

1 INDUSTRIAL AVE,  
SUITE 3  
MORRISTOWN NJ 07430  
PHONE: 201.684.0055  
FAX: 201.684.0066



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February 18, 2022

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

RE: Notice of Exempt Modification  
850 West Main Street, Branford, CT 06405  
Latitude: 41.164019  
Longitude: -72.501270  
T-Mobile Site#: CTNH101A - Hardening

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas at the 130' level of the 130' monopole located at 850 West Main Street, Branford, CT. The monopole is owned by Crown Castle. The property is owned by SBC Real Estate Group. T-Mobile now intends to add a 48 Kw generator to a proposed 9'x4' concrete pad within the existing compound.

**Planned Modifications:**

**Ground:**

Install New:

- (1) Generac RD048 48 Kw AC Diesel Generator - 229 gallon double walled self-contained tank with fuel sensor.
- (1) 9' x 4' Concrete Pad

This tower was approved by the Town of Branford Planning and Zoning Commission in application number 97-9.6 on November 20, 1997. The approval was given with conditions which this exempt modification is in compliance with.

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 Selectwoman James Cosgrove, Elected Official, and Harry Smith, Town Planner of Branford, as well as the property and tower owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in

R.C.S.A. § 16-50j-72(b)(2).

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

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

Sincerely,

**Eric Breun**

Transcend Wireless

Cell: 201-658-7728

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

Attachments

cc: James Cosgrove - First Selectman of Branford

Harry Smith - Town Planner

SBC Real Estate Group - Property Owner

Crown Castle - Tower Owner

ERIC BREUN  
2016587728  
10 INDUSTRIAL AVE  
MAHWAH NJ 07430

1 LBS

1 OF 1

**SHIP TO:**  
TOWN PLANNER  
HARRY SMITH  
1019 MAIN STREET  
BRANFORD CT 06405

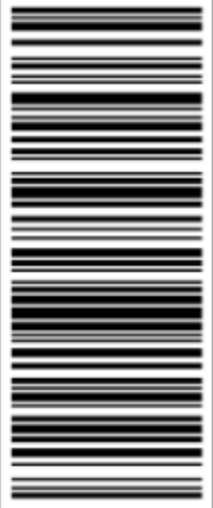


**CT 065 2-01**



**UPS GROUND**

TRACKING #: 1Z V25 742 03 9067 2296



BILLING: P/P

Reference #1: CTNH101A

XOL 22.01.28 NV45 B.0A 02/2022\*



TM

ERIC BREUN  
2016587728  
10 INDUSTRIAL AVE  
MAHWAH NJ 07430

1 LBS

1 OF 1

**SHIP TO:**  
FIRST SELECTMAN  
JAMES B COSGROVE  
1019 MAIN STREET  
BRANFORD CT 06405

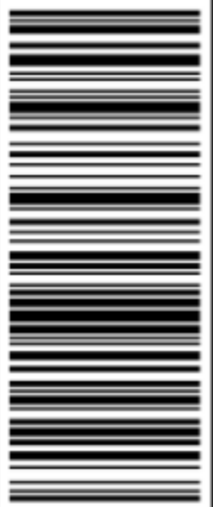


**CT 065 2-01**



**UPS GROUND**

TRACKING #: 1Z V25 742 03 9505 7497



BILLING: P/P

Reference #1: CTNH101A

XOL 22.01.28 NV45 B.0A 02/2022\*



TM

ERIC BREUN  
2016587728  
10 INDUSTRIAL AVE  
MAHWAH NJ 07430

1 LBS

1 OF 1

**SHIP TO:**  
RES

CROWN CASTLE  
2000 CORPORATE DRIVE  
**CANONSBURG PA 15317**



**PA 153 0-10**



**UPS GROUND**

TRACKING #: 1Z V25 742 03 9509 7515



BILLING: P/P

Reference #1: CTNH101A

XOL 22.01.28 NV45 B.GA 02/2022\*



TM

ERIC BREUN  
2016587728  
10 INDUSTRIAL AVE  
MAHWAH NJ 07430

1 LBS

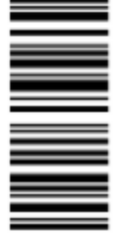
1 OF 1

**SHIP TO:**

SBC REAL ESTATE GROUP  
819 BRIDGEPORT AVENUE  
**SHELTON CT 06484**

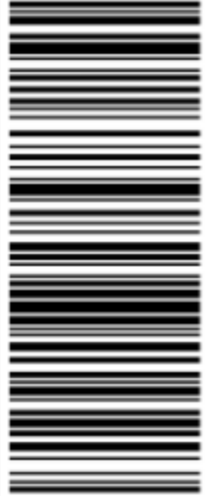


**CT 066 9-03**



**UPS GROUND**

TRACKING #: 1Z V25 742 03 9506 7502



BILLING: P/P

Reference #1: CTNH101A

XOL 22.01.28 NV45 B.GA 02/2022\*



TM

**Hello, your package has been delivered.**

**Delivery Date:** Wednesday, 02/16/2022

**Delivery Time:** 10:55 AM

**Left At:** RECEPTION

**Signed by:** MILICI

**TRANSCEND WIRELESS**

**Tracking Number:** [1ZV257420395057497](#)

**Ship To:** JAMES B COSGROVE  
1019 MAIN STREET  
BRANFORD, CT 06405  
US

**Number of Packages:** 1

**UPS Service:** UPS Ground

**Package Weight:** 1.0 LBS

**Reference Number:** CTNH101A

**Hello, your package has been delivered.**

**Delivery Date:** Wednesday, 02/16/2022

**Delivery Time:** 10:56 AM

**Left At:** RECEPTION

**Signed by:** REC

**TRANSCEND WIRELESS**

**Tracking Number:** [1ZV257420395067502](#)

**Ship To:** SBC REAL ESTATE GROUP  
819 BRIDGEPORT AVENUE  
SHELTON, CT 06484  
US

**Number of Packages:** 1

**UPS Service:** UPS Ground

**Package Weight:** 1.0 LBS

**Reference Number:** CTNH101A

**Hello, your package has been delivered.**

**Delivery Date:** Wednesday, 02/16/2022

**Delivery Time:** 10:56 AM

**Left At:** RECEPTION

**Signed by:** TRISTA

**TRANSCEND WIRELESS**

**Tracking Number:** [1ZV257420390672296](#)

**Ship To:** HARRY SMITH  
1019 MAIN STREET  
BRANFORD, CT 06405  
US

**Number of Packages:** 1

**UPS Service:** UPS Ground

**Package Weight:** 1.0 LBS

**Reference Number:** [CTNH101A](#)

**Hello, your package has been delivered.**

**Delivery Date:** Thursday, 02/17/2022

**Delivery Time:** 11:00 AM

**Signed by:** MERS

**TRANSCEND WIRELESS**

**Tracking Number:** [1ZV257420395097515](#)

**Ship To:** CROWN CASTLE  
2000 CORPORATE DRIVE  
CANONSBURG, PA 15317  
US

**Number of Packages:** 1

**UPS Service:** UPS Ground

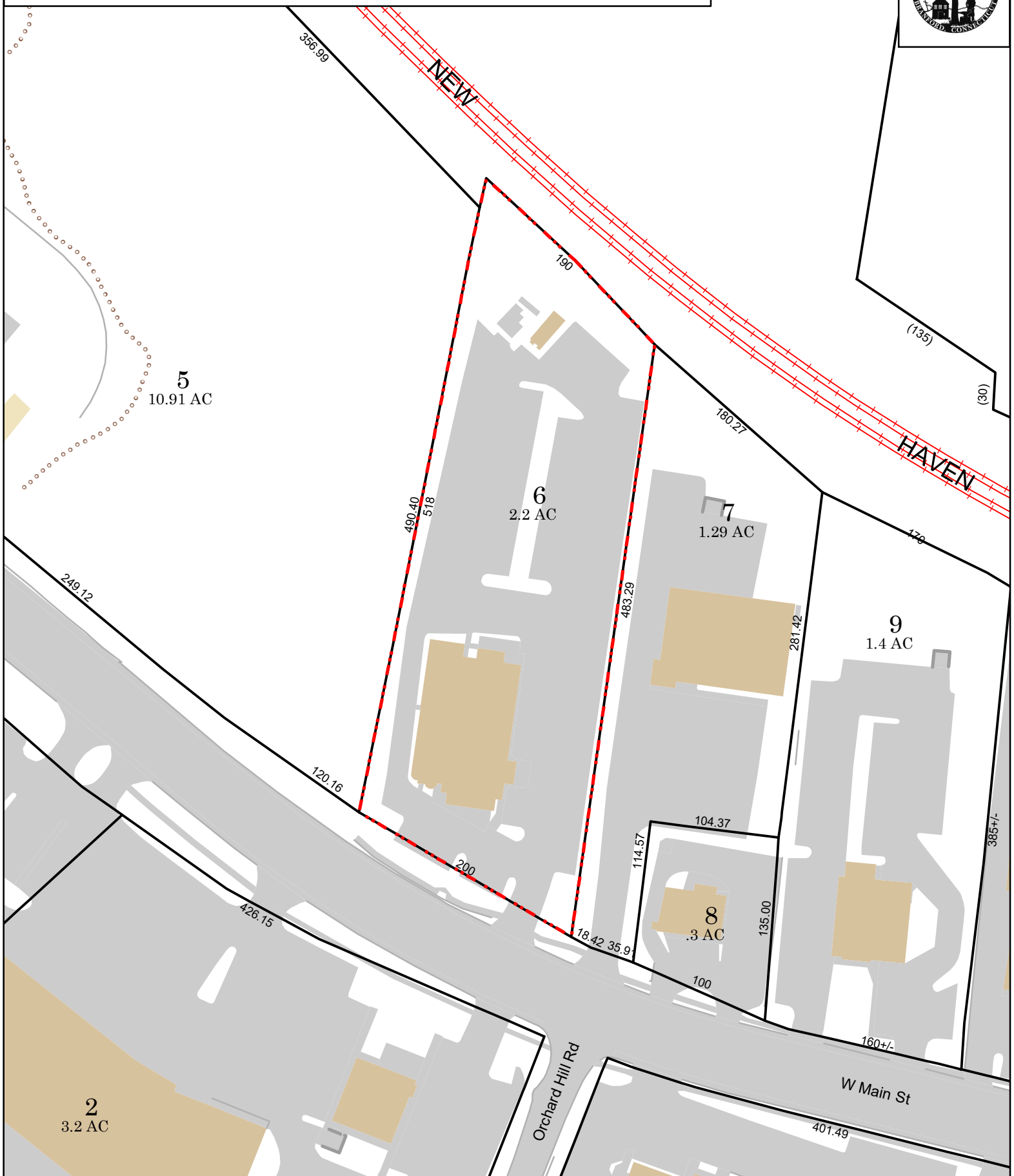
**Package Weight:** 1.0 LBS

**Reference Number:** [CTNH101A](#)

# Town of Branford, Connecticut - Assessment Parcel Map

Parcel: C08-000-001-00006

Address: 850 WEST MAIN ST



Approximate Scale: 1 inch : 100 feet

Grand List Date June 2021

**Disclaimer:**

This map is for informational purposes only. All information is subject to verification by any user. The Town of Branford and its mapping contractors assume no legal responsibility for the information contained herein.



Property Information

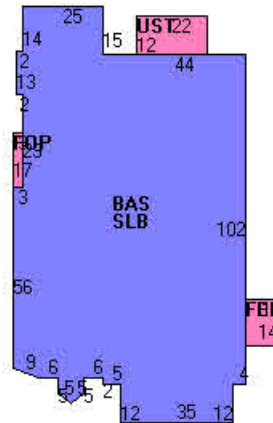
|                   |                                        |
|-------------------|----------------------------------------|
| Property Location | 850 WEST MAIN ST                       |
| Owner             | SBC REAL ESTATE GROUP                  |
| Co-Owner          | na                                     |
| Mailing Address   | 819 BRIDGEPORT AVE<br>SHELTON CT 06484 |
| Land Use          | 3260 REST/CLUBS MDL94                  |
| Land Class        | C                                      |
| Zoning Code       | BL                                     |
| Census Tract      |                                        |

|                  |                               |
|------------------|-------------------------------|
| Neighborhood     | 600                           |
| Acreage          | 2.22                          |
| Utilities        | Public Water,Public Sewer,Gas |
| Lot Setting/Desc | Bus. District Level           |
| Book / Page      | 0845/0896                     |

Photo



Sketch



Primary Construction Details

|                   |                  |
|-------------------|------------------|
| Year Built        | 1972             |
| Building Desc.    | REST/CLUBS MDL94 |
| Building Style    | Restaurant       |
| Building Grade    | B -              |
| Stories           | 1                |
| Occupancy         | 1.00             |
| Exterior Walls    | Wood on Sheath   |
| Exterior Walls 2  | Brick            |
| Roof Style        | Gable/Hip        |
| Roof Cover        | Asphalt          |
| Interior Walls    | Drywall          |
| Interior Walls 2  | Plywood Panel    |
| Interior Floors 1 | Wood Laminate    |
| Interior Floors 2 | Carpet           |

|                  |                |
|------------------|----------------|
| Heating Fuel     | Gas            |
| Heating Type     | Forced Air-Duc |
| AC Type          | Central        |
| Bedrooms         | 0              |
| Full Bathrooms   | 0              |
| Half Bathrooms   | 0              |
| Extra Fixtures   | 0              |
| Total Rooms      | 0              |
| Bath Style       | NA             |
| Kitchen Style    | NA             |
| Fin Bsmt Area    |                |
| Fin Bsmt Quality |                |
| Bsmt Gar         |                |
| Fireplaces       |                |

(\*Industrial / Commercial Details)

|                    |               |
|--------------------|---------------|
| Building Use       | Comm/Ind      |
| Building Condition | G             |
| Sprinkler %        | NA            |
| Heat / AC          | HEAT/AC PKGS  |
| Frame Type         | MASONRY       |
| Baths / Plumbing   | AVERAGE       |
| Ceiling / Wall     | SUS-CEIL & WL |
| Rooms / Prtns      | AVERAGE       |
| Wall Height        | 10.00         |
| First Floor Use    | NA            |
| Foundation         | NA            |





# Town of Branford, CT

## Property Listing Report

Map Block Lot

**C08/000/001/**

Bldg #

**1**

Sec #

**1**

PID

**652**

Account

**008723**

### Valuation Summary (Assessed value = 70% of Appraised Value)

| Item         | Appraised      | Assessed       |
|--------------|----------------|----------------|
| Buildings    | 636300         | 445400         |
| Extras       | 3800           | 2700           |
| Improvements |                |                |
| Outbuildings | 41000          | 28700          |
| Land         | 754500         | 528100         |
| <b>Total</b> | <b>1435600</b> | <b>1004900</b> |

### Sub Areas

| Subarea Type                 | Gross Area (sq ft) | Living Area (sq ft) |
|------------------------------|--------------------|---------------------|
| First Floor                  | 8160               | 8160                |
| Porch, Open                  | 51                 | 0                   |
| Patio                        | 762                | 0                   |
| Slab                         | 8020               | 0                   |
| Utility, Storage, Unfinished | 264                | 0                   |
| <b>Total Area</b>            | <b>17257</b>       | <b>8160</b>         |

### Outbuilding and Extra Features

| Type           | Description |
|----------------|-------------|
| PAVING-CONC    | 35 S.F.     |
| W/DOUBLE LIGHT | 2 UNITS     |
| W/FOUR LIGHTS  | 1 UNITS     |
| PAVING-ASPHALT | 40000 S.F.  |
| PATIO-GOOD     | 513 S.F.    |
| OPEN PORCH     | 96 S.F.     |
| FINISHED       | 306 S.F.    |
| W/TRIPLE LIGHT | 1 UNITS     |
| FENCE-6' CHAIN | 168 L.F.    |

### Sales History

| Owner of Record          | Book/ Page | Sale Date  | Sale Price |
|--------------------------|------------|------------|------------|
| SBC REAL ESTATE GROUP    | 0845/0896  | 2003-10-15 | 850000     |
| BRANFORD-LIR LLC         | 0679/0819  | 1999-07-02 | 0          |
| TARTAGLIA REMO JR ET ALS | 0572/0936  |            | 0          |



PLANNING AND ZONING COMMISSION  
TOWN OF BRANFORD TOWN HALL DRIVE P.O. BOX 150  
Branford, Connecticut 06405 488-1255

NOTICE OF DECISION

November 21, 1997

Attorney John Knuff  
Harris, Beach & Wilcox, L.L.P.  
147 North Broad Street  
Milford, Connecticut 06460

SUBJECT: Special Exception

LOCATION: 850 West Main Street

APPLICATION # 97-9.6

OWNER OF RECORD: Remo, Lorraine and Isabel  
Tartaglia


APPLICANT: Sprint PCS

Dear Sir:

At a meeting of the Branford Planning & Zoning Commission held on Thursday,  
November 20, 1997, the Commission voted to:

Approve your above subject application with the conditions noted below.

Very truly yours,

  
Shirley Rasmussen  
Town Planner

NOTE: This Special Exception shall become effective only after it is filed on the Land Records  
in the office of the Town Clerk.

1. All users of the telecommunications facility must demonstrate compliance with current FCC regulations for electromagnetic frequency emissions and any future changes in these standards.
2. Prior to future co-location of any additional telecommunications equipment, the applicant shall contact the Town of Branford to provide the Town reasonable opportunity to co-locate Town communications equipment at this location.

NOTE: Special Exception shall become null and void in the event the applicant fails to obtain a building permit within one (1) year of date of approval.  
(Per Section 31.7 of the Branford Zoning Regulations)

# T-Mobile

SITE NAME: NH101/GLOBALSIGNAL/BRAN

SITE ID: CTNH101A

850 WEST MAIN ST  
BRANFORD, CT 06405

**GENERAL NOTES**

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE IA/EIA-222 REVISION "G" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES." 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
- SHOULD ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.
- 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.
- BEFORE BEGINNING THE WORK, THE CONTRACTOR IS RESPONSIBLE FOR MAKING SUCH INVESTIGATIONS CONCERNING PHYSICAL CONDITIONS (SURFACE AND SUBSURFACE) AT OR CONTIGUOUS TO THE SITE, WHICH MAY AFFECT PERFORMANCE AND COST OF THE WORK.
- ALL DIMENSIONS, ELEVATIONS, AND OTHER REFERENCES TO EXISTING STRUCTURES, SURFACE, AND SUBSURFACE CONDITIONS ARE APPROXIMATE. NO GUARANTEE IS MADE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS, ELEVATIONS AND ANGLES WITH EXISTING CONDITIONS AND WITH ARCHITECTURAL AND SITE DRAWINGS BEFORE PROCEEDING WITH ANY WORK.
- AS THE WORK PROGRESSES, THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONDITIONS WHICH ARE IN CONFLICT OR OTHERWISE NOT CONSISTENT WITH THE CONSTRUCTION DOCUMENTS, AND SHALL NOT PROCEED WITH SUCH WORK UNTIL THE CONFLICT IS SATISFACTORILY RESOLVED.
- 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 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.
- ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTORS FOR ANY CONDITION PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
- 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 AND CONFIRMED WITH THE PROJECT MANAGER AND OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK
- 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.
- THE COUNTY/CITY/TOWN MAY MAKE PERIODIC FIELD INSPECTIONS TO ENSURE COMPLIANCE WITH THE DESIGN PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS.
- THE COUNTY/CITY/TOWN MUST BE NOTIFIED (2) WORKING DAYS PRIOR TO CONCEALMENT/BURIAL OF ANY SYSTEM OR MATERIAL THAT WILL PREVENT THE DIRECT INSPECTION OF MATERIALS. METHODS OR WORKMANSHIP. EXAMPLES OF THESE PROCESSES ARE BACKFILLING A GROUND RING OR TOWER FOUNDATION, POURING TOWER FOUNDATIONS, BURYING GROUND RODS, PLATES OR GRIDS, ETC. THE CONTRACTOR MAY PROCEED WITH THE SCHEDULED PROCESS (2) WORKING DAYS AFTER PROVIDING NOTICE UNLESS NOTIFIED OTHERWISE BY THE COUNTY/CITY/TOWN.
- PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR SHALL VISIT THE 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 ATTENTION OF ENGINEER ON RECORD, PRIOR TO THE COMMENCEMENT OF ANY WORK.

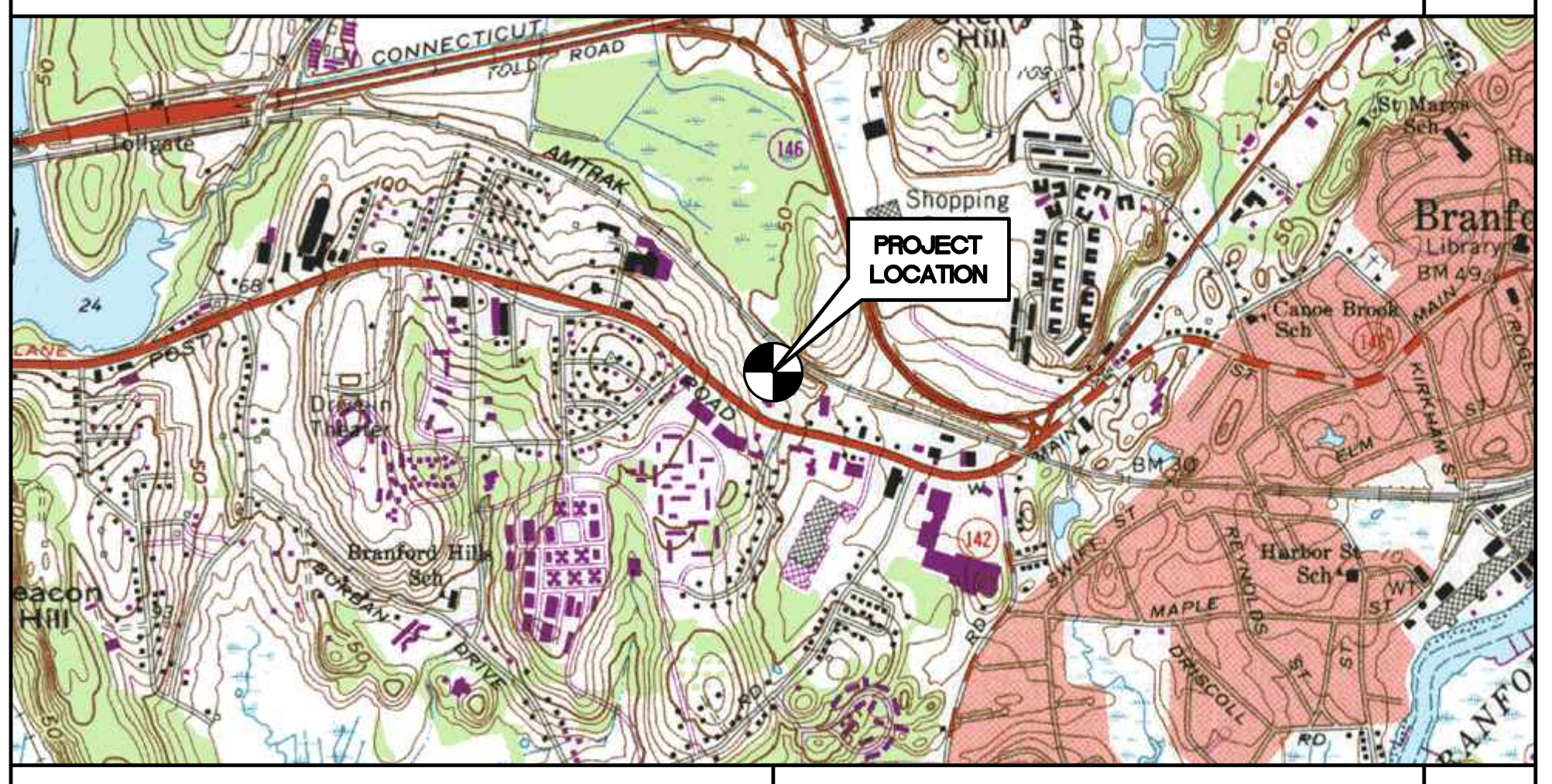
**SITE LOCATION MAP**

N.T.S.



**VICINITY MAP**

N.T.S.



COORDINATES AND GROUND ELEVATION ARE REFERENCED FROM GOOGLE EARTH. SITE COORDINATES: LATITUDE: 41° 16' 40" N LONGITUDE: 72° 50' 12" W GROUND ELEVATION: ±62' AMSL

**PROJECT SUMMARY**

- THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:
- INSTALL (1) NEW 48 KW DIESEL FUELED BACK-UP AC GENERATOR ON A PROPOSED 9' x 4' CONCRETE PAD.
  - INSTALL (1) 200A AUTOMATIC TRANSFER SWITCH MOUNTED TO A PROPOSED 2' UTILITY FRAME.
  - REMOVE EXISTING CONCRETE PAD

**PROJECT INFORMATION**

|                     |                                                                                                                                                                |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SITE NAME:          | NH101/GLOBALSIGNAL/BRAN                                                                                                                                        |
| SITE ID:            | CTNH101A                                                                                                                                                       |
| SITE ADDRESS:       | 850 WEST MAIN ST<br>BRANFORD, CT. 06405                                                                                                                        |
| APPLICANT:          | T-MOBILE NORTHEAST, LLC<br>35 GRIFFIN ROAD SOUTH<br>BLOOMFIELD, CT. 06002                                                                                      |
| CONTACT PERSON:     | DAN REID (PROJECT MANAGER)<br>TRANSCEND WIRELESS, LLC<br>(203) 592-8291                                                                                        |
| ENGINEER OF RECORD: | CEN TEK ENGINEERING, INC.<br>63-2 NORTH BRANFORD ROAD<br>BRANFORD, CT. 06405<br><br>CARLO F. CENTORE, PE<br>(203) 488-0580 EXT. 122                            |
| SITE COORDINATES:   | LATITUDE: 41°-16'-40" N<br>LONGITUDE: 72°-50'-12" W<br>GROUND ELEVATION: 62' ± AMSL<br><br>SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH. |

**SHEET INDEX**

| SHEET NO. | DESCRIPTION                                  | REV. |
|-----------|----------------------------------------------|------|
| T-1       | TITLE SHEET                                  | 0    |
| N-1       | GENERAL NOTES AND SPECIFICATIONS             | 0    |
| C-1       | COMPOUND PLAN AND EQUIPMENT PLANS            | 0    |
| C-2       | TYPICAL EQUIPMENT DETAILS                    | 0    |
| E-1       | ELECTRICAL RISER DIAGRAM AND CONDUIT ROUTING | 0    |
| E-2       | ELECTRICAL SPECIFICATIONS                    | 0    |

PROFESSIONAL ENGINEER SEAL

**T-Mobile**  
TRANSCEND WIRELESS, LLC

**CEN TEK engineering**  
Center on Solutions  
(203) 488-0580  
(203) 488-5587 Fax  
652 North Branford Road  
Branford, CT 06405  
www.CentekEng.com

**T-MOBILE NORTHEAST LLC**  
SITE NAME: NH101/GLOBALSIGNAL/BRAN  
SITE ID: CTNH101A  
850 WEST MAIN ST  
BRANFORD, CT 06405

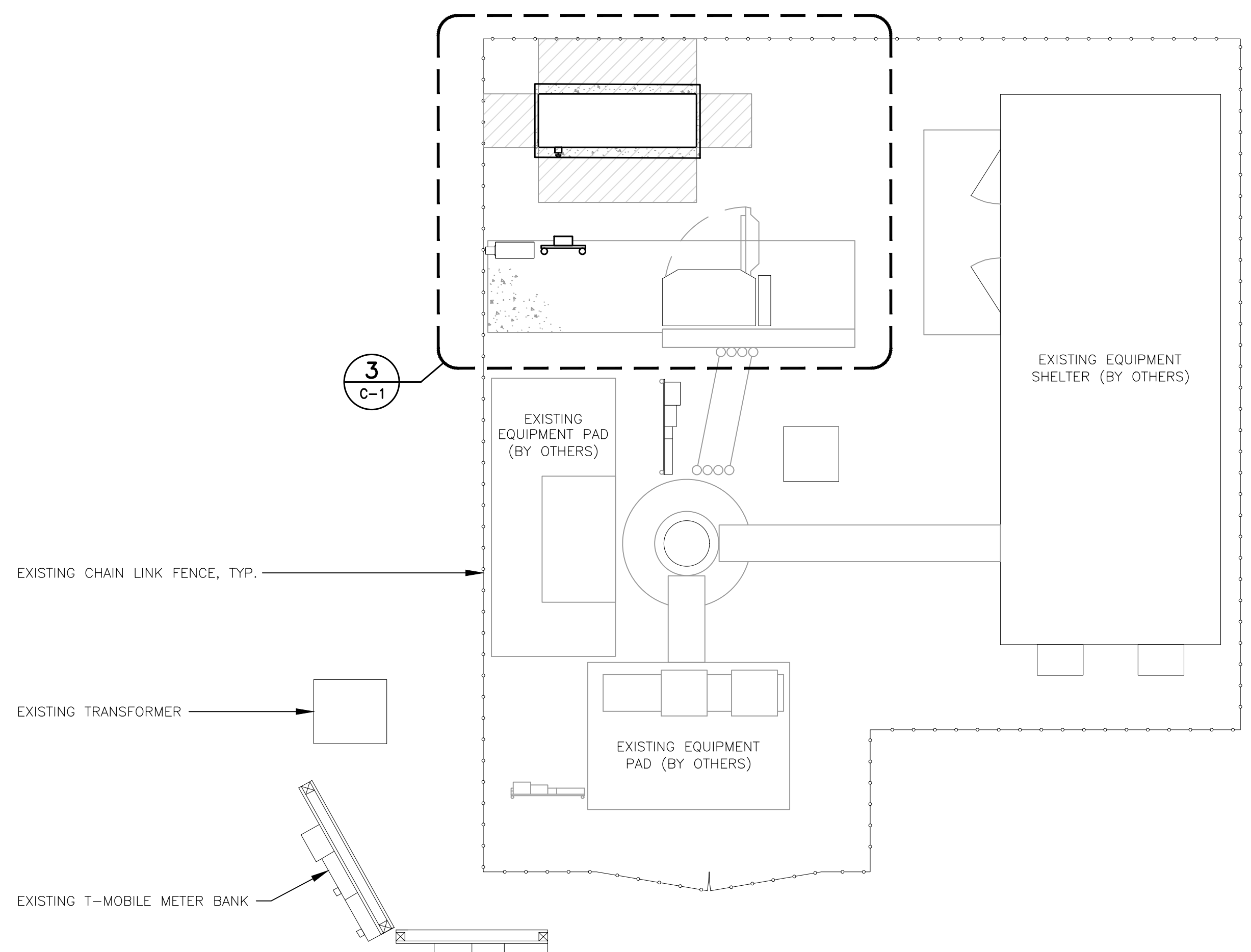
DATE: 01/27/22  
SCALE: AS NOTED  
JOB NO. 22015.01

**TITLE SHEET**

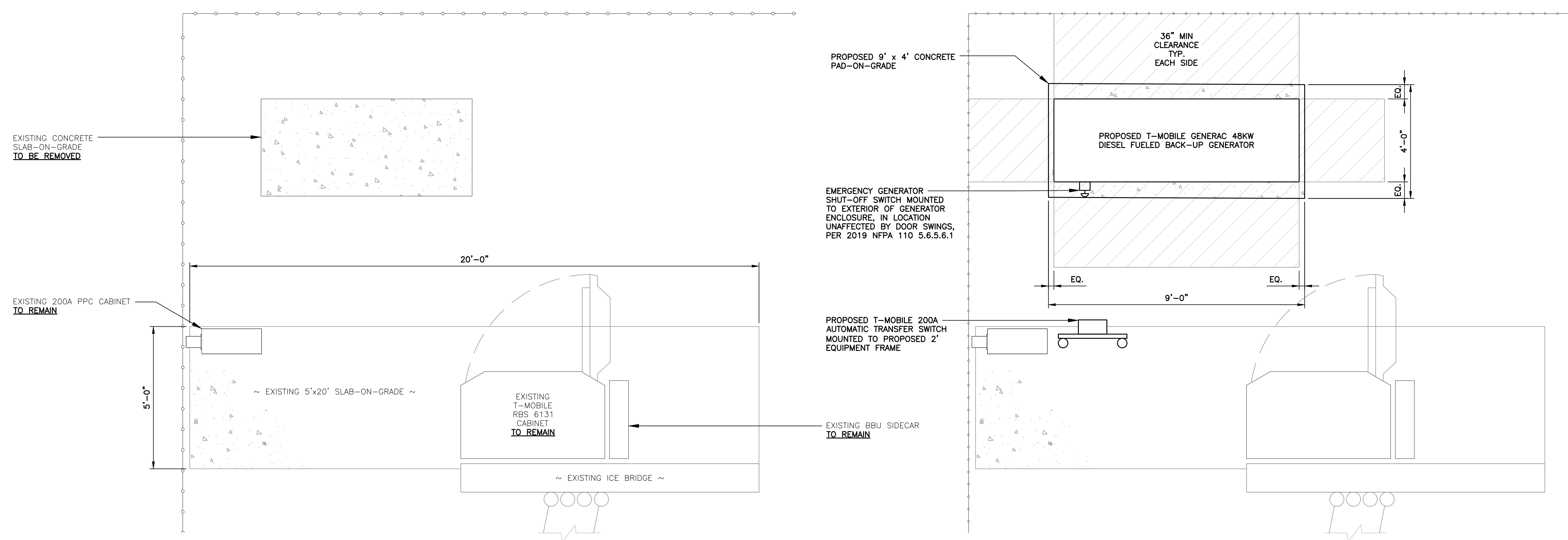
**T-1**  
Sheet No. 1 of 6

CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION  
REV. 0 DATE 02/11/22  
JLD DRAWN BY CHK'D BY  
TJR  
DESCRIPTION





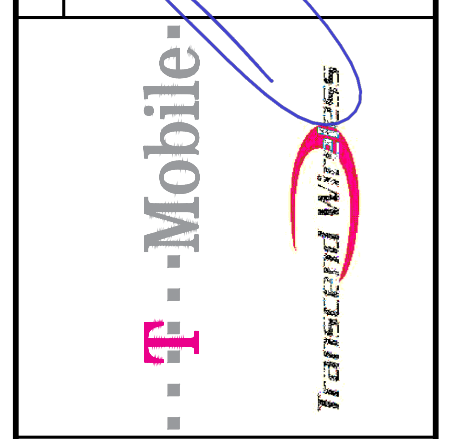
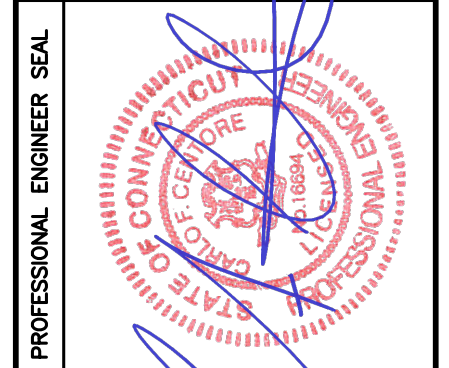
**1** **COMPOUND PLAN - PROPOSED**  
 C-1 SCALE: 3/16" = 1' TRUE NORTH



**2** **EQUIPMENT PLAN - EXISTING**  
 C-1 SCALE: 1/2" = 1' TRUE NORTH

**3** **EQUIPMENT PLAN - PROPOSED**  
 C-1 SCALE: 1/4" = 1' TRUE NORTH

| REV. | DATE     | BY  | DESCRIPTION                                     |
|------|----------|-----|-------------------------------------------------|
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**CENTEK** engineering  
 Centered on Solutions  
 (203) 488-0580  
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 652 North Branford Road  
 Branford, CT 06405  
 www.CentekEng.com

**T-MOBILE NORTHEAST LLC**  
 SITE NAME: NH101/GLOBAL SIGNAL/BRAN  
 SITE ID: CTNH101A  
 850 WEST MAIN ST  
 BRANFORD, CT 06405

DATE: 01/27/22  
 SCALE: AS NOTED  
 JOB NO. 22015.01

COMPOUND PLAN  
 AND EQUIPMENT  
 PLANS



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

**NOTES:**

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

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



**NFPA 704 HAZARD ID LEGEND:**  
 RED: FLAMMABILITY  
 BLUE: HEALTH  
 YELLOW: REACTIVITY  
 WHITE: BLANK

**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:**

- SIGNS EXPOSED TO WEATHER SHOULD BE CHECKED ANNUALLY FOR READABILITY.
- SIGNS MUST BE UPDATED IF CHEMICAL STORAGE OR HAZARD INFORMATION FOR THE LOCATION CHANGES.
- THE GC MUST REVIEW WITH LOCAL JURISDICTION WHEN FILLING FOR PERMITS, AS EACH JURISDICTION MAY HAVE DIFFERENT REQUIREMENTS AND COMPLY WITH POSTING REQUIREMENTS OR DIRECTIVES FROM THE LOCAL JURISDICTION.

**2 NFPA 704 DIAMOND SIGNAGE DETAIL**  
C-2 SCALE: NOT TO SCALE

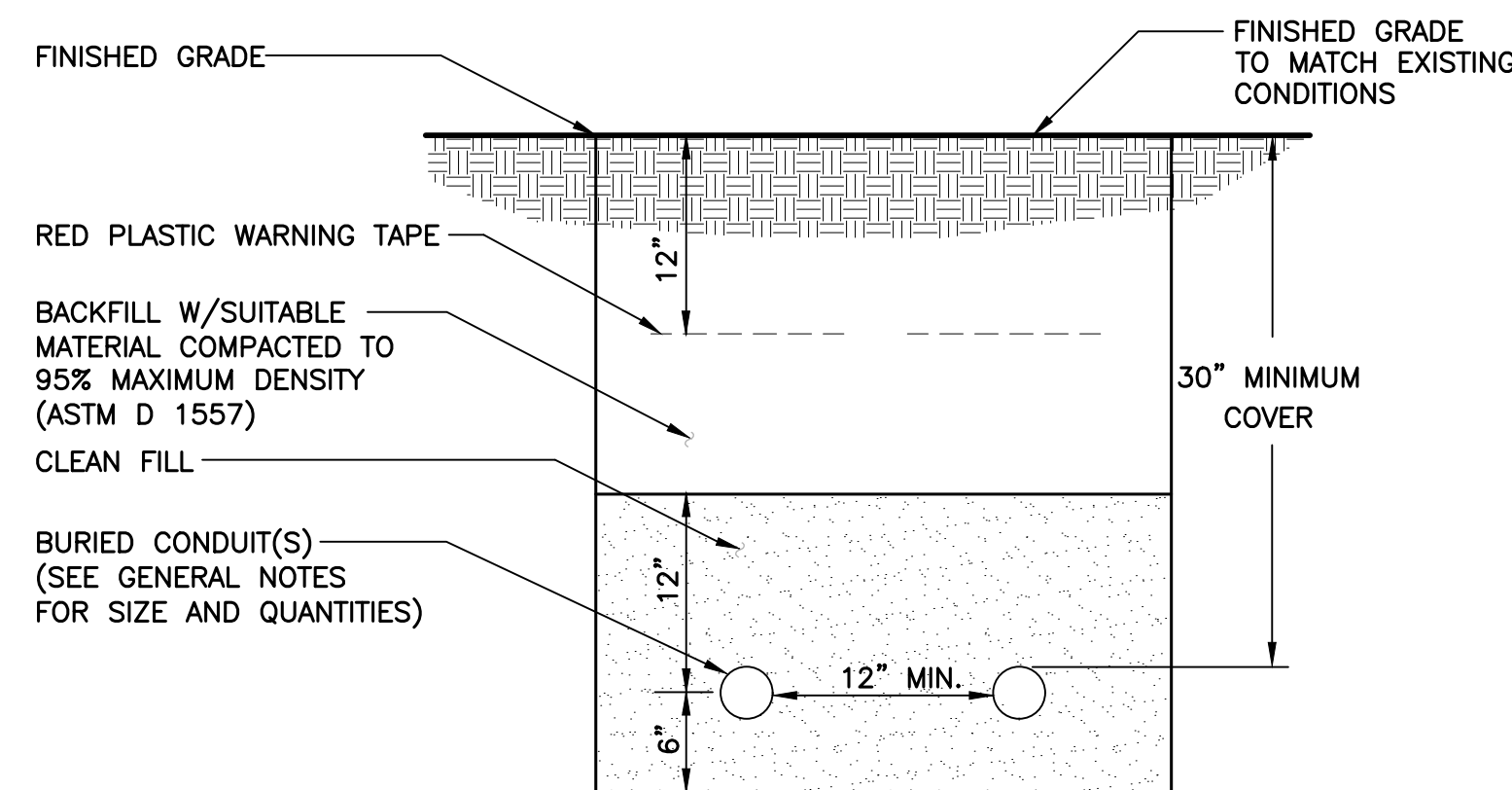


| AUTOMATIC TRANSFER SWITCH         |         |         |           |     |                 |
|-----------------------------------|---------|---------|-----------|-----|-----------------|
| EQUIPMENT                         | PHASE   | VOLTAGE | ENCLOSURE | AMP | DIMENSIONS      |
| MAKE: GENERAC<br>MODEL: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

**NOTES:**

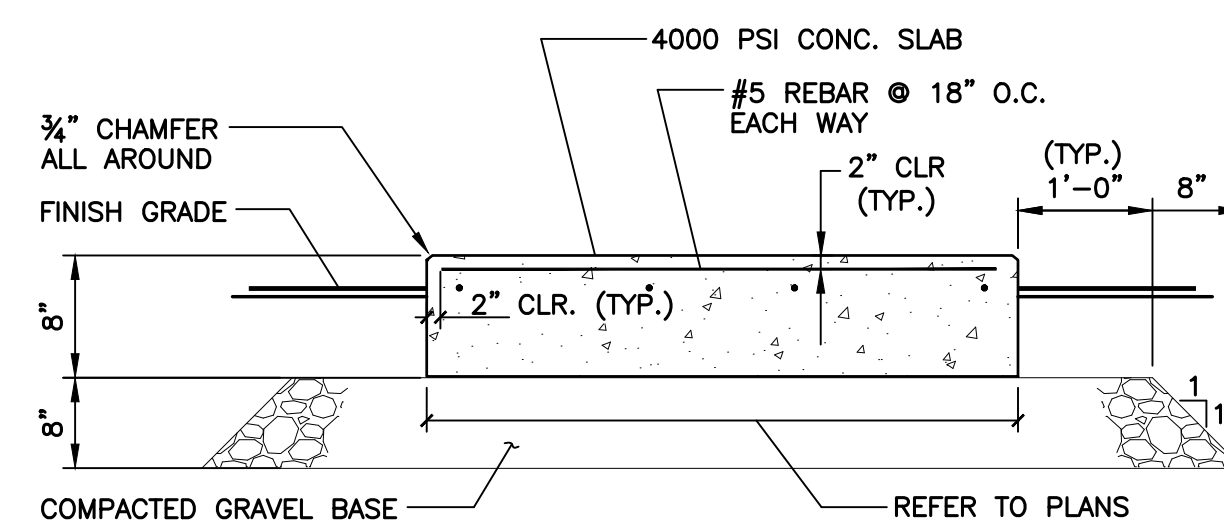
- CONTRACTOR TO COORDINATE FINAL LOCATION AND MOUNTING CONFIGURATION OF THE AUTOMATIC TRANSFER SWITCH INSTALLATION.

**3 AUTOMATIC TRANSFER SWITCH DETAIL**  
C-2 SCALE: NOT TO SCALE

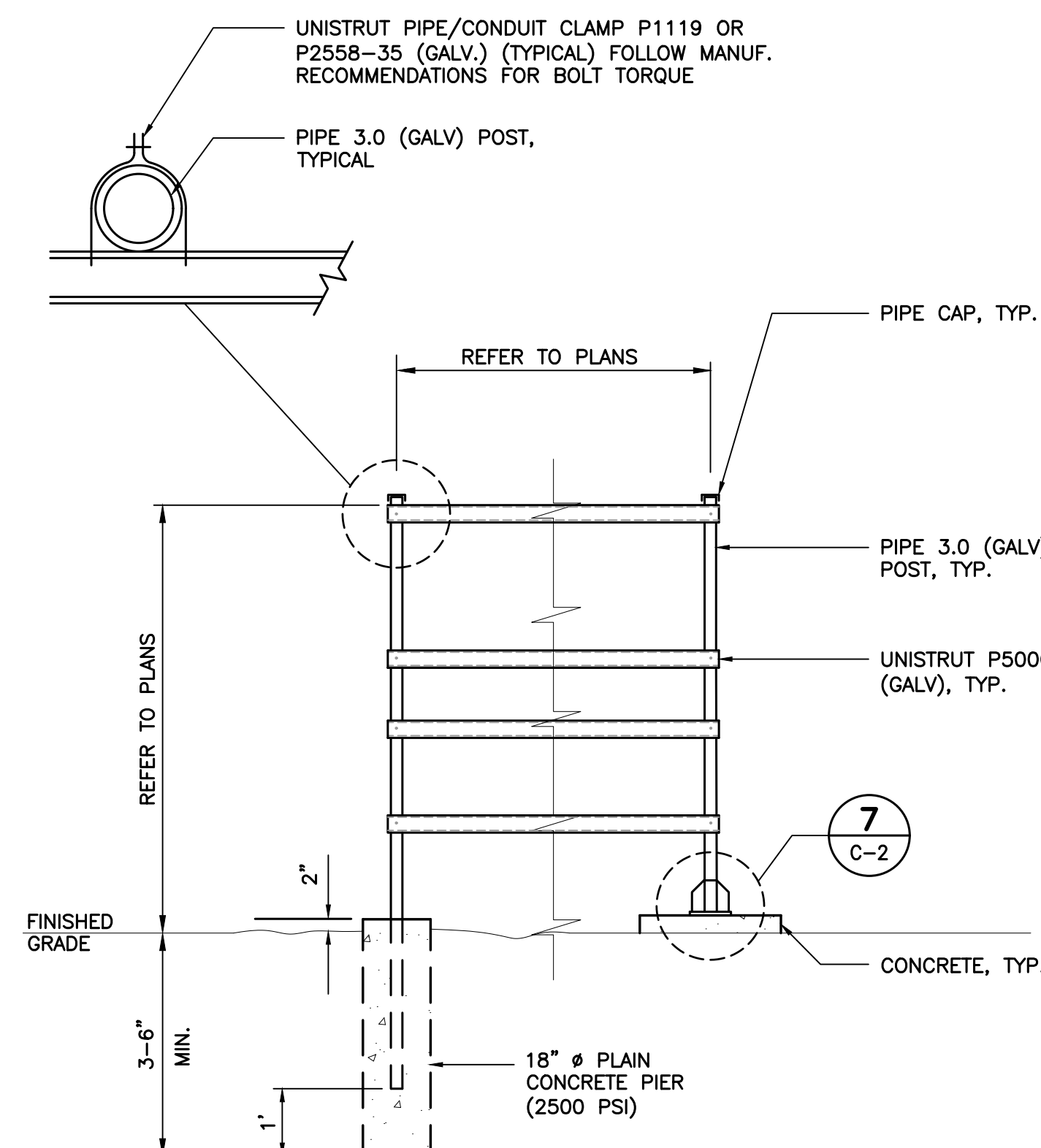


- NOTES:**
- THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION.
  - WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR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

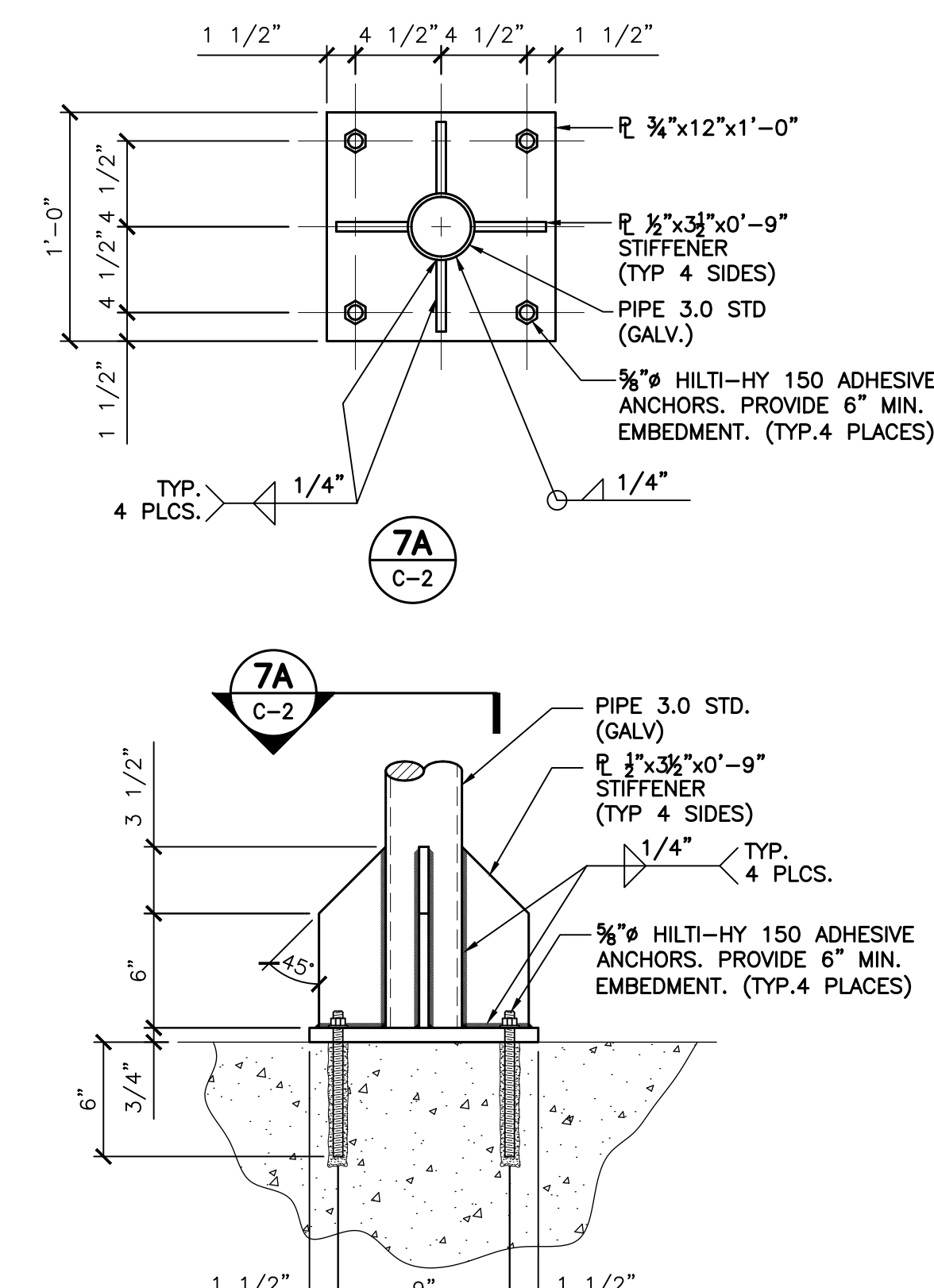
**4 TYPICAL ELECTRICAL/TEL TRENCH DETAIL**  
C-2 SCALE: NOT TO SCALE



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

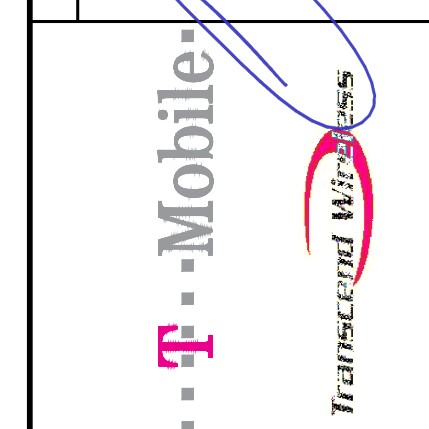


**6 TYPICAL FRAME MOUNTING DETAIL**  
C-2 SCALE: NOT TO SCALE



**7 FRAME TO CONCRETE CONNECTION DETAIL**  
C-2 SCALE: NOT TO SCALE

| REV. | DATE     | BY  | DESCRIPTION                                     |
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 SCALE: AS NOTED  
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TYPICAL  
 EQUIPMENT  
 DETAILS

**C-2**







## Protector™ Series

### Diesel Generator Set

#### INCLUDES:

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

#### Standby Power Rating

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



QUIET-TEST™



\*Built in the USA using domestic and foreign parts

Meets EPA Emission Regulations  
CA/MA Emissions Compliant

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

## FEATURES

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

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

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

**VOLTAGE REGULATION**

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

**GOVERNOR SPECIFICATIONS**

|                         |                        |
|-------------------------|------------------------|
| Type                    | Electronic Isochronous |
| Steady State Regulation | ± 0.25%                |

**ELECTRICAL SYSTEM**

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

**GENERATOR FEATURES**

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

**ENCLOSURE FEATURES**

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

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

## 15 • 20 • 30 • 48 • 50 kW

## application & engineering data

### ENGINE SPECIFICATIONS: 15 & 20 kW

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

### ENGINE SPECIFICATIONS: 30 kW

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

### ENGINE SPECIFICATIONS: 48/50 kW

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

### WEIGHTS AND DIMENSIONS

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

### ENGINE LUBRICATION SYSTEM

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

### ENGINE COOLING SYSTEM

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

### FUEL SYSTEM

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

### TANK SPECIFICATIONS

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

**15 • 20 • 30 • 48 • 50 kW**

**operating data**

**GENERATOR OUTPUT VOLTAGE/kW - 60 Hz**

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

**SURGE CAPACITY IN AMPS**

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

**ENGINE FUEL CONSUMPTION**

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

STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice.

## 15 • 20 • 30 • 48 • 50 kW

## operating data

### ENGINE COOLING

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

### COMBUSTION REQUIREMENTS

|                               |           |           |         |          |
|-------------------------------|-----------|-----------|---------|----------|
| Flow at rated power (cfm/cmm) | 84.76/2.4 | 84.76/2.4 | 90/2.55 | 190/5.38 |
|-------------------------------|-----------|-----------|---------|----------|

### SOUND EMISSIONS

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

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

### EXHAUST

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

### ENGINE PARAMETERS

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

### POWER ADJUSTMENT FOR AMBIENT CONDITIONS

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

### CONTROLLER FEATURES

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



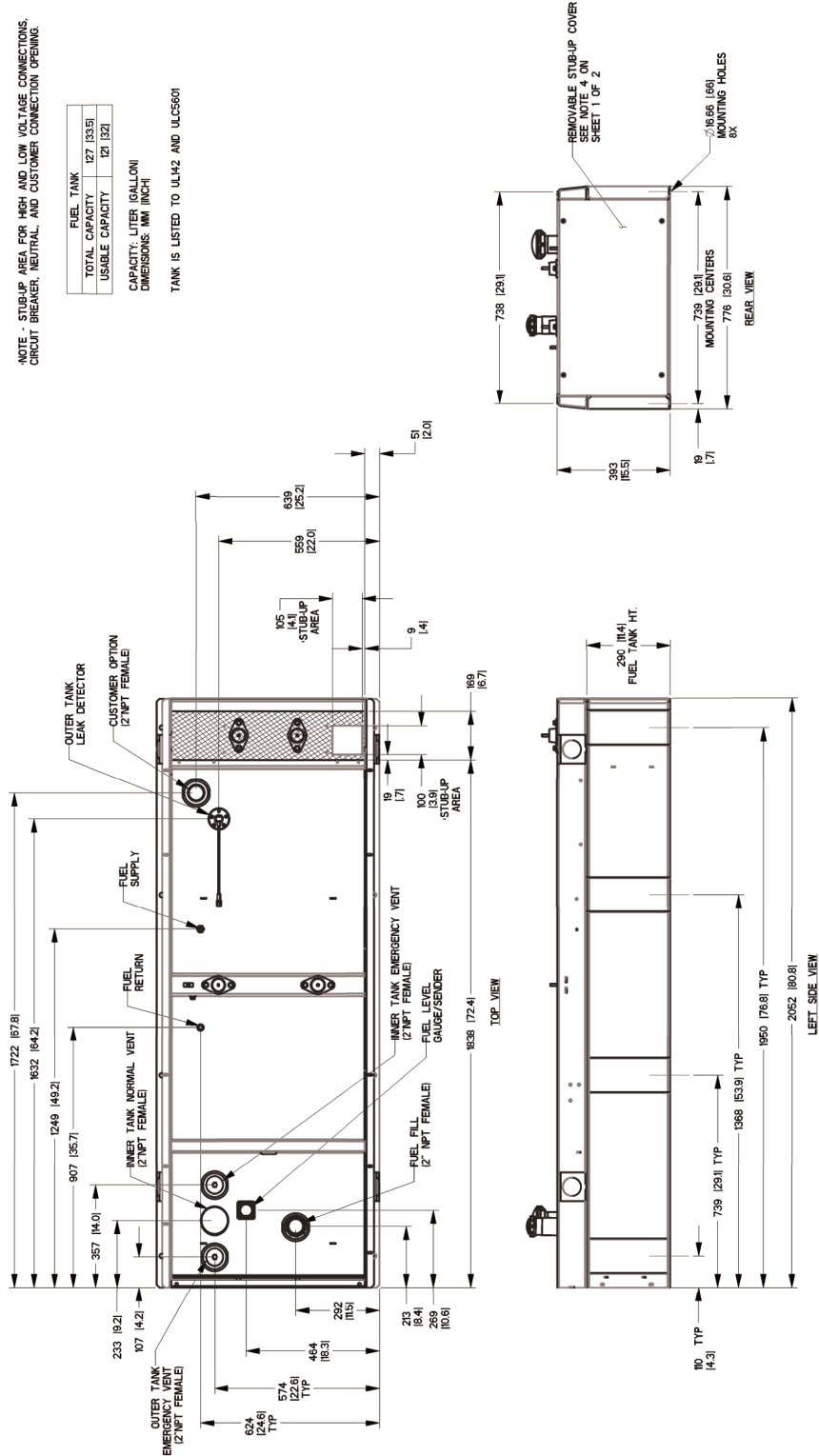
### 15 & 20 kW

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

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

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

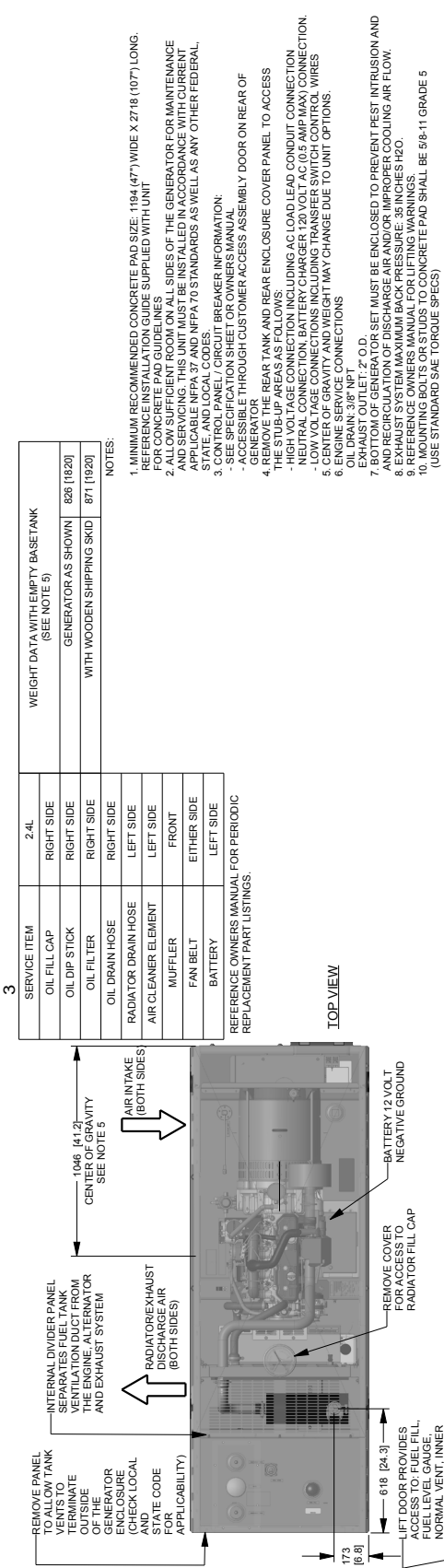
TANK IS LISTED TO UL142 AND ULCS601





30 kW

Drawing #0K7002-C (1 of 2)

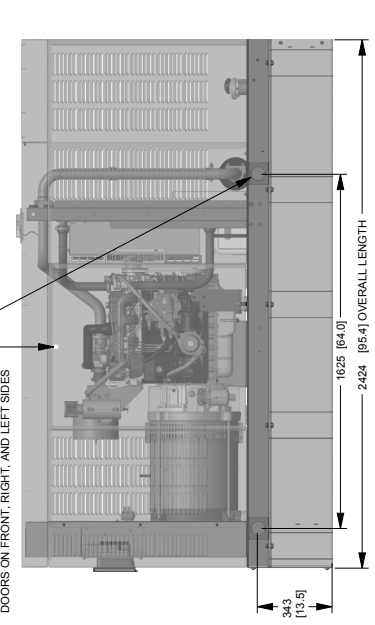


**3**

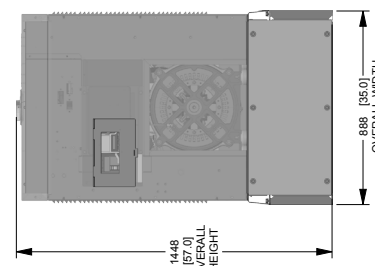
| SERVICE ITEM        | 2.4L        | WEIGHT DATA WITH EMPTY BASE/TANK (SEE NOTE 5) |
|---------------------|-------------|-----------------------------------------------|
| OIL FILL CAP        | RIGHT SIDE  | GENERATOR AS SHOWN 826 [1820]                 |
| OIL DIP STICK       | RIGHT SIDE  | WITH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

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS.

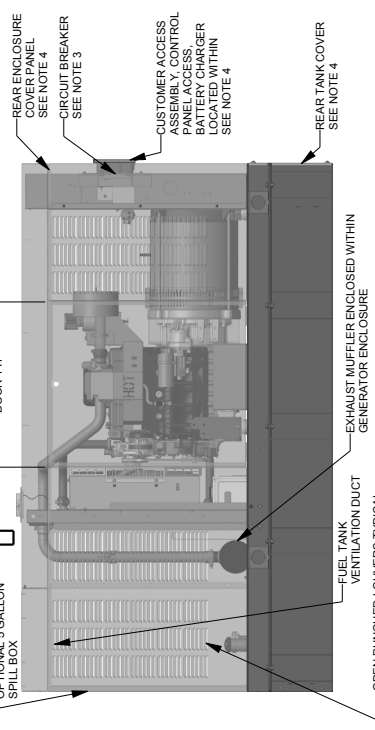
TOP VIEW



RIGHT SIDE VIEW



REAR VIEW



LEFT SIDE VIEW

- NOTES:
1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1194 (47") WIDE X 2718 (107") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT.
  2. ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT AND LOCAL ELECTRICAL CODES AND ALL APPLICABLE STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE, AND LOCAL CODES.
  3. CONTROL PANEL / CIRCUIT BREAKER INFORMATION:
    - SEE SPECIFICATION SHEET OR OWNERS MANUAL.
    - ACCESSIBLE THROUGH CUSTOMER ACCESS ASSEMBLY DOOR ON REAR OF UNIT.
  4. REMOVE THE REAR TANK AND REAR ENCLOSURE COVER PANEL TO ACCESS THE STUB-UP AREAS AS FOLLOWS:
    - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX) CONNECTION.
    - LOW VOLTAGE CONNECTIONS INCLUDING TRANSFER SWITCH CONTROL WIRES.
    - EXHAUST SYSTEM INCLUDING EXHAUST MUFFLER AND EXHAUST MUFFLER HOSE.
    - ENGINE SERVICE CONNECTIONS.
    - OIL DRAIN, 3/8" NPT.
  7. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND AIR FLOW THROUGH THE UNIT. PROVIDE SUFFICIENT COOLING AIR FLOW.
  8. EXHAUST SYSTEM MAXIMUM BACK PRESSURE: 38 INCHES H2O.
  9. REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
  10. MOUNTING BOLTS OR STUDS TO CONCRETE PAD SHALL BE 5/8-11 GRADE 5 (USE STANDARD SAE TORQUE SPECS)

30 kW

**GENERAC®**

installation layout

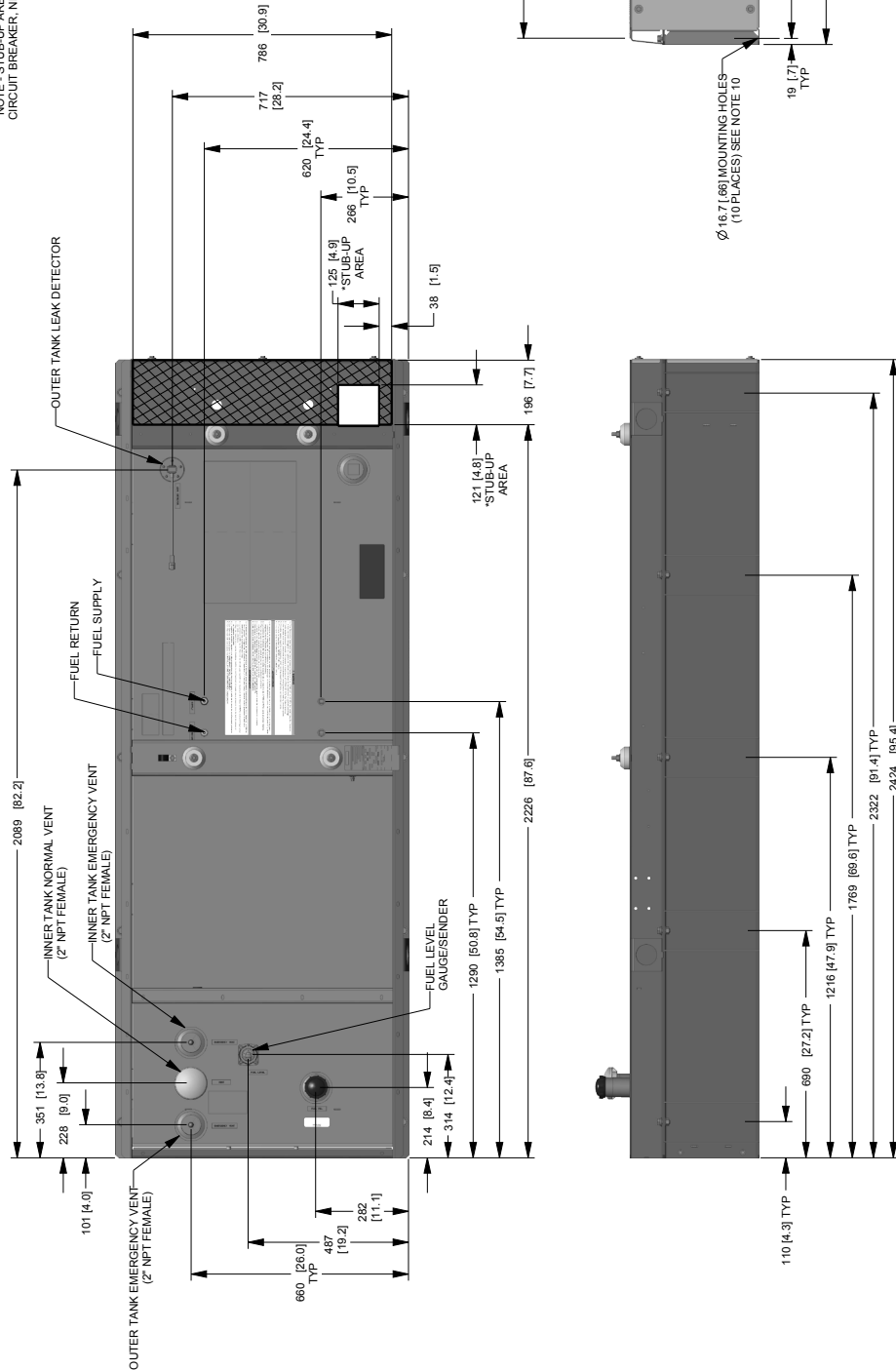
Drawing #0K7002-B (2 of 2)

Protector™ Series

9 of 12

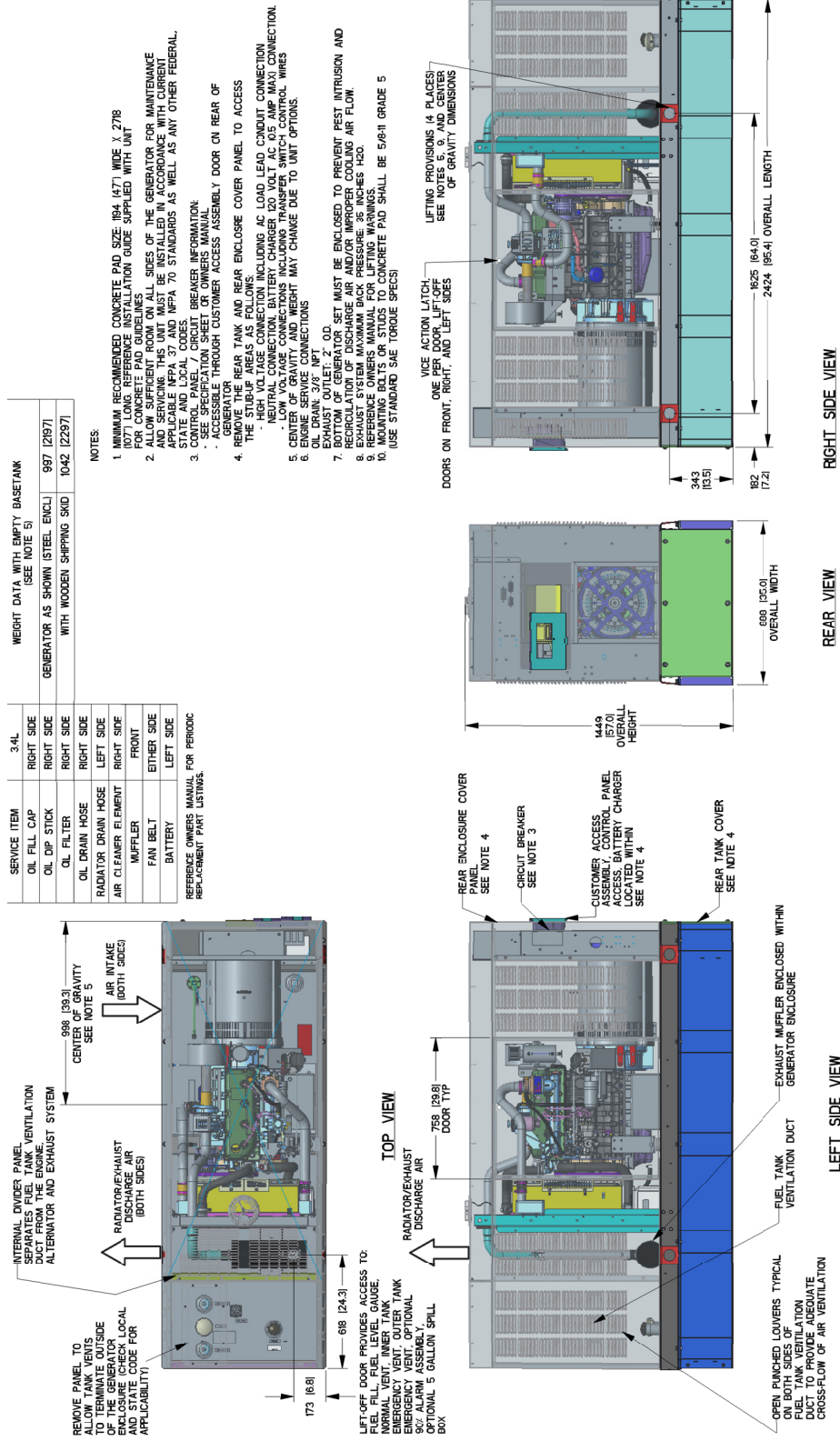
\*NOTE - STUB-UP AREA FOR HIGH AND LOW VOLTAGE CONNECTIONS, CIRCUIT BREAKER, NEUTRAL AND CUSTOMER CONNECTION OPENING.

| FUEL TANK                                 |           |
|-------------------------------------------|-----------|
| TOTAL CAPACITY                            | 233 [6.1] |
| USABLE CAPACITY                           | 203 [5.5] |
| CAPACITY, LITER (GALLON)                  |           |
| DIMENSIONS: MM (INCH)                     |           |
| TANK IS LISTED TO UL142 AND UL308 C142.18 |           |



48 & 50 kW

Drawing #0K6968-C (1 of 2)



| SERVICE ITEM        | 34L        | WEIGHT DATA WITH EMPTY BASETANK (SEE NOTE 5)               |
|---------------------|------------|------------------------------------------------------------|
| OIL FILL CAP        | RIGHT SIDE | GENERATOR AS SHOWN (STEEL ENCL. WITH WOODEN SHIPPING SKID) |
| OIL DIP STICK       | RIGHT SIDE | 997 (219.7)                                                |
| OIL FILTER          | RIGHT SIDE | 1042 (229.7)                                               |
| OIL DRAIN HOSE      | RIGHT SIDE |                                                            |
| RADIATOR DRAIN HOSE | LEFT SIDE  |                                                            |
| AIR CLEANER ELEMENT | RIGHT SIDE |                                                            |
| MUFFLER             | FRONT      |                                                            |
| FAN BELT            | ETHER SIDE |                                                            |
| BATTERY             | LEFT SIDE  |                                                            |

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

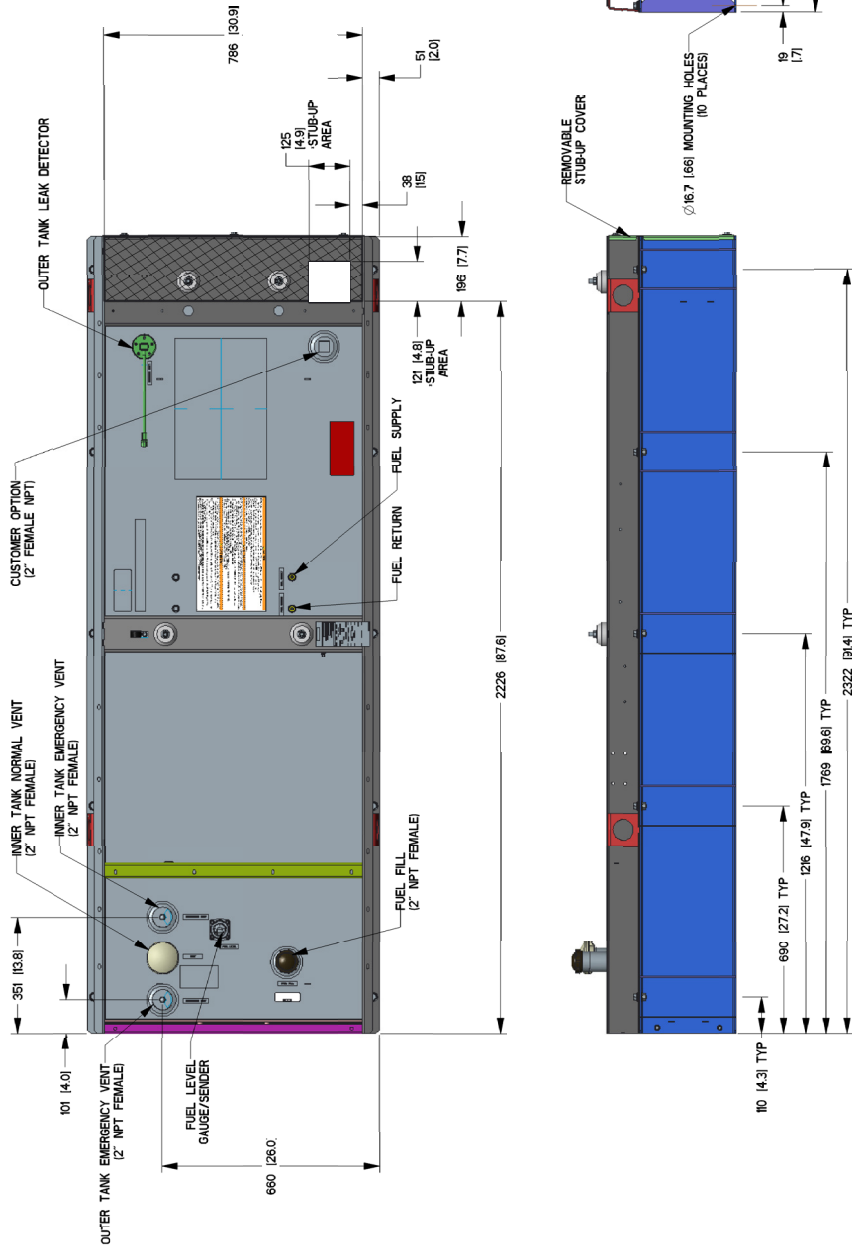
# 48 & 50 kW

## installation layout

Drawing #0K6968-A (2 of 2)

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

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



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

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