

**WELLS + ASSOCIATES****MEMORANDUM**

To: Rob Tharpe, Barry Place Partners, LLC

Cc: Leila Batties, Holland & Knight

From: Jami L. Milanovich, P.E.
Jason J. Shetler, E.I.T.
Amelia R. Martin, E.I.T.

Date: August 15, 2014

Re: Preliminary Traffic Assessment
Sherman Avenue Apartments

Washington, DC

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OVERVIEW

Barry Place Partners, LLC (referenced herein as the Applicant) proposes to redevelop the property located on the northeast corner of the Sherman Avenue/Barry Place intersection in northwest Washington, D.C. The subject site is located on Square 2882 in Ward 1, as shown in Figure 1. The site is zoned R-5-B and is currently occupied by the former Refrigeration Supply Company and six row houses. The Applicant proposes a Planned Unit Development (PUD), which would include a multi-story mixed-use redevelopment that would contain approximately 319 residential units and approximately 11,027 SF of ground floor retail space. In conjunction with the PUD, a map amendment will be sought, which will rezone the property from the R-5-B District to the C-2-B District.

The proposed redevelopment will provide approximately 147 off-street parking spaces. Access to the parking and loading facilities are proposed via a single curb cut on 9th Street. The site plan is shown on Figure 2.

Wells + Associates currently is working through the required scoping process with the District Department of Transportation (DDOT). The finalized, full traffic impact study will be provided under separate cover once complete. A preliminary assessment for the Barry Place redevelopment is provided herein.



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BACKGROUND INFORMATION

Study Area

The study area was selected based on those roadway segments that potentially could be affected by the proposed redevelopment. The following intersections were identified for detailed analysis and agreed to by DDOT:

1. Florida Avenue/Sherman Avenue,
2. Florida Avenue/10th Street/Barry Place,
3. Sherman Avenue/Barry Place,
4. 9th Street/Barry Place,
5. 8th Street/Barry Place,
6. Georgia Avenue/Barry Place,
7. Georgia Avenue/Euclid Street, and
8. Sherman Avenue/Euclid Street.

General details regarding the surrounding roadway segments, including functional classification, average daily traffic volume (ADT), and speed limit are summarized in Table 1.

Table 1
Roadway Segment Details

Roadway	Functional Classification	Average Daily Traffic* (vehicles per day)	Speed Limit (miles per hour)
Barry Place	Collector	5,000	25 [†]
Georgia Avenue	Principal Arterial	19,200	30
Sherman Avenue	Minor Arterial	17,800	25
Florida Avenue	Principal Arterial	19,100	25
9 th Street	Local	N/A	N/A [‡]
8 th Street	Local	N/A	N/A
10 th Street	Local	N/A	N/A
Euclid Street	Collector	1,700	25 ^{**}

* The ADT volume is based on DDOT historical traffic volume data collected in 2012, which is the most recent data available.
[†] A sign with a 15 mph speed limit "When Children are Present" is posted east of the Barry Place/Sherman Avenue intersection for eastbound traffic. No sign is posted for westbound traffic.
[‡] A sign with a 15 mph speed limit "When Children are Present" is posted north of the Barry Place/9th Street intersection for northbound traffic. No sign is posted for southbound traffic.
^{**} A sign with a 15 mph speed limit "When Children are Present" is posted west of the Euclid Street/Georgia Avenue intersection for westbound traffic.



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Vehicular turning movement, bicycle, and pedestrian counts were conducted at the study intersections on Thursday, April 10, 2014 from 7:00 AM to 10:00 AM and from 4:00 PM to 7:00 PM. AM and PM peak hours for each of the study intersections were determined individually to provide the most conservative peak hour analysis, per standard DDOT practice. Existing vehicular peak hour traffic volumes are shown on Figure 3.

Level of service/capacity analyses for each of the study intersections will be provided in detail in the full transportation impact study.

NON-AUTO MODES OF TRANSPORTATION

Over the years, the District has invested heavily in non-auto modes of transportation. These efforts have resulted in a world-class public transportation system and the first bikeshare program in North America.

The subject site is situated to capitalize on these transportation investments. As described below, the site is well served by Metrorail, Metrobus, Howard University Shuttle Services, and the DC Circulator and is proximate to car-sharing services and Capital Bikeshare.

Metrorail Service/Facilities

As shown on Figure 4, the subject site is located at the intersection of Barry Place and Sherman Avenue approximately ½ mile northeast of the U Street Metro Station. The station provides access to the Metro's Green and Yellow lines. Riders can transfer to the Red Line at Gallery Place – Chinatown Metro Station to the south and at Fort Totten Metro Station to the north or to the Blue and Orange lines at L'Enfant Plaza Metro Station. The minimum, maximum, and average headways for the Green and Yellow Lines are summarized in Table 2.



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Table 2
Metrorail Headways (in minutes)

HEADWAY	NORTHBOUND/WESTBOUND			SOUTHBOUND/EASTBOUND		
	AM Peak Period	Midday Period	PM Peak Period	AM Peak Period	Midday Period	PM Peak Period
	5:00 AM – 9:30 AM	9:30 AM – 3:00 PM	3:00 PM – 7:00 PM	5:00 AM – 9:30 AM	9:30 AM – 3:00 PM	3:00 PM – 7:00 PM
GREEN LINE (U STREET METRO STATION)						
Min	*	0:11	*	*	0:10	*
Max	*	0:12	*	*	0:14	*
Avg	*	0:12	*	*	0:12	*
YELLOW LINE (U STREET METRO STATION)						
Min	*	0:12	*	*	0:12	*
Max	*	0:12	*	*	0:12	*
Avg	*	0:12	*	*	0:12	*
* Due to the high frequency of service, timetables for the peak hours (weekdays from 5:00 AM to 9:30 AM and from 3:00 PM to 7:00 PM) are not published.						

Bus Service/Facilities

The Washington Metropolitan Area Transit Authority (WMATA) and DC Circulator currently provide extensive public bus service in the site vicinity. Eight Metrobus lines provide service with stops located within ¼ mile of the site. An additional three Metrobus lines operate on 14th Street, approximately ⅓ mile west of the site.

The Georgia Avenue – 7th Street Line (70) stops at Georgia Avenue/Barry Place and provides service to the Silver Spring Metro Station to the north and the Archives Metro Station to the south.

The Georgia Avenue Limited Line (79) stops at Georgia Avenue/Howard Place and provides service to the Silver Spring Metro Station to the north and the Archives Metro Station to the south.

The Takoma – Petworth Line (63) stops at Sherman Avenue/Barry Place and provides service to the Takoma Metro Station to the north and Federal Triangle Metro Station to the south.

The Fort Totten – Petworth Line (64) stops at 11th Street/Florida Avenue and provides service to the Fort Totten Metro Station to the north and Federal Triangle Metro Station to the south.



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The 14th Street Lines (52, 54) provide access to Columbia Heights and points north up to 14th Street/Colorado Avenue and the L'Enfant Plaza Metro Station. Northbound passengers can alight at 14th Street/Belmont Street. Southbound passengers can board at 14th Street/Chapin Street.

The 14th Street Line (53) provides access to the Takoma Metro Station and the McPherson Square Metro Station. Northbound passengers can also alight at 14th Street/Belmont Street, while southbound passengers can board at 14th Street/Chapin Street.

The U Street – Garfield Lines (90, 92) stop at U Street/9th Street. The U Street – Garfield Line (90) provides service to the Anacostia Metro Station to the south and the Duke Ellington Bridge to the north. The U Street – Garfield Line (92) provides service to the Congress Heights Metro Station to the south and the Duke Ellington Bridge to the north.

The Benning Road Line (X3) stops at U Street/9th Street and provides service to the Minnesota Avenue Metro Station to the east and the Tenleytown – AU Metro Station to the west.

The East Capitol Street – Cardozo Line (96) stops at U Street/9th Street and provides service to the Capitol Heights Metro Station to the east and the Tenleytown – AU Metro Station to the west.

The site is served by the Woodley Park – Adams Morgan – McPherson Square Circulator Line. The Circulator stops at 14th Street/U Street, one block west of the U Street Metro Station.

Howard University operates a shuttle service with ten routes for students, faculty, and staff. The routes operate around the campus as well as to the School of Law located in Cleveland Park, to the Brookland Metro Station and School of Divinity located in Brookland, and to UTC Towers, located in University Park, Maryland. The nearest stop to the site is located at the 9th Street/Barry Place intersection. This stop provides service for six routes.

Figure 4 displays the bus routes that service the area surrounding the site and Table 3 presents the minimum, maximum, and average headways for Metrobus and DC Circulator routes in the site vicinity.



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Table 3
Metrobus and DC Circulator Headways (in minutes)

HEADWAY	NORTHBOUND/WESTBOUND			SOUTHBOUND/EASTBOUND		
	AM Peak Period	Midday Period	PM Peak Period	AM Peak Period	Midday Period	PM Peak Period
	7:00 AM – 10:00 AM	10:00 AM – 4:00 PM	4:00 PM – 7:00 PM	7:00 AM – 10:00 AM	10:00 AM – 4:00 PM	4:00 PM – 7:00 PM
GEORGIA AVENUE – 7TH STREET LINE (70)						
Min	0:12	0:12	0:12	0:12	0:12	0:12
Max	0:12	0:12	0:12	0:12	0:12	0:12
Avg	0:12	0:12	0:12	0:12	0:12	0:12
GEORGIA AVENUE LIMITED LINE (79)						
Min	0:06	0:12	0:10	0:06	0:08	0:09
Max	0:12	0:12	0:10	0:12	0:13	0:12
Avg	0:08	0:12	0:10	0:10	0:12	0:09
TAKOMA – PETWORTH LINE (63)						
Min	0:08	N/A	0:10	0:10	N/A	0:10
Max	0:15	N/A	0:14	0:17	N/A	0:14
Avg	0:10	N/A	0:12	0:13	N/A	0:11
FORT TOTTEN – PETWORTH LINE (64)						
Min	0:12	0:17	0:14	0:11	0:14	0:14
Max	0:18	0:21	0:21	0:20	0:20	0:18
Avg	0:14	0:20	0:16	0:14	0:19	0:15
14TH STREET LINES (52, 53, 54)						
Min	0:03	0:07	0:05	0:04	0:07	0:02
Max	0:07	0:08	0:10	0:13	0:08	0:07
Avg	0:05	0:08	0:06	0:07	0:08	0:05
U STREET – GARFIELD LINES (90, 92)						
Min	0:07	0:07	0:03	0:07	0:07	0:07
Max	0:08	0:08	0:10	0:08	0:08	0:13
Avg	0:08	0:08	0:08	0:08	0:08	0:08
BENNING ROAD LINE (X3)						
Min	0:20	N/A	N/A	N/A	N/A	0:20
Max	0:30	N/A	N/A	N/A	N/A	0:36
Avg	0:24	N/A	N/A	N/A	N/A	0:32
EAST CAPITOL STREET – CARDOZO LINES (96)						
Min	0:20	0:22	0:15	0:15	0:21	0:21
Max	0:22	0:26	0:21	0:24	0:25	0:23
Avg	0:20	0:24	0:20	0:21	0:23	0:21



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Table 3 (continued)
Metrobus and DC Circulator Headways (in minutes)

HEADWAY	NORTHBOUND/WESTBOUND			SOUTHBOUND/EASTBOUND		
	AM Peak Period	Midday Period	PM Peak Period	AM Peak Period	Midday Period	PM Peak Period
	7:00 AM – 10:00 AM	10:00 AM – 4:00 PM	4:00 PM – 7:00 PM	7:00 AM – 10:00 AM	10:00 AM – 4:00 PM	4:00 PM – 7:00 PM
DC CIRCULATOR WOODLEY PARK – ADAMS MORGAN – MCPHERSON SQUARE						
Min	0:10	0:10	0:10	0:10	0:10	0:10
Max	0:10	0:10	0:10	0:10	0:10	0:10
Avg	0:10	0:10	0:10	0:10	0:10	0:10

Streetcar

DDOT, in partnership with WMATA, has developed a plan for a 37-mile streetcar network throughout the District. DDOT is in the midst of conducting a Planning Study for a potential North-South Corridor Streetcar route.

As part of the Planning Study, DDOT is evaluating several alignments for the North – South Corridor. Two of those alignments would put streetcars on Sherman Avenue between Florida Avenue and New Hampshire Avenue. As such, the proposed streetcar potentially could run directly past the proposed redevelopment.

DDOT anticipates completing the Planning Study by Fall 2015. Upon completion of the Planning Study, DDOT will identify alternative alignments for further study. An environmental review of the alternatives is slated to begin in the 4th Quarter of 2015. Anticipated groundbreaking for the North-South Corridor streetcar route currently is anticipated to occur in 2018, with operation estimated to begin between 2020 and 2022.

As part of the planning and environmental studies, several public meetings will be held. Plans will continue to be monitored for the streetcar route in order to assess what, if any, impacts the route will have on redevelopment of the site.



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Car-Sharing Services

Four car-sharing providers currently operate in the District. Zipcar requires a \$25 application fee and members can choose from three plans: \$60 per year (pay as you go based on the standard hourly or daily rate), \$6 per month (pay as you go based on the standard hourly or daily rate), or \$50 per month (pay as you go based on a discounted hourly or daily rate). Cars must be returned to the same designated parking spaces from which they were retrieved. Four Zipcars are located within ¼ mile of the site near Howard University. Two Zipcars and one Zipvan are located at Howard University/8th Street. One Zipcar is located at Howard Center off of Georgia Avenue.

Car2Go requires a one-time \$35 application fee. No reservation is required and car usage is charged by the minute, with hourly and daily maximum fees. Unlike Zipcar, a Car2Go vehicle does not have to be returned to its original location; a Car2Go vehicle can be parked in any unrestricted curbside parking space, in any metered/paystation curbside parking space (without paying meter/paystation fees), or in any residential permit parking space. Car2Go currently has 300 vehicles in the District.

Enterprise CarShare has a \$40 annual membership fee. Cars can be reserved by the hour or day (hourly and daily fees are charged per usage). In the District, cars must be returned to their original location. Two Enterprise Carshare vehicles are located at 14th Street/Chapin Street, approximately 0.4 miles west of the subject site.

Car-sharing locations near the site are shown on Figure 4.

Capital BikeShare

Capital BikeShare also is available near the proposed site. One BikeShare station is located within ¼ mile of the site at 10th Street/Florida Avenue and houses 19 docks. Three additional BikeShare stations are located just outside ¼ mile of the site. One is located at Georgia Avenue/Fairmont Street and houses 11 docks. The second is located at 10th Street/U Street and houses 15 docks. The final location is at 13th Street/U Street and houses 23 docks. The Capital Bikeshare stations are shown on Figure 4.

Bicycle Facilities

Several dedicated bicycle lanes exist in the vicinity of the subject site. 11th Street has dedicated bicycle lanes on the east and west sides of the roadway for northbound and southbound bicycle traffic. 14th Street has dedicated bicycle lanes on the east and west sides of the roadway for northbound and southbound bicycle traffic. West of Florida Avenue, W Street is one-way eastbound and has a dedicated bicycle lane on the south side of the roadway for eastbound bicycle traffic. East of Florida Avenue, W Street is one-way westbound and no bicycle lanes are present. West of Vermont Avenue, V Street is one-way



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westbound and has a dedicated bicycle lane on the north side of the roadway for westbound bicycle traffic. East of Florida Avenue, V Street is two-way. Bicycle lanes are present on the north and south sides of V Street between Florida Avenue and Georgia Avenue.

Pedestrian Facilities

At the southwest corner of the site, the Sherman Avenue/Barry Place intersection is signalized. This intersection is adjacent to the main pedestrian entrance for the site. The intersection has high visibility crosswalks, ADA ramps with detectable warning strips and pedestrian countdown heads on all four approaches.

At the southeast corner of the site, the Barry Place/9th Street T-intersection is all-way stop controlled. High visibility crosswalks are present along the western and northern legs of the intersection. The eastern leg has no crosswalk. On the northwest and northeast corners of the intersection, only one ADA ramp is present; therefore, the ramps do not meet current standards. There is no ADA ramp present on the southwest corner of the intersection.

Walk, Transit, and Bike Scores

The proposed redevelopment site is considered to be a “Walker’s Paradise,” has “Excellent Transit,” and is “Very Bikeable” according to the Walk Score website (www.walkscore.com). The walk score considers how close various amenities, such as coffee shops, grocery stores, schools, parks, and banks are to the site. The transit score considers how close rail and bus services are to the site. The bike score measures whether a location is good for biking based on availability of on- or off-street bicycle lanes/paths, topography, destinations and road connectivity, and the bicycle commuting mode share. The scales utilized by Walk Score are shown in Table 4.

The proposed site scores a 92 out of a possible 100 on the walk score scale, an 81 out of a possible 100 on the transit score scale, and an 81 out of a possible 100 on the bike score scale.



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Table 4
Walk, Transit, and Bike Score Scales

WALK SCORE	DESCRIPTION
90-100	Walker's Paradise — Daily errands do not require a car.
70-89	Very Walkable — Most errands can be accomplished on foot.
50-69	Somewhat Walkable — Some amenities within walking distance.
25-49	Car-Dependent — A few amenities within walking distance.
0-24	Car-Dependent — Almost all errands require a car.
TRANSIT SCORE	DESCRIPTION
90-100	Rider's Paradise — World-class public transportation.
70-89	Excellent Transit — Transit is convenient for most trips.
50-69	Good Transit — Many nearby public transportation options.
25-49	Some Transit — A few nearby public transportation options.
0-24	Minimal Transit — It is possible to get on a bus.
BIKE SCORE	DESCRIPTION
90-100	Biker's Paradise — Daily errands can be accomplished on bike.
70-89	Very Bikeable — Biking is convenient for most trips.
50-69	Bikeable — Some bike infrastructure.
0-49	Somewhat Bikeable — Minimal bike infrastructure.

TRANSPORTATION DEMAND MANAGEMENT

Traffic and parking congestion can be solved in one of two ways: 1) increase supply or 2) decrease demand. Increasing supply requires building new roads, widening existing roads, building more parking spaces, or operating additional transit service. These solutions are often infeasible in constrained conditions in urban environments and, where feasible, can be expensive, time consuming, and in many instances, unacceptable to businesses, government agencies, and/or the general public. The demand for travel and parking can be influenced by Transportation Demand Management (TDM) plans implemented by those in the private sector. Typical TDM measures include incentives to use transit or other non-auto modes of transportation, bicycle and pedestrian amenities, parking management, alternative work schedules, telecommuting, and better management of existing resources. TDM plans are most effective when tailored to a specific project or user group.

TDM measures have proven to be effective in reducing vehicle travel and parking demand. As indicated in Arlington County's Residential Building Performance Monitoring Study, vehicle ownership and vehicle travel has decreased in residential projects where TDM



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measures were employed and where transit is prevalent.¹ Additionally, Wells + Associates' own experience in the Washington, DC metropolitan area shows that TDM plans reduce the number of vehicle trips generated by developments with TDM plans.

While the location of the proposed redevelopment proximate to the U Street Metro Station, 11 Metrobus routes, a DC Circulator Route, and other transportation options will naturally encourage the use of non-auto modes of transportation, the Applicant also has developed a TDM plan with strategies to limit the need for vehicles at the proposed residential building. Specifically, the TDM plan would include:

- 1) A member of the property management team will be designated as the Transportation Management Coordinator (TMC). The TMC will be responsible for ensuring that information is disseminated to tenants of the building. The position may be part of other duties assigned to the individual.
- 2) Information on and/or links to transportation programs and services will be provided on the property management website. Such programs and services may include:
 - Capital Bikeshare,
 - Car-sharing services,
 - Uber,
 - Ridescout,
 - Commuter Connections Rideshare Program, which provides complimentary information on a variety of commuter programs to assist in determining which commuting options work best for commuters,
 - Commuter Connections Guaranteed Ride Home, which provides commuters who regularly (twice a week) carpool, vanpool, bike, walk or take transit to work with a free and reliable ride home in an emergency,
 - Commuter Connections Pools Program, which incentivizes commuters who currently drive alone to carpool. Participants can earn money for carpooling to work and must complete surveys and log information about their experience,
 - DDOT's DC Bicycle Map,
 - Nearby Bicycle vendors and service providers,
 - goDCgo.com, and
 - WMATA.

¹ Residential Building Performance Monitoring Study, Arlington County Commuter Services, September 2013.



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- 3) An electronic display will be provided in a common, shared space in the building and will provide public transit information such as nearby Metrorail stations and schedules, Metrobus stops and schedules, car-sharing locations, and nearby Capital BikeShare locations indicating the number of bicycles available at each location.
- 4) Convenient and covered secure bike parking facilities will be provided with storage for a minimum of 107 bicycles.
- 5) For the first five years the building is open, the Applicant will provide a one year Capital BikeShare membership or the registration fee for Car2Go, which would give each resident who chooses the Car2Go option a lifetime membership to Car2Go since it does not have an annual membership fee.
- 6) A minimum of 10 bicycle helmets will be made available for use by the residents.

SITE TRIP GENERATION

The total number of trips generated by the proposed redevelopment would be comprised of vehicular trips and non-auto trips. The vehicular trips for the proposed retail use would be further divided between trips new to the roadway network and pass-by trips, or trips made to/from the site made en route to another destination.

As shown in Table 5, the Institute of Transportation Engineers' (ITE) Trip Generation Manual (9th Edition) Land Use Code (LUC) 220 (Apartment) and LUC 820 (Retail) were used to estimate the total number of trips to/from the redeveloped site. The square footage of retail land use and number of dwelling units for residential use were selected as the independent variables.

Internal Trips

According to ITE, mixed-use developments have a naturally occurring synergy between the various land uses and, therefore, would have a certain number of trips that are shared between the on-site uses. Accordingly, it is anticipated that a certain percentage of the trips generated by the retail uses would be "captured" internally. As a result, the volume of external trips generated by the site would be reduced. Based on the ITE methodology for estimating internal trips, the proposed redevelopment would generate an estimated four AM peak hour internal trips and an estimated 30 PM peak hour internal trips, as shown on Table 5.

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Table 5
Trip Generation Summary

LAND USE	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
APARTMENTS – LUC 220 (319 DU)						
Total Trips ¹	32	128	160	125	68	193
Internal Trips ²	(1)	(1)	(2)	(9)	(6)	(15)
External Trips	31	127	158	116	62	178
Non-auto Trips ³	(20)	(80)	(100)	(73)	(39)	(112)
New Vehicle Trips	11	47	58	43	23	66
RETAIL – LUC 820 (11,027 SF)						
Total Trips ¹	25	16	41	66	71	137
Internal Trips ²	(1)	(1)	(2)	(6)	(9)	(15)
External Trips	24	15	39	60	62	122
Non-Auto Trips ³	(18)	(11)	(29)	(45)	(47)	(92)
New Vehicle Trips	6	4	10	15	15	30
DEVELOPMENT TOTALS						
Total Trips ¹	57	144	201	191	139	330
Internal Trips ²	(2)	(2)	(4)	(15)	(15)	(30)
External Trips	55	142	197	176	124	300
Non-Auto Trips ³	(38)	(91)	(129)	(118)	(86)	(204)
New Vehicle Trips	17	51	68	58	38	96
¹ Trips generated using Institute of Transportation Engineers (ITE) <u>Trip Generation</u> , Ninth Edition. ² Internal Trips based on methodology outlined in ITE Trip Generation Handbook. AM internal capture ³ Non-Auto Mode Splits/TDM for residential and retail uses are based on Census Data and 2005 WMATA survey data.						

Non-auto Trips

A portion of the external trips generated by the proposed redevelopment would be made via non-auto modes of transportation. The percentage of site-generated trips that would use public transportation is dependent on the proximity of the site to transit stops, the walkability of the surrounding area, the degree to which the use of public transit is encouraged, such as by implementation of a transportation demand management (TDM) program, and the availability of parking on-site. Journey-to-work census data for the surrounding neighborhood indicates that 63 percent of residents commute via non-auto modes of transportation and an additional five percent carpool. Based on these factors, the non-auto mode split for the site was estimated to be 63 percent for the residential use. The non-auto mode split for the retail use was estimated to be 75 percent. Therefore, as shown



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in Table 5, 129 AM peak hour trips and 204 PM peak hour trips are projected to be made by non-auto modes of transportation.

Pass-by Trips

Some of the trips generated by the retail portion of the proposed redevelopment would be made by vehicles already using the adjacent streets to reach a different destination but stop at the site in passing. This type of trip is called a pass-by trip, and is defined by the Trip Generation Manual as a trip in which the retail or service destination is the secondary part of a primary trip, such as a work-to-shopping-to-home trip. An example of a pass-by trip would be one in which a driver stops at the retail uses on his/her way home from work.

Based on data contained in ITE's Trip Generation Manual the average pass-by rate for retail shopping centers is 34 percent during the PM peak hour, which would result in 10 PM peak hour trips. Given the very low volume of pass-by trips, a conservative approach was taken. The analysis did not assume any pass-by trips or diverted link trips for the retail component.

New External Vehicle Trips

The number of new external vehicle trips generated by the proposed redevelopment was calculated by subtracting the internal capture trips, non-auto trips, and pass-by trips. As shown in Table 5, the proposed redevelopment would generate an estimated 68 AM peak hour vehicular trips and 96 additional PM peak hour vehicular trips.

PARKING ASSESSMENT

Vehicular Parking

According to the District of Columbia Municipal Regulations (DCMR), in the C-2-B district, one parking space is required for every three residential dwelling units. For retail use, one parking space is required for every 750 SF in excess of 3,000 SF. Therefore, the proposed redevelopment would be required to provide 117 off-street parking spaces. The redevelopment plans include 147 parking spaces located in the Level P1 and on Level 1. Vehicular access to the parking will be provided via the proposed curb cut on 9th Street.

Bicycle Parking

According to the DCMR, bicycle parking spaces shall be provided for office, retail, and service uses, except retail and service uses in the C-3-C, C-4, and C-5 (PAD) Districts. Therefore, the proposed redevelopment is required to provide bicycle parking for five percent of the



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required retail spaces. Since only six parking spaces are required for the proposed retail component, one bicycle parking space would be required for the retail component.

District law also requires that one bicycle parking space be provided for every three residential dwelling units. Therefore, 106 bicycle parking spaces would be required for the residential component.

The proposed redevelopment will, at a minimum, provide 107 bicycle parking spaces in Level P1 and/or Level 1.

LOADING ASSESSMENT

According to the DCMR, in the C-2-B district, a residential building with 50 or more dwelling units would require one 55-foot loading berth, one 200 SF loading platform, and one 20-foot service/delivery space. Retail uses with 5,000 to 20,000 SF of gross floor area require one 30-foot loading berth and one 100 SF loading platform. A summary of the required and proposed loading facilities is provided in Table 6.

Table 6
Loading Summary

Component	Required	Proposed
Residential	≥ 50 units 1 berth @ 55' 1 platform @ 200 SF 1 service/delivery @ 20'	1 berth @ 35' 1 platform @ 900 SF† 1 service/delivery @ 20'
Retail	1 berth @ 30' 1 platform @ 100 SF	1 berth @ 30' 1 platform @ 900 SF†
Total	1 berth @ 55' 1 platform @ 200 SF 1 berth @ 30' 1 platform @ 100 SF 1 service/delivery @ 20'	2 berths @ 35' 2 platforms @ 900 SF 1 service/delivery @ 20'
† One 900 SF platform will be shared by the two berths.		

As proposed, the redevelopment would include two 35-foot loading berths a single 900 SF loading platform. The loading facilities are located on Level 1 and can be accessed via the proposed curb cut on 9th Street. The curb cut will operate as shared access for both parking and loading operations. Based on the proposed design, trucks can enter and exit the site front-first.



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One of the 35-foot berths would be provided in lieu of the required 55-foot loading berth. Also as proposed, one 20-foot service/delivery space would be provided. Therefore, the applicant will be requesting relief from the 55-foot loading berth requirement. In addition, the loading berths will be 11.5 feet wide instead of 12 feet wide, as required in the DCMR. The relief from the 55-foot loading requirement is not anticipated to have a negative impact on the surrounding roadway network since large trucks for move-in/move-out activities and other deliveries are not common for these types of residential developments in urban environments. In order to ensure that the requested loading relief does not adversely impact the surrounding roadway network, a loading management plan will be implemented. The purpose of the loading management plan is to set forth guidelines and procedures for loading and delivery operations that will avoid adverse impacts on the residents of the proposed development and the surrounding community.

The following are the components of the plan:

- 1) A member of the on-site management team will be designated as a loading coordinator (duties may be part of other duties assigned to the individual). He or she will coordinate all loading activities of the residential building (including deliveries, trash disposal, and residential move-in and move-out activities). The loading coordinator will be responsible for informing tenants of the guidelines and procedures for loading and delivery operations. The loading coordinator will inform tenants of DDOT's regulations for moving trucks and will work with tenants when applying for DDOT permits for moving trucks.
- 2) A lease provision will require all tenants to use only the loading dock for deliveries and move-in/move-out activities, except in special circumstances as outlined in #5 below.
- 3) A lease provision will restrict all tenants from using trucks longer than 30 feet, except in special circumstances as outlined in #5 below.
- 4) All tenants will be required to notify the loading coordinator before moving in or out so that the loading coordinator can ensure no conflicting loading activities will occur and the proper permits, as required, can be obtained by the tenant from DDOT. The tenant shall provide the loading coordinator the following information: time and date that the truck is anticipated to arrive, size of truck being used, and name of the moving service (if applicable).
- 5) In the rare event that a truck longer than 35 feet is required, in accordance with DDOT policies, a permit is required and a temporary no parking zone can be established on an adjacent street to allow for curb-side loading or unloading adjacent to the building. In this case, the tenants shall notify the loading manager in advance. The loading manager will provide instructions to the tenant so proper permits can be obtained from DDOT and Emergency No Parking signs issued.



WELLS + ASSOCIATES

MEMORANDUM

- 6) Permits are required by DDOT for trucks over 40 feet long. The loading coordinator will assist tenants in obtaining appropriate permits; however, issuance of permits is at the discretion of DDOT.
- 7) No truck idling shall be permitted anywhere on the premises.

Relief from the width of the loading berth also is not anticipated to have a negative impact on the site or the surrounding roadway network. As shown in Figures 5A through 5H, trucks can maneuver in and out of the proposed loading berths, with the reduced width, without negative impacts.

CONCLUSIONS

In summary, the Barry Place, NW site would include demolishing the existing uses on the site to allow for construction of a 241,172 SF mixed-use project. The proposed redevelopment will include approximately 319 residential units and 11,027 SF of retail space. The proposed redevelopment is anticipated to generate 68 new AM peak hour vehicle trips and 96 new PM peak hour vehicle trips. A Transportation Demand Management Plan will be implemented for the subject redevelopment to encourage non-auto modes of transportation. A detailed traffic impact study will be conducted to evaluate the impact of the additional traffic generated by the proposed redevelopment pending the outcome of the scoping process with DDOT.

The proposed development will provide approximately 147 vehicle parking spaces and a minimum of 107 bicycle parking spaces in the P1 Level and on Level 1.

The Applicant proposes to provide two 35-foot loading berths (with a single 900 SF platform) in lieu of one 55-foot loading berth (with a 200 SF platform) and one 30-foot loading berth (with a 100 SF platform); therefore, the Applicant is seeking relief from the requirement to provide a 55-foot loading berth (with a 200 SF platform). A loading management plan will be implemented to ensure that the requested relief does not adversely impact the surrounding area. Additionally, the Applicant will be seeking relief from the width of the loading berths since the proposed berths will be 11.5 feet rather than the required 12 feet.

We trust that this preliminary assessment provides you with adequate information regarding the transportation strategy related to the proposed redevelopment. A full traffic impact study will be provided under separate cover once complete. Should you require any additional information, please do not hesitate to contact us at 703-917-6620, jlmlanovich@mjwells.com or jjshetler@mjwells.com.



Figures



Figure I
Site Location



Barry Place
Washington, DC



Figure 2
Site Plan

Source: Niles Bolton Associates
Date: 08.13.2014
N. T. S.



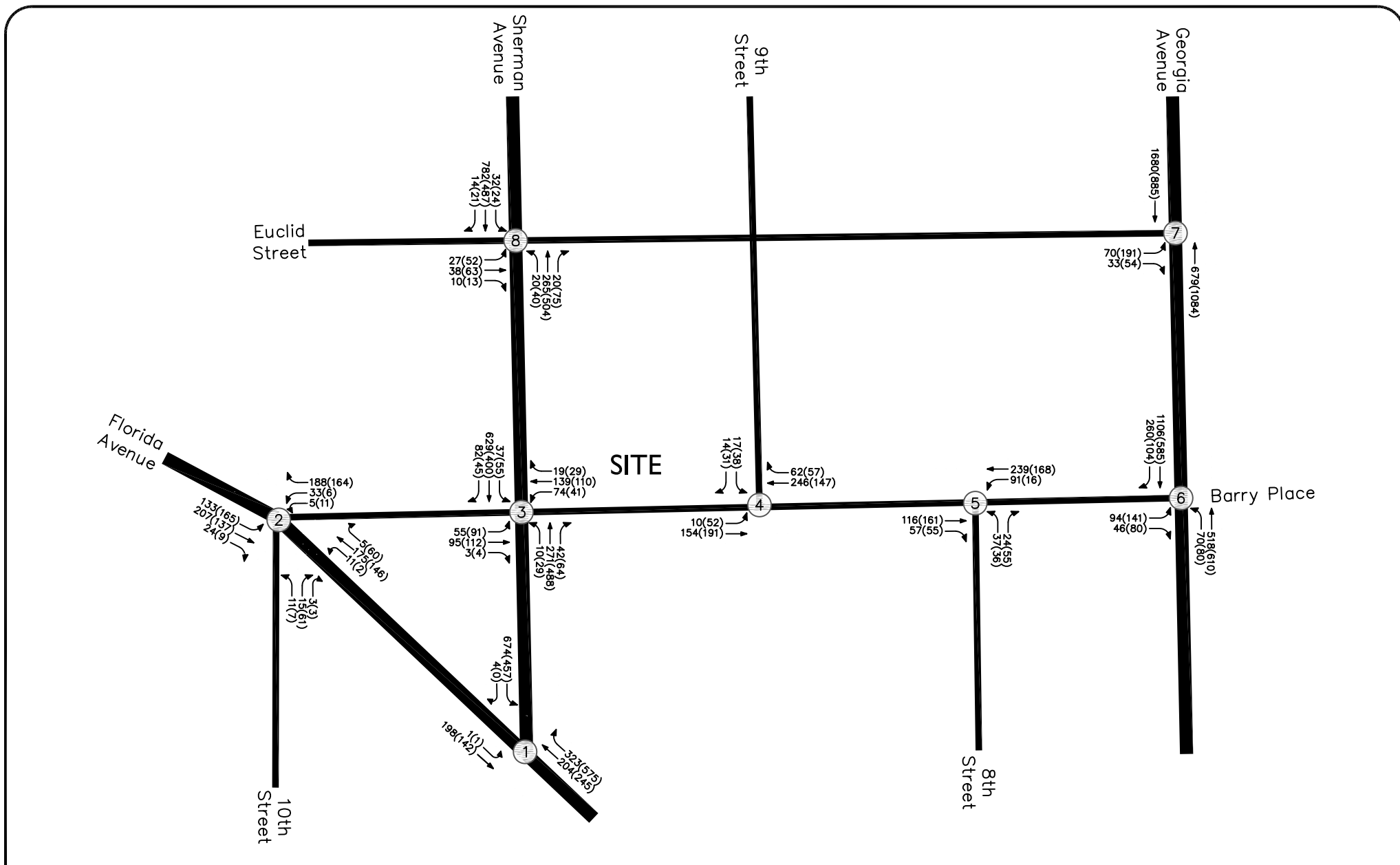
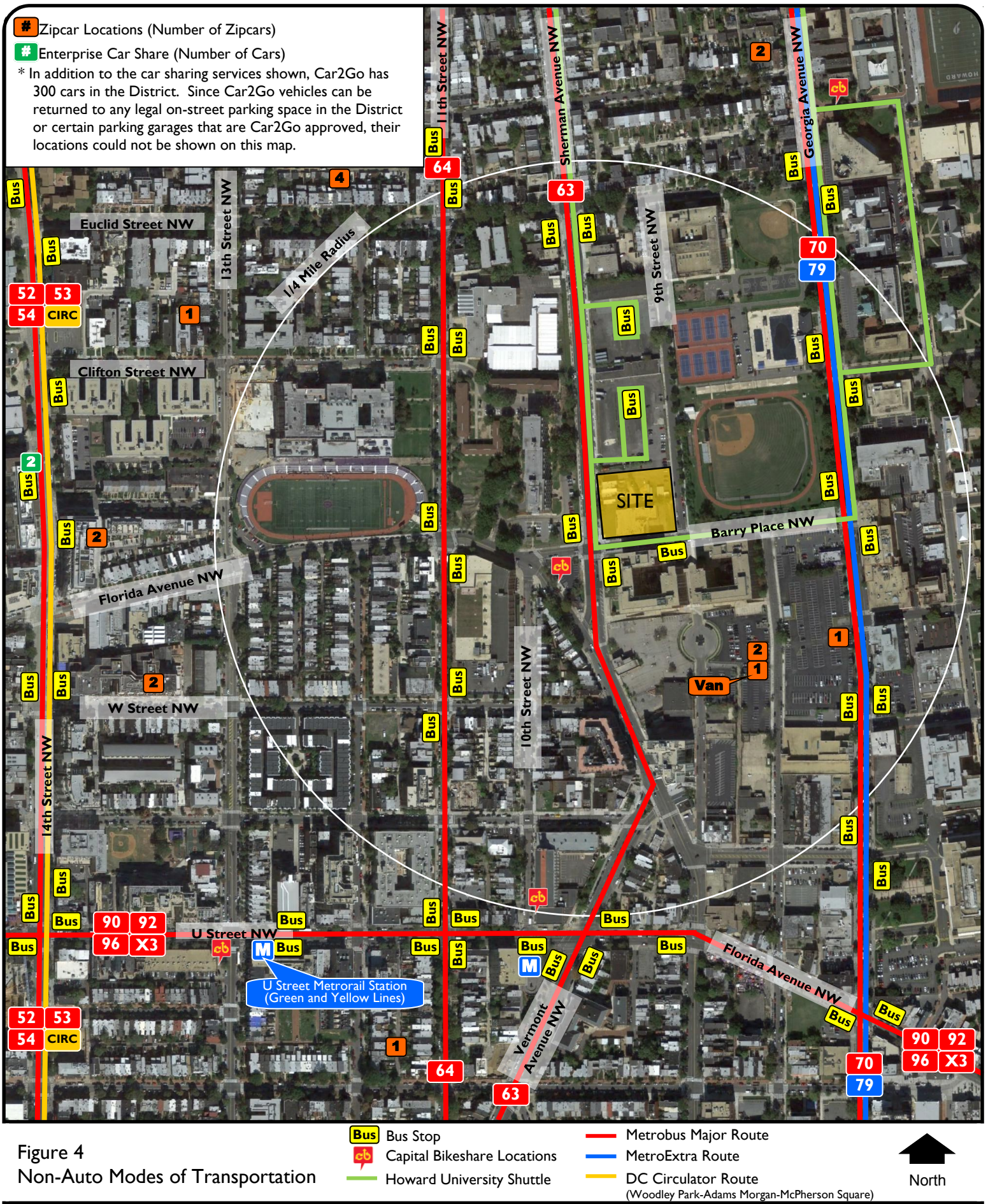


Figure 3
2014 Existing Traffic Volumes

AM Peak Hour
PM Peak Hour
000(000)

North
Not to Scale



Barry Place
Washington, DC

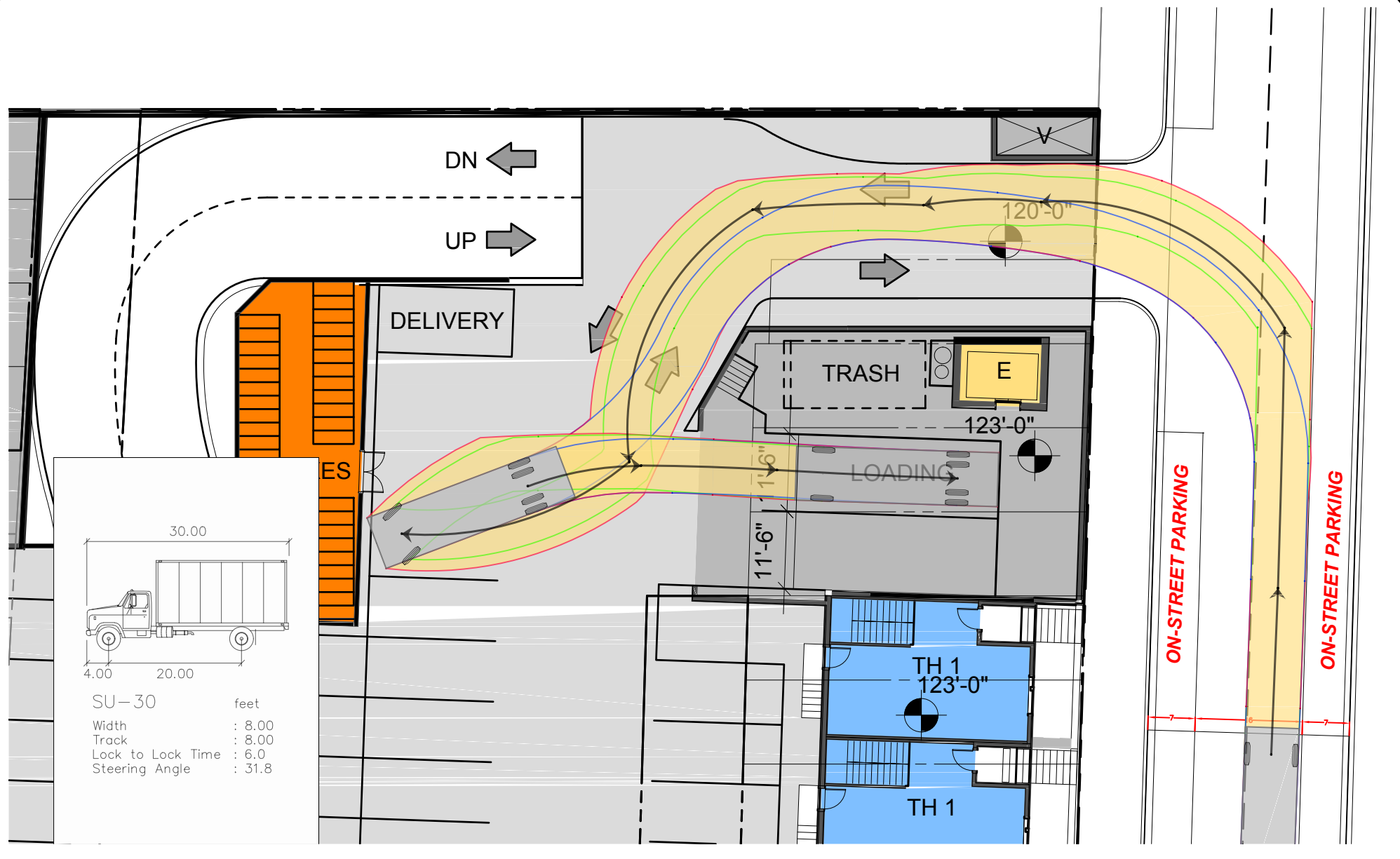


Figure 5A
Truck Sweep Diagram – SU 30
Dock 1 – Ingress

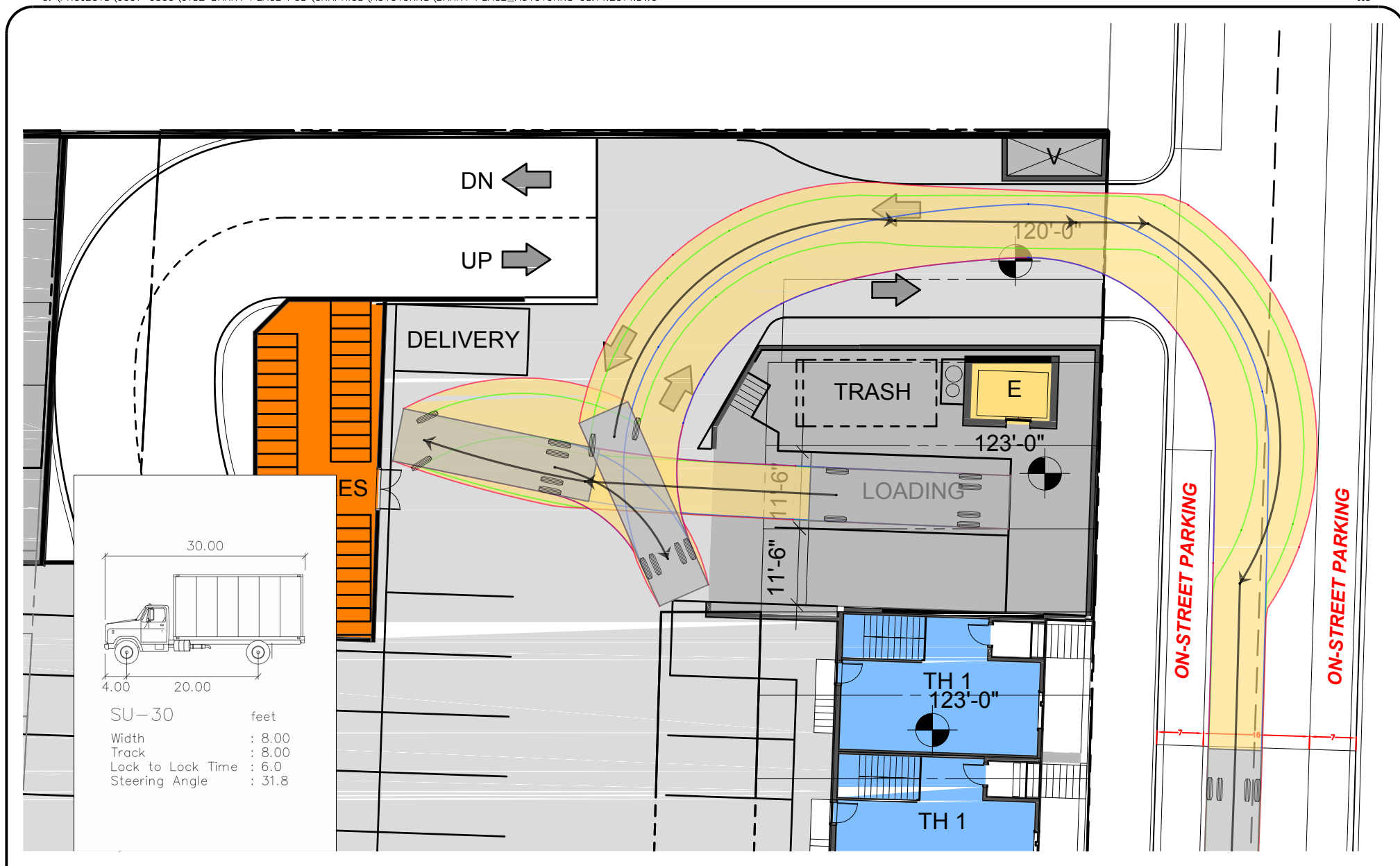


Figure 5B
Truck Sweep Diagram – SU 30
Dock 1 – Egress

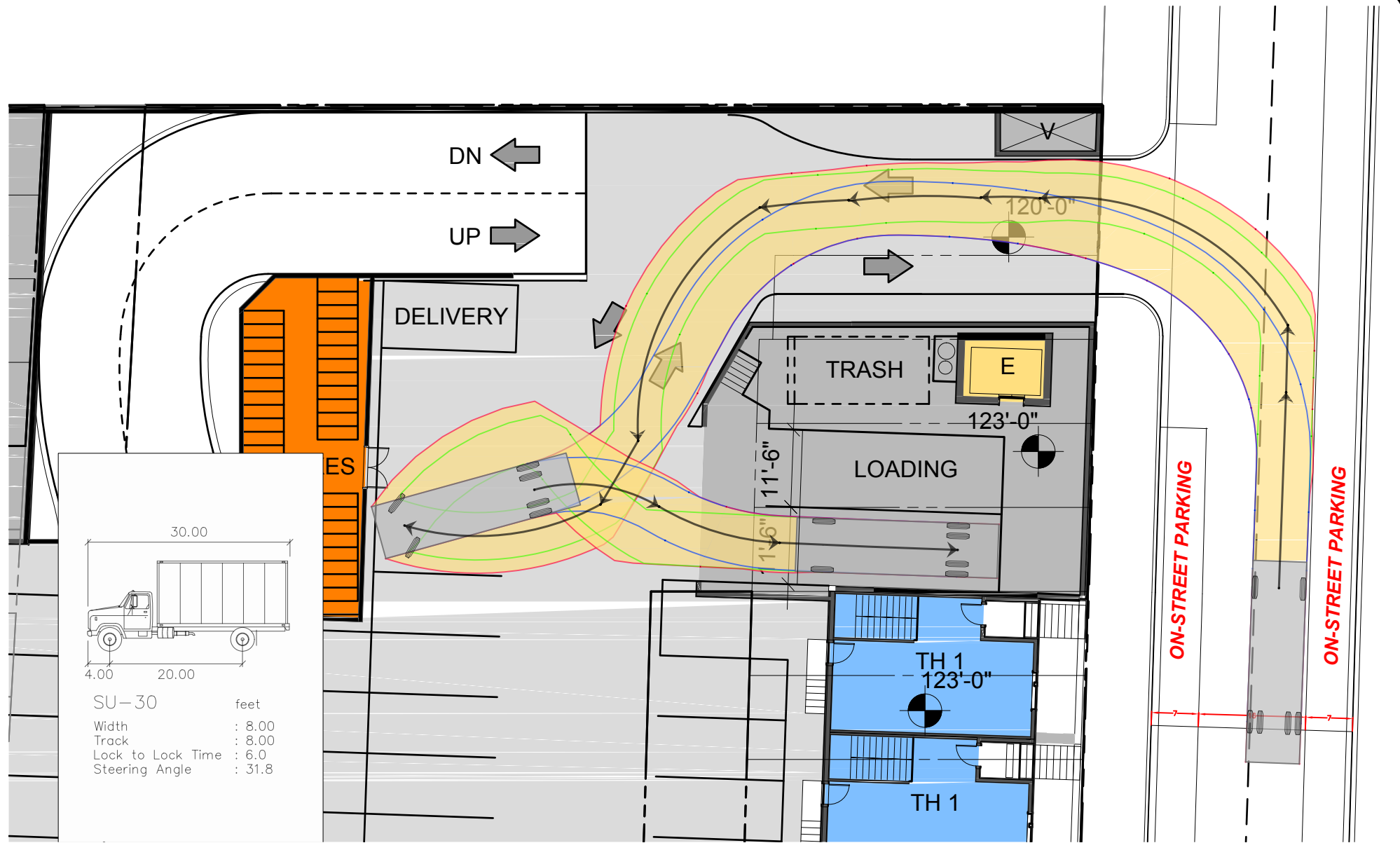
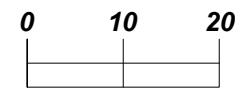


Figure 5C
Truck Sweep Diagram – SU 30
Dock 2 – Ingress



— Vehicle Body
— Front Tire Tread
— Rear Tire Tread
— Directional Path
— Vehicle Path



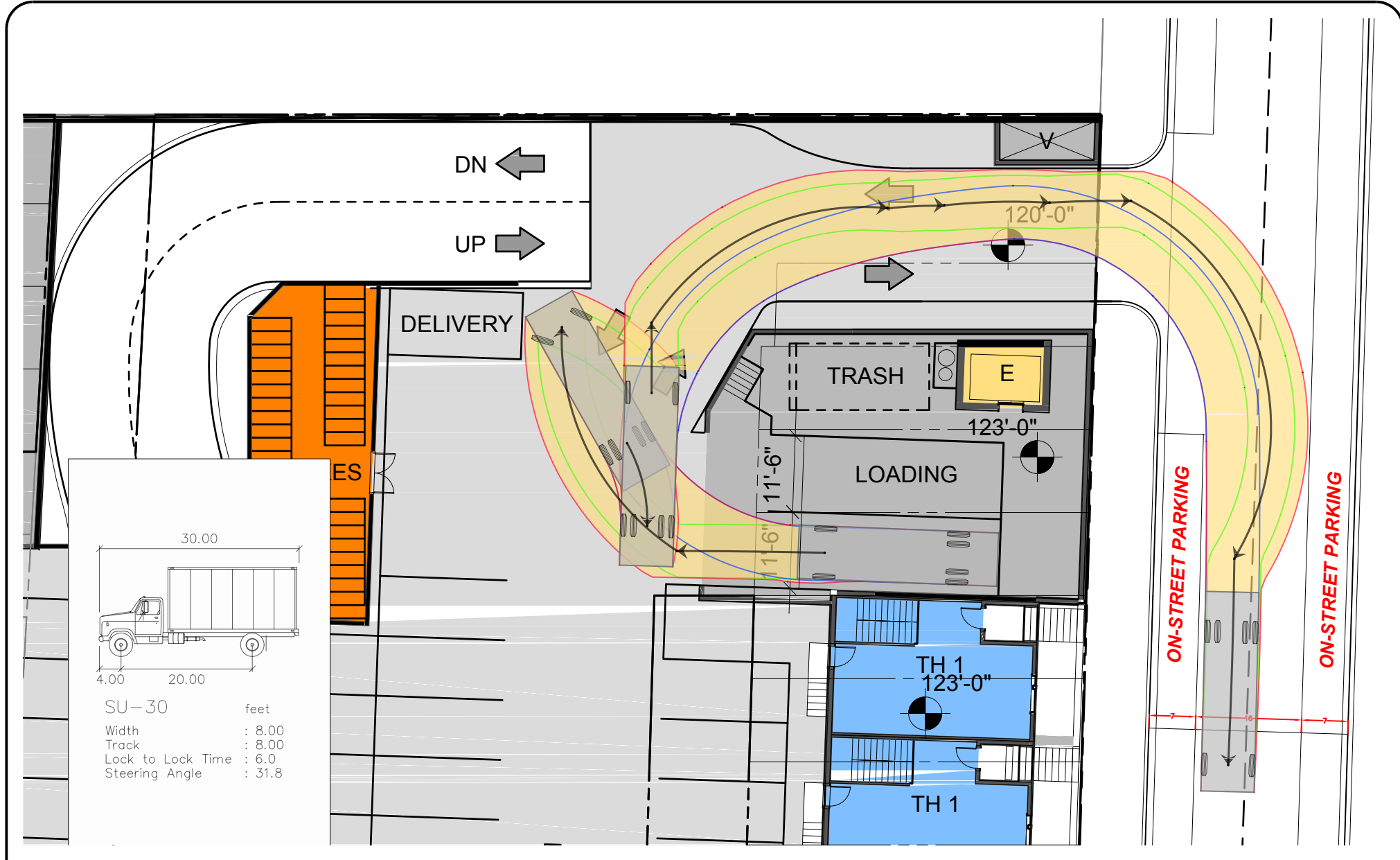


Figure 5D
Truck Sweep Diagram – SU 30
Dock 2 – Egress

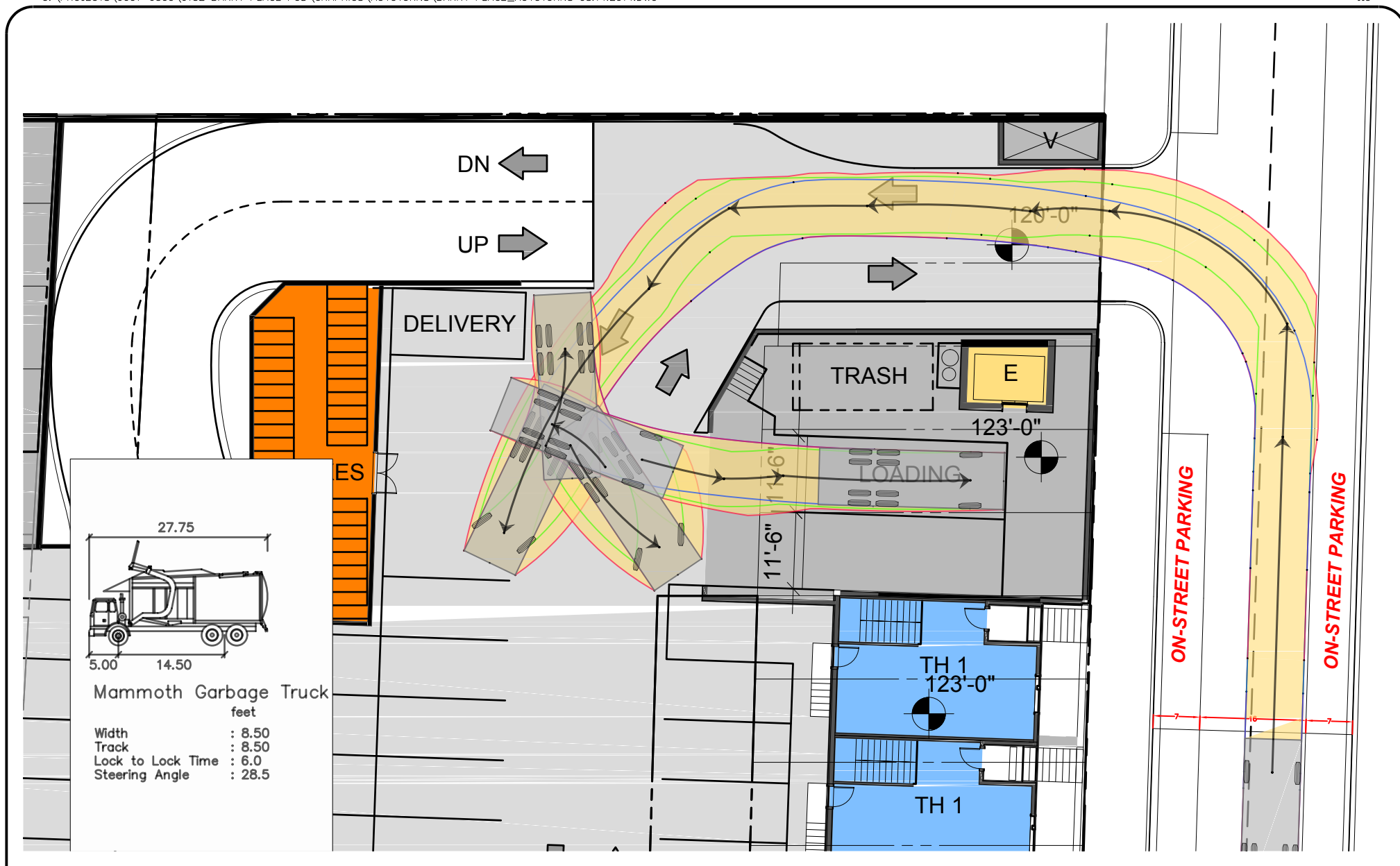


Figure 5E
Truck Sweep Diagram – Front Load Trash Truck
Ingress



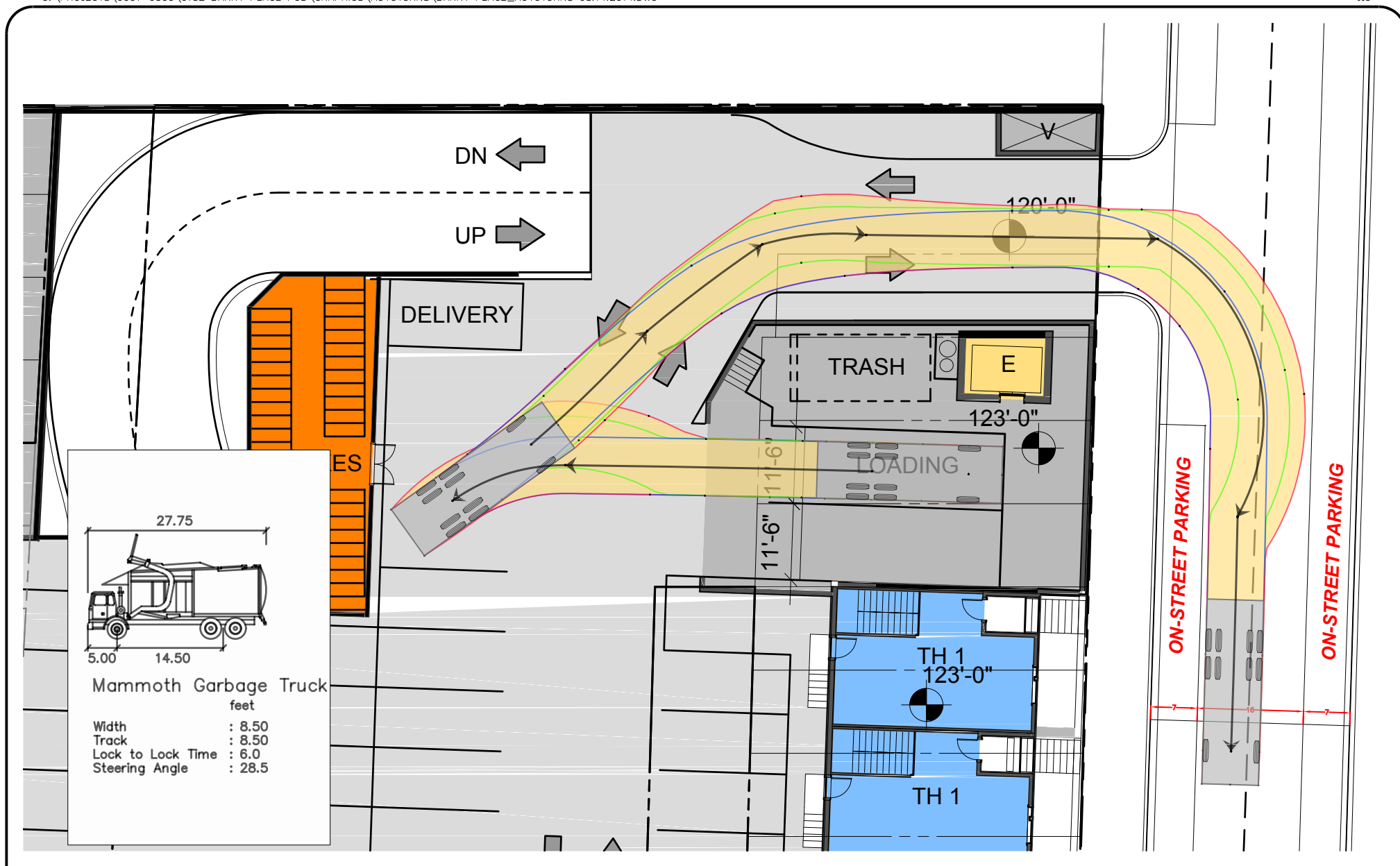


Figure 5F
Truck Sweep Diagram – Front Load Trash Truck
Egress

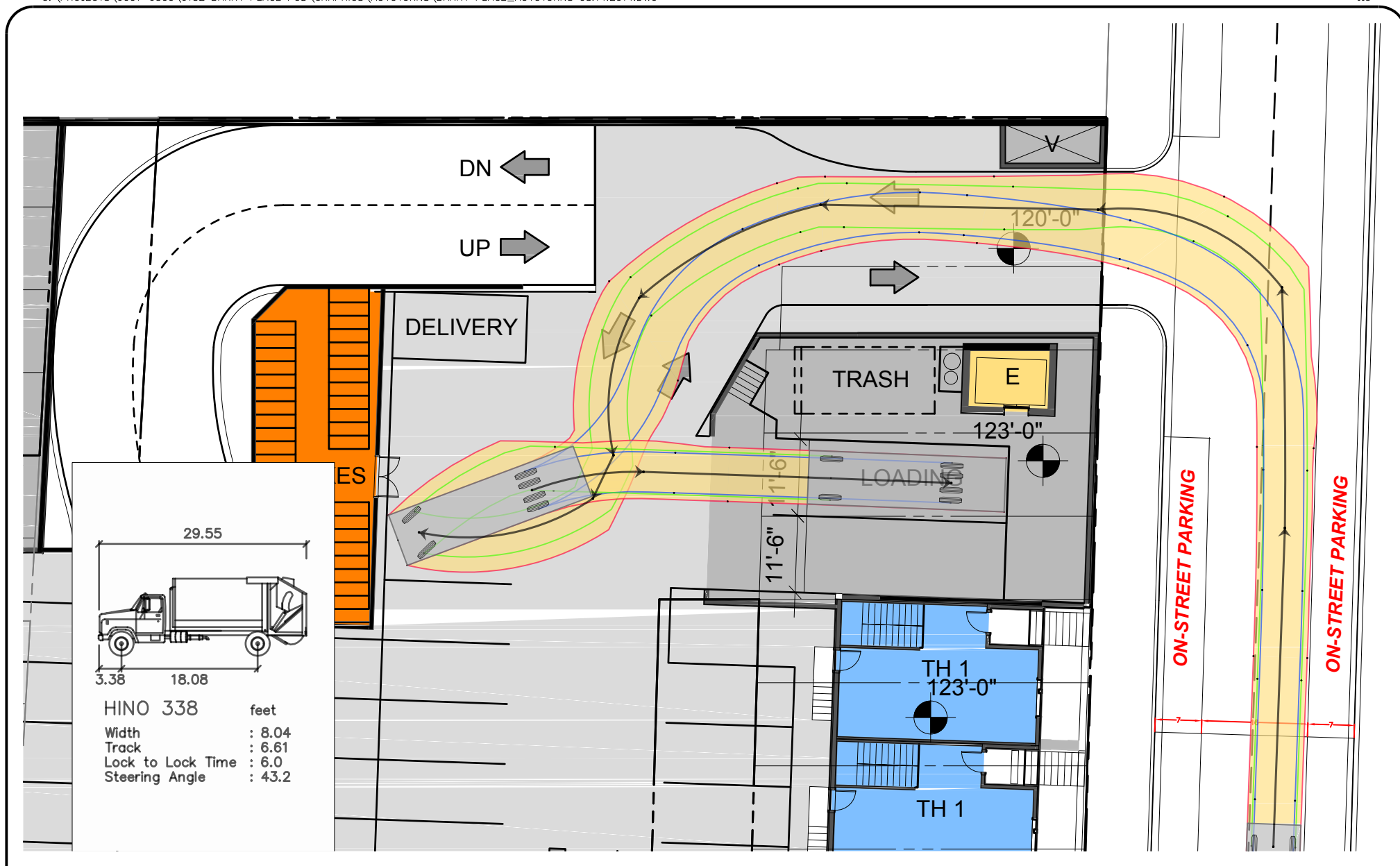


Figure 5G
Truck Sweep Diagram – Rear Load Trash Truck
Ingress



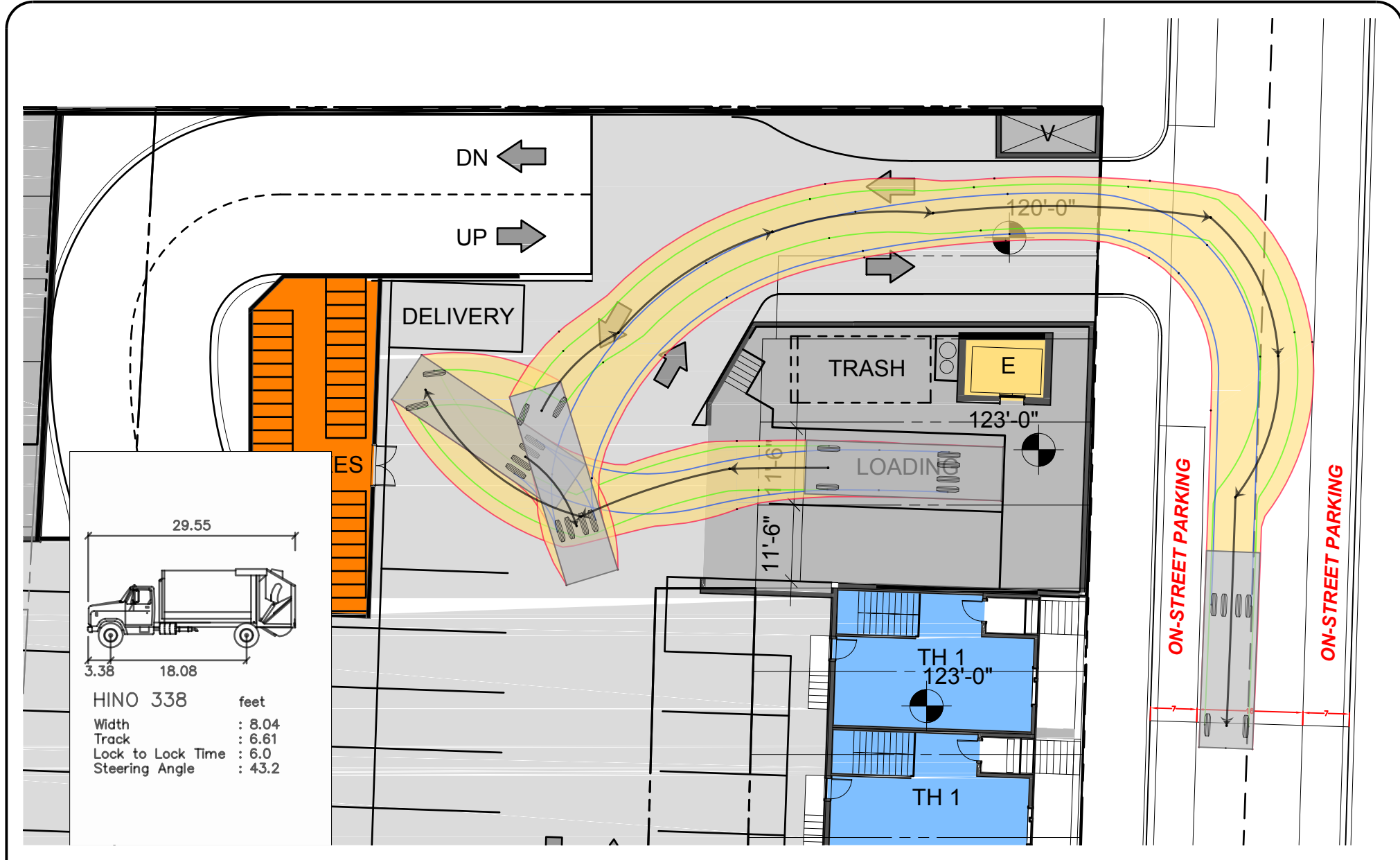


Figure 5H
Truck Sweep Diagram – Rear Load Trash Truck
Egress