Rajamin LLC, Retail Building

456 W 41st Street
Miami Beach, Florida 33140

prepared for:
Vertical Design Studio, P.A.

traffic statement and tdm

TRAFTECH ENGINEERING, INC.

August 2021

TRAFTECH ENGINEERING, INC.

456 W 41 Street
c/o Jorge E. Gonzalez AIA
Vertical Design Studio, P.A.
10950 SW 88th Street, Suite 200
Miami, Florida 33176

August 23, 2021

Re: **456 West 41st Street**
Traffic Statement and Transportation Demand Management

Dear Jorge:

Traf Tech Engineering, Inc. is pleased to provide you with the results of the traffic evaluation and Transportation Demand Management (TDM) associated with a retail development planned to be located on the south side of West 41st Street approximately 140 feet east of Royal Palm Avenue in the City of Miami Beach in Miami-Dade County, Florida. A copy of the site plan is contained in Attachment A. This report addresses the following topics:

- Trip Generation
- Transportation Demand Management (TDM)
- Valet

Trip Generation

A trip generation analysis was performed using the trip generation equations published in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual* (10th Edition). The trip generation analysis was undertaken for daily, AM peak hour, and PM peak hour conditions. According to ITE's *Trip Generation Manual* (10th Edition), the trip generation equations used for the proposed retail development are:

SHOPPING CENTER – Mid Rise (ITE Land Use 820)
Daily Trip Generation
T = 37.75 (X)
Where T = number of daily trips and X = 1,000 square feet of leasable area

AM Peak Hour
T = 0.94 (X) (62% inbound and 38% outbound)
Where T = number of AM peak hour trips and X = 1,000 sf of leasable area

PM Peak Hour
T = 3.81 (X) (48% inbound and 52% outbound)
Where T = number of PM peak hour trips and X = 1,000 sf of leasable area

Using the above-listed equations from the ITE document, a trip generation analysis was undertaken for the proposed retail development. The results of this effort are documented in Table 1.

TABLE 1
Trip Generation Summary
456 West 41st Street

		Number of Trips		
Land Use	**Size**	**Daily**	**AM Peak**	**PM Peak**
Retail	4,872 sf	184	5	19

Source: ITE Trip Generation Manual (10th Edition)

As indicated in Table 1, the proposed retail development is projected to generate approximately 184 daily trips, approximately five (5) AM peak hour trips (3 inbound and 2 outbound) and approximately 19 trips during the typical afternoon peak period (9 inbound and 10 outbound).

Transportation Demand Management

Traf Tech Engineering, Inc. prepared a Transportation Demand Management (TDM) plan for the 456 West 41st Street retail project.

Travel Demand Management plans (TDM) establish policies and mechanisms to reduce automobile trips to and from designated facilities. TDM plans usually use several approaches to address all modes of transportation likely to be used to provide access to a facility such as single occupant driving, carpooling, transit, bicycling and walking. The goal of TDM plans is to increase the use of alternatives modes to single occupant driving, i.e., to reduce the number of automobile trips to and from the facility and consequently, minimizing automobile traffic impacts on the street system.

Successful TDM plans not only address all modes of transportation, but also use policies such as inducements for alternative modes (subsidies), physical enhancements (bike lockers, preferential parking for carpools) and disincentives for automobile use (no free parking for employees).

Potential measures for each mode are addressed below. Use of an employee transportation subsidy is also presented.

Pedestrian Access

Walking not only reduces automobile trips and their contribution to congestion and emissions, it also provides health benefits to the employees who use this mode of transportation. It is, however, the mode that is least likely to be used for a number of reasons. It is unlikely that employees of the commercial building use will reside within a reasonable walking distance (within ¼ - ½ mile) of the subject facility. However, the area near the subject project is a high pedestrian traffic area and therefore, many existing and future customers of the 456 W 41st Street development are expected to be walking trips. Sidewalks exist on both sides of West 41st Street and as well as safe pedestrian crosswalks (with ramps and pedestrian signals) at the adjacent signalized intersection of West 41st Street/Royal Palm Avenue and West 41st Street/Sheridan Avenue.

Bicycling

The site of the 456 West 41st Street project offers two potential approaches to encourage cycling, the use of the Citi Bike program and use of retail employee-owned bicycles.

Additionally, use of Citi Bike could be supported by providing monthly passes to employees. Monthly passes are $15.00 for unlimited 30-minute rides and $25.00 for unlimited 60-minute rides. Within the immediate area of the project, there is one (1) convenient Citi Bike rental station (Station 214 located on Royal Palm Avenue between 41st Street and 42nd Street. Future employees will be informed of the Citi Bike Station. Station 214 has 10 bicycles and 6 free bicycle docks.

(Goal: Offer 2 free City Bike passes to employees. Integrate bikeshare information into communication materials for visitors).

Mass Transit

There several transit options for the 456 West 41st Street development. These transit options include Routes C, M and J. The nearest bus stop for these services is located on West 41st Street, approximately 800 feet east and west of the project site . These transit routes provide frequent service and access to all of Miami-

Dade County as well as connections to other destinations outside of the County. Employers of the commercial building can provide a significant inducement to employees to use public transportation (Miami-Dade Transit, MDT) through a transit subsidy. Transit subsidies can also provide tax benefits to both employees and employers.

MDT offers three methods to provide transit subsidies:

The employee uses pre-tax dollars from their salary to purchase monthly transit passes. There is no income tax on the portion of their salary used for transit passes. The pre-tax funds also reduce the employees' taxable salary, reducing the total amount of income tax paid by the employees. The employer pays the total cost of a monthly transit pass using a tax-deductible (to the employer) subsidy. The employer receives a tax deduction equivalent to the value of the transit subsidies provided to the employees. The transit subsidy is a fringe benefit to employees and is not taxable income.

Both the employer and employees share the cost of transit passes, paying for them with pre-tax dollars. The employer reduces his/her payroll taxes. Employees do not pay income tax on the money used for transit passes.

MDT monthly passes if purchased by an individual are $112.50. Corporate discounts are available based on the number of participating employees. For 4 – 99 employees, monthly passes are $101.25 per employee, for 100 or more employees, the cost is $95.65 per employee.

Goal: Offer 2 free transit passes to employees. Request employee origin/destination information from commercial employers and identify opportunities).

Carpooling

Carpooling is historically the least effective alternative transportation mode, even when implemented on a regional basis. Given that only five (5) on-site parking spaces are provided in front of this facility, it is unlikely that carpooling will provide a significant amount of trip reduction.

Goal: 2 free valet passes to carpool riders.

Valet Service

As indicated previously, there is parking for at least five (5) vehicles in front of the project site. Valet service could be provided for the 456 West 41st Street commercial building. One on-street parking space could be designated for valet purposes. Given the low vehicular traffic (20 peak hour trips) associated with this project, one parking space for valet purpose should be sufficient with one valet runner. A valet operating company should be consulted for potential valet parking locations.

Please give me a call if you have any questions.

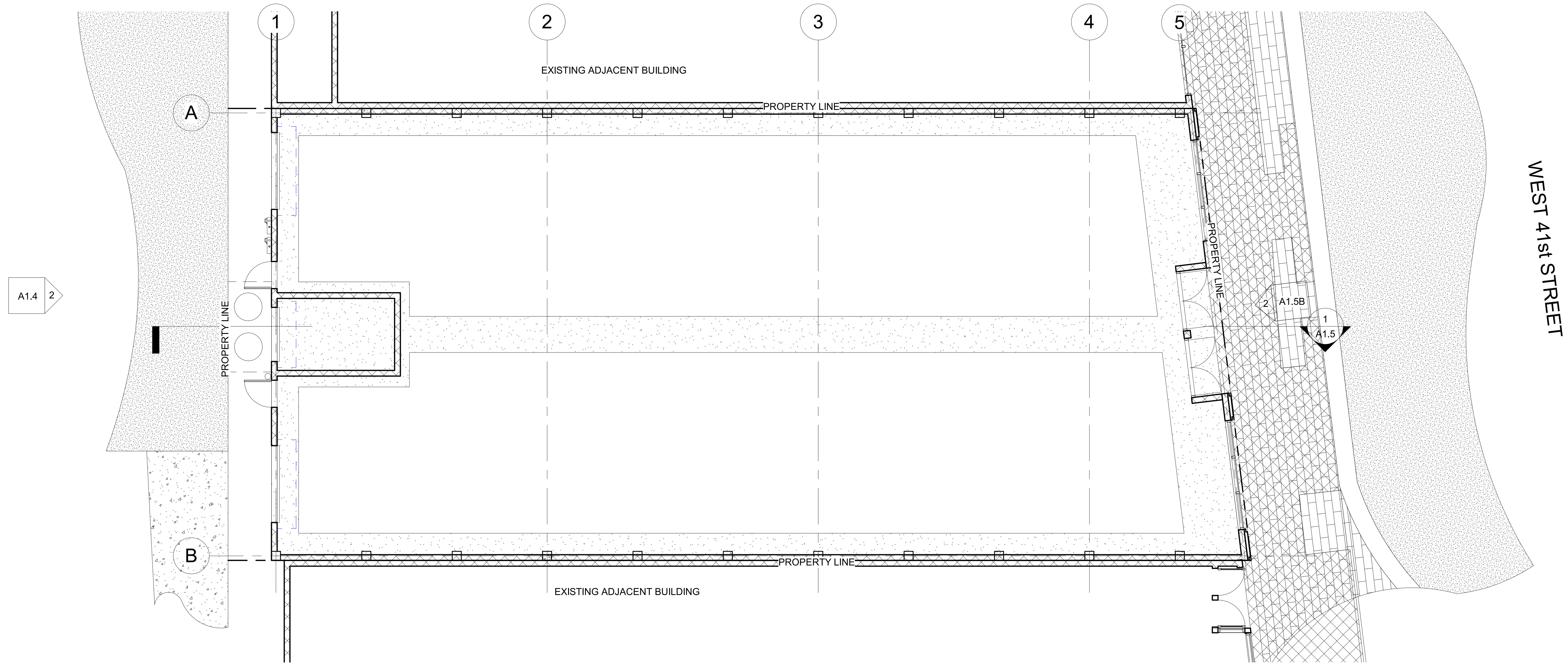
Sincerely,

TRAF TECH ENGINEERING, INC.

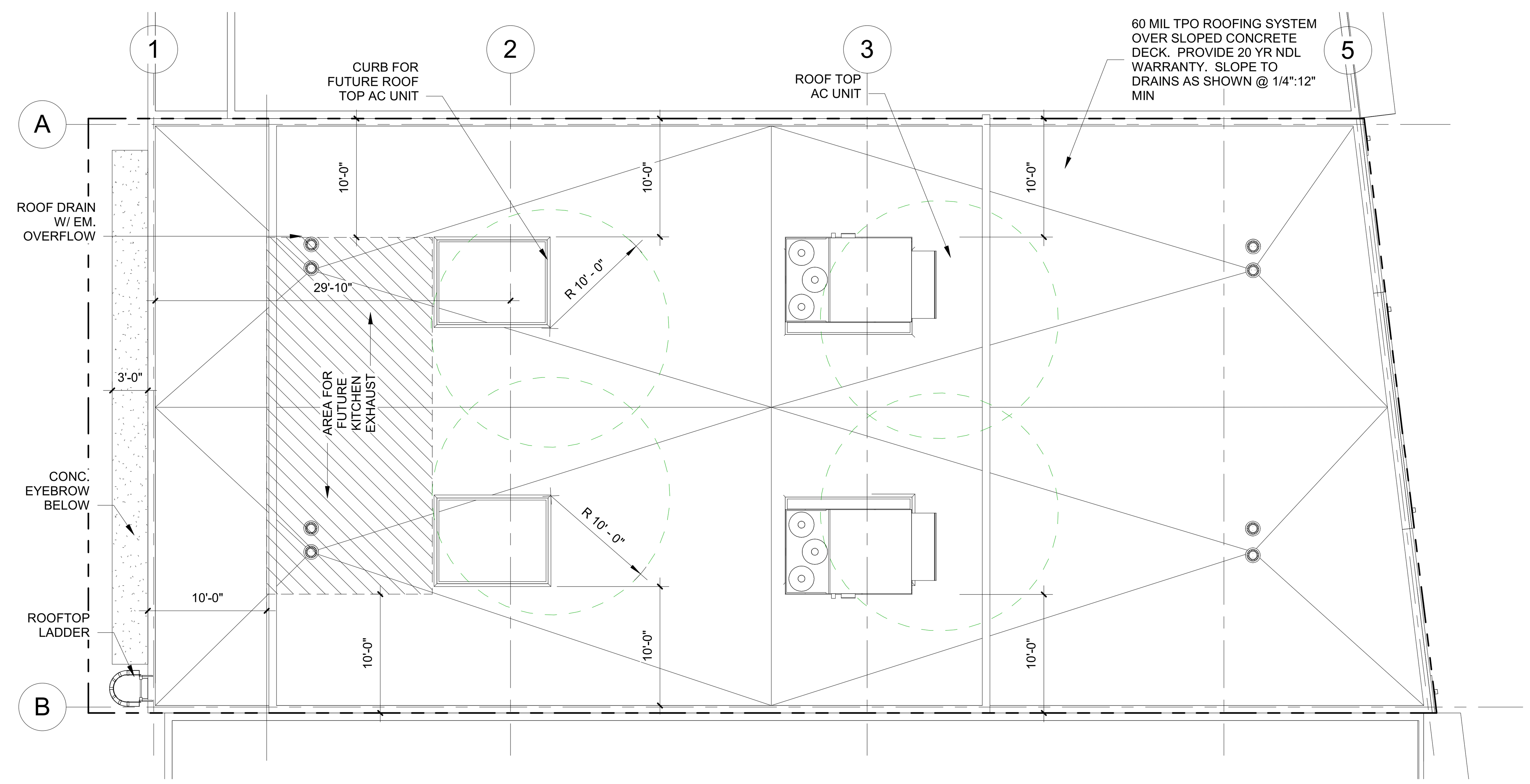
Joaquin E. Vargas, P.E.
Senior Transportation Engineer

ATTACHMENT A

Site Plan – 456 W 41st Street



1 SITE PLAN
1/8" = 1'-0"



2 ROOF PLAN
1/8" = 1'-0"

VERTICAL DESIGN STUDIO
ARCHITECTURE + INTERIOR DESIGN
VERTICAL DESIGN STUDIO, P.A.
10950 SW 88 ST | SUITE 200
MIAMI, FL 33176 | AR94751
VDSARCHITECTURE.COM
786 250 ARCH (2724)

RAJAMIN LLC, RETAIL BUILDING

456 W 41 ST
MIAMI BEACH, FL 33140

ARCHITECT
JORGE EDUARDO GONZALEZ,AIA
AR 94751 / ID 5595 / LEED AP

REVISIONS

NO.	DESCRIPTION	DATE

PROJECT NUMBER
P201128

DATE
04/22/21

SITE PLAN / ROOF PLAN
A1.0

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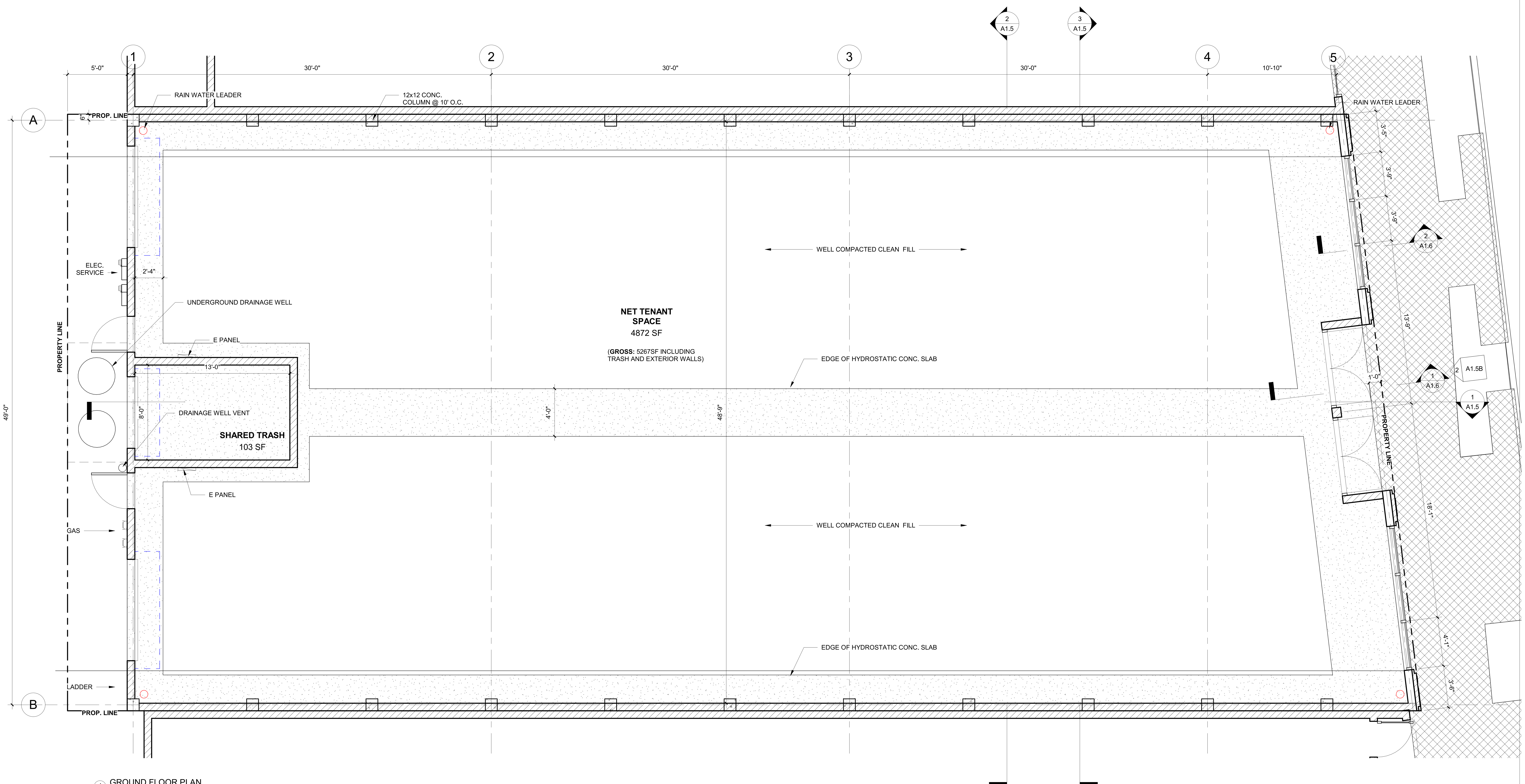

1 GROUND FLOOR PLAN
1/4" = 1'-0"

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FLOOR PLAN
A1.1