



PROJECT ADDRESS: 530 N Birch Road

Date request was received: 7/14/2022

DRC CASE#: UDP-A22036

Project Name: 530 N Birch Road

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

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August 29, 2022

Martin Grinbank
KEITH
2312 S Andrews Ave
Fort Lauderdale, FL 33316

Subject: **WATER AND WASTEWATER CAPACITY AVAILABILITY LETTER**
530 N Birch Road – DRC Case No. UDP-A22036
530 N Birch Road, Fort Lauderdale, FL 33304

Dear Martin Grinbank,

According to the information submitted, the project consists of the replacement of an existing 14-unit hotel with a 32-unit residential building. There are proposed water and sewer connections to City of Fort Lauderdale (City) utilities along Windamar Street and Viramar Street. This project lies within the City's Pump Station (PS) D-41 basin and will increase the average day water demand by approximately 0.0057 million gallons per day (MGD) and the average day sewer demand by approximately 0.0039 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,

Roberto I. Betancourt, 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
Omar Castellon, P.E., Assistant Public Works Director
Daniel Rey, P.E., City Engineer
File: Water and Sewer Capacity Letters

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City of Fort Lauderdale

Public Works Department
Water and Wastewater Capacity Analysis

530 N Birch Road – DRC Case No. UDP-A22036
530 N Birch Road, Fort Lauderdale, FL 33304

PROJECT AND DESCRIPTION

The project consists of the replacement of an existing 14-unit hotel with a 32-unit residential building.

DESCRIPTION OF EXISTING UTILITIES

Water: The site is currently served by an 8-inch water main along Viramar Street, south of the project site. See Figure 1.

Wastewater: The site is currently served by an 8-inch gravity sewer main to the north and south of the project site along Viramar Street and Windamar Street. See Figure 2.

Pumping Station: The site is served by PS D-41 which is located along Riomar Street.

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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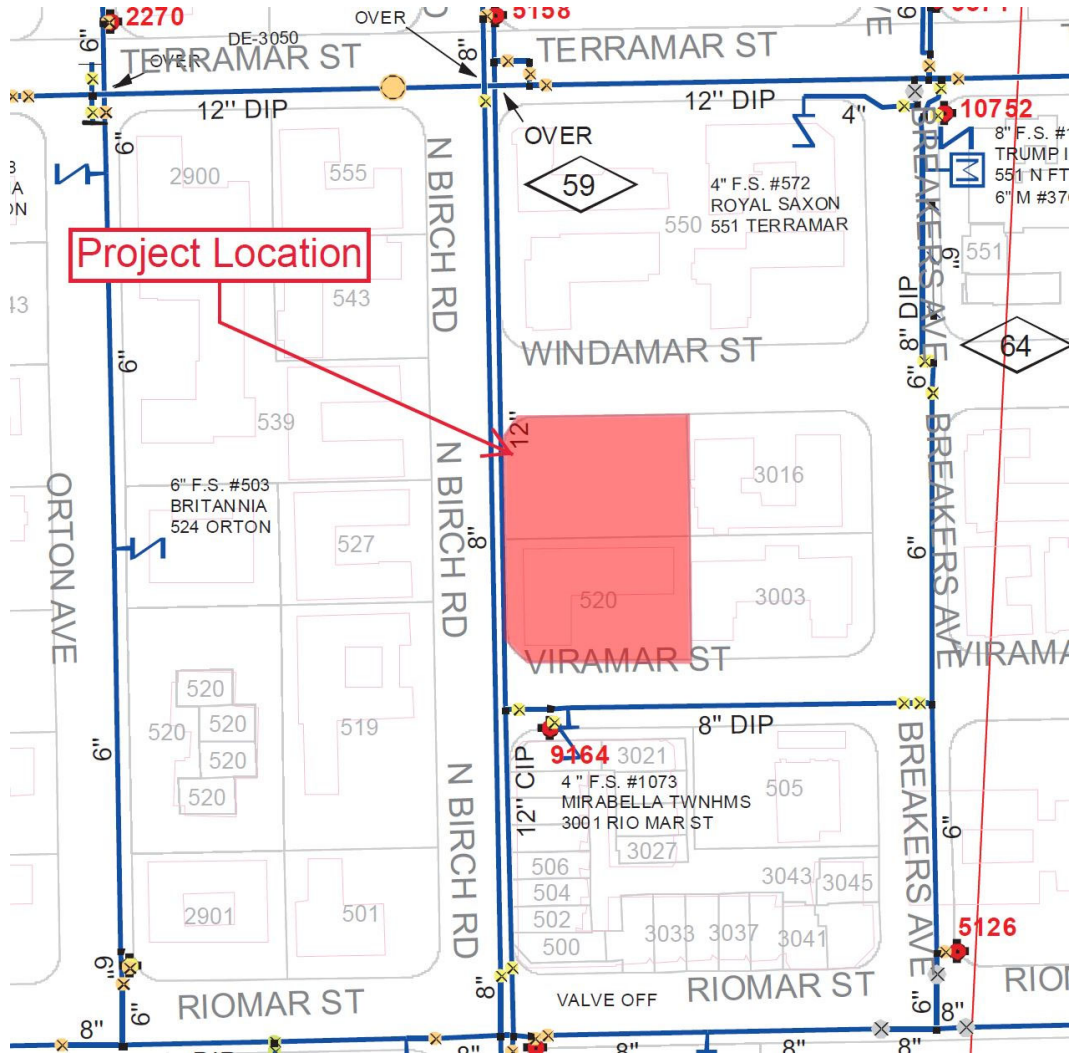
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Figure 1 – City Water Atlas



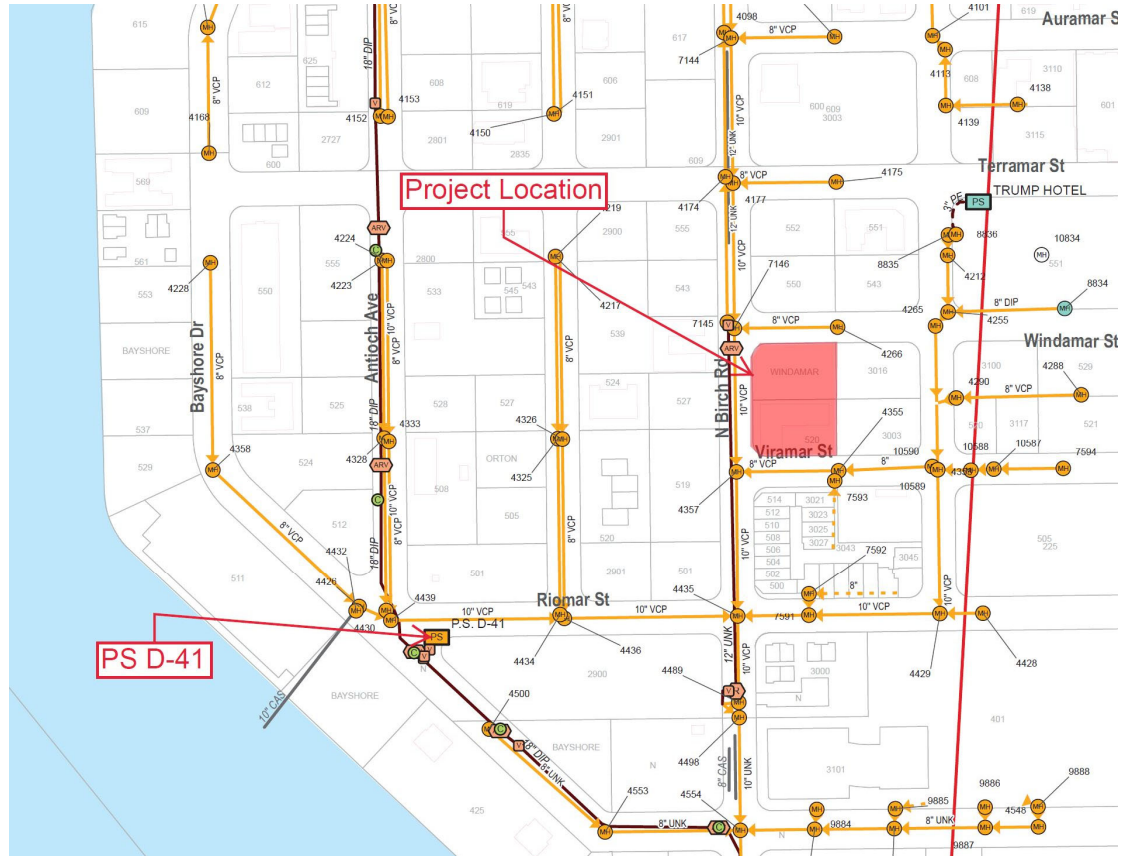
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Figure 2 – City Sewer Atlas



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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 5642 gallons per day (GPD), which equates to 0.0057 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 8-inch water main along Viramar 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 39.06 MGD. The previously committed demand from development projects in the permitting or the construction stage is 5.29 MGD. Combining these figures with the demand from the proposed project of 0.0057 MGD, the required production would be 44.36 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.

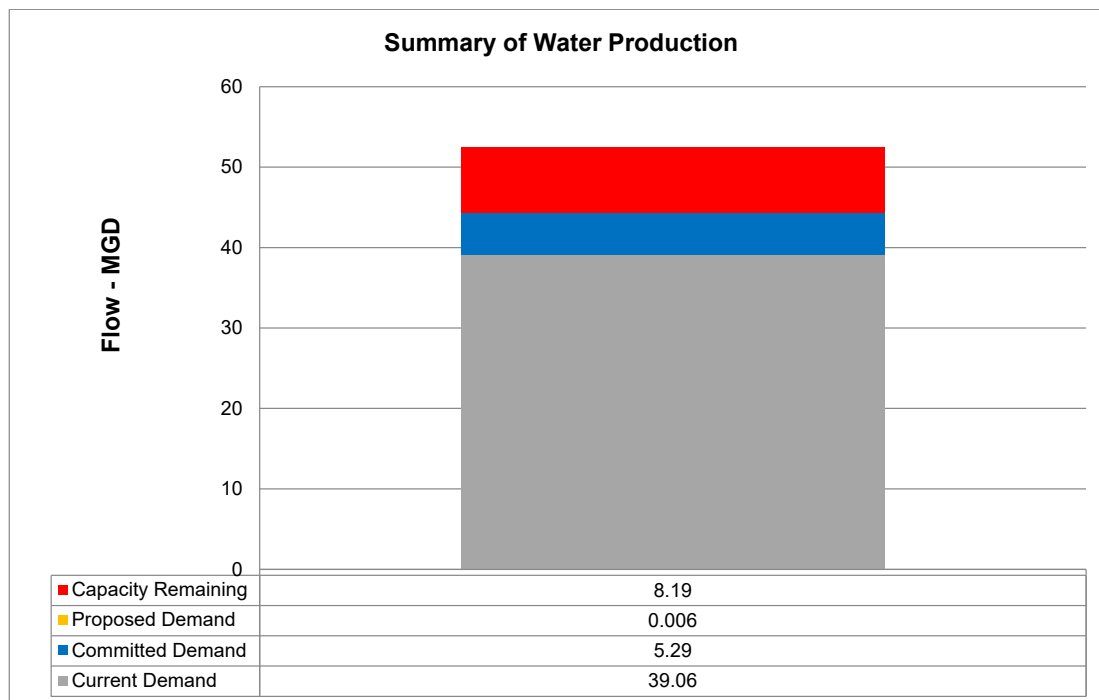


Figure 3

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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 3883 GPD, which equates to 0.0039 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 and south of the project site along Viramar Street and Windamar Street. 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 City's governance plan threshold of 70% during peak flows. Therefore, the pipes downstream of the developments are adequate to serve the project.

Evaluation of impact on pumping station: PS D-41 has a duty point of 319 gallons per minute (GPM) and has a Nominal Average Pumping Operating Time (NAPOT) of approximately 7.42 hours per day. Based on projected sewage flows, the pumping run times would increase approximately 12 minutes per day. Additionally, there are other committed flows from proposed developments within the PS D-41 basin resulting in 41.64 minutes of additional runtime. PS D-41 will have a NAPOT of 8.32 hours once the proposed developments are complete, less than the recommended average of 10 hours per day. See Figure 4 below.

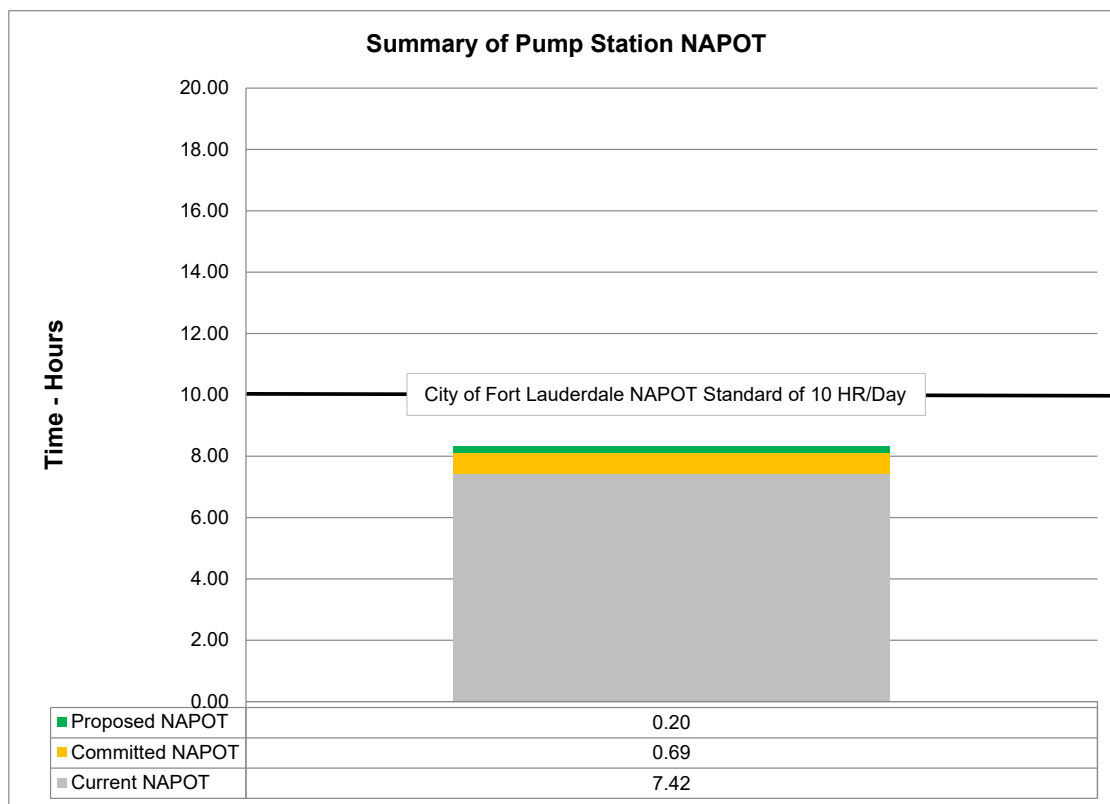


Figure 4

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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 42.87 MGD. Combining the committed flows for previously approved projects of 4.57 MGD plus the 0.0039 MGD net contribution from the project results in a total projected flow of 47.44 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.

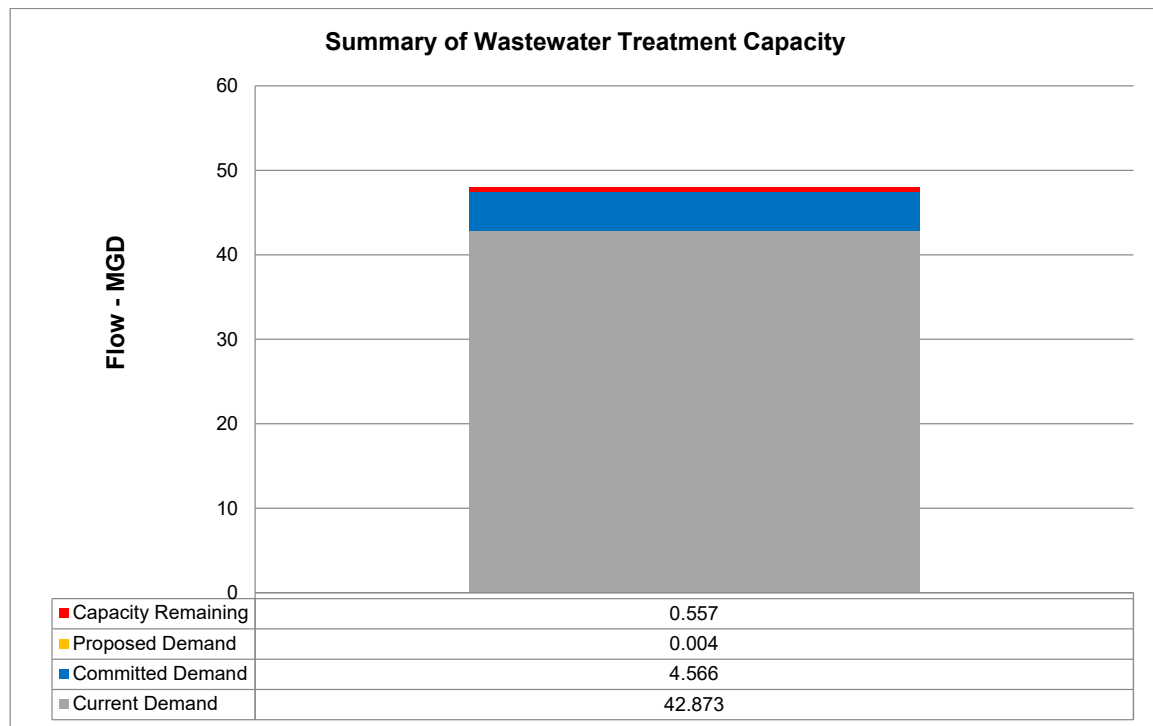


Figure 5

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