DOWN CONDUCTORS MUST GO DOWN PER NFPA 780.

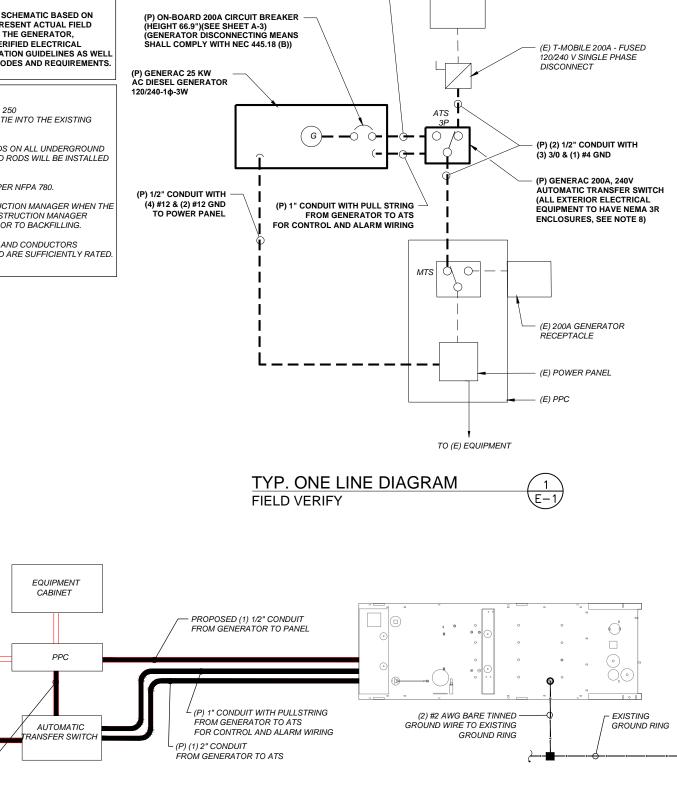
4. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING

5. CONTRACTOR MY USE EXISTING CONDUITS AND CONDUCTORS PROVIDED THEY ARE IN GOOD CONDITION AND ARE SUFFICIENTLY RATED.

UTILITY POWER

М

DISCONNECT



ELECTRICAL ROUTING DIAGRAM

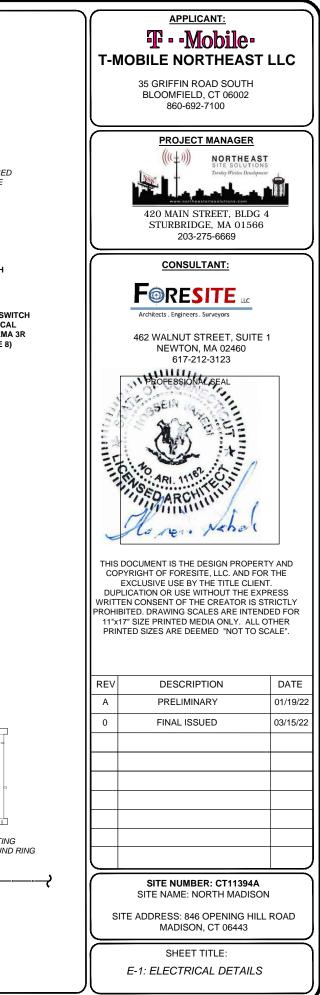
SCALE: N.T.S

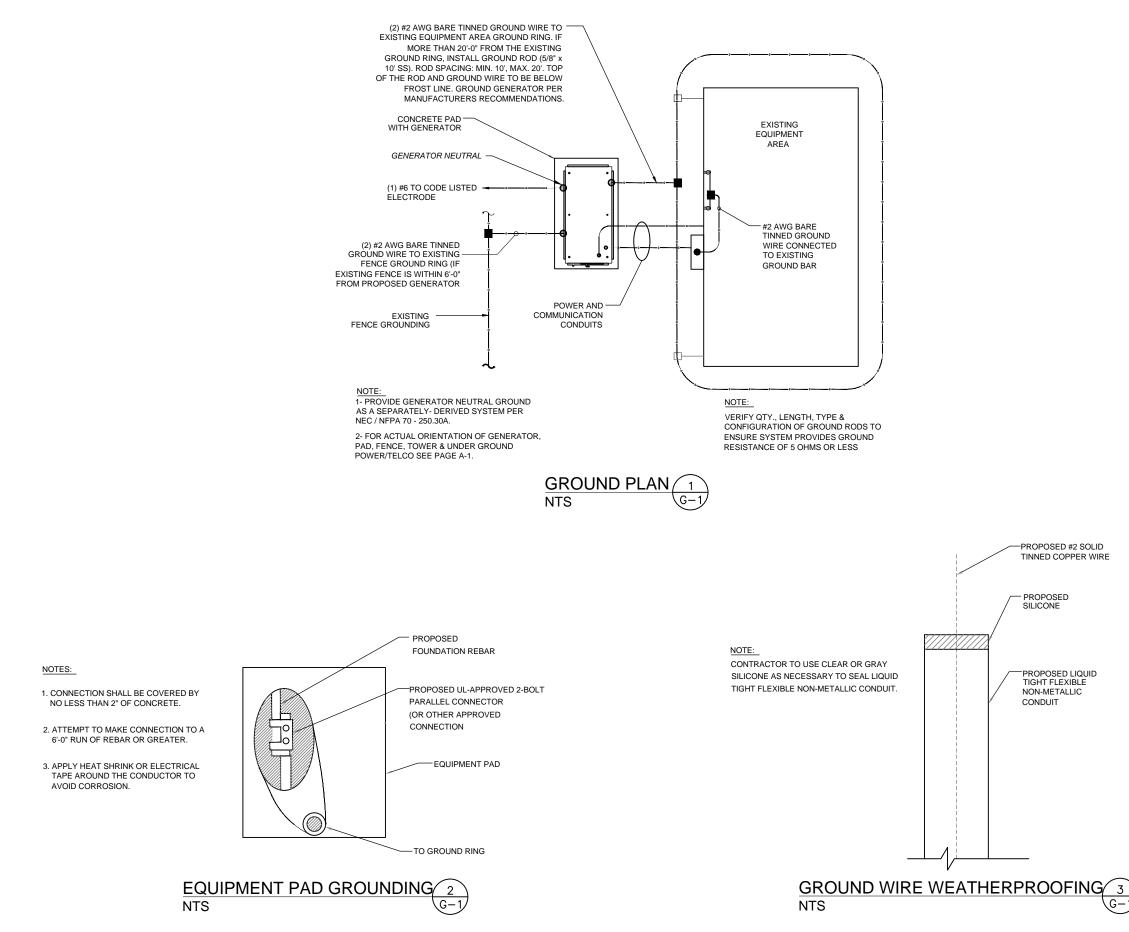
(3) #1/0 & (1) #6G (CU THHN) IN 2"C

PROPOSED 2-1/2" CONDUIT FROM ATS TO PANEL

PROPOSED 2-1/2" CONDUIT -

FROM DISCONNECT TO ATS





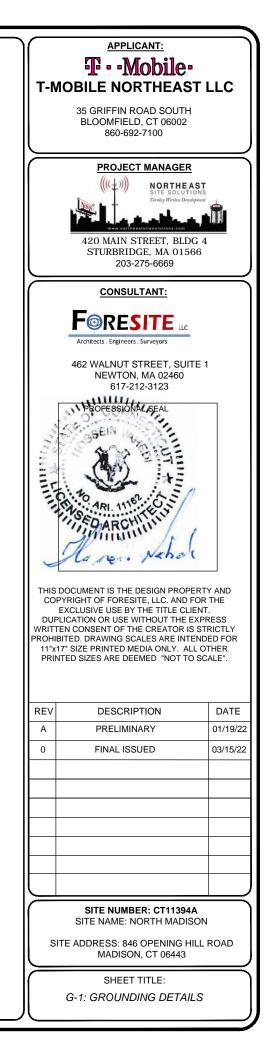


Exhibit D

RD048 | 3.4L | 48 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

Standby Power Rating 48 kW, 60 kVA, 60 Hz



GENERAC

Image used for illustration purposes only

INDUSTRIAL

Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.



ANSI

Powering Ahead

For over 50 years, Generac has led the industry with innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial application under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

RD048 | 3.4L | 48 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

Standard Features

ENGINE SYSTEM

- Cold Weather Kit
- Oil Drain Extension
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil & Coolant

Fuel System

Primary Fuel Filter

Cooling System

- Closed Coolant Recovery System
- Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- ۲ Radiator Drain Extension
- Can Operate at up to 122°F (50°C) Ambient • Temperature

Electrical System

- Battery Charging Alternator
- Battery Cables
- Battery Tray •
- **Rubber-Booted Engine Electrical Connections** ۲
- Solenoid Activated Starter Motor ٠
- Smart Battery Charger

ALTERNATOR SYSTEM

- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Sealed Bearings
- Low Temperature Rise (<120°C)
- Low THD (<5%)

GENERATOR SET

- Sound Attenuated Aluminum Enclosure
- Internal Genset Vibration Isolation
- Separation of Circuits High/Low Voltage
- Wrapped Exhaust Piping
- Standard Factory Testing
- 5 Year Limited Warranty
- Ready to Accept Full Load in <10 Seconds
- E-Stop

TANKS

- 48 Hour Run Time Tank
- UL 142 Listed Tank

CONTROL SYSTEM



Evolution [™] Controller

- Two-Line Plain Text LCD Display
- Programmable Start Delay Between 10-30 seconds
- 10 second Engine Start Sequence ٠
- 5 second Engine Warm Up
- 1 minute Engine Cool-Down ٠
- Starter Lock-Out
- · Smart Battery Charger
- Automatic Voltage Regulation with Over and Under Protection
- Automatic Low Oil Pressure Shutdown
- Overspeed Shutdown
- High Temperature Shutdown

- Overcrank Protection
- · Safety Fused
- · Failure to Transfer Protection
- Low Battery Protection
- 50 Even Run Log
- Future Set Capable Exerciser
- Incorrect Wiring Protection
- Internal Fault Protection
- · Common External Fault Capability
- · Governor Failure Protection

Optional Shipped Loose and Field Install Kits

GENERATOR SET

- Paint Kit
- Scheduled Maintance Kit

CONTROL SYSTEM

○ Mobile Link [™] and Adapter Kit

TANKS

- Spill Box
- 90% Fuel Alarm
- Tank Risers
- Spill Box Drainback Kit
- Vent Extension Support Kit
- 5 Day Run Time Tank
- Overfill Prevention Valve
- Fuel Fill Drop Tube
- Lockable Fuel Cap



GENERAC INDUSTRIAL



GENERAC

INDUSTRIAL POWER

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Generac
Cylinder #	4
Туре	In-Line
Displacement - in ³ (L)	3.4 (207.48)
Bore - in (mm)	3.86 (98)
Stroke - in (mm)	4.45 (113)
Compression Ratio	18.5:1
Intake Air Method	Turbocharged/Aftercooled
Cylinder Head	Cast Iron OHV
Piston Type	Aluminum

Engine Governing

Governor Frequency Regulation (Steady State)

Electronic te) ±0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full Flow Spin-On Canister
Crankcase Capacity with Filters- qt (L)	7.4 (7.0)

Cooling System

Cooling System Type	Closed Recovery
Fan Type	Pusher
Fan Speed- rpm	2,029
Fan Diameter - in (mm)	22 (559)

Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Specification	ASTM
Fuel Pump Type	Mechanical Engine Driven Gear
Injector Type	Mechanical
Fuel Supply Lin (mm/in)	7.94/0.31 (ID)
Fuel Return Line (mm/in)	7.94/0.31 (ID)
Fuel Filtering (microns)	25

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	Standard
Battery Size	Group 27F
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	Generac	Standard Excitation	Direct	
Poles	4	Bearings	Single Sealed	
Field Type	Rotating	Coupling	Flexible Disc	
Insulation Class - Rotor	Н	Prototype Short Circuit Test	Yes	
Insulation Class - Stator	Н	Voltage Regulator Type	Full Digital	
Total Harmonic Distortion	<5%	Number of Sensed Phases	2	
Telephone Interference Factor (TIF)	<50	Regulation Accuracy (Steady State)	±1.0%	

EPA Certified Stationary Emergency

OPERATING DATA

POWER RATINGS

Single-Phase 120/480 VAC @0.1pf

Standby 48 kW

Amps: 200

MOTOR STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip at 30%

120/240 V, Single-Phase at 0.4pf 189

FUEL CONSUMPTION RATES*

Percent Load	Diesel gal/hr (L/hr)	
25%	1.35 (5.11)	
50%	2.15 (8.14)	
75%	3.06 (11.58)	
100%	3.98 (15.07)	

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Air Flow (Radiator and Alternator)	ft ³ /min (m ³ /min)	2824 (80)
Coolant System Capacity	gal (L)	2.8 (10.6)
Heat Rejection to Coolant	BTU/hr (MJ/hr)	135,900 (143.4)
Temperature Deration	3% for every 5°C above 25°C or	1.7% for every 5°F over 77°F
Altitude Deration	1% for every 100 m above 915 or 3% for	or every 1000 ft over 3000 ft
Maximum Radiator Backpressure	in H ₂ O (kPa)	0.50 (0.12)

COMBUSTION AIR REQUIREMENTS

Horsepower at rated kW

Flow	at	Rated	Power	ft ³ /min	(m ³ /min)	

Standby 190 (5.38)

Exhaust Temp (Rated Output - Post Silencer)

ENGINE			EXHAUST	
		Standby		
Rated Engine Speed	rpm	1,800	Exhaust Flow (Rated Output)	ft ³ /min (m ³ /min)

Deration - Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

HP

Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards. Standby - See Bulletin 0187500SSB

85



Standby 448 (12.7)

°F (°C)

1120 (604.4)

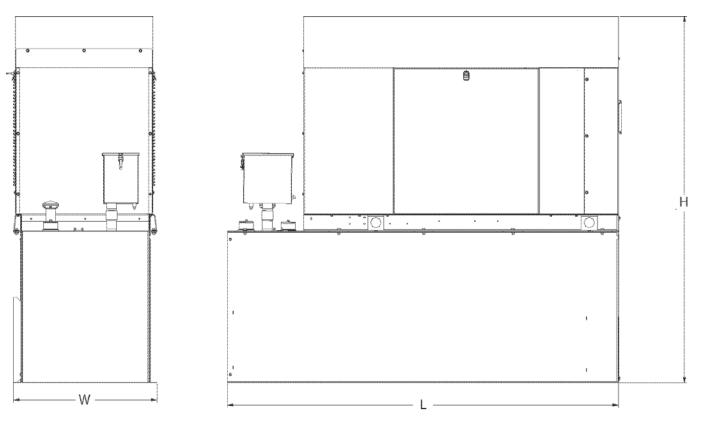


RD048 | 3.4L | 48 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

DIMENSIONS AND WEIGHTS*



ENCLOUSED UNIT with 48hour Tank

L x W x H in (mm)	95.4 (2,422) x 35.0 (880) x 89.3 (2,269)
Sound output in dB(A) at 23ft with generator operating at normal Load	65

* All measurements are approximate and for estimation purposes only.

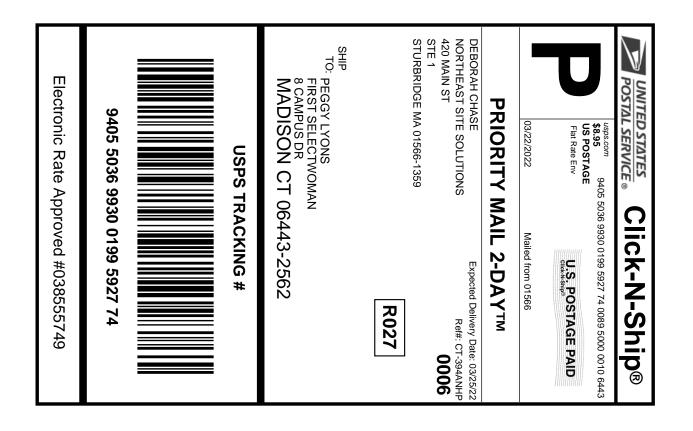
YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

5 of 5



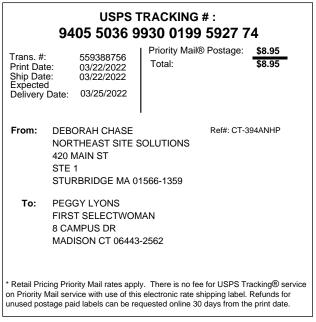
Exhibit E



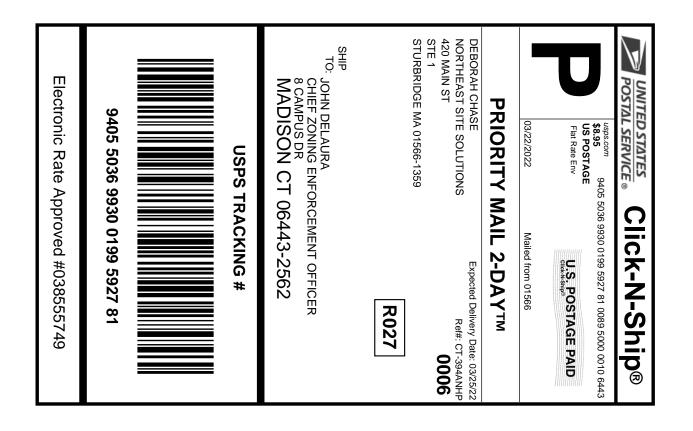
Instructions

- 1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
- 2. Place your label so it does not wrap around the edge of the package.
- 3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
- 4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
- 5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record



UNITED STATES POSTAL SERVICE Thank you for shipping with the United States Postal Service! Check the status of your shipment on the USPS Tracking® page at usps.com



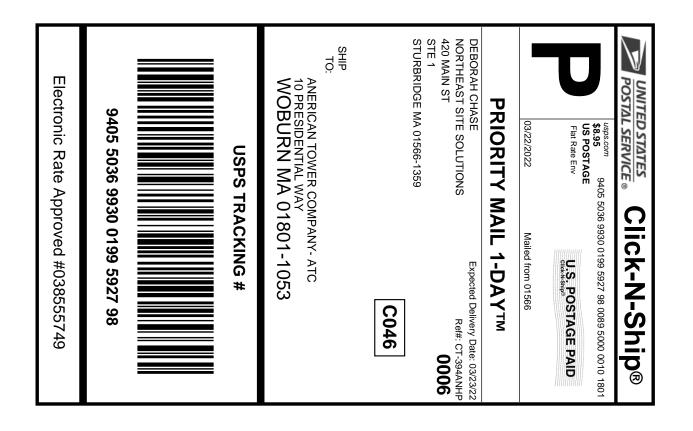
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Click-N-Ship® Label Record



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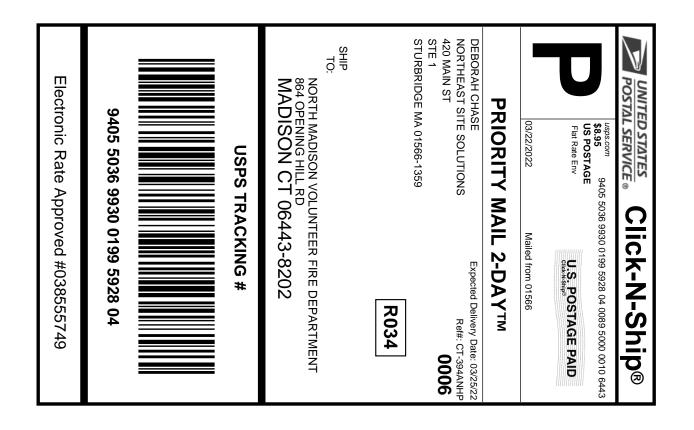
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Prepaid Mail 1 Madison, CT 06443 Weight: 0 lb 6.50 oz Acceptance Date: Tue 03/22/2022	\$0.00

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