

**APPENDIX C:
Construction**

**APPENDIX C-1: Construction Equipment List
[Updated for FEIS]**

**APPENDIX C-2: Construction Noise Analysis Results
[Updated for FEIS]**

APPENDIX C-3: Correspondence

**APPENDIX C-1:
Construction Equipment List
[Updated for FEIS]**

Construction Equipment List¹

Equipment: ²																									
Engine Type:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Electric	Diesel	Electric	Air	Electric / Battery	Diesel	Diesel	Diesel	Electric	Diesel	Electric	Propane	Electric	Electric
Approximate Engine Size:	200	40	40	159	411	417	160	215	306	74	450A	130	60A	-	30A	85	450	100	100A	25	15A	-	200A	100A	
Construction Activity																									
Demolition & Temp Support	3		2	2																					
Substructure					3	1	1	3	1	1							1	1			1	1			
Superstructure											1	1	2	2	4	2	1		1	2	1	1	1	1	1
Shot Crete															6	2	2	2				1	1	1	
Exterior Skin											1	1	2		4	2						1	1	1	
Interior Fit Out																6						1	1	1	
Landscaping	3	2																							
Vertical Movement																								1	1
Mechanical														2										1	1
Electrical & Lighting															2									1	1

Notes:

¹See Table 15-1 in Chapter 15, "Construction Chapter" for the anticipated construction schedule for the proposed project.

²EPA's Tier 1 through 4 standards for nonroad diesel engines regulate the emission of criteria pollutants from new engines. To the extent practicable, all diesel-powered nonroad construction equipment with a power rating of 50 hp or greater would meet at least the Tier 3 emissions standard. All diesel-powered engines in the project rated less than 50 hp would meet at least the Tier 2 emissions standard.

**APPENDIX C-2:
Construction Noise Analysis Results
[Updated for FEIS]**

**APPENDIX C-3:
Correspondence**



May 5, 2017

Mr. Owen Wells
Director of Environmental Review
New York City Department of Parks and Recreation
The Arsenal, Central Park
830 Fifth Avenue, Rm. 401
New York, NY 10065

Vincent Sapienza P.E.
Acting Commissioner

**Re: American Museum of Natural History Expansion
Block 113, Lot 1
CEQR # 16DPR004M**

Angela Licata
*Deputy Commissioner of
Sustainability*

Dear Mr. Wells:

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4479
alicata@dep.nyc.gov

The New York City Department of Environmental Protection, Bureau of Environmental Planning and Analysis (DEP) has reviewed the revised Construction chapter dated May 4, 2017, revised Noise analysis dated March 13, 2017 and modeling backup prepared by AKRF, Inc. for the above referenced project. It is our understanding that the applicant is seeking discretionary approval of actions in connection with a proposed new building, the Richard Gilder Center for Science, Education, and Innovation (the Gilder Center). The Gilder Center would be a five-story, approximately 193,530-gsf addition located on the Columbus Avenue side of the Museum campus. The Museum is located in Theodore Roosevelt Park, which is City-owned parkland under the jurisdiction of the New York City Department of Parks and Recreation (DPR). The site for the proposed project is on the west side of the Museum complex facing Columbus Avenue. The site is located in Manhattan Community District 7.

Per DPR request (16DPR004M-23-28042017150403), we have reviewed the submitted documentation and concluded that all the consultant's responses are satisfactory. Based on mention above materials, we have the following conclusions:

Noise:

- Based on the results of noise analysis performed as per the City Environmental Quality Review Technical Manual, it was determined that the proposed project would not result in any potential for significant adverse impacts in regards to noise.

Construction:

Air Quality:

- Construction activities associated with the proposed project would not result in any significant adverse stationary or mobile source air quality impacts when the proposed project would implement an emissions reduction program that would include, but not limited, the following: the requirements of the New York City Local Law 77 to use of ULSD fuel and best available tailpipe reduction technologies, diesel equipment reduction,

the utilization of newer equipment, a dust control measures required by the New York City Air Pollution Control Code, and idling restriction.

Noise:

- Construction noise at residential receptors on West 79th Street extending west from Columbus Avenue to the midblock and at residential receptors on Columbus Avenue extending south from West 80th Street to midblock of West 79th Street and West 78th Street would constitute a temporary unmitigated significant adverse noise impact from construction of the proposed project.
- Construction noise resulting from construction of the proposed project at open spaces and other receptors near the project area, including residential, school, and hospital receptors, may at times be noticeable, but would be temporary. Based on these factors, construction noise associated with the proposed project at these receptors would not be expected to result in a significant adverse impact.

If you have any questions, you may contact Mr. Alex Popov at (718) 595-4031.

Sincerely,



Chung Chan,
Director
Air Quality and Noise Review and Planning



May 18, 2017

Mr. Owen Wells
Director of Environmental Review
New York City Department of Parks and Recreation
The Arsenal, Central Park
830 Fifth Avenue, Rm. 401
New York, NY 10065

Vincent Sapienza P.E.
Acting Commissioner

Angela Licata
Deputy Commissioner of
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59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
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alicata@dep.nyc.gov

**Re: American Museum of Natural History Expansion
Block 113, Lot 1
CEQR # 16DPR004M**

Dear Mr. Wells:

The New York City Department of Environmental Protection, Bureau of Environmental Planning and Analysis (DEP) has reviewed the revised Construction chapter dated May 10, 2017, and modeling backup prepared by AKRF, Inc. for the above referenced project. It is our understanding that the applicant is seeking discretionary approval of actions in connection with a proposed new building, the Richard Gilder Center for Science, Education, and Innovation (the Gilder Center). The Gilder Center would be a five-story, approximately 193,530-gsf addition located on the Columbus Avenue side of the Museum campus. The Museum is located in Theodore Roosevelt Park, which is City-owned parkland under the jurisdiction of the New York City Department of Parks and Recreation (DPR). The site for the proposed project is on the west side of the Museum complex facing Columbus Avenue. The site is located in Manhattan Community District 7.

We have reviewed the submitted documentation and concluded that previous conclusion regarding the construction noise impact at residential receptors near the project area has to be change as result of reconfiguration of the noise barriers, truck delivery/staging locations and the equipment usage change. Based on mention above materials, we have the following conclusions:

Construction:

Noise:

- Construction noise at residential receptors located at 101 West 79th Street and 112(118) West 79th Street would constitute a temporary significant adverse noise impact from construction of the proposed project. However, the predicted impacts at 101 and 112 (118) West 79th Street could be mitigated using either receptor control measures or source control measures. Between the DEIS and FEIS, further noise reduction measures to reduce or eliminate the potential for these temporary significant construction noise impacts will be considered and evaluated.

- Construction noise resulting from construction of the proposed project at other receptors on West 79th Street extending west from Columbus Avenue to the midblock and at residential receptors on Columbus Avenue extending south from West 80th Street to midblock of West 79th Street and West 78th Street may at times be noticeable, but would be temporary. Based on these factors, construction noise associated with the proposed project at these receptors would not be expected to result in a significant adverse impact.

If you have any questions, you may contact Mr. Alex Popov at (718) 595-4031.

Sincerely,



Chung Chan,
Director

Air Quality and Noise Review and Planning



August 29, 2017

Mr. Owen Wells
Director of Environmental Review
New York City Department of Parks and Recreation
The Arsenal, Central Park
830 Fifth Avenue, Rm. 401
New York, NY 10065

Vincent Sapienza P.E.
Acting Commissioner

**Re: American Museum of Natural History Expansion
Block 113, Lot 1
CEQR # 16DPR004M**

Angela Licata
*Deputy Commissioner of
Sustainability*

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4479
alicata@dep.nyc.gov

Dear Mr. Wells:

The New York City Department of Environmental Protection, Bureau of Environmental Planning and Analysis (DEP) has reviewed the Construction chapter of the Final Environmental Impact Statement dated August 1, 2017, and modeling backup prepared by AKRF, Inc. for the above referenced project. It is our understanding that the applicant is seeking discretionary approval of actions in connection with a proposed new building, the Richard Gilder Center for Science, Education, and Innovation (the Gilder Center). The Gilder Center would be a five-story, approximately 193,530-gsf addition located on the Columbus Avenue side of the Museum campus. The Museum is located in Theodore Roosevelt Park, which is City-owned parkland under the jurisdiction of the New York City Department of Parks and Recreation (DPR). The site is located in Manhattan Community District 7.

We have reviewed the submitted documentation and concluded that previous conclusion regarding the construction noise impact at residential receptors near the project area has to be change as result of additional noise control commitments and refined construction assumptions. Based on mention above, we have the following conclusions:

Construction:

Noise:

1. Construction noise at residential receptors located at 100 West 80th Street, 392 Columbus Avenue and 102 West 79th Street would be readily noticeable and potentially intrusive during the 3 months of most noise-intensive construction activities. For the rest of construction, the construction noise would be still noticeable but not intrusive. Based on the limited duration of the predicted construction noise and the moderate total noise levels during most of the construction period, the predicted levels of construction noise at these receptors would not rise to the level of a significant adverse impact.

2. Construction noise at residential receptors located at 101 West 97th Street and 118 West 79th Street would be readily noticeable and potentially intrusive during the 3 months of most noise-intensive construction activities. For the rest of construction, the construction noise would be still noticeable. In addition, the interior level for those receptors for the entire construction period would be at or slightly above the 45dBA noise level. Based on the limited duration of the predicted construction noise and the moderate total noise levels during most of the construction period, the predicted levels of construction noise at these receptors would not rise to the level of a significant adverse impact.
3. Construction noise resulting from construction of the proposed project at other receptors near the project area, including school receptors, open space receptors within Theodore Roosevelt Park and nearby residential receptors may at times be noticeable, but would be temporary. Based on these factors, construction noise associated with the proposed project at these receptors would not be expected to result in a significant adverse impact.

If you have any questions, you may contact Mr. Alex Popov at (718) 595-4031.

Sincerely,



Chung Chan,
Director

Air Quality and Noise Review and Planning