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June 17, 2003

CHRISTINE MOSELEY SHIKER
202-457-7167

Internet Address: cmshiker@hklaw.com

VIA HAND DELIVERY
Members of the Board of Zoning Adjustment
District of Columbia Office of Zoning
441 4th Street, N.W., Suite 210S
Washington, D.C. 20001

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2003 JUN 17 PM 3:17

Re: Board of Zoning Adjustment Case No. 17028
Prehearing Submission

Dear Board Members:

On behalf of the applicant in the above-referenced case, enclosed please find twenty copies of its prehearing submission in support of the above-referenced application for special exception and variance relief.

Should you have any questions regarding this matter, please do not hesitate to contact me at (202) 457-7167.

Sincerely,

Christine Moseley Shiker

Enclosures

cc: Arthur Jackson, Office of Planning (Via Hand Delivery; w/enclosure)
Jennifer Steingasser, Office of Planning (Via Hand Delivery; w/enclosure)
Ken Laden, District Department of Transportation (Via Hand; w/enc)
Abdoulaye Bah, District Department of Transportation (Via Hand; w/enc)

BZA
Case No. 17028
Exhibit No. 25

Board of Zoning Adjustment
District of Columbia
CASE NO. 17028
EXHIBIT NO. 25A1

BEFORE THE BOARD
OF ZONING ADJUSTMENT
FOR THE DISTRICT OF COLUMBIA

APPLICATION OF
RLA REVITALIZATION CORP.
AND DONATELLI & KLEIN

BZA APPLICATION NO. 17028
HEARING DATE: JULY 1, 2003
ANC 1A

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STATEMENT OF THE APPLICANT

I.
NATURE OF RELIEF SOUGHT

This statement is submitted on behalf of RLA Revitalization Corporation, the owner of property located near the intersection of Irving and 14th Streets, N.W. (all or portions of Lots 71, 824, 865, and 867 in Square 2848, Lot 836 in Square 2843 and the street and alley proposed to be closed) (the "Site"), and Donatelli & Klein, the contract purchaser of the Site, (collectively, the "Applicant") in support of the application to the Board of Zoning Adjustment for the following variance and special exception relief from the requirements of the Zoning Regulations pursuant to 11 DCMR §§ 3103.2 and 3104.1: (i) variance from the height requirement in Section 770; (ii) a variance from the side yard requirement of Section 775; (iii) a special exception for a reduction of parking spaces pursuant to Section 2108; and (iv) a special exception from the roof structure requirements of Section 411. The relief is requested in order to permit the construction of an apartment house with approximately 150 units and approximately 20,000 square feet of ground floor retail.

The application originally included a request for variance relief from the loading requirements set forth in Section 2201. However, the Project now complies

with all required loading, and, thus, the Applicant withdraws that request for variance relief.

II.
JURISDICTION OF THE BOARD

The Board of Zoning Adjustment (the "Board") has jurisdiction to grant the variance and special exception relief requested herein pursuant to Sections 3103 and 3104 of the District of Columbia Municipal Regulations (the "Zoning Regulations"). 11 DCMR §§ 3103 and 3104.

III.
BACKGROUND

A. Description of the Site and Surrounding Area

The Site is located on the north side of Irving Street, N.W., just east of 14th Street, N.W., adjacent to the entrance to the Columbia Heights Metrorail Station, and consists of all or portions of Lots 71, 824, 865, and 867 in Square 2848, Lot 836 in Square 2843 and the street and alley proposed to be closed. A subdivision application will be filed to consolidate this property into a single record lot. Square 2848 is bounded by Irving Street to the south, 14th Street to the west, Kenyon Street to the north, and 13th Street to east. The Site is in the southwest corner of Square 2848 and is part of the RLA Revitalization Corporation's property known as Parcel 15. The Parcel include the southwestern tip (Lot 836) of Square 2843, which was bisected from the rest of that square at the time of Kenyon Place was created. The remainder of Parcel 15 was approved by the Board in Case No. 17001 for the development of a low-income, elderly residential apartment house. The Site is currently vacant and is zoned C-3-A.

The Site is located in the heart of the redeveloping Columbia Heights neighborhood. The area contains a number of properties currently in the process of redevelopment, with emphasis on the development of residential and retail uses. The RLA Revitalization Corporation is the owner of a significant number of these properties and is in the process of selling these parcels for redevelopment to developers whose projects have been selected and approved after an RFP process, which included input from local community groups.

B. Project Description

The Applicant proposes to construct an apartment house with approximately 150 units and approximately 20,000 square feet of ground floor retail (the "Project"). The Project proposes a height of eighty-five feet and an FAR of 3.93. The Project includes approximately 27,550 square feet of residential recreation space (an amount equal to more than fifteen percent of the area devoted to residential gross floor area), including a ground level esplanade, an outdoor garden, two lobbies, a library/media center, a community room, a fitness center, and a roof garden. The Project provides 206 parking spaces in two and one-half below grade levels. Furthermore, the Project complies with all loading requirements, providing a fifty-five foot loading berth, 200 square foot loading platform and a twenty foot service/delivery space. Pursuant to Section 2201.2 of the Zoning Regulations, no loading is required for the retail use.

IV.
THE APPLICANT MEETS THE BURDEN OF PROOF FOR VARIANCES

A. Standards for Granting Area Variances

Under D.C. Code §6-641.07(g)(3) and 11 DCMR 3103.2, the Board is authorized to grant an area variance where it finds that three conditions exist:

(1) the property is unique because of its size, shape or topography or other extraordinary or exceptional situation or condition;

(2) the owner would encounter practical difficulties if the zoning regulations were strictly applied; and

(3) the variance would not cause substantial detriment to the public good and would not substantially impair the intent, purpose and integrity of the zone plan as embodied in the Zoning Regulations and Map

See French v. District of Columbia Board of Zoning Adjustment, 658 A.2d 1023, 1035 (D.C. 1995) (*quoting Roumel v. District of Columbia Board of Zoning Adjustment*, 417 A.2d 405, 408 (D.C. 1980)); *see also, Capitol Hill Restoration Society, Inc. v. District of Columbia Board of Zoning Adjustment*, 534 A.2d 939 (D.C. 1987). As discussed below, the Project and the variances requested for the same meet all three prongs of this test.

B. Variance Relief from Height Requirement

The Applicant requests a variance from the height requirement set forth in Section 770 of the Zoning Regulations. Section 770 of the Zoning Regulations permits a building in the C-3-A District to be built to a height of sixty-five feet. The Project proposes a height of eighty-five feet to the top of the parapet. The Applicant,

therefore, requests a variance from Section 770 to increase the permitted height for the development.

1. Basis for Variance

The Site has several exceptional and extraordinary conditions that create a practical difficulty in developing this Project within the confines of the height requirement set forth in Section 770 of the Zoning Regulations. These conditions include the below-grade complexities due to Metro facilities beneath the Site, the location of the above-grade WMATA facilities serving the Columbia Heights Metrorail Station, the requirements for the inclusion of retail in the Project, and the unusual shape of the lot, which creates areas that are not easily built upon.

Specifically, the above- and below-grade WMATA facilities create areas in which the Applicant is prohibited from constructing portions of the Project. As discussed in the letter from the WMATA, attached hereto as Exhibit F, the Project is limited by the WMATA canopy, the pedestrian clearance around the WMATA canopy, and the WMATA access shafts. These limitations have only been recently confirmed to the developer and were not included in the description of the Site or as a restriction on the development of the Site as part of the Request for Proposal ("RFP") issued by RLA Revitalization Corporation. Thus, at the time the developer submitted its proposal for the acquisition of the Site, these restrictions had not been imposed by WMATA. Without these restrictions, a building with an approximate FAR of 4.0 could have been designed within six stories rather than seven stories.

Similarly, the Project is constrained by the extremely narrow public space between the 14th Street curb line and the property line. Along 14th Street, the public

space measures two feet, six inches at the narrowest point and is only seven feet, six inches at the widest point. As a result, in order to create a usable space for pedestrians, the Project must be set back from the property line a minimum of five feet, six inches, and in some locations as much as ten feet, six inches, in order to create an appropriate public space area of thirteen feet from the curb line.

Furthermore, the Project must include retail on the first floor for a variety of reasons. First, the RFP states that considerable attention should be given to creating a very strong retail presence and image on the first floor of this Site. According to the RFP, the District prefers well-designed, mixed-use buildings in which retail is not an additive consideration, but rather an integral part of the overall image of the building. Similarly, in the charettes leading up to the issuance of the RFP, the community strongly encouraged that this Site include major retail uses. Furthermore, the 14th Street Urban Renewal Plan identified this Site in a Major Community Service Center, which dictated predominant retail uses. As discussed in detail below, in order to attract high quality retail tenants to this Site, the Applicant must incorporate ceiling heights of approximately twenty feet. Without this type of space, the Project will not draw the retailers envisioned by the RFP, the community or the 14th Street Urban Renewal Plan.

2. A Strict Application of the Zoning Regulations Would Impose a Peculiar and Exceptional Practical Difficulty on the Applicant

A strict application of the Zoning Regulations would impose a peculiar and exceptional practical difficulty based on the exceptional conditions discussed above. The WMATA restrictions above as well as the creation of a workable public space

area along 14th Street eliminates approximately 7,975 square feet of site area that is not available to the Applicant for development. Although not all of this space can be used due to the lot occupancy requirement, the Project could have used a portion of this lot area to achieve the permitted FAR on the Site. Specifically, the Project has a lot occupancy of only sixty-five percent, which is less than the permitted seventy-five percent. If the building were constructed to the permitted lot occupancy (75% on the C-3-A portion of the Site), approximately 5,796 square feet of additional lot area could be occupied by the building footprint. Assuming that the building was constructed to six stories in these areas, the Project could include approximately 34,776 square feet of additional gross floor area, which is greater than the 30,000 square feet of gross floor area proposed for the seventh (or additional) floor. As evidenced above, this difference is a direct result of the WMATA restrictions on the Site and the lack of public spaces surrounding the Site. Moreover, the required inclusion of items such as the WMATA canopy within the lot occupancy calculation further exacerbate this problem.

Even without the seventh floor, the Applicant has a practical difficulty in complying with the height requirement. The practical difficulty results from the retail use on the first level. As stated above, the Project must include retail use on the first floor. To obtain quality retailers, which is strongly supported by the community, and to make the retail use a successful and integral part of the Project, as encouraged by the RFP, the Project must incorporate ground floor ceiling heights of approximately twenty feet clear. For the majority of the retail, the Project proposes a height from the top of slab to underside of slab of eighteen feet, nine and

one-half inches, which is below the preferred height. To reduce that height any further threatens the Applicant's ability to lease the retail space to quality retailers. Furthermore, the top floor of the building requires an additional foot of clearance to provide space for plumbing and drainage lines. The first floor ceiling height and the additional top story height are almost equivalent to an additional floor and, therefore, create a further complication in achieving the permitted gross floor area on the Site.

As a result of both the WMATA constraints and the additional height resulting primarily from the inclusion of retail, the Applicant faces a practical difficulty because it is unable to use the permitted gross floor area on the Site without the request for additional height. The C-3-A District permits 4.0 FAR. Even with the requested height variance, the maximum gross floor area for the Project is only 3.93 FAR. Accordingly, the Applicant requests this variance.

3. Relief Can Be Granted Without Substantial Detriment to the Public and Without Substantially Impairing the Intent, Purpose and Integrity of the Zone Plan as Embodied in the Zoning Regulations and Map

The variances from the building height requirements can be granted without substantial detriment to the public good and without substantially impairing the intent, purpose and integrity of the Zoning Regulations. First, the proposed height of the Project is compatible with surrounding structures and strongly supported by the community. Specifically, a ninety foot residential building is located immediately south of the Project on the east side of the 14th Street. Other residential buildings with similar heights are located to the south of the Project, south of Columbia Road. It should be noted that although the requested height variance is for eighty-five feet,

the building includes a three foot, six inch parapet, resulting in the height of the building to the top of the roof being only eighty-one feet, six inches.

Second, the Project is consistent with the goals of the Comprehensive Plan and the current planning initiatives of the Office of Planning and District of Columbia. The Site is designated on the Generalized Land Use Map in the mixed use category for medium density residential uses and moderate density commercial uses. The Comprehensive Plan does not indicate appropriate heights for each land use designation; rather, the Comprehensive Plan speaks in term of density. This Project is within the permitted density of 4.0 FAR and, as discussed above, is compatible with the heights of the buildings in the surrounding area.

In addition, the Site is designated on the Generalized Land Use Policies map in both a housing opportunity area and development opportunity area. Housing opportunity areas are areas where the District expects and encourages either new housing or rehabilitated housing and represent locations for significant concentration of housing. A development opportunity areas are areas that offer opportunities to accommodate new growth and development. These areas may be designated for housing, commercial development, employment centers or for a mixture of uses. Achieving the permitted FAR at the Site with additional housing units is consistent with both of these designations.

The Project's location at the Columbia Heights Metrorail Station, on 14th Street, a major road in the District, and within housing and development opportunity areas all support the idea of maintaining the permitted density on the Site. The inability to maximize FAR in the Project will result in the loss of residential units,

which is inconsistent with the District's stated goal of increasing the residential population by 100,000. Furthermore, the 14th Street Urban Renewal Plan designated the Site within a Major Community Service Center. That plan stated that projects in the Major Community Service Centers should include height density residential and retail uses with a maximum FAR of 6.5 and a maximum building height of 100 feet.

Finally, the Project is an ideal transit-oriented development, placing dense residential uses with ground floor retail on top of a Metro station. The focus of transit oriented development is primarily to encourage a mixture of uses to be developed at transit centers to decrease reliance on passenger vehicles. These new policies are consistent with the Transportation Element of the Comprehensive Plan which encourages significant development at Metrorail and Metrobus stations. This project is an ideal candidate to support transit-oriented development policies of the District due to its proximity to Metrorail and Metrobus Stations and its provision of a mix of uses for a diversity of activities and purposes at this location. Accordingly, the requested relief will not have an adverse impact on the public or the zone plan.

C. Variance Relief from Side Yard Requirement

Section 775.5 of the Zoning Regulations states that no side yard is required in C-3-A District; however, if a side yard is required, it must be requires the side yard for this project to be at least fourteen feet, two inches.

1. Basis for Relief

Due to the relatively recent expansion of the cartway of 14th Street in this area, the public space (the area between the curb of the street and the Applicant's property line) is extremely small, measuring only seven feet, six inches at the widest point and

measuring approximately two feet, six inches at the narrowest point. In an effort to enlarge the pedestrian walkway and public space, the Applicant has set the building back from the property line, essentially creating a sidewalk of approximately thirteen feet. Therefore, the Project provides a minimum side yard of five feet, six inches and as a result, the Applicant must request a variance.

2. A Strict Application of the Zoning Regulations Would Impose a Peculiar and Exceptional Practical Difficulty on the Applicant

Section 775.5 of the Zoning Regulations requires the side yard for the Project to be at least fourteen feet, two inches. Due to the setbacks necessary to create a usable public space along 14th Street, the Applicant cannot comply with the side yard requirement. Compliance with the setback requirement further exacerbates the Applicant's inability to achieve its permitted FAR. Furthermore, the building can not be shifted to the east eight feet, eight inches. To do so would create a rear court which does not comply with the Zoning Regulations. Thus, the Applicant faces a practical difficulty in enlarging the public space.

3. Relief Can Be Granted Without Substantial Detriment to the Public and Without Substantially Impairing the Intent, Purpose and Integrity of the Zone Plan as Embodied in the Zoning Regulations and Map

The requested variance relief, however, will not be detrimental to the public good and will not substantially impair the intent, purpose or integrity of the zone plan. Although the Applicant is not required to incorporate a side yard, the Applicant has done so to avoid an adverse condition for the residents of the area. Thus, the public area along 14th Street is enlarged so that a usable public walkway is created. Furthermore, the Project incorporates additional open, public space on its property,

such as the plaza along Kenyon Street. This plaza includes almost 4,000 square feet and is an important gesture to the triangular public plaza proposed for the property immediately to the north of the Site.

V.
THE APPLICANT MEETS THE TEST FOR SPECIAL EXCEPTION RELIEF TO ALLOW A REDUCTION IN RETAIL PARKING UNDER 11 DCMR § 2108

Section 2108.1 of the Zoning Regulations permits the Board to reduce the amount of parking spaces required for non-residential uses under Section 2101.1 in accordance with Section 3104 of the Zoning Regulations. Section 2101.1 of the Zoning Regulations requires 134 parking spaces as follows: 1 space per two dwelling units (.5 x 147), for a total of seventy-four spaces, and one space for each additional 300 square feet over 3,000 square feet of retail (20,850 – 3,000 = 17,850/300), for a total of sixty spaces. For the Project, the Applicant provides 206 total parking spaces, which is significantly more parking than the total required for all uses at the Site. However, because the anticipated use of the retail will be by local residents arriving on foot and patrons arriving from the adjacent Metrorail station, the Applicant requests a special exception to reduce the parking required for the retail use by twenty-five percent.

The criteria set forth in Section 2108 of the Zoning Regulations are satisfied as follows:

A. The amount of required parking spaces shall not be reduced by more than twenty-five percent.

The retail component includes 20,850 square feet, which requires sixty parking spaces. The Applicant proposes to devote forty-five parking spaces to the retail use, which is a reduction of twenty-five percent.

B. The Board shall give consideration to the following:

1. Nature and Location of the Structure

The Project is located on 14th Street, in an emerging area, and adjacent to the Columbia Heights Metrorail station. The proposed retail will be neighborhood-serving retail, not destination retail, and will be accessed primarily by residents of the area and patrons arriving from the adjacent Metrorail station. According to the Traffic Impact Assessment prepared by O.R. George & Associates, and attached hereto as Exhibit E, (the "Traffic Report") the proposed retail use would be local community-servicing retail, resulting in a high percentage (80%±) of pedestrian trips.

2. Maximum number of students, employees, guests, customers, or clients who can reasonably be expected to use the proposed building or structures at one time

The proposed retail will primarily be neighborhood-serving, to be accessed by area residents and patrons arriving from the adjacent Metrorail station. According to the Traffic Report, the proposed number of parking spaces, combined with the availability of other parking facilities in the area and the number of multi-purpose walk trips, support the requested parking adjustment and result in no adverse parking demand impacts.

3. Amount of traffic congestion existing or that the building or structure can reasonably be expected to create in the neighborhood

The Traffic Report concludes that the projected trip generation for the Project would have a minimal impact on traffic and parking conditions within the local area.

4. Quantity of existing public, commercial or private parking, other than curb parking, on the property or in the neighborhood which can reasonably be expected to be available when the building or structure is in use

This retail will primarily be accessed by neighborhood residents. In addition to the parking provided on-site, patrons of the retail facilities can park in the parking garage proposed as part of the new Grid project located directly to the north across Irving Street. According to the Traffic Report, the proposed parking on-site will be sufficient to meet the needs of the Site, without consideration of the additional parking opportunities.

5. Proximity to public transportation, particularly Metrorail stations, and the availability of public transportation service in the area

The Project is situated on top of the Columbia Heights Metrorail Station, with the entrance to the station being on the Applicant's property. In addition, numerous Metrobus routes run along 14th Street adjacent to the site.

Finally, the special exception will be in harmony with the general purpose and intent of the Zoning Regulations and Zoning Map and will not tend to affect adversely the use of neighboring properties. The Project provides an important development of residential and retail uses in a growing area of the city. The Project also results in the development of vacant, under-utilized property. Accordingly, the Project will not

adversely affect adjacent or nearby property and will serve to benefit this redeveloping area.

VII.
THE APPLICANT MEETS THE TEST FOR SPECIAL EXCEPTION RELIEF TO ALLOW ADJUSTMENTS TO THE ROOF STRUCTURE REQUIREMENTS UNDER 11 DCMR § 411.

A. Standard for Approving Special Exception Relief

Due to the exceptional conditions of the Site, the Project cannot comply with the setback requirements relating to roof structures set forth in Sections 411 and 770.6(b) of the Zoning Regulations. Thus, the Applicant requests special exception relief to deviate from the strict compliance of those requirements as permitted under Sections 411.11 and 3104.1 of the Zoning Regulations.

Relief granted through a special exception is presumed appropriate, reasonable and compatible with other uses in the same zoning classification, provided the specific regulatory requirements for the relief requested are met. In reviewing an application for special exception relief, "[t]he Board's discretion ... is limited to a determination of whether the exception sought meets the requirements of the regulations." *First Baptist Church of Washington v. District of Columbia Board of Zoning Adjustment*, 423 A.2d 695, 701 (D.C. 1981) (*quoting Stewart v. District of Columbia Board of Zoning Adjustment*, 305 A.2d 516, 518 (D.C. 1973)). If the applicant meets its burden, the Board must ordinarily grant the application. *Id.*

B. Standard of Review for Roof Structure Special Exceptions

Under Section 411.11, the Board may grant special exception relief from the strict requirements for a roof structure where full compliance is "impracticable

because of operating difficulties, size of building lot, or other conditions relating to the building or surrounding area" and would be "unduly restrictive, prohibitively costly, or unreasonable." 11 DCMR §411.11. The Board may approve deviations from the roof structure requirements provided the intent and purpose of Chapter 400 and the Zoning Regulations are not "materially impaired by the structure, and the light and air of adjacent buildings shall not be affected adversely." *Id.*

C. Relief from Sections 411.2 and 770.6(b) to Deviate from Roof Structure Setback Requirement

The Applicant requests relief from Sections 411.2 and 770.6(b) of the Zoning Regulations. That section requires roof structures to be set back in accordance with the provisions of the zone district in which the Project is located. 11 DCMR §411.2. The C-3-A District requires a roof structure to be set back from the building's walls a distance at least equal to the roof structure's height. 11 DCMR §770.6(b).

The proposed roof structures all comply with this provision with the exception of the roof structure that contains the elevator which accesses the roof deck. This penthouse enclosure is eighteen feet, six inches in height, and satisfies the setback requirement on each side with the exception of the northeast corner. Specifically, because the north open court cuts into the building, the setback is reduced to six feet, six inches.

The proposed roof structure does comply, however, with the spirit and intent of the roof structure provisions and the Zoning Regulations. The purpose of the setback requirement is to ensure adequate light and air to adjacent property and abutting streets. This purpose is achieved despite the requested special exception.

Specifically, the roof structure complies with the setback requirement on all street faces and does not comply only along the north open court, which is a significant distance from any adjacent building. Accordingly, the proposed penthouse is in harmony with the purpose and intent of the Zoning Regulations and meets the test for special exception relief under Section 411.2.

D. <u>Relief from Section 411.3 to Deviate from Roof Structure Enclosure Requirement</u>

Section 411.3 requires that all penthouses and mechanical equipment be placed in one enclosure. The Project includes four penthouse enclosures. A single enclosure cannot be provided because it would eliminate the majority of the roof terrace. In addition, it would create a significant mass which would not comply with the setback requirements due to the layout of the building on the site. Furthermore, multiple enclosures are required in order to provide two means of ingress and egress as required for the roof deck.

The multiple roof structures will not adversely impact the light and air of adjacent buildings. The placement of the penthouse enclosures minimizes the visibility of the penthouses from any vantage point, and the overall mass of the roof structure has been reduced. Therefore, the intent and purposes of the Zoning Regulations will not be materially impaired and the light and air of adjacent buildings shall not be adversely affected. adversely impact the light and air of adjacent buildings.

VIII.
COMMUNITY SUPPORT

The Applicant has worked with the community and obtained support for the Project. Specifically, Advisory Neighborhood Commission ("ANC") 1A, the ANC in which the Project is located, voted to support the Project at its meeting on March 12, 2003. A copy of the ANC 1A letter is attached hereto as Exhibit G.

IX.
EXHIBITS SUBMITTED IN SUPPORT OF THE APPLICATION

Exhibit A:	Portion of the Sanborn Atlas showing the Site highlighted in yellow;
Exhibit B:	A portion of the Zoning Map showing the Site highlighted in yellow;
Exhibit C:	Surveyor's Plat of the Subject Property;
Exhibit D:	Clarification Page from Architectural Plans and Drawings;
Exhibit E:	Traffic Report dated June 9, 2003, from O.R. George & Associates;
Exhibit F:	Letter from WMATA dated June 11, 2003
Exhibit G:	Letter of Support from Advisory Neighborhood Commission 1A;
Exhibit H:	Outline of Testimony of Representative of Donatelli & Klein;
Exhibit I:	Outline of Testimony of Torti Gallas and Partners – CHK, project architect;
Exhibit J:	Outline of Testimony of O.R. George & Associates, Traffic Consultant;
Exhibit K:	Outline of Testimony of John Asasdoorian, Asadoorian Retail Solutions; and
Exhibit L:	Outline of Testimony of Steven E. Sher, Land Planner.

X.
WITNESSES

A. Representative of Donatelli & Klein.

B. Representative of Torti Gallas and Partners – CHK, Project Architects.

C. Representative of O.R. George & Associates, Traffic Consultant.

D. Representative of Asadoorian Retail Solutions, Retail Consultant

E. Steven E. Sher, Land Planner.

X.
CONCLUSION

For the reasons stated above, the requested relief meets the applicable standards for area variances and special exception relief under the Zoning Regulations. Accordingly, the Applicant respectfully requests the Board to grant the application.

Respectfully submitted,

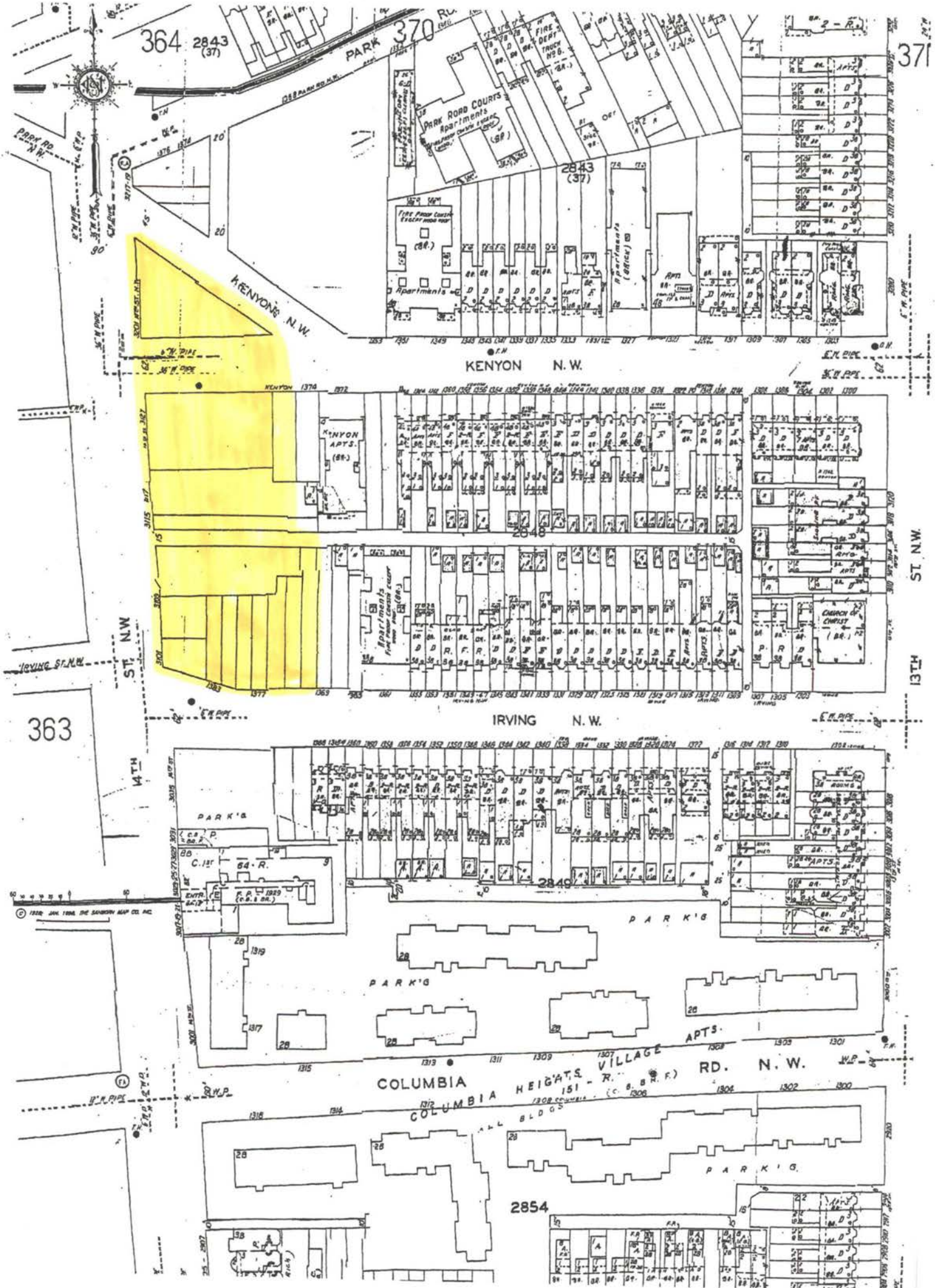
HOLLAND & KNIGHT, LLP

By: _____
Norman M. Glasgow, Jr., Esq.

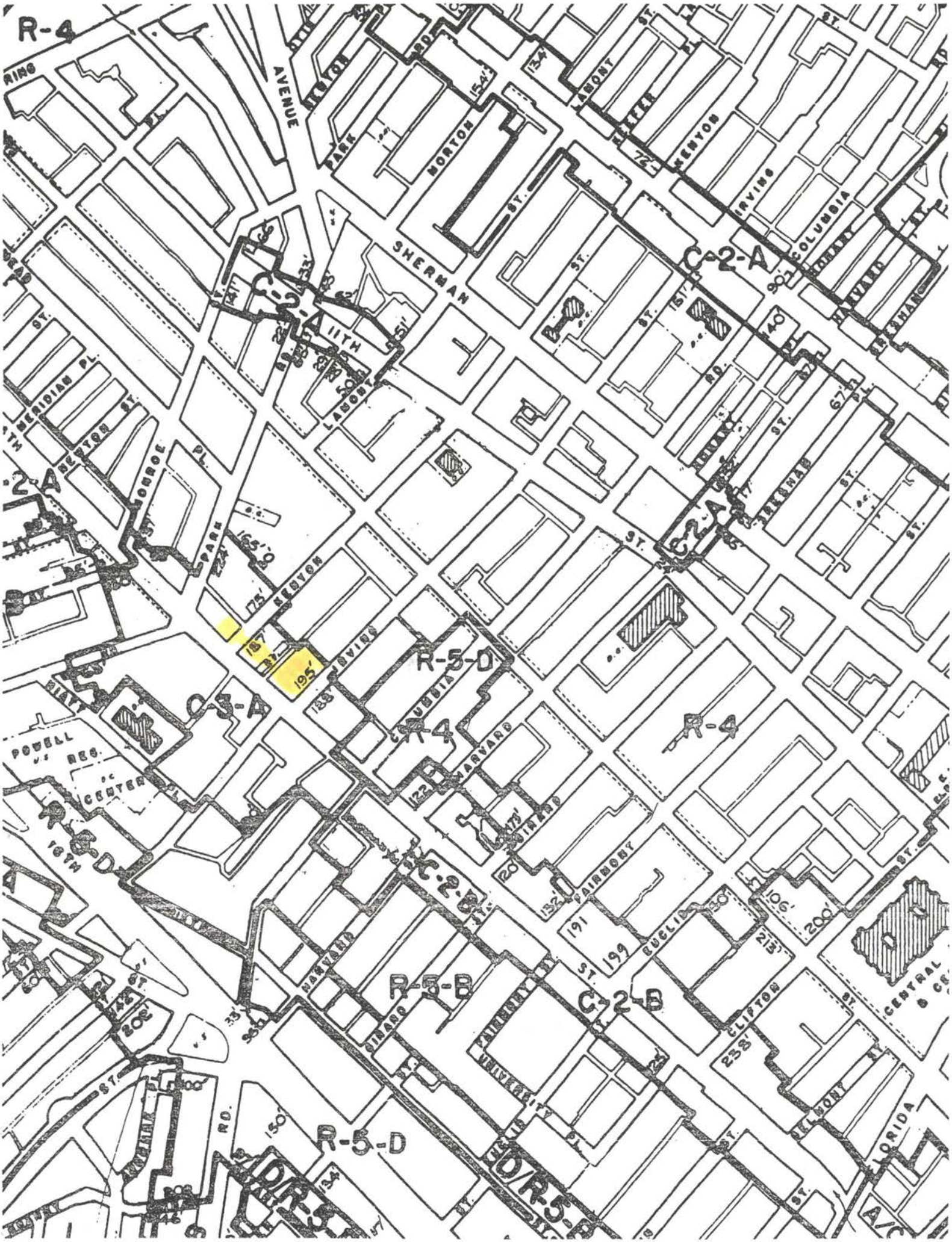
By: _____
Christine Moseley Shiker, Esq.

2099 Pennsylvania Avenue, N.W.
Suite 100
Washington, D.C. 20006
(202) 955-3000

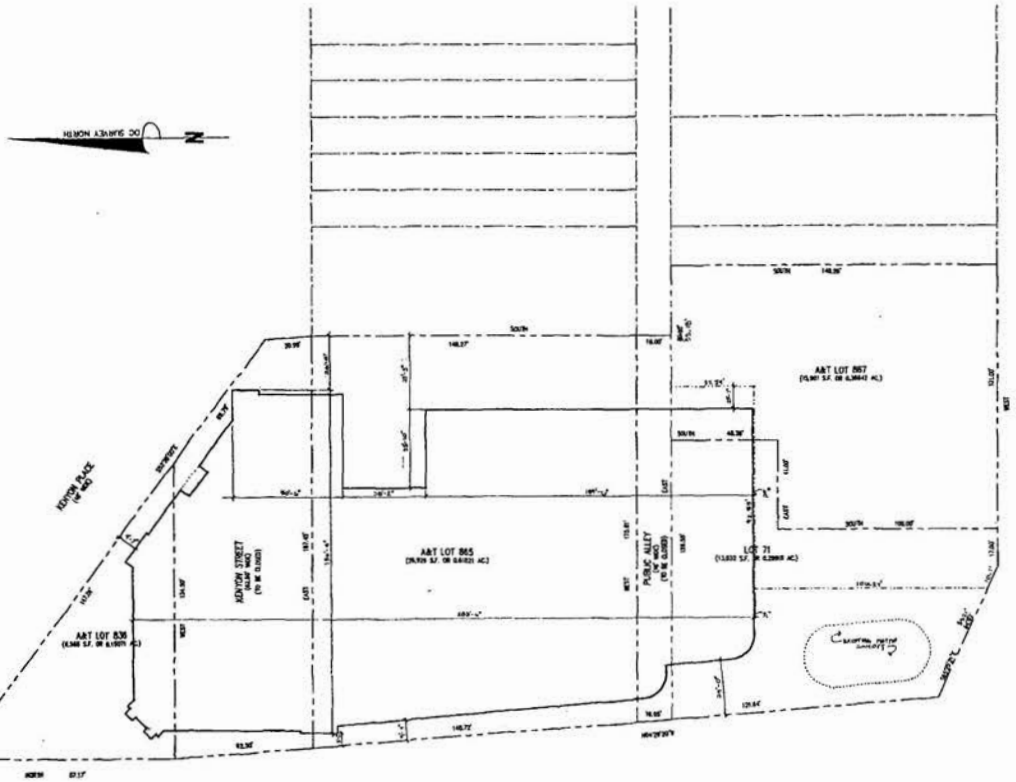
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2843
(37)
PARK
370
371
PARK ROAD COURTS
Apartments
FIRE DEPT TRUCK NO 6.
PARK RD. N.W.
KENYONS N.W.
KENYON N.W.
KENYON APTS.
2848
IRVING ST. N.W.
IRVING N.W.
13TH ST. N.W.
363
14TH ST. N.W.
PARK'G
2849
2840
COLUMBIA HEIGHTS VILLAGE APTS.
COLUMBIA RD. N.W.
2854




R-4
AVENUE
PARK
MORTON
SHERMAN
LAMONT
KENYON
IRVING
COLUMBIA
C2-A
11TH
LAMONT
MERIDIAN PL
LOUDOUN PL
SPAAN
KENYON
IRVING
R-5-D
COLUMBIA
HARVARD
R-4
POWELL
REC.
CENTER
10TH
C2-C
FAIRMONT
R-5-B
C2-B
CLIFTON
CENTRAL
FLORIDA
R-5-D
R-5-D





NOTE: THE PROPERTY LINES AND THE DIMENSIONS OF THE LOTS AND PARCELS SHOWN HEREON ARE SHOWN PER THE INFORMATION OBTAINED FROM THE OFFICE OF THE SURVEYOR, D.C. THESE ARE CORRECT TO THE KNOWLEDGE AND BELIEF OF THE UNDERSIGNED.

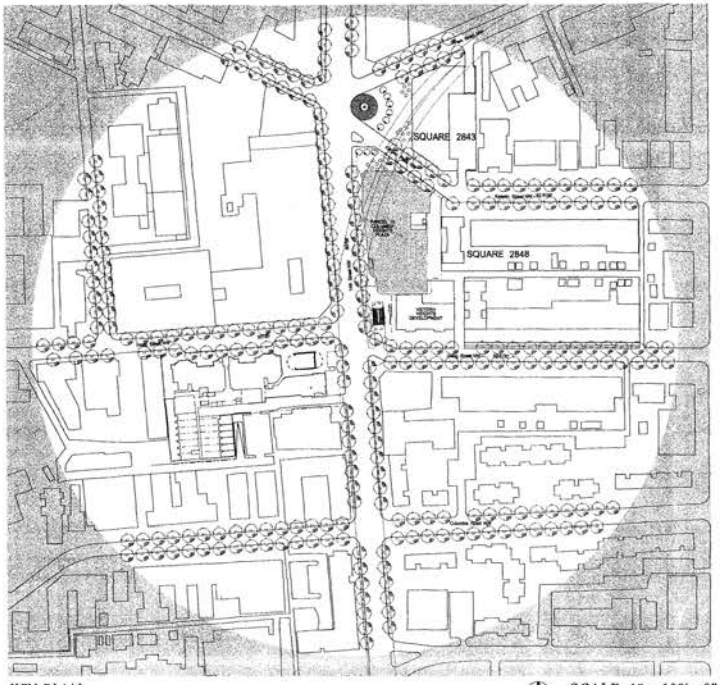
1-25-03

DONALD J. ZIMMERMAN
DC LICENSE LAND SURVEYOR
LICENSE NUMBER: 13900496

DATE

Bowman CONSULTING





KEY PLAN

SCALE: 1" = 100' - 0"

SHEET	DESCRIPTION	DATE ISSUED	REVISION
A-01	COVER SHEET	04/24/03	
A-02.1	SITE PLAN	04/24/03	
A-02.2	SURVEY	04/24/03	
A-03.1	ZONING DIAGRAMS	04/24/03	06/13/03
A-03.2	ZONING DIAGRAMS	04/24/03	06/13/03
A-03.3	ZONING DIAGRAMS	04/24/03	
A-04.1	ZONING DIAGRAMS	04/24/03	
A-04.2	ZONING DIAGRAMS	04/24/03	
A-04.3	ZONING DIAGRAMS	04/24/03	
A-05	GARAGE PLAN: LEVEL 3	04/24/03	
A-06	GARAGE PLAN: LEVEL 2	04/24/03	
A-07	GARAGE PLAN: LEVEL 1	04/24/03	
A-08	GROUND FLOOR	04/24/03	06/13/03
A-09	GROUND FLOOR MEZZANINE	04/24/03	
A-10	SECOND/TYPICAL FLOOR	04/24/03	
A-11	ROOF PLAN	04/24/03	
A-12	ELEVATIONS	04/24/03	
A-13	SECTIONS	04/24/03	

ZONING SUBMISSION FOR PARCEL 15



A-01

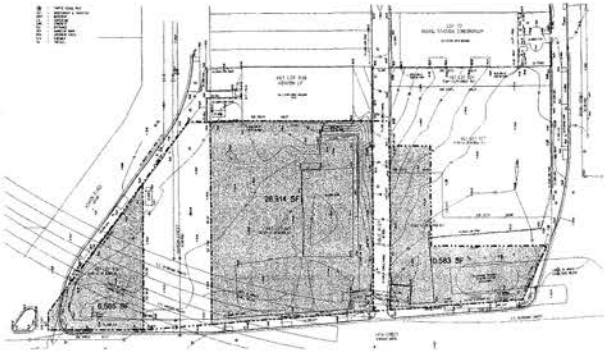
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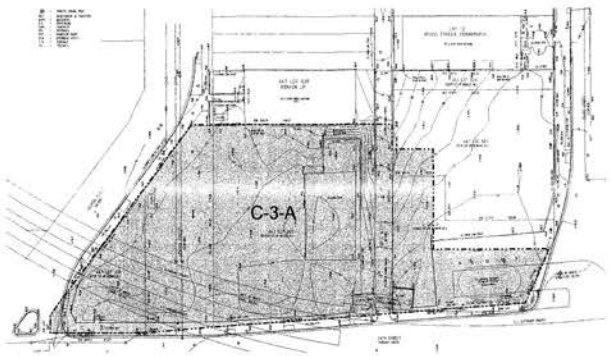
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COLUMBIA HEIGHTS PLAZA



1 NET LOT AREA

NET LOT AREA = 44,062 SF; AREA OF STREET AND ALLEY CLOSURE = 13,432 SF 1" = 60'-0"



2 GROSS LOT AREA AND EXISTING ZONING BOUNDARIES

GROSS LOT AREA UNDER C-3-A = 57,494 SF 1" = 60'-0"

Zoning Analysis

Torti Gallas and Partners
June 16, 2003

Columbia Heights, Parcel 15
Zoning: C-3-A
Surveyed Lot Area: 57,494 sf

Note: Lot area includes closed portion of Kenyon St. N.W./alley, and closed alley, but less area dedicated to Victory Housing Development

	Zoning Requirements	Proposed Project
F.A.R.	4.0 per 11 DCMR (771.2)	3.93
Lot Occupancy	75% per 11 DCMR (772.1)	85%
Metro Canopy Footprint	Include in all zoning calculations	1,444 sf
Allowable Development Footprint	57,494 x .75 = 43,120 sf	36,206 + 1,444 = 37,650 sf
Allowable Building Area	57,494 x 4 = 229,976 sf	1,444 (Canopy) 36,206 (Ground Floor) 8,444 (Ground Flr Mezz.) 31,863 (Second Flr) 29,126 (Third Flr) 63,440 (exhibit Flrs @ 31,720) + 34,200 (GHEW Flrs @ 29,100) 225,674 sf
Building Height	65 ft per 11 DCMR (770.1)	Total Height: 85'-0" 81'-6" to top of roof, plus 3'-6" to top of parapet VARIANCE REQUIRED
	Stories, no limit	7 Stories
Rear Yard	2.5" per ft of height per 11 DCMR (774.1) 65' x 2.5" = 17'-6.5" min. (measured from centerline of street) per 11 DCMR (774.11)	29'-3"@ min.
Side Yard	N/A unless Provided 3" per ft of height per 11 DCMR (775.5) 65' x 3" = 16'-3" min.	8'-0" @ min. VARIANCE REQUIRED

	Zoning Requirements	Proposed Project
Courts	Min. Width: 4" per ft of height per 11 DCMR (774.1) 40'-0" x 4" = 26'-0" 62'-6" x 4" = 21'-10" per 11 DCMR (776.3-4)	North Court - see sht A-03.0#5 South Court - see sht A-03.0#5 Rear Court - see sht A-03.0#5
Required Residential Recreation Space	15% of Res. Use Bldg. Area per 11 DCMR (773.3)	
	150,580 sf Res. Use Area 15 x 182,580 = 27,387 sf 50% Outside Min.	8,360 Grd Level Esplanade 1,330 Garden 1,550 Main Lobby 970 South Lobby 460 Library/Media Center 808 Comm. Rm 1,500 Gym/Aerobics 12,100 Roof Garden 27,555 sf Total 22,460 Outside 82% 5,095 Inside 18%
Dwelling Units		147 units
Parking Requirement	per 11 DCMR (2101.1) Residential .50 space per D.U. .50 x 147 =74 spaces	161 Spaces Provided
	Retail 1 space for each 667 sf over 3,000 sf of retail 20,850-3,000=17,850 / 300 =60 spaces	69 Spaces Required 65% retail parking reduction by special exception 60 x .75 =45 provided (206 Spaces total)
Loading	per 11 DCMR (2201.1) Residential 1 berth @ 55' deep 1 platform @ 200 sf 1 service space @ 20' deep	
	Retail (non-residential) 1 berth @ 55' deep 1 platform @ 100 sf 1 service space @ 20' deep	Per 11 DCMR (2201.2) Retail loading not required if retail sf is less than 10% of total sf (area remaining 90% is all single use) 20,850SF (Retail)/225,674 (Total GFA)= 9.239%<10% Retail loading not required
Penthouse	One continuous structure 11 Setback '	Res. Rec. and mechanical requirements will necessitate multiple roof structures SPECIAL EXCEPTION REQUIRED

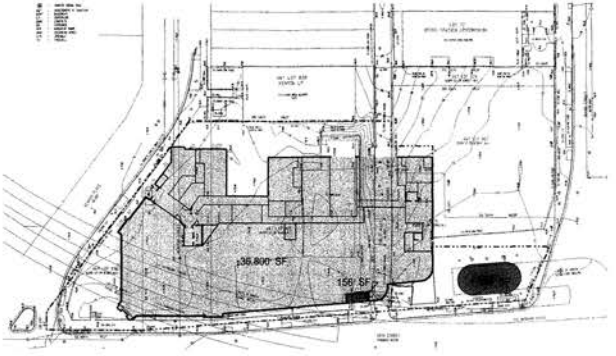
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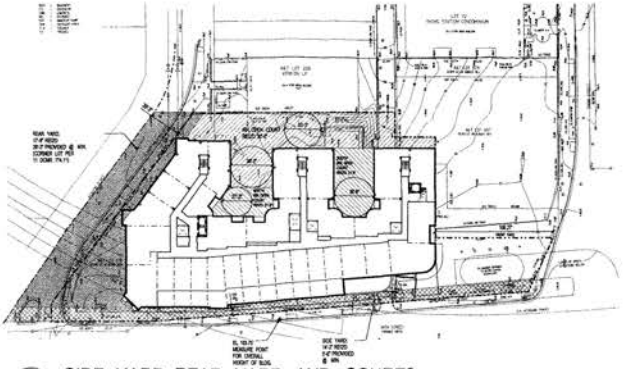
COLUMBIA HEIGHTS PLAZA



3 PROPOSED LOT OCCUPANCY

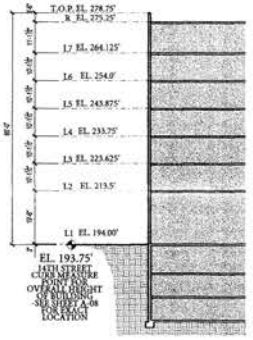
GROSS OCCUPANCY: 36,800 (BLDG) + 1,600 (METRO STRUCT) = 38,400 SF
PERCENT OCCUPANCY: 38,400 / 57,494 = 67%

1" = 40'-0"



5 SIDE YARD, REAR YARD AND COURTS

1" = 40'-0"



4 BUILDING HEIGHT

C-3-A: 65'-0" PERMITTED; 85'-0" PROPOSED

1" = 16'-0"

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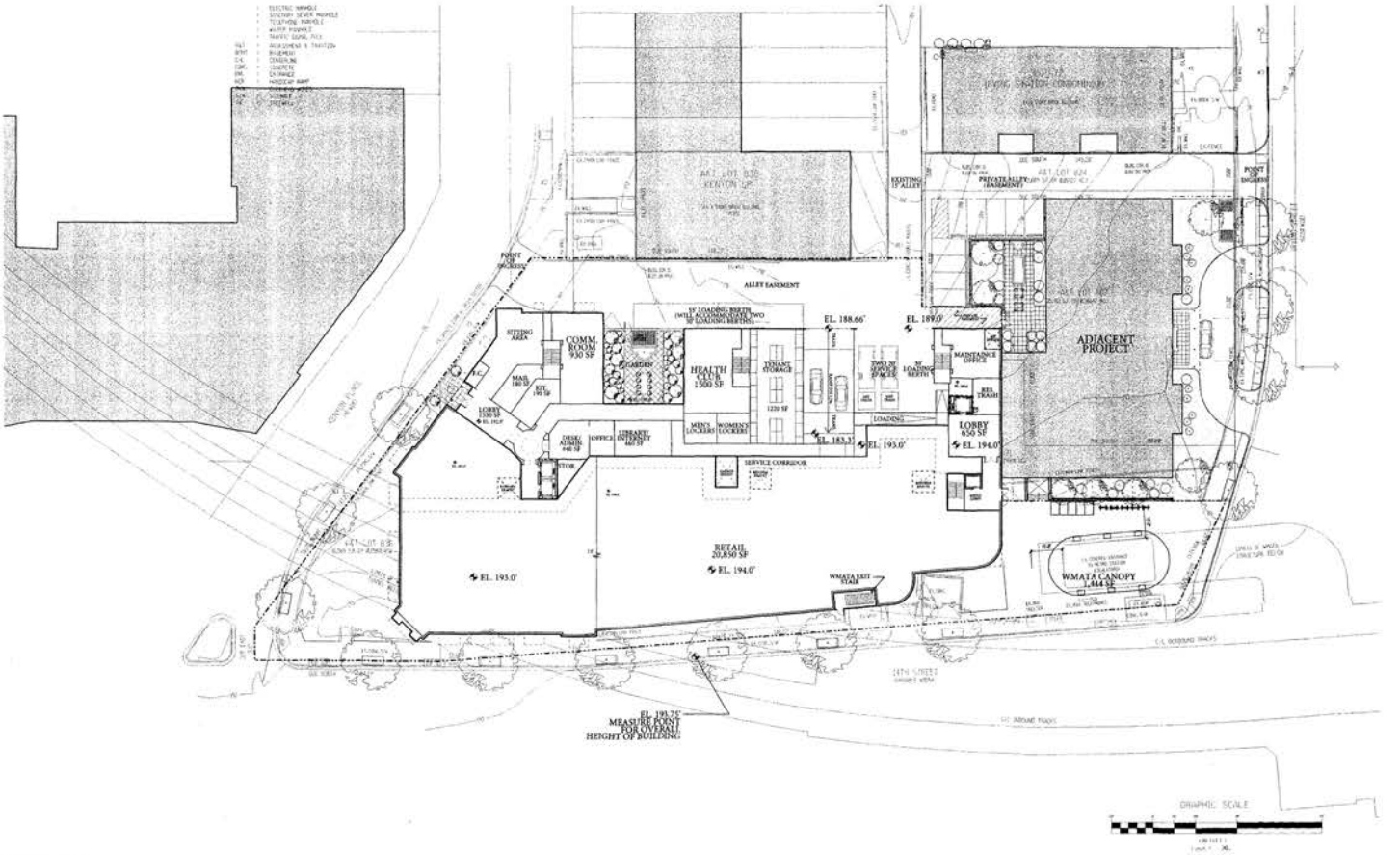
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COLUMBIA HEIGHTS PLAZA



GROUND FLOOR

A-08

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COLUMBIA HEIGHTS PLAZA



Technical Memorandum:

TRAFFIC IMPACT ASSESSMENT – COLUMBIA HEIGHTS PLAZA RESIDENTIAL/ RETAIL DEVELOPMENT (PARCEL 15), BOARD OF ZONING ADJUSTMENT APPLICATION, NORTHWEST, WASHINGTON, D.C.

(Application No. 17028)

Prepared for:

DONATELLI & KLEIN, INC. And
COLUMBIA HEIGHTS VENTURES
7200 Wisconsin Avenue, Suite 310
Bethesda, MD 20814

- Larry Clark, Vice President

Land Use Counsel:

HOLLAND & KNIGHT, LLP
2099 Pennsylvania Avenue, N.W. Suite 100
Washington, DC 20006-6801

- Norman M. Glasgow, Jr., Esquire
- Christine M. Shiker, Esquire

Prepared by:

O. R. GEORGE & ASSOCIATES, INC.
10210 Greenbelt Rd, Suite 310
Lanham, Maryland 20706-2218
Tel: (301) 794-7700

June 9, 2003

O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers – Transportation Planners

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MEMORANDUM

DATE: June 9, 2003

TO: Mr. Christopher Donatelli, President
Donatelli & Klein, Inc. / Columbia Heights Ventures

FROM: Osborne R. George / Suresh K. Karre

RE: Traffic Impact Assessment – Board of Zoning Adjustment Application No. 17028, Columbia Heights Plaza (Squares 2843 & 2848), Northwest, Washington, D.C.

INTRODUCTION

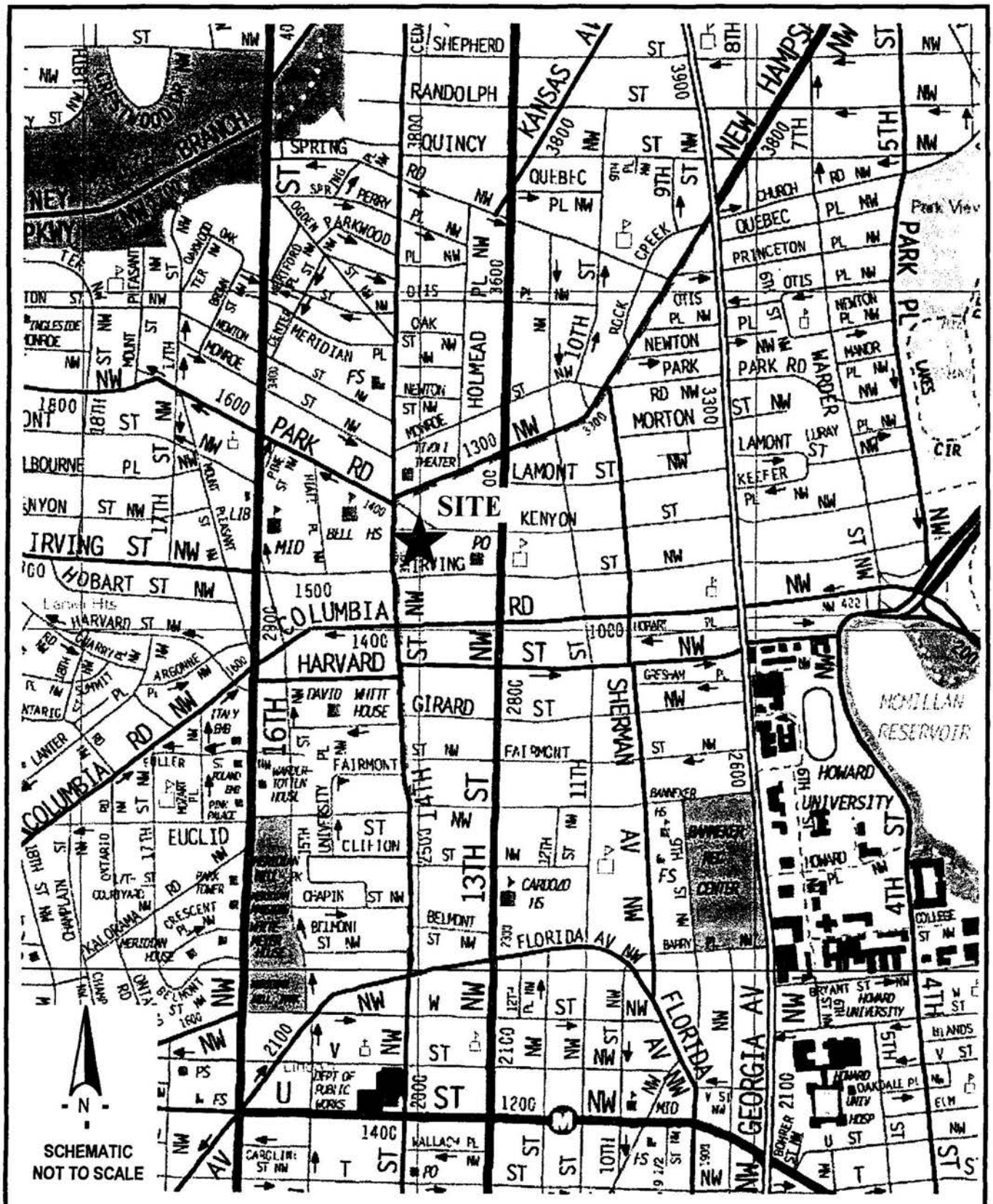
The Applicant, Donatelli & Klein, Inc., and Columbia Heights Ventures, plans to develop a mixed-use residential/retail complex on a 1.3 acre site located within the southeast quadrant of the 14th Street/Kenyon Place intersection, within the Columbia Heights area of Northwest Washington, D.C. The site straddles portions of Squares 2843 and 2848; and is zoned Medium Bulk Major Business and Employment (C-3-A). The project will consist of approximately one hundred forty-seven (147) apartment units and 20,850 square feet of retail space. The development plan proposes the closure of Kenyon Street and an east-west public alleyway, between the eastern property line and 14th Street.

The proposed development would be served by a total of two hundred six (206) parking spaces. One hundred sixty-one (161) of the parking spaces would be designated for residential use, with the remainder (45 spaces) serving the retail component of the proposed development. Vehicular access to the proposed development would be provided off Kenyon Street/Kenyon Place via a proposed alleyway easement, and off Irving Street via a proposed alleyway easement and its connection to an existing east-west public alleyway. The development process requires the Applicant to demonstrate that the proposed use will not have adverse or objectionable impacts on neighboring properties based on traffic and parking considerations, among other factors. This memorandum addresses this requirement. Exhibit 1 shows the location of the subject site. Exhibit 2 shows the site layout and access situation for the proposed development.

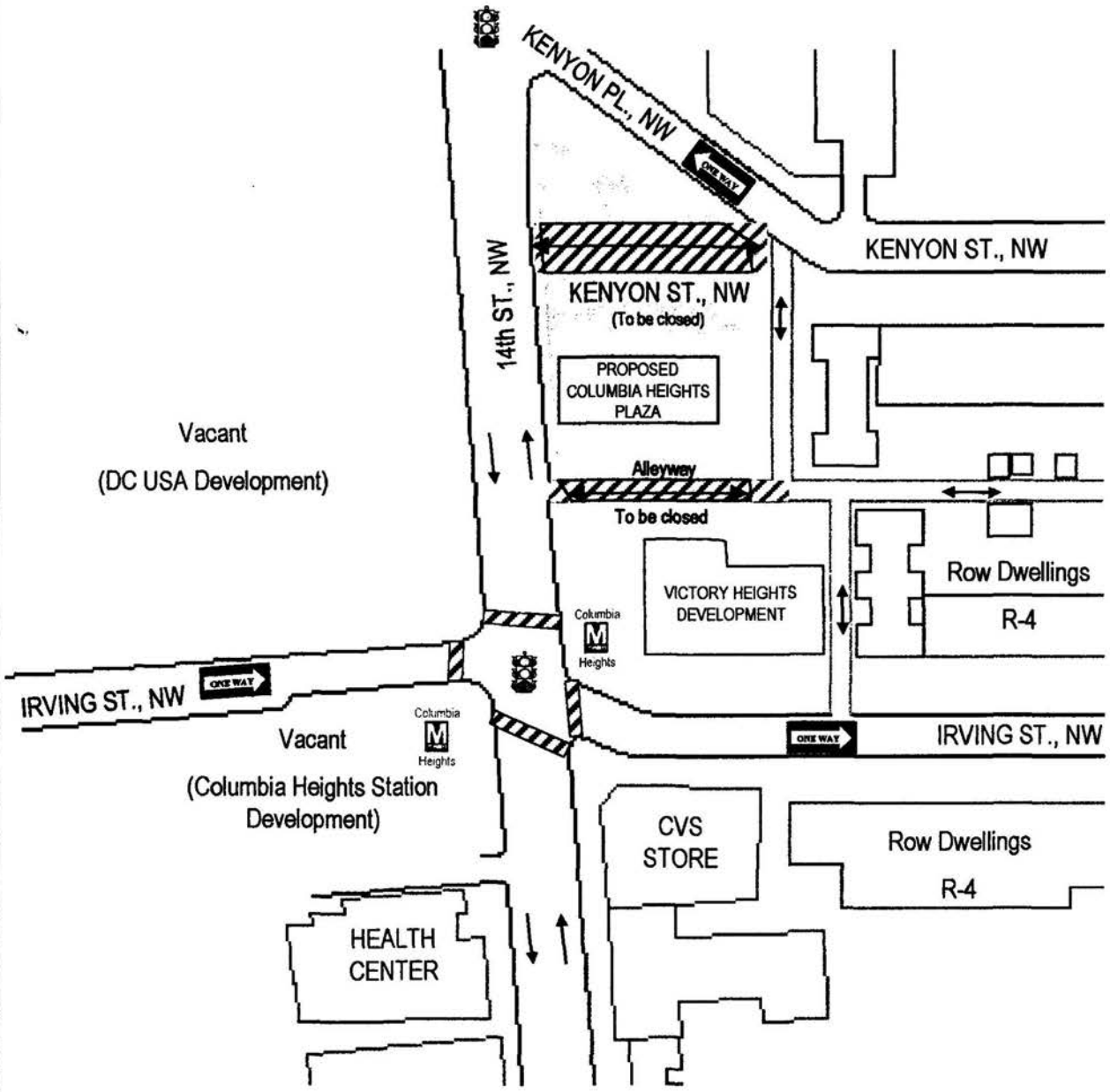
As part of the study, discussions were held with the Policy and Planning Administration staff of the District Department of Transportation (DDOT), as is noted in Appendix A. The study involved the following key tasks:

- Site visit and reconnaissance of the adjacent roadway network;
- Field observations of traffic volumes on the adjacent roadway network;
- Consideration of other developments planned for the immediate site area, as well as annual traffic growth trends for the adjacent roadways; and
- Analyses and general assessments of the information and perspectives gained from the above tasks, relative to the subject application.

This study concludes that the proposed development would not adversely impact traffic, access, and parking, such that it will affect the quality of life in the surrounding neighborhood. As such, it satisfies the stated requirements of the City's Zoning Regulations.



O. R. GEORGE & ASSOCIATES, INC. *Transportation Engineers & Traffic Planners*	**EXHIBIT 1:** **SITE LOCATION MAP** **Columbia Heights Plaza, Northwest, Washington, D.C.**



LEGEND

Road/Alley Closure

Proposed Alley Easement

Crosswalk

N

SCHEMATIC
NOT TO SCALE

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EXHIBIT 2:

PROPOSED SITE LAYOUT AND ACCESS SITUATION
Columbia Heights Plaza, Northwest, Washington, D.C.

SITE ZONING, LOCATION AND ACCESS

The subject site is situated north of and adjacent to the eastern portal of the Washington Metropolitan Area Transit Authority (WMATA) Columbia Heights Metrorail Station. The property is zoned C-3-A (*Medium Bulk Major Business and Employment Center*); and is currently vacant. Land uses in the more general area are largely mixed, with residential (R-4) zoning dominating the area to the east along Kenyon Street, and commercial (C-3-A) zoning along 14th Street. The area is largely developed in accordance with those zoning categories.

The location of the subject property is well suited for this type of residential development, which is occupied primarily by small- to medium-sized households who are transit dependent. The advantages of this location include the following:

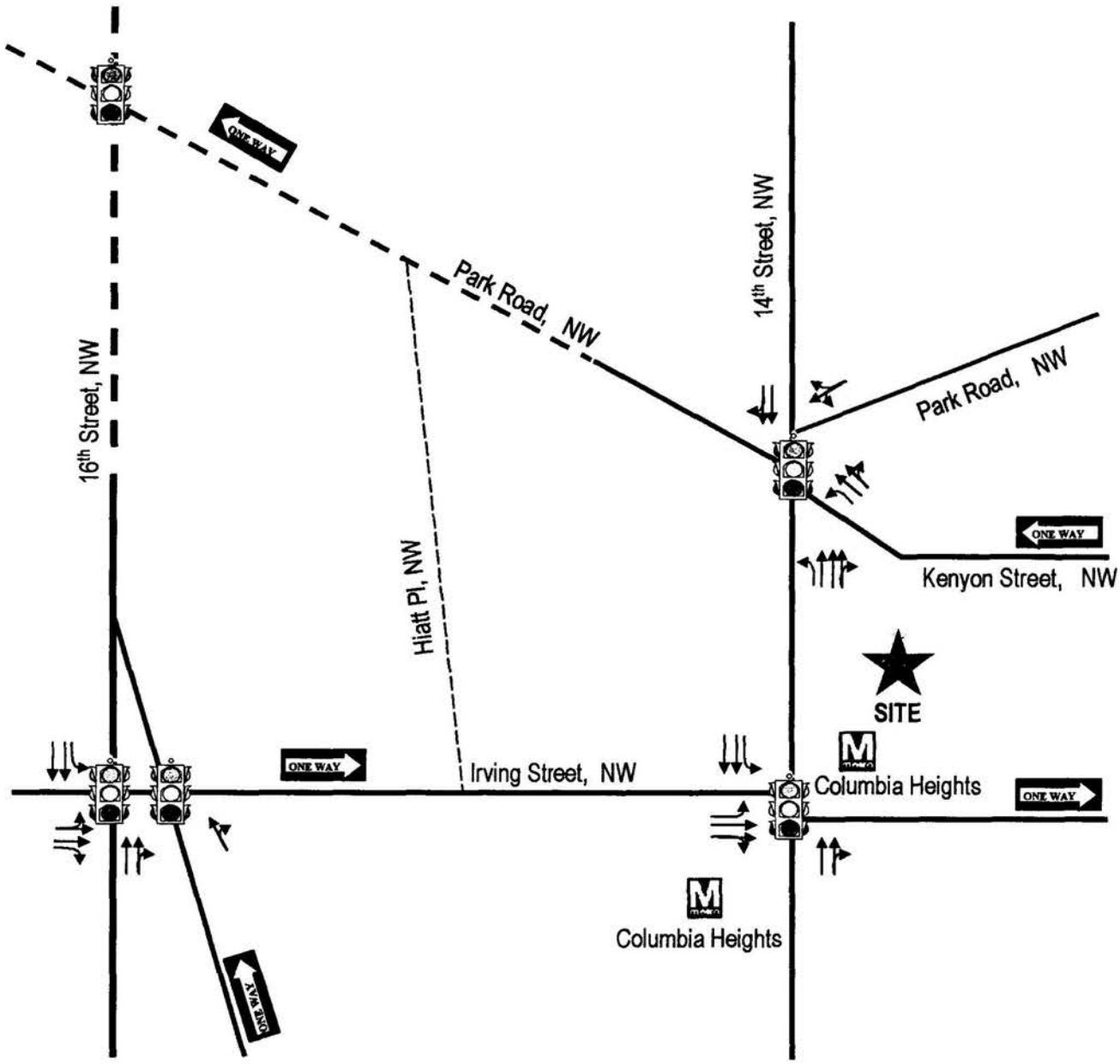
- Setting within the Columbia Heights neighborhood, in proximity to shopping, services, restaurants, churches and other institutional and community uses;
- Proximity to the WMATA Columbia Heights Metro Station on the Green Line; and
- Easy access to a number of Metrobus routes along 14th and Irving Streets as well as Columbia Road, with stops conveniently located adjacent to the intersections formed by these three (3) roadways.

These factors indicate that vehicle trips generated by the proposed development will be relatively low, even for market housing. As discussed in later sections of the report, these trip-making characteristics also have a bearing on potential parking demand by the proposed use.

Immediate vehicular access to the proposed development would be provided off Kenyon Street/Kenyon Place and Irving Street, just east of 14th Street. These roadways have the following characteristics:

- **Fourteenth Street, N.W.** is designated as a Minor Arterial on the City's Functional Roadway Classification Map. This facility generally provides for four (4) travel lanes with parking along both sides. This roadway serves significant regional/commuter traffic, and carries approximately 20,000 vehicles per day. The posted speed limit is 25 MPH.
- **Kenyon Street, N.W.** is a Minor Arterial per the City's Functional Roadway Classification Map. This facility is one-way westbound with two (2) travel lanes. This roadway carries approximately 5,500 vehicles per day. Within the local area, parking is allowed east of 14th Street. The posted speed limit is 25 MPH.
- **Irving Street, N.W.** is a Minor Arterial on the City's roadway system. This facility provides one-way traffic flow via two (2) travel lanes. Parking is allowed on both sides. The Average Daily Traffic served by this roadway is 8,500 vehicles. The posted speed limit is 25 MPH.

Sidewalks are provided along each street in the vicinity of the subject site, and there are high volumes of pedestrians due to the proximity of the Metro Station. Crosswalks and pedestrian signals are provided at the study area intersections. Exhibit 3 shows the roadway configuration and traffic control devices provided at the study area intersections.



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Traffic Engineers - Transportation Planners

EXHIBIT 3:

EXISTING ROADWAY LANE CONFIGURATION
Columbia Heights Plaza, Northwest, Washington D.C.

EXISTING TRAFFIC SITUATION

In order to assess the existing traffic situation, field observations were made of typical weekday traffic flow conditions within the study area during the morning and afternoon peak periods. Additionally, peak period traffic turning movement counts were conducted on typical weekdays at all the study intersections. Based on these counts, the morning and afternoon peak hours for the study intersections were determined to be 8:00 - 9:00 AM and 5:15- 6:15 PM.

Exhibit 4 shows the existing peak hour turning movement volumes. The count summaries are also presented in Appendix A. In accordance with DDOT requirements, the peak hour volumes were analyzed using the Highway Capacity Manual (HCM) procedures for signalized intersections. The capacity analysis results are presented in Table 1 below. These results show that the study area intersections currently operate at acceptable Levels of Service[1] (LOS), during both morning and afternoon peak periods. The capacity analysis worksheets are presented in Appendix B.

TABLE 1

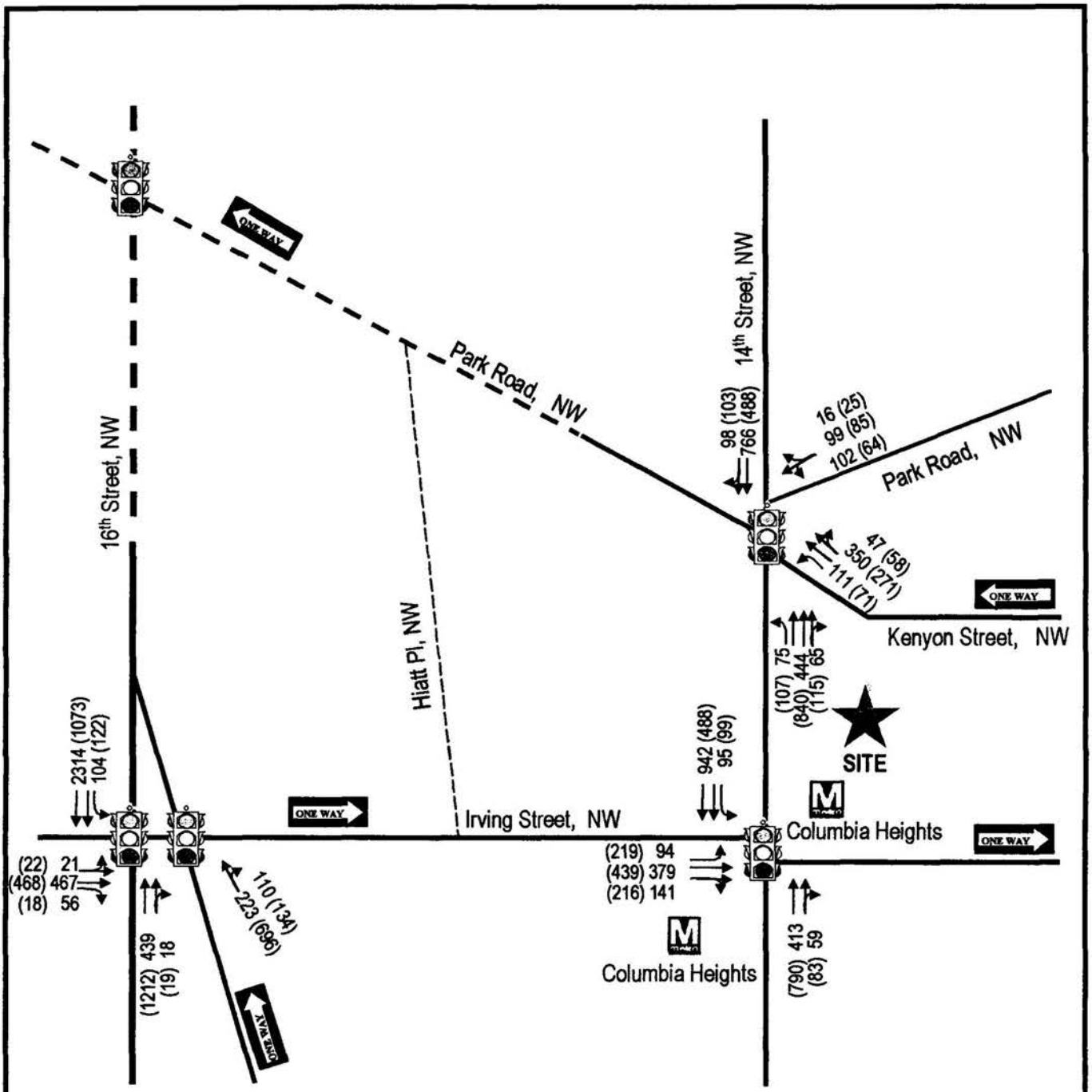
SUMMARY OF CAPACITY ANALYSIS RESULTS – EXISTING WEEKDAY PEAK HOUR TRAFFIC SITUATION

Intersection	AM Peak Hour		PM Peak Hour	
	Level of Service	Average Delay	Level of Service	Average Delay
1. 14th St. @ Irving St.	B	17.8	C	23.7
2. 14th St. @ Kenyon St./Park Rd., NW	D	37.2	C	30.1
3. 15th St. @ Irving St.	B	12.2	B	13.4
4. 16th St. @ Irving St.	C	29.6	B	13.9

Source: O. R. George & Associates.

The computed levels of service are in keeping with field observations made during the data collection and field reconnaissance phases of the study. These observations showed no excessive queuing, delays, or other situations indicating significant capacity and safety deficiencies for either pedestrian or vehicular traffic. Accordingly, this analysis concludes that the study area roadway network currently operates without any significant operational, capacity or safety deficiencies with respect to the City's planning standards.

[1] Level of Service is a qualitative measure describing operational conditions within a traffic stream or at an intersection, and their perception by road users. Principal considerations are factors such as speed and travel time, delay, freedom to maneuver, traffic interruptions, comfort, convenience and safety. Current engineering practice defines six (6) levels of service ranging from A to F. Level of Service A represents the best (free flow) conditions where drivers are unaffected by the presence of others in the traffic stream, and are free to change speeds and maneuver, etc., at will. Level of Service F represents the worst (forced flow) conditions where road users experience considerable delay and inconvenience. The District of Columbia has adopted Level of Service D as the minimum acceptable standard for planning purposes.



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EXHIBIT 4:

EXISTING PEAK HOUR TRAFFIC VOLUMES
Columbia Heights Plaza, Northwest, Washington D.C.

FUTURE TRAFFIC SITUATION

As noted earlier, the Applicant proposes to develop a mixed-use development consisting of 147 market rate apartment units and 20,850 square feet of retail space. In accordance with DDOT's guidelines, trip generation estimates were developed for the site using rates recommended by the Institute of Transportation Engineers (ITE) "*Trip Generation Manual*" (1997). The ITE data is representative of sites within suburban stand-alone uses. The trip rates and projected vehicle trips are shown in Table 2 below. Considering the proximity of the development relative to public transportation facilities, as well as retail and institutional activity within the area, a trip reduction factor of forty percent (40%) was assumed for the residential component of the development. The proposed retail space would primarily serve the local community, with a high percentage (80 % ±) of its users utilizing the walk mode. Based on the above considerations, the projected trip generation for the proposed development is presented in Table 2.

TABLE 2

PROJECTED TRIP GENERATION –
PROPOSED COLUMBIA HEIGHTS PLAZA DEVELOPMENT

Trip Rates	**AM Peak Hour**			**PM Peak Hour**		
	In	**Out**	**Total**	**In**	**Out**	**Total**
• Trips/Apartment Unit	0.16	0.40	0.56	0.41	0.26	0.67
-- With 40% Transit Use	0.10	0.24	0.34	0.25	0.15	0.40
• Trips/1000 GSF Retail Space	0.63	0.40	1.03	1.80	1.94	3.74
-- With 80% Walk Trips	0.13	0.08	0.21	0.36	0.39	0.75
Trip Generation						
• Trips/147 Apartment Units	15	35	50	37	22	59
• Trips/20,850 GSF Retail Area	3	2	5	8	8	16
Total	18	37	55	45	30	75

GSF = Gross Square Feet

Source: O. R. George & Associates.

The above table shows that the proposed development would likely have a low impact, in terms of its projected trip generation. This is to be expected considering the proposed land uses and projected modal split factors. The location and the trip-making characteristics are also in keeping with the City's policies regarding Transit Oriented Development (TOD).

Review of historical Average Daily Traffic (ADT) data provided by DDOT indicates that traffic volumes on the study area roadways have remained stable or decreased marginally over the period 1996 - 2000. However, a growth factor of two percent (2%) was applied to the existing traffic volumes, unto year 2006, in keeping with DDOT general recommendations. The year 2006 "base" traffic volumes are included in Appendix C.

The Applicant's statement notes that the subject property is located within an area that is currently undergoing considerable revitalization and redevelopment activity. This is confirmed by the *"Economic Development Map"* of the DC Office the Deputy Mayor of Planning and Economic Development, which shows that several developments are planned for the general Columbia Heights area. Planned area developments include Victory Heights, the DC USA/Grid Properties project, Trinity Towers and Columbia Heights Station; as well as the Tivoli Theater revitalization project north of the site.

Among the projects noted above, the DC USA and Tivoli Theater projects are the more significant land use developments approved by the City's review agencies. The DC USA development would include approximately 516,250 square feet of retail and entertainment uses, supported by 1,000 parking spaces. The Tivoli Theater development would consist of approximately 104,000 square feet of retail and office uses, served by 200 parking spaces.

Considering the above, the projected year 2006 total traffic situation was developed by combining the following:

a) Year 2006 base traffic volumes (Appendix C-1), which reflects application of an annual growth factor of two percent (2.0 %) to existing traffic, unto year 2006;
b) Projected traffic assignments for the DC USA project (based on a traffic study prepared for this development in 2000 by Gorove/Slade Associates, Inc.) and the Tivoli Theater development. These traffic assignments are included as Appendices C-2 and C-3, respectively; and
c) Projected traffic assignment for the proposed Columbia Heights Plaza, which is shown in Exhibit 5.

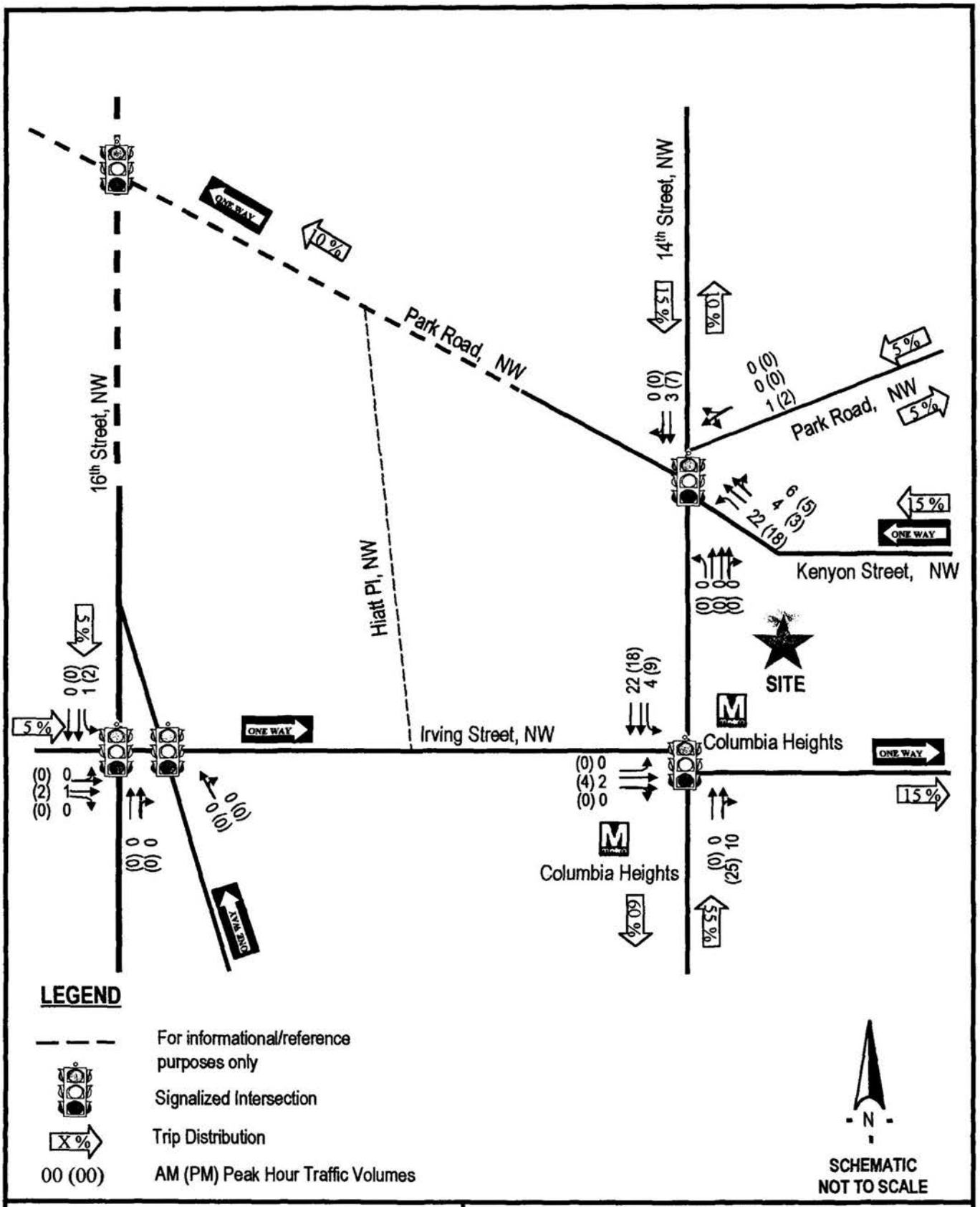
The year 2006 total traffic situation is shown in Exhibit 6. These volumes were analyzed, as was done for the existing traffic situation. The analysis results are provided in Table 3; and the analysis worksheets are provided as Appendix D.

TABLE 3

SUMMARY OF CAPACITY ANALYSIS RESULTS – PROJECTD 2006 TOTAL TRAFFIC SITUATION

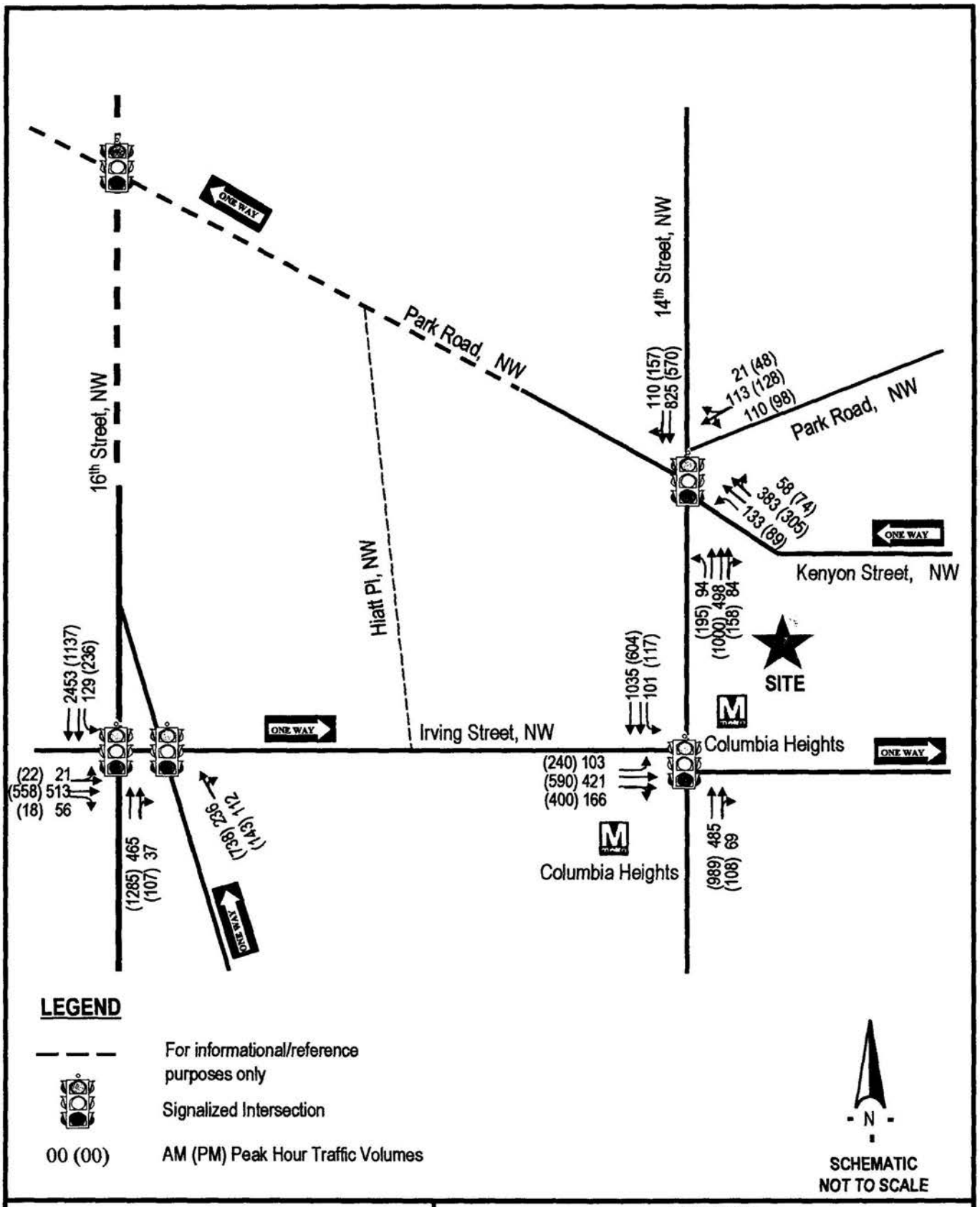
Intersection	AM Peak Hour		PM Peak Hour	
	Level of Service	Average Delay (Sec)	Level of Service	Average Delay (Sec)
1. 14th St. @ Irving St.	B	19.0	C	33.5
2. 14th St. @ Kenyon St./ Park Rd., NW	D	41.9	D	43.2
3. 15th St. @ Irving St.	B	14.7	B	16.2
4. 16th St. @ Irving St.	D	42.3	D	35.3

Source: O. R. George & Associates.



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EXHIBIT 5:
PROJECTED TRIP DISTRIBUTION PATTERN AND TRAFFIC ASSIGNMENT
Columbia Heights Plaza, Northwest, Washington D.C.



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

EXHIBIT 6:

PROJECTED YEAR 2006 TOTAL TRAFFIC SITUATION
Columbia Heights Plaza, Northwest, Washington D.C.

Table 3 shows that the study area roadway network would continue to operate within acceptable Level-of-Service standards, and would therefore satisfy the DDOT requirements.

SITE ACCESS AND ROAD CLOSURE CONSIDERATIONS

As noted earlier, the proposed site plan calls for two (2) points of vehicular access. Access would be provided off Kenyon Street/Kenyon Place via a proposed 20-foot, north-south alleyway easement along the eastern boundary of the subject property. Another access point would be provided off Irving Street via a proposed 20-foot, north-south alleyway easement along the eastern border of the Victory Heights development site, and its connection to an existing 15-foot east-west alleyway. This alleyway network would provide access to the proposed underground garage and surface loading/service berths. A copy of the site plan drawing showing the proposed layout and access situation is attached as Appendix E.

The subject application also proposes the closure of Kenyon Street and an east-west public alleyway, between the eastern property line and 14th Street. These were illustrated in Exhibit 2 on page 3. This exhibit also shows the future site layout and access situation, which would include the alleyway connections noted above. Section 504 of District of Columbia Law 12-86 "Omnibus Reform Amendment Action of 1998" stipulates that the City *"may close all or part of any street or an alley which is determined.....to be unnecessary for street and alley purposes"*. In the context of this regulation, the following should be noted:

a) The planned Columbia Heights Plaza would be developed on the properties currently abutting the roadway segments proposed for closure;

b) Field observations indicate that the Kenyon Street segment is already physically closed to traffic; and

c) The proposed (future) roadway network would continue to provide adequate access to the proposed development and adjacent land uses.

Based on the above, the proposed roadway and alleyway closures would not have any adverse impacts on the study area and vicinity. Based upon the subject development proposal, it is evident that the proposed alleyway easements would adequately offset the noted alleyway closures. Furthermore, the proposed changes would not be detrimental to the adjacent properties; and would conform to the City's stipulations regarding streets and alleyways.

PARKING AND LOADING EVALUATION

Section 2101.1 of the DC Zoning Regulations requires one (1) parking space for every two (2) apartment units, and one (1) space for each additional 300 square feet over 3,000 square feet of retail. The required parking spaces, reflecting these ratios, are compared below with the proposed parking spaces.

	Parking Spaces	
Land Use Category	**Required**	**Proposed**
• Per 147 Apartment Units	74	161
• Per 20,850 GSF Retail Space	60	45

The above table clearly shows that the proposed residential parking spaces would be more than adequate. However, the proposed parking supply for the retail use is twenty-five percent (25%) less than that required by the City's regulations. This development application requires a special exception to allow a 25% reduction, in accordance with the allowance provided for in Section 2108 of the Zoning Regulations. In this context, the following factors should be considered:

a) The proposed retail use would be local community-serving, resulting in a high percentage (80 % ±) of pedestrian trips;

b) The proposed development site is adjacent to the Columbia Heights Metrorail Station;

c) The site is also adjacent to existing on-street parking spaces, as well as existing and proposed retail/entertainment land uses supported by significant off-street parking; and

d) Item (c) will result in a significant number of multi-purpose walk trips, involving the local area retail establishments.

Based on the above, this study projects that the proposed retail development would generate a low volume of vehicular trips and related parking demand. The requested parking adjustment could therefore be supported without having appreciable adverse impacts within the proposed development, as well as on the adjacent roadway network.

The proposed development is required to provide the following loading/delivery facilities, in accordance with the Zoning Regulations:

- One 12' x 55' loading berth;
- One 10' x 20' service berths; and
- One 200 square foot loading platform.

The proposed development would include all of the above facilities. No loading facilities are required for the proposed retail use, pursuant to the Section 2201.2 of the City's Zoning Ordinance. This application previously requested zoning relief regarding the provision of the 12' x 55' loading berth, based on the following factors:

a) The use of tractor-trailer type vehicles for servicing the proposed residential usage would be extremely rare. Servicing of the apartments would typically involve the use of light trucks and vans.

b) The proposed retail space would be less than ten percent (10%) of the total floor area. In such a case, the Zoning Regulations does not require retail loading (see DCMR 2201.2). This situation therefore allows the two (2) proposed 12' x 30' parallel loading berths to be used simultaneously by the rare tractor-trailer type vehicle.

The current site plan calls for the 12' x 55' loading berth to be provided. However, the above factors demonstrate that this provision would not be necessary for the typical use of the proposed residential development.

It is projected that delivery/loading operations would be scheduled primarily during off-peak daytime and nighttime periods, as well as on weekends, by the prospective facility management.

In addition delivery by semi-trailers would be extremely rare. Based on these considerations, the physical and operational provisions for the proposed delivery/loading facilities should be quite adequate; and would not have any significant adverse impacts on the adjacent roadway network or the users of the proposed development.

SUMMARY AND CONCLUSION

The foregoing data, discussion and analysis have shown that development of the Columbia Heights Plaza apartment complex, as currently proposed, would have no adverse impacts on the operational efficiency and safety of the study area roadways. More specifically, the analysis has determined the following:

a) Current traffic operational conditions at the adjacent intersections are quite acceptable, and are well within the City's Level-of-Service standards;

b) The proposed development is favorably situated relative to public transportation facilities, as well as retail and institutional usage;

c) The projected trip generation for the proposed development would have a minimal impact on traffic and parking conditions within the local area;

d) Analysis of the future total traffic situation shows very little change compared with the existing situation; and

e) The proposed parking, loading and access elements of the site development plan should quite adequately meet the needs of the subject site, based on practical considerations and the trip-making characteristics of the facility.

This study concludes that development of the subject site, per the submitted application, would satisfy the requirements of the City Zoning Regulations, from the perspective of impacts associated with transportation (i.e., vehicular access, parking, and loading).

We trust that the above satisfies your requirements. If we can be of further assistance in this matter, please let us know. Thank you!

ORG/SK/

APPENDIX
A

TURNING MOVEMENT COUNT SUMMARIES –
EXISTING TRAFFIC SITUATION

O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers – Transportation Planners

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

May 27, 2003

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: Columbia Heights Plaza, Board of Zoning Adjustment
Application No. 17028, Northwest, Washington, D.C.

Dear Mr. Bah:

Further to our meeting on May 23, 2003, we hereby confirm that we have been retained by the Applicant, Donatelli & Klein, Inc.,/Columbia Heights Ventures, to prepare a traffic impact study in support of the referenced application. The purpose of this letter is to confirm the project background discussed, and the study parameters agreed upon.

As background, we note that the subject application proposes the development of a mixed-use residential/retail complex on a 1.3 acre site located within the southeast quadrant of the 14th Street/Kenyon Place intersection, in the Columbia Heights area of Northwest Washington, D.C. The site is zoned C-3-A; and will be developed with 147 apartment units and 20,850 square feet of retail space, supported by 206 below-grade parking spaces. Vehicular access would be provided off Kenyon Street/Kenyon Place via a proposed alleyway easement, and off Irving Street via a proposed alleyway easement and its connection to an existing east-west public alleyway. The development will also include the closure of Kenyon Street and an east-west public alleyway, between 14th Street and the eastern property line.

Based on the above considerations, it was agreed that the study area roadway network should be defined by the following three (3) intersections:

1) 14th Street @ Irving Street, N.W.;
2) 14th Street @ Kenyon Place/Park Road, N.W.; and
3) 15th /16th Street @ Irving Street, N.W.

Consideration of traffic growth trends and background developments will be used in projecting future traffic conditions, in accordance with your Department's usual requirements. Furthermore, we will be considering the information you provided regarding the on-going Columbia Heights/Mount Pleasant Transportation Study by Cambridge Systematics. We understand that the purpose of the study is to examine the overall transportation infrastructure and parking needs of the area, in view of the on-going re-vitalization activities.

A-1

Please let us know if you have any comments in response to the above, or information that could be useful to our study. Thanks for your usual cooperation and assistance in this matter.

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

Osborne R. George
President

ORG/sk

cc: Callistus Nwadike, DDOT
Larry Clark, Vice President (Donatelli & Klein, Inc.)
Norman M. Glasgow, Jr., Esquire, (Holland & Knight, LLP)
Christine M. Shiker, Esquire, (Holland & Knight, LLP)

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Counted by:ORGA-AL
Board :D4-1908
City/County:Washington DC
Weather :Cold/Clear/Dry

File Name : 14THAN-1
Site Code : 12341908
Start Date : 03/05/2003
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

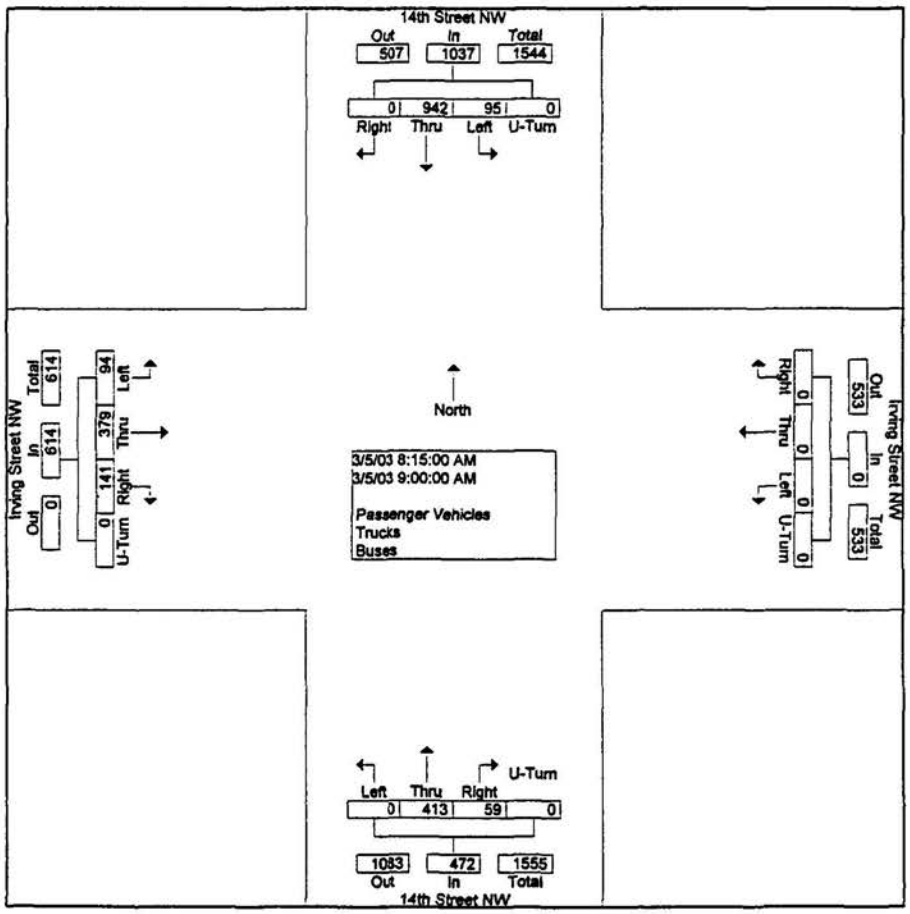
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07:15 AM	0	139	12	0	151	9	89	0	0	98	0	0	0	0	0	24	70	5	0	99	348
07:30 AM	0	130	20	0	150	7	94	0	0	101	0	0	0	0	0	24	68	7	0	99	350
07:45 AM	0	155	18	0	173	9	106	0	0	115	0	0	0	0	0	24	97	18	0	139	427
08:00 AM	0	183	21	0	204	7	110	0	0	117	0	0	0	0	0	20	105	26	0	151	472
Total	0	607	71	0	678	32	399	0	0	431	0	0	0	0	0	92	340	56	0	488	1597
08:15 AM	0	215	26	0	241	13	86	0	0	99	0	0	0	0	0	34	95	23	0	152	492
08:30 AM	0	249	21	0	270	20	97	0	0	117	0	0	0	0	0	31	89	32	0	152	539
08:45 AM	0	250	24	0	274	12	122	0	0	134	0	0	0	0	0	35	89	24	0	148	556
09:00 AM	0	228	24	0	252	14	108	0	0	122	0	0	0	0	0	41	106	15	0	162	536
Total	0	942	95	0	1037	59	413	0	0	472	0	0	0	0	0	141	379	94	0	614	2123
04:15 PM	0	135	23	0	158	13	188	0	0	201	0	0	0	0	0	38	91	37	0	166	525
04:30 PM	0	130	16	0	146	16	165	0	0	181	0	0	0	0	0	54	105	28	0	187	514
04:45 PM	0	107	19	0	126	19	171	0	0	190	0	0	0	0	0	39	95	50	0	184	500
05:00 PM	0	113	17	0	130	21	183	0	0	204	0	0	0	0	0	42	92	36	0	170	504
Total	0	485	75	0	560	69	707	0	0	776	0	0	0	0	0	173	383	151	0	707	2043
05:15 PM	0	144	21	0	165	19	171	0	0	190	0	0	0	0	0	54	96	38	0	188	543
05:30 PM	0	113	22	0	135	20	179	0	0	199	0	0	0	0	0	60	107	65	0	232	566
05:45 PM	0	145	24	0	169	27	208	0	0	235	0	0	0	0	0	50	118	62	0	230	634
06:00 PM	0	97	29	0	126	18	208	0	0	226	0	0	0	0	0	58	96	45	0	199	551
Total	0	499	96	0	595	84	766	0	0	850	0	0	0	0	0	222	417	210	0	849	2294
06:15 PM	0	133	24	0	157	18	195	0	0	213	0	0	0	0	0	48	118	47	0	213	583
06:30 PM	0	86	27	0	113	16	180	0	0	196	0	0	0	0	0	44	109	31	0	184	493
Grand Total	0	2752	388	0	3140	278	2660	0	0	2938	0	0	0	0	0	720	1746	589	0	3055	9133
Apprch %	0.0	87.6	12.4	0.0		9.5	90.5	0.0	0.0		0.0	0.0	0.0	0.0		23.6	57.2	19.3	0.0		
Total %	0.0	30.1	4.2	0.0	34.4	3.0	29.1	0.0	0.0	32.2	0.0	0.0	0.0	0.0	0.0	7.9	19.1	6.4	0.0	33.5	

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Counted by:ORGA-AL
Board :D4-1908
City/County:Washington DC
Weather :Cold/Clear/Dry

File Name : 14THAN~1
Site Code : 12341908
Start Date : 03/05/2003
Page No : 2

	14th Street NW From North					14th Street NW From South					Irving Street NW From East					Irving Street NW From West					
End Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 09:00 AM - Peak 1 of 1																					
Intersection 08:15 AM																					
Volume	0	942	95	0	1037	59	413	0	0	472	0	0	0	0	0	141	379	94	0	614	2123
Percent	0.0	90.8	9.2	0.0		12.5	87.5	0.0	0.0		0.0	0.0	0.0	0.0		23.0	61.7	15.3	0.0		
08:45 Volume	0	250	24	0	274	12	122	0	0	134	0	0	0	0	0	35	89	24	0	148	556
Peak Factor																					0.955
High Int.	08:45 AM					08:45 AM					7:00:00 AM					09:00 AM					
Volume	0	250	24	0	274	12	122	0	0	134	0	0	0	0	0	41	106	15	0	162	
Peak Factor					0.946					0.881										0.948	



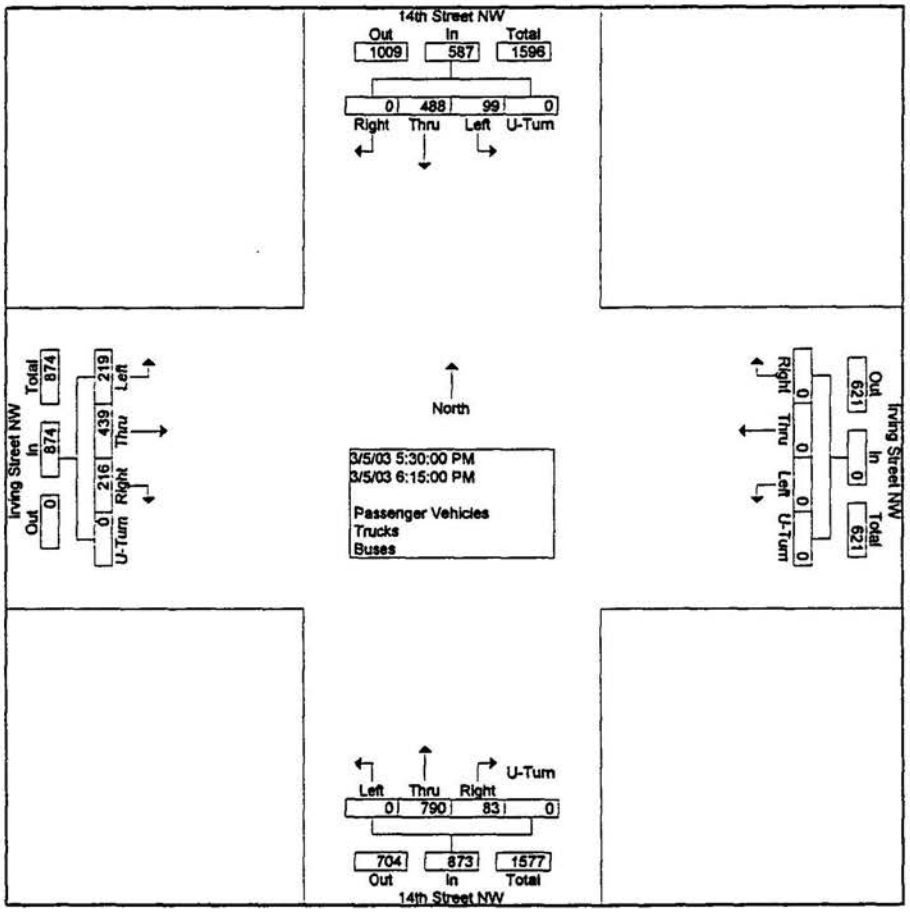
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	14th Street NW From North					14th Street NW From South					Irving Street NW From East					Irving Street NW From West					
End Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour From 04:15 PM to 06:30 PM - Peak 1 of 1																					
Intersection 05:30 PM																					
Volume	0	488	99	0	587	83	790	0	0	873	0	0	0	0	0	216	439	219	0	874	2334
Percent	0.0	83.1	16.9	0.0		9.5	90.5	0.0	0.0		0.0	0.0	0.0	0.0		24.7	50.2	25.1	0.0		
05:45 Volume	0	145	24	0	169	27	208	0	0	235	0	0	0	0	0	50	118	62	0	230	634
Peak Factor																					0.920
High Int. 05:45 PM						05:45 PM										05:30 PM					
Volume	0	145	24	0	169	27	208	0	0	235	0	0	0	0	0	60	107	65	0	232	
Peak Factor					0.868					0.929										0.942	



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Weather :Warm/Clear/Dry

File Name : 14th@PK
Site Code : 34241909
Start Date : 05/22/2003
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

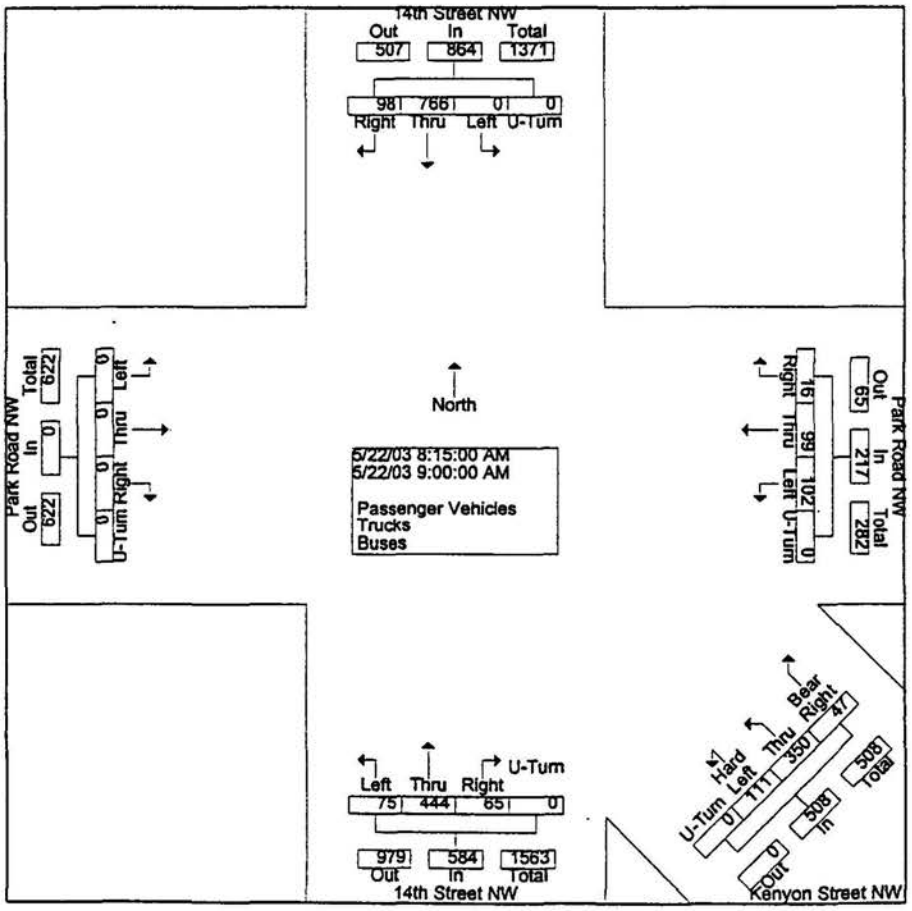
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End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Hard Left	Thru	Bear Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	0	106	18	0	124	15	89	11	0	115	25	72	5	0	102	13	19	4	0	36	0	0	0	0	0	377
07:30 AM	0	139	14	0	153	20	95	14	0	129	13	75	7	0	95	16	22	3	0	41	0	0	0	0	0	418
07:45 AM	0	162	33	0	195	10	101	7	0	118	12	72	7	0	91	15	26	3	0	44	0	0	0	0	0	448
08:00 AM	0	172	24	0	196	12	96	9	0	117	24	91	6	0	121	30	23	3	0	56	0	0	0	0	0	490
Total	0	579	89	0	668	57	381	41	0	479	74	310	25	0	409	74	90	13	0	177	0	0	0	0	0	1733
08:15 AM	0	166	21	0	187	13	107	14	0	134	23	86	11	0	120	21	31	4	0	56	0	0	0	0	0	497
08:30 AM	0	193	21	0	214	18	104	14	0	136	38	100	9	0	147	35	26	2	0	63	0	0	0	0	0	560
08:45 AM	0	202	28	0	230	30	110	23	0	163	26	88	11	0	125	24	28	7	0	59	0	0	0	0	0	577
09:00 AM	0	205	28	0	233	14	123	14	0	151	24	76	16	0	116	22	14	3	0	39	0	0	0	0	0	539
Total	0	766	98	0	864	75	444	65	0	584	111	350	47	0	508	102	99	16	0	217	0	0	0	0	0	2173
09:15 AM	0	173	20	0	193	21	107	17	0	145	25	75	10	0	110	19	19	8	0	46	0	0	0	0	0	494
09:30 AM	0	132	23	0	155	12	96	11	0	119	16	67	12	0	95	12	16	3	0	31	0	0	0	0	0	400
Total	0	305	43	0	348	33	203	28	0	264	41	142	22	0	205	31	35	11	0	77	0	0	0	0	0	894
04:15 PM	0	72	10	0	82	13	75	12	0	100	13	47	10	0	70	8	11	2	0	21	0	0	0	0	0	273
04:30 PM	0	126	27	0	153	20	184	29	0	233	20	54	15	0	89	13	20	4	0	37	0	0	0	0	0	512
04:45 PM	0	119	21	0	140	21	173	21	0	215	20	64	13	0	97	13	14	6	0	33	0	0	0	0	0	485
05:00 PM	0	124	33	0	157	24	174	19	0	217	12	67	14	0	93	14	24	7	0	45	0	0	0	0	0	512
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05:30 PM	0	114	21	0	135	34	198	30	0	262	20	76	16	0	112	15	19	6	0	40	0	0	0	0	0	549
05:45 PM	0	149	25	0	174	28	212	28	0	268	16	63	16	0	95	18	14	10	0	42	0	0	0	0	0	579
06:00 PM	0	110	34	0	144	19	214	30	0	263	22	66	15	0	103	18	30	4	0	52	0	0	0	0	0	562
Total	0	485	101	0	586	103	822	121	0	1046	71	271	58	0	400	69	78	30	0	177	0	0	0	0	0	2209
06:15 PM	0	115	23	0	138	26	216	27	0	269	13	66	11	0	90	13	22	5	0	40	0	0	0	0	0	537
06:30 PM	0	110	19	0	129	26	193	23	0	242	12	52	10	0	74	20	21	6	0	47	0	0	0	0	0	492
Grand Total	0	2801	464	0	3265	398	2865	386	0	3649	387	1423	225	0	2035	357	414	100	0	871	0	0	0	0	0	9820
Apprch %	0.0	85.8	14.2	0.0		10.9	78.5	10.6	0.0		19.0	69.9	11.1	0.0		41.0	47.5	11.5	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	28.5	4.7	0.0	33.2	4.1	29.2	3.9	0.0	37.2	3.9	14.5	2.3	0.0	20.7	3.6	4.2	1.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0	

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Counted by:ORGA-MO, AL
Board :D4-1909, D4-2238
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : 14th@PK
Site Code : 34241909
Start Date : 05/22/2003

	14th Street NW From North					14th Street NW From South					Kenyon Street NW From Southeast					Park Road NW From East					Park Road NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Hard Left	Thru	Bear 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 09:30 AM - Peak 1 of 1																										
Intersection	08:15 AM																									
Volume	0	766	98	0	864	75	444	65	0	584	111	350	47	0	508	102	99	16	0	217	0	0	0	0	0	2173
Percent	0.0	88.7	11.3	0.0		12.8	76.0	11.1	0.0		21.9	68.9	9.3	0.0		47.0	45.6	7.4	0.0		0.0	0.0	0.0	0.0		
08:45 Volume	0	202	28	0	230	30	110	23	0	163	26	88	11	0	125	24	28	7	0	59	0	0	0	0	0	577
Peak Factor																										0.942
High Int.	09:00 AM					08:45 AM					08:30 AM					08:30 AM					7:00:00 AM					
Volume	0	205	28	0	233	30	110	23	0	163	38	100	9	0	147	35	26	2	0	63						
Peak Factor					0.927					0.896					0.864					0.861						

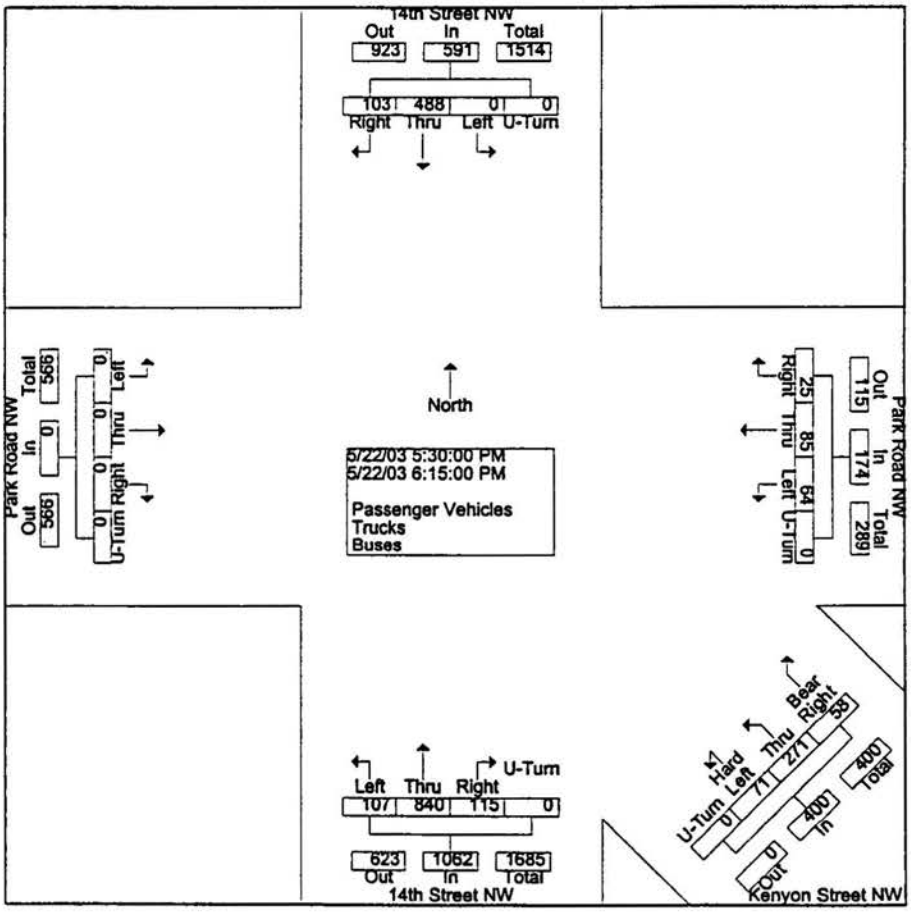


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Peak Hour From 04:15 PM to 06:30 PM - Peak 1 of 1																										
Intersection	05:30 PM																									
Volume	0	488	103	0	591	107	840	115	0	1062	71	271	58	0	400	64	85	25	0	174	0	0	0	0	0	2227
Percent	0.0	82.6	17.4	0.0		10.1	79.1	10.8	0.0		17.8	67.8	14.5	0.0		36.8	48.9	14.4	0.0		0.0	0.0	0.0	0.0		
05:45 Volume	0	149	25	0	174	28	212	28	0	268	16	63	16	0	95	18	14	10	0	42	0	0	0	0	0	579
Peak Factor																										0.962
High Int.	05:45 PM					06:15 PM					05:30 PM					06:00 PM										
Volume	0	149	25	0	174	26	216	27	0	269	20	76	16	0	112	18	30	4	0	52						
Peak Factor					0.849					0.987					0.893					0.837						



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Board :D4-2238, D4-2237
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : 16@IRV
Site Code : 33042238
Start Date : 05/22/2003
Page No : 1

Groups Printed- Passenger Vehicles - Trucks - Buses

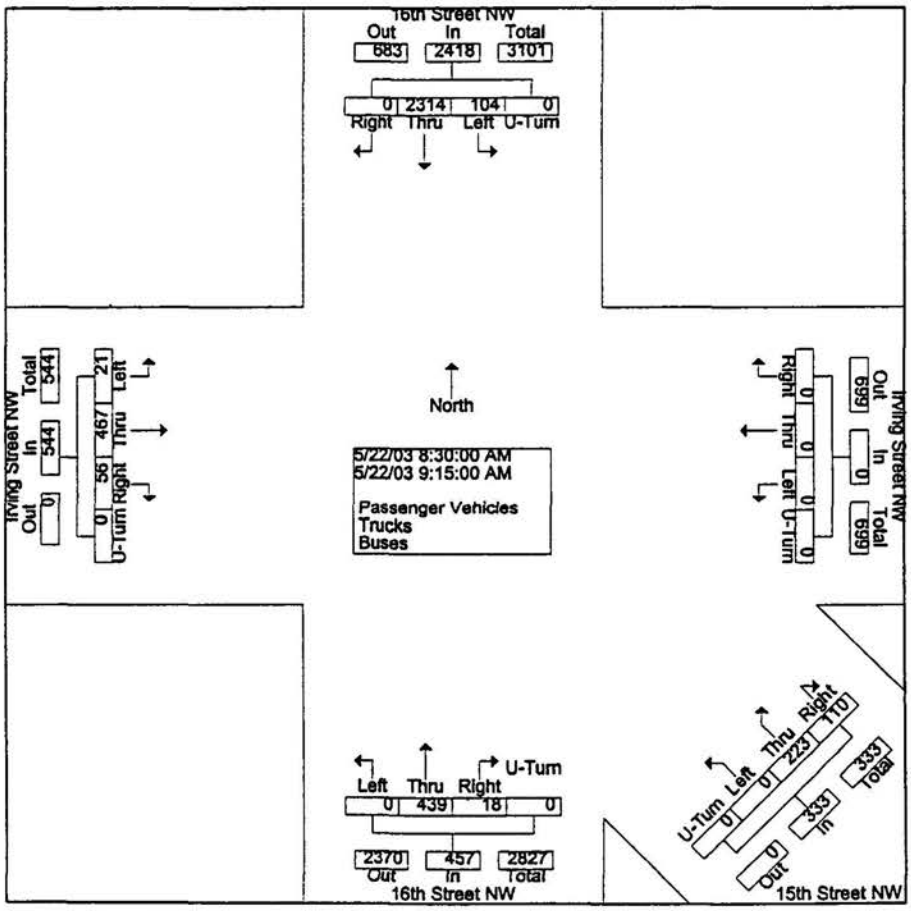
	16th Street NW From North					16th Street NW From South					15th Street NW From Southeast					Irving Street NW From East					Irving Street NW From West					
End Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:15 AM	20	377	0	0	397	0	81	3	0	84	0	32	6	0	38	0	0	0	0	0	7	66	4	0	77	596
07:30 AM	17	438	0	0	455	0	86	5	0	91	0	40	10	0	50	0	0	0	0	0	2	85	2	0	89	685
07:45 AM	12	488	0	0	500	0	101	2	0	103	0	51	16	0	67	0	0	0	0	0	5	99	5	0	109	779
08:00 AM	23	603	0	0	626	0	103	5	0	108	0	55	19	0	74	0	0	0	0	0	5	86	6	0	97	905
Total	72	1906	0	0	1978	0	371	15	0	386	0	178	51	0	229	0	0	0	0	0	19	336	17	0	372	2965
08:15 AM	21	549	0	0	570	0	117	3	0	120	0	44	32	0	76	0	0	0	0	0	10	104	5	0	119	885
08:30 AM	31	597	0	0	628	0	119	4	0	123	0	68	21	0	89	0	0	0	0	0	2	103	11	0	116	956
08:45 AM	28	599	0	0	627	0	107	4	0	111	0	48	30	0	78	0	0	0	0	0	6	122	20	0	148	964
09:00 AM	26	581	0	0	607	0	100	7	0	107	0	56	26	0	82	0	0	0	0	0	5	106	10	0	121	917
Total	106	2326	0	0	2432	0	443	18	0	461	0	216	109	0	325	0	0	0	0	0	23	435	46	0	504	3722
09:15 AM	19	537	0	0	556	0	113	3	0	116	0	51	33	0	84	0	0	0	0	0	8	136	15	0	159	915
09:30 AM	29	423	0	0	452	0	103	7	0	110	0	33	21	0	54	0	0	0	0	0	10	96	12	0	118	734
Total	48	960	0	0	1008	0	216	10	0	226	0	84	54	0	138	0	0	0	0	0	18	232	27	0	277	1649
04:15 PM	9	256	0	0	265	0	238	4	0	242	0	119	47	0	166	0	0	0	0	0	2	131	4	0	137	810
04:30 PM	18	260	0	0	278	0	239	13	0	252	0	113	42	0	155	0	0	0	0	0	6	130	9	0	145	830
04:45 PM	23	271	0	0	294	0	312	6	0	318	0	140	25	0	165	0	0	0	0	0	8	94	8	0	110	887
05:00 PM	22	268	0	0	290	0	259	8	0	267	0	144	26	0	170	0	0	0	0	0	9	122	11	0	142	869
Total	72	1055	0	0	1127	0	1048	31	0	1079	0	516	140	0	656	0	0	0	0	0	25	477	32	0	534	3396
05:15 PM	25	266	0	0	291	0	349	4	0	353	0	163	31	0	194	0	0	0	0	0	8	120	2	0	130	968
05:30 PM	33	285	0	0	318	0	281	4	0	285	0	184	32	0	216	0	0	0	0	0	6	62	2	0	70	889
05:45 PM	37	278	0	0	315	0	275	7	0	282	0	178	31	0	209	0	0	0	0	0	4	139	4	0	147	953
06:00 PM	27	244	0	0	271	0	307	4	0	311	0	171	40	0	211	0	0	0	0	0	4	147	10	0	161	954
Total	122	1073	0	0	1195	0	1212	19	0	1231	0	696	134	0	830	0	0	0	0	0	22	468	18	0	508	3764
06:15 PM	30	255	0	0	285	0	336	8	0	344	0	154	32	0	186	0	0	0	0	0	6	115	5	0	126	941
06:30 PM	12	244	0	0	256	0	288	1	0	289	0	163	18	0	181	0	0	0	0	0	7	135	11	0	153	879
Grand Total	462	7819	0	0	8281	0	3914	102	0	4016	0	2007	538	0	2545	0	0	0	0	0	120	2198	156	0	2474	17316
Apprch %	5.6	94.4	0.0	0.0		0.0	97.5	2.5	0.0		0.0	78.9	21.1	0.0		0.0	0.0	0.0	0.0		4.9	88.8	6.3	0.0		
Total %	2.7	45.2	0.0	0.0	47.8	0.0	22.6	0.6	0.0	23.2	0.0	11.6	3.1	0.0	14.7	0.0	0.0	0.0	0.0	0.0	0.7	12.7	0.9	0.0	14.3	

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Counted by:ORGA-LM, NL
Board :D4-2238, D4-2237
City/County:Washington DC
Weather :Warm/Clear/Dry

File Name : 16@IRV
Site Code : 33042238
Start Date : 05/22/2003
Page No : 2

	16th Street NW From North					16th Street NW From South					15th Street NW From Southeast					Irving Street NW From East					Irving Street NW 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	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 07:15 AM to 09:30 AM - Peak 1 of 1																									
Intersection	08:30 AM																								
Volume	104	2314	0	0	2418	0	439	18	0	457	0	223	110	0	333	0	0	0	0	0	21	467	56	0	544	3752
Percent	4.3	95.7	0.0	0.0		0.0	96.1	3.9	0.0		0.0	67.0	33.0	0.0		0.0	0.0	0.0	0.0		3.9	85.8	10.3	0.0		
08:45 Volume	28	599	0	0	627	0	107	4	0	111	0	48	30	0	78	0	0	0	0	0	6	122	20	0	148	964
Peak Factor																										0.973
High Int.	08:30 AM					08:30 AM					08:30 AM					7:00:00 AM					09:15 AM					
Volume	31	597	0	0	628	0	119	4	0	123	0	68	21	0	89	0	0	0	0	0	8	136	15	0	159	
Peak Factor					0.963					0.929					0.935										0.855	



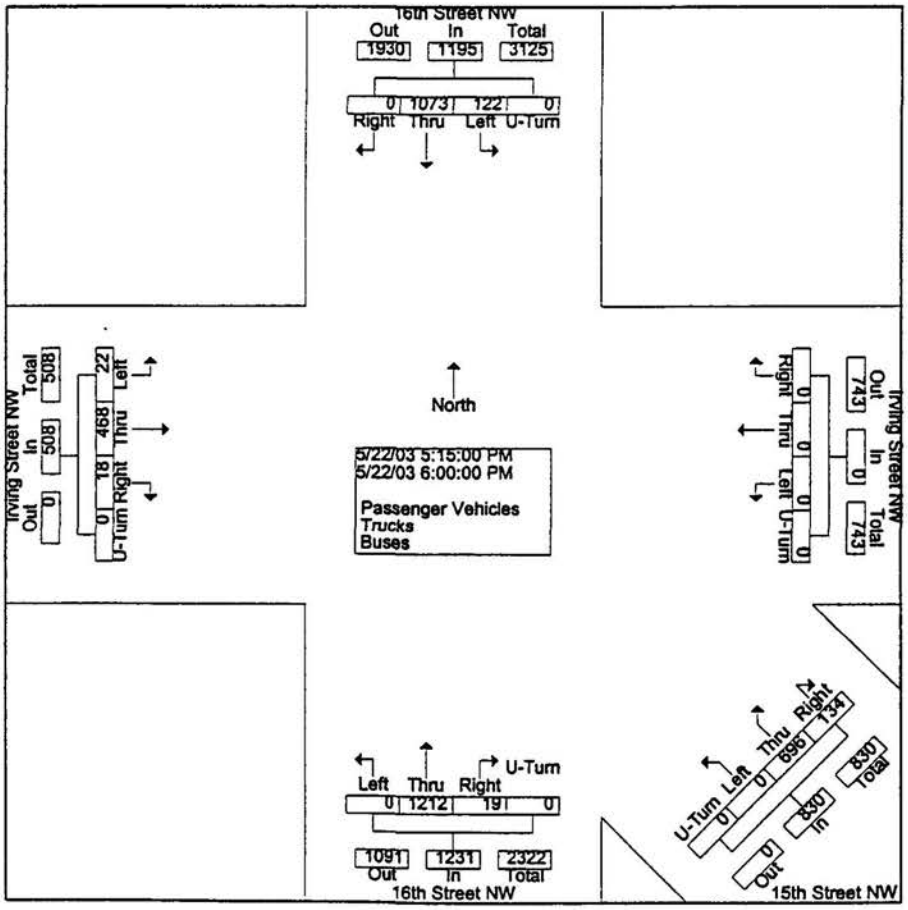
A-10

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	16th Street NW From North					16th Street NW From South					15th Street NW From Southeast					Irving Street NW From East					Irving Street NW 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	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour From 04:15 PM to 06:30 PM - Peak 1 of 1																									
Intersection	05:15 PM																									
Volume	122	1073	0	0	1195	0	1212	19	0	1231	0	696	134	0	830	0	0	0	0	0	22	468	18	0	508	3764
Percent	10.2	89.8	0.0	0.0		0.0	98.5	1.5	0.0		0.0	83.9	16.1	0.0		0.0	0.0	0.0	0.0		4.3	92.1	3.5	0.0		
05:15 Volume	25	266	0	0	291	0	349	4	0	353	0	163	31	0	194	0	0	0	0	0	8	120	2	0	130	968
Peak Factor																										0.972
High Int.	05:30 PM					05:15 PM					05:30 PM										06:00 PM					
Volume	33	285	0	0	318	0	349	4	0	353	0	184	32	0	216	0	0	0	0	0	4	147	10	0	161	
Peak Factor					0.939					0.872					0.961										0.789	



APPENDIX
B

CAPACITY ANALYSIS WORKSHEETS –
EXISTING TRAFFIC SITUATION

SHORT REPORT

General Information		Site Information	
Analyst	SK	Intersection	14th St. and Irving St.
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	05/30/03	Jurisdiction	Washington, DC
Time Period	AM Peak	Analysis Year	2003

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	0	0	0	2	0	1	2	0
Lane group	L	TR						TR		L	T	
Volume (vph)	94	379	141					413	59	95	942	
% Heavy veh	2	2	2					2	2	2	2	
PHF	0.95	0.95	0.95					0.95	0.95	0.95	0.95	
Actuated (P/A)	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	16	0	0	18			155	0	0			
Lane Width	12.0	12.0						12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr							20					
Bus stops/hr	0	5						10		0	10	
Unit Extension	3.0	3.0						3.0		3.0	3.0	

Phasing	EB Only	02	03	04	NS Perm	SB Only	07	08
Timing	G = 25.0	G =	G =	G =	G = 55.0	G = 5.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	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	99	547						497		100	992	
Lane group cap.	433	836						1667		613	2254	
v/c ratio	0.23	0.65						0.30		0.16	0.44	
Green ratio	0.25	0.25						0.55		0.65	0.65	
Unif. delay d1	29.8	33.6						12.1		8.0	8.6	
Delay factor k	0.50	0.50						0.50		0.50	0.50	
Increm. delay d2	1.2	4.0						0.5		0.6	0.6	
PF factor	1.000	1.000						1.000		1.000	1.000	
Control delay	31.1	37.6						12.6		8.6	9.2	
Lane group LOS	C	D						B		A	A	
Apprch. delay	36.6						12.6			9.2		
Approach LOS	D						B			A		
Intersec. delay	17.8			Intersection LOS						B		

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B-1

SHORT REPORT

General Information		Site Information	
Analyst	SK	Intersection	14th St. and Irving St.
Agency or Co.	ORGA	Area Type	All other areas
Date Performed	05/30/03	Jurisdiction	Washington, DC
Time Period	PM Peak	Analysis Year	2003

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	0	0	0	2	0	1	2	0
Lane group	L	TR						TR		L	T	
Volume (vph)	219	439	216					790	83	99	488	
% Heavy veh	2	2	2					2	2	2	2	
PHF	0.92	0.92	0.92					0.92	0.92	0.92	0.92	
Actuated (P/A)	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	15	0	0	11			171	0	0			
Lane Width	12.0	12.0						12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr							20					
Bus stops/hr	0	5						10		0	10	
Unit Extension	3.0	3.0						3.0		3.0	3.0	

Phasing	EB Only	02	03	04	NS Perm	SB Only	07	08
Timing	G = 35.0	G =	G =	G =	G = 45.0	G = 5.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	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	238	712					949			108	530	
Lane group cap.	614	1161					1370			332	1907	
v/c ratio	0.39	0.61					0.69			0.33	0.28	
Green ratio	0.35	0.35					0.45			0.55	0.55	
Unif. delay d1	24.4	26.9					22.0			23.2	12.0	
Delay factor k	0.50	0.50					0.50			0.50	0.50	
Increm. delay d2	1.8	2.4					2.9			2.6	0.4	
PF factor	1.000	1.000					1.000			1.000	1.000	
Control delay	26.3	29.3					24.9			25.8	12.3	
Lane group LOS	C	C					C			C	B	
Apprch. delay	28.6						24.9			14.6		
Approach LOS	C						C			B		
Intersec. delay	23.7			Intersection LOS						C		

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B-2

14th St. @ Park Rd. / Kenyon Pl. (AM)

HCM Signalized Intersection Capacity Analysis

2: Int

6/10/2003

Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0		4.0	4.0	
Lane Util. Factor			1.00			0.91		0.95		1.00	0.97	
Frpb, ped/bikes			1.00			1.00		1.00		1.00	1.00	
Flpb, ped/bikes			0.86			1.00		1.00		1.00	1.00	
Frt			0.99			0.98		0.98		1.00	0.98	
Flt Protected			0.98			0.99		1.00		0.95	0.96	
Satd. Flow (prot)			1548			4968		3479		1770	3400	
Flt Permitted			0.98			0.99		1.00		0.95	0.96	
Satd. Flow (perm)			1548			4968		3479		1770	3400	
Volume (vph)	0	102	99	16	75	444	65	766	98	111	350	47
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	111	108	17	82	483	71	833	107	121	380	51
Lane Group Flow (vph)	0	0	236	0	0	636	0	940	0	121	431	0
Confl. Peds. (#/hr)		151			131						172	
Turn Type		Perm			custom					Perm		
Protected Phases			10		5	2 5		6			8	
Permitted Phases		10			2	2		6		8	8	
Actuated Green, G (s)			16.0			58.0		37.0		17.0	17.0	
Effective Green, g (s)			17.0			59.0		38.0		18.0	18.0	
Actuated g/C Ratio			0.16			0.56		0.36		0.17	0.17	
Clearance Time (s)			5.0					5.0		5.0	5.0	
Lane Grp Cap (vph)			248			2765		1247		301	577	
v/s Ratio Prot						c0.13		c0.27			c0.13	
v/s Ratio Perm			c0.15							0.07		
v/c Ratio			0.95			0.23		0.75		0.40	0.75	
Uniform Delay, d1			44.1			11.9		29.9		39.2	41.8	
Progression Factor			1.00			1.00		1.00		1.00	1.00	
Incremental Delay, d2			45.9			0.2		4.3		4.0	8.6	
Delay (s)			90.0			12.1		34.1		43.2	50.4	
Level of Service			F			B		C		D	D	
Approach Delay (s)	0.0		90.0			12.1		34.1			48.8	
Approach LOS	A		F			B		C			D	

HCM Average Control Delay	37.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.67		
Cycle Length (s)	106.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	C
c Critical Lane Group			

14th St. @ Kenyon Pl. / Park Rd. (PM)

HCM Signalized Intersection Capacity Analysis
2: Int

6/10/2003

Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0		4.0		4.0	4.0	
Lane Util. Factor			1.00			0.91		0.95		1.00	0.97	
Frpb, ped/bikes			1.00			1.00		1.00		1.00	1.00	
Flpb, ped/bikes			0.88			1.00		1.00		1.00	1.00	
Frt			0.98			0.98		0.97		1.00	0.97	
Flt Protected			0.98			0.99		1.00		0.95	0.96	
Satd. Flow (prot)			1583			4978		3447		1770	3379	
Flt Permitted			0.98			0.99		1.00		0.95	0.96	
Satd. Flow (perm)			1583			4978		3447		1770	3379	
Volume (vph)	0	64	85	25	107	840	115	488	103	71	271	58
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	70	92	27	116	913	125	530	112	77	295	63
Lane Group Flow (vph)	0	0	189	0	0	1154	0	642	0	77	358	0
Confl. Peds. (#/hr)		140			58						123	
Turn Type		Perm			custom					Perm		
Protected Phases			10		5	2 5		6			8	
Permitted Phases		10			2	2		6		8	8	
Actuated Green, G (s)			10.0			58.0		37.0		17.0	17.0	
Effective Green, g (s)			11.0			59.0		38.0		18.0	18.0	
Actuated g/C Ratio			0.11			0.59		0.38		0.18	0.18	
Clearance Time (s)			5.0					5.0		5.0	5.0	
Lane Grp Cap (vph)			174			2937		1310		319	608	
v/s Ratio Prot						c0.23		c0.19			c0.11	
v/s Ratio Perm			c0.12							0.04		
v/c Ratio			1.09			0.39		0.49		0.24	0.59	
Uniform Delay, d1			44.5			10.9		23.6		35.1	37.6	
Progression Factor			1.00			1.00		1.00		1.00	1.00	
Incremental Delay, d2			93.1			0.4		1.3		1.8	4.1	
Delay (s)			137.6			11.3		24.9		36.9	41.8	
Level of Service			F			B		C		D	D	
Approach Delay (s)	0.0		137.6			11.3		24.9			40.9	
Approach LOS	A		F			B		C			D	

HCM Average Control Delay	30.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.1%	ICU Level of Service	C
c Critical Lane Group			