

Petition # 11-20



TOWN OF NEWINGTON
TOWN PLAN AND ZONING COMMISSION

APPLICATION FORM

LOCATION OF PROPERTY: 2897 Berlin Turnpike ZONE: PD

APPLICANT: SB Newington 433, LLC TELEPHONE: _____

c/o Guggenheim Retail Real Estate Partners
ADDRESS: 3000 Internet Boulevard, Suite 570, Frisco, TX 75034 EMAIL: c/o ASouchuns@hssklaw.com

CONTACT PERSON: c/o Amy E. Souchuns, Esq. TELEPHONE: c/o 203 877-8000

Hurwitz, Sagarin, Slossberg & Knuff, LLC
ADDRESS: 147 N. Broad Street, Milford, CT 06460 EMAIL: ASouchuns@hssklaw.com

OWNER OF RECORD: SB Newington 433, LLC

THIS APPLICATION IS FOR (CHECK ONE OF THE FOLLOWING):

- Zoning Map Change from the _____ Zone to the _____ Zone (Public Hearing required).
- Zoning Text Amendment to Section _____. *A copy of the proposed amendment and the reason for amendment is attached* (Public Hearing required).
- Subdivision (4 sets of plans 24" x 36", and 10 sets of plans 12" x 18").
- Resubdivision (Public Hearing required). (4 sets of plans 24" x 36", and 10 sets of plans 11" x 17").
- Special Permit per Section 3.19 of the Zoning Regulations. **Explanation of the proposed activity is attached** (Public Hearing required). *\$820*
- Site Plan Approval or Site Plan Modification (4 sets of plans 24" x 36", and 10 sets of plans 11" x 17").
- Other (describe in detail, or attach): DMV Location Approval

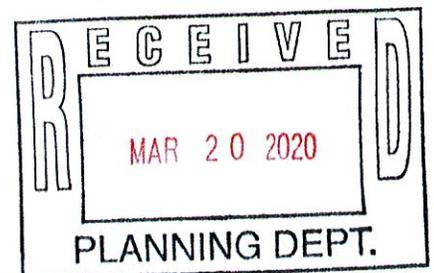
SIGNATURE:

SB Newington 433, LLC		SB Newington 433, LLC	
By: <u>[Signature]</u>	<u>3/20/2020</u>	By: <u>[Signature]</u>	<u>3/20/2020</u>
APPLICANT	DATE	PROPERTY OWNER	DATE

Amy E. Souchuns, Attorney for SB Newington 433 LLC

Amy E. Souchuns, Attorney for SB Newington 433 LLC

INCOMPLETE APPLICATIONS WILL NOT BE PUT ON THE AGENDA. A COMPLETE APPLICATION INCLUDES BUT IS NOT LIMITED TO: APPLICATION FORM; APPLICATION FEE; SITE PLANS (IF APPROPRIATE) SHOWING LID; WATERSHED ANALYSIS (FOR SITE PLANS); NARRATIVE DESCRIPTION (IF APPROPRIATE).



Amy E. Souchuns, Esq.
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LAW OFFICES
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March 20, 2020

Mr. Craig Minor
Town Planner
Town of Newington
131 Cedar Street
Newington, CT 06111

Re: Special Permit, Site Plan and Location Approval
SB Newington 433, LLC, Owner
Firestone Complete Care Auto Center, 2897 Berlin Turnpike

Dear Mr. Minor:

On behalf of SB Newington 433, LLC, enclosed please find application materials related to a special permit, site plan and Department of Motor Vehicles location approval for the Firestone Complete Care Auto Center, 2897 Berlin Turnpike, Newington.

The application materials include 4 full size and 10 reduced sized copies of each of the following:

- Application Form;
- Project Narrative;
- Site Plans and Survey dated November 26, 2012 (revised to February 20, 2020), prepared by VHB;
- Application Fee of \$275.00.

If you need anything further, please do not hesitate to contact me.

Sincerely,



Amy E. Souchuns

Enclosures

APPLICATION NARRATIVE

SB NEWINGTON 433, LLC

March 20, 2020

SB Newington 433, LLC (“SBN”) seeks Special Permit, Site Plan and location approval for an auto-related use on property known as 2897 Berlin Turnpike (“Property”). The Property, approximately one acre and zoned Planned Development (P-D), is currently improved with a Firestone Complete Auto Care Center (“CACC”).

Background:

As the Commission will recall, the CACC was approved with conditions in April 2013. Following an appeal of that approval by several other automotive businesses, construction began in late 2014 and the CACC opened for business in early September 2015. While the construction was underway, a group of neighboring property owners and other automotive business owners initiated a nuisance and private zoning enforcement lawsuit against SBN, this Commission, and the Town of Newington (“Bielitz Litigation”). In two court decisions in the Bielitz Litigation, the court found that this Commission’s April 2013 approval of the CACC was invalid and ordered that the CACC be shut down pending the receipt of new land use approvals. Therefore, these applications, along with a variance application submitted simultaneously with these requests, are intended to legalize the CACC in accordance with the Court’s orders and in resolution of the Bielitz Litigation.

Current Application:

The application materials reflect the same proposal initially approved in 2013 and constructed in 2015 with respect to building size and location, drive aisles, parking, stormwater/drainage, and landscaping. As depicted on the site plan and zoning summary chart submitted with this application, the bulk requirements governing the P-D Zone are satisfied. While the site and building itself is unchanged from the 2013 submission, as this Commission will recall, the adjacent property was rezoned to R-20 (Residential-20) in May 2013. As a result, the CACC is now directly adjacent to a residential zone, with the property boundary serving as the zone boundary between P-D and R-20.

As noted above, SBN has sought variances of certain provisions of the Zoning Regulations arising from the Property’s proximity to a residential zone. These include the following:

- § 3.18.4: mandating that (a) parking be no less than 25 feet from a residential zone boundary and (b) no business structure be located closer than 100 feet from the residential zone boundary
- § 6.1.2.B: requiring that any off-street loading space be no closer than 50 feet from any lot in any residential zone
- § 6.11.5: prohibiting any portion of a motor vehicle use within 100 feet of a residential zone

Each of these variances seeks to legalize the existing CACC operations; no expansion or modification of the site is proposed as part of these applications.

Proposed Conditions of Approval:

SBN requests that the Commission impose two conditions associated with the Bielitz Litigation. To address the Court's terms for the CACC to open, SBN and its acoustical engineer developed a noise mitigation plan ("Plan") in summer 2015 to mitigate potential noise impacts from the CACC, a copy of which is attached as Exhibit 1. The Plan implements one of the Commission's original conditions of approval – that the westerly bay doors be kept closed unless a vehicle is entering or exiting – and also mandates that certain equipment not be used when one of those doors is opened. Additionally, air conditioning has been installed in the work/shop area of the CACC to ensure the westerly bay doors are kept closed in accordance with the Plan. SBN asks that the Plan be incorporated as a condition of approval.

Second, as a condition of the Plan, SBN's contractors installed a final section of fence to fully enclose the Property. In connection with these applications, an updated survey was prepared, which revealed a section of fence is located on the adjacent property owned by the State of Connecticut. Due to current weather conditions that hinder removal and replacement of the fence, SBN requests that the Commission condition the approval on fence relocation prior to the issuance of an updated zoning permit. Similarly, preparation of the updated survey also demonstrated that the loading area was not depicted on the Property; SBN also proposes that this be completed prior to the issuance of an updated zoning permit.

As found by the Commission in issuing the 2013 Approval, the CACC and the location satisfy the standards set forth in § 5.2.6 of the Zoning Regulations with regard to a special permit use. The proposed conditions of approval further ensure the protection of public health, safety and welfare.

EXHIBIT 1

NO. HHD LND CV14 6055381 S : SUPERIOR COURT
COLLEEN BIELITZ, ET AL : JUDICIAL DISTRICT OF HARTFORD
V. : AT HARTFORD
WEX-TUCK REALTY, LLC, ET AL. : FEBRUARY 22, 2017

**STIPULATION CONCERNING
EVIDENTIARY RECORD AND INJUNCTION ON COUNT TWO**

Colleen Bielitz, Laura Bielitz, Lorraine Dubowsky, Edward Dubowsky and Elaine Erwin Matulis (sometimes, collectively referred to herein as the “Private Parties”); Modern Tire Recapping Company, Inc. and 3455 BTP, LLC (collectively, the “Modern Tire Parties”); SB Newington 433 LLC and Guggenheim Retail Real Estate Partners Inc. (collectively “SBN”), and Town of Newington and Newington Town Plan and Zoning Commission (collectively “Town Parties”) hereby agree and stipulate as follows:

1. In November 2014, individual plaintiffs, Colleen Bielitz, Laura Bielitz, Lorraine Dubowsky and Edward Dubowsky and certain business entities, including the Modern Tire Parties, commenced the above-captioned action.

2. In the Second Count of their complaint, Colleen Bielitz, Laura Bielitz, Lorraine Dubowsky and Edward Dubowsky asserted that the intended operation, on land owned by SBN and leased as a Firestone Complete Auto Care Center (“CACC”) at 2897 Berlin Turnpike, Newington, CT (the “Premises”) would constitute a private nuisance to individual plaintiffs Colleen Bielitz, Laura Bielitz, Lorraine Dubowsky and Edward Dubowsky (later joined by individual plaintiff, Elaine Erwin Matulis) due to noise because noise emanating from the operation of the CACC would be disturbing, annoying and irritating; in excess of state and local regulations; and resulting directly from the operation of the CACC.

3. In July - September 2015, after a hearing, the Court (the Hon. A William Mottolese, JTR) held that the intended operation of the CACC would constitute a private noise nuisance and issued temporary injunctive orders. SBN responded to such orders by filing and, after Court approval, implementing steps to mitigate noise impacts, specifically a *Noise Mitigation Plan* (the "Tocci Plan") appended as Exhibit B to SBN's *Disclosure of Expert Witness*, dated August 14, 2015, concerning Gregory C. Tocci, [Dkt. no. 204.00], as supplemented by *Defendants' Plan and System For Turning Off Tire Bead Seater and Air Grinder Before Westerly Bay is Opened* [Dkt. no. 215.00]. Such noise controls ("Operational Plan") have been in place at the Firestone CACC from September 2015 to the date of this stipulation.

4. The Private Parties now stipulate that since the date the CACC began operations in September 2015, (a) the Tocci Plan and the Operational Plan have sufficiently abated the noise nuisance that otherwise would have been created by the operation of the CACC and (b) the CACC has operated in compliance with the Court's orders.

5. The Private Parties and SBN agree that judgment may enter for the Private Parties against SBN with respect to the Second Count of the Third Revised Verified Complaint dated October 14, 2016, and in full and final satisfaction of this judgment, the orders entered by the Court on August 27, 2015, as modified by the Court's September 3, 2015 order, may be entered as a permanent injunction.

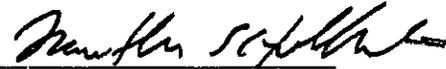
6. The parties further agree that SBN has delivered to the Private Parties, Modern Tire Parties and Town Parties, a certification that air conditioning has been installed in the work/shop area of the CACC.

7. The entry of an order in accordance with Paragraph 5, shall be deemed a final, non-appealable Order that fully and finally disposes of Second Count.

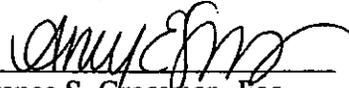
8. Within seven (7) business days of the entry of judgment and issuance of a permanent injunction as described above, the Private Parties shall amend their Third Revised Verified Complaint to (a) withdraw, with prejudice, the Second Count as against the Town Parties, and (b) to remove and withdraw any claims or allegations related to noise as a basis for any injunction or other relief sought in the First Count against the Town Parties and SBN. To the extent necessary, SBN and the Town Parties to consent to any such amendment.

**ALL PARTIES AGREE THAT THIS STIPULATION SHALL BE EFFECTIVE ONLY IF
THE COURT ADOPTS THIS STIPULATION AS AN ORDER OF THE COURT.**

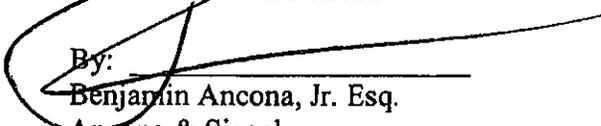
COLLEEN BIELITZ, LAURA
BIELITZ, LORRAINE DUBOWSKY,
ELAINE ERWIN MATULIS, MODERN TIRE
RECAPPING COMPANY, INC. AND
3455 BTP, LLC

By: 
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SB NEWINGTON 433, LLC and
GUGGENHEIM RETAIL REAL ESTATE
PARTNERS, INC.

By: 
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TOWN OF NEWINGTON and
~~NEWINGTON TOWN PLAN AND~~
ZONING COMMISSION

By: 
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Ancona & Siegel
360 Maple Hill Avenue
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benancona@cox.net

CERTIFICATION

I hereby certify that a copy of the above was mailed or electronically delivered on February 23, 2017 to all counsel and self-represented parties of record and that written consent for electronic delivery was received from all counsel and self-represented parties of record who were electronically served:

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Amy E. Souchuns

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NICHOLAS BROWSE
TIMOTHY J. FOULKES, *FASA, INCE Bd. Cert.*
GREGORY C. TOCCI, *P.E., FASA, INCE Bd. Cert.*

PRINCIPALS

ALEXANDER G. BAGNALL, *CTS*
LINCOLN B. BERRY
MATTHEW J. MOORE, *CTS*

SENIOR AND STAFF CONSULTANTS

ANDREW C. CARBALLEIRA
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BRION G. KONING
ELIZABETH L. LAMOUR
KENT F. MCKELVIE, *P.E.*

EMERITUS PRINCIPAL

WILLIAM J. CAVANAUGH, *FASA, F-INCE*

August 14, 2015

Mr. Lawrence S. Grossman, Esq.
Hurwitz Sagarin Slossberg & Knuff, LLC
147 North Broad Street
Milford, CT 06460

Subject: Noise Mitigation Plan
Firestone Retail Tire Store, 2903 Berlin Turnpike, Newington, CT

Dear Mr. Grossman,

As requested, Cavanaugh Tocci Associates, Inc. has prepared a Noise Mitigation Plan for the Firestone Retail Tire Store recently constructed at 2903 Berlin Turnpike, Newington, Connecticut. This work is in response to the directive and order by The Honorable A. William Mottolese, Superior Court Judge dated July 29, 2015 in the matter of Bielitz, Colleen, *et al* v. Wex-Tuck Realty, LLC, *et al*. The Decision requires that the development team and Firestone management submit a Mitigation Plan that provides steps that the facility can take to assure its tool sound levels are in compliance with the Newington, Connecticut Chapter 291 Noise Ordinance and the State of Connecticut Regulations for the Control of Noise (§ 22a-69) at its own property line.

With the implementation of the Noise Mitigation Plan developed in this report, it is my conclusion that tool sound produced inside the recently completed Firestone Retail Store will conform to the limits of the Newington Chapter 291 Noise Ordinance as well as State Regulations for the Control of Noise. The following summarizes five steps that comprise the Noise Mitigation Plan. Certain of the sound control methods are discussed in more detail later in the report.

1. *Aircat Quiet Technology*

Use quiet impact wrenches in lieu of conventional impact wrenches. The plan to use these is in place and is important for maintaining compliance.

2. *Seal Undercut in Site Noise Barrier Fence*

The existing noise barrier fence has an approximate 2-inch undercut. The sound reduction performance of the noise barrier fence can be improved by closing-off this undercut with an additional fence rail attached to the backside of the fence frame.

3. *Close the Gap in the Noise Barrier Fence*

There is a gap in the property line noise barrier fence at the Bielitz property line, in the area behind the Firestone trash corral. Continue the noise barrier fence to close this fence opening.

4. *Tire Machine*

Install a red warning light at the tire machine to notify the machine operator when a rear door is open and that the tire bead seating operation is not permitted at that time.

5. *Door Lock-out Kill Switch*

To avoid more than one rear door being open at the same time, install an electronic door lock system that permits only one door to be open at any one time to permit vehicle entry and exit.

The following provides a general description of the facility, describes the applicable limits on sound, summarizes sound levels measured at a representative location atop an existing noise barrier fence on the Firestone property nearest bay doors at the rear of the facility, and estimates highest tool sound levels at the Firestone property line for conditions with rear doors open and closed.

Applicable Noise Limits

A. *Town of Newington, Connecticut*

The Newington noise ordinance is contained in Chapter 291 of the Town Code. § 291-6 Noise levels. Its limits apply at the emitter property line and depend upon its zoning classification and that of the adjacent receptor properties. In the case of adjacent residential receptors, limits differ for daytime and nighttime periods. Newington limits are in Table 1 of this report. Those specifically relevant to the Firestone Store are circled. As the operating hours of the Firestone Retail Store are to be within the Newington daytime hours, the limit on tool sound at the nearest residentially zoned property is 55 dBA.

Zone in Which Emitter is Located	Zone in Which Receptor is Located			
	Industrial (dBA)	Business (dBA)	Residential Daytime Hours (dBA)	Residential Nighttime Hours (dBA)
Industrial	70	66	61	51
Business	62	62	55	45
Residential	62	55	55	45

Note: Daytime hours are those between 7:00 a.m. and 10:00 p.m., Monday through Saturday, and the hours between 9:00 a.m. and 10:00 p.m. on Sunday.

Figure 1. Town of Newington, CT Chapter 291 Noise Limits

B. *State of Connecticut Department of Energy and Environmental Protection (DEEP) Noise Regulation*

DEEP Regulations for the Control of Noise (§ 22a-69) (the DEEP regulation) limits noise on the basis of both emitter and receptor land use classifications. These limits are provided in Table 2 below.

Emitter Class	Receptor Class			
	C	B	A/Day	A/Night
C	70 dBA	66 dBA	61 dBA	51 dBA
B	62 dBA	62 dBA	55 dBA	45 dBA
A	62 dBA	55 dBA	55 dBA	45 dBA

Table 2. A-weighted Sound Level Limits
 Connecticut Regulations for the Control of Noise (§ 22a-69-3.5)

In the above table, day is defined as the time interval 7:00 AM to 10:00 PM. Night is defined as the time interval 10:00 PM to 7:00 AM. Noise Zone Classifications are based on the actual use of the land and do



not rely on local zoning. Where multiple land uses exist on the same property, the least restrictive limits apply.

- **Class A noise zone** is land generally designated for residential use or areas where serenity and tranquility are essential to the intended use.
- **Class B noise zone** includes land uses generally of a commercial nature. Note that in this regulation the adjacent school property is considered a Class B noise zone.
- **Class C noise zone** includes land uses generally of an industrial nature.

Facility Site

Figure 1 presents the Firestone Retail Store building and site plan overlaid on an aerial photograph. The facility is accessed from the Berlin Turnpike. The building is divided into three parts. The southern most part is customer waiting and service; the center is the automobile service area for ten vehicles; the northern most part are office and inventory areas. The center service area can accommodate ten vehicles, and is built with five bay doors at the front (east side) of the building and five at the rear. Services include tire replacement and repair, brake servicing, and other vehicle maintenance. Nearest existing residences, or buildings potentially to be used as a residence are to the west and northwest of the facility.

Figure 1. Aerial photo showing the facility location
Firestone Retail Store, Newington, CT

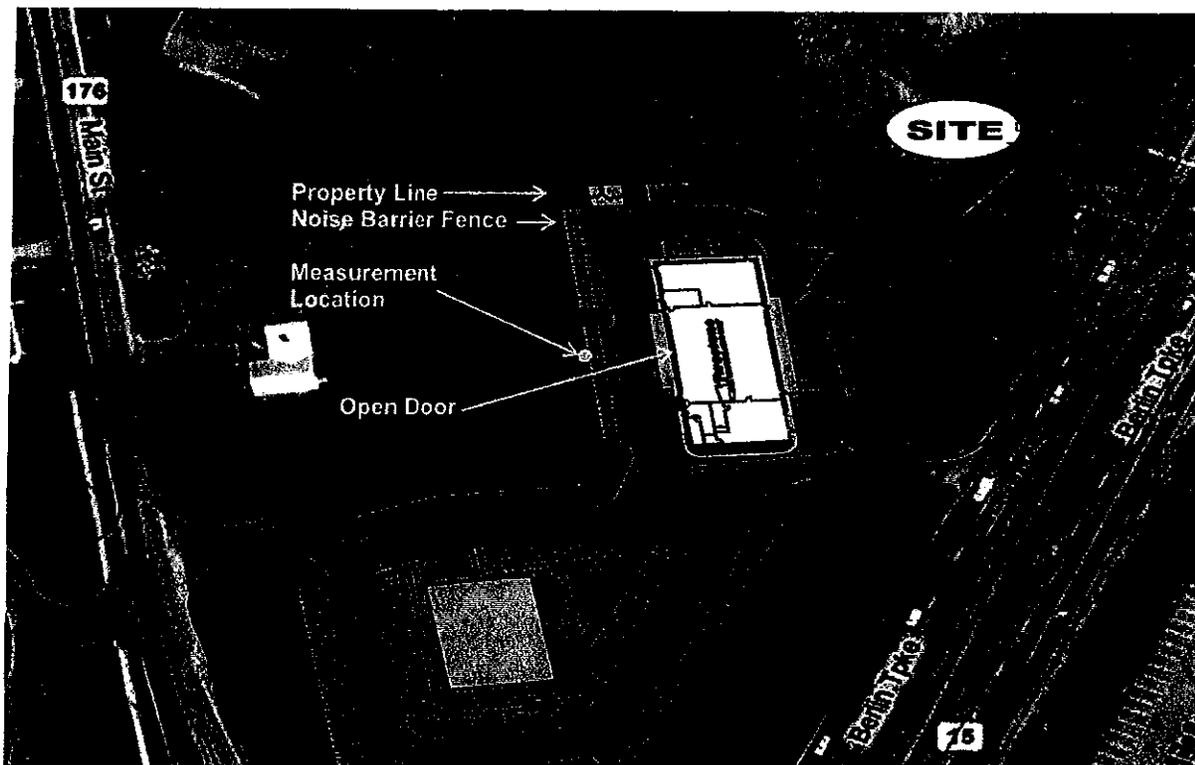
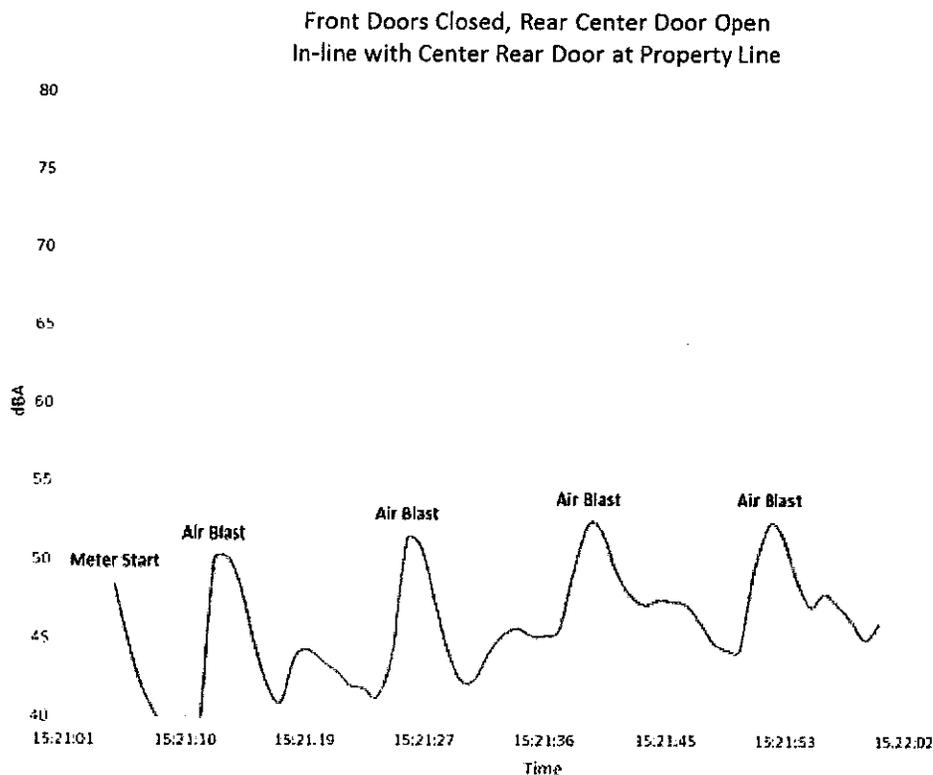


Figure 1 also shows the location of a noise barrier fence and a sound measurement location at the fence line where the microphone was located two feet above the top edge of the fence. The figure also

identifies the general location of the center door of the five at the rear of the building. The sound measurement location was selected as it is the closest fence line location to the building rear center door. Tools operated inside the building were measured at the location shown for conditions of the building rear center door open and closed. The Firestone Retail Store property line is also shown and is approximately six feet behind the noise barrier fence.

Tool sound levels were measured at a location two feet above the fence and determined at the Newington noise ordinance compliance location, i.e. at the property line, 5 feet above ground level. Direct measurement of most tool sound at the compliance location was not possible, because most tool sound levels were too low to measure without interference from background sound produced by traffic on area roads. The only exception to this was short-duration air blast sound produced by the tire machine. The tire machine was pulsed to produce an air blast much like what occurs during bead seating. The measured sound level ranged between 50 and 53 dBA at the property line adjusted for one rear door open, and is approximately 10 dBA above the background produced by area traffic. These data are shown in Figure 2.

Figure 2. Tire machine air blast as measured at the property line
opposite the building center
Firestone Retail Store, Newington, Connecticut



Sound Measurements

Sound levels were measured at the location shown in Figure 1 on Thursday, August 6, 2015 during mid-day hours. A-weight slow sound level meter response maximum sound levels ($L_{A_{Smax}}$) produced by tools were measured with all building rear doors closed and with one building rear door open. Measurements were completed for all tools operating inside the vehicle service area. Sound levels were measured using a Bruel & Kjaer 2250 sound level analyzer outfitted with a windscreen and mounted on a tripod straddling the top of the fence. This instrument and its use conforms to IEC 61672 for Class 1 precision sound measurement instrumentation. Tools used are of the type expected to be used in the facility once it opens for business.

A summary of the sound levels measured at the location shown in Figure 1, two feet above the top edge of the fence directly opposite the open building rear center door is presented in Table 3. All other rear doors and all front doors were closed during these measurements.

Table 3. Sound levels measured two feet above the top edge of the fence directly opposite the open building rear center door Firestone Retail Store, Newington, Connecticut

Test Date	6-Aug-15		
Measurement Location	M1	2 ft above sound barrier fence across from Door 3	
Door Open	3		
LASmax [dBA]			
Tool/Operation	Lowest	Highest	Comment
Quiet Impact Wrench--Aircat Model 1000-2-TH			
Lugs Off	57	59	
Lugs On	57	60	
Tire Machine--Coats Model 70X-AH-L			
Tire Deflate		63	
Tire Dismount		55	
Tire Mount		56	
Bead Set		69	
Air Chisel--Cornwell Model CAT 3250AHMV			
Remove Stuck Part	65	66	General use, infrequent
Air Drill--Ingersol Rand Model 7803 RA			
Drilling hole	61	61	General use, infrequent
Air Grinder--Cornwell CAT-520			
Grinding parts	68	70	General use, infrequent
Air Ratchet--Ingersol Rand Model 107SPA			
Brake Caliper Removed	62	62	
Brake Caliper Installed	60	62	
Conventional Air Impact Wrench--Ingersol Rand Model 2135 T Max			
Lugs Off	58	66	Tested, but not to be used.
Lugs On	60	66	
Battery Impact Wrench--AC Delco Model ARI 2060 (18 v)			
Lugs Off	54	56	Tested, but not to be used.
Lugs On	55	57	Insufficient power. Short battery life.

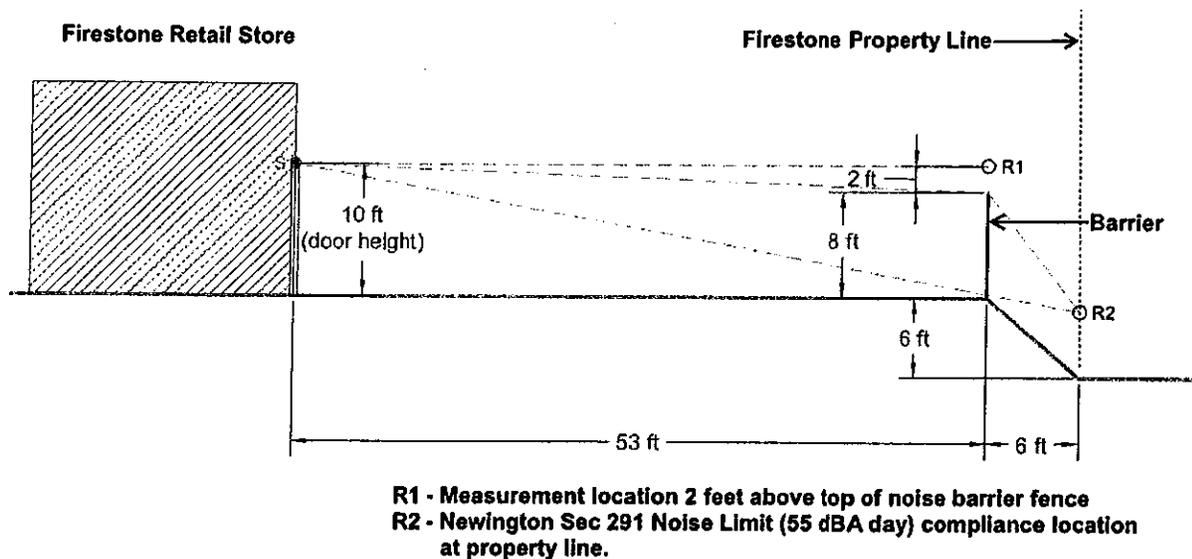
Table 3 also indicates the tools and tool models used for sound level testing. All tools are anticipated to be used for retail services except for the conventional (noisier) air and battery impact wrenches. The vehicle where tool use was employed for sound measurement purposes was situated in the front middle bay.

In previous testimony, estimates of tool sound at the property line were based on data collected without the sound mitigation provided by the partially closed building, i.e. the building with one door open and tools being used on vehicles in other bays. By direct testing of sound, as has been done here and presented in Table 3, effects of distance spreading, atmospheric absorption, partial screening by the building were able to be included. Measurements of tool sound are representative of sound produced by all tools expected to be used at the new facility. I have been advised by Store Management that tool use will be prohibited by outside the building.

Property Line Sound Levels

Newington Chapter 291 noise limits are measured at the property line, which is shielded by the existing noise barrier fence. Sound levels at the property line were not measureable because background sound produced by area road traffic obscured tool sound, even with the building rear center door open. Figure 3 is a section showing the juxtaposition of the building, the noise barrier fence, the measurement location at the fence (R1 in Figure 3), the property line, and the property line location (R2 in Figure 3, which is at the property line and 5 feet above the ground) where Store tool sound must comply with the Newington noise ordinance limits.

Figure 3. Section through the building rear center door and measurement location
Firestone Retail Store, Newington, Connecticut



Using Cadna, the sound level reduction provided by the noise barrier fence was estimated to be as high as 24 dBA for noisiest tool sounds dominated by mid- and high-frequency energy produced by air blow-offs. Cadna/A is a computer program that implements the data and modeling techniques of ISO 9613-1

and ISO 9613-2 to estimate sound levels at community receptor locations. Despite this high estimate of noise reduction, I have decided to use a conservatively low 15-dBA noise reduction to determine property line sound levels. The lower noise reduction has been used to account for scattering of sound from deciduous foliage near to and on the receptor side of the barrier. Scattering of sound can reduce barrier attenuation otherwise obtainable in a flat field not having trees near to and above the barrier top edge.

Table 4 summarizes tool sound estimated at the property line compliance location. It can be seen from data in Table 4 that the sound produced by all tools at the compliance location are within the Newington Chapter 291 sound level limits as the facility is currently built when one rear is door open.

Table 4. Sound levels estimated at the property line location directly opposite the open building rear center door based on sound levels measured two feet above the fence top edge Firestone Retail Store, Newington, Connecticut

Property Line Compliance Location	PL1		
Door Open	3		
Noise Barrier Fence Atten.	-15		
LASmax [dBA]			
Tool/Operation	Lowest	Highest	Comment
Quiet Impact Wrench--Aircat Model 1000-2-TH			
Lugs Off	42	44	
Lugs On	42	45	
Tire Machine--Coats Model 70X-AH-L			
Tire Deflate		48	
Tire Dismount		40	
Tire Mount		41	
Bead Set		54	
Air Chisel--Cornwell Model CAT 3250AHMV			
Remove Stuck Part	50	51	General use, infrequent
Air Drill--Ingersol Rand Model 7803 RA			
Drilling hole	46	46	General use, infrequent
Air Grinder--Cornwell CAT-520			
Grinding parts	53	55	General use, infrequent
Air Ratchet--Ingersol Rand Model 107SPA			
Brake Caliper Removed	47	47	
Brake Caliper Installed	45	47	
Conventional Air Impact Wrench--Ingersol Rand Model 2135 T Max			
Lugs Off	43	51	Tested, but not to be used.
Lugs On	45	51	
Battery Impact Wrench--AC Delco Model ARI 2060 (18 v)			
Lugs Off	39	41	Tested, but not to be used.
Lugs On	40	42	Insufficient power. Short battery life.

Sound Levels with All Rear Doors Closed

Most of the concern has been for sound transmitted to the property line with one building rear door open while a vehicle enters or leaves the building. Tool sound levels produced with all rear doors closed has also been tested. These data are summarized in Table 5. As noted in Table 5, most often tool sound was not audible, the only exceptions being the air blast sound during tire machine bead seating and during the use of conventional air impact wrenches, which will not be used in the Firestone Retail Store. Instead, quieter Aircat Model 1000-2-TH impact wrench will be used. The 59-dBA air blow-off sound during bead seating corresponds to a compliance location, i.e. property line location, sound level of 49 dBA, within the Newington 55-dBA daytime limit.

Table 5. Sound levels measured two feet above the top edge of the fence directly opposite the closed building rear center door Firestone Retail Store, Newington, Connecticut

Test Date	6-Aug-15		
Measurement Location	M1	2 ft above sound barrier fence across from Door 3	
Door Open	3		
	LASmax {dBA}		
Tool/Operation	Lowest	Highest	Comment
Quiet Impact Wrench--Aircat Model 1000-2-TH			
Lugs Off	Inaud.	Inaud.	
Lugs On	Inaud.	Inaud.	
Tire Machine--Coats Model 70X-AH-L			
Tire Deflate	Inaud.	Inaud.	
Tire Dismount	Inaud.	Inaud.	
Tire Mount	Inaud.	Inaud.	
Bead Set		59	
Air Chisel--Cornwell Model CAT 3250AHMV			
Remove Stuck Part	Inaud.	Inaud.	General use, infrequent
Air Drill--Ingersol Rand Model 7803 RA			
Drilling hole	Inaud.	Inaud.	General use, infrequent
Air Grinder--Cornwell CAT-520			
Grinding parts	Inaud.	Inaud.	General use, infrequent
Air Ratchet--Ingersol Rand Model 107SPA			
Brake Caliper Removed	N/A	N/A	Estimated not to exceed 52 dBA
Brake Caliper Installed	N/A	N/A	Estimated not to exceed 52 dBA
Conventional Air Impact Wrench--Ingersol Rand Model 2135 T Max			
Lugs Off	51	53	Tested, but not to be used.
Lugs On	52	53	
Battery Impact Wrench--AC Delco Model ARI 2060 (18 v)			
Lugs Off	N/A	N/A	Estimated not to exceed 46 dBA
Lugs On	N/A	N/A	Estimated not to exceed 47 dBA

Multiple Tools Operating

There will be times when more than one tool will operate simultaneously. The probability of two tools operating simultaneously would be more frequent than three operating simultaneously, would, correspondingly, be more frequent than four operating simultaneously, and so on. Depending on which of the countless number of combinations of tools operating, the amount by which the total sound level exceeds the sound produced by the loudest tool of the group operating on its own will vary.

As an example of a practical upper limit to sound that could be produced by multiple tools operating by chance, assume that the tire machine bead set air blast of 54 dBA with one door open at the property line were to occur when five quiet technology impact wrenches are being used, the total sound pressure level at the property line would still only be 55 dBA.

Though sound produced by no tools operating in the service area with one building rear door open exceeds the Newington Noise Ordinance at the property line, we have explored possible situations when a rear door would be open and multiple tools could be operating. For example, were the air grinder at 54 dBA at the compliance location to be used when the tire machine bead seat air blast of 54 dBA occurs, and were five air wrenches to be also in use at the same time, the total could be as high as 58 dBA, three decibels over the Newington limit. Accordingly, I have determined that it would be prudent to institute a Noise Mitigation Plan as ordered by the Court. The Noise Mitigation Plan eliminates bead seating while a rear door is open thus reducing total sound levels in this example to 55 dBA.

Noise Mitigation Plan

To guard against possible conditions, even for only for a brief moment, when sound levels produced by multiple tools operating simultaneously could exceed the Newington property line limit of 55 dBA, the following noise mitigation methods should be employed:

1. *Aircat Quiet Technology*
Use quiet impact wrenches in lieu of conventional impact wrenches. The plan to use these is in place and is important for maintaining compliance.
2. *Seal Undercut in Site Noise Barrier Fence*
The existing noise barrier fence has an approximate 2-inch undercut. The sound reduction performance of the noise barrier fence can be improved by closing-off this undercut with an additional fence rail attached to the backside of the fence frame. This will increase the barrier sound attenuation from 15 dBA currently to 16 dBA or higher.
3. *Close the Gap in the Noise Barrier Fence*
There is a gap in the property line noise barrier fence at the Bielitz property line, in the area behind the Firestone trash corral. Continue the noise barrier fence to close this fence opening.
4. *Tire Machine*
Install a warning light at the tire machine to notify the machine operator when a rear door is open and that the tire bead seating operation is not permitted at that time.
5. *Door Lock-out Kill Switch*
To avoid more than one rear door being open at the same time, install an electronic door lock system that permits only one door to be open at any one time to permit vehicle entry and exist.

Conclusions

The sound produced by tools in the recently completed Firestone Retail Store, as it is currently built, will meet the limits of the Newington Chapter 291 Noise Ordinance and applicable State Regulations when

one building rear door is opened for vehicles entering or leaving the service area. However, though rare, there are occasions when multiple tools operating might cause property line sound levels to slightly exceed the 55-dBA daytime limit momentarily. Accordingly, a Noise Mitigation Plan has been developed that will reduce sound by the noisiest frequently used equipment item, i.e. the tire machine to prevent this occurrence. With the Noise Mitigation Plan implemented, sound levels under all circumstances will meet the Newington Chapter 291 Noise Ordinance limits.

* * *

If we can provide any further information, please do not hesitate to contact us. Thank you.

Yours sincerely,

CAVANAUGH TOCCI ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Gregory C. Tocci". The signature is fluid and cursive, with a large initial "G" and a distinct "T" at the end.

Gregory C. Tocci, Sr. Principal Consultant

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