

Date July 31, 2024

Melanie Bachman, Executive Director Connecticut Siting Council 10 Franklin Square New Britain, CT. 06051

RE: HyAxiom, Inc. Notice of Exempt Modification Pursuant to RCSA 16-50j-57(a) to Existing Energy Facility Site at 360 State Street, New Haven, CT ("Notice of Exempt Modification")

Dear Ms. Bachman,

HyAxiom, Inc. ("HyAxiom") hereby gives notice to the Connecticut Siting Council of its intent to undertake an exempt modification in accordance with Section 16-50j-57(a) of the Regulations of Connecticut State Agencies ("RCSA") for the modification to DFCA's fuel cell installation at 360 State Street, New Haven, CT. Location coordinates are 41*18'20.10N 72*55'25.16W.

Proposed Modification

The proposed modification would take place within an existing interior building space measuring 30' x 55' on the ground floor of the residential tower at 360 State St., New Haven, CT. The existing facility consists of a combined heat and power installation utilizing one ground mounted Doosan Fuel cell capable of producing 440kw each.

HyAxiom proposes the following modification to the facility:

- Removal of the existing fuel cell (interior) and the associated cooling module (roof mounted).
- Installation of one (1) current generation HyAxiom Model 400 fuel Cell (direct replacement)
- Installation of new cooling module (Roof mounted).
- Replacement of new feeder cable to comply with current electrical code.
- Replacement of obsolete distributed generation meter.

The existing facility layout with proposed modification is shown on Attachment 1 Drawing GA1.



The proposed modification would not have a substantial adverse environmental effect or cause a significant adverse change or alteration in the physical or environmental characteristics of the facility because:

- The modification would be made within the facilities existing interior area and would not impair the structural integrity of the facility.
- The new equipment would be a direct replacement for the existing equipment and is dimensionally the same as the existing equipment and would not cause any significant adverse change in the physical or environmental characteristics of the facility.
- The modifications would not affect waterways or wetlands and the facility is not in a flood zone.
- There are no endangered, threatened, or special concern species in the vicinity of the facility as listed in the NDDB.
- Sound pressure levels will not increase because of the modifications.
- There would be no television or radio interference because of the modifications.
- Electric and magnetic field levels will not be affected by the modification due to low or no export of power from the site and the low voltage produced by the fuel cell.

HyAxiom, Inc. proposes to commence work on the modification in November 2024 and is scheduled to be complete by December 2024.

HyAxiom, Inc. is submitting this filing electronically and will provide one hard copy and the \$625.00 filing fee by USPS mail.

A notice of the exempt modification filing has been provided to the Mayor of New Haven and to the property owner. Copies of the notification are shown in Attachment 2.

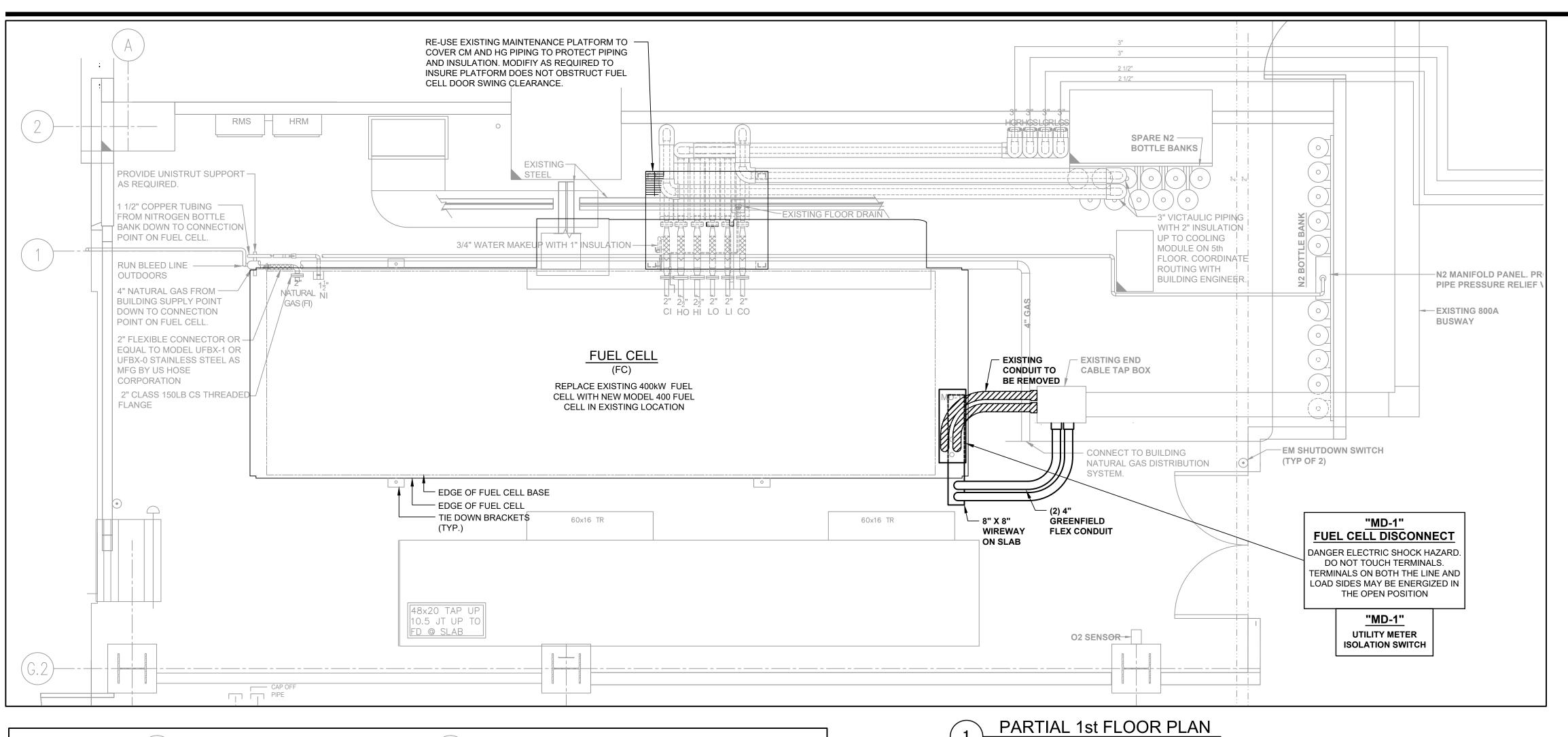
Please direct all communications regarding this filing to John Prinssen at 860.459.0467 or via email john.prinssen@doosan.com.

Signed John Prinssen

John Prinssen

Installation Project Manager

HyAxiom, Inc



GENERAL NOTES:

- 1. THE EXISTING 400KW FUEL CELL SHALL BE REMOVED AND REPLACED BY A NEW MODEL 400 FUEL CELL IN THE SAME LOCATION.
- 2. ALL EQUIPMENT SHALL REMAIN UNLESS OTHERWISE NOTED.
- 3. INSTALLATION SHOULD BE AS PER MANUFACTURER'S SPECIFICATIONS AND REQUIREMENTS.
- 4. FUEL CELL SYSTEM SHALL BE LISTED FOR THE APPLICATION OR SHALL BE EVALUATED FOR APPROVAL BY A THIRD PARTY WITH FIELD LABEL APPLIED TO THE EQUIPMENT PER NEC ART. 692.6 FUEL CELL CERTIFCATION - POWER PLANT IS CERTIFIED TO: ANSI/CSA AMERICA FC 1 - 2014 (FORMALLY ANSI Z21.L83) "AMERICAN NATIONAL STANDARD FOR STATIONARY FUEL CELL POWER SYSTEM" INCLUDING,
 - A. UL1741SA "INVERTERS, CONVERTERS AND CONTROLLERS FOR USE IN INDEPENDENT POWER SYSTEMS - GRID CONNECTION"
- B. IEEE 1547 "STANDARD FOR INTERCONNECTING DISTRIBUTED RESOURCES WITH ELECTRIC POWER"
- C. NFPA 70 NATIONAL ELECTRIC CODE (FOR INTERFACES TO CUSTOMER WIRING AND WIRING BETWEEN MODULES).

LEGEND

- EXISTING UNDERGROUND ELECTRICAL

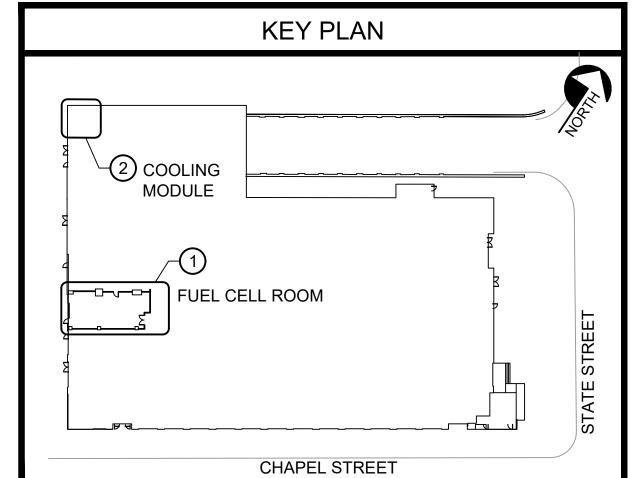
- EXISTING

- REPLACE EXISTING COOLING MODULE WITH NEW COOLING MODULE IN EXISTING LOCATION COOLING MODULE — 3" VICTAULIC PIPING WITH 2" INSULATION DOWN TO FUEL CELL COORDINATE ROUTING WITH BUILDING ENGINEER

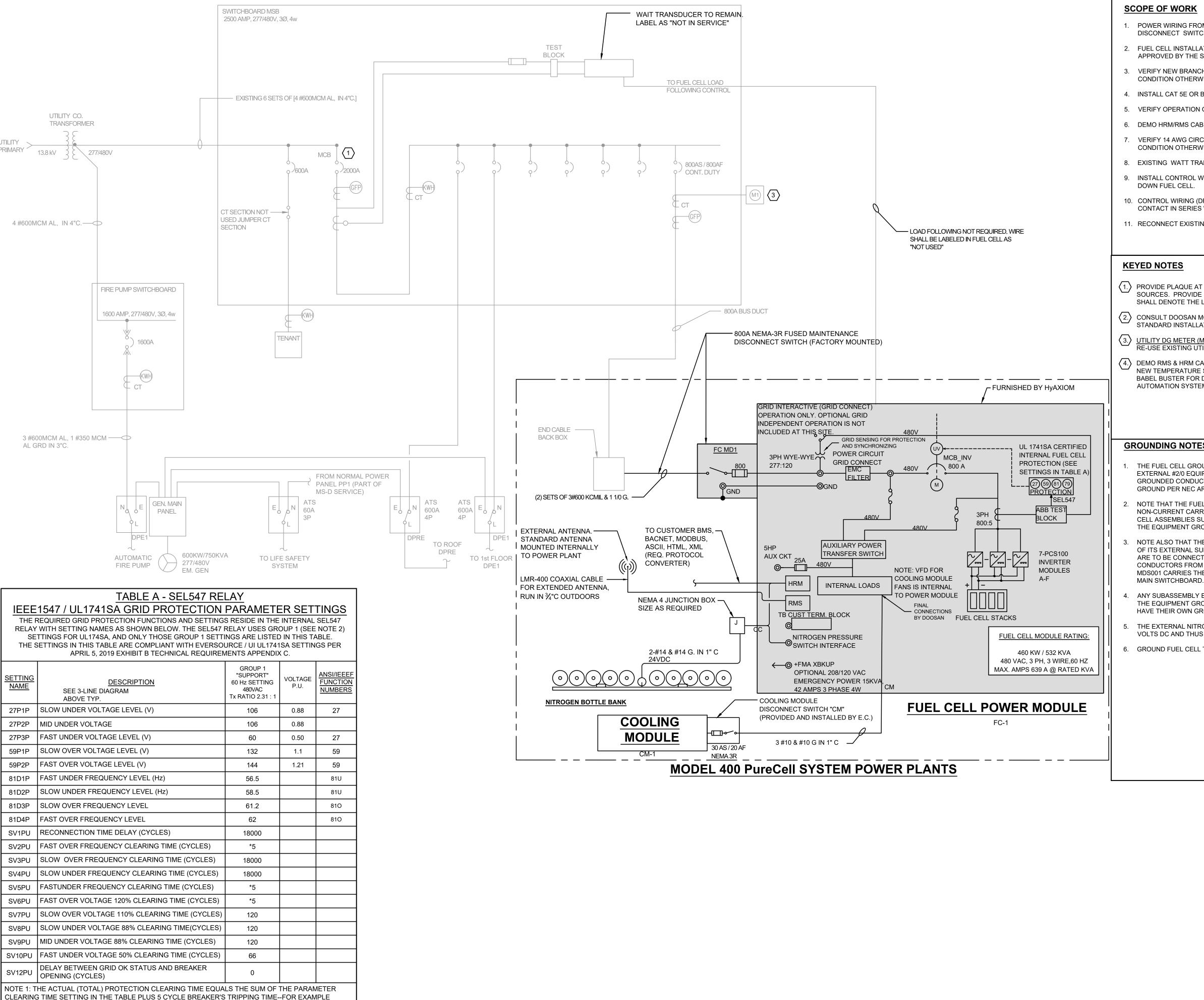
PARTIAL 5th FLOOR PARKING GARAGE PLAN

SCALE: 3/8" = 1'-0"

SCALE: 3/8" = 1'-0"



FUEL CELL REPLACEMENT GENERAL ARRAGEMENT PLAN - (360 STATE STREE NEW HAVEN, CT KFH Design By: DSF 08/02/24 Check By: SDF N.T.S.



ACTUAL (TOTAL) FAST OVER VOLTAGE CLEARING TIME EQUALS PARAMETER SV6PU 5 CYCLES SETTING

NOTE 2: GROUP 1 SETTINGS ARE FOR UL1741SA "GRID SUPPORT" AND GROUP 2 SETTINGS (NOT SHOWN

NOTE 3: FOR HYAXIOM ON-SITE PERSON - GROUP1 OR GROUP 2 IS SET BY THE GROUP 9 PARAMETER

PLUS THE 5 CYCLE CYCLE BREAKER CLEARING TIME FOR A TOTAL TIME OF 10 CYCLES (0.16 SEC).

IN THIS TABLE) ARE FOR IEEE1547-2003 NON-SA SETTINGS - USE GROUP 1 FOR UL1741SA SITES

"INVERTERMODE" GROUP 1 = GRID SUPPORT (INVERTER MODE=0=FALSE) =UL1741SA

SCOPE OF WORK

- 1. POWER WIRING FROM 800A END CABLE TAP BOX IN FUEL CELL ROOM TO FUEL CELL MD-1 DISCONNECT SWITCH AS REQUIRED.
- 2. FUEL CELL INSTALLATION POINT OF CONNECTION COMPLIES WITH 2020 NFPA 70 692.65 AS
- APPROVED BY THE STATE OF CONNECTICUT, OFFICE OF THE STATE BUILDING INSPECTOR.
- 3. VERIFY NEW BRANCH CIRCUIT FROM MODEL 400 TO COOLING MODULE (CM-1).IF IN GOOD CONDITION OTHERWISE REPLACE.
- 4. INSTALL CAT 5E OR BETTER ETHERNET CABLE FROM FUEL CELL BABEL BUSTER TO CUSTOMER BMS.
- 5. VERIFY OPERATION OF CUSTOMER REC AND UTILITY METERS PER DRAWINGS.
- 6. DEMO HRM/RMS CABINET AND WIRING.
- 7. VERIFY 14 AWG CIRCUIT FROM NITROGEN PRESSURE SWITCH TO FUEL CELL INTERFACE IF IN GOOD CONDITION OTHERWISE REPLACE.
- 8. EXISTING WATT TRANSDUCER TO REMAIN, LABEL WIRES AT FUEL CELL "NOT USED".
- 9. INSTALL CONTROL WIRING (DRY CONTACT) FROM REMOTE DOOR SWITCHES TO FUEL CELL TO SHUT DOWN FUEL CELL
- 10. CONTROL WIRING (DRY CONTACT) FROM MSA GAS METER SHALL BE WIRED AS A PERMISSIVE RUN CONTACT IN SERIES WITH THE AIR FLOW VENTILATION SWITCH.
- 11. RECONNECT EXISTING CONTROL WIRING TO COOLING MODULE
- 1.) PROVIDE PLAQUE AT MAIN SWITCHBOARD "MSB" INDICATING BUILDING HAS MULTIPLE POWER SOURCES. PROVIDE SIGNAGE PER NEC AT SERVICE & FUEL CELL MAIN DISCONNECT. PLAQUE AT 'MSB SHALL DENOTE THE LOCATION OF THE FUEL CELL DISCONNECT (MD-1).
- 2.) CONSULT DOOSAN MODEL 400 INSTALLATION DESIGN GUIDE (FUEL CELL POWER PLANT) AND STANDARD INSTALLATION DRAWINGS FOR TECHNICAL REFERENCE.
- 3. UTILITY DG METER (M1)
 - RE-USE EXISTING UTILITY METER. UI TO VERIFY PROPER OPERATION.
- DEMO RMS & HRM CABINETS AND INSTALL NEW TEMPERATURE SENSORS. HYAXIOM TO PROVIDE. NEW TEMPERATURE SENSORS TO BE INSTALL BY CONTRACTOR. FUEL CELL SHALL INCLUDE NEW BABEL BUSTER FOR DATA MONITORING. BABEL BUSTER SHALL CONNECT TO BUILDING AUTOMATION SYSTEM.

GROUNDING NOTES

- THE FUEL CELL GROUND LUG INSIDE DISCONNECT SWITCH MDS001 SHALL BE CONNECTED TO AN EXTERNAL #2/0 EQUIPMENT GROUNDING CONDUCTOR FROM MAIN SWITCHBOARD MS-D'S GROUNDED CONDUCTOR PER NEC ART 692.44, IN ORDER TO PROVIDE THE REQUIRED SINGLE POINT GROUND PER NEC ART 250.24.A & D.
- NOTE THAT THE FUEL CELL GROUND LUG INSIDE MDS001 IS BONDED TO ALL METALLIC NON-CURRENT CARRYING METAL PARTS BOTH INSIDE THE FUEL CELL AND ALSO AT EXTERNAL FUEL CELL ASSEMBLIES SUCH AS THE COOLING MODULE, SO ALL FUEL CELL PARTS ARE CONNECTED TO THE EQUIPMENT GROUNDING CONDUCTOR AS REQUIRED BY ART. 250.110.
- NOTE ALSO THAT THERE IS TO BE NO OTHER GROUNDING ELECTRODE AT THE FUEL CELL OR ANY OF ITS EXTERNAL SUBASSEMBLIES SUCH AS THE COOLING MODULE. ALL OF THE SUBASSEMBLIES ARE TO BE CONNECTED TO THE EQUIPMENT GROUNDING CONDUCTOR INCLUDED WITH THE CIRCUIT CONDUCTORS FROM THE FUEL CELL PER ART. 250.134.B, WHERE THE FUEL CELL GROUND LUG IN MDS001 CARRIES THESE GROUND WIRES BACK TO THE GROUNDED SERVICE CONDUCTOR AT THE
- ANY SUBASSEMBLY ELECTRICAL PANELS CONNECTED TO THE FUEL CELL SHALL BE GROUNDED TO THE EQUIPMENT GROUNDING CONDUCTOR FROM THE FUEL CELL PER ART 250.148 AND SHALL NOT HAVE THEIR OWN GROUND ELECTRODE.
- THE EXTERNAL NITROGEN RACK IS NOT EXPOSED TO ENERGIZED CIRCUITS GREATER THAN 24 VOLTS DC AND THUS CAN HAVE ITS OWN GROUNDING ELECTRODE.
- 6. GROUND FUEL CELL TO BUILDING STEEL AT 2 PLACES, #4/0 BCW.

A. UL1741SB "INVERTERS, CONVERTERS AND CONTROLLERS FOR USE IN INDEPENDENT POWER SYSTEMS - GRID CONNECTION"

POWER PLANT IS CERTIFIED TO: ANSI/CSA AMERICA FC 1 - 2004

(FORMALLY ANSI Z21.L83) "AMERICAN NATIONAL STANDARD FOR

STATIONARY FUEL CELL POWER SYSTEM" INCLUDING,

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<u>LEGEND</u>
EXISTING
NEW
EXISTING TO BE REMOVED

EMEN.

oject No.: Drawn By: MDM Design By: 07/18/24 Check By:

Drawing No.:

N.T.S.



Attachment 2

HyAxiom Inc, A Doosan Company 101 East River Drive East Hartford, CT 06108

Date July 31, 2024

Mayor Justin Elicker 165 Church St. New Haven, CT 06510

RE: HyAxiom, Inc. Notice of Exempt Modification Pursuant to RCSA 16-50j-57(a) to Existing Energy Facility Site at 360 State Street, New Haven, CT ("Notice of Exempt Modification")

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Signed

John Prinssen

Installation Project Manager

HyAxiom, Inc





Attachment 2

HyAxiom Inc, A Doosan Company 101 East River Drive East Hartford, CT 06108

Date July 31, 2024

Daniel DeStefano Senior Vice President Beachwold Residential 142 Temple St. Suite 207 New Haven, CT 06510

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