

Alton Road Development

Folio Number	Address
02-3233-017-0050	1677 West Ave, Miami Beach, FL 33139
02-3234-017-0160	1656 Alton Road, Miami Beach, FL 33139
02-3234-017-0170	1664 Alton Road, Miami Beach, FL 33139
02-3234-017-0180	1676 Alton Road, Miami Beach, FL 33139
02-3234-017-0190	1680 Alton Road, Miami Beach FL 33139

Utility Infrastructure Analysis

January 2026

Prepared for:

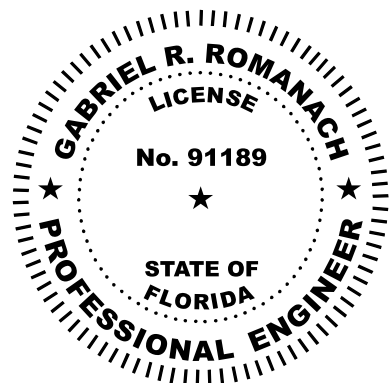
Alton Ventures Development, LLC
43 West 24th Street, Floor 10
New York, NY 10010

Prepared by:

Kimley-Horn and Associates, Inc.
2 Alhambra Plaza, Suite 500
Coral Gables, FL 33134
Registry No. 35106
Job No. 143747003



January 06, 2026



Gabriel Romanach, P.E.
Project Manager
Florida Professional Engineer License #91189

This item has been digitally signed and sealed by Gabriel R. Romanach, P.E. on the date adjacent to the seal. Signature must be verified on any electronic copies.

Project Description

The previously proposed maximum allowable development demand intensities consist of 121,761 square feet of office space (previously proposed), 24 hotel rooms (previously proposed), five (5) residential units (previously proposed), and 71,984 square feet of retail space (previously proposed). As part of the proposed Code Amendment, the maximum site development potential would include 287 high-rise residential units (currently proposed), 55,000 square feet of retail space (currently proposed), and 75,000 square feet of office space (currently proposed). The following sections summarize our proposed methodology.

Project Location

The utility impact analysis encompasses the addresses: 1656/1664/1676/1680 Alton Road, Miami Beach, FL 33139, and 1677 West Avenue, Miami Beach, FL 33139. The total development area is approximately 1.38 acres. Refer to the attached project location map for further details.

Existing Services

Water service is provided to the various folios via water meters connected to the existing 8" DIP water main within Alton Court. Fire protection service is provided by fire hydrants connected to the existing 12-inch water main along Lincoln Road, the existing 12-inch water main along Alton Road, and the existing 8-inch water main along 17th Street, as documented in the City's utility atlas.

Sanitary sewer service is provided via existing lateral connections to the 15-inch gravity sewer main located within Alton Court, as documented in the City's as-built drawings numbers 309 and 309A/B/C/D. The existing uses and corresponding areas are summarized in *Table 1* below.

Table 1: Previously Proposed Service Demands

Facility/Service Area	Daily Rated Gallonage (Per MDC)	Previously Proposed Conditions	Demand (GPD)
Residential	135 GPD/Unit	5 Units	675
Hotel	115 GPD/Unit	24 Units	2,760
Retail	10 GPD/100 SF	71,984 SF	7199
Office	5 GPD/100 SF	121,761 SF	6,088
Total Demand			16,722

Proposed Service Connections

The proposed development involves the demolition of existing structures and the construction of a multi-story, mixed-use residential building. Water and fire service to the new building will be provided via connections to the existing water mains within Alton Court. The proposed sanitary sewer service will be connected to the existing 15" gravity sewer main within Alton Court. The developer plans to utilize existing water and sewer connections, if feasible. The downstream lift station, City of Miami Beach Pump Station 0001, is currently not under any moratorium and will be able to accommodate the additional flow generated by the development. Results from the Pump Station Capacity Estimator are provided in the following pages. The proposed uses and areas are detailed in *Table 2* below.

Table 2: Proposed Service Demands

Facility/Service Area	Daily Rated Gallonage (Per MDC)	Proposed Conditions	Demand (GPD)
Residential	135 GPD/Unit	287 Units	38,745
Hotel	115 GPD/Unit	0 Units	0
Retail	10 GPD/100 SF	55,000 SF	5,500
Office	5 GPD/100 SF	75,000 SF	3,750
Total Demand			47,995

Comparison of Previously Proposed and Proposed Demands

The demand requirements for both the previously proposed and proposed developments are illustrated in Tables 1 and 2, respectively. The demand is shown in gallons per day (GPD) for each respective use as per Miami-Dade County's "Daily Rated Gallonage Schedule." The comparison highlights a net increase in demand as shown in *Table 3* below.

Table 3: Previously Proposed vs Proposed Service Demands

Previously Proposed Demand (GPD)	Proposed Demand (GPD)	Net Change (GPD)
16,722	47,995	31,273 (increase)

Based on the analysis above, the proposed development is projected to result in an increase of approximately 31,273 gallons per day in average daily rated water demand when compared to the previously proposed development.

Solid Waste Demand

The service standard for solid waste disposal for residential uses is provided in the 2040 Miami Beach Comprehensive Plan Infrastructure Element Policy 1.5.1 and will be used for the demand calculations below.

Table 4: Previously Proposed Solid Waste Disposal Demand

Residential Units	Level of Service Standard (tons/year/unit)	Previously Proposed Demand (tons/year)
5	1.275	7

Table 5: Proposed Solid Waste Disposal Demand

Residential Units	Level of Service Standard (tons/year/unit)	Proposed Demand (tons/year)
287	1.275	366

Table 6: Previously Proposed vs Proposed Solid Waste Disposal Demands

Previously Proposed Demand (tons/year)	Proposed Demand (tons/year)	Net Change (tons/year)
7	366	359 (increase)

Based on the analysis above, the amount of solid waste generated for residential use increases by 359 tons/year when compared to the previously proposed development.

Fire Flow Demand

The fire flow demand is calculated per NFPA 18.4.4.2.1, utilizing the square footage of the three largest floors for Construction Type II (222). The three largest floor areas are listed below, with the total fire flow area listed as the sum of the floors.

- Third Floor Area = 52,475 SF
- Fourth Floor Area = 52,424 SF
- Fifth Floor Area = 52,424 SF
- Total Fire Flow Area = 52,475 + 52,424 + 52,424 = 157,323 SF

Please see *Table 7* below for the minimum required fire flow and flow duration analysis per NFPA Table 18.4.4.2.1.

Table 7: Fire Flow Building Area (per NFPA Table 18.4.4.2.1)

Floor	Area (SF)	Fire Flow Demand (GPM)	Flow Duration (hours)
Total Fire Flow Area	157,323	4,250	4

Per NFPA 18.4.4.3.2, when a building is fully protected by an approved automatic sprinkler system, the required fire flow may be reduced by up to 75%. However, the reduced fire flow shall not be less than 1,000 gallons per minute (GPM).

$$4,250 \text{ GPM} \times (100\% - 75\%) = 1,063 \text{ GPM} > 1,000 \text{ GPM minimum}$$

Reduced Fire Flow Demand = 1,063 GPM for 4 hours.

Irrigation Demand

Pursuant to the City of Miami Beach Municipal Code, Section 142-306(c), developments within zoning district CD-2 are required to provide open space equal to a minimum of 25 percent of the non-conforming building footprint area. This calculation is provided for conceptual planning purposes only and is subject to change based on final design criteria. For planning purposes, the non-conforming building footprint area is assumed to be 52,500 square feet, representing the combined area of the eastern folios; therefore, the minimum required open space area is 13,125 square feet. This calculated open space area is used as the minimum irrigated area and serves as the basis for estimating the site's irrigation demand.

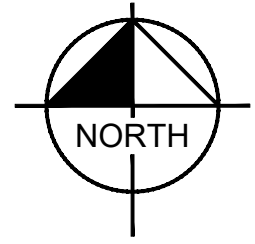
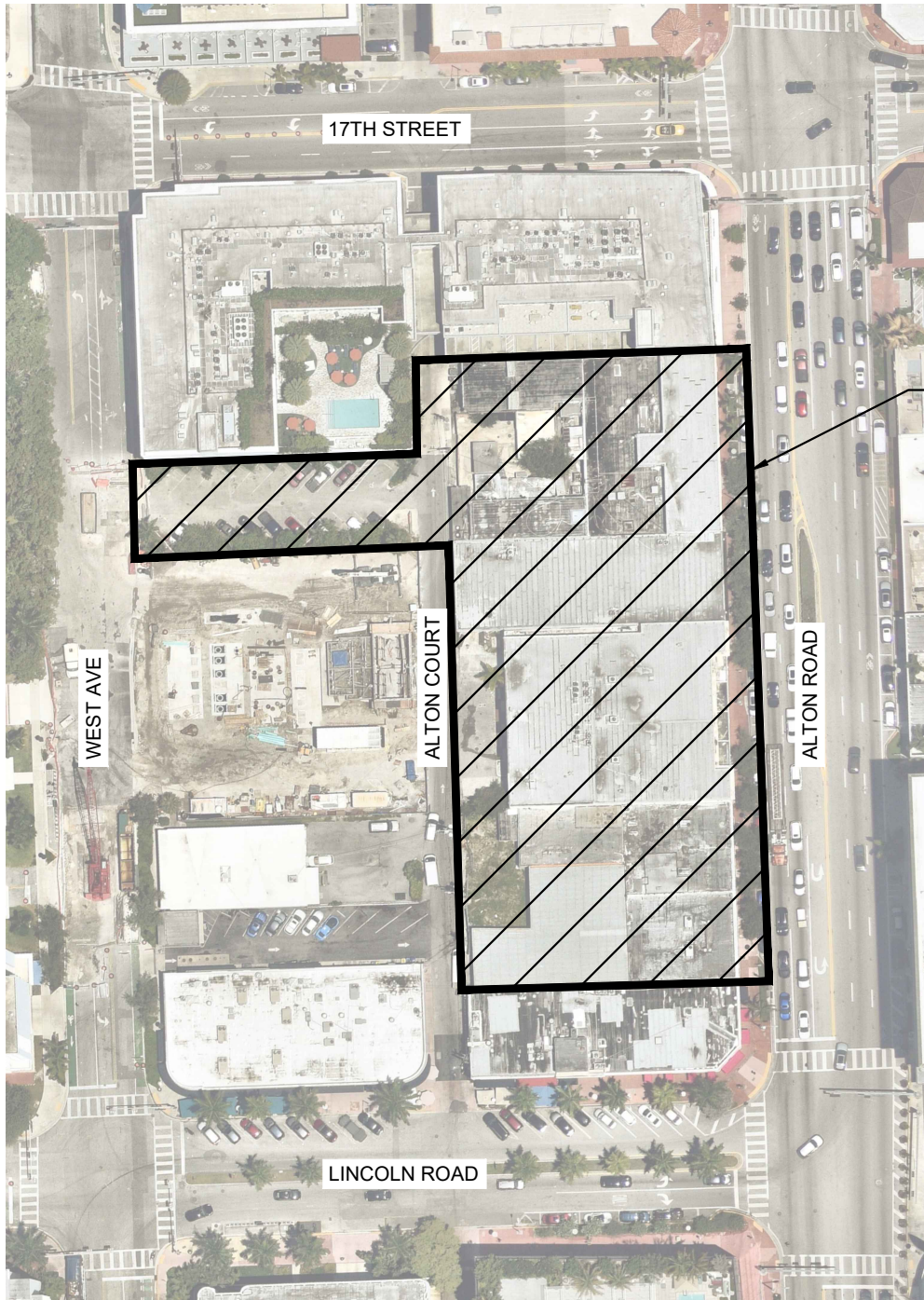
In accordance with guidance from the University of Florida Institute of Food and Agricultural Sciences (IFAS), an irrigation application rate of 0.5 inches per day over the irrigated area was used to estimate total irrigation demand. The resulting irrigation demand calculations are summarized in the table below.

Table 8: Irrigation Demand

Landscaped Area (SF)	Irrigation Depth (in)	Irrigation Volume (CF)	Irrigation Frequency (days)
13,125	0.5	547	1

Based on the analysis above, the calculated irrigation volume is 4,092 gallons (547 cubic feet x 7.48 gallons per cubic foot). Assuming an irrigation frequency of once per day, the total estimated irrigation demand for the site is 4,092 gallons per day (GPD).

Appendix A: Project Location Map



PROJECT LOCATION

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ALTON ROAD DEVELOPMENT

PROJECT LOCATION MAP

SHEET NUMBER

A-01

Appendix B: Pump Station Capacity Estimator



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Calculations are based on the criteria stipulated in Section 24-42.3, Miami-Dade Code, and Federal Consent Decree (Case: No. 1:12-cv-24400-FAM)

Please be aware that the information obtained with this Application is for general information only, and it is only correct as of the time and date in which the search was executed. Consec information obtained with this application DOES NOT CONSTITUTE AN OFFICIAL DEPARTMENTAL DETERMINATION or APPROVAL for your project. For any additional information abo Station Capacity Estimator application, please refer to the [Application Guidelines](#) or contact the RER-DERM Wastewater Permitting Section at 305-372-6600 or via email at PSO@miamidade.gov

* Required fields

Search Criteria	
Sanitary Sewer Utility *	02 - CITY OF MIAMI BEACH
Pump Station Number *	0001
Proposed Projected Flow (GPD) *	47995 GPD (Only numbers are allowed)
Project will require, or is part of, a Sewer Extension *	No
<input type="button" value="Submit"/> <input type="button" value="Clear"/>	

Pump Station Capacity Estimator Result
→ UNCONDITIONAL ALLOCATION ALLOWED ←

Sanitary Sewer Utility	02 - CITY OF MIAMI BEACH
Pump Station Number	0001
Proposed Projected Flow (GPD)	47,995 GPD
Project will require, or is part of, a Sewer Extension	No

Pump Station Downstream	Pump Station Owner	Pump Station Number	Moratorium Code	Projected NAPOT	Proposed Hrs (Δt)	Proposed Projected Hrs
Receiving PS	02	0001	OK	2.14	0.06	2.20
↓	30	CD	-	-	-	-

Treatment Plant Codes

- CD Central District Treatment Plant
- ND North District Treatment Plant
- SD South District Treatment Plant
- TP Homestead Treatment Plant
- AV Americana Village

Pump Station Acronyms

- GPD Gallons Per Day
- HAMA High Annual Monthly Average
- NAPOT Nominal Avg. Pump Operating Time

Moratorium Codes

- AC Approved And Corrected
- AH Approved And Corrected - HAMA Limited
- AM Absolute Moratorium - NAPOT Above 10. Plan Submitted
- CH Conditional Moratorium - HAMA Limited
- CM Conditional Moratorium
- CN Conditional Moratorium - New Collection System
- DE Decommissioned - Removed
- FH No Allocations - Last Mart > 10 Hrs. HAMA Limited
- FN No Allocations - Last Mart > 10 Hrs.
- IM Initial Moratorium
- IN Incomplete - Information Missing
- OH OK - HAMA Limited
- OK OK
- RM Restricted Moratorium
- TH No Allocations - Due To High Hours With HAMA
- TM Temporary Moratorium

Help and Support

- Miami-Dade Home
- Privacy Statement
- ADA Notice

Self-Service

- 311 Contact Center
- Mobile Applications
- Open Data

Stay Connected

- Legal Ads & Public Notices
- Social Media Directory



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ALTON ROAD DEVELOPMENT

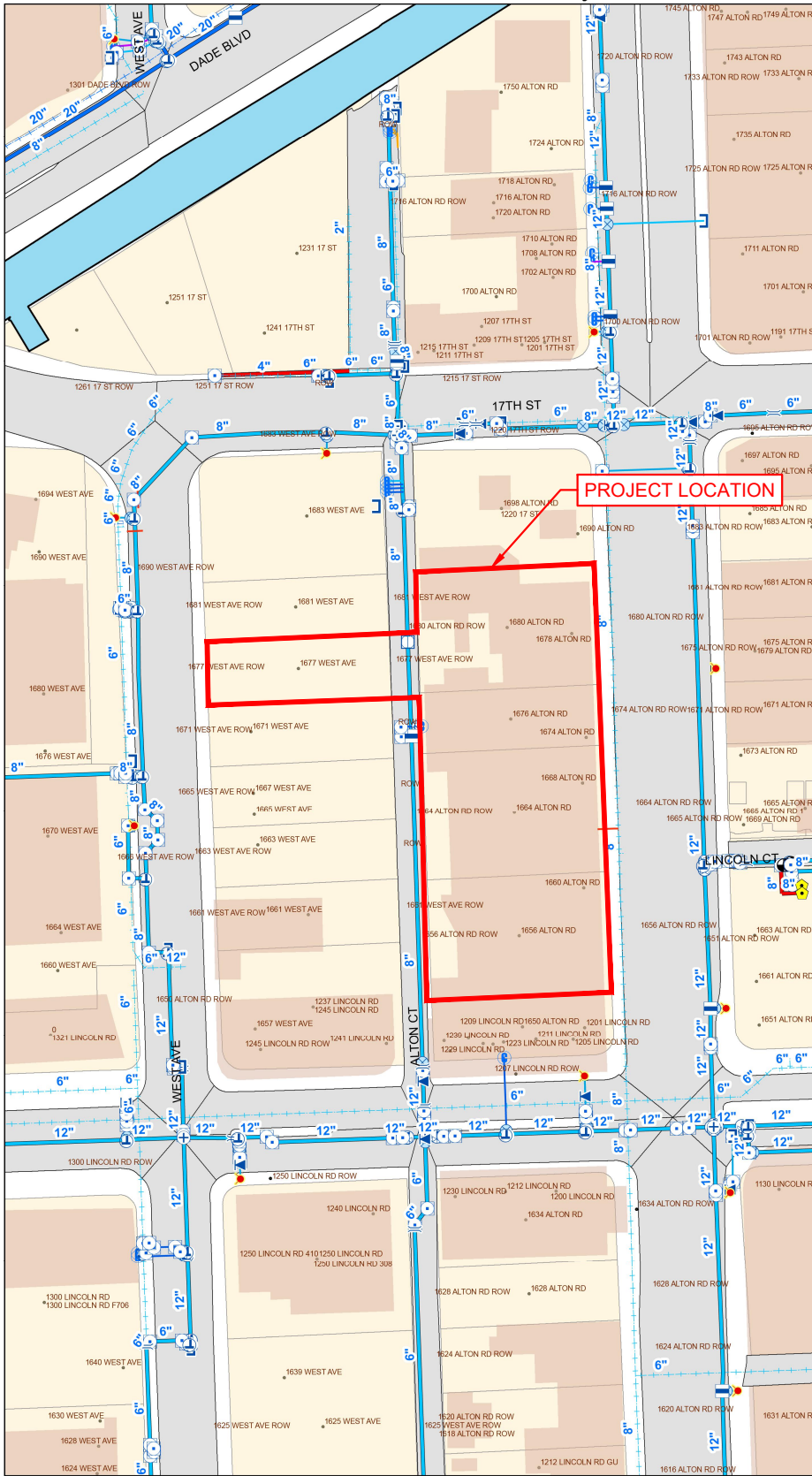
PUMP STATION CAPACITY

SHEET NUMBER

B-01

Appendix C: City of Miami Beach Water and Sewer Atlases

Miami Beach Water System



- Legend**
- Fire Hydrant
 - Water Adapter
 - Water Air Release
 - Water Bend
 - Water Blowoff
 - Water Cap
 - Water Corporation Stop
 - Water Coupling
 - Water Cross
 - Water Gate
 - Water Other
 - Water Plug
 - Water Reducer
 - Water Sleeve
 - Water Tap
 - Water Tee
 - Water Unknown
 - Water Wye
 - Water Flow Meter
 - Water Pump Station
 - Water Service Connection
 - Water Storage Tank
 - Water Air Release Valve
 - Water Altitude Valve
 - Water Blowoff Valve
 - Water Combination Valve
 - Water Pressure Reducer Valve
 - Water Simple Check Valve
 - Water Ball Valve
 - Water Butterfly Valve
 - Water Cone Valve
 - Water Gate Valve
 - Water Plug Valve
 - Water Casing
 - Unknown
 - Commercial Service Line
 - Fire Service Line
 - Hydrant Service Line
 - Irrigation Line
 - Meter Service Line
 - Other
 - Fire Service Line, Abandoned
 - Hydrant Service Line, Abandoned
 - Meter Service Line, Abandoned
 - Distribution Main
 - Transmission Main
 - Distribution Main, Inactive
 - Transmission Main, Inactive
 - Distribution Main, Abandoned
 - Transmission Main, Abandoned
 - Valve Chamber
 - Other Structure
 - PARKS
 - EDGE_OF_PAVEMENT



N.T.S.



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ALTON ROAD DEVELOPMENT

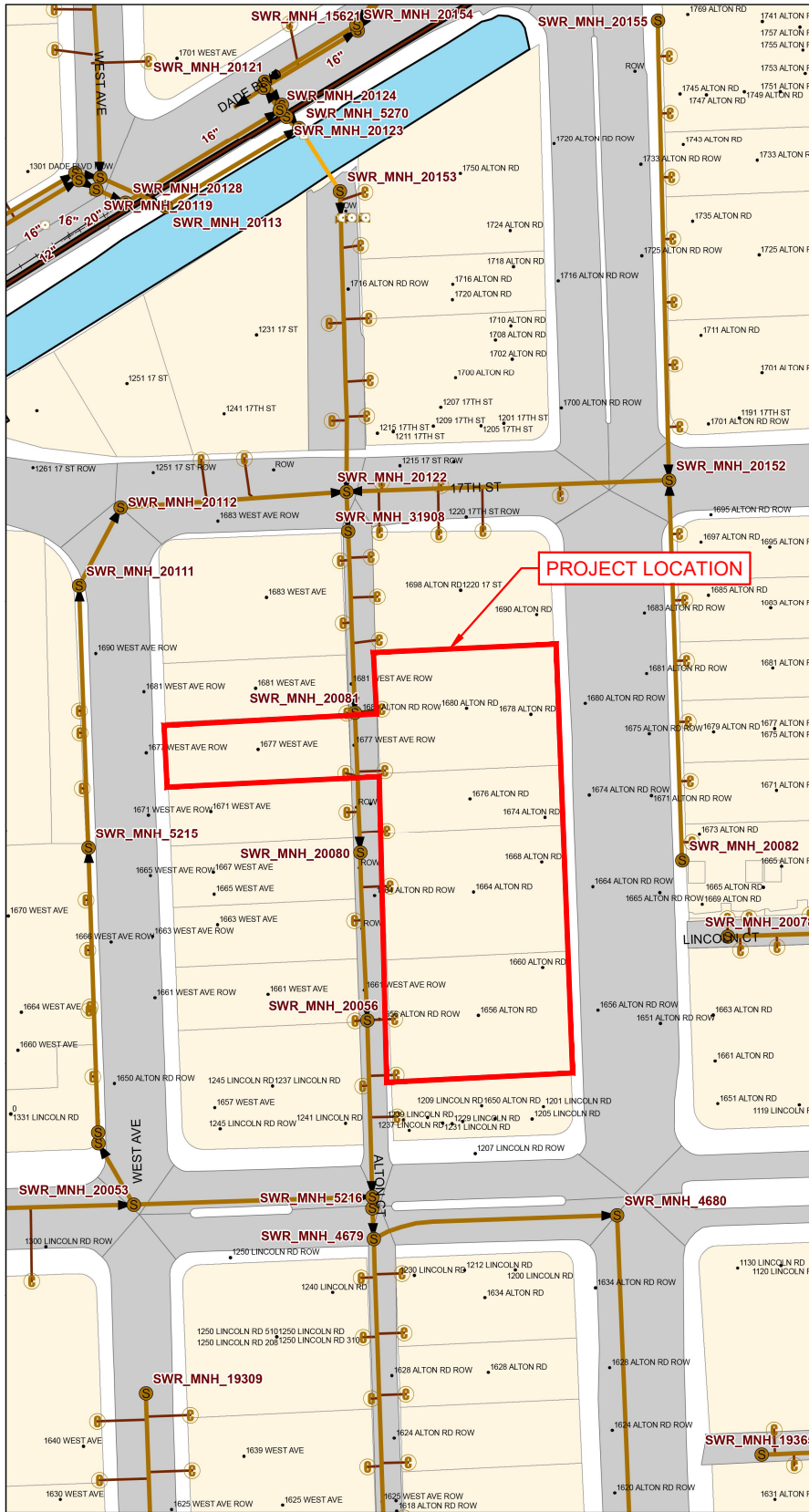
MIAMI BEACH WATER SYSTEM

SHEET NUMBER

C-01

Plotted By: Armstrong, Cory Sheet Set: ## Layout: MIAMI BEACH WATER SYSTEM December 23, 2025 04:27:32pm K:\MIB_Civil\14374\003 - Alton Road Development\CIVIL\ENGINEERING\Water and Sewer Demand Report\Supporting Docs\Appendices.dwg
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Miami Beach Sewer System



- Legend**
- Bend
 - Cap
 - Fitting
 - Lateral Wye
 - ⊕ Tee
 - ⊗ Wye
 - ⊙ Sewer Pump Station
 - ⊙ Sewer Pump Station Private
 - ⊙ Sewer Control Valve
 - ⊙ Sewer System Valve
 - ⊙ Sewer Cleanout
 - ⊙ Sewer Meter Station
 - ⊙ Sewer Manhole
 - Gravity Main
 - Siphon
 - Abandoned In Place
 - Pressure Main
 - Abandoned In Place
 - Lateral Line
 - Abandoned In Place

N.T.S.



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ALTON ROAD DEVELOPMENT

MIAMI BEACH SEWER SYSTEM

SHEET NUMBER

C-02

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