



January 24, 2019

Mr. Firat Akcay
City of Miami Beach
1688 Meridian Avenue, Suite 801
Miami Beach, Florida 33139

Re: 224 2nd Street
Traffic Assessment
Miami Beach, Florida

Dear Mr. Akcay:

Kimley-Horn and Associates, Inc. has performed a traffic assessment for the redevelopment located at 224 2nd Street in Miami Beach, Florida. Currently, the parcel proposed for redevelopment consists of four (4) residential dwelling units. Please note that the four (4) residential dwelling units are not occupied. Further note that the site was previously approved as a restaurant land use. The proposed redevelopment will consist of a 20-student pre-school. The proposed pre-school is expected to operate from 7:00 A.M. to 3:00 P.M. Note that the pre-school will operate with a student arrival drop-off and dismissal pick-up range rather than a specific arrival and dismissal time. This will allow parents and guardians the flexibility to drop-off and pick-up students based on their schedule. The morning arrival drop-off period is expected to be between 7:00 A.M. to 9:00 A.M. and the afternoon dismissal pick-up between 1:00 P.M. to 3:00 P.M.

The school is expected to have a local student population and it is expected that most students will walk to the school accompanied by a parent or guardian. The pre-school proposes to utilize the four (4) on-street parking spaces located on the south side of 2nd Street adjacent to the property for students that are dropped-off and picked-up in a vehicle. Note that these parking spaces are designated as a taxi stand on Thursday, Friday, and Saturday between 10:00 P.M. and 7:00 A.M. The pre-school hours of operation are not expected to operate at these times. A conceptual site plan and location map for the proposed redevelopment are included in Attachment A-1. The assessment is consistent with the requirements outlined by the City of Miami Beach. Methodology correspondence detailing the traffic assessment requirements are included in Attachment B-1. The following sections summarize our traffic assessment.

TRIP GENERATION ANALYSIS

The trip generation analysis was conducted using the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition for the proposed development plan. The analysis utilized ITE Land Use Code (LUC) 565 (Day Care Center) for the proposed redevelopment.

A multimodal (public transit, bicycle, and pedestrian) factor based on US Census *Means of Transportation to Work* data was reviewed for the census tracts in the vicinity of the redevelopment. The US Census data indicated that there is a 20.9 percent (20.9%) multimodal factor within the vicinity of the redevelopment. However, based on input from City staff, a multimodal factor of 20.0 percent (20.0%) cap was applied to the trip generation calculations. It is expected that a significant portion of students, parents, and visitors will choose to walk, bike, or use public transit to and from the proposed redevelopment.

The proposed redevelopment is expected to generate 18 weekday net new A.M. peak hour trips and 14 weekday net new P.M. peak hour trips. Detailed trip generation calculations and US Census *Means of Transportation to Work* data are included in Attachment C-1.

QUEUING ANALYSIS

A vehicle queuing analysis was prepared during the weekday A.M. and P.M. peak hours at the proposed student drop-off/pick-up area located along the south side of 2nd Street just east of Washington Avenue. The queuing analysis was conducted consistent with procedures described in ITE's *Transportation and Land Development*, 1988. The analysis was performed to determine if the student drop-off/pick-up area can accommodate vehicular queues without blocking travel lanes on 2nd Street.

The queuing analysis used the multiple-channel waiting line model with Poisson arrivals and exponential service times. The queuing analysis is based on the coefficient of utilization, ρ , which is the ratio of the average vehicle arrival rate over the average service rate multiplied by the number of channels. Please note that a total of four (4) drop-off/pick-up spaces will be provided to facilitate drop-off/pick-up operations. Further note that a daycare aide will be stationed at the drop-off/pick-up area to assist with student loading and unloading. The service time for student drop-off/pick-up operation corresponds to the following:

- Vehicle arrives within drop-off/pick-up area and prepares to unload student: 15 seconds
- Daycare aide unloads/loads student to/from vehicle: 60 seconds
- Vehicle departs drop-off/pick-up area: 15 seconds
- Total Service Time: 90 seconds (1.5 minutes)

The calculated service time for vehicles is 1.5 minutes for student drop-off/pick-up. To provide a conservative analysis a 2.0-minute service time was utilized.

If the coefficient of utilization (average service rate/service capacity) is greater than one (>1), the calculation methodology does not yield a finite queue length. This result indicates overcapacity conditions for the drop-off/pick-up area.

The analysis determined the required queue storage, M , which is exceeded P percent of the time. This analysis seeks to examine if the queue length exceeds the storage provided, at a level of confidence of 95 percent (95%). The results indicate that sufficient storage is provided to accommodate the expected vehicle queues during drop-off/pick-up operations during the weekday A.M. and P.M. peak periods. Detailed 95th percentile queuing calculations are provided in Attachment D-1.

SIGNAGE DETAIL

A signage detail for the proposed student drop-off/pick-up area located along the south side of 2nd Street was prepared to graphically illustrate the proposed signage that will be utilized to facilitate drop-off/pick-up operations and display the school hours of operation from 7:00 A.M. to 3:00 P.M. Please note that the existing on-street parking spaces are designated as a taxi stand on Thursday, Friday, and Saturday between 10:00 P.M. and 7:00 A.M. However, the pre-school hours of operation are not expected to operate at these times. The conceptual sign detail graphic is contained in Attachment E-1.

TRANSPORTATION DEMAND MANAGEMENT STRATEGIES

Transportation Demand Management (TDM) strategies are proposed to reduce the impacts of the project traffic on the surrounding roadway network. Typical measures promote bicycling and walking, encourage car/vanpooling and offer alternatives to the typical workday hours. The applicant will commit to implementing the following strategies:

- Providing 12 secure, short-term bicycle parking spaces with bicycle racks and lockers
- Providing transit information within the site including route schedules and maps
- Providing wide hallways
- Providing elevators that can accommodate bicycles

Please note that three (3) Citi Bike stations with 16 bike docks are located along Washington Avenue just north of 3rd Street, along Collins Avenue just south of 2nd Street, and along Ocean Drive just north of 2nd Street.

CONCLUSION

The proposed redevelopment is expected to generate 18 weekday net new A.M. peak hour trips and 14 weekday net new P.M. peak hour trips. Based on the results of the vehicle queuing analysis for the proposed student drop-off/pick-up area located along the south side of 2nd Street just east of Washington Avenue, sufficient storage is provided to accommodate the expected vehicle queues during drop-off/pick-up operations during the weekday A.M. and P.M. peak periods. Additionally, the applicant has committed to several TDM strategies that are proposed to reduce the impacts of the project traffic on the surrounding roadway network.

If you have any questions regarding this analysis, please feel free to contact me.

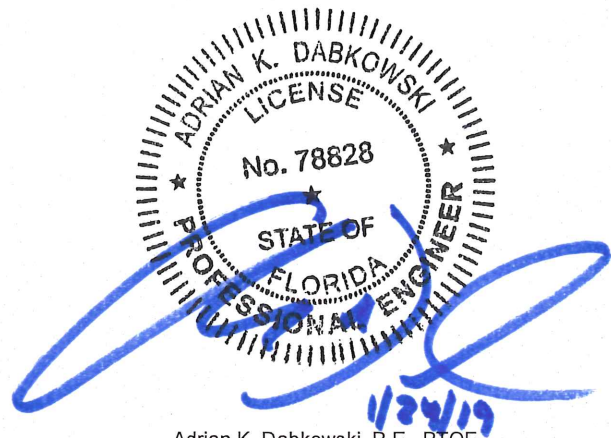
Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.



Adrian K. Dabkowski, P.E., PTOE
Associate

Attachments



Adrian K. Dabkowski, P.E., PTOE
Florida Registration Number 78828
Kimley-Horn and Associates, Inc.
600 North Pine Island Road, Suite 450
Plantation, Florida 33324
CA # 00000696

Attachment A-1
Conceptual Site Plan and Location Map

WASHINGTON AVE

2ND STREET

PROPERTY LINE
REQUIRED FRONT
SETBACK 0'-0"

REQUIRED REAR
SETBACK 5'-0"

PROPERTY LINE

PROPERTY LINE
REQUIRED SIDE FACING
A STREET SETBACK
0'-0"

20' ALLEY

PROPERTY LINE
REQUIRED SIDE INTERIOR
SETBACK 0'-0"

OPEN
COLLABORATION
PROJECT
SPACE

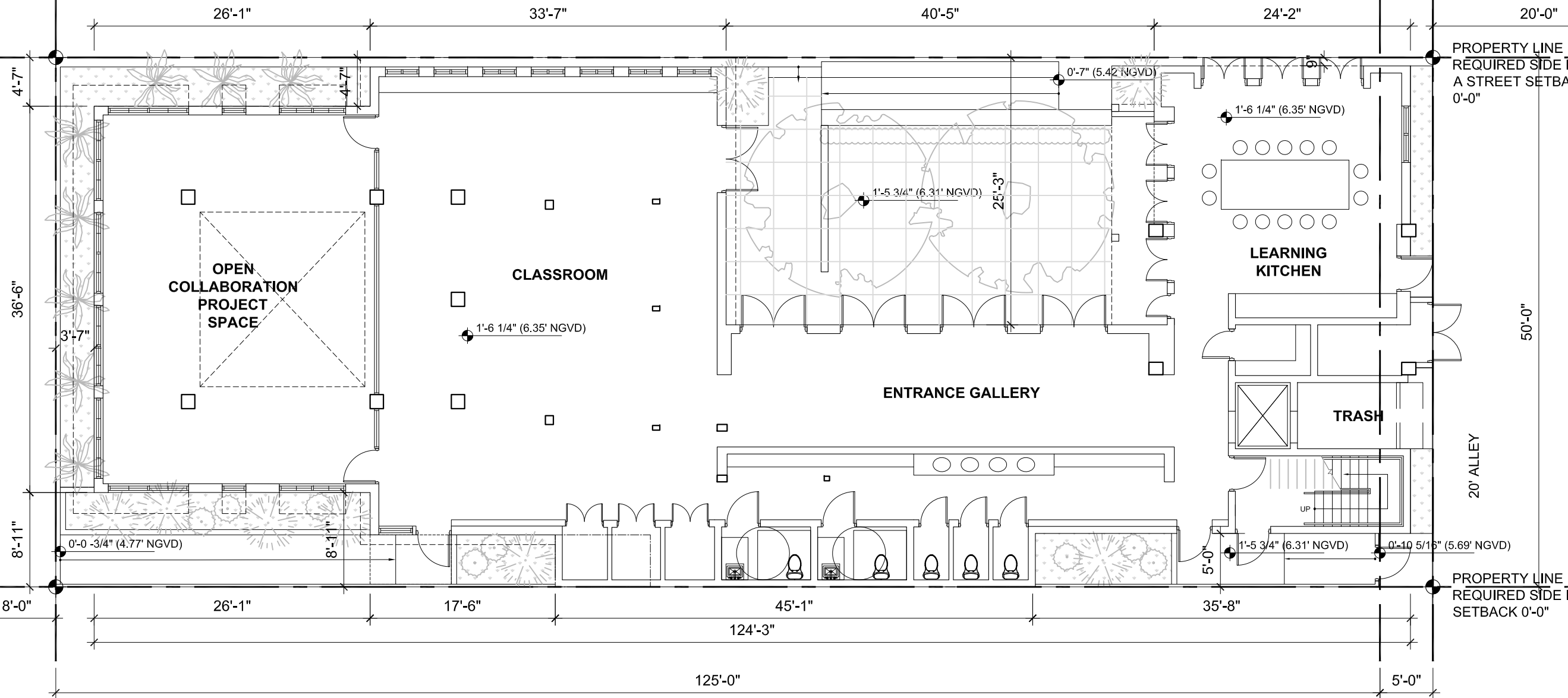
CLASSROOM

ENTRANCE GALLERY

LEARNING
KITCHEN

TRASH

UP





Attachment B-1
Methodology Correspondence

Dorman, Cory

From: Akcay, Firat <FiratAkcay@miamibeachfl.gov>
Sent: Tuesday, January 22, 2019 5:56 PM
To: Dabkowski, Adrian
Cc: Ferrer, Josiel; John D Marshall; Michael Larkin; Emily Balter; Dorman, Cory
Subject: RE: 224 2nd Street | Traffic Study Methodology

Categories: External

We don't have further comments on the methodology.
Thank you for the update.

MIAMIBEACH

Firat Akcay, *Transportation Analyst*
TRANSPORTATION DEPARTMENT
1688 Meridian Avenue, Suite 801, Miami Beach, FL 33139
Tel: 305-673-7000 X 6839 / www.miamibeachfl.gov

We are committed to providing excellent public service and safety to all who live, work and play in our vibrant, tropical, historic, community.



Please do not print this e-mail unless necessary.

From: Dabkowski, Adrian [mailto:Adrian.Dabkowski@Kimley-horn.com]
Sent: Monday, January 21, 2019 5:38 PM
To: Akcay, Firat
Cc: Ferrer, Josiel; John D Marshall; Michael Larkin; Emily Balter; Dorman, Cory
Subject: RE: 224 2nd Street | Traffic Study Methodology

Good afternoon Firat:

We have clarified the school operating hours and processing times with the Applicant. The school times will be 7:00 AM to 3:00 PM. The morning arrival drop-off period will be from 7:00 to 9:00 AM and the afternoon dismissal pick-up period will be 1:00 to 3:00 PM.

The service time for student drop-off/pick-up operation corresponds to the following:

- Vehicle arrives within drop-off/pick-up area and prepares to unload student: 15 seconds
- Daycare aide unloads/loads student to/from vehicle: 60 seconds
- Vehicle departs drop-off/pick-up area: 15 seconds
- Total Service Time: 90 seconds (1.5 minutes)

To provide a conservative analysis, a total service time of 2.0 minutes will be utilized in the analysis. The updated methodology memorandum is attached. Let us know if the City has any additional comments.

Thank you
Adrian

Adrian K. Dabkowski, P.E., PTOE

Kimley-Horn | 600 North Pine Island Road, Suite 450, Plantation, FL 33324

Direct: 954-535-5144 | Main: 954-535-5100

From: Akcay, Firat <FiratAkcay@miamibeachfl.gov>

Sent: Friday, January 18, 2019 2:26 PM

To: Dabkowski, Adrian <Adrian.Dabkowski@Kimley-horn.com>

Cc: Ferrer, Josiel <JOSIELFERRER@miamibeachfl.gov>; John D Marshall <john@jdmarshall.com>; Michael Larkin <MLarkin@brzoninglaw.com>; Emily Balter <ebalter@brzoninglaw.com>; Dorman, Cory <cory.dorman@kimley-horn.com>

Subject: RE: 224 2nd Street | Traffic Study Methodology

Adrian,

Please clarify the following:

The school hours was discussed to be from 7 AM – 2 PM. Since the spaces that will be allocated for school drop-off are reserved for taxi and the arrivals will be flexible its best to verify the hours of operation in order not to create conflicts.

Student drop-off service rate includes for a parent to pull-in the drop-off area and possibly walk the child inside and leave and vice versa during pick-up. 30 seconds for such an operation seems low. Can you please back-up the service rate with if any assistance will be provided by the school, or, revise the service rate with a more conservative assumption.

I have no further comments on the rest of the methodology.

Thank you

MIAMIBEACH

Firat Akcay, *Transportation Analyst*

TRANSPORTATION DEPARTMENT

1688 Meridian Avenue, Suite 801, Miami Beach, FL 33139

Tel: 305-673-7000 X 6839 / www.miamibeachfl.gov

We are committed to providing excellent public service and safety to all who live, work and play in our vibrant, tropical, historic, community.



Please do not print this e-mail unless necessary.

From: Dabkowski, Adrian [<mailto:Adrian.Dabkowski@Kimley-horn.com>]

Sent: Friday, January 18, 2019 12:26 PM

To: Akcay, Firat

Cc: Ferrer, Josiel; John D Marshall; Michael Larkin; Emily Balter; Dorman, Cory

Subject: RE: 224 2nd Street | Traffic Study Methodology

Good afternoon Firat:

I wanted to follow up with you and see if the City had any comments regarding the methodology. We need to finalize the analysis next week for the January 28th submittal.

Thank you

Adrian

Adrian K. Dabkowski, P.E., PTOE

Kimley-Horn | 600 North Pine Island Road, Suite 450, Plantation, FL 33324

Direct: 954-535-5144 | Main: 954-535-5100

From: Dabkowski, Adrian

Sent: Tuesday, January 15, 2019 8:09 AM

To: Akcay, Firat <FiratAkcay@miamibeachfl.gov>

Cc: JOSIELFERRER@miamibeachfl.gov; John D Marshall <john@jdmarshall.com>; Michael Larkin

<MLarkin@brzoninglaw.com>; Emily Balter <ebalter@brzoninglaw.com>; Dorman, Cory <cory.dorman@kimley-horn.com>

Subject: 224 2nd Street | Traffic Study Methodology

Good morning Firat:

Our proposed traffic study methodology for the pre-school proposed at 224 2nd Street is attached. Please let us know if the City has any comments.

Thank you

Adrian

Adrian K. Dabkowski, P.E., PTOE

Kimley-Horn | 600 North Pine Island Road, Suite 450, Plantation, FL 33324

Direct: 954-535-5144 | Main: 954-535-5100



MEMORANDUM

To: Firat Akcay
City of Miami Beach

Cc: Josiel Ferrer-Diaz, E.I., City of Miami Beach

From: Adrian K. Dabkowski, P.E., PTOE
Cory D. Dorman, P.E.

Date: January 21, 2019

Subject: 224 2nd Street
Traffic Study Methodology

The purpose of this memorandum is to summarize the traffic study methodology for the proposed redevelopment located at 224 2nd Street in Miami Beach, Florida. Currently, the parcel proposed for redevelopment consists of four (4) residential dwelling units. Please note that the four (4) residential dwelling units are not occupied. Further note that the site was previously approved as a restaurant land use. The proposed redevelopment will consist of a 20-student pre-school. The proposed pre-school is expected to operate from 7:00 A.M. to 3:00 P.M. Note that the pre-school will operate with a student arrival drop-off and dismissal pick-up range rather than a specific arrival and dismissal time. This will allow parents and guardians the flexibility to drop-off and pick-up students based on their schedule. The morning arrival drop-off period is expected to be between 7:00 to 9:00 A.M. and the afternoon dismissal pick-up between 1:00 to 3:00 P.M.

The school is expected to have a local student population and it is expected that most students will walk to the school accompanied by a parent or guardian. The pre-school proposes to utilize the four (4) on-street parking spaces located on the south side of 2nd Street adjacent to the property for students that are dropped-off and picked-up in a vehicle. Note that these parking spaces are designated as a taxi stand on Thursday, Friday, and Saturday between 10:00 PM and 7:00 AM. The pre-school hours of operation are not expected to operate at these times. A conceptual site plan and location map for the proposed redevelopment are included in Attachment A. The following sections summarize our proposed methodology.

TRIP GENERATION

Trip generation calculations for the proposed redevelopment were performed using the Institute of Transportation Engineer's (ITE's) *Trip Generation Manual*, 10th Edition. Trip generation for the proposed redevelopment was based on ITE Land Use Code (LUC) 565 (Day Care Center).

A multimodal (public transit, bicycle, and pedestrian) factor based on US Census *Means of Transportation to Work* data was reviewed for the census tracts in the vicinity of the development. The US Census data indicated that there is a 20.9 percent (20.9%) multimodal factor within the vicinity of the redevelopment. However, based on input from City staff, a multimodal factor of 20.0 percent (20.0%) was applied to the trip generation calculations to account for the urban environment in which

the project site is located. It is expected that a portion of students, parents, and visitors will choose to walk, bike, or use public transit to and from the proposed redevelopment.

The redevelopment is expected to generate 18 weekday net new A.M. peak hour trips and 14 weekday net new P.M. peak hour trips. Detailed trip generation calculations and US Census *Means of Transportation to Work* data are included in Attachment B.

QUEUING ANALYSIS

A vehicle queuing analysis will be prepared during the weekday A.M. and P.M. peak hours at the proposed student drop-off/pick-up area located along the south side of 2nd Street just east of Washington Avenue. The queuing analysis will be conducted consistent with procedures described in ITE's *Transportation and Land Development*, 1988. The analysis will be prepared for the 95th percentile confidence interval. Please note that a daycare aide will be stationed at the drop-off/pick-up area to assist with student loading and unloading. The service time for student drop-off/pick-up operation corresponds to the following:

- Vehicle arrives within drop-off/pick-up area and prepares to unload student: 15 seconds
- Daycare aide unloads/loads student to/from vehicle: 60 seconds
- Vehicle departs drop-off/pick-up area: 15 seconds
- Total Service Time: 90 seconds (1.5 minutes)

To provide a conservative analysis, a total service time of 2.0 minutes will be utilized in the analysis.

SIGNAGE DETAIL

A signage detail for the proposed student drop-off/pick-up area located along the south side of 2nd Street will be prepared to graphically illustrate the proposed signage that will be utilized to facilitate drop-off/pick-up operations and display the school hours of operation.

TRANSPORTATION DEMAND MANAGEMENT STRATEGIES

Transportation Demand Management (TDM) strategies will be developed to reduce the impact of project traffic on the surrounding roadway network and promote trip reduction. Typical measures promote bicycling and walking, encourage car/vanpooling and offer alternatives during the typical workday hours.

DOCUMENTATION

The results of the traffic study will be summarized in a technical letter. The letter will include supporting documents including calculations and output worksheets. The letter will also include text and graphics necessary to summarize the assumptions and analysis.

K:\FTL_TPTO\143038000-224 2nd Street\correspondence\memo\01 21 19 224 2nd Street Methodology.docx

Attachment A

Conceptual Site Plan and Location Map

WASHINGTON AVE

2ND STREET

PROPERTY LINE
REQUIRED FRONT
SETBACK 0'-0"

REQUIRED REAR
SETBACK 5'-0"

PROPERTY LINE

PROPERTY LINE
REQUIRED SIDE FACING
A STREET SETBACK
0'-0"

20' ALLEY

PROPERTY LINE
REQUIRED SIDE INTERIOR
SETBACK 0'-0"

OPEN
COLLABORATION
PROJECT
SPACE

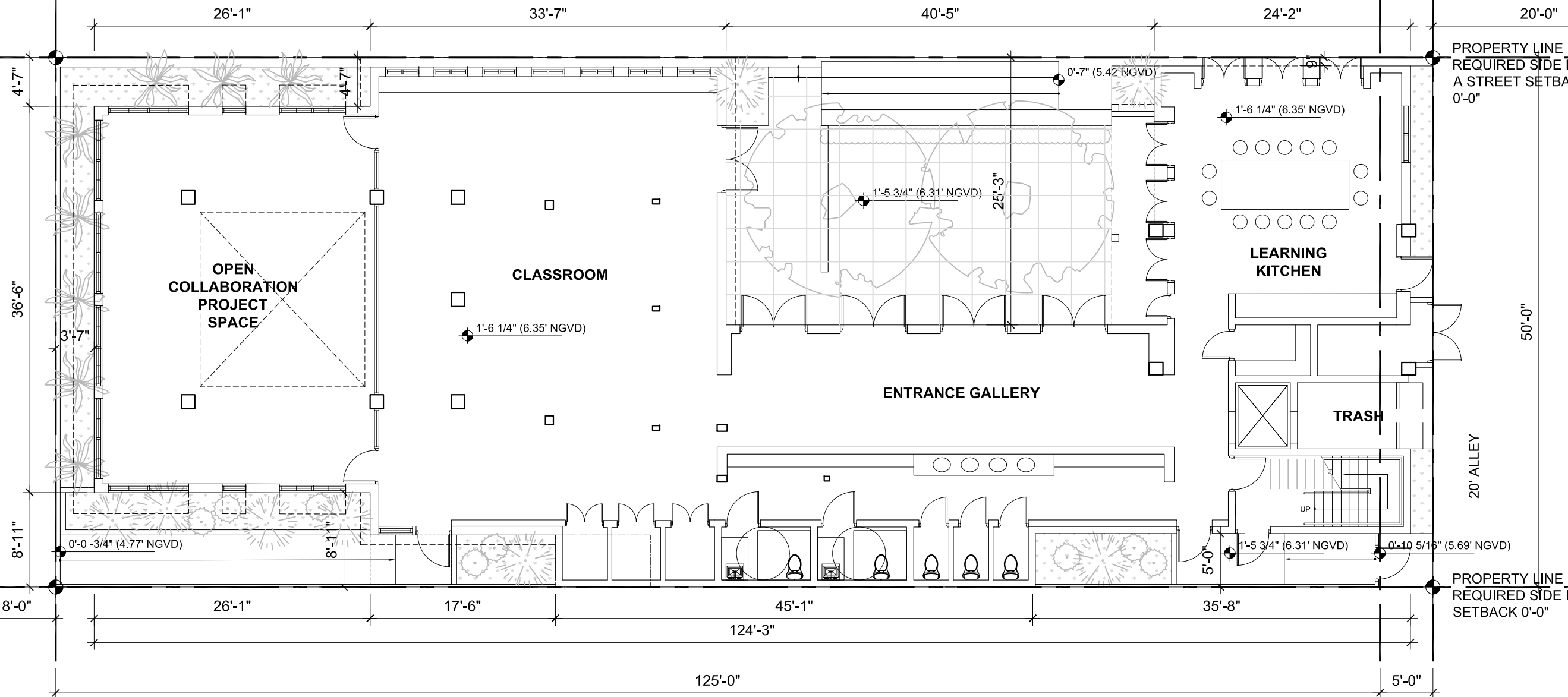
CLASSROOM

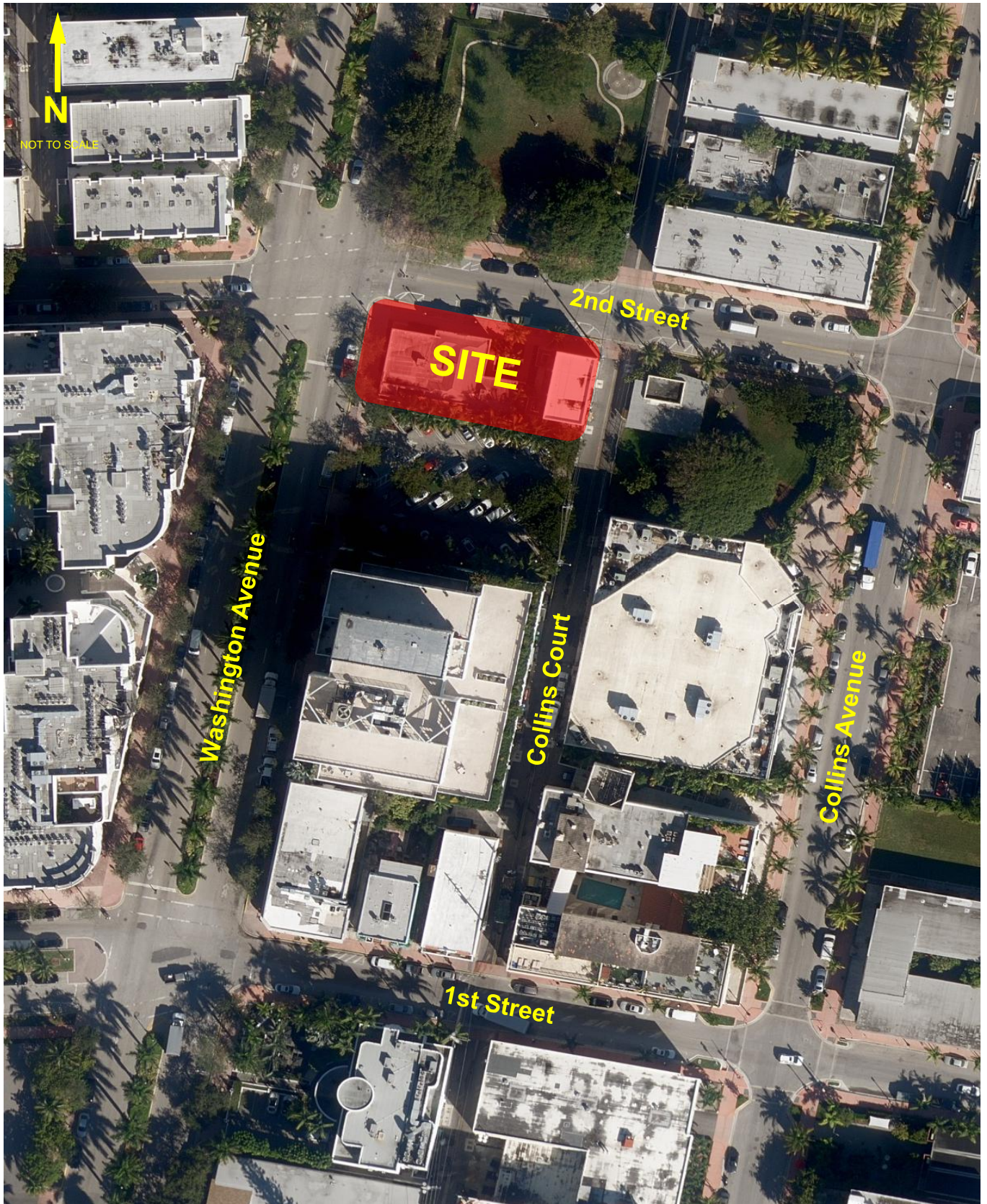
ENTRANCE GALLERY

LEARNING
KITCHEN

TRASH

UP





Attachment B

Trip Generation Calculations and
U.S. Census Journey to Work Data

PROPOSED WEEKDAY AM PEAK HOUR TRIP GENERATION

ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS VOLUMES			MULTIMODAL REDUCTION		EXTERNAL TRIPS			INTERNAL CAPTURE		NET NEW EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS				
Land Use		ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 1	1	Day Care Center	10	565	20	stu	53%	47%	12	10	22	20.0%	4	10	8	18	0.0%	0	10	8	18	0.0%	0	10	8	18
	2																									
	3																									
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
ITE Land Use Code		Rate or Equation				Total:		12	10	22	20.0%	4	10	8	18	0.0%	0	10	8	18	0.0%	0	10	8	18	
565		Y=0.66*(X)+8.42																								

PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS VOLUMES			MULTIMODAL REDUCTION		EXTERNAL TRIPS			INTERNAL CAPTURE		NET NEW EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS				
Land Use		ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 2	1	Day Care Center	10	565	20	stu	47%	53%	8	10	18	20.0%	4	6	8	14	0.0%	0	6	8	14	0.0%	0	6	8	14
	2																									
	3																									
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
ITE Land Use Code		Rate or Equation				Total:		8	10	18	20.0%	4	6	8	14	0.0%	0	6	8	14	0.0%	0	6	8	14	
565		LN(Y) = 0.87*LN(X)+0.29																								

B08301

MEANS OF TRANSPORTATION TO WORK

Universe: Workers 16 years and over

2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

$$(222+11+118)/(1,680) = 20.9\%$$

	Census Tract 45, Miami-Dade County, Florida	
	Estimate	Margin of Error
Total:	1,680	+/-350
Car, truck, or van:	938	+/-263
Drove alone	793	+/-205
Carpooled:	145	+/-163
In 2-person carpool	145	+/-163
In 3-person carpool	0	+/-13
In 4-person carpool	0	+/-13
In 5- or 6-person carpool	0	+/-13
In 7-or-more-person carpool	0	+/-13
Public transportation (excluding taxicab):	222	+/-153
Bus or trolley bus	174	+/-148
Streetcar or trolley car (carro publico in Puerto Rico)	0	+/-13
Subway or elevated	14	+/-23
Railroad	34	+/-53
Ferryboat	0	+/-13
Taxicab	0	+/-13
Motorcycle	0	+/-13
Bicycle	11	+/-17
Walked	118	+/-78
Other means	14	+/-23
Worked at home	377	+/-164

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Workers include members of the Armed Forces and civilians who were at work last week.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic

Attachment C-1

Trip Generation

PROPOSED WEEKDAY AM PEAK HOUR TRIP GENERATION

ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS VOLUMES			MULTIMODAL REDUCTION		EXTERNAL TRIPS			INTERNAL CAPTURE		NET NEW EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS				
Land Use		ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 1	1	Day Care Center	10	565	20	stu	53%	47%	12	10	22	20.0%	4	10	8	18	0.0%	0	10	8	18	0.0%	0	10	8	18
	2																									
	3																									
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
ITE Land Use Code		Rate or Equation				Total:		12	10	22	20.0%	4	10	8	18	0.0%	0	10	8	18	0.0%	0	10	8	18	
565		Y=0.66*(X)+8.42																								

PROPOSED WEEKDAY PM PEAK HOUR TRIP GENERATION

ITE TRIP GENERATION CHARACTERISTICS					DIRECTIONAL DISTRIBUTION		GROSS VOLUMES			MULTIMODAL REDUCTION		EXTERNAL TRIPS			INTERNAL CAPTURE		NET NEW EXTERNAL TRIPS			PASS-BY CAPTURE		NET NEW EXTERNAL TRIPS				
Land Use		ITE Edition	ITE Code	Scale	ITE Units	Percent		In	Out	Total	Percent	MR Trips	In	Out	Total	Percent	IC Trips	In	Out	Total	Percent	PB Trips	In	Out	Total	
						In	Out																			
GROUP 2	1	Day Care Center	10	565	20	stu	47%	53%	8	10	18	20.0%	4	6	8	14	0.0%	0	6	8	14	0.0%	0	6	8	14
	2																									
	3																									
	4																									
	5																									
	6																									
	7																									
	8																									
	9																									
	10																									
	11																									
	12																									
	13																									
	14																									
	15																									
ITE Land Use Code		Rate or Equation				Total:		8	10	18	20.0%	4	6	8	14	0.0%	0	6	8	14	0.0%	0	6	8	14	
565		LN(Y) = 0.87*LN(X)+0.29																								



B08301

MEANS OF TRANSPORTATION TO WORK

Universe: Workers 16 years and over

2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

$$(222+11+118)/(1,680) = 20.9\%$$

	Census Tract 45, Miami-Dade County, Florida	
	Estimate	Margin of Error
Total:	1,680	+/-350
Car, truck, or van:	938	+/-263
Drove alone	793	+/-205
Carpooled:	145	+/-163
In 2-person carpool	145	+/-163
In 3-person carpool	0	+/-13
In 4-person carpool	0	+/-13
In 5- or 6-person carpool	0	+/-13
In 7-or-more-person carpool	0	+/-13
Public transportation (excluding taxicab):	222	+/-153
Bus or trolley bus	174	+/-148
Streetcar or trolley car (carro publico in Puerto Rico)	0	+/-13
Subway or elevated	14	+/-23
Railroad	34	+/-53
Ferryboat	0	+/-13
Taxicab	0	+/-13
Motorcycle	0	+/-13
Bicycle	11	+/-17
Walked	118	+/-78
Other means	14	+/-23
Worked at home	377	+/-164

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Workers include members of the Armed Forces and civilians who were at work last week.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic

Attachment D-1
Queuing Analysis

Student Drop-off (A.M. Peak Hour)

Arrival Rate

Drop-off
10

 veh/hr

Service Rate

Drop-off
2.00

 mins/veh

Level of Confidence = 0.95
Storage Provided On-Site = 4 vehicles

Total Entering and Exiting Vehicles(q) = 10 veh/hr
Service Capacity per N (60 mins/Service Rate) (Q) = 30.00 veh/hr/pos
Average Service Rate (t) = 2.00 mins/veh
 ρ (t/Q) = 0.333

	N	N-1		
0.70	1	0	P(n=0)=	1.000
0.75	2	1	P(n=1)=	0.000

Service Time = 2.00 mins/veh

Expected (avg.) number of vehicles in the system	E(m)=	0.17	
Expected (avg.) number of vehicles waiting in queue	E(n)=	0.50	
Mean time in the queue	E(w)=	1.00	mins
Mean time in system	E(t)=	3.00	mins

Proportion of customers who wait (P) (E(w) > 0) = 33.33%
Probability of a queue exceeding a length (M) P(x > M) = 5.00%

Queue length which is exceeded 5.00% of the times is equal to 0.5 vehicles

Student Pick-up (P.M. Peak Hour)

Arrival Rate

Pick-up
8

 veh/hr

Service Rate

Pick-up
2.00

 mins/veh

Level of Confidence = 0.95
Storage Provided On-Site = 4 vehicles

Total Entering and Exiting Vehicles(q) = 8 veh/hr
Service Capacity per N (60 mins/Service Rate) (Q) = 30.00 veh/hr/pos
Average Service Rate (t) = 2.00 mins/veh
 $\rho (t/Q) = 0.267$

	N	N-1		
0.70	1	0	P(n=0)=	1.000
0.75	2	1	P(n=1)=	0.000

Service Time = 2.00 mins/veh

Expected (avg.) number of vehicles in the system	E(m)=	0.10	
Expected (avg.) number of vehicles waiting in queue	E(n)=	0.36	
Mean time in the queue	E(w)=	0.73	mins
Mean time in system	E(t)=	2.73	mins

Proportion of customers who wait (P) $(E(w) > 0) = 26.67\%$
Probability of a queue exceeding a length (M) $P(x > M) = 5.00\%$

Queue length which is exceeded 5.00% of the times is equal to 0.1 vehicles

Attachment E-1

Sign Detail

NO PARKING

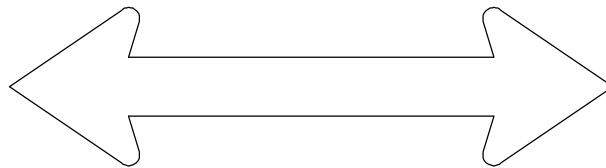
STUDENT/PASSENGER

LOADING ZONE

SCHOOL DAYS

7:00 A.M. - 3:00 P.M.

15 MIN MAX



TOW-AWAY ZONE

PROPOSED SIGN DETAIL
224 2ND STREET
MIAMI BEACH, FLORIDA

Kimley»Horn

Vanessa Altamirano

From: Akcay, Firat <FiratAkcay@miamibeachfl.gov>
Sent: Wednesday, February 6, 2019 1:38 PM
To: Emily Balter; 'Dabkowski, Adrian'
Cc: Munday, Tui; Ferrer, Josiel; Michael Larkin; Dorman, Cory; John D Marshall
Subject: RE: 224 2nd Street | Traffic Assessment

Hello Emily,

We do not have any further comments on the study. We will provide our input to the Planning Department.
Thank you



Firat Akcay, M.S.C.E. MBA
Transportation Analyst
Transportation Department
1688 Meridian Avenue, Suite 801, Miami Beach, FL 33139
Tel: 305-673-7000, ext 6839

We are committed to providing excellent public service and safety to all who live, work and play in our vibrant, tropical, historic community.



Please do not print this e-mail unless necessary.

From: Emily Balter
Sent: Tuesday, February 5, 2019 2:28 PM
To: Akcay, Firat ; 'Dabkowski, Adrian'
Cc: Munday, Tui ; Ferrer, Josiel ; Michael Larkin ; Dorman, Cory ; John D Marshall
Subject: RE: 224 2nd Street | Traffic Assessment

Good afternoon Firat,

I hope all is well! According to the new Planning Board cycle, we were expecting a first set of comments yesterday. I checked CAP and do not see them, but maybe they were provided in another form.

If not, please let us know if your Department has any questions or concerns regarding our traffic study, so that we can address them by the First Submittal deadline on Monday, February 11, 2019.

Thank you!

Emily K. Balter

Bercow Radell Fernandez & Larkin
200 S. Biscayne Boulevard, Suite 850, Miami, FL 33131
ebalter@brzoninglaw.com | www.brzoninglaw.com
O: (305) 377 6232 | F: (305) 377 6222



The information contained in this electronic message is privileged and confidential and is intended only for the use of the individual named above and others who have been specifically authorized to receive it. If the recipient is not the intended recipient, you are hereby notified that any dissemination, distribution or duplication of the communication is strictly prohibited. If you have received this communication in error, or if any problems occur with transmission, please immediately notify us by telephone (305) 374-5300.

From: Akcay, Firat [<mailto:FiratAkcay@miamibeachfl.gov>]

Sent: Friday, January 25, 2019 3:38 PM

To: 'Dabkowski, Adrian' <Adrian.Dabkowski@Kimley-horn.com>

Cc: Munday, Tui <TuiMunday@miamibeachfl.gov>; Ferrer, Josiel <JOSIELFERRER@miamibeachfl.gov>; Michael Larkin <MLarkin@brzoninglaw.com>; Emily Balter <ebalter@brzoninglaw.com>; Dorman, Cory <cory.dorman@kimley-horn.com>; John D Marshall <john@jdmarshall.com>

Subject: RE: 224 2nd Street | Traffic Assessment

Adrian,

Peer review will not be necessary. Hard copy received. I will complete review and provide comments if any as soon as possible.

Thank you

MIAMIBEACH

Firat Akcay, *Transportation Analyst*

TRANSPORTATION DEPARTMENT

1688 Meridian Avenue, Suite 801, Miami Beach, FL 33139

Tel: 305-673-7000 X 6839 / www.miamibeachfl.gov

We are committed to providing excellent public service and safety to all who live, work and play in our vibrant, tropical, historic, community.



Please do not print this e-mail unless necessary.

From: Dabkowski, Adrian [<mailto:Adrian.Dabkowski@Kimley-horn.com>]

Sent: Thursday, January 24, 2019 5:35 PM

To: Akcay, Firat

Cc: Munday, Tui; Ferrer, Josiel; Michael Larkin; Emily Balter; Dorman, Cory; John D Marshall

Subject: 224 2nd Street | Traffic Assessment

Good afternoon Firat:

The traffic assessment for 224 2nd Street is attached for the City's review. It will be uploaded into the electronic system shortly. As the project only generates 14 net new PM peak hour trips we do not believe this assessment will require peer review. Please confirm.

Thank you
Adrian

Adrian K. Dabkowski, P.E., PTOE

Kimley-Horn | 600 North Pine Island Road, Suite 450, Plantation, FL 33324

Direct: 954-535-5144 | Main: 954-535-5100

Emily Balter

From: Frances, Saul <SaulFrances@miamibeachfl.gov>
Sent: Monday, January 28, 2019 2:21 PM
To: Emily Balter
Cc: Michael Larkin
Subject: RE: Basecamp - On-Street Parking 224 2nd Street

Good afternoon Ms. Balter:

Confirmed.

Respectfully,

Saul

-----Original Message-----

From: Emily Balter [mailto:ebalter@brzoninglaw.com]
Sent: January 28, 2019 12:18 PM
To: Frances, Saul
Cc: Michael Larkin
Subject: RE: Basecamp - On-Street Parking 224 2nd Street

Good afternoon Mr. Frances,

In our ongoing effort to minimize traffic, the hours of operation for the school have been extended, from 8AM-2PM to 7AM-3PM. This will permit a longer window for drop-off and pick-up. Our engineers worked with the Transportation Department staff, and found that the extended time was the solution for possible queuing issues. We have submitted a traffic assessment and are awaiting comments. Please see attached.

Kindly confirm that the school is still permitted to use the on-street parking spaces on 2nd Street during this time.

Thank you!

Emily K. Balter
Bercow Radell Fernandez & Larkin
200 S. Biscayne Boulevard, Suite 850, Miami, FL 33131 ebalter@brzoninglaw.com | www.brzoninglaw.com
O: (305) 377 6232 | F: (305) 377 6222

The information contained in this electronic message is privileged and confidential and is intended only for the use of the individual named above and others who have been specifically authorized to receive it. If the recipient is not the intended recipient, you are hereby notified that any dissemination, distribution or duplication of the communication is strictly prohibited. If you have received this communication in error, or if any problems occur with transmission, please immediately notify us by telephone (305) 374-5300.

-----Original Message-----

From: Emily Balter
Sent: Wednesday, January 16, 2019 4:25 PM
To: 'Frances, Saul' <SaulFrances@miamibeachfl.gov>

Cc: Michael Larkin <MLarkin@brzoninglaw.com>; John D Marshall <john@jdmarshall.com>; allan@shulman-design.com;
Michael Goodwin <michael@shulman-design.com>; 'Dabkowski, Adrian' <Adrian.Dabkowski@Kimley-horn.com>;
Dorman, Cory <cory.dorman@kimley-horn.com>
Subject: RE: Basecamp - On-Street Parking 224 2nd Street

Mr. Frances,

Thank you!

Best Regards,
Emily

Emily K. Balter
Bercow Radell Fernandez & Larkin
200 S. Biscayne Boulevard, Suite 850, Miami, FL 33131 ebalter@brzoninglaw.com | www.brzoninglaw.com
O: (305) 377 6232 | F: (305) 377 6222

The information contained in this electronic message is privileged and confidential and is intended only for the use of the individual named above and others who have been specifically authorized to receive it. If the recipient is not the intended recipient, you are hereby notified that any dissemination, distribution or duplication of the communication is strictly prohibited. If you have received this communication in error, or if any problems occur with transmission, please immediately notify us by telephone (305) 374-5300.

-----Original Message-----

From: Frances, Saul [mailto:SaulFrances@miamibeachfl.gov]
Sent: Wednesday, January 16, 2019 4:01 PM
To: Emily Balter <ebalter@brzoninglaw.com>
Cc: Michael Larkin <MLarkin@brzoninglaw.com>; John D Marshall <john@jdmarshall.com>; allan@shulman-design.com;
Michael Goodwin <michael@shulman-design.com>
Subject: Re: Basecamp - On-Street Parking 224 2nd Street

Good afternoon Ms. Balter:

It was my pleasure meeting with you and your associates yesterday.

This correspondence serves to confirm our conversation as described in your email below.

Respectfully,

Saul

Sent from my iPad

On Jan 15, 2019, at 1:18 PM, Emily Balter <ebalter@brzoninglaw.com<mailto:ebalter@brzoninglaw.com>> wrote:

Good afternoon Mr. Frances,

Thank you again for meeting with us this morning. Per our discussion, the four (4) temporary taxi stand parking spaces abutting the Property on 2nd Street will be limited 8 AM to 2 PM, Monday-Friday for "Passenger Loading." The

maximum parking time will be fifteen (15) minutes. Once we have a Temporary Certificate of Occupancy, we will submit to your department for signage. We are aiming to go before the Planning Board in April, and open Fall 2019.

For your reference, attached please find the Context Plan for the proposed site. Please let us know if you have any questions or concerns or would like additional information. Thank you!

Best Regards,

Emily

Emily K. Balter

Bercow Radell Fernandez & Larkin

200 S. Biscayne Boulevard, Suite 850, Miami, FL 33131 ebalter@brzoninglaw.com <mailto:ebalter@brzoninglaw.com> |
www.brzoninglaw.com <http://brzoninglaw.com/>

O: (305) 377 6232 | F: (305) 377 6222

[<http://brzoninglaw.com/logo1.png>]

The information contained in this electronic message is privileged and confidential and is intended only for the use of the individual named above and others who have been specifically authorized to receive it. If the recipient is not the intended recipient, you are hereby notified that any dissemination, distribution or duplication of the communication is strictly prohibited. If you have received this communication in error, or if any problems occur with transmission, please immediately notify us by telephone (305) 374-5300.

<BASECAMP ACADEMY CONTEXT PLAN.pdf>