

INFRASTRUCTURE REQUIREMENTS

Exhibit VIII. C.17.a

Projection of Electrical Demand

Proposed electrical demands were estimated based on the Resorts World Hudson Valley master plan and approximated based on comparable resort spaces. A summary of the major electrical needs from the plan is included in Table VIII. C.17.a-1.

Table VIII. C.17.a-1. Electric Design Load

Space	Interior Area (Sq Ft)	Total KVA (Connected Load)
Ground Floor – Casino and Conference Center	1,099,040	30,773
Hotel	654,550	6,546
Casino Basement	131,535	3,420
Mezzanine	131,535	3,420
Hotel Parking Garage	1,599,625	3,238
Misc.		7,778
Water Treatment	20,000	620
Total Development (KVA)		55,795

Projection of Water Demand

Proposed water demands were calculated based on the proposed Resorts World Hudson Valley master plan and hydraulic loading demand units outlined by New York State Department of Environmental Conservation's (NYSDEC) *Design Standards for Intermediate Sized Wastewater Treatment Systems*. A summary of the contributing water demands is found in Table VIII. C.17.a-2.

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Table VIII. C.17.a-2. Water Demand Forecast

Building	Demand Use	Area (sf)	Loading Unit	Units	Unit conversion (Area to Loading Unit)	Total gpd
Resorts World Hudson Valley						
Ground Floor Casino	Casino	194,350	0.3 gpd/sf	-	-	58,300
Hotel Rooms	Hotel	412,128	110 gpd/sleeping unit	600		66,000
Retail	Shopping Center	17,300	0.1 gpd/sf	-		1,700
Restaurants	Ordinary Restaurants	124,050	35 gpd/seat		4,590	160,650
Bars	Bar/Lounge	32,560	20 gpd/seat		560	11,200
Signature Restaurant Lounge	Bar/Lounge	13,000	20 gpd/seat		325	6,500
Meeting Space	Assembly Hall	94,050	5 gpd/seat		6,720	33,600
Spa and Gym	Health Club	20,200	20 gpd/patron		404	8,080
Resort Staff	Employees		15 gpd/employee		1,000	15,000
Total						361,030

Key: gallons per day (gpd); square feet (sf)

Based on the overall site plan, the proposed water demand for the new facilities is 360,000 gallons per day (gpd) average daily flow (ADF). With 100 percent of the irrigation proposed on-site using reclaimed water and not potable water and the proposed 6,600 toilets on-site replacing an estimated 133,000 gpd of potable water with reclaimed water, the maximum daily demand for this facility is 468,000, a factor of 1.3.

Projection of Sewer Demand

Proposed sewer demands were calculated based on the Resort Worlds Hudson Valley master plan and hydraulic loading demand units outlined by NYSDEC's *Design Standards for Intermediate Sized Wastewater Treatment Systems*. A summary of the contributing water demands is found in Table VIII. C.17.a-3.

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Table VIII. C.17.a-3. Sewer Demand Forecast

Building	Demand Use	Area (sf)	Loading Unit	Units	Unit conversion (Area to Loading Unit)	Total gpd
Resorts World Hudson Valley						
Ground Floor Casino	Casino	194,350	0.3 gpd/sf	-	-	58,300
Hotel Rooms	Hotel	412,128	110 gpd/sleeping unit	600		66,000
Retail	Shopping Center	17,300	0.1 gpd/sf	-		1,700
Restaurants	Ordinary Restaurants	124,050	35 gpd/seat		4,590	160,650
Bars	Bar/Lounge	32,560	20 gpd/seat		560	11,200
Signature Restaurant Lounge	Bar/Lounge	13,000	20 gpd/seat		325	6,500
Meeting Space	Assembly Hall	94,050	5 gpd/seat		6,720	33,600
Spa and Gym	Health Club	20,200	20 gpd/patron		404	8,080
Resort Staff	Employees		15 gpd/employee		1,000	15,000
Total						361,030

Key: gallons per day (gpd); square feet (sf)

The proposed sewer demand for Resorts World Hudson Valley is 360,000 gpd ADF. With a peaking factor of 2.5, the peak flow is estimated to be 900,000 gpd.

With 100 percent of the irrigation proposed on-site using reclaimed water and not potable water and the proposed 6,600 toilets on site using reclaimed water for toilet flushing, the reclaimed water demand is estimated to be 133,000 gpd.

Projection of Natural Gas Demand

Proposed natural gas connected loads are estimated at 82,000,000 British Thermal Units per Hour (BTUH) or 82.0 MBH (thousands of BTUs per hour). The demand originates from building heating, domestic hot water generation, kitchen and laundry uses, and pool equipment.

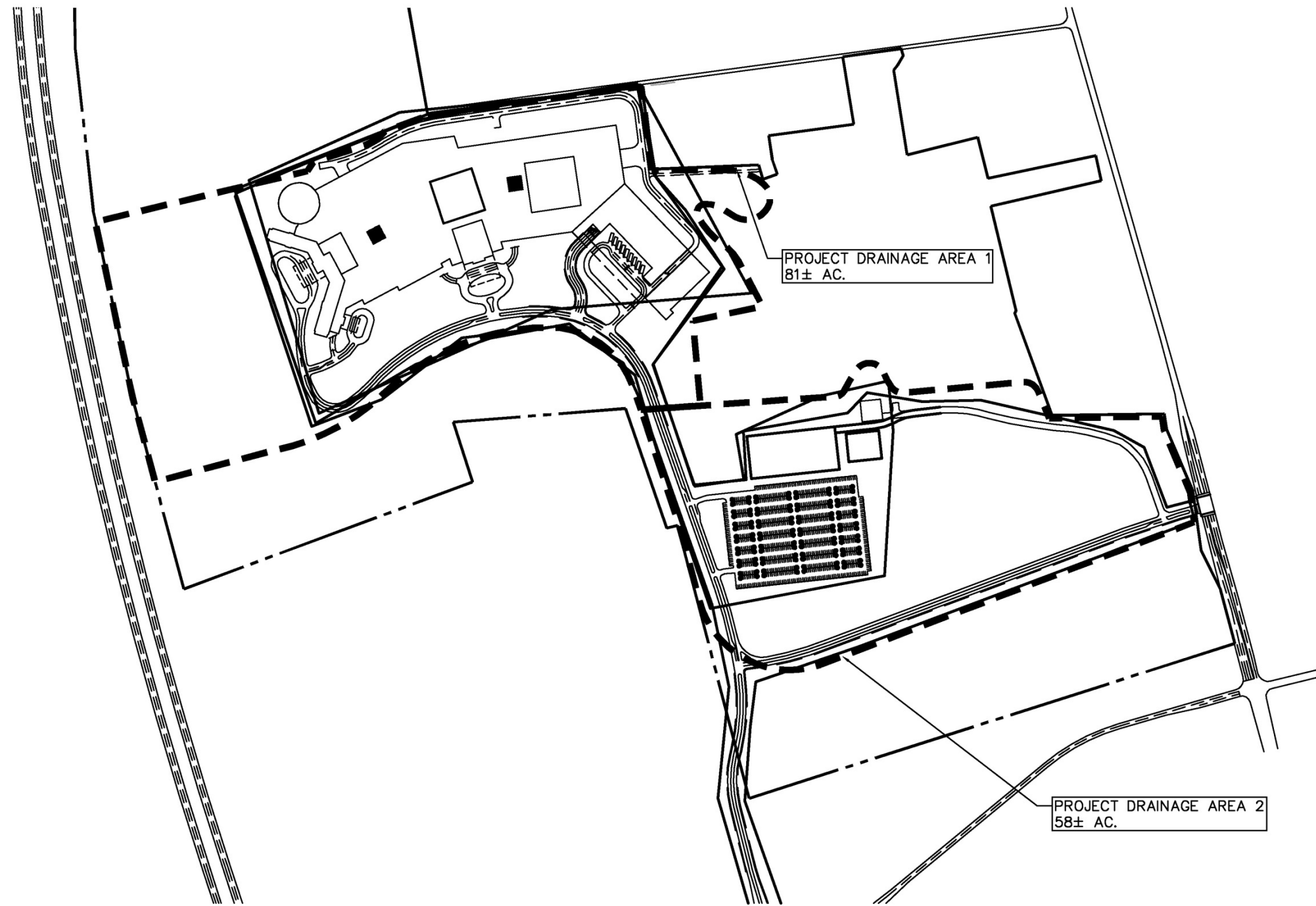
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Projection of Storm Water Discharge

Proposed storm water discharges are based on the *New York State Stormwater Management Design Manual* dated August 2010. In accordance with the manual, storm water discharges are measured at several specific storm intensities described as 1-, 10-, and 100-year storm events. Storm water discharges are calculated based on three variables—the intensity of the storm event, the relative imperviousness of the development, and the size of the site.

For purposes of calculating storm water discharge increases, the project is divided into two areas identified in Figure VIII. C.17.a-1 as Storm Water Drainage Areas 1 and 2.

Figure VIII. C.17.a-1. Storm Water Drainage Areas



RW HUDSON VALLEY
Montgomery, NY



VIII.C.17-1

STORMWATER
DRAINAGE AREAS
06.26.2014 Scale: 1"=500'

Kimley»Horn
of New York, P.C.

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Area 1 consists of the Resorts World Hudson Valley Grand Hotel and Conference Center while Area 2 consists of the surface parking lot. Table VIII. C.17.a-4 provides pre-development and post-development values for the variables used in determining storm water increases. Rainfall intensities remain constant in both the pre-development and post-development conditions and are based on values from the *New York State Stormwater Management Design Manual*. Those values are 2.8 inches for the 1-year storm event, 5.5 inches for the 10-year storm event, and 7.5 inches for the 100-year storm event.

Table VIII. C.17.a-4. Storm Water Discharge Variables

Location	Area (acres)		Curve Number	
	Pre-Dev	Post-Dev	Pre-Dev	Post-Dev
Area 1	81	81	64	82
Area 2	58	58	55	74

Using the “Rational Method” as a means to estimate storm water increases, Table VIII. C.17.a-5 provides a summary of the estimated results. These results are preliminary in nature.

Table VIII. C.17.a-5. Storm Water Discharges

Location	1-year storm event		10-year storm event		100-year storm event	
	Pre-Dev Flow (cfs)	Post-Dev Flow (cfs)	Pre-Dev Flow (cfs)	Post-Dev Flow (cfs)	Pre-Dev Flow (cfs)	Post-Dev Flow (cfs)
Area 1	8	39	51	113	166	270
Area 2	2	30	28	100	126	270