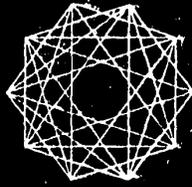


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P A D C O

PLANNING AND DEVELOPMENT CONSULTANTS INTERNATIONAL, INC.

**PRIVATE REAL ESTATE DEVELOPMENT,
INFRASTRUCTURE PROVISION, AND LAND USE
REGULATION: MAKING DEVELOPMENT PAY ITS
FAIR SHARE**

**A Paper for the Conference on Local Government
and Infrastructure Finance**

**A WORKING GROUP OUTLINE OF THE
STRUCTURING OF THE PRIVATIZATION OF
LAND DEMONSTRATION PROJECT IN KHARKIV**

Prepared for

United States Agency for International Development

Prepared by

**Jerold Kayden
PADCO, Inc.
1012 N Street, NW
Washington, DC 20001**

**Contract No. CCS-0008-C-00-2057-00, T.O. #17
July 1, 1993**

BEST AVAILABLE DOCUMENT

PROVIDES GOVERNMENTS AND PRIVATE CLIENTS IN DEVELOPING COUNTRIES WITH SERVICES IN PLANNING,
MANAGEMENT, FINANCE, ECONOMICS AND TRAINING FOR URBAN, RURAL AND REGIONAL DEVELOPMENT

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JEROLD S. KAYDEN

PADCO and Lincoln Institute of Land Policy

Prepared for

Conference on Local Government and Infrastructure Finance

in Ukraine

Kharkiv, Ukraine, June 29-July 1, 1993

I. INTRODUCTION

Faced with the financial pressures from expanded municipal responsibilities, decreased intergovernmental transfers, and political resistance to higher taxes, local governments around the world have increasingly turned to private developers to provide or pay the costs of public infrastructure needed to service their private developments. The basic rationale is simple. New private development places additional demands on publicly financed infrastructure. For example, a new residential project or office building requires water and sewer pipes connected to the main system, a road connected to the main street, and so forth. Since it is the new private development that creates the need for this additional infrastructure, it is fair to ask the private developer to shoulder the extra financial burden.

This paper examines approaches taken by local governments to make private developers provide or pay for additional public infrastructure needed by their development. First, the paper examines the basic rationale underlying the use of special approaches for charging private developers with the provision or payment for certain public infrastructure necessitated by their development. Second, the paper describes the techniques and their applications. Third, the paper examines the use of general land use regulatory approaches to reduce costs of public infrastructure.

II. BASIC RATIONALE

Although the specific allocation of authority and responsibility to governments and agencies varies, local governments around the world traditionally play a major role in providing, operating, and maintaining the public infrastructure of local roads, water and sewer systems, recreation facilities and parks, government buildings, and the other features that make it possible for urban development to occur. As a general rule, local governments have the legal obligation and practical responsibility to install a community's trunk infrastructure on an equal and timely basis to all land users within the jurisdiction. They receive much of the money for financing this infrastructure from tax revenues collected from individuals and businesses living within the local government's jurisdiction, from intergovernmental transfers, and sometimes from user charges (see papers by Schroeder and Hubbell). Thus, for example, all property owners pay property taxes into the general account of the local government, and the local government uses that property tax revenue, along with its other receipts, to cover its annual operating expenses and capital expenditures (see paper by Lehan).

In free market economies, where private persons and companies own most of the land and

develop most of the buildings, the question naturally arises as to how the burden of providing or paying the capital cost of the public infrastructure specifically needed by new private development should be distributed. For example, should it be financed exclusively out of general tax revenues collected from all residents and employees of the city, or from all property owners or land users? Or should there be a more targeted approach, in which the developers of new private projects are made to cover all or some of the costs of the additional public infrastructure attributable to their new development?

To the extent that local individuals and businesses pay taxes to the local government, and local government provides the services and infrastructure required by such individuals and businesses, the principle of "beneficiary pays" is broadly satisfied. That is to say, those who benefit from government services and infrastructure generally pay for the costs of such services and infrastructure. This is not a finely tuned calculation, however, and the correlation between taxes paid and service/infrastructure consumption is frequently inexact. In theory, governments would be able to ascertain exactly the amount of services and infrastructure consumed by specific taxpayers, and subsequently to allocate the tax burden according to this determination. While government might choose for policy or social equity reasons to impose a tax burden higher than that indicated by the allocated cost of services/infrastructure, it would do so knowingly and fairly. In reality, a knowing allocation of tax burdens is not done, for reasons ranging from analytical complexities, data unavailability, and political hurdles.

In the provision and financing of certain public infrastructure, however, local governments over the past 40 years have taken a more aggressive approach to the "beneficiary pays" principle. Through such commonly employed techniques as exactions, planning gain, impact

fees, betterment levies, and incentive zoning -- techniques applied through the land use regulatory process, rather than through the taxing process -- local governments have imposed separate targeted obligations on private developers whose new projects create additional needs for public infrastructure.

Advocates of these mechanisms rely on the following rationale. First, new private development generates a measurable additional demand for public infrastructure. Second, if the needed public infrastructure is not provided, the public will be harmed. Third, taxes and user charges (if applicable) imposed on the development do not uniquely or adequately cover the costs of such infrastructure. Fourth, new private development should provide or pay the costs of the infrastructure specifically necessitated by such development. Fifth, new private development should not provide or pay for more than its fair share of the additional required infrastructure.

This rationale expresses a political, as well as an analytical, point of view. Without expressly stating so, it imbeds a preference for existing over new land users. Why assume that only new development places demands on infrastructure? Indeed, if existing development equivalent in infrastructure needs to the proposed development were magically erased from the landscape, then the proposed development would not place additional demands on the trunk infrastructure. If true, then why should new development be asked to pay more than existing development? The answer, of course, lies in the political realities of community governance. Since existing residents and businesses "outweigh" newcomers in terms of numbers of votes and relationships with local government officials, they understandably exert far greater political influence over local government policy. It is hardly surprising, then, that a generational bias would creep into such governmental policy and succeed in shifting some of

the costs of public infrastructure from existing to new development.

III. DESCRIPTION OF TECHNIQUES

Imagine the following situation. A private developer proposes to build 50 separate houses on five hectares of land to sell to families. The proposed development will need its own internal street and sidewalk network allowing residents to drive and walk from their houses to the local sidewalks and streets of the city. In addition, each house will need to run water and sewer pipes from the house to the local water/sewage treatment system, or to have a separate water and sewage treatment solution through a well and septic tank. In addition to on-site concerns, there will be off-site impacts. The streets and sidewalks nearby the proposed five-hectare project will now be more congested, especially when people go to and return from work. Nearby parks will be more crowded in the evening and on weekends when newly resident parents bring their children to play. Other public facilities, such as schools, libraries, and community centers, will be more crowded.

Since the 1950s, governments in the United States, Western Europe, and, more recently, in Asia, have extensively applied a wide array of techniques to require or encourage private developers proposing residential, commercial, and industrial projects to provide or pay the capital costs of the public infrastructure needed for such developments. Exactions, planning gain, impact fees, betterment levies, and incentive zoning are among the most popular techniques used to obtain public infrastructure from private developers. Each of these techniques is authorized by formal laws enacted at local, regional, and sometimes even national, levels of government. The laws clearly describe when and how these techniques are to be used, the methods for determining the financial obligations of private developers, when

such financial obligations attach, and so forth.

It is important to recognize that these techniques are considered land use regulatory, rather than tax, devices, and that they are administered within the land use regulatory, rather than tax, process. As discussed above, it is the use and development of land that create the infrastructure impact, and it is the land use regulatory process that may or may not allow certain development to occur. Landowners have a choice. If they do not develop their land, then they are not obligated to provide or pay for new infrastructure. Only if they want to develop their property are they asked to provide or pay for additional infrastructure. In the usual case, the development application to governmental authorities seeking permission to develop triggers the mechanism.

Although the techniques have many similarities, they also vary according to the following five issues:

1. Dedications/"in kind" contributions versus payments "in lieu of" dedications
2. On-site versus off-site obligations
3. Traditional public infrastructure versus expanded public infrastructure obligations
4. Negotiated versus formula-derived obligations
5. Mandatory versus voluntary obligations

A. Exactions and Planning Gain

Exactions and planning gain are obligations imposed upon private developers for either the actual provision or the financing of public infrastructure, determined on a project-by-project rather than a fixed formula basis. The developer will apply for permission to develop the project and will submit a proposed plan showing the location of buildings, streets,

infrastructure, and other elements. Land use regulatory officials will review the plans, assess potential impacts, and make an initial determination of what obligations to impose. This review is conducted with the developer's participation, and the process frequently has the air of a negotiation.

1. Dedications/"In Kind" Contributions versus In Lieu Of Payments

The obligations imposed on the developer commonly take two forms: dedications/in kind contributions and payments in lieu of dedications. First, developers may dedicate land owned by them to the public, for use as road or infrastructure corridors, or for parkland. The developer may also actually make build the road or public facilities necessitated by the development. In both cases, the developer in effect gives the land (and structure) to the local government as a condition for receiving development approval. Second, the developer may make a payment in lieu of dedicating land or building the infrastructure to the government, which in turn applies such money to build the infrastructure.

2. On-Site versus Off-Site

In recent years, obligations imposed upon developers through exaction and planning gain programs expanded beyond uncontroversial on-site obligations to a new category of off-site obligations. Take the five-hectare 50 house project described earlier. The provision of internal streets and sidewalks or water and sewer pipes hooked into the trunk lines would be considered standard fare for many countries. Today, however, many local governments would ask the developer to make off-site improvements or cash contributions. For example, since the 50 houses mean more traffic on the streets and sidewalks outside the five hectares, then the developer should be required to widen the public street and add an additional meter in width to

the sidewalk. In the alternative, the developer should pay money to the government to do the same. Since most developers are not street builders, they choose the option of paying money. The more off-site the obligation imposed, the more controversial it becomes. For example, some local governments ask developers to build or pay for community centers or recreation facilities located kilometers away from the proposed development.

3. Traditional Public Infrastructure versus Social Infrastructure

Furthermore, the list of exacted infrastructure has gained new, debatable, elements. Where early exaction and planning gain programs limited themselves to traditional public infrastructure such as roads and water and sewer, newer applications seek to address social concerns. Thus, for example, private developers might now be asked to build housing for poor families or a new library in return for development permission. Although it is possible to argue that residents of the new project will use existing library facilities, and thus that new library facilities are in order, the connection between the development and such facilities is probably more tenuous than that between the project and water/sewer needs.

When housing for poor families is involved, it is difficult, although not impossible, to justify requiring a developer of housing to dedicate certain units for poorer families, on the argument that his or her proposed 50-unit housing development will create a need for such poor family housing. To be sure, society needs housing for poor families, but the question remains whether it is fair to ask individual entrepreneurs to meet needs that society through public revenues and government actions normally meets.

4. Legal Tests of Rational Relationship and Proportionality

The idea of shifting public infrastructure costs, and thus the tax burden associated with it, from all members of a community to a selected few, holds political appeal. When majorities attempt, as they sometimes do, to abuse their position and impose unfair burdens on minorities, it is frequently the judiciary that assures the observance of constitutional and legal protections. In the area of exactions, planning gain, and impact fees, the risk exists that private developers will be asked to provide more than their fair share of public infrastructure. Judges in Western Europe and the United States have developed sophisticated tests to guarantee that property owners are not asked to bear burdens which, in all fairness and justice, should be borne by society as a whole. These tests usually ask three questions: First, does the proposed development generate an additional need for public infrastructure? Second, is the exaction, planning gain, or impact fee reasonably related to the additional need? Third, does the exaction, planning gain, or impact fee address the need in a proportionate way? Thus, asking a developer of a 50-unit housing development to build a four-lane highway five kilometers from the site would fail this judicial test, while requiring provision of feeder roads from the development and some road widening near the site would be permissible.

B. Impact Fees

Impact fees are usually one-time cash payments, assessed at the time a building permit is sought and calculated according to a prescribed formula varied only by type of development. Thus, unlike the situation under exaction and planning gain programs, developers typically may not satisfy an impact fee by building the infrastructure, nor may a developer through negotiation reduce the charge for his or her particular development. To adopt an impact fee program, local governments must make four determinations.

First, local governments must determine norms of usage, expressed on a unit basis, for different categories of infrastructure according to different categories of development. For example, a typical house in the five hectare project will hold three persons, who together will consume an average of X liters of water daily, and who will create Y amount of additional congestion on the roads. For an office building or apartment building, the norm may be expressed for each square meter of development, instead of for each housing unit.

Second, local governments must determine the amount of additional infrastructure capacity necessitated by an extra square meter or unit of development. These determinations are made by engineering experts based on general and specific information gained from past experience. Of course, this is not as easy as it may first appear. Assume that the sewage treatment plant is currently operating at peak capacity, and that any additional sewage pumped into the system would overwhelm the plant. Thus, any new development will require the construction of an entirely new treatment facility. Does one additional square meter of development thereby require an entire new treatment plant? In a limited "but for" sense, the answer is yes. For purposes of calculating impact fees, however, average and marginal infrastructure impact analysis must be intelligently conducted to obtain an accurate correlation between development and infrastructure. Other users will be taking advantage of this new plant in the future, since it will have far more capacity for processing sewage than that needed solely by the one additional project.

Third, local governments must calculate the capital cost associated with constructing the additional infrastructure attributable to a square meter or other unit of development.

Fourth, local governments must credit new private development for any payments it makes under existing tax programs that are used to finance new public infrastructure, to ensure

that new development does not "double pay" for the project.

C. Betterment Levies

Betterment levies are fees assessed on the increased value of land resulting from the provision of infrastructure improvements (and sometimes from changes in land use regulations). Unlike exactions, planning gain, and impact fees, betterment levies do not attempt to connect the cost of providing infrastructure to the increased infrastructure demands of the project. Instead, betterment levies focus on increased market value. Imagine the market value (what a willing buyer would pay a willing seller) of a 10 hectare parcel of land located five kilometers from the nearest road and water and sewer line. Imagine the market value after the government builds a new highway and water and sewer trunk line next to the parcel. Betterment levies attempt to capture some (or sometimes all) of the increase in value owing to public investment, in the belief that the landowner is not entitled to benefit from that increase in value. Of course, this raises a fundamental question about what creates value in land at the outset, and betterment levies have their philosophical roots squarely planted in the soil of the 19th century social economist Henry George.

D. Incentive Zoning

Under incentive zoning programs, cities use their land use regulatory authority to give private developers the right to build larger projects that generate additional profit, if the developers agree to provide certain desired amenities such as parks, housing for poor families, child care centers, museums, and other desirable additions to urban life. Incentive zoning differs from exactions in that it is considered a voluntary program applied at the margins.

Developers may build substantial projects without participating in an incentive zoning program. If they want to build even larger projects, then they can do so as long as they meet the incentive zoning guidelines for providing amenities. For example, a developer may construct a 5,000 square meter office building as a matter of right. In the alternative, the developer may construct a building 20 percent larger, or 6,000 square meters, if he or she provides a public park and a child care center on site.

IV. USING LAND USE PLANNING AND REGULATORY STRATEGIES TO DECREASE COSTS OF PUBLIC INFRASTRUCTURE

Exactions, planning gain, and impact fees all deal with the additional impacts of new development on publicly provided infrastructure. If, for example, a house is constructed 10 kilometers from the nearest road and water and sewer trunk line, then that owner should have to provide or pay part of the cost of the needed public infrastructure. Another approach is to employ intelligent land use planning and regulatory strategies that reduce the need for, and thus the cost of, infrastructure provision. The approaches adopted by local governments around the world rely on five basic components:

1. Greater coordination and connection between land use and capital planning/budgeting functions
2. Provision of adequate information system on land use and available infrastructure
3. Capital planning and provision as method to guide, rather than respond to, growth patterns
4. Determination, use, and enforcement of development patterns with low



infrastructure costs,

5. Examination of norms used for infrastructure standards and provision of service

First, the preparation of land use plans and implementing regulations must be coordinated with the preparation of capital plans and budgets. Too often, master plans guide the location of land uses and development without adequate information about or control over plans and budgets for infrastructure provision. Government departments responsible for capital plans and budgets are frequently different from those responsible for land use plans. Goals and professional backgrounds (engineering/accounting versus planning) diverge. Legislated coordination and institutional arrangements can help ensure that one plan or action does not undercut another.

Second, reasonably conceived cost-effective land information systems can contribute to the preparation of intelligent land use plans, capital plans, and capital budgets. Such information systems would ideally contain information about actual development and land use patterns, type of land, ownership, and existing infrastructure networks, on a parcel-by-parcel basis, especially in areas experiencing or slated for urban development.

Third, the provision of capital infrastructure should serve as a positive strategic planning tool to reduce overall costs of infrastructure for both private and public sectors. Providing an adequate supply of serviced land in advance of demand while prohibiting development in areas where infrastructure does not exist are ideal goals that are articulated more often than achieved. Unfortunately, capital infrastructure planning has too often responded to, rather than led, development.

In developed countries, infrastructure provision has frequently followed decisions of the

private marketplace as to where development should occur. On the one hand, this is a great strength of the market, allowing economic forces rather than centrally planned administrative decision-making to determine the contours of the developed landscape. On the other hand, it can lead to inefficient, even inequitable, overall patterns of development, with little consideration given to infrastructure costs or energy consumption.

In extreme situations, the refusal to provide capital infrastructure is a reasonable approach. Some areas reach maximum capacity. Some governments simply lack the financial capacity to service all new growth. Under the banner of "growth management," communities in Western Europe and the United States have sometimes just said no, or, in the alternative, have dramatically slowed growth ("no growth," "slow growth," "phased growth"). They have adopted moratoria on developer hookups to their water and sewer connections, or on access to public streets. Under the so-called "concurrency" doctrine, they have denied development permission unless and until the developer can show that the public infrastructure network will be adequate concurrently with the commencement of operations of the new development.

Under growth management capital improvement programs, governments may lay out timed infrastructure investment plans in a geographically specific fashion over a specific term of years, and indicate when they will connect a parcel of land to the infrastructure system. Developers may choose either to wait until their year arrives in the plan, or to provide or pay for the necessary infrastructure themselves (the so-called "Ramapo" approach, named after a famous town name and judicial decision from the United States). It is hardly surprising that techniques such as exactions, planning gain, and impact fees, which shift the cost of infrastructure from public to private pocketbooks but do not stop development altogether, would gain popularity. Even as developers complain about the cost of such obligations, they

continue to build their projects.

In developing countries, governments are virtually always operating under a service deficit approach, attempting to catch up to development that far outstrips their public financial resources for infrastructure.

Fourth, research indicates that certain patterns of development achieve less expensive per units costs of infrastructure than other types of patterns, especially with regard to roads and water and sewer provision. For example, within broad ranges, higher density clustered development patterns have lower unit infrastructure costs than low density sprawl development. This makes intuitive sense. The size of the collection and distribution network for both roads and water and sewer will be reduced if the distance between service points is reduced. In addition, development allowed in areas with bad natural drainage (wetlands, swamps) and steep slopes tends to incur higher infrastructure provision costs. Land use plans and implementing regulations should consider such costs along with the other concerns balanced in such plans. Without undercutting reasonable public goals, plans should discourage or prohibit development with high infrastructure costs.

In some cases, capital infrastructure investments themselves can promote inefficient patterns of development. The construction of linear arterial roads usually leads to linear development patterns on both sides of the road, instead of higher density clusters. Rather than containing growth, the building of a ring road can open up new areas for growth. And once individuals take root and build informal, let alone formal settlements, it is enormously difficult to remove them. Indeed, they usually become a force with which the political decision-makers on infrastructure provision must reckon, and a self-fulfilling prophecy for where infrastructure investments must next take place.

Fifth, technical norms for infrastructure provision sometimes exceed the actual needs of users and thus result in unnecessary costs. High maintenance technologies, over-engineered mechanisms, and excessive standards are not uncommon in countries around the world. Standards for roads and water and sewer provision may deliver a level of infrastructure neither affordable nor truly needed by the area in question. A top-to-bottom review of norms can lead to substantial savings in infrastructure provision. A review of service levels may also reduce infrastructure costs.

WORKING SESSION ON LAND PRIVATIZATION DEMONSTRATION PROJECT

Kharkiv, Ukraine
September 24, 1993

I. INTRODUCTION

The purpose of this working session is to implement provisions of the Memorandum of Cooperation signed June 29, 1993, between the City of Kharkiv and the Government of the United States, on land privatization. In the Memorandum, the two parties agreed to formulate and implement a land privatization demonstration project in which a fixed number of land parcels will be transferred from state to private ownership and control to the maximum extent permitted by law. During this working session, participants will discuss the project and reach consensus on the basic conceptual approach, mechanisms for implementation, and timetable.

The working session is divided into two parts. First, foreign and local experts will discuss private land and real estate markets, methods of land privatization, and methods of land valuation. Second, participants will discuss and decide upon the concept and details of the project itself.

III. SCHEDULE

FRIDAY, SEPTEMBER 24, 1993

Co-Chairs:	Mayor Yevgeni Kuchnariev, Jerold Kayden
9:00am - 10:30 am	*Introduction to Private Land and Real Estate Markets (Kayden) *Methods of Land Privatization (Kayden) *Methods of Land Valuation Carr Kunze)
10:30am - 10:45am	Coffee Break
10:45am - 11:30am	Presentations and Comments by Kharkiv Officials
11:30am - 12:30pm	Description of Land Privatization Demonstration Project (Kayden)
12:30pm - 2:00pm	Lunch
2:00pm - 5:30pm	Discussion of Land Privatization Demonstration Project

JSK/jk

LAND PRIVATIZATION DEMONSTRATION PROJECT

Kharkiv, Ukraine
September 24, 1993

KEY CONCEPTS

1. LAND LEASES WILL BE SOLD IN OPEN COMPETITIVE AUCTION.

- city will auction 50-year leases to [15] small land parcels
- auction is open to the public
- bidders must pay small participation fee in advance
- city will announce in advance minimum prices for each lease
- highest bid wins
- city and winning bidder will sign lease at end of auction for immediate transfer, and winning bidder will immediately pay total bid amount

2. BIDDERS MAY NOT OBTAIN MORE THAN [TWO] LEASES AT AUCTION.

3. LEASES WILL STATE THAT CITY HAS APPROVED USE OF LAND PARCELS FOR SPECIFIED PURPOSES.

- lessees may build small residential and commercial projects without subsequent discretionary city approval

4. LEASES ARE FULLY TRANSFERABLE [AFTER SIX MONTHS].

- leases may be sold, inherited, subleased, etc.
- lessees have right of first refusal at renewal
- leases will convert to full private ownership if new Code on Land authorizes such ownership

5. LESSEES MUST COMMENCE DEVELOPMENT WITHIN [ONE] YEAR OF AUCTION OR CITY WILL HAVE RIGHT TO TERMINATE LEASE UPON FAIR PAYMENT TO LESSEE.

6. REGULAR LAND AUCTIONS WILL BE SCHEDULED.

- after two-month break, auctions will resume on a [bi-monthly] basis.

7. THE CITY WILL ESTABLISH/APPOINT STAFF AN OFFICE TO DEVELOP AND CONDUCT LAND AUCTIONS.

8. THE CITY WILL COMPLETE AN INVENTORY OF LAND PARCELS AND MAKE SELECTIONS FOR THE AUCTIONS.

-Consideration will be given to the following:

- *market conditions
- *infrastructure availability
- *public objects
- *maximization of revenue

9. REVENUE FROM LAND AUCTIONS WILL BE EARMARKED FOR SPECIFIC PURPOSES (INFRASTRUCTURE PROJECTS, SOCIAL NEEDS, ETC.).

10. THE FIRST LAND AUCTION WILL BE SCHEDULED FOR November or December 1993.

JSK/jk