



**District of Columbia Government  
Advisory Neighborhood Commission 6A  
Box 75115  
Washington, DC 20013**



November 17, 2008

District Department of Transportation  
Reeves Center  
2000 14th St., NW  
7<sup>th</sup> Floor  
Washington, DC 20009

Attn: Chris Delfs

Dear Mr. Delfs,

As the ANC authorized representative for the Shell Gas Station case proposed for 1400 Maryland Avenue, NE, I am writing to offer the official comments of ANC 6A in response to the applicant's traffic study dated September 14, 2008. I write this memorandum based upon my experience and knowledge as a professional transportation engineer (DC Registration PE#901054). The following observations are my own and are not representative or reflective of the views of my employer.

The ANC notes that the applicant failed to adequately respond to the following specific request identified by DDOT in the September 4<sup>th</sup> letter sent to the applicant:

- ***Trip generation analysis for AM and PM peak periods - the existing study does not accurately account for new development and diverted trips;***
- ***Internal circulation plan, including turning diagrams and vehicle paths through the site- the existing study does fully analyze internal circulation other than for one movement of a fuel delivery vehicle;***
- ***Ingress/egress routes and turning movement to/from the proposed access points - the existing study does not fully analyze the ingress/egress movements into each driveway or provide an analysis of the likely impacts on the mobility and safety of other transportation uses by these impacts;***
- ***Consideration of a right-in/right-out restriction at the driveway off Maryland Avenue - the existing study did not respond to this analysis request;***
- ***Consideration of the closure of the northernmost curb cut on 14<sup>th</sup> Street bordering the alley - the existing study did not respond to this analysis request;***

The applicant failed to employ the following accepted standards of practice for developing a traffic impact study:

- ***Future trip generation analysis for AM and PM peak periods - it is common practice to utilize a 20 year forecast of traffic based upon planned development identified in adopted planning documents (i.e. the DC Comp Plan and H Street Overlay);***
- ***Trip diversion to the project site - it is common practice to estimate potential for trip diversion to the project site. This study only considered diversions from 14<sup>th</sup> Street and Maryland Avenue. The study failed to investigate trips diverted from nearby major arterials Florida Avenue, H Street, Benning Road, and Bladensburg Road as the applicant has stated this project will offer competitive pricing which will divert trips that would normally go to other nearby gas stations;***
- ***Modeling of traffic impact - it is common practice to develop the minimum necessary model to analyze the impact on vehicular traffic on surrounding streets. This study only considered one intersection, ignoring the queuing caused by the signal at 15<sup>th</sup> and MD. The study failed to include critical adjacent roadway links.***
- ***Counting of traffic - it is common practice to count traffic on days of the year considered to be typical of normal traffic experienced on the roadway network. It is well understood in DC that summer months are not typical due to schools being closed (they can generate up to 25%***



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*of a communities traffic). Capitol Hill and the proposed project also fall under the influence of traffic generated by DC Government and Congress. Congress was on recess at the time of the study. The counts provided do not represent a typical day of traffic and are likely to be significantly lower than normal.*

The conclusions of the report failed to demonstrate compliance with two critical elements of the DC Municipal Regulations governing issuance of a special exception to construct a gas station:

- ***Demonstrate compliance with DCMR Section 706.1*** - *it is a specific requirement of the BZA special exception process to demonstrate this project will “not create dangerous or other objectionable traffic conditions”. The study failed to discuss this issue by detailing and describing the likely interactions between gas station trips and other passing users (i.e. passing cyclists, pedestrians, transit users, motorists) ;*
- ***Demonstrate compliance with DCMR Section 706.6-*** *it is a specific requirement of the BZA special exception process to demonstrate “ parking spaces provided ... shall be designed and operated so that sufficient access and maneuvering space is available to permit the parking and removal of any vehicles without moving any other vehicle onto public space” This will require analysis of turning movements and submission of diagrams proving this requirement is met - this was not done.*

**As such, the ANC recommends DDOT request a substantial revision of the traffic study to enable the community and the reviewing government agencies to accurately assess the likely impacts this project will have on the safety and mobility of the community and surrounding roadway network.**

**This report should be completed and submitted to the ANC and DDOT for a full review before a public hearing is granted to consider the public space application as these issues are central to the decision to grant a public space permit.**

In an effort to assist the applicant and DDOT in understanding the need for a substantial revision to the traffic study we offer the following detailed recommendations for consideration.

## **1. Revise the Report Conclusions**

**The “Conclusion” section of the report should answer whether the project as proposed will meet the requirements set forth by DDOT and the applicable DCMR codes. This report fails to do this.**

The conclusions section of the report is written as advocacy backed up with no references to facts related to transportation impacts of the project. Each of the concluding three sentences emphasize the site as being a former operating gas station (key words - “redevelopment”, “certificate of occupancy”) in lieu of discussing how the site design specifically addresses DDOT requirements and DCMR requirements. The fact that the site operated as a gas station previously has no bearing or relevance to answering these requirements.

DC Law ( 11 DCMRS2005.1) states clearly that “Discontinuance for any reason of a nonconforming use of a structure or of land ... for a period of more than three (3) years, shall be construed as *prima facie* evidence of no intention to resume active operation as a nonconforming use.” (italics original) This site has not been an operating gas station for at least 20 years. This is an attempt to “cloud” the review process by creating an implication that the project must be approved regardless of the merits or the facts.

The applicant has produced no evidence of a public space permit having been issued for the use of the site as a gas station. The ANC successfully challenged the illegal occupation of the public space by the former Carlink used car lot as they did not possess a public space permit for the use. The car lot was



operated under lease from the applicant's partner and current owner of 1400 Maryland Avenue (1400 Maryland Ave Ltd, Jerry Schaeffer). As such it appears that the use of public space was never specifically approved by the DC Government and is therefore a non-conforming use.

The study's conclusion that "the redevelopment of the gas station can be accommodated with the proposed access and circulation scheme without adverse impact to the surrounding network" is not supported by the study. The report as written is incomplete and relies on inaccurate information. Additionally the project was analyzed in complete isolation from the neighborhood and the supporting roadway network.

## **2. Analyze the effect the project will have on the safety and mobility of the surrounding roadway network traffic flow.**

The report failed to conclusively demonstrate the project would have no "adverse impact on the surrounding network". It also fails to prove the project will "not create dangerous or other objectionable traffic conditions".

The report analyzes the intersection and the driveway in a vacuum- ignoring the constraining effects of adjacent traffic signals, ignoring the safety implications for pedestrians and cyclists, and ignoring the safety implications of traffic attempting to enter a roadway segment that has extensive queuing demands which extend beyond the subject property's proposed driveways.

It is not sufficient to only analyze the level of service of the signal at 14<sup>th</sup> and MD. DDOT must require the applicant to develop a traffic model that accurately represents conditions on the ground with the known limiting signal timing. DDOT must require that the applicant discuss the impacts this project will have on pedestrian, cyclist, and transit users adjacent to this project and propose mitigation measures.

- a) **Eastbound MD Avenue traffic movement.** The report failed to consider the effect the signal at 15<sup>th</sup> and H exerts on traffic movement adjacent to the proposed project. This movement is highly constrained by the signal timing at 15<sup>th</sup> and MD Avenues. Only 6 minutes of green per hour is allotted to this movement resulting in significant rush hour queuing which extends from 15<sup>th</sup> Street beyond the 14<sup>th</sup> Street signal towards 13<sup>th</sup> Street during typical rush hour periods. The existing 120 second cycle length is unlikely to be retimed in favor of MD Avenue traffic which is allotted 12 seconds of green per cycle. If the applicant proposes retiming of the signal, a full report detailing DDOT concurrence with the recommendation must be included in the study.
- b) **Southbound 14<sup>th</sup> Street/Florida Avenue traffic.** The report failed to consider the signal timing of the signal at 14<sup>th</sup> and H Street feeding 14<sup>th</sup> Street adjacent to the subject property. The report failed to assess the ability of vehicles to be able to turn left at the signal at 14<sup>th</sup> and MD Avenue during rush hour. If the applicant proposes retiming of the signal, a full report detailing DDOT concurrence with the recommendation must be included in the study.
- c) **Bicyclists and pedestrians as traffic at this intersection.** The report failed to consider the fact that bicyclists and pedestrians cross at this intersection and travel along the subject property. Increases in turning movements via driveways and the signal will increase friction and conflict between these vulnerable users and motorized traffic. There are highly utilized bus stops at this intersection and nearby (14<sup>th</sup> at H and 14<sup>th</sup> at MD) which create many additional pedestrian trips during rush hour which were not analyzed in this study. There is no discussion of mitigation measures for cyclists and pedestrians. The report is solely focused on vehicles as "traffic".



**Photo: Typical rush hour traffic queing on the 1400 block of MD Avenue looking eastbound. Green light is 14<sup>th</sup> and MD intersection. Red light in distance is 15<sup>th</sup>/MD/H/Bladensburg intersection.**

The signal at 14<sup>th</sup> at MD may have a high LOS grade according to the Highway Capacity Manual – but the signal at 15<sup>th</sup> and H is the key signal on this corridor. During typical rush hour traffic conditions, traffic queues past the subject property as shown in this photo taken on Thursday November 06<sup>th</sup> at 5:30 pm.

Decisions relating to “full access” to the property must consider the queing traffic. The LOS of the signal at 14<sup>th</sup> and MD is not the correct indicator of mobility at this site.



### 3. Analyze the mobility and safety implications of allowing “full access” to the property from the Maryland Avenue curb cut.

The report failed to address DDOT’s specific concern for allowing full access from the MD Avenue driveway.

Full access into and out of the driveway on MD Avenue will increase crashes at this location, worsen rush hour queing and congestion on the 1400 block of MD Avenue, and degrade the pedestrian and bicyclist traveling experience across the subject property. DDOT must require an analysis of the likely motorist maneuvers and consequences if full access is maintained.

The applicant intends to provide full access to the MD Avenue curb cut as stated on page 4 of the report:

*“The proposed full-access driveway on Maryland Avenue NE is geared to allow both right turns and left turns into the site, especially since there is not alternative for eastbound Maryland Avenue NE traffic to access the site.”*

Allowing full access at this driveway is a significant concern for the neighborhood that warrants a full analysis for all modes of travel. This analysis should be performed within the context of the congestion that exists on the entire 1400 block of MD Avenue during rush hour.

As a transportation professional, I have reviewed hundreds of traffic crash reports and observed motorists behavior under similar conditions around the country and around DC. Based on my experience and observations, the following impacts are likely and should be considered if full access is maintained at this curb cut:

- a) Left turning traffic from the site will likely block the sidewalk forcing pedestrians to walk in the street or the subject property while they wait for gaps in traffic.
  - i) Pedestrians who divert to the roadway will be at increased risk of a crash by moving traffic
  - ii) Pedestrians who divert to walking on the subject property will be at increased risk of crash by customers of Shell
  - iii) Pedestrians who wait for the motorists to vacate the sidewalk will be inconvenienced and delayed
- b) Left turning traffic will likely block westbound MD Avenue traffic in the evening due. This will be due to insufficient gaps in eastbound MD Avenue traffic caused by the evening congestion which typically extends beyond the subject property driveways for all approaches.



- c) Motorists anxious for gaps in traffic to turn left onto MD and 14<sup>th</sup> Street from the site will likely become assertive and/or aggressive to enter the traffic stream resulting in:
- i) Rear-end and sideswipe crashes by westbound and eastbound MD Avenue traffic forced to quickly react to motorists unexpectedly existing the MD Avenue driveway
  - ii) Customers of Shell will likely be involved in angular vehicular crashes with vehicles approaching on MD Avenue
    - i) Increase in risk to pedestrians and bicyclists traveling on MD Avenue as motorists will be focusing on gaps in vehicular traffic
  - iii) The Shell Station and the Checkers Restaurant across the street are businesses that primarily rely on motorists business. It is highly likely customers from the Shell will attempt to cross MD Avenue midblock to access the Checkers and vice versa. This will be an extremely dangerous maneuver for the motorists and all other adjacent traffic as the crossing motorists is likely to misjudge gaps and not look for pedestrians on sidewalks while attempting the maneuver resulting in an increase in crashes. If this movement is attempted during rush hour, this will increase congestion and motorist frustration along the roadway.

#### **4. Develop traffic volume counts that reflect typical traffic conditions at the site.**

**The report does not accurately depict traffic under typical conditions.**

It is well established that schools and Congress can have a significant effect on traffic volumes in the District of Columbia. August is historically a month in which traffic volumes are lowest throughout the country. DDOT must require the traffic consultant to collect data on a typical rush hour day when school and Congress are in session.

The counts taken on August 6<sup>th</sup> (page 7 of report) do not represent typical traffic conditions adjacent to the subject property for the following reasons:

- iv) Public and private schools were not in session
- v) Congress was on recess
- vi) Many residents and commuters are on vacation in August, thereby reducing demand on local streets

#### **5. Accurately account for rising future traffic volumes due to planned and ongoing development.**

**The report failed to fully analyze accurately future traffic growth which is within the influence area of this project which will be diverted to this property.**

It is a stated goal in DC planning documents to increase the city's population by 100,000 residents. The report fails to account for the ongoing and significant future redevelopment along the H Street, Benning, and Bladensburg Road corridors which will house this population and include additional employment centers which will increase traffic volumes in the neighborhood. The report does not acknowledge this new development or cite a source for the projected 1% growth in traffic included in the report (page 10).

DDOT must require the applicant to analyze traffic based upon the 20 year build out of H Street, Bladensburg Road, Benning Road, and Florida Avenue to determine the likely trips and turning movements generated by this project. The projected increase in traffic on arterial roadways should be based upon an accepted transportation forecast model with a citation.



**6. Accurately account for diverted trips from Florida Avenue, H Street, Benning Road, and Bladensburg Roadway.**

The report failed to fully analyze traffic which will be diverted to this property from adjacent roadways.

The applicant asserts this project will provide a public benefit through lowered prices, therefore DDOT must require the applicant to fully account for the resultant diverted trips attracted from nearby gas stations due to the lower price. The current report provides no analysis of these diverted trips only assuming pass by traffic on 14th Street and Maryland Avenue will be attracted to the gas station.

**Public Benefit of Lower Prices (with diverted traffic)**

or

**No Benefit of Lower Prices (no diverted traffic)**

The applicant stated in their public space application submitted June 5<sup>th</sup>, 2008 - Exhibit D, the project “will provide the neighbors with gas for their cars at a competitive price and easy quick access to a variety of drinks, food ...and over the counter medications.” At a meeting before the ANC on 18<sup>th</sup>, 2008 Mr. Berhane stressed the goal of DAG to provide competitive pricing to attract customers when asked how DAG would succeed in an environment where eight gas stations exist within one mile of the property.

The statements of the applicant indicate that their view is the project will attract customers due to the lowered price of gasoline and other goods offered. If this is true, their lower prices will attract additional customers by diverting them from adjacent businesses and roadways. **This has not been accounted for in the study and must be accounted for to develop a true estimate of the traffic impact.**

The ANC views the position of the applicant as a very serious matter as the public space regulations require that “ the director shall investigate the public need for that space, consider the proposed use of the space, and recommend to the public space committee approval or disapproval of the use” (200.2(a)).

If the applicant asserts there will be no diversion of trips to the site, the applicant must not claim a public benefit to offset the rent free use of the public space proposed to be utilized. The applicant should than revise all permit submissions and other written statements sent before the BZA, DDOT, DCRA, and other agencies and clearly state that they will not be providing a public benefit due to lowered gas price.

**The applicant must acknowledge basic economics to provide direction to the traffic consultant to estimate diverted trips. DDOT must require the applicant to clearly state whether this project will attract trips via lowered prices and provide a corresponding public benefit of lowered consumer cost. The alternative is the applicant must state clearly there will be no public benefit through lowered prices resulting in no increase in demand through diverted trips.**

**It is illogical to try to have it both ways.**



## 7. Complete the analysis of fueling truck movement access to the site.

The report failed to fully analyze all of the potential fuel delivery routes.

The traffic study assumes that all fuel delivery will be routed via eastbound MD Avenue via a left turn onto the property (figure 4, pages 5 and 6). This is hard to predict and subject to change. The analysis must prove that fuel trucks can enter and exit the property safely from westbound Maryland Avenue. It is apparent that fuel delivery will not occur from the 14<sup>th</sup> Street curb cut. This should be explicitly stated in the study as an operational recommendation. *DDOT must require the applicant to analyze all potential fuel delivery routes.*

## 8. Analyze internal circulation to parking spaces and fuel pumps.

The report failed to respond to the specific DDOT request to fully analyze the internal circulation on the property.

It appears that the vehicles parking on the 14<sup>th</sup> Street side of the property will be partially parking on public space. It also appears that vehicles will have great difficulty maneuvering between the building and the fuel pumps. It appears likely that motorists will find it to be unexpectedly necessary to perform multiple, awkward backing maneuvers on the site to circulate which will necessarily create a hazard to other customers and pedestrians. It appears that the proposed plan can not meet zoning regulation 706.6.

DDOT must require the applicant to analyze all potential vehicles that may legally access the site to assess their ability to safely maneuver into each parking space and each fuel pump. The applicant must verify that the project can meet the zoning regulation 706.6 which requires “all parking spaces provided... be designed and operated so that sufficient access and maneuvering space is available to permit the parking and removal of any vehicles without moving any other vehicle onto public space.” Such an analysis was specifically requested by DDOT and not analyzed by the applicant with no explanation.

- a) The traffic study failed to assess the interaction between vehicles within the property:
  - i) Autoturn analysis of vehicles accessing the fuel pumps should be performed for each pump, from each direction. The drawings appear to indicate a vehicle will not have sufficient space to pull through the pumps between the pumps and the building requiring customers to perform backing maneuvers on the property.
  - ii) Autoturn analysis should be performed for each of the parked vehicles. It appears that vehicles parked will be frequently blocked and have trouble navigating all of the parking spaces.
  - iii) The applicant should clearly state if the proposed Shell Station will be selling diesel fuel and/or other alternative fuels. If fuel intended for trucks to consume is to be sold onsite, the applicant must specify the location for the pump(s) and the revised traffic study should prove trucks can safely and fully access the specified pumps.
  - iv) The constrained and densely packed site will require extensive maneuvering between customers. The revised report should demonstrate how these movements will occur and identify the likely interactions between customers accessing the pumps, entering/exiting the property, and parking for the convenience store will impact each other.
  - v) The analysis should discuss pedestrian access between the vehicles and the store discussing available walking space between parked vehicles. It is likely the required backing and tight maneuvering space will result in a hostile pedestrian environment for customers and pass through pedestrians (shortcutting the lot to avoid crossing the driveways). There will also likely be minor vehicular damage resulting from the confined operating space for the property.



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**9. Analyze closure of northwestern access point to improve pedestrian safety.**

The report failed to analyze this specific request by DDOT with no explanation.

DDOT must require the applicant to analyze the recommendation as there is likely to be significant pedestrian traffic across this property as the driveways will discourage people from walking on the sidewalk as requested.

**10. Analyze and specify locations for parking restrictions to facilitate all curb cuts and safe vehicle movements to and from the property.**

The report did not assess parking restrictions which will be required for this project.

DDOT should require the applicant to analyze the required sight distances and necessary parking restrictions to facilitate safe ingress/egress at each curb cut. The existing report did not address the necessary parking restrictions that will be required for each curb cut. The report should include a sight distance analysis to show that motorists will be able to see approaching traffic for a gap without blocking the pedestrian sidewalk as well as the necessary parking restrictions.



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### Summary

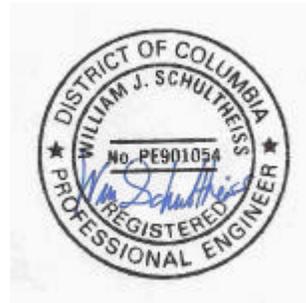
In summary, ANC6A has demonstrated that the current traffic study is deficient and needs substantial revisions.

ANC recommends the District Department of Transportation request the applicant to substantially revise the traffic study. A revised study will enable the community and the reviewing government agencies to accurately assess the likely impacts this project will have on the safety and mobility of the community and to assess the effect this project will have on the safety and mobility of the surrounding roadway network. This report should be completed and submitted to the ANC and DDOT for a full review before a public hearing is granted to consider the public space application as these issues are central to the decision to grant a public space permit.

The applicant bears all responsibility for any resulting delays in hearings for this project due to their failure to respond to specific requests made by DDOT and to utilize standard engineering methods to assess the impact of this proposed gas station and convenience store. The applicant stated in an email on October 22<sup>nd</sup> that a revised study would be forthcoming as part of the revised public space application. Since a revision to the traffic study has yet to be submitted, we must comment on the study available to allow the applicant time to respond to the deficiencies identified.

We ask that DDOT carefully review this traffic impact report, take into consideration our recommendations for further analysis, and require the applicant to submit a detailed report that fairly and accurately assess the mobility and safety effects this development will have on our community. We ask that DDOT request the public space committee postpone any hearing of this case until a traffic study is submitted that meets the request outlined previously by DDOT with consideration to the request the ANC has offered within this letter.

On behalf of the Commission,



William Schultheiss, PE  
1400 MD Designated Advisory Neighborhood Commission 6A Representative

cc: Councilmember Tommy Wells  
Matthew Marcou, Chair of Public Space Committee  
Catrina Felder, Public Space Committee  
Paul Goldstein, DC Office of Planning  
Melissa Bird, DC Office of Planning  
Richard Aguglia, Hunton & Williams  
Joe Fengler, Chair ANC 6A  
ANC 6A