APPLICATION FOR VARIANCE FROM EPB RULES

Application No.
Set for Public Hearing on:
Notice of Violation:

Please type or print this application in blue or black ink and submit ***in person*** or by agent with 2 additional copies to:

Environmental Protection Board
Attn: James Richardson
Edward Ball Building
214 N. Hogan Street, 5th Floor
Jacksonville, Florida 32202

FOR INFORMATION REGARDING THIS FORM, CALL: **(904) 255-7100**

THIS SECTION FOR OFFICE USE ONLY

1. Date Submitted:	2. Date Returned:	3. Date Approved:	4. Permit Required:	5. Applicable Section of EPB Rule:

TO BE COMPLETED BY APPLICANT

Application Fee: Please submit a **$2,788.00** application fee. Checks should be made payable to the Tax Collector.

6. Location for which Variance is being sought:

200 Riverside Avenue
Jacksonville, Florida 32204

7. Cross streets bracketing area:

Jackson St
Magnolia St

8. Proximity of site to nearest residential neighborhoods:

Name of subdivision, apt., etc.	Distance (miles)
220 Riverside	adjacent
The Brooklyn Riverside	0.1
244, 248, 252 Magnolia St	adjacent

9. Proximity of site to nearest schools:

Name of School	Distance (miles)
Chappell Schools	0.2
Riverside Presbyterian Day School	0.6
Lavilla School of the Arts	0.7

10. Has enforcement action commenced? Yes No X
(i.e. Notice to Correct, Warning Letter, Cease and Desist Citation or any other enforcement action)

11. Action or operation for which variance is being sought (check all that apply and indicate rule number):

	Air/Odor Pollution Rules	Rule 2.
	Water Pollution Rules	Rule 3.
X	Noise Pollution Rules	Rule 4. 207 A & B

RULES OF THE ENVIRONMENTAL PROTECTION BOARD CAN BE FOUND AT:
http://www.coj.net/departments/regulatory-compliance/environmental-quality/environmental-p 207 B rotection-board-(1)/epb-rules.aspx

* * * NOTICE TO OPERATOR/AGENT * * *

Please provide detailed responses to each of the following pertaining to the standards and criteria contained in Sec. 360.111. You may attach separate sheets if necessary.

(Please note that failure by the applicant to adequately substantiate the need for the variance and to respond to and meet the criteria set forth below may result in a denial of the application or a return of the application for additional information. Any activity that violates EPB Rules occurring during the time between submission of this application and the determination of completeness may be cited as a violation of EPB Rules. Safe harbor provisions will only apply if the application is deemed sufficient).

(1) The law or rule, and sections thereof, from which a variance is sought.

We respectfully request variance to Rule 4.207 A & B of the Jacksonville Environmental Protection Board. Specifically, the 65 dB limitation for use of construction equipment near Class A and B Lands, and 60 db limitation for nighttime operation of well point pumps.

(2) The facts which show that a variance should be granted because of one of the following reasons:

(i) There is no practicable means known or available for the adequate control of the pollution involved. A variance granted under the authority of this subparagraph shall be limited to a period of sixty months.

(ii) Compliance with the particular requirement or requirements from which a variance is sought will necessitate the taking of measures which, because of their extent or cost, must be spread over a considerable period of time. (A variance granted for this reason shall prescribe a timetable for the taking of the measures required. A variance granted under the authority of this subparagraph shall be limited to a period of sixty months).

(iii) It is necessary to relieve or prevent hardship of a kind other than those provided in subparagraphs (i) and (ii). A variance granted under the authority of this subparagraph shall be limited to a period of twenty-four months.

Heavy equipment including backhoes, front loaders, forklifts, cranes, etc. will be necessary for the construction of a 10-story apartment tower known as Vista Brooklyn. Other than providing equipment mufflers and silencers, there is no practical means known or available for superior control of noise generated from operation of this equipment. During the first 4 months of this project, electric dewatering pumps will be required which may exceed the 60 db night time limit.

(3) The period of time for which the variance is sought, including the reasons and facts in support thereof.

The period of time requested for this variance is 24 months. This coincides with the planned construction schedule duration which is consistent with industry standards for a project of this magnitude and complexity.

(4) The damage or harm resulting or which may result to the person requesting the variance from a compliance with the law or rule.

There is no practical alternative to the variance. Denial of this request will almost certainly result in cancellation of the project and forfeiture of funds already expended in the design, permitting and planning phases.

(5) The requirements which the person requesting the variance can meet and the date when the person can comply with these requirements.

We are immediately ready to meet industry standard construction equipment noise emission levels that can be attained using mufflers and silencers.

(6) The steps the person requesting the variance is taking to meet the requirements from which the variance is sought and when compliance will be achieved.

Heavy construction activities exceeding the noise ordinance requirements will progress expeditiously. Once the exoskeleton of the building is complete in approximately 12 months, noise generated will primarily be confined to the interior and be below the 65 db requirement as measured to adjacent lands.

(7) Any beneficial or adverse impact to residents and the environment in the affected area resulting from the Board's requiring compliance or granting a variance.

There will be a temporary inconvenience to surrounding residents and businesses. Please be advised that current noise levels along Riverside Avenue due to peak traffic volumes likely already exceed the 65 db threshold during daytime hours.

(8) The economic or social impacts of granting or denying the variance.

As stated previously, denial of this variance will create negative economic impact in the form of lost funds and resources expended in planning for this

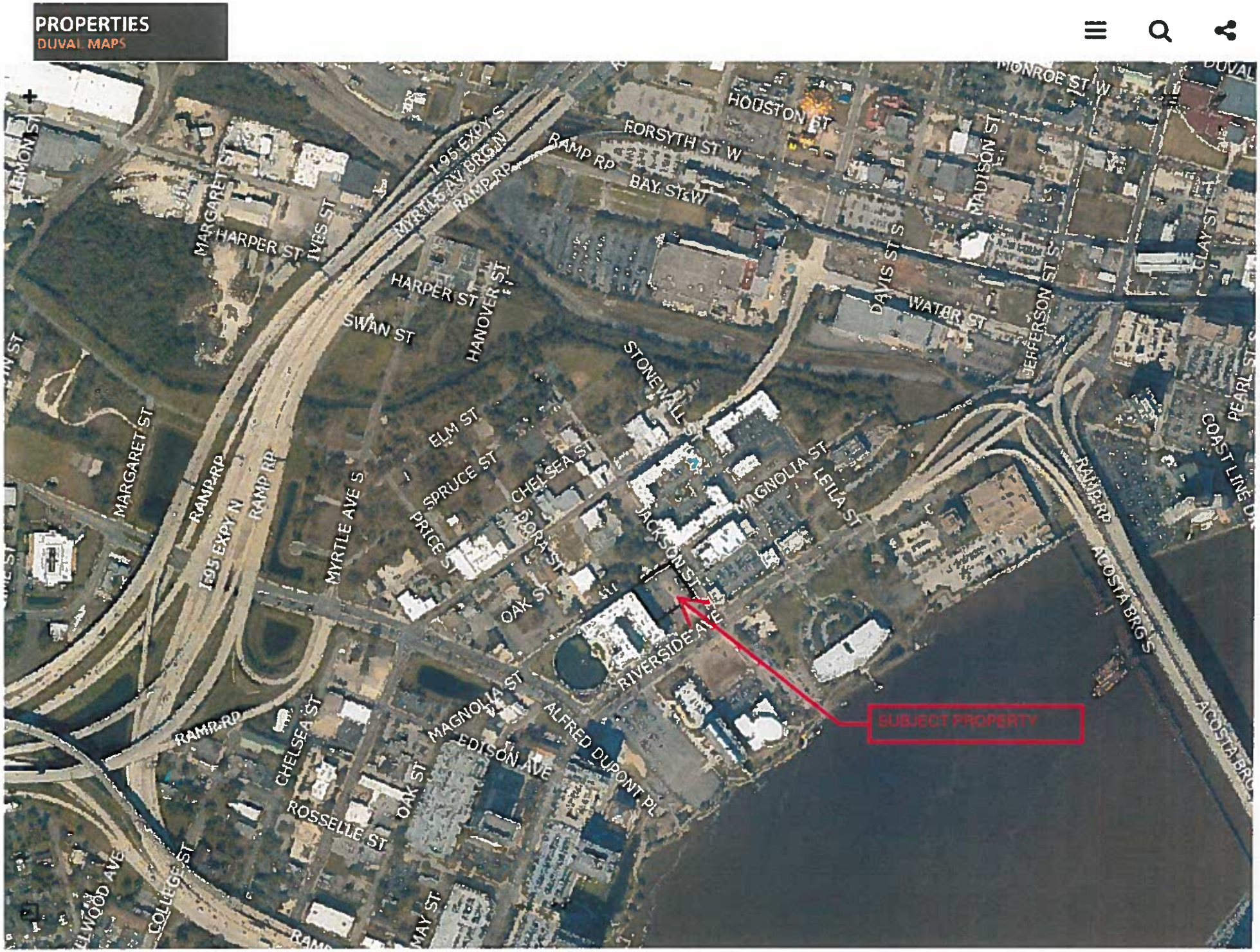
project. Conversely, the City of Jacksonville stands to gain additional tax revenue upon completion of the land improvements and subsequent increase in assessed property value.

IMPORTANT NOTICE: THE GRANTING OF A VARIANCE HEREUNDER IS NOT A WAIVER OF ANY APPLICABLE STATE OR FEDERAL RULES AND DOES NOT PROVIDE PROTECTION FROM ENFORCEMENT OF ANY SUCH RULES.

I HEREBY CERTIFY THAT I HAVE READ AND UNDERSTAND the information contained in this application, that I am the owner or authorized agent for the owner with authority to make this application, and that all of the information contained in this application, including any attachments, is true and correct to the best of my knowledge.

PLEASE PRINT:

NAME AND ADDRESS OF OWNER/APPLICANT:	NAME AND ADDRESS OF AUTHORIZED AGENT:
NAME: ERICH E REICHLE, PE	NAME:
ADDRESS: 4601 TOUCHTON ROAD, BLDG 300	ADDRESS:
CITY: JACKSONVILLE STATE: FL ZIP: 32246	CITY: STATE: ZIP:
DAYTIME TELEPHONE: 904.256.6834	DAYTIME TELEPHONE:
FAX NUMBER: 904.256.6801	FAX NUMBER:
Erich Reichle SIGNATURE OF OWNER/APPLICANT	SIGNATURE OF AUTHORIZED AGENT


PROPERTIES
DUVAL MAPS
MONROE ST W
HOUSTON ST
FORSYTH ST W
BAY ST W
MADISON ST
CLAY ST
DAVIS ST S
WATER ST
JEFFERSON ST S
PEARL ST S
COAST LINE DR
I 95 EXPY S
MYRTLE AV BRG N
RAMP RP
MARGARET ST
HARPER ST
IVES ST
HANOVER ST
SWAN ST
STONEWALL ST
ELM ST
SPRUCE ST
CHELSEA ST
PRICE ST
DORA ST
MAGNOLIA ST
LEILA ST
JACKSON ST
OAK ST
RIVERSIDE AVE
ALFRED DUPONT PL
EDISON AVE
ROSSELLE ST
COLLEGE ST
MAY ST
ACOSTA BRG S
I 95 EXPY N
MYRTLE AVE S
SUBJECT PROPERTY


VISTA

BRASFIELD & GORRIE
GENERAL CONTRACTORS

Vendor	Check No
104557	1825971

Invoice Number	Invoice Date	Description	Gross Amount	Discount	Net Amount
103018	2018-10-30	Noise Variance fee	2788.00		2788.00
DETACH AND RETAIN THIS STATEMENT The attached check is in payment of items described above. If not correct, please notify us promptly. No receipt desired.		Totals	2788.00		2788.00

DO NOT ACCEPT THIS CHECK UNLESS THE PINK LOCK & KEY ICONS FADE WHEN WARMED AND YOU CAN SEE A CHAINLINK SHAPED TRUE WATERMARK WHEN HOLDING THE CHECK TO THE LIGHT

BRASFIELD & GORRIE
GENERAL CONTRACTORS

3021 7th Avenue South
Birmingham, AL 35233
(205) 328-4000

Regions
Regions Bank
of Walker County

61-373
622

Check Date
2018-10-30

Check No.
1825971

Pay TWO THOUSAND SEVEN HUNDRED EIGHTY EIGHT AND 00/100**********

Check Amount
$*****2,788.00

Void After 180 Days

To the Order of
MICHAEL CORRIGAN
Duval County Tax Collector
P O Box 44009
Jacksonville FL 32231-4009

⑈0182597⑆ ⑆062203735⑆ 0010025774⑈

Hi Erich,

We have performed an initial technical review of your application for a noise variance, revision dated November 5, 2018. Prior to completing the technical review, and being comfortable recommending that the Environmental Protection Board (EPB) issue a noise variance for the project, we will need some additional information (I do like how you specified what equipment will be operating at night and for how long – that is very helpful). Specifically,

1. For each item of equipment that you anticipate to be onsite, in addition to the noise levels provided in the application, can you please list the source of your information (e.g. manufacturer, typical based on "" document, etc.), and what the noise level specified represents (sound power level, usually represented by Lw or sound pressure level measured at some distance). This information is necessary to try to model the site and determine the likely impacts to neighboring receptors. **The levels indicated in the application were primarily derived from "Table 9.1 RCNM Default Noise Emission Reference Levels and Usage Factors" (https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook09.cfm) Our data for the electric dewatering pump was provided by the subcontractor (Complete Dewatering, 710 West Park Ave., Edgewater, FL 32132). The levels indicated are L_{max} dB @ 50ft which is the highest recorded measurement by a sound meter over a slow (1 second) time constant.**

2. We normally require a site diagram showing the anticipated location of the equipment. I understand that your construction site is small, but if some of your equipment will be primarily operated in a certain area of the site, it would be helpful to know that so we can estimate the impact to the receptors. If not, please explain. Also, please indicate where you anticipate the concrete pump truck to be located when doing night pours and where the concrete trucks will stage, how they enter and leave the site, etc. **Please see the attached map indicating our planned operating locations for dewatering pumps, vibratory sheetpile hammer, and crawler crane. Additionally, we have identified the location for our concrete pump and staging/travel paths for concrete trucks.**

3. Your map or diagram needs to identify all Class A and B properties that may be impacted. **See attached map for all Class A and B properties in the surrounding area.**

4. The requested noise levels, in dBA measured at the property line of the receptors, needs to be specified. You may request a separate level for day, night, and peak (for impact equipment), if you like. These levels should be based on the anticipated equipment operating on site at the same time, the placement of the equipment, mitigation measures taken, and the distance from the closest receiving property line (not just on the equipment noise level itself). **The surrounding Class A and B property receptors anticipated to be affected by the variance are listed below along with our requested worst case day and night time noise levels:**
    a. **220 Riverside Apartments**
        i. **Daytime from sheetpiling and crawler crane……101 db**
        ii. **Nightime from concrete mixer and pump trucks……90 db**
    b. **The Brooklyn Riverside Apartments**
        i. **Daytime from sheetpiling and crawler crane……98 db**
        ii. **Nightime from concrete mixer and pump trucks……90 db**

c. **224, 248 and 252 Magnolia Street residences**
    i. **Daytime from sheetpiling and crawler crane……95 db**
    ii. **Nightime from concrete mixer and pump trucks……..85 db**

5. Please describe whether you plan to do any routine noise monitoring, and if so, please specify what you will be doing. **We do not plan on performing any routine noise monitoring. We will implement a community outreach program as described below.**

6. Variances usually require that the contractor notify receptors likely to be impacted prior to commencement of certain noisy events, construction at night, etc. Please describe how you plan to do notifications and whether you plan on providing the neighbors with company contact information to receive and respond to noise complaints. **Our plan is to perform a community outreach for surrounding properties likely to be impacted. This will include contacting each potentially affected property owner to provide advance notice of upcoming noise generating activities and their durations. Additionally, a 24-hour hotline will be setup for complaints where we will log and track any issues until resolution.**

7. In (2) on page 2 of your application, you state "Other than providing equipment mufflers and silencers, there is no practical means known or available for superior control of noise generated from operation of this equipment.". We believe there are additional noise mitigation measures that could be taken for the noisiest operations (see the attached New York City Construction Noise Rules for examples). Due to the close proximity of residences to the construction site (adjacent to the west and close to the northeast), we would like to see a more in-depth discussion of the noise mitigation measures considered for each of the noisiest operations. If you determine that for a particular operation, that there is no further noise mitigation that is practical, please tell us why. You should at least consider some of the following, if practical:
    a. Placement of equipment as far away from receptors as practical.
    b. Use of noise barrier walls at certain locations or around certain equipment.
    c. Use of noise blankets (sound absorbing) to cover certain equipment or the motors of certain equipment.
    d. Pre-drilling pilings to a certain depth, use of sound barrier sheathing around pilings, and use of properly secured cushions on top of piles.
    e. Use of quieter OSHA approved backup alarms on equipment that will be on-site for longer periods and minimizing backing up of other equipment (e.g. nighttime concrete deliveries might be routed to avoid backing up except to the pump truck).
    f. Not allowing cement trucks to air off near the site (if they will be airing off).

    As much as possible, we have attempted to locate equipment generating the loudest noise emission away from surrounding receptors:

    By using an electric dewatering pump, this should eliminate the need for a variance on this piece of equipment all together. However, in the unlikely event our backup diesel pump must be used, we will provide sound blankets to help mitigate the noise. The pumps must be placed within 100 ft of the storm sewer system which limits the location to along the closed section of Magnolia Street as shown on our equipment location map.

    The vibratory hammer for installation of the temporary sheetpiling will also traverse along the closed section of Magnolia Street as shown on our equipment map. This is a very short duration activity of 1 week for installation and 1 week for removal. Subsurface materials are loose to medium dense sands so pre-augering should not be necessary. While installing

temporary sound barriers would provide attenuation to receptors at ground level, sound wave refraction due to daytime temperature stratification will still expose residents in the upper floors of low-rise apartment buildings. It should be noted that the lower floor levels of the 220 Riverside Apartments immediately adjacent to the construction site are non-occupied parking garage up to approximately 12 feet above grade.

The crawler crane used for erection of the precast parking garage will operate in the areas shown on the equipment plan. This will be a moderate 12-week duration activity and similarly to the vibratory hammer, sound wave refraction will expose residents in upper floor units. Once the parking garage is erected, however, it will then act as a sound barrier between the new apartment tower construction and 220 Riverside Apartments.

We anticipate using the electric tower crane primarily for placing elevated concrete. However, there will be instances where a concrete pump is necessary. In this case, the plan is to have a pump located along Jackson Street as shown on the equipment map. Concrete mixer trucks will stage along Magnolia and either load the crane bucket there or move through the closed area of Jackson Street to the concrete pump. Air off will occur along the southeastern end of Jackson Street near Riverside Avenue which is the farthest point away from residential receptors.

Regarding equipment backup alarms, we will enforce the use of lower level "white noise" type alarms on equipment used onsite for extended periods.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Google
VISTA BROOKLYN
RESIDENCE
APARTMENTS
SCHOOL
CHURCH
COMMUNITY CENTER/PARK
AUDITORIUM/THEATRE
SOCIAL SERVICES

Property Identification

1. Riverside Park
2. Jasmyn Social Services Organization
3. Sonlife Church
4. Theatreworks
5. Chappell School
6. Sidney J. Gefen Riverwalk Park
7. YMCA
8. 220 Riverside Apartments
9. The Brooklyn Riverside Apartments
10. Church of God in Christ Temple
11. JS Johnson Community Center
12. Brooklyn Park
13. Allen Chapel AME Church
14. Prime Osborn Convention Center
15. Lofts at LaVilla


De-watering pump
Concrete truck travel path
Concrete Pump
Sheet piles driven by vibratory hammer
Concrete truck staging area
Crawler crane path

Richardson, James

To: Reichle, Erich
Subject: RE: Noise Variance Application - 200 Riverside Ave Project

From: Reichle, Erich <EReichle@BrasfieldGorrie.com>
Sent: Sunday, January 06, 2019 12:37 PM
To: Williams, Michael <MCWilliams@coj.net>; Richardson, James <Jrichard@coj.net>
Cc: Webber, Kip <KWebber@coj.net>; Long, Melissa <MelissaL@coj.net>; Nunnery, Joel <JNunnery@BrasfieldGorrie.com>; Vande Velde, Kenny <KVande@BrasfieldGorrie.com>; Fagg, Derrick <DeFagg@BrasfieldGorrie.com>
Subject: RE: Noise Variance Application - 200 Riverside Ave Project

Michael:

See responses below

ERICH E REICHLE, PE
Senior Project Manager

BRASFIELD & GORRIE, LLC
4601 Touchton Road, Building 300, Suite 3190
Jacksonville, Florida 32246
office: 904.256.6834
mobile: 904.253.9672
email: ereichle@brasfieldgorrie.com
web: www.brasfieldgorrie.com

From: Williams, Michael <MCWilliams@coj.net>
Sent: Friday, December 28, 2018 11:03 AM
To: Reichle, Erich <EReichle@BrasfieldGorrie.com>; Richardson, James <Jrichard@coj.net>
Cc: Webber, Kip <KWebber@coj.net>; Long, Melissa <MelissaL@coj.net>; Nunnery, Joel <JNunnery@BrasfieldGorrie.com>; Vande Velde, Kenny <KVande@BrasfieldGorrie.com>; Fagg, Derrick <DeFagg@BrasfieldGorrie.com>
Subject: RE: Noise Variance Application - 200 Riverside Ave Project

Hi Erich,

I have a few additional questions:

1. Can you tell me how many night pours you expect and roughly how long each will last (1 night only, multiple nights, etc.)?

CIP:

- Level 2, Pour 1 – Approx. 4 Hours
- Level 2, Pour 2 – Approx. 4 Hours
- Level 3, Pour 1 – Approx. 10 Hours
- Level 3, Pour 2 – Approx. 10 Hours

- Level 3, Pour 3 - Approx. 10 Hours
- Level 10, Pour 1 – Approx. 10 Hours
- Level 10, Pour 2 – Approx. 10 Hours

HC Topping Slabs:

- Level 2, Pour 1 – Approx. 4 Hours
- Level 2, Pour 2 – Approx. 4 Hours
- Level 3, Pour 1 – Approx. 4 Hours
- Level 3, Pour 2 – Approx. 4 Hours
- Level 4, Pour 1 – Approx. 4 Hours
- Level 4, Pour 2 – Approx. 4 Hours
- Level 4, Pour 3 – Approx. 4 Hours
- Level 5, Pour 1 – Approx. 4 Hours
- Level 5, Pour 2 – Approx. 4 Hours
- Level 5, Pour 3 – Approx. 4 Hours
- Level 6, Pour 1 – Approx. 4 Hours
- Level 6, Pour 2 – Approx. 4 Hours
- Level 6, Pour 3 – Approx. 4 Hours
- Level 7, Pour 1 – Approx. 4 Hours
- Level 7, Pour 2 – Approx. 4 Hours
- Level 7, Pour 3 – Approx. 4 Hours
- Level 8, Pour 1 – Approx. 4 Hours
- Level 8, Pour 2 – Approx. 4 Hours
- Level 8, Pour 3 – Approx. 4 Hours
- Level 9, Pour 1 – Approx. 4 Hours
- Level 9, Pour 2 – Approx. 4 Hours
- Level 9, Pour 3 – Approx. 4 Hours
- Level 10, Pour 1 – Approx. 4 Hours
- Level 10, Pour 2 – Approx. 4 Hours
- Level 10, Pour 3 – Approx. 4 Hours

2. Would you consider moving your concrete mixer truck staging area further away from the residential buildings at 220 Riverside and 100 Magnolia? My modeling shows that somewhere on Price Street south of Park Street makes a difference in the noise level at these two residential locations. There may be other alternate locations that provide similar results.

As long as we can find a suitable location that is close enough not to compromise the concrete workability time, then we would be open to that.

3. Finally, would you consider using a hydraulic sheet pile pusher rather than a vibratory hammer? If this is not practical, would you please explain?

I have discussed this with our sheet piling subcontractor Hayward Baker, and to use a sheet pile pusher is much more expensive than the vibratory. Again, he believes installation will take less than 1 week.

Michael Williams, P.E.
Air Quality Branch Manager
City of Jacksonville | Neighborhoods Department
214 N. Hogan Street, 5th floor
Jacksonville, FL 32202
Direct (904) 255-7120

www.coj.net
Air Quality Branch http://www.coj.net/departments/neighborhoods/environmental-quality/air-quality.aspx

PLEASE NOTE THAT UNDER FLORIDA'S VERY BROAD PUBLIC RECORDS LAW, COMMUNICATIONS TO AND FROM CITY OF JACKSONVILLE OFFICIALS ARE SUBJECT TO PUBLIC DISCLOSURE.

Richardson, James

To: Reichle, Erich
Subject: RE: Noise Variance Application - 200 Riverside Ave Project

From: Reichle, Erich <EReichle@BrasfieldGorrie.com>
Sent: Thursday, January 10, 2019 1:18 PM
To: Williams, Michael <MCWilliams@coj.net>; Richardson, James <Jrichard@coj.net>
Cc: Webber, Kip <KWebber@coj.net>; Long, Melissa <MelissaL@coj.net>; Nunnery, Joel <JNunnery@BrasfieldGorrie.com>; Vande Velde, Kenny <KVande@BrasfieldGorrie.com>; Fagg, Derrick <DeFagg@BrasfieldGorrie.com>
Subject: RE: Noise Variance Application - 200 Riverside Ave Project

Hi Michael:

Regarding the sheet piling, we are using a variable moment hammer which Hayward Baker says will significantly reduce the decibel levels, especially considering that we have medium to loose sands onsite. I've attached some information they provided here for your reference.

Concerning the concrete pours, we can most definitely meet to go over our operation. Just throw out some dates and times and I'll try to coordinate.

ERICH E REICHLE, PE
Senior Project Manager

BRASFIELD & GORRIE, LLC
4601 Touchton Road, Building 300, Suite 3190
Jacksonville, Florida 32246
office: 904.256.6834
mobile: 904.253.9672
email: ereichle@brasfieldgorrie.com
web: www.brasfieldgorrie.com

From: Williams, Michael <MCWilliams@coj.net>
Sent: Thursday, January 10, 2019 12:46 PM
To: Reichle, Erich <EReichle@BrasfieldGorrie.com>; Richardson, James <Jrichard@coj.net>
Cc: Webber, Kip <KWebber@coj.net>; Long, Melissa <MelissaL@coj.net>; Nunnery, Joel <JNunnery@BrasfieldGorrie.com>; Vande Velde, Kenny <KVande@BrasfieldGorrie.com>; Fagg, Derrick <DeFagg@BrasfieldGorrie.com>
Subject: RE: Noise Variance Application - 200 Riverside Ave Project

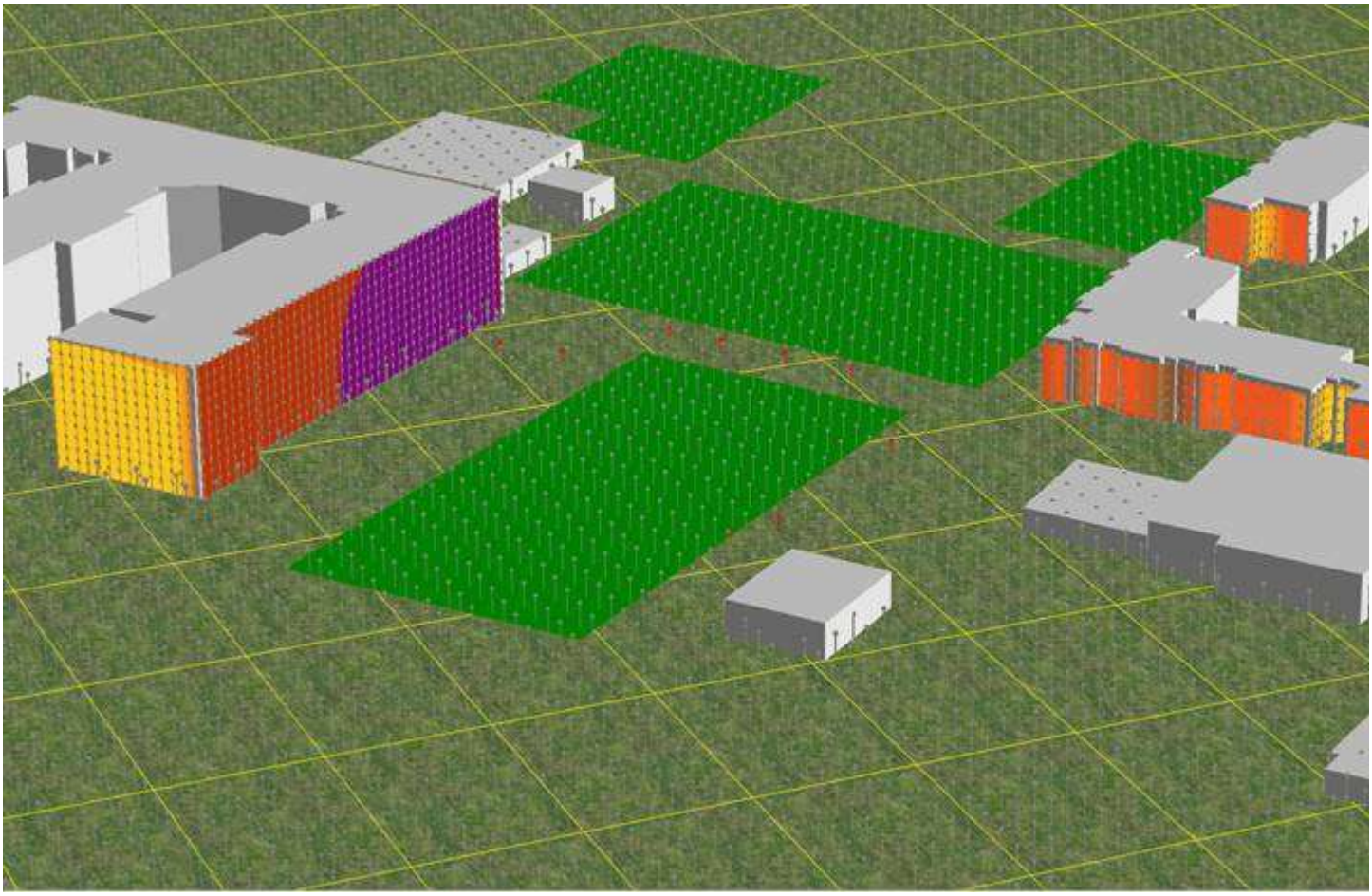
Hi Erich,

Some follow-up questions/comments:

Schedule

The next Environmental Protection Board meeting is Monday, January 21. The one following that is Monday, February 18. The air and noise committee must meet and hear your presentation prior to voting to move the application forward to the full board. This can theoretically still occur in time to have your public hearing at the January EPB meeting if your schedule requires it. Please let me know.

Sheet piling:
I understand that the duration of the sheet piling is only one week, followed by a week of removal. Even though it is of short duration and a daytime only operation, my modeling shows some significant noise impact on the 220 building next door (see the diagram below – the purple region is predicted to be 100 – 110 dBA) so I would like to be able to ensure the board that you are taking all reasonable mitigation measures or that there are no reasonable mitigation measures available. I understand from your last email that use of a hydraulic press would be very expensive. Would you mind asking your sheet piling sub about the possible use of something like a variable moment hammer, which I understand is much quieter and makes much less vibration? I understand that a company here (there may be more than one company with this type of equipment) in Jacksonville has this type of hammer if it is practical for your project.



Nighttime concrete pumping:
I was wondering if we could possibly meet on this operation. With the number of pours, I would like to better understand the logistics, how many trucks will be staged, at what point walls will be in place that could potentially attenuate some of the noise, and maybe discuss anything else that might be done to make this operation less objectionable to the residents in the 220 building and the apartment building to the northeast. I believe this might be better discussed in person. I would be glad to come to you.

Michael Williams, P.E.
Air Quality Branch Manager

City of Jacksonville | Neighborhoods Department
214 N. Hogan Street, 5th floor
Jacksonville, FL 32202
Direct (904) 255-7120
www.coj.net
Air Quality Branch http://www.coj.net/departments/neighborhoods/environmental-quality/air-quality.aspx

Record sound emissions

date	24.07.2008	carrier	SR 50T
responsible	Schneider	serial-no.	550.6.512
power	570 kW	type	TM 20/25

Measuring device

	type	sound pressure meter CR:703A	
	calibration	x	
		yes	no

Location

	description	test area	
	free off reflecting objects	x	
		yes	no

Operating conditions

	normal operating temperature	x	
		yes	no

Measuring object	type	MRZV 20VV		
	serial-no.	3750		
	model	BJ 12/07		
specific informations		0		
Vibrator	speed	2520	min-1	[> 95%]
	static moment	62	%	[> 90%]
	standard clamping jaw			
		ja	no	
Hydro-Press	operating pressure		bar	[> 90%]
	prestressing pressure		bar	[> 90%]
	standard clamping jaw			
		ja	no	
Impact hammer	impact frequency	0	m/kN	[> 90%]
	drop height	0	1/min	[> 90%]
	pile cap and insert	0		
		ja	no	

Measuring on pile element

	steel tube	lang	
	height above ground	0,5	m [0...2m]
	diameter	1000	mm
	length	2	m
	penetration velocity	0	cm/min

Measuring object - dimensions

	height	2,4 m
	width	0,6 m
	depth	0,8 m

Sound power level L_{WA} according EN ISO 3744	**119 dB(A)**
Sound power level L_{WAd} according EN ISO 4871	**122 dB(A)**

Sound emission value is sum of measuring value and inaccuracy

right next to vibro 100 %

Constant sound pressure level L_P in cabin with closed cabin door according ISO 6394	**80 dB(A)**

vibro at 100 % →

Constant sound pressure level L_F	**102 dB(A)**	**96 dB(A)**	**94 dB(A)**	**88 dB(A)**
in distance	4 m	8 m	10 m	20 m
according EN ISO 11203	13 ft	26 ft	32 ft	65 ft

according to sound measuring method for piling and extraction devices EN 996/A2:2003