

# C-STORE VALUATIONS

Dear Reader:

Thank you for your interest in our Whitepaper, "Identification of Potential Severance Damages in Retail Gasoline Properties". Enclosed is your complimentary copy. We hope you will find it helpful and informative. This is the first paper of its kind that substantiates and documents the increased accessibility required by convenience retail properties, such as gas stations, convenience stores, car washes, and fast food restaurants. These types of properties are entitled to greater compensation for damages when access or visibility is impaired through an eminent domain action.

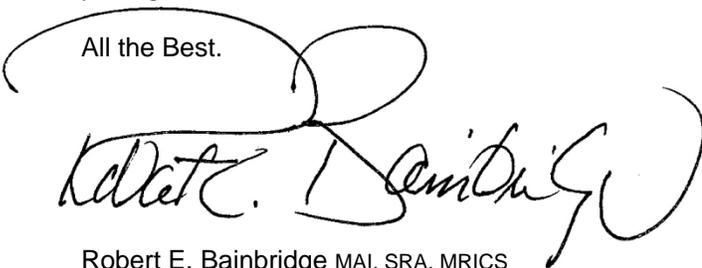
For additional information about current valuation issues in the retail convenience channel, you may wish to visit our website at [www.cstorevalue.com](http://www.cstorevalue.com). On the "Video Insights" page you will find short, appraisal-related video clips on these important topics:

1. Development Process
2. Supply and Demand
3. Hypermarket Competition
4. What Should be in an Appraisal of a C-Store: A Lender's Perspective
5. A Business Appraiser's Perspective
6. Retail Site Analysis
7. Below-Cost Selling

At our website you will also find useful Whitepapers and current valuation metrics.

If we can be of any assistance to you, it would my pleasure to personally serve you. Please let us know and thank you again.

All the Best.



Robert E. Bainbridge MAI, SRA. MRICS  
C-Store Valuations



**WHITE PAPER NO. 1**

**IDENTIFICATION OF POTENTIAL SEVERANCE DAMAGES  
IN RETAIL GASOLINE PROPERTIES**

By

Robert E. Bainbridge

## Introduction

Access management projects implemented by transportation authorities seek to limit the number of access points, lengthen turn radii, and limit left-turn maneuvers in an effort to enhance safety and reduce traffic congestion on major corridors. An emerging body of literature conducted by several transportation authorities indicates that vehicle-oriented businesses, such as gas stations, car washes and fast-food restaurants, often suffer more economic damage than most other types of businesses as a result of access management takings. (Eisele, 1999), (Maze, 1999)

The purpose of this paper is to help transportation officials, property owners, appraisers, analysts and attorneys understand the heightened role access plays for retail gasoline properties. Retail gasoline businesses are especially sensitive to access degradation. In some cases impaired access can make the business unviable and the property unmarketable as a gasoline outlet.

The potential for severance damages from access management takings should be regarded with greater scrutiny by stake holders and the courts when retail gasoline properties are involved. This paper reviews the current literature, identifies specific access management-related issues for takings involving retail gasoline properties, and challenges the current theory of compensability.

Retail gasoline properties, such as convenience stores, derive a significant part of their gross sales, about 50 percent, from the sale of motor fuels. (National Association of Convenience Stores, 2006) One of the reasons why retail gas properties are particularly sensitive to access management issues is the sale of motor fuel requires retail dispensing improvements, such as underground tanks, dispensers and canopies, that are situated on-site but separate from the building. The placement of the fuel dispensing improvements, car wash and other profit centers involves more intensive use of those portions of the site outside the building footprint, as shown in Figure 1. This heightened intensity of the use of the site is a characteristic that is unique to retail gasoline businesses and requires an increased need for accessibility both to and across the site. As a result, access management issues involved with retail gasoline properties are usually more complex than for most other types of properties.

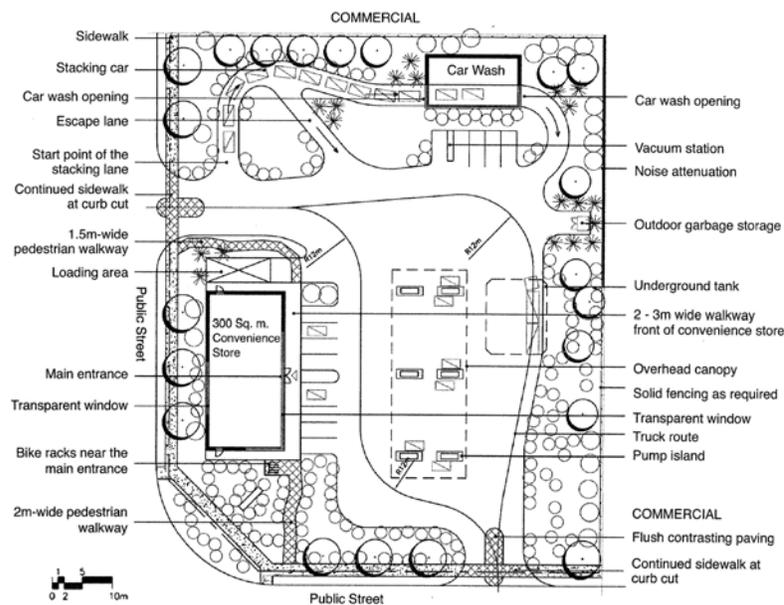


Figure 1 Typical site plan

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## Review of Literature Related to Access Management

Access management is a denotative term widely used in transportation planning referring to the practice of coordinating the location, number, spacing, and design of access points to minimize site access conflicts and maximize the traffic capacity of a roadway (Nashua, 2002). The American Association of State Highway and Transportation Officials defines access management as:

(American Association of Highway and Transportation Officials, 2001)

“Access management involves providing (or managing) access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity and speed.” (p. 14)

Transportation authorities cite several public benefits from access management practices such as improving overall roadway safety, reducing the number of vehicle trips, decreasing interruptions in traffic flow, and minimizing traffic delays and congestion.

(Nashua, 2002) The central tenet of access management is that numerous access points along a corridor create conflicts between turning and through traffic which causes delays and accidents. Access management seeks to reduce the number and improve the design quality of access points.

Most of the current literature on access management dates to the 1990s with transportation authorities in cooperation with local universities in Florida, Iowa, New

Hampshire, and Texas conducting a significant amount of the initial research and publishing. For this paper, the economic impact of access management is the most important topic. This has been only recently addressed with the earlier material dealing with design and implementation of access management programs.

The more recent economic impact studies analyze corridors before and after the access management improvements were installed. The methodology often involves surveys (Eisele, 1999), and less frequently statistical analysis of land values (Luedtke, 2003). It is of particular note that in all the economic impact studies reviewed by this author, retail gasoline properties rated the highest of all property categories for sensitivity to degradation of access. For example, Eisele ranks various property types according to the survey results. This study is more useful than others because it analyzes retail gasoline properties as a separate category. The survey results found that retail gasoline properties suffered the most when raised medians were installed in terms of customers per day (-17.6%); gross sales (-2.4%); and number of full-time employees (-5.0%) as compared to all other property types in the study.

## Retail Fuel Properties: Access Management and Compensability

For retail gasoline properties, degradation of the existing access to the property can have negative consequences for the business that are directly related to the diminished real estate quality. So, both the business and the real estate are affected. Retail gasoline businesses, such as convenience stores and gas stations, are single-purpose economic enterprises. Because of their specialty of design, they cannot be readily converted to other types of businesses without a significant loss in value. For example, the fuel service (dispensers, underground tanks and canopy) is so specially-designed that if it becomes no longer profitable to sell motor fuel at a particular site, the contributory value of the fuel service will be zero or even negative. (Bainbridge, 2003) Unlike a generic retail store or office building, the fuel service can not be put to any other use. In takings cases, this specialty of design and economic narrowness of use for retail gasoline properties can result in an after value that is comparatively low. Since severance damages are essentially the difference between the before value and the after value, the amount of severance damages to retail gasoline properties can be significantly higher than what would be encountered for the same set of circumstances applied to other types of property.

The larger issue of compensability is not pursued in this paper. However, the current position of the courts needs to evolve to a more informed and nuanced view of how

access quality varies from differing property types, such as light-industrial to commercial to retail.

For example, New York and many other states hold that access impaired by guard rails, one-way regulations, prohibition of left turns and U-turns, median strips and other traffic regulations is not compensable. In citing *Filger v. State Highway Commission*, 355 S.W. 2d 425 (Mo., 1962), the Missouri court stated:

(Rams, 1973) “This change (reduction of access) may result in some inconvenience respecting ingress and egress... They must stand the loss... so long as their access rights are not materially altered or destroyed.” (p. 182)

In deciding access-related cases, the courts deny compensation based on two primary considerations. The first is that access limitation is an exercise of police power, not eminent domain and police power actions by the government are not a compensable loss to a property owner. The installation of a raised median where none existed before, for example, is regarded as a police power action in many states and is not compensable for that reason. The second is an often ephemeral conclusion the court reaches about reasonable access. Eaton (p. 30) addresses this:

In defining the limits of a property owner’s access rights, the courts have referenced “reasonable access”, “suitable access”, and “free and convenient access”... In other words, case law indicates that an abutting property owner is

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entitled to *reasonable, convenient and adequate access* for proper use and enjoyment of his property for its present and for its reasonable uses in the foreseeable future. (emphasis added)

The mistake the courts are making in this and similar cases is to view access without distinction as to property type. Access issues are much more important to vehicle-related land uses, such as car washes, retail gasoline properties, and fast food restaurants, than other types of uses. Indeed, the body of research literature completed by transportation authorities confirms this. (Eisele, 3)

In other words, retail gasoline properties are more sensitive to diminished access. The reduced access to a destination concept such as a movie theatre may be reasonable in the after condition. For a convenience concept, such as a retail gasoline business the same reduction in access may be unreasonable. The courts in the cited cases do not make any such distinction. (Rams, 182) Yet, the real world makes the distinction. This is perhaps best illustrated in a definitive text on the subject of retail location.

Fenker (1996):

“If your business is convenience oriented, drop-in access will have a significant impact on sales. The impact of poor drop in access on a convenience-oriented business may range from 10 percent to 30 percent as construction or ingress/egress problems make access a challenge. Convenience stores, gas stations, quick-serve restaurants, and many other convenience concepts have

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made a science of defining and measuring drop-in access and constructing sites that rate high on this measure. On the other hand, if your business is destination oriented and has good visibility, poor access will not matter a great deal, perhaps impacting your business only two to five percent.” (pp. 69)

Measuring the importance of access to convenience as opposed to destination properties appears to have been completely lost on the courts. This unrecognized difference is a disservice to many convenience related property owners in takings cases. Indeed, the majority of the cited cases in access-related severance damage claims involve retail gasoline properties illustrating the high sensitivity these types of uses experience in changes in access to their property; so much so that they are more willing than others to go to court over the issue. Stake-holders, transportation officials, the courts, attorneys and appraisers need a better understanding of the importance access plays to various property types. A better understanding of how access requirements vary from one property to another will lead to better conclusions of law regarding compensability.

With access management programs regarding raised medians, for example, a law firm in North Carolina (Odom, 2007) cites the Barnes v. Highway Commission (Barnes, 1962) case and the law firm states, “You could argue that the median restricts access, and access is now unreasonable.” (p. 1). The Barnes case involved access issues related to a gasoline station. Here, these attorneys are indicating that the argument of unreasonable access may prevail. Given the current state of published literature, especially those studies showing that the economic impact of access management is greater on gas

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stations, retail gasoline properties would have the highest probability of success with seeking compensation for unreasonable access, even though the courts have denied these types of claims in the past.

## Common Access Management Applications and Their Impact on Retail Gasoline Properties

Below are access issues common to convenience retail uses. Not all examples of potential severance damages are shown. The focus here is on access management applications and their specific impact on retail gasoline properties. So, for example, even though a taking may so diminish the size of a remainder parcel as to make it illegal under the existing zoning ordinance, that type of generic severance damage is not included here. Other standard works on eminent domain and condemnation, such as Eaton, discuss these general principles.

### Raised Medians

Raised medians is one of the most significant access issues for retail gasoline properties. Raised medians fully separate opposing traffic. Where left turn lanes are not provided, raised medians limit land access to right turns only. Table 1 shows how transportation officials view some of the advantages and disadvantages of raised medians. (Center for Transportation Research and Education, 2006)

Table 1 Advantages and Disadvantages of Raised Medians

<u>Advantages</u>	<u>Disadvantages</u>
Discourages strip development	Reduces operational flexibility for emergency vehicles
Allows better control of land uses	Increases left turn volume at median openings
Reduces number of conflicting maneuvers at driveways	Increases travel time and circuitry for some motorists
Provides pedestrian refuge	May increase crashes at openings
If continuous, restricts turns to right turn only	Limits direct access to property
Reduces crashes in mid-block areas	Operating speed usually limited to 45 miles per hour
Separates opposing traffic	

Limiting direct access and increasing travel time and circuitry for customers are the two most disadvantageous factors to convenience-oriented properties. Raised medians when installed after the subject's construction can effectively reduce the number of potential drop-in or convenience customers by 50 percent. Traffic count in front of the retail gasoline property is a fundamental criterion of retail location decisions for many national oil companies. Traffic count is so important to successful retail gasoline properties that many specify minimum traffic count thresholds before any site will be considered for construction of a retail gasoline outlet. (Exxon, 2007) With ExxonMobil, for example, traffic counts must be a minimum of 20,000 vehicles per day. A site that meets this criteria in the before condition can be rendered below this standard in the after condition when a raised median is installed as part of an access management project along a corridor.

As a result of a new median, specific traffic configurations can combine with competitive locations to reduce the economic viability of a retail gasoline property. For example, a newly installed raised median in Ontario, Oregon routed traffic coming from the freeway

further west than before. The new traffic flow required a Sinclair-branded gas station outlet's customers to travel west and make a U-turn at the next intersection before being able to return in the east bound lanes to the subject. However, at the U-turn customers were routed in front of an existing Shell-branded competitor before ever reaching the subject on the return trip in the east-bound lanes. The raised median made it easier for the customers to stop at the Shell store and more difficult for them to reach the Sinclair property. The Sinclair store closed within six months as a result of the new median. (Blankenship, 2003) The underground fuel tanks, canopy and dispensers ( all classified as real property) were subsequently removed at a substantial cost and loss in value. The property remains unoccupied and unused to this day. Other retail properties along the corridor remain. This is a compelling example of how retail gasoline properties have a increased sensitivity to access degradation as compared to other types of real estate.



Figure 2 Raised median in Ontario, Oregon. This retail gasoline business closed within six months of the installation of the median. The underground fuel tanks, dispensers and canopy have were subsequently removed.

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### Loss of Turning Radius

A common example of severance damages is a widening project. When a portion of the frontage is taken the remainder parcel has less physical depth than before and the result creates diminished customer accessibility to the fuel service.

This type of severance damage is often found in takings projects involving the creation of new right turn lanes or new taper lanes at intersections. In these cases, the takings require additional land from the abutting properties at the intersection.

The loss of site depth can create a problem that stems from the minimum turning radius for a standard-size automobile. Most oil company engineers specify 15 feet of minimum depth between the property line and the edge of the outside fuel spanner, or island.

Depths reduced significantly from 15 feet can make it difficult or impossible for customers to access the outside fuel position rendering it less useful. Johnson (1971) addresses this problem for retail gasoline properties, stating, “Any compromise of the minimum dimensions because of right of way acquisition tends to place the property in a less competitive position and thereby causes a decline in its value.”

Through the use of a specially designed template (Figure 3) , Johnson shows that even a three foot reduction in the distance between the property line and the outside edge of a fuel spanner can so reduce the turning radius that a standard automobile can not readily

access the fuel positions on that side of the site. He goes on to measure the loss in property value using a reduction in gallonage. Loss of side distance is especially acute for small sites of about 15,000 square feet.

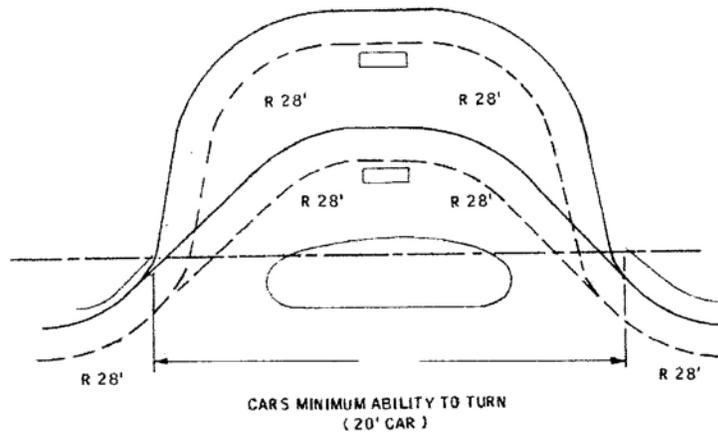


Figure 3 Johnson's template

### Loss of Stacking Distances

Takings that reduce the size of the remainder parcel can also affect the stacking distance. Co-branded retail fuel sites often must meet the site criteria of the branded food operation. These criteria include specifications as to size, traffic count and zoning-related issues. The site criteria also include stacking distances. McDonald's USA restaurants (McDonalds), for example, require a stacking distance of eight vehicles for drive-up window lanes.

Stacking distances measure the lanes dedicated to customer vehicles using a drive-up window or other vehicle related service. The specified distance is usually number of cars rather than linear feet. Other profit centers such as car washes may require stacking distances. Required stacking distances are affected by such features as reader boards and payment terminals and are designed to move customers through the process or transaction with minimum delay. Figure 4 shows a typical stacking lane for a car wash on a retail gasoline site.

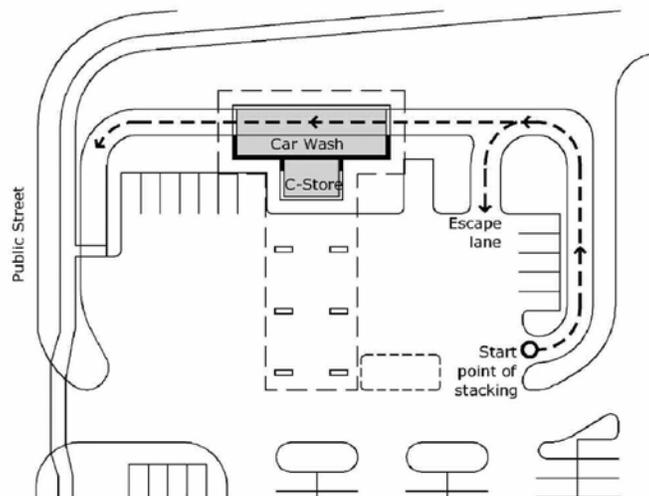


Figure 4 Typical Stacking Lane

### Driveway Slope

The slope (vertical alignment) of the driveways should not be too steep. Steep driveways force customers to unduly slow their speed when entering or exiting a driveway. A customer slowing to negotiate a steep driveway may block a street's through traffic and

cause traffic to slow. In all cases, the profile must allow adequate clearance between the surface and the vehicle.

Driveway slope can be a problem when street levels have been elevated as a result of a public improvement project.

Retail gasoline properties are especially sensitive to access issues. Access drives on major streets should allow the customer to maneuver smoothly and comfortably at a forward speed of least 10 miles per hour. (CTRE, 2006)

### Reduced Site Distances

Sight distance is the length of roadway visible to a driver. A safe sight distance is the distance needed by a customer exiting the driveway to verify that the road is clear and to avoid conflicts with other vehicles. Safe site distances for a vehicle exiting a driveway will vary according to the speed of the traffic on the street. The Iowa Department of Transportation (IDOT, 2006) recommends the following:

Table 2 Iowa Safe Site Distances

Posted Speed Limit	Distance Required	
	<u>Desirable</u>	<u>Minimum</u>
35 mph	395	265
45 mph	560	395

Figure 5 illustrates the concept of site distances. The situation on the left shows a customer exiting a driveway onto the main street. Here, adequate site distance is preserved. The situation on the right shows how street furniture and landscaping improvements can interfere with site distance, which is a form accessibility degradation.

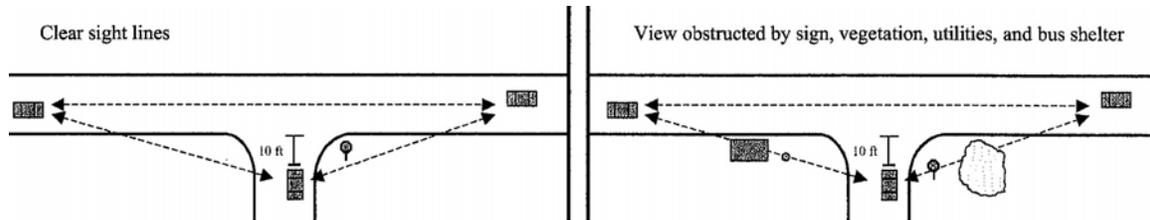


Figure 5 Site Distances

Inadequate site distances are depicted in the photograph in Figure 6. This photograph shows how the street appears to a customer exiting the driveway. The need for site distance from drive ways increases with higher traffic speeds on the street being entered.



Figure 6 Inadequate site distance from a driveway

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## Conclusion

Current literature is beginning to recognize the differing effects of access degradation. The earliest indication of this difference is found in economic impact studies analyzing the before and after condition. These economic impact studies show a higher economic loss to retail gasoline properties than any other property type.

The logical conclusion of the differences in economic loss is adequate access for one property type may be inadequate access for another type. This has long been recognized by retail property owners and users. Since the courts have frequently decided compensation claims based on “reasonable” and “convenient and adequate” access, the legal system also needs to recognize these differences if fairness is sought in severance damage claims.

Figure 7 shows a hierarchical structure of access sensitivity for various property types. The least sensitive property types are shown on the bottom progressing to the most sensitive at the top.

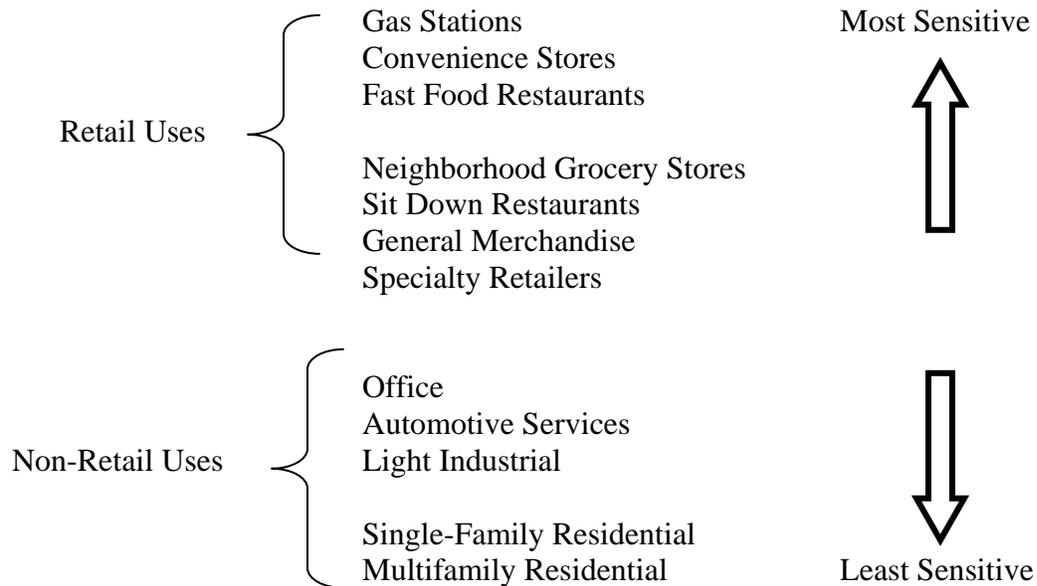


Figure 7 Access sensitivity among various property types

In the future, courts may indeed find that degradation in access may be compensable for some property types and not for other property types.

Further research on the economic impact of access management should be conducted.

Additional studies in different locations across the country would confirm the validity of these early studies reviewed here. However, economic impact studies should distinguish the different impacts on various property types.

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