

VIII. ECONOMIC ACTIVITY AND BUSINESS DEVELOPMENT

C. LAND, CONSTRUCTION AND DESIGN OF PHYSICAL PLANT

20. TIMELINE FOR CONSTRUCTION

Submit as Exhibit VIII. C.20.b. a description of anticipated street and sidewalk closures, plans for redirecting traffic, impacts on existing parking, if any, noise and dust impacts, and plans for mitigating such impacts both during and following construction. Describe measures that will be taken to mitigate all construction impacts on the local community.

In the event the financing for any further phase is not included in Item VIII.A.6. of this RFA, indicate the anticipated sources of financing for such phase and the details of such financing.

Street and Sidewalk Closures, Plans for Redirecting Traffic and Impacts on Existing Parking

We do not anticipate any street or sidewalk closures, impact on parking or significant redirection of traffic either during or following construction. It is anticipated that widening on Route 208 will take place to the side of the existing roadbed first, resulting in the provision of a third lane along Route 208 from the Site to Route 17. Subsequent work on restriping the middle of the road to provide turn lanes, etc. can then be performed while maintaining traffic in the remaining, outside two lanes. Once the road is widened to three lanes, one lane can be closed for work while traffic flow can be maintained in the other two. The construction within existing Route 208 for roadway or utility improvements will be performed based on a maintenance of traffic program that will be approved by the NYSDOT. Traffic control devices in New York on all streets and highways will be in accordance with the National Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) and 17 NYCRR Chapter V (New York Supplement). There are no sidewalks and there is no parking in the areas where construction will occur.

The majority of the construction traffic, including workers and deliveries, is anticipated to be from Route 17 Exit 130, located $\frac{3}{4}$ of a mile south of the project site, and will access the site along NYS Route 208. Construction traffic will not pass through any local residential street. Construction access from the project site will be controlled by flagmen in coordination with local police authorities. All contractor parking and staging areas will be onsite.

Noise and Dust Impacts

The grading operations for the construction of the building pads, parking lots and circulation roads will require the excavation of material and placement of the material within the Site in on-site fills. Limited rock blasting is anticipated and rock will be used for deep fills or rock crushed and reused as fill material and road subbase to the extent possible.

During construction of the Project, the potential for soil erosion and sedimentation will be controlled through the use of temporary soil erosion and sediment control measures. These measures will be designed and installed in accordance with New York Guidelines for Urban Erosion and Sediment Control dated October 2005, and the approved Storm Water Pollution Prevention Plan (SWPPP) in accordance with the New York State Department of Environmental

Protection's (NYSDEC) Pollution Discharge Elimination System (SPDES) for Discharges for Construction Activities, General Permit GP0-10-0001 (General Permit). The soil erosion and sediment control plan will minimize the downstream erosion by controlling runoff at its source, minimizing runoff from disturbed areas and de-concentrating storm water runoff. Temporary and permanent stabilization methods will be implemented before construction begins and will be continuously modified throughout the project to provide the best methods for stormwater management and pollution prevention. The General Permit requires site assessment and inspections for all construction activities. The site assessment and inspections ensure the implementation of the SWPPP to retain surface water quality and prevent sediment laden runoff from entering rivers, streams, estuaries, wetlands and other sensitive environments.

The SWPPP will include measures to control dust that results from grading, demolition, hauling, and traffic. Control measures will be in accordance with the New York Guidelines for Urban Erosion and Sediment Control. Measures to be implemented to control dust during construction activities will include constructing stabilized access roads and contractor parking lots, installing permanent or temporary stabilization on areas not subject to further grading activities, providing temporary stabilization of soil stockpiles left inactive for more than 14 days and good housekeeping measures. Dust will be controlled through temporary and permanent vegetative cover, mulch, spray adhesives and watering. Construction access routes will be defined and utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air. The majority of the grading operations will occur at the beginning of the project to prepare the building pad minimizing the duration of grading operation and potential for dust.

The impacts of construction activities on the local community will be limited based on the distance of the project site from adjacent residential properties. Residential properties immediately adjacent to the project site are limited to one home to the north, two on the east side of Route 208 and 10-14 homes between the south property line and Museum Village Road. The distance from the proposed building to these properties is approximately 575 feet, 620 feet and 1,400 feet respectively.

The construction process for this type of project generally occurs in the following sequences: ground clearing, excavation, foundations, building construction, exterior finishing and cleanup. Construction equipment utilized will differ from sequence to sequence. In general, heavy equipment (bulldozers, dump trucks) will be used during ground clearing and excavation activities. Diesel engine exhaust noise is the predominant source of noise during construction, and as such, maintaining functional mufflers on all equipment will be a requirement of the project.

Blasting, if required for the project, is of very short duration (less than one second) and is typically heard as a dull thud rather than sharp type of sound. Any blasting will be in accordance with all local, state and federal regulations

Noise levels of construction equipment typically utilized for this type of project are presented in Table-1. Site average sound levels for each phase of construction are presented in Table 2. The highest site average sound levels (89 dBA at 50 feet) are associated with excavation and finishing activities. Noise levels in both tables are presented for a reference distance of 50 feet and at various greater distances, covering the range of distances to nearby

residences to the project.

Table 1
Noise Levels of Major Construction Equipment

Equipment Type	Noise Level (dBA)			
	50 Feet	200 Feet	400 Feet	800 Feet
Front Loaders	79	73	67	61
Graders	85	78	67	61
Bulldozers	80	72	66	60
Pickup Trucks	60	54	48	42
Dump Trucks	85	79	67	61
Backhoes	85	79	67	67
Rock Crusher	81	75	69	63

Source (BBN, 1971; NYSDEC, 1974)

Table 2
Noise Levels of Major Construction Operations

Construction Phase	Noise Level (dBA)			
	50 Feet	100 Feet	400 Feet	800 Feet
Ground Clearing	84	76	71	65
Excavation	89	83	67	61
Foundations	78	72	66	61
Building Assembly	87	81	75	69
Finishing and Cleanup	89	83	67	61

Source (BBN, 1971)

The sound levels presented above are, when evaluated against typical sound levels, relatively low. The noise levels presented in Tables 1 and 2 will be attenuated by a variety of mechanisms. The most significant of these is the dispersion of the sound waves with distance. In general, this mechanism will result in a 6 dBA decrease in the sound level with every doubling of distance from the source. Additional reductions in noise are achieved through absorption by the atmosphere.

In order to provide a frame of reference to the sound levels to be presented herein, some common sound levels are listed below.

Pile Driver at 100 feet	90 to 100 dBA
Chainsaw at 30 feet	90 dBA
Truck at 100 feet	85 dBA
Noisy Urban Environment	75 dBA
Lawn Mower at 100 feet	65 dBA
Average Speech	60 dBA
Typical Suburban Daytime	50 dBA
Quiet Office	40 dBA
Quiet Suburban Nighttime	35 dBA
Soft Whisper at 15 feet	30 dBA

The construction noise levels presented above are those which would be experienced for people

outdoors. A building (house) will provide significant attenuation for those who are indoors. Sound levels can be expected to be up to 27 dBA lower indoors with the windows closed. Even in homes with the windows open, indoor sound levels can be reduced by up to 17 dBA (USEPA, 1978). The location of the existing residences (greater than 500 feet from the building) will minimize the potential noise impact to the surrounding community.

