Parking Infrastructure Finance

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Executive Summary

Local governments historically have been the main providers of core economic infrastructure; they fund the vast majority of the nation's roads, transit systems, drinking water, and wastewater systems as well as public safety, educational facilities and buildings, health care, and amusement and recreation. But local governments currently face significant challenges to the funding and provision of local infrastructure. Cities and counties are dealing with a major investment gap in funding infrastructure projects. In light of this mounting pressure, municipalities are using various combinations of traditional and alternative financing methods to fund infrastructure.

Pay-As-You-Go Financing Cash and Savings	Pay-As-You-Use Financing Debt Financing
Taxation • General taxes • Special dedicated taxes User charges Capital reserves and fund balance Federal grants and aid State grants and aid	Loan financing • Private bank loans Bond financing • General obligation bonds • Revenue bonds • Private activities bonds • Leasing-revenue bonds

Figure ES 1: Traditional Methods of Local Infrastructure Financing; *Source*: "Infrastructure Financing"

States, cities, counties, and other forms of local government have the option to issue municipal bonds. These can be general obligation bonds, which are backed by a community's general taxation revenues, or revenue bonds, which are typically paid off through revenues from parking fees. Virtually all municipal bonds for public parking improvements are tax exempt. Revenue bonds are an effective choice when the parking garage being constructed will be charging fees for parking. The net income from the parking garage is pledged toward repayment of the bonds.

Beyond traditional bond funding, a variety of alternative financing options exist. Shared Parking converts private parking into public parking during certain hours. For example, residential tenants park in a parking facility at night, and take their cars to work elsewhere, while those spaces are available to meet the demands of office, retail and commercial tenants who typically require daytime parking. Additional funding options include rental income subsidies, local option taxes, impact fees, special assessment districts, tax increment financing, joint development projects, and state and federal grants.

Introduction

Infrastructure projects have two key features that make their financing fundamentally different than other daily operations of governments. The first is the large, up-front investments that require significant capital. The second is the long economic life of the infrastructure assets themselves. Both of these elements contribute to funding issues for local governments attempting to improve parking infrastructure.[1]

Construction costs per space have ranged in recent years from roughly $1,500-2,000 per space for surface parking in suburban areas to over $20,000 for underground parking in urban areas (not counting land costs). Annual operation and maintenance costs can run from $100-500 per space. All told, the annual costs per parking space can run from roughly $400 a year for suburban surface parking, over $1,200 a year for a 2-level suburban structure, to over $2,000 for an urban parking structure.[2] Another study from 2012 in 12 U.S. cities found construction costs alone to be $24,000 per space for aboveground parking and $34,000 per space for underground parking.[3]

In addition to the direct costs of building and maintaining spaces, parking takes up real estate that could otherwise be used for additional commercial space or housing and incurs environmental costs and costs to the transportation system from its impact on the relative appeal of driving versus alternative modes.[4] These costs have led some recent experts to question the efficacy and realistic nature of the goal of providing free parking in urban areas.

Industry expert Donald Shoup concludes that cars searching for free parking contribute to over 8% of total traffic. He argues that the oversupply of free parking (he estimates 99 percent of parking in the U.S. is free) is an enormous public subsidy that makes driving less expensive than it should be. In fact, transportation suffers from the same "tragedy of the commons" relative to parking observed with regard to fisheries and other free and un-owned resources. On a per-mile driven basis, the subsidy for parking amounts to between 5 and 14 cents. Shoup calculates that gasoline taxes would have to be raised by $1.27 to $3.74 per gallon to offset this subsidy, and notes that charging appropriately for parking may be as, or even more effective, not to mention technologically simpler, than other pricing techniques aimed at reducing driving.[5] His and other similar opinions have led to alternative approaches to funding parking infrastructure in the U.S.

Local Government Financing

State and local governments historically have been the main providers and operators of core economic infrastructure; they fund the vast majority of the nation's roads, highways, transit systems, drinking water, and wastewater systems. In addition, they play a dominant role in funding several social infrastructure sectors such as public safety, educational facilities and buildings, health care, and amusement and recreation. But local governments face significant challenges to the funding and provision of local infrastructure in the future. According to the initial ICMA 2016

Annual Local Government and Emerging Practices survey responses of 601 local governments, nearly 42% of local government respondents believe that their jurisdiction's infrastructure needs additional local, state, and/or federal funding to sustain even baseline maintenance and that the current state of local infrastructure adversely affects the community's quality of life.[6]

Many factors contribute to current challenges of infrastructure financing. Government spending on infrastructure has not kept pace with the investment demands of population growth and urbanization, and most of those funding needs are in localities. Consequently, cities and counties face a major investment gap in funding infrastructure projects. In addition, according to a new report by the National League of Cities, declining and unstable federal and state funding and increasing mandates have placed increasing pressure on local governments to finance infrastructure.[7] In light of this mounting pressure, municipalities are utilizing various combinations of traditional and alternative financing methods to fund infrastructure. Below are listed some of the most popular methods with short descriptions. The list is by no means exhaustive, and a more comprehensive chart of alternative infrastructure financing is included at the end of this report.

Financing Options: Traditional Methods

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Bond Financing

The most common way to pay for public parking lots is by issuing municipal bonds. States, cities, counties, and other forms of local government have the option to issue municipal bonds. These can be general obligation bonds, which are backed by a community's general taxation revenues, or revenue bonds, which are typically paid off through revenues from parking fees. Revenue from parking enforcement might also be used for this purpose, but typically money from parking tickets is deposited directly into a community's general fund. A double-barreled obligation bond would usually rely on both a revenue pledge plus the full faith and credit of the community (i.e. a general obligation) in case revenues are not sufficient. Under a special assessment bond, those that benefit from the public parking lot, like local businesses, can be charged a special assessment to pay off the bonds. If a tax increment finance bond is issued, some of the additional taxes expected to be

generated from the increase in property values due to the new parking can be pledged to pay off the bond.[8]

Virtually all municipal bonds for public parking improvements are tax exempt. The exception is the 10 percent tax rule created by the Tax Reform Act of 1986, which dictates that no more than 10 percent of a tax-exempt funded parking project can be dedicated to or reserved for a single private purpose. Nonprofits, such as hospital or university parking facilities built by a municipality are not affected by the 10 percent rule. Consequently, it is important for a municipality to remember that no more than 10 percent of any parking facility may be dedicated to any one private enterprise, if it wishes for its municipal bonds to be entirely tax exempt. However, a municipality or parking authority may issue both taxable and tax-exempt bonds for a single project to satisfy the parking needs of a single private user in excess of 10 percent of the project's available parking spaces.

Revenue bonds are an effective choice when the parking garage being constructed will be charging fees for parking. The net income from the parking garage is pledged toward repayment of the bonds. If the annual projected net income of the project is sufficient to cover the annual debt service payment on the bonds, the project can qualify as a "project test." In these cases, the hourly, daily, and monthly fees are normally set at levels that will generate income in excess of debt service. Such conditions exist in dense urban areas with prevailing high parking fees.

If the annual projected net income of a project is not sufficient to cover the annual debt service payment on the bonds, additional sources of revenue need to be dedicated to pay debt service. Because these conditions often exist within parking systems, such as parking authority parking systems, these bond issues are known as "system tests." In many cases, the additional revenue comes from other parking facilities in the public parking system, such as parking lots or on-street parking meters. Collectively, the projected net income from the project plus the projected net income from the other dedicated public parking facilities are shown to exceed the debt service load. In these cases, the hourly, daily, and monthly fees are normally set at levels that are consistent with prevailing fees charged in the downtown. Such conditions exist in many urban and suburban centers throughout the states where modest fees are charged for parking.[9]

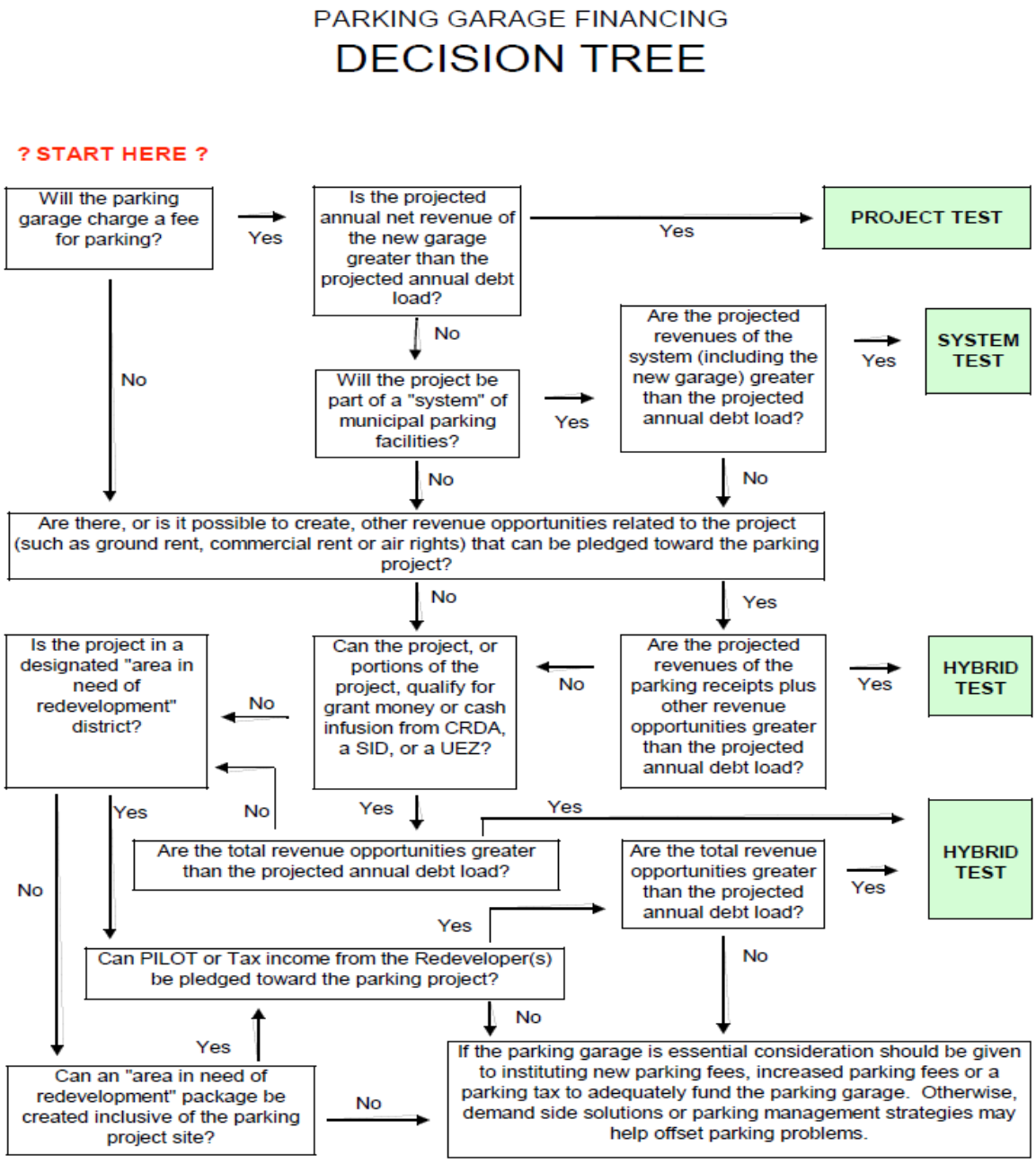

Figure 2: Parking Garage Decision Tree; *Source*: "Parking Matters"

As mentioned above, some of the taxes or fees from new development can be allocated directly to a Parking Benefit District or can be used to pay off a tax increment finance bond. Parking regulations can also maintain required minimums but allow developers to pay a fee in lieu of each required space not provided, with the fees to be used for providing public parking. A concern with reduced parking requirements is that if new developments (or redevelopments) are not required to provide parking where previous developments were, the burden of providing parking may be unfairly distributed on the properties that have been there longer. Using the fees to pay for public

parking available to all may reduce those concerns. Finally, if the parking required is not needed during part of the day, or on weekends, parking regulations can require or suggest that these spaces be available for public use during certain times.[10] This concept is sometimes called "shared parking."

Shared Parking

There are two main elements to shared parking. The first element is overlapping trips. Consider the person who drives to a downtown area for work and parks the car. That person may walk to shop at lunch or after work, walk to a restaurant for lunch or dinner, or attend the theater or some other social event in the evening. In this case, there is only one car trip and one parking event, yet many distinct business transactions are possible.

The second element is non-competing parking needs. In a sense, it is reminiscent of the windfall achieved from selling ice in the winter. For example, residential tenants park in a parking facility at night, typically between 7:00 P.M. and 7:00 A.M. They take their cars to work elsewhere, and those spaces are available to meet the demands of office, retail and commercial tenants who typically require parking from 7:00 A.M. to 7:00 P.M. The result is that 300 parking spaces in a downtown context may fulfill the parking demands of both residential and nonresidential users that would otherwise require 400 to 500 parking spaces.[11]

Figure 3: Private Parking Converted to Public Parking; *Source*: "Parking and the City"

Preventing unauthorized drivers from parking in a free lot is difficult, but businesses in some cities have found a new way to solve the problem without off-street parking requirements. They contract with commercial parking operators to manage their lots as paid public parking and split the resulting revenue. Customers and employees continue to park free, but noncustomers must pay, and the formerly free-for-everyone lot begins to earn revenue. When a business is closed, all its parking spaces are available to the public. This arrangement generates revenue and increases the supply of public parking available for drivers who want to visit nearby businesses.[12]

Rental Income Subsidy

Rental income from office or retail components added to public parking garages may also contribute to subsidizing the operational expenses or debt service payments of a parking structure. City planners often request that retail, commercial, or office components are added to parking structures as "liner units" on grade and at the second story to enhance streetscape and break up the monolithic architectural presence of the parking garage. In those communities where the parking structure is centrally located within the central business district, or is the primary parking

resource in an active commercial district, the commercial/office components are often desirable and command high market-rental rates.[13]

Local Option Taxes

Local option taxes are new tax options that are either authorized at the state level or approved by local voters and levied at the county or municipal level for infrastructure-related purposes. The most common form is the local option sales tax, but some jurisdictions use local fuel taxes, local income and payroll taxes, and local vehicle taxes. Revenues from local option taxes are sometimes earmarked for building special local infrastructure projects.[14]

Impact Fees

An impact fee is a one-time charge imposed on new businesses or property owners to pay for a share of the costs of new development activities. Impact fees are widely used in many local governments to fund the provision of new public infrastructure during the development process. Impact fees must be spent for improvements that benefit those who pay the fees because the fees are held in a restricted fund. In most states, impact fees are used to fund the costs associated with roads, water provision, sewer, storm water, and parks. Additionally, many local governments are also allowed to use impact fees for financing schools, libraries, and fire and police facilities.[15]

Special Assessment Districts (SADs)

SADs are formed to include a geographic area in which property owners or businesses agree to pay a special property tax assessment to fund a proposed improvement or service from which they expect to benefit directly. A Transportation Development District (TDD) is one typical example of special assessment districts for infrastructure purposes. TDDs are a special taxing district for the designated purpose of developing and improving transportation infrastructure and services in a designated area. A TDD allows for financing a wide array of transportation needs in new development or redevelopment areas, such as local streets and highways, urban light rail, mass transit, or multimodal infrastructure. It can be formally established by request of local voters, property owners, or a local transportation authority.[16]

Tax Increment Financing (TIF)

Tax increment financing (TIF) has been increasingly used to finance a wide array of infrastructure and economic development projects. It is a value-capture mechanism to capture the new or incremental taxes that are created when underutilized and vacant properties are redeveloped, and to use future captured revenues to finance the costs of infrastructure improvement such as sidewalks, sewer extensions, and roads. TIF is generally thought of as a self-financing district. As property values increase due to private sector activity spurred by the new infrastructure investment with the redevelopment project, the tax increment is diverted to pay the debt incurred for the redevelopment activities. In a successful TIF scenario, until the TIF obligations are paid off, all tax revenues are collected for a designated period (usually between 15 and 30 years) and go to pay debt

service on the TIF financing and not the local government taxing jurisdictions. At the end of the TIF period, revenues return to the local jurisdiction. In many cases, because incremental revenue is used to pay for debt during the TIF period, it is not used to support what are increased costs of service for the TIF district. As a result, areas outside the TIF district ultimately subsidize costs of service within the TIF district. In governments that have widely used TIF strategies, diverting TIF revenue to pay debt has placed serious constraints on property tax growth, and governments are not able to keep pace with increases in expenditures. When TIFs are unsuccessful, for example, when the incremental revenue is not sufficient to pay the debt, the jurisdiction is faced with a larger problem. TIF districts are primarily governed by local governments or special districts, such as community redevelopment agencies.[17]

Joint Development

Joint development is a formal arrangement between local governments and private developers such that private developers contribute some benefits back to local governments or jointly share costs of infrastructure improvement with local governments. It is a value-capture mechanism commonly used by local transit agencies. For example, under the agreement of joint development, a real estate private developer may provide parking in return for development rights near a transit station. Local transit agencies may invest land in this project or directly make cash investment in a project that incorporates both public facilities (e.g., parking garages) and private development.[18]

Grants

Federal and state grants represent a major funding source of local infrastructure financing. A variety of federal grant programs are available for helping fund local infrastructure. For example, on February 18, the U.S. Department of Transportation (DOT) announced $1 billion in available federal funds through the Better Utilizing Investments to Leverage Development (BUILD) grant program. BUILD grants support surface transportation infrastructure projects with significant local or regional impacts, including funding for roads, bridges, transit, rail and ports, and they provide one of the most flexible direct funding sources to counties. The deadline to apply is May 18, 2020.

Established under the Consolidated Appropriations Act of 2018 (P.L. 115-141), DOT awarded $900 million in BUILD grants to 55 projects in 35 states in 2019. In 2020, DOT intends to award 50 percent of BUILD grants to projects in rural areas to deliver infrastructure projects that enhance these communities, consistent with DOT's R.O.U.T.E.S. Initiative.

As leaders in the nation's transportation system, counties utilize BUILD grant funding to construct, improve and maintain critical transportation infrastructure in our local communities. Counties own and operate 45 percent of all public roads (compared to the 32 percent of public roads owned by cities and townships, 19 percent by states and 3 percent by the federal government)

and 38 percent of the National Bridge Inventory.[19] For additional information on the BUILD program's application criteria, visit: https://www.naco.org/blog/dot-announces-new-build-discretionary-grant-program.

New Funding Sources	New Taxes	Local Option Sales Taxes
		Local Option Fuel Taxes
		Local Option Income and Payroll Taxes
		Local Option Vehicle Tax
	Value Capture	Impact Fees
		Special Assessment Districts
		Tax Increment Financing
		Joint Development
New Financing Mechanisms	New Credit Assistance Tools (Loan, Loan Guarantee, Lines of Credit)	Transportation Infrastructure Finance and Innovation Act (TIFIA) Loans
		Environmental State Revolving Funds: Clean Water State Revolving Funds Drinking Water State Revolving Funds
		Transportation State Revolving Funds: State Infrastructure Banks
	Alternative Bonds and Debt Financing Tools	Grant Anticipation Revenue Vehicle Bonds (GARVEEs)
		State Bond Banks
		Green Bonds
		Social Impact Bonds
New Financial Arrangements	Public-Private Partnerships	Design-Build
		Design-Build-Operate-Maintain
		Design-Build-Finance-Operate-Maintain
		Concession
	Privatization	Lease
	Infrastructure Investment Funds	Pension Funds
		Sovereign Wealth Funds
		Private Companies (Insurance and Investment Banks)
	Private and Nonprofit Philanthropic Partners	Donations
		Grants
		Program Investment
	Crowdfunding	Donation-Based (Public Goods)

Figure 4: Typology and Categories of Alternative Infrastructure Financing; *Source*: "Infrastructure Financing"

A Note on Assessing Parking Demands

Although perishable may seem a strange word to describe parking, a parking space is what economists deem a perishable good. A perishable good has fixed costs and cannot be stored and later commercialized. Airline seats and hotel rooms are examples of perishable goods—an empty seat on an airplane or an empty hotel room cannot be stowed and sold later. Therefore, like effective management for airlines and hotels, effective management for parking requires ensuring that the spaces are used efficiently. A locality must balance the competing goals of reliable availability (one or two spaces are open) and high occupancy (most of the spaces are occupied).

For example, San Francisco and Los Angeles were the first two cities to set parking prices by time of day and location, and adjust these prices every two or three months in response to the observed occupancy. During each time period on each block, San Francisco set the prices to achieve an average target occupancy rate on each block, while Los Angeles set prices to achieve a target share of the time with at least one open space on each block.[20]

This delicate balance of factors can make deciding how much parking to build and where to build it tricky. Where to build a surface parking lot or a parking garage depends both on the number of spaces needed and on the value of land proposed for building. A general consensus suggests that land must be valued at $1,000,000 per acre or more for a garage to be cost-effective.[21] Many local governments utilize parking studies to help determine how many new spaces are needed. It is generally assumed that several hundred new spaces at a minimum should be needed to justify a parking garage. While a garage may cost 10 times what a surface lot will cost, the extra land made available by a smaller garage footprint can bring in considerable sales and tax revenues to the community.[22]

For high-density suburban areas, a traditional rule of thumb is that structured parking typically becomes economically viable as when property values exceed $30 per square foot of building type. In addition, structured parking becomes essential in urban areas because of the underlying land cost. High land costs (usually well in excess of $1,000,000 per acre) require a higher density of development to help defray the land cost; in turn, higher density of development requires structured parking for the most economically effective utilization of the land.

Typical revenue (utilizing an average of monthly rate of $150 per space) supports a value of approximately $12,000 to $15,000 per space, and an economic subsidy is typically required in the early years of operation until occupancy is stabilized and monthly rates have matured.
Therefore, from a cost and public policy perspective, structured parking needs to be viewed as infrastructure—an investment that acts as a catalyst for future development, with a long-term

impact. All too often, it is improperly analyzed as a traditional real estate investment, with unrealistic financial returns and performance expectations.[23]

Acknowledgement

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[1] Can Chen, "Infrastructure Financing: A Guide for Local Government Managers" at 5, International City/County Management Association (Jan. 2017) (hereinafter "Infrastructure Financing").
[2] Kit Un, "Financing Public Parking: Finding the Funds When You Really Do Need More Parking," Metropolitan Area Planning Council (Jan 18, 2010) (hereinafter "Financing Public Parking").
[3] Donald Shoup, "Parking and the City," Routledge (2018) (hereinafter "Parking and the City").
[4] "Financing Public Parking" *supra* n. 2.
[5] Donald Shoup, "The High Cost of Free Parking," summarized by Tri-State Transportation Campaign (Aug. 5, 2014).
[6] "Infrastructure Financing" *supra* n. 1.
[7] "Infrastructure Financing" *supra* n. 1.
[8] "Financing Public Parking" *supra* n. 2.
[9] Leonard Bier, *et al.*, "Parking Matters: Designing, Operating, and Financing Structured Parking in Smart Growth Communities," New Jersey Economic Development Authority (July 2006) (hereinafter "Parking Matters").
[10] "Financing Public Parking" *supra* n. 2.
[11] "Parking Matters," *supra* n. 9.
[12] "Parking and the City" *supra* n. 3 at 40.
[13] "Parking Matters," *supra* n. 9.
[14] "Infrastructure Financing" *supra* n. 1 at 15.
[15] *Ibid.*
[16] *Ibid* at 16.
[17] *Ibid.*
[18] *Ibid.* at 17.
[19] https://www.naco.org/blog/apply-now-us-department-transportation-announces-1-billion-grant-funding-available.
[20] "Parking and the City" *supra* n. 3 at 28-29.
[21] "Financing Public Parking" *supra* n. 2.
[22] "Financing Public Parking" *supra* n. 2.
[23] "Parking Matters," *supra* n. 9 at 7.