STREETS AS PRIVATE SECTOR PUBLIC GOODS

By Fred E. Foldvary, Ph.D.
Department of Economics
500 El Camino Real
Santa Clara, CA 95053-0385

Many private communities own their streets, often with higher-quality service than governmental provision provides. Broadly regarded, including corridors and alleyways for vehicular or pedestrian traffic, private streets are ubiquitous in malls, apartment houses, hotels, and other real estate.

Nevertheless, streets have conventionally been regarded as public goods which are natural monopolies. As public goods, the market-failure argument has been that once provided, it is not feasible to exclude people, so many will be free riders, using the streets without paying, because there is no way a private firm can efficiently charge the users. Streets have also been regarded as monopolies, since a typical residence or business faces one street, and a private owner could exploit the residents with excessively high charges, as there is no competitive alternative to that street.

Both these arguments are unwarranted both in theory and in practice. Private streets are economically feasible when a firm or association controls the space and the common elements of a community, and can therefore collect the associated rentals from the members or the public. Charges for parking, congestion, transit curb rights, pollution, as well as fines, can complement the rental financing of streets and the associated lights, signs, sidewalks, and drainage.

The monopoly nature of streets is overcome by offering the street as part of a whole package of civic services. A guest at a hotel is not exploited by the hotel's monopoly of the corridor. The guest has a gratis use of the hallway, along with other facilities, when he pays for a room. A member of a residential association likewise pays an assessment for the private street, along with other services such as bus transit, parking, community buildings, and security. There is competition among hotels or associations, and one does not find separately owned hotel hallways or community streets. A typical customer or member would not enter into such an exploitative contract.

1. Examples of private streets

a. The private places of St. Louis

Since the middle 1800s there have been "private places" in St. Louis and neighboring towns in which the streets are owned by a private association. The association maintains the street, some of

them closing one end with a gate for passage control. With greater surveillance complementing the reduced access, there has been less crime in the private places, resulting in higher property values.

While private streets are provided by many private communities and some firms run private toll roads, major avenues are typically operated at the city level, but in St. Louis, some boulevards have been privately owned. An advantage of such ownership is the ability to control the utilities along the route (Beito and Smith 1990, 288).

The St. Louis "private places" are a prime example of single-family housing in private associations in the midst of a city. These are integrated within the city of St. Louis and the towns of St. Louis County. In St. Louis, "street ownership [has] represented the means to control the 'commanding heights' of the local economy" (Beito 1989, 35). Despite the expense, some streets that were not private have become so since World War II (Savage, 1987, xi). Among these is Waterman Place, an integrated lower-class neighborhood which was experiencing crime and physical deterioration. In 1974, the residents formed a residential association and partially closed the street, spending $40,000 to erect a gate. A block watch was started, and crime decreased. The association was able to borrow funds to improve the street and housing. Property values doubled (Fitzgerald 1988, 47; Frazier 1989, 64).

Since the city does not reduce the property tax by what it saves in not having to maintain the street, there is an imposed cost on the private places. The fact that they flourish in the face of the extra cost demonstrates the value of having a private street.

b. Rossmoor, California.

Rossmoor is an adult residential association in Contra Costa County, California, within the City of Walnut Creek, in the eastern part of the San Francisco Bay Area. The builder, Ross W. Cortese, began development in 1963. Terra California purchased the development from the Rossmoor Corporation in 1968, and in 1984, Terra California was purchased by the Universal Development Corporation.

Terra paid $12 million for 1300 acres, 600 developable, or $20,000 per buildable acre. After grading the land and paving the streets, the improvement costs of $19,000 brought the cost of the sites to about $40,000 per acre of buildable area (Henry 1984, 32, citing a 1971 letter from the president of Terra California).

Rossmoor now has 2200 acres, about 65% of which is open space, and over 9000 residents living in 6400 "manors" or residential units. Rossmoor was pattered after a previous Cortese development at Seal Beach, California, built in 1961 (Henry 1984, 2). There are

other Cortese adult communities in Laguna Hills, California, and in New Jersey and Maryland. The community streets, street lighting, and other facilities were conveyed from the developer to the community association.

Currently there are 6500 dwelling units, with an expected build-out of 7000. Of these, 40 percent are garden-style condominiums, the remaining being mid-rise condominiums and cooperatives. A few single-unit houses have also been built.

The minimum age requirement is 55 years for one spouse, but the community is not exclusively for retirement, since some members work (but residents may not be employed for wages by Rossmoor or its local neighborhood "Mutuals"). Most residents are retired and elderly; the average age of female residents is 77, and that of male residents is 78. Among the amenities offered are two golf courses, clubhouses, swimming pools, tennis courts, a library, and a computer center.

The streets are owned by the community, and there are controls at its single entry gate. Some 9500 vehicles enter per day. There are 12 miles of streets, with 314 street lights, as well as 10 acres of parking.

Residents have a vehicle identification decal for expedient entry, and guests obtain a pass to display in the car. Residents may obtain a limited number of passes for visitors and must telephone in advance to allow one-day clearance for guests, but family and friends may also obtain a one-year pass. The 24-hour safety system operated by the Rossmoor Public Safety Department operates the entrance and patrols the community, responding to emergencies and requests. Due to these security measures, Rossmoor is almost crime free.

In exchange for the right of exclusion, Rossmoor owns, maintains and finances its streets and street lighting. The street maintenance is contracted to private firms (Schrantz, 2001).

The funding for Rossmoor's public works comes from their reserve fund, and the street maintenance constitutes more than half of the total $595,676 budgeted for trust reserve works, not including the medical center, and the largest budget item within the public works is street repair and maintenance (Schrantz, 2000).

As a community of older people, sidewalk maintenance is vital, since the residents are vulnerable to falling if the sidewalks have cracks and holes. The sidewalks as well as the streets are maintained to quality standards superior to those in a typical city (Schrantz, 2001).

Besides providing access to the residences, the streets are also adjacent to several pet exercise areas. The speed limit in Rossmoor is 25 miles per hour. Being within the city limits of Walnut Creek, all city ordinances are in force at Rossmoor, as is the Vehicle Code of

California. Speed limit and other signs and regulatory markings are under the responsibility of the City of Walnut Creek Traffic Engineer. All law enforcement agencies have unrestricted access to the community (Grant 1999, 1).

Rossmoor is divided into neighborhood associations called "Mutuals." Each Mutual is governed by a board of directors and has authority over its "entries" or internal streets. A resident is thus a member of both the Golden Rain Foundation, which manages the whole community, and the local Mutual Benefit Housing Corporation.

Rossmoor operates its own private bus system, which operates 9 busses on 5 routes 7 days per week at a cost of about $1 per mile. The busses also travel to nearby shopping centers and the Rossmoor Medical Center located just outside the community. A paratransit bus service with a wheelchair lift serves handicapped residents. Feedback from the residents is an important criterion for judging how much bus service to provide (Hansen, 2001). Such resident feedback demonstrates demand, which also affects the price of properties, thus indirectly the spending for the bus service is tied to the value of the manors, particularly their land value.

The residents pay association dues (called "coupon" payments) ranging from $340 to $600, which includes the basic fee for the Golden Rain Foundation, the trustee and managing agent for Rossmoor, and the local Mutuals. There is also a one-time membership fee of $5000 that finances the trust reserve fund, from which the street maintenance is financed. Owners of recreational vehicles also pay a yearly fee for parking. There also fees for using the golf courses.

Unlike a city government, Rossmoor must pay the county property tax on its community-owned property. Thus Rossmoor as a private community subsidizes government-owned city space which takes rather than pays taxes.

c. Other private streets.

Some examples of private streets are provided here to demonstrate their use in many areas of the world.

Florida

Walt Disney World has what may be the world's most famous private street - Main Street. The Reedy Creek Improvement District was created to facilitate the private development of WDW within a largely autonomous governmental structure. An objective of the District is "to provide streets, roads, bridges and street lighting facilities" (Berliner 1978).

Opened in Orlando, Florida, in 1971, "Main Street" in WDW, as in Disneyland in California, is one of the key attractions. On Main Street, the sidewalks are paved with a resilient asphalt, which keeps

legs from aching, and there are places to sit (Zehnder, 1975, 259). Main Street is lined with Victorian shops, an evocation of "Main Street America." One of Disneyland's planners stated that its Main Street is "what the real Main Street should have been like" (Zukin 1991, 222). This utopian street is actually an image of what one would wish it were like rather than a realistic reconstruction. The buildings are built to from 5/8 to 7/8 of full size, a movie-set technique that renders them friendly to children while creating the illusion to adults that everything is smaller than they remembered. The street recreates Disney's home town, Marceline, Missouri. Main Street is the heart of WDW, the "key to the secret of the Disney vision," recalling a time when America was simpler and more coherent (Stern 1986, 211).

Celebration, a town (legally, the Celebration Community Development District) owned by the Disney Corporation, was conceived by Walt Disney during the 1960s, but not inaugurated until 1996. The concept, in the spirit of the "New Urbanism," was to create a traditional American small town, one with clean, palm-lined streets, modern amenities, and rules which to some may seem restrictive and to others offer protection from blight and visual pollution. For example, no cars are allowed to park on the streets in residential areas. There has been no crime (Marjorie, 2000).

The community is located on 4,900 acres in northwest Osceola County, south of Walt Disney World. On completion, Celebration will have some 8,000 houses and apartments, a small commercial district, a K-12 school, a teaching academy, a "wellness center," an 18-hole golf course, a 109-acre office park, and a recreational park with a swimming pool, tennis courts, basketball and volleyball courts, picnic areas and eight miles of trails (Oliande and Brady, 1997).

In the attempt to include a street life, the downtown area is connected by small, pedestrian-friendly streets accessible by car but designed to encourage walking. Commercial properties and public spaces, including the streets, are owned by the Celebration Company, while residential properties are owned by the home owners who form the Celebration Residential Owner's Association. Through an arrangement with Osceola County, the association fees are charged as part of a resident's annual tax bill to the county ("Celebration, USA", 2001).

Philippines

Several communities in the Philippines have private streets. Among these are Camp John Hay in Baguio, Borocay, and the Ayala and Fort Bonifacio Development between Makati and Pasig (Taningco, 2000).

Texas

The "Streets of Laredo" is a traditional western song; today, one could compose a song of the "private streets of Laredo," which during 1982-1985 sold 150 blocks to private enterprises and organizations. Until then, many of the city streets were still unpaved or needed repaving. The city officials decided to put the streets up for sale. Streets were purchased by motel owners, lumber yards, a railroad, a supermarket, a trailer park, and ordinary residents. (Fitzgerald 1988, 163-4).

Virginia

Located near Williamsburg, Virginia, Ford's Colony is a 2500-acre residential community with single-family houses, townhouses, and condominiums, which opened in 1985. The main attraction is the golf course, which has its own membership. The "Ford's Colony at Williamsburg Homeowners Association" owns the streets and roads within the development. According to Mel Overman (1990), a salesman for the developer, the Ford's Colony road is maintained at higher standard than those maintained by the public sector. Entrance to the property is through one secured gate with 24-hour guards ("Ford's Colony Fact Sheet," 1990).

2. The economics of private streets

a. Streets as capital goods attached to land

A "street" is an urban pathway other than a limited-access thoroughfare, the paths forming a grid over which traffic flows. The typical city street includes lanes for motor vehicles, sidewalks for pedestrians, traffic signs and possibly lights, lighting during nighttime, poles for telephone and other wires, and possibly sculptures, fountains, and plants along the sidewalk or a strip along the middle. Associated with the street and its traffic is an array of civic services such as policing and cleaning, possibly space for outdoor furniture (chairs and tables for cafes), and utility conveyance media such as water pipes and lines for telephones, cable television, and electricity. The urban street is thus a complex of goods and services requiring substantial maintenance along with the initial building.

The function of streets is to provide a transit medium for transportation and communications, lighting for safety and visibility, and a public space for urban social life. A street is thus not merely an urban circulatory system, but provides the fundamental infrastructure for urban life.

The three classical factors of production are land, labor, and capital goods. Land consists of all natural resources, including the

three-dimensional space around the earth. Capital goods are produced goods that in turn are used to produce other goods. Labor includes all human exertion in the production of wealth.

Streets and associated utilities are thus in the category of capital goods. Streets, like parks and other public works, are "civic capital goods," community products that make urban life and commerce more productive or enjoyable. Like houses, streets are attached to land, taking up space and having a location. The provision of street service therefore includes the natural space, the produced capital goods, and the labor used in building and maintaining the goods. Capital goods depreciate both in wearing out and becoming obsolete, and much of the servicing of streets consists of the labor and capital goods applied to make up for the capital consumption of the street.

Because streets are long-lasting and retain much of the initial value added (including preparing the ground and blueprinting a development), much of the economic return from street provision consists of an implicit interest return on the capital invested. The same amount of funds would earn interest if it were in bonds, so the street is worth producing if it yields benefits of at least as much. Even though this interest is implicit, not paid in cash, it should be taken into account, whether by a private community or a government.

b. The generation of rent and site value

The privatization of streets also privatizes the relevant public finance. Governmental financing is usually based on the "ability to pay," which in practice is government's ability to extract revenue from sources offering the least political resistance, such as sales and general income. These sources are usually explicit flows, "anything that moves," unrelated to specific benefits. Because government funding is imposed by force, it does not need to link costs to benefits.

In contrast, the private financing of streets is based on voluntary contract, and competition leads to payments based on benefit. Civic associations or proprietary communities typically tap sources such as the value of membership, or the rental value generated by the service. The private-sector financing is more efficient in both having a lower economic burden and in being more directly related to the benefit provided.

The return on land, what tenants would bid to use it, is "rent." Strictly, pure rent is only the return on the natural qualities of land, such as its location and features such as the climate. The presence of civic capital goods such as streets, parks, and utilities increases the demand for residents and enterprises to be located in the territory. This demand increases the bids to rent and buy real estate, and these increases are a return to the civic capital goods rather than pure

"land" rent.

Streets along with other civic goods thus become capitalized into site values. The price of an asset with a perpetual yield, such as a land, equals its annual return divided by the rate of interest, since the return is the interest rate times the price. A tax rate gets added to the rate of interest, since the yield or rent must pay the normal market return to the owner (price times interest rate) plus the tax (price times tax rate). Therefore, the price of a site, or plot of land, exclusive of the improvements on the site, is basically determined by the equation

(1) $p = r / (i+t)$

where p is the purchase price of the site, r is the annual rental, i is the real interest rate, and t is the tax or assessment rate based on p. For example, if the price is $100,000 and t=.06, the annual tax or assessment is $6,000. If, say, the interest rate is 6% and the tax rate is 4%, then an improved street that raises the site rent from $100 to $120 will raise the price of the land from $1000 to $1200.

The existence of this rental implies that the local users of the civic goods are not generally free riders. They must pay the rental, whether explicitly to a landlord or implicitly as a mortgage and in the purchase price of the site, in order to access the territory's civic goods.

As Friedman and Boorstin (1951, 230) pointed out, persons living by a road or street may be willing to pay much more for the road than a non-resident. They also noted that we "should try more than we have in the past to find ways of measuring the economic advantage which private individuals (other than travelers) receive from particular roads, to make them pay fairly for these advantages." These positive externalities or "neighborhood effects," they said, "are likely to be particularly important in cities."

There is a way in principle to measure the advantages from the neighborhood effects or external effects: by the site rent generated by the street. This is the extra rental due to the presence of a street and all its facilities and qualities. The neighborhood improvements can also make the local wages and capital values higher as well, if they are not very mobile.

This rental generated by territorial goods such as streets provides the means by which private enterprise can finance them. A company or civic association can collect a periodic rental or assessment, which the residents willingly pay in order to have the civic goods. In actual practice, private communities do in effect finance their civic goods by the generated rents rather than with charges based on sales or the incomes of the residents (Foldvary, 1994). As Roth (1996, 98) states, providers in a market must cover their costs either from users "or beneficiaries, such as land-owners."

In some cases, such as Arden, Delaware, where the village

land is owned by a trust, the payment is explicitly a site rental paid by a leaseholder. In most cases, the payment is an equal charge on all members or, as with condominiums, based on a "percentage interest" based on some initially determined relative market value for the unit. The economic effect in either case is similar to paying a rental independent of the value of the property value that is owned by the unit owner.

Governments could use the site rentals to finance their public goods, and some cities such as Sidney, Australia, do tax only the site value of real estate and not the improvements. Hong Kong has used leasehold rents for half its governmental revenue. Exempting the buildings and other improvements from taxation avoids inflicting a penalty on new construction, while the tax on the land rent or land value does not hamper investments, because the land is there anyway, and the tax is not passed on to tenants if the landlords were already charging what the market could bear.

The site rent can be collected in various methods. Aside from the explicit taxation of rent, localities obtain some of the rent when they tax real estate property. Private residential associations implicitly collect site rent in their monthly assessments. Entry fees and displayed licenses or permits also collect rent implicitly. Singapore created a central "Auto Restricted Zone" and "Area License Scheme" in 1975, requiring cars to display permits on their windscreens (Roth 1996, *xviii*, 118). Such a cover charge for the use of space in effect charges rent. Technological advances can now shift the payment method to electronic signals, which then also enable time-of-day pricing.

If the civic goods and services are provided by government and financed by taxes that fall mostly on labor and business profits, then in effect the users pay twice for the streets, once when paying the rental and again when paying taxes. In that case, the free rider is not a tenant user but the landowner, who benefits from both the civic goods and the increase in his explicit or implicit rental income.

Political pressures have induced most city and higher-level governments to base public financing on total real-estate value (including buildings and other improvements) as well as sales and income taxes, permit fees, business taxes, and other sources not related to site values. In contrast, private communities, not able to forcibly extract payments based on sales and income, have used rentals as their primary financing basis, the market tending to indeed use the more efficient methods of financing civic goods.

The use of taxes on wages, profits, and sales to finance the streets and other civic infrastructure has an excess burden, a social welfare cost more than the transactions costs and loss of social efficiency, as it artificially raises prices on the items taxed, shifting

resources away from uses where they are most wanted. Moreover, if streets are financed from taxes on non-rent sources, then improvements such as the reduction of congestion and commuting times with more and larger freeways have a perverse result: they increase the demand for such locations, hence land rent and prices. Tenants as well as new buyers may end up with little net benefit as the savings in commuting time is offset by both higher taxes and the higher cost of using the land. As Stern and Ayres (1973, 146-7) put it, "Residual consumer surpluses will be passed on to users but this will, in turn, result in increased land rents.... The value of time saved is captured *at the margin* by the landowner" at the time the improvement is made.

With private streets, this problem is largely alleviated. Without the power of the state to extract the cost from workers and consumers, developers and ultimately the site owners pay for the streets, so the value added by the improvements is in turn used to finance them. The use of the rental to finance the works is then capitalized into a lower land price. This eliminates the subsidy windfall to landowners and the double payment faced by workers and consumers; there is only one payment, namely the rental.

On the cost side, in a study by Robert Deacon of 23 associations and 41 comparable towns, associations are reported as paying 58% of what governments would spend for similar police services, and 70% of similar sovereign expenditures for street maintenance (Frazier 1980, 100). One factor accounting for the less efficient government service is the independent civil service, which is less responsive to the residents.

c. Fees for parking, parades, and other uses

Private communities can generate other revenues from streets besides rentals or assessments. Parking meters collect a rental for the use of street space. The primary normative purpose of meters, however, should be the efficient allocation of parking space, rather than revenue. The ideal fee is just high enough to remove congestion, so that one may usually find a parking space within one or two blocks. (The parker pays the marginal cost of imposing a congestion cost on others.) Modern metering technology enables cars to park for indefinite periods of time without having to enter coins, and with charges that can vary during the day (Shoup, 2001).

Marginal-cost pricing could also be used to prevent the congestion of the street itself. Electronic methods, with devices in cars, would enable charges that vary during the day, payments being just high enough per hour to avoid congestion. David Friedman (1989 [1970], 15) reported a marginal congestion cost at about $5 per trip at rush hour in 1970, which at the present day would probably

be $10. Many non-commuters would avoid the highest charge by driving during less costly times, and the charges would induce many commuters to take public transit and carpools, and some firms to have more flexible work times.

Pilot projects on "variable pricing" are already underway; Maryland, for example, has three demonstration projects. They are starting with "eye-ballable hang-tags" and are expected to progress to electronic tolling (Samuel 2000, 5).

In dense cities, congestion charges would induce people to use public transit, which the private community could also provide. Private communities could sensibly reverse the tendency of governments and provide gratis public transit while charging cars for the use of the streets during the most crowded times.

William Vickrey (1969) distinguished several categories of congested situations. Single interaction involves two cars which are close enough so that one must be delayed to avoid collision, typical of light traffic. Multiple interaction involves higher levels of traffic density; the delay experienced by the marginal car inflicts a multiple of that delay on others. Besides delay, a cost of congestion is increased vehicle accidents.

Roth (1996, 76) points out that the optimal road density may not be an absence of congestion, but that amount whereby "those who find it least worthwhile to use the network receive benefits from using it equal to the costs impose by them on the rest of the traffic." Some amount of crowding may be tolerated if it is of value to have more cars in the street, even if they move more slowly. This is something that could be adjusted by trial and error. Normally, the streets should be decongested enough so that a car may keep moving, even if not at top speed.

d. Street furniture, utilities, and security

The proprietor or developer of a community can provide an enhanced urban environment with appropriate street furniture such as sculptures and fountains, especially in the downtown centers. The sidewalks can have benches and shelters, especially at bus stops. Having plenty of trash collection containers enhances the beauty and health of the environment. The lighting fixtures can also be a type of art, such as having nostalgic historical designs. All these types of street furniture add to the attractiveness of the community and enhance site values.

Urban utilities such as water, sewerage, lighting, and drainage can be provided privately and financed by the rentals. A private community would then be able to charge more rationally than is typically done by city governments. For example, water is usually charged by volume rather than also by location. Given some central

source of city water (after being transported into the city), it is more costly per unit of volume to service the fringes of the city than the center. The delivery of water to the fringe requires pipe capacity all the way to the center (Gaffney, 1964). Longer distances are thus more costly, and if the user does not pay this cost, he is implicitly subsidized. Gaffney (1964, 18) notes that with a unitary real-estate tax, "by taxing buildings we are taxing vertical transportation" including stairs and elevators, while subsidizing horizontal streets and transportation. Such a subsidy increases the site value at the fringe relative to the center, which is effectively taxed to subsidize the fringe dwellers. A new buyer of fringe land does not even benefit, since the subsidy is reflected in the higher price for the site; the gain goes to the owner at the time the construction was made. A profit-seeking private provider would maximize returns by efficient pricing, unlike governments which are subject to political pressures.

Private commercial communities such as hotels and shopping centers employ security services, and civic associations may also have private security. Usually the policing services of private communities are directed at safety rather than also policing for more cultural concerns such as preventing gambling. Residential associations also enforce covenants regarding the appearance and architecture of the dwellings.

e. Restricting access to streets

Security devices in private communities can include the entrances of "gated" communities through which one must enter and submit identification or ask permission for entrance. Many private communities are not gated, as there is a cost to gating, and when access is restricted, it is to protect the community from harm. In St. Louis, some of the private neighborhoods have closed off one end of the street (see illustration). The residents also provide for surveillance, and they have had less crime as a result (Newman, 1980).

Access can also be restricted by making passage slower and more difficult, such as with narrow, winding, and one-way streets. In Atlanta, Georgia, and Richmond, Virginia, neighborhoods with such streets were found to have less crime.

Singapore has financially restricted access by requiring permits to use a central "Auto Restricted Zone," but anyone may buy a permit, something that could be done by private communities. Many private streets have no restricted access. Congestion is better handled with timed fees rather than restricting access for whole days or months. Signs at the entrances can also warn visitors about special restrictions or even an unusual absence of restrictions, such as, in Cap d'Agde, France, the absence of clothing requirements.

Access to the streets is also effectively limited by residency requirements. A retirement community may require some minimum age for residency. Visitors can still be of all ages, but the main users would be residents who meet the age limitation.

Many cities have laws requiring dogs to be leashed, but the laws are often ignored. Private contractual communities can be more restrictive, such as banning dogs completely, or less restrictive, allowing animals to run loose, according to the wishes of the founders and residents.

3. Heath and MacCallum on hotels and other "entrecoms"

The concept of the hotel as a community analogous to a municipality originated with Spencer Heath in his main work, *Citadel, Market and Altar* (1957). Heath had developed his concepts over earlier in a manuscript *Politics versus Proprietorship* (1936), subtitled "A Fragmentary Study of Social and Economic Phenomena with Particular Reference to the Public Administrative Functions Belonging to Proprietorship in Land - Proprietorship as a Creative Social Agency.".

In one paper, "Creative Association," Heath wrote that the value of public services is manifested as the rent "which attaches to exclusive locations in proportion to benefits received by or at these locations." (2). This central idea he obtained from Henry George (1879), and the major essay in the 1936 collection is entitled "Henry George: A Further Application of his General Principles." Whereas George theorized about rent as an efficient source for governmental public finance, Heath applied the economic concept to proprietary communities where private enterprize creates site values with civic improvements, for which rentals can be charged.

Although there is no present-day example of nation-wide proprietary administration, "In a modern hotel community, however, the pattern is plain. It is an organized community with such services in common as policing, water, drainage, heat, light and power, communications and transportation, even educational and recreational facilities such as libraries, musical and literary entertainment, swimming pools, gardens and golf courses, with courteous services by the community officers and employees" (Heath 1957, 82).

Spencer Heath MacCallum has pursued the concepts pioneered by his grandfather. In "The Social Nature of Ownership" (1965), MacCallum considers the relationship between property and society. He notes that "in the United States and Canada there has been a major development since World War II of a distinctive form of association based on the organized ownership and unified administration of land" (57). Examples include "shopping centers,

industrial parks, professional and research centers, marinas, mobile home parks, medical centers, and scores of multifunctional building complexes, such as Prudential Center, Century City, Gateway Center and so forth of which Rockefeller Center was the prototype" (57-8). These have been evolving to include complementary land uses, such as occurs in shopping centers with many different enterprises (banks, theaters) besides retail stores. Such clusters have on a smaller scale "all of the functional requirements of municipalities" (58).

In *The Art of Community* (1970), MacCallum examines the proprietary community as a vehicle that resolves the twin public-goods dilemma, free riding and transfer seeking, combining governance with market. He observes that "an empirical art of community has developed within Western society since mid-century ... in the real-estate field, outside the cognizance of the social sciences" (1). By "proprietary" MacCallum means property under a "single ownership" (55) as opposed to fractionated titles, such as occurs both in sovereign governance and with civic associations. A proprietary owner has a contractual relationship with his tenants or customers.

MacCallum (2001) also calls such entrepreneurial communities "entrecoms" or "multiple-tenant income properties." He emphasizes that with MTIP properties, there can be an integration of infrastructure of "community roots" such as streets, water, communications, electricity, and security. The key proposition by MacCalllum is that with unified ownership, the street grid can be redeveloped when facilities become obsolete, something that subdivided titles would inhibit.

As pointed out by Heath and McaCallum, corridors, stairways, and other passageways in hotels, office buildings, shopping centers, and other real estate are branches of the private street family operating under similar financial and organizational structures. Including these types, private streets are ubiquitous world-wide. In almost all such passage ways, there is no user charge, the cost being financed from the rentals to tenants and guests.

4. Transition to private streets and neighborhoods

A partial privatization of streets can contract out the maintenance rather than have it as a governmental monopoly. Under Mayor Goldsmith, Indianapolis implemented competitive bids for street maintenance. The city workers actually bid below their private competitors and won the job. A breakthrough occurred when the city invited bids for street repairs, previously done by unionized city workers. When the workers discovered that high middle-management costs would make their bid uncompetitive, Goldsmith

agreed, cutting 18 expensive slots. The workers revised their proposal to dispatch one truck rather than two on most jobs, and to reduce work crews from eight to five workers. And with that, they won the contract (Peirce, 1995).

Many new housing developments include residential associations which own and manage local amenities such as recreation, parking, grounds, and security. The developer also designs and builds the streets, and in some cases the streets are retained as private by the association, and in others, the streets are turned over to the local city or county government. If the residents could get a tax rebate or reduction for their association assessments, there would be a great incentive to have more private streets.

A problem that large developments may have is obtaining the rights of way from previous owners when there are holdouts. Governments solve this by brute force, condemning the land by eminent domain. For private communities, the land problem has not been insurmountable. Several large private developments, including Walt Disney World (Foldvary 1994), have assembled the land without invoking government power.

Still, when a street or road must traverse private property, there is a potential acquisition problem. When the title holder retains the site rent, the street might just not be built. But if the property context is one in which the land rent is being assessed and collected by higher-level associations, then the holdout problem becomes more tractable. The land desired for the street becomes more valuable as the bids for it are elevated. The holdout must then pay a higher rent assessment, and with this substantial carrying cost, the owner would let the property go.

The main policy that would facilitate private streets is to legally enable the landowners of a neighborhood to create a private district, shifting ownership of the street, lighting, and other services such as garbage collection to the association or proprietor. Robert Nelson (1999) suggests a majority of 60 percent having the power to set up an association, but another, and more voluntary, possibility is to let any number of landowners withdraw from various city jurisdictions and shift the operation to a civic association. Such service substitution would include tax substitution, a reduction in taxes (or equivalent rebates) equal to the reduced expenses of the city or county.

If some residents object to such partial withdrawal from the jurisdiction of the city government, they could stay in the city, so that the private district would not be contiguous or have city enclaves. In that case, there would be a higher-level joint council made up of representatives from the private sector and the government sector. The street maintenance and other services would then either be provided by the joint council, or else one party would contract for it

from the other.

The private streets of a community could be available for the transit services of other private communities or of governments. The owners would lease property rights in curb zones, bus turnouts, and bus stops, creating a system of 'curb rights' (Klein et al 1997, 3). Transit services such as taxis, jitneys, and busses would have specified places where they can park and pick up passengers.

The fully private provider would have its own traffic rules and policing, with fines for violations. It could require all users of the local streets to be equipped with electrical identifiers. and to charge high rates for traffic shown by the equipment as moving quickly through the area. Such a fee could be zero or low for people who live, visit, or work in the area, and high for those who use the private streets as a short cut to get to somewhere else.

A street provider could also collect revenue for special uses, such as parades and street fairs.

A private community could also collect charges from vehicles that pollute the air. Recent technology, such as the Stedman remote sensing device (Roth 1996, 92; Klein, 2001) has made this feasible with devices placed at intersections. These measure various pollutants in the exhaust when cars pass by, and then photograph the license plates of polluters above some threshold.

Technological progress has increased the ability of streets to handle multiple utilities and other infrastructure. It is less costly now to provide underground lines, and to monitor car exhaust and traffic. It is becoming ever more feasible to charge for street usage electronically. These technologies all enhance the profitability of private streets, and private ownership presents fewer obstacles, such as permitting and public hearings.

A purely private street would not only have private financing and maintenance, but also private traffic rules and even private law enforcement. To provide the most effective service, the community governance could use modern (or future) monitoring technology to provide efficient rules, such as citing offenders only when warranted by the traffic, penalizing drivers only when they have actually imposed a danger rather than merely a technical violation. A little-recognized cost of governmental streets is that the policing can include possible negative effects. Some towns might have speed traps with hidden signs to extract revenue from passers by. Even when such explicit fraud is not committed, speed limits are often set higher than necessary for safety, and zealous zero-tolerant traffic enforcement with high fines can act as a revenue rather than safety device. Moreover, the police in some cases can use traffic stops to search vehicles and seize them using civil asset forfeiture if some offense is suspected. Private law

enforcement by competitive private communities would have an incentive be more user and member friendly, with rules and enforcement geared to preventing unsafe driving rather than extracting revenue or imposing arbitrarily restrictions .

In conclusion, private streets would provide the incentives to more efficiently allocate parking and vehicles, reduce pollution, and provide better protection from crime. The public finances for streets would be based on benefits, and would also promote an efficient use of urban space for buildings, reducing both wasteful sprawl and urban decay. "Sprawl" can be considered a use of land greater than would occur in a pure free market, since without maximum-density zoning and without subsidies to the suburbs and tax-driven costs in the central cities, urban land would most likely be used more compactly.

The implication of this analysis and evidence is that private streets are not merely economically feasible, but superior in efficiency and service in the financial and organizational context of the decentralized, competitive, and responsive private communities in which they would be provided. From a purely economic and ethical perspective, it is not private streets but governmental streets financed by forceful means that require justification and explanation.

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