Bloomenergy

VIA ELECTRONIC MAIL

August 19, 2020

Melanie Bachman
10 Franklin Square
New Britain, CT 06051

RE: PETITION NO. 1418 - Bloom Energy Corporation petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 150-kilowatt customer-side fuel cell facility and associated equipment to be located at the Home Depot, 1816 Meriden-Waterbury Turnpike, Southington, Connecticut.

Dear Ms. Bachman:

Please see the attached responses to the interrogatories provided to Bloom Energy on August 14, 2020.

Sincerely,

Justin Adams
Permitting Manager

Bloomenergy
Connecticut
860.839.8373
justin.adams@bloomenergy.com

c: Alicia Surowiec, Bloom Energy Corporation

Petition No. 1418
Bloom Energy Corporation
Home Depot, 1816 Meriden-Waterbury Turnpike
Southington, Connecticut

Interrogatories – Set I

1. Please provide a detailed Site Plan of the proposed facility, including but not limited to, the dimensions and locations of the proposed fuel cell facility, concrete pads, cabinets, fence design, bollards (if applicable) and utility connections.

   Response: Please see the attached site plan with dimensions and locations of the proposed fuel cell facility, concrete pads, cabinets, fence design, bollards and utility connections.

2. Regarding the sound study provided as Exhibit 6 of the Petition, how close does the proposed fuel cell have to be to a building to be considered under Scenario 1? What is the distance of the proposed facility to the building?

   Response: The building would need to be adjacent to the fuel cell or within about 6 feet to be considered under Scenario 1. The proposed facility would be 4 feet from the existing building.

3. The sound study states that r=45 for both Scenario 1 and Scenario 2. Does the value of "r" in the sound study represent the distance from the facility to the property line? If not, what does the value of "r" represent?

   Response: Yes, the "r" value represents the distance from the source to the property line. The model was run for a distance of 45 feet, which is an error and has been revised to reflect the true distance of 95 feet. As such, a limit of 62 dBA (day or night) applies. The results of the sound model predicting noise levels at that property boundary, located at a distance of approximately 95 feet, are provided as the revised and attached Exhibit 6. As noted above, the proposed Facility would be defined as "Scenario 1" in the model. Scenario 1 models noise for a Bloom Energy Server installed close to a building or tall wall, with noise reflected off the structure. The results of the Scenario 1 sound model at 95 feet are 44.2 dBa.

4. How often would the Desulfurization units be removed and replaced?

   Response: This is largely dependent on the quality of the gas. Bloom Energy continuously monitors the performance of the fuel cell and will replace the desulfurization canisters when the system indicates a need. Based on sites currently operating in Connecticut, canister replacement frequencies are averaging between 18 and 24 months.

5. Was the project selected for the LREC/ZREC program?

   Response: Yes, the project was selected for the LREC program.

6. Will fuel cell operation/emergency training be conducted with the Town of Southington's (Town) emergency responders?

   Response: Yes, as part of the building permit application review process the Southington Fire Marshal will review the project. During this review, Bloom will provide any on-site training requested by local officials.

7. Please identify the media to be used for pipe cleaning procedures at the proposed facility in accordance with Connecticut General Statutes § 16-50ii as referenced on Petition page 4.

   Response: Compressed air will be used at the proposed facility.

8. Does Bloom intend to reach out to the Town's Fire Marshal regarding natural gas pipe cleaning procedures prior to submission of a pipe cleaning plan/protocol?

   Response: Yes, Bloom will coordinate with the Southington Fire Marshal regarding the installation and pipe cleaning procedures prior to execution of the pipe cleaning protocol.

9. Has Bloom received a response from DEEP NDDB? If so, please provide a copy of the correspondence.

   Response: Yes, the correspondence is attached.

STORE NUMBER: 6235
1816 MERIDEN WTRBY TPKE
SOUTHINGTON, CT 06489

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PRIOR TO COMMENCING ANY EXCAVATION OR DEMOLITION, THE CONTRACTOR SHALL CONTACT LOCAL UTILITIES, INCLUDING BUT NOT LIMITED TO ELECTRICAL, GAS, WATER, CABLE, AND TELEPHONE, REQUESTING A UTILITY MARK OUT AND AS NECESSARY RETAIN THE SERVICES OF A PRIVATE UTILITY MARK OUT COMPANY TO PERFORM SUCH MARK OUT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND VERIFY THE LOCATION OF UTILITIES, IRRIGATION, SITE LIGHTING, AND ELECTRICAL LINES IN THE VICINITY OF THE CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR ANY AND ALL UTILITIES DAMAGED BY THE CONTRACTOR'S OPERATION AT NO ADDITIONAL EXPENSE.

Bloomenergy®
4353 N. FIRST STREET
SAN JOSE, CA 95134

SITE INFORMATION

PARCEL INFORMATION

PROPERTY OWNER	THE HOME DEPOT INC.
COUNTY	HARTFORD COUNTY
TAX MAP #	020019

PROPERTY DESCRIPTION

PROPERTY TYPE	COMMERCIAL
PROPERTY AREA*	736,600 SF
BUILDING AREA**	116,343 SF
GARDEN CENTER AREA**	27,988 SF
DISTURBED AREA	± 300 SF

*BASES CITY GIS REPORT
**BASED ON AS-BUILT DATED 09/30/2005

PERMITTING INFORMATION

MUNICIPAL

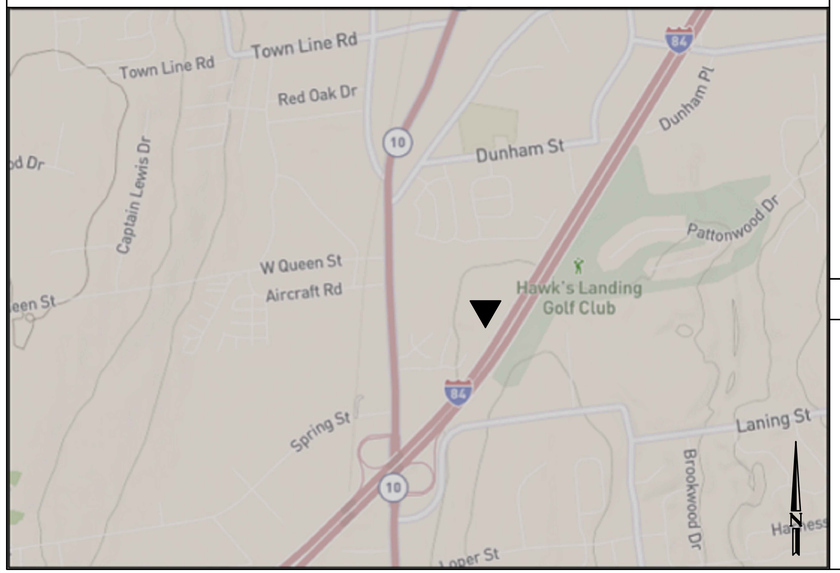
AGENCY	DEPARTMENT	CONTACT INFO
PLANNING	HARTFORD PLANNING DEPARTMENT	(860) 757-9040
BUILDING	HARTFORD BUILDING DEPARTMENT	(860) 757-9200
FIRE	HARTFORD FIRE DEPARTMENT	(860) 757-4500

UTILITY

TYPE	COMPANY	CONTACT INFO
NATURAL GAS	EVERSOURCE (CT)	(860) 286-2000
ELECTRICAL	EVERSOURCE (CT)	(860) 286-2000
WATER	HARTFORD WATER DEPARTMENT	(860) 278-7850

VICINITY MAP (NTS)

PROJECT SITE



CODES

2018 CONNECTICUT BUILDING CODE
2015 INTERNATIONAL BUILDING CODE
2015 INTERNATIONAL EXISTING BUILDING CODE
2015 INTERNATIONAL PLUMBING CODE
2015 INTERNATIONAL MECHANICAL CODE
2015 INTERNATIONAL RESIDENTIAL CODE
2015 INTERNATIONAL ENERGY CONSERVATION CODE
2017 NATIONAL ELECTRICAL CODE
2009 ICC A117.1 ACCESSIBLE AND USAGE BUILDING & FACILITIES

PROJECT TEAM CONTACTS

FIRM	ADDRESS	CONTACT INFO
MANUFACTURER		
BLOOM ENERGY	4353 N. FIRST STREET SANJOSE, CA 95134	(408) 543-1500
CUSTOMER		
THE HOME DEPOT INC.	1816 MERIDEN WTRBY TPKE SOUTHINGTON, CT 06489 US	(860) 276-6837

DRAWING INDEX

SHEET #	DWG #	SHEET TITLE
01	G0.1	COVER SHEET
02	G0.2	GENERAL CONSTRUCTION NOTES
03	C1.1	DETAILED SITE PLAN
04	E0.1	ELECTRICAL SPECIFICATIONS
05	E3.1	ELECTRICAL SINGLE LINE DIAGRAM
06	E3.2	ELECTRICAL THREE LINE DIAGRAM
07	R0.1	BLOOM PRODUCT DATA SHEET

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE INSTALLATION OF ONE (1) BLOOM ENERGY ES5 OUTDOOR NATURAL GAS CLEAN ENERGY SERVER. THE CLEAN ENERGY SERVER IS SUPPORTED ON A CONCRETE PAD. THE WORK INCLUDES ALL ITEMS LISTED IN THE SCOPE OF WORK.

SCOPE OF WORK

THE SCOPE OF THIS PROJECT WILL CONSIST OF THE FOLLOWING:

1. CIVIL WORK
   - EXISTING ASPHALT SHALL BE CUT FOR NEW EQUIPMENT PAD FOR BLOOM ENERGY SERVER.
   - EXISTING SUBGRADE AT ASPHALT CUT WILL BE PREPARED FOR THE NEW EQUIPMENT WEIGHT.
   - NEW TRENCH FROM BLOOM ENERGY SERVER TO BUILDING FOR GAS, WATER AND ELECTRICAL CONNECTIONS BETWEEN BLOOM ENERGY SERVER AND BUILDING. TRENCH TO BE BACKFILLED AND NEW ASPHALT COVER TO BE PROVIDED.
   - NEW ENERGY SERVER CAST IN PLACE CONCRETE PAD AND ANCILLARY CAST IN PLACE CONCRETE PAD TO BE PLACED AT PREPARED SURFACE AT ASPHALT CUT OUT.
   - NEW BOLLARDS TO BE INSTALLED TO PROTECT BLOOM ENERGY SERVER.
2. ELECTRICAL WORK
   - NEW MAIN SERVICE SWITCHBOARD INSTALLED WITH NEW ELECTRICAL FEEDERS TO EXISTING FACILITY MAIN SWITCHBOARD.
   - NEW ELECTRICAL FEEDERS BETWEEN BLOOM ENERGY SERVER AND NEW MAIN SERVICE SWITCHBOARD.
3. PLUMBING WORK
   - NEW WATER CONNECTION FROM POTABLE WATER SOURCE IN FACILITY TO BLOOM ENERGY SERVER.
   - NEW NATURAL GAS CONNECTION. NEW METER AND REGULATOR REQUIRED.

BLOOM ENERGY FAQ's

Q: WHAT IS A BLOOM ENERGY SERVER?
A: THE BLOOM ENERGY SERVER IS A STATIONARY FUEL CELL POWER SYSTEM.
Q: IS THE BLOOM ENERGY SERVER PRODUCT LISTED OR CERTIFIED?
A: YES. ES-5XXX SERIES:
- THE FUEL CELL IS UL LISTED AS A "STATIONARY FUEL CELL POWER SYSTEM" TO ANSI/CSA AMERICA FC 1-2004.
- IT IS UL LISTED UNDER UL CATEGORY IRGZ AND UL FILE NUMBER MH45102.

ES5 SERIES:
- THE FUEL CELL IS UL LISTED AS A "STATIONARY FUEL CELL POWER SYSTEM" TO ANSI/CSA FC 1-2014.
- IT IS UL LISTED UNDER UL CATEGORY IRGZ AND UL FILE NUMBER MH45102.

Q: WHERE ARE FUEL CELLS COVERED IN THE NATIONAL ELECTRICAL CODE (NEC)?
A: FUEL CELLS ARE COVERED IN ARTICLE 692 OF THE NEC (NFPA 70). FUEL CELLS HAVE BEEN INCORPORATED INTO THE NEC SINCE 2002.
Q: WHAT IS THE MODEL NUMBER OF THIS PRODUCT?
A: PLEASE SEE THE DATA SHEET PROVIDED WITH THIS FAQ.
Q: WHAT IS THE NOISE LEVEL OF THE FUEL CELL SYSTEM?
A: FOR SPECIFIC DB RANGES, PLEASE REFER TO THE DATA SHEET PROVIDED WITH THIS FAQ.
Q: DO BLOOM ENERGY FUEL CELL SYSTEMS PROVIDE LIFE SAFETY POWER?
A: NO. WE ARE NOT LIFE SAFETY AND DO NOT PROVIDE LIFE SAFETY POWER, EVEN WHEN A UPM IS INSTALLED. WE ARE NOT ALTERING WHATEVER LIFE SAFETY IS CURRENTLY PRESENT AT THE FACILITY.
Q: IS THE BLOOM ENERGY FUEL CELL SYSTEM TAMPER-PROOF?
A: YES. THE FUEL CELLS ARE SECURED IN PLACE AND DOORS ARE SECURED AND LOCKED. ONLY BLOOM SERVICE PERSONNEL HAVE THE KEYS AND CAN BE ON-SITE WITHIN 24 HOURS.
Q: WHAT HAPPENS TO THE CUSTOMER FACILITY POWER IF THE FUEL CELLS SHUT DOWN?
A: THE FUEL CELL SYSTEM IS OPERATED IN GRID-PARALLEL MODE. IF THE UTILITY GRID IS OPERATIONAL, THE CUSTOMER FACILITY WILL RECEIVE POWER FROM THE GRID AND NOTICE NO DIFFERENCE.
Q: WHAT HAPPENS TO THE FUEL CELL SYSTEM WHEN THE UTILITY POWER SHUTS DOWN?
A: IF UTILITY PROVIDED POWER IS LOST FOR ANY REASON, THE FUEL CELL SYSTEM WILL ALSO STOP PRODUCING POWER. THE FUEL CELL SYSTEM WILL REMAIN IN STAND-BY MODE UNTIL IT AUTOMATICALLY SENSES THE UTILITY GRID HAS BEEN RESTORED.
Q: WHAT HAPPENS TO THE FUEL CELL SYSTEM WHEN THE UTILITY GAS SHUTS DOWN?
A: IF THE UTILITY GAS IS INTERRUPTED, THE FUEL CELL SYSTEM WILL AUTOMATICALLY SHUT DOWN AS WELL.
Q: CAN THE FUEL CELL SYSTEM BE SHUT DOWN LOCALLY IN CASE OF AN EMERGENCY?
A: YES. IF THE FUEL CELL MUST BE SHUT DOWN RIGHT AWAY--FOR EXAMPLE, IN CASE OF A BUILDING FIRE OR ELECTRICAL HAZARD--TWO SHUTOFF CONTROLS ARE INSTALLED AT THE FACILITY EXTERNAL TO THE SYSTEM. THE LOCATIONS OF THESE TWO CONTROLS SHOULD BE KNOWN TO THE FACILITIES MANAGER BEFORE OPERATION AND SHOULD BE NOTED ON THE SITE DIAGRAM THAT IS CREATED FOR EACH SITE DURING INSTALLATION. THE TWO SHUTOFFS ARE:
(1) THE ELECTRICAL DISCONNECT SWITCH AND
(2) THE MANUAL NATURAL GAS SHUTOFF VALVE. A THIRD SHUTOFF, AN EMERGENCY POWER OFF (EPO) BUTTON, MAY BE PROVIDED ON-SITE.
Q: DOES THE BLOOM ENERGY FUEL CELL SYSTEM OPERATE 24/7?
A: YES.
Q: ARE THE BLOOM ENERGY FUEL CELL SYSTEMS MONITORED?
A: YES. BLOOM ENERGY FUEL CELL SYSTEMS ARE CONTROLLED REMOTELY AND HAVE INTERNAL SENSORS THAT CONTINUOUSLY MONITOR SYSTEM OPERATION. IF SAFETY CIRCUITS DETECT A CONDITION OUTSIDE NORMAL OPERATING PARAMETERS, THE FUEL SUPPLY IS STOPPED AND INDIVIDUAL SYSTEM COMPONENTS ARE AUTOMATICALLY SHUT DOWN. A BLOOM ENERGY REMOTE OPERATOR CAN ALSO REMOTELY INITIATE ANY EMERGENCY SEQUENCE. AN EMERGENCY STOP ALARM INITIATES AN AUTOMATIC SHUTDOWN SEQUENCE THAT PUTS THE SYSTEM INTO "SAFE MODE" AND CAUSES IT TO STOP EXPORTING POWER. IF YOU HAVE QUESTIONS ABOUT ANY OF THESE SAFETY FEATURES, PLEASE CONTACT BLOOM ENERGY AT CUSTOMERCARE@BLOOMENERGY.COM.
Q: WHAT ARE THE EMISSIONS GENERATED BY BLOOM ENERGY FUEL CELL SYSTEMS?
A: THE SPECIFIC PERCENTAGE OF CARBON EMISSION REDUCTIONS ARE DEPENDENT ON YOUR STATE'S GENERATION MIX, BUT BLOOM ENERGY FUEL CELL SYSTEMS VIRTUALLY ELIMINATE NOX, SOX, AND OTHER CRITICAL AIR POLLUTANTS THAT ARE FOUND IN TRADITIONAL ELECTRICITY GENERATION METHODS. FOR SPECIFIC EMISSIONS RANGES, PLEASE REFER TO THE DATA SHEET PROVIDED WITH THIS FAQ.
Q: WHAT IS THE SUSTAINABILITY IMPACT OF BLOOM ENERGY FUEL CELL SYSTEMS?
A: BLOOM ENERGY FUEL CELL SYSTEMS GENERATE ELECTRICITY ON-SITE THROUGH AN EFFICIENT ELECTROCHEMICAL REACTION WITHOUT COMBUSTION. DUE TO THE HIGH EFFICIENCY (60%-53% COMPARED TO A COMBINED CYCLE NATURAL GAS PLANT WITH EFFICIENCY OF 40-45% OR COAL PLANTS AT 35%) BLOOM ENERGY SERVERS REDUCE CARBON EMISSIONS BY 20-50% COMPARED TO THE US GRID EMISSION RATES. THE VARIATION IN EMISSIONS REDUCTION IS DUE TO THE VARIATION IN HOW DIFFERENT STATES GENERATE ELECTRICITY. IN addition, BLOOM ENERGY FUEL CELL SYSTEMS USE NO WATER DURING NORMAL OPERATION

CUSTOMER SITE

THE HOME DEPOT INC.
STORE #6235
1816 MERIDEN WTRBY
TPKE SOUTHINGTON
CT 06489

REVISION HISTORY

REV	REVISION ISSUE	DATE

DESIGNED BY	REVIEWED BY
DRAWN BY TEJASHWINI P	APPROVED BY

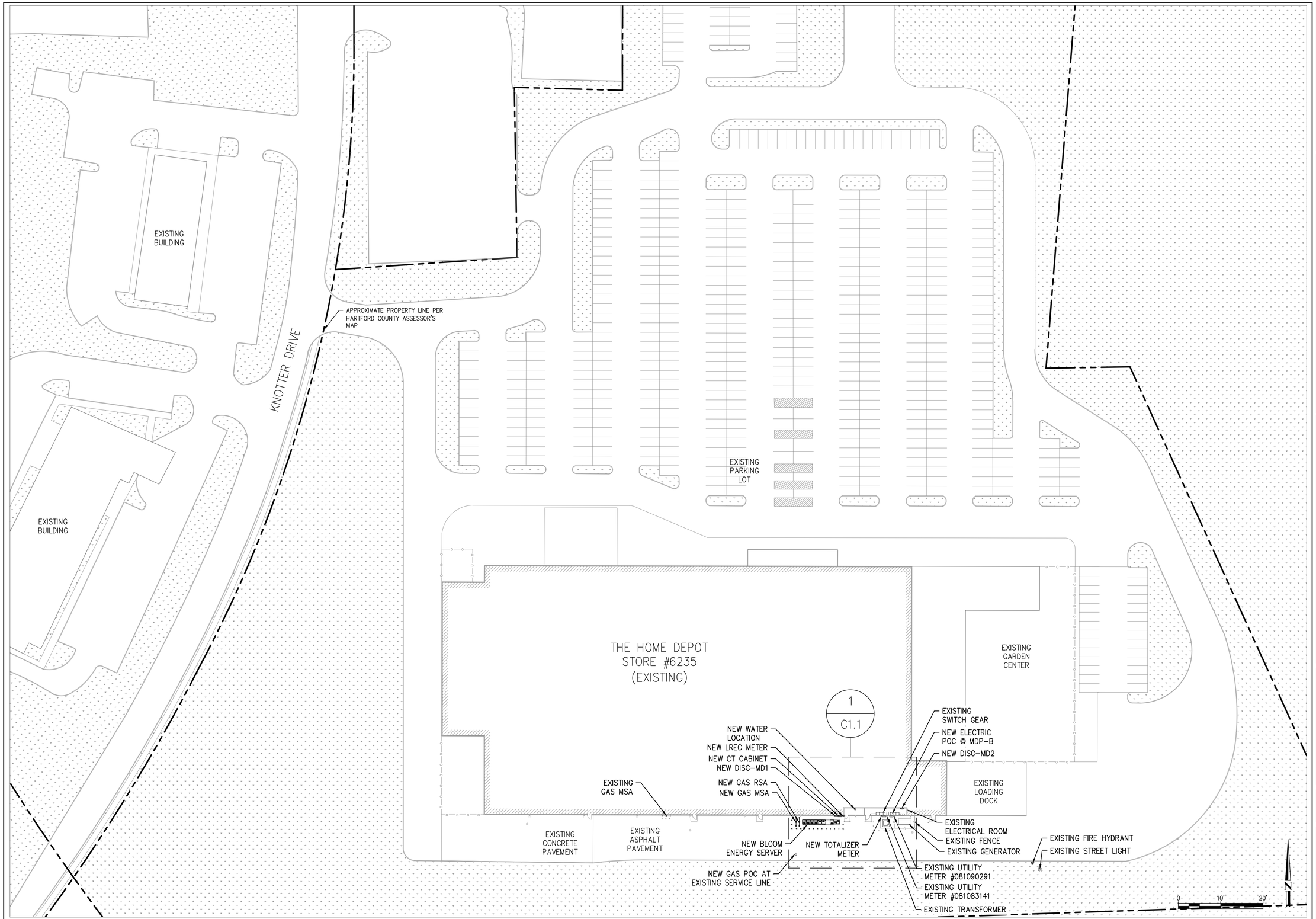
SHEET TITLE
COVER SHEET

DRAWING NUMBER
G0.1

BLOOM DOCUMENT
DOC-1012974

THIS DRAWING IS 24" X 36" AT FULL SIZE

SITE ID: HDP045.0 | SHEET 01 OF 07



SITE REFERENCE NOTE:

EXISTING SITE CONDITIONS TAKEN FROM BING MAPS & AS-BUILT DATED: 09/30/05

OVERALL SITE PLAN

SCALE: 1" = 10'

2
G1.1

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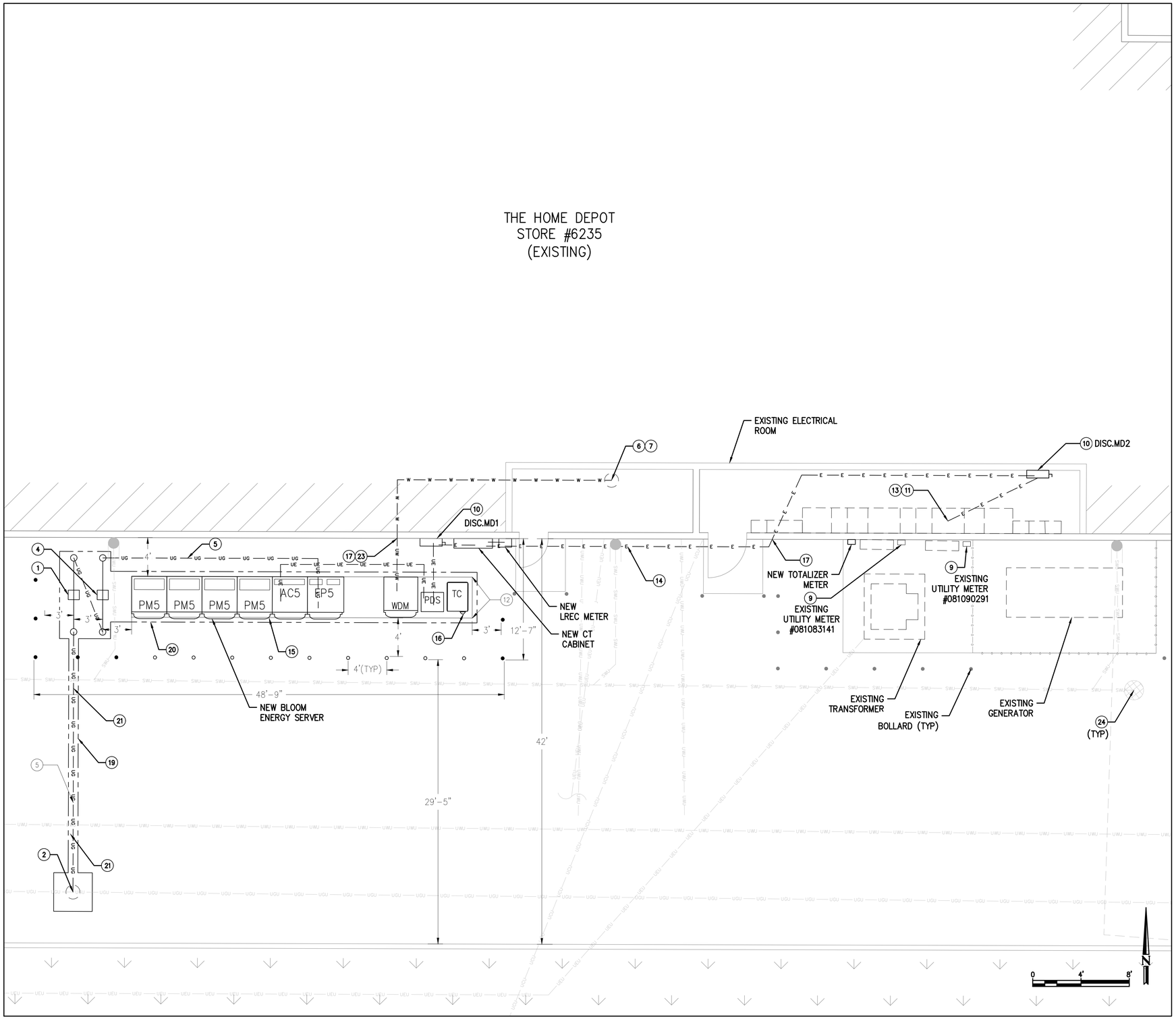

DETAILED SITE PLAN

SCALE: 1" = 4'

1
C1.1

GENERAL NOTES

1. CLEAN AND PRIME ALL NEW WIRE MOUNTED PIPING AND CONDUIT. PIPING AND CONDUIT SHALL BE PAINTED WITH EXTERIOR GRADE PAINT TO MATCH EXISTING.
2. CONDUITS AND PIPES MOUNTED TO BUILDING WALL SHALL BE SUPPORTED AS PER LOCAL CODE, RUN AT HEIGHT ABOVE DOORWAYS, AND STAND OFF WALL TO AVOID EXISTING CONDUITS AND PIPES.
3. SLOPE LINES SHOWN ARE APPROXIMATE AND INTENDED TO SHOW THE GENERAL DIRECTION OF WATER RUN OFF; SLOPE LINES ARE DRAWN PER VISUAL SURVEY OF SURROUNDING AREA.
4. SEE BLOOM ENERGY PRODUCT INSTALLATION DRAWINGS FOR UTILITY CONNECTIONS TO ANCILLARY EQUIPMENT AND ENERGY SERVER.

REFERENCE SHEET NOTES

(1) NEW UTILITY PROVIDED AND INSTALLED GAS METER & REGULATOR ASSEMBLY WITH SHUT-OFF VALVE. CONTRACTOR SHALL PROVIDE PAD PER DETAILS IF REQUIRED BY UTILITY COMPANY. COORDINATE ALL CONNECTIONS WITH GAS UTILITY.

(2) NEW UNDERGROUND GAS SERVICE TAP BY UTILITY COMPANY. COORDINATE WITH GAS UTILITY. CONTRACTOR SHALL PERFORM COMPACTION AND MATCH EXISTING SURFACE AND GRADE. CONTRACTOR SHALL COORDINATE GAS PIPE SIZING AND INSTALLATION REQUIREMENTS WITH UTILITY.

(4) NEW PRIVATE GAS REGULATOR SET ASSEMBLY FOR ENERGY SERVER WITH SHUT-OFF VALVE. REFER TO GAS RISER DETAIL FOR ADDITIONAL REQUIREMENTS.

(5) NEW GAS PIPE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. REFER TO GAS RISER DETAIL FOR ADDITIONAL REQUIREMENTS.

(6) TAP EXISTING WATER LINE AT NEAREST ACCESSIBLE LOCATION IN BUILDING AS SHOWN WITH A LOCAL SHUT-OFF VALVE. REFER TO DOMESTIC WATER CONNECTION DETAIL FOR ADDITIONAL REQUIREMENTS.

(7) NEW WATER PIPE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. REFER TO WATER RISER DETAIL FOR ADDITIONAL REQUIREMENTS.

(9) EXISTING UTILITY ELECTRIC METER. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.

(10) NEW BLOOM ENERGY FURNISHED, CONTRACTOR INSTALLED, DISCONNECT SWITCH. MOUNTED TO WALL PER MANUFACTURER AND UTILITY SPECIFICATIONS.

(11) CONTRACTOR SHALL TERMINATE ELECTRIC FEEDER AS SHOWN. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.

(13) NEW ELECTRICAL FEEDER SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.

(14) MOUNT NEW CONDUIT/PIPE TO EXTERIOR WALL. COORDINATE EXACT ROUTING WITH CUSTOMER REPRESENTATIVE IN THE FIELD. REFER TO WALL MOUNTING DETAIL FOR ADDITIONAL REQUIREMENTS.

(15) NEW BLOOM ENERGY SERVER. REFER TO BLOOM ENERGY STANDARD INSTALLATION DRAWING SET FOR ADDITIONAL BLOOM ENERGY SERVER DETAILS.

(16) FACTORY WIRED BLOOM ENERGY SERVER EMERGENCY POWER-OFF SWITCH (EPO).

(17) CONTRACTOR SHALL CORE CONDUIT AND/OR PIPE THROUGH WALL. SCAN WALL PRIOR TO CORING TO AVOID COLLATERAL DAMAGE TO EXISTING PLUMBING AND WIRING. REFER TO WALL PENETRATION DETAIL FOR ADDITIONAL REQUIREMENTS.

(19) CONTRACTOR SHALL PROVIDE SAWCUT TRENCH FOR UNDERGROUND UTILITIES IN THIS LOCATION AND HAND DIG TRENCHES WHERE THEY CROSS EXISTING UTILITIES. REFER TO UNDERGROUND/TRENCH CONDUIT AND PIPING DETAIL FOR ADDITIONAL REQUIREMENTS.

(20) CONTRACTOR SHALL SAWCUT TO ALLOW FOR EXCAVATION UNDER ENERGY SERVER AND ANCILLARY PAD LOCATIONS. REFER TO PAD DETAIL FOR ADDITIONAL EXCAVATION AND BACKFILL REQUIREMENTS.

(21) PROTECT EXISTING UNDERGROUND UTILITY LINES FROM DAMAGE WHEN CROSSING WITH NEW UNDERGROUND UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED LINES.

(23) CONTRACTOR SHALL TRANSITION ALL ABOVEGROUND NEW LINES TO UNDERGROUND TOWARD ANCILLARY EQUIPMENT. ABOVE GROUND UTILITIES SHALL BE PROTECTED AS NECESSARY, THEN ROUTED UNDERGROUND TO EQUIPMENT STUB-UP LOCATIONS PER MECHANICAL DETAIL.

(24) PROVIDE "DANDY SACK" OR EQUAL WITH OUTFLOW PORTS AT STORM DRAIN INLET. REFER TO EROSION CONTROL DETAIL FOR ADDITIONAL REQUIREMENTS.

EXISTING UTILITY NOTE:
THE LOCATION OF EXISTING UTILITIES IS SHOWN FOR THE CONTRACTOR'S REFERENCE. EXACT LOCATION, DEPTH AND SIZE OF ALL EXISTING UTILITIES IS NOT KNOWN. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES NOT SHOWN ON THESE DRAWINGS. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING UNDERGROUND UTILITIES AND PROTECT THE EXISTING UNDERGROUND UTILITY LINES FROM DAMAGE WHEN CROSSING WITH NEW UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED LINES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS HEREON INAPPROPRIATE AND MAY REQUIRE ADJUSTMENTS TO AVOID CONFLICTS.

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SITE ID: HDP045.0 | SHEET 04 OF 07

Calculation of **Yuma** Sound Pressure Based On Distance

By Bob Hintz 1/16

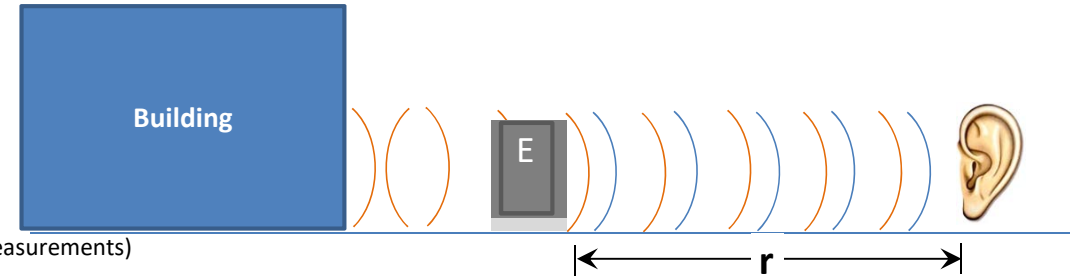
All calculations are based on the following formula for sound pressure level (L_P):

$$L_p = L_W - |10 \cdot \log\left(\frac{Q}{4\pi \cdot r^2}\right)|$$

Sound power value (L_W) attained from V1 Yuma linear in DE reported on Feb. 4, 2015 by Mei Wu.

Scenario 1

ES is installed close to a building or tall wall so noise from the ES is reflected off of the structure and added to the noise from the other side of the ES making it sound louder than normal. This is represented by a directivity factor Q = 4

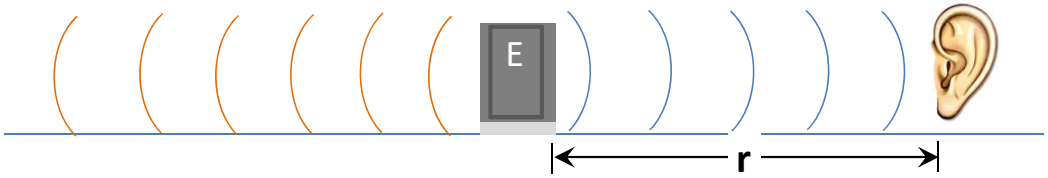


L_P =	**44.2** dB	
Where:		
L_W =	81.4 dB	ES sound power (Calc. from measurements)
Q =	4	Directivity factor
r =	95 Feet	**Enter value here for both Scenarios**

Input verious values for r to approximate the percieved sound pressure at that distance from the ES door

Scenario 2

ES is installed with no structures behind it to reflect sound from either side. This is represented by a directivity factor Q = 2



L_P =	**41.2** dB	
Where:		
L_W =	81.4 dB	ES sound power (Calc.)
Q =	2	Directivity factor
r =	95 Feet	

Input verious values for r to approximate the percieved sound pressure at that distance from the ES door

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

July 13, 2020

Dean Gustafson
All Points Technology Corp PC
567 Vauxhall St Ext – Suite 311
Waterford CT 06385
dgustafson@allpointstech.com

Project: Fuel cell installation at Southington Home Depot, 1816 Meriden-Waterbury Tpke, Southington, CT
NDDB Determination No.: 202008102

Dear Mr. Gustafson,

I have reviewed Natural Diversity Database (NDDB) maps and files regarding the area of work provided for the proposed fuel cell installation at 1816 Meriden-Waterbury Tpke, Southington, Connecticut. According to our records there are populations of Wood turtles and Eastern box turtles along Judd Brook and the Tenmile River floodplain area. I do not anticipate negative impacts to State-listed species (RCSA Sec. 26-306) resulting from your proposed activity at the site based upon the information contained within the NDDB. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits. This determination is good for two years. Please re-submit a new NDDB Request for Review if the scope of work changes or if work has not begun on this project by July 13, 2022.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey, cooperating units of DEEP, landowners, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDB should not be substitutes for on-site surveys necessary for a thorough environmental impact assessment. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the database as it becomes available.

Please contact me if you have further questions at (860) 424-3378, or karen.zyko@ct.gov . Thank you for consulting the Natural Diversity Database.

Sincerely,

Karen Zyko
Environmental Analyst