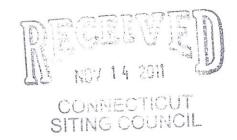
,009 FEDERAL HILL DRIVE FALLS CHURCH, VIRGINIA 22044 phone 703.533.1006

November 3, 2011

Chairman Robert Stein Connecticut Siting Council 10 Franklin Square New Britain, CT 06051



SUBJECT:

Sprint Spectrum L.P.'s Notice of Intent to Make an Exempt Modification to an

Existing Facility at 96 Powder Mill Road, Canton, CT 06019

(Site # CT33XC023)

Dear Chairman Stein:

Pursuant to R.C.S.A. Sections 16-50j-73 and 16-50j-72(b), Sprint Spectrum L.P. (Sprint) hereby gives notice to the Connecticut Siting Council (Council) and the Town of Canton of its intent to make an exempt modification to an existing telecommunications facility located at 96 Powder Mill Road, Canton, Connecticut.

Sprint plans to install a hydrogen fuel cell at its 96 Powder Mill Road facility to provide emergency backup power in the event of an electric outage. This planned installation does not constitute a modification subject to the Council's review as it falls within those activities provided for in R.C.S.A. Section 16-50j-72(b)(2). Specifically, this installation will not change the height of the existing tower, will not extend the boundaries of the existing compound, will not increase noise levels at the site by six decibels or more, and will not increase the total radio frequency electromagnetic radiation power density at the site to levels above applicable standards.

#### PROPOSED INSTALLATION

Sprint plans to install a 5 kW Altergy hydrogen fuel cell generator within the existing fenced equipment compound. The fuel cell will be inside a cabinet measuring 3'6" x 2'2" x 6'0". There will also be a hydrogen cylinder storage cabinet with overall dimensions of 4'8" x 4'8" x 6'0".

Please contact me at 703.533.1006 or <u>Hulshart@earthlink.net</u> should you have any questions about this planned modification.

Sincerely,

Mark Hulshart Principal

cc: First Selectman Richard Barlow, Town of Canton

Properties One, LLC (property owner)

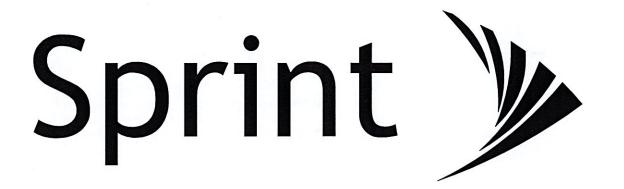
# Specifications



	lom Power™ 5 kW System n FPS Power Cabinet	FPS-524-240	FPS-524-240-400	FPS-548-240	FPS-548-240-405
Physical	Dimensions (w x d x h)	26" x 42" x 72" [66 cm x 107 cm x 183 cm]			
	Weight	515 lb [234 kg]	706 lb [320 kg]	515 lb [234 kg]	706 lb [320 kg]
	Number of FPS Engines		1		
	Number of TPMs	0	1	0	1
Performance	Rated power		5 k\	<b>N</b>	
	Rated current	21	A 0	1	05 A
	Operating voltage (nominal)	24	VDC	48	VDC
	Operating voltage (range)	21 to 2	9 VDC	42 to	58 VDC
	Standing Input Current (nominal)	1.92 A @	0 24 VDC	0.96 A	@ 48 VDC
Operation	Ambient temperature <sup>2</sup>	- 4 °F to 104 °F [- 20 °C to +40 °C]			
	Relative humidity, noncondensing	5 to 100%			
	Location	Outdoor only			
	Auxiliary AC in <sup>2</sup>	120 V, 60 Hz, 10 A, single phase			
Storage	Ambient temperature	+ 40 °F to +113 °F [+4 °C to +45 °C]			
	Relative humidity, noncondensing	5 to 100%			
Fuel	Gaseous hydrogen purity	Hydrogen (H <sub>z</sub> ) 99.95% certified Industrial Grade			
	Supply pressure range	40 to 150 PSIG [2.8 to 10.5 kg/cm²]			
	Typical operating pressure	100 PSIG [7.03 kg/cm²]			
	Consumption	300 g/hour @ 5 kW			
. Monitoring /	Standard	Ethernet, USB, Serial, 4 Dry Contacts			
Control	Optional	Wireless Telemetry			
	Rectifier Supply Voltage	 n/a	27.0 ± 0.6 VDC	n/a	54.0 ± 0.6 VD

<sup>&</sup>lt;sup>1</sup>Polarity is determined by customer requirements and ground connections.

 $<sup>^2</sup>$ For operation below +10 °C, the FPS must be connected to the grid and supplied with AC power until a grid failure, at which time the heat generated by the FPS will be sufficient to maintain operation of the FPS at temperatures between -20 °C and +10 °C.



SITE NAME:

CANTON/SBA

SITE NUMBER:

CT33XC023

SITE ADDRESS:

96 POWDER MILL RD.

CANTON, CT 06019

SITE TYPE:

**EXISTING 151' MONOPOLE** 



6580 SPRINT PARKWAY OVERLAND PARK, KANSAS 6625



10950 GRANDVIEW DRIVE OVERLAND PARK, KANSAS 66210 (913) 458-2000

168202

ASK

PROJECT NO:

DRAWN BY

0 10/26/11 ISSUED FOR CONSTRUCTION

DATE DESCRIPTION



IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

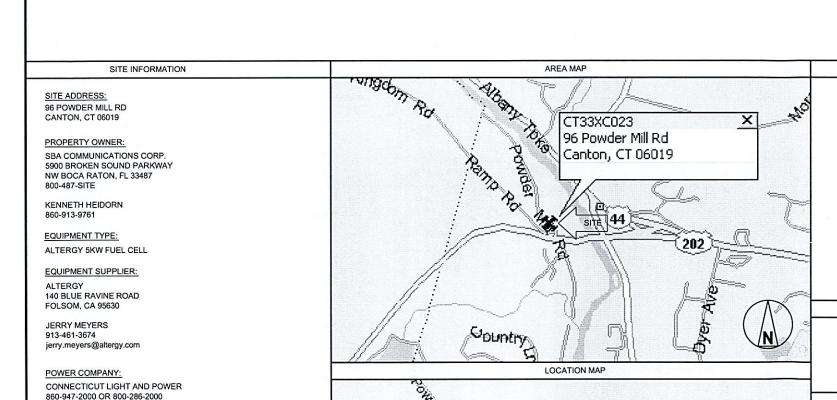
CANTON/SBA CT33XC023 96 POWDER MILL RD CANTON, CT 06019 CO-LOCATION

SHEET TITLE

TITLE SHEET & PROJECT DATA

SHEET NUMBER

T-1



CT33XC023

96 Powder Mill Rd

Canton, CT 06019

TELCO COMPANY:

LATITUDE (NAD83):

LONGITUDE (NAD83):

CONTACT ENGINEER:

E-MAIL: hansenbj@bv.com

41° 50' 5.3262" N

-72° 55' 55.851" N -72.932181

BRYAN HANSEN WORK: 913-458-7343

**VERIZON** 

COUNTY:

CANTON

41.834813

ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

APPLICABLE CODES

2003 INTERNATIONAL BUILDING CODE 2005 WITH STATE OF CONNECTICUT AMENDMENTS

2003 INTERNATIONAL MECHANICAL CODE 2005 WITH STATE OF CONNECTICUT AMENDMENTS

2003 INTERNATIONAL PLUMBING CODE 2005 WITH STATE OF CONNECTICUT AMENDMENTS

2005 NEC NATIONAL ELECTRICAL CODE 2005 WITH STATE OF CONNECTICUT AMENDMENTS

IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL

#### PROJECT DESCRIPTION

INSTALL POWER BACK UP EQUIPMENT TO EXISTING SITE WITHIN EXISTING COMPOUND. INSTALL (1) NEW FUEL CELL WITH (1) FUEL STORAGE CABINET ON CONCRETE PAD AND CONNECT TO THE SITE'S

#### APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & MAY IMPOSE CHANGES OR MODIFICATIONS.

BLACK & VEATCH: DATE:

## ENGINEER OF RECORD

DRAWING INDEX

TITLE SHEET & PROJECT DATA

**EQUIPMENT CABINET DETAILS** 

HYDROGEN PIPING SCHEMATIC

OVERALL CONDUIT DETAILS

ELECTRICAL WIRING DIAGRAM

GROUNDING PLAN AND DETAILS

ELECTRICAL ONE-LINE DIAGRAMS

FUEL CELL INTERNAL WIRING DIAGRAM

CONCRETE PAD DETAILS

OVERALL SITE PLAN

SITE PLAN

C-1

C-2

S-1

M-1

F-1

E-2

E-3

E-4

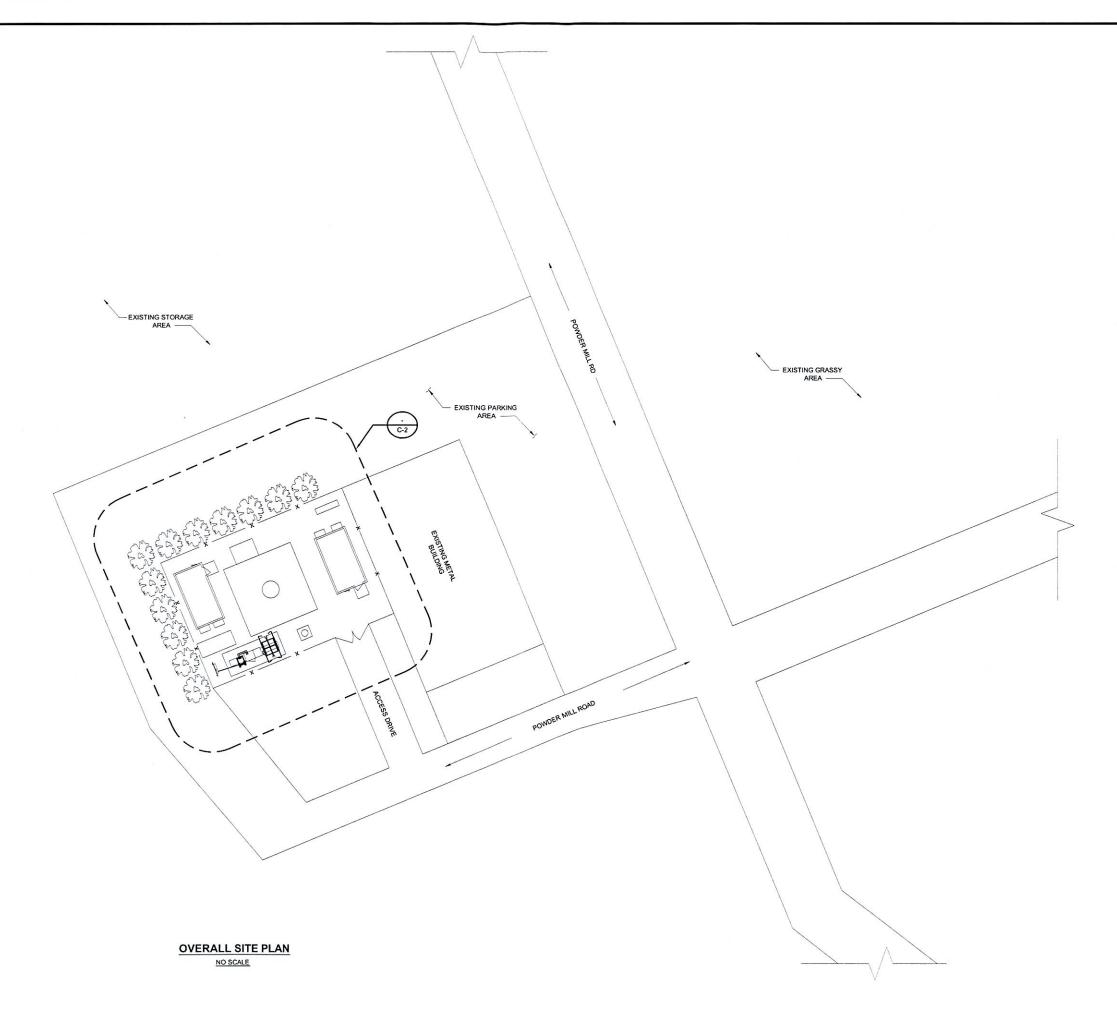
G-1

CHRISTOPHER ALAN KRAFFT PE # 080438

BLACK & VEATCH CORPORATION

#### DRIVING DIRECTIONS FROM NEAREST AIRPORT

RENTSCHLER FIELD AIRPORT: DEPART ON MAIN ST HEADING NORTH-WEST FOR 0.2 MILES, TURN LEFT (WEST) ONTO WILLOW ST EXT FOR 0.1 MILE. TAKE RAMP ONTO SR-2 FOR 1.2 MILES TOWARDS CT-2/HARTFORD. AT EXIT 2W, TAKE RAMP RIGHT ONTO I-84 [US-6] FOR 0.8 MILES TOWARDS I-84/I-91. AT EXIT 50, TURN OFF ONTO RAMP FOR 0.2 MILES TOWARDS US-44/I-91 S MAIN ST. KEEP STRAIGHT ONTO US-44 [MORGAN ST] FOR 9.4 MILES TOWARDS I-84/US-44 AND KEEP STRAIGHT ONTO US-202 [US-44] FOR 5.6 MILES. BEAR RIGHT (NORTH-WEST) ONTO POWDER MILL RD FOR 131 YDS AND ARRIVE AT 96 POWDER MILL RD, CANTON, CT 06019.





6580 SPRINT PARKWAY OVERLAND PARK, KANSAS 66251



10950 GRANDVIEW DRIVE OVERLAND PARK, KANSAS 66210 (913) 458-2000

ı	PROJECT NO:	168202
ı	DRAWN BY:	ASK
1	CHECKED BY:	MB

	Marie Land	
0	10/26/11	ISSUED FOR CONSTRUCTION
REV	DATE	DESCRIPTION



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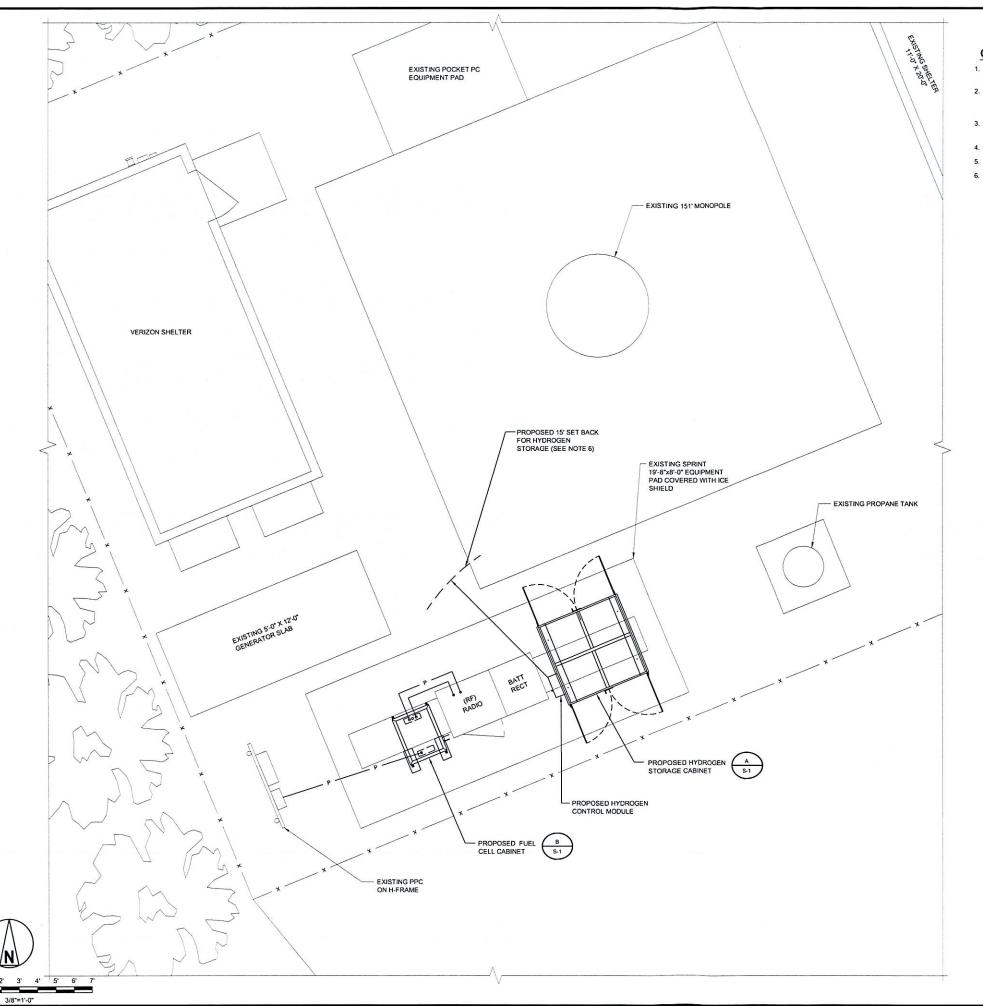
CANTON/SBA CT33XC023 96 POWDER MILL RD. CANTON, CT 06019 CO-LOCATION

SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER

C-1



### **GENERAL NOTES:**

- CONTRACTOR SHALL GROUND ALL NEW EQUIPMENT TO THE NEAREST GROUND RING (SEE G-1).
- CONTRACTOR SHALL ROUTE CONDUIT TO AVOID TRIP HAZARDS BY EITHER
  UTILIZING EXISTING CABLE TRAY, OVERHEAD ICE BRIDGE, UNDERNEATH RAISED
  PLATFORM, OR AROUND EDGE OF CONCRETE PAD.
- 3. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION OF ALL NEW EQUIPMENT.
- 4. CONTRACTOR SHALL VERIFY THE ALARM CABLES ARE OF SUFFICIENT LENGTH.
- 5. EXCESS CABLES SHALL BE LACED IN A NEAT AND ORGANIZED MANNER.
- 6. HYDROGEN STORAGE CABINET HAS A REQUIRED SET BACK OF 15' FROM IGNITION SOURCES & AIR INTAKES.



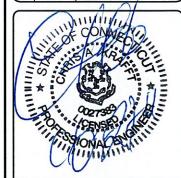
6580 SPRINT PARKWAY OVERLAND PARK, KANSAS 66251



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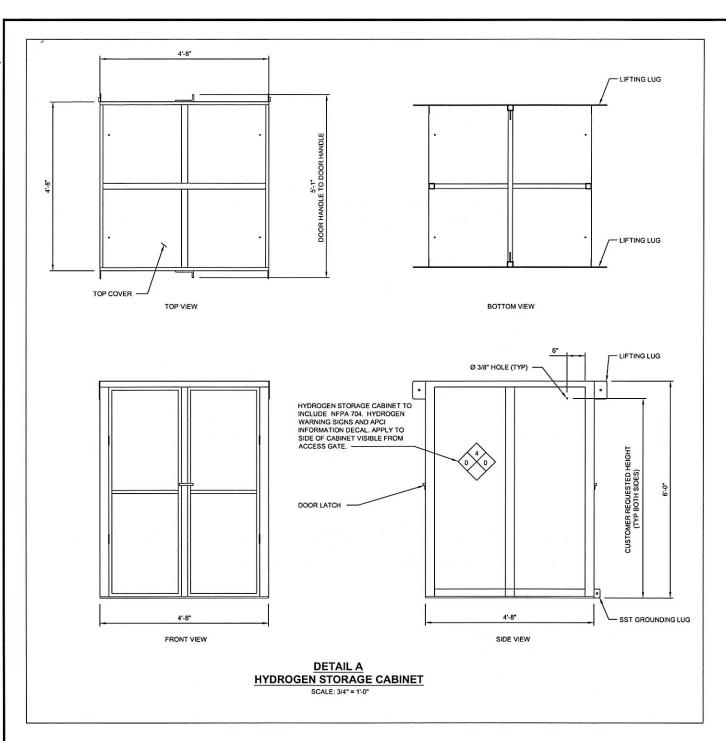
> CANTON/SBA CT33XC023 96 POWDER MILL RD. CANTON, CT 06019 CO-LOCATION

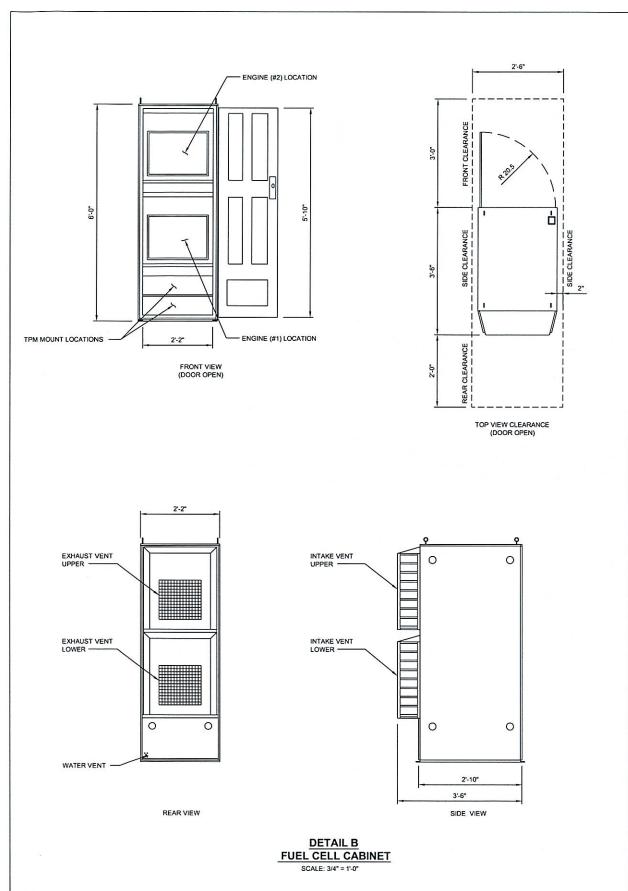
> > SHEET TITLE

SITE PLAN

SHEET NUMBER

**C-2** 





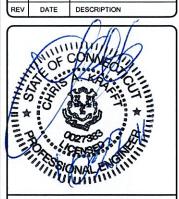


6580 SPRINT PARKWAY OVERLAND PARK, KANSAS 66251



10950 GRANDVIEW DRIVE OVERLAND PARK, KANSAS 66210 (913) 458-2000

PRO	DJECT NO:	168202
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> > SHEET TITLE

EQUIPMENT CABINET DETAILS

SHEET NUMBER

S-1