



December 22, 2023

Courtney Crush
Crush Law Pa
333 S New River Dr E # 2200
Fort Lauderdale, FL 33301

Subject: **WATER AND WASTEWATER CAPACITY AVAILABILITY LETTER**
Olakino House – DRC Case No. UDP-S23062
551 Bayshore Drive, Fort Lauderdale, FL 33304

Dear Courtney Crush,

According to the information submitted, the project consists of developing an empty lot into an apartment building of 83 units with 1650 SF of resident dining space. There are proposed water and sewer connections to City of Fort Lauderdale (City) utilities along Bayshore Drive. This project lies within the City's Pump Station (PS) D-41 basin and will increase the average day water demand by approximately 0.0193 million gallons per day (MGD) and the average day sewer demand by approximately 0.0133 MGD. The existing water main does not have the capacity to support the proposed development. The existing sewer infrastructure has the capacity to support the proposed development. The water main improvements shall be constructed, certified, and in operation prior to issuance of any Certification of Occupancy.

The determination of capacity availability is based upon an analysis of the City's water and sewer system models, average daily flows at the treatment plants, and previously committed flows, as of the date of this letter, in conjunction with the demand created by the proposed subject project. Availability of capacities, as calculated in the attached analysis, is not guaranteed and no existing system capacity shall be considered "reserved" for this project until development permit approval has been achieved and all fees have been paid. Once the development permit has been received for this project, the city shall reserve the necessary capacity to serve the development.

If there are changes to the proposed development after issuance of this capacity availability letter, and/or before development permit approval has been received, the Owner or Owner's authorized representative for the subject project must submit a revised request based on the updated plans.

If, at the time of building permit application, there are changes to the proposed development that require a new development permit or an amendment to an existing development permit which result in a change of the water and sewer demand, the City shall re-evaluate the availability of capacities and a new letter shall be obtained. If sufficient capacities for the increased demand are not available at that time, the City may deny the permit application or ask the Owner/Developer to submit an alternate design for consideration prior to approval. If a development permit is not approved within one year of this letter being issued, the information contained in this letter will expire and a new letter shall be required prior to development approval.

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Should you have any questions or require any additional information, please contact me at (954) 828-5862.

Sincerely,

Igor Vassiliev, P.E.
Project Manager II

Enclosures: Water and Wastewater Capacity Analysis

cc: Alan Dodd, P.E., Public Works Director
Talal Abi-Karam, P.E., Assistant Public Works Director
Christopher Bennett, P.E., Assistant Public Works Director
Daniel Rey, P.E., City Engineer
File: Water and Sewer Capacity Letters



City of Fort Lauderdale
Public Works Department
Water and Wastewater Capacity Analysis

Olakino House – DRC Case No. UDP-S23062
551 Bayshore Drive, Fort Lauderdale, FL 33304

PROJECT AND DESCRIPTION

The project consists of developing an empty lot into an apartment building of 83 units with 1650 SF of resident dining space.

DESCRIPTION OF EXISTING UTILITIES

Water: The site is currently served by a 6-inch water main along Bayshore Drive, east of the project site. See Figure 1.

Wastewater: The site is currently served by an 8-inch gravity sewer main to the east of the project site along Bayshore drive. See Figure.

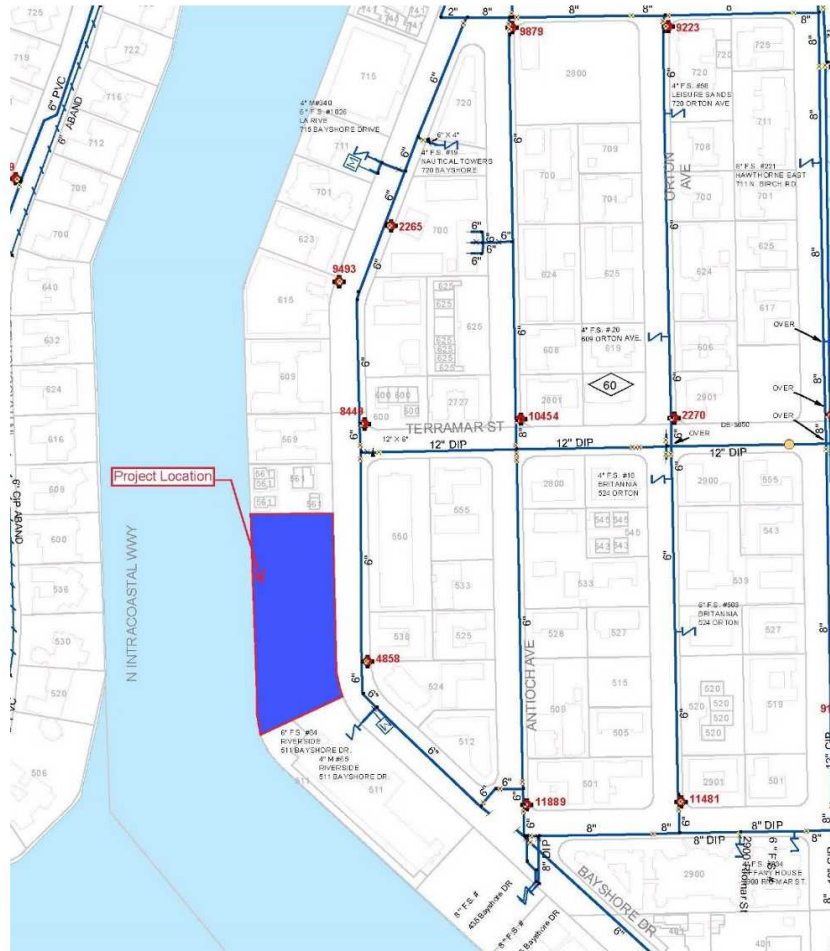
Pumping Station: The site is served by PS D-41 which is located at the intersection of Riomar Street and Bayshore Drive.

SUMMARY OF ANALYSIS AND REQUIRED ACTION

The existing water main does not have the capacity to support the proposed development. Starting at the intersection of Terramar Street and Bayshore Drive, 400 linear feet of 6-inch water main shall be upsized to a minimum of 10 inches in diameter. **See Figure 3.**



Figure 1 – City Water Atlas



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Figure 2 – City Sewer Atlas



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Figure 3 – Proposed Improvements



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WATER CAPACITY ANALYSIS

Requested Demand: Based on the applicant's site plan and building use information, the estimated average day potable water demand is approximately 19363 gallons per day (GPD), which equates to 0.0193 MGD. Average day water use demands are calculated by reducing the calculated max day water use demands by a factor of 1.18. The max day water use demands are calculated using the City's Guidelines for the Calculations of Sanitary Sewer Connection Fees and are based on City Ordinance No. C-19-29.

Evaluation of impact on existing distribution pipe: According to the site plan, the applicant is proposing to utilize the 6-inch water main along Bayshore Drive. The InfoWater hydraulic model was analyzed to determine the impact of this project on the existing 6-inch water main.

Evaluation of impact of Permitted Water Plant Capacity: The Fiveash and the Peele Dixie Water Treatment Plants are designed to treat 70 MGD and 12 MGD of raw water respectively (82 MGD total). The total permitted Biscayne aquifer water withdrawals for these plants is limited to 52.55 MGD per the South Florida Water Management District (SFWMD) permit number 06-00123-W.

The current twelve-month rolling average production at the two plants is 38.17 MGD. The previously committed demand from development projects in the permitting or the construction stage is 5.58 MGD. Combining these figures with the demand from the proposed project of 0.0193 MGD, the required production would be 43.77 MGD. This is less than the allowable withdrawal limit of 52.55 MGD. Therefore, the water plants have sufficient capacity to serve this project. See Figure 4 below.

Recommended Water Infrastructure Improvements: The existing water main does not have the capacity to support the proposed development. Starting at the intersection of Terramar Street and Bayshore Drive, 400 linear feet of 6-inch water main shall be upsized to a minimum of 10 inches in diameter. **See Figure 3.**

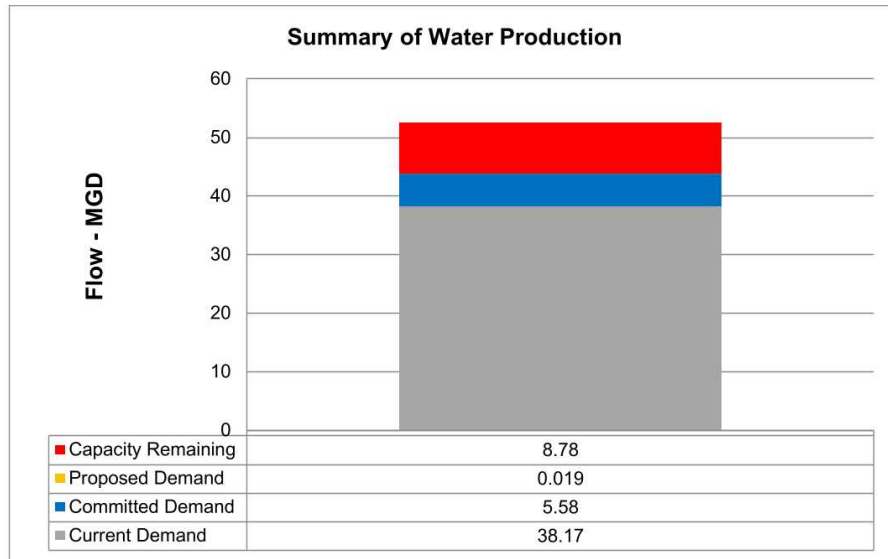


Figure 4

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WASTEWATER CAPACITY ANALYSIS

Requested Demand: Based on the applicant's site plan and building use information, the estimated average day sewer use demand is approximately 13328 GPD, which equates to 0.0133 MGD. Average day sewer use demands are calculated using the City's Guidelines for the Calculations of Sanitary Sewer Connection Fees and are based on City Ordinance No. C-19-29.

Evaluation of impact on existing collection pipe: According to the site plan, the applicant is proposing to utilize the 8-inch gravity sewer main to the north of the project site along S.W. Bayshore Drive. Accounting for existing flows and based on the tools and information available to the City staff, it has been calculated that the pipes downstream of the proposed development will flow less than the City's governance plan threshold of 70% during peak flows. Therefore, the pipes downstream of the developments are adequate to serve the proposed project.

Evaluation of impact on pumping station: PS D-41 has a duty point of 987 gallons per minute (GPM) and has a Nominal Average Pumping Operating Time (NAPOT) of approximately 9.60 hours per day. Based on projected sewage flows, the pumping run times would increase approximately 14 minutes per day. Additionally, there are other committed flows from proposed developments within the PS D-41 basin resulting in 7.36 minutes of additional runtime. PS D-41 will have a NAPOT of 9.94 hours once the proposed developments are complete, less than the recommended average of 10 hours per day. See Figure 5 below.

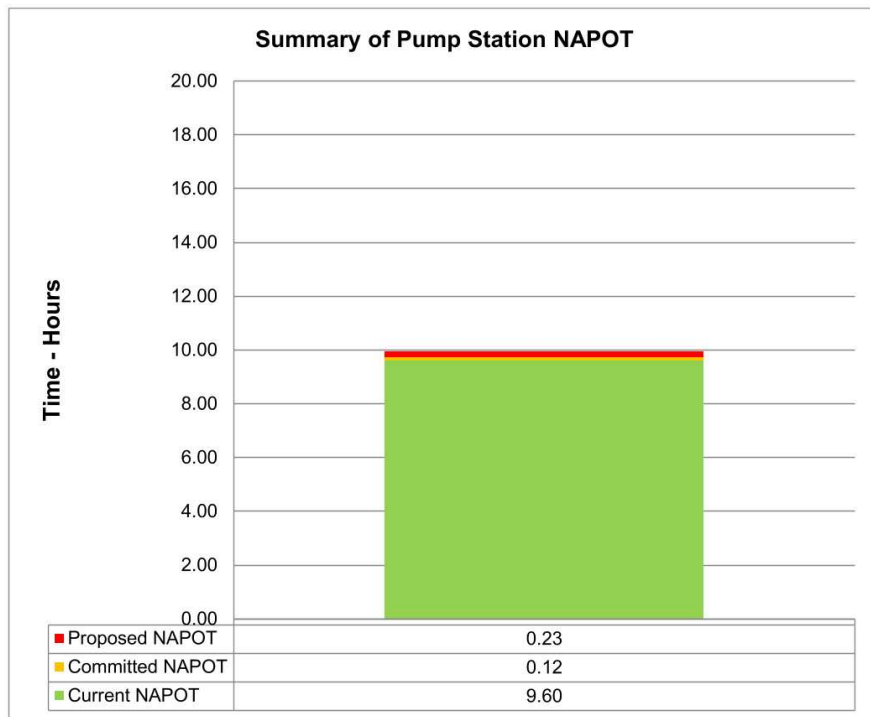


Figure 5

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Evaluation of impact of Permitted Wastewater Plant Capacity: The City of Fort Lauderdale owns and operates the George T. Lohmeyer Regional Wastewater Treatment Plant (GTL), which provides wastewater treatment for the City of Fort Lauderdale. The Florida Department of Environmental Protection’s (FDEP) permitted capacity for GTL is 56.6 MGD-TMADF (Million Gallons per Day – Three Month Average Daily Flow). The three-month average daily flow (TMADF) to the plant is 51.23 MGD. Combining the committed flows for previously approved projects of 4.35 MGD plus the 0.0133 MGD net contribution from the project results in a total projected flow of 55.59 MGD. This is less than the permitted treatment plant capacity of 56.6 MGD. Therefore, the treatment plant has sufficient capacity to serve this project. See Figure 6 below.

Recommended Wastewater Infrastructure Improvements: No improvements required.

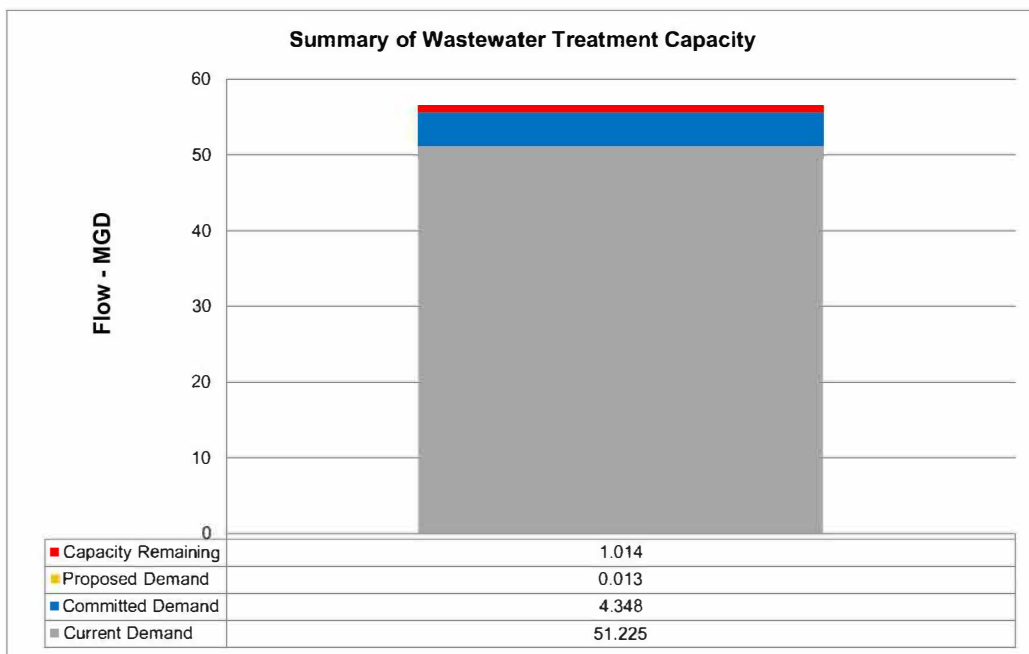


Figure 6

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