ntroduction and Executive Summary

Why this study was undertaken. GZA GeoEnvironmental, Inc. (GZA) prepared this Traffic and Parking Assessment in support of the New York State Liquor Authority (SLA) application for Sugar House, a proposed restaurant and live-music venue on the ground floor, cellar, and mezzanine of the former Domino Sugar Refinery at 300 Kent Avenue in Williamsburg, Brooklyn (Community District 1). With an 800-person Viewing Room, a 165-seat restaurant and private dining room, and an 80-seat patio (a design maximum of 1,045 concurrent patrons, supported by approximately 100 staff on a large-show night), the venue will generate concentrated arrival and departure flows on a block shared with Domino Park, the Kent Avenue protected bicycle path, nearby residences, and Skylight, the separately operated event venue on the Refinery's 14th floor and roof. Rather than await operating problems, the applicant commissioned this study in advance to quantify those flows, to define how pedestrian and vehicular arrivals and departures will be managed, and to commit to carrying out those operations in a manner suited to the neighborhood and to improving them continuously as experience accumulates.

What we studied. The assessment characterizes how patrons and staff will travel to and from the venue; builds an hour-by-hour model of arrivals and departures by travel mode across a conservative "design day" that layers a daytime business event, full restaurant and patio service, a sold-out first performance, and a late-night event running to the 2:00 AM close; estimates the resulting person-trips and vehicle-trips and identifies the peak arrival and departure hours for each licensed space; evaluates the adequacy of off-street parking in the surrounding area; assesses venue throughput and patron queuing at entry; and reviews the surrounding street network, transit and bicycle facilities, and Skylight's licensed hours and operating pattern.

What we found. The site is transit supportive, with (J/M/Z at Marcy Avenue, L at Bedford Avenue, local bus, NYC Ferry, adjacent Citi Bike, and the Kent Avenue bicycle corridor), and roughly 61 percent of design-day trips are by non-auto modes. On the design day (worst case), the operation generates concurrent occupancy peaking at about 963 persons in the 9:00–10:00 PM hour, within the 1,045-patron design cap. The peak arrival hour (7:00–8:00 PM) brings roughly 437 patrons and about 80 inbound vehicles. The governing condition is the combined egress peak of 11:00 PM to 12:00 AM: approximately 728 departing patrons generating 139 for-hire vehicle (FHV) pick-ups and 32 private-auto departures, an unmitigated cadence of one FHV every 14 seconds that staggered, managed egress reduces to one every 20 seconds. The 2:00 AM close generates about 483 departures and 92 FHV pick-ups (one every 30 to 40 seconds), smaller in volume but occurring when noise sensitivity is highest. Peak parked-vehicle accumulation of roughly 45 vehicles is readily absorbed by approximately 960 off-street spaces, including the adjacent 725-space, 24-hour Park Kwik garage, and entry queuing is fully contained on the venue's own River Street frontage within a 256-person managed queue.

How the operation will be managed. The Curbside and Traffic Management Plan (Section 8) keeps Sugar House's vehicle activity off Kent Avenue, whose frontage is signed No Standing Anytime and carries the protected bicycle path, and separate from Skylight's independent loading and unloading operation on that frontage. Sugar House drop-off and pick-up is on River Street at the main entrance: signs visible from Kent Avenue direct drivers to River Street, the venue's rideshare pick-up and drop-off pins are set to River Street, and the existing recessed curb bay on South 3rd Street provides managed load-and-go and accessible (ADA) positions on the exit leg. Vehicles reach River Street from Kent Avenue via South 2nd Street (westbound), travel south along the entrance frontage, and return to Kent Avenue via South 3rd Street (eastbound), as shown in Figure 10. The plan is completed by staggered, managed egress at both closes; physical separation of departing and arriving crowds; affirmative protection of the bicycle path; a petition to NYC DOT to designate the South 3rd Street bay as a passenger loading zone; a staffing plan that covers the queue and curbside posts principally by redeploying the venue's show-night security team, with the traffic supervisor, the rover, and the loading bay attendant also managing the interface with Skylight's

ric at the Kent Avenue corners during peak periods that coincide with Skylight events; off-peak delivery indows; neighborhood coordination; and first-season monitoring with adaptive management. Sugar House will make best efforts to coordinate schedules, traffic management, and security with Skylight and, independent of that coordination, will plan its own operations around Skylight's events so that the flow of drop-offs is effectively managed on every operating day (Section 8.3).

Taken together, the analysis demonstrates that the proposed operation's transportation demand is moderate for its setting, is dominated by non-auto modes, and falls within the throughput of the managed curbside and queuing operation described in Section 8, such that the venue can be operated responsibly within its vibrant setting, without undue impact on the surrounding street network, Domino Park, or nearby residences. The estimates herein are conservative engineering assumptions to be validated and refined against observed operating data once the venue is open.

2. Project Description

2.1 Site and Building

The Project Site occupies the block bounded by South 2nd Street to the north, South 3rd Street to the south, River Street (along the Domino Park / East River waterfront) to the west, and Kent Avenue to the east. The principal vehicular frontage and the building address are on Kent Avenue; the River Street frontage faces Domino Park and the waterfront esplanade. The site location and surrounding study area are shown in Figure 2. The main public entrance is a set of double doors on the River Street (west) side of the building, opening into a foyer and vestibule that lead to the performance and dining spaces. The upper floors of the Refinery building also contain Skylight, a separately operated food-and-beverage event venue occupying - the full 14th floor and the roof level with its amenity space, each with a permitted occupancy of 640 persons; Skylight loads and unloads independently on Kent Avenue and is - addressed in Section 8.3.

2.2 Program and Occupancy

The ground floor contains a restaurant (dining room, open kitchen, and bar room), an outdoor patio facing River Street, and a live-music performance space referred to as the Viewing Room, with an associated stage and back-of-house at the eastern end of the building. The cellar contains a private dining room (PDR), dressing rooms, and back-of-house support; the mezzanine contains IT/AV and storage. The maximum design occupancy proposed for the establishment is summarized in Table 1 and shown in Figure 1.

Table 1: Maximum Design Occupancy by Space

Space	Max. Occupancy	Notes
Viewing Room (performance venue)	800	Ground floor; live music / events
Main dining room	115	Ground floor restaurant
Private dining room (PDR)	50	Cellar level
Outdoor patio	80	River Street frontage
Total (design maximum)	**1,045**	**Hypothetical worst case; all spaces full**

Figure 1: Project Floor Plan

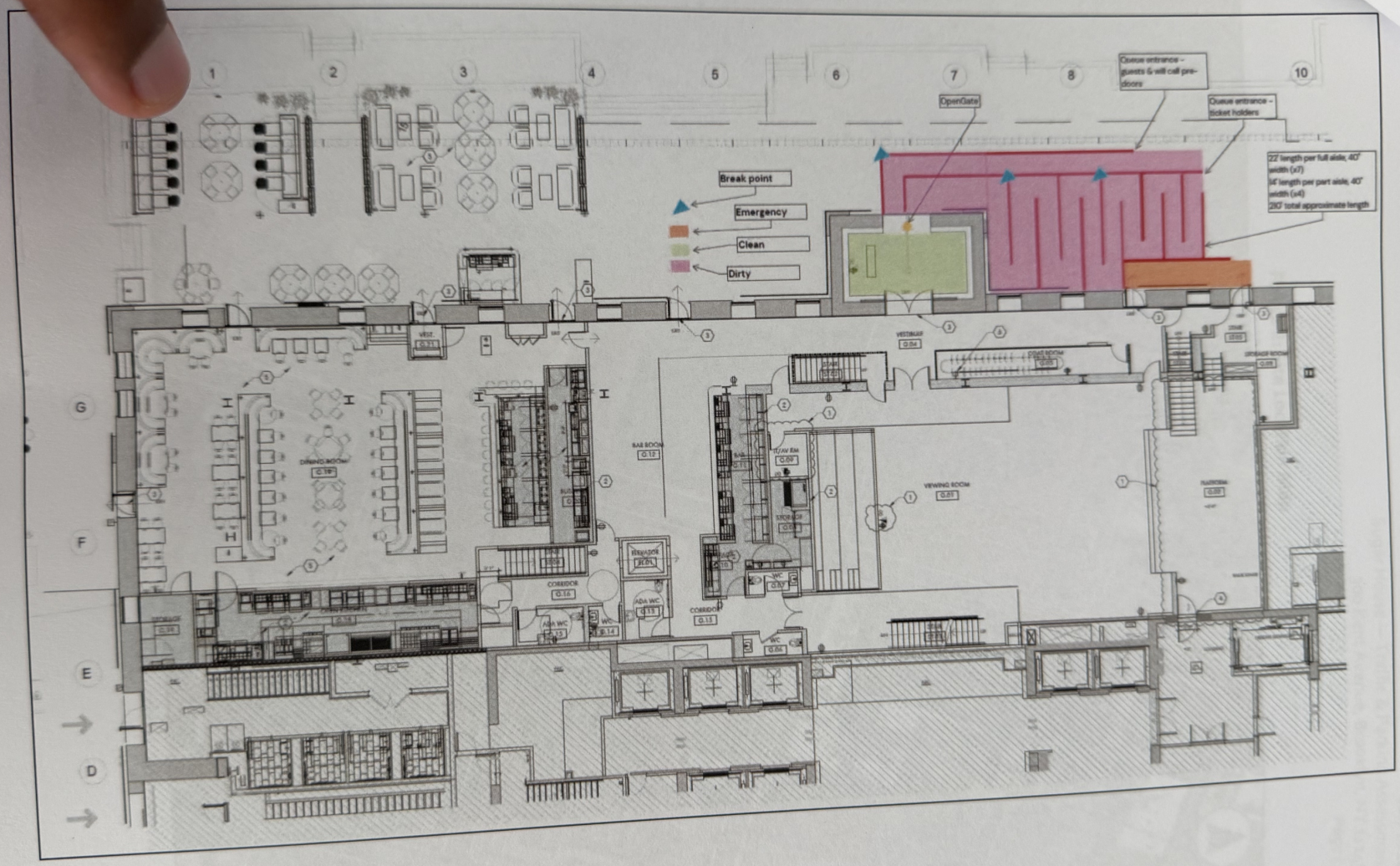
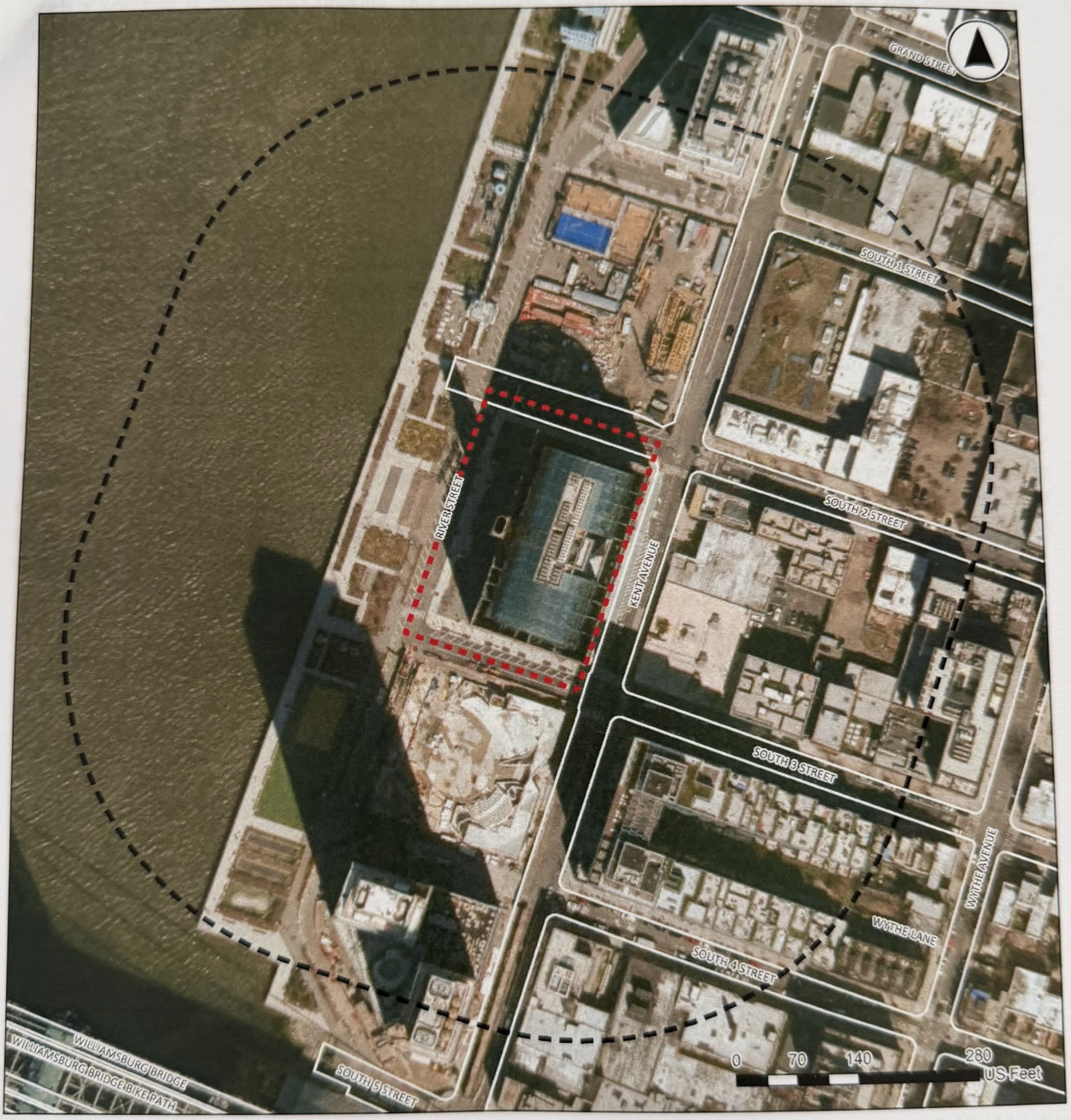


Figure 2: Site Location Map



LEGEND

300 KENT AVENUE

400' STUDY AREA

Photographic source + OCR

1,045-person total represents a worst-case condition in which every space is simultaneously at capacity. While such a scenario is considered unlikely, this assessment adopts the 1,045-person figure as the concurrent-occupancy design basis so that traffic management measures are sized for the busiest credible night.

2.3 Hours, Operating Pattern, and the Design Day

The restaurant and Viewing Room are proposed for licensure between 8:00 AM and 2:00 AM, while the patio is proposed for operation till 12:00 AM, although these full hours are not expected to be used on all days or in all seasons. The operator anticipates that the venue will be dark on one to two days per week and will host daytime business events approximately one to two times per week with 50 to 100 guests, typically beginning around 12:00 PM.

To capture the full operating envelope, this assessment models a worst-case "design day" that layers every operating scenario onto a single day: a daytime business event, a full evening of restaurant and patio service with seat turnover, a sold-out first performance in the Viewing Room, and a second, late-night event running to the 2:00 AM close. Restaurant service is modeled with up to three seat turnovers between 5:00 PM and 1:00 AM (with diminishing patronage toward close, and late-night service possible to 2:00 AM), and the outdoor patio with two turnovers between 5:00 PM and 12:00 AM - so total persons served exceeds the seat counts, while concurrent occupancy never exceeds the seats in each space. The design-day program and the operator-indicated peak windows for each component are summarized in Table 2. Total peak daily patron trips under such a 'worst-case' scenario, consisting of an arriving and departing trip for each patron, would be 4,610. A typical night - a single performance with restaurant and patio service, and no daytime event or late-night second show - is a subset of this design day, generating on the order of 1,400 patron trips each way, for a total of 2,800, with concurrent patron occupancy still capped at 1,045.

Table 2: Design-Day Program, Seat Turnovers, and Operator-Indicated Peak Windows

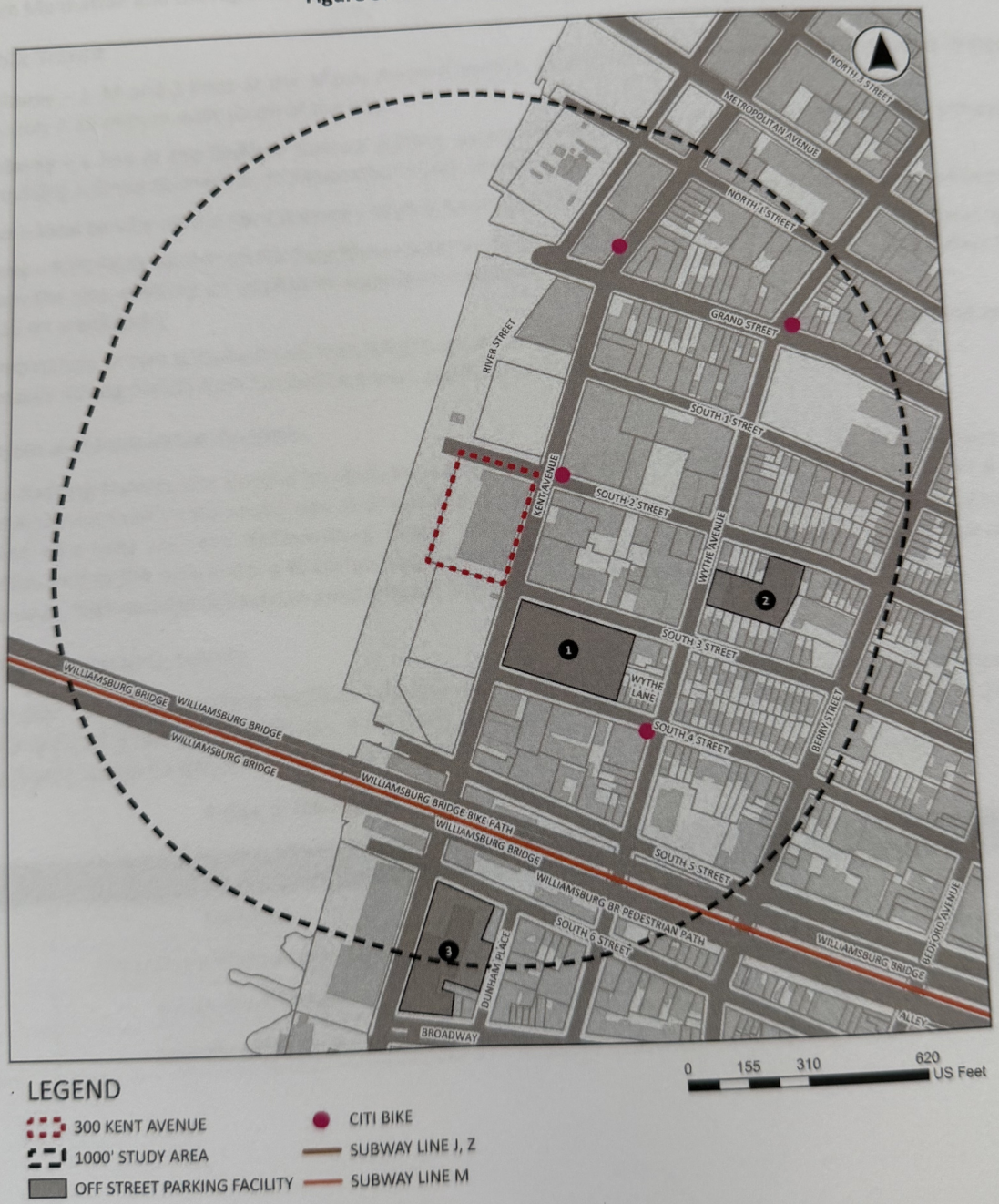
Component	Persons	Operating Window	Peak Arrivals	Peak Departures
Daytime business event	100	12:00 PM – ~5:00 PM	12:00 – 1:00 PM	4:00 – 5:00 PM
Restaurant (dining room + PDR)	446 (165 seats × ~2.7 turns)	5:00 PM – 1:00 AM (late service to 2:00 AM)	6:00 – 7:00 PM	10:00 – 11:00 PM
Outdoor patio	160 (80 seats × 2 turns)	5:00 PM – 12:00 AM	6:00 – 7:00 PM	11:00 PM – 12:00 AM
Viewing Room – first performance	800	Doors ~7:00 PM; ends ~11:00 PM	7:00 – 8:00 PM	11:00 – 11:30 PM
Viewing Room – late-night event	800	~12:00 – 2:00 AM (worst case)	12:00 – 1:00 AM	1:30 – 2:30 AM
Staff (assumed)	100	Shift-based	4:00 – 5:00 PM	After close

Two departure conditions govern the curbside analysis: the combined egress peak between 11:00 PM and 12:00 AM, when the first-performance egress overlaps the restaurant and patio departure peak (and the ingress of a late-night event, when one is scheduled); and the late-night worst case between roughly 1:30 and 2:30 AM, when the late event closes under reduced transit frequency. Both are quantified in Section 5.

Existing Transportation Conditions

The venue sits within a well serviced transit environment and walkable area of Brooklyn. The surrounding street network, transit services, bicycle infrastructure, and off-street parking facilities within an approximately 1,000-foot study area are described below and illustrated in Figure 3.

Figure 3: Transportation Context



Street Network

Kent Avenue is the principal north–south corridor serving the site and carries a protected bicycle lane and local bus service. River Street provides the waterfront frontage adjacent to Domino Park and is the natural location for patron queuing. South 2nd and South 3rd Streets provide local cross-street access between Kent Avenue and Wythe Avenue. The Williamsburg Bridge, immediately to the southwest, provides vehicular and bicycle access to and from Manhattan and the regional roadway network.

3.2 Public Transit

- **Subway –** J, M and Z lines at the Marcy Avenue station, at the Brooklyn foot of the Williamsburg Bridge, roughly a 10-minute walk south of the site.
- **Subway –** L line at the Bedford Avenue station, approximately a 10- to 12-minute walk to the northeast, providing a direct connection to Manhattan's 14th Street corridor.
- **Bus –** local service on the Kent Avenue / Wythe Avenue corridor connecting to the wider Brooklyn network.
- **Ferry –** NYC Ferry service on the East River route, with a landing on the Williamsburg waterfront a short walk from the site, offering an additional waterborne option in season (service does end at 9:30 weekdays and 9:15 on weekends)

The combination of two subway trunk lines (J/M/Z and L), bus, and ferry within walking distance gives the venue an unusually strong transit base for patron travel, particularly for arrivals.

3.3 Bicycle and Pedestrian Facilities

Citi Bike docking stations are located immediately adjacent to the site at Kent Avenue and South 2nd Street, with additional stations within the study area at Grand Street, North 1st Street, and South 4th Street. The Kent Avenue protected bike lane and the Williamsburg Bridge bicycle and pedestrian paths connect the site directly to Manhattan and to the surrounding Brooklyn neighborhoods. The waterfront esplanade and Domino Park provide a continuous, high-quality pedestrian environment along the River Street frontage.

3.4 Off-Street Parking Supply

Three public off-street parking facilities operate within the study area, providing a combined capacity of approximately 960 spaces. The largest, Park Kwik, is directly adjacent on Kent Avenue and operates 24 hours, making it well suited to late-evening patron parking.

Table 3: Off-Street Parking Facilities Within the Study Area

#	Facility	Address	Spaces	Hours
1	Park Kwik	325 Kent Avenue	725	24 hours
2	PPS 5 Square Management Garage	321 Wythe Avenue	91	24 hours
3	11 Broadway Garage	31 South 6th Street	144	6 AM–Mid.
	Total off-street supply		960	

Modal Split

Modal split is the distribution of patron and staff trips across the available travel modes. The split was derived from the characteristics of the site and its surroundings rather than from a single published rate, because the venue combines two travel profiles: that of a local Williamsburg restaurant (very high walk and transit shares) and that of a regional destination live-music venue, which draws patrons from across the city and region and operates later at night.

4.1 Basis for the Estimate

- **High transit accessibility.** Two subway trunk lines, bus, and ferry within walking distance support a high transit share, especially for arrivals during evening hours when service is frequent.
- **Walkability and a dense residential catchment.** Williamsburg's walkable street grid and large nearby residential population support a meaningful walk share for both the restaurant and performance venue components.
- **Strong cycling infrastructure.** Adjacent Citi Bike docks, the Kent Avenue protected lane, and the Williamsburg Bridge path support a notable bicycle share in fair weather.
- **Late-night operation.** As performances end late in the evening, subway frequencies decline and group travel by for-hire vehicle (Uber, Lyft, and taxi) becomes more attractive. The for-hire-vehicle (FHV) share at egress is therefore higher than at arrival, while the private-auto share remains low given the cost and inconvenience of parking relative to the abundant transit and FHV options.

4.2 Applied Mode Shares

Two splits are applied in the hourly model. Arrivals throughout the day, and departures through 10:00 PM, use the design (overall) split. Departures from 10:00 PM onward use an egress-adjusted split that shifts ten percentage points from subway to for-hire vehicles, reflecting reduced late-night subway frequency. Average vehicle occupancies of 2.0 persons per for-hire vehicle and 2.5 persons per private auto are applied when converting person-trips to vehicle-trips.

Table 4: Assumed Patron Modal Split by Analysis Condition

Travel Mode	Design (arrivals; departures before 10 PM)	Egress (departures from 10 PM onward)
Subway (J/M/Z, L)	32%	22%
For-hire vehicle (TNC / taxi)	28%	38%
Walk	17%	17%
Private auto (park)	11%	11%
Bicycle / Citi Bike	7%	7%
Bus / ferry	5%	5%
Total	**100%**	**100%**

Collectively, non-auto modes (transit, walk, bicycle, ferry) account for roughly 61% of design trips and about 51% of late-night egress trips, confirming that the great majority of patrons will not arrive or depart by private car.

se splits apply to patron trips only; staff travel, weighted much more heavily toward transit and walking, is odeled separately in Section 5.6.

5. Temporal Distribution and Trip Generation

5.1 Methodology

Two adjustments are applied to the external trip-generation basis. First, linked-trip (internal-capture) credits recognize patrons who make a single visit to more than one venue component: 25% of restaurant and outdoor patio patrons are assumed to be linked with the performance venue - attending a show and dining on the same visit - and therefore generate no separate external trips beyond those already counted for the Viewing Room; in addition, 10% of first-performance patrons are assumed to remain on site at the restaurant and bar after the show ends, shifting their external departures out of the 11:00 PM egress peak into later hours. Second, approximately 100 staff are excluded from the patron model entirely and are summarized separately in Section 5.6. Linked patrons remain fully counted in the licensed-occupancy analysis; the credits apply to external trip generation only.

An hour-by-hour model of the design day was constructed from 12:00 PM through the 2:00 AM close (with egress extending to approximately 3:00 AM with employees included). Each venue component in Table 2 was assigned an hourly arrival and departure profile anchored to the operator-indicated peak windows: restaurant service from 5:00 PM with up to three seat turnovers (arrivals peaking at 6:00–7:00 PM, departures peaking at 10:00–11:00 PM, and a diminishing service tail to 2:00 AM); patio service from 5:00 PM to midnight with two turnovers; first-performance arrivals peaking at 7:00–8:00 PM with departures concentrated at 11:00–11:30 PM; and the late-night event ingressing between roughly 11:00 PM and 1:00 AM with peak departures at 1:30–2:30 AM. The turnover profiles were constructed so that concurrent occupancy never exceeds the seat count of either space - the restaurant holds at its 165 seats through the 7:00–9:00 PM prime window, and the patio peaks at roughly 74 of its 80 seats. In addition the model also assumes an early corporate event as well as staff arrivals for about a 100 person corporate conference starting at noon and running to 5PM. Component person-flows were then summed by hour and factored by the mode shares in Table 4 to produce person-trips by hour and mode, and by the vehicle occupancies to produce vehicle-trips. The full model is provided in the accompanying workbook (Sugar House Trip Generation Model), in which every seat count, turnover factor, mode share, vehicle occupancy, and hourly percentage is an adjustable input; setting the late-night event to zero reproduces a typical single-performance night.

On the design day the venue generates approximately 2,156 external patron arrivals and 2,156 external patron departures - roughly 4,310 patron person-trips after application of the linked-trip credits described in Section 5.1. Staff add approximately 200 person-trips per day, analyzed separately in Section 5.6. Cumulative patron occupancy peaks at approximately 963 persons in the 9:00–10:00 PM hour - comfortably within the 1,045-patron concurrent design cap, because the Viewing Room events are sequential and the restaurant and patio turnovers replace, rather than add to, seated patrons. Figures 4 through 6 illustrate the hourly arrival and departure profiles by mode and the resulting occupancy curve.

2 Hourly Patron and Staff Trips and Cumulative Occupancy

Table 5: Hourly Patron Distribution and Cumulative Occupancy, Design Day

Hour	Patrons Arriving	Patrons Departing	Net Change	Cumulative Patrons In Venue
12:00 PM – 1:00 PM	70	0	70	70
1:00 PM – 2:00 PM	30	0	30	100
2:00 PM – 3:00 PM	0	0	0	100
3:00 PM – 4:00 PM	0	0	0	100
4:00 PM – 5:00 PM	0	60	-60	40
5:00 PM – 6:00 PM	58	40	18	58
6:00 PM – 7:00 PM	190	0	190	248
7:00 PM – 8:00 PM	436	64	372	620
8:00 PM – 9:00 PM	352	76	276	896
9:00 PM – 10:00 PM	141	74	67	963
10:00 PM – 11:00 PM	46	180	-134	829
11:00 PM – 12:00 AM	303	728	-425	404
12:00 AM – 1:00 AM	410	122	288	692
1:00 AM – 2:00 AM	120	329	-209	483
2:00 AM – 3:00 AM	0	483	-483	0
TOTAL	**2,156**	**2,156**		

Figure 4: Patron Arrivals by Hour and Mode

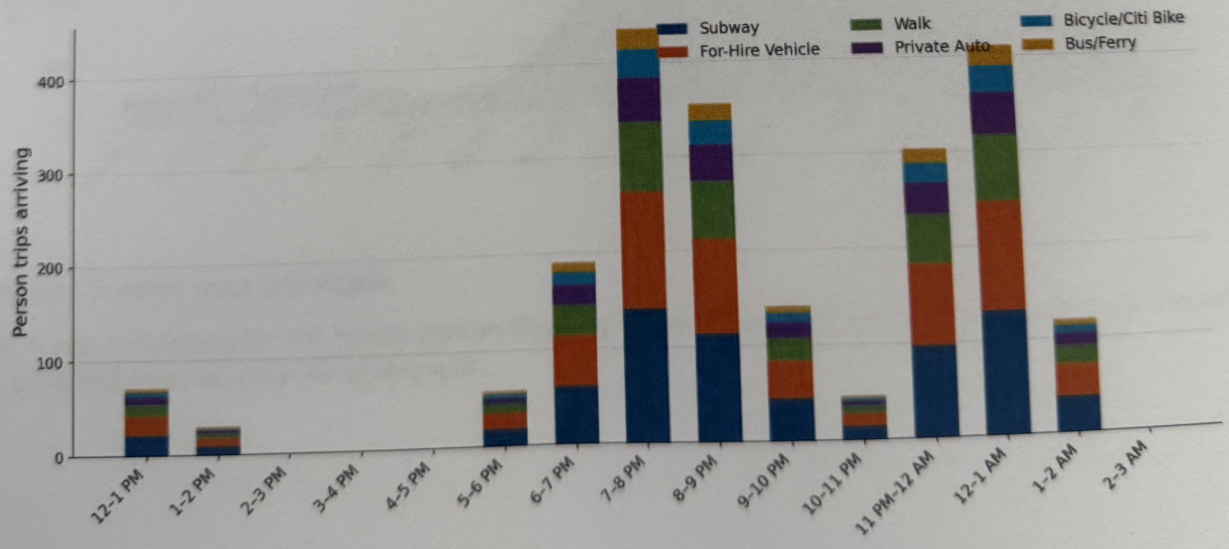


Figure 5: Patron Departures by Hour and Mode

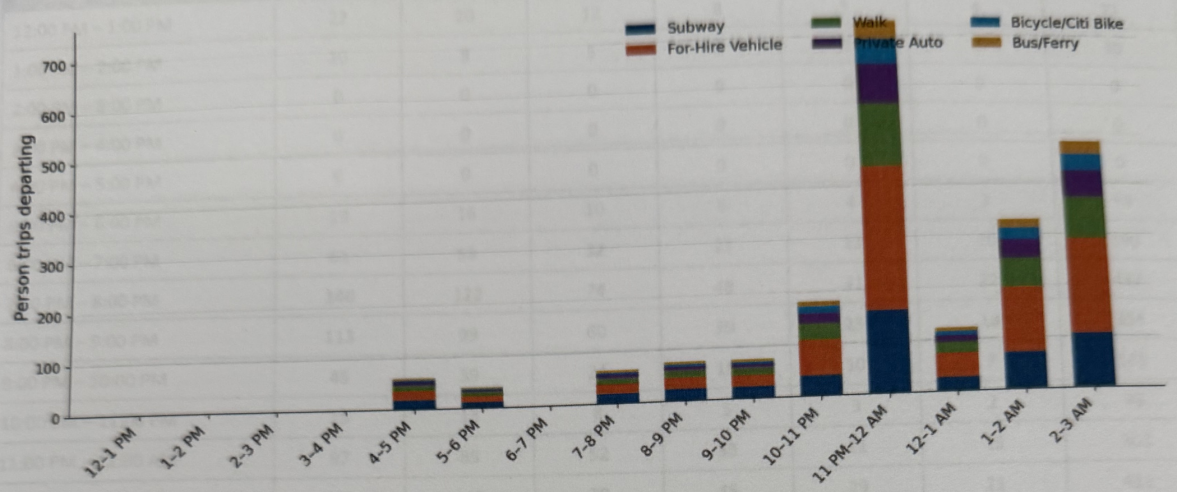
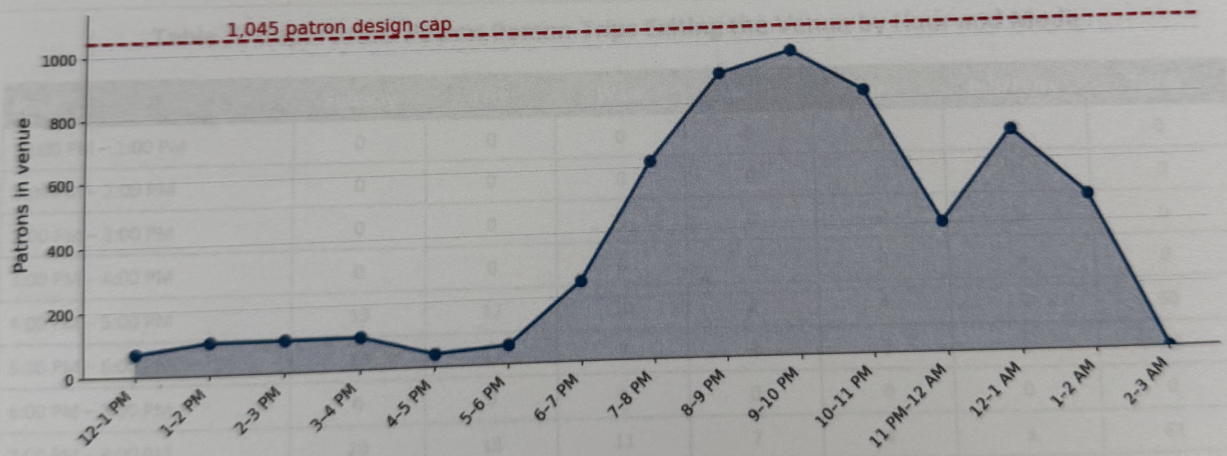


Figure 6: Cumulative Patron Occupancy Over the Operating Day



5.3 Person-Trips by Hour and Mode

Tables 6 and 7 disaggregate the hourly person-flows by travel mode. Arrivals apply the design split; departures from 10:00 PM onward apply the egress split.

Table 6: Arrivals: Patron Person-Trips Entering the Venue by Hour and Mode

Hour	Subway	FHV	Walk	Auto	Bike	Bus/Ferry	TOTAL
12:00 PM – 1:00 PM	22	20	12	8	5	4	71
1:00 PM – 2:00 PM	10	8	5	3	2	2	30
2:00 PM – 3:00 PM	0	0	0	0	0	0	0
3:00 PM – 4:00 PM	0	0	0	0	0	0	0
4:00 PM – 5:00 PM	0	0	0	0	0	0	0
5:00 PM – 6:00 PM	19	16	10	6	4	3	58
6:00 PM – 7:00 PM	61	53	32	21	13	10	190
7:00 PM – 8:00 PM	140	122	74	48	31	22	437
8:00 PM – 9:00 PM	113	99	60	39	25	18	354
9:00 PM – 10:00 PM	45	39	24	16	10	7	141
10:00 PM – 11:00 PM	15	13	8	5	3	2	46
11:00 PM – 12:00 AM	97	85	52	33	21	15	303
12:00 AM – 1:00 AM	131	115	70	45	29	21	411
1:00 AM – 2:00 AM	38	34	20	13	8	6	119
2:00 AM – 3:00 AM	0	0	0	0	0	0	0
TOTAL	**691**	**604**	**367**	**237**	**151**	**110**	**2,160**

Table 7: Departures: Patron Person-Trips Exiting the Venue by Hour and Mode

Hour	Subway	FHV	Walk	Auto	Bike	Bus/Ferry	TOTAL
12:00 PM – 1:00 PM	0	0	0	0	0	0	0
1:00 PM – 2:00 PM	0	0	0	0	0	0	0
2:00 PM – 3:00 PM	0	0	0	0	0	0	0
3:00 PM – 4:00 PM	0	0	0	0	0	0	0
4:00 PM – 5:00 PM	19	17	10	7	4	3	60
5:00 PM – 6:00 PM	13	11	7	4	3	2	40
6:00 PM – 7:00 PM	0	0	0	0	0	0	0
7:00 PM – 8:00 PM	20	18	11	7	4	3	63
8:00 PM – 9:00 PM	24	21	13	8	5	4	75
9:00 PM – 10:00 PM	24	21	13	8	5	4	75
10:00 PM – 11:00 PM	40	68	31	20	13	9	181
11:00 PM – 12:00 AM	160	277	124	80	51	36	728
12:00 AM – 1:00 AM	27	46	21	13	9	6	122
1:00 AM – 2:00 AM	72	125	56	36	23	16	328
2:00 AM – 3:00 AM	106	184	82	53	34	24	483
TOTAL	**505**	**788**	**368**	**236**	**151**	**107**	**2,155**

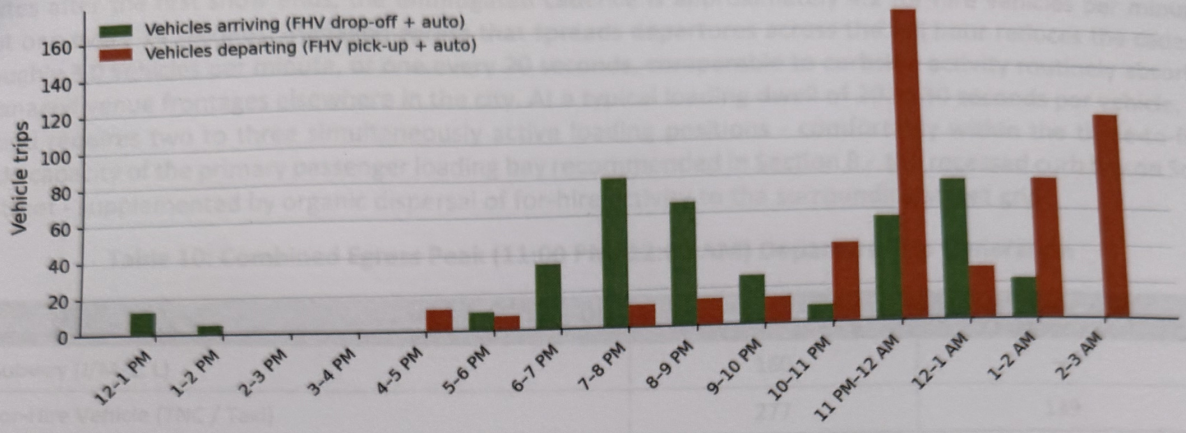
Vehicle Trip Generation by Hour

Table 8 converts the for-hire-vehicle and private-auto person-trips to vehicle-trips. Each for-hire trip also generates two curb movements (the vehicle arrives loaded or empty and departs the curb), which is reflected in the curbside cadence analysis in Section 5.5. The resulting hourly vehicle-trip profile is illustrated in Figure 7. It should be noted that private vehicle trips would be to nearby curbside locations or off-street parking facilities, rather than to the site itself.

Table 8: Patron Vehicle Trip Generation by Hour (Arrivals and Departures)

Hour	FHV Vehicles In	Auto Vehicles In	Total In	FHV Vehicles Out	Auto Vehicles Out	Total Out
12:00 PM – 1:00 PM	10	3	13	0	0	0
1:00 PM – 2:00 PM	4	1	5	0	0	0
2:00 PM – 3:00 PM	0	0	0	0	0	0
3:00 PM – 4:00 PM	0	0	0	0	0	0
4:00 PM – 5:00 PM	0	0	0	9	3	12
5:00 PM – 6:00 PM	8	2	10	6	2	8
6:00 PM – 7:00 PM	27	8	35	0	0	0
7:00 PM – 8:00 PM	61	19	80	9	3	12
8:00 PM – 9:00 PM	50	16	66	11	3	14
9:00 PM – 10:00 PM	20	6	26	11	3	14
10:00 PM – 11:00 PM	7	2	9	34	8	42
11:00 PM – 12:00 AM	43	13	56	139	32	171
12:00 AM – 1:00 AM	58	18	76	23	5	28
1:00 AM – 2:00 AM	17	5	22	63	14	77
2:00 AM – 3:00 AM	0	0	0	92	21	113
TOTAL	**305**	**93**	**398**	**397**	**94**	**491**

Figure 7: Patron Vehicle Trips by Hour, Design Day



5.5 Peak-Hour Trip Generation and Curbside Cadence

Three windows govern the design of the curbside and traffic management measures.

Table 9: Peak Arrival Hour (7:00–8:00 PM) Trip Generation

Mode	Person Trips	Vehicle Trips
Subway (J/M/Z, L)	140	—
For-Hire Vehicle (TNC / Taxi)	122	61
Walk	74	—
Private Auto (park)	48	19
Bicycle / Citi Bike	31	—
Bus / Ferry	22	—
TOTAL	**437**	**80**

Peak arrival hour - 7:00 to 8:00 PM. Approximately 437 patrons arrive as first-performance ingress overlaps second-turn restaurant and patio arrivals (Table 9), generating about 80 inbound vehicles - 61 for-hire drop-offs and 19 private autos bound for nearby curbside parking or area garages. Spread over the hour, for-hire drop-offs average roughly one per minute, a light and easily managed cadence.

Combined egress peak - 11:00 PM to 12:00 AM. This is the busiest hour of the design day: approximately 728 patrons depart (first-performance egress concentrated at 11:00–11:30 PM, plus final restaurant and patio departures, with roughly 10% of first-show patrons remaining on site for the restaurant and bar), while roughly 303 late-event patrons arrive. Departures generate about 171 vehicles - 139 for-hire pick-ups and 32 private autos from area parking garages and curbside parking (Table 10) - and, together with 56 inbound vehicles, roughly 227 vehicle trips and 182 for-hire curb events in the hour. Notably, the restaurant's departure peak (10:00–11:00 PM,

erally precedes the show egress, so the turnover schedule naturally sequences rather than stacks the dinner-owd departure waves ahead of the surge. If 70% of the 11:00 PM-hour for-hire activity concentrates in the 30 minutes after the first show ends, the unmitigated cadence is approximately 4.2 for-hire vehicles per minute - about one every 14 seconds. Managed egress that spreads departures across the full hour reduces the cadence to roughly 3.0 vehicles per minute, or one every 20 seconds, comparable to curbside activity routinely absorbed at managed venue frontages elsewhere in the city. At a typical loading dwell of 20 to 30 seconds per vehicle, this demand requires two to three simultaneously active loading positions - comfortably within the three-to-four-vehicle capacity of the primary passenger loading bay recommended in Section 8 - the recessed curb bay on South 3rd Street - supplemented by organic dispersal of for-hire activity to the surrounding street grid.

Table 10: Combined Egress Peak (11:00 PM–12:00 AM) Departure Trip Generation

Mode	Person Trips	Vehicle Trips
Subway (J/M/Z, L)	160	—
For-Hire Vehicle (TNC / Taxi)	277	139
Walk	124	—
Private Auto (park)	80	32
Bicycle / Citi Bike	51	—
Bus / Ferry	36	—
TOTAL	**728**	**171**

Late-night worst case- 2:00 to 3:00 AM. The late-night event closes at 2:00 AM, with approximately 483 patrons (480 late-event patrons and the last late-service diners) departing between roughly 1:30 and 2:30 AM under the egress mode split. This generates about 113 vehicles - 92 for-hire pick-ups and 21 private autos (Table 11) - an average cadence of roughly one for-hire pick-up every 30 to 40 seconds within the surge, requiring about two active loading positions. Although smaller in absolute volume than the 11:00 PM peak, this window occurs when ambient traffic is minimal and neighborhood noise sensitivity is highest, and it therefore drives the noise-, idling-, and staffing-related elements of the management plan.

Table 11: Late-Night Worst-Case Egress (2:00–3:00 AM) Trip Generation

Mode	Person Trips	Vehicle Trips
Subway (J/M/Z, L)	106	—
For-Hire Vehicle (TNC / Taxi)	184	92
Walk	82	—
Private Auto (park)	53	21
Bicycle / Citi Bike	34	—
Bus / Ferry	24	—
TOTAL	**483**	**113**

or reference, if the entire 1,045-patron concurrent design occupancy were to depart within one concentrated window - patron vehicle departures would total on the order of 245. The temporal model shows that, in practice, seat turnover and staggered component schedules distribute demand such that no single hour exceeds approximately 171 departing vehicles, of which 32 would be departing from area parking resources, rather than from the site, even on the design day with roughly 2,300 patrons served.

5.6 Staff Trips

The approximately 100 staff on a design-day large-show night are excluded from the patron trip-generation model above and summarized separately here so that patron for-hire vehicle activity is not overstated. Staff travel is weighted heavily toward public transit and walking, reflecting local hiring, service-industry commuting patterns, and the cost of parking and for-hire travel: subway 45%, walk 30%, bicycle 10%, bus/ferry 8%, for-hire vehicle 4%, and private auto 3%. Temporally, staff arrive through the early afternoon and early evening (approximately 12:00 PM to 7:00 PM), ahead of the patron peaks, and depart after close-down, with slightly more than half departing in the 2:00–3:00 AM hour after the venue is clear.

Table 12 summarizes staff trip generation. Staff generate approximately 200 person-trips per day; at the shares above this amounts to about 2 for-hire vehicles and 1 private auto in each direction over the entire day - a de minimis curbside demand accommodated within the South 3rd Street loading-bay operation without affecting patron curbside capacity.

Table 12: Staff Mode Split and Trip Generation (Design Day)

Mode	Share	Person Trips — Arrivals	Person Trips — Departures	Vehicles — Arrivals	Vehicles — Departures
Subway (J/M/Z, L)	45%	45	45	—	—
Walk	30%	30	30	—	—
Bicycle / Citi Bike	10%	10	10	—	—
Bus / Ferry	8%	8	8	—	—
For-Hire Vehicle (TNC / Taxi)	4%	4	4	2	2
Private Auto (park)	3%	3	3	1	1
TOTAL	**100%**	**100**	**100**	**3**	**3**

6. Parking Assessment

Applying the 11% private-auto share to the hourly model, parked-vehicle accumulation builds through the evening and peaks in the 9:00–10:00 PM hour at approximately 41 patron vehicles, plus one to two staff vehicles - a peak parking accumulation on the order of 45 vehicles. Restaurant and patio turnover does not compound this figure, because each turnover's departing drivers retrieve their vehicles as the next seating's drivers arrive. Late-event patrons arriving after 11:00 PM add roughly 35 further vehicles, but these likewise arrive as first-performance and restaurant patrons retrieve their cars. This demand is small relative to the approximately 960 off-street spaces within the study area, and in particular relative to the 725-space, 24-hour Park Kwik facility immediately adjacent on Kent Avenue.

Even allowing for substantial baseline occupancy of the nearby garages by other users, the off-street supply comfortably absorbs the venue's incremental parking demand. Because the 11 Broadway Garage closes at

…night, patrons attending the late-night event and planning to remain until close should be directed to the 24-…hour facilities. No on-site parking is proposed, and the operation does not rely on on-street parking. Patrons who choose to drive should be directed in advance to the adjacent 24-hour facility so that vehicles do not circulate on local streets searching for parking.

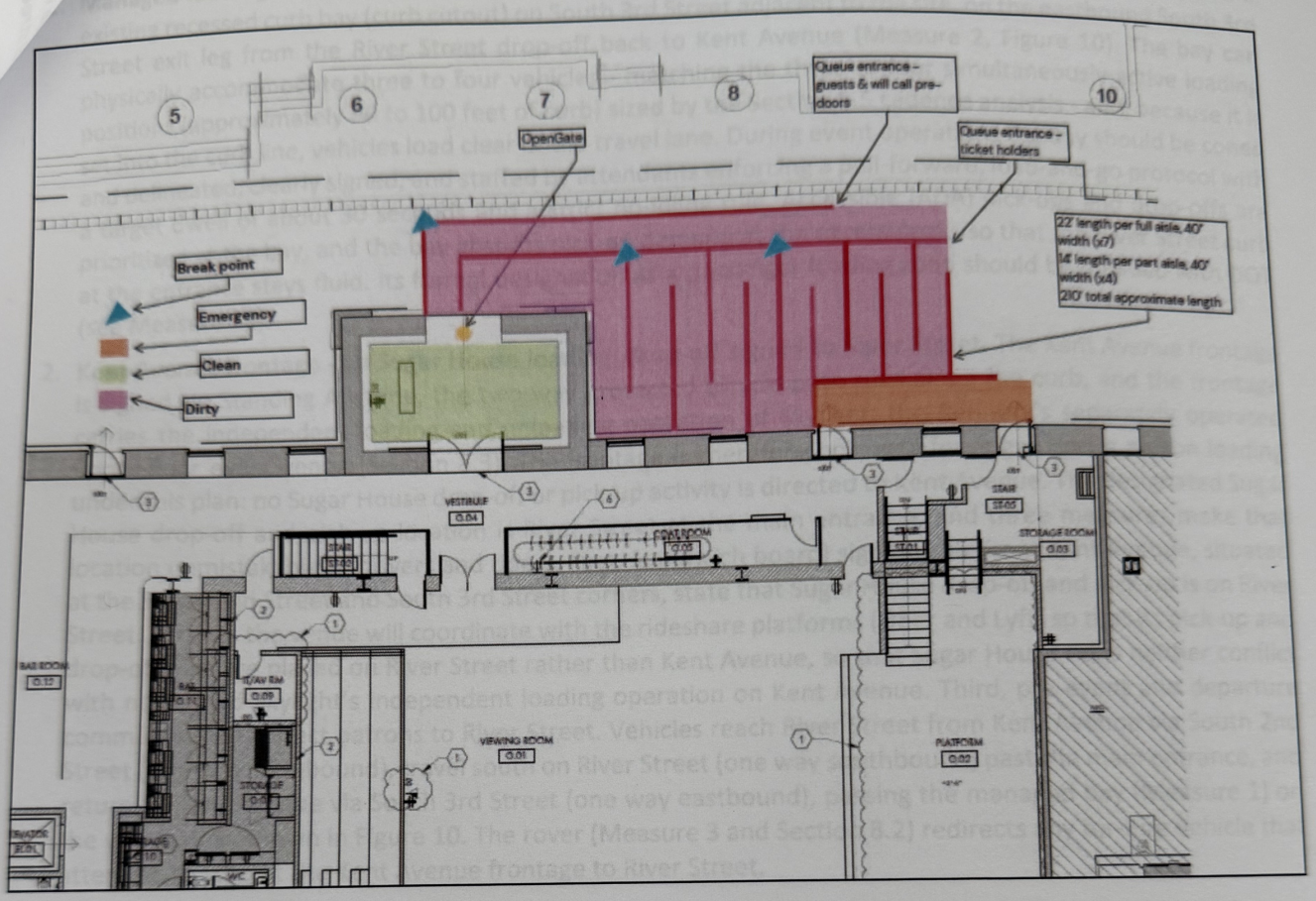
7. Venue Throughput, Queuing, and the Clean Zone

Entry to the Viewing Room is managed through a security screening area, or "clean zone," organized within the Refinery's private courtyard along the River Street frontage. The queuing design applies queuing-theory principles - arrival rate, service (screening) rate, number of screening positions, and waiting-area capacity - to move patrons through screening efficiently while keeping the queue clear of public roads and sidewalks, emergency egress routes and the adjacent Domino Park .

The primary queuing layout (Format 1) uses the courtyard space directly in front of the venue along River Street - approximately 210 linear feet of usable queuing area once a minimum one-meter aisle is maintained - to hold up to 256 patrons in a static queue. The layout separates ticket-holders, will-call, and guest lines; incorporates break points and exit-clearance lanes for emergency management and controlled ingress to and egress from the queue; and accommodates a managed smoking area in a small format until after the ingress peak.

The temporal model allows the queue design to be tested against demand. During the peak arrival hour (7:00–8:00 PM), approximately 360 first-performance patrons arrive -an average arrival rate of six patrons per minute, with a practical surge rate of ten to twelve per minute in the busiest 15 minutes. A screening operation sustaining a service rate of ten to twelve patrons per minute (for example, three to four screening positions processing three patrons per minute each) matches the surge arrival rate, so the standing queue remains well below the 256-person capacity and clears continuously. Even if a full 256-person queue were to form ahead of doors, it would draw down in roughly 22 to 26 minutes at that service rate. Because the static queue is capped at 256 patrons against a Viewing Room capacity of 800, ingress should begin well before the performance and draw the line down steadily, so that the courtyard queue does not exceed its designed capacity and does not extend toward the South 2nd or South 3rd Street corners. Late-event ingress (roughly 311 persons between 11:00 PM and 12:00 AM, and 413 between 12:00 and 1:00 AM, including late-service diners) presents a comparable arrival rate and is manageable with the same screening configuration, with particular attention to keeping the late-night queue quiet and compact given the hour. The queuing configuration and management approach are illustrated in Figure 8.

Figure 8: Queuing Management



8. Curbside and Traffic Management Plan

The following measures are recommended to manage the venue's transportation demand - above all the two egress conditions quantified in Section 5.5 - and to protect the surrounding street network, Domino Park, and nearby residences. The plan is built around the curb regulations and geometry actually present at the site: the Kent Avenue frontage is signed No Standing Anytime and carries the two-way protected bicycle path at the curb, and it is therefore not available for passenger loading - no patron drop-off or pick-up activity is directed to it under this plan. The plan instead places Sugar House drop-off and pick-up on River Street at the main entrance - signed from Kent Avenue and set as the venue's in-app pin location, with the existing recessed curb bay on South 3rd Street serving as a managed load-and-go bay on the eastbound exit leg to Kent Avenue - keeps Sugar House vehicles clear of the independent loading and unloading operation of Skylight, the Refinery's separately operated upper-floor event venue, on Kent Avenue, and recognizes that the remaining for-hire activity will arrive and disperse organically across lawful curb space on the surrounding street grid, as observed at comparable venues. Figure 9 presents the plan schematically, and Figure 10 shows the vehicle circulation from Kent Avenue to the River Street drop-off. The measures are presented as a draft framework to be refined with the operator's security and operations team and in coordination with the local NYPD precinct and the New York City Department of Transportation (DOT).

1. **Managed loading bay - South 3rd Street curb bay.** Establish a managed, load-and-go passenger bay in the existing recessed curb bay (curb cutout) on South 3rd Street adjacent to the site, on the eastbound South 3rd Street exit leg from the River Street drop-off back to Kent Avenue (Measure 2, Figure 10). The bay can physically accommodate three to four vehicles - matching the three to four simultaneously active loading positions (approximately 80 to 100 feet of curb) sized by the Section 5.5 cadence analysis - and, because it is set into the curb line, vehicles load clear of the travel lane. During event operations the bay should be coned and delineated, clearly signed, and staffed by attendants enforcing a pull-forward, load-and-go protocol with a target dwell of about 30 seconds and a strict no-idling rule. Accessible (ADA) pick-ups and drop-offs are prioritized at the bay, and the bay absorbs pick-up demand at the egress peaks so that the River Street curb at the entrance stays fluid. Its formal designation as a passenger loading zone should be pursued with DOT (see Measure 13).

2. **Kent Avenue frontage - no Sugar House loading; drop-off signed to River Street.** The Kent Avenue frontage is signed No Standing Anytime, the two-way protected bicycle path runs along the curb, and the frontage carries the independent loading and unloading operation of Skylight, the Refinery's separately operated upper-floor event venue (Section 8.3). The frontage is therefore not used for Sugar House patron loading under this plan: no Sugar House drop-off or pick-up activity is directed to Kent Avenue. The designated Sugar House drop-off and pick-up location is River Street at the main entrance, and three measures make that location unmistakable to drivers and riders. First, (sandwich board) signs visible from Kent Avenue, situated at the South 2nd Street and South 3rd Street corners, state that Sugar House drop-off and pick-up is on River Street. Second, the venue will coordinate with the rideshare platforms (Uber and Lyft) so that its pick-up and drop-off pins are placed on River Street rather than Kent Avenue, so that Sugar House rides neither conflict with nor crowd Skylight's independent loading operation on Kent Avenue. Third, pre-event and departure communications direct patrons to River Street. Vehicles reach River Street from Kent Avenue via South 2nd Street (one way westbound), travel south on River Street (one way southbound) past the main entrance, and return to Kent Avenue via South 3rd Street (one way eastbound), passing the managed bay (Measure 1) on the way out, as shown in Figure 10. The rover (Measure 3 and Section 8.2) redirects any for-hire vehicle that attempts to stop at the Kent Avenue frontage to River Street.

3. **Protection of the Kent Avenue bicycle path.** A roving monitor (R1, Section 8.2) covers the Kent Avenue frontage during peak ingress and egress specifically to keep vehicles out of, and from blocking, the protected bicycle path; to prevent double-parking or standing across it; and to manage patron crossings so that cyclists retain a clear, predictable route past the venue. This is an affirmative safety commitment of the plan, reflecting the corridor's importance as a primary cycling route. During peak periods that coincide with a Skylight event, the rover (R1), the loading bay attendant (B1), and the traffic supervisor (TS) also manage the interface with Skylight's traffic at the Kent Avenue corners, keeping traffic moving, managing congestion, and directing Sugar House vehicles onto the River Street circulation (Section 8.2, Figure 11).

4. **Organic for-hire arrival and dispersal.** A portion of for-hire drop-off and pick-up activity will occur organically on lawful curb space on the surrounding street grid, one to two blocks from the venue, consistent with observed rideshare behavior at comparable New York City venues, where experienced patrons walk a short distance for faster ride matching. This dispersal is operationally beneficial: it relieves the River Street curb and the South 3rd Street bay at the peaks, and the short walk absorbs ride-matching time so that patron and vehicle converge at the curb together and dwell times fall. If roughly half of peak-hour pick-up activity occurs organically - consistent with the 40 to 50 percent observed at comparable venues - the managed positions on River Street and in the bay handle approximately 70 pick-ups in the combined egress peak hour, about one vehicle every 50 seconds across its three to four positions, well within its throughput. Departure communications and venue staff encourage patrons to request rides as they exit, in-app venue pick-up pins

are set to River Street as the default location, and the rover (Section 8.2) keeps dispersing patrons moving, discourages congregating near residential entrances, and maintains noise discipline on the surrounding blocks.

5. **Staggered, managed egress.** Flatten the 11:00–11:30 PM departure spike by managing the close of the first performance: wind down music gradually, stagger release by section, sequence coat-check and exit flow, and hold patrons in controlled waves. Spreading the first-show egress across the full 11:00 PM–12:00 AM hour reduces the peak for-hire cadence from approximately one vehicle every 14 seconds to one every 20 seconds, and directly reduces the loading positions that must be actively managed on River Street and at the South 3rd Street bay. Apply the same procedures at the 2:00 AM close, when noise sensitivity is highest.
6. **Separation of egress and late-event ingress.** On nights with a late-night event, physically separate the departing first-show crowd from the arriving late-event queue - departures directed to the River Street pick-up and the South 3rd Street bay or dispersing organically across the surrounding grid, arrivals held in the River Street Format 1 queue - with staff at the building corners to prevent counterflow congestion between 11:00 PM and 12:00 AM.
7. **Transit wayfinding and promotion.** Provide signage and, on busy nights, staff to direct departing patrons toward the Marcy Avenue (J/M/Z) and Bedford Avenue (L) stations, and promote transit in pre-event communications and on tickets to sustain the high non-auto mode share, particularly at arrival.
8. **Bicycle and Citi Bike support.** Promote the adjacent Citi Bike dock at Kent Avenue and South 2nd Street, monitor dock balancing on event nights, and coordinate with the bike-share operator for rebalancing or valet support during large shows so that docks are neither full nor empty at the peak.
9. **Off-street parking direction and private-frontage partnership.** Direct the limited number of drive-and-park patrons to the 24-hour Park Kwik facility at 325 Kent Avenue through pre-arrival communications, with the other study-area garages as overflow; advise late-event patrons that the 11 Broadway Garage closes at midnight. Do not rely on on-street parking. In addition, pursue an agreement with the Park Kwik operator to use its driveway and frontage as a supplementary managed for-hire pick-up bay on peak nights, placing additional loading activity on private property and off the public curb entirely.
10. **Loading, deliveries, tour-bus, and artist transport management.** Schedule freight, food, beverage, and production deliveries - and any artist tour-bus or equipment loading at the eastern back-of-house / loading area - outside the evening peak, in a defined off-peak window and at a designated curb location, with a no-idling policy and active management to avoid blocking travel or bicycle lanes. The back-of-house area also accommodates VIP and artist vehicle movements so that they do not draw on the public curb.
11. **Pedestrian safety at the waterfront.** Manage the River Street / Domino Park interface during ingress and egress with lighting, clear signage, and staff to maintain safe pedestrian movement, keep park paths clear, and separate queuing patrons from through pedestrians on the esplanade.
12. **Neighborhood coordination and accountability.** Designate a venue manager as the point of contact for transportation and curbside issues, maintain a community complaint line, and coordinate the security and traffic plan with the local NYPD precinct in advance of large events.
13. **DOT coordination - curb regulation verification and loading-zone petition.** Petition DOT - through Brooklyn Community Board 1 and DOT's Office of Curb Management - to formally designate the South 3rd Street curb bay as a passenger pick-up / drop-off (loading) zone during operating hours, and to consider a neighborhood loading zone on a suitable nearby block face. The plan functions from day one under existing regulations; a formal designation would consolidate and simplify it.

4. **Monitoring and adaptive management.** Collect actual mode-share, queue, and curbside data during the venue's first season of large shows - including observed for-hire cadence on River Street and at the South 3rd Street bay, the effectiveness of the Kent Avenue signage and app-pin placement on days with a Skylight event, and any unauthorized loading activity on the Kent Avenue frontage - and adjust the bay operation, staffing levels, geofence pins, and egress procedures accordingly. The modal split, temporal distribution, and trip-generation estimates in this report should be validated and updated against that observed data.

Figure 9: Curbside Management Plan (Schematic)

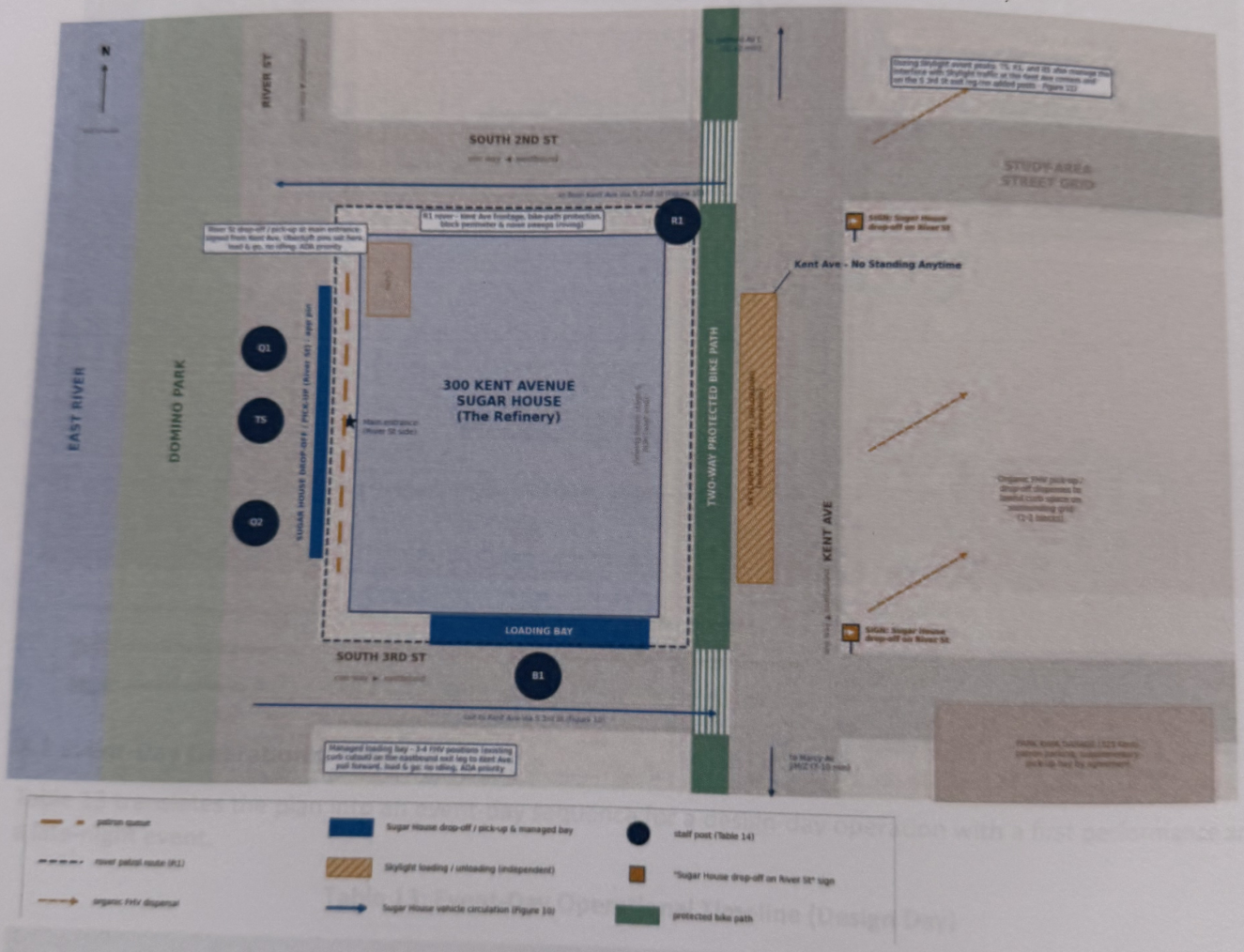
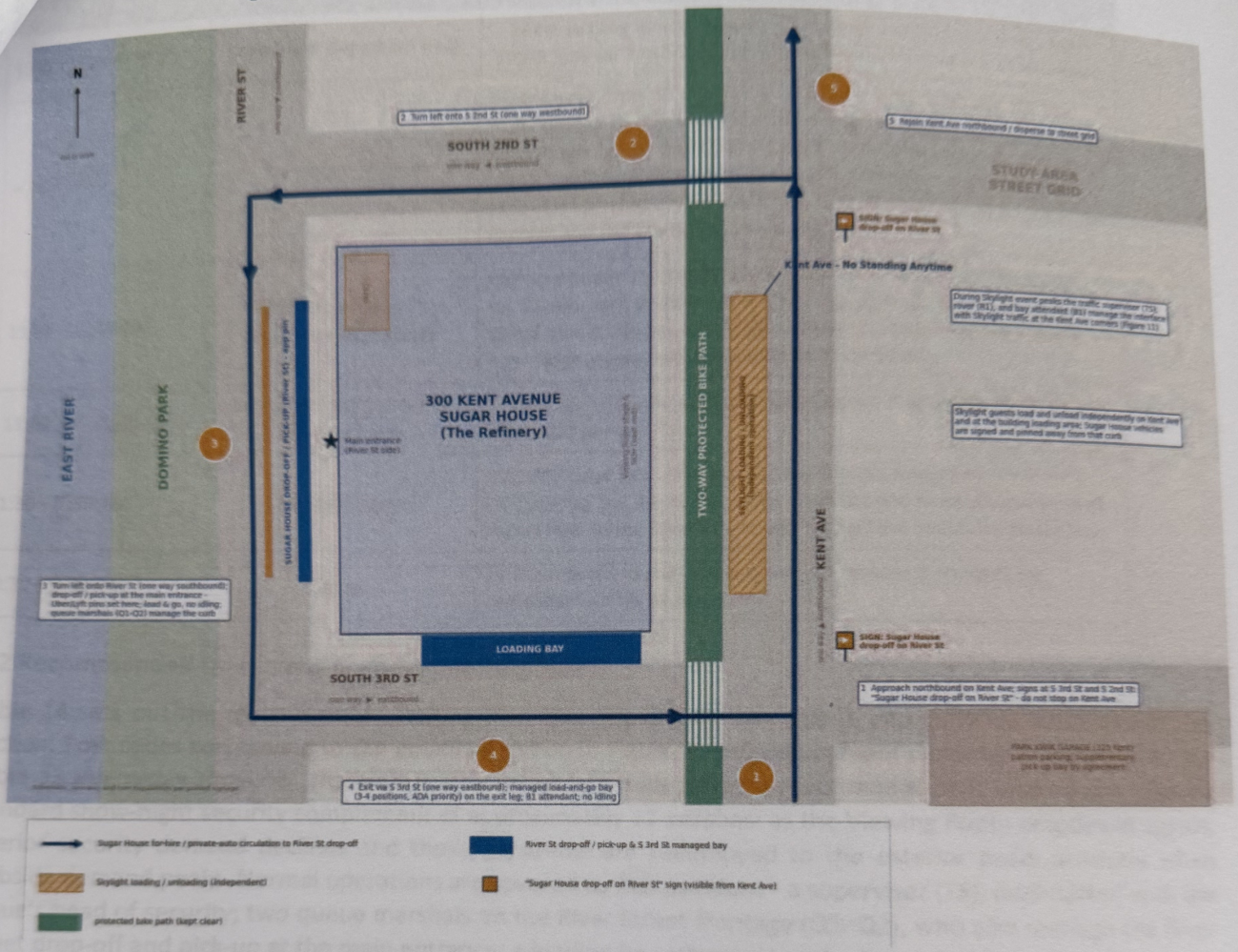


Figure 10: Vehicle Circulation to the River Street Drop-Off (Schematic)



8.1 Event-Day Operational Timeline

Table 13 translates the plan into an event-day sequence for a design-day operation with a first performance and a late-night event.

Table 13: Event-Day Operational Timeline (Design Day)

Time	Milestone	Curbside / Staffing Actions
T–120 min (≈ 5:00 PM)	Pre-event setup	Signage placed for River Street queue and drop-off and South 3rd Street loading bay; "Sugar House drop-off on River Street" signs placed facing Kent Avenue; Skylight event schedule checked; staff briefing; delivery window closes.
≈ 5:00 – 7:00 PM	Restaurant / patio first seating	Host-managed arrivals (peak 6–7 PM); FHV drop-offs directed to River Street (~1 drop-off per 1–2 min).
≈ 7:00 – 9:00 PM	First-performance ingress	Format 1 queue active (256-person cap); 3–4 screening positions; drop-off cadence ~1/min at peak; queue drawn down continuously.

Time	Milestone	Curbside / Staffing Actions
10:00 – 11:00 PM	Restaurant departure peak	Third-seating diners depart (~1 FHV pick-up per 1.5–2 min); River Street pick-up and South 3rd Street bay active ahead of show egress.
≈ 10:45 PM	Pre-egress staging	River Street drop-off and South 3rd Street bay coned and staffed; rover posted to the Kent Avenue frontage and block perimeter; app pick-up pin live on River Street; staggered-release plan confirmed; on nights coinciding with a Skylight event, supervisor, rover, and bay attendant briefed on the Skylight traffic interface at the Kent Avenue corners and the South 3rd Street exit leg.
11:00 – 11:30 PM	First-show egress + restaurant departures	Peak condition: managed release in waves; target cadence ≤1 FHV per 20 sec; zero double-parking / idling; pick-ups managed on River Street and at the bay with organic dispersal to surrounding blocks; late-event queue held separately on River Street.
11:00 PM – 1:00 AM	Late-event ingress + late dinner service	Screening continues; compact, quiet queue management; arrivals ~305–410 persons/hr.
1:30 – 2:30 AM	Late-night egress	2:00 AM close (incl. last late-service diners); staggered release; ~1 FHV pick-up per 30–40 sec; strict no-idling and noise discipline; staff escort flow to the River Street pick-up and the South 3rd Street bay.
2:30 – 3:00 AM	Wrap	Final patrons and staff depart; barriers removed; incident log completed within 24 hours.

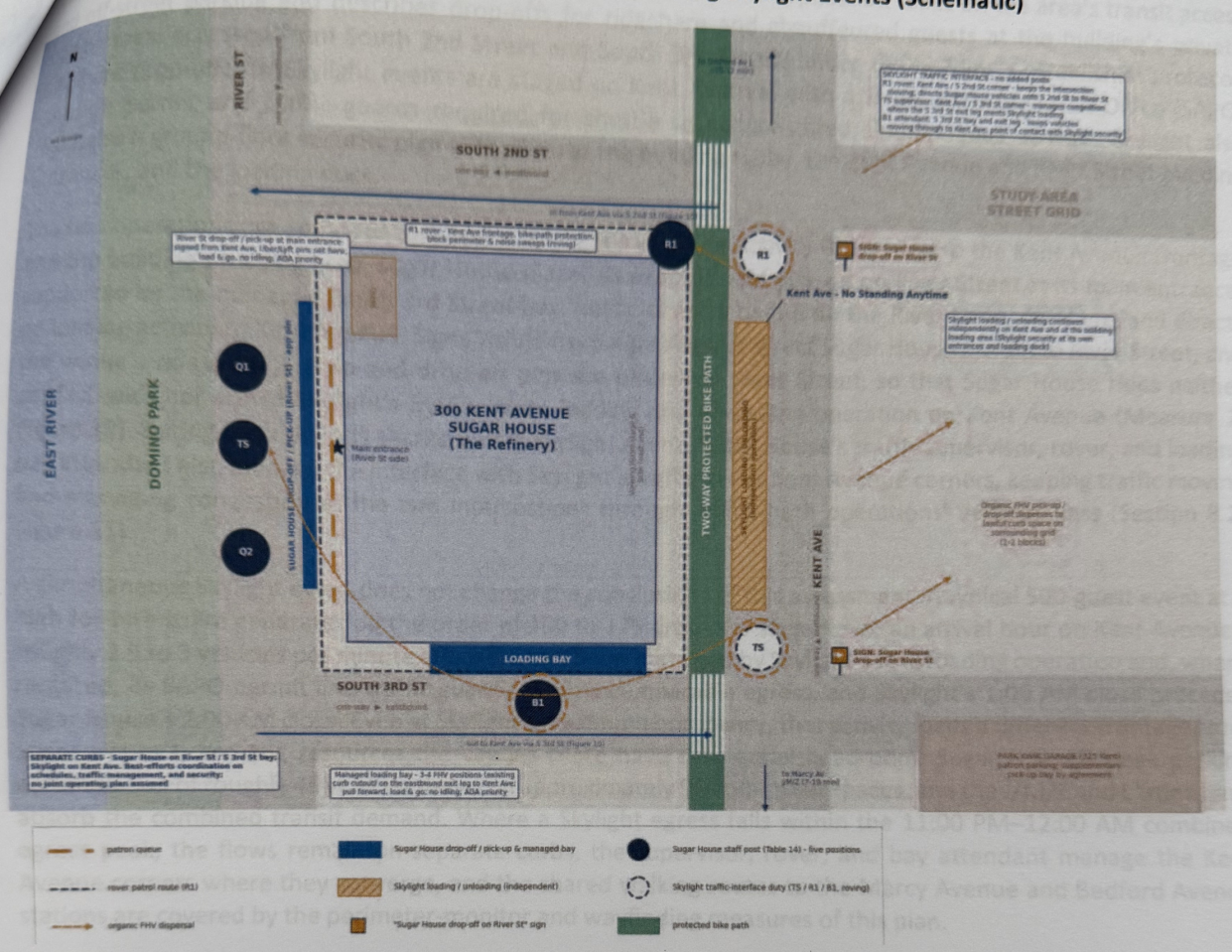
8.2 Recommended Queue and Curbside Staffing Plan

Table 14 sets out the recommended staffing plan that implements the queue and curbside measures of this section. Post codes correspond to the positions shown in Figure 9, and deployment windows correspond to the Table 13 event-day timeline. The plan is structured as a redeployed egress model built around the venue's standard show-night security complement of approximately 11 persons: as the Viewing Room empties at egress, interior security demand declines and those personnel are redeployed to the exterior posts precisely when curbside demand peaks. Normal operations are covered by five positions - a supervisor (TS), dual-hatted with the venue's head of security; two queue marshals on the River Street frontage (Q1–Q2), who also manage the River Street drop-off and pick-up at the main entrance; a loading bay attendant at the South 3rd Street bay (B1); and a single rover (R1), whose roving post consolidates protection of the Kent Avenue protected bicycle path, redirection to River Street of any for-hire vehicle attempting to stop on the Kent Avenue frontage, and perimeter and noise monitoring across the block. During peak periods that coincide with a Skylight event, no additional posts are added; instead, the traffic supervisor (TS), the rover (R1), and the loading bay attendant (B1) also manage the interface with Skylight's traffic. The rover covers the Kent Avenue / South 2nd Street corner, keeping that intersection moving and directing Sugar House vehicles onto South 2nd Street toward River Street; the supervisor covers the Kent Avenue / South 3rd Street corner, where the South 3rd Street exit leg meets Skylight's loading activity; and the bay attendant keeps vehicles moving through the bay and the exit leg to Kent Avenue, while Skylight's loading operation continues independently on Kent Avenue (Figure 10). This deployment is shown in Figure 11. These duties are Sugar House's own; they do not assume any joint deployment with Skylight, although the venue will make best efforts to coordinate with Skylight's security on shared peak nights (Section 8.3). On nights without a Viewing Room performance, exterior posts may be reduced or released. The commitment of this plan is to outcomes - the managed curbside cadence, a clear bicycle path, and no idling or double-parking - with staffing treated as an adaptive input, adjusted under the monitoring program (Measure 14) based on observed queue lengths, curbside cadence, and community feedback.

Table 14: Recommended Queue and Curbside Staffing Plan (Design Day)

Post	Location	Responsibilities	Staff — Deployment (design day)
TS — Traffic operations supervisor	Main entrance / roving	Overall command of queue and curbside operations; NYPD and community complaint-line point of contact during events; directs redeployment between posts as demand shifts.	1 (dual-hatted with the venue head of security) — 5:00 PM–3:00 AM
Q1–Q2 — Queue marshals	River Street frontage	Format 1 queue management and capacity counts; managed smoking area; noise discipline along the park frontage. (Entry-screening security - 3 to 4 positions per Section 7 - is separate and additional.)	2 (redeployed from the entry-screening team) — 6:30 PM–1:00 AM
B1 — Loading bay attendant	South 3rd Street bay	Enforce pull-forward, load-and-go protocol (target 30-second dwell); prevent idling and double-parking; assist ADA boardings; match patrons to arriving vehicles.	1 (dedicated) — 5:00 PM–3:00 AM
R1 — Rover	Kent Avenue frontage / block perimeter (roving)	Keep the protected bicycle path clear of vehicles; redirect any for-hire vehicle attempting to stop on the Kent Avenue frontage to River Street; manage patron crossings of the path; keep dispersing patrons moving; litter and noise sweeps; direct patrons to transit, River Street, the bay, and Park Kwik.	1 — 6:00 PM–3:00 AM (roving)
TS / R1 / B1 — Skylight traffic interface (peak periods coinciding with Skylight events)	Kent Avenue corners at South 2nd Street (R1) and South 3rd Street (TS); South 3rd Street bay and exit leg (B1)	Added duties, no added staff: keep the Kent Avenue intersections moving and manage congestion; direct Sugar House for-hire vehicles onto South 2nd Street to River Street and away from Skylight's Kent Avenue loading; keep the South 3rd Street exit leg flowing to Kent Avenue; keep the bicycle path clear; point of contact with Skylight's ground-floor security on shared peak nights.	0 additional — covered by TS, R1, and B1 within their deployment windows; Skylight event schedule checked at the pre-event briefing
Normal operations / peak deployment with Skylight events		Normal operations: five positions (TS, Q1–Q2, B1, R1) under the redeployed egress model. Peak periods coinciding with a Skylight event: the same five positions, with TS, R1, and B1 also managing the Skylight traffic interface (Figure 11). Entry-screening (3–4 positions per Section 7) and interior security per the venue security plan.	

Figure 11: Peak Curbside Deployment During Skylight Events (Schematic)



8.3 Coordination with Skylight (Refinery Upper-Floor Event Venue)

Whole-Building Coordination: This assessment expressly accounts for Skylight, the separately operated food-and-beverage event venue on the Refinery's 14th floor and roof. Sugar House will make best efforts to coordinate with Skylight on event schedules, traffic management, and security. Independent of that coordination, Sugar House commits that its own operations planning will consider Skylight's events on every operating day and will effectively manage the flow of Sugar House drop-offs and pick-ups - on River Street, signed from Kent Avenue and pinned in the rideshare apps - so that they do not conflict with or crowd Skylight's independent loading and unloading operation on Kent Avenue.

Skylight occupies the full 14th floor and the roof level including its amenity space, each with a permitted occupancy of 640 persons (1,280 combined), and is operated separately from Sugar House. Its liquor license permits operation Monday through Sunday from 8:00 AM to 1:00 AM; events typically take place between 9:00 AM and 1:00 AM, with the majority of service in the evening (approximately 5:00 PM to 1:00 AM), and typical attendance of 400 to 600 guests - the full 1,280-person occupancy has not been used. Brooklyn Community Board

approved the Skylight liquor license, with conditions, in 2025. Its application relies on the area's transit access and off-street parking and describes drop-offs for rideshare and chauffeured guests at the building's private loading area, accessed from South 2nd Street and South 3rd Street; under the building's established protocol, rideshare drop-offs for Skylight events are staged on Kent Avenue, with a Street Activity Permit Office (SAPO) curbside permit and traffic guards required for shuttle or concentrated simultaneous arrivals. Skylight also maintains a ground-floor security plan with posts at the building lobby, the Kent Avenue and River Street building entrances, and the loading dock.

The two operations use separate curb space. Skylight's curbside activity is oriented to the Kent Avenue frontage and the building's loading area. Sugar House places its drop-off and pick-up on River Street at its main entrance, supported by the managed South 3rd Street bay, holds its entry queue on the River Street frontage, and directs no loading activity to Kent Avenue. Signs visible from Kent Avenue direct Sugar House drivers to River Street, and the venue's rideshare pick-up and drop-off pins are placed on River Street, so that Sugar House rides neither conflict with nor crowd Skylight's independent loading and unloading operation on Kent Avenue (Measure 2, Figure 10). During peak periods shared with a Skylight event, Sugar House's traffic supervisor, rover, and loading bay attendant also manage the interface with Skylight's traffic at the Kent Avenue corners, keeping traffic moving and managing congestion at the two intersections through which both operations' vehicles pass (Section 8.2, Figure 11).

A simultaneous Skylight event does not change the conclusions of this assessment. A typical 500-guest event at a high for-hire share generates on the order of 150 to 175 drop-offs staged over an arrival hour on Kent Avenue - roughly 2.5 to 3 vehicles per minute at peak, a condition managed by Skylight's own loading operation and, where required, its SAPO permit and traffic guards - with a comparable egress, and Skylight's 1:00 AM close precedes Sugar House's 2:00 AM close. Even at Skylight's maximum occupancy, that activity loads a different frontage from Sugar House's, and the resources the venues share have substantial headroom: Sugar House's peak parking accumulation of roughly 45 vehicles draws on approximately 960 off-street spaces, and the J/M/Z and L trunk lines absorb the combined transit demand. Where a Skylight egress falls within the 11:00 PM–12:00 AM combined egress peak, the flows remain on separate curbs, the supervisor, rover, and bay attendant manage the Kent Avenue corners where they converge, and the shared walking routes to the Marcy Avenue and Bedford Avenue stations are covered by the perimeter-monitor and wayfinding measures of this plan.

Sugar House does not assume any joint operating plan with Skylight; the commitments of this plan are Sugar House's own. They are four: (1) best efforts to coordinate with Skylight on event schedules, traffic management, and security, including a shared event calendar with building management and Skylight and advance notice of days on which the two operations' peaks coincide; (2) operations planning that accounts for Skylight's event schedule on every operating day, so that the River Street drop-off, the app-pin placement, the Kent Avenue signage, and the Skylight traffic-interface duties of the supervisor, rover, and bay attendant are in place whenever a Skylight event overlaps a Sugar House peak; (3) notification of the local NYPD precinct ahead of large nights, with Skylight invited to participate; and (4) routing of curbside complaints received on the community complaint line to the responsible operation. Skylight's actual event windows and attendance will be incorporated under the monitoring program (Measure 14) as they become available.

9. Conclusion

Sugar House is proposed in an exceptionally transit-rich and walkable waterfront location, served by two subway trunk lines, bus, ferry, adjacent Citi Bike docking, and approximately 960 off-street parking spaces, including a 24-hour, 725-space garage directly adjacent on Kent Avenue. The hour-by-hour temporal model developed in Section

s shows that even on a conservative design day layering a daytime business event, full restaurant and patio service, a sold-out first performance, and a late-night event running to 2:00 AM - with the restaurant serving up to three seat turnovers and the patio two - the venue generates approximately 4,310 external patron person-trips (after linked-trip credits), plus about 200 staff trips analyzed separately, while concurrent patron occupancy peaks at about 963 persons, within the 1,045-patron design basis.

The governing conditions are the combined egress peak of 11:00 PM to 12:00 AM - approximately 728 departing patrons and 171 departing vehicles, an unmitigated for-hire cadence of one vehicle every 14 seconds that managed egress reduces to one every 20 seconds - and the late-night 2:00 AM close, with approximately 483 departures and 113 vehicles at a cadence of one pick-up every 30 to 40 seconds. The restaurant's 10:00–11:00 PM departure peak precedes the show egress, sequencing the two dinner-crowd waves ahead of the surge. Both are within the throughput of a managed, staffed loading operation of three to four positions on River Street and in the South 3rd Street curb bay, supplemented by organic for-hire dispersal across the surrounding grid. Private-auto parking accumulation of roughly 45 vehicles is comfortably absorbed by the surrounding off-street supply, and the 256-person Format 1 queue with a screening rate matched to the ten-to-twelve-patron-per-minute surge arrival rate keeps entry queuing on the venue's own frontage.

With the Curbside and Traffic Management Plan set out in Section 8 - anchored by a signed and app-pinned drop-off and pick-up on River Street at the main entrance, supported by a sized and staffed loading bay on South 3rd Street, organic for-hire dispersal, affirmative protection of the Kent Avenue bicycle path, staggered egress procedures at both closes, separation of egress from late-event ingress, queue management along the River Street frontage, transit and bicycle promotion, off-peak loading, and best-efforts coordination with Skylight, the Refinery's separately operated upper-floor event venue, backed by Sugar House's own operations planning around Skylight's events (Section 8.3) - the proposed operation can manage its transportation demand without undue impact on the surrounding street network, Domino Park, or nearby residences. The estimates herein are conservative engineering assumptions and should be refined against observed data once the venue is operating.

GZA GeoEnvironmental of New York

Kevin Williams, AICP, PP
Vice President, Associate Principal
GZA | 104 West 29th Street, Floor 10 | New York, NY 10001
o: 973-774-3529 | c: 973-309-5855 | kevin.williams@gza.com | www.gza.com | GZA LinkedIn

Limitations

1. **Scope of analysis.** This report is a Traffic and Parking Assessment prepared in support of the venue's New York State Liquor Authority license application and community review. It is not a City Environmental Quality Review (CEQR) traffic impact study, a NYC Department of Transportation curbside management study, or a Transportation Impact Assessment under the CEQR Technical Manual, and should not be substituted for studies prepared under those frameworks.

2. **Basis of projections.** Trip generation, mode split, temporal distribution, vehicle occupancy, and queuing forecasts rely on operational information provided by the client and operator (occupancy caps, operating windows, peak arrival and departure windows, event frequency) and on GZA's professional judgment informed by comparable venues. They represent reasonable worst-case estimates for review purposes and are not operational minimums, guarantees, or ceilings.

3. **Worst-case assumption.** The design day layers a daytime business event, restaurant service at up to three seat turnovers, patio service at two turnovers, a sold-out first performance, and a late-night event to 2:00 AM onto a single day. This combination is expected to occur infrequently; typical operation will generate materially lower volumes.

4. **Open operational items.** The staff complement (~100), vehicle occupancy factors (2.0 persons per for-hire vehicle; 2.5 per private auto), restaurant and patio turnover factors (up to 3 turns diminishing toward close, and 2 turns, respectively), and security screening throughput are engineering assumptions pending confirmation by the operator, along with door timing, show structure, and the breakdown of small versus large shows. Skylight parameters - occupancies, licensed hours, typical event windows and attendance, and drop-off practices - were provided by building management and Skylight and are relied upon as reported; Skylight did not prepare a traffic study, and no joint operating plan between the two venues is assumed.

5. **Third-party data.** Off-street parking capacities and hours were compiled from the project parking inventory and current operator information, assumed accurate as published; independent verification of real-time availability was not conducted.

6. **Management plan dependency.** The curbside cadence, queuing, and occupancy conclusions assume the Curbside and Traffic Management Plan (Section 8) is adopted and implemented. Material deviations - including from the staggered-egress protocols, the Kent Avenue loading-zone configuration, or the separation of egress and late-event ingress - may produce different outcomes than forecast.

7. **Not a substitute for agency approvals.** This report does not constitute approval or permitting by NYC DOT, TLC, DCP, FDNY, or any other agency; any operational change requiring agency permitting remains the responsibility of the operator.

8. **Reliance.** This report has been prepared for the exclusive use of River Street LLC and its counsel in connection with the SLA application. The services have been performed in accordance with generally accepted planning and transportation engineering principles for analyses of this type; no warranty, express or implied, is made.

TRAFFIC & PARKING ASSESSMENT — TEMPORAL DISTRIBUTION MODEL ASSUMPTION

Sugar House — 300 Kent Avenue, Brooklyn NY 11249 (The Refinery – Sugar House)

Design Day Scenario: Daytime business event -full restaurant/patio - sold-out first performance- late-night event to 2:00 AM (worst case)

VENUE PROGRAM & ANALYSIS COMPONENTS

Component	Seats / Event Capacity	Turnover Factor	Total Persons Served	Schedule / Peak Windows	Notes / Source	Linked-Trip / External Pers	
Daytime Business Event	100	1.0	100	12:00 PM – ~5:00 PM	Corporate events / conferences, 1–2×/week, 50–100 guests (100 = upper bound	0%	100
Restaurant (Dining Room + PDR)	165	2.7	446	5:00 PM – 1:00 AM service (late-night servic possible to 2:00 AM); peak arrival 6–7 PM; peak departure 10–11 PM	115-seat dining room + 50-person PDR; up to 3 see turnovers with diminishing patronage toward close	25%	335
Outdoor Patio	80	2.0	160	5:00 PM – 12:00 AM; two seat turnovers	(turns ≈ 100% / 100% / 70%) River Street frontage; seasonal	25%	120
Viewing Room – First Performance	800	1.0	800	Doors ~7 PM; show ends ~11 PM; peak arrivals 7–8 PM; peak departures 11–11:30 PI	Sold-out first performance (design condition)	0%	800
Viewing Room – Late-Night Event	800	1.0	800	Ingress ~11 PM–1 AM; runs to 2 AM close; peak departures 1:30–2:30 AM	Worst-case late-night second event; set capacity to 0 for single-show nigh	0%	800
Staff	100	1.0	100	Shift arrivals through afternoon; departures after close	Assumed complement for a large-show night (to be confirmed by operator	n/a	(separate analysis)
Total person-trip basis (design day)			**2406**		*Each person served generates one arrival and one de*	**Patron exter**	**2155**

Linked-trip credits: 25% of restaurant and outdoor patio patrons are linked with the performance venue (shared visit — no separate external trip). 10% of first-performance patrons remain on site for the restaurant/bar after the show; their departures are shifted to the post-show hours in the VR First Performance Dep % profile below. Staff (100) are excluded from patron trip generation and analyzed separately on the Staff Trips sheet.

MODE SPLIT & VEHICLE OCCUPANCY

Mode	Arrival / Design Share	Late-Night Egress Share (10 PM onward departures)	Avg Vehicle Occupancy (persons/ve h)	Rationale
Subway (J/M/Z, L)	32.0%	22.0%	n/a	Marcy Av (J/M/Z) 7–10 min walk; Bedford A\ (L) 10–12 min walk; frequency declines late-nigh
For-Hire Vehicle (TNC / Taxi)	28.0%	38.0%	2	Dominant late-night egress mode; patrons commonly share rides in group
Walk	17.0%	17.0%	n/a	Dense Williamsburg residential catchment; waterfront esplanad
Private Auto (park)	11.0%	11.0%	2.5	No on-site parking; ~960 off-street spaces incl. 725-space 24-hr Park Kwik adjacer
Bicycle / Citi Bike	7.0%	7.0%	n/a	Adjacent Citi Bike dock; Kent Ave protected lane; Williamsburg Bridge patl
Bus / Ferry	5.0%	5.0%	n/a	Local bus on Kent/Wythe corridor; NYC Ferry East River route (seasonal, limited late-nigl
Total	**100.0%**	**100.0%**		

Egress split shifts 10 percentage points from subway to for-hire vehicles for departures from 10:00 PM onward, reflecting reduced late-night subway frequency.

Peak-30-minute concentration factor (share of hourly FHV curb activity within busiest 30 minutes): 70%

TEMPORAL DISTRIBUTION — % OF COMPONENT TOTAL BY HOUR (inputs)

Hour	Daytime Event Arr %	Daytime Event Dep %	Restaurant Arr %	Restaurant Dep %	Outdoor Patio Arr %	Outdoor Patio Dep %	VR First Performance Arr %	VR First Performance Dep %	VR Late-Night Event Arr %	VR Late-Night Event Dep %	Staff Arr % (separate analysis'	Staff Dep % (separate analysis'	Late-Night Egress Split Applies (1=Yes)
12:00 PM – 1:00 PM	70%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	0%	0
1:00 PM – 2:00 PM	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0
2:00 PM – 3:00 PM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0
3:00 PM – 4:00 PM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0
4:00 PM – 5:00 PM	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	35%	0%	0
5:00 PM – 6:00 PM	0%	40%	12%	0%	15%	0%	0%	0%	0%	0%	20%	0%	0
6:00 PM – 7:00 PM	0%	0%	24%	0%	25%	0%	0%	10%	0%	0%	10%	0%	0
7:00 PM – 8:00 PM	0%	0%	16%	15%	18%	12%	45%	0%	0%	0%	0%	0%	0
8:00 PM – 9:00 PM	0%	0%	15%	16%	18%	18%	35%	0%	0%	0%	0%	0%	0
9:00 PM – 10:00 PM	0%	0%	13%	15%	14%	20%	10%	0%	0%	0%	0%	0%	0
10:00 PM – 11:00 PM	0%	0%	10%	22%	10%	22%	0%	10%	0%	0%	0%	0%	0
11:00 PM – 12:00 AM	0%	0%	7%	16%	0%	28%	0%	80%	35%	0%	0%	0%	1
12:00 AM – 1:00 AM	0%	0%	3%	10%	0%	0%	0%	6%	50%	5%	0%	15%	1
1:00 AM – 2:00 AM	0%	0%	0%	5%	0%	0%	0%	4%	15%	35%	0%	20%	1
2:00 AM – 3:00 AM	0%	0%	0%	1%	0%	0%	0%	0%	0%	60%	0%	10%	1
Total (must equal 100%)	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	1

LEGEND: Blue cells are inputs / assumptions to be confirmed with the operator (TVG Hospitality). Black cells are formulas. Temporal profiles reflect operator-indicated peak windows: restaurant arrival 6–7 PM / departure 10–11 PM with service tail to 2 AM; first performance arrivals 7–8 PM / departures 11–11:30 PM; late-night event to 2 AM close with peak departures 1:30–2:30 AM.

Photographic source + OCR

DESIGN-DAY PERSON FLOWS BY HOUR AND VENUE COMPONEN

Patron persons = component EXTERNAL trip basis (capacity × turnover × (1− linked-trip credit)) × hourly share. Staff shown for reference only — excluded from patron totals (see Staff Tra

Hour	Daytime Event In	Restaurant In	Outdoor Patio In	VR First Performance In	VR Late-Night Event In	Staff In (ref only)	TOTAL PATRON ARRIVALS	Daytime Event Out	Restaurant Out	Outdoor Patio Out	VR First Performance Out	VR Late-Night Event Out	Staff Out (ref only)	[illegible]	[illegible]	[illegible]
12:00 PM – 1:00 PM	70	0	0	0	0	15	**70**	0	0	0	0	0	0	**0**	0	0
1:00 PM – 2:00 PM	30	0	0	0	0	0	**30**	0	0	0	0	0	0	**0**	-60	0
2:00 PM – 3:00 PM	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	18	0
3:00 PM – 4:00 PM	0	0	0	0	0	20	**0**	0	0	0	0	0	0	**0**	190	0
4:00 PM – 5:00 PM	0	0	0	0	0	35	**0**	60	0	0	0	0	0	**60**	372	248
5:00 PM – 6:00 PM	0	40	18	0	0	20	**58**	40	0	0	0	0	0	**40**	276	620
6:00 PM – 7:00 PM	0	80	30	80	0	10	**190**	0	0	0	0	0	0	**0**	67	896
7:00 PM – 8:00 PM	0	54	22	360	0	0	**436**	0	50	14	0	0	0	**64**	-134	963
8:00 PM – 9:00 PM	0	50	22	280	0	0	**352**	0	54	22	0	0	0	**76**	-425	829
9:00 PM – 10:00 PM	0	44	17	80	0	0	**141**	0	50	24	0	0	0	**74**	288	404
10:00 PM – 11:00 PM	0	34	12	0	0	0	**46**	0	74	26	80	0	0	**180**	-209	692
11:00 PM – 12:00 AM	0	23	0	0	280	0	**303**	0	54	34	640	0	15	**728**	-483	483
12:00 AM – 1:00 AM	0	10	0	0	400	0	**410**	0	34	0	48	40	20	**122**		
1:00 AM – 2:00 AM	0	0	0	0	120	0	**120**	0	17	0	32	280	10	**329**		
2:00 AM – 3:00 AM	0	0	0	0	0	0	**0**	0	3	0	0	480	55	**483**		
TOTAL	**100**	**335**	**121**	**800**	**800**	**100**	**2156**	**100**	**336**	**120**	**800**	**800**	**100**	**2156**		

PATRON PERSON TRIPS BY HOUR AND MODE (staff analyzed separately — see Staff Trips sheet

Arrivals use the design mode split; departures from 10:00 PM onward use the late-night egress split

ARRIVALS (Person Trips Entering Venue

Hour	Subway (J/M/Z, L)	For-Hire Vehicle (TNC / Taxi)	Walk	Private Auto (park)	Bicycle / Citi Bike	Bus / Ferry	TOTAL
12:00 PM – 1:00 PM	22	20	12	8	5	4	**71**
1:00 PM – 2:00 PM	10	8	5	3	2	2	**30**
2:00 PM – 3:00 PM	0	0	0	0	0	0	**0**
3:00 PM – 4:00 PM	0	0	0	0	0	0	**0**
4:00 PM – 5:00 PM	0	0	0	0	0	0	**0**
5:00 PM – 6:00 PM	19	16	10	6	4	3	**58**
6:00 PM – 7:00 PM	61	53	32	21	13	10	**190**
7:00 PM – 8:00 PM	140	122	74	48	31	22	**437**
8:00 PM – 9:00 PM	113	99	60	39	25	18	**354**
9:00 PM – 10:00 PM	45	39	24	16	10	7	**141**
10:00 PM – 11:00 PM	15	13	8	5	3	2	**46**
11:00 PM – 12:00 AM	97	85	52	33	21	15	**303**
12:00 AM – 1:00 AM	131	115	70	45	29	21	**411**
1:00 AM – 2:00 AM	38	34	20	13	8	6	**119**
2:00 AM – 3:00 AM	0	0	0	0	0	0	**0**
TOTAL	**691**	**604**	**367**	**237**	**151**	**110**	**2160**

DEPARTURES (Person Trips Exiting Venue)

Hour	Subway (J/M/Z, L)	For-Hire Vehicle (TNC / Taxi)	Walk	Private Auto (park)	Bicycle / Citi Bike	Bus / Ferry	TOTAL
12:00 PM – 1:00 PM	0	0	0	0	0	0	**0**
1:00 PM – 2:00 PM	0	0	0	0	0	0	**0**
2:00 PM – 3:00 PM	0	0	0	0	0	0	**0**
3:00 PM – 4:00 PM	0	0	0	0	0	0	**0**
4:00 PM – 5:00 PM	19	17	10	7	4	3	**60**
5:00 PM – 6:00 PM	13	11	7	4	3	2	**40**
6:00 PM – 7:00 PM	0	0	0	0	0	0	**0**
7:00 PM – 8:00 PM	20	18	11	7	4	3	**63**
8:00 PM – 9:00 PM	24	21	13	8	5	4	**75**
9:00 PM – 10:00 PM	24	21	13	8	5	4	**75**
10:00 PM – 11:00 PM	40	68	31	20	13	9	**181**
11:00 PM – 12:00 AM	160	277	124	80	51	36	**728**
12:00 AM – 1:00 AM	27	46	21	13	9	6	**122**
1:00 AM – 2:00 AM	72	125	56	36	23	16	**328**
2:00 AM – 3:00 AM	106	184	82	53	34	24	**483**
TOTAL	**505**	**788**	**368**	**236**	**151**	**107**	**2155**

...E TRIP GENERATION BY HOUR AND MODE (staff analyzed separately)

... + 2.0 persons/veh; Private auto = person trips ÷ 2.5 persons/veh. Each FHV trip generates 2 curb movements (arrive + depart).

...EHICLE TRIPS

Hour	FHV Person Trips	FHV Vehicles	Private Auto Person Trips	Private Auto Vehicles	TOTAL VEHICLE TRIPS	Net FHV Curb Movements*
...PM – 1:00 PM	20	10	8	3	13	20
... PM – 2:00 PM	8	4	3	1	5	8
...00 PM – 3:00 PM	0	0	0	0	0	0
3:00 PM – 4:00 PM	0	0	0	0	0	0
4:00 PM – 5:00 PM	0	0	0	0	0	0
5:00 PM – 6:00 PM	16	8	6	2	10	16
6:00 PM – 7:00 PM	53	27	21	8	35	54
7:00 PM – 8:00 PM	122	61	48	19	80	122
8:00 PM – 9:00 PM	99	50	39	16	66	100
9:00 PM – 10:00 PM	39	20	16	6	26	40
10:00 PM – 11:00 PM	13	7	5	2	9	14
11:00 PM – 12:00 AM	85	43	33	13	56	86
12:00 AM – 1:00 AM	115	58	45	18	76	116
1:00 AM – 2:00 AM	34	17	13	5	22	34
2:00 AM – 3:00 AM	0	0	0	0	0	0
TOTAL	**604**	**305**	**237**	**93**	**398**	**610**

DEPARTURE VEHICLE TRIPS

Hour	FHV Person Trips	FHV Vehicles	Private Auto Person Trips	Private Auto Vehicles	TOTAL VEHICLE TRIPS	Net FHV Curb Movements*
12:00 PM – 1:00 PM	0	0	0	0	0	0
1:00 PM – 2:00 PM	0	0	0	0	0	0
2:00 PM – 3:00 PM	0	0	0	0	0	0
3:00 PM – 4:00 PM	0	0	0	0	0	0
4:00 PM – 5:00 PM	17	9	7	3	12	18
5:00 PM – 6:00 PM	11	6	4	2	8	12
6:00 PM – 7:00 PM	0	0	0	0	0	0
7:00 PM – 8:00 PM	18	9	7	3	12	18
8:00 PM – 9:00 PM	21	11	8	3	14	22
9:00 PM – 10:00 PM	21	11	8	3	14	22
10:00 PM – 11:00 PM	68	34	20	8	42	68
11:00 PM – 12:00 AM	277	139	80	32	171	278
12:00 AM – 1:00 AM	46	23	13	5	28	46
1:00 AM – 2:00 AM	125	63	36	14	77	126
2:00 AM – 3:00 AM	184	92	53	21	113	184
TOTAL	**788**	**397**	**236**	**94**	**491**	**794**

** Net FHV curb movements = loaded vehicle + repositioning movement (2 per passenger trip)*

STAFF TRIP GENERATION — SEPARATE ANALYSIS

Staff trips are excluded from the patron model. Mode split weighted heavily to transit and walk, reflecting local hiring, employee travel patterns, and parking cost; staff arrive before service pe…

Staff complement (design day): 100 *per Assumptions (to be confirmed by operator)*

STAFF MODE SPLIT

Mode	Share	Person Trips — Arrivals	Person Trips — Departures	Vehicle Trips — Arrivals	Vehicle Trips — Departures
Subway (J/M/Z, L)	45%	45	45	—	—
Walk	30%	30	30	—	—
Bicycle / Citi Bike	10%	10	10	—	—
Bus / Ferry	8%	8	8	—	—
For-Hire Vehicle (TNC / Taxi)	4%	4	4	2	2
Private Auto (park)	3%	3	3	1	1
TOTAL	**100%**	**100**	**100**	**3**	**3**

STAFF TEMPORAL DISTRIBUTION (per Assumptions staff Arr/Dep % profile)

Hour	Staff Arriving	Staff Departing
12:00 PM – 1:00 PM	15	0
1:00 PM – 2:00 PM	0	0
2:00 PM – 3:00 PM	0	0
3:00 PM – 4:00 PM	20	0
4:00 PM – 5:00 PM	35	0
5:00 PM – 6:00 PM	20	0
6:00 PM – 7:00 PM	10	0
7:00 PM – 8:00 PM	0	0
8:00 PM – 9:00 PM	0	0
9:00 PM – 10:00 PM	0	0
10:00 PM – 11:00 PM	0	0
11:00 PM – 12:00 AM	0	15
12:00 AM – 1:00 AM	0	20
1:00 AM – 2:00 AM	0	10
2:00 AM – 3:00 AM	0	55
TOTAL	**100**	**100**

Staff for-hire vehicle activity is de minimis (≈2 vehicles per day each way at the 4% share) and is accommodated within the loading-bay operation without affecting patron curbside capacity.

LEGEND: Blue = inputs / assumptions. Black = formulas.

COMBINED HOURLY PATRON & VEHICLE ACTIVITY SUMMARY — DESIGN DAY (patron trips; staff analyzed separately)

Sugar House — 300 Kent Avenue, Brooklyn (worst-case operating day: daytime event, full restaurant & patio, first performance, late-night event to 2 AM)

Hour	Patrons Arriving	Patrons Departing	Net Change	Cumulative Patrons In Venue	Vehicles Arriving	Vehicles Departing	Total Vehicle Trips	FHV Curb Events (drop-off + pick-up)	Peak FHV Veh/Min (30-min surge)
12:00 PM – 1:00 PM	70	0	70	70	13	0	13	10	0.2
1:00 PM – 2:00 PM	30	0	30	100	5	0	5	4	0.1
2:00 PM – 3:00 PM	0	0	0	100	0	0	0	0	0
3:00 PM – 4:00 PM	0	0	0	100	0	0	0	0	0
4:00 PM – 5:00 PM	0	60	-60	40	0	12	12	9	0.2
5:00 PM – 6:00 PM	58	40	18	58	10	8	18	14	0.3
6:00 PM – 7:00 PM	190	0	190	248	35	0	35	27	0.6
7:00 PM – 8:00 PM	436	64	372	620	80	12	92	70	1.6
8:00 PM – 9:00 PM	352	76	276	896	66	14	80	61	1.4
9:00 PM – 10:00 PM	141	74	67	963	26	14	40	31	0.7
10:00 PM – 11:00 PM	46	180	-134	829	9	42	51	41	1
11:00 PM – 12:00 AM	303	728	-425	404	56	171	227	182	4.2
12:00 AM – 1:00 AM	410	122	288	692	76	28	104	81	1.9
1:00 AM – 2:00 AM	120	329	-209	483	22	77	99	80	1.9
2:00 AM – 3:00 AM	0	483	-483	0	0	113	113	92	2.1
TOTAL	**2156**	**2156**			**398**	**491**	**889**	**702**	

NOTES:

Green row = peak arrival hour (7:00–8:00 PM — first-performance ingress overlapping restaurant/patio turnover arrivals)

Red row = combined egress peak (11:00 PM–12:00 AM — first-performance egress + restaurant departures + late-event arrivals)

Orange row = late-night worst-case egress (2:00–3:00 AM — late-event close; egress mode split, reduced transit frequency)

Arrivals use design mode split (32% subway / 28% FHV / 17% walk / 11% auto / 7% bike / 5% bus-ferry)

Departures from 10:00 PM onward use egress split (22% subway / 38% FHV; other modes unchanged)

Peak FHV veh/min assumes the share of hourly FHV curb activity set on the Assumptions sheet occurs within a 30-minute surge

Restaurant modeled at 2.7 seat turnovers (up to 3, diminishing toward close); patio at 2.0 turnovers. Set the Late-Night Event capacity to 0 to model a single-performance night

Linked-trip credits applied: 25% of restaurant/patio patrons linked with performance venue; 10% of first-performance patrons remain for restaurant/bar post-show. Staff (100) excluded — see Staff Trips sheet.

Photographic source + OCR

PEAK HOUR PATRON TRIP GENERATION BY MODE (staff analyzed separately)

PEAK ARRIVAL HOUR: 7:00 PM – 8:00 PM (first-performance ingress)

Mode	Person Trips	Vehicle Trips
Subway (J/M/Z, L)	140	—
For-Hire Vehicle (TNC / Taxi)	122	61
Walk	74	—
Private Auto (park)	48	19
Bicycle / Citi Bike	31	—
Bus / Ferry	22	—
TOTAL	**437**	**80**

COMBINED EGRESS PEAK: 11:00 PM – 12:00 AM (first-show egress + restaurant departures)

Mode	Person Trips	Vehicle Trips
Subway (J/M/Z, L)	160	—
For-Hire Vehicle (TNC / Taxi)	277	139
Walk	124	—
Private Auto (park)	80	32
Bicycle / Citi Bike	51	—
Bus / Ferry	36	—
TOTAL	**728**	**171**

LATE-NIGHT WORST-CASE EGRESS: 2:00 AM – 3:00 AM (late-event close)

Mode	Person Trips	Vehicle Trips
Subway (J/M/Z, L)	106	—
For-Hire Vehicle (TNC / Taxi)	184	92
Walk	82	—
Private Auto (park)	53	21
Bicycle / Citi Bike	34	—
Bus / Ferry	24	—
TOTAL	**483**	**113**

FHV curbside cadence at combined egress peak = (FHV pick-ups + FHV drop-offs in hour) concentrated per Assumptions factor; see Hourly Summary column J.

OPERATOR-PROVIDED OPERATIONAL ANCHORS & OPEN ITEMS

#	Item	Basis / Status
1	Hours of operation	8:00 AM – 2:00 AM licensed; analysis day modeled from 12:00 PM (daytime business events) through ~2:… with egress to ~2:30–3:00 AM
2	Restaurant operations	Service 5:00 PM–1:00 AM (late-night service possible to 2:00 AM); up to 3 seat turnovers with diminishing patronage; peak arrivals 6:00–7:00 PM; peak departures 10:00–11:00 PM (operator-indicated)
3	First performance	Viewing Room show ~7:00–11:00 PM; peak arrivals 7:00–8:00 PM; peak departures 11:00–11:30 PM (operator-indicated)
4	Late-night event (worst case)	Second Viewing Room event 12:00–2:00 AM; ingress ~11 PM–1 AM; peak departures 1:30–2:30 AM (operator-indicated worst case)
5	Outdoor patio	5:00 PM–12:00 AM; two seat turnovers (operator-indicated)
5a	Daytime business events	1–2 per week, 50–100 guests, starting ~12:00 PM; modeled at 100 guests
6	Dark days	1–2 per week (no events)
7	Staff complement	~100 assumed for a large-show night — TO BE CONFIRMED by TVG Hospitality (Jack Clulow)
8	Vehicle occupancy	2.0 persons/FHV, 2.5 persons/private auto — engineering assumptions, to be validated
9	Security / Clean Zone process	Format 1 queuing: 210 LF River Street frontage, 256-person static queue capacity — door timing and screening throughput PENDING from operator
10	Show structure / small vs large shows	Breakdown PENDING from operator; model represents sold-out worst case