TRAFFIC IMPACT ANALYSIS - 100 POTOMAC AVENUE, SECOND-STAGE PLANNED UNIT DEVELOPMENT AND MAP AMENDMENT APPLICATIONS, SOUTHEAST, WASHINGTON, DC

(Case No. 04-14)

Prepared for:
FLORIDA ROCK PROPERTIES, INC
34 Loveton Circle
Sparks, MD 21152

Land Use Counsel:
HOLLAND & KNIGHT, LLP
2099 Pennsylvania Avenue, NW, Suite 100
Washington, D.C. 20006
- David W. Briggs, Esquire

Prepared by:
O. R. GEORGE & ASSOCIATES, INC.
Transportation Planning & Engineering Consultants
10210 Greenbelt Road, Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700

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1.0 INTRODUCTION

1.1 Project Background

Florida Rock Properties, Inc., plans to develop an approximately six-acre property situated along the north side of the Anacostia Waterfront, and adjacent to the South Capitol Street corridor in Southeast, Washington, D.C. The site is bounded generally by Potomac Avenue to the north, First Street to the east, the Anacostia River to the south and the Frederick Douglass Memorial Bridge to the west. The site was re-zoned to Commercial *(C-3-C – Major Business and Employment Center)* as part of the First-Stage Planned Unit Development (PUD) and Map Amendment Applications for the property. (Case No. 01-31TE/98-17F/95-16P, Order No. 910-B, March 10, 2003). Exhibit 1 shows the site within the local area setting.

The Applicant is seeking Second-Stage PUD approval and confirmation of the Map Amendment for the subject property within the C-3-C zone. The development plan calls for a mixed-use project of approximately 1,084,464 square feet of space consisting of office, residential, hotel and retail uses; all of which are consistent with the purposes of the C-3-C Zoning District. The requested re-zoning is in accordance with the District of Columbia Comprehensive Plan, the proposed Capitol Gateway re-zoning in the immediate area, as well as the first-stage PUD approval per the Zoning Commission Order No. 910-B. The proposed development will consist of the following land-uses:

Development Type	Density
1. Residential	193,770 GSF (i.e., 160 Apartment Units)
2. Office	602,896 GSF
3. Retail	39,498 GSF
4. Hotel	248,300 GSF (i.e., 235 Rooms)

The proposed development would be served by 1,087 ± parking spaces, consisting entirely of off-street spaces within a three-level below-grade parking garage. The parking spaces would be designated for commercial/retail use (683 spaces), hotel use (153 spaces) and residential use (251 spaces). The proposed residential parking would include forty (40) tandem spaces. The loading facilities would be accessed from Potomac Avenue, S.E, and include thirteen (13) loading berths and four (4) delivery spaces.

A number of factors make the proposed development attractive from the perspective of transportation access and internal circulation. These are as follows:

a) The subject site would be accessed via major roadways such as South Capitol Street and M Street, which provide access to Downtown, Washington, D.C., and to the broader metropolitan region;

b) The proposed site is situated in proximity to the Navy Yard Metrorail Station, on the Washington Metropolitan Area Transit Authority (WMATA) Green Line; and

c) The site is in proximity to significant existing and planned employment and residential centers, including the Navy Yard, Southeast Federal Center, Arthur Capper-Carrollsburg Dwellings and the U.S. Department of Transportation Headquarters.

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EXHIBIT 1

SITE LOCATION MAP

100 Potomac Avenue PUD and Re-Zoning Application - Washington D.C

The above factors would significantly reduce the trip generation and related impacts of the proposed development, particularly during the morning and afternoon peak periods. These factors are further considered in the relevant sections of this report.

1.2 Study Purpose and Scope

This study was prepared as supporting documentation to the subject Second-Stage Planned Unit Development and Map Amendment Applications. The purpose and key elements of the study are to evaluate and document the following:

(a) Existing roadway and traffic conditions within the immediate area of the subject site;

(b) Future "background" traffic conditions, based on a generalized examination of planned developments within the study area, and potential annual growth in through traffic along the key study area roadways;

(c) The traffic impact of the rezoning and development proposal, considering existing and planned transportation facilities, site trip generation, access and on-site circulation; and

(d) Any capacity, safety or operational constraints to the proposed rezoning and development, as well as potential measures to mitigate such constraints, where appropriate.

The methodology used in this analysis is in accordance with the current guidelines stipulated by the District of Columbia Department of Transportation (DDOT) for the assessment of the transportation impacts and access requirements associated with planned unit developments. The study area and other key parameters considered were also discussed with the responsible DDOT staff. Correspondence outlining the scope of the study is presented in Appendix A.

1.3 Report Organization and Summary

This report is organized into six (6) sections. The current Section presents the background and context for the study. Section 2 evaluates existing roadway and traffic conditions. Section 3 addresses projected growth in traffic due to the impact of approved (and other potential) developments within the general study area, as well as potential growth in through traffic along the key study area roadways. Section 4 analyzes the traffic impact of the Applicant's development proposal, and assesses related site access, circulation and parking provisions. Section 5 discusses planned and potential mitigation strategies for any capacity, operational and safety constraints that may result from the proposed development. Section 6 summarizes the study findings and makes recommendations, where appropriate, to mitigate any potential transportation impacts identified.

The Applicant projects that the development would be built-out by the year 2010. The study has concluded that the existing study area road network and proposed roadway changes can accommodate the Applicant's development proposal. The study area intersections currently operate at quite acceptable levels of service, with the exception of the somewhat complex South Capitol Street/M Street intersection, which is in fact an "interchange". The future traffic conditions will include significant background developments, as well as considerable public investments in transportation and infrastructure improvements.

The study projects that the development would generate an appreciable level of vehicular trips within the study area. However, the roadway network would be able to accommodate the increased traffic. This is because the ingress and egress movements would be well distributed within the study area. In addition, it is noted that a significant proportion of the vehicle trips will not utilize the at-grade elements of the South Capitol Street/M Street interchange, which is the only location for which capacity constraints are projected. A further consideration is that use of public transportation is projected to account for a high proportion of the generated trips to and from the site, and this would reduce the amount of vehicular trips using the defined study area road network

Based on the above considerations, this study finds that the future study area road network would operate at acceptable Levels of Service, upon full build-out of the subject development. The sole exception would be the northbound and southbound ramps of South Capitol Street at M Street intersections, during the morning and afternoon peak periods. Based upon the proposed roadway infrastructure changes outlined in the South Capitol Street Gateway Study, these intersections would be improved as part of the overall modification and revitalization of the South Capitol Street corridor.

2.0 EXISTING ROADWAY AND TRAFFIC CONDITIONS

2.1 Land Use and Zoning

As noted earlier, the site is located at 100 Potomac Avenue, S.E., within Ward 6 of the City. The properties comprising the proposed development site are zoned C-3-C (Major Business and Employment Center), pursuant to the First Stage PUD Order. The site is currently used for the operation of a concrete mixing and batching plant, with an open area storing gravel and other materials used by the plant. The area surrounding the PUD site is part of the Capitol Gateway overlay. The areas abutting the waterfront are zoned CG/W2, with the areas to the west, north and northeast of the PUD site being zoned CG/CR. Currently, the prominent land-uses in these areas are the District of Columbia Water and Sewerage Authority (WASA) pumping facilities and the Southeast Federal Center, both of which are located to the east of 1st Street, S.E. The areas located to the northwest on the western side of South Capitol Street are developed with low-density residential uses consisting of row dwellings and flats in the R-4 District and high density housing in the R-5-E District. The Navy Yard Metrorail Station is situated to the north with its entrance at the intersection of M Street, S.E and Half Street, S.E.

It is important to note that the site is located within the boundaries of the Anacostia Waterfront Initiative (AWI)[1], and the South Capitol Gateway and Corridor Improvement area[2]. The AWI is seeking to revitalize the Anacostia Waterfront area such to facilitate the economic, social and physical recovery of the Capital City. The South Capitol Street corridor is currently being evaluated to identify ways in which it can be transformed into a "befitting gateway to the City". It is proposed that a number of improvement opportunities be developed to enhance the area of South Capitol Street and adjacent areas, as well as enhance the capacity for new and revitalized development. Already approved for the area is the US Department of Transportation (DOT) Headquarters complex, which includes office and retail uses as well as associated outdoor amenities.

2.2 Study Area Road Network

Regional access to the subject site is well served by South Capitol Street, situated to the west, as well as M Street situated to the north. These facilities are designated as a freeway/expressway and minor arterial, respectively, on the City's Functional Classification Map (2003); and they connect the site with Downtown, Washington, D.C (to the north), as well as other areas within the City and the region, via other major arterials and the I-295 and I-395, and the Capital Beltway (I-495) to the south.

Immediate access to the site is provided primarily by Potomac Avenue, Half Street and First Street. Access is also significantly facilitated by the two (2) one-way service roadways of South Capitol Street. Based on discussions with the DDOT Transportation Policy and Planning Administration staff, a study area roadway network consisting of seven (7) intersections was identified for evaluation. These intersections are as follows:

1) M Street @ South Capitol Street Northbound Off-Ramp (Signalized);

[1] "Anacostia Waterfront Master Plan Phase II Study", Wallace, Robert & Todd (1991).
[2] "South Capitol Street Gateway and Improvement Study", DDOT (2003).

2) M Street @ South Capitol Street Southbound Off-Ramp (Signalized);

3) M Street @ Half Street, S.E (Stop-Sign Controlled);

4) M Street @ 1st Street, S.E. (Signalized);

5) Potomac Avenue @ Half Street, S.E. (Stop-Sign Controlled);

6) South Capitol Street @ I Street (Signalized); and

7) M Street @ Half Street, S.W (Signalized).

The study area includes additional intersections, but these are all low-volume locations, which would not be impacted significantly by the proposed development. The general physical characteristics and service functions of the key study area roadways are summarized below:

- **South Capitol Street:** This divided freeway/expressway on the City's Highway System, has a multi-lane configuration between the Frederick Douglass Memorial Bridge and M Street. The facility incorporates an additional northbound service road and a southbound service road, which run parallel to the freeway. These service roads provide access to both the northbound and southbound segments of the South Capitol Street mainline roadways, through directional weaving areas adjacent to N Street. The signalized intersection with M Street is grade separated, with the South Capitol Street through traffic travelling underneath M Street[3]. South Capitol Street, in the vicinity of the development site, serves Average Daily Traffic (ADT) volumes in the range of 69,300 vehicles. The posted speed is 25 MPH.

- **M Street:** This is a six-lane divided minor arterial on the City's Highway System. The facility runs east-west to the north of the site, and connects the area to the City's Central Employment and Business District via South Capitol Street, as well as Maine Avenue and 7th Street, S.W., further to the west. M Street therefore serves considerable commuter traffic. This roadway will provide access to the proposed development site, via several side streets. Within the area of the proposed development, M Street serves Average Daily Traffic (ADT) volumes in the range of 12,500 vehicles. The posted speed is 25 MPH.

- **Potomac Avenue:** This is a collector roadway on the City's Highway System. This facility will serve as the immediate access for the proposed development. The roadway runs east-west connecting the areas of Buzzard Point and the proposed development site. Potomac Avenue has a dedicated right-of-way of one hundred sixty (160) feet, but its pavement cross-section is only approximately sixty (60) feet in width. It is unmarked and has disused railroad tracks running along its centerline. The posted speed limit is 25 MPH, and the ADT volume served is 2,000

[3] This "intersection" forms what is technically known as a "single-point diamond interchange" which has implications for the accessibility to the subject development. (This will be discussed at length later in the report.)

The other study area roadways are all classified as local or collector streets. Most roadways serve two-way traffic; with the notable exceptions being Half Street, S.W, to the south of M Street, which is one-way southbound until the intersection with P Street, S.W. The posted speed limit along these roadways is 25 MPH. The layout of the study area roadway network and the lane configuration provided at the key study area intersections, are illustrated in Exhibit 2. For completeness, an "extract" from the City's Functional Classification Map (showing traffic flow patterns) is included as Exhibit 3.

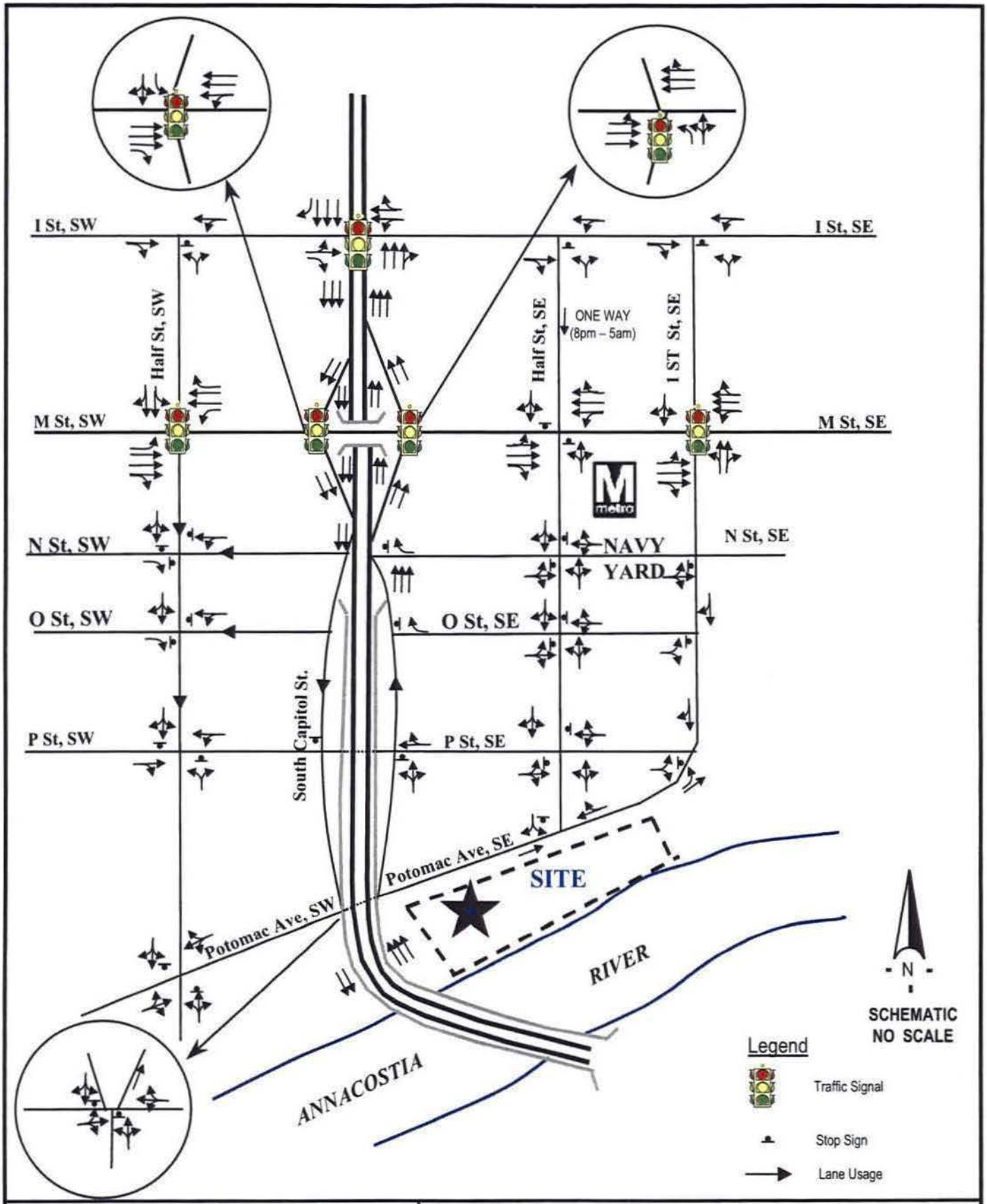

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EXHIBIT 2

EXISTING ROADWAY LANE CONFIGURATION
100 Potomac Avenue PUD and Re-Zoning Application – Washington D. C.

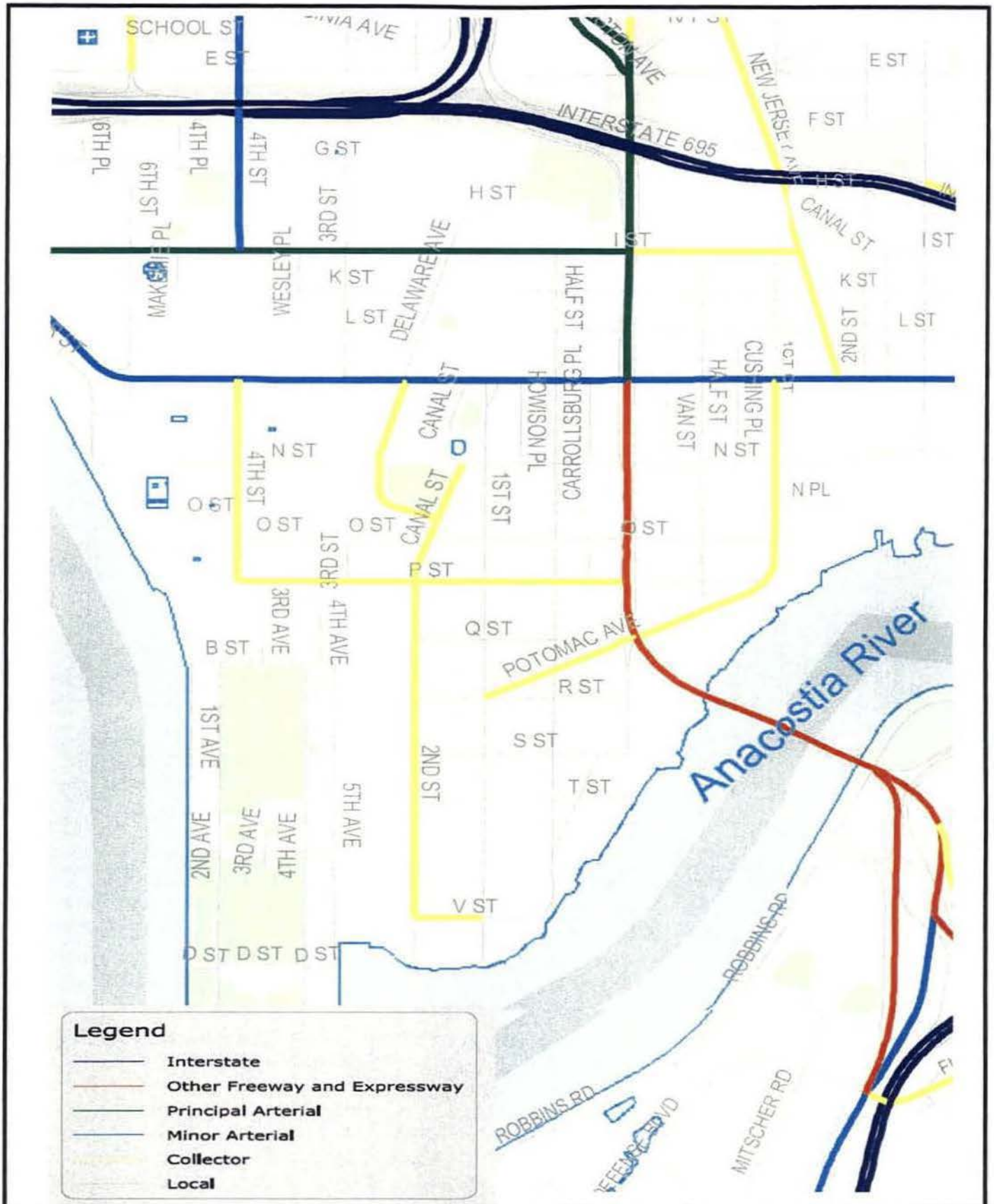

EXHIBIT 3

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FUNCTIONAL CLASSIFICATION MAP OF STUDY AREA
100 Potomac Avenue PUD and Re-Zoning Application – Washington D. C.

2.3 Existing Traffic Situation

In order to assess current traffic operating conditions, field observations were made of the weekday traffic flow conditions, within the defined study area, during the morning and afternoon peak periods. In addition, peak period turning movement counts were undertaken at the study area intersections. Exhibit 4 shows the morning and afternoon peak hour volumes. The count summaries are included as Appendix B.

The peak hour traffic volumes were analyzed using the Highway Capacity Manual (HCM) capacity analysis procedures, in accordance with the DDOT requirements. However, regarding unsignalized intersections, the HCM methodology can only be applied to those with single or two-lane roadway approaches. Since M Street consists of three (3) lanes in each direction, the unsignalized intersections along this roadway were analyzed, using a pro-rated HCM procedure. This technique uses the HCM methodology by reducing the number of approach lanes (to those accepted by the HCM) and pro-rating the traffic volume accordingly.

The results show that the study area intersections currently operate at acceptable Levels of Service[4], during the morning and afternoon peak hours, except for the South Capitol Street Northbound Ramps and Southbound Ramps at M Street intersections. These intersections operate at capacity during the morning and afternoon peak hours, respectively. The Level-of-Service results are based on the average control delay computed by the HCM procedures for all vehicles utilizing the intersections during the peak hours. Table 1 (on page 12) presents the summary of the capacity analysis results for the existing traffic situation. Detailed capacity analysis worksheets are presented in Appendix C.

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4 Level of Service is a qualitative measure describing operational conditions within a traffic stream or at an intersection, and reflects their perception by drivers and other roadway users. Principal considerations are factors such as speed and travel time, delay, and freedom of maneuver, traffic interruptions, comfort, convenience and safety. Current engineering practice defines six (6) Levels of Service (A-F), with "A" representing best operating conditions, and Level of Service "F" representing the worst conditions. Level-of-Service D is generally considered by the District of Columbia as the minimum acceptable conditions for planning and design purposes.

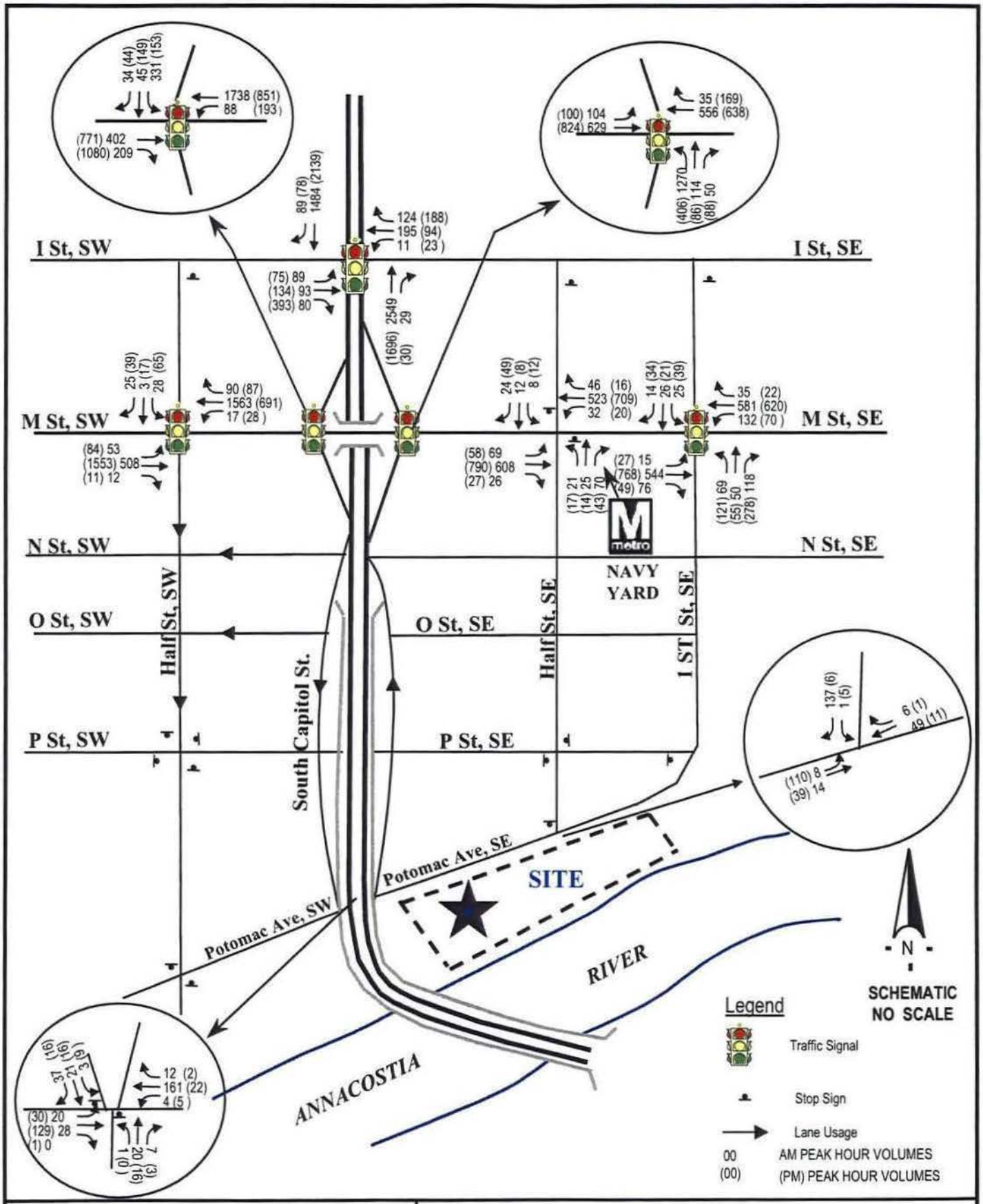

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EXHIBIT 4

WEEKDAY AM AND PM PEAK HOUR TURNING MOVEMENTS
100 Potomac Avenue PUD and Re-Zoning Application– Washington D. C.

TABLE 1
SUMMARY OF CAPACITY ANALYSIS RESULTS - EXISTING TRAFFIC SITUATION

Intersection	AM Peak Hour		PM Peak Hour	
	Level of Service	Avg. Delay (Sec/Veh)*	Level of Service	Avg. Delay (Sec/Veh)*
1) Potomac Ave @ Half St, S.E**	A	9.4	B	10.7
2) M St. @ 1st St, S.E *	B	11.4	C	20.5
3) M St @ Half St, S.E**	B	12.7	B	10.9
4) South Capitol St @ M St. Northbound Ramp*	F	103.0	C	23.9
5) South Capitol St. @ M St. Southbound Ramp*.	D	39.6	F	125.7
6) M St. @ Half St, S.W*	A	8.1	A	7.6
7) South Capitol St @ I St, S.E*	C	20.9	C	20.3

* Signalized Intersection.

** Unsignalized intersection. HCM results are provided for unsignalized intersections with single or two-lane approaches only. Pro-rated HCM results are provided for locations with three-lane approaches.

Source: O. R. George & Associates.

2.4 Traffic Safety Situation

In order to assess the traffic safety situation within the study area, accident data for the key intersections was requested from the DDOT Traffic Services Administration. This data was not obtained at the time this report was written. However, the South Capitol Street Gateway and Improvement Study (2003) indicates that there may be safety deficiencies at three (3) study area intersections based on accident data occurrences over the period 1999-2001. These locations are the South Capitol Street northbound and southbound ramps at M Street, and South Capitol Street at M Street. The study also indicates that those safety deficiencies would be remediated by the roadway improvements recommended for the South Capitol Street Corridor. The proposed development would not create any significant safety deficiencies within the study area. This is particularly due to the fact that the site trips would be well distributed, minimizing impacts on any one intersection. The project as proposed will provide for safe and efficient access and circulation along the adjacent sections of Potomac Avenue and Half Street. Copies of the accident data summaries are included as Appendix D.

3.0 BACKGROUND TRAFFIC SITUATION

3.1 Projected Year 2010 Background Traffic Situation

The current development plans indicate that the proposed development would be built-out by the year 2010. Therefore, for the purposes of this study, the year 2010 was considered the "design year". Considering the City's guidelines and procedures, the projected design year traffic conditions would consist of the following key elements:

a) Potential increase in through traffic based on historical growth trends;

b) Projected trip generation for other planned developments, within the immediate site area, which are likely to be built-out by year 2010; and

c) Planned and programmed transportation system improvement projects which would impact the configuration and capacity of the study area roadway network.

Review of historical Average Daily Traffic (ADT) provided by DDOT, indicates that traffic volumes on the study area roadways have remained relatively stable over the period 1996 - 2003. It is therefore projected that an increase in traffic within the study area over the next six (6) years, i.e., by year 2010, would be marginal. However, to comply with DDOT's growth assumptions for roadways serving significant through traffic volumes and in consideration of the expected background development projected for the immediate study area, an annual growth factor of two percent (2.0%) was applied to the existing traffic volumes unto the year 2010. The base year traffic volumes for the year 2010 showing the growth are presented as Appendix E.

The background developments considered in this study were based on the following:

i) Economic Development Map of the District of Columbia Office of the Deputy Mayor for Planning and Economic Development;

ii) Development activity information provided by the Office of Planning; and

iii) The developments considered by the "U.S. Department of Transportation Headquarters Traffic Impact Analysis" (by Gorove Slade & Associates, 2003); "4th Street, SW Transportation Study" (by DDOT, 2003); and the "Capper/Carrollsburg PUD Traffic Impact Analysis" (by O.R. George & Associates, 2003).

Based on the above, it was determined that ten (10) planned developments would have some impact on the local area road network. These developments are listed in Table 2 on the page following.

TABLE 2

LIST OF BACKGROUND DEVELOPMENTS CONSIDERED

Development	Location	Land Use	Density
1) US Department of Transportation Hqtrs.	South of M St. & East of 1st St., S.E.	Office Retail	5,500 Employees 13,500 SF
2) Southeast Federal Center	South of M St. & 3rd St. S.E. Int.	Office Apartments Retail Museum	1.8 M SF 2,500 Units 300,000 SF 100,000 SF
3) Capitol Hill Towers	New Jersey Ave. @ L St., S.E.	Apartments Hotel	342 Units 200 Rooms
4) Federal Gateway	2nd St. @ M St., S.E.	Office Retail	297,000 SF 20,000 SF
5) 20 M Street	North of M St., East of S. Capitol St., S.E.	Office	190,000 SF
6) Syphax Village	O St. @ Carrollsburg Pl., S.E.	Townhouses	41 Units
7) Waterside Mall	401 M St., S.W.	Office Apartments Retail Supermarket	1,693,500 SF 200 Units 75,000 SF 30,000 SF
8) Millennium Arts Center	1st @ I Street, S.W.	Recreational Comm. Ctr.	150,000 SF
9) Arthur Capper/ Carrollsburg	M Street, S.E, East of New Jersey Ave, S.E.	Residential Office Retail	1,645 Units 702,000 SF 51,000 SF
10) Capitol Point Riverside	2nd St. @ Potomac Ave. SE	Office Apartments Retail	600,000 SF 500 Units 50,000 SF

Source: Agencies & Studies cited on Page 13, and O.R. George & Associates.

The location of the background developments noted above are shown in Exhibit 5. Table 3 (on page 16) presents the projected trips for these planned developments, based upon trip rates recommended by the Institute of Transportation Engineers (ITE) Trip Generation Manual (2003), as well as estimates developed for various developments in DDOT's "4th Street SW Transportation Study". The projected traffic assignments for these background developments are shown in Appendix F. The projected trip assignment for the developments combined is presented in Exhibit 6 on page 17.

EXHIBIT 5

LOCATION MAP OF PLANNED BACKGROUND DEVELOPMENTS CONSIDERED

100 Potomac Avenue PUD and Re-Zoning Application - Washington D.C

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TABLE 3

PROJECTED TRIP GENERATION FOR OTHER BACKGROUND DEVELOPMENTS CONSIDERED

Development	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
1) US Department of Transportation						
- Trips/5,500 Employees	462	35	497	47	422	469
- Trips/13,500 SF Retail Space	9	6	15	24	26	50
2) Southeast Federal Center						
- Trips/1.8M SF Office	932	126	1058	177	866	1043
- Trips/2,500 Apartments	180	524	704	462	228	690
- Trips/300,000 SF Retail	133	84	217	424	459	883
- Trips/100,000 SF Museum	-	-	-	35	95	130
3) Capitol Hill Towers						
- Trips/342 Apartments	12	65	77	61	30	91
- Trips/200 Room Hotel	35	25	60	31	33	64
4) Federal Gateway						
- Trips/297,000 SF Office	152	21	173	27	133	160
- Trips/20,000 SF Retail	5	3	8	14	15	29
5) 20 M Street, S.E.						
- Trips/190,000 SF Office	107	15	122	19	95	114
6) Syphax Village						
- Trips/41 Townhouses	7	20	27	22	12	34
7) Waterside Mall						
- Trips/1,693,500 SF Office	711	97	808	158	770	928
- Trips/200 Apartments	5	28	33	28	14	42
- Trips/75,000 SF Retail	44	28	72	50	55	105
- Trips/30,000 SF Supermarket	25	16	41	97	93	190
8) Millennium Arts Center						
- Trips/150,000 SF Recreational Community Center	76	39	115	52	100	152
9) Arthur Capper/ Carrollsburg						
- Trips/976 Apartment Units	39	234	273	224	117	341
- Trips/309 Single Family Units	31	96	127	108	62	170
- Trips/360 Senior Housing Units	14	11	25	22	14	36
- Trips/702,000 SF Office	484	63	547	91	435	526
- Trips/51,000 SF Retail	3	2	5	9	10	19
10) Capitol Point Riverside						
- Trips/600,000 SF Office	824	112	936	152	742	894
- Trips/500 Apartments	41	214	255	208	102	310
- Trips/50,000 SF Retail	31	21	52	90	97	187
TOTALS	**4,362**	**1,885**	**6,248**	**2,632**	**5,025**	**7,657**

Source: Agencies & Studies cited on Page 13, ITE Trip Generation Manual (2003) and O. R. George & Associates.

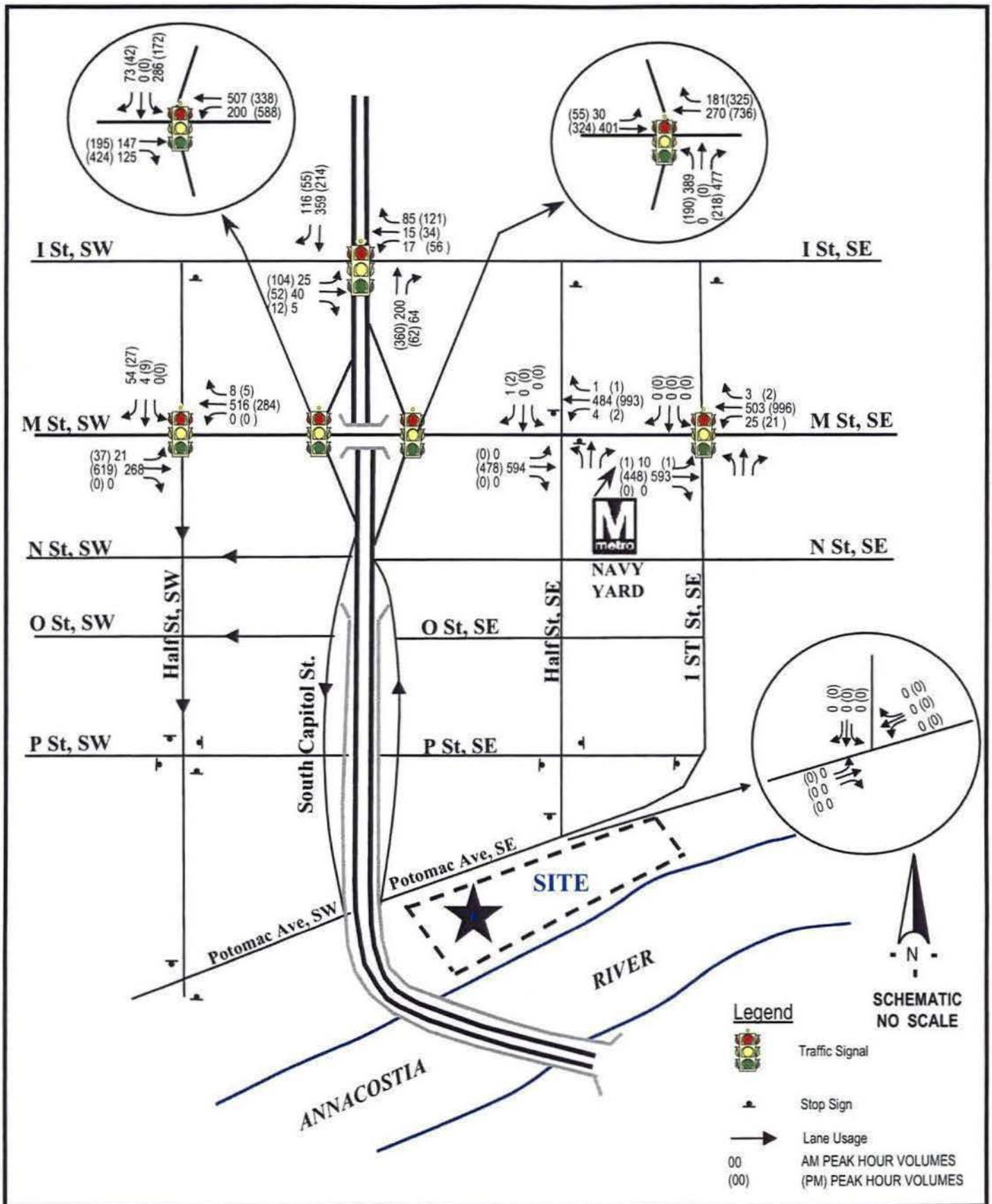

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EXHIBIT 6

COMBINED TRAFFIC ASSIGNMENT - BACKGROUND DEVELOPMENTS
100 Potomac Avenue PUD and Re-Zoning Application – Washington D. C.

As indicated in the above, the planned U.S. Department of Transportation (DOT) Headquarters and the Southeast Federal Center developments would have the greatest impact on traffic conditions within the study area. It is noted that both projects are in proximity to the Navy Yard Metrorail Station, and that this access to public transportation service was a factor in the selection of both sites. Both projects are under the management of the General Services Administration (GSA). The GSA is currently considering several alternative proposals for the redevelopment of the Southeast Federal Center; and the build-out/design year for this project is uncertain. However, plans for the development of the U.S. DOT Headquarters development has been approved by the Zoning Commission, and is projected to be built-out by 2005.

The U.S. DOT Headquarters traffic study, which was referred to earlier, has identified a number of roadway improvements and transportation management plan measures in support of this project. The physical improvements focused on the intersections of M Street with New Jersey Avenue and 4th Street. These modifications may also relieve some of the impacts on the South Capitol Street/ M Street intersection.

3.2 Traffic Analysis - Year 2010 Background Traffic Situation

The projected year 2010 background traffic situation was derived by combining the year 2010 "base" traffic situation (Appendix E) with the combined trip assignment for the background developments considered (Exhibit 6). The projected year 2010 total background traffic situation is presented in Exhibit 7. These volumes were analyzed using the HCM analysis procedures, as was done for the existing traffic situation.

Table 4 (on page 20) summarizes the capacity analysis results for the projected year 2010 background traffic situation. The results show that the study area road network would continue to operate within the City's acceptable planning standards, with the exception of the South Capitol Street/M Street intersections, which would operate at capacity during the morning and afternoon peak hours. The identified capacity/operational deficiencies would be mitigated by the improvements recommended in the DDOT "South Capitol Street Gateway and Improvement Study". Appendix G presents the capacity analysis worksheets for the background traffic situation.

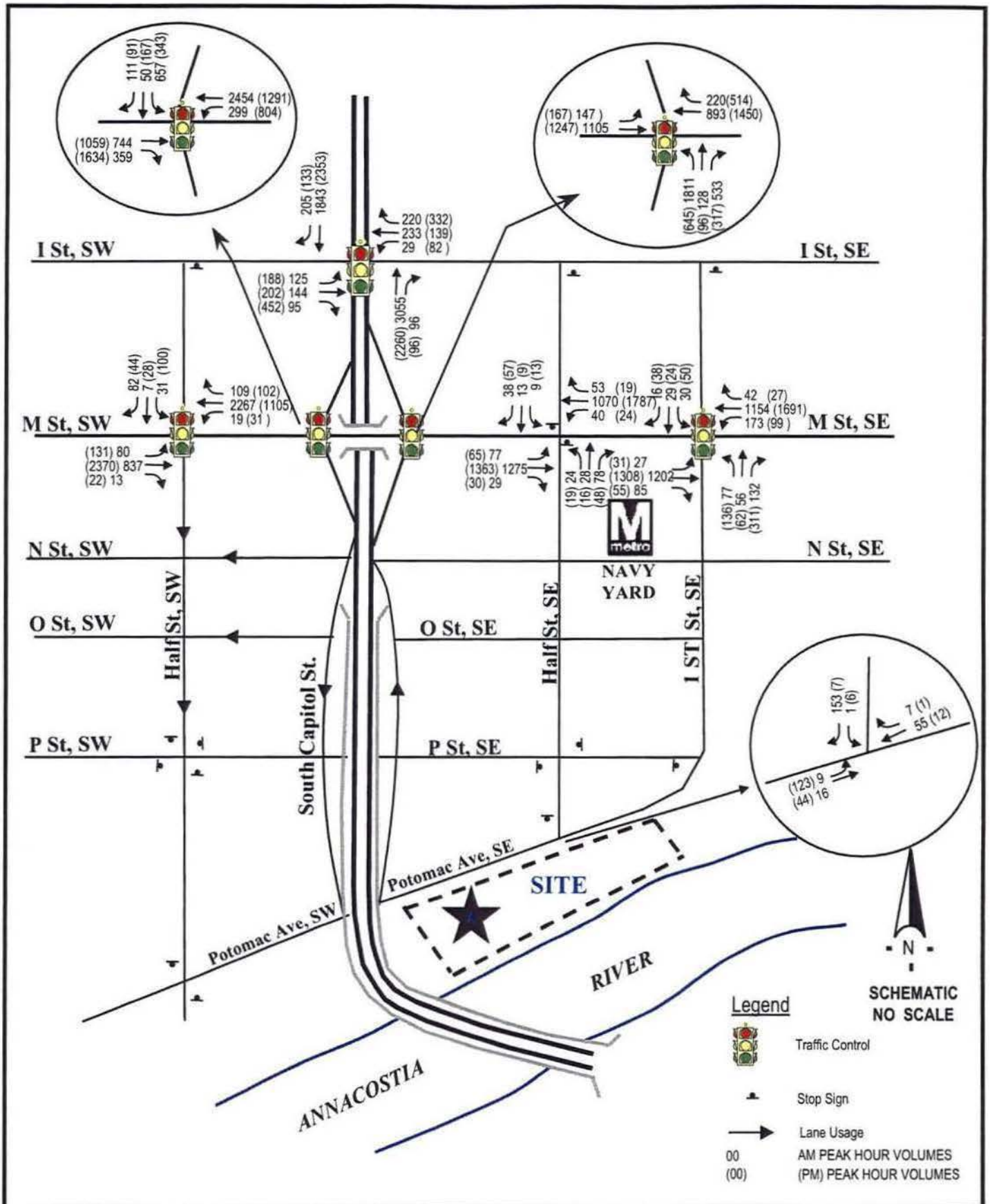

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EXHIBIT 7

PROJECTED YEAR 2010 BACKGROUND TRAFFIC SITUATION
100 Potomac Avenue PUD and Re-Zoning Application– Washington D. C.

TABLE 4

SUMMARY OF CAPACITY ANALYSIS RESULTS - PROJECTED YEAR 2010 BACKGROUND TRAFFIC SITUATION

Intersection	AM Peak Hour		PM Peak Hour	
	Level of Service	Avg. Delay (Sec/Veh)*	Level of Service	Avg. Delay (Sec/Veh)*
1) Potomac Ave @ Half St, S.E**	A	9.6	B	11.2
2) M St. @ 1st St, S.E*	B	14.3	C	26.1
3) M St. @ Half St, S.E**	C	18.1	D	29.9
4) South Capitol St @ M St. Northbound Ramp*	F	271.4	F	125.1
5) South Capitol St @ M St. Southbound Ramp*.	F	107.7	F	212.0
6) M St @ Half St, S.W*	B	17.3	A	9.6
7) South Capitol St @ I St, S.E*	D	41.5	D	50.9

* Signalized Intersection

** Unsignalized intersection. HCM results are provided for unsignalized intersections with single or two-lane approaches only. Pro-rated HCM results are provided for locations with three-lane approaches.

Source: O. R. George & Associates.

4.0 FUTURE TRAFFIC SITUATION

4.1 Proposed Development Plan

As noted earlier, this analysis is in support of the Second-Stage Planned Unit Development and Map Amendment applications for the uses proposed for the subject property. Per the First Stage approval, C-3-C (Major Employment and Business Center) will be the applicable zoning category, and the development plan for the site will consist of the following uses and supporting elements:

a) ***Land uses:***
- 602,896 GSF Office
- 39,498 GSF Retail
- 235 - Room Hotel
- 160 Apartment Units

b) ***Parking:***
- Approximately 1,087 off-street parking spaces within a three-level below-grade parking garage (including 40 residential tandem spaces)

c) ***Loading/Delivery Space***
- Thirteen (13) loading berths and four (4) delivery spaces all consistent with the applicable zoning category.

Site amenities will include a pedestrian walkway to the Waterfront Esplanade, a pedestrian and bicycle pathway linking the site with the Southeast Federal Center, and forming part of the Anacostia Riverwalk. Immediate pedestrian access and drop-off/pick-up access to the site will be from Potomac Avenue, S.E., via a driveway forming the fourth approach of the Half Street/Potomac Avenue intersection.

4.2 Trip Generation

DDOT typically requires that the trip rates recommended by the Institute of Transportation Engineers be utilized in conducting traffic impact assessments. One element of this assessment pertains to the determination of the level of incremental trips that can be expected from the future site, when compared with the vehicle trip generation for the existing site usage.

As noted in the Applicant's Statement, the site is currently used as a concrete batching plant, and generates approximately 350 truck trips daily. Such trucks have a passenger car equivalency of 2.0. Therefore, when employee and other site trips are considered, this study estimates that the existing property currently generates about 700 vehicle trips daily, with 60 - 80 of these trips occurring during the weekday morning and afternoon peak hours. In conformance with the procedures recommended by DDOT, and as followed in the studies conducted for recent large developments within the local area, estimates of weekday trip generation for 100 Potomac Avenue site were developed to reflect the following:

a) Proximity of the site to the Navy Yard Metrorail Station and regional bus routes along M Street;

b) Proximity to major employment centers such as the SEFC the DDOT Headquarters, and the Navy Yard; as well as relative accessibility to Capitol Hill and the Southwest Governmental Center and the mixed-use nature of the subject development.

Based upon the above factors, the trip generation rates were developed and applied to the proposed PUD uses as detailed in Table 5 below.

TABLE 5

PROJECTED PEAK HOUR TRIP GENERATION – PROPOSED 100 POTOMAC AVENUE DEVELOPMENT

	AM Peak Hour			PM Peak Hour		
Trip Rates	**In**	**Out**	**Total**	**In**	**Out**	**Total**
• Trips Per Apartment Unit	0.10	0.41	0.51	0.40	0.22	0.62
--With 45% Transit Usage*	0.05	0.23	0.28	0.22	0.12	0.34
• Trips Per 1000 GSF Gen. Office	1.36	0.19	1.55	0.25	1.24	1.49
--With 50% Transit Usage*	0.68	0.10	0.78	0.13	0.62	0.75
• Trips Per 1000 GSF Retail Space	0.63	0.40	1.03	1.80	1.95	3.75
--With 90% Walk Trips	0.06	0.04	0.10	0.18	0.20	0.38
• Trips Per Hotel Room	0.34	0.22	0.56	0.31	0.28	0.59
--With 50% Transit Usage*	0.17	0.11	0.28	0.16	0.14	0.30
Trip Generation						
• Trips/160 Apartment Units	8	37	45	35	19	54
• Trips/602,896 GSF General Office	410	60	470	78	374	452
• Trips/36,000 GSF Usable Retail Space	2	1	3	6	7	13
• Trips/235 Hotel Rooms	40	26	66	38	33	71
A Total (Proposed Development)	460	124	584	157	433	590
B Existing Area Trips**	48	20	68	20	48	68
Net Trips (A – B)	**+412**	**+104**	**+516**	**+137**	**+385**	**+522**

* Based on WMATA 1989 Development Ridership Survey Report (Figure 36, p. 103, Figure 31, p. 96, Figure 39, p.107 for residential, office and hotel uses, respectively).

** Based on current site trips per day for Virginia Concrete.

Source: ITE Trip Generation Manual (2003), WMATA and O. R. George & Associates.

4.3 Trip Distribution and Traffic Assignment

The focus of this study is primarily on the trips that would utilize the defined study area roadway network during weekday morning and afternoon peak hours. Furthermore, the location of the property and the mix of uses planned for the site strongly suggest the following distribution patterns in terms of origins for trips entering the site, and in terms of destinations for trips leaving the site.

> ***Office Use:*** *The peak hour trip generation and associated distribution pattern of the office component of the development would be highly dependent upon the type and size of tenant uses. The Applicant's statement has noted the objective of having a large Federal tenant or major corporate/commercial user(s). With such occupancy, trips would be attracted from the Metropolitan region generally; but would also attract significant employees from the close-in sections of the City.*
>
> ***Residential Use:*** *This land use component would generate trips with a significant orientation to the major employment centers within the sub-area, including the Southeast Federal Center and DOT Headquarters, as well as Capitol Hill, and other government, institutional, and corporate sections of the City's Central Employment Area.*
>
> ***Hotel Use:*** *The trip distribution pattern for this use would be generally compatible with the residential component of the site, with some proclivity for the visitor section of the City.*

The retail component of the development is likely to be largely local serving in character, and should have little (if any) impact on the study area roadway network. This is stated to underscore the generally conservative nature of our analysis. The distribution patterns assumed and traffic assignments for the proposed land uses are included as Appendix H. The projected total site traffic assignment is illustrated in Exhibit 8.

4.4 Capacity Analysis - Year 2010 Total Traffic Situation

The year 2010 total traffic situation was derived by combining the traffic assignment for the proposed development (Exhibit 8) with the year 2010 total background traffic situation (Exhibit 7). The year 2010 total traffic situation is illustrated in Exhibit 9 (on page 27). These volumes were analyzed using the Highway Capacity Manual (HCM), as was done for the existing and background traffic conditions. The level of service results are presented in Table 6 on page 24.

The capacity analysis results indicate that, upon build-out of the proposed development, the study area intersections will operate acceptably with the exception of the intersection of South Capitol Street/M Street intersections during the morning and afternoon peak periods. The capacity analysis worksheets for this situation are presented in Appendix I.

The future (2010 total) traffic situation at the South Capitol Street/M Street location would only be marginally worse than the 2010 background traffic situation. This is because of the following factors.

a) A significant percentage of the trips accessing the development would utilize the directional South Capitol Street service roadways, and the mainline portion single-point-urban diamond interchange (as shown in Appendix H);

b) Transit usage for the site would be quite significant; and

c) The level of internal trips is likely to be high. (i.e.; trips between hotel/residential and office buildings)

It is also noted that the South Capitol Street/M Street intersections are utilized by commuter/through traffic to a greater extent, relative to local traffic. It is the aim of the South Capitol Street Gateway study to find solutions to the traffic situation, so that local area development and economic growth can continue, and not be impeded by regional/commuter impacts. Major infrastructure improvement proposals are currently under consideration, based on the findings and recommendations of the "South Capitol Street Gateway and Improvement Study" in respect to the South Capitol Street/M Street intersections. The proposals would substantially reduce the volume of through traffic from the local roadways, including the M Street corridor and would greatly increase the entire mobility of the area within the vicinity of the site.

TABLE 6

SUMMARY OF CAPACITY ANALYSIS RESULTS - PROJECTED 2010 TOTAL TRAFFIC SITUATION (INCLUDING 100 POTOMAC AVENUE)

Intersection	AM Peak Hour		PM Peak Hour	
	Level of Service	Avg. Delay (Sec/Veh)*	Level of Service	Avg. Delay (Sec/Veh)*
1) Potomac Ave @ Half St, S.E**	C	16.8	C	19.1
2) M St. @ 1st St, S.E*	C	24.6	C	27.0
3) M St. @ Half St, S.E**	C	20.8	D	33.1
4) South Capitol St @ M St. Northbound Ramp *	F	280.9	F	164.3
5) South Capitol St @ M St. Southbound Ramp * .	F	113.7	F	209.2
6) M St @ Half St, S.W*	B	17.6	A	9.6
7) South Capitol St @ I St, S.E*	D	43.4	D	54.6

* Signalized Intersection

** Unsignalized intersection. HCM results are provided for unsignalized intersections with single or two-lane approaches only. Pro-rated HCM results are provided for locations with three-lane approaches.

Source: O. R. George & Associates.

4.5 Parking Analysis

The proposed development site was zoned and will be zoned C-3-C, as was discussed previously. The City's parking requirements, based on the proposed land uses and zoning category, are compared with the off-street parking proposed for the subject development in Table 7 below.

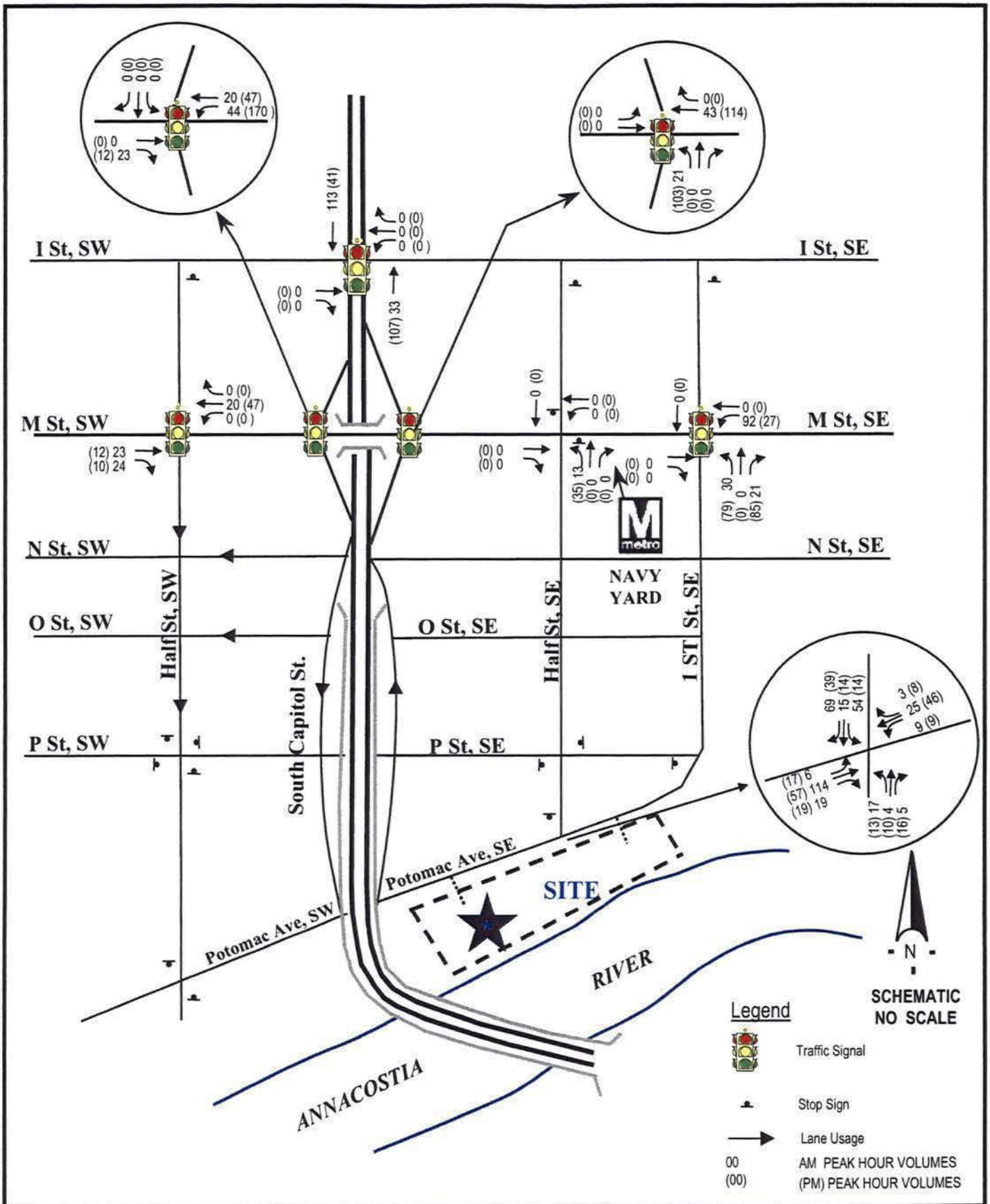
TABLE 7

REQUIRED VS PROPOSED OFF-STREET PARKING

Land Use	Required Ratio (Parking)	Required Parking	Proposed Off-Street Parking
• Apartments (160 Units) (1 per unit)	0.25	40	251
• Office (602,900 GSF) (Per 1,000 GSF)	55	330	639
• Retail (36,000 GSF) (Per 1000 GSF)	1.33	44	44
• Hotel (235 Rooms) (Per room)	0.25	59	153
TOTAL		473	1,087

Source: DCMR Title 11 – Zoning and O. R. George & Associates.

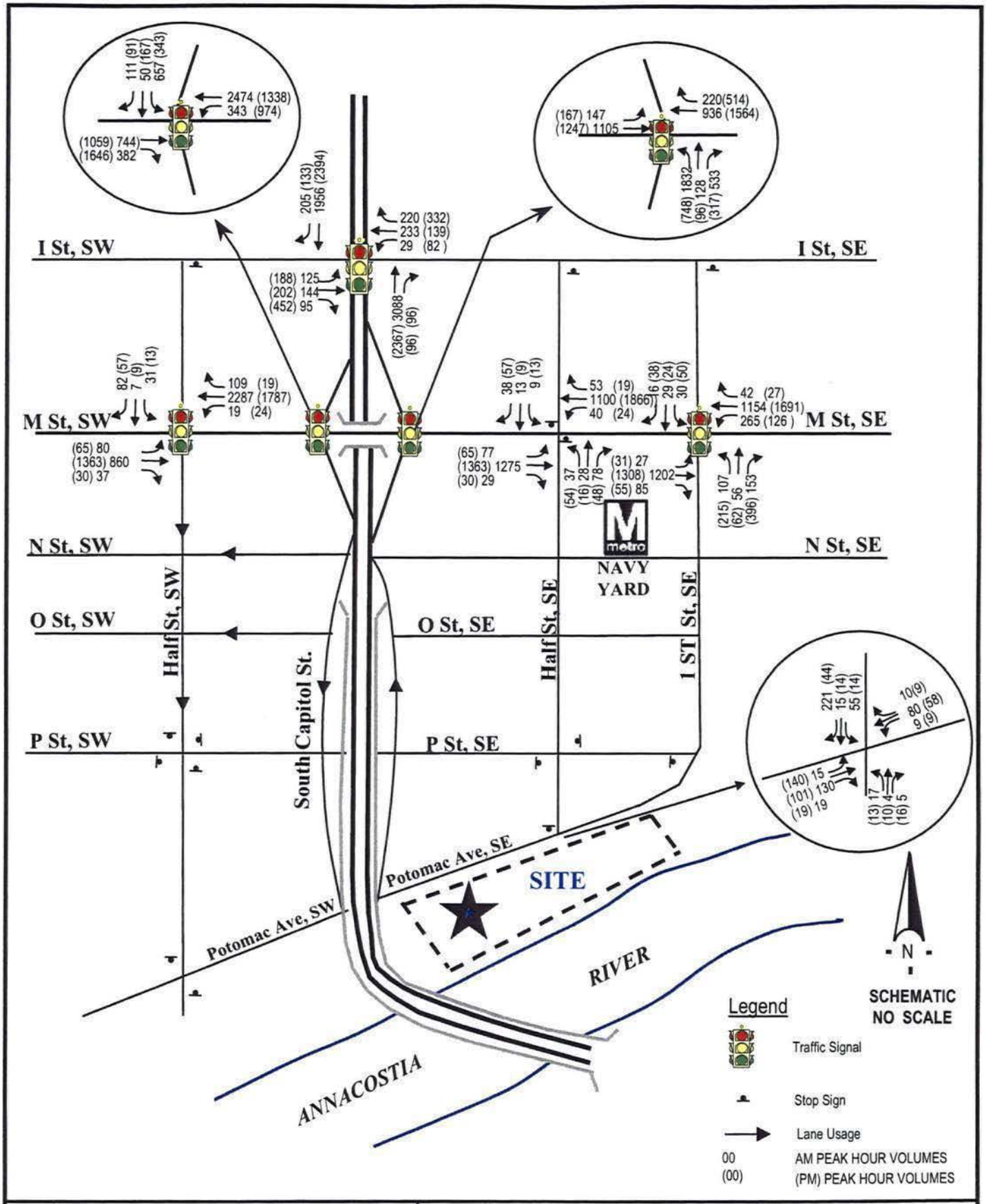
Table 7 clearly shows that the proposed off-street parking will exceed the required parking by a factor of 2.25. It is noted that the proposed development would have minimal on-street parking, and therefore the off-street parking supply has been planned to provide projected needs of the future land use.



O. R. GEORGE & ASSOCIATES, INC.
Traffic Engineers - Transportation Planners

EXHIBIT 8

SITE TRAFFIC ASSIGNMENT
100 Potomac Avenue PUD and Re-Zoning Application – Washington D. C.



O. R. GEORGE & ASSOCIATES, INC.
Traffic Engineers - Transportation Planners

EXHIBIT 9

PROJECTED YEAR 2010 TOTAL TRAFFIC SITUATION
100 Potomac Avenue PUD and Re-Zoning Application – Washington D. C.

5.0 MITIGATION CONSIDERATIONS

5.1 Area Planning Studies and Initiatives

Several planning studies and initiatives are being undertaken by the City to address existing transportation conditions within the general area of the 100 Potomac Avenue, S.E. development site. These efforts highlight the need for transportation improvements in support of various planning, urban design and master plan development proposals. The key planning studies are noted below.

- **Anacostia Waterfront Initiative (AWI)**

  This is a multi-year comprehensive plan, which was commissioned by the District of Columbia Office of Planning. The geographic area of the AWI is the section of the Anacostia River and its adjacent communities, situated between the Potomac River and the Maryland State Line. The AWI also covers the area between the Anacostia River (to the south) and the Southeast/Southwest Freeway (I-395) (to the north), including the 100 Potomac Avenue site. Specific transportation recommendations of the plan include:

  - Promotion of public transit throughout the AWI study area.
  - Provision of a new tunnel connecting I-295 with I-395, to significantly reduce through vehicular demand on the 11th Street Bridge, and the Frederick Douglass Memorial Bridge/South Capitol Street corridor. (This would result in a significant reduction of through traffic along M Street within the PUD study area.)
  - Modification of the 11th Street Bridge to increase transit and provide pedestrian access.

- **South Capitol Street Urban Design Study (2003) and South Capitol Street Gateway and Improvement Study (2003).**

  These studies were undertaken by the National Capital Planning Commission, the District of Columbia Department of Planning and the District Department of Transportation. The primary objective was the development of alternative urban design and revitalization schemes that would accentuate the South Capitol Street corridor as a prominent axis of, and gateway to the Nation's Capital. Key transportation recommendations include:

  - Construction of a tunnel, connecting I-295 and I-395, to reduce through traffic from South Capitol Street and the Frederick Douglass Memorial Bridge.
  - Construction of a new Frederick Douglass Memorial Bridge that would primarily serve local traffic, provide better connections to Potomac Avenue and other local streets, as well as accommodate increased levels of transit, and provide for higher pedestrian and bicycle usage.
  - Accommodation of local traffic on South Capitol Street, through the combination of boulevard, side street connection and public transit improvements.

It is important to note that the planning studies cited above are quite complementary, particularly in terms of their recommendations for mobility and access improvements pertaining to the major travel corridors within the impact area of the 100 Potomac Avenue site.

In addition to the above, the WMATA Regional Bus Study (2002) and the WMATA/DDOT Transit Development Study (2002) have recommended the enhancement of transit services along the M Street corridor. These include the provision of pre-emptive bus signalization and exclusive bus lanes, additional bus routes and trolley/light rail transit service.

5.2 Transportation Management Plan Considerations

As noted earlier, the 100 Potomac Avenue PUD site will include 602,896 GSF of office space, 39,498 GSF of retail space, 160 residential units and a 235-room hotel. The foregoing traffic analyses have shown that two (2) intersections along M Street would operate at capacity, upon build-out of the subject PUD as well as substantial level of "background" developments planned within the immediate area. Based on these considerations, and in keeping with the City's general policies and guidelines regarding proposed large tract developments, this study has identified a number of measures that could constitute a Transportation Management Plan (TMP) for the proposed development. This TMP would help to ensure adequacy of transportation facilities and provide substantial benefits to the local area as well.

Transportation Management Plan (TMP)

The primary objective of this TMP is the implementation of a mix of strategies and measures, which would reduce the level of single-occupant vehicle trips generated by the subject PUD, during weekday peak periods. This in turn would reduce traffic congestion, vehicle miles of travel, fuel emissions and other related factors, which could adversely impact the quality of life.

The Applicant has noted that major federal agency or large corporate tenants are being sought for this site. In this context, it is noted that the definitive reference utilized for the development of Transportation Management Programs within the National Capital Region is the "Federal Transportation Management Program Handbook" (1998), which was prepared by the General Services Administration and the National Capital Planning Commission for Federal employment centers. The plan also considers the location of the proposed PUD to the Navy Yard Metrorail Station, and to Metrobus routes along M Street and South Capitol Street. Consideration is also made of the significant commercial and residential developments, including the 5,500-employee U. S. Department of Transportation Headquarters and the Southeast Federal Center. The proximity of the above developments to the 100 Potomac Avenue site provides substantial opportunities for the coordination and sharing of TMP strategies and measures.

Based on the above considerations, as well as other accepted planning principles and practices, the proposed TMP would include the following strategies and measures:

- **Resident and Employee Transportation Coordinator(s)**: This person (or persons) would have responsibility for administering the TMP. Specific duties will include liaison with the prospective tenants and the City's planning agencies; dissemination

of transit, ridesharing and related information regarding guaranteed ride-home; parking management as well as responsibility for monitoring, evaluation and enhancement of the TMP strategies.

- **Carpools and Vanpools**: The transportation coordinator(s) would implement measures, which encourage these forms of ridesharing. These measures would include activities, which match residents and employees seeking to rideshare to/from work, in lieu of driving alone. Incentives for this measure are linked to parking management measures addressed below.
- **Flexible Work Hours**: The prospective office tenants would be encouraged to implement a variable work program, which includes flextime, a compressed work week and staggered work hours. These measures would serve to reduce the morning and afternoon peak period vehicular trip generation of the proposed office uses.
- **Parking Management**: The TMP will include the assignment of a limited number of preferentially-located parking spaces to residents and employees participating in ridesharing activities managed by the transportation coordinator(s). Other strategies would include pricing of parking as well as the provision of secure bicycle spaces, shower facilities, etc.
- **Coordination with Other TMP's**: In keeping with the policies and stipulations of the City planning agencies, and the Federal Handbook referred to earlier, it is envisaged that a TMP would be implemented at each of the substantial commercial/residential developments planned for the U.S. DOT Headquarters, Southeast Federal Center and other local developments. The transportation coordinator(s) would also be responsible for investigating the possibility of coordinating and sharing program strategies, such as shuttle bus services, sale of Metro tickets, etc.

In addition to the above, it is noted that a federal agency tenant would have the option to provide financial incentives such as transit subsidies, through the Metrochek program. This has been shown to have a major impact in enhancing the effectiveness of Transportation Management Plans within the region.

Based on the WMATA 1989 Ridership Report, transit reduction factors of 45% and 50% were considered for the proposed residential and office uses, respectively. It is estimated that an effective implementation of the TMP measures noted above, could increase the modal split to 50% (residential) and 55% (office). These modal splits would reduce the projected trip generation and related impacts of the proposed development.

5.3 Study Area Roadway Improvements

The area South of M Street includes a number of major properties that are vacant or underutilized. The study area roadways are correspondingly in generally poor condition and in need of major improvements (such as resurfacing, pavement markings, curb-and-gutter, lighting, landscaping and urban design features). With the high level of approved and planned development in the study area, it is understood that the roadway conditions are to be improved as part of the City's South Capital Street design plans, in order to facilitate the projected traffic volumes.

6.0 SUMMARY OF FINDINGS AND CONCLUSION

6.1 Summary of Findings

This study has examined the potential impacts of the proposed 100 Potomac Avenue Planned Unit Development. The study was performed in accordance with the general guidelines stipulated by the District of Columbia Department of Transportation (DDOT) Transportation Policy and Planning Administration, regarding the evaluation of the transportation impacts of development proposals. The principal findings of the study are as follows:

a) The defined study area roadway network currently operates at acceptable Levels of Service, during both the morning and afternoon peak periods. The exceptions are the South Capitol Street northbound and southbound ramps at M Street intersections, which operate at capacity during the morning and afternoon peak periods, respectively.

b) The design year (2010) background traffic conditions considered potential growth in through traffic along the key study area roadways. Based on the City's Economic Development Map, as well as information provided by the Office of Planning and DDOT's "4th Street SW Transportation Study," a number of significant planned/approved background developments were included in the year 2010 traffic forecasts. These included planned as well as approved developments.

c) The proposed development would generate an average of 519 incremental vehicle trips unto the study area road network during the morning and afternoon peak hours. These trips would be well distributed resulting in minimal impacts on the study area intersections.

d) The fact that most of the vehicle trips accessing the site would utilize the Freeway System serving the area (i.e., I-295, I-395, South Capitol Street, etc) is quite significant in considering the potential impacts on the local area roadway network. In this context, it is also noted that the proposed development would be located in proximity to the Navy Yard Metrorail Station and Metrobus services along M Street.

e) The study area roadway network would continue to operate at acceptable Levels of Service, except for the South Capitol Street/M Street intersections, which would operate at capacity during the morning and afternoon peak periods.

f) The South Capitol Street/M Street intersections are currently under consideration for major infrastructure modifications relating to the "South Capitol Street Gateway and Improvement Study" and the "Anacostia Waterfront Initiative". The current proposals for the South Capitol Street corridor would eliminate a significant percentage of through traffic from the local roadways and would consequently enhance levels of service and overall mobility within the area of the site.

g) The proposed development would provide 1,087± off-street parking spaces (including 40 tandem spaces). This supply would significantly exceed the number of spaces required by the City's Zoning Regulations.

The Applicant proposes a Transportation Management Plan that would further reduce vehicle trips and effectively serve the local area. This would be geared toward maximizing the use of transit and other alternative modes by the prospective users, to reduce the potential site vehicular trip generation and related impacts.

6.2 Conclusion

Based on the foregoing data, discussions and analysis, this study has determined that the 100 Potomac Avenue Planned Unit Development can be occur as planned, without appreciable adverse traffic impacts on the local area. The location of the property is favorable relative to major public transportation facilities and services. Its mixed land uses, as well as its proximity to other existing and planned major employment centers, all contribute to favorable mode splits and directional distribution of vehicular traffic. In addition, the site is easily accessible from the regional freeway system, including access via the directional (i.e., northbound and southbound) service roadways of the South Capitol Street corridor.

This study has noted that the City is currently undertaking major initiatives that would lead to investments in transportation infrastructure and the enhancement of South Capitol Street as a major gateway into the City. The objectives of these plans are also complementary with those of the Anacostia Waterfront Initiative, of which the subject property and its environs will also be beneficiaries. The Transportation Management Plan that will be provided by the Applicant and frontage improvements should also provide substantial public benefits to the local area.

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APPENDIX

A

CORRESPONDENCE WITH DDOT POLICY AND PLANNING ADMINISTRATION STAFF

O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers – Transportation Planners

10210 Greenbelt Road, Suite # 310 • Greenbelt, Maryland 20706
Tel: (301) 794-7700 • Fax: (301) 794-4400
E-mail: orgassoc@aol.com

June 22, 2004

Mr. Abdoulaye Bah, Sr. Transportation Engineer
Transportation Policy and Planning Administration
District of Columbia Department of Transportation
2000 14th Street, N.W. 7th Floor
Washington, D.C. 20009

Re: 100 Potomac Avenue Planned Unit Development Application

Dear Mr. Bah:

Further to our recent telephone conversations, we hereby confirm that the Applicant in the referenced matter, Florida Rock Properties, Inc, has retained our firm to prepare a Transportation Impact Analysis in support of the referenced application. The purpose of this letter is to confirm the project background, and the key study parameters we propose to use for the study.

As background, we note that 100 Potomac Avenue is a 5.8 Acre property situated east of South Capitol Street, and along the north Anacostia River Waterfront, in the Southeast sector of the City. The site is also in proximity to the Navy Yard complex and Metrorail Station. The subject property is zoned Commercial (C-3-C) and was rezoned under the first-stage PUD Zoning Order (Zoning Case No. 01-31TE/98-17F/95-16P, Order No. 910-B, March 10 2003). The property has been used as a concrete and asphalt mixing plant for over fifty years; and the applicant proposes to redevelop the site with a mixed-use community comprising of 160 apartment units, 602,898 SF general office, 36,000 SF retail space and a 248,300 SF hotel (240 rooms). It is projected that a significant number of the future commercial and residential trips would utilize the adjacent Metrorail Station and Metrobus routes along M Street and South Capitol Street. The Applicant also proposes to implement a Transportation management plan, which will include shuttle bus service linking the site with the adjacent Metrorail Station.

Based on the above considerations, we propose to focus our study on the roadway network defined by the following six (6) intersections:

1) South Capitol Street Northbound Ramps @ M Street (Signalized);
2) South Capitol Street Southbound Ramps @ M Street (Signalized);
3) M Street @ Half Street, SE (Stop Sign Controlled);
4) M Street @ 1st Street, SE (Signalized);
5) South Capitol Street @ I Street (Signalized); and
6) M Street @ Half Street, SW (Signalized).

Traffic growth trends and background developments will be considered in projecting the future build-out traffic conditions, in accordance with your Department's usual requirements. In this regard, we note that the Zoning Commission recently approved a Planned Unit Development for the Capper-Carrollsburg mixed-use development situated to the north of the subject site along M Street. The transportation analysis conducted in support of that development included substantially the same roadway network and general impact area for which background developments were considered. We propose to utilize substantially the same background information and evaluation process for the current effort.

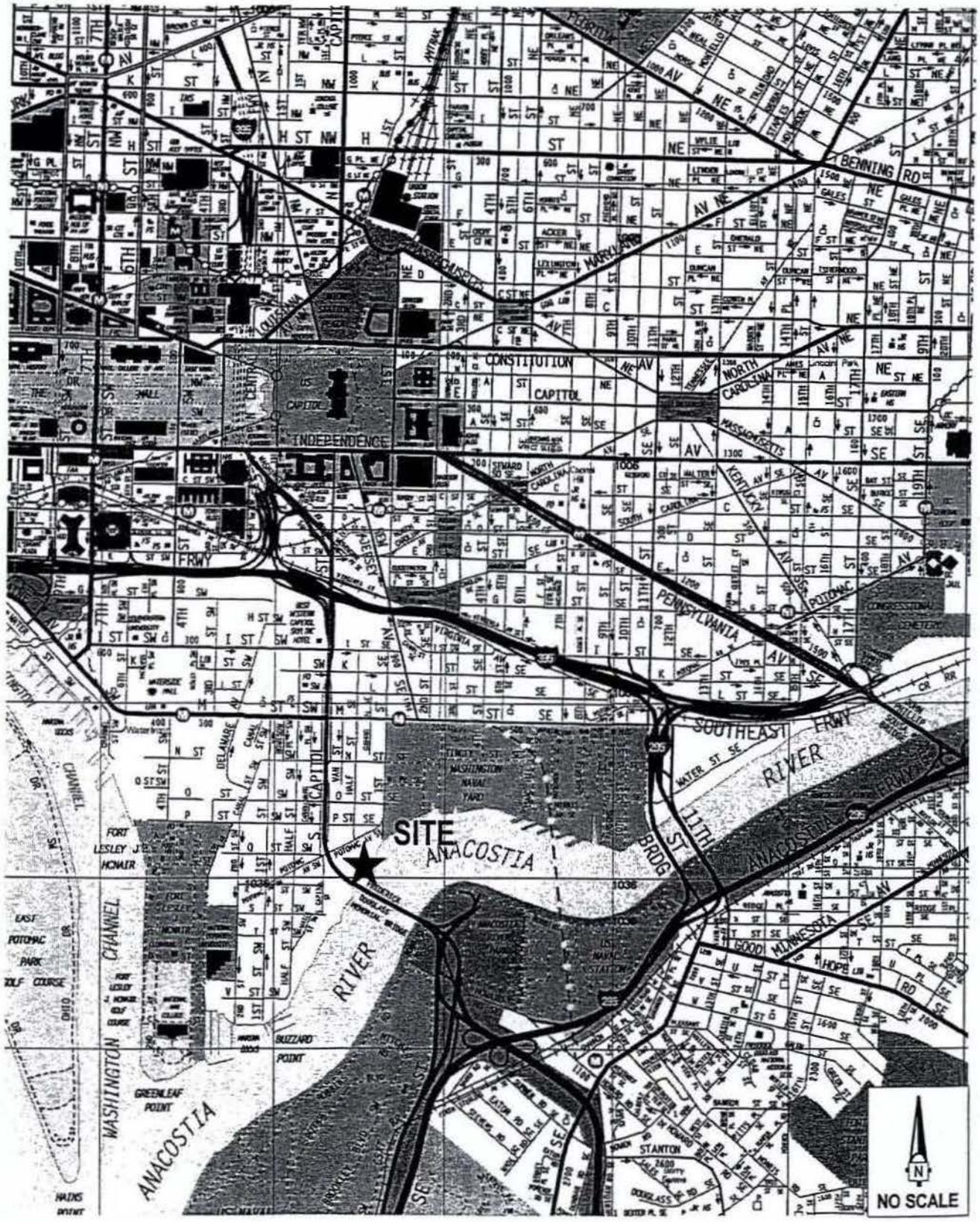
Please confirm that the above is in accordance with DDOT's general requirements, as well as with any specific requirements that may be applicable to the area of the site. We would also appreciate any additional information or perspective that could be useful to our study and to the application process. Thanks for your usual attention and assistance in this matter.

Sincerely,
O. R. GEORGE & ASSOCIATES, INC.

Osborne R. George
President

ORG/ijb

cc: David W. Briggs, Esquire, Holland & Knight, LLP
Mr. D. Buckley, Davis Buckley Architects and Planners



O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers – Transportation Planners

EXHIBIT

SITE LOCATION MAP

100 Potomac Avenue Development - Washington D.C

Subj:	**RE: Scoping Agreement: 100 Potomac Avenue PUD**
Date:	6/25/2004 10:06:22 AM Eastern Standard Time
From:	abdoulaye.bah@dc.gov
To:	ORGASSOC@aol.com
CC:	abdoulaye.bah@dc.gov, Rick.Rybeck@dc.gov
Sent from the Internet (Details)	

The scope of work should include the intersection of Potomac Ave. SE @Half Street, SE. Note, Potomac Ave Will front the Proposed Project and will provide direct access to and from the site. With this addition, the scope of your study is good.
A. Bah

-----Original Message-----
From: ORGASSOC@aol.com [mailto:ORGASSOC@aol.com]
Sent: Friday, June 25, 2004 9:31 AM
To: abdoulaye.bah@dc.gov
Subject: Scoping Agreement: 100 Potomac Avenue PUD

Greetings, Mr. Bah,

As discussed with Cullen Elias earlier this morning please find attached our scoping agreement letter for the referenced PUD application and an exhibit showing the study area.

Best Regards

Iain Banks
O. R. GEORGE & ASSOCIATES, INC.
Traffic Engineers - Transportation Planners
10210 Greenbelt Road, Suite 310
Lanham, MD 20706-2218
(301) 794-7700 (Voice)
(301) 794-4400 (Fax)

APPENDIX

B

TRAFFIC TURNING MOVEMENT COUNT SUMMARIES-
EXISTING TRAFFIC SITUATION

O. R. George & Associates, Inc
10210 Greenbelt Road, Suite 310
Lanham, MD 20706
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-NL
Board :D4-2236
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : SCSB@MST
Site Code : 07162236
Start Date : 06/03/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

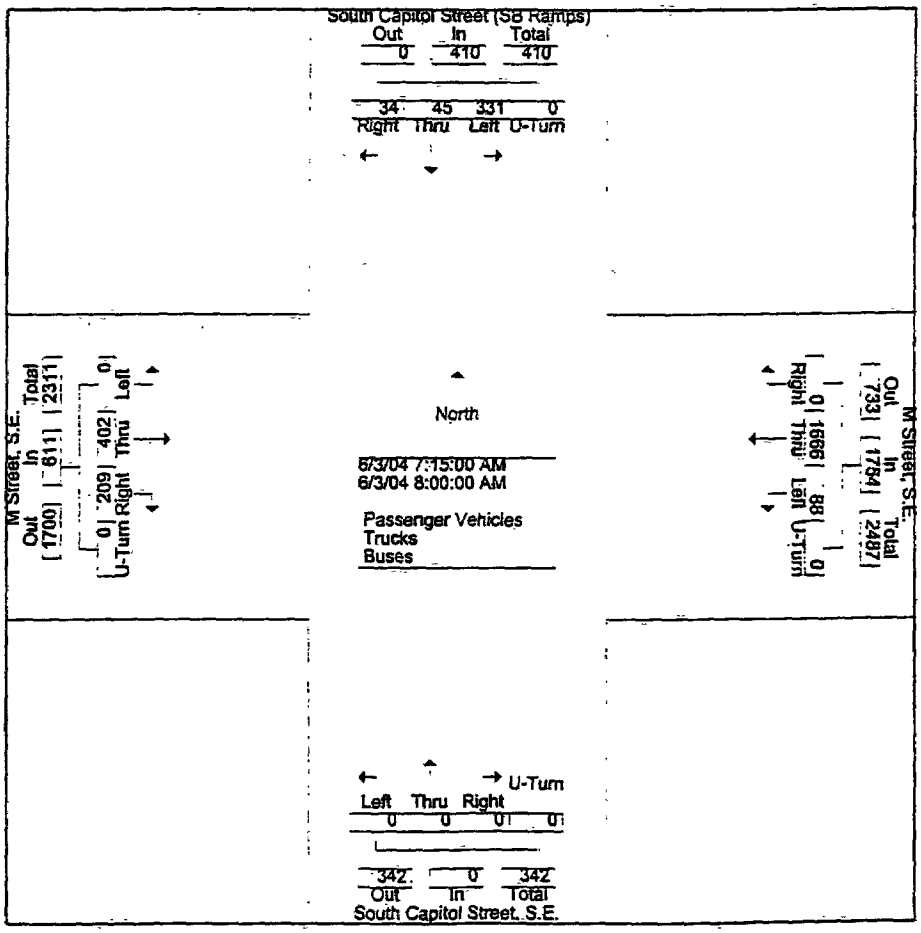
	South Capitol Street (SB Ramps) From North					South Capitol Street, S.E. From South					M Street, S.E. From East					M Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	97	11	10	0	118	0	0	0	0	0	36	375	0	0	411	0	90	56	0	146	675
07:30 AM	80	15	8	0	103	0	0	0	0	0	29	411	0	0	440	0	82	57	0	139	682
07:45 AM	84	10	8	0	102	0	0	0	0	0	15	442	0	0	457	0	119	54	0	173	732
08:00 AM	70	9	8	0	87	0	0	0	0	0	8	438	0	0	446	0	111	42	0	153	686
Total	331	45	34	0	410	0	0	0	0	0	88	1666	0	0	1754	0	402	209	0	611	2775
08:15 AM	70	10	10	0	90	0	0	0	0	0	19	419	0	0	438	0	106	39	0	145	673
08:30 AM	54	13	8	0	75	0	0	0	0	0	16	451	0	0	467	0	81	53	0	134	676
08:45 AM	74	26	13	0	113	0	0	0	0	0	20	413	0	0	433	0	142	49	0	191	737
09:00 AM	54	17	14	0	85	0	0	0	0	0	28	383	0	0	411	0	110	48	0	158	654
Total	252	66	45	0	363	0	0	0	0	0	83	1666	0	0	1749	0	439	189	0	628	2740
04:15 PM	42	22	12	0	76	0	0	0	0	0	76	239	0	0	315	0	171	249	0	420	811
04:30 PM	56	15	10	0	81	0	0	0	0	0	56	192	0	0	248	0	183	294	0	477	806
04:45 PM	53	30	11	0	94	0	0	0	0	0	51	240	0	0	291	0	173	250	0	423	808
05:00 PM	33	33	10	0	76	0	0	0	0	0	42	191	0	0	233	0	206	285	0	491	800
Total	184	100	43	0	327	0	0	0	0	0	225	862	0	0	1087	0	733	1078	0	1811	3225
05:15 PM	21	43	12	0	76	0	0	0	0	0	52	196	0	0	248	0	202	285	0	487	811
05:30 PM	46	43	11	0	100	0	0	0	0	0	48	233	0	0	281	0	190	260	0	450	831
05:45 PM	33	24	7	0	64	0	0	0	0	0	33	173	0	0	206	0	202	240	0	442	712
06:00 PM	24	26	17	0	67	0	0	0	0	0	48	200	0	0	248	0	167	222	0	389	704
Total	124	136	47	0	307	0	0	0	0	0	181	802	0	0	983	0	761	1007	0	1768	3058
Grand Total	891	347	169	0	1407	0	0	0	0	0	577	4996	0	0	5573	0	2335	2483	0	4818	11798
Apprch %	63.3	24.7	12.0	0.0		0.0	0.0	0.0	0.0		10.4	89.6	0.0	0.0		0.0	48.5	51.5	0.0		
Total %	7.6	2.9	1.4	0.0	11.9	0.0	0.0	0.0	0.0	0.0	4.9	42.3	0.0	0.0	47.2	0.0	19.8	21.0	0.0	40.8	

O. R. George & Associates, Inc
10210 Greenbelt Road, Suite 310
Lanham, MD 20706
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-NL
Board :D4-2236
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : SCSB@MST
Site Code : 07162236
Start Date : 06/03/2004
Page No : 2

	South Capitol Street (SB Ramps) From North					South Capitol Street, S.E. From South					M Street, S.E. From East					M Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 12:45 PM - Peak 1 of 1																					
Intersection 07:15 AM																					
Volume	331	45	34	0	410	0	0	0	0	0	88	1666	0	0	1754	0	402	209	0	611	2775
Percent	80.7	11.0	8.3	0.0		0.0	0.0	0.0	0.0		5.0	95.0	0.0	0.0		0.0	65.8	34.2	0.0		
07:45 Volume	84	10	8	0	102	0	0	0	0	0	15	442	0	0	457	0	119	54	0	173	732
Peak Factor																					0.948
High Int.	07:15 AM					7:00:00 AM					07:45 AM					07:45 AM					
Volume	97	11	10	0	118	0	0	0	0	0	15	442	0	0	457	0	119	54	0	173	
Peak Factor					0.869										0.960					0.883	



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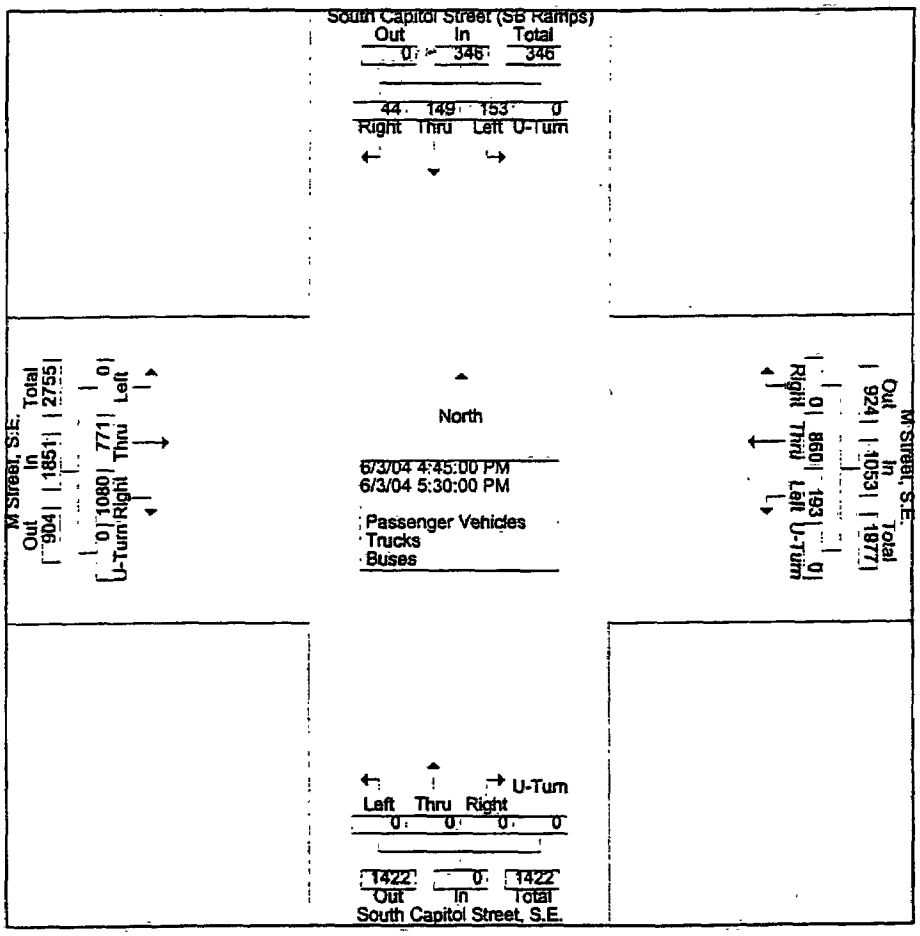
10210 Greenbelt Road, Suite 310
Lanham, MD 20706
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-NL
Board :D4-2236
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : SCSB@MST
Site Code : 07162236
Start Date : 06/03/2004

	South Capitol Street (SB Ramps) From North					South Capitol Street, S.E. From South					M Street, S.E. From East					M Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 01:00 PM to 06:00 PM - Peak 1 of 1																					
Intersection 04:45 PM																					
Volume	153	149	44	0	346	0	0	0	0	0	193	860	0	0	1053	0	771	1080	0	1851	3250
Percent	44.2	43.1	12.7	0.0		0.0	0.0	0.0	0.0		18.3	81.7	0.0	0.0		0.0	41.7	58.3	0.0		
05:30 Volume	46	43	11	0	100	0	0	0	0	0	48	233	0	0	281	0	190	260	0	450	831
Peak Factor																					0.978
High Int.	05:30 PM										04:45 PM					05:00 PM					
Volume	46	43	11	0	100	0	0	0	0	0	51	240	0	0	291	0	206	285	0	491	
Peak Factor					0.865										0.905					0.942	



O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-LM
Board :D4-2237
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : SCS@MST
Site Code : 07042237
Start Date : 06/03/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

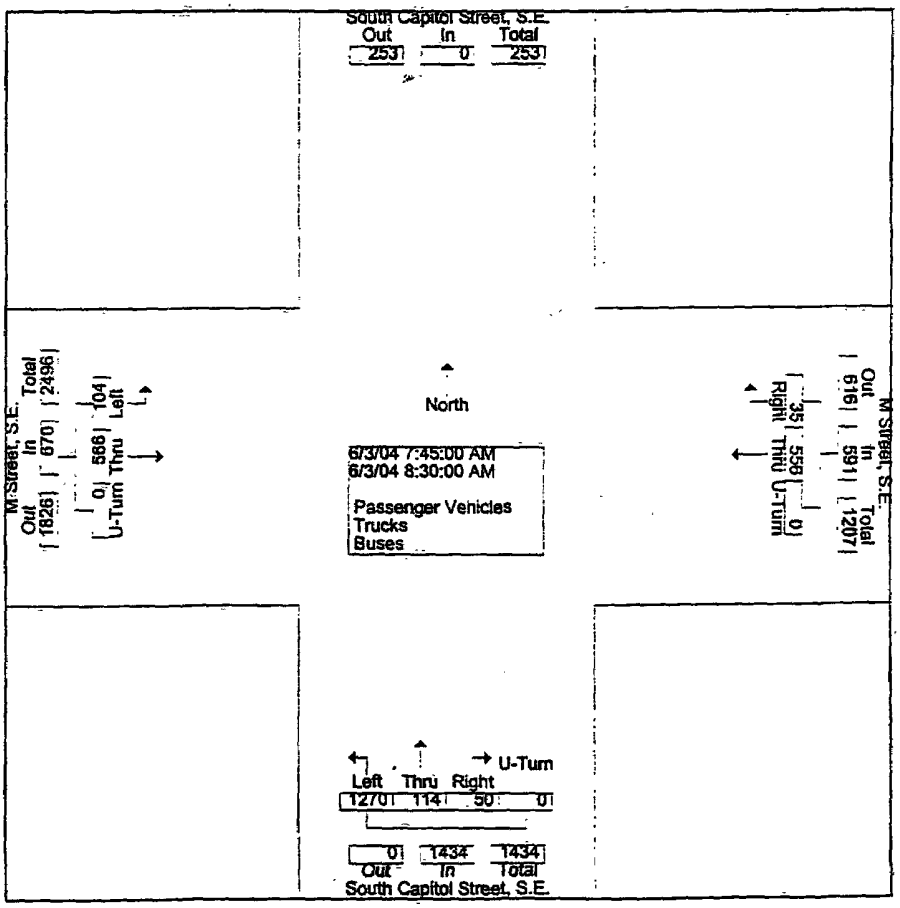
	South Capitol Street, S.E. From South					M Street, S.E. From East				M Street, S.E. From West				
End Time	Left	Thru	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	291	23	17	0	331	100	9	0	109	26	152	0	178	618
07:30 AM	325	24	20	0	369	97	15	0	112	13	141	0	154	635
07:45 AM	324	30	16	0	370	140	7	0	147	27	181	0	208	725
08:00 AM	324	25	10	0	359	131	8	0	139	31	143	0	174	672
Total	1264	102	63	0	1429	468	39	0	507	97	617	0	714	2650
08:15 AM	300	31	13	0	344	147	9	0	156	25	131	0	156	656
08:30 AM	322	28	11	0	361	138	11	0	149	21	111	0	132	642
08:45 AM	287	32	23	0	342	120	14	0	134	31	178	0	209	685
09:00 AM	283	27	19	0	329	115	13	0	128	27	128	0	155	612
Total	1192	118	66	0	1376	520	47	0	567	104	548	0	652	2595
04:15 PM	128	25	20	0	173	175	52	0	227	24	184	0	208	608
04:30 PM	80	17	33	0	130	158	40	0	198	24	203	0	227	555
04:45 PM	103	21	17	0	141	175	43	0	218	27	202	0	229	588
05:00 PM	95	23	18	0	136	130	34	0	164	25	219	0	244	544
Total	406	86	88	0	580	638	169	0	807	100	808	0	908	2295
05:15 PM	107	24	11	0	142	154	32	0	186	29	217	0	246	574
05:30 PM	115	19	18	0	152	164	25	0	189	23	209	0	232	573
05:45 PM	92	10	14	0	116	119	32	0	151	25	214	0	239	506
06:00 PM	122	13	17	0	152	118	23	0	141	21	170	0	191	484
Total	436	66	60	0	562	555	112	0	667	98	810	0	908	2137
Grand Total	3298	372	277	0	3947	2181	367	0	2548	399	2783	0	3182	9677
Apprch %	83.6	9.4	7.0	0.0		85.6	14.4	0.0		12.5	87.5	0.0		
Total %	34.1	3.8	2.9	0.0	40.8	22.5	3.8	0.0	26.3	4.1	28.8	0.0	32.9	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-LM
Board :D4-2237
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : SCS@MST
Site Code : 07042237
Start Date : 06/03/2004
Page No : 2

	South Capitol Street, S.E. From South					M Street, S.E. From East				M Street, S.E. From West				
End Time	Left	Thru	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 12:45 PM - Peak 1 of 1														
Intersection 07:45 AM														
Volume	1270	114	50	0	1434	556	35	0	591	104	566	0	670	2695
Percent	88.6	7.9	3.5	0.0		94.1	5.9	0.0		15.5	84.5	0.0		
07:45 Volume	324	30	16	0	370	140	7	0	147	27	181	0	208	725
Peak Factor														0.929
High Int. 07:45 AM					08:15 AM					07:45 AM				
Volume	324	30	16	0	370	147	9	0	156	27	181	0	208	
Peak Factor					0.969				0.947				0.805	

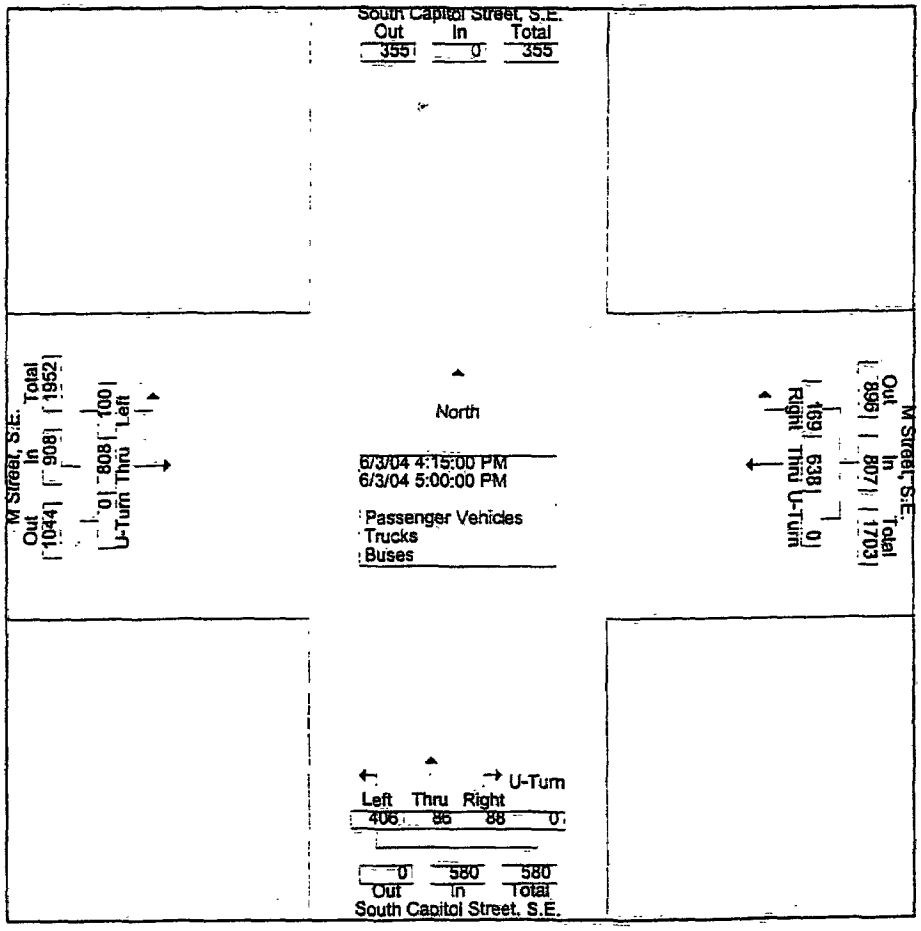


O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-LM
Board :D4-2237
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : SCS@MST
Site Code : 07042237
Start Date : 06/03/2004
Page No : 3

	South Capitol Street, S.E. From South					M Street, S.E. From East				M Street, S.E. From West				
End Time	Left	Thru	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour From 01:00 PM to 06:00 PM - Peak 1 of 1														
Intersection 04:15 PM														
Volume	406	86	88	0	580	638	169	0	807	100	808	0	908	2295
Percent	70.0	14.8	15.2	0.0		79.1	20.9	0.0		11.0	89.0	0.0		
04:15 Volume	128	25	20	0	173	175	52	0	227	24	184	0	208	608
Peak Factor														0.944
High Int.	04:15 PM				04:15 PM					05:00 PM				
Volume	128	25	20	0	173	175	52	0	227	25	219	0	244	
Peak Factor					0.838				0.889				0.930	



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10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-RD
Board :D4-2241
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : HAL@MST
Site Code : 06342241
Start Date : 06/03/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

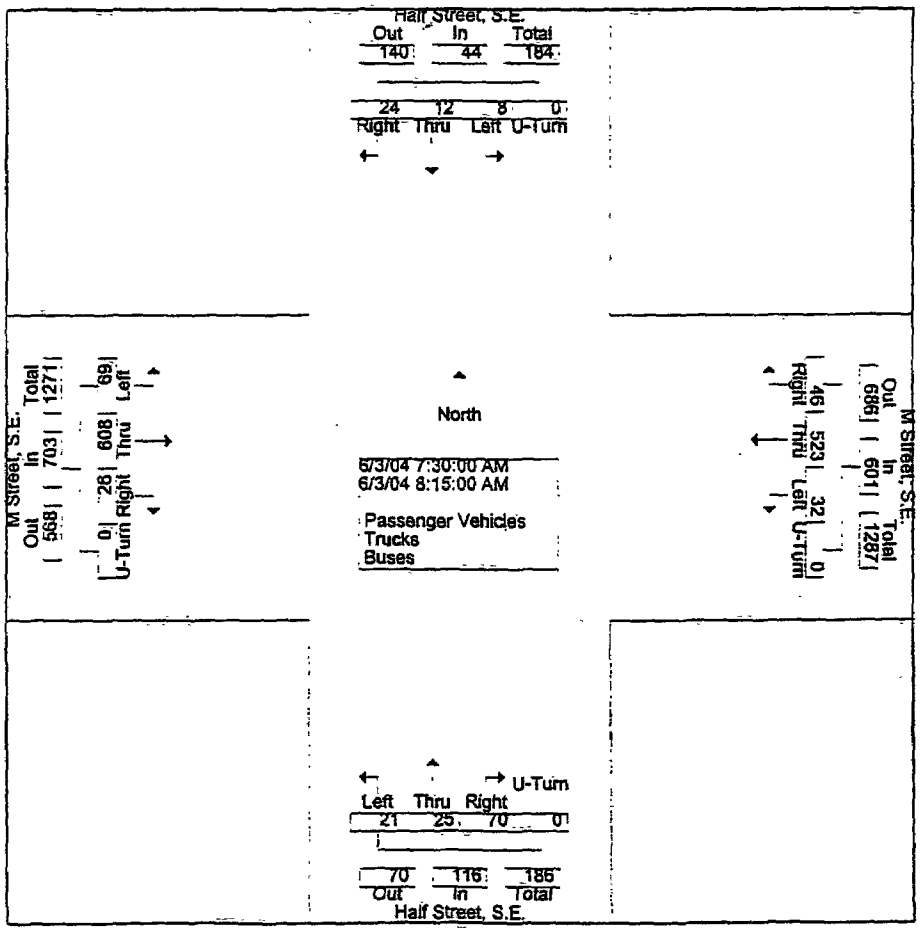
	Hall Street, S.E. From North					Hall Street, S.E. From South					M Street, S.E. From East					M Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	0	0	8	0	8	5	6	13	0	24	8	104	3	0	115	17	164	5	0	186	333
07:30 AM	2	4	8	0	14	3	5	24	0	32	10	109	9	0	128	20	148	13	0	181	355
07:45 AM	2	0	5	0	7	3	2	16	0	21	8	156	10	0	174	17	175	3	0	195	397
08:00 AM	4	4	7	0	15	6	10	17	0	33	9	123	10	0	142	18	145	3	0	166	356
Total	8	8	28	0	44	17	23	70	0	110	35	492	32	0	559	72	632	24	0	728	1441
08:15 AM	0	4	4	0	8	9	8	13	0	30	5	135	17	0	157	14	140	7	0	161	356
08:30 AM	1	1	6	0	8	4	5	25	0	34	14	125	11	0	150	19	105	6	0	130	322
08:45 AM	0	1	3	0	4	8	9	29	0	46	10	128	6	0	144	17	190	10	0	217	411
09:00 AM	4	2	6	0	12	5	4	9	0	18	5	129	4	0	138	11	141	10	0	162	330
Total	5	8	19	0	32	26	26	76	0	128	34	517	38	0	589	61	576	33	0	670	1419
04:15 PM	2	2	14	0	18	9	5	18	0	32	3	186	5	1	195	21	185	5	0	211	456
04:30 PM	3	1	8	0	12	2	3	11	0	16	7	184	3	2	196	11	211	14	0	236	460
04:45 PM	5	2	11	0	18	2	1	6	0	9	4	171	5	0	180	16	185	4	0	205	412
05:00 PM	2	3	16	0	21	4	5	8	0	17	6	168	3	0	177	10	209	4	1	224	439
Total	12	8	49	0	69	17	14	43	0	74	20	709	16	3	748	58	790	27	1	876	1767
05:15 PM	3	1	14	0	18	3	2	9	0	14	6	147	3	0	156	13	184	5	0	202	390
05:30 PM	5	1	10	0	16	5	2	12	0	19	4	138	3	0	145	13	211	6	0	230	410
05:45 PM	3	1	17	0	21	3	2	11	0	16	3	144	6	0	153	14	190	5	0	209	399
06:00 PM	2	2	4	0	8	1	1	4	0	6	2	75	3	0	80	4	117	5	0	126	220
Total	13	5	45	0	63	12	7	36	0	55	15	504	15	0	534	44	702	21	0	767	1419
Grand Total	38	29	141	0	208	72	70	225	0	367	104	2222	101	3	2430	235	2700	105	1	3041	6046
Apprch %	18.3	13.9	67.8	0.0		19.6	19.1	61.3	0.0		4.3	91.4	4.2	0.1		7.7	88.8	3.5	0.0		
Total %	0.6	0.5	2.3	0.0	3.4	1.2	1.2	3.7	0.0	6.1	1.7	36.8	1.7	0.0	40.2	3.9	44.7	1.7	0.0	50.3	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-RD
Board :D4-2241
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : HAL@MST
Site Code : 06342241
Start Date : 06/03/2004

	Half Street, S.E. From North					Half Street, S.E. From South					M Street, S.E. From East					M Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 12:45 PM - Peak 1 of 1																					
Intersection 07:30 AM																					
Volume	8	12	24	0	44	21	25	70	0	116	32	523	46	0	601	69	608	26	0	703	1464
Percent	18.2	27.3	54.5	0.0		18.1	21.6	60.3	0.0		5.3	87.0	7.7	0.0		9.8	86.5	3.7	0.0		
07:45 Volume	2	0	5	0	7	3	2	16	0	21	8	156	10	0	174	17	175	3	0	195	397
Peak Factor																					0.922
High Int.	08:00 AM					08:00 AM					07:45 AM					07:45 AM					
Volume	4	4	7	0	15	6	10	17	0	33	8	156	10	0	174	17	175	3	0	195	
Peak Factor					0.733					0.879					0.864					0.901	



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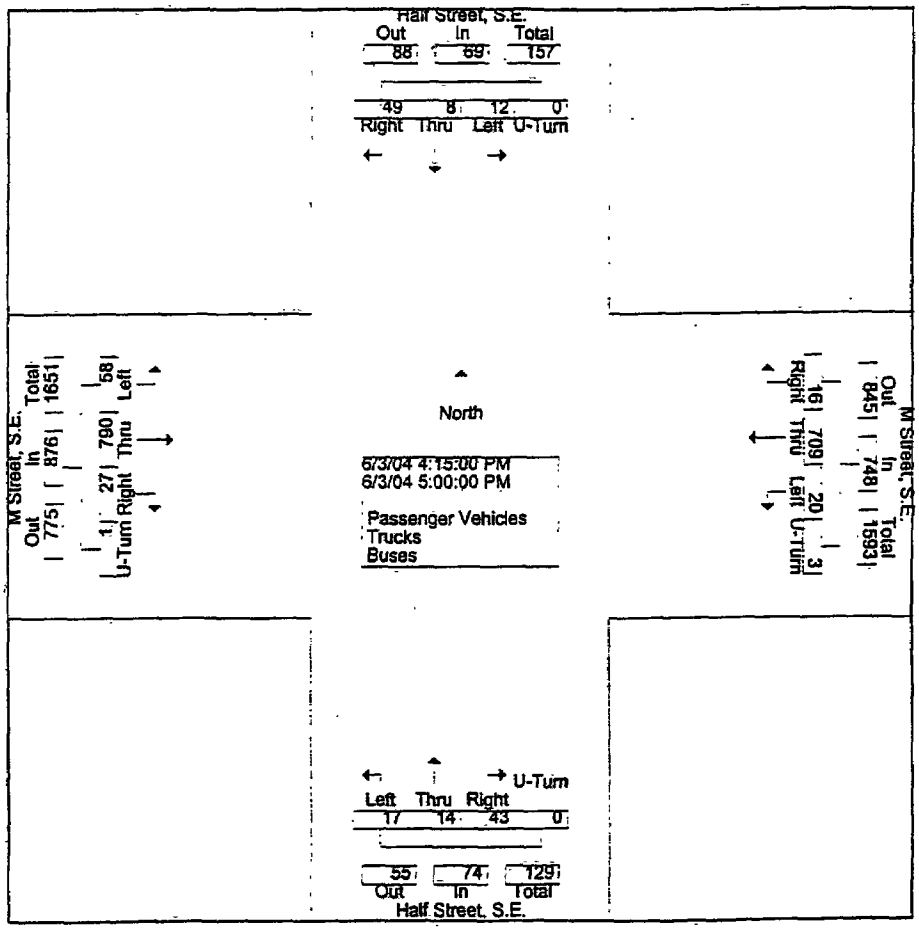
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-RD
Board :D4-2241
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : HAL@MST
Site Code : 06342241
Start Date : 06/03/2004

	Half Street, S.E. From North					Half Street, S.E. From South					M Street, S.E. From East					M Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 01:00 PM to 06:00 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	12	8	49	0	69	17	14	43	0	74	20	709	16	3	748	58	790	27	1	876	1767
Percent	17.4	11.6	71.0	0.0		23.0	18.9	58.1	0.0		2.7	94.8	2.1	0.4		6.6	90.2	3.1	0.1		
04:30 Volume	3	1	8	0	12	2	3	11	0	16	7	184	3	2	196	11	211	14	0	236	460
Peak Factor																					0.960
High Int.	05:00 PM					04:15 PM					04:30 PM					04:30 PM					
Volume	2	3	16	0	21	9	5	18	0	32	7	184	3	2	196	11	211	14	0	236	
Peak Factor					0.821					0.578					0.954					0.928	



O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-MO
Board :D4-2239
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : 1ST@MST
Site Code : 05242239
Start Date : 06/03/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

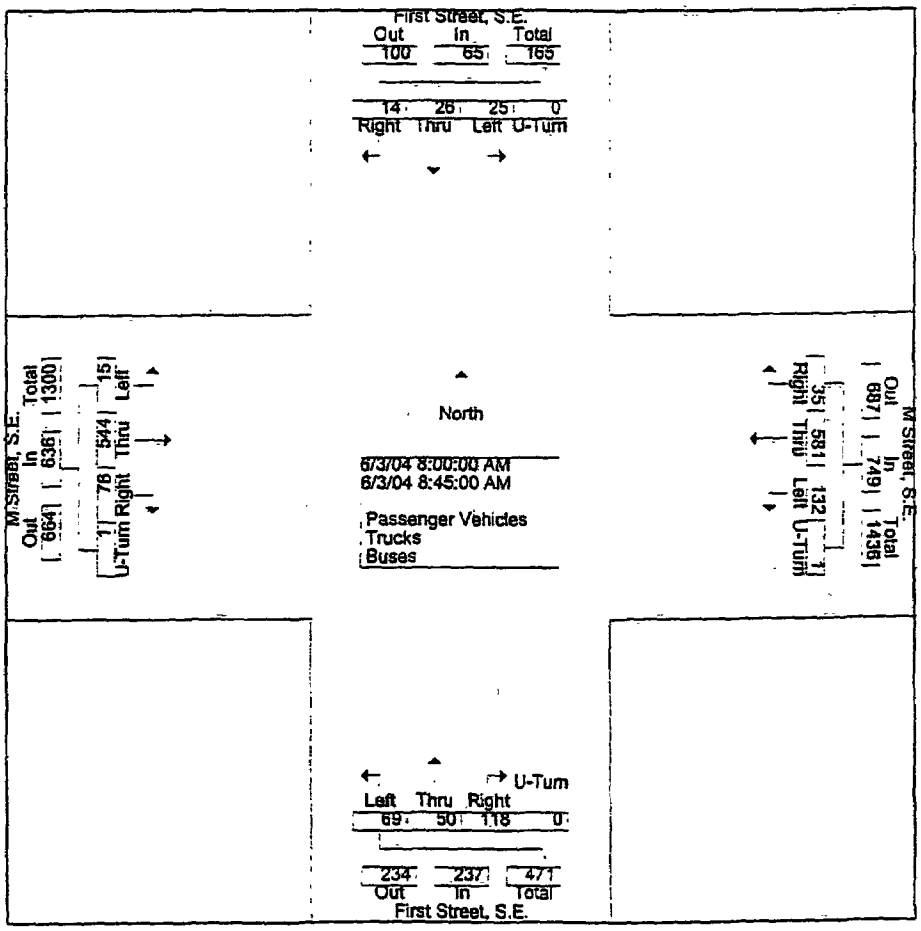
	First Street, S.E. From North					First Street, S.E. From South					M Street, S.E. From East					M Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	6	7	3	0	16	9	10	18	0	37	30	86	8	0	124	3	122	38	0	163	340
07:30 AM	4	7	1	0	12	11	10	27	0	48	51	107	6	1	165	3	119	24	0	146	371
07:45 AM	4	9	5	0	18	16	6	26	0	48	43	142	8	0	193	4	157	24	1	186	445
08:00 AM	7	6	5	0	18	11	18	24	0	53	44	140	8	0	192	1	116	27	1	145	408
Total	21	29	14	0	64	47	44	95	0	186	168	475	30	1	674	11	514	113	2	640	1564
08:15 AM	5	9	6	0	20	22	6	27	0	55	22	154	9	1	186	4	126	18	0	148	409
08:30 AM	7	6	2	0	15	21	10	32	0	63	33	145	8	0	186	4	118	13	0	135	399
08:45 AM	6	5	1	0	12	15	16	35	0	66	33	142	10	0	185	6	184	18	0	208	471
09:00 AM	4	5	7	0	16	17	9	22	0	48	29	125	4	0	158	11	119	17	0	147	369
Total	22	25	16	0	63	75	41	116	0	232	117	566	31	1	715	25	547	66	0	638	1648
04:15 PM	11	4	8	0	23	39	26	83	0	148	20	159	6	0	185	10	166	13	0	189	545
04:30 PM	7	8	7	0	22	34	8	61	0	103	21	157	6	0	184	9	202	11	0	222	531
04:45 PM	13	7	15	0	35	26	10	68	0	104	17	158	6	1	182	3	192	13	0	208	529
05:00 PM	8	2	4	0	14	22	11	66	0	99	12	146	4	0	162	5	208	12	0	225	500
Total	39	21	34	0	94	121	55	278	0	454	70	620	22	1	713	27	768	49	0	844	2105
05:15 PM	6	3	6	0	15	24	8	61	0	93	12	144	4	1	161	7	200	13	1	221	490
05:30 PM	9	8	8	0	25	23	9	57	0	89	11	130	7	0	148	9	214	9	0	232	494
05:45 PM	8	4	6	0	18	22	5	46	0	73	16	111	10	2	139	7	210	7	0	224	454
06:00 PM	8	1	6	0	15	22	9	22	0	53	6	119	8	0	133	7	180	9	0	196	397
Total	31	16	26	0	73	91	31	186	0	308	45	504	29	3	581	30	804	38	1	873	1835
Grand Total	113	91	90	0	294	334	171	675	0	1180	400	2165	112	6	2683	93	2633	266	3	2995	7152
Apprch %	38.4	31.0	30.6	0.0		28.3	14.5	57.2	0.0		14.9	80.7	4.2	0.2		3.1	87.9	8.9	0.1		
Total %	1.6	1.3	1.3	0.0	4.1	4.7	2.4	9.4	0.0	16.5	5.6	30.3	1.6	0.1	37.5	1.3	36.8	3.7	0.0	41.9	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-MO
Board :D4-2239
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : 1ST@MST
Site Code : 05242239
Start Date : 06/03/2004

	First Street, S.E. From North					First Street, S.E. From South					M Street, S.E. From East					M Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 12:45 PM - Peak 1 of 1																					
Intersection 08:00 AM																					
Volume	25	26	14	0	65	69	50	118	0	237	132	581	35	1	749	15	544	76	1	636	1687
Percent	38.5	40.0	21.5	0.0		29.1	21.1	49.8	0.0		17.6	77.6	4.7	0.1		2.4	85.5	11.9	0.2		
08:45 Volume	6	5	1	0	12	15	16	35	0	66	33	142	10	0	185	6	184	18	0	208	471
Peak Factor																					0.895
High Int.	08:15 AM					08:45 AM					08:00 AM					08:45 AM					
Volume	5	9	6	0	20	15	16	35	0	66	44	140	8	0	192	6	184	18	0	208	
Peak Factor					0.813					0.898					0.975					0.764	

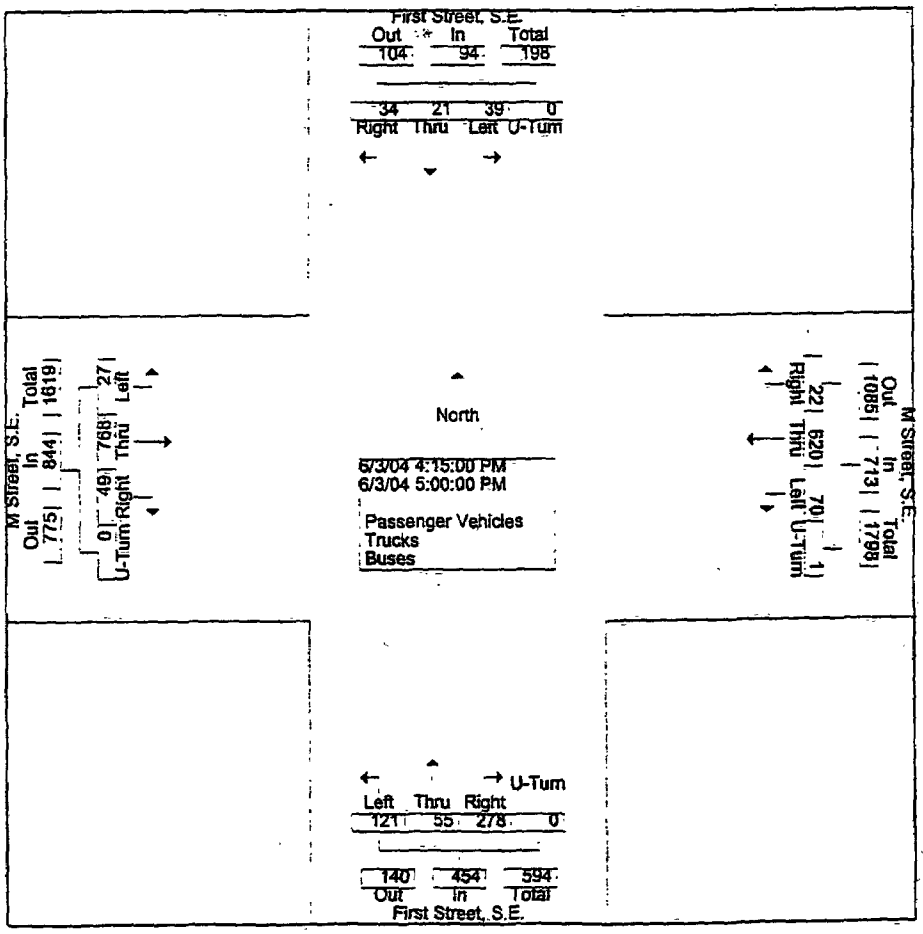


O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-MO
Board :D4-2239
City/County:Washington, D.C.
Weather :Warm/Clear/Dry

File Name : 1ST@MST
Site Code : 05242239
Start Date : 06/03/2004
Page No : 3

	First Street, S.E. From North					First Street, S.E. From South					M Street, S.E. From East					M Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 01:00 PM to 06:00 PM - Peak 1 of 1																					
Intersection 04:15 PM																					
Volume	39	21	34	0	94	121	55	278	0	454	70	620	22	1	713	27	768	49	0	844	2105
Percent	41.5	22.3	36.2	0.0		26.7	12.1	61.2	0.0		9.8	87.0	3.1	0.1		3.2	91.0	5.8	0.0		
04:15 Volume	11	4	8	0	23	39	26	83	0	148	20	159	6	0	185	10	166	13	0	189	545
Peak Factor																					0.966
High Int.	04:45 PM					04:15 PM					04:15 PM					05:00 PM					
Volume	13	7	15	0	35	39	26	83	0	148	20	159	6	0	185	5	208	12	0	225	
Peak Factor					0.671					0.767					0.964					0.938	



O. R. George & Associates, Inc
10210 Greenbelt Road, Suite 310
Lanham, MD 20706
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-GC, AL
Board :D4-1576, D4-1910
City/County:Washington, D.C.
Weather :Warm/Sunny/Dry

File Name : SCS@IST
Site Code : 09221910
Start Date : 06/03/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

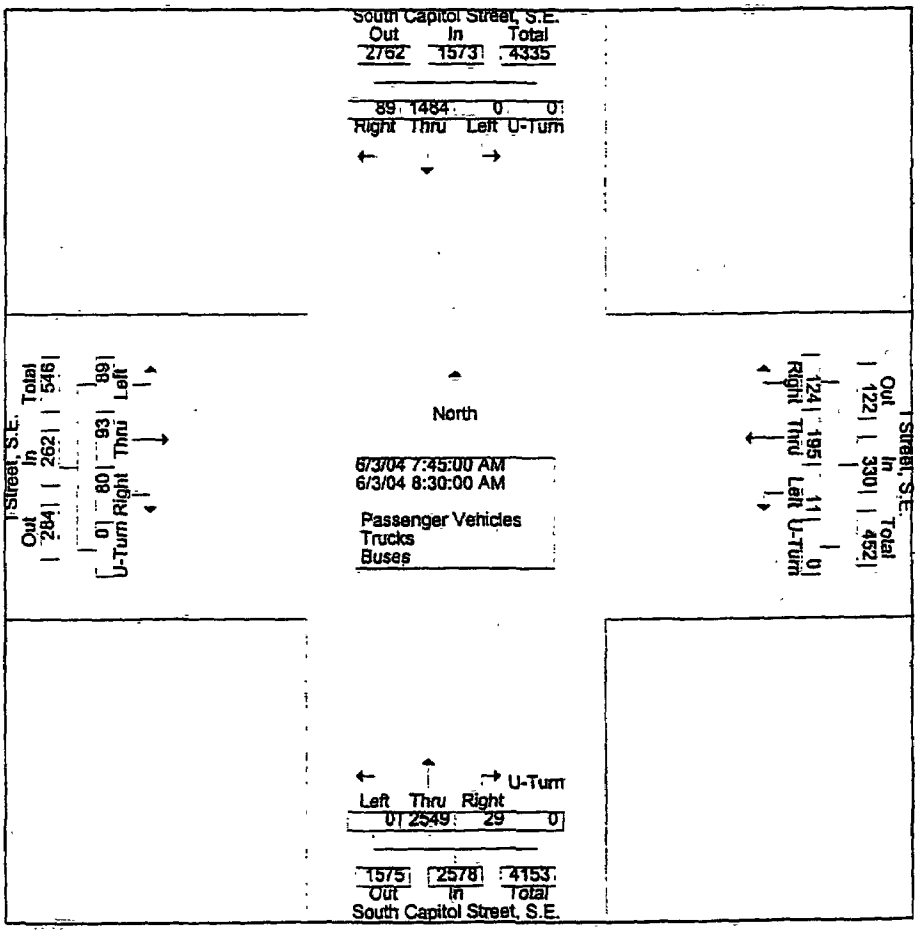
	South Capitol Street, S.E. From North					South Capitol Street, S.E. From South					I Street, S.E. From East					I Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	0	438	16	0	454	0	609	9	0	618	12	27	22	0	61	20	25	21	0	66	1199
07:30 AM	0	432	11	0	443	0	605	8	0	613	6	34	29	0	69	15	15	14	0	44	1169
07:45 AM	0	400	14	0	414	0	626	9	0	635	5	46	27	0	78	16	25	21	0	62	1189
08:00 AM	0	379	18	0	397	0	609	6	0	615	3	48	31	0	82	18	16	17	0	51	1145
Total	0	1649	59	0	1708	0	2449	32	0	2481	26	155	109	0	290	69	81	73	0	223	4702
08:15 AM	0	362	23	0	385	0	649	5	0	654	3	56	37	0	96	27	18	28	0	73	1208
08:30 AM	0	343	34	0	377	0	665	9	0	674	0	45	29	0	74	28	34	14	0	76	1201
08:45 AM	0	269	27	0	296	0	566	7	0	573	6	34	31	0	71	28	26	26	0	80	1020
09:00 AM	0	279	30	0	309	0	629	11	0	640	7	35	35	0	77	22	34	21	0	77	1103
Total	0	1253	114	0	1367	0	2509	32	0	2541	16	170	132	0	318	105	112	89	0	306	4532
04:15 PM	0	564	24	0	588	0	491	9	0	500	5	30	66	0	101	19	32	85	0	136	1325
04:30 PM	0	543	21	0	564	0	431	8	0	439	4	26	35	0	65	14	43	94	0	151	1219
04:45 PM	0	555	14	0	569	0	390	9	0	399	7	13	38	0	58	17	25	104	0	146	1172
05:00 PM	0	477	19	0	496	0	384	4	0	388	7	25	49	0	81	25	34	110	0	169	1134
Total	0	2139	78	0	2217	0	1696	30	0	1726	23	94	188	0	305	75	134	393	0	602	4850
05:15 PM	0	547	27	0	574	0	400	6	1	407	5	20	29	0	54	11	35	92	0	138	1173
05:30 PM	0	556	13	0	569	0	350	8	0	358	8	30	46	0	84	16	39	104	0	159	1170
05:45 PM	0	537	18	0	555	0	393	6	0	399	2	27	33	0	62	23	30	73	0	126	1142
06:00 PM	0	543	14	0	557	0	346	7	0	353	6	24	24	0	54	18	45	112	0	175	1139
Total	0	2183	72	0	2255	0	1489	27	1	1517	21	101	132	0	254	68	149	381	0	598	4624
Grand Total	0	7224	323	0	7547	0	8143	121	1	8265	86	520	561	0	1167	317	476	936	0	1729	18708
Apprch %	0.0	95.7	4.3	0.0		0.0	98.5	1.5	0.0		7.4	44.6	48.1	0.0		18.3	27.5	54.1	0.0		
Total %	0.0	38.6	1.7	0.0	40.3	0.0	43.5	0.6	0.0	44.2	0.5	2.8	3.0	0.0	6.2	1.7	2.5	5.0	0.0	9.2	

O. R. George & Associates, Inc
10210 Greenbelt Road, Suite 310
Lanham, MD 20706
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-GC, AL
Board :D4-1576, D4-1910
City/County:Washington, D.C.
Weather :Warm/Sunny/Dry

File Name : SCS@IST
Site Code : 09221910
Start Date : 06/03/2004

	South Capitol Street, S.E. From North					South Capitol Street, S.E. From South					I Street, S.E. From East					I Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 12:45 PM - Peak 1 of 1																					
Intersection 07:45 AM																					
Volume	0	1484	89	0	1573	0	2549	29	0	2578	11	195	124	0	330	89	93	80	0	262	4743
Percent	0.0	94.3	5.7	0.0		0.0	98.9	1.1	0.0		3.3	59.1	37.6	0.0		34.0	35.5	30.5	0.0		
08:15 Volume	0	362	23	0	385	0	649	5	0	654	3	56	37	0	96	27	18	28	0	73	1208
Peak Factor																					0.982
High Int.	07:45 AM					08:30 AM					08:15 AM					08:30 AM					
Volume	0	400	14	0	414	0	665	9	0	674	3	56	37	0	96	28	34	14	0	76	
Peak Factor					0.950					0.956					0.859					0.862	

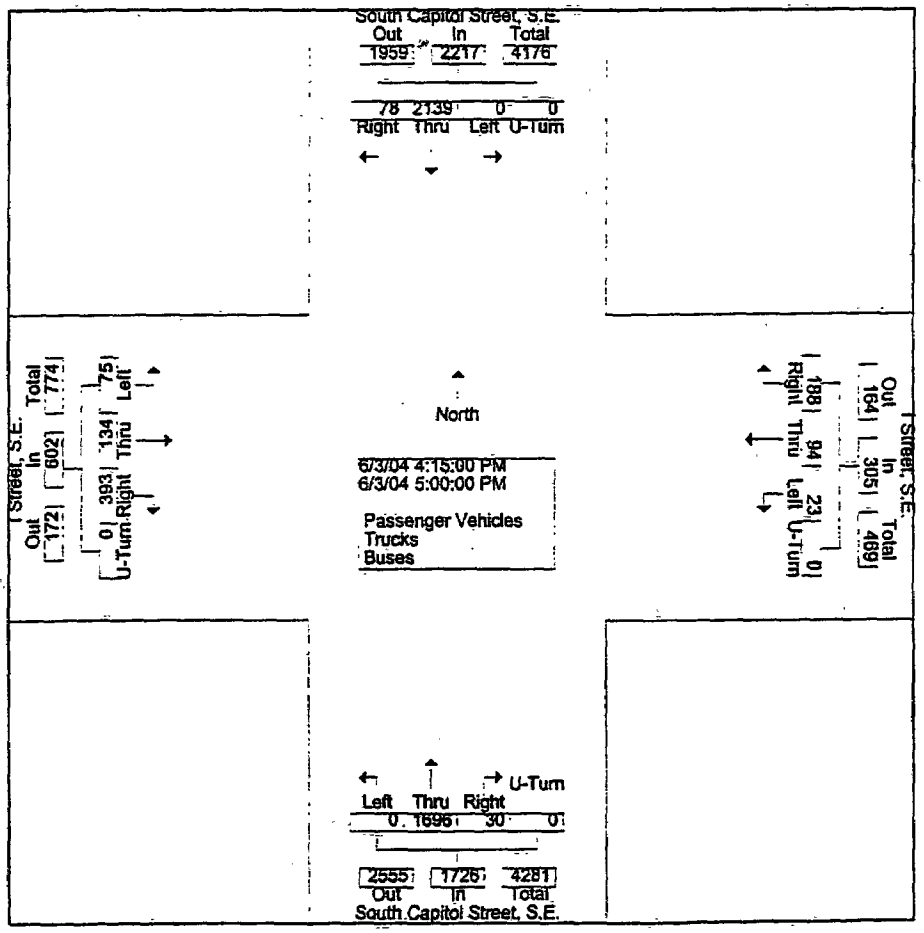


O. R. George & Associates, Inc
10210 Greenbelt Road, Suite 310
Lanham, MD 20706
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-GC, AL
Board :D4-1576, D4-1910
City/County:Washington, D.C.
Weather :Warm/Sunny/Dry

File Name : SCS@IST
Site Code : 09221910
Start Date : 06/03/2004
Page No : 3

	South Capitol Street, S.E. From North					South Capitol Street, S.E. From South					I Street, S.E. From East					I Street, S.E. From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 01:00 PM to 06:00 PM - Peak 1 of 1																					
Intersection 04:15 PM																					
Volume	0	2139	78	0	2217	0	1696	30	0	1726	23	94	188	0	305	75	134	393	0	602	4850
Percent	0.0	96.5	3.5	0.0		0.0	98.3	1.7	0.0		7.5	30.8	61.6	0.0		12.5	22.3	65.3	0.0		
04:15 Volume	0	564	24	0	588	0	491	9	0	500	5	30	66	0	101	19	32	85	0	136	1325
Peak Factor																					0.915
High Int.	04:15 PM					04:15 PM					04:15 PM					05:00 PM					
Volume	0	564	24	0	588	0	491	9	0	500	5	30	66	0	101	25	34	110	0	169	
Peak Factor					0.943					0.863					0.755					0.891	



O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-NL
Board :D4-2240
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : HLF@MST
Site Code : 04162240
Start Date : 06/24/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

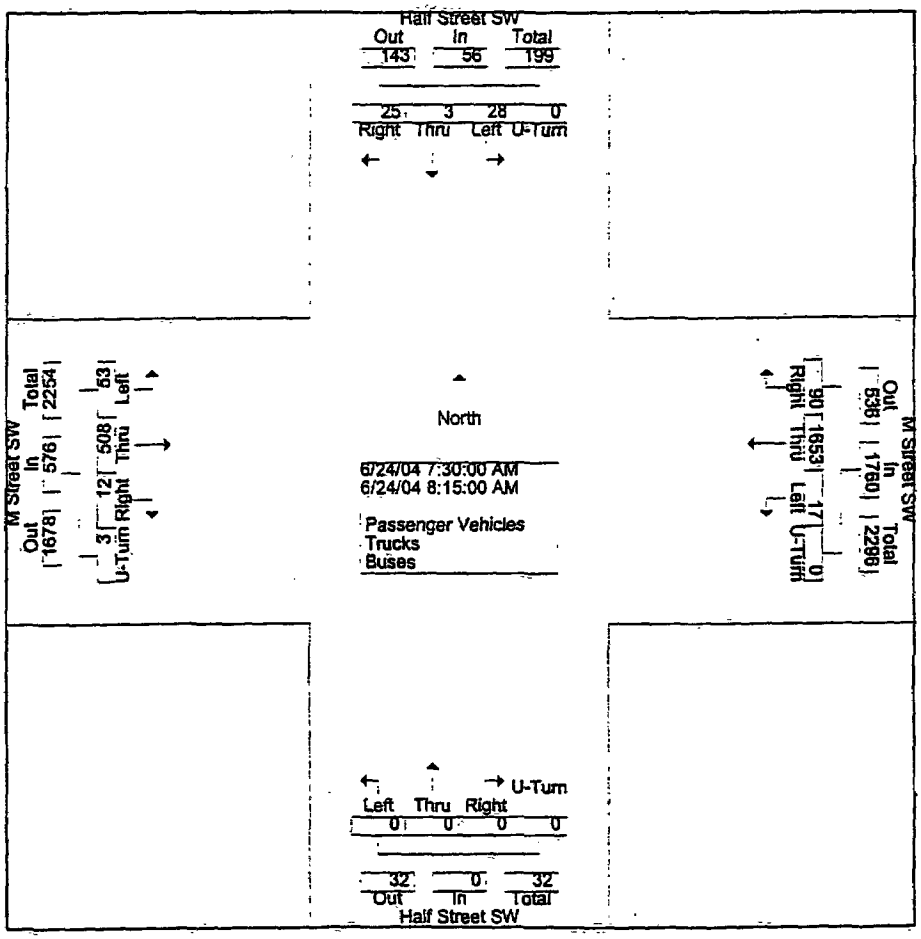
	Half Street SW From North					Half Street SW From South					M Street SW From East					M Street SW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	11	2	6	0	19	0	0	0	0	0	6	366	14	0	386	11	132	3	0	146	551
07:30 AM	5	1	4	0	10	0	0	0	0	0	5	412	15	0	432	7	133	3	1	144	586
07:45 AM	9	0	6	0	15	0	0	0	0	0	3	421	18	0	442	21	122	2	1	146	603
08:00 AM	5	2	6	0	13	0	0	0	0	0	5	422	32	0	459	13	122	4	1	140	612
Total	30	5	22	0	57	0	0	0	0	0	19	1621	79	0	1719	52	509	12	3	576	2352
08:15 AM	9	0	9	0	18	0	0	0	0	0	4	398	25	0	427	12	131	3	0	146	591
08:30 AM	2	1	7	0	10	0	0	0	0	0	10	369	36	2	417	14	138	5	0	157	584
08:45 AM	8	2	6	0	16	0	0	0	0	0	9	355	21	0	385	28	129	2	0	159	560
09:00 AM	10	4	12	0	26	0	0	0	0	0	5	286	30	0	321	13	141	4	1	159	506
Total	29	7	34	0	70	0	0	0	0	0	28	1408	112	2	1550	67	539	14	1	621	2241
04:15 PM	14	4	5	0	23	0	0	0	0	0	9	180	17	3	209	18	379	3	0	400	632
04:30 PM	11	8	9	0	28	0	0	0	0	0	6	180	22	3	211	14	409	2	0	425	664
04:45 PM	15	0	11	0	26	0	0	0	0	0	4	174	23	1	202	24	370	1	1	396	624
05:00 PM	25	5	14	0	44	0	0	0	0	0	9	157	25	2	193	28	395	5	0	428	665
Total	65	17	39	0	121	0	0	0	0	0	28	691	87	9	815	84	1553	11	1	1649	2585
05:15 PM	15	1	12	0	28	0	0	0	0	0	1	146	18	0	165	15	414	4	1	434	627
05:30 PM	17	2	8	0	27	0	0	0	0	0	10	148	12	3	173	17	404	5	0	426	626
05:45 PM	17	5	10	0	32	0	0	0	0	0	8	169	9	1	187	13	347	2	0	362	581
06:00 PM	13	5	6	0	24	0	0	0	0	0	3	162	6	1	172	22	333	5	0	360	556
Total	62	13	36	0	111	0	0	0	0	0	22	625	45	5	697	67	1498	16	1	1582	2390
Grand Total	186	42	131	0	359	0	0	0	0	0	97	4345	323	16	4781	270	4099	53	6	4428	9568
Apprch %	51.8	11.7	36.5	0.0		0.0	0.0	0.0	0.0		2.0	90.9	6.8	0.3		6.1	92.6	1.2	0.1		
Total %	1.9	0.4	1.4	0.0	3.8	0.0	0.0	0.0	0.0	0.0	1.0	45.4	3.4	0.2	50.0	2.8	42.8	0.6	0.1	46.3	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-NL
Board :D4-2240
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : HLF@MST
Site Code : 04162240
Start Date : 06/24/2004

	Half Street SW From North					Half Street SW From South					M Street SW From East					M Street SW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 09:00 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	28	3	25	0	56	0	0	0	0	0	17	1653	90	0	1760	53	508	12	3	576	2392
Percent	50.0	5.4	44.6	0.0		0.0	0.0	0.0	0.0		1.0	93.9	5.1	0.0		9.2	88.2	2.1	0.5		
08:00 Volume	5	2	6	0	13	0	0	0	0	0	5	422	32	0	459	13	122	4	1	140	612
Peak Factor																					0.977
High Int.	08:15 AM					7:00:00 AM					08:00 AM					07:45 AM					
Volume	9	0	9	0	18	0	0	0	0	0	5	422	32	0	459	21	122	2	1	146	
Peak Factor					0.778										0.959					0.986	



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10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
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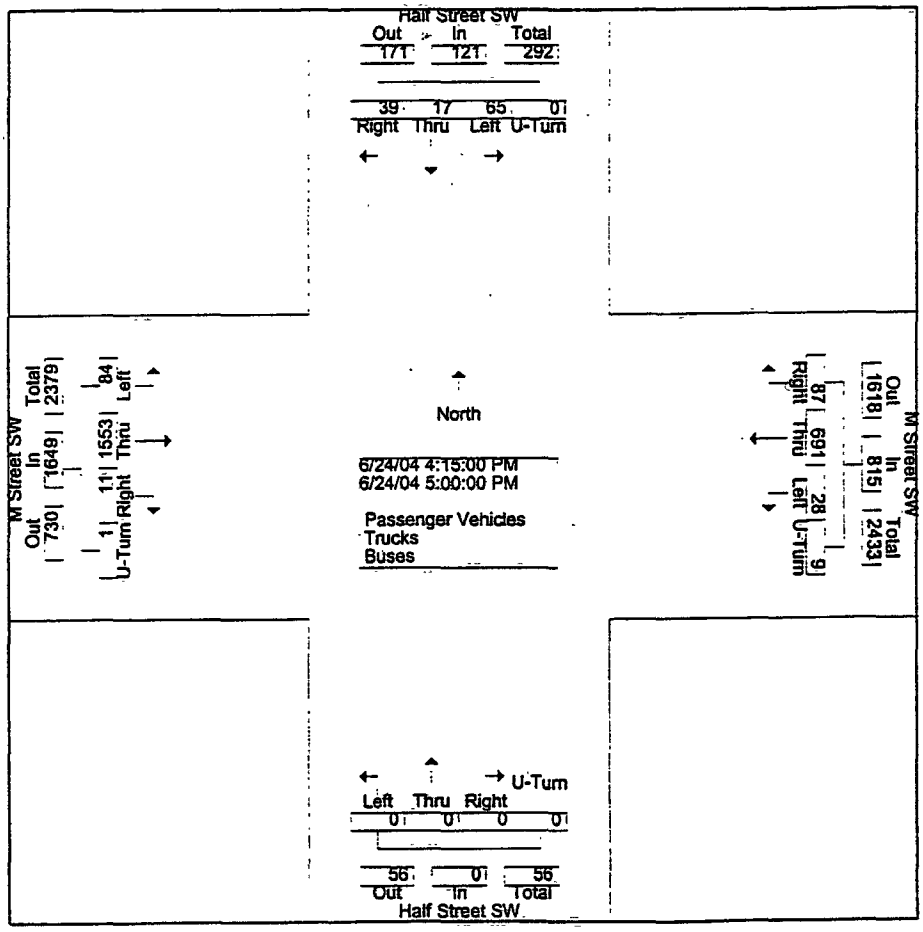
Counted By:ORGA-NL
Board :D4-2240
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : HLF@MST
Site Code : 04162240
Start Date : 06/24/2004

	Half Street SW From North					Half Street SW From South					M Street SW From East					M Street SW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 04:15 PM to 06:00 PM - Peak 1 of 1																					
Intersection 04:15 PM																					
Volume	65	17	39	0	121	0	0	0	0	0	28	691	87	9	815	84	1553	11	1	1649	2585
Percent	53.7	14.0	32.2	0.0		0.0	0.0	0.0	0.0		3.4	84.8	10.7	1.1		5.1	94.2	0.7	0.1		
05:00 Volume	25	5	14	0	44	0	0	0	0	0	9	157	25	2	193	28	395	5	0	428	665
Peak Factor																					0.972
High Int.	05:00 PM										04:30 PM					05:00 PM					
Volume	25	5	14	0	44	0	0	0	0	0	6	180	22	3	211	28	395	5	0	428	
Peak Factor					0.688										0.966					0.963	



O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400

Counted By:ORGA-NL
Board :D4-2241
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : PO@HFS
Site Code : 99162241
Start Date : 06/28/2004
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

	Hall Street SE From North				Potomac Avenue SE From East				Potomac Avenue SE From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
07:15 AM	0	31	0	31	15	2	0	17	3	2	0	5	53
07:30 AM	0	44	0	44	17	3	0	20	2	9	0	11	75
07:45 AM	1	34	0	35	10	0	0	10	1	2	0	3	48
08:00 AM	0	28	0	28	7	1	0	8	2	1	0	3	39
Total	1	137	0	138	49	6	0	55	8	14	0	22	215
08:15 AM	0	26	0	26	13	4	0	17	0	9	0	9	52
08:30 AM	1	22	0	23	9	0	0	9	3	4	0	7	39
08:45 AM	0	15	0	15	6	1	0	7	1	1	0	2	24
09:00 AM	0	14	0	14	4	0	0	4	1	2	0	3	21
Total	1	77	0	78	32	5	0	37	5	16	0	21	136
Grand Total	2	214	0	216	81	11	0	92	13	30	0	43	351
Apprch %	0.9	99.1	0.0		88.0	12.0	0.0		30.2	69.8	0.0		
Total %	0.6	61.0	0.0	61.5	23.1	3.1	0.0	26.2	3.7	8.5	0.0	12.3	

O.R. George & Associates, Inc.
10210 Greenbelt Road., Suite 310
Lanham, MD 20706-2218
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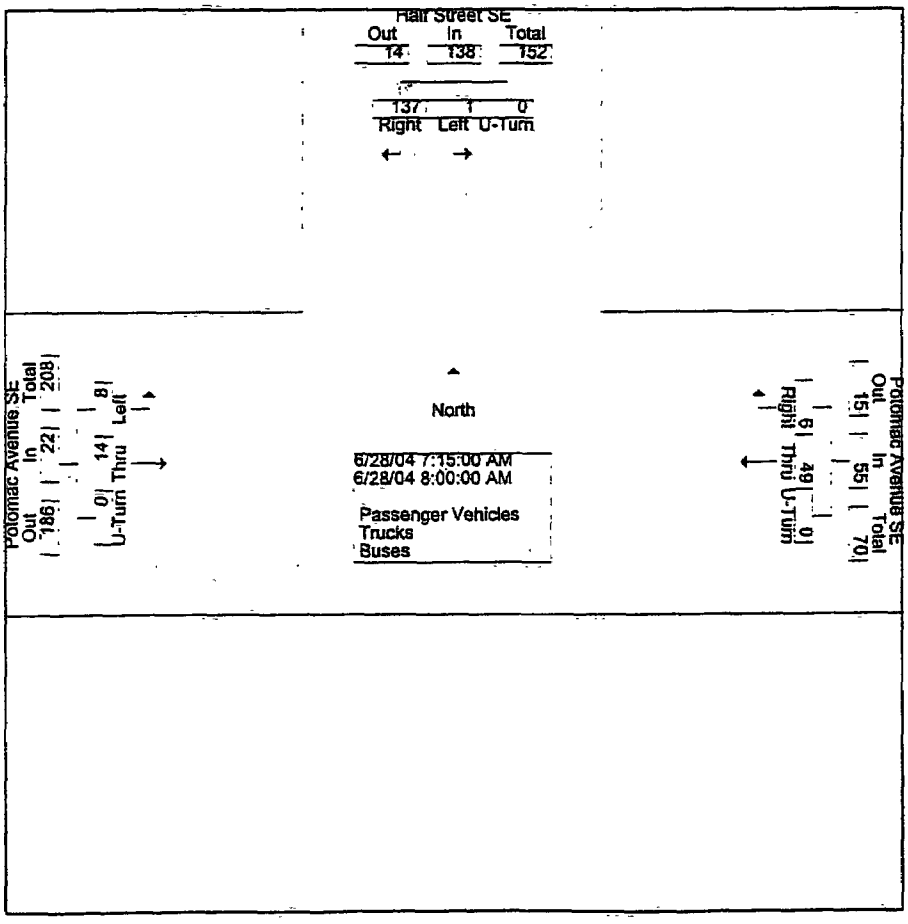
Counted By:ORGA-NL
Board :D4-2241
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : PO@HFS
Site Code : 99162241
Start Date : 06/28/2004
Page No : 2

	Hall Street SE From North				Potomac Avenue SE From East				Potomac Avenue SE From West				
End Time	Left	Right	U-Turn	App. Total	Thru	Right	U-Turn	App. Total	Left	Thru	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 09:00 AM - Peak 1 of 1													
Intersection 07:15 AM													
Volume	1	137	0	138	49	6	0	55	8	14	0	22	215
Percent	0.7	99.3	0.0		89.1	10.9	0.0		36.4	63.6	0.0		
07:30 Volume	0	44	0	44	17	3	0	20	2	9	0	11	75
Peak Factor													0.717
High Int. 07:30 AM					07:30 AM				07:30 AM				
Volume	0	44	0	44	17	3	0	20	2	9	0	11	
Peak Factor				0.784				0.688				0.500	



APPENDIX

C

CAPACITY ANALYSIS WORKSHEETS-
EXISTING TRAFFIC SITUATION

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	M Street @ Half St, S.W
Agency or Co.	O.R. George & Associates	Area Type	All other areas
Date Performed	6/25/2004	Jurisdiction	Washington D.C
Time Period	Existing AM PEAK HOUR	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	1	2	1	0	0	0	0	2	0
Lane group	L	TR		L	T	R					LTR	
Volume (vph)	53	508	12	17	1563	90				28	3	25
% Heavy veh	0	0	0	0	0	0				0	0	0
PHF	0.99	0.99	0.99	0.96	0.96	0.96				0.78	0.78	0.78
Actuated (P/A)	P	P	P	P	P	P				P	P	P
Startup lost time	2.0	2.0		2.0	2.0	2.0					2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0					2.0	
Arrival type	3	3		3	3	3					3	
Unit Extension	3.0	3.0		3.0	3.0	3.0					3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0			0		0
Lane Width	12.0	12.0		12.0	12.0	12.0					12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0					0	
Unit Extension	3.0	3.0		3.0	3.0	3.0					3.0	

Phasing	EW Perm	02	03	04	SB Only	06	07	08
Timing	G = 72.0	G =	G =	G =	G = 20.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	54	525		18	1628	94					72	
Lane group cap.	146	3722		612	2599	1163					657	
v/c ratio	0.37	0.14		0.03	0.63	0.08					0.11	
Green ratio	0.72	0.72		0.72	0.72	0.72					0.20	
Unif. delay d1	5.3	4.4		4.0	7.1	4.2					32.7	
Delay factor k	0.50	0.50		0.50	0.50	0.50					0.50	
Increm. delay d2	7.1	0.1		0.1	1.2	0.1					0.3	
PF factor	1.000	1.000		1.000	1.000	1.000					1.000	
Control delay	12.4	4.4		4.1	8.3	4.3					33.1	
Lane group LOS	B	A		A	A	A					C	
Apprch. delay	5.2			8.0						33.1		
Approach LOS	A			A						C		
Intersec. delay	8.1			Intersection LOS						A		

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	M Street @ Half St, S.W
Agency or Co.	O.R. George & Associates	Area Type	All other areas
Date Performed	6/25/2004	Jurisdiction	Washington D.C
Time Period	Existing PM PEAK HOUR	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	1	2	1	0	0	0	0	2	0
Lane group	L	TR		L	T	R					LTR	
Volume (vph)	84	1553	11	28	691	87				65	17	39
% Heavy veh	0	0	0	0	0	0				0	0	0
PHF	0.96	0.96	0.96	0.97	0.97	0.97				0.69	0.69	0.69
Actuated (P/A)	P	P	P	P	P	P				P	P	P
Startup lost time	2.0	2.0		2.0	2.0	2.0					2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0					2.0	
Arrival type	3	3		3	3	3					3	
Unit Extension	3.0	3.0		3.0	3.0	3.0					3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0			0		0
Lane Width	12.0	12.0		12.0	12.0	12.0					12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0					0	
Unit Extension	3.0	3.0		3.0	3.0	3.0					3.0	

Phasing	EW Perm	02	03	04	SB Only	06	07	08
Timing	G = 72.0	G =	G =	G =	G = 20.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 — Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	88	1629		29	712	90					176	
Lane group cap.	497	3731		167	2599	1163					669	
v/c ratio	0.18	0.44		0.17	0.27	0.08					0.26	
Green ratio	0.72	0.72		0.72	0.72	0.72					0.20	
Unif. delay d1	4.5	5.7		4.5	4.9	4.2					33.8	
Delay factor k	0.50	0.50		0.50	0.50	0.50					0.50	
Increm. delay d2	0.8	0.4		2.3	0.3	0.1					1.0	
PF factor	1.000	1.000		1.000	1.000	1.000					1.000	
Control delay	5.3	6.1		6.7	5.1	4.3					34.7	
Lane group LOS	A	A		A	A	A					C	
Apprch. delay	6.0			5.1						34.7		
Approach LOS	A			A						C		
Intersec. delay	7.6			Intersection LOS						A		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	ORGA-IJB
Agency/Co.	O.R.George & Associates, Inc
Date Performed	6/28/2004
Analysis Time Period	EXISTING AM PEAK HOUR

Site Information

Intersection	M Street @ Half St, SE
Jurisdiction	Washington DC
Analysis Year	2004

Project Description: 100 Potomac Avenue- Existing

East/West Street: M Street, SE | North/South Street: Half Street, SE

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	45	401	17	22	345	30
Peak-Hour Factor, PHF	0.90	0.90	0.90	0.86	0.86	0.86
Hourly Flow Rate, HFR	50	445	18	25	401	34
Percent Heavy Vehicles	0	–	–	0	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration	LT		TR	LT		TR
Upstream Signal		1			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	21	25	70	8	12	24
Peak-Hour Factor, PHF	0.88	0.88	0.88	0.73	0.73	0.73
Hourly Flow Rate, HFR	23	28	79	10	16	32
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT	LT		LTR			LTR	
v (vph)	50	25		130			58	
C (m) (vph)	1177	1409		583			526	
v/c	0.04	0.02		0.22			0.11	
95% queue length	0.13	0.05		0.85			0.37	
Control Delay	8.2	7.6		12.9			12.7	
LOS	A	A		B			B	
Approach Delay	–	–	12.9			12.7		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	ORGA-IJB
Agency/Co.	O.R.George & Associates, Inc
Date Performed	6/28/2004
Analysis Time Period	EXISTING PM PEAK HOUR

Site Information

Intersection	M Street @ Half St, SE
Jurisdiction	Washington DC
Analysis Year	2004

Project Description: 100 Potomac Avenue- Existing

East/West Street: M Street, SE | North/South Street: Half Street, SE

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	38	522	18	13	268	11
Peak-Hour Factor, PHF	0.93	0.93	0.93	0.95	0.95	0.95
Hourly Flow Rate, HFR	40	561	19	13	282	11
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration	LT		TR	LT		TR
Upstream Signal		1			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	17	14	43	12	8	49
Peak-Hour Factor, PHF	0.58	0.58	0.58	0.82	0.82	0.82
Hourly Flow Rate, HFR	29	24	74	14	9	59
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT	LT		LTR			LTR	
v (vph)	40	13		127			82	
C (m) (vph)	1476	1295		736			845	
v/c	0.03	0.01		0.17			0.10	
95% queue length	0.08	0.03		0.62			0.32	
Control Delay	7.5	7.8		10.9			9.7	
LOS	A	A		B			A	
Approach Delay	--	--	10.9			9.7		

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	1st St, SE @ M St, SE
Agency or Co.	O.R.George & Associates, Inc	Area Type	All other areas
Date Performed	6/9/2004	Jurisdiction	Washington D.C
Time Period	EXISITING AM PEAK HOUR	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	1	2	0	0	2	0	0	1	0
Lane group		LTR		L	TR			LTR			LTR	
Volume (vph)	15	544	76	132	581	35	69	50	118	25	26	14
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.76	0.76	0.76	0.98	0.98	0.98	0.90	0.90	0.90	0.81	0.81	0.81
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0		2.0	2.0			2.0			2.0	
Ext. eff. green		2.0		2.0	2.0			2.0			2.0	
Arrival type		3		3	3			3			3	
Unit Extension		3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width		12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0		0	0			0			0	
Unit Extension		3.0		3.0	3.0			3.0			3.0	

Phasing	WB Only	EW Perm	03	04	NS Perm	06	07	08
Timing	G = 5.0	G = 55.0	G =	G =	G = 22.0	G =	G =	G =
	Y = 0	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 90.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		836		135	629			264			80	
Lane group cap.		2869		442	2386			734			373	
v/c ratio		0.29		0.31	0.26			0.36			0.21	
Green ratio		0.61		0.67	0.67			0.24			0.24	
Unif. delay d1		8.3		5.8	6.1			28.2			27.1	
Delay factor k		0.50		0.50	0.50			0.50			0.50	
Increm. delay d2		0.3		1.8	0.3			1.4			1.3	
PF factor		1.000		1.000	1.000			1.000			1.000	
Control delay		8.5		7.6	6.3			29.5			28.4	
Lane group LOS		A		A	A			C			C	
Apprch. delay		8.5			6.6			29.5			28.4	
Approach LOS		A			A			C			C	
Intersec. delay		11.4			Intersection LOS						B	

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	1st St, SE @ M St, SE
Agency or Co.	O.R.George & Associates, Inc	Area Type	All other areas
Date Performed	6/9/2004	Jurisdiction	Washington D.C
Time Period	EXISITING PM PEAK HOUR	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	1	2	0	0	2	0	0	1	0
Lane group		LTR		L	TR			LTR			LTR	
Volume (vph)	27	768	49	70	620	22	121	55	278	39	21	34
% Heavy veh	0	0	0	0	0	0	0	0	0	0	0	0
PHF	0.94	0.94	0.94	0.96	0.96	0.96	0.77	0.77	0.77	0.67	0.67	0.67
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0		2.0	2.0			2.0			2.0	
Ext. eff. green		2.0		2.0	2.0			2.0			2.0	
Arrival type		3		3	3			3			3	
Unit Extension		3.0		3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width		12.0		12.0	12.0			12.0			12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0		0	0			0			0	
Unit Extension		3.0		3.0	3.0			3.0			3.0	

Phasing	WB Only	EW Perm	03	04	NS Perm	06	07	08
Timing	G = 5.0	G = 55.0	G =	G =	G = 22.0	G =	G =	G =
	Y = 0	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 90.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		898		73	669			589			140	
Lane group cap.		2852		417	2394			705			163	
v/c ratio		0.31		0.18	0.28			0.84			0.86	
Green ratio		0.61		0.67	0.67			0.24			0.24	
Unif. delay d1		8.4		5.6	6.1			32.3			32.5	
Delay factor k		0.50		0.50	0.50			0.50			0.50	
Increm. delay d2		0.3		0.9	0.3			11.3			40.9	
PF factor		1.000		1.000	1.000			1.000			1.000	
Control delay		8.7		6.5	6.4			43.5			73.4	
Lane group LOS		A		A	A			D			E	
Apprch. delay	8.7			6.4			43.5			73.4		
Approach LOS	A			A			D			E		
Intersec. delay	20.5			Intersection LOS						C		

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Sth Capitol St @ M Street
Agency or Co.	O.R.George & Associates, Inc	Area Type	NBR
Date Performed	6/9/2004	Jurisdiction	All other areas
Time Period	EXISTING AM PEAK HOUR	Analysis Year	Washington D.C 2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	3	0	1	1	0	0	0	0
Lane group		LT			TR		L	LTR				
Volume (vph)	104	629			556	35	1270	114	50			
% Heavy veh	0	0			0	0	0	0	0			
PHF	0.95	0.95			0.81	0.81	0.97	0.97	0.97			
Actuated (P/A)	P	P	P	P	P	P	P	P	P			
Startup lost time		2.0			2.0		2.0	2.0				
Ext. eff. green		2.0			2.0		2.0	2.0				
Arrival type		3			3		3	3				
Unit Extension		3.0			3.0		3.0	3.0				
Ped/Bike/RTOR Volume				0		0	0		0	0		
Lane Width		12.0			12.0		12.0	12.0				
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0			0		0	0				
Unit Extension		3.0			3.0		3.0	3.0				

Phasing	EW Perm	EB Only	03	04	NB Only	06	07	08
Timing	G = 19.9	G = 15.1	G = 0.0	G = 0.0	G = 53.0	G = 0.0	G =	G =
	Y = 4	Y = 4	Y = 0	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		771			729		1309	170				
Lane group cap.		1676			1023		957	961				
v/c ratio		0.46			0.71		1.37	0.18				
Green ratio		0.39			0.20		0.53	0.53				
Unif. delay d1		22.7			37.4		23.5	12.2				
Delay factor k		0.50			0.50		0.50	0.50				
Increm. delay d2		0.9			4.2		172.2	0.4				
PF factor		1.000			1.000		1.000	1.000				
Control delay		23.6			41.6		195.7	12.6				
Lane group LOS		C			D		F	B				
Apprch. delay	23.6			41.6			174.7					
Approach LOS	C			D			F					
Intersec. delay	103.0			Intersection LOS						F		

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Sth Capitol St @ M Street
Agency or Co.	O.R.George & Associates, Inc	Area Type	NBR
Date Performed	6/9/2004	Jurisdiction	All other areas
Time Period	EXISTING PM PEAK HOUR	Analysis Year	Washington D.C
			2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	2	0	1	1	0	0	0	0
Lane group		LT			TR		L	LTR				
Volume (vph)	100	824			638	169	406	86	88			
% Heavy veh	0	0			0	0	0	0	0			
PHF	0.94	0.94			0.89	0.89	0.84	0.84	0.84			
Actuated (P/A)	P	P	P	P	P	P	P	P	P			
Startup lost time		2.0			2.0		2.0	2.0				
Ext. eff. green		2.0			2.0		2.0	2.0				
Arrival type		3			3		3	3				
Unit Extension		3.0			3.0		3.0	3.0				
Ped/Bike/RTOR Volume				0		0	0		0	0		
Lane Width		12.0			12.0		12.0	12.0				
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0			0		0	0				
Unit Extension		3.0			3.0		3.0	3.0				

Phasing	EW Perm	EB Only	03	04	NB Only	06	07	08
Timing	G = 42.0	G = 14.6	G = 0.0	G = 0.0	G = 31.4	G = 0.0	G = 0.0	G =
	Y = 4	Y = 4	Y = 0	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		983			907		483	207				
Lane group cap.		2464			1469		567	551				
v/c ratio		0.40			0.62		0.85	0.38				
Green ratio		0.61			0.42		0.31	0.31				
Unif. delay d1		10.2			22.7		32.1	26.7				
Delay factor k		0.50			0.50		0.50	0.50				
Increm. delay d2		0.5			2.0		14.9	2.0				
PF factor		1.000			1.000		1.000	1.000				
Control delay		10.7			24.7		47.0	28.6				
Lane group LOS		B			C		D	C				
Apprch. delay	10.7			24.7			41.5					
Approach LOS	B			C			D					
Intersec. delay	23.9			Intersection LOS						C		

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Sth Capitol St @ M Street
Agency or Co.	O.R.George & Associates, Inc	Area Type	SBR
Date Performed	6/9/2004	Jurisdiction	All other areas
Time Period	EXISTING AM PEAK HOUR	Analysis Year	Washington D.C 2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	1	0	3	0	0	0	0	1	1	0
Lane group		T	R		LT					L	LTR	
Volume (vph)		402	209	88	1738					331	45	34
% Heavy veh		0	0	0	0					0	0	0
PHF		0.95	0.95	0.81	0.81					0.87	0.87	0.87
Actuated (P/A)	P	P	P	P	P	P				P	P	P
Startup lost time		2.0	2.0		2.0					2.0	2.0	
Ext. eff. green		2.0	2.0		2.0					2.0	2.0	
Arrival type		3	3		3					3	3	
Unit Extension		3.0	3.0		3.0					3.0	3.0	
Ped/Bike/RTOR Volume	0		0				0			0		0
Lane Width		12.0	12.0		12.0					12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0	0		0					0	0	
Unit Extension		3.0	3.0		3.0					3.0	3.0	

Phasing	EW Perm	WB Only	03	04	SB Only	06	07	08
Timing	G = 19.9	G = 53.0	G = 0.0	G = 0.0	G = 15.1	G = 0.0	G =	G =
	Y = 4	Y = 4	Y = 0	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		423	220		2255					380	91	
Lane group cap.		1032	321		3799					273	268	
v/c ratio		0.41	0.69		0.59					1.39	0.34	
Green ratio		0.20	0.20		0.77					0.15	0.15	
Unif. delay d1		34.9	37.1		4.9					42.5	38.0	
Delay factor k		0.50	0.50		0.50					0.50	0.50	
Increm. delay d2		1.2	11.3		0.7					197.3	3.4	
PF factor		1.000	1.000		1.000					1.000	1.000	
Control delay		36.1	48.5		5.6					239.8	41.4	
Lane group LOS		D	D		A					F	D	
Apprch. delay		40.4			5.6					201.4		
Approach LOS		D			A					F		
Intersec. delay		39.6			Intersection LOS					D		

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Sth Capitol St @ M Street
Agency or Co.	O.R.George & Associates, Inc	Area Type	SBR
Date Performed	6/9/2004	Jurisdiction	All other areas
Time Period	EXISTING PM PEAK HOUR	Analysis Year	Washington D.C 2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	1	0	3	0	0	0	0	1	1	0
Lane group		T	R		LT					L	LTR	
Volume (vph)		771	1080	193	851					153	149	44
% Heavy veh		0	0	0	0					0	0	0
PHF		0.94	0.94	0.89	0.89					0.87	0.87	0.87
Actuated (P/A)	P	P	P	P	P	P				P	P	P
Startup lost time		2.0	2.0		2.0					2.0	2.0	
Ext. eff. green		2.0	2.0		2.0					2.0	2.0	
Arrival type		3	3		3					3	3	
Unit Extension		3.0	3.0		3.0					3.0	3.0	
Ped/Bike/RTOR Volume	0		0				0			0		0
Lane Width		12.0	12.0		12.0					12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0	0		0					0	0	
Unit Extension		3.0	3.0		3.0					3.0	3.0	

Phasing	EW Perm	WB Only	03	04	SB Only	06	07	08
Timing	G = 42.0	G = 31.4	G = 0.0	G = 0.0	G = 14.6	G = 0.0	G = 0.0	G =
	Y = 4	Y = 4	Y = 0	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		820	1149		1173					176	222	
Lane group cap.		2179	678		3288					264	268	
v/c ratio		0.38	1.69		0.36					0.67	0.83	
Green ratio		0.42	0.42		0.77					0.15	0.15	
Unif. delay d1		20.0	29.0		3.5					40.4	41.5	
Delay factor k		0.50	0.50		0.50					0.50	0.50	
Increm. delay d2		0.5	319.0		0.3					12.6	24.6	
PF factor		1.000	1.000		1.000					1.000	1.000	
Control delay		20.5	348.0		3.8					53.0	66.1	
Lane group LOS		C	F		A					D	E	
Apprch. delay	211.6			3.8						60.3		
Approach LOS	F			A						E		
Intersec. delay	125.7			Intersection LOS						F		

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Sth Capitol,SE @ I Street, SE
Agency or Co.	O.R.George & Associates, Inc	Area Type	All other areas
Date Performed	6/9/2004	Jurisdiction	Washington D.C.
Time Period	EXISTING AM PEAK	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	0	2	0	0	3	0	0	3	1
Lane group		LT	R		LTR			TR			T	R
Volume (vph)	89	93	80	11	195	124		2549	29		1484	89
% Heavy veh	0	0	0	0	0	0		0	0		0	0
PHF	0.86	0.86	0.86	0.86	0.86	0.86		0.96	0.96		0.95	0.95
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0	2.0		2.0			2.0			2.0	2.0
Ext. eff. green		2.0	2.0		2.0			2.0			2.0	2.0
Arrival type		3	3		3			3			3	3
Unit Extension		3.0	3.0		3.0			3.0			3.0	3.0
Ped/Bike/RTOR Volume	0		10	0		10	0		25	0		25
Lane Width		12.0	12.0		12.0			12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0		0			0			0	0
Unit Extension		3.0	3.0		3.0			3.0			3.0	3.0

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 35.0	G =	G =	G =	G = 57.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB		WB		NB		SB	
Adj. flow rate	211	81	373		2659		1562	67
Lane group cap.	414	565	1128		2956		2957	921
v/c ratio	0.51	0.14	0.33		0.90		0.53	0.07
Green ratio	0.35	0.35	0.35		0.57		0.57	0.57
Unif. delay d1	25.7	22.2	23.9		19.0		13.2	9.6
Delay factor k	0.50	0.50	0.50		0.50		0.50	0.50
Increm. delay d2	4.4	0.5	0.8		4.9		0.7	0.2
PF factor	1.000	1.000	1.000		1.000		1.000	1.000
Control delay	30.1	22.8	24.7		23.9		13.9	9.8
Lane group LOS	C	C	C		C		B	A
Apprch. delay	28.1		24.7		23.9		13.7	
Approach LOS	C		C		C		B	
Intersec. delay	20.9		Intersection LOS				C	

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Sth Capitol,SE @ I Street, SE
Agency or Co.	O.R.George & Associates, Inc	Area Type	All other areas
Date Performed	6/9/2004	Jurisdiction	Washington D.C.
Time Period	EXISTING PM PEAK	Analysis Year	2004

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	1	1	0	2	0	0	3	0	0	3	1
Lane group		LT	R		LTR			TR			T	R
Volume (vph)	75	134	393	23	94	188		1696	30		2139	78
% Heavy veh	0	0	0	0	0	0		0	0		0	0
PHF	0.89	0.89	0.86	0.76	0.76	0.76		0.86	0.86		0.94	0.94
Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup lost time		2.0	2.0		2.0			2.0			2.0	2.0
Ext. eff. green		2.0	2.0		2.0			2.0			2.0	2.0
Arrival type		3	3		3			3			3	3
Unit Extension		3.0	3.0		3.0			3.0			3.0	3.0
Ped/Bike/RTOR Volume	0		10	0		10	0		25	0		25
Lane Width		12.0	12.0		12.0			12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		0	0		0			0			0	0
Unit Extension		3.0	3.0		3.0			3.0			3.0	3.0

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 35.0	G =	G =	G =	G = 57.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB		WB		NB		SB	
Adj. flow rate	235	445	388		1978		2276	56
Lane group cap.	474	565	1055		2955		2957	921
v/c ratio	0.50	0.79	0.37		0.67		0.77	0.06
Green ratio	0.35	0.35	0.35		0.57		0.57	0.57
Unif. delay d1	25.6	29.2	24.2		14.9		16.5	9.6
Delay factor k	0.50	0.50	0.50		0.50		0.50	0.50
Increm. delay d2	3.7	10.6	1.0		1.2		2.0	0.1
PF factor	1.000	1.000	1.000		1.000		1.000	1.000
Control delay	29.2	39.8	25.2		16.2		18.5	9.7
Lane group LOS	C	D	C		B		B	A
Apprch. delay	36.1		25.2		16.2		18.3	
Approach LOS	D		C		B		B	
Intersec. delay	20.3		Intersection LOS		C			

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	ORGA-IJB
Agency/Co.	O.R.George & Associates
Date Performed	6/25/2004
Analysis Time Period	Existing AM PEAK HOUR

Site Information

Intersection	Potomac Ave @ Half St, S.E
Jurisdiction	Washington D.C
Analysis Year	2004

Project Description: 100 Potomac Avenue PUD

East/West Street: Potomac Avenue, S.E | North/South Street: Half Street, S.E

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	8	14	0	0	49	6
Peak-Hour Factor, PHF	0.50	0.50	1.00	1.00	0.69	0.69
Hourly Flow Rate, HFR	16	28	0	0	71	8
Percent Heavy Vehicles	0	–	–	0	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	1	0	137
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.78	1.00	0.78
Hourly Flow Rate, HFR	0	0	0	1	0	175
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	16						176	
C (m) (vph)	1532						991	
v/c	0.01						0.18	
95% queue length	0.03						0.64	
Control Delay	7.4						9.4	
LOS	A						A	
Approach Delay	–	–				9.4		
Approach LOS	–	–				A		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	ORGA-IJB
Agency/Co.	O.R.George & Associates
Date Performed	6/25/2004
Analysis Time Period	Existing PM PEAK HOUR

Site Information

Intersection	Potomac Ave @ Half St, S.E
Jurisdiction	Washington D.C
Analysis Year	2004

Project Description: 100 Potomac Avenue PUD

East/West Street: Potomac Avenue, S.E | North/South Street: Half Street, S.E

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	110	39	0	0	11	1
Peak-Hour Factor, PHF	0.50	0.50	1.00	1.00	0.69	0.69
Hourly Flow Rate, HFR	220	78	0	0	15	1
Percent Heavy Vehicles	0	–	–	0	–	–
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	5	0	6
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.78	1.00	0.78
Hourly Flow Rate, HFR	0	0	0	6	0	7
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LR	
v (vph)	220						13	
C (m) (vph)	1615						645	
v/c	0.14						0.02	
95% queue length	0.47						0.06	
Control Delay	7.6						10.7	
LOS	A						B	
Approach Delay	–	–				10.7		
Approach LOS	–	–				B		