



PROJECT ADDRESS: 808 SE 4TH STREET

Date request was received:7/23/2021

DRC CASE#: R19052

Project Name: 808 SE 4TH STREET

IF NO DRC CASE NUMBER PROVIDED, WATER & SEWER AVAILABILITY LETTER TO BE PROVIDED UPON PAYMENT OF ENCLOSED A/R INVOICE.

*****IMPORTANT INFORMATION*****

The following analysis is only VALID FOR A PERIOD OF ONE YEAR FROM THE DATE OF ISSUANCE. After which point, a reanalysis must be conducted to ensure adequate availability for projects.

- Water and Sanitary Sewer Capacity Allocation Letter (Small Project)\$960
- Modifications to small project that require capacity re-analysis.....\$960
- Water and Sanitary Sewer Capacity Allocation Letter (Large Project)\$2,400
- Modifications to large project that require capacity re-analysis.....\$2,400

Dronix Suarez, E.I. | Project Manager II
City of Fort Lauderdale | Public Works
P: (954) 828-6982 | E: DSuarez@fortlauderdale.gov

PUBLIC WORKS DEPARTMENT
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August 20, 2021

Martin Grinbank
KEITH & ASSOCIATES
2312 S. ANDREWS AVE.
FT. LAUDERDALE, FLORIDA 33301

Subject: **WATER AND WASTEWATER CAPACITY AVAILABILITY LETTER
808 SE 4TH STREET – DRC Case No. R19052
808 SE 4TH STREET, FORT LAUDERDALE, FL 33301**

Dear Martin Grinbank,

According to the information submitted, the project consists of replacing a 34-unit apartment building with a 77-unit apartment building. There are proposed water and sewer connections to City of Fort Lauderdale (City) utilities along SE 4th Street. This project lies within the City's Pump Station (PS) A-8 basin and will increase the average day water demand by approximately 0.0080 million gallons per day (MGD) and the average day sewer demand by approximately 0.0061 MGD. The existing water and sewer infrastructure have the capacity to support the proposed development and no improvements are needed.

If there are changes to the proposed development after issuance of this capacity availability letter, the Owner or Owner's authorized representative shall submit a revised request based on the updated plans. Failure to seek approval prior to changing the plans may result in revocation of permit and capacity allocation. The determination of capacity availability is based upon tools and data analysis as of the date of this letter. Availability of capacities, as calculated in the attached analysis, is not guaranteed and no existing system capacity shall be considered "committed" for this project until a permit has been issued and all fees have been paid. The City reserves the right to re-evaluate the availability of capacities at the time of permit application. If sufficient capacities are not available, the City may deny the permit application or ask the Owner/Developer to submit an alternate design prior to approval. Information contained in this letter will expire one year from the date issued.

Should you have any questions or require any additional information, please contact me at (954) 828-6982.

Sincerely,

Dronix Suarez, E.I.
Project Manager II

Enclosures: Water and Wastewater Capacity Analysis
cc: Talal Abi-Karam, P.E., Acting Public Works Director
Victor G. Carosi, P.E., Assistant Public Works Director
Omar Castellon, P.E., Chief Engineer
Dennis Girisgen, P.E., City Engineer
File: Water and Sewer Capacity Letters

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CASE: R19052
PZB Exhibit 2
Page 2 of 8

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CAM #21-1186
Exhibit 5
Page 2 of 8



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

**808 SE 4TH STREET – DRC Case No. R19052
808 SE 4TH STREET, FORT LAUDERDALE, FL 33301**

PROJECT AND DESCRIPTION

The project consists of replacing a 34-unit apartment building with a 77-unit apartment building.

DESCRIPTION OF EXISTING UTILITIES

Water: The site is currently served by an 8-inch water main along S.E. 4th street, north of the project site. See Figure 1.

Wastewater: The site is currently served by an 8-inch gravity sewer main to the north of the project site along S.E. 4th street. See Figure 2.

Pumping Station: The site is served by PS A-8 which is located along S.E. 8th Avenue.

SUMMARY OF ANALYSIS AND REQUIRED ACTION

The existing infrastructure has the capacity to support the proposed development. Therefore, no improvements are needed.

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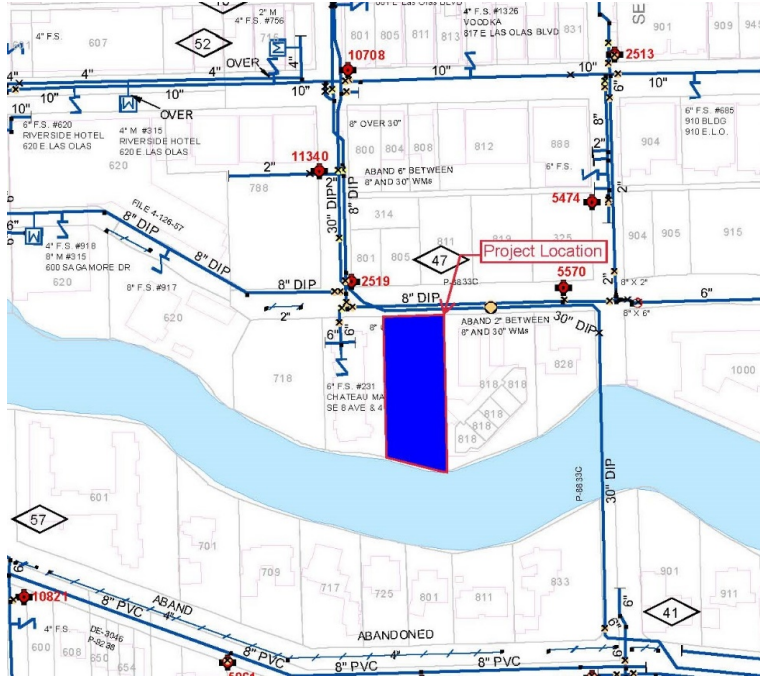
CASE: R19052
PZB Exhibit 2
Page 3 of 8

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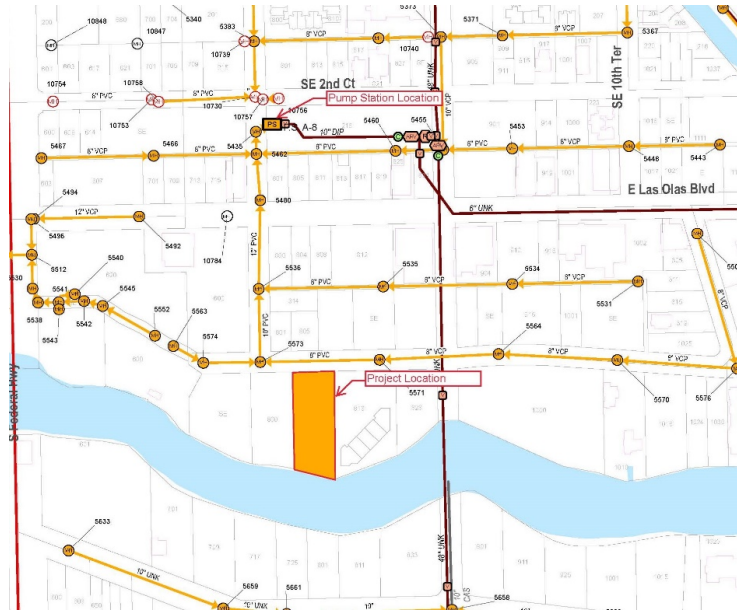
Figure 1 – City Water Atlas



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Figure 2 – City Sewer Atlas



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CASE: R19052
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Page 5 of 8

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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 7988 gallons per day (GPD), which equates to 0.0080 MGD. Average day water use demands are calculated by reducing the calculated max day water use demands by a factor of 1.3 as determined in the City's Comprehensive Utility Strategic Master Plan. 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 (condition & capacity): According to the site plan, the applicant is proposing to utilize the 8-inch water main along S.E. 4th Street. The InfoWater hydraulic model was analyzed to determine the impact of this project on the existing 8-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 38.31 MGD. The previously committed demand from development projects in the permitting or the construction stage is 4.78 MGD. Combining these figures with the demand from the proposed project of 0.0080 MGD, the required production would be 43.10 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 3 below.

Recommended Water Infrastructure Improvements: No improvements required.

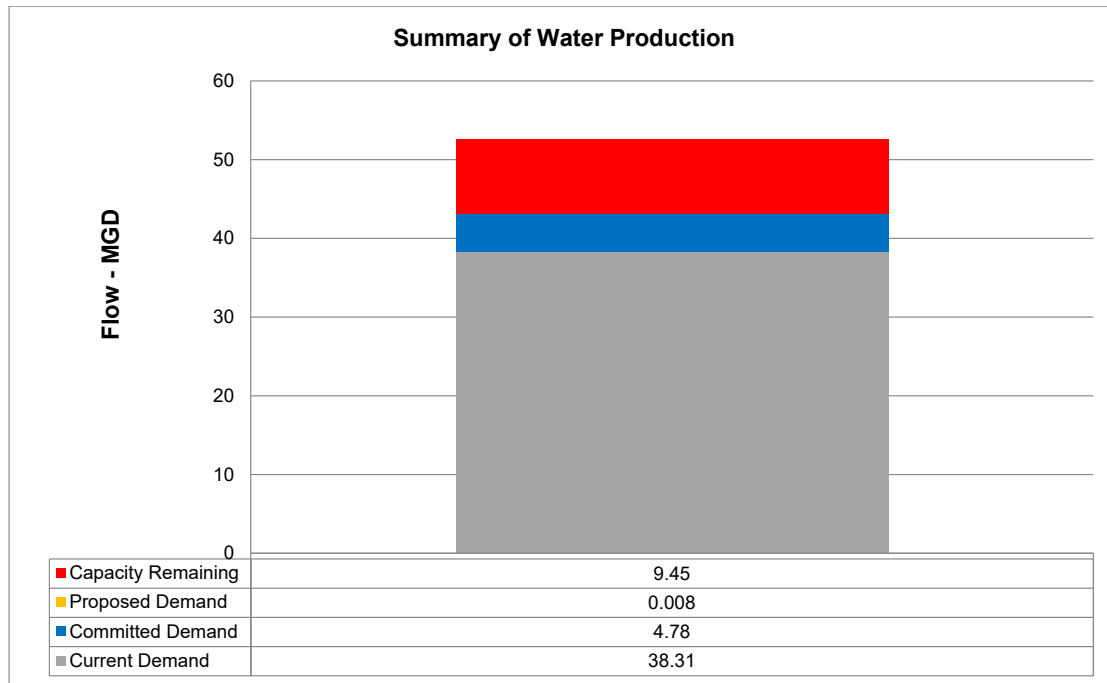


Figure 3



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 6058 GPD, which equates to 0.0061 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 (condition and capacity): 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.E. 4th Street. Manual of Practice (MOP) 60, published by American Society of Civil Engineers (ASCE) for the gravity sewer design and used by the City staff, recommends that pipe diameters 15-inch or less be designed to flow half full during peak flows. The City uses a peak hourly flow factor of 3.0. 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 ASCE-recommended 70% during peak flows. Therefore, the pipes downstream of the developments are adequate to serve the project.

Evaluation of impact on pumping station: PS A-8 has a duty point of 1500 gallons per minute (GPM) and has a Nominal Average Pumping Operating Time (NAPOT) of approximately 2.96 hours per day. Based on projected sewage flows, the pumping run times would increase approximately 4 minutes per day. Additionally, there are other committed flows from proposed developments within the PS A-8 basin resulting in 48.92 minutes of additional runtime. PS A-8 will have a NAPOT of 3.84 hours once the proposed developments are complete, less than the recommended average of 10 hours per day. See Figure 4 below.

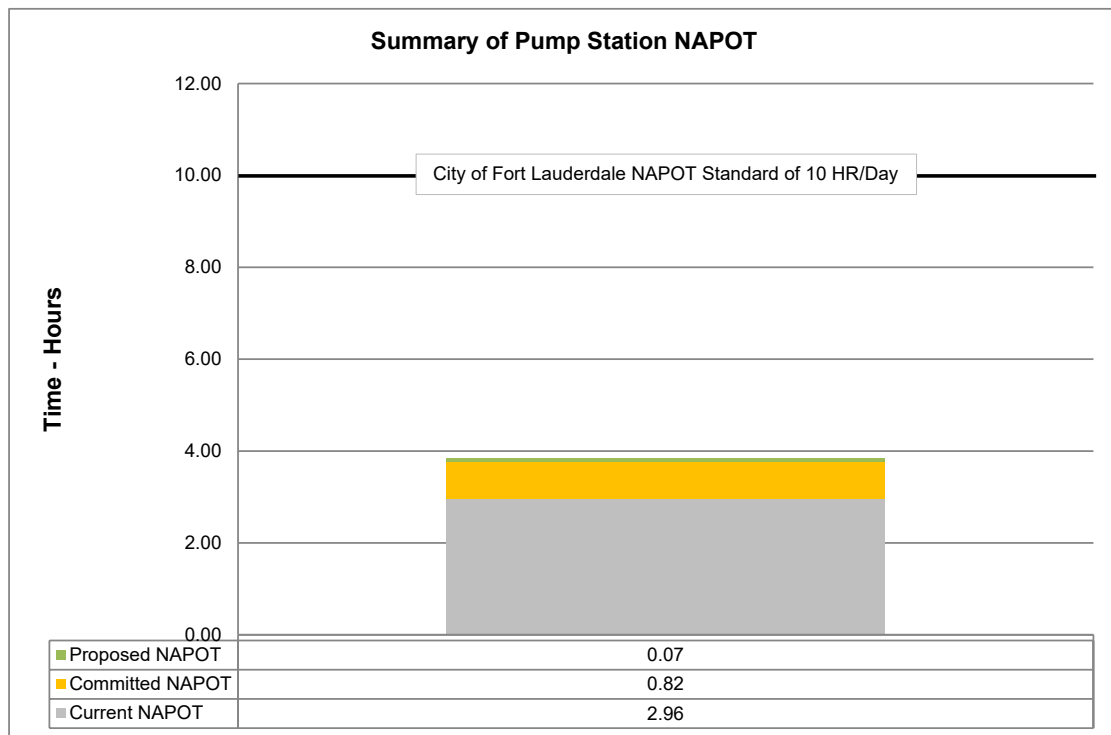


Figure 4

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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 Broward County’s Environmental Protection and Growth Management Department’s (EPGMD) Environmental Licensing & Building Permitting Division’s licensed capacity for GTL is 48 MGD-AADF (Million Gallons per Day – Annual Average Daily Flow). The annual average daily flow (AADF) to the plant is 40.50 MGD. Combining the committed flows for previously approved projects of 4.62 MGD plus the 0.0061 MGD net contribution from the project results in a total projected flow of 45.13 MGD. This is less than the permitted treatment plant capacity of 48 MGD. Therefore, the treatment plant has sufficient capacity to serve this project. See Figure 5 below.

Recommended Wastewater Infrastructure Improvements: No improvements required.

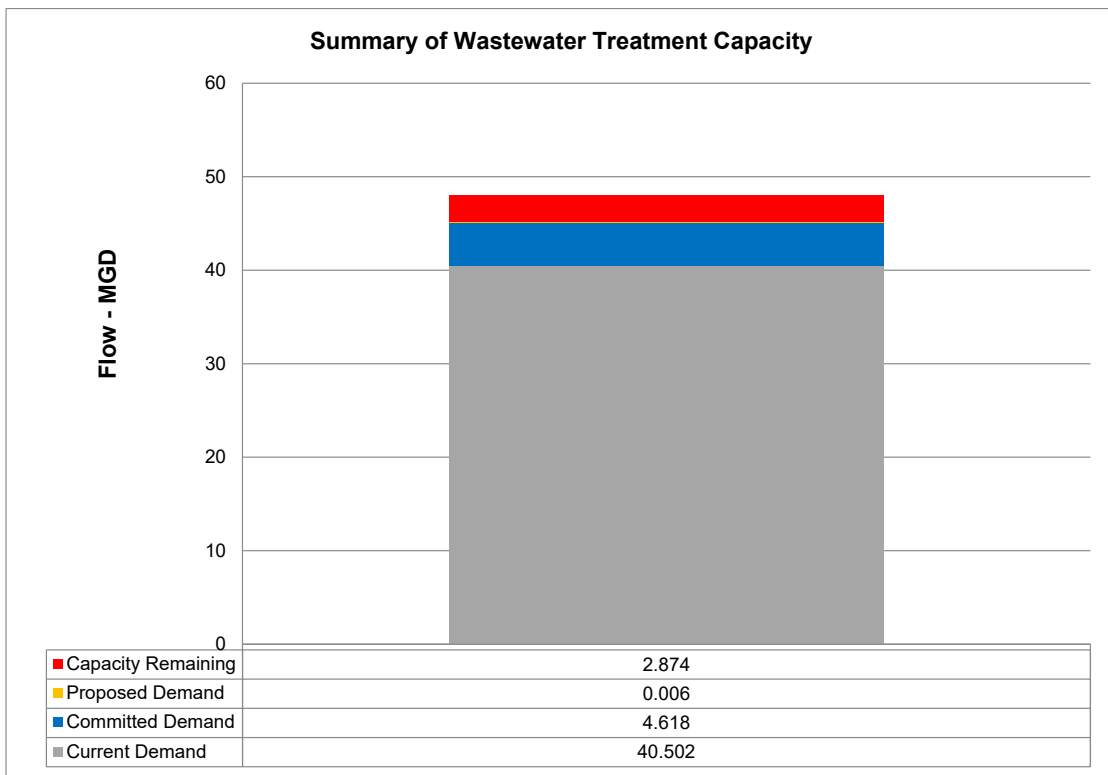


Figure 5

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