<u>Monday, June 15, 2020</u> 7:30 p.m.

Virtual Meeting using Zoom

Meeting ID: 845-1987-6965 (Instructions for accessing below)

To view and participate in this virtual meeting on your phone, download the "Zoom Cloud Meetings" app in any app store or at www.zoom.us. At the above date and time, click on "Join a Meeting" and enter the following Meeting ID: 845-1987-6965 Link: https://us02web.zoom.us/j/84519876965

To view and participate in this virtual meeting on your computer, at the above date and time, go to www.zoom.us click "Join a Meeting" and enter the following ID: 845-1987-6965

HEARINGS begin at 7:30pm.

1. Public notice is hereby given that The McDonalds Restaurant, located at 340 Chestnut Street, has made application to the Design Review Board for a Special Permit pursuant to the Sign By-Law Section 5.3.4, and any other applicable sections of the By-law. The application is for installation of a freestanding electronic menu board sign on the rear corner of the building.

APPLICANTS:

(Items for which a specific time has not been assigned may be taken out of order.)

- 2. Bryan Vasser (Archer Signs) applying for signage at William Raveis, 168 Garden Street.
- 3. Dana Thomases, (BeautyMuse) applying for signage at BeautyMuse, 117 Chapel Street.
- 4. Walter Bonola (Doosan Fuel Cell America, Inc.) applying for fuel cell project at TripAdvisor, 400 First Avenue.



TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building 500 Dedham Avenue Needham, MA 02492 **Application and Report**

Location:	340 Chestnut S	treet		Date: 5/28/2020)
Owner:	R.H.C. Associa	tes c/o The McCoy	Restaurant Group		
Address:	10 Jean Avenue, U	nit 2	Chelmsford	MA	01824
	Street		City	State	Zip
Telephone.	:				
Applicant:	McDonald's (Corporation			
Address:	110 Carpenter Stre	et,	Chicago	IL	60607
	Street		City	State	Zip
Designer/I Address:	10 Trotter Driv	edeiros, Spencer T e, Medway, MA 02	2053		
	Street		City	State	Zip
Telephone.	508-635-2122				
		☐ Residential Com	ons sion tial Development		
Brief descri	ption of sign or pr	oject:			

McDonald's is requesting to update its drive-through menu board by replacing the existing internally illuminated menu board with a digital menu board, as further described in the Attachment to this application form.

Attachment to Sign Design Review Application McDonald's Corporation 340 Chestnut Street, Needham, MA

McDonald's Corporation ("McDonald's") proposes to replace its existing drive through menu board with a digital menu board at its drive through restaurant located at 340 Chestnut Street, Needham, Massachusetts (the "Property"). This Addendum is being submitted in support of McDonald's Application to the Sign Design Review Board (collectively, this "Application").

I. Existing Conditions

The existing McDonald's restaurant is located in a 2,668 square foot building (the "**Building**") on the Property, and the Property is located in the Chestnut Street Business district, with a Lower Chestnut Street Overlay. The existing drive-through configuration includes one drive-through lane with one menu board and speaker located at the back portion of the Property, followed by one payment window and one pick up window on the north side of the Building. The existing menu board is approximately 42 square feet.

II. Proposed Digital Menu Board

McDonald's is updating their menu boards at all their locations nationally to digital menu boards. The proposed change is consistent with updated technology and is necessary because repairs on the existing internally illuminated boards are becoming increasingly difficult and inefficient as the illuminated boards have become obsolete, and therefore, replacing and repairing parts is becoming increasingly difficult. The menu board at this location is essential to the operation of a fast service food drive through operation and it is imperative that it is fully functioning for McDonald's to continue the use of the Property.

The proposed digital menu board will be located at the back of the Property where the drive-through lane is located, and will contain static menu images. The menu board will not include flashing images or flashing lights and will not involve moving images. The content on the menu board will change up to three times a day for the change of menu for breakfast, lunch and dinner. Additionally, the menu items may change based on promotional or specialty items. The proposed digital menu board is also more energy efficient, as it uses LED technology and adjusts in brightness as it gets darker out. In addition, the digital menu board is a reduction in size from the existing menu board, as the existing menu board is approximately 42 square feet and the proposed digital menu board is approximately 27.4 square feet.

III. Applicable Provisions of the Sign By-Laws

Under Article 5 of Needham's General By-laws, the Needham Sign By-Laws (the "**By-laws**"), a sign is defined as: "Any device designated to inform or attract the attention of persons who are not on the premises on which the device is located." While menu boards are not included in the the list of displays that are not considered signs under Section 5.2, we believe that the McDonald's menu board does not qualify as a sign under the definition of a sign under the By-

laws. The digital menu board would be located in the rear of the Property, facing away from Chestnut Street, and is smaller than the current internally illuminated menu board and therefore, the information contained on the menu board is not visible to persons traveling by the Property. The menu board is not intended to attract persons who are not on the Property, but instead, are meant to be viewed by those customers who have already entered the Property and have entered the drive through lane.

In the event the Board determines that a menu board is a sign under the By-laws, McDonald's proposed digital menu board is not an animated or revolving sign, which are prohibited under Section 5.4.2.3(c) of the By-laws. In addition, the proposed digital menu board will not include flashing images or flashing lights. The proposed digital menu board will have static images of the menu items, which are subject to change based on set times of day (for example, breakfast and lunch/dinner) and during times in which the menu items are updated. Under the current conditions, every time the menu board needs to be changed, an employee has to walk out to the drive through and manually change the menu board. With the digital menu board, the changes can be activated from within the store. Additionally, due to the updated technology of the digital menu board, the digital menu board is more efficient than the existing internally illuminated menu board. The digital menu board uses energy efficient LED technology and also self-adjusts in brightness based on the time of day, and dims during darker hours. The existing menu board has one standard display brightness, and is the same brightness regardless of whether it is noon or midnight. Additional information about the digital menu board is attached hereto as Exhibit A.

Additionally, Section 5.4.2.3(d) of the By-laws addresses "sandwich boards":

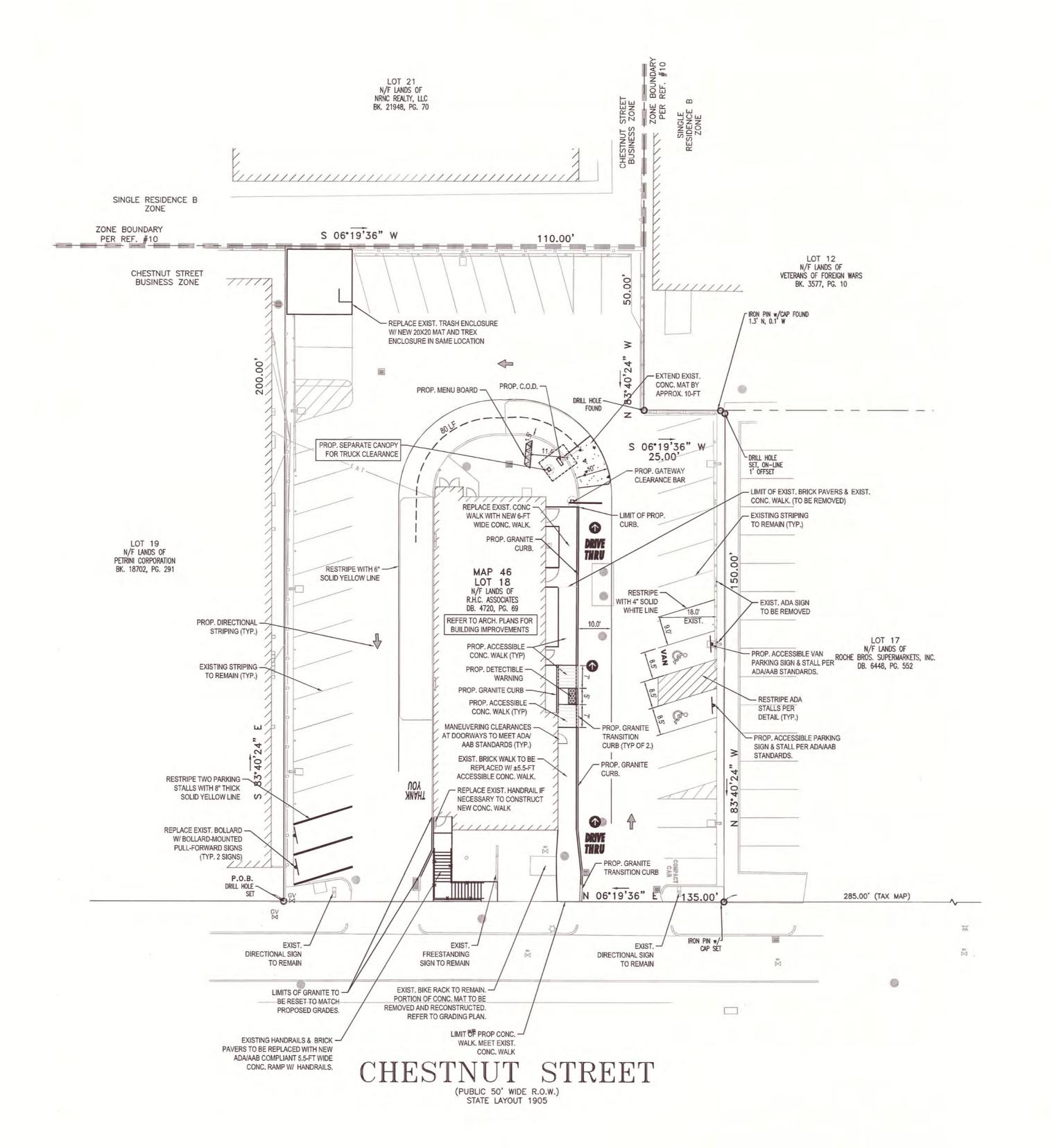
Sandwich boards are also permitted provided they meet the following requirements: one sign per business; 2 feet by 3 feet maximum sign panel in a black or white colored frame; they are comprised of permanent printed sign panels or handwritten sign panels; they are located on the site of the advertised business' street front on private property, or if on public property, do not block or interfere with the 48" width of the pubic sidewalk; they are on display during the business' operating hours only; they may advertise short term sales, daily menus, sign-up periods up to three weeks ahead of end date, and similar special events; they are not internally illuminated; and they do not contain any alcohol or cigarette advertisements.

Therefore, McDonald's menu board does not qualify as a sandwich board, as the existing menu board greatly exceeds the 2 feet by 3 feet maximum square footage permitted, are internally illuminated, and are not located on the Property's street front. In the event this Board determines that McDonald's menu board qualifies as "sandwich bards", then the existing menu board is prior non-conforming, as they do not comply with the standards for a sandwich board as stated above. The proposed digital menu board is smaller than the existing menu board, as the existing menu board is 42 square feet and the proposed digital menu board is approximately 27.4 feet, and therefore would result in a reduction in the non-conformity.

IV. Conclusion

This request for a digital menu board at the Property is part of a nation-wide effort for McDonald's to upgrade its drive through operations, as the existing internally illuminated menu board is outdated, and aging out of existence for the McDonald's operation. The digital menu board will not be clearly visible from the roadway, and is not meant to advertise or attract customers passing by on the adjacent street, and will not have flashing or moving images. The proposed digital menu board should not be deemed an animated sign, as the prohibition of animated signs in the by-laws clearly seems to be aimed at road-side signs with flashing and moving images that are distracting and dangerous to passersby. McDonald's, which we believe is the only business in Needham that has a drive through with a menu board, is simply requesting to replace its existing menu board with a menu board that reflects the current times and technology. McDonald's proposed digital menu board will result in increased efficiency and safety and overall improved aesthetics to the drive through operation at the Property compared to the existing outdated and less efficient menu board.

EXHIBIT SIGNAGE PACKAGE



ZONING DISTRICT	CHESTNUT STREET BUSINESS DISTRICT FAST FOOD USE REQUIRES SPECIAL PERMIT -			
ZONE CRITERIA	REQUIRED	EXISTING	PROPOSED	
MINIMUM LOT AREA	10,000 SF	25,750 SF	NO CHANGE	
MINIMUM LOT FRONTAGE	80'	135'	NO CHANGE	
MAX. BUILDING COVERAGE	NOT RESTRICTED	14%	NO CHANGE	
MIN. FRONT SETBACK	20'	22.0'	NO CHANGE	
MIN. SIDE SETBACK	N/A	45.8'	NO CHANGE	
MIN. REAR SETBACK	N/A	73.5'	NO CHANGE	
MIN. FRONT PARKING SETBACK	20'	5' (SP)	NO CHANGE	
MAX. BUILDING HEIGHT	2.5 STORIES / 35'	17'±	20'±	
MAX. F.A.R.	0.7	0.14	NO CHANGE	
PARKING SPACES	64	40 (SP)	NO CHANGE	
PARKING CRITERIA	1 SPACE PER 3 SEATS + 10 S (72 / 3) + (4x10) = 64 SPACES		ERVICE STATION	

(SP) INDICATES THAT A SPECIAL PERMIT WAS PREVIOUSLY GRANTED

TYPE	ALLOWED	EXISTING	PROPOSED
SITE SIGNAGE			
FREESTANDING I.D. SIGN	64 SF PER 2000 BUILDING PERMIT	64 SF ACTUAL AREA 132± SF BOXED AREA 18'-10" TALL	NO CHANGE (EXIST. TO REMAIN)
BUILDING SIGNAGE			
FRONT WALL SIGN	2 SF / LF, UP TO 32 SF 38x2 > 32 32 SF ALLOWED	34.43 SF ACTUAL 66.7 SF BOXED	1 "M" LOGO @ 14.00 S.F. (R)
NON DRIVE THRU WALL SIGN	-	10 SF	1 "M" LOGO @ 14.00 SF (R)
DRIVE THRU WALL SIGN	-	10 SF	NONE
REAR WALL SIGN	-	NONE	NONE
TOTAL BUILDING SIGNAGE		86.7 SF	28 SF

NOTE: ALL SIGNS AREAS ARE "BOXED" FOR CALCULATIONS (R) INDICATES THAT ZONING RELIEF MAY BE REQUIRED

1"= 20"

CAD I.D. #:

W122009ss0.dwg

DEMOLITION NOTE

EXISTING FEATURES ON THIS PLAN ARE TO REMAIN UNLESS OTHERWISE NOTED.

STREET ADDRESS 340 CHESTNUT STREET

TOWN CONSTRUCTION CHECK DATE NEEDHAM COUNTY CONSTRUCTION CHECK DATE PROJECT No.: W122009 REGIONAL DWG. NO

STATE MASSACHUSETTS NORFOLK

PLAN DESCRIPTION SITE PLAN J.A. KUCICH

PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41530
CONNECTICUT LICENSE No. 26177
RHODE ISLAND LICENSE No. 9616
MAINE LICENSE No. 12553

0

DATE BY

02/06/13 MDB

STATUS

PLAN CHECKED

OF 8

DRAWN BY:

AS-BUILT

SHEET NO.

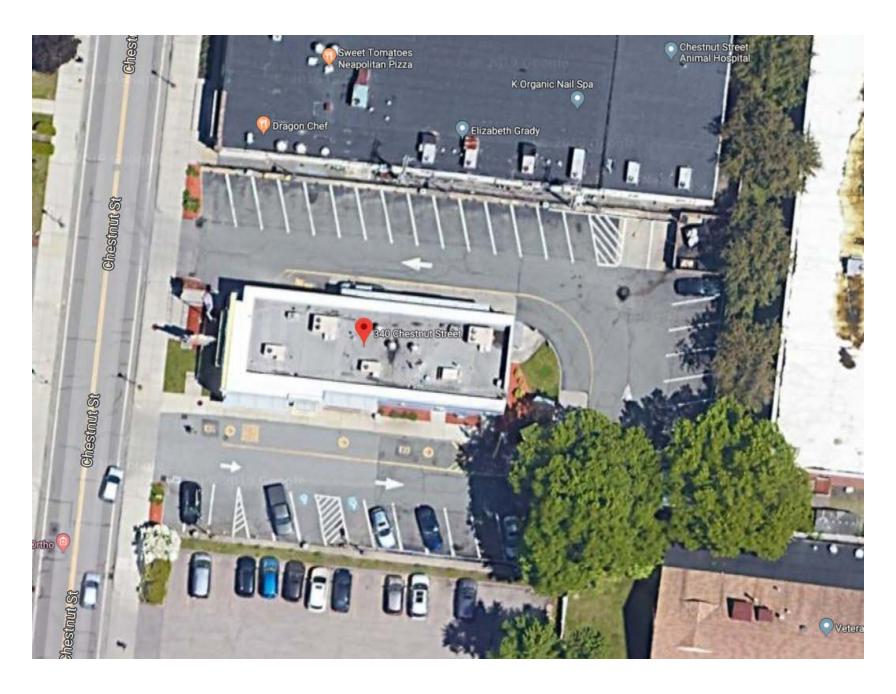
Call before you dig.

SOUTHBOROUGH, MA 01772 Phone: (508) 480-9900 Fax: (508) 480-9080 ENGINEERING www.BohlerEngineering.com CIVIL & CONSULTING ENGINEERS CORPORATE OFFICE: ♦ SOUTHBOROUGH, MA ♦ CHALFONT, PA ♦ WARREN, NJ SURVEYORS ♦ BOWIE, MD ♦ PHILADELPHIA, PA ♦ TOWSON, MD ◆ STERLING, VA ♦ ALBANY, NY PROJECT MANAGERS ♦ WARRENTON, VA ♦ RONKONKOMA, NY ♦ FORT LAUDERDALE, FL ENVIRONMENTAL CONSULTANTS ♦ CENTER VALLEY, PA
♦ TAMPA, FL LANDSCAPE ARCHITECTS

352 TURNPIKE ROAD

Know what's below.

340 Chestnut Street, Needham, MA



OUTDOOR DIGITAL MENU BOARD (ODMB)

Benefits of ODMB:

- The proposed menu boards are smaller in size than the existing menu boards and would provide for an overall reduction in sign area.
- The proposed menu boards would reduce the carbon footprint as they use energy efficient LED technology, the old menu boards are fluorescent.
- The menu boards will no longer require ballast or bulb replacement which makes them environmentally friendly to our landfills.
- The old menu boards used paper copies of menus and the new menu boards will eliminate the waste of paper overall.
- Content only changes 3 times a day breakfast, lunch & dinner
- Lumens on boards can be adjusted, if visible from a ROW
- The main menu boards are smaller in size (Approximately 27.4 sq. ft versus 42 Sq. ft)
- Cleaner visuals, easier to read products, price and items
- Smaller & Streamlined menus, simplified for the customer

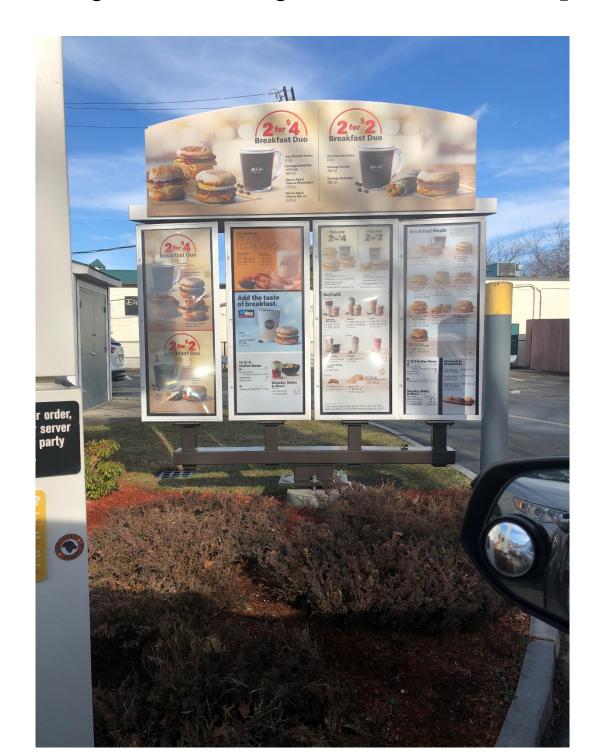
Drive Through at Property



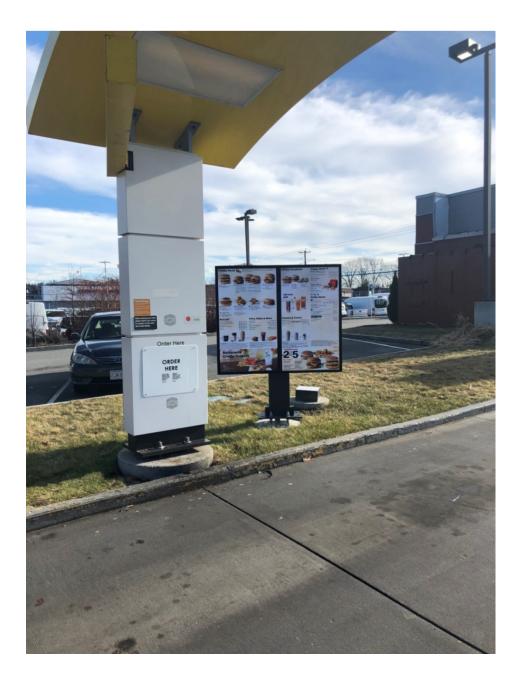
Drive Through at Property



Existing Drive Through Menu Board at Property



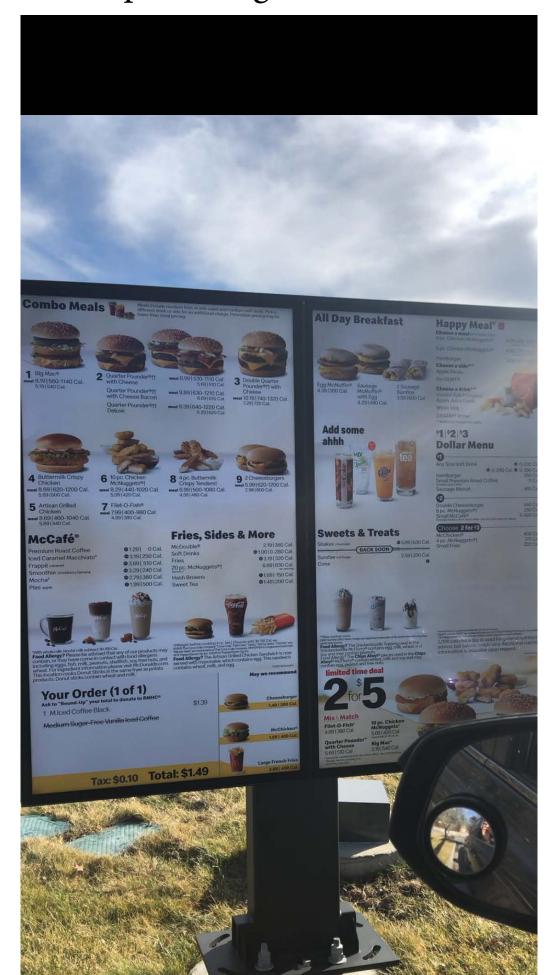
Example of Digital Menu Board

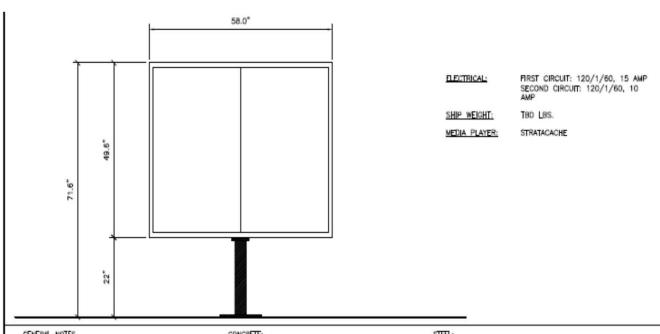


Example of Digital Menu Board



Example of Digital Menu Board





GENERAL NOTES
-THE FOLLOWING CODES WERE USED IN DESIGN:

-IBC 2012 -ASCE 7-10

-ACI 318-11

-AISC 360-10 & AISC 341-10

-AWS D1.1

-WIND SPEED XXX MPH (ULTIMATE WIND SPEED) -EXPOSURE C

-DESIGN LOADS DERIVED FROM THESE CODES AND FORCES

-AXML- XXX # -SHEAR- X,XXX #

-MOMENT- X,XXX #
-ALL FOOTING EXCAVATIONS ARE TO BE CLEAR OF WATER
AND FOREIGN MATTER BEFORE PLACING CONCRETE
-MINIMUM ALLOWABLE LATERAL SOIL BEARING PRESSURE OF

100 PSF/FT (X2) -SITE SOIL CONDITIONS TO BE CONFIRMED BY

ACTUAL SITE SOIL CONDITIONS
-TOP 6" OF SOIL NEGLECTED IN EMBEDMENT DEPTH CALCULATIONS (EMBEDMENT DEPTHS SHOWN ARE FROM GRADE)

-ELECTRICAL CONTRACTOR TO PROVIDE INFORMATION ON CONDUIT AND ELECTRICAL REQUIREMENTS

CONCRETE:
-ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED RESIDUAL SOIL AND/OR ENGINEERED EARTH FILL COMPACTED B (Fy=35 KSI)

TO 98% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D —HSS ROUND SECTION: ASTM A500 GRADE B (Fy= 42 KSI) 698-70 (STANDARD PROCTOR) UNLESS NOTED OTHERWISE -ALL PIERS TO EXTEND TO FROST DEPTH AS DETERMINED

BY LOCAL JURISDICTION
-TOP OF PIERS SHALL BE SLOPED SUCH THAT MOISTURE CANNOT ACCUMULATE

-MINIMUM CONCRETE STRENGTH (F'C=3,000 PSI) SHALL CONFORM WITH MCDONALD'S CAST—IN-PLACE CONCRETE SPECIFICATIONS SECTION 2.13-A

-USE OF ADMIXTURES SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 2.8 —AIR ENTERTAINMENT SHALL CONFORM WITH MCCONALD'S CAST—IN—PLACE CONCRETE SPECIFICATIONS 2.6—A AND 2.13—A

WATER CONTENT RATIO SHALL CONFORM TO MCDONALD'S GEOTECHNICAL ENGINEER, IF ASSUMED SOIL CONDITIONS ARE CAST—IN—PLACE CONCRETE SPECIFICATIONS SECTION 2.13—A
NOT PRESENT, FOUNDATION SHALL BE DESIGNED BY A
LICENSED STRUCTURAL ENGINEER TAKING IN TO ACCOUNT

CAST—IN—PLACE CONCRETE SPECIFICATIONS SECTION 3.14 -FOUNDATION CONCRETE TO BE TESTED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATIONS SECTION 3.14

--PROVIDE A MINIMUM 3" OF CONCRETE COVER OVER ALL EMBEDOED STEEL. --REINFORCEMENT PLACEMENT SHALL CONFORM TO -REINFORCEMENT PLACEMENT SHALL CONFORM TO MCDONALD'S CAST-IN-PLACE CONCERTE SPECFICATIONS SECTIONS 3.2 & 3.5 PERFORMED BY GENERAL CONTRACTOR -ANCHOR RODS TO BE SET IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE -DO NOT PLACE POLES ON CONCRETE UNTIL CONCRETE

HAS CURED PER MCDONALD'S CAST-IN-PLACE CONCRETE SPECIFICATION SECTION 3.11-E

STEEL:
-STEEL PIPE SECTION: ASTM A53 OR A252 TYPE E GRADE

-HSS SQUARE/RECTANGULAR SECTIONS: ASTM A500 GRADE

-HSS SQUARE/RECTANDULAY SECTIONS: ASTM ASOC GRADE
B (Fy= 46 KSI)
-HEAGED ANCHOR RODS ASTM F1554 GR 55, AN
ACCEPTABLE ALTERNATIVE IS ASTM F1554 GR 55, S1 WHEI
THE DMEEDOED END OF THE ROD IS THREADED AND THE
NUT TACK WELDED PRIOR TO GALVANIZATION.
-STEEL ANGLES, CHANNELS, STRUCTURAL SHAPES AND
PLATES: ASTM ASS
-REPLICIPATIVE ASTM ASTM CRADE GO.—BY CENTERAL
-BENEROPERIEND ASTM ASTM CRADE GO.—BY CENTERAL

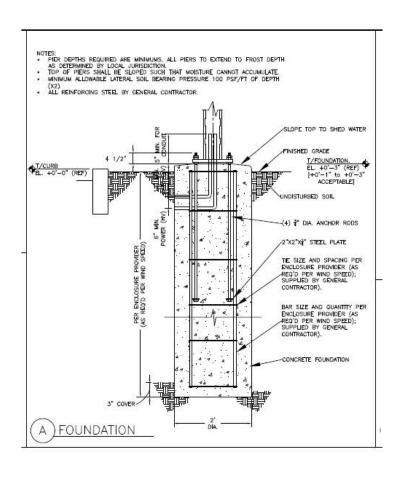
-REINFORCEMENT: ASTM A615 GRADE 60- BY GENERAL

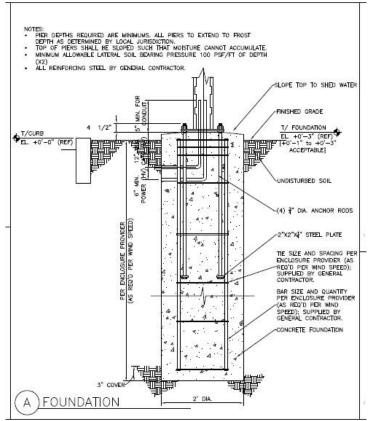
-REINFORCEMENT: ASTM A615 GRADE 60- BY GENERAL CONTRACTOR
-NUTS: ASTM A563A, HEAVY HEX
-WASHERS: ASTM 7644 A36
-USE ASTM A153 CLASS C OT DIPPED GALVANIZED BOLTS
AND FASTENERS.
-ANCHOR RODS, NUTS, AND WASHERS SHALL BE SHIPPED
AS AN ASSEMBLY FROM THE SIGN/LIOTHNO MANUFACTURER
-NO FIELD HEATING TO BEND STEEL SHALL BE ALLOWED

-NO FIELD HEATING TO BEND STEEL SHALL BE ALLOWED WITHOUT ENGINEER'S APPROVAL -DO NOT CUT ANCHOR RODS AFTER INSTALLATION OF POLE -AFTER INSTALLATION, ALL EXPOSED STEEL SHALL BE PAINTED WITH AN ENABLE, PAINT TO INHIBIT CORROSION -ANY FIELD WIELDING SHALL FIRST BE VERIFED BY ENGINEER AND PERFORMED IN ACCORDANCE WITH AWS D1.1 -REPER TO SION MANUFACTURER DEVAINIOS AND INSTRUCTIONS FOR ADDITIONAL INFORMATION

DIGITAL MENU BOARD

SCALE: NONE



















1925	U.S. Postal Service [™] CERTIFIED MAIL® RE Domestic Mail Only For delivery information, visit our websi	
7018 1830 0001 1618	OFFICIAL	Postmark Here
	PSN 7530-02-000-9047	See Reverse for Instructions

To Neces

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building 500 Dedham Avenue Needham, MA 02492 **Application and Report**

Location:	168 GAMPEN ST.		Date:	5-21	-2020
Owner:	EATON SQUARE REAC	y			
Address:	1063 GleAS PLAN Aven	nue,	ren,	Ham,	MA 02492
	203-925-4562		•	state	Zip
Applicant:	WILLIAM RAVEIS do	Arche	1 519	105	
Address:	316 BOSTON POST RO	MICFA	10	CT	06460
Telephone:	(203) 882-8484	City		State	Zip
	staller: Archer Signs	v			
Address:	316 BUSTM POST RD	miller		CT	06460
	(203)-882-8484	City		State	Zip
	Type of Application Sign Minor Project Exterior Alterations Major Project - preliminary - final Flexible Subdivision Planned Residential Develo	opment			
Brief descrip	tion of sign or project:				
Insn	All New INTERNALLY IUN	MINATE	50 gi	9n CA	BINET
in E	zisny Pole.				



PROJECT

NEEDHAM MONUMENT SIGN



ON TARGET · EVERY TIME 316 BOSTON POST ROAD MILFORD, CT 06460 OFFICE (203)-882-8484 FAX (203) 882-8053

Sales Rep: BV Date: 3/2/20

Designer: BRYAN VASSER

REVISIONS:	DATE:	BY

COLOR & FINISH SPECS.

- C1 MEDIUM BLUE PMS 646
- C2 WHITE
- C3 BLACK
- C4
- C5
- C6
- **C7**

MATERIAL SPECS.

- M1 ALUMINUM / ILLUMINATED CABINET
- M2 1/2" THICK PUSH THRU LETTERS
- M3 EXISTING STEEL COLUMN POLE
- M4 ALUMINUM POLE COVER
- M5 FLAT SOLAR PANELS
- M6 FABRICATED ALUMINUM TRIM

M7 M8

M9

M10

M11

M12

M13

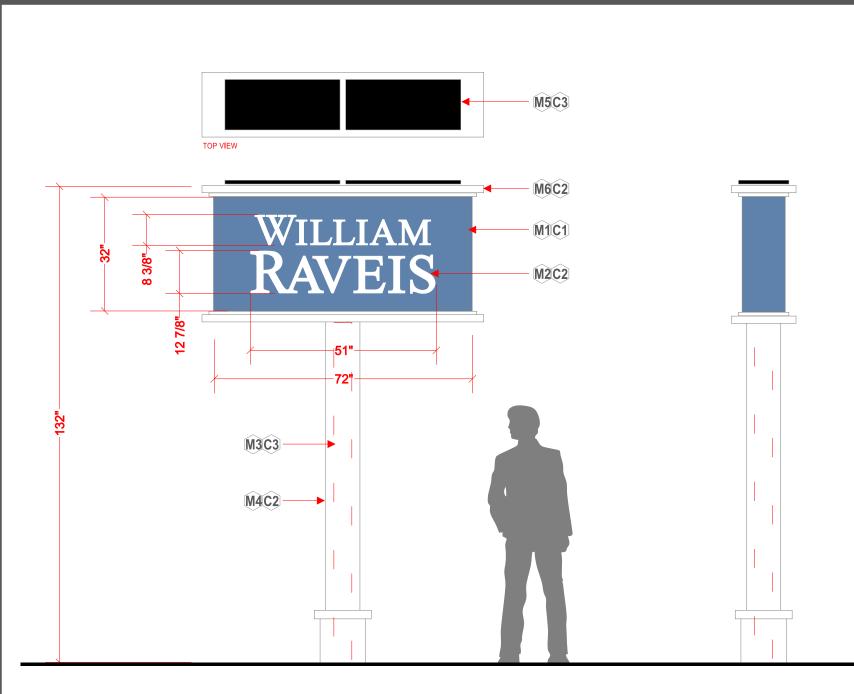
M14

M15

M16

APPROVAL

DATE: PM APPROVAL: WORK ORDER #:





PROJECT

NEEDHAM MONUMENT SIGN



316 BOSTON POST ROAD MILFORD, CT 06460 OFFICE (203)-882-8484 FAX (203) 882-8053

Sales Rep: BV Date: 3/2/20

Designer: BRYAN VASSER

REVISIONS:	DATE:	B,

COLOR & FINISH SPECS.

I C 1	MEDIUM	BLUE	PMS	64

C2 WHITE C3

C4

C5

C6

C7

MATERIAL SPECS.

M1 ALUMINUM / ILLUMINATED CABINET

M2 1/2" THICK PUSH THRU LETTERS

M3 EXISTING STEEL COLUMN POLE

M4 ALUMINUM POLE COVER

M5

M6 M7

M8

M9

M10

M11

M12

M13

M14

M15

M16

APPROVAL

DATE: PM APPROVAL: WORK ORDER #:





Brief description of sign or project:

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building 500 Dedham Avenue Needham, MA 02492 Application and Report

Location: 117 Chapel Street, Needham, MA 02492 *Date:* May 26th, 2020 Betsy Heffernan Owner: 01760 18 Gannett Road Natick MA Address: Zip Street City State *Telephone:* ______781-223-7156 Dana Thomases Applicant: 53 Hawthorn Avenue Needham MA 02492 Address: Street City State Zip *Telephone:* 617-312-3036 Fast-Shapes Designer/Installer: 1200 Concord Road Marlborough MA 01752 Address: City State Zip (617) 909-6008 Telephone: Type of Application Sign **Minor Project Exterior Alterations Major Project** - preliminary - final Flexible Subdivision **Planned Residential Development Residential Compound**

New store sign, composed of individual letters, mounted to the brick face of the building, spelling the name of the business.

STORE FRONT FACADE





LETTERS MOUNTED W/1/2"in SPACERS EXAMPLE:



FACADE SIZE: 48 sq.ft SIGN SIZE: 12.3 sq.ft



SIGN SPECIFICATIONS

SIGN TYPE:

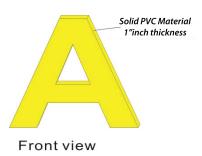
- 1" thick solid PVC Letters.

- COLOR: Painted MATTE WHITE

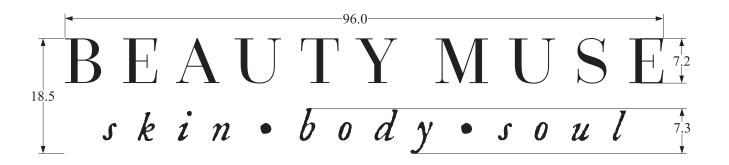
- FACADE SIZE: 48 sq.ft

- SIGN SIZE: 12.3 sq.ft

- SIGN ELEVATION: 11' ft





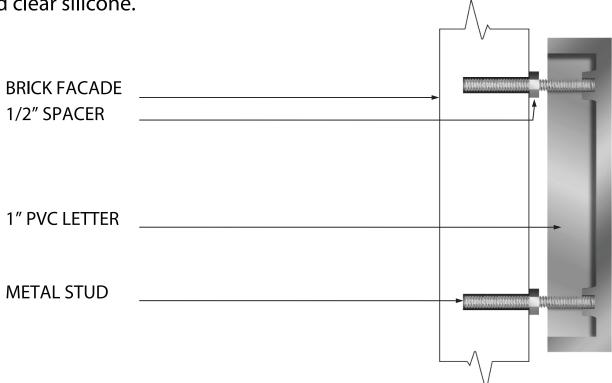


INSTALLATION:

- Drill mounting holes on brick wall facade.

- Install PVC letters individually with threaded metal studs, 1/2" spacers

and clear silicone.







TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building 500 Dedham Avenue Needham, MA 02492 **Application and Report**

Location:	400 First Avenue	9	D	ate: June 2, 2020	
Owner:	US Realty Advis	ors, LLC			
Address:		of the Americas, New Yo			
	Street		City	State	Zip
Telephone:	212.581.4540				
Applicant:	Doosan Fuel C	ell America, Inc.			
Address:	101 East River	Drive, East Hartford, C	T 06 <u>0</u> 74		
	Street		City	State	Zip
Telephone:	860.250.3776				
Designer/I	nstaller: Willdan	Genesys Engineering			
Address:		Bldg. 3 Suite 111 Pelha			
	Street		City	State	Zip
Telephone:	914.633.6490				
	-	Type of Application Sign Minor Project Exterior Alterations Major Project - preliminary - final Flexible Subdivision			
		☐ Planned Residential Develo☐ Residential Compound	pment		
-	ption of sign or pro of a Doosan Moo	<i>ject:</i> del 400 fuel cell power pla	nt on a struct	tural steel platform ove	er the loading
dock area	. powerplant an	d associated equipment	to be fully s	screened with screer	ning painted
to match	building envelop				



Doosan Fuel Cell America, Inc. 101 East River Drive East Hartford, CT 06108

June 2, 2020

Needham Design Review Board Members 500 Dedham Ave Needham, MA 02492 Attn: Elisa Lichtman

Via Email

Re: Trip Advisor Fuel Cell Project

400 First Avenue Needham, MA 02492

Dear Design Review Board Members:

The purpose of this letter is to provide the Design Review Board with additional information in connection with the above described project.

The proposed project will install a combined heat and power fuel cell at the TripAdvisor offices. The proposed installation consists of one Model 400® Fuel Cell produced by Doosan Fuel Cell America, Inc. in South Windsor, CT. The proposed Fuel cell project will supply the Trip Advisor building with 460 kw of clean renewable power along with up to 1.6 MMBTU of available hot water that will be used to preheat the buildings boiler return water for an overall total efficiency of up to 78% (HHV basis). The fuel cell will be installed in full compliance with NFPA 853 and all applicable state and local building codes.

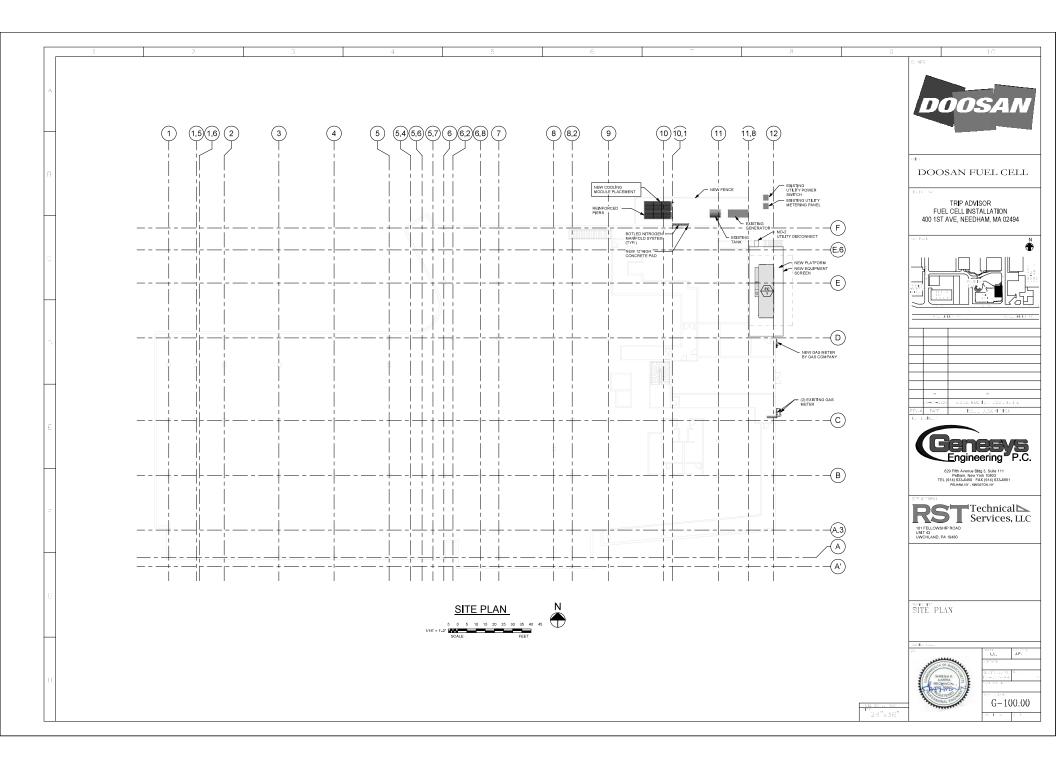
The proposed fuel cell will be placed on a structural steel platform spanning the loading dock area and will be screened with an aluminum louver material to allow for proper ventilation for the fuel cell. All structural and screening materials will be painted to match adjacent building envelope color. The platform will be reached by way of a stairway with restricted access. A small equipment crane will be placed in the Southeast corner of the platform to allow for lifting tools and small equipment to the platform. The cooling module which measures Approx. 7' x 12' will be placed on 12" concrete piers on the ground level directly adjacent to the fuel tank for the existing backup generator along with Nitrogen purge gas manifold and tanks and will be screened with the same fencing materials to provide a continuous screening scheme.

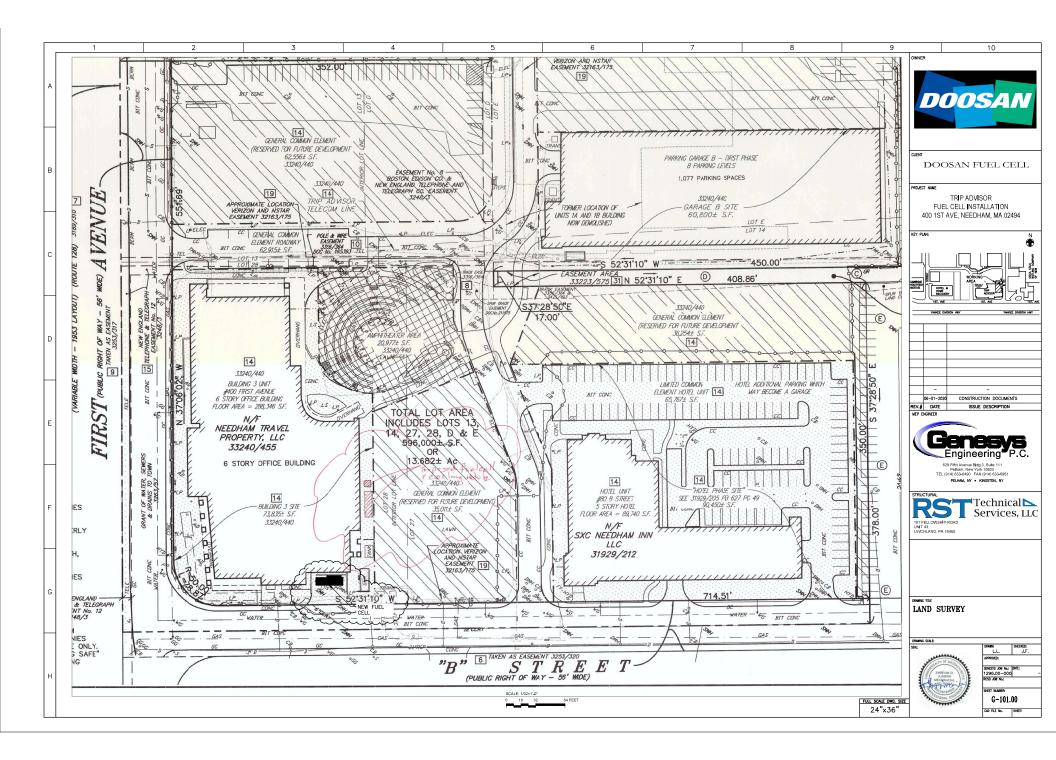
The addition of the fuel cell combined heat and power system will have a positive impact on the town by reducing emissions and providing an economic benefit to a local business.

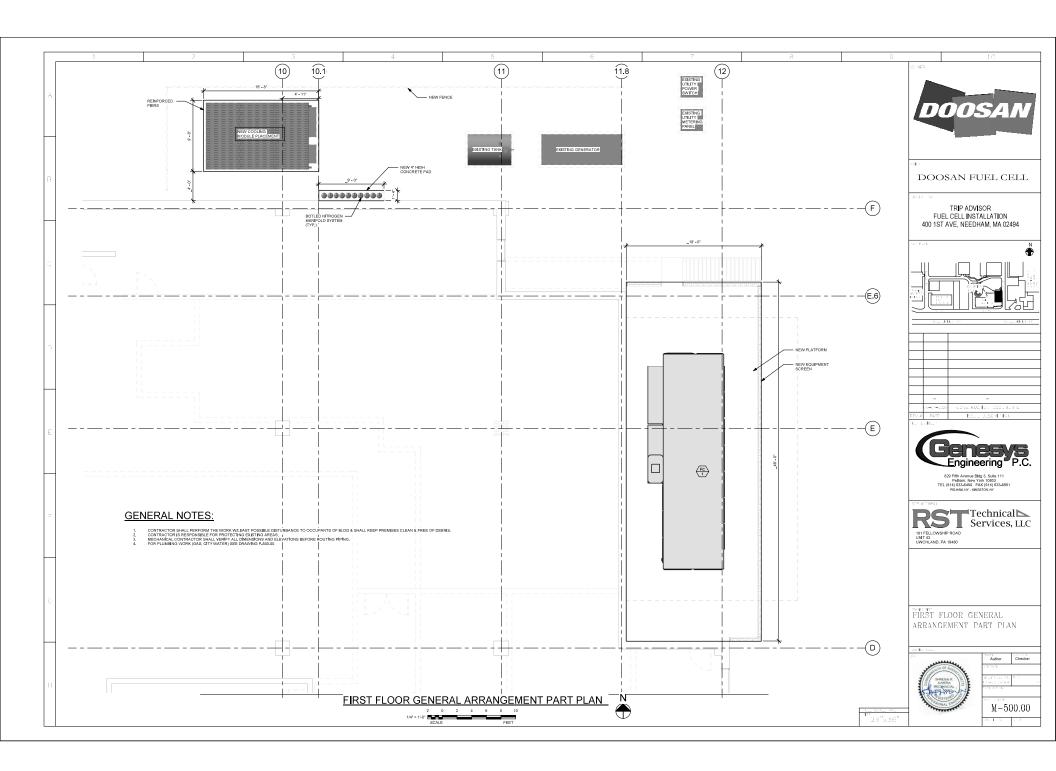


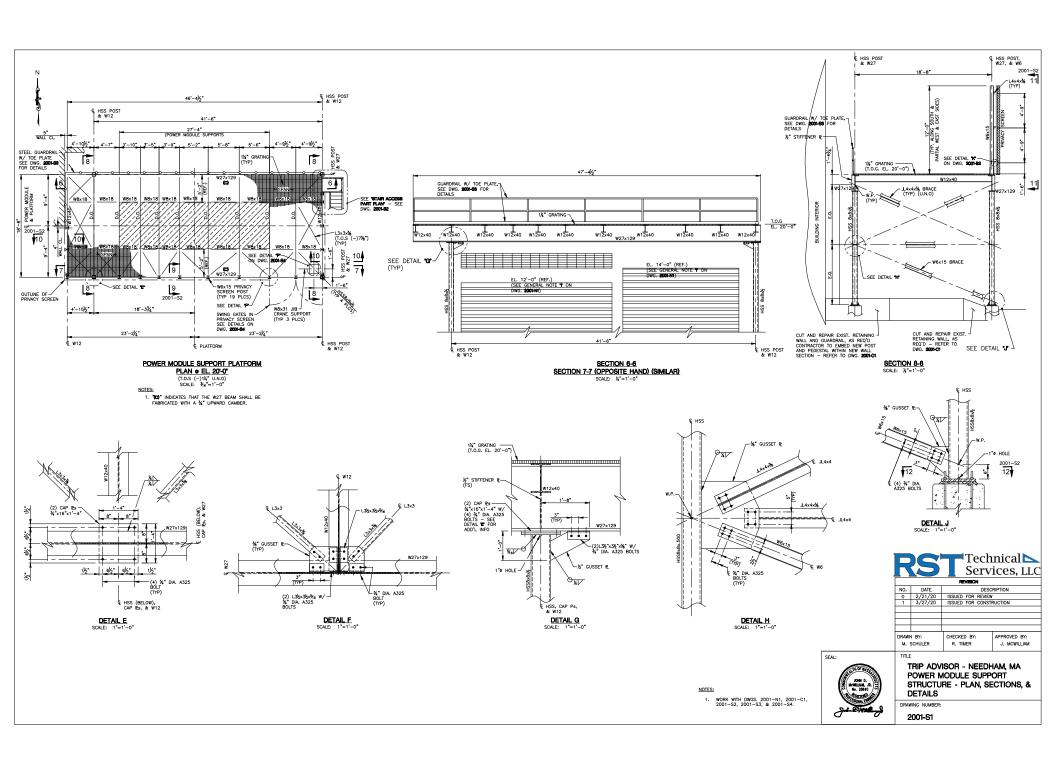
If you have any questions, please do not hesitate to contact me.
Sincerely,

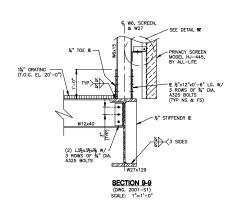
Walter Bonola Installation Project Manager Doosan Fuel Cell America, Inc.

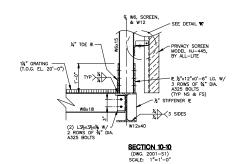


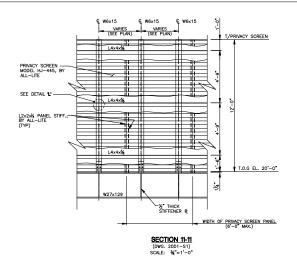


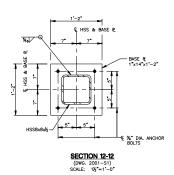


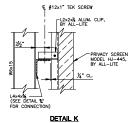




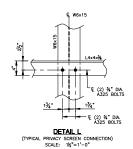














DRAWN BY: CHECKED BY: APPROVED BY: J. MCWILLIAM M. SCHULER R. TIMER

TITLE



SEAL:

TRIP ADVISOR - NEEDHAM, MA POWER MODULE SUPPORT STRUCTURE - SECTIONS & DETAILS

DRAWING NUMBER:

2001-82

WORK WITH DWGS. 2001-N1, 2001-C1, 2001-S1, 2001-S3, & 2001-S4.



