

G. Scott Shepherd, Sr. Property Specialist - SBA Communications 134 Flanders Rd., Suite 125, Westborough, MA 01581 508.251.0720 x 3807 - GShepherd@sbasite.com

November 4, 2021

Melanie A. Bachman Executive Director Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

RE: Notice of Exempt Modification

160 West St., Cromwell, CT

Latitude: 41.606000 Longitude: -72.670400

T-Mobile Site #: CTHA521A_Hardening

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antennas at the 75-foot level of the existing 76-foot Monopole Tower at **160 West St., Cromwell, CT.** The tower is owned by SBA Towers IV, LLC. The property is owned by 160 West St., LLC. T-Mobile now intends to add one (1) Generac RD025 Diesel generator and 4' x 10' concrete pad, within a 58' x 30' fenced compound lease area. The proposed generator and concrete pad will sit fully within the leased area of the compound and will not require additional space for the supplementary tank.

Ground

Install New:

- (1) Generac RD0 25kw Diesel generator
- (1) 4' x 10' concrete pad
- (1) 2" RGS conduit for Ethernet cable for generator & Alarms from exist. Equip. cabinet to prop. generator
- (1) 2" RGS conduit for emergency power from prop. generator to prop. ATS
- (1) 1-1/2" RGS conduit for generator heater & Battery from exist. PPC to prop. generator
- (1) 2" RGS conduit for emergency power from proposed ATS to existing PPC



Generac 200A, 120/240v automatic transfer switch mounted to proposed Unistrut

Remaining:

- T-Mobile Emerson Nextend Compact 2416 fiber cabinet
- T-Mobile GPS antenna mounted to exist. Ice bridge
- T-Mobile cables routed along exist. Ice bridge
- T-Mobile Ice Bridge
- T-Mobile Ericsson RBS6201 ODE cabinet
- T-Mobile Battery cabinet
- T-Mobile Ericsson B160 cabinet
- T-Mobile Ericsson 6160 equip. Cabinet
- Existing 10' x 16' concrete pad

Reason for Request / Change in Generator Size and Fuel

In an effort to further enhance network reliability, T-Mobile is proposing to install a diesel-based backup generator, the Generac RD025 25kw Diesel Generator. T-Mobile is currently in the middle of a National Hardening Project.

The proposed diesel generator measures $84.2'' \times 35'' \times 91.7''$ (w/fuel tank: $103.4'' \times 35'' \times 91.7''$). It will sit fully within the leased area of the compound and will not require additional space for the supplementary tank.

Generac's RD025 25kw Diesel Generator carries up to 98 hours of run time with 100% load, 125 hours of run time with a 75% load and 161 hours of run time with a 50% load. It can operate in temperatures of 122 degrees Fahrenheit.

Monitoring, Prevention and Containment Measures

It will be filled by a licensed fuel filling company. The Generac's RD025 25kw Diesel Generator is fuel efficient, rodent and corrosion resistant, and has a sound attenuated aluminum enclosure with a Rated Load Sound Output at 23ft. of -65dB. It further supports advanced, remote monitoring for diagnostics and control and is installed with a tank alarm system. The Sound Output from the Generac RD025kw meets/exceeds the allowable noise emissions levels for the Town of Cromwell, CT which is as follows:

Maximum Continuous Noise Levels (measured in dBA):

Chapter 168. Noise

§ 168-5 . Noise zone standards.



A. A-weighted noise level standards. It shall be unlawful for any person to emit or cause to be emitted any noise beyond the property lines of his/her premises in excess of the following noise levels:

Receptor Noise Zone Class (dBA)

Emitter Noise Zone	С	В	A-Day	A-Night
Class C	70	66	61	51
C Class B	72	62	55	45
Class A	62	55	55	45

The proposed modification will remain within the existing $58' \times 30'$ fenced compound. The new generator and tank will be surrounded by the existing security fence and 12' 6'' wide double leaf gate and will be placed on a plinth secured to a proposed $4' \times 10'$ concrete pad.

Additional safety specifications:

- Automatic Voltage Regulation with Over and Under Protection
- Overspeed Shutdown
- High Tempature Shutdown
- Meets ANSI/IEEE C62.41, SA CSA 22.2, SAE J1349, NFPA 37, 70 99

Revised Construction Drawings and Full Spec Sheets referencing the above are attached herewith.

The revised ground configuration continues to meet all requirements for a Notice of Exempt Modifications. The request remains technically, legally, environmentally, and economically feasible and meets public safety concerns per Connecticut General Statute Section 16-50aa.

There is no environmental impact associated with the revised ground configuration, including, but not limited to, visibility, wetlands and water resources, air quality or noise.

T-Mobile's revised ground configuration:

- Will not have any significant adverse visual impact on the surrounding areas
- Does not affect or alter the existing site with regard to wetlands, water resources or air quality
- The generator would only be used in cases of emergency and would provide backup time of approximately 60 hours in time of need.

The proposed work is not thought to have any substantial adverse environmental impact. Public Need for the additional coverage outweighs any minor environmental effects that would result from the construction, operation, and maintenance of the proposed collocation.



A Map of the Site Showing Nearest Wetlands, depicted in feet, is attached herewith.

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.C.S.A. § 16.50j-73, a copy of this letter is being sent to the Town of Cromwell's Town Manager, Anthony J. Salvatore and Director Planning & Development, Stuart Popper, as well as to the property owner. (Separate notice is not being sent to tower owner, as it belongs to SBA.)

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 modification 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 modification 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 telecommunication facility constitute an exempt modifications under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

G. Scott Shepherd
Sr. Property Specialist
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581
508.251.0720 x3807 + T
508.366.2610 + F
508.868.6000 + C
GShepherd@sbasite.com

Attachments



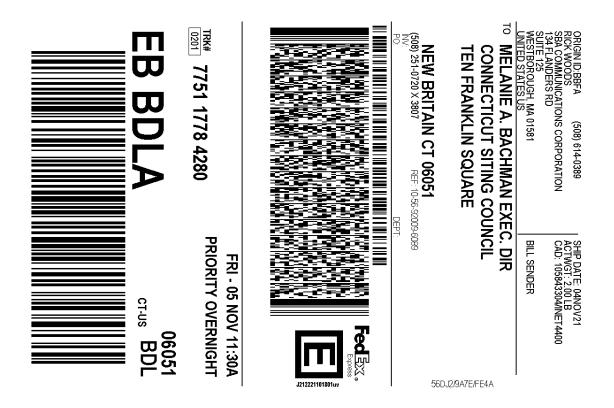
Exhibit List

Exhibit 1	Check Copy	x
Exhibit 2	FedEx Labels	х
Exhibit 3	Property Card	х
Exhibit 4	Property Map	х
Exhibit 5	Zoning Documents	CSC Docket No. 338 (11/29/07)
Exhibit 6	Construction Drawings	Chappell 10/19/21
Exhibit 7	Generator Specifications	х
Exhibit 8	Wetlands Map	х

EXHIBIT 1 Copy of Check for filing fee.

EXHIBIT 2

FedEx Labels



After printing this label:

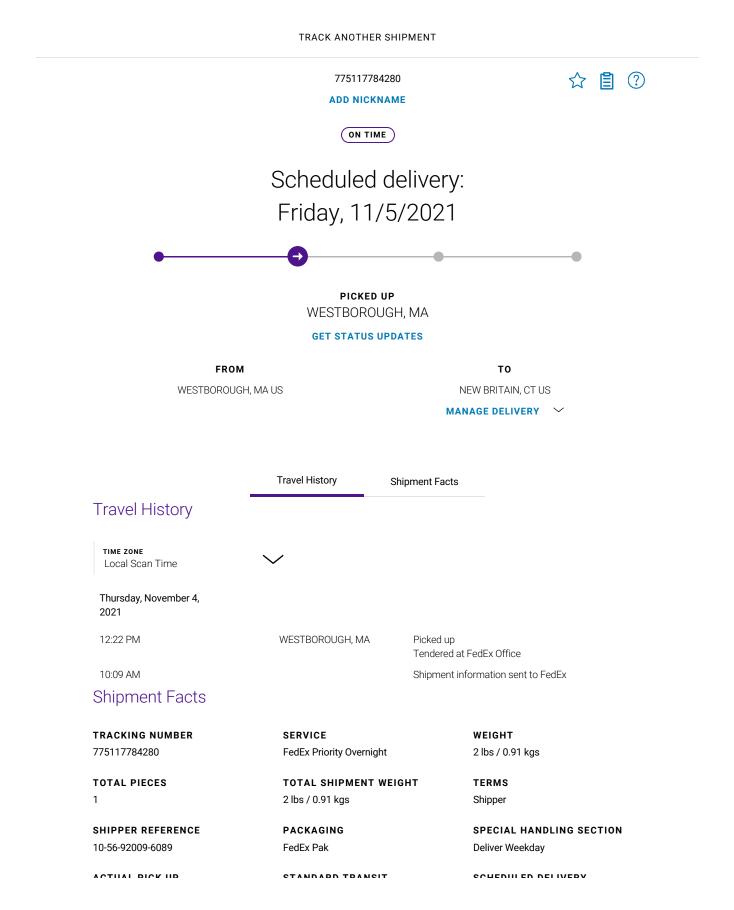
- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
- 2. Fold the printed page along the horizontal line.
- 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

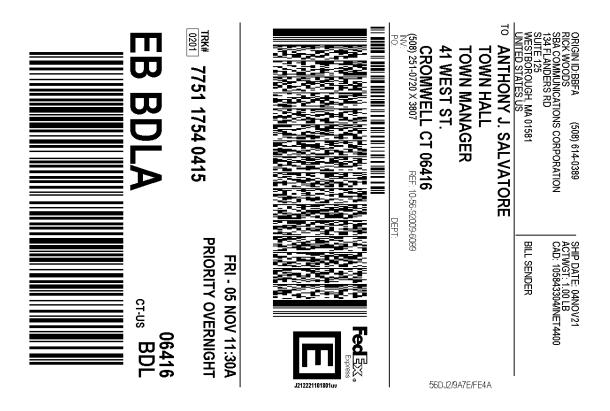
Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Detailed Tracking Page 1 of 2







After printing this label:

- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
- 2. Fold the printed page along the horizontal line.
- 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

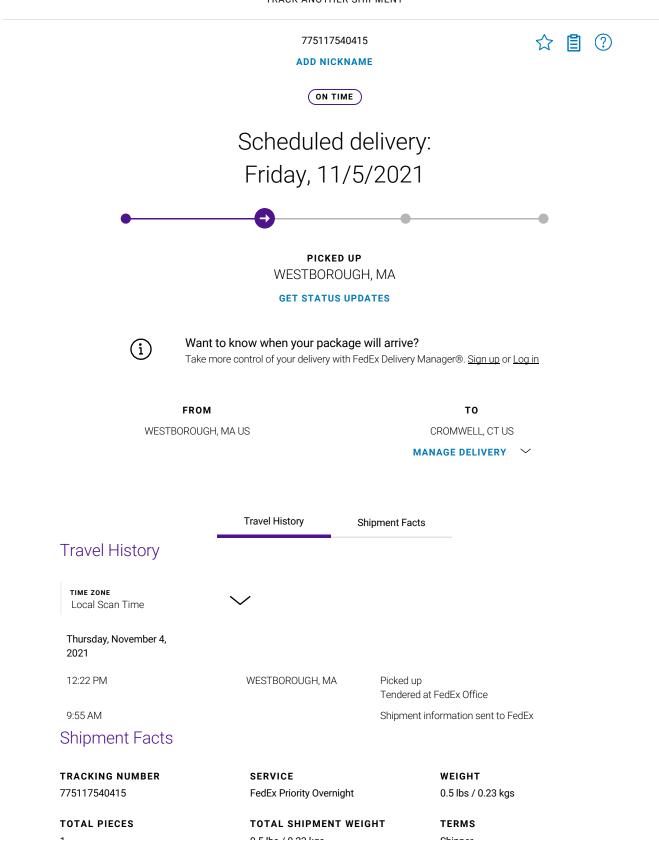
Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

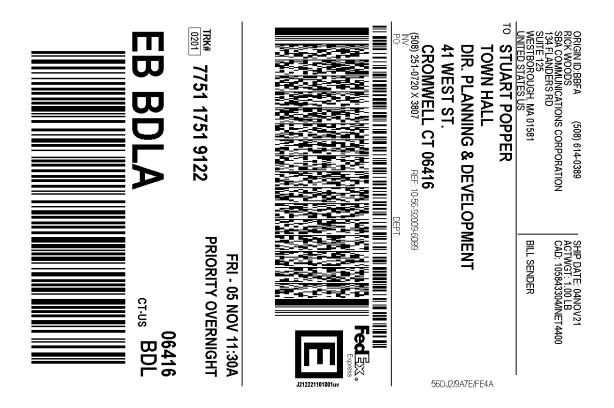
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Detailed Tracking Page 1 of 2



TRACK ANOTHER SHIPMENT





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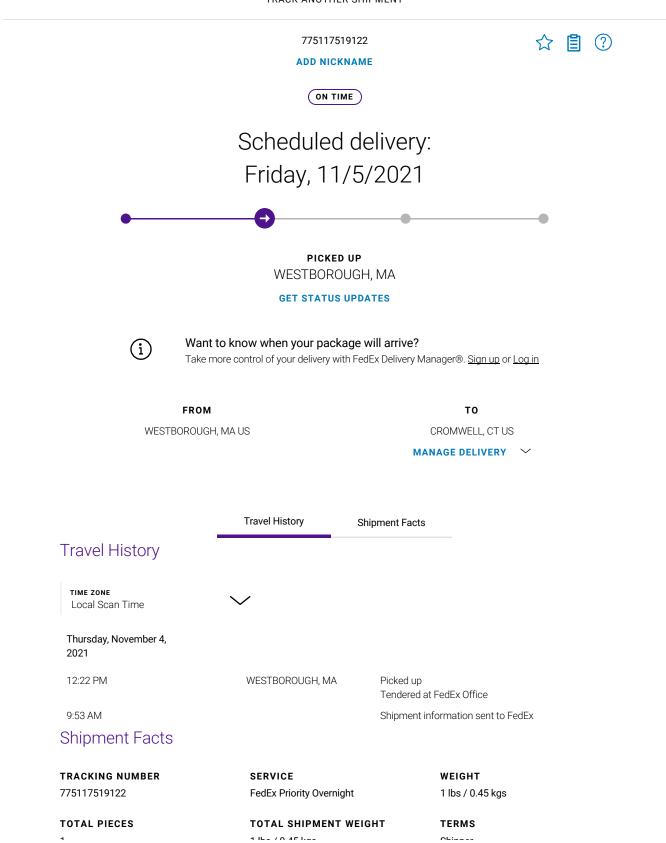
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Detailed Tracking Page 1 of 2



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Detailed Tracking Page 1 of 2



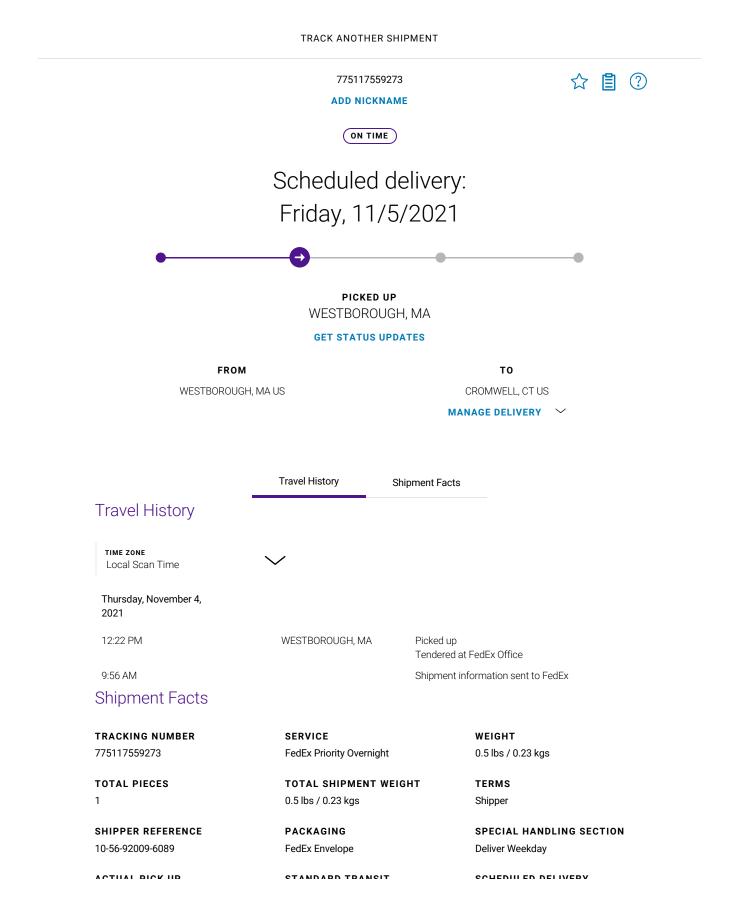


EXHIBIT 3

Property Card

TOWN OF CROMWELL Printed By: Shawna 04/06/2018 3:41:00PM

Parcel ID: 00033900 _____ Location: 160 WEST STREET

06457

Percent

100

Map-Lot 31-14A

Last Revaluation - October 1, 2017

GeneralNotes

Current V	/alue Information	n — — — — –	Inc (appr)			
Use Code	Land Value	PA 490 Value	Building Value	Outbuildings	Total Value	Total Assessed
201	241,800	0	2,122,400	110,000	2,474,200	1,731,940
TOTAL	241,800	0	2,122,400	110,000	2,474,200	1,731,940



Patriot
Properties Inc.

Previous Owner(s)

Current Owner

160 WEST STREET LLC

160 WEST STREET LIMITED PARTNE RSHIP

COURT STREET

CT

General Notes

MIDDLETOWN

MEDICAL OFFICE;

213

Bldg #1 Middlesex Home Care + Supplies INC, Family Eye Care,

Feet First

Bldg # 2 Wildwood Property management, Great Blue Research,

Beacon Services of CT

		- 1/-			4
\mathbf{P}	raviali	e va	ша	INTOR	mation

						_
Tax Yr	Land Value	Bldg Value	Outbuildings	Total Value	Total Assessmen	F
2018	241,800	2,122,400	110,000	2,474,200	1,731,940	1
2017	241,800	2,122,400	110,000	2,474,200	1,731,940	ç
2016	356,290	1,635,220	43,320	2,034,830	1,424,390	Г
2015	356,290	1,635,220	43,320	2,034,830	1,424,390	ı
2014	356,290	1,635,220	43,320	2,034,830	1,424,390	ľ
2013	356,290	1,635,220	43,320	2,034,830	1,424,390	ı

Building Permit Information

Sales Information

Grantee	Vol-Page	Type	SaleDate	SalePrice	Sale Verif
160 WEST STREET LLC	896-268		01/27/2003	0	Other
160 WEST STREET LIMITED E	546-322		12/20/1003	0	Other

Property Factors

Census 5702 Flood:

Topo: Street: Paved

Dev. Map Dev. Map

Zoning Data

Desc. % LB 100.00

Utilities

2 Public Water3 Public Sewer

BAA

17K

Activity	Information	ì
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							Dununig	, remit in	ioiiiiatioii	
Date	Results	Visited By	Date	Permit #	Description	Amount	% Comp	Visit Date	CO Date	GeneralNotes
12/27/2017	Informal Review No Change	John Valente	08/15/2014	22787	Electric	900	100	09/11/2014		Reception area
09/11/2017	Change - Value Change Company	John Valente	08/13/2014	22776	Other	4,800	100	09/09/2014	09/09/2014	Emrgncy repair to drywall
05/18/2017	No Change - Field Review	Dave Stannard	12/12/2011	20377	Other	3,000	100	09/11/2012	09/11/2012	Run gas line to new gener
09/11/2014	Permit- Miscellaneous	AO	11/16/2011	20315	Other	10.000	100	09/11/2012	09/11/2012	New cell site for Metro P
09/11/2014	Permit- Drive By	MM				-,				
09/09/2014	Permit- Miscellaneous	AO	09/28/2011	20183	Propane Tank	2,850	100	09/11/2012	09/11/2012	Undergrounf gas line
09/11/2012	Permit - Int & Ext Inspect		09/19/2011	20156		35,000	100	09/11/2012	01/12/2012	Inst of cell site antenna
09/11/2012	Permit- Miscellaneous	AO	03/21/2006	15920	Remodel	33,000	100	03/28/2006		off & bth reno
09/11/2012	Permit- Miscellaneous	AO	03/21/2006	15921	Electric	0	100	03/28/2006		wire new area,rfd exstq m
09/11/2012	Permit- Miscellaneous	AO				•				

Land Data

			Unit		A contract of the second	Special	Appraised	PA 490	Neigh	
Use	Description	Units	Tvpe	Neiah	Land Adjustments	Land Calc	Value	Asmt	Order	Notes
201	Commercial	43,560	SF	CJ			178,500	0	1200	
201	Commercial	2.530	AC	CJ			63,300	0	1200	

Total Area: 3.53

PA 490 Use Asmt: 0

Total Appraised: 241,800

Assessed Value: 169,260

ParceIID: 00033900

Bldg Seq 1 Of 2

Exterior Information

Building Type: Office Bldg
Story Ht: 1 Story
Living Units: 0

Prim. Ext. Wall: Brick/Masonr

Sec. Ext. Wall:

Foundation:

Roof Type: Flat
Roof Cover: Asphalt Shin
Avg. Wall Ht: 18.00

Color:

Interior Information

Prime Wall: Drywall Sec. Wall: Carpet 50% Floor Type: Vinyl 50 % Sec. Floor: Gas Heat Fuel: Forced Air Heat Type: Sec. Ht Type: 100 % A/C:

0

 % Sprinkled:
 0

 Bsmt. Gar:
 0

 Kitchens:
 0
 Add. Kit:

Fireplaces: 0 Gas: Int. Condition: Typical

Room Count

Total Rooms: Bedrooms:

Bath Features

 Full Baths:
 0

 Addl. Full Baths:
 0

 Half Baths:
 0

 Addl. Half Baths:
 0

 Full Bths Below:
 0

 Half Bths Below:
 0

 Other Fixtures:
 0

 Total Baths:
 0

Location: 160 WEST STREET

Condo Information

Name: Style: Location: Tot Units:

General Information

Year Bit: 1985
Grade: C
Remodeled Yr:
Rem. Kitchen Yr:
Rem. Bath Yr:

Depreciation %					
Phys Cond	Average	24.00			
Func		0.00			
Econ		5.00			
Spec		0.00			
ov		0.00			

27.80

Total %Dep:

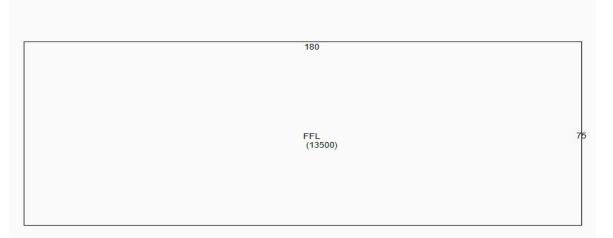
 Basic \$/SQ
 120.00

 Replacement Cost
 1,342,305

 Depreciation
 373,161

 Depreciated Value
 969,144

Final Total (Rounded) 969,100



Shawna

Printed By:

04/06/2018

3:41:00PM

	Extra Features / Yard Items (1st 10 Lines Displayed)												
Code	Description	Qty	Size	Cond.	Year	Unit Price	Dep%	UndepValue	Appraised Value	Assessment			
LT1	Light 1	1	6	AV	2002	1,000.00	13	7,200	6,300	4,410			
PAV1	Paving Asph.	1	38,400	AV	1985	3.00	25	138,240	103,700	72,590			
Total Sp. Features:			Tota	al Yard Ite	ms	110,000	Total App	oraised: 110,000	Total Assessed Value	77,000			

Sub Area Detail					
Code	Desc.	Living	Gross Area		
FFL	First Floor	13,500	13,500		
Total		13,500	13,500		



2 **Of** 2 Bldg Seq

Exterior Information

Office Bldg Building Type: 1 Story Story Ht: 0 Living Units:

Foundation:

Brick/Masonr Prim. Ext. Wall:

Sec. Ext. Wall:

Flat Roof Type: Asphalt Shin Roof Cover: 18.00 Avg. Wall Ht:

Color:

Interior Information

Prime Wall: Drywall Sec. Wall: Carpet 50% Floor Type: Vinyl 50 % Sec. Floor: Gas Heat Fuel: Forced Air Heat Type:

Sec. Ht Type:

100 % A/C: 0 % Sprinkled: Bsmt. Gar:

Kitchens: Add. Kit: 0 Fireplaces: 0 Gas: Typical Int. Condition:

Room Count

Total Rooms: Bedrooms:

Code

Total Sp. Features:

Bath Features

Full Baths: Addl. Full Baths: 0 Half Baths: 0 Addl. Half Baths: 0 0 Full Bths Below: 0 Half Bths Below: 0 Other Fixtures: 00 Total Baths:

Description Qty

Location: 160 WEST STREET

Condo Information Name:

Style: Location: Tot Units:

General Information

1985 Year Blt: С Grade: Remodeled Yr: Rem. Kitchen Yr: Rem. Bath Yr:

Depreciation				
Phys Cond	Average			

0.00 Func 5.00 Econ 0.00 Spec 0.00 ΟV

%

24.00

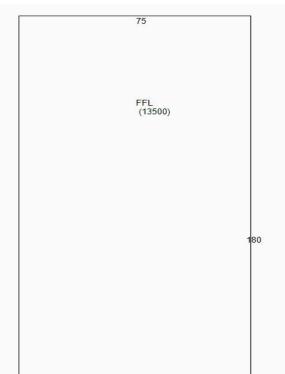
27.80 Total %Dep:

Calculation

Basic \$/SQ 120.00 1,342,305 Replacement Cost Depreciation 373,161 969,144 **Depreciated Value**

969,100 Final Total (Rounded





Shawna

Printed By:

04/06/2018

3:41:00PM

Extra	Featur	res / Yard It	ems (1s	t 10 Lines Displ	ayed)	
Cond	Voar	Unit Price	Den%	UndonValue	Annraised Value	Assassment

Total Appraised:

Total Assessed Value

Sub Area Detail					
Code	Desc.	Living	Gross Area		
FFL	First Floor	13,500	13,500		
Total		13.500	13.500		

Size

Total Yard Items

EXHIBIT 4 Property Map

Town of Cromwell, CT May 16, 2019



Property Information

 Property ID
 00033900

 Location
 160 WEST STREET

 Owner
 160 WEST STREET LLC



MAP FOR REFERENCE ONLY NOT A LEGAL DOCUMENT

Town of Cromwell, CT makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 7/1/2018 Data updated 11/18/2018

Google Maps 160 West St



Imagery ©2021 Maxar Technologies, Map data ©2021

20 ft I

EXHIBIT 5 Zoning Documents

WIRELESS PLANNING SERVICES, LLC

PLANNING & ZONING SERVICES FOR THE WIRELESS INDUSTRY 306 East Main Street, Suite 202, Lakeland, FL 33801 PHONE 863-838-9686

E-MAIL jim@wiley-malless.com

						,		
Site Name / #:	CT0004 M	ddletown No	rth					
Site Address:	160 West Street, Cromwell, CT			Structure Type: Stealth Tree				
Jurisdiction:	Connecticu	t Siting Cou	ncil		Websit	te Address:	www.ct.go	v\csc
Contact Person	Title:	Fred Cunliff Analysts	e, Supervisor of S	Siting		Phone No.:	860-827-2	935
Is the Zoning Co	ode availabl	e online?	x Yes			No		
I			eived zoning ap n extension car	-			ng Counc	il on 11/29/07.
DOCUMENTS I	PROVIDED	BY CLIENT						
	x	Zoning App	roval			Planning C	ommission	Meeting Minutes
		Zoning Ordi	nance			Board of A	djustment	Meeting Minutes
		Other:				Other Minu	ites	
		Specify:				Specify:		
ANALYSIS OF	TOWER ZO	NING APPE	ROVAL					
	Date current Did the tow the current	nt tower zoni ver receive z	ning approval: ng ordinance add oning approval ur s zoning code?			ember 29, 2 farch 7, 198 Current		Previous
	X	Conforming	Use Conforming Use		Legal Non-	-Conforming	g Use	
			_egal/Illegal) ider	ntify/exp	olain any res	strictions inc	cluding any	against adding

Has the zoning	approval expired?		Yes	X	No
	A. If zoning approval has expired:				
	1. Can it be re-instated?				
	2. If it can be re-instated, is there a cost associated with reinsta	ateme	nt and what is	it?	
	3. Do we need to start over?		10		
	B. If we need to start over, what is the process and timeline for	appro	val?		
	C. If zoning approval is still valid: 1. When does it expire? 6/6/09				
	When does it expire: 0.003 What needs to be done prior to expiration date- does BP ne	ed to	be filed for? Pu	ılled?	Option
	1) File for an extension 60 days prior to expiration of zoning				
	company letterhead and reason extension is requested to 0		•		
	Option 2) File a D & M Plan (Development Management) app	olicat	on, including	20 copie	es of
	site plans, staff review and planning council will review pla	ns fo			-
	This process takes approximately 2 weeks to 1 month.	o o		Details o	f
	process at link: http://www.ct.gov/csc/cwp/view.asp?a=960	<u>∝q=2</u>	48928#75.		
Was the tower a	approved consistent with the zoning code in place at the	x	Yes		No
	nnual reports, Tower removal bonds, renewals, updates or	\Box	165		NO
	uired for this site?		Yes	x	No
If yes, are all filing	ngs current as of the date of this report?		Yes		No

CERTIFICATION

This report was prepared for and may be relied upon by TowerCo, LLC, its respective Subsidiaries, and their respective successors and assigns. Any rating agency or issuer or purchaser of any security collateralized or otherwise backed by the property or any loans placed upon the property may further rely upon the report. We also consent to the inclusion of this report in any form, whether in paper or digital format, including any electronic media such as CD-ROM or the internet, in the Prospectus Supplement relating to any TowerCo securitization, and we consent to the reference to our firm under the caption "Experts" in such Prospectus Supplement.

Wireless Planning Services, LLC BY James B. Malless, AICP Signature/Date



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 060S1 Phone: (860) 827-2935 Fax: (860) 827-2950 P-Mail: siting.conneil@ct.gov Internet: ct.gov/csc

CERTIFICATE

OF

ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED DOCKET NO. 338

Pursuant to General Statutes § 16-50k, as amended, the Connecticut Siting Council hereby issues a Certificate of Environmental Compatibility and Public Need to Sprint Nextel Corporation for the construction, maintenance and operation of a telecommunications facility located at 160 West Street, Cromwell, Connecticut. This Certificate is issued in accordance with and subject to the terms and conditions set forth in the Decision and Order of the Council on November 29, 2007.

Daniel F. Caruso, Chairman

By order of the Council,

November 29, 2007





STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Pranklin Square, New Britain, CT 060S1 Phone: (360) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Internet: ct.gov/cse

December 4, 2007

TO:

Parties and Intervenors

FROM:

S. Derek Phelps, Executive Director

RE:

DOCKET NO. 338 - Sprint Nextel Corporation application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 160 West Street,

Cromwell, Connecticut.

By its Decision and Order dated November 29, 2007, the Connecticut Siting Council granted a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 160 West Street, Cromwell, Connecticut.

Enclosed are the Council's Findings of Fact, Opinion, and Decision and Order.

SDP/RDM/laf

Enclosures (3)

c: State Documents Librarian



Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 160 West Street, Cromwell, Connecticut.

Connecticut

Connecticut

Connecticut

November 29, 2007

Findings of Fact

Introduction

- Sprint Nextel Corporation (Sprint) in accordance with provisions of General Statutes §§ 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) on May 23, 2007 for the construction, operation, and maintenance of a wireless telecommunications facility located at 160 West Street, Cromwell, Connecticut. (Sprint 1, p. 3)
- 2. Sprint is a Delaware corporation with its principal office in Mahwah, New Jersey. (Sprint 1, p. 3)
- The party in this proceeding is the Applicant. The intervenor is Cellco Partnership d/b/a Verizon Wireless (Verizon). (Transcript 1 – 09/20/07, 4:00 p.m. [Tr. 1], p. 5)
- The purpose of the proposed facility is to provide wireless service to Routes 3, 9, 99 and 372 in the Cromwell/Middletown area. (Sprint 1, p. 5, Tab 9)
- Pursuant to General Statutes § 16-50m, the Council, after giving due notice thereof, held a public hearing on September 20, 2007, beginning at 4:00 p.m. and continuing at 7:00 p.m. at the Cromwell Town Hall, Cromwell, Connecticut. (Council's Hearing Notice dated August 10, 2007; Tr. 1, p. 3; Transcript 2 – 09/20/07, 7:00 p.m. [Tr. 2], p. 3)
- 6. The Council and its staff conducted an inspection of the proposed site on September 20, 2007, beginning at 3:00 p.m. The applicant flew a balloon from 12:00 p.m. to 6:00 p.m. at the site to simulate the height of the proposed tower. The balloon reached the desired height of 80 feet above ground level (agl). (Tr. 1, pp. 65-66)
- Notice of the application was sent to all abutting property owners by certified mail. Public notice of the application was published in the <u>Hartford Courant</u> on December 27, 2006 and January 4, 2007, and in <u>The Middletown Press</u> on December 26, 2006 and January 3, 2007. (Sprint 1, Tab 3)
- Sprint installed a six-foot by four-foot sign describing the proposed project and the hearing date/location at the entrance to the property on September 4, 2007. (Sprint 1, p. 21; Tr. 1, p. 66)
- Pursuant to CGS § 16-50l (b), the Applicant provided notice to all federal, state and local officials and agencies fisted therein. (Sprint 1, Tab 5)

State Agency Comment

- 10. Pursuant to General Statutes § 16-50j (h), on August 10, 2007 and September 21, 2007, the following State agencies were solicited to submit written comments regarding the proposed facility: Department of Environmental Protection (DEP), Department of Public Health (DPH), Council on Environmental Quality (CEQ), Department of Public Utility Control (DPUC), Office of Policy and Management (OPM), Department of Economic and Community Development (DECD), and the Department of Transportation (DOT). (Record)
- 11. No responses were received from the respective State agencies. (Record)

Municipal Consultation

- 12. Sprint submitted a technical report describing the proposed project to the Town of Cromwell on September 7, 2007. The City of Middletown, approximately 2,400 feet south of the site, was also notified of the project on September 7, 2007. Sprint, in accordance with CGS § 16-501 (b), is required to notify all municipalities within 2,500 feet of the site. (Sprint 1, p. 9)
- Sprint representatives met with the Cromwell Town Planner, Craig Minor, on November 2, 2006 to discuss the project. Mr. Minor subsequently discussed the project with the Cromwell Planning and Zoning Commission. (Sprint 1, p. 9)
- 14. The Town of Cromwell and the City of Middletown did not comment on the proposal. (Sprint 1, p. 9)
- The First Selectman of the Town of Cromwell, Paul Beaulieu, made a limited appearance statement into the record at the September 20, 2007 hearing stating the Town does not have an objection to the proposal. (Tr. 1, p. 9)

Public Need for Service

- 16. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 7)
- 17. In issuing cellular licenses, the Federal government has preempted the determination of public need for cellular service by the states, and has established design standards to ensure technical integrity and nationwide compatibility among all systems. Sprint is licensed by the FCC to provide wireless service in Connecticut. (Council Administrative Notice Item No. 7; Sprint 1, p. 3)
- The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)

19. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item No. 7)

Site Selection

- 20. Sprint established a search ring for the target service area in June of 2003. The search ring covered two separate areas of high ground east and west of Route 9. (Sprint 2, Q. 3)
- 21. Before selecting the site, Sprint searched for tall buildings, existing towers, utility transmission structures or other structures to locate telecommunications equipment. No such structures were identified in the search area. The nearest existing tower facility to the site is a 170-foot lattice tower approximately 1.26 miles to the north. Another tower facility, a 125-foot monopole, is located approximately 1.9 miles to the south. Neither facility provides Sprint or Verizon adequate coverage to the target service area. (Sprint 1, Tab 9; Verizon 1, Q. 4)
- 22. A church at the corner of West Street and Hicksville Road, 0.1-mile from the site, was not considered since Cingular is already utilizing the steeple. The steeple is small and has space limitations for additional equipment. Sprint did not consider erecting a tower facility at this location. (Tr. 1, pp. 24-25)
- 23. After determining there were no viable structures within the search area, Sprint searched for properties suitable for tower development. Sprint investigated five parcels and selected one for tower development. The four rejected parcels and reasons for their rejection are as follows:
 - a) Highridge Road/Patricia Lane condominium association not interested;
 - b) 80 Shunpike Road owner not interested, other property development plans;
 - c) 154 West Street owner not interested, property too small; and
 - d) 159 West Street owner not interested.

(Sprint 1, p. 8)

Site Description

- 24. The proposed site is located on a 3.53-acre parcel at 160 West Street in Cromwell. The property, owned by One-Sixty West Street LLC, is developed with two single-story office buildings. (Sprint 1, p. 9)
- 25. The property is zoned for business. (Sprint 1, p. 9)
- 26. The proposed tower site is located in a lawn and paved area in the northwest corner of the parcel, adjacent to a row of pine trees along the north property line. (Sprint 1, pp. 9; 17, Tab 7; Tr. 1, p. 65; Tr. 2, p. 12)
- 27. Abutting property includes a residential neighborhood to the north, an undeveloped, wooded parcel to the west, an office building to the east, and existing residences and a residential development under construction to the south (refer to Figure 1). (Sprint 1, Tab 7; Tr. 1, pp. 28, 30, 67)
- 28. The tower site is located at an elevation of 132 feet above mean sea level (amsl). (Sprint 1, Tab 7)
- 29. Sprint proposes to construct an 80-foot monopole, designed as a flagpole, at the site. (Sprint 1, p. 11)

- The flagpole would have a base diameter of 36 inches tapering to 30 inches at the antenna mounting locations. RF transparent material would conceal the antennas. (Tr. 1, pp. 8, 16-17, 58)
- 31. The flagpole would be designed to support three levels of antennas. Sprint would install three panel antennas at the 75-foot level and three panel antennas at the 69-foot level. Verizon would install three panel antennas at the 59-foot level of the tower. (Sprint 1, p. 11; Verizon 1, Q. 3)
- The tower could not accommodate additional antennas or a third carrier due to limited space for additional cables within the flagpole. (Tr. 1, pp. 33-36)
- 33. The Town of Cromwell would consider using the tower for future safety communication antennas but, at present, considers the proposed site as not critical to the needs of the Town's safety services.
- 34. Typically, safety service antennas are of a whip design. A whip antenna could be mounted on the top of the tower but not within the flagpole itself. A whip antenna could be problematic since the flag could possibly be blown upward and wrap around the whip antenna. (Tr. 1, pp. 9, 43, 47-48, 54, 58-61)
- In accordance with the lease agreement, a 12-foot by 20-foot flag would be flown from the pole. (Tr. 1, pp. 10, 17, 22)
- 36. Sprint intends to maintain the flag in accordance with the United States Flag Code, including provisions regarding lighting or lowering the flag. Sprint prefers not to light the flag due to the proximity of an adjacent residential neighborhood. If the flag were not lit, it would have to be lowered each night; Sprint has not determined who would be responsible for this task. If the flag were lit, it would be illuminated from three directions by lights placed 12 to 15 feet from the center of the pole. (Tr. 1, pp. 19-23)
- The flag would not interfere with radio frequency characteristics under dry conditions. A wet flag that wraps around the pole could cause a signal loss of 2 to 3 dB. (Tr. 1, pp. 19-22)
- Sprint would be willing to construct an 80-foot monopole designed as a pine tree at the site. The landowner is amenable to this design. (Tr. 2, pp. 8, 9, 14)
- 39. A pine tree design would allow for greater flexibility in antenna configurations and network growth. Sprint would only need one antenna height on the tower rather than two, as necessitated by the flagpole design, allowing Verizon to move up 10 feet higher on the monopole. A third carrier could locate below Verizon or possibly above Sprint if the tower was extended in the future. A tree design also allows for placement of a whip antenna with few mounting issues. (Tr. 2, pp. 12-13, 25)
- 40. A tree design would eliminate issues relating to lighting or daily lowering of the flag. (Tr. 2, p. 9)
- 41. A tree design in this location would be consistent with the surrounding landscape. Pine trees in this area could attain heights of 70 to 90 feet. The pine trees along the north property boundary, adjacent to the site, are approximately 45 feet in height and could reach 70 to 80 feet in 20 to 25 years. (Tr. 2, pp. 10-11)
- 42. The proposed tree tower would extend above the existing treeline by 30 to 35 feet. (Tr. 2, p. 12)

- 43. Sprint proposes to construct a 30-foot by 54-foot equipment compound at the base of the tower (refer to Figure 2). An eight-foot high stockade fence would enclose the compound. Within the compound, Sprint would install a 12-foot by 20-foot equipment shelter with a brick façade to match the existing office buildings on the property. Verizon would also place an equipment shelter within the compound and would be willing to install a brick façade. (Sprint 1, p. 12; Tr. 2, p. 26-27)
- Sprint would be willing to construct a single building to house Sprint and Verizon's equipment. (Tr. 1, p. 62)
- 45. Access to the site would be from an existing parking lot serving the office buildings. The parking lot is accessed from the north side of West Street. (Sprint 1, Tab 7)
- Underground utilities would service the site. The utilities would be installed along a lawn area on the west side of the existing parking lot. (Sprint 1, Tab 7)
- 47. The nearest abutting property to the tower site is approximately 30 feet to the west, owned by Stephen Chenock, Jr., et al. The southwest corner of the compound would be three feet from the property line. (Sprint 1, Tab 7)
- 48. The tower radius would extend onto the Chernock Jr. property by 50 feet. (Sprint 1, Tab 7)
- There are 41 residences within a 1,000-foot radius of the tower site. (Sprint 2, Q. 8)
- The nearest residence to the proposed tower site is approximately 145 feet to the north, owned by Mary Ann Davis. (Sprint 1, Tab 7)
- Land use within a quarter-mile of the site is primarily residential with some commercial uses along Route 372. Route 9 is located west of the site. A church is located to the southeast. (Sprint I, p. 10; Tr. 1, 24-25)
- 52. The estimated cost of construction, excluding Verizon's equipment, is:

a.	Flagpole tower	30,000.
b.	Foundation	30,000.
c.	Site work	15,000.
d.	Utilities	20,000.
e.	Radio equipment/antennas	90,000

Total estimated cost (Sprint 1, Tab 8; Sprint 2, O. 6) \$185,000.

Environmental Concerns

- The proposed facility would have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (Sprint 1, Tab 14)
- The proposed site contains no known existing populations of Federal or State Endangered, Threatened or Special Concern Species. (Sprint 1, p. 24)
- 55. Construction of the site would not require the removal of any trees. (Sprint 1, Tab 7)

- Construction of the site would not impact any wetlands or watercourses. No wetlands were identified on the property. The nearest wetland is is approximately 225 feet west of the site. (Sprint 1, p. 16)
- 57. The tower would not be an aviation hazard. (Sprint 2, Q. 12)
- 58. The cumulative maximum power density from the radio frequency emissions of the proposed Sprint and Verizon antennas is calculated to be 30.75 % of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of either proposed tower. This calculation was based on methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas would be pointed at the base of the tower and all channels would be operating simultaneously. (Sprint 1, Tab 13; Verizon 1, Q. 3)

Visibility

- 59. The tower would be visible year-round above the tree canopy from approximately 112 acres within a two mile radius of the site (refer to Figure 3). This includes approximately 57 acres of tidal marsh along the Mattabessett River 1.8 miles south of the site, and 16 acres of parking lots associated with two shopping centers a half-mile west of the site. The tower would be seasonally visible from an additional 15 acres. (Sprint 1, Tab 12)
- 60. The upper half of the tower would be visible from the Highridge Road/Patricia Lane neighborhood immediately north of the site. Approximately 21 residential properties in this area would have year-round views of the tower. A majority of the 15 acres of seasonal visibility is within this neighborhood. (Sprint 1, Tab 12; Tr. 1, pp. 28-30)
- 61. The upper 20 to 40 feet of the tower would be visible from a new subdivision under construction south of the site. (Tr. 1, p. 30)
- Approximately 75% of the tower would be visible from the West Street Hicksville Road intersection area, 0.1 mile east of the site. Three residences on the south side of West Street and a church are present in this area. (Sprint 1, Tab 12; Tr. 1, pp, 28-29, pp. 64-65)
- There are no hiking trails maintained by the DEP or the Connecticut Forest and Parks Association within a two-mile radius of the site. (Sprint 1, Tab 12)
- 64. Visibility of the tower from specific locations within a two-mile radius of the site is as follows:

Location	Visible	Approximate Portion of Tower Visible	Distance from Tower
Highridge Road neighborhood	Yes	40 feet - unobstructed	0.1 to 0.3 miles north
Patricia Lane cul-de-sac	Yes	15 feet - unobstructed.	0.1 miles north
Arrowhead Drive	Yes	At treeline	0.75 miles north
West Street - Washington Street intersection	Yes	50 feet - unobstructed.	0.1 miles east
Hicksville Road	Yes	60 feet - unobstructed.	0.1 miles south east
West Street	Yes	15 feet - unobstructed	0.5 miles west
Route 3 near Berlin Road	Yes	10 feet - unobstructed	0.5 miles southwest

(Sprint 1, Tab 12; Tr. 1, pp. 28-30)

Sprint - Existing and Proposed Wireless Coverage

- 65. Sprint proposes to operate Integrated Digital Enhanced Network (iDEN) equipment at this site. iDEN operates in the 800 MHz and 900 MHz frequencies. Although Sprint is licensed to operate in the 1900 MHz frequencies (PCS), Sprint does not propose to install PCS equipment at this site. (Sprint 2, Q. 5; Tr. 1, pp. 25-28)
- 66. Sprint is designing the site with a signal level threshold of -81 dBm for in-vehicle coverage and -71 dBm for in-building coverage. (Sprint 1, p. 12; Tr. 1, p. 12)
- 67. Sprint's existing signal level in the Routes 3, 9, 99 and 372 area is between -82 and -91 dBm (refer to Figure 4). The dropped call rate at surrounding Sprint sites is 1.2% to 2.7%. Incomplete call attempts are not included in these statistics. (Sprint 1, Tab 9; Sprint 2, Q. 7)
- 68. Sprint proposes to install iDEN antennas at 75 feet and 69 feet agl. Coverage from the proposed site would adequately serve all major roads except for a 0.6-mile section of Route 99 east of the site (refer to Figure 5). (Sprint 1, Tab 9)
- Lowering the height of the iDEN antennas to 65 feet and 59 feet agl would degrade coverage on Route 372 and residential neighborhoods east, and residential neighborhoods east and west of the site (refer to Figure 6). (Sprint 2, Q. 9)

Verizon - Existing and Proposed Wireless Coverage

- Verizon proposes to operate 800 MHz (cellular) and PCS equipment at the site. Verizon proposes to install three dual band antennas at the 59-foot level of the flagpole tower. (Verizon 1, Q. 2, Q. 3)
- 71. Verizon is designing the site with a signal level threshold of -85 dBm. (Verizon 1, Q. 2)
- 72. The site would provide PCS service to coverage gaps on Routes 3, 9 and 372 in the south Cromwell area (refer to Figures 7 & 8) and cellular capacity relief to the surrounding area. (Verizon 1, Q. 1, Q. 4)
- If the tower was designed as a simulated tree, Verizon could install a full antenna array at the 69-foot level, thereby increasing coverage by 2 to 3 dB. (Tr. 2, pp. 8, 12, 20, 25)

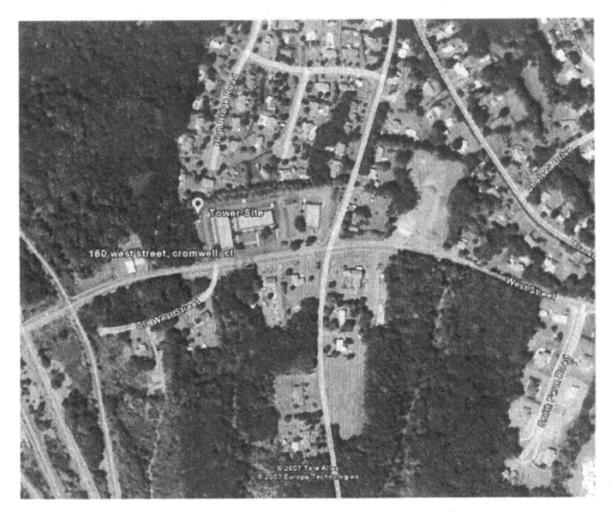


Figure 1: Location of the Site - 160 West Street, Cromwell.

(Sprint 1, Tab 1)

EXHIBIT 6

Constrcution Drawings



By Stephen Roth at 5:01:24 AM, 10/19/2021

APPROVALS			
PROJECT MANAGER:	DATE:	ZONING/SITE ACQ.:	<u>DATE:</u>
<u>CONSTRUCTION:</u>	DATE:	<u>OPERATIONS:</u>	DATE:
RF ENGINEERING:	DATE:	TOWER OWNER:	DATE:

-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION SPECIAL RESTRICTIONS SECTOR A: ACCESS BY CERTIFIED CLIMBER SECTOR B: ACCESS BY CERTIFIED CLIMBER SECTOR C: ACCESS BY CERTIFIED CLIMBER SECTOR D: ACCESS BY CERTIFIED CLIMBER GPS/LMU: UNRESTRICTED RADIO CABINETS: UNRESTRICTED PPC DISCONNECT: UNRESTRICTED

MAIN CIRCUIT D/C: UNRESTRICTED NIU/T DEMARC: UNRESTRICTED OTHER/SPECIAL: NONE

GENERAL NOTES

- 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 HAVE 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 OMNIPOINT REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED
- 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 CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
- 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 PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS. TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
- THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR

- CONSTRUCTION ON OR ABOUT THE PROPERTY
- 13. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF
- 14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
- 15. THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE 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 LESSEE/LICENSEE
- 16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
- 17. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK.

AT LEAST 72 HOURS PRIOR TO DIGGING, THE CONTRACTOR IS **REQUIRED TO CALL DIG SAFE AT 811**



SBA CROMWELL MONOPINE

160 WEST STREET CROMWELL, CT 06416 MIDDLESEX COUNTY

SITE NO.: CTHA521A

SITE TYPE: 76'± MONOPINE

PROJECT TYPE: NATIONAL HARDENING PROJECT

SHEET INDEX

DESCRIPTION

TITLE SHEET

GENERAL NOTES

GENERATOR DETAILS

COMPOUND & EQUIPMENT PLANS

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ELECTRIC & GROUNDING DETAILS

GN-1

A-2

VICINITY MAP SCALE: 1" = 1000'-0"



DIRECTIONS

TURN LEFT ONTO S WASHINGTON ST. TURN RIGHT ONTO MA-123 E. TURN LEFT TO MERGE ONTO I-495 NORTH TOWARD MANSFIELD/MARLBORO. MERGE ONTO I-495 NORTH. TAKE EXIT 22 TO MERGE ONTO I-90 WEST TOWARD ALBANY. TAKE EXIT 9 FOR I-84 TOWARD HARTFORD CT/NEW YORK CITY. CONTINUE ONTO I-84. TAKE EXIT 57 ON THE LEFT FOR CT-15 SOUTH TOWARD I-91 SOUTH/CHARTER OAK BRIDGE/N.Y. CITY. CONTINUE ONTO CT-15 SOUTH. TAKE EXIT 86 TO MERGE ONTO I-91 SOUTH TOWARD NEW HAVEN/NEW YORK CITY. TAKE EXIT 22S ON THE LEFT TO MERGE ONTO CT-9 SOUTH TOWARD MIDDLETOWN/OLD SAYBROOK. TAKE EXIT 19 FOR CT-372/WEST STREET TOWARD CROMWELL. TURN LEFT ONTO CT-372 EAST. SITE WILL BE ON THE LEFT.

REMOVE: NONE

SCOPE OF WORK

• 1 GENERATOR 1 AUTOMATIC TRANSFER SWITCH

• 2 20A-1P BREAKERS

SITE NOTES

- THIS IS AN UNMANNED AND RESTRICTED ACCESS TELECOMMUNICATION FACILITY, AND IS NOT FOR HUMAN HABITATION. IT WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
- ADA COMPLIANCE NOT REQUIRED
- POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE

ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE

NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.

- NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
- BUILDING CODE: 2018 CONNECTICUT STATE BUILDING CODE
- ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE

DISCREPANCIES AT THE CONTRACTOR'S EXPENSE

- STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING
- STRUCTURES AND ANTÉNNAS.

NO.

PROJECT SUMMARY

SITE NUMBER: CTHA521A SBA CROMWELL MONOPINE SBA SITE NUMBER: CT46122-A MIDDLETOWN NORTH SBA SITE NAME: SITE ADDRESS: 160 WEST STREET CROMWELL, CT 06416 PROPERTY OWNER: 160 WEST STREET LLC

CROMWELL, CT 06416

TOWER OWNER: SBA TOWERS IV, LLC 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523

COUNTY: MIDDLESEX COUNTY **ZONING DISTRICT:** BP, BUSINESS PARK STRUCTURE TYPE: **MONOPINE**

STRUCTURE HEIGHT: 76**'**±

APPLICANT: T-MOBILE NORTHEAST LLC 15 COMMERCE WAY, SUITE B NORTON, MA 02766

ARCHITECT: CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752

160 WEST STREET

STRUCTURAL ENGINEER: CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101

MARLBOROUGH, MA 01752

SITE CONTROL POINT: LATITUDE: N.41.606000 N.41°36'21.60" LONGITUDE W.72.670400° W.72°40'13.44"

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SPECIAL ZONING NOTE

BASED ON INFORMATION PROVIDED BY T-MOBILE REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409(A), AND IS SUBJECT TO AN **ELIGIBLE FACILITY REQUEST**, EXPEDITED REVIEW, AND LIMITED/PARTIAL ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW, OR ADMINISTRATIVE REVIEW),

T-MOBILE NORTHEAST LLC

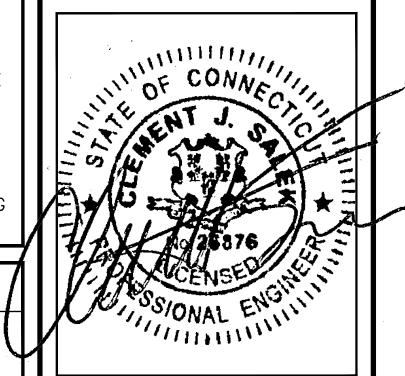
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REV.	DATE	DESCRIPTION	BY
0	10/18/21	ISSUED FOR REVIEW	JRV

SITE NUMBER: CTHA521A

SITE ADDRESS: **160 WEST STREET** CROMWELL, CT 06416

SHEET TITLE

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GENERAL NOTES:

ATTENTION OF CONTRACTOR.

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY: CONTRACTOR — T-MOBILE SUBCONTRACTOR — GENERAL CONTRACTOR (CONSTRUCTION) OWNER — T-MOBILE

OEM - ORIGINAL EQUIPMENT MANUFACTURER

- 2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE
- 3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
- 4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL, STATE AND FEDERAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- 5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- 6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
- 9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR AND/OR LANDLORD PRIOR TO CONSTRUCTION.
- 10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- 11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
- 12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.
- 13. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- 14. SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.
- 15. CONSTRUCTION SHALL COMPLY WITH ALL T-MOBILE STANDARDS AND SPECIFICATIONS.
- 16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- 17. THE EXISTING CELL SITES ARE IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- 18. IF THE EXISTING CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

- 1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.
- 3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- 4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- 5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- 6. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- 7. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- 8. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.
- 9. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- 10. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- 11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T-MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

- 1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST—IN—PLACE CONCRETE.
- 2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (400PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS
- 3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- 4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

BEAMS AND COLUMNS1/2 IN.

- 5. A CHAMFER 34" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION
- 6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.
- 7. CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
- (A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.

 (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
- FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
- 8. AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
- 9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

- 1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T-MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
- 2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
- 3. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (34"0) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.
- 4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE %" DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
- 5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEFL
- 6. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

- 1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
- 2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
- 3. AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
- 4. COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL, GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.
- 5. AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND—OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL—GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

1. HAND OPERATED DOUBLE DRUN, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

1. FIELD VERIFICATION:

- SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T-MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
- 2. COORDINATION OF WORK: SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
- 3. CABLE LADDER RACK:
- SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

ELECTRICAL INSTALLATION NOTES:

- 1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- 2. SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
- 3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND
- 4. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- 5. EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR—CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.
- 6. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.
- 7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- 8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- 9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- 10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED
- 11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- 12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
- 13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- 14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP—STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
- 15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- 16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- 17. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- 18. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- 19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE
- 20. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- 21. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- 22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION—TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- 23. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL. ANSI/IEEE AND NEC.
- 24. CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- 25. WIREWAYS SHALL BE EPOXY—COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- 26. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY—COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- 27. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY—COATED, OR NON—CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- 28. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- 29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- 30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
- 31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- 32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

T-MOBILE NORTHEAST LLC

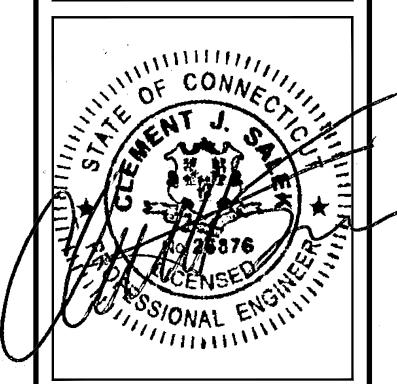
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CHECKED BY: JMT

APPROVED BY: JM

SUBMITTALS

REV. DATE DESCRIPTION BY

0 10/18/21 ISSUED FOR REVIEW JRV

SITE NUMBER: CTHA521A

SITE ADDRESS: 160 WEST STREET CROMWELL, CT 06416

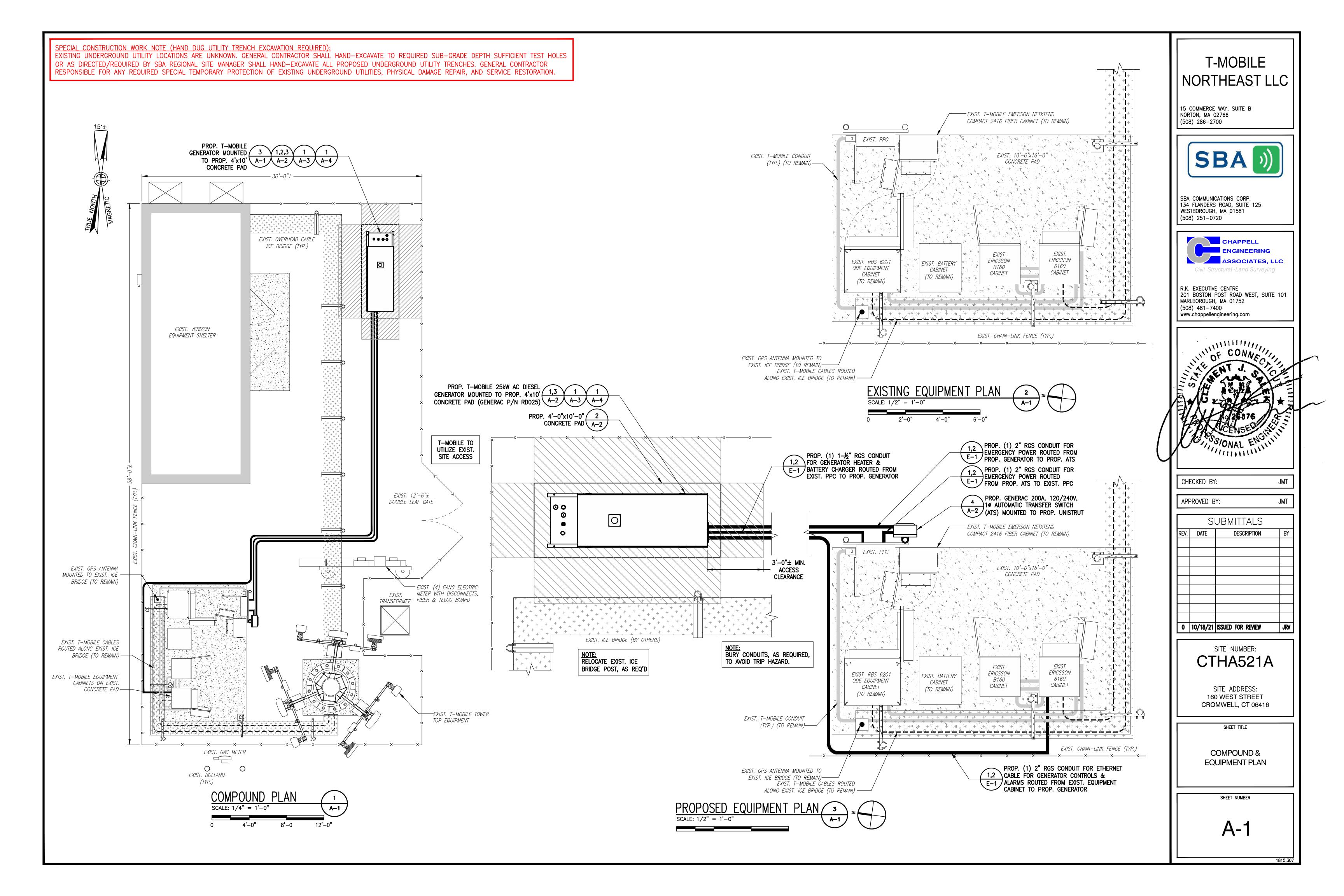
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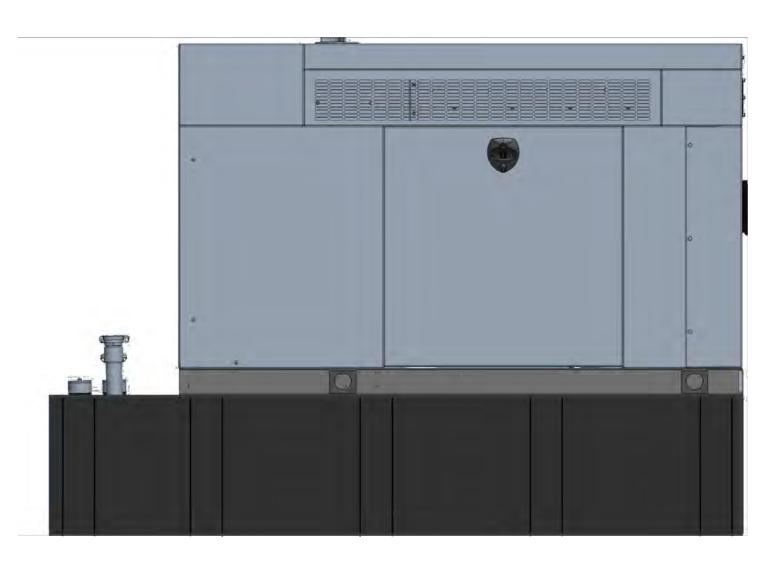
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NOTE:
GENERATOR DIESEL TANK TO
BE FILLED BY CONTRACTOR



GENERAC RD025 25kW AC DIESEL GENERATOR

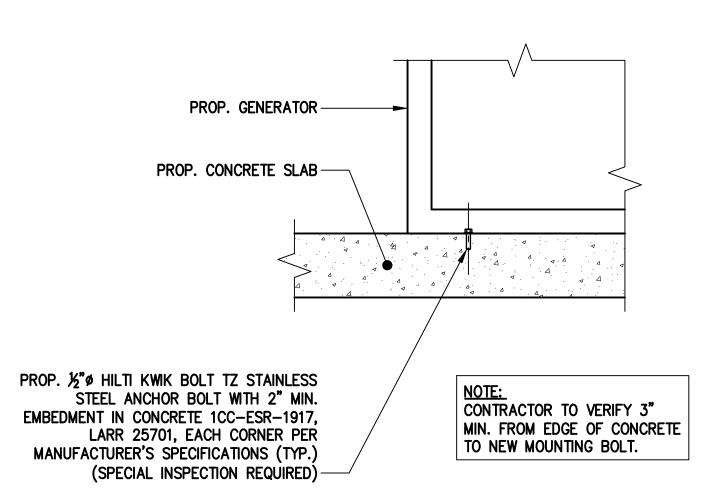
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WEIGHT: 2,946 lbs

QUANTITY: TOTAL OF 1

GENERATOR DETAIL

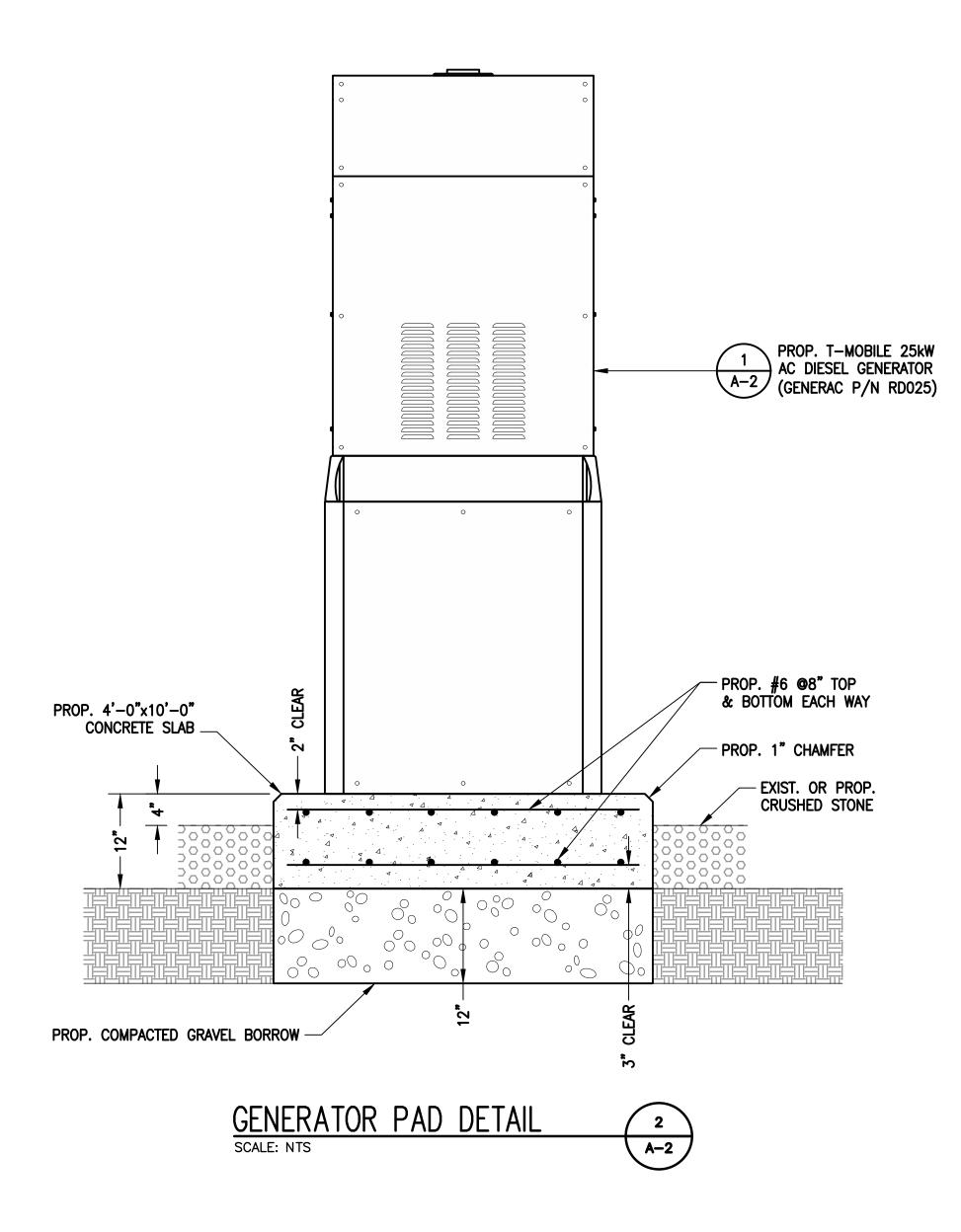
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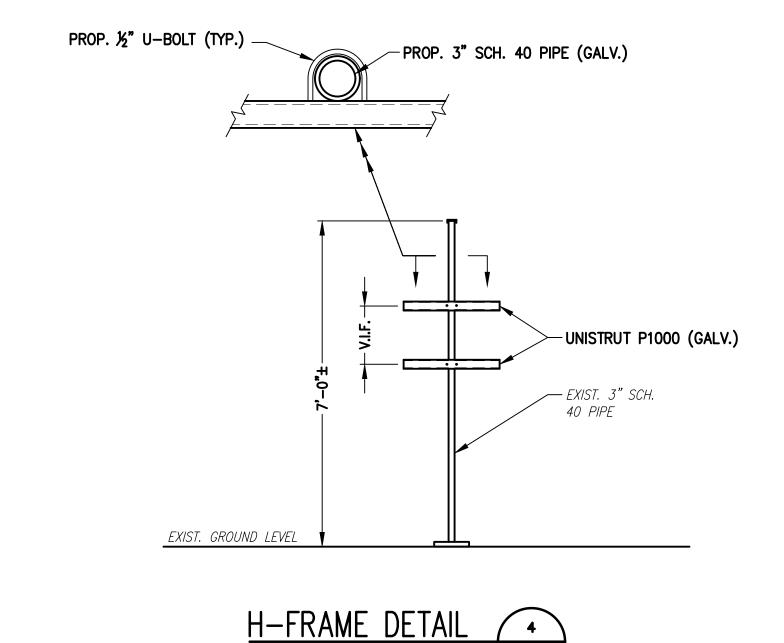


GENERATOR MOUNTING DETAIL

SCALE: N.T.S.

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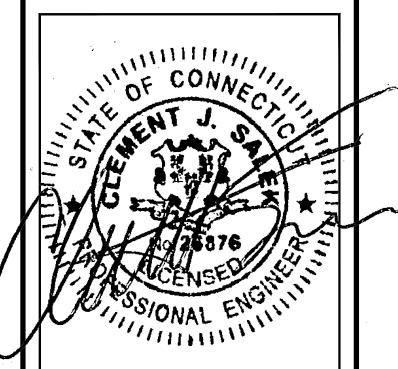
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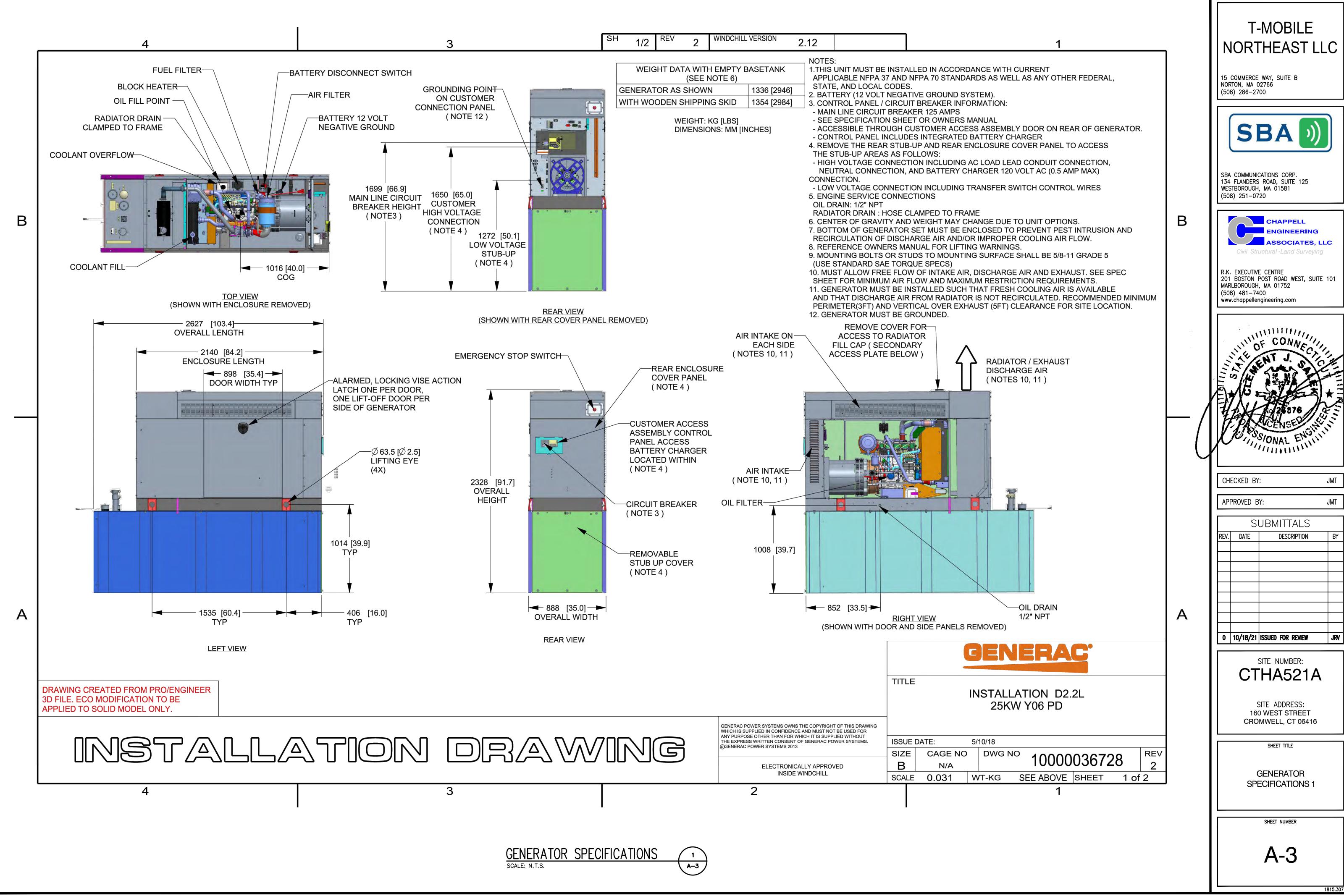
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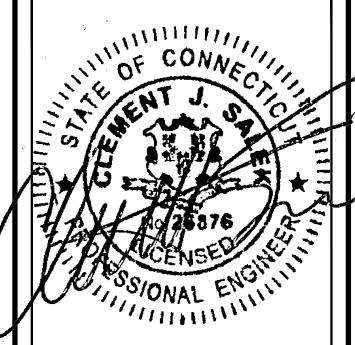
GENERATOR DETAILS

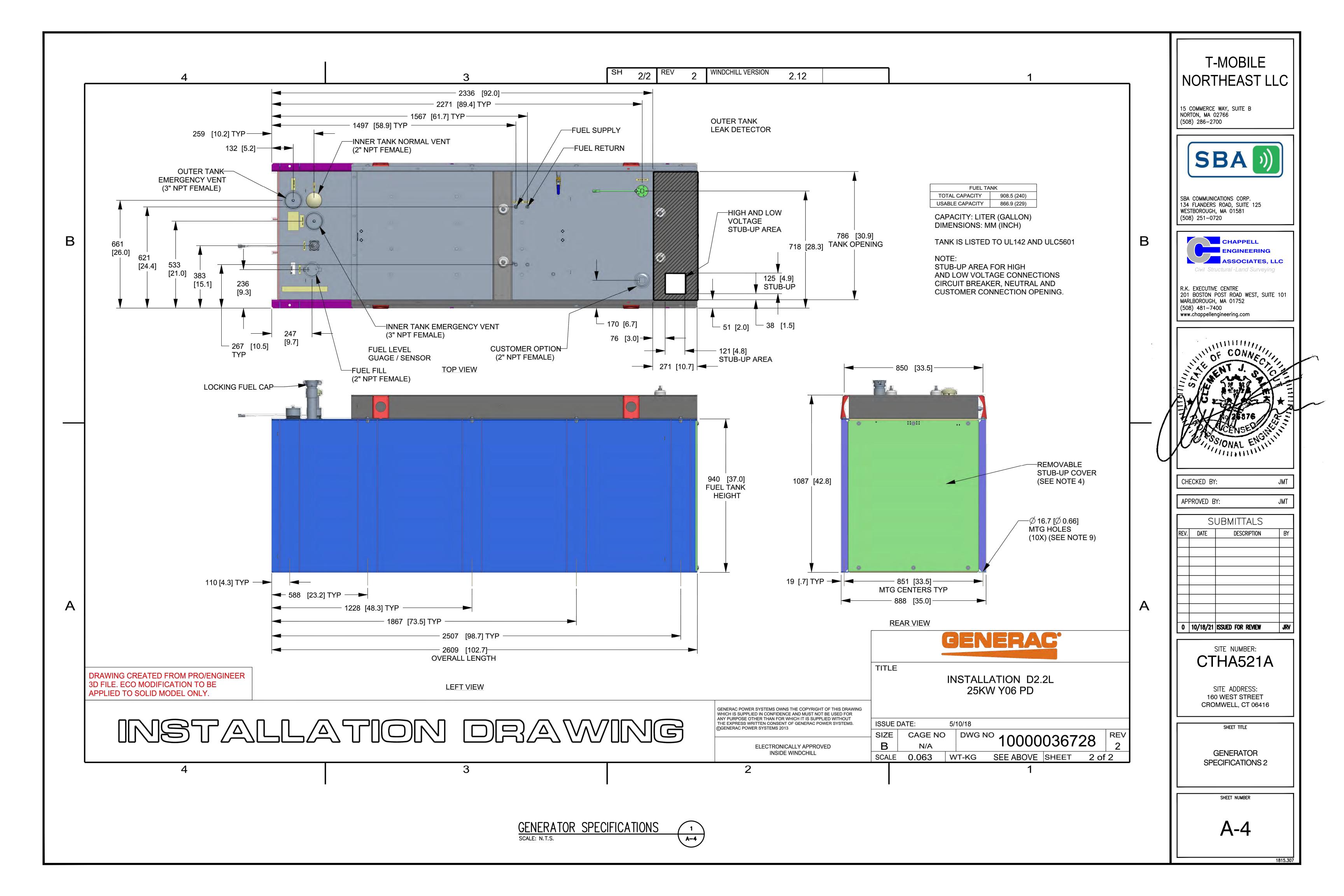
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A-2

1815.30

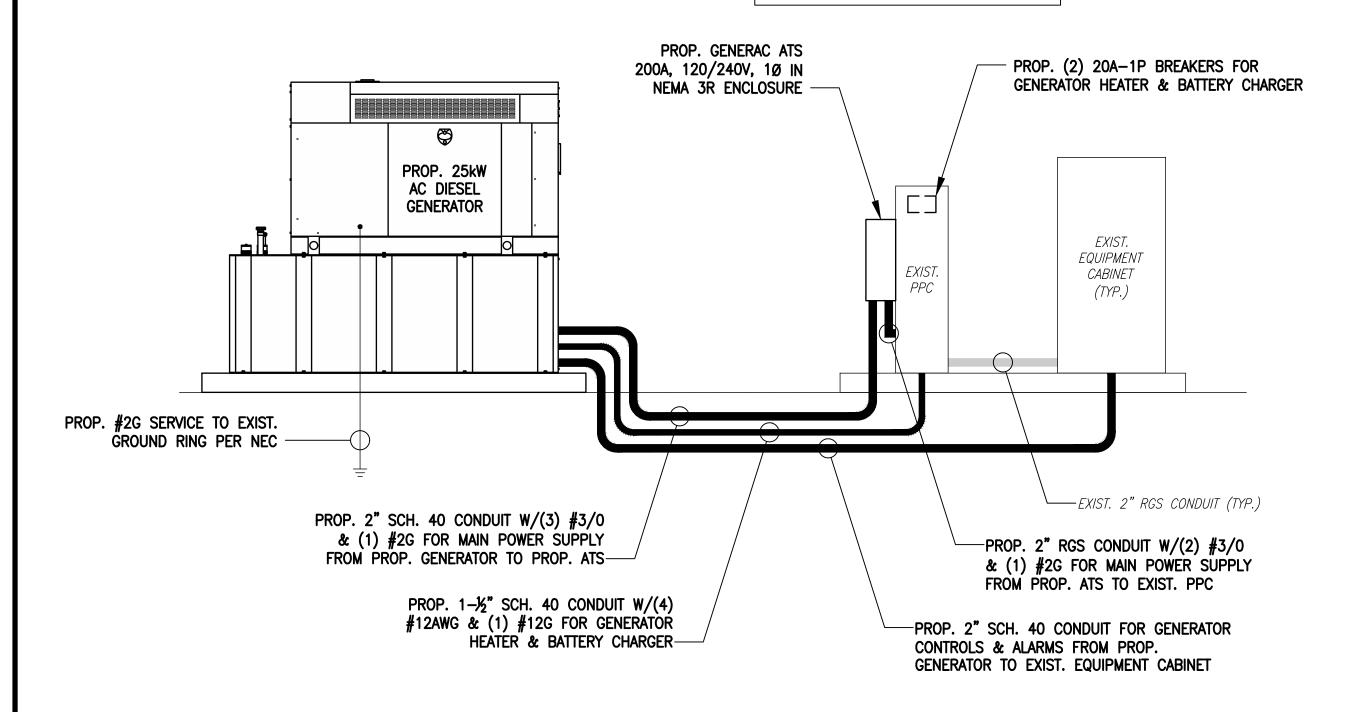






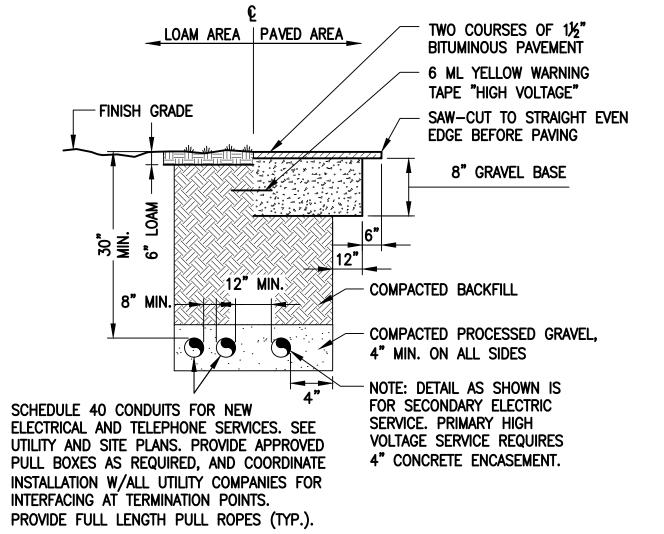
NOTE: CUT BACK (E) MAIN POWER CONDUIT, AS REQUIRED, & RECOONECT TO (P) ATS.

E-1



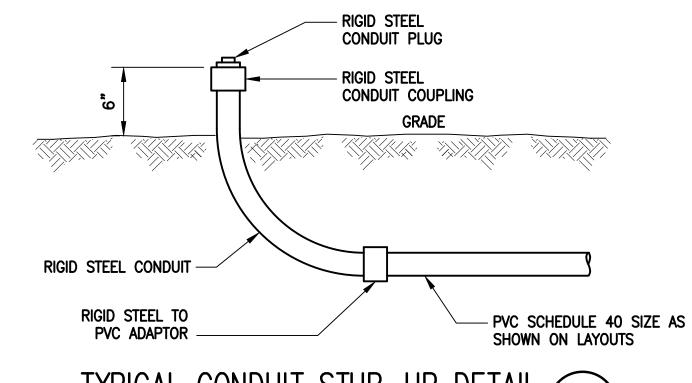
ONE-LINE POWER DIAGRAM

SCALE: NOT TO SCALE



SCALE: NOT TO SCALE

E-1



TYPICAL CONDUIT STUB-UP DETAIL SCALE: NONE

T-MOBILE NORTHEAST LLC

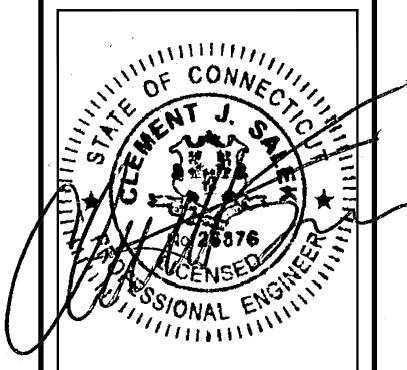
15 COMMERCE WAY, SUITE B NORTON, MA 02766 (508) 286-2700



SBA COMMUNICATIONS CORP. 134 FLANDERS ROAD, SUITE 125 WESTBOROUGH, MA 01581 (508) 251-0720



R.K. EXECUTIVE CENTRE 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752 (508) 481-7400 www.chappellengineering.com



CHECKED BY:

APPROVED BY:

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	SI	JBMITTALS	
REV.	DATE	DESCRIPTION	BY
-			

SITE NUMBER: CTHA521A

0 | 10/18/21 | ISSUED FOR REVIEW

SITE ADDRESS: 160 WEST STREET CROMWELL, CT 06416

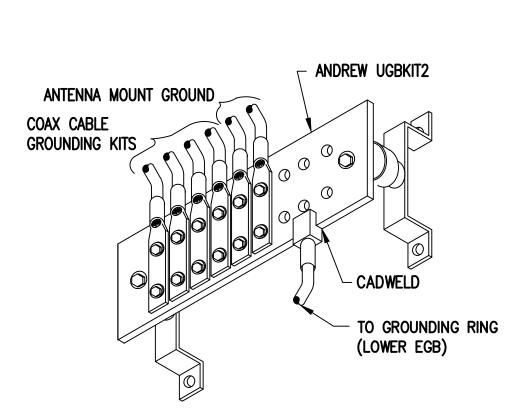
SHEET TITLE

ELECTRIC & GROUNDING DETAILS

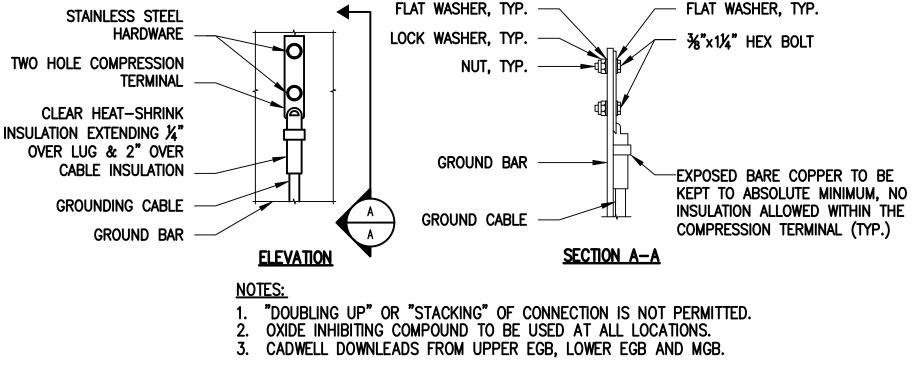
SHEET NUMBER

ELECTRICAL AND GROUNDING NOTES

- 1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- 2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED 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 IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF
- 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) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- 6. BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- 7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
- 8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- 9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- 10. WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
- 11. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- 12. PPC SUPPLIED BY PROJECT OWNER.
- 13. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".
- 14. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT
- 15. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
- 16. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- 17. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING
- 18. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- 19. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- 20. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXIST. TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
- 21. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMNS MINIMUM
- 22. CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.







SCALE: NOT TO SCALE

EXHIBIT 7

Generac RD025 25 KW 25kw Diesel Specifications **Standby Power Rating** 25 kW, 31.25 kVA, 60 Hz







Image used for illustration purposes only

Codes and Standards

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



UL2200, UL508, UL489, UL142



CSA 22.2





BS5514 and DIN 6271



SAE J1349



NFPA 37, 70, 99



ISO 3046, 8528, 9001



NEMA ICS1, ICS10, MG1, 250, ICS6, AB1



an National Standards Institute ANSI/IEEE C62.41

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.

RD025 | 2.2L | 25 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

Standard Features

ENGINE SYSTEM

- Cold Weather Kit
- Oil Drain Extension
- Heavy Duty Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- · Factory Filled Oil & Coolant
- Critical Exhaust Silencer

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

Electrical System

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

ALTERNATOR SYSTEM

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

Cooling System

GENERAC[®]

INDUSTRIAL

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

Fuel System

- · Fuel Lockoff Solenoid
- Primary Fuel Filter
- Stainless Steel Fuel Lines

TANKS

- 24 Hour Run Time Tank
- UL142 Listed Tank

CONTROL SYSTEM



Evolution ™ Controller

- Two-Line Plain Text LCD Display
- Programmable Start Delay Between 10-30 seconds
- 10 second Engine Start Sequence
- 5 second Engine Warm Up
- 1 minute Engine Cool-Down
- 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

ENGINE SYSTEM

Base Plug Kit

GENERATOR SET

- O Paint Kit
- O Scheduled Maintance Kit

CONTROL SYSTEM

○ Mobile Link TM and Adapter Kit

TANKS

- O Spill Box
- O 90% Fuel Alarm
- Tank Risers
- O Spill Box Drainback Kit
- O Vent Extension Support Kit
- O 5 Day Run Time Tank

RD025 | 2.2L | 25 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency



APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

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Make	Perkins
EPA Emission Compliance	Tier 4 Interim
Cylinder #	4
Туре	In-Line
Displacement - in ³ (L)	2.22 (135)
Bore - in (mm)	3.3 (84.0)
Stroke - in (mm)	3.9 (100.0)
Compression Ratio	23.3:1
Intake Air Method	Turbocharged/Aftercooled
Piston Type	Aluminum
Crankshaft Type	Forged Steel
Engine Block Type	Cast Iron

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full Flow Cartridge
Crankcase Capacity with Filters- qt (L)	11.2 (10.6)

Cooling System

Cooling System Type	Closed Recovery
Fan Type	Pusher
Fan Speed- rpm	1,980
Fan Diameter - in (mm)	18.0 (457.2)

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)	4.76/.19 (ID)
Fuel Filtering (microns)	25

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	Standard
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	Generac
Poles	4
Field Type	Rotating
Insulation Class - Rotor	Н
Insulation Class - Stator	Н
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Direct	
Bearings	Single Sealed	
Coupling	Flexible Disc	
Prototype Short Circuit Test	Yes	
Voltage Regulator Type	Full Digital	
Number of Sensed Phases	2	
Regulation Accuracy (Steady State)	±1%	

INDUSTRIAL

RD025 | 2.2L | 25 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

OPERATING DATA

POWER RATINGS

 Standby

 Single-Phase 120/480 VAC @0.1pf
 25 kW
 Amps: 104

 Three-Phase 120/208 VAC @0.8pf
 25 kW
 Amps: 87

 Three-Phase 120/240 VAC @0.8pf
 25 kW
 Amps: 75

 Three-Phase 277/480 VAC @0.8pf
 25 kW
 Amps: 37

MOTOR STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip at 30%

120/240 V, Single-Phase at 0.4pf	168
120/208 V, Three-Phase at 0.4pf	144
120/240 V, Three-Phase at 0.4pf	125
120/240 V, Three-Phase at 0.4pf	64

FUEL CONSUMPTION RATES*

Percent Load	Diesel gal/hr (L/hr)
25%	0.97 (3.67)
50%	1.37 (5.19)
75%	1.97 (7.46)
100%	2.77 (10.49)

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

COOLING

		Standby
Air Flow (Radiator and Alternator)	ft ³ /min (m ³ /min)	2800 (79)
Coolant System Capacity	gal (L)	2.5 (9.5)
Heat Rejection to Coolant	BTU/hr (MJ/hr)	128,638 (135.7)
Max. Operating Ambient Temperature	°F (°C)	122 (50)
Maximum Operating Ambient Temperature (Before Derate)	See Bulletin No. 0199270SSD	
Maximum Radiator Backpressure	in H ₂ O (kPa)	0.50 (0.12)

COMBUSTION AIR REQUIREMENTS

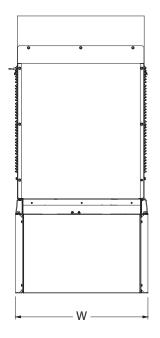
	Standby
Flow at Rated Power ft ³ /min (m ³	⁸ /min) 88 (2.5)

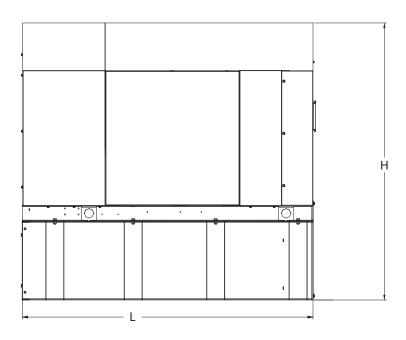
ENGINE		EXHAUST			
		Standby			Standby
Rated Engine Speed	rpm	1,800	Exhaust Flow (Rated Output)	ft ³ /min (m ³ /min)	296.6 (8.4)
			Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	930 (499)



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DIMENSIONS AND WEIGHTS*





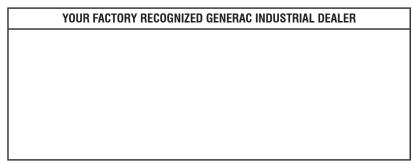
Weights and Dimensions

-		
Unit Weight - Ibs	Unit Weight with Skid - Ibs	Dimensions (L x W x H) in
2,811	2,849	84.2 x 35.0 x 91.7

25kW Fuel Consumption	with fuel tank 103.4" 35" x 91.7"
Fuel Tank Gross Total Capacity	240 103.4 33 X 91.7
Fuel Tank Gross Usable Capacity	229
Fuel Tank Net Usable Capacity (Run Hours Based on Net Usable Capacity)	206
Run Hours 100% Load	98
Run Hours 75% Load	125
Run Hours 50% Load	161

Sound Emission Data Rated Load Sound Output at 23ft - dB(A)

^{*} All measurements are approximate and for estimation purposes only. Drawing is for illustration purposes only, not to scale.



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.

EXHIBIT 8

Map showing nearest wetlands

U.S. Fish and Wildlife Service

National Wetlands Inventory

160 West St



November 1, 2021

Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake



Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.