Exhibit VIII.C.17.a. Estimated Fresh Water and Electricity Demand

Submit as <u>Exhibit VIII.C.17.a.</u> studies of independent engineers or other experts reporting projects of estimated fresh water and electricity demand (base and peak-period) and sanitary sewer and storm water discharge, each, for the proposed Gaming Facility. Include in those reports an assessment of the feasibility of any plans to accommodate that demand onsite (e.g. by onsite production of electricity, treatment of fresh or waste water, or detention of storm water).

Our estimates of the projected potable/fresh water and electricity peak demand have been based on plans for this facility and actual measured data at other similar facilities.

The team has reviewed the US Department of Energy (DOE) Commercial Buildings Energy Consumption Survey (CBECS) Database for energy usage and our projections incorporate suggestions from the DOE and Environmental Protection Agency (EPA). According to the CBECS Database, Casinos have, on average, an 85.1 kBtu/SF Source EUI and 45.3 kBtu/SF Site EUI. Hotels have a 162.1 kBtu/SF Source EUI and 73.4 kBtu/SF Site EUI.

Table: Utility Usage and Peak Data

Areas (Estimated)	Rivers Casino Des Plaines	Rivers Casino Schenectady
Casino Area	143,000 SF	159,000 SF
Hotel Area	-	150 rooms
		(100,000 SF)*.
Parking Garage	1,560 spaces	1,280 spaces

^{*}Assumed area for purpose of calculations in this exhibit

Utilities (daily)		Actual	Estimated
		Measured Data	Data
Water	– Base	~0.0002k gpd/SF	~0.0006k gpd/SF
		(43.77k gpd)	(~65k gpd)
	– Peak	~0.0003k gpd/SF	~0.0010k gpd/SF
		(81.21k gpd)	(~100k gpd)
Gas	- Base	0.0032 therms/SF	
		(865 therms)	(1,194 therms)
	– Peak	0.0054 therms/SF	
		(1,453 therms)	(2,014 therms)
Electric	– Base	0.1516 kWh/SF	
		(40,543 kWh)	(~2.3 MW)
	– Peak	0.2291 kWh/SF	
		(61,265 kWh)	(~3.0 MW)

The proposed building will be fed from (utility company) electrical primary service feeders that terminate at a pad-mounted transformer with secondary at 480/277V, 3-phase, 4-wire. There will be three (3) services that serve the building (see Section IX.A.2.b for more detail).

Additionally, a separate electrical service for fire pumps will be provided for each area:

- 1. One 1,000 ampere service rated at 480/277V, 3-phase, 4-wire for the fire pump for the casino area.
- 2. One 1,000 ampere service rated at 480/277V, 3-phase, 4-wire for the fire pump for the hotel area.
- 3. One 1,000 ampere service rated at 480/277V, 3-phase, 4-wire for the fire pump for the parking area.

Two (2) emergency generators rated at 2,000 kW, 480/277V, 3-phase, 4-wire will be provided to serve building emergency lighting, critical mechanical equipment such as sewage pumps, air handling units, etc., elevators, and other emergency loads.

Lighting appropriate for gaming will be provided in all casino areas (i.e. gaming machine areas, gaming tables, etc.).

The fire alarm system shall be non-coded, class A, and fully addressable. The fire alarm system shall consist of detection devices (photo-electric type ceiling mounted smoke detectors and heat detectors, as well as duct mounted smoke detectors), notification devices (combination speaker/strobes and visual alarms), and initiation devices (manual pull stations complete with clear, protective, tamper resistant covers). All fire alarm devices shall be located throughout the building to meet local and national fire alarm codes.

Water usage rates (both base and peak rates) are identified in the above table and, as noted, are based on actual measured data at other similar facilities. Sanitary sewer flows are relatively comparable to water usage rates however the sanitary sewer flows are usually less given the consumption of water in cooking, drinking, and other facility operations.

Reference is made to the attached report entitled "Storm Water Practice Feasibility Study Report ALCO/Maxon Redevelopment", dated July 29, 2013, last revised June 11, 2014, prepared by Hershberg & Hershberg ("Exhibit VIII.C.17.a.Attachment "A") for the larger Mohawk Harbor project. This report identifies the use of a Vortechs System or similar technology, which is otherwise known as a hydrodynamic separator. Hydrodynamic separators are a proven and acceptable alternate green infrastructure stormwater practice option by the review authorities. As shown on Exhibit "VIII. C.1.c.Attachment "C" ("Site Aerial") and Exhibit "VIII. C.1.c.Attachment "D" ("Existing Conditions Schematic"), the former industrial uses on the site resulted in a significant portion of the site being developed with impervious surfaces, including buildings, parking lots, and other surfaces, with very little greenspace and sparse plantings. As shown on Exhibit VIII.C.5.a.Attachment "A" ("Site Plan") the proposed project will introduce significant additional greenspace of a high quality which will result in a reduction in stormwater runoff and improvements in stormwater quality.

Reference is also made to the attached report entitled "Pipe Cleaning and CCTV Survey Report ALCo Property", dated December 2010, prepared by Veolia Water North America – Northeast LLC (Exhibit VIII.C.17.a.Attachment "B"). Exhibit VIII.C.17.a.Attachment "B" is related to an investigation of the City of Schenectady College Creek storm sewer that traverses the northerly portion of the project site between the proposed gaming facility and the proposed parking garage.

Exhibit I identifies the various utility crossings that intercept the College Creek storm sewer. As part of the larger Mohawk Harbor project these crossings will be removed and relocated or abandoned prior to the development of the proposed Rivers Casino at Mohawk Harbor Project.