

July 16, 2015

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

RE: **PETITION NO. 922** – UIL Distributed Resources, LLC declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of a Fuel Cell generating facility located at 1835 Hebron Avenue, Glastonbury, Connecticut.

Dear Ms. Bachman:

Pursuant to the Siting Council's June 1, 2015 Decision in the above-referenced Petition, FuelCell Energy, Inc. ("FCE"), as general contractor and agent for UIL Distributed Resources, LLC ("UIL"), owner of the above-captioned project (the "Project") respectfully submits the following for Council approval:

1. A revised noise study accounting for the relocation of the turbo-expander and facility site;
2. A final color scheme to reduce visibility from the surrounding area; and
3. A site restoration and landscaping plan.

With respect to the noise study, FCE notes that the study was performed by the same expert consultant that had performed the original study. The projected sound profile of the Project at the nearby receptors is actually lower than that originally approved by the Council, confirming the benefit of the shift in location.

Please be advised that these materials were submitted to the Town on Wednesday, June 10. FCE invited the Town to provide comments on the plans and also to select its preferred species of trees and shrubs for the landscaping plan from a list provided by FCE/UIL. FCE also provided a color palette with color options for the turbo-expander building and the fencing slats.

FCE and UIL hosted a meeting at the Project site on Thursday, June 11 at 5 p.m. to present these materials. At that meeting, the enclosed renderings were shown on an enlarged poster board, reflecting FCE and UIL's suggested selection



FuelCell Energy

Ultra-Clean, Efficient, Reliable Power

of tree and shrub species and color choices, which selections FCE and UIL believe provide maximum aesthetic benefit for the Project. Approximately 13 residents attended the meeting, including the Town Manager. FCE explained at that meeting that it is unable to change the paint color on the fuel cell module itself, as the paint is part of the UL-approved design and specifically chosen for its thermal profile and heat reflection.

In its June 10 submission to the Town, FCE and UIL requested that the Town provide comments and input no later than June 19, in order that FCE and UIL could incorporate the Town's comments into a filing and proceed with the completion of construction. FCE and UIL understand that the Council did not impose a time limit on the Town for providing comments. However, as the Council is aware, this Project was originally approved as part of Project 150 and has a specific sunset date for the electricity purchase agreement that is set by statute. Notwithstanding the impending deadlines, FCE and UIL waited for the Town to finish its process. At the request of the Town Manager, FCE's Director of Project Management met with the Town Beautification Committee on June 19, 2015. The Town then proceeded to develop its own landscaping plan, which it presented at a public meeting before the Town Beautification Committee on July 7, 2015 and subsequently at a Town Council meeting on July 14, 2015.

FCE and UIL have not received an official copy of the plan adopted by the Town. However, FCE has been advised by the Town Manager, Richard Johnson, that the Town has selected "Fern Green" as its preferred paint color for the turboexpander building. Mr. Johnson also advises that the Town prefers a black vinyl-coated chain link fence with no privacy slats. FCE and UIL have incorporated these requests into its Project design.

With respect to the landscaping plan, rather than provide comments on the plan submitted by FCE and UIL as instructed by the Council, the Town opted to develop its own plan. In contrast to the FCE/UIL plan that called for the installation of 27 trees and 54 shrubs, the Town plan calls for the installation of 123 trees and 46 shrubs. Approximately 35% of the plantings shown on the landscaping plan developed by the Town are beyond the property line boundary on land not owned or controlled by FCE or UIL. The Town's landscaping plan also calls for plantings in known keep-out areas including the water meter pit, utility poles, fire hydrant, utility metering cabinet and high pressure gas piping easement areas. FCE and UIL attach a hand-marked copy of the landscaping plan provided by the Town Manager highlighting these issues. (Please note that FCE and UIL believe that this is the plan ultimately adopted by the Town Council, but has not received confirmation at this time). In sum, FCE and UIL submit that the sheer number and diversity of plantings suggested by the Town will appear unnatural to the surrounding area and,



FuelCell Energy

Ultra-Clean, Efficient, Reliable Power

rather than mask the fuel cell power plant, will draw attention to it. FCE and UIL respectfully request that the Council reject the landscaping plan developed by the Town and approve the landscaping plan developed by FCE and UIL.

FCE and UIL have also been made aware by the Town Manager that recommendations will be submitted to the Council concerning irrigation practices, warranties for plant materials, plant species, and ongoing care and maintenance of the plantings. FCE and UIL respectfully submit that these issues extend far beyond the Council's directive and are inappropriate for the decision in this docket. FCE and UIL are unaware of any other docket where the Council has ordered specific irrigation or landscape maintenance practices. UIL is a good corporate citizen that takes pride in its facilities and should not be subject to the Town's recommendations on landscape maintenance. FCE and UIL respectfully request that the Council reject any recommendations made by the Town on issues outside of the landscape plan and color scheme.

Last, please be advised that FCE has been proceeding with construction in accordance with the Council's decisions and its contractual obligations to UIL in light of the statutorily mandated sunset date. FCE is concerned about comments made by Town representatives concerning FCE and UIL's ability to commission the Project and place it in operation. It appears to FCE and UIL that some representatives of the Town believe that the Project cannot be commissioned and operated until all landscaping is completed. FCE and UIL respectfully request that the Council confirm that there is no stop work order or hold placed on the construction, commissioning or operation of this Project. FCE and UIL see no such order reflected in the June 1 Decision. At this time, FCE does intend to commission and operate the Project in accordance with the current Project schedule, barring any contrary order from the Council, irrespective of completion of the landscaping.

If you have any questions with respect to the foregoing, please contact the undersigned. Thank you for your consideration.



FuelCell Energy

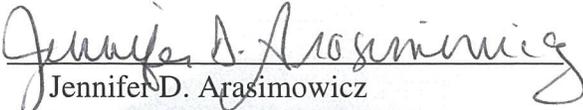
Ultra-Clean, Efficient, Reliable Power

Respectfully submitted,

FUELCELL ENERGY, INC.

On behalf of

UIL DISTRIBUTED RESOURCES, LLC

By: 
Jennifer D. Arasimowicz
Vice President, Managing Counsel

FuelCell Energy, Inc.

3 Great Pasture Road

Danbury, CT 06810

(203) 825-6070

jarasimowicz@fce.com

c: Richard J. Johnson, Town Manager, Town of Glastonbury
Bruce McDermott, Esq., UIL Distributed Resources, LLC

PETITION NO. 922
July 16, 2015
FuelCell Energy, Inc. on Behalf of
UIL Distributed Resources, LLC

FCE/UIL Submission to the Town



FuelCell Energy
Ultra-Clean, Efficient, Reliable Power

June 11, 2015

VIA E-MAIL AND HAND DELIVERY

Mr. Richard Johnson
Town Manager
Town of Glastonbury
2155 Main Street
Glastonbury, CT 06033

Re: Fuel Cell Installation

Dear Mr. Johnson:

Pursuant to the June 1, 2015 decision of the Connecticut Siting Council in Petition No. 922, UIL Distributed Resources, LLC declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of a Fuel Cell generating facility located at 1835 Hebron Avenue, Glastonbury, Connecticut – Request for Modification, enclosed please find the following:

1. The current site restoration and landscaping plan. Please note that we have provided multiple options for the species of trees and shrubs to be utilized as depicted in the plan;
2. A revised noise study that accounts for the relocation of the turbo-expander and facility site; and
3. FuelCell Energy and UIL Distributed Resources' suggested color scheme to reduce visibility from the surrounding area. Please note that we have provided multiple color options for the fence screening and turbo-expander building siding.

Please provide the undersigned with any comments on numbers one (1) and three (3) above, including any preference for tree and shrub selection and colors for the fence screening and turbo-expander building siding no later than June 19, 2015 so that we may make our submission to the Siting Council.

Thank you for your attention to this matter.



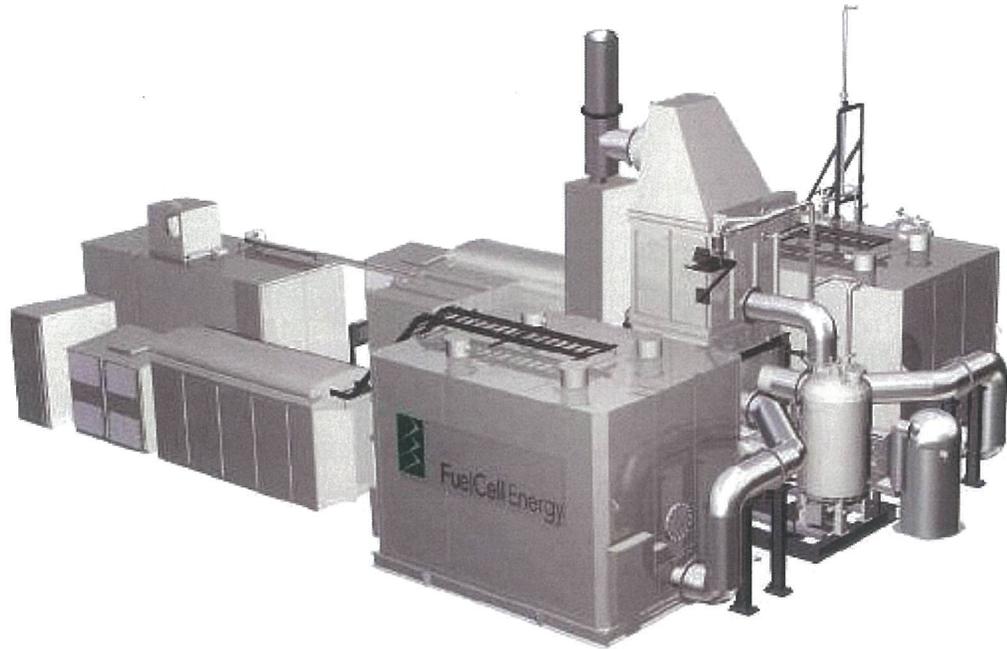
FuelCell Energy
Ultra-Clean, Efficient, Reliable Power

Very truly yours,

Michael Sumrow
Director, Project Management

c: Mr. David Hennessy, UIL

Noise Assessment Study



DFC-ERG Glastonbury Project

Glastonbury, Connecticut

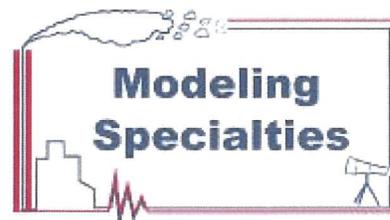
Revised June 8, 2015 (Originally dated September 22, 2009)

Prepared For:

DFC-ERG CT, LLC
3 Great Pasture Road
Danbury, CT 06813

Prepared By:

Modeling Specialties
30 Maple Road
Westford, MA 01886



Environmental Noise Assessment Glastonbury Fuel Cell Project

Background

The DFC-ERG Glastonbury Project was proposed at the existing Connecticut Natural Gas (CNG) gate station adjacent to Hebron Avenue in Glastonbury, Connecticut. The process combines two Connecticut Class I Renewable Energy resources, uses proven commercial technologies, is ultra-clean, and is more efficient than any other electricity generating technology in its size range. The facility was reviewed as part of the Connecticut Energy Facility Siting process. A “refresh” of the study was requested for final approval. What follows is an independent re-analysis of the project in the spirit of the original study taking full advantage of current conditions and project information available since the 2009 study.

What has changed in this Revised Study?

Like the original 2009 study, this analysis evaluates the potential effect of the proposed Glastonbury DFC-3000 sound in the community. This study is based on the most current equipment configuration provided by FuelCell Energy, Inc. (“FuelCell Energy”). The assessment is still based on the criteria provided by the Connecticut Department of Environmental Protection (CDEP). Because of the age of the study, ambient sound levels were recently re-measured during the daytime and at night using the same standardized equipment that was used for the approved 2009 study. Special measures were employed to exclude the influence of current construction activities at the site. Sound levels from the proposed equipment were estimated based on vendor design and measured sound from similar equipment configurations. Sound level modeling techniques were used to estimate the potential impacts at receiving locations. The software package (CadnaA by Datakustic) undergoes frequent update. This study was updated using the most current software configuration. The most significant changes from the original study are upgrades to the facility equipment configuration. Engineering of the fuel and energy handling has clarified many of the assumptions used to analyze the 2009 study. While the analysis methodology and equipment has not changed, the layout has moved slightly to the north and west. The details of the Turbo-Expander building have been developed and are now used. Because more engineering details are available, there are now about twice as many sound sources analyzed. What follows is a completely new analysis of the facility sound using current and more detailed ambient data, current and more detailed equipment configuration, current equipment location using current modeling software. Despite the significant updates, the results of the study are very similar to the results of the 2009 study.

Overview of Project and Site Vicinity

The Project is located at the existing Glastonbury gate station. The developed area of the existing site has a utility character with low profile buildings and various transfer pipes. It is largely shielded from public view by the forested site and the elevated terrain. The

surrounding area is residential in character. The bulk of the site is currently and will remain densely forested. The site borders Chalker Hill Road to the south and west. The site also has frontage on Hebron Avenue to the north. East of the site is additional undeveloped forest land. Existing sources of sound in the area include traffic along Hebron Avenue and other roadways, as well as some sound from residential activities and the existing site.

Noise Regulations and Criteria

Sound compliance is judged on two bases: the extent to which Federal and State regulations or guidelines are met, and the extent to which it is estimated that the community is protected from excessive sound levels. The governmental regulations that may be applicable to sound produced by activities at the Site are summarized below.

- **Federal**

Occupational noise exposure standards: 29 CFR 1910.95. This regulation restricts the noise exposure of employees at the workplace as referred to in Occupational Safety and Health Administration requirements. The facility will emit only occasional sounds of modest levels, as demonstrated by this study.

- **State**

The state of Connecticut regulates noise at Regulation Title 22a, Sections 69-1 through 69-7.4, Control of Noise. The project is a Class C (Industrial) emitter. Adjacent properties are zoned residential and were evaluated as a Class A Noise Zone. The corresponding criteria are shown in the following table based on zoning of the source and receiving land uses.

Table 1: Connecticut DEP Noise Standards, by Zoning District

Emitter's Zone	Receptor's Zone			
	Industrial	Commercial	Residential/Day	Residential/Night
Residential	62 dBA	55 dBA	55 dBA	45 dBA
Commercial	62 dBA	62 dBA	55 dBA	45 dBA
Industrial	70 dBA	66 dBA	61 dBA	51 dBA

- **Local**

As part of an interstate transportation project, the gas pipeline is generally regulated at the State level. In this study, Modeling Specialties has evaluated the site based on the Connecticut Department of Environmental Protection (CDEP) criteria at sensitive locations. A review of the Town Charter and Code of Ordinances has not identified any quantitative local noise standards.



Figure 1: Aerial Overview of the Site, Receptor Distances (Feet) and Surrounding Area

Existing Community Sound Levels

A site survey and noise measurement study was conducted for the facility on June 5 and 6, 2015. One measurement location was made along the Right-of-Way to the west (the same location used in 2009). However, the local ambient level is temporarily affected by daytime construction activities related to this facility. Because of this, a second measurement location was added in the daytime period to represent the ambient level unaffected by the construction. The sound from the facility is expected to be very stable, but the ambient level fluctuates through the day and night. To illustrate this, the day-night curve was plotted and compared to the predicted facility sound at the nearest exposed property line location.

Attended and unattended sound level measurements were made using a Rion NA-28 sound level meter. The measurements create a baseline community sound level and capture the frequency-specific character of the sound. The meter was mounted on a tripod, approximately 5 feet above the ground. The microphones were fitted with factory recommended foam windscreens. The attended meter was programmed to take measurements for 20 minutes and then to store processed statistical levels. The unattended monitor was programmed to gather a series of measurements at an interval of 10 minutes. During the daytime, it became clear that the construction activities dominate the sound field at the monitoring location. Another meter was deployed at a site location that is not affected by the construction activities. All meters meet the requirements of ANSI S1.4 Type 1 – Precision specification for sound level meters. The meters were factory verified within one year of the study and were calibrated in the field using a Rion NC-74 acoustical calibrator before and after the measurement session. The field calibrations indicated that the meters did not drift during the study. The two spectrum analyzers comply with the requirements of the ANSI S1-11 for octave band filter sets.

During the daytime, the 2015 sound field is dominated by construction activities. Several items of heavy equipment were operating during the survey, including a crane, an excavator, an overhead loader (Bobcat) and trucks. Some of the construction staff were also using equipment that produced sound, like the paving team that were resurfacing the Chalker Hill roadway. Since the construction activities tend to be short term, a field image is provided as Figure 2 to document the state of construction during the June 2015 survey. It is because of the construction activities that a second measurement location was used to supplement the ambient survey.

The L_{90} characterizes the residual or background sound level. The baseline data indicates that the ambient level is very similar to what was measured in 2009. The second location is fully shielded from the construction sounds, but it is also shielded from all Hebron Avenue traffic sounds. The level is expected to be a low representation of the original location in the absence of the construction activities. Much of the sound measured is from passing vehicles which momentarily elevate the Leq levels, but which are screened from the L_{90} levels. The only nighttime sound source noted at the existing gate station is from the pressure let-down system.

No sound from the existing facility was noted during the daytime, possibly due to the higher daytime ambient levels.

Results of the Ambient Survey

The results of the 2015 ambient sound level measurements are summarized in Table 2. Also shown (grayed) are the levels measured in 2009 for comparison. The community sensitivity is usually based on the lowest nighttime levels. Because levels are affected by community conditions, meteorology, seasons, insects and traffic patterns, it is common for ambient levels to vary somewhat when measurements are duplicated. In this case, they are within 1 dB of the levels documented in 2009. This is evidence that the ambient conditions have not changed significantly between 2009 and 2015.

Table 2: Ambient Sound Levels Measured on June 5, 2015

Location	Time	Period	L _{eq}	L ₉₀
Chalker Hill Road	1:00 AM	Night	48 dBA	37 dBA
Chalker Hill Road (alt. loc)	2:00 PM	Day	54 dBA	50 dBA

Ambient Sound Levels Measured on July 6, 2009

Location	Time	Period	L _{eq}	L ₉₀
Chalker Hill Road	1:15 AM	Night	49 dBA	38 dBA
Chalker Hill Road	4:17 PM	Day	64 dBA	52 dBA

Because the modeled equipment sounds will be compared to the fluctuating ambient levels, it is valuable to establish the community ambient in more detail. For this reason, a series of continuous measurements were made. The results were plotted to show how the ambient levels fluctuate from one ten minute sample to the next. Consistent with most residential communities, the daytime is affected by elevated traffic volumes on the roadways. Nighttime levels tend to be lower because of lower traffic volumes and neighborhood activities. Figure 3 shows the fluctuating curve.

Several interesting observations can be taken from the plotted ambient levels. First, the nighttime sound included significant insect activity in the lowlands on the north side of Hebron Avenue between 11:00 pm and about 1:00 am. Not surprisingly, the daytime construction activities dominates the sound field where directly exposed to those sources. The eastern corner of the site is shielded from construction activities. The reason can be seen in Figure 2. Because the equipment was lowered, the natural terrain forms an effective barrier that protects part of the community from construction (and operational) facility sound. The second monitored levels are plotted on the curve to show the nighttime and daytime fluctuation that could be expected in the absence of facility construction sounds.



Figure 2: Field Image Showing the Construction Activities at the Fuel Cell Facility on the Site

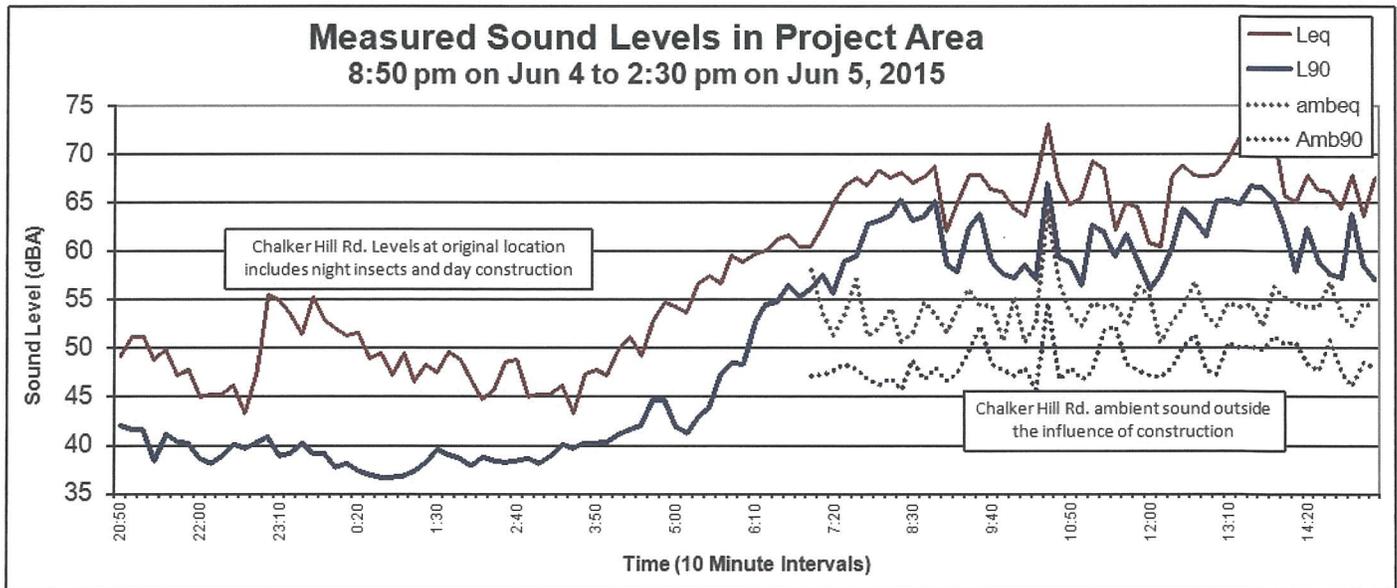


Figure 3: Graphical Summary of Sound levels from Evening to the following Afternoon

Expected Sounds from the Proposed Installation

The proposed installation has been designed with significant attention to protecting the community sound environment. Most of the equipment associated with the Fuel Cell facility produce no significant sound. The fuel cell technology does not require many of the mechanical sources of noise that are typical of power generation facilities. But the process will emit some sound energy, which is quantified and modeled at sensitive areas. This analysis represents the most likely sound levels to be expected as a result of the normal operation of the facility using manufacturer's data for the equipment.

A computer model was developed for the facility's sound levels based on conservative sound propagation principles prescribed in the acoustics literature. Most of the equipment sources will produce gentle sound of a continuous nature. Each of the potential sources during routine operation of the facility was identified. The sound from each facility-related source is estimated at the source and at the community receptors. The sum of the contributing sources is used to represent the predicted sound level at the modeled location. Identifying specific receiving locations is a key element of the noise modeling, since sound levels decrease exponentially with increasing distance. The distances used in this study represent the distance between the sources and the nearest representative sensitive property. The results of the modeling show that the proposed equipment will meet the CDEP standards and will have little effect on the community sound field.

Sources of Project Sound

There are several sources of modest sound at the facility. Under normal conditions, the few noise sources will produce consistent sound through the day and night. At least one source, the cooling unit on the Water Processing Skid, will cycle on and off based on the cooling requirement. While it will seldom operate, in this conservative study, all sources are analyzed as continuous sources.

The design of the facility is based on the proposed equipment layout shown in Figure 1. The hybrid fuel cell facility will include a single DFC-3000 fuel cell plant and a small turbo-expander (also referred to as the ERG – Energy Recovery Generator). The ERG and associated support equipment will be located inside weatherproof enclosures. The DFC-3000 fuel cell is manufactured in Connecticut by FuelCell Energy, Inc and the ERG is manufactured by Linde Cryostar. As shown in Figure 1, the DFC fuel cell will be located outside of the gate station compound,

Since the 2009 study, details have been developed as to how the primary sound sources will be enclosed to protect the community. The primary source of DFC-3000 equipment sound is from the fresh air blower and piping to deliver it to the reactors. The blower has been installed in a carefully design acoustical enclosure. Air is drawn into the enclosure while sound is prevented from escaping. The blower output pipe is treated with a silencer to prevent the blower sound from being transmitted downstream. Gas flow sources are lagged.

This collection of sound control features are incorporated into what is termed the DFC-3000 LAP version (LAP refers to its Low Acoustical Profile). This configuration was developed specifically to reduce the potential to affect the community from sensitive Fuel Cell installations. The general configuration of the DFC-3000 Unit is shown in Figure 4.

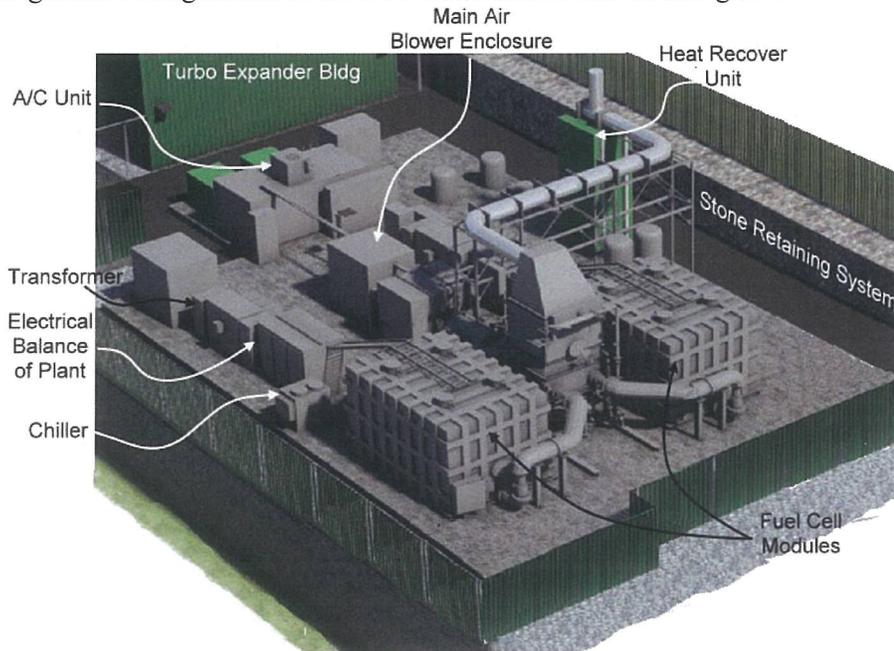


Figure 4:
Graphical Summary of the DFC-3000 Individual Sources of Sound.

Another significant source at this facility is not associated with the DFC Unit at all, but with the fuel delivery. The high pressure gas line will power the plant, but requires significant pressure reduction and stabilization. This will be accomplished by a Turbo Expander that will recover energy from the pressure reduction. This and other ancillary equipment would introduce significant sound to the installation, but will be enclosed in an Engineered Enclosure that will prevent its sound from contributing significantly to the community levels above the levels of the DFC Unit. This metal clad structure (21 ft x 40 ft) will be lined on the inside with acoustical material including the entry doors and roll-up door as shown in Figure 5.

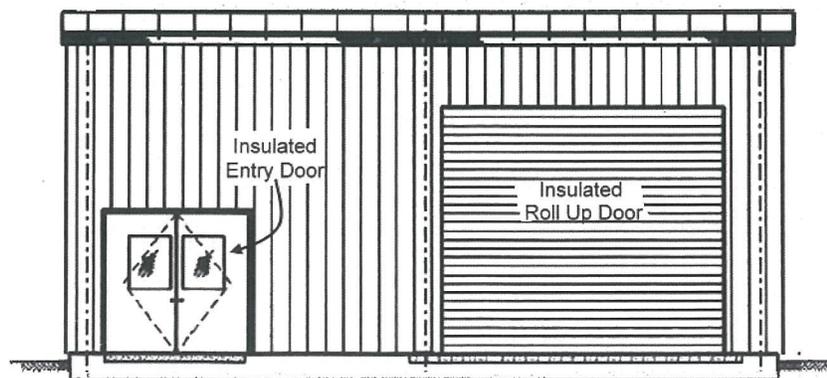


Figure 5: Sketch of the Turbo Expander Enclosure.

The ventilation for the Engineered Structure will be provided by two 60” x 60” louvered openings on the east side of the structure and another 36” x 90” louvered opening on the north side. During seasons when ventilation is needed, it can be provided without exposing the community to indoor sound from the enclosure. There will also be some valves and cooling units outside the Engineered Enclosure. These will be appropriately treated to operate at a sound level lower than the DFC Unit, so the cumulative sound will remain within the required standards. The electrical energy produced will be delivered to the electricity grid through a 23 kV interconnection with CL&P.

The proposed layout of the Glastonbury installation is shown in Figure 6. The analysis is based on the contributions of individual sources and propagation losses to the analyzed receptors in general directions from the facility. Results are shown in Table 3 and are provided in graphic form in Figure 6. Note that in this revised study, the distance and modeled levels are provided at the nearest property in each potentially exposed direction.

Table 3: Summary of Noise Modeling Results

Receptor	Distance (ft)	Project Sound (dBA)	Criterion (dBA)
Residence, West	315	43	51
Residence, West2	265	42	51
Residence, SW	300	42	51
Residence, SW2	360	41	51
Residence, South	430	40	51

Mitigation Measures

The proposed fuel cell equipment is inherently quiet compared to other forms of electrical generation. The first noted mitigation measure is that the DFC is located where the terrain and the existing gate station structures provide substantial shielding of the potential noise from the proposed equipment. The DFC is configured with an engineered enclosure around its primary source (fresh air blower), in what the manufacturer calls LAP configuration for Low Acoustical Profile. This package addresses the significant sources within the DFC package. In addition, the operation of the ERG equipment will usually eliminate one of the primary sources of existing sound at the gate station – the let-down valve. This offers the potential to reduce the sound from the existing station while the proposed equipment is providing pressure reduction for the whole facility. Like the existing let-down valve, the reduction of gas pressure will produce sound. The proposed Turbo Expander will be installed inside an engineered enclosure that will include acoustical treatment to keep the sound from the enclosure from contributing significantly to the community sound.

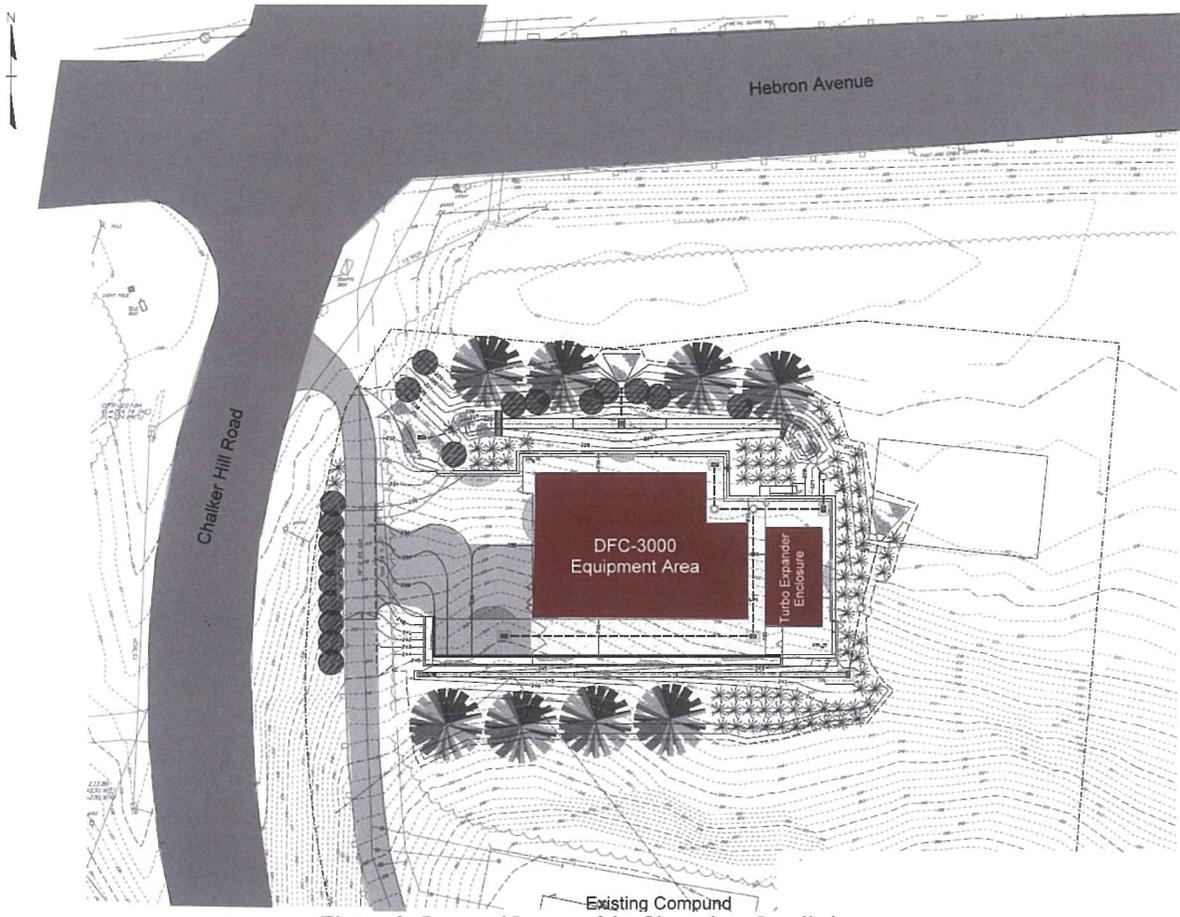


Figure 6: Proposed Layout of the Glastonbury Installation



Figure 7: Graphical Summary of the Predicted Sound Levels

Conclusions

The proposed fuel cell equipment package inherently lacks the heavy mechanical equipment that is commonly associated with electrical generation. There will be several sources of modest sound such as blowers, pumps, condenser and fans. The size of the equipment and character of the sound is more typical of commercial building mechanical equipment than of typical electrical generating sources. Mitigation measures are engineered into the equipment configuration to keep the cumulative sound from the Fuel Cell facility at or near the ambient level.

The existing sound levels were established by direct measurements off Chalker Hill Road at the powerline ROW and at a second location that is screened from the current construction sound. This provided a conservative estimate of the ambient sound under current conditions in the absence of the current construction activities. The potential sources of sound at the facility were identified and quantified. Sound level modeling techniques were employed to estimate the sound levels at the property lines and nearest receptor locations. The results of the modeling indicate that the facility levels will meet the CDEP noise criteria at the nearby residential receptors. Since sound decreases with distance, the sound will be even less at more distant locations. The model accounts for the shielding that is provided by terrain to residences south of the equipment. The highest operating equipment sound at any residence is expected at the residence to the west.

The 2015 analysis predicts lower facility sound than the 2009 study. This can be a result of several layout benefits, notably a lower base elevation that provides more terrain shielding at locations on Chalker Hill. The 2009 study was based on conservative estimates of mitigation performance, while the 2015 study has the benefit of engineered configurations of those measures. Figure 8 compares the expected sound level (west) to the fluctuating ambient curve. The graph illustrates how the steady facility sound (43 dBA) compares to the fluctuating ambient sound at the residences. The steady sound from the facility is at or near the ambient level at most locations for most of the day. In general, a new sound that is at or below the ambient level is not noticed in a typical community.

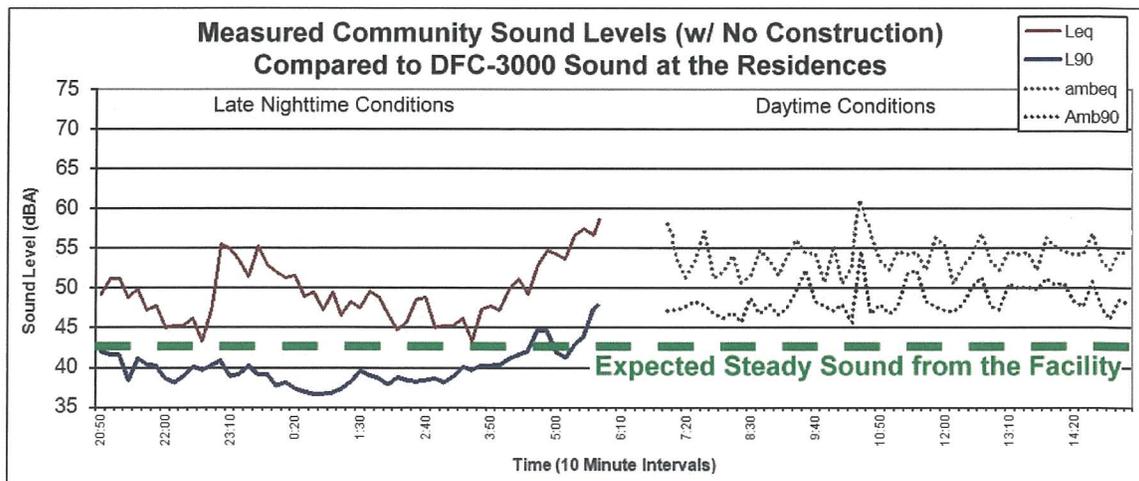
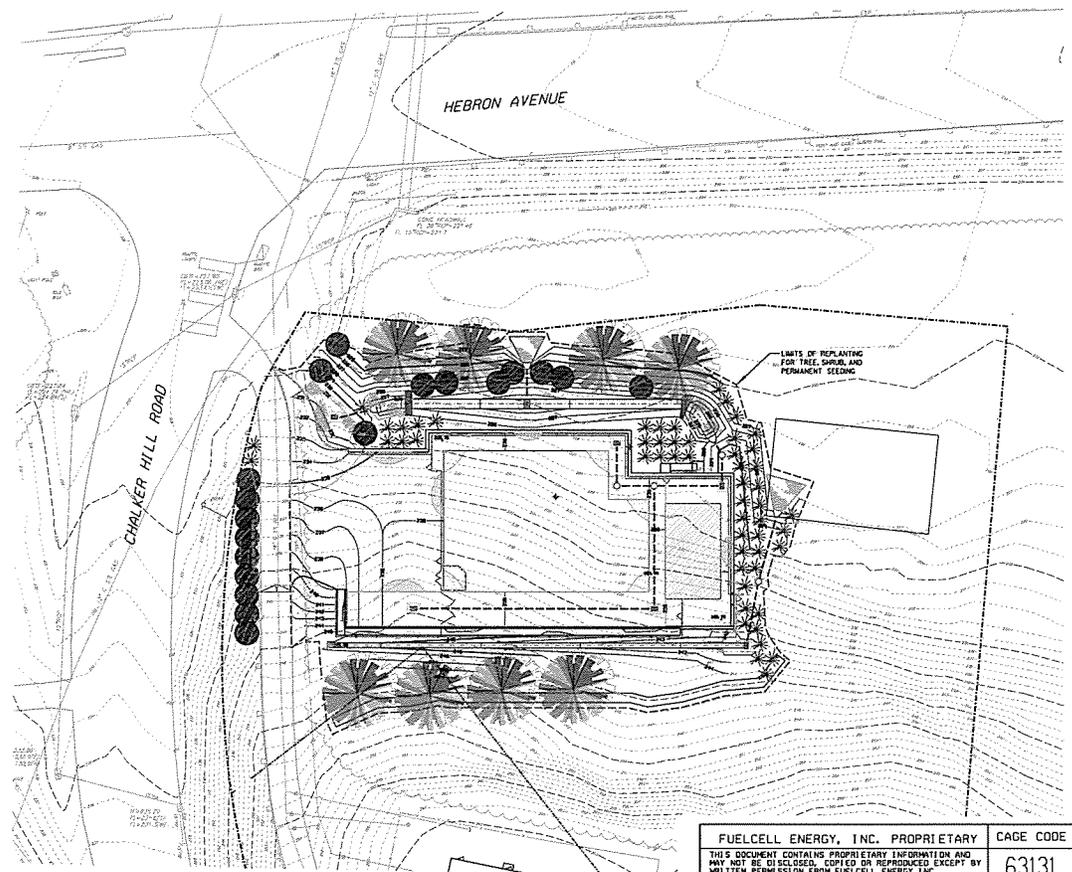
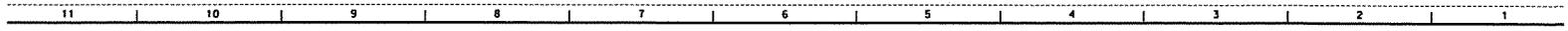


Figure 8: Graphical Summary of the Predicted Sound Levels



LEGEND

	LARGE TREES Q. AMERICANA P. VIRGINICA NY. SYR. V. CA. J. VIRG. V. VIRG. ANA. C. OCCIDENTALIS Q. PALMISTRIS A. RUBRUM P. OCCIDENTALIS TOTAL = 8	AMERICAN ELM BLACK CHERRY BLACKGUM EASTERN RED CED HICKORY PIN OAK RED MAPLE SYCAMORE
	SHRUBS K. A. LATIFOLIA P. VIRG. V. VIRG. ANA. I. LEX ADULFOLIA TOTAL = 60	MOUNTAIN LAUREL ANDROMEDA HOLLY
	ARBORVITAE T. PLICATA TOTAL = 19	GREEN GIANT

FUELCELL ENERGY, INC. PROPRIETARY
 THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND MAY NOT BE DISCLOSED, COPIED OR REPRODUCED EXCEPT BY WRITTEN PERMISSION FROM FUELCELL ENERGY, INC.

CAGE CODE
 63131

FuelCell Energy
 3000 Parkway, Pittsboro, NC 27566
DC388B POWER PLANT
GLASTONBURY - ERG PROJECT

OVERALL SITE SKETCH

POWER
 Burns and Roe
 A Division of HOK Group
 Construction License No. PCE 39
 3347 SKETCH PBR 5-27-15

Revision	Date	By	Checked	Approved	Notes
A					ISSUED FOR INFORMATIONAL
B					REVISED SKETCH AT THE CORNER OF PIVOT DELETED TREE & DIMENSIONS IN LEGEND.

Ulmus Americana "American Elm"





Prunus Serotina "Black Cherry"



Nyssa Sylvatica "Blackgum"



Juniperus Virginiana "Eastern Red Cedar"



Celtis Occidentalis "Heckenberry"



Quercus Palustris "Pin Oak"



Acer Rubrum "Red Maple"



● *Platanus Occidentalis* "Sycamore"



Kalmia Latifolia pink charm pink charm "mountain laurel"



Pieris Japonica "andromeda"



Ilex aquifolium "holly"

Arborvitae "Green Giant"



Winged Slat®




When you need increased privacy, our Winged Slat® is the answer.

With the proven quality and durability of our standard slats plus unique "wings" for extra screening and security, these slats are self-locking – no channels are needed!

Design
Our unique patented design includes a rigid, flat-tubular body, with "legs" inside for extra support. Flexible and resilient wing portions are positioned on each side of the slat body. Serrations are added to the wings for easier installation and locking power.

Standard Heights
4, 5, 6, 7, and 8 feet. For heights exceeding 7 feet, (2) two half sizes (i.e. for 10 ft. fences use two 5 ft. slats) are recommended. This will help during installation and will not lessen privacy.

Wind Load and Privacy Factor
Approximately 90%. (Based on wire/mesh used – stretch tension).

Slat Length
2' shorter than overall height of fence.



* Exact representation of slat colors in printing is difficult. Please refer to actual color samples for final matching. Covered by one or more of the following patents: US Patent 5,184,801 / 5,687,957 / 5,584,458, RE35, 208 Canadian patents 2,208,822 / 2,161,852 / 2,186,986



PDS® is a registered trademark of Pexco.

Winged Slat® Product Specifications



Slat Type	Slat Width	Mesh Size	Wire Gauge	Slats Per Bag	Approx. Coverage Per Box
Winged Slat	1 1/4"	2"	9 only	82	10 linear feet

Materials

The Winged Slat is extruded from High Density Polyethylene (HDPE), color pigments and ultra violet (UV) inhibitors, specifically designed to retard the harmful effects of the sun and lengthen the life of the product.

- Winged Slats include Ethyl Vinyl Acetate (EVA), a softer plastic to keep the wings flexible and resilient.

Durability

Pexco PDS® HDPE Fence Products are resistant to: severe weather conditions, salt water, sand, road dirt, most acids, alcohol, alkaline, ammonia, petroleum distillates, and common environmental pollutants.

Maintenance

Pressure cleaning of surface contaminants is quickly accomplished with plain water.

Wind Load Disclaimer

Pexco will not be responsible for fence damage resulting from wind load conditions due to insufficient structural support.

Limited Warranty

Winged Slat carries a 25-year, pro-rata warranty against breakage under normal conditions. Write Pexco for full warranty information.

Note

Additional time should be allowed for installation.

HDPE Technical Properties

Property	Value
Melt Index	(.6) A low melt index indicates improved stress and crack resistance.
Density	(.957) Polyethylene ranges anywhere from .914 to .960 in density. A higher density yields maximum stiffness without becoming overly brittle.
Minimum Temp.	(-76° F) Polyethylene stays flexible even at this temperature extreme.
Maximum Temp.	(250° F) Polyethylene does not distort until reaching this temperature.
Tensile Strength	(3,700 psi) Material will not suffer distortion at lesser loads or impacts.

Installation Instructions



Insert vertical slats with angle cut end downward. Winged portion interlocks with chain link knuckles.



Profile of Winged Slat



Pexco Tacoma
Tacoma, WA
800.822.SLAT
(7528)

Pexco Athol
Athol, MA
800.755.SLAT
(7528)

www.pexco.com/fence

Contact your local fence professional for more information about our complete line of enhancement products.

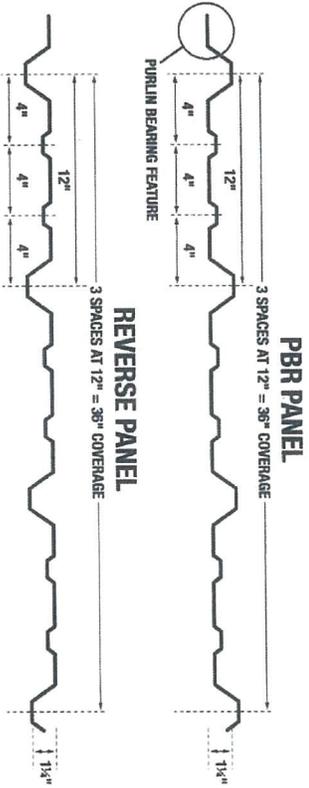


Superior coatings coupled with reliable product engineering provide excellence in building system construction solutions.

Ceram-A-Star®1050 Panel Colors

The next generation silicone-polyester Cool Chemistry® coating system is here! Engineered by Akzo Nobel Coatings Inc. * to provide a 40-year film integrity warranty against peeling, flaking or loss of adhesion, these coatings also offer high solar reflectivity in medium and dark colors. The CERAM-A-STAR®1050 coatings reduce energy consumption and associated costs especially in hot, sunny climates. CERAM-A-STAR®1050 outperforms similar coatings based on real-world exposure testing in South Florida. Its use of proprietary resin technology and ceramic pigments provide exceptional exterior durability as well as energy savings. It is available in a full spectrum of colors with a 30-year performance warranty covering chalking and fading. Coatings accommodate "cool" technology and "green building" compliance.

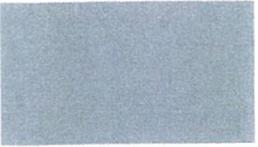
* Akzo Nobel Coatings Inc. produces coatings recognized as the highest quality in the industry. Adhering to tight quality control procedures, they meet and exceed specifications and standards set forth by the American Society for Testing and Material (ASTM) and ISO 9001 certification.



26 Gauge Stock Colors with Trim Available in all Colors

Actual color may vary slightly from color samples shown. If color choice is critical, request a color sample. Because of changing trends in color popularity, the colors illustrated are subject to change without notice.

POLAR WHITE TSR 0.64



PEARL GRAY TSR 0.37



SLATE GRAY TSR 0.25



BURNISHED SLATE TSR 0.32

BRITE RED TSR 0.34



RUSTIC RED TSR 0.27



SAHARA TAN TSR 0.51



LIGHTSTONE TSR 0.60



COLONY GREEN TSR 0.35



FERN GREEN TSR 0.30

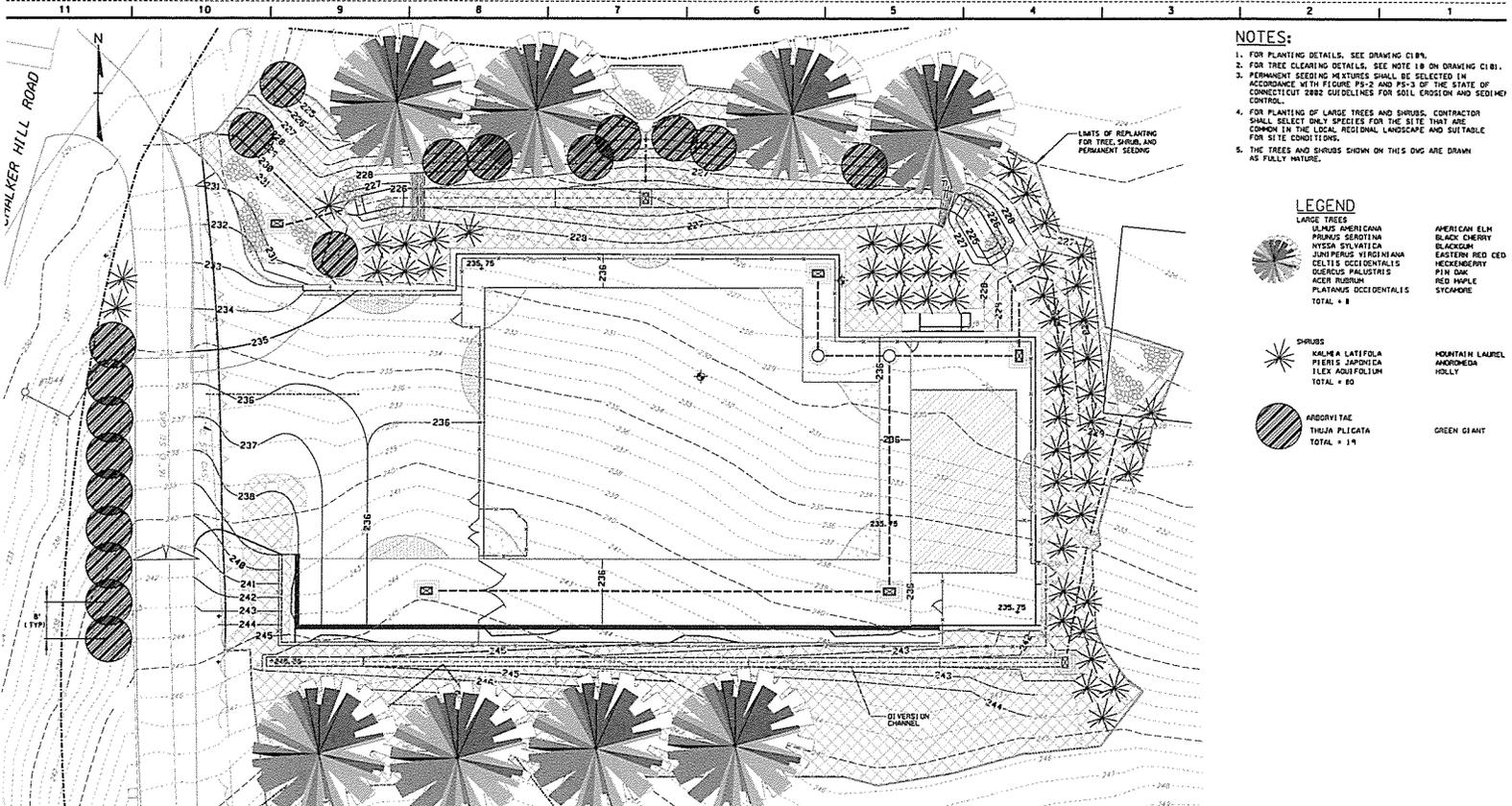


HAWAIIAN BLUE TSR 0.33



GALLERY BLUE TSR 0.25





- NOTES:**
1. FOR PLANTING DETAILS, SEE DRAWING C189.
 2. FOR TREE CLEARING DETAILS, SEE NOTE 1B ON DRAWING C181.
 3. PERMANENT SEEDING MIXTURES SHALL BE SELECTED IN ACCORDANCE WITH FIGURE PS-2 AND PS-3 OF THE STATE OF CONNECTICUT 2002 GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
 4. FOR PLANTING OF LARGE TREES AND SHRUBS, CONTRACTOR SHALL SELECT ONLY SPECIES FOR THE SITE THAT ARE COMMON IN THE LOCAL REGIONAL LANDSCAPE AND SUITABLE FOR SITE CONDITIONS.
 5. THE TREES AND SHRUBS SHOWN ON THIS DWG ARE DRAWN AS FULLY MATURE.

LEGEND

LARGE TREES	
<ul style="list-style-type: none"> ULMUS AMERICANA PRUNUS SEROTINA NYSSA SYLVATICA JUNIPERUS VIRGINIANA CELTIS OCCIDENTALIS QUERCUS PALMISTIFOLIA ACER RUBRUM PLATANUS OCCIDENTALIS 	<ul style="list-style-type: none"> AMERICAN ELM BLACK CHERRY BLACKGUM EASTERN RED CED HICKORY PIN OAK RED MAPLE STAGHORE
TOTAL = 8	
SHRUBS	
<ul style="list-style-type: none"> KALHA LATIFOLIA PIERIS JAPONICA ILEX AQUIFOLIUM 	<ul style="list-style-type: none"> HOUSTON LAUREL ANDROMEDA HOLLY
TOTAL = 30	
ARGENTAEAE	
<ul style="list-style-type: none"> TRIFOLIUM PLEGETICUM 	<ul style="list-style-type: none"> GREEN GRANT
TOTAL = 14	

FUELCELL ENERGY, INC. PROPRIETARY

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND MAY NOT BE DISCLOSED, COPIED OR REPRODUCED EXCEPT BY WRITTEN PERMISSION FROM FUELCELL ENERGY INC.

CAGE CODE	63131
FuelCell Energy 3 Grant Pointe Rd. Farmington, CT 06030 DECEMBER POWER PLANT GLASTONBURY- ERG PROJECT	
LANDSCAPING PLAN	
POWER Burns and Roe A Division of CH2M Hill	
Drawing No. C188	Sheet No. 3347

Revision	Date	By	Check	Approved	Notes
A					ISSUED FOR CLIENT COMMENT
B					REVISED AND ISSUED FOR TREE SELECTION APPROVAL.
C					ADDED SHRUBS TO SE CORNER OF SITE.
D					REMOVED SHRUBS AT SE CORNER OF SITE; DELETED TREE & SHRUB DIMENSIONS IN LEGEND.

PETITION NO. 922
July 16, 2015
FuelCell Energy, Inc. on Behalf of
UIL Distributed Resources, LLC

Renderings Shown at Site Visit on June 11





PETITION NO. 922
July 16, 2015
FuelCell Energy, Inc. on Behalf of
UIL Distributed Resources, LLC

FCE/UIL Comments on Town Developed Landscaping Plan

