Exhibit: A-13

SANITARY AND WATER REPORT

PREPARED FOR:

CAMELOT AT ERNSTON ROAD
BOROUGH OF SAYREVILLE
MIDDLESEX COUNTY, NEW JERSEY

September 12, 2019
Revised September 17, 2020

WILLIAM T. WENTZIEN, P.E.
NJPE LICENSE NO. 27799

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INTRODUCTION

The Camelot at Ernston Road development is located in Block 366.01, Lot 1 and Block 347.01, Lot 3.01. Block 366.01, Lot 1 contains 7.489 acres and Block 347.01, Lot 3.01 contains 13.310 acres, for a combined total of 20.799 acres. Camelot at Ernston Road shall provide for a total of 142 garden apartments, of which 54 are 1-bedroom apartments, 86 are 2-bedroom apartments and 2 are 3-bedroom apartments.

SANITARY SEWER

Public sewer shall be provided to each building located on the Camelot at Ernston Road Development. All proposed sanitary mains shall be 8" PVC piping and be shall have a gravity flow. 4" PVC sanitary service lines will connect each proposed building to the proposed sanitary mains. The sanitary lines will connect to an existing 8" sanitary main located within the Main Street right-of-way at the northerly end of the site and continue to flow off-site and downstream within the existing sanitary system.

The anticipated sanitary sewer flow is calculated based on the NJDEP "Rules and Regulations for the Preparation and Submission of Plans for Sewer System and Wastewater Treatment Plants."

The sanitary sewer flow for Camelot at Ernston Road is calculated as follows:

	UNITS	FLOW / UNIT		TOTAL
Garden Apartment One Bedroom	54	150	=	8,100 gpd
Garden Apartment Two Bedroom	86	225	=	19,350 gpd
Garden Apartment Three Bedroom	2	300	=	600 gpd
TOTAL	142 units			28,050 gpd

Utilizing a peaking factor of 4, the anticipated daily peak flow for Camelot at Ernston Road will be 112,200 gpd.

The resulting projected sanitary sewer flows are:

28,050 gpd, average daily flow

112,200 gpd, daily peak flow

Camelot at Ernston Road shall be serviced by 8” PVC pipes at a minimum 0.35% slope.

The capacity of the 8” PVC pipe using a Mannings “n” value of 0.01 at a slope of 0.35% is 600,646 gpd.

The proposed sanitary sewer main connects to an existing sanitary sewer main in Main Street which has a 10” ductile iron pipe at a slope of 1.54%. This pipe carries a capacity of 1,906,502 gpd. Our proposed average daily flow is 34,800 gpd. It is our opinion that the additional sanitary flow is considered negligible compared to the capacity of the receiving 10” sanitary main.

The proposed sewerage shall be received and treated by the Middlesex County Utilities Authority and the sanitary sewer mains shall be owned by the Borough of Sayreville.

It is concluded that the proposed sanitary sewer main layout and sizing will adequately service the proposed development.

WATER

Public water shell be provided to service the Camelot at Ernston Road proposed development. A proposed water main of 8" diameter ductile iron pipe shall be provided throughout the site. Connection of the proposed on site 8" water main will be made to an existing 12" diameter water main located within the Main Street right-of-way, at the northerly end of the site. Connection to the existing water main shall be provided at 2 separate locations to provided for a "looped" system. Connections will be by way of wet tapping. The proposed 8" water main will be "looped" within the site development. Each building will have a separate domestic and fire service line, from the proposed main to each building.

The water flow is calculated as follows: (Flow rates per RSIS)

	UNITS	FLOW / UNIT		TOTAL
SECTION 6				
Garden Apartment One Bedroom	54	120	=	6,480 gpd
Garden Apartment Two Bedroom	86	175	=	15,050 gpd
Garden Apartment Three Bedroom	2	270	=	540 gpd
TOTAL	142 units			22,070 gpd

Utilizing a peaking factor of 3, the anticipated daily peak flow for Camelot at Ernston Road will be 66,210 gpd or 0.066 mgd.

Fire hydrants shall be provided at locations such that a maximum distance of 400’ between the buildings and the hydrants will be maintained. Hydrants will also be provided at high and low spots as much as practical to provide air release and flushing capabilities to the water line.

It is concluded that the proposed water main layout and sizing will adequately service the proposed development.

Attached to this report is a copy of the hydrant flow test and additional calculations to show the required minimum PSI information for needed fire flow.

TARGET FIRE PROTECTION

FLOW TEST INFORMATION SHEET

1. Reason for Test: Bid Information ☐ Design Base ☑
   Other _____

2. Location of Property: 925-927-954 Main St - Sayreville NJ
   (Address) (City) (State) (County)

3. Date & Time of Test: Date: 10/31/19 Time: 9:30 (am) (pm)

4. Test Conducted by: Augusto / Target Fire Protection
   Name Title Affiliation

5. Test Witnessed by: Kevin Krushinski. FireMarshall. Sayreville FD
   Name Title Affiliation

6. Source of Water Supply: Gravity ☑ Pump ☐ Other: _____

7. Name of Water District: Sayreville Water Fire District Sayreville Fire Dpto

8. Is water supply provided with PRV STA's yes ☐ no ☐
   (If so what is PRV outlet setting?) _____ PSIG

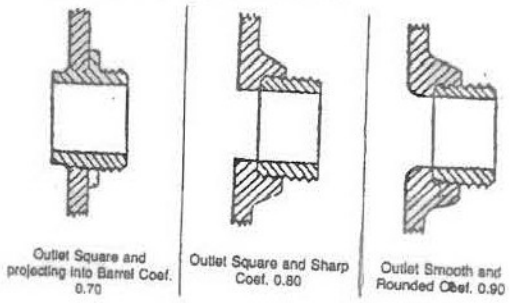
9. Area Map: (Draw Sketch showing property location; bounding streets and names, north arrow, hydrant locations and identification numbers, distances from hydrants to property; elevations of hydrants and property floors or grade, all water mains and sizes and interconnection valves, etc.)

10. Flow Test Data

FLOW AT HYDR. NO.	STATIC AT HYDR NO.	STATIC PSIG	RESIDUAL PSIG	FLOW GPM	OUTLET COEFFICIENT	ADJUSTED GPM
01	02	98	92	80/1500	0.90	

11. Signed Augusto Leite

Witness _____

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C&M SPRINKLER DESIGN, INC.

November 6, 2019

Paul Kausch
KAPLAN COMPANIES

RE: Camelot
Ernston Road
Sayreville, NJ

Dear Paul,

Per the emailed request please see our preliminary information for the above referenced project. Please be advised that the information below is subject to change once the actual design is completed.

Our preliminary findings are:

System demand at base of riser – 75 psi @ 330 gpm
Hose allowance (demand) is 100 gpm (which is the minimum)
The standard for design is NFPA 13
The needed Fire Flow at 20 psi is 638 gpm

If you have any additional questions or concerns, please feel free to contact me.

Best regards,

Christine Capone

Christine Capone

CC: Marcos Leite - Target Fire Protection, Inc.

Interpolated RSIS Table 5.2 Values

	Houses Served	Peak Hourly Rates	Units
	100	2	gpm
	250	1.3	gpm
Difference	150	0.7	gpm
Per unit		0.004666667	gpm
# units above 100		42	each
Difference in rate for 42 units		0.196	gpm
	100	2.0	gpm
	42	0.196	gpm
	Peak Hourly Rate	2.19600	gpm
	Rounded	2.2	gpm
	Total Units	142	each
	Peak Hour Flow	**312.4**	**gpm**

Needed Fire Flow	**330**	**gpm**

Notes:

1 NFF is estimate based on concept plans. Fire sprinkler designs and hydraulic calculations to be submitted once buildings are designed.

2 Per ISO (edition 06-2014) NFF formula footnote (2) NFF is the demand at the base of the riser for buildings protected by automatic fire sprinkler system in accordance with NFPA-13R. NFF presented here is based on the more demanding NFPA-13 design criteria.

3 Base of riser demand per letter by C&M Sprinkler Design dated 11/6/2019.

Peak Hour Flow	312.4	gpm
Needed Fire Flow	330	gpm
Total Combined Demand	**642.4**	**gpm**

Flow Test	**1500**	**gpm**

Note:

4 Flow test performed by Target Fire Protection on 10/31/2019 and witnessed by Sayreville Fire Marshal Kevin Krushinski.