

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



July 9, 2021

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

RE: Notice of Exempt Modification  
720 Quinebaug Road, Thompson, CT  
Latitude: 42.0228527  
Longitude: -72.297361  
T-Mobile Site#: CTNL193A - Hardening

Dear Ms. Bachman:

T-Mobile currently maintains twelve (12) antennas at the 105-foot level of the existing 125-foot Monopole at 720 Quinebaug Road, Quinebaug, CT. The 125-foot Monopole is owned and operated by the Quinebaug Volunteer Fire Department. T-Mobile now intends to add a 25Kw generator to a proposed 10'x4' concrete pad within the existing compound.

**Planned Modifications:**

**Ground:**

Install New:

- (1) Generac RD025 25 Kw AC Diesel Generator - 240 gallon double walled self-contained tank with fuel sensor. Requires (2) 12-minute run cycles by-weekly.
- (1) 10' x 4' Concrete Pad

This facility was approved by the Town of Thompson Planning and Zoning Commission on March 23, 1998. A copy of the minutes and decision of the Commission's meeting is attached, with no record of conditions that would restrict exempt modifications. Therefore, this modification complies with the aforementioned approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-SOj-73, a copy of this letter is being sent to First Selectman Ken Beausoleil, Elected Official, and Tyra Penn-Gesek, Director of Planning and Development, as well as the property owner.

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

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

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

Sincerely,

**Eric Breun**

Transcend Wireless

Cell: 201-658-7728

Email: [ebreun@transcendwireless.com](mailto:ebreun@transcendwireless.com)

Attachments

cc: Ken Beausoleil - First Selectman of Thompson

Tyra Penn-Gesek - Director of Planning and Development

Quinebaug Volunteer Fire Department - Property Owner

ERIC BREUN  
2016587728  
10 INDUSTRIAL AVE  
MAHWAH NJ 07430

1 LBS

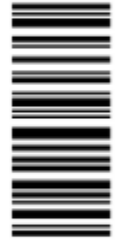
1 OF 1

**SHIP TO:**

FIRST SELECTMAN  
KEN BEAUSOLEIL  
815 RIVERSIDE DRIVE  
**THOMPSON CT 06255**

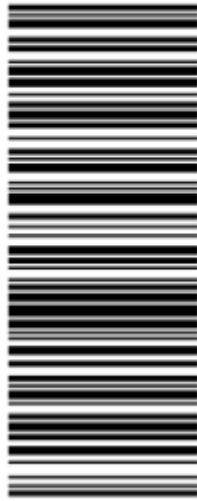


**CT 063 0-03**



**UPS GROUND**

TRACKING #: 1Z V25 742 03 9754 4420



BILLING: P/P

Reference #1: CTNL193A

XOL 21.06.14 NV49 28.04.07/2021\*



TM

ERIC BREUN  
2016587728  
10 INDUSTRIAL AVE  
MAHWAH NJ 07430

1 LBS

1 OF 1

**SHIP TO:**

DIRECTOR OF PLANNING AND DEVELOP.  
TYRA PENN-GESEK  
815 RIVERSIDE DRIVE  
**THOMPSON CT 06255**



**CT 063 0-03**



**UPS GROUND**

TRACKING #: 1Z V25 742 03 9869 4418



BILLING: P/P

Reference #1: CTNL193A

XOL 21.06.14 NV49 28.04.07/2021\*



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2016587728  
10 INDUSTRIAL AVE  
MAHWAH NJ 07430

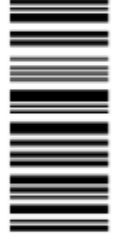
1 LBS

1 OF 1

**SHIP TO:**  
QUINEBAUG VOLUNTEER FIRE DEPARTMENT  
STEVE BODREAU  
720 QUINEBAUG ROAD  
**THOMPSON CT 06262**

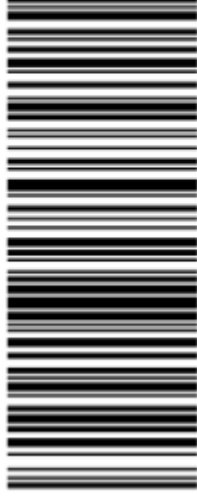


**CT 063 0-04**



**UPS GROUND**

TRACKING #: 1Z V25 742 03 9641 4438



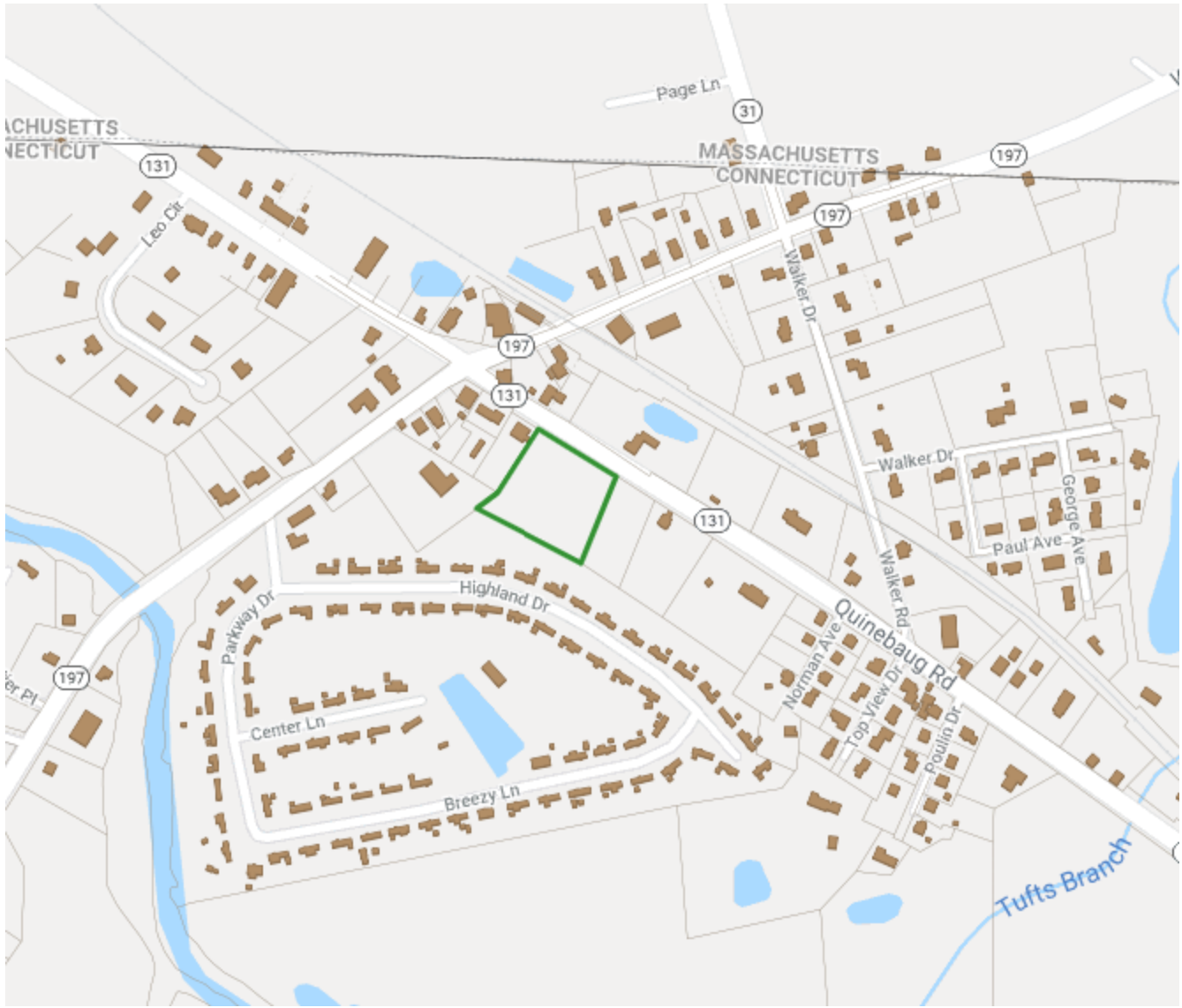
BILLING: P/P

Reference #1: CTNL193A

XDL 21.06.14 NV49 28.04 07/2021\*



TM



# 720 QUINEBAUG RD

[Sales](#) [Print](#) [Field Card](#) [Map It](#)

Location 720 QUINEBAUG RD      Mblu 3/ 81/ 1/ /  
Acct# 004936      Owner QUINEBAUG VOLUNTEER FIRE DEPT  
Assessment \$727,600      Appraisal \$1,039,500  
PID 144      Building Count 1

### Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2019	\$904,800	\$134,700	\$1,039,500

Assessment			
Valuation Year	Improvements	Land	Total
2019	\$633,400	\$94,200	\$727,600

### Owner of Record

Owner QUINEBAUG VOLUNTEER FIRE DEPT      Sale Price \$0  
Co-Owner      Certificate  
Address P O BOX 144      Book & Page 0368/0336  
QUINEBAUG, CT 06262      Sale Date 12/19/1997

### Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
QUINEBAUG VOLUNTEER FIRE DEPT	\$0		0368/0336	12/19/1997

### Building Information

Building 1 : Section 1

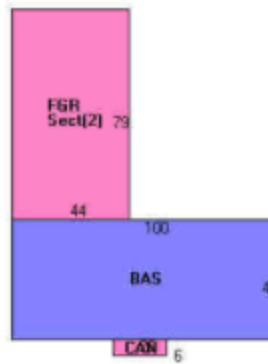
**Year Built:** 2005  
**Living Area:** 4,500  
**Replacement Cost:** \$844,388  
**Building Percent Good:** 80  
**Replacement Cost Less Depreciation:** \$875,500

Building Attributes	
Field	Description
STYLE	Fire Station
MODEL	Ind/Comm
Grade	Good +10
Stories:	1
Occupancy	1
Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Steel Frm/Trus
Roof Cover	Metal/Tin
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr Abv Grad
Interior Floor 2	Vinyl/Asphalt
Heating Fuel	Oil
Heating Type	Hydro air
AC Type	Central
Bldg Use	MUN FIRE
Total Rooms	03
Total Bedrms	0
Total Baths	0
1st Floor Use:	
Heat/AC	NONE
Frame Type	STEEL
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	12
% Conn Wall	0

### Building Photo



### Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	4,500	4,500
CAN	Canopy	120	0
		4,620	4,500

### Building 1 : Section 2

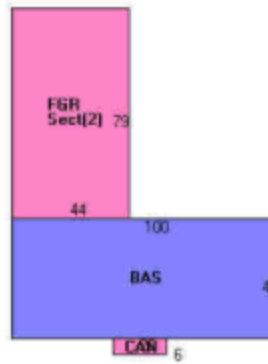
**Year Built:** 2005  
**Living Area:** 0  
**Replacement Cost:** \$264,350  
**Building Percent Good:** 80  
**Replacement Cost**  
**Less Depreciation:** \$211,500

Building Attributes : Section 2 of 2	
Field	Description
STYLE	Fire Station
MODEL	Ind/Comm
Grade	Good +10
Stories:	1
Occupancy	1
Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Steel Frm/Trus
Roof Cover	Metal/Tin
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr Aby Grad
Interior Floor 2	Dirt/None
Heating Fuel	Oil
Heating Type	Hydro air
AC Type	Central
Bldg Use	MUN FIRE
Total Rooms	03
Total Bedrms	0
Total Baths	0
1st Floor Use:	
Heat/AC	NONE
Frame Type	STEEL
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	20
% Corn Wall	0

**Building Photo**



**Building Layout**



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
FGR	Garage	3,476	0
		3,476	0



**Extra Features**

Extra Features	<a href="#">Legend</a>
No Data for Extra Features	

**Land**

**Land Use**

Use Code 9032  
 Description MUN FIRE ●  
 Zone R40  
 Neighborhood  
 Alt Land Appr No  
 Category

**Land Line Valuation**

Size (Acres) 2.4  
 Frontage 305  
 Depth 0  
 Assessed Value \$94,200  
 Appraised Value \$134,700

**Outbuildings**

Outbuildings						<a href="#">Legend</a>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
PAV1	PAVING-ASPHALT			10000 S.F.	\$10,000	1
SHD1	SHED FRAME			392 S.F.	\$3,300	1
LT2	W/DOUBLE LIGHT			2 UNITS	\$2,000	1
LT3	W/TRIPLE LIGHT			1 UNITS	\$1,500	1
LT1	LIGHTS-IN W/PL			1 UNITS	\$1,000	1

**Valuation History**

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$949,200	\$138,000	\$1,087,200
2017	\$949,200	\$138,000	\$1,087,200
2016	\$949,200	\$138,000	\$1,087,200

Assessment			
Valuation Year	Improvements	Land	Total
2018	\$664,500	\$96,600	\$761,100
2017	\$664,500	\$96,600	\$761,100
2016	\$664,500	\$96,600	\$761,100

Town of Thompson

PLANNING & ZONING COMMISSION

MUNICIPAL BUILDING

ROUTE 12

NORTH GROSVENOR DALE, CONN. 06255

TEL.: 203-923-9002

MINUTES

PLANNING & ZONING COMMISSION

MARCH 23, 1998 \* 7:00 PM

MERRILL SENEY COMMUNITY ROOM

- 5). Discussion Regarding Proposed Telecommunications Facility  
720 Thompson Road; Map 120, Block 30, Lot 14, Industrial Zone  
John Kowalski, Techstar Communications

John Kowalski gave a brief presentation, they received a conceptual approval from the commission last month, he has submitted new information including the 10 ft. fence, materials stating the coverage afforded, they will be located in an industrial zone, the tower will co-host two additional users on the 140 ft. monopole. They are seeking their zoning permit at this time, there is no existing tower in town that will meet their coverage. Atty. St. Onge stated the rules are up in the air at this time, in the Town's Zoning Regulations a structure is defined as all inclusive, a building is defined with the exclusion of radio and TV antennas, and that is the only difference between a building and a structure; clearly there was an intention in the regulations but it was not spelled out. It does fit in under the industrial zone, where it accepts radio & TV towers but the regulations don't list where they're permitted. The law is the Town can regulate but it can't prohibit. The Town does need a regulation to address this issue and specify the height issue, setbacks, screening, fencing, co-location, minimum lot size, signs & lights, removal, etc. The commission may want to act on this application since he already has a conceptual approval but then either a moratorium or drafting of a new regulation must begin immediately to meet the Federal requirements. John Rice noted some approval stipulations: a letter signed by the Director of CT. operations for Techstar Communications that the commission reserves the right to require other applicant's to share their tower; also that Techstar agrees to dismantle and remove at their expense if the facility is not in use for 12 consecutive months, this removal shall occur within 90 days of the end of such 12 month period; the design and plan shall indicate how the tower will collapse without encroaching upon any adjoining property if failure occurs; a report from a licensed telecommunications system engineer indicating that the proposed wireless telecommunications facility will comply with F.C.C. radio frequency emissions standards and that the installation will not interfere with public safety communications. Discussion followed. Mr. Kowalski stated there will be no lights and no signs except for a warning sign.

A Motion was made by John Rice to approve the zoning permit for a free standing 140 ft. monopole tower and in conformity with the drawings submitted upon meeting all aforementioned stipulations and reviewed by the Zoning Enforcement Officer, seconded by Randolph Blackmer. All in favor.

VOTE: 9 YES MOTION CARRIED

Discussion followed regarding amending the regulations, it could be

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# T-Mobile

SITE NAME: CTNL193A

SITE ID: CTNL193A

720 QUINEBAUG RD  
QUINEBAUG, CT 06262

## GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE I/A/E/A-222 REVISION "G" STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES, 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
- CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
- CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
- CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL, AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
- CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
- LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
- DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
- ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
- ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
- ANY AND ALL ERRORS, DISCREPANCIES, AND 'MISSED' ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE T-MOBILE CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
- CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
- COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUITS AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL CONTACT 'CALL BEFORE YOU DIG' AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
- CONTRACTOR SHALL COMPLY WITH THE OWNER'S ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.

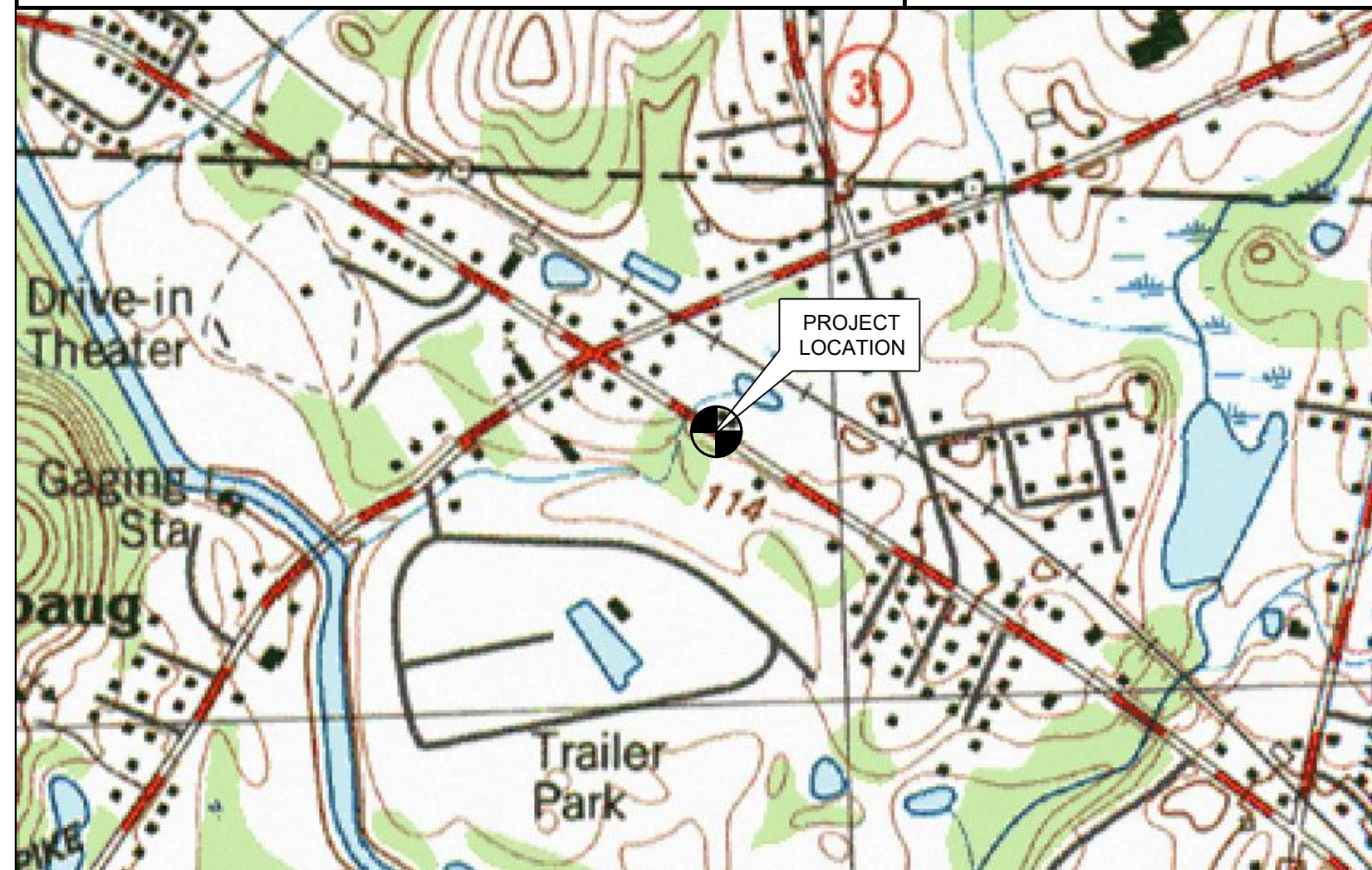
## SITE DIRECTIONS

**FROM:** 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 **TO:** 720 QUINEBAUG ROAD QUINEBAUG, CT 06262

- HEAD NORTH ON GRIFFIN ROAD S. TOWARD HARTMAN RD. 0.30 MI.
- TAKE THE 2ND RIGHT ONTO DAY HILL RD. 3.64 MI.
- MERGE ONTO I-91 S TOWARD HARTFORD 3.99 MI.
- MERGE ONTO I-291 EAST VIA EXIT 35A TOWARD MANCHESTER 6.18 MI.
- MERGE ONTO I-84 E/WILBUR CROSS HWY N VIA LEFT EXIT TOWARD BOSTON 24.79 MI.
- TAKE THE CT-190 EXIT, EXIT 73 TOWARD UNION 0.24 MI.
- TURN RIGHT ONTO BUCKLEY HWY/CT-190 1.90 MI.
- TURN RIGHT ONTO BIGELOW HOLLOW RD/CT-171/CT-197 2.29 MI.
- TURN LEFT ONTO LAWSON RD/CT-197 CONTINUE TO FOLLOW CT-197 10.65 MI.
- TURN RIGHT ONTO QUINEBAUG RD/CT-131 0.12 MI.
- FINISH AT 720 QUINEBAUG ROAD, QUINEBAUG, CT 06262

**SITE COORDINATES:** LATITUDE: 42°-01'-22.25" N  
LONGITUDE: 71°-56'-57.17" W  
GROUND ELEVATION: 368.14'± AMSL

**COORDINATES AND GROUND ELEVATION ARE REFERENCED FROM GOOGLE EARTH**



VICINITY MAP



## PROJECT SUMMARY

- THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:
  - INSTALL (1) NEW 25 KW DIESEL FUELED BACK-UP GENERATOR ON A PROPOSED 10' x 4' CONCRETE PAD WITHIN THE EXISTING COMPOUND
  - INSTALL (1) 200A AUTOMATIC TRANSFER SWITCH ON A PROPOSED UTILITY FRAME

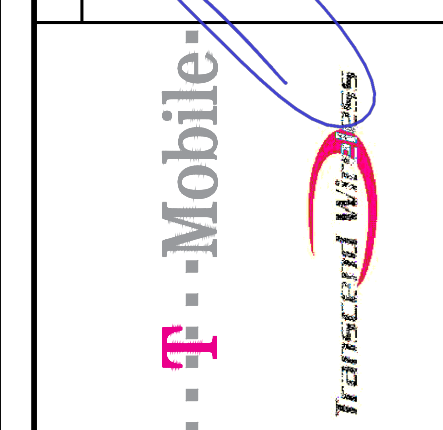
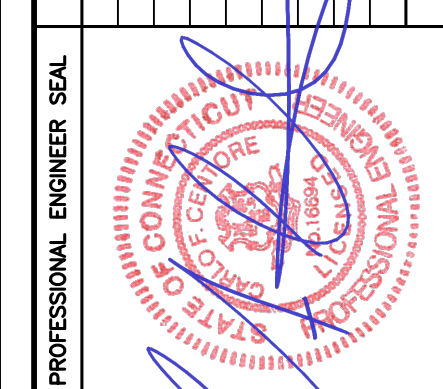
## PROJECT INFORMATION

**SITE NAME:** CTNL193A  
**SITE ID:** CTNL193A  
**SITE ADDRESS:** 720 QUINEBAUG ROAD QUINEBAUG, CT 06262  
**APPLICANT:** T-MOBILE NORTHEAST, LLC  
 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002  
**CONTACT PERSON:** DAN REID (PROJECT MANAGER)  
 TRANSCEND WIRELESS, LLC (203) 592-8291  
**ENGINEER OF RECORD:** CENTEK ENGINEERING, INC.  
 63-2 NORTH BRANFORD RD. BRANFORD, CT 06405  
 CARLO F. CENTORE, PE (203) 488-0580 EXT. 122  
**PROJECT COORDINATES:** LATITUDE: 42°-01'-22.25" N  
 LONGITUDE: 71°-56'-57.17" W  
 GROUND ELEVATION: 368.14'± AMSL  
 SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH.

## SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	0
N-1	GENERAL NOTES AND SPECIFICATIONS	0
C-1	COMPOUND AND EQUIPMENT PLAN	0
C-2	TYPICAL EQUIPMENT DETAILS	0
E-1	TYPICAL ELECTRICAL DETAILS	0

REV.	DATE	BY	DESCRIPTION
0	07/07/21	BSP	ISSUED FOR CONSTRUCTION



**T-MOBILE NORTHEAST LLC**  
**CTNL193A**  
**SITE ID: CTNL193A**  
**720 QUINEBAUG RD**  
**QUINEBAUG, CT 06262**

**DATE:** 03/19/21  
**SCALE:** AS NOTED  
**JOB NO.** 21003.07

**TITLE SHEET**

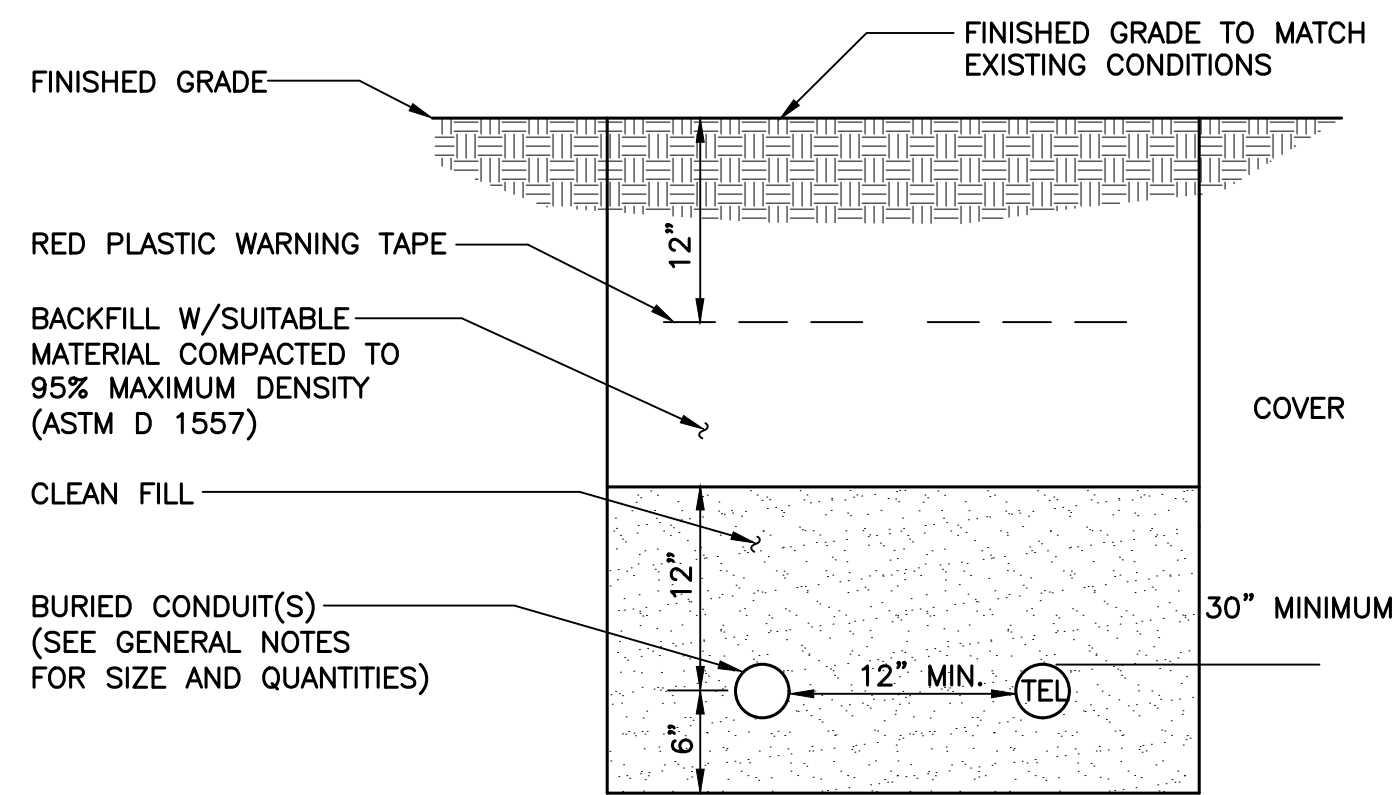
**T-1**  
 Sheet No. 1 of 5





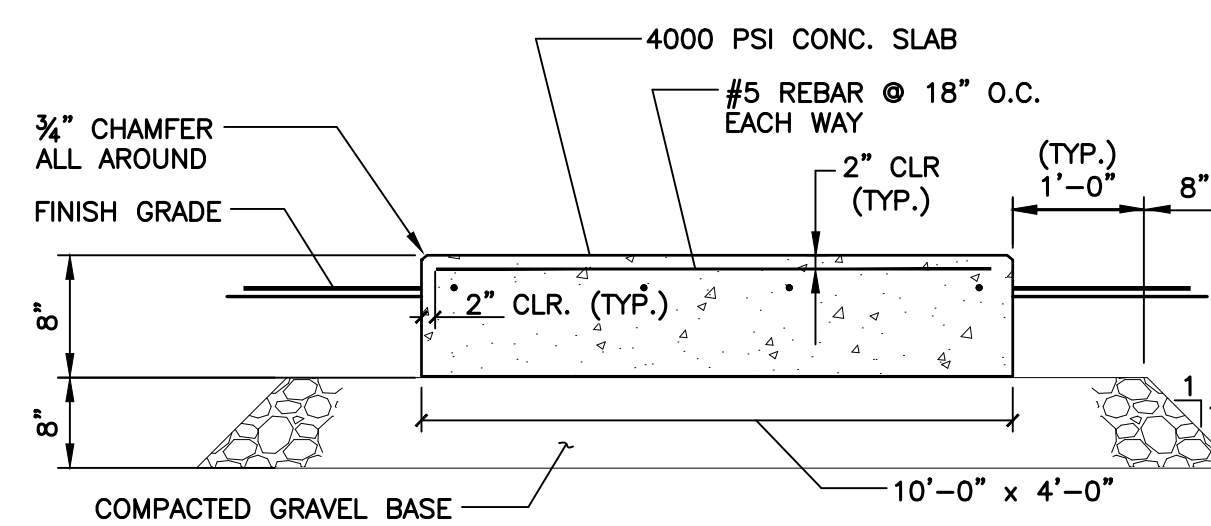




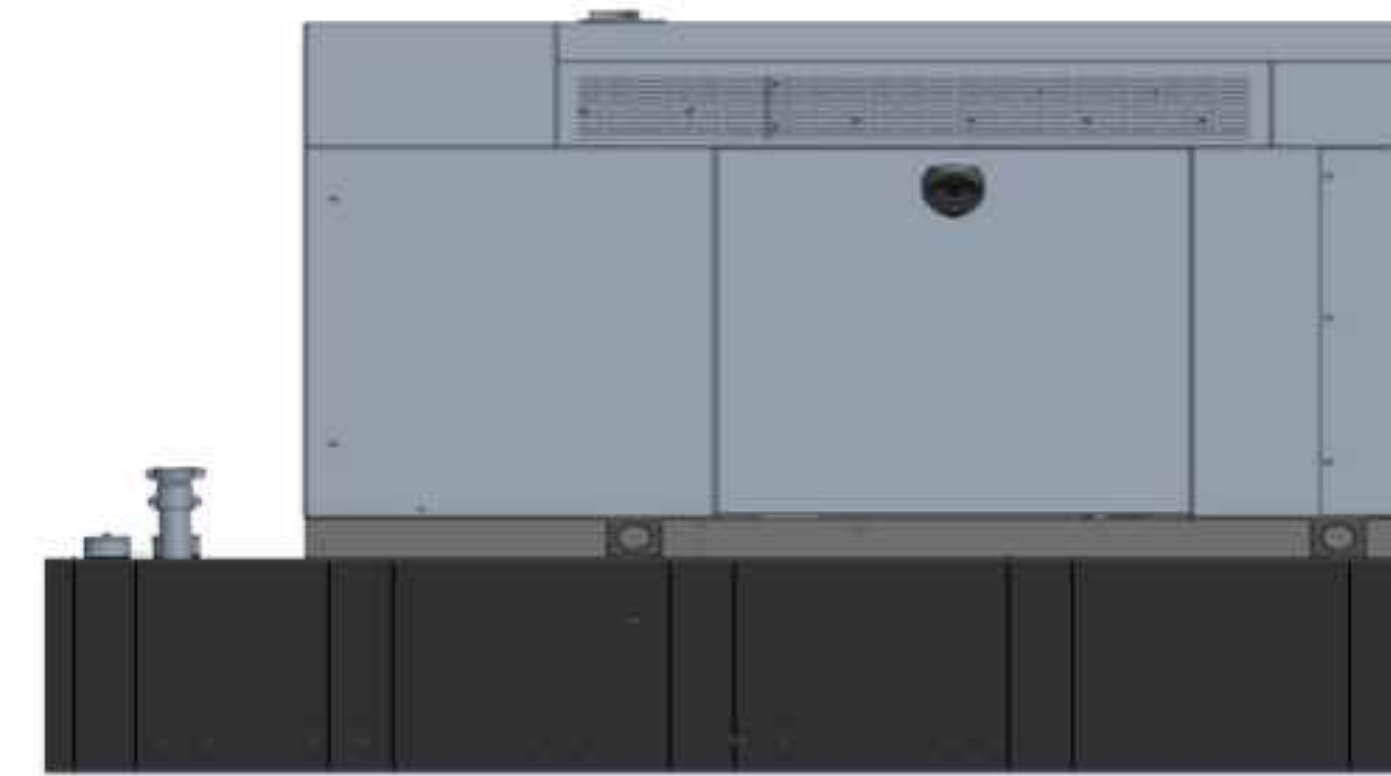


- NOTES:**
1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION.
  2. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR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

**1 TYPICAL ELECTRICAL/TEL TRENCH DETAIL**  
C-2 SCALE: NOT TO SCALE



**2 TYPICAL CONCRETE PAD DETAIL**  
C-2 SCALE: NOT TO SCALE

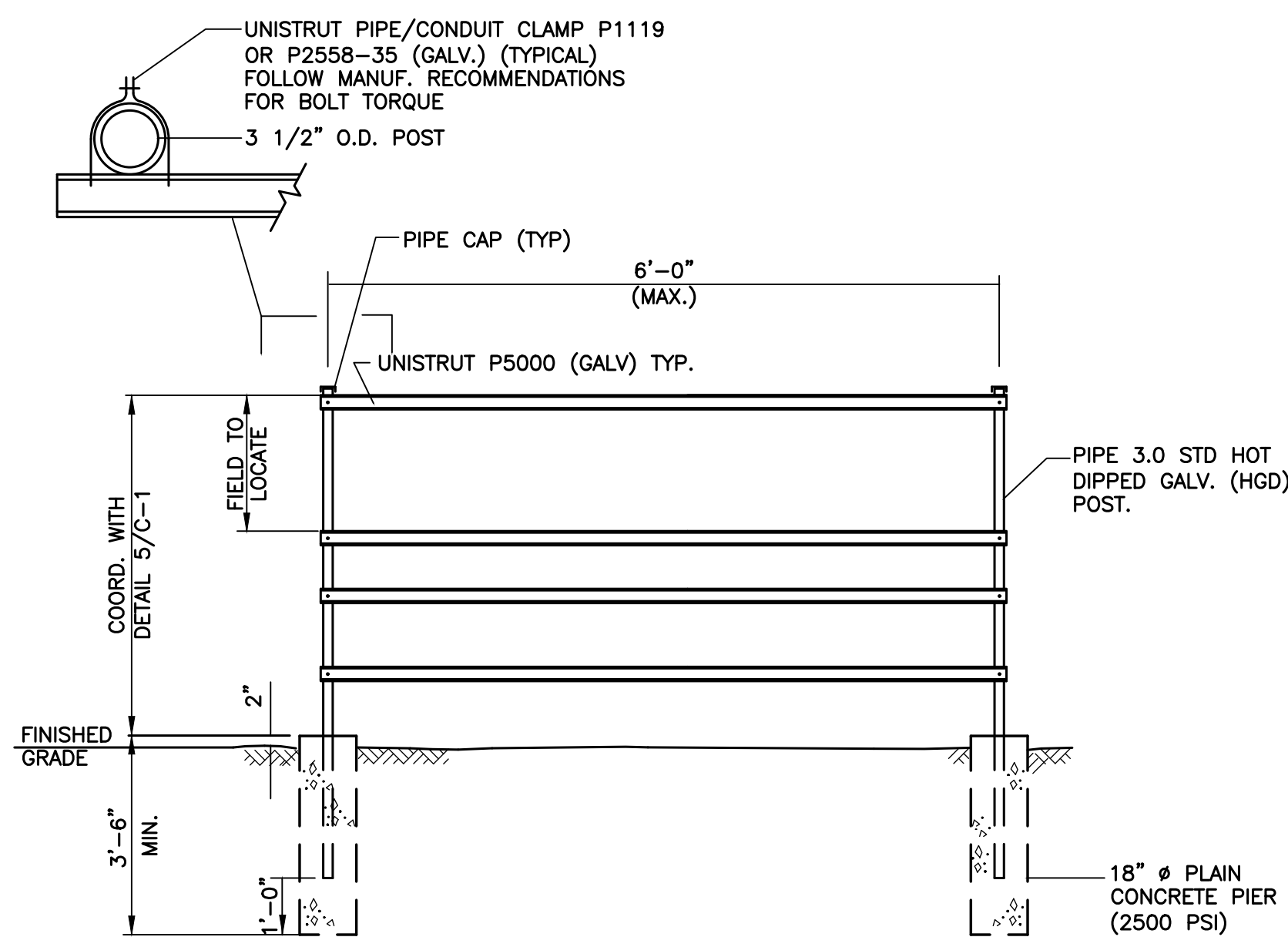


BACKUP POWER GENERATOR						
EQUIPMENT	POWER GENERATED	FUEL	MODEL NUMBER	FUEL TANK SIZE (GAL)	DIMENSIONS	WEIGHT
MAKE: GENERAC MODEL: RD025	25 KW, AC	DIESEL	7192-0	229	103.4"L x 35.0"W x 91.7"H	2123 LBS.

**NOTES:**

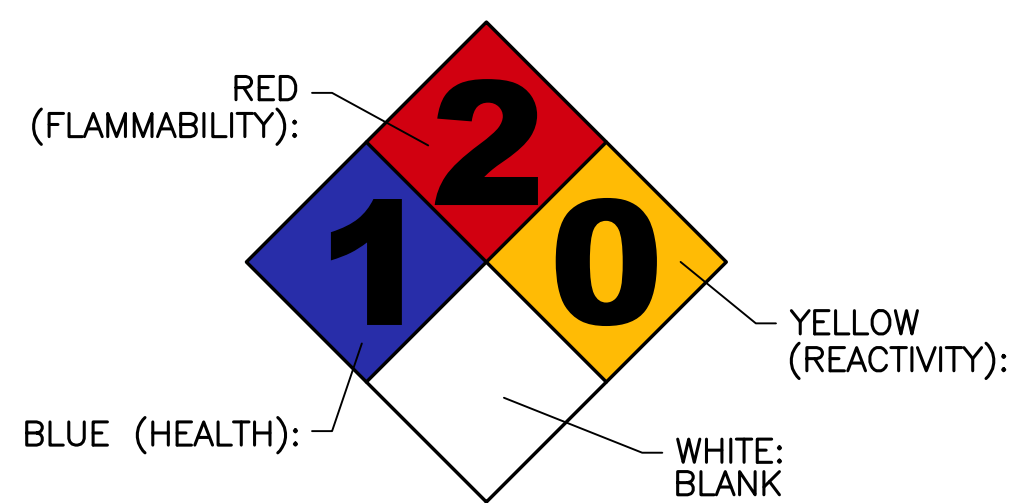
1. FUEL LEVEL/SECONDARY CONTAINMENT SHALL BE ALARMED AND IN COMMUNICATION WITH T-MOBILE'S NOC.
2. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION AND ALL OPTIONAL FEATURES WITH T-MOBILE'S CONSTRUCTION MANAGER PRIOR TO ORDERING.

**3 PROPOSED GENERATOR DETAIL**  
C-2 SCALE: NOT TO SCALE



**4 UTILITY SUPPORT FRAME (TYP)**  
C-2 SCALE: NOT TO SCALE

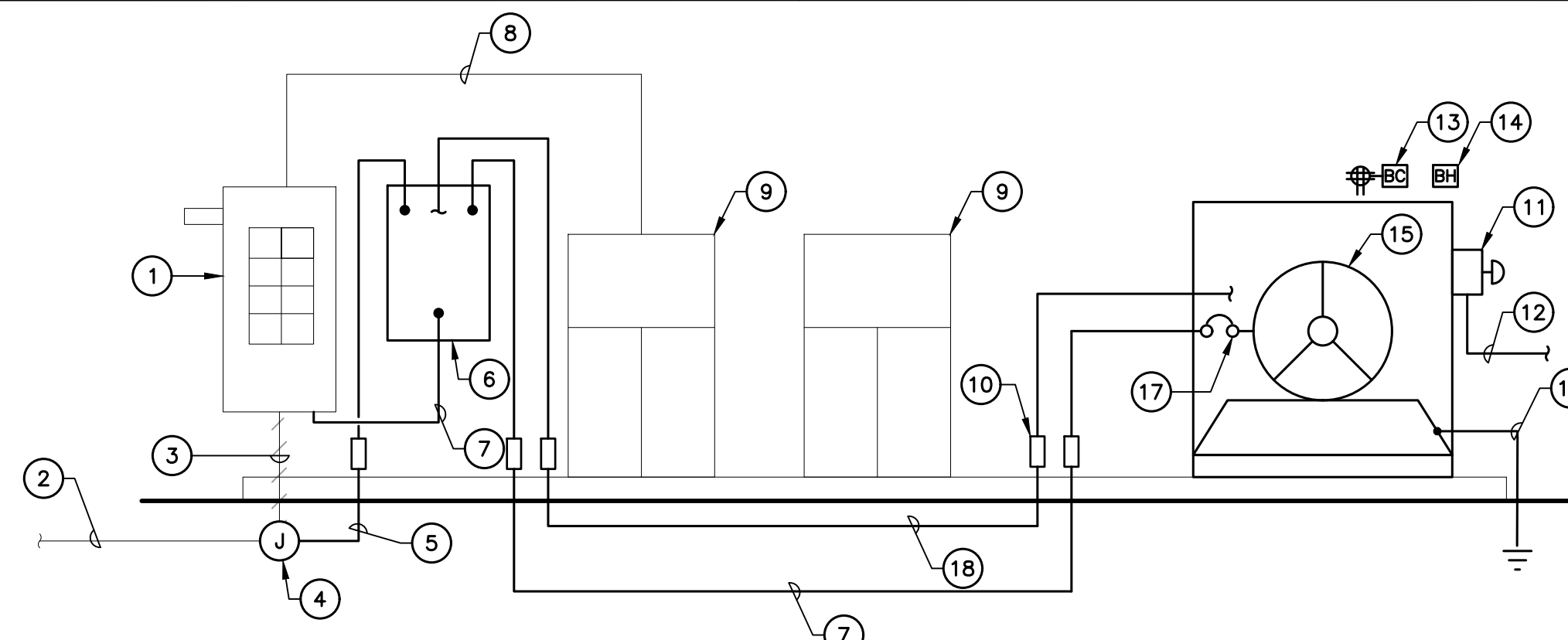
0	07/07/21	BSP	TJR	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION					
REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION					
PROFESSIONAL ENGINEER SEAL									
(203) 488-0380 (203) 488-8587 Fax 63-2 North Branford Road Branford, CT 06405 <a href="http://www.CentekEng.com">www.CentekEng.com</a>									
<b>T-MOBILE NORTHEAST LLC</b> <b>CTNL193A</b> <b>SITE ID: CTNL193A</b> <b>720 QUINEBAUG RD</b> <b>QUINEBAUG, CT 06262</b>									
DATE: 03/19/21									
SCALE: AS NOTED									
JOB NO. 21003.07									
TYPICAL EQUIPMENT DETAILS									
<b>C-2</b>									
Sheet No. <u>4</u> of <u>5</u>									



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

**1** NFPA 704 DIAMOND SIGNAGE DETAIL  
 E-1 SCALE: NOT TO SCALE

RISER DIAGRAM NOTES	RISER DIAGRAM NOTES
① EXISTING PPC CABINET TO REMAIN. ② EXISTING POWER CONDUIT AND CONDUCTORS PREVIOUSLY SERVING EXISTING PANEL. ③ SECTION OF CONDUIT AND CONDUCTORS TO BE REMOVED. ④ JUNCTION BOX SIZED PER NEC. ⑤ EXTEND EXISTING CONDUITS AND CONDUCTORS TO NEW ATS. ⑥ NEW 200A, 2 SOURCE AUTOMATIC TRANSFER SWITCH. ⑦ (3) #3/0 AWG, (1) #6 AWG GROUND, 2-1/2" CONDUIT. ⑧ EXISTING CONDUITS AND CONDUCTORS TO REMAIN ⑨ EXISTING EQUIPMENT CABINETS TO REMAIN. ⑩ EXPANSION COUPLING TYPICAL.	⑪ REMOTE GENERATOR SHUT OFF SWITCH IN BREAK GLASS ENCLOSURE MOUNTED TO EXTERIOR OF GENERATOR ENCLOSURE PER 2019 NFPA 110 5.6.5.6.1. ⑫ 3/4" CONDUIT AND CONDUCTORS REQUIRED FOR PROPER OPERATION OF EMERGENCY GENERATOR SHUT OFF SWITCH. ⑬ GENERATOR BATTERY CHARGER AND CONVENIENCE GFCI OUTLET WIRED TO EXISTING PANEL. OUTLET TO BE MOUNTED IN WEATHERPROOF ENCLOSURE. ⑭ GENERATOR BLOCK HEATER WIRED TO EXISTING PANEL SERVING T-MOBILE EQUIPMENT. ⑮ EMERGENCY BACK UP GENERATOR. ⑯ GENERATOR GROUNDING PER NEC AND MANUFACTURER'S REQUIREMENTS. BOND TO EXISTING GROUNDING SYSTEM. (MINIMUM OF (1) #2 AWG GROUND) ⑰ GENERATOR OUTPUT CIRCUIT BREAKER. ⑱ 1" CONDUIT FOR GENERATOR CONTROL AND SIGNAL WIRING.



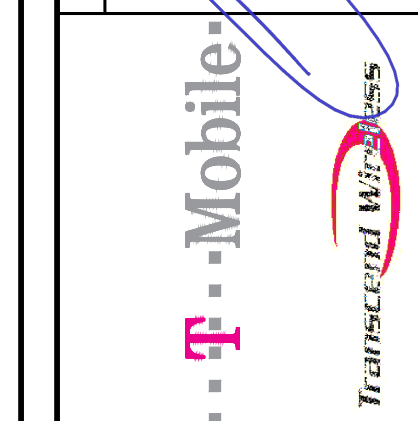
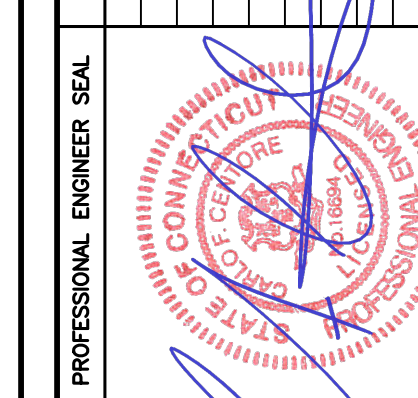
**2** ELECTRICAL RISER DIAGRAM  
 E-1 SCALE: NOT TO SCALE



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

**3** AUTOMATIC TRANSFER SWITCH DETAIL  
 E-1 SCALE: NOT TO SCALE

REV.	DATE	BY	DESCRIPTION
0	07/07/21	BSF	ISSUED FOR CONSTRUCTION



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**T-MOBILE NORTHEAST LLC**  
**CTNL193A**  
**SITE ID: CTNL193A**  
**720 QUINEBAUG RD**  
**QUINEBAUG, CT 06262**

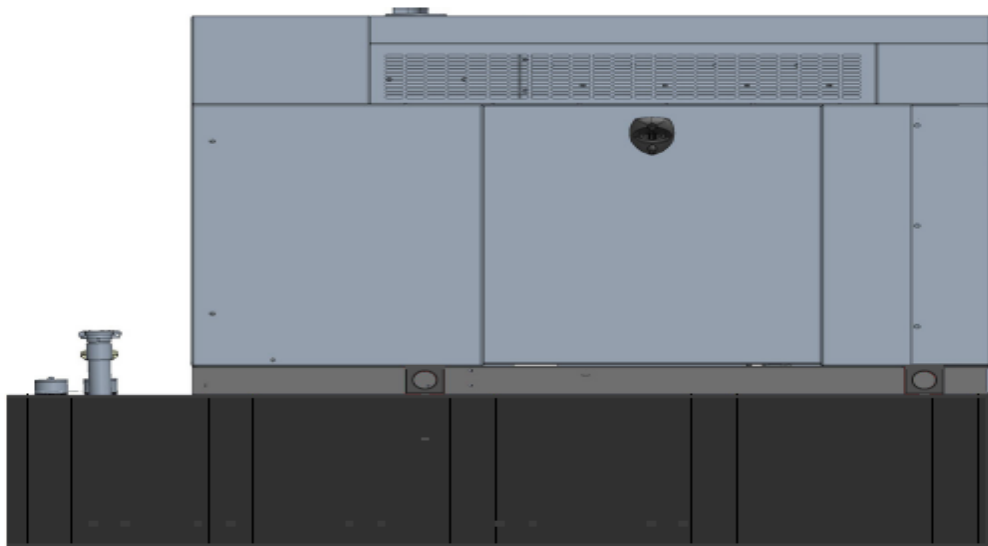
DATE: 03/19/21  
 SCALE: AS NOTED  
 JOB NO. 21003.07

TYPICAL ELECTRICAL DETAILS

**E-1**  
 Sheet No. 5 of 5

# Generac RD025 Design Document

Diesel, AC, 25kW External Fill Tank Model#7192-0 SKU#33651



The following are responsible for this project document:

Kevin Smith

SR. Engineer (770) 256-3594

Project Design Spec Revision	1.0	Last Date:08/23/2018	5/14/2018
Final doc URL (~Dnnnnn):			
Location	Use the InfoRouter Search (Advanced) putting the Document ID (nnnnn without the D) to find the location of the master document.		
Template URL:	<a href="http://docs.eng.t-mobile.com/InfoRouter/docs/~D423750">http://docs.eng.t-mobile.com/InfoRouter/docs/~D423750</a>	Slightly updated 1/2011	



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# 1 Introduction / Project Summary

## 1.1 Purpose of Project

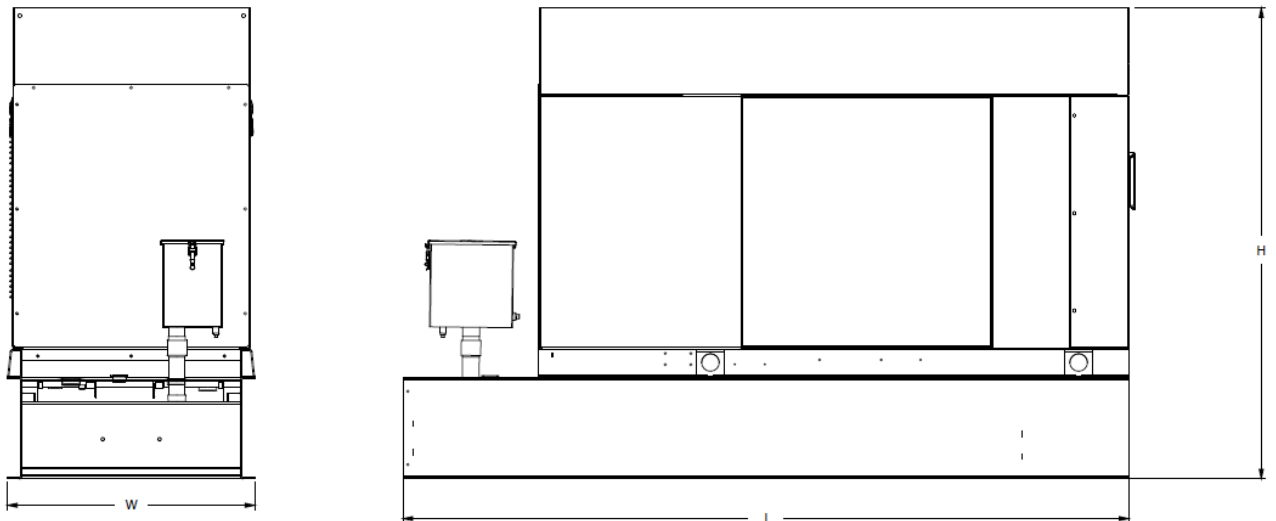
T-Mobile’s nationwide cell site hardening plan is providing a refuellable backup power system capable of powering a site for a minimum of 48 hours before refueling is required. The purpose of this project is to give T-Mobile customers reliable service during power outages and provide a sufficient layer of coverage. This design document is for Generac’s RD025 model#7192-0, which is a Diesel AC generator with a capacity of 25kW.

## 1.2 Feature Description

The Generac RD025 is a 25kW AC, diesel generator is one of the generators selected as part of the T-Mobile RFP in support of the nationwide cell site hardening plan. The RD025 has a Level 2 acoustic enclosure, 3 phase sensing, and +/-0.25% digital voltage regulation. It is equipped with RS232, RS485 and canbus remote ports and Evolution control panel. It is also equipped with a automatic transfer switch, the RXSC200A3 (Automatic Transfer Switch) Controls the process of transferring commercial AC power and generator power. The RXSC200A3 is a 200Amp, switch that is programmed to perform engine test runs and also has adjustable engine run time capabilities. For RXSC200A3 Owners Manual and full feature descriptions [LINK](#)

## 1.3 Dimensions

The dimensions of a level 2 Acoustic Enclosure L x W x H in inches 103.4 x 35 x 91.7. T-Mobile requires a 36-inch radius around the generator that will cover the 18” door swing on the generator.

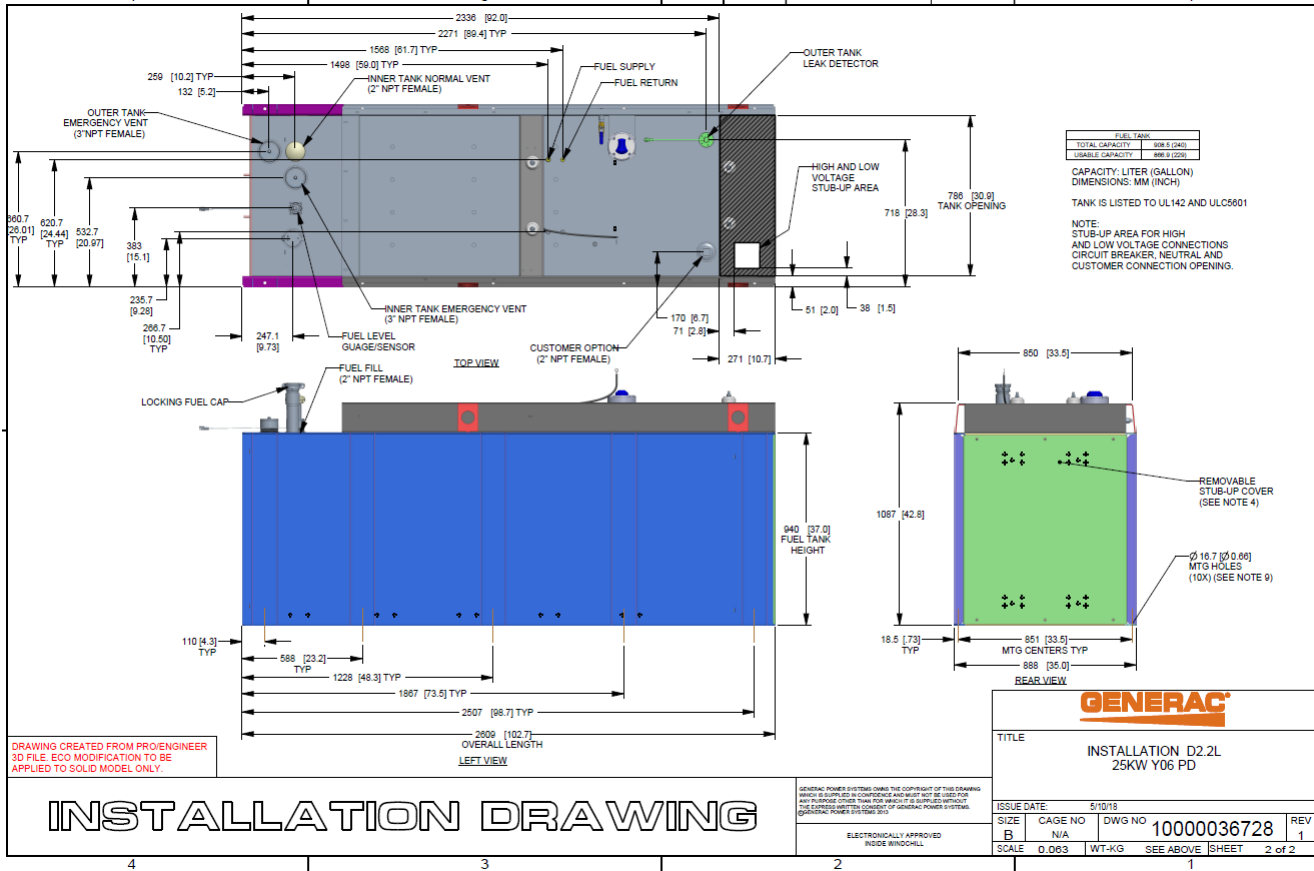


Weights and Dimensions

Unit Weight - lbs	Unit Weight with Skid - lbs	Dimensions (L x W x H) - in
2,123	2,161	103.4 x 35.0 x 73.8

## 2 Fuel Tanks

The RD025 has a 102.7" 240 Gallon Double-Wall UL142 Base tank to provide 98 hours of backup power at full load deployed on site. Below is the Install drawing for the 240-gallon tank for the RD025kW.



## 3 RXSC200A3 ATS/ Controller

### 3.1 Hardware

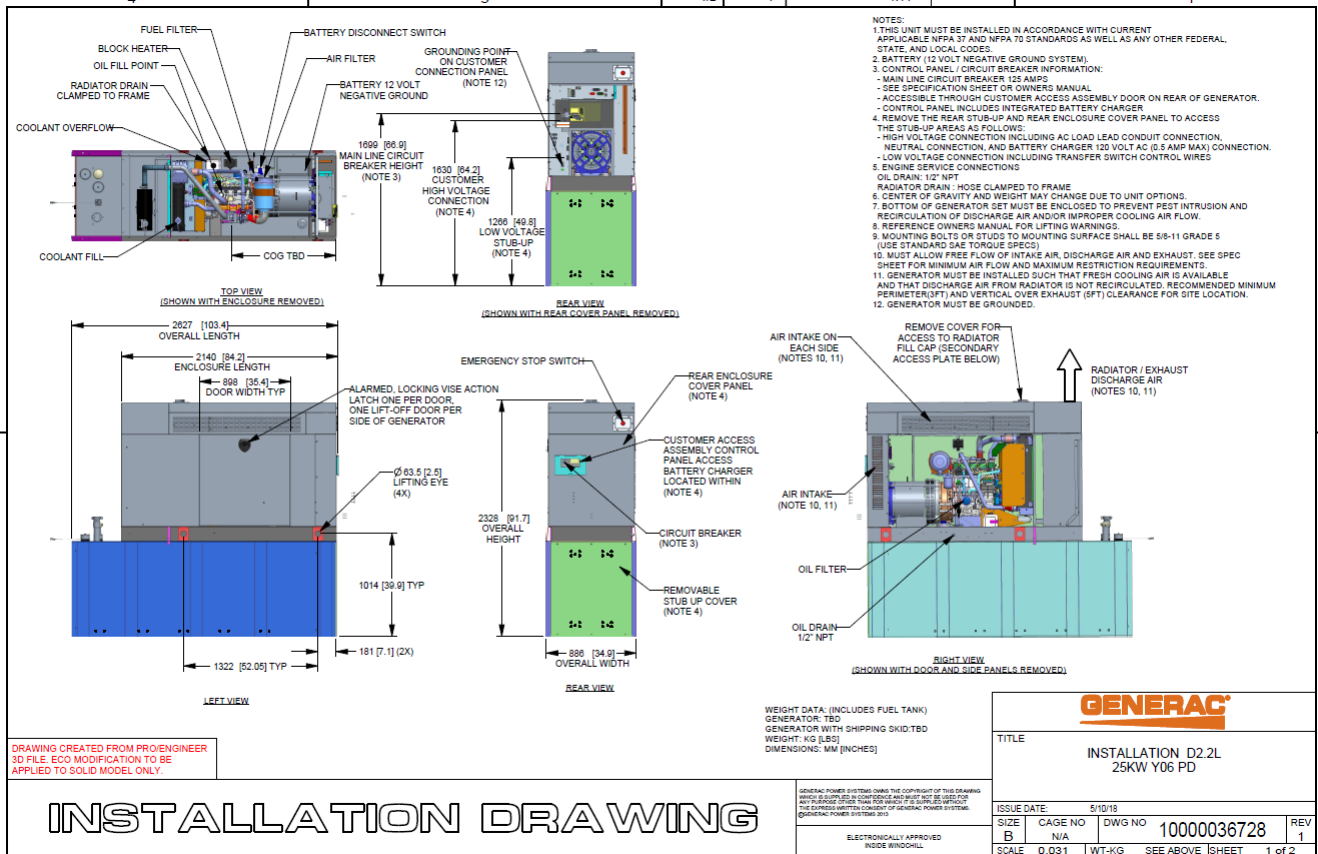
The RD025 will come with a RXSC200A3 and an Evollution controller. The sites considered for the RD025 should not have a DC power consumption above 20kW

RXSC200A3 [Link](#)

RXSC200A3 install drawing [Link](#)

Evolution controller spec sheet [Link](#)

RD025 installation drawings and supporting documentation [Link](#)

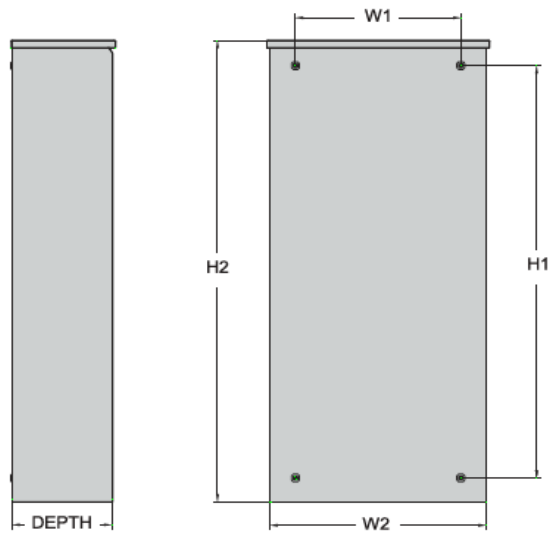


### 3.2 RXSC200A3 Automatic Transfer Switch

The RXSC200A3 (Automatic Transfer Switch) is equipped with the following functions. Utility voltage drop-out <65%. Timer to Generator start: 10 second factory set, adjustable between 2-1500 seconds. Engine Warm up delay: 5 seconds. Standby Voltage Sensor: 65% for 5 seconds. Utility Voltage Pickup >80%. Re-Transfer Time Delay: 15 seconds. Engine Cool-Down Timer: 60 seconds. Exerciser: 5 or 12 minute adjustable weekly/by-weekly/monthly. The transfer switch can also be operated manually without power applied

**RXSC200A3 Dimensions**

Model		RXSC200A3
Height (in./mm)	H1	17.24/437.9
	H2	20/508
Width (in./mm)	W1	12.5/317.5
	W2	14.6/370.8
Depth (in./mm)		7.09/180.1
Weight (lbs./kilos)		20/9.07



## 4 Architecture/Alarms

### 4.1 Interfaces and Alarming

The generator will be monitored by external alarms, conduit and cat five cables have to be installed from the Evolution Controllers Low Voltage Box located in the Generac generator to the appropriate cell site equipment. Nokia FSEB or FSEE and in Ericsson the SAU.

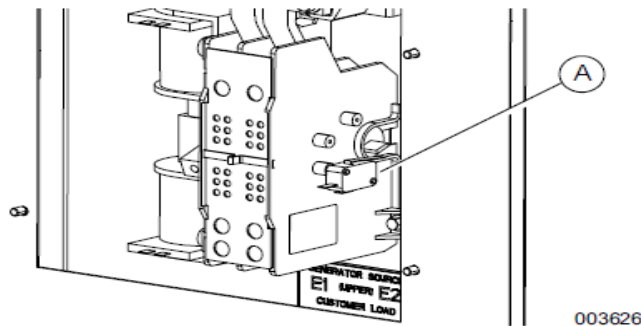
At a Nokia site, this connection is at the FSEB or an FSEE module. For the wiring diagram and instructions for the FSEB click the [Link](#) (The FSEE is the Nokia module that will be replacing the FSEB. For details on the FSEE contact: HQNokiaCellsiteDesigns@T-Mobile.com)

Ericsson sites will connect to the SAU module via OVP Expansion Kit for 8 External Alarms. Product number: UTOVP-ALM8EXP. For the wiring diagram and instructions for this click the [link](#)

The RXSC200A3 has auxiliary contacts that will facilitate the *ATS in Emergency position* alarm and will be a Normally Closed contact. Below is the wiring schematic for this contact and it can be found in the RXSC200A3 owners manual.

#### Auxiliary Contact

See [Figure 3-4](#). If desired, there is one normally-closed Auxiliary Contact (A) on the transfer switch to operate customer accessories, remote advisory lights, or remote annunciator devices. A suitable power source must be connected to the common terminal. If needed, an extra auxiliary contact can be added.



**Figure 3-4. Auxiliary Contact**

The auxiliary contact is normally closed when the transfer switch is in utility mode. The contacts will open when the transfer switch is in the standby power mode.

**NOTE:** Auxiliary Contact is rated 10 amps at 125 or 250 volts AC, and 0.6 amps at 125 volts DC.

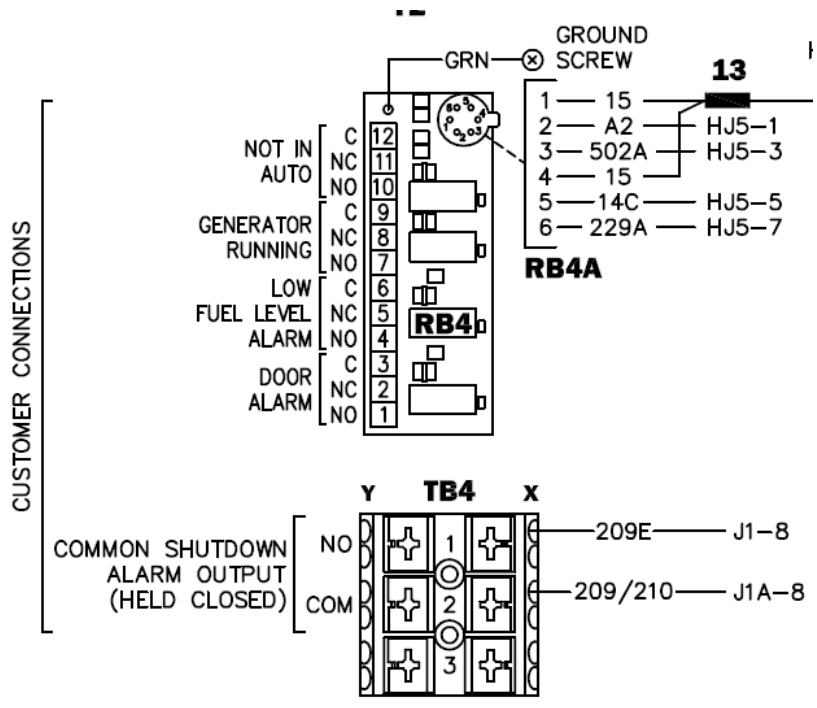
**CAUTION**

Equipment damage. Exceeding rated voltage and current will damage the auxiliary contacts. Verify that voltage and current are within specification before energizing this equipment.

(000134a)

T-Mobile has four relays available from the Generac controller that are user-defined. T-Mobile can have four-alarm categories and a limitless number of subcategories. T-Mobile will utilize Normally Closed (NC) dry contacts for alarms in Low Voltage Connection box in the spare outputs section. Ericsson cabinets need to be equipped with the alarm expansion kit (UTOVP-ALM8EXP) to handle external alarms.

Customer Connections Inside the RD025



Ericsson UTOVP- ALM8EXP



UTOVP-ALM8EXP Product no	OVP Expansion Kit for 8 External Alarms Denomination	Qty
UTOVP-ALM8EXP	OVP Expansion Kit for 8 External Alarms	1
NFD30234/08	OVERVOLTAGE ARRESTER/OVP-ALM 8	1
RPM777143/01200	CABLE WITH CONNECTOR/SIGNAL CABLE	2

Evolution Controller Customer Connections	Nokia FSEB Alarm Connections 13-24	T-Mobile Standard Alarms
NC#8-Gen Running	NC 4110 grd 4111 pin 13	Generator Running
NC#11-Not In Auto	NC 4110 grd 4111 pin 14	Generator Alarm Critical
NC#2-Door Alarm	NC 4110 grd 4111 pin 15	Generator Alarm NSI
NC#5-Low Fuel	NC 4110 grd 4111 pin 16	Low Fuel
RXSC200A3-Auxiliary Contacts	NC 4110 grd 4111 pin 17	ATS in Emergency Position

Evolution Controller Customer Connections	Ericsson Alarm 8expConnections	T-Mobile Standard Alarms
NC#8- Gen. Running	NC - A5	Generator Running
NC#11-Not In Auto	NC - A6	Generator Alarm Critical
NC#2-Door Alarm	NC - A7	Generator Alarm NSI
NC#5-Low Fuel	NC - A8	Low Fuel
RXSC200A3-Auxiliary Contacts	NC - A9	ATS in Emergency Position

## 5 Regulatory Requirements

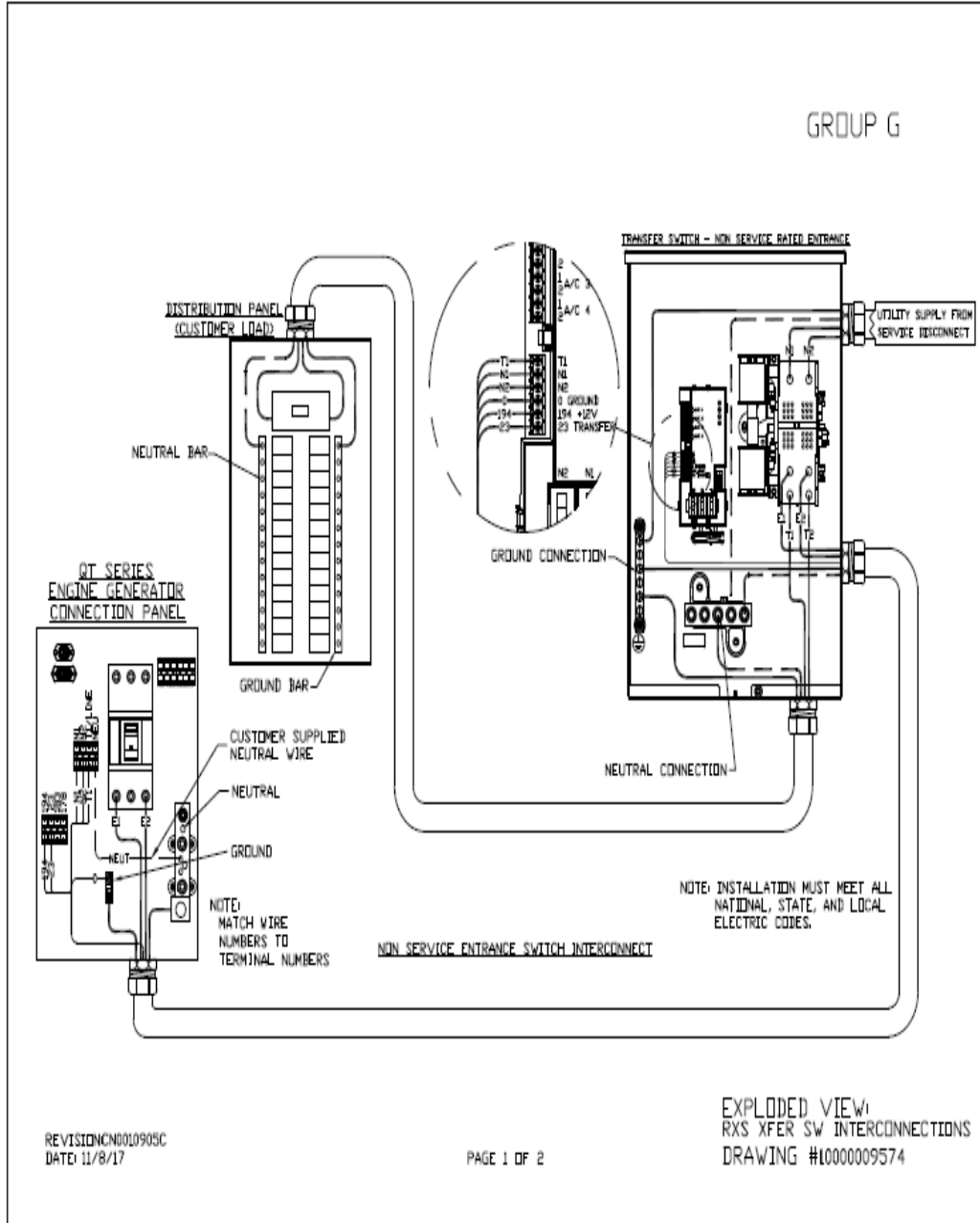
Level 2 Acoustic Enclosure provides a noise level of 67.5dBA. It is EPA certified and meets NFPA 99 and 110 requirements(NFPA National Fire Protection Association). The RD025 generator engines is a tier 4 engine and meets the EPA final standards.

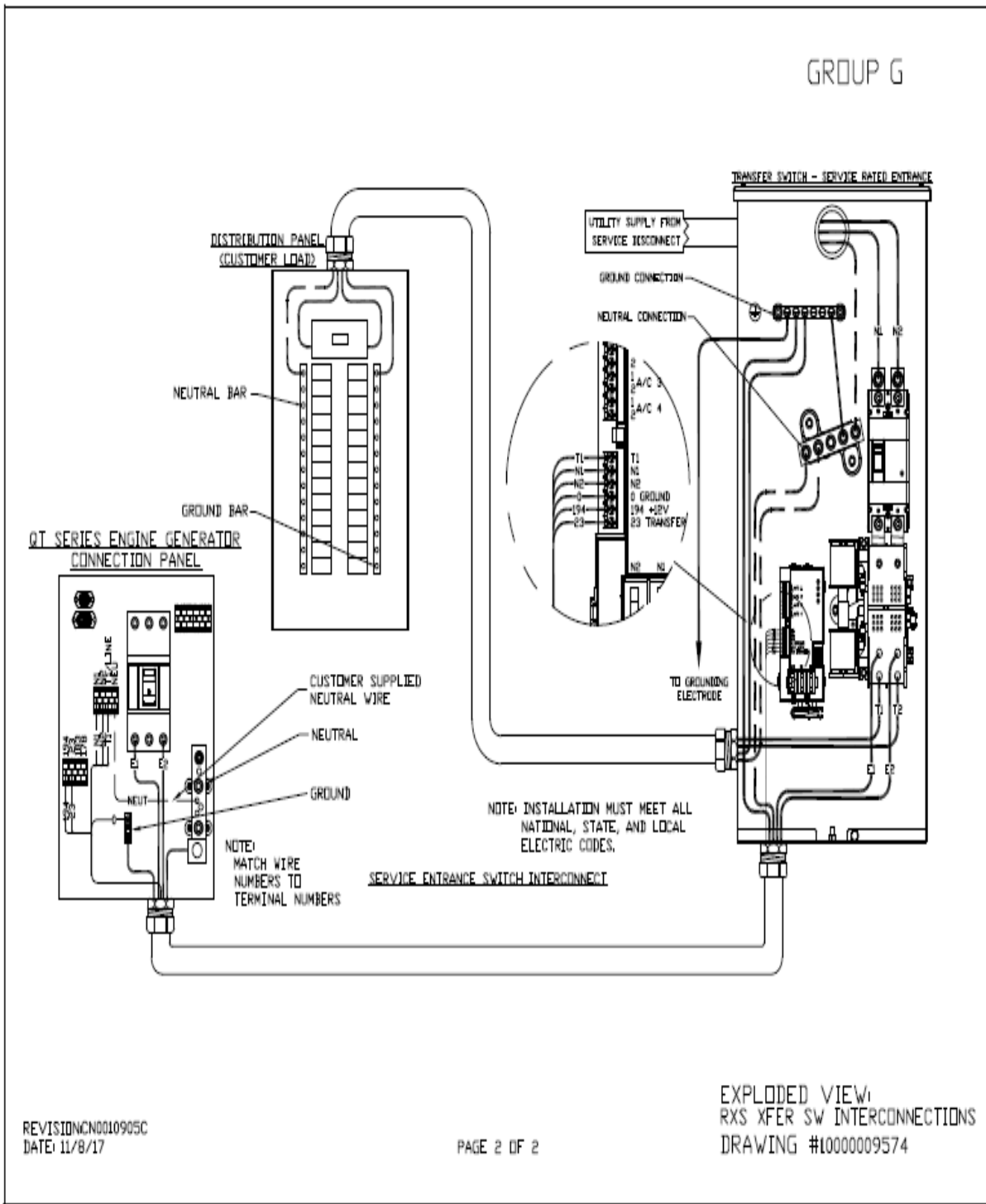
## 6 Configuration/Diagrams

The physical configuration of the Generator and the RXSC200A3 is, ATS before the PPC to ensure overcurrent protection when commercial power is restored. The RD025 and the RXSC200A3 has to be wired to Commercial AC power.

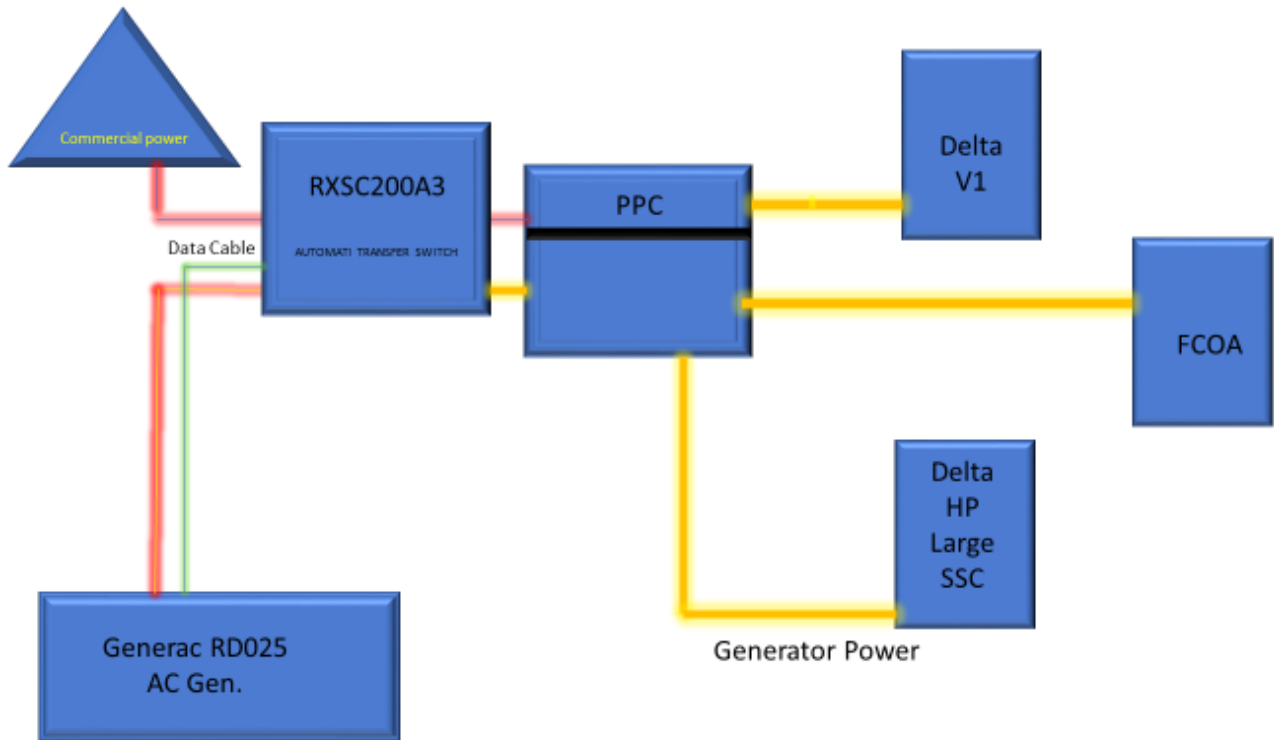


Commercial Power Connection Points  
On The RXSC200A3





### Compound Diagram:



## 7 Maintenance

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T-Mobile is recommending preventive maintenance to be performed every 250 hours of run-time or every 12 months, whichever comes first.

T-Mobile requires this minimum service checklist for the generator engine:

- Check engine mounts and support. Tighten fasteners.
- Check all the engine hoses and clamps for proper fit, and any signs of cracking and fatigue from wear.
- Inspect all belts for signs of cracking and fatigue from wear and adjust for proper tension.
- Inspect the exhaust system for leaks, burns and wet stacking. Drain exhaust line and tighten any clamps and flange bolts.
- Inspect silencer and plumbing for leaks, cracks or any other signs of wear.
- Inspect the system for fuel, oil and coolant leaks and signs of corrosion.
- Replace water separator.
- Replace water filter/ conditioner.
- Check Anti-Freeze (Spector-Analysis).
- Check coolant level and add, if needed.
- Inspect radiator mounting for signs or wear and cracking.
- Inspect/ clean air filter and change per manufacturer specifications.
- Inspect air intakes and outlets and tighten clamps and brackets, if applicable.
- Replace fuel filter.
- Inspect the carburetor fuel injection system, fuel injection pump and choke, if equipped. Adjust to manufacturers specifications.
- Change engine oil, oil filter and record the date on the filter casing.
- Check engine heater operation, if equipped.
- Check and adjust the battery charger operations, and charge rate within the manufacturer's recommended operating specifications.

- Inspect the battery housing, hardware connections, and cables for corrosion and wear.
- Check the battery electrolyte levels and specific gravity levels.
- Load test generator battery.
- Check, adjust and record generator output voltage, as necessary.
- Check and record the alternator charge rate.
- During inspection run the generator for 30 minutes under load. During this time, and after the engine is at full operational speed and has reached engine operating temperature; determine and record the condition of all inspection points: oil pressure, water/ coolant temperature, Fuel pressure, generator gauge, indicator operations, generator battery.
- Check the engine timing and adjust to manufacturers specifications, if necessary.
- Inspect, adjust and record governor and frequency, if necessary.
- Verify that the low fuel alarm is operational and configured correctly to trigger when the fuel tank reaches 50% of fuel tank capacity.

Check fuel level and refuel the generator during the preventive/ corrective maintenance visit.