The Fifth Hotel
803 5th Street

Operations Plan

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OPERATIONS PLAN

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HOURS OF OPERATIONS – 1

The hotel, with lobby on the ground floor, will be operational 24-hours a day. The hotel operator will also operate the accessory café from 7:00 AM to 12:00 AM for the interior ground floor and exterior second floor.

STAFFING LEVELS AND SERVICE - 2

The number of employees anticipated for the hotel range from 20 to 25 employees on different shifts throughout the day. Shifts range from mornings, evening and overnight shifts. The accessory café use is anticipated to have approximately 10 employees on different shifts throughout the day.

General turn-over of the hotel rooms will occur on a daily basis, while full cleaning and laundry will occur between guest stays. Products will be stored in the storage room located on the second floor.

ACCESS & SECURITY – 3

Guests of the hotel will travel into the hotel through the lobby entrance at the southeast area of the building. Guests will check-in at the lobby on the ground floor and, once they receive their room assignments, will be free to enjoy the property at their leisure using the elevator or stairs at the west side of the building. The accessory café space, which has interior space on the ground floor and exterior space on the second floor, will likewise be accessed internally through the hotel lobby and via the west stairs and elevator. The garage can only be accessed by valet, which will be located along the eastern portion of the property along Meridian Avenue.

The hotel will provide on-site security through its employees. Cameras will be located within the facility, which will monitor the site.

GUEST DROP-OFF AND VALET PARKING - 4

The Applicant expects most guests to arrive by taxi and rideshare vehicles with drop-off occuring at an on-street passenger loading space on Meridian Avenue at the northeast area of the project. Guests will be directed south along the sidewalk to the hotel entrance near the intersection. Guests may also be picked up from the passenger loading space.

The garage will be 100% 24/7 valet-serviced. The valet drop-off area will be located just inside the entrance to the garage from Meridian Avenue, where it has the least amount of impact on surrounding traffic patterns. According to Traf Tech Engineering, the traffic engineer for the project, only one space is needed for valet queuing due to the small scale of the hotel and accessory café. However, in the event that more than one vehicle arrives at the same time, the valet operators can take the first car further inside the garage and allow the new arrival to enter the beginning of the garage for ticketing. Once inside the garage, the valet operator will proceed to use one of the car elevators and station the vehicle on one of the available levels of parking. Proper planning will ensure that cars needed in the short term will be the most accessible. Guests will be directed south through the east edge of the garage to the courtyard and the entrance to the hotel lobby. The reverse path will be used for guests to arrive at the garage entrance area for vehicle pick-up.

DELIVERIES AND COLLECTIONS – 5

Deliveries for the entire property will occur within the on-site loading space within the garage driveway as detailed in the submitted project plans. At all times, staff will supervise deliveries and the traffic and work in concert with the valet operator to ensure no adverse impact to the surrounding area or on-site occur. Small vehicles and box trucks can enter headfirst into the loading space and then turn around utilizing the handicap parking space in order to leave the establishment headfirst. Appropriate communications between hotel management and the valet operator will allow for smooth operations of valet operations during the short-term and infrequent delivery periods. If necessary, the valet operator can move a vehicle from the handicap space to allow the deliverty truck to turn around. Larger trucks will either need to back in or back out of the garage from Meridian Ave or, alternatively, block the garage entrance during the short-term and infrequent delivery periods.

The hotel operator will make proper arrangements so that all deliverables will be received in the designated enclosed loading space during non-peak times of 8:00 AM to 12:00 PM. Delivery personnel may utilize hand-trucks to take the goods into the hotel and/or café through the garage. The majority of the delivery trucks are anticipated to fit within the garage entrance clearance of 11' and be no larger than the 10' x 20' loading zone.

Refuse collection by a private waste hauler will take place during non-peak hours of 8:00 AM to 12:00 PM. Refuse will be collected approximately 4 days per week. By arrangement with the waste hauler, all refuse will be walked from the refuse room located at the western portion of the building through the garage to the street for quick collection on Meridian Avenue.

THE FIFTH HOTEL
803 5TH STREET
OPERATIONS PLAN

FOR VALET-ONLY PARKING
WITH MECHANICAL LIFTS

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1. Hours of operation for the valet-only parking level are 24 hours a day, 7 days a week.

2. The number of employees in the valet-only parking level will vary as determined by the valet operator to adequately serve demand, with the maximum as prescribed by the traffic memorandum included with the application materials.

3. The mechanical lifts will be maintained in accordance with the manufacturer's requirements.

4. The mechanical lifts will operate in a quiet manner. The proposed lifts from Klaus Car Parking Systems, Inc., make very little noise when being lowered and raised. The enclosure and screening of the parking level will greatly control sounds from the lifts and vehicles.

5. In the event of a power outage, generators will assist with the operation of the lifts, minimally to remove cars from them. Manual operation is also possible in the event of a breakdown.

Urbanica The 5th Hotel

803 Fifth Street

technical
memorandum

prepared for:
URBANICA

Traf Tech
ENGINEERING, INC.

September 2017

Traf Tech
ENGINEERING, INC.

September 18, 2017

Mr. Diego Colmenero
Urbanica
418 Meridian Avenue
Miami Beach, Florida 33139

Re: 803 Fifth Street – Technical Memorandum

Dear Diego:

Traf Tech Engineering, Inc. is pleased to provide you with the results of the traffic impact statement in connection with the proposed 32-room hotel and restaurant planned to be located on the northwest corner of 5th Street and Meridian Avenue in the City of Miami Beach in Miami-Dade County, Florida. This evaluation documents the anticipated trip generation, traffic impacts, and anticipated stacking associated with the valet operation.

As indicated in this technical memorandum, the new trips anticipated to be generated by the Urbanica The 5th Street Hotel are considered minimal from a traffic-engineering standpoint (one new vehicle-trip every three minutes). Moreover, the drop-off/pick-up valet station can operate adequately with parking for one (1) vehicle. The maximum number of valet runners required during the peak period is four (4).

It has been a pleasure working with you on this project.

Sincerely,

TRAF TECH ENGINEERING, INC.

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

8400 North University Drive, Suite 309, Tamarac, Florida 33321
Tel: (954) 582-0988 Fax: (954) 582-0989

Background

Urbanica The 5th Hotel is a proposed 32-room lodging facility planned to be located on the north side of 5th Street and west of Meridian Avenue in the City of Miami Beach in Miami-Dade County, Florida. Figure 1 depicts the location of the project site and its relationship with the nearby transportation network. The hotel will include a 56-seat restaurant and a triple-lift parking lot with a total of 42 on-site parking spaces. The site plan is contained in Attachment A.

Trip Generation

According to the Institute of Transportation Engineer's (ITE) *Trip Generation Manual* (9th Edition), the above land uses and intensities are projected to generate approximately 226 new daily trips, approximately 18 new AM peak hour trips (10 inbound and 7 outbound) and approximately 20 new trips (12 inbound and 8 outbound) during the typical afternoon peak hour. Hence, the new trips anticipated to be generated by the Urbanica The 5th Hotel project are considered minimal from a traffic-engineering standpoint (one new vehicle-trip every three minutes). Table 1 summarizes the trip generation associated with the subject hotel development.

Trip Distribution

The trip distribution and traffic assignment for the proposed hotel were based on Miami-Dade County's Cardinal Distribution information for the study area. Table 2 summarizes the County's cardinal distribution data for Traffic Analysis Zone 652, which is applicable to the project site from the latest SERPM data published by Miami-Dade County.

TABLE 2
Project Trip Distribution
Urbanica The 5th Hotel

Direction		% of Total Trips
North:	Northwest	22.4
	Northeast	22.3
South:	Southwest	3.3
	Southeast	2.1
East:	Northeast	2.4
	Southeast	2.9
West:	Northwest	30.2
	Southwest	14.4
	Total	100.00%

Source: Miami-Dade County (2040 SERPM)

Based on the above, the following traffic assignment was assumed for the proposed project:

- 45% from the north via Meridian Avenue

- 5% to and from the south via Meridian Avenue
- 5% to and from the east via 5th Street
- 45% to and from the west via 5th Street

The new peak hour traffic generated by the project was assigned to the nearby transportation network using the traffic assignment documented above. The new project traffic assignment is summarized in Figure 2.

Stacking Requirements and Number of Valet Runners Required

The drop-off and pick-up location of valet vehicles is anticipated to occur on site.

The length of queue anticipated on site and the number of valet runners were determined using information contained in ITE's *Transportation and Land Development*, Chapter 8 – Drive-In Facilities[1]. For this analysis, the following input variables were used:

- Service Rate: It was assumed that the average time to park/unpark a vehicle by a valet runner is approximately five (5) minutes, or 12 vehicles per hour per valet runner. The 5-minute time period assumptions are presented in the queuing analysis contained in Attachment B.

  Assuming up to four (4) valet runners, the maximum service rate of the facility is 48 vehicles in a one-hour period (12 times 4).

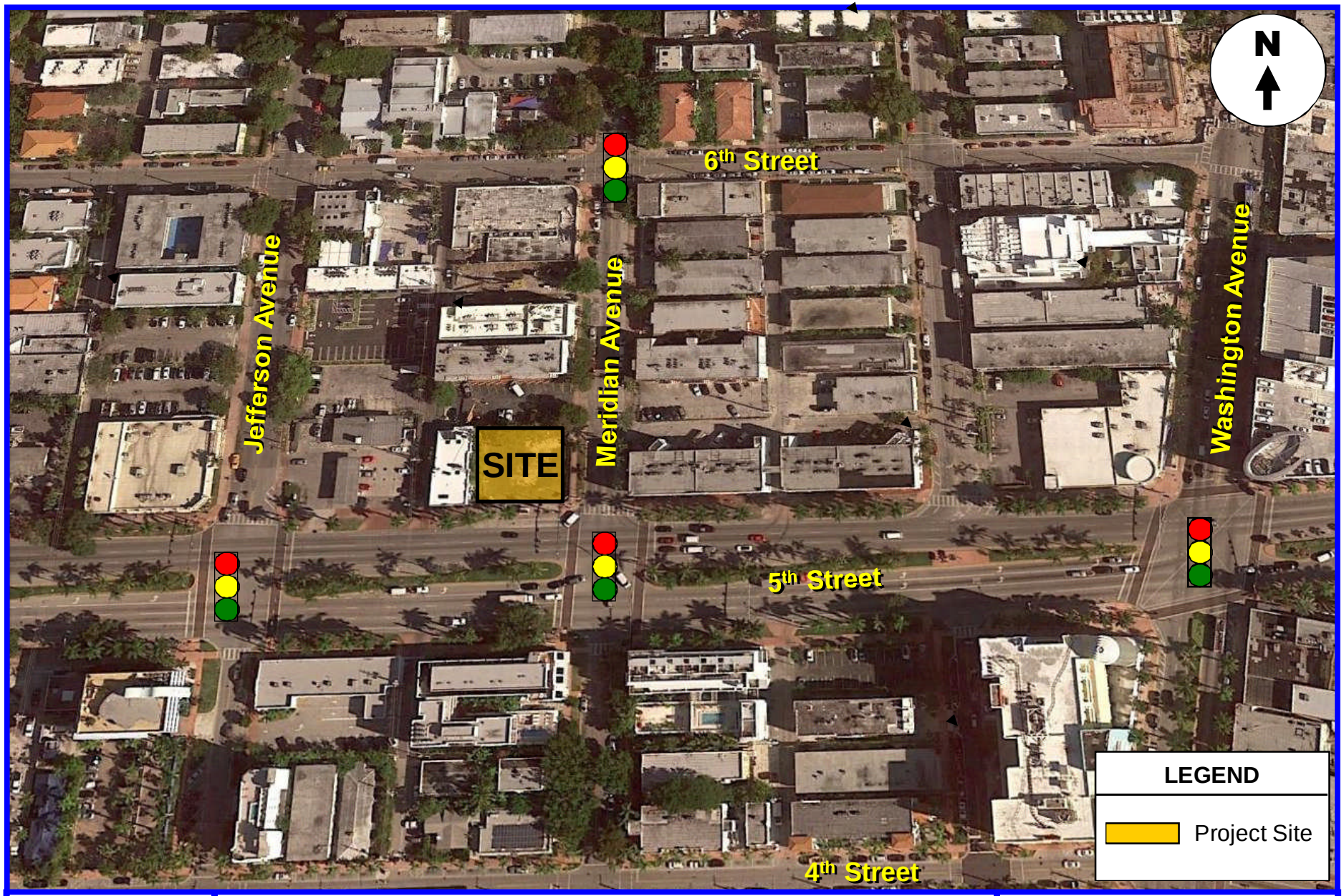
- Demand Rate: Based on ITE's *Trip Generation* (9th Edition), the maximum inbound/outbound vehicular traffic flow anticipated at the Urbanica The 5th Hotel is approximately 25 vehicles (including passer-by trips).

Using equation 8-9b and Table 8-11 of ITE's *Transportation and Land Development*, the maximum length of queue anticipated at the valet drop-off/pick-up lane, at the 95% confidence level, is one (1) with four (4) valet runners. The queuing calculations are presented in Attachment B.

Truck Deliveries

Truck deliveries can either occur on Meridian Avenue (temporarily blocking the southbound right-turn lane) or on site (this will require backing into the site). Small single-unit delivery trucks could use the handicap parking space to turn around within the site in order to enter and exit the site moving forward (no need for backing into the site). Since the parking lot will be valet operated, if the handicap parking space is occupied, a valet staff member could make the valet parking stall available during the short delivery periods.

[1] By Vergil G. Stover and Frank J. Koepke.



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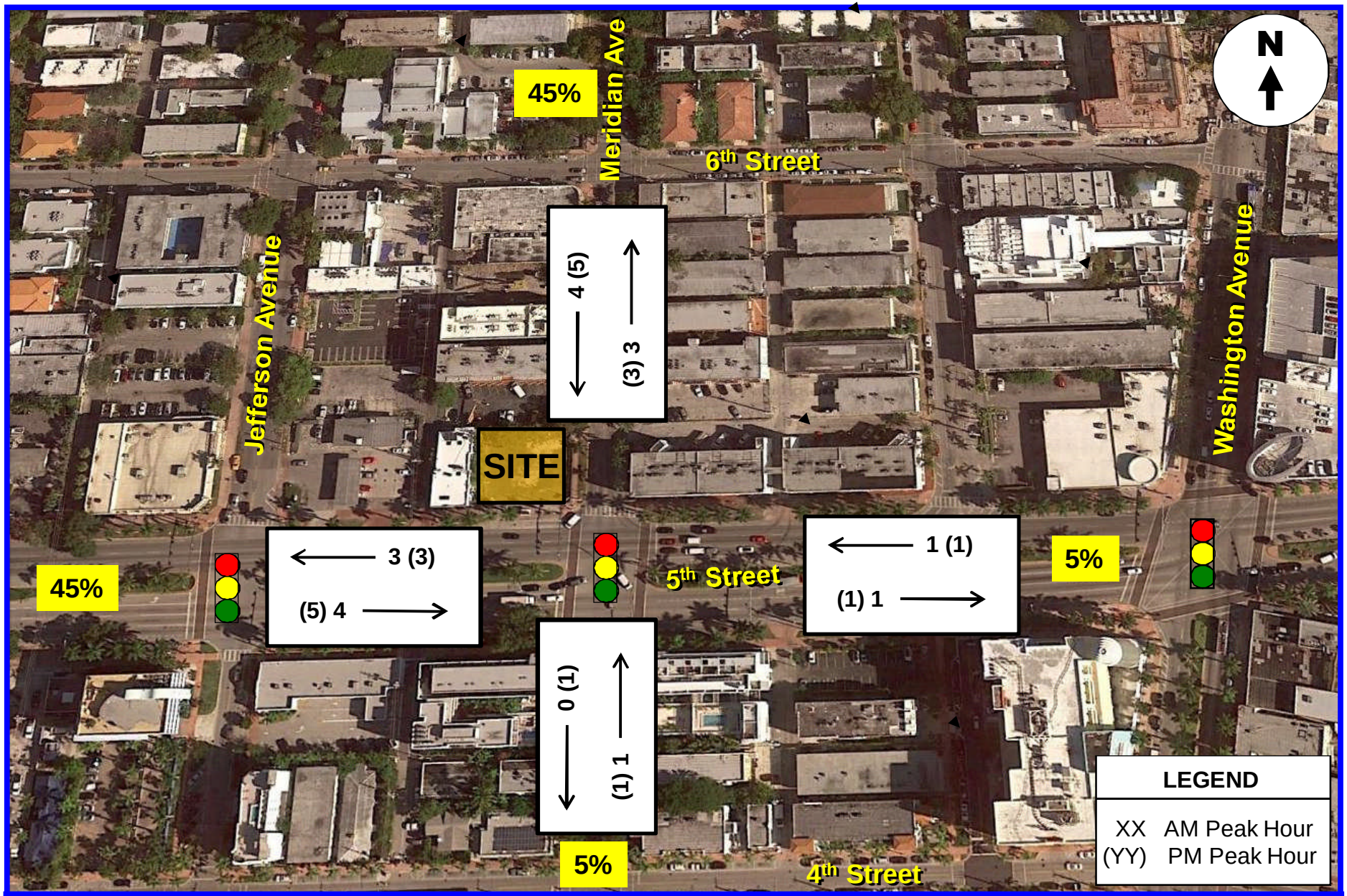
SITE LOCATION MAP

FIGURE 1
Urbanica The 5th Hotel
Miami Beach, Florida



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NET NEW PROJECT TRIPS ASSIGNMENT

FIGURE 2
Urbanica The 5th Hotel
Miami Beach, Florida

TABLE 1
Trip Generation Summary (Proposed Uses)
Urbanica The Fifth Hotel

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Hotel (LUC 310)	32	261	17	10	7	19	10	9
Restaurant (LUC 931)	56	160	2	1	1	15	10	5
Subtotal		**421**	**19**	**11**	**8**	**34**	**20**	**14**
Internal (6%/25%)		-126	-1	-1	-1	-9	-4	-4
Driveway Volumes		**295**	**18**	**10**	**7**	**25**	**15**	**10**
Pass-by (Rest.-44%)		-69	0	0	0	-5	-3	-2
External Trips		**226**	**18**	**10**	**7**	**20**	**12**	**8**

Source: ITE Trip Generation Manual (9th Edition)

NOTES: Consistent with other Miami Beach projets, assumed 30% internal between Hotel and Restaurant (resulting analyses yields 6% AM and 25% for the PM peak (Refer to analyses next two pages). Per ITE LUC 931, pass-by for restaurant is 44%

PROPOSED LAND USES

Trip Generation and Internal Capture Summary

Analyst: Vargas
Date: 16-Sep-17
AM Peak Hour

LAND USE A: Hotel
ITE LU Code: Code 310
SIZE:

	Total	Internal	External
Enter	10	0	10
Exit	7	0	7
Total	17	1	16
%	100%	4%	96%

Exit to External: 7
Enter from External: 10

30% 2 Demand; 0 Balanced; 30% 0 Demand
30% 3 Demand; 0 Balanced; 30% 0 Demand
0 Demand; 0 Balanced; 0 Demand
0 Demand; 0 Balanced; 0 Demand

LAND USE B: Restaurant
ITE LU Code: Code 931
SIZE:

	Total	Internal	External
Enter	1	0	1
Exit	1	0	1
Total	2	1	1
%	100%	30%	70%

Exit to External: 1
ter from External: 1

Demand 0; Balanced 0; Demand 0
Demand 0; Balanced 0; Demand 0

LAND USE C:
ITE LU Code:
SIZE:

	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External: 0
Exit to External: 0

Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	10	1	0	10
Exit	7	1	0	7
Total	16	1	0	18
Single-Use Trip Gen. Est.	17	2	0	19

INTERNAL CAPTURE: 6%

PROPOSED LAND USES

Trip Generation and Internal Capture Summary

Analyst: Vargas
Date: 16-Sep-17
PM Peak Hour

LAND USE A: Hotel
ITE LU Code: Code 310
SIZE:

	Total	Internal	External
Enter	10	1	8
Exit	9	3	7
Total	19	4	15
%	100%	23%	77%

Exit to External: 7
Enter from External: 8

30% 3 Demand → 3 Balanced → 30% 3 Demand
30% 3 Demand → 1 Balanced → 30% 1 Demand
0 Demand → 0 Balanced → 0 Demand
0 Demand → 0 Balanced → 0 Demand

LAND USE B: Restaurant
ITE LU Code: Code 931
SIZE:

	Total	Internal	External
Enter	10	3	7
Exit	5	1	3
Total	15	4	11
%	100%	29%	71%

Exit to External: 3
ter from External: 7

Demand 0 → Balanced 0 → Demand 0
Demand 0 → Balanced 0 → Demand 0

LAND USE C:
ITE LU Code:
SIZE:

	Total	Internal	External
Enter		0	0
Exit		0	0
Total	0	0	0
%	#DIV/0!	#DIV/0!	#DIV/0!

Enter from External: 0
Exit to External: 0

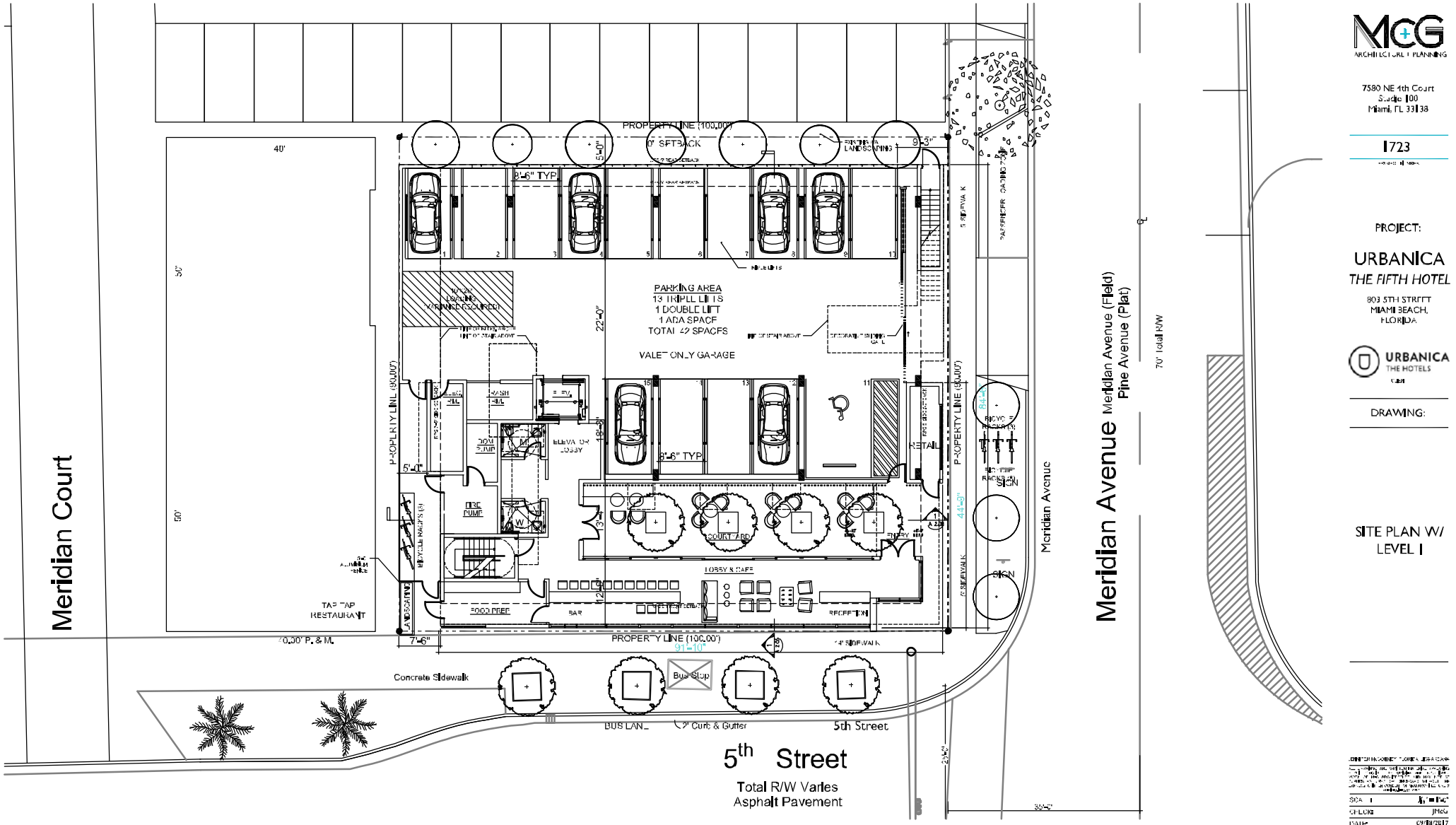
Net External Trips for Multi-Use Development

	LAND USE A	LAND USE B	LAND USE C	TOTAL
Enter	8	7	0	15
Exit	7	3	0	10
Total	15	11	0	25
Single-Use Trip Gen. Est.	19	15	0	34

INTERNAL CAPTURE: 25%

ATTACHMENT A

Site Plan – Urbanica The 5th Hotel



5th Street

Total R/W Varies
Asphalt Pavement

FRONTAGE CALCULATIONS	
FRONTAGE 5TH STREET	91'-10"
FRONTAGE MERIDIAN	84'-6"
TOTAL	176-4"

75% OF FRONTAGE = 132'-3"
TOTAL STOREFRONT PROVIDED 136'-7"

SITE PLAN LEVEL 1

MCG
ARCHITECTURE + PLANNING

7580 NE 4th Court
Suite 100
Miami, FL 33138

1723

PROJECT:

URBANICA
THE FIFTH HOTEL

803 5TH STREET
MIAMI BEACH,
FLORIDA

URBANICA
THE HOTELS

DRAWING:

SITE PLAN W/
LEVEL 1

SCALE	1/16" = 1'-0"
CHECKED	JMcG
DATE	09/18/2017

SHEET NUMBER

A 1.00

ATTACHMENT B

Valet Queuing Analysis

Queuing Analysis based on ITE Procedures
Urbanica The 5th Hotel – 803 Fifth Street

q = 25 veh/hr (demand rate – driveway volumes)

Q = 12 veh/hr (service rate*)

$$p = \frac{q}{NQ} = 0.5208 \text{ (N = 4 valet runners)}$$

$Q_M = 0.1974$ (for N = 4)

Using Acceptable Probability of 5% (95% Confidence Level)

$$M = \left(\frac{Ln\ (x > M) - Ln\ (Q_M)}{Ln\ (p)} \right) - 1$$

$$M = \left(\frac{Ln(0.05) - Ln(0.1974)}{Ln(0.5208)} \right) - 1$$

$$M = \left(\frac{-2.9957 - (-1.6225)}{-0.6524} \right) - 1$$

M = 2.1 – 1 = 1.1, say 1 vehicle

- Ticket processing time = **60 sec**. + vehicle travel time to 1st level parking space = **30 sec**. for a total of **90 seconds**
- Ticket processing time = **60 sec**. + vehicle travel time to 1st level parking space = **30 sec**. + mechanical move to 2nd level parking = **60 sec**. for a total of **150 seconds**
- Ticket processing time = **60 sec**. + vehicle travel time to 1st level parking space = **30 sec**. + mechanical move to 3rd level parking = **120 sec**. for a total of **210 seconds**
- Used **300 seconds** per vehicle (conservative approach)

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location, a 5% probability of back-up onto the adjacent street is judged to be acceptable. Demand on the system for design is expected to be 110 vehicles in a 45-minute period. Average service time was expected to be 2.2 minutes. Is the queue storage adequate?

Such problems can be quickly solved using Equation (8–9b) given in Table 8-10 and repeated below for convenience.

$$M = \left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho}\right] - 1$$

where:

M = queue length which is exceeded p percent of the time
N = number of service channels (drive-in positions)
Q = service rate per channel (vehicles per hour)
$\rho = \dfrac{\text{demand rate}}{\text{service rate}} = \dfrac{q}{NQ}$ = utilization factor
q = demand rate on the system (vehicles per hour)
Q_M = tabled values of the relationship between queue length, number of channels, and utilization factor (see Table 8.11)

TABLE 8-11
Table of Q_M Values

	$N = 1$	2	3	4	6	8	10
0.0	0.0000	0.0000	0.0000	0.0000			
0.1	.1000	.0182	.0037	.0008	.0000	0.0000	0.0000
.2	.2000	.0666	.0247	.0096	.0015	.0002	.0000
.3	.3000	.1385	.0700	.0370	.0111	.0036	.0011
.4	.4000	.2286	.1411	.0907	.0400	.0185	.0088
.5	.5000	.3333	.2368	.1739	.0991	.0591	.0360
.6	.6000	.4501	.3548	.2870	.1965	.1395	.1013
.7	.7000	.5766	.4923	.4286	.3359	.2706	.2218
.8	.8000	.7111	.6472	.5964	.5178	.4576	.4093
.9	.9000	.8526	.8172	.7878	.7401	.7014	.6687
1.0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

$\rho = \dfrac{q}{NQ} = \dfrac{\text{arrival rate, total}}{(\text{number of channels})(\text{service rate per channel})}$
N = number of channels (service positions)

0.5 = 0.1739

0.6 = 0.2870

0.5208 = 0.1974

Solution

Step 1: $Q = \dfrac{60 \text{ min/hr}}{2.2 \text{ min/service}} = 27.3$ services per hour

Step 2: $q = (110 \text{ veh}/45 \text{ min}) \times (60 \text{ min/hr}) = 146.7$ vehicles per hour

Step 3: $\rho = \dfrac{q}{NQ} = \dfrac{146.7}{(6)(27.3)} = 0.8956$

Step 4: $Q_M = 0.7303$ by interpolation between 0.8 and 0.9 for $N = 6$ from the table of Q_M values (see Table 8-11).

Step 5: The acceptable probability of the queue, M, being longer than the storage, 18 spaces in this example, was stated to be 5%. $P(x > M) = 0.05$, and:

$$M = \left[\frac{\ln 0.05 - \ln 0.7303}{\ln 0.8956}\right] - 1 = \left[\frac{-2.996 - (-0.314)}{-0.110}\right] - 1$$

$= 24.38 - 1 = 23.38$, say 23 vehicles.