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## Memorandum

From: Thomas Point Associates, Inc.

To: Costco Wholesale

Subject: Analysis of Need, General Neighborhood of the Costco site in Wheaton, Maryland

Date: July 3, 2013

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### 1. Purpose

This is an analysis of the need for gasoline at the Costco Warehouse in the Westfield Shopping Center, Wheaton, Maryland. It supplements earlier work on gasoline need connected with the Warehouse, provided in the report that Costco submitted in October, 2012, that estimated demand within the neighborhood of a 7-minute drive from the proposed station.

### 2. The General Neighborhood of the Site

The market area that this analysis addresses is the “general neighborhood” of the site, defined by the staff of Maryland National Park and Planning Commission for the purpose of evaluating the potential impacts of the gas station to comprise the entire Shopping Center, including the Mall and other retail and office buildings around it, the WMATA garage, traffic on the major streets along the edges of the property and a small part of the residential neighborhood to the south and west (Figure 1, page 2). The Zoning Hearing Administrator requested that Costco estimate demand within this much smaller area. (Note: M-NCPPC Staff Report dated January 17, 2013 (Attachment 10 to Staff Report dated February 14, 2013) provides: "For determining a neighborhood need under Section 59-G-1.24, Staff has typically defined the general neighborhood to include areas within drive times of 4 to 10 minutes. The definition for purposes of analyzing adverse impacts on the surrounding areas is different from the definition of 'the general neighborhood' for need analysis purposes.")

In our analysis of need within the neighborhood defined by a seven-minute drive, we used census data on population and retail sales compiled by Nielsen-Claritas, Inc. This data is widely used for research on the types of relatively large geographic areas that typically comprise retail market areas. However, this data source is not applicable in the analysis of a small area such as the “general neighborhood” defined above. For this small area we have evaluated need in terms of its specific components, i.e., pass-by traffic, employees, shoppers and the residents of the immediate neighborhood.



*Figure 1*  
*The General Neighborhood of the Site*

### 3. Sources of Demand

The analysis that Costco presented in its traffic study and related testimony provides information on demand in this general neighborhood. While the traffic study and the needs analysis are based on different calculations, they both address essentially the same demand sources and reach conclusions that are consistent.

Exhibit 1 summarizes the allocation of demand that the traffic study presents. It is based on the projected sale of 12 million gallons per year and an average sale of 12 gallons per purchase.

| Exhibit 1  |                 |                  |                |  |
|--|-----------------|------------------|----------------|--|
| <b>Distribution of Gasoline Sales by Demand Source</b> |                 |                  |                |  |
| Source   | Percent of sale | Sales Per Year   |                |  |
|  |                 | Gallons          | No. of Sales   |  |
| 1. Pass-by Traffic                                     | 0.37            | 4,440,000        | 370,000        |  |
| 2. Internal: Onsite worker/shopper                     | 0.30            | 3,600,000        | 300,000        |  |
| 3. Other   | 0.33            | <u>3,960,000</u> | <u>330,000</u> |  |
|  |                 | 12,000,000       | 1,000,000      |  |
| Source: Thomas Point Associates, Inc.                  |                 |                  |                |  |

In the traffic analysis the first two categories of demand, “Traffic” and “Internal: Onsite Worker and Shopper” make up the general neighborhood of the site since they include all the commercial buildings, the WMATA Garage and the traffic on adjacent streets. According to this analysis this general neighborhood accounts for 67% of total demand, or 8,040,000 gallons of gasoline per year while sources of demand outside this area make up the remaining 3,960,000 gallons.

This addendum to the Needs Study addresses the same three demand sources, reaching the same conclusion but with some differences in specific calculations.

### 3.1 Traffic

The “Traffic” demand source is the largest of the three sources, accounting for 37% of total demand. By allocating demand proportionally to the three thoroughfares, one can see the number of vehicles that would stop at the proposed station on an annual basis (Exhibit 2). The total number of vehicles amounts to 370,000 per year and reflects the view that Costco would capture 1.18% of this “pass by” traffic. The capture rate reflects actual experience that Costco has had in stations that are similar to the proposed station in terms of location and nearby traffic.

| Exhibit 2                                      |               |                  |               |                  |
|--|---------------|------------------|---------------|------------------|
| <b>Neighborhood Traffic and Gasoline Sales</b> |               |                  |               |                  |
| Location                                       | Traffic       |                  | Gas Sales     |                  |
|  | Day           | Year             | Vehicles      | Gas (gals.)      |
| Georgia Ave                                    | 40,832        | 14,862,848       | 174,687       | 2,096,249        |
| Viers Mill Rd.                                 | 24,541        | 8,932,924        | 104,991       | 1,259,895        |
| University Blvd                                | <u>21,112</u> | <u>7,684,768</u> | <u>90,321</u> | <u>1,083,856</u> |
| Total  | 86,485        | 31,480,540       | 370,000       | 4,440,000        |
| Source: Thomas Point Associates, Inc.          |               |                  |               |                  |

The traffic analysis included the WMATA Garage in its estimate of demand from this source, since all the vehicles entering the Garage would be included in one of the vehicle counts.

The Needs Analysis is in agreement that traffic will account for demand for 4,440,000 gallons of gasoline.

### 3.2 Onsite Demand

The second source of demand, called “Internal: Onsite Workers/Shoppers,” accounts for 30% of total demand, according to the traffic study. This source of demand would account for 3.6 million gallons of gasoline sales yearly. From the market perspective it is our professional opinion that this figure represents the low end of a range of likely demand, and that actual sales to workers and shoppers are likely to be somewhat higher.

The alternative analysis summarized in Exhibits 3 and 4 indicates total demand for 4,690,480 gallons per year. From a market perspective, this figure is a more accurate estimate of potential sales to onsite workers and shoppers.

Of the workforce (Exhibit 3), we calculate that roughly half of the Costco employees will buy a tank of gas (12 gallons) weekly, and that 10% of the other workers in the general neighborhood (retail clerks, office workers and others) will do the same. While the approximately 3,800 employees in the general neighborhood are a small source of demand, they account for potential sales of 246,000 gallons yearly.

| Exhibit 3                                  |                      |           |           |           |                                   |            |
|--|----------------------|-----------|-----------|-----------|-----------------------------------|------------|
| Sale of Gas to Workers in the Neighborhood |                      |           |           |           |                                   |            |
| Workplace                                  | Workers per 1,000 sf | SF        | Employees | Vehicles* | Perc. that make a weekly purchase | Gals/ year |
| Mall                                       | 1.4                  | 1,260,000 | 1,764     | 1,499     | 0.1                               | 93,563     |
| Costco                                     | 1.4                  | 152,000   | 213       | 181       | 0.5                               | 56,435     |
| Non-mall retail                            | 1.4                  | 800,000   | 1,120     | 952       | 0.1                               | 59,405     |
| Office                                     | 3                    | 230,000   | 690       | 587       | 0.1                               | 36,598     |
| Total                                      |                      | 2,442,000 | 3,787     | 3,219     |                                   | 246,000    |
| Source: Thomas Point Associates, Inc.      |                      |           |           |           |                                   |            |
| *Note: 85% of workers arrive by car.       |                      |           |           |           |                                   |            |

Shoppers at Costco’s Warehouse and other “shoppers” (note that the Shopping Center includes a fitness club, movie complex and other types of commercial establishments, not just stores) are the largest category of demand in the general neighborhood, in our professional opinion (Exhibit 4). We estimate that this source will account for the sale of 4.4 million gallons of gasoline sales yearly.

| Exhibit 4                                   |   |        |             |            |         |       |                 |
|---|---|--------|-------------|------------|---------|-------|-----------------|
| Sale of Gas to Shoppers in the Neighborhood |   |        |             |            |         |       |                 |
| Shoppers                                    | Daily Visitation  |        |             |            | Capture |       | Gals. Sold/Year |
|   | Range   | No.    | Households* | Vehicles** | Rate    | No.   |                 |
| Mall  | 16000-33000   | 24,500 | 16,333      | 13,883     | 0.01    | 139   | 608,090         |
| Non-mall retail                             | N/A ***   | 15,556 | 10,370      | 8,815      | 0.01    | 88    | 386,089         |
| Costco                                      | ****  | 4,146  | 4,146       | 4,146      | 0.3     | 1,244 | 5,447,844       |
| Total                                       |   | 44,202 | 30,850      | 26,222     |         | 1,471 | 6,442,023       |
| Source: Thomas Point Associates, Inc.       |   |        |             |            |         |       |                 |
| *Notes:                                     | *Average household size is 1.5 persons.   |        |             |            |         |       |                 |
|   | **All Costco shoppers, and 85% of other shoppers, arrive by car.                          |        |             |            |         |       |                 |
|   | ***Estimate for Non-mall retail is based on size ratio to mall.                           |        |             |            |         |       |                 |
|   | ****Costco no. is based on actual transactions; capture is experience at other locations. |        |             |            |         |       |                 |

We are estimating that one in one hundred drivers who come to the Mall and the other commercial establishments in the neighborhood will purchase gas at the Costco station. This estimate reflects the fact that the Costco station will be very convenient to shoppers who are already at the location and just a minute or two from the station. Moreover there is no other gas station at the Mall.

In earlier field work we talked with individuals purchasing gas in the area and, while the sample size was small, the indication of interest in purchasing gas from Costco was very strong. It is our view that the capture rate is reasonable in this market. In simple terms the 1% capture means that of the 22,698 vehicles that come onto the site daily (not including employees or Costco shoppers), 227 drivers are likely to purchase Costco gas.

For Costco shoppers the 30% capture rate comes from actual store experience at other locations and is another indication of the powerful impact that low price, convenience and safety have on sales.

### 3.3 Other Sources

The only other sources of demand are the households that reside within the general neighborhood along the southern and western periphery of the Mall. There are approximately 115 housing units in this defined area. We estimate the 24% of these households are Costco members. Using a conservative annual consumption figure of 1,012 gallons per household, demand from this source would amount to 29,025 gallons.

## 4. Conclusions

Based on this analysis of need, we estimate that the residents, workers, shoppers and drivers in the general neighborhood of the site would account for a total demand amounting to 11,157,118 gallons of gasoline sales on an annual basis at the proposed Costco station. This represents 85.2% of the total demand within the 7-minute drive market area (13.1 million gallons) that we estimated in the earlier needs analysis.