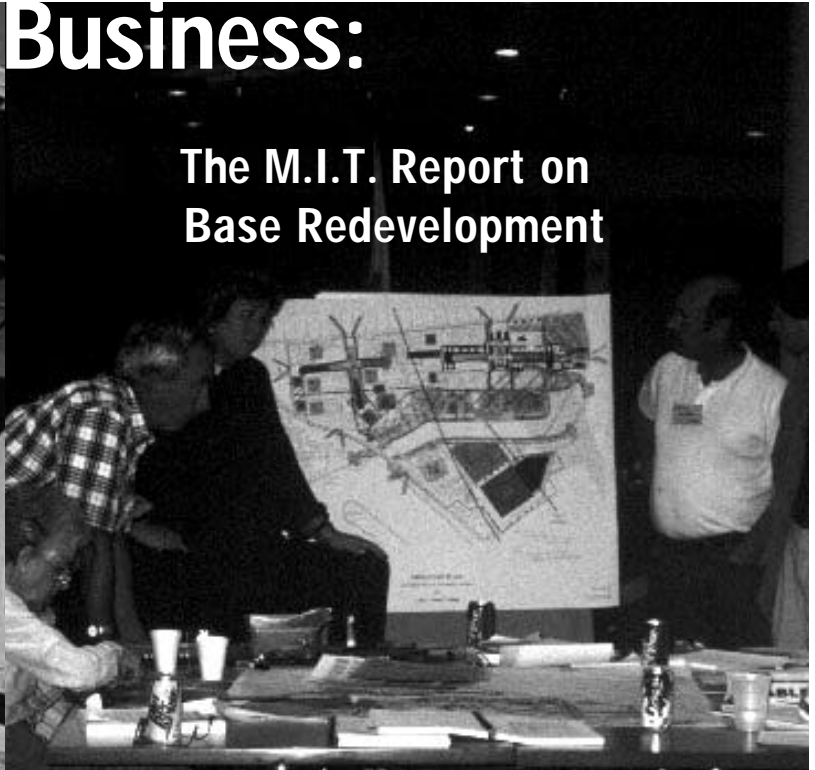


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*Prepared by the
Massachusetts Institute of Technology
Military Base Redevelopment Project*

From Barracks to Business:



March 2000



ECONOMIC DEVELOPMENT ADMINISTRATION
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From Barracks to Business:

The M.I.T. Report on Base Redevelopment

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Contents

iii	Acknowledgements
v	Executive Summary
1	Chapter 1: How Closures Affect Communities
	The Closures
	The Challenges and Opportunities
	The Resources
	The Local Response
	Results So Far
	The Format
11	Chapter 2: Organizing For Redevelopment
	Planning Versus Implementation LRAs
	Managing Competing Interests During Planning
	The Implementation LRA
	The LRA and Project Resources
	The Life of LRAs
37	Photo Documentation
41	Chapter 3: The Economic Challenge of Base Closings
	Engaging the Real Estate Market
	Promoting Economic Development
	Converting Air Bases to Civilian Airports
	Bringing Job-Related Education to the Base
	The Choices LRAs Make
73	Chapter 4: Managing Redevelopment
	Challenges and Costs of Redevelopment
	How Master-Developer LRAs Finance Redevelopment
	Working with Private Partners
109	Photo Documentation
113	Chapter 5: Advancing Redevelopment Knowhow
	Learning From Successful LRAs
	Learning From Corporate Experience
	Managing Public Lands to Produce Revenue
	Connecting With Related Professions
	A Progress Report

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Cambridge, Massachusetts
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Executive Summary

Between 1988 and 1995, Base Realignment and Closure (BRAC) commissions designated 97 of 495 major military bases for closing and hundreds of others for realignment. This large-scale reduction and reorganization of military bases has had few precedents in American history.

In 1995, the MIT Project on Base Redevelopment began a nationwide study of how local communities responded when the federal government closed their bases. We used a case-study approach to see how communities organized themselves to take on the task of redevelopment, confronted the economic challenges, managed the redevelopment process, and learned to be effective. We visited 26 installations over a four-year period. We augmented these field studies with secondary information on 95 major installations affected by BRAC actions. This report summarizes our findings.

Most communities had fought hard to obtain military bases and had protected them against earlier proposals to shut them down. When the closure finally came, these communities expected the worst. In fact, base closings cost many jobs: military and civilian job losses projected by the Department of Defense at the 95 installations we studied totaled almost 324,000. Most communities also tried to keep their bases open. Yet when a closing proved inevitable, citizens mounted organized and often successful efforts to redevelop the property and replace the lost jobs.

Bases offered both special opportunities and problems for redevelopment. The opportunities included some very desirable locations on waterfront sites or near major highways and exceptionally large holdings in single ownership that made large-scale redevelopment feasible. Structures on bases often included offices, classrooms, workshops, and buildings designed for industrial use. The problems were equally significant, however. Their characteristics as military installations made most bases unsuitable for civilian reuse without substantial reconfiguration. The property sometimes contained environmental contaminants; firing ranges and testing areas contained unexploded ordnance; roads and utilities were often inadequate for civilian use; and many structures did not meet current building code standards. These complexities meant that redevelopment could take many years.

The federal government's strategy has been to provide a framework for local action without steering or dictating the character of future reuse. It has supplied guidance in planning and organizing, offered incentives such as economic development conveyances for attracting new jobs, and shown flexibility when federal procedures proved troublesome for local communities. Through mid-1999, federal agencies had provided over \$1.1 billion in financial help for planning, infrastructure development, labor force assistance, and the development of civilian airports and other facilities important for job creation. Additionally, the military services have provided a large amount property other than real estate: non-federal users in the 95 communities studied stood to receive base-related equipment such as furniture, machinery, and tools—in addition to over 218,000 acres of surplus military land.

Local communities have been equally responsive during the base closure process. Although managing a closed base was beyond the experience of most local people and their governments—nobody knew just what it would involve or how to do it—there were very few instances where the local community decided against taking charge of the base. Ordinary citizens and their elected officials proved willing to commit their time and effort to learn how to manage the process and to bring new jobs to their communities.

Organizing for redevelopment

One of a community's first tasks was to create a workable management organization, known as a Local Redevelopment Authority (LRA). The LRA served as a single point of contact for people and organizations interested in acquiring base property and in shaping plans for its future use. LRAs also served as channels of communication between local residents, the military services on the base, local government, and federal agencies involved in base reuse.

Most communities established two different kinds of LRAs. The first, called a "planning LRA," had the explicit mission of preparing a strategy outlining the reuse plans for the land. This LRA also had an underlying purpose: building the political consensus necessary to sustain the effort during the subsequent years of redevelopment. Communities conducted a highly participatory planning process to accomplish this mission, relying on broadly representative governing boards, numerous committees, and frequent public meetings.

Once a plan was completed and adopted by local government, the agenda shifted from consensus-building to implementation. For this purpose most communities designated an "implementation LRA" that could acquire the base and otherwise enter into real estate contracts, borrow and lend money, manage the redevelopment, and work with businesses that might locate on the base. In contrast to the participatory consensus-building style of the planning LRA, the implementation LRA was more business-oriented in structure and approach.

In instances where the redevelopment task was relatively straightforward, communities tended to designate existing legislative bodies or redevelopment agencies as implementation LRAs (hereinafter referred to as "local-government LRAs"), adding staff as necessary. In other cases, especially where the base crossed jurisdictions or where the redevelopment was particularly complex, communities used public authorities to manage redevelopment. "Public-authority LRAs" included joint powers authorities under which local governments shared responsibility for a particular base.

Almost all implementation LRAs tried to combine business experience with public accountability, often by balancing the make-up of their boards to include people with both public- and private-sector backgrounds. Another balancing act involved bringing together local and regional perspectives, particularly when job losses at a base were likely to affect several communities in an area. One approach was to include regional

representatives on governing boards; another was for the locality in which the base was located to invite representatives of nearby towns to sit on advisory committees.

Economic development strategies

Redeveloping military bases for civilian reuse mixed real estate procedures with economic development. The goal was long-term job creation. In the meantime, there were obsolete buildings to be renovated or demolished, utility systems to be upgraded to meet commercial standards, land parcels to be subdivided into building sites, and finished lots to be marketed to developers and end-users. Thus, LRAs learned to manage both real estate and the economic development functions.

Fundamental to base conversion was what we term *normalization* of base property—that is, changing the status of a military base from a federal property unsuitable for private development, and subject to many uncertainties about future use and ownership, to a property that could be integrated within the normal functioning of private real estate markets. It amounted to making base property like other real estate: configured in parcels of manageable size, with full utility services, subject to state and local land use and building regulations, with clear title, and available for rent or sale on conventional terms.

Beyond normalizing base property and learning to operate within real estate markets, LRAs devised strategies for attracting job-creating businesses. The strategies differed among bases and changed over time, but the following examples are typical:

- Identifying and targeting businesses that would benefit from growth trends and competitive advantages in the region where the base is located
- Providing special infrastructure for economic development, such as highway and rail access and foreign trade zones
- Selecting business firms and public users that would serve as magnets to attract more business
- Capitalizing on base assets such as aviation facilities or industrial equipment
- Taking advantage of synergies between business and education by providing sites for institutions that offer job-related training

Most business-attraction strategies had three components: redevelopment opportunities that met a recognized community need, a high degree of feasibility, and the potential to produce economic benefits. The widespread conversion of military air bases to civilian airports is an outstanding example of this principle at work. Existing airports in many communities have become too small to service the growing number of large aircraft used by commercial and cargo airlines. Closed bases, in contrast, often have runways built to handle very large aircraft, and they have room for expansion. The cost of conversion is typically much lower than the cost of building a new airport, and federal aid is often available. Also, conversions are usually far less troublesome politically than either introducing a new airport into an area that has been free of aircraft noise and traffic or expanding an existing

facility. As for economic benefits, airports are important job centers. Of the 44 military airports designated for closing since 1988, 20 have already been converted to civilian airports, and the Federal Aviation Administration estimates that as many as 36 of the 44 will be converted to civilian airports. Finally, most conversions of military air bases have included plans for business or industrial parks adjoining the airport.

Managing redevelopment

Several characteristics of base redevelopment posed special managerial challenges to LRAs. Projects were often very large—close to 1,000 acres, on average, in the communities we studied. Preparing such large holdings for civilian use required investments in physical infrastructure and site improvements that could run into tens and sometimes hundreds of millions of dollars. Much of this money was needed up-front, long before the project produced significant revenues. Further, the development timetable was long, in most cases 10 to 20 years. LRAs facing these problems had to find sources of “patient money” that could be repaid in future years when revenues become available.

The key management activity was “master development”—that is, reconfiguring the site for civilian use, subdividing the base into development parcels, preparing these parcels for development, marketing them, and installing or upgrading core infrastructure. A second phase was “component development,” or the development of sites for specialized uses such as housing or offices. The typical pattern was for public-authority LRAs to act as their own master developers, whereas local-government LRAs often sought private firms to act as master developers or as development partners. The payoff for master developers, public or private, was investment by component developers and end-users that would exceed by many times the cost of site development.

The anticipated lifetime of an LRA also affected its strategy. LRAs that planned to own, manage, and provide services (such as police and fire protection) for the long term, were concerned not only with redevelopment of base property but with creating organizations that would have enough revenue to sustain operations over time.

A progress report

Successful LRAs had strategies in common. They anticipated the closing and took action early. They worked closely with state officials to mobilize their political, technical, and financial resources. They anticipated the needs of private developers and end-users by streamlining the various approval processes. They relied on real-estate professionals, particularly in the area of marketing. They made the old base look as good as possible. They were problem solvers, turning challenges into investments. Finally, they had patience, creating realistic plans and expectations and building long-term support for the project. In these respects, the practices of successful LRAs reflected the most effective practices of their peers in other fields of real estate and economic development.

It is too early to assess the long-term economic impacts of base redevelopment at the installations we studied. It takes time to close the base, identify promising businesses to attract, persuade them to locate on the base, find a suitable site, negotiate an acceptable lease or sale, recruit qualified workers, and find jobs that match worker skills and expectations. With respect to jobs, studies of earlier base closings suggest that dramatic job replacement can occur over a long period of time (an OEA study found that by 1993 there were almost twice as many jobs at bases closed during the 1960s and 1970s than there had been when these bases were open). Civilian use at the bases in our study had been in progress a relatively short time, 3.5 years, on average. LRAs at bases closed in the 1988 BRAC round showed significant results, replacing 76 percent of the 14,200 jobs lost due to closures. For each successive round, however, with less time elapsed for job development after closure, the replacement rate was lower, and at bases in the 1995 round (only half of which had actually closed as of mid-1999), new jobs equaled 14.2 percent of anticipated job losses. Other economic indicators show more immediate promise. Contrary to expectations, per capita income (relative to the Nation) in most communities in which closures occurred was higher in 1997—the latest year for which data are available—than when the closing was announced.

Meanwhile, LRAs have put in place important catalysts for economic growth. They include the conversion of former military airports to civilian use; the development of community colleges and other job-related educational institutions; the development of new universities and campuses for colleges and graduate schools, and centers for new technologies. These hold much promise for the future.

Chapter 1: How Closures Affect Communities

U.S. communities since the early twentieth century have sought military bases and defense contracts to strengthen local economies. City officials and civic boosters saw military investment as a local growth strategy and remedy for what they considered to be insufficient industrial development. Efforts to attract military bases cut across party loyalties and political divisions: Democrats and Republicans, labor and capital, cities and suburbs, natives and immigrants often fought each other on other issues but they worked together to get military installations. Cities large and small donated valuable land and waterfronts to make their case for a base that would bring in jobs and contracts.

But what happens when the federal government closes a base? Does it turn out to be true that those who live by the sword will die by the sword? Local communities initially expect the worst—lost population, lost jobs, spin-off effects reducing the revenues of local businesses, collapsing housing markets, reduced tax revenues, and a poorer quality of life for those left in the community. For example, a local economist predicted closing the England Air Force Base (AFB) would produce job losses in the adjacent central Louisiana communities 60% greater than the losses associated with the great depression.

Such dire predictions have not come true in any of the cases we studied. The reason, as research increasingly demonstrates, is that bases are economically more isolated from neighboring communities than save-the-base economists predict, limiting direct economic losses. For example, studies of former military communities in California, including one done in 1996 by the Rand Corporation, found post-closure impacts to be both less severe than predicted and quite localized. A National Bureau of Economic Research study analyzed 57 closures between 1970 and 1994 and found job losses to be mostly limited to the actual transfer of military personnel out of the region. And, as Ted K. Bradshaw pointed out in his study of the closing of Castle AFB in Merced County, California, closing bases can have beneficial economic impacts:

Military retiree spending shifts from the commissary to private stores and replaces lost retail sales by military personnel who are transferred, expenditures for toxic cleanup replace those for base construction, military spouses who are relocated leave jobs which can be filled by others, health insurance covers payments for medical services that had been provided by military doctors, affordable housing becomes available, and base reuse commissions stimulate regional cooperation among communities.

Meanwhile, communities have risen to the occasion in remarkable ways. Although they have not replaced all of the lost jobs, communities have achieved tangible progress: creating organizations to facilitate redevelopment; reorienting local economies to stimulate new civilian job creation; and converting large military holdings to sites suitable for civilian redevelopment. A banker in Alexandria, Louisiana, suggested that redevelopment of the former England AFB has made that community better off than if the base had not closed. He explained that there are risks when a

community is dependent on the military whose decisions to expand or contract can have such a big influence on the market that it can inhibit investment by some lenders. He indicated that since the economy now is much more diversified, investors feel more comfortable.

This report examines the ways local communities and local redevelopment authorities (LRAs) have risen to the complex challenges posed by base closings announced between 1988 and 1995 by Base Realignment and Closure (BRAC) commissions. Information for this report comes primarily from field studies of the reuse and redevelopment of 26 installations across the country.¹ We also compiled secondary information on 95 installations whose closing had significant effects on the local economy, the local real estate market, or both.² We termed these “local impact installations,” and we used them to generate summary information about base closures in general. Information in this report is as of early 1999 except as otherwise noted.

THE CLOSURES

Table 1.1 shows the distribution of the 95 local impact installations, by BRAC round and by military service. The table also shows the number of military and civilian jobs affected at these installations.

Table 1.1
Local Impact Actions Announced between 1988 and 1995
By Number of Bases

BRAC Round	Army	Navy	Air Force	Total
1988	6	0	5	11
1991	5	8	13	26
1993	4	17	7	28
1995	19	8	3	30
Total Bases	34	33	28	95
Jobs Affected	74,793	134,989	114,197	323,919

Source: MIT Project on Military Base Redevelopment

Notes: Army actions include those affecting the Defense Logistics Agency. Job data compiled by DOD, March 1996, and reported in George H. Siehl and Edward Knight. 1996. “Military Base Closures Since 1988: Status and Employment Changes at the Community and State Level,” U.S. Congressional Research Service.

THE CHALLENGES AND OPPORTUNITIES

Communities have often faced situations with some of the features of a base closing. Corporations close plants for many reasons, and industries that once dominated certain local economies, such as steel production and automobile manufacturing, have gradually shifted operations elsewhere, leaving some communities entirely. States have closed mental hospitals in many parts of the country, turning much of the land over to local jurisdictions. The federal government has turned vast tracts of land in the West over to states, which have set up land trusts to manage and dispose of these holdings. And cities have been struggling to redevelop urban land at least since the 1940s.

Bases offer both special opportunities and problems that differentiate them from other kinds of redevelopment. The opportunities include some very

advantageous locations—for example, bases on waterfront sites—and exceptionally large holdings in single ownership that could make large-scale redevelopment feasible without the usual land assembly problems and costs. Many bases also have some recently constructed classrooms, housing, medical clinics, and schools with possibilities of civilian use. The problems are equally significant, however. Their characteristics as military installations make most bases unsuitable for civilian reuse without substantial reconfiguration. As previously developed land, base property can contain environmental contaminants; firing ranges and testing areas can contain unexploded ordnance; roads and utilities may be inadequate for civilian use; and buildings may not meet current code standards. The complexity of the redevelopment task means that it will occur over many years, as many as one or two generations. Meanwhile, most communities where bases are located have had little or no experience with redevelopment, at least on such a large scale.

What were base closure communities like at the time closure was announced? The poorest were quite poor: sixteen of the 89 counties hosting local impact installations had per capita incomes less than 80 percent of the national average at the time of the BRAC announcement. Poor counties tended to be rural; they were located in remote areas in Texas, Virginia, California, Maine, Utah, Indiana, and Michigan's upper peninsula. The richest communities were very rich—twenty installations were in counties where per capita incomes ranged from 120 to 194 percent of the national average. Most of these were in affluent suburbs of the most urbanized areas of the country: Boston, Chicago, New York City, San Francisco, and Washington, DC. On average, however, people in base closure communities had slightly higher incomes than those nationwide, and most base communities were in areas of neither low income nor high unemployment, nor were they losing population.³

Communities' dependence on military and civilian jobs on-base also differed significantly. Nine of the 95 local impact installations were in communities identified by the 1992 Defense Conversion Commission as having more than twenty percent of area employment in defense-related jobs. Individual facilities, however, employed proportionally fewer people. As Table 1.2 shows, at only seven local impact installations did total base employment comprise more than ten percent of county employment, and civilian employment comprised less than one percent of county employment at most bases.

Interestingly, neither wealth nor dependence on base employment nor location seemed to explain how quickly or how successfully a community could produce new civilian jobs to replace those lost through base closure. LRAs were able to replace all lost civilian jobs at nineteen of our 95 local impact installations. In fourteen of the nineteen host counties, per capita income at the time of closure was below the national average (in seven, it was less than 80 percent of the national average); in two, lost civilian employment comprised more than five percent of county employment; eleven were in rural or small metropolitan areas; and in half, population growth had lagged behind the nation.⁴ LRAs that achieved 100 percent job replacement did have some things in common: fourteen inherited military

airfields that were subsequently converted to civilian airports, and their bases were among the first in the nation to close.

Table 1.2
Base Jobs as a Share of County Employment
Local Impact Installations

Total Employment (Civilian Only) as a share of County Employment					
	< 1 Percent	1-5 Percent	5-10 percent	> 10 Percent	Total
Number of Installations	45 (60)	28 (22)	9 (5)	7 (2)	89 (89)

Source: MIT Project on Military Base Redevelopment

Note: Six facilities had no employment impact or these impacts were counted with related facilities in the same county.

THE RESOURCES

While base closures remove federal jobs from the local economy, closures have also provided major assets and development opportunities to local communities. The most significant involve the massive transfer of real estate now underway from the Army, Navy, and Air Force to state and local jurisdictions: to school districts, state park programs, homeless organizations, and, most importantly, to LRAs—the entities responsible for planning and implementing base reuse and redevelopment activities. A skilled civilian labor force, facilities, and equipment were other important assets. In addition, federal assistance in the form of planning and infrastructure grants has helped communities to overcome the barriers associated with redevelopment. Two federal agencies provided key assistance: the Defense Department’s Office of Economic Adjustment (OEA), which provides planning and organizational assistance grants, and the Commerce Department’s Economic Development Administration (EDA), which makes grants for infrastructure and business development.

As Table 1.3 shows, the military services will transfer to each local community 2,300 acres, on average, at closed local impact installations. Acreage ranges from 30 acres at the New London Naval Undersea Warfare Center in Connecticut to 17,541 acres at Cecil Field Naval Air Station in Florida. About eight percent of this land has reverted to local ownership, and the military services are selling an equivalent amount through auctions and negotiated sales. Most property transfers, however, will be under some kind of “public benefit conveyance.”⁵ Under federal law, federal sponsors can request and convey, as public benefit conveyances, properties that will be used for designated public purposes. For example, the Federal Aviation Administration (FAA) can transfer property to be used as airports; the Department of Education can convey property for schools; and National Park Service can convey land for parks. In 1994, Congress added Economic Development Conveyances (EDCs) to the list of public benefit conveyances, and in October 1999, Congress authorized these transfers to be made at no cost.⁶

Two transfers to the Bureau of Land Management of land formerly used for munitions testing, at Jefferson Proving Ground and Fort Ord, account for 80 percent of federal-to-federal transfers. Most of the remaining federal-to-federal transfers reflect local planning priorities: land and habitat conservation by the Fish and Wildlife Service, the construction of federal prisons and other facilities by the Department of Justice, and similar uses.⁷

Table 1.3
Disposition of Surplus Land
Local Impact Installations

	Acres	Percent
Total Surplus Land	312,986	100
Federal-to-Federal Transfers	94,438	30
Available for Nonfederal Use	218,548	70

Source: MIT Project on Military Base Redevelopment

Note: Available acreage includes property requiring environmental cleanup prior to transfer.

The nature of previous military use has had a strong influence on civilian reuse. We defined six installation types among the local impact installations. These are shown in Table 1.4.

Table 1.4
Prior Military Use
Local Impact Installations

Prior Use	Number of Installations
Air Bases and Training Centers	36
Land-based Industrial Facilities	17
Army Bases and Training Centers	13
Marine Industrial Facilities	11
Research, Technical, and Medical Centers	11
Naval Training Centers	2
Other	5

Source: MIT Project on Military Base Redevelopment

Note: Other facilities include two housing sites, an army reserve center, a radio tower, and a naval construction battalion center.

The most common prior use was as an air base or air training facility (serving any of the services). Most had active runways, support facilities and equipment, and some housed the military community on-base or nearby. Acreage at such installations that is becoming available for nonfederal use

ranges from 1,000 to 4,000 acres, enough to permit fairly large-scale redevelopment.⁸ Most communities receiving such assets have chosen to develop aviation-related industrial and business parks. New and expanded civilian airports are part of the redevelopment plans at 30 of the local impact installations.

Army bases and training centers are yielding varying sized properties for nonfederal use. Four are of moderate size—from 160 to 700 acres each. Nine are between 1,700 and 17,000 acres each, with a median of about 3,800 acres. The two naval training facilities are yielding properties similar in size to the smaller army installations, from 500 to 1,000 acres each.⁹

Marine industrial facilities that are coming to local communities—shipyards, ocean terminals, and fleet industrial support centers—range from 130 acres to 1,400 acres. Land-based industrial facilities—for supply, distribution, maintenance and manufacturing—are yielding more disparate properties. Five special-purpose facilities are yielding small sites—under 170 acres each; seven of the ten Army depots are yielding between 400 to 1,700 acres each for non-federal use; and the remaining three Army depots are yielding between 3,000 to 10,000 acres each. Plans for previously industrial property generally focus on industrial reuse, although communities often plan extensive demolition of obsolete structures.

Finally, communities are using military research, engineering, and similar technical centers to seed new civilian technology industries. Sites that are becoming available for nonfederal use are of moderate size, from 30 to 800 acres. The small assortment of miscellaneous facilities—reserve center, housing, radio tower, and construction battalion site—are yielding properties of between 50 and 900 acres each.

Table 1.5
Federal Grants to Local Impact Communities
Local Impact Installations

Source	Purpose	Amount
EDA	Infrastructure, Building Construction, Business Assistance, and Related Studies	\$ 390,626,444
FAA	Military Airport Conversion	\$ 314,548,467
DOL	Labor Force Assistance	\$ 174,989,187
OEA	Reuse Planning and Organizational Support	\$ 118,088,519
Other	Special Congressional Appropriations and Other Assistance	\$126,444,565
TOTAL		\$1,124,697,182

Sources: OEA, EDA, FAA, and General Accounting Office.

Notes: Excludes grants from agencies such as the Department of Housing and Urban Development, Environmental Protection Agency, and Department of Transportation that have funded projects on former bases as part of on-going non-base-specific programs. FAA Grants exclude fixtures and equipment.

Yet prior use has not necessarily dictated reuse. The communities of Alameda and Glenview have abandoned military airfields in favor of other development. Other communities chose to demolish most of what the military left behind and focus instead on new development. Examples include Orlando, Florida (where the main campus of the Naval Training Center will be demolished to permit construction of a new community), Stratford, Connecticut (where obsolete industrial buildings may make way for a newly constructed research and development campus), and the city of Long Beach (where the naval hospital was replaced by a retail center).

Along with land, buildings, and equipment, communities have received significant federal financial aid. Local impact installation communities received \$1.1 billion in federal grants through FY 99 from Congress, DOD, FAA, the Department of Labor (DOL) and EDA alone. Table 1.5 shows the distribution of these funds.¹⁰

THE LOCAL RESPONSE

Communities are using most of the property they receive for economic development purposes. Table 1.6 summarizes the primary types of development planned at our 26 field study sites. Later in this report, we provide short case descriptions of many of these.

The table describes the predominant reuse, although redevelopment at most installations involves multiple new uses. For example, redevelopment of Fort Ord will create a series of new residential communities with village retail centers, schools, and recreational uses as components. Redevelopment will also include a major new campus for the California State University system, a research-related business park to be developed by the University of California Santa Cruz, golf courses and hotel/conference-related centers, parks, and a municipal airport and industrial park. England Airpark, which is being redeveloped primarily as an airport industrial park, includes (in addition to

Table 1.6
Planned Development Focus at 26 Installations

Planned Development	Number of Field Examples
<u>Multi-Use Redevelopment</u>	
Aviation-related industrial or business parks	10
Nonaviation business and light-industrial parks	4
Marine/heavy industrial centers	4
New communities	4
Reinforcing existing communities	2
<u>Single-Use Redevelopment</u>	
Retail	1
Business park built around primary anchor tenant	1

Source: M.I.T. Project on Military Base Redevelopment

an international airport) a retirement community, a magnet elementary school, a health center, and plans for a major golf/tourism facility. Redevelopment of the Philadelphia Naval Complex, a marine industrial facility, focuses on heavy industrial functions (including shipbuilding), but plans also include light industrial and research and development space, a distribution center, sites for commercial and institutional uses, and common open space.

RESULTS SO FAR

Base redevelopment is a long-term activity that, for the most part, cannot start in earnest until an installation is closed. Closures take time. Half of the local impact installations remained open as of September 1995, and almost 20 percent were still open in April 1999. Thus, civilian reuse has been in progress a relatively short amount of time at most installations, 3.5 years on average at the time of this study.

As part of its mission to help local communities adjust to base closings, OEA tracks the creation of new jobs at many installations, including 56 local impact installations closed through April 1999. Table 1.7 shows the status of new civilian jobs created at these. At sixteen, new civilian jobs equaled those lost due to closure as of April 1999, and another three had previously achieved 100 percent job replacement but then lost jobs when individual businesses downsized or relocated. Not surprisingly, most progress occurred at installations closed the longest; of the nineteen that had achieved 100 percent job replacement, seventeen had closed as of September 1995. On average, it took these installations two and one-half years to reach this milestone.

Table 1.7
Status of New Civilian Jobs at Closed Local Impact Installations
(April 1999)

Number of Installations	New Jobs as a Percent of Lost Jobs
2	0 %
15	up to 25%
8	26 to 50%
10	51 to 75%
5	76 to 99%
16	100% or more

Source: MIT Project on Military Base Redevelopment

Finally, Table 1.8 shows the average time to reach key milestones. The table uses two dates to measure progress. The organization of the LRA and the development of the reuse plan are measured from the date of the BRAC announcement, while job development and leasing are measured from the date the base closed. In practice, some LRAs achieve new job development

prior to closure. This is particularly true for installations such as Kelly AFB, where reuse and closure are parallel processes.

Table 1.8
Time to Milestone
Local Impact Installations

Milestone	Average Time
BRAC Announcement to Planning LRA	4 months
BRAC Announcement to Implementation LRA	20 months
BRAC Announcement to Reuse Plan	30 months
BRAC Announcement to Closure	43 months
Closure to First Lease	5 months
Closure to 25% Job Replacement	17 months
Closure to 100% Job Replacement	30 months

Source: MIT Project on Military Base Redevelopment

Note: Averages relate only to installations that reached the specified milestone.

Terminology

We have defined certain core concepts to facilitate discussion. In general, these are defined in the chapters most relevant to their use. For example, in chapter 2, The Structure of Local Redevelopment Authorities, we classify different kinds of LRAs. In chapter 3, The Economic Challenge of Base Closings, we use “development” in two ways: economic development relates to the restructuring of the local economy to replace the military industry and its jobs, and real estate development relates to the creation of civilian land development opportunities. We term the latter “normalization. Chapter 4, Managing Redevelopment, differentiates “reuse” from “redevelopment.” Reuse occurs when an LRA achieves conveyance from the military and operates the facility for civilian use essentially “as is.” Activities include making modest investments required to assure that existing systems comply with local codes and to lease existing buildings. Redevelopment occurs when an LRA significantly increases or changes the type and intensity of use. Redevelopment includes making long-term investments necessary to extend infrastructure to serve undeveloped land and creating opportunities for major new uses.

THE FORMAT

Chapters 2, 3, and 4 address major thematic issues in base reuse and redevelopment. Chapter 2 asks how communities organized themselves to take on the task. Chapter 3 asks how communities confronted the economic challenges. Chapter 4 asks how LRAs managed the redevelopment process. These chapters rely on case studies to illustrate the main points under discussion, and we offer these at different levels of detail. The redevelopment process involves intersecting activities, and we have tried to reflect this by including a number of fairly detailed cases. Each appears in the chapter that addresses the main theme of the case. However, these cases also address themes discussed elsewhere. For example, the Lowry case presented in

Chapter 3, which describes efforts to engage the local market, also discusses both early planning and organizing activities, treated in general in Chapter 2, as well as management strategies, treated in general in Chapter 4. We have also included case “highlights” that focus on specific themes. These appear as boxed text, along with examples of other special approaches to particular redevelopment problems.

We conclude in Chapter 5 by asking how we might advance the practice of base redevelopment. We first look at the practices of successful LRAs—those that have replaced most of the jobs lost when the base closed. We then compare these practices to those in other fields of redevelopment. Finally, we describe achievements to date.

Chapter 2: Organizing For Redevelopment

Most communities in which bases closed initially lacked the technical and organizational capacity to manage the redevelopment of a project as complex as a military base. Host communities were often quite small and had limited resources; typically they had at most one or two planners on staff and they relied on volunteer boards to make most development decisions. Even among larger communities, few had undertaken a redevelopment venture as large or as challenging as a military base. This reality put LRAs at the heart of base redevelopment. LRAs are organizations communities created to accept former military property and to plan and manage its economic development reuse.

This chapter seeks to discover what LRAs are like. It first presents an overview of LRAs in charge of redeveloping the 95 local impact installations. Then, drawing on the communities in our field studies, the chapter describes the ways selected LRAs have addressed organizational issues and challenges related to redevelopment. The chapter focuses on the following questions:

- How have communities organized for planning versus implementation?
- How have communities used planning LRAs to manage competing interests?
- How has the form of the LRA related to its implementation strategy?
- How have implementation LRAs balanced private perspectives and public accountability?
- How have implementation LRAs balanced local and regional goals?
- How have LRAs acquired the necessary expertise and financial resources?
- How do LRAs change over time?

PLANNING VERSUS IMPLEMENTATION LRAs

Most communities used two kinds of LRAs. They created an initial organization, known as a “planning LRA,” to oversee the preparation and adoption of a redevelopment plan. This organization was formally recognized by the Secretary of Defense through the Office of Economic Adjustment (OEA). If OEA found that the closing had a significant impact on the local economy or real estate market, the agency provided funds for the preparation of a reuse plan. Later, communities interested in economic development would designate an “implementation LRA” to accept the property transfer and manage redevelopment. Most often, this was a different organization from that used for planning. Thus “planning LRA” and “implementation LRA” represent two fundamental LRA categories.

Underlying this organizational sequence was a theme: “public planning and private business implementation.” Communities conducted highly participatory planning processes, using their planning LRAs to identify and welcome input from a broad spectrum of people. Yet when it came to implementation, communities chose a more business-oriented approach, either by creating separate public corporations with small business-oriented

boards or by bringing in private developers as partners or master developers to manage implementation.

The Planning LRA

Communities often achieved participation in planning by using large, open, *ad hoc* committees to prepare the redevelopment plan. Others chose to use or create more permanent organizations. Some delegated the task of planning to an arm of local government, which used its customary mechanisms for soliciting public participation. Others created a public corporation or joint powers authority to undertake overall redevelopment.¹ Table 2-1 shows the types of organizations among the 92 that prepared redevelopment plans.²

Table 2.1
Types of Planning LRAs

Type of Planning Organization	Number of Organizations	Percent of Total
Special Purpose Committee	47	51%
Local Government	25	27%
Public Corporation	12	13%
Joint Powers Authority	7	8%
Private Nonprofit Corporation	1	1%
Total	92	100%

Source: MIT Project on Military Base Redevelopment

Notes: Redevelopment of the 95 local impact installations involved 92 LRAs. Three were responsible for more than one installation

The Implementation LRA

Implementation LRAs were more permanent and businesslike organizations than planning LRAs. Many communities established a “local-government LRA,” designating the village, municipal, or county legislative arm as the policy maker and assigning an existing or new administrative department to provide staff. The second major type, what we called a “public-authority LRA,” included both public nonprofit corporations and joint powers authorities. Public nonprofit corporations were created under local or state charters with the power to plan, implement, and often finance the redevelopment of a former base. In most cases, these operated at the local level, but a few had statewide jurisdiction for a range of redevelopment projects. Joint powers authorities were created under state laws permitting several governmental jurisdictions to share their redevelopment powers for a specific base. Most of these were in California. We classified these as public-authority LRAs rather than local-government LRAs because of their separate boards. Finally, we found several private nonprofit development corporations (NDCs) acting as managing LRAs. Since these were precluded from directly receiving the most significant economic development land transfers, NDCs

were linked to public corporations or local governments so as to permit such transfers, yet leave the NDC in charge of day-to-day management. Table 2-2 shows the distribution of the 84 implementation LRAs involved in the local impact closures.

Table 2.2
Types of Implementation LRAs

Type of Implementation Organization	Number of Organizations	Percent of Total
Local-government LRA	36	43%
Public-authority LRA	34	40%
Joint Powers Authorities	8	10%
Private Nonprofit Corporation	6	7%
Total	84	100%

Source: MIT Project on Military Base Redevelopment

Note: As of this report, five communities had not chosen an implementation LRA (one because the base was sold directly to a private developer), and another five managed more than one installation.

Implementation LRAs were specifically associated with land conveyances for economic development purposes. Legally, an economic development conveyance (EDC) required the designation of an LRA, but public organizations that received public benefit conveyances for civilian airports through the FAA were also considered to be LRAs, and many organizations received both types of land transfers. Other public benefit conveyances, for example for educational use or land preservation, also required appropriate receiving public entities. In a few cases, the location of a state university on the base was part of the LRA’s economic development strategy, making the LRA and the university partners in redevelopment.

MANAGING COMPETING INTERESTS DURING PLANNING

Creating a plan for the reuse of the property was a necessary part of the conveyance and local screening processes, and it set the direction for redevelopment. Yet in the communities that we studied, we found that the political aspects of the planning process were as important as its technical aspects. The political aspects were closely tied to the creation of a planning organization: the structure of the organization determined who would participate, who would make decisions, and how redevelopment objectives would be chosen.

Organizing planning

Political issues surfaced early in the closure process, and an important function of the initial organization was to manage them. Events surrounding the base closure brought out many people and interest groups. People first organized to “save the base.” When the realities of the closure hit, people

who had been active in the anticlosure process often then sought to participate in planning the redevelopment. Creating the reuse plan necessitated another organization—the planning LRA. The natural tendency was to draw the planning leadership from the save-the-base committee. However, because of their narrow political focus, save-the-base groups did not necessarily have the technical expertise to manage the planning process. Creating the LRA meant finding people in the community who had both the leadership and political constituency necessary to sustain the effort over time and the organizational, financial, or real estate talent to make the plan work. Figure 2.1 summarizes the most significant kinds of community-based interests that appeared in our field-study communities.

As an example, the closure of Fort Devens drew the interest of a variety of citizens, organized groups, and four host communities; each had its own reuse agenda and collectively divergent goals. Environmentalists sought to maximize preservation of open space, businessmen wanted development that generated new jobs and economic activity, a citizens' group advocated residential development, the Harvard Observatory was concerned about night illumination, and a local museum was concerned about maintaining the "viewshed" from its hilltop setting. The towns of Ayer and Shirley were primarily concerned with generating replacement jobs and economic activity while the town of Harvard, with a vocal, active, and well-off citizenry, wanted to maintain its quiet quality-of-life and minimize the impacts of new development. In an effort to determine who would manage the redevelopment process, the host communities (which ranged in size from 6,000 to 12,000 people) squared-off against the well-funded and powerful Massachusetts Land Bank, a statewide public corporation originally set up during the 1970s to oversee the redevelopment of several bases in Boston. The towns were concerned that a state-initiated plan would not reflect the interests of the towns, and in September 1991, OEA received applications from both the Land Bank and a coalition of host communities, known as the Joint Boards of Selectmen, for planning assistance. Both were proceeding with planning. A year later, the Land Bank and the towns agreed to a joint planning process and it was through this process and the process of designing a governance structure for the redevelopment that the towns and the state were able to overcome their mutual mistrust and form a true partnership.

In communities across the country, jurisdictions vied with each other for control of the planning process. Some communities, long dependent on the base for jobs and contracts, wanted to ensure that economic benefits continued to flow to them. Others saw in the redevelopment the potential for significant future burdens—traffic to accommodate or children to educate—that the communities wanted to limit. The more astute leaders decided up-front that, whatever the conflicts, a policy of inclusion was necessary to ensure subsequent political support for the redevelopment effort. Others came to this conclusion through experience. Organizing these interests represented an important step in building and testing the relationships necessary for successful redevelopment to occur. If planning in some communities looked chaotic and took a long time, particularly in communities that lacked the experience and the institutional networks necessary to undertake such a complex task, it indicated how much experimentation and learning those communities needed.

Figure 2.1
Major Interest Groups involved in Base Redevelopment

Host Communities	Concerned about job and population losses, costs of redevelopment, and impacts on public services and municipal revenue. Saw land use powers as a way to control costs and revenues. Communities that had housed military families or retirees and provided them with business services often felt the strongest impacts of closure and were strong advocates of local control of redevelopment.
Examples:	Seaside, CA; Marina, CA; Long Beach, CA; Lawrence, IN; Alameda CA; Glenview, IL
Adjacent Communities	Anticipated impacts of future redevelopment—increases in traffic or residential growth—with fiscal consequences. Articulated “regional” concerns that sometimes conflicted with local agendas.
Examples:	Monterey, CA; Indianapolis, IN; Harvard, MA; Lakewood, CA; Winter Park and Orange County, FL
Retired Military	Retired near an active base to retain access to military community, base exchange, or hospital. Advocated housing or medical programs for retirees. Often provided leadership for the reuse effort and helped those not familiar with the military bureaucracy to negotiate with it.
Example:	Fort Ord Alumni Association
Business Community	Concerned about economic impacts on the community and on companies for which the base had been a customer (notably utility companies). Often active in the redevelopment process through organizations such as chambers of commerce. Communities saw such participation as ensuring that the redevelopment process was “business-like” and attractive to private investors.
Examples:	Greater Alexandria (LA) Chamber of Commerce, Central Louisiana Electric Company, Rancho Cordova Chamber of Commerce (near Sacramento)
Elected Officials	Helped communities to negotiate in political arenas, participated directly in local organizations.
Examples:	California State Senator Henry Mello; Mayor Glenda Hood of Orlando, FL; Councilor Byron Wear, San Diego, CA; Mayor Anthony Intintoli, Vallejo, CA
State Agencies:	Concerned about state job losses. Saw base redevelopment as a way to achieve statewide development objectives.
Examples:	Massachusetts Development Finance Agency, California Trade and Commerce Agency, Louisiana Department of Economic Development, Empire State Development Corporation
Environmentalists	Saw base redevelopment as a potential threat to preservation of undeveloped land. Advocated environmental cleanup and preservation.
Examples:	Fort Ord, Fort Harrison, Alameda NAS, Fort Devens, San Diego NTC
Homeless Advocates	Empowered by legislation, especially during “screening” (described on p. 40). Negotiated early on for facilities for the homeless or for compensation. Seldom significant in later phases.
Examples:	Colorado Coalition for the Homeless, Orlando Housing Services Network

Using organizations to bring folks under the tent

In general, communities tried to include most interests in the development of the plan and to seek “consensus” among the different groups. How? It depended on the communities’ political goals. At Lowry, the goal was to bring two jurisdictions together.

Building Cooperation at Lowry

The big question was whether Denver and Aurora could work together and, if so, on what terms. The history of cooperation between the two communities was weak. Denver Mayor Wellington Webb took the lead in proposing an organization that would represent the two cities on an equal basis, even though Denver had jurisdiction over 89 percent of the base. Mayor Webb was convinced that Denver would have much more influence in Washington if it provided a united front with Aurora.

In late 1991, Mayor Webb and Mayor Paul Tauer of Aurora signed an agreement to undertake joint planning through an intergovernmental organization known as the Lowry Economic Recovery Project (LERP). Its executive committee had four voting members: the two mayors and a city council member from districts in the two communities most affected by the closure. LERP’s executive committee also had eight nonvoting members representing state and congressional elected officials and members of each city’s chamber of commerce. A forty-member citizen’s committee, appointed equally by the two mayors, advised the executive committee. The advisory committee also set up task forces to augment citizen involvement in the reuse planning, and public hearings drew hundreds of additional people.

Other communities created large planning committees through which many interest groups could voice their concerns and ideas. At Mather AFB, the Sacramento Commission on Mather Conversion included 150 members; Orlando’s Mayor’s Commission had a similar number; Kelly AFB’s Strategy Committee had 167 members; and the Fort Ord Community Task Force claimed over 330 participants in its various advisory groups.

At bases such as Fort Devens and England AFB, different interest groups were seen as part of the “public,” and consultants managed their involvement and that of other citizens in the planning process.

Strengths and weaknesses of consensus

Planning LRAs produced plans, sometimes called reuse plans and sometimes called “consensus plans.” These served important functions: they documented the political agreement reached by the various interest groups on the direction of redevelopment; they provided a framework for the federal screening process and environmental impact statements, and they provided a basis for conveyance decisions. They also had limitations. One was that they often did not reflect market realities. Another was that they did not provide a detailed strategy for redevelopment. A number of LRAs subsequently prepared such market-based plans, called “development plans,” or “master plans.” LRAs seeking economic development conveyances also prepared

detailed business plans. These have served both to justify the conveyance request and to map out the LRA's development strategy.

The power of the initial plan was that it allowed communities to resolve the various conflicts among groups, sometimes by offering something for everyone. This was why some termed them "consensus plans." As Harvard, Massachusetts, Selectman Rick Maiore described the process at Fort Devens, "There was a realization that Fort Devens was a big site where everyone could get what they wanted. This gave people the ability to compromise and still get what they wanted."

Similarly, Rob Leonard, now director of Sacramento's Department of Military Base Conversion termed the reuse plan for Mather "a laundry list" of ideas, some more developed than others.

Such consensus plans had two potential problems. One was that the plan sometimes masked important underlying divisions, leaving them to be resolved later on. Second, by appealing to political demands over market demands, the plan could fail to uncover potential development opportunities. Both were true in the case of the Charleston Naval Complex. A deeply rooted history of competition characterized the relationships between the cities of Charleston, known for its historic downtown and exclusive residences, and North Charleston, known for its industrial waterfront, including the shipyard, and some persistently poor neighborhoods. Although the political leaders created a diverse 45-member planning committee, they decided that it was more important to present a united front to the media and the public than to fully air and resolve their differences. Although the first reuse plan was unanimously endorsed by the planning committee, the people from North Charleston felt outmaneuvered by state, county, and Charleston officials. They faulted the decision-making structure for not allowing them sufficient voice. They were particularly concerned with the proposed relocation of a state-owned container port from the city of Charleston to the North Charleston shipyard. They saw the move as providing few jobs for North Charleston residents, generating no new taxes, adding significant traffic and pollution problems, and requiring significant investment in infrastructure and public services.

The conflict remained for the subsequent implementation LRA to resolve. The LRA did this by creating a new market-based "development plan" for the complex. Interestingly, the implementation LRA's experience leasing property after the reuse plan was approved provided critical information about market demand, the politics surrounding alternative reuses, and property values. Its development plan, which expanded on the reuse plan, called for a smaller cargo facility, more residential development, an industrial park to attract nonmarine businesses, and a high-technology training center.

Even broadly supported consensus plans sometimes failed to take good account of resource or market limitations. Following the completion of the plan for Mather AFB, Sacramento County established its own internal group, the Mather Internal Study Team, to "recalibrate the plan to reflect market conditions." Two years later, the county retained a consultant to produce a new land use plan and market analysis. In Alameda. the scale of

development proved to be limited by access to the island, a factor not recognized until after the first reuse plan was completed. At Fort Ord, water availability turned out to be a critical factor limiting potential development. The development density anticipated in early reuse plans—the subject of much controversy during early planning—was reduced by three fourths between 1992 and 1997.

While a broad consensus-oriented process sometimes resulted in unrealistic plans (from a market point of view), favoring market demand over politics also proved problematic. For example, the city of Long Beach relied on its Economic Development Committee, led by private business interests, to plan the reuse of the several former Navy sites in the community, including the Long Beach Naval Hospital. The hospital reuse plan called for retail development, and city staff worked with a real-estate consultant to develop a feasibility plan. When the plan became public the neighboring jurisdiction of Lakewood, which was not involved in developing the plan, threatened to sue the city over the threat it felt the plan posed to its own retail base, delaying the redevelopment for several years. During the delay, the city lost its original retail developer. The city was later able to resolve this conflict, and the project, undertaken by another developer, is now complete.

Planning outcomes

Most redevelopment plans called for multipurpose development. As Table 1-6 in Chapter 1 showed, fourteen of our 26 field-study communities decided to focus their efforts on industrial and business parks. In ten of these cases, the redevelopment called for a civilian airport, and the industrial use was to be aviation related. Planners of former marine industrial facilities such as shipyards planned to continue the industrial use. Six communities planned to build either new communities—complete with supporting commercial, recreation, education, and business uses—or to extend existing communities to encompass the former base. Finally, the planners of two of the smaller sites chose to focus development on a single primary reuse. Retail development will replace the naval hospital at Long Beach, and a business park anchored by a private defense contractor will replace the naval engineering facility in Indianapolis.

THE IMPLEMENTATION LRA

In contrast with planning LRAs, implementation LRAs tended to be smaller and more focused on the business mission. Local-government LRAs established private advisory committees, and many chose to use private developers to manage implementation. The boards of public-authority LRAs in our field studies included private-sector participation as well as public accountability. These boards then struggled over how to operate the business of redevelopment while managing constituent politics and balancing regional versus local agendas.

The presence, or absence, of multiple political jurisdictions claiming rights to a base had a strong influence on the choice of LRA. In almost all of our field studies where several jurisdictions claimed a base, the community chose a public authority as the implementation LRA. Competing claims came from

adjacent communities, which either included part of a base within their boundaries or claimed rights to unincorporated land within a base, counties, and Native American communities. Conversely, when a base was in a single local jurisdiction, the local government tended to designate itself as the LRA. Exceptions included Philadelphia and Rome, New York, both of which chose industrial development corporations as managing LRAs under public finance authority umbrellas, and San Antonio, which created a public authority to redevelop Kelley AFB.

Types of organizations

Our field studies yielded examples of all versions of implementation LRAs found across the 95 local impact installations. We grouped them into two categories: local-government LRAs and public-authority LRAs. All had the core powers necessary to undertake development. These included the authority to

- acquire, buy, and lease property,
- sell, exchange, give, or transfer property,
- borrow and lend money and secure mortgages for its debt obligations,
- enter into contracts, and
- issue bonds backed by revenues of the company using the bond proceeds, general obligation bonds, backed by the "full faith and credit" of the municipal or county government, or tax increment bonds.

Figure 2.2
Implementation LRAs in MIT Field-Study Communities

Local-Government LRAs	Public-Authority LRAs
City of Alameda Village of Glenview City of Indianapolis City of Long Beach (with university partner) City of Orlando City of San Diego Town of Stratford City of Vallejo (Mare Is.) Local Government/ Airport Authorities Oscoda Township (Wurtsmith) Village of Rantoul (Chanute) Sacramento County (Mather)	Charleston Redevelopment Authority Fort Harrison Redevelopment Authority Greater Kelly Development Corporation Lowry LRA Mass. Development Finance Agency (Devens) Fort Ord Reuse Authority (with university partners) Public Authority/Airport Authorities Castle Joint Powers Authority England Authority Inland Valley Development Authority (Norton) Pease Development Authority Rickebacker Port Authority Williams Gateway Authority (with university partner) Nonprofit Development Corporation/Authorities Griffiss Local Development Corporation Philadelphia Industrial Development Corporation

In most communities, one LRA received the primary land conveyances associated with economic development reuse, but this was not always true. In several cases, two organizations, the LRA plus either a separate airport authority or a separate state university, received conveyances. Figure 2.2

shows the distribution of organization types chosen by the communities in our field studies.

New civilian airports were part of the redevelopment plan in nine of the 26 field study cases.³ In six cases, a public-authority LRA had jurisdiction over the airport.⁴ In three cases, the LRA was the local government and the airport authority was an administrative department. At Fort Ord, the Long Beach Naval Complex, and Williams AFB, state universities were an important part of the local economic development strategy and received significant conveyances.

Staffing local-government LRAs

Eleven communities chose to make local government the LRA. These communities staffed the LRA either by creating new administrative departments or by calling on existing departments to implement redevelopment. They tended to create new departments when the task promised to be long and complex: Vallejo, California, created the Mare Island Conversion Division, and Sacramento County created the County Department of Military Conversion to manage the redevelopment of the Sacramento Army Depot and Mather and McClellan AFBs. Oscoda Township in Michigan and the Village of Rantoul in Illinois also created new departments to manage base redevelopment. Other local governments called on existing departments, either when the task was fairly straightforward or when an existing department had the relevant experience to manage a complicated redevelopment project. Alameda, San Diego, and Orlando chose to use existing redevelopment organizations.⁵ In Glenview, Illinois, the village manager took on the job. Stratford, Connecticut, lodged responsibility with the town manager and his community development director. The city of Long Beach, where several naval facilities were closed between 1991 and 1995, chose two experienced city departments to manage redevelopment: the Community Development Department and the Long Beach Port Authority. Long Beach also chose California State University Long Beach Foundation to redevelop one site. Finally, in Indianapolis a private nonprofit development corporation is managing redevelopment through the mayor's office.

Public-authority LRAs

Fourteen of our field study communities chose public authorities as implementation LRAs. These included two joint powers authorities plus two industrial finance agencies acting as umbrella organizations to nonprofit development corporations.

In a number of cases, special-purpose planning LRAs recommended the establishment of public authorities. Most often, authorities had small boards, were exempt from civil service requirements, could issue tax-exempt bonds, and could engage in a wide range of property transactions.

The joint powers authorities in our field studies—the Inland Valley Development Authority and the Castle Joint Powers Authority—were responsible for multijurisdictional bases, managed airports, and were in

California. At a third, the Alameda Naval Air Station (NAS), also in California, the communities impacted by the closing set up a joint powers authority, the Alameda Reuse and Redevelopment Authority (ARRA), to plan and initiate implementation. As intended, in 1999, the city of Alameda succeeded ARRA and will complete implementation.⁶

Rome, New York, and Philadelphia, Pennsylvania, chose private nonprofit development corporations to manage redevelopment of bases in their communities.⁷ These entities operated under contract with public corporations that were eligible to receive economic development conveyances. In both cases, the public authority and the private development corporation had overlapping boards.

LRA structure and strategy

Within the jurisdictional constraints outlined above, communities tailored particular organizational arrangements to the specific requirements of their own redevelopment projects. Communities facing very complex redevelopment that would unfold over many years designated or created public-authority LRAs, organizations that could gather sufficient internal resources to address these issues over the long haul. Communities that expected redevelopment to be more straightforward and to occur within a limited time period, say over a ten-year period, chose more flexible organizations or contracted for services. In these situations, local government tended to be the LRA.

Multijurisdictional bases tended to be larger and more complicated to redevelop than bases in single jurisdictions. This gave public-authority LRAs responsibility for the management of the larger projects. Among our public-authority LRAs, the smallest redevelopment area, defined as the total land available for transfer to state and local jurisdictions, was 1,421 acres, at the Charleston Naval Complex. Local-government LRAs, on the other hand, tended to manage redevelopment of the smaller and more manageable sites. For example, local governments chose to be LRAs for all seven of our field-study sites where the land available for state and local use was in parcels of between 65 and 1,000 acres, and most were smaller than 450 acres. These were in Glenview, Indianapolis, Long Beach (the naval hospital, naval station, and shipyard), Orlando, San Diego, and Stratford, Connecticut.

Local governments that faced larger or more complicated redevelopment projects, such as Kelly AFB, the naval complex in Philadelphia, or Griffiss AFB, chose to maintain the continuity required for a long project by designating public-authority LRAs (or an experienced economic development corporation, in the case of Philadelphia) to manage implementation. Yet several communities facing similar challenges all chose to make local government the LRA: at Alameda NAS (where the city of Alameda replaced the joint powers authority as the LRA), Chanute AFB, Mare island Naval Shipyard, Mather AFB, and Wurtsmith AFB.

The choice of LRA also reflected another strategic choice: local-government LRAs were much more likely to seek a private developer to take on actual implementation. Nine of the eleven local-government LRAs in our studies

have chosen or were considering choosing a master developer or a developer-partner to play a major role in implementation. Conversely, none of the public authorities in our study has announced such an intention, although several are using component developers.⁸

Thus, implementation of redevelopment at former military bases in our field studies, for the most part, were and will be by public-authority LRAs acting as master developers or local governments using private master developers or developer-partners. Public-authority LRAs are managing the redevelopment of sites ranging from about 1,400 acres to 3,700 acres. (This does not count Fort Ord, where development authority will eventually pass through to local jurisdictions.) Private developers will manage the redevelopment of many smaller sites, ranging from 100 to 1,000 acres.

Balancing private perspectives and public accountability

Regardless of the type of organization, LRAs sought to achieve both a “businesslike” approach to implementation and to maintain public accountability for the process. Municipalities that chose to be LRAs had built-in public accountability and sought to bring in the private perspective through the LRA’s operational strategy. Public authorities and economic development corporations brought a private perspective to the process through their business-oriented boards. Public accountability was achieved through the board appointment process.

The public board For communities that chose a local-government LRA, the board was the city or county’s legislative arm. Bringing in a private perspective required special strategies. The village of Glenview, northwest of Chicago, relied on its “corporate culture” to provide a business orientation to the redevelopment effort and to keep out constituent politics.

Glenview: Bringing a Business Orientation to Redevelopment

The culture and history of Glenview made its choice to manage redevelopment directly seem natural. Village government had successfully delivered high-quality services without imposing high taxes on its property owners, and voters had confidence in the management ability of its government. In fact, the village’s success in delivering cost-effective services came in part from its entrepreneurial behavior: it had created a revenue-generating water company; and it had enough development experience to make it willing to consider taking on this project. Village government also felt strongly about local control, and it was unwilling to delegate such an important activity to another entity.

Glenview’s village government had a strong nonpartisan business orientation. A seven-member board of trustees, to whom the village manager reported, governed it. Local leadership was remarkably stable: the chairman of the board had been a trustee for 15 years; trustees often ran unopposed. The relative racial and economic homogeneity of the population meant that issues tended not to be overly politicized, according to village manager Paul McCarthy. He noted that the board had more of the taste and feel of a corporate board than a city council.

The city of Orlando designated the City Council, acting as the board of the Community Renewal Agency, as the LRA board, but it also created an advisory committee to add a private-sector perspective.

Choosing an Implementation LRA: Orlando's CRA

While some business leaders in Orlando favored an entity with a strong private-sector orientation, Mayor Glenda Hood wanted a city-controlled organization that would be sensitive to political issues and neighborhood concerns. She chose Orlando's existing Community Redevelopment Agency (CRA), which had overseen redevelopment of Orlando's downtown during the 1980s, to implement the NTC Reuse Plan. The CRA had several advantages: it had successfully undertaken downtown development; it was a city-controlled entity whose board was the Orlando City Council; and it had legal authority to use tax-increment financing. Mayor Hood also created an advisory board to provide ongoing private-sector input to the implementation process. The city later decided to use a master developer to implement its redevelopment plan, and it delegated selection of the developer to the advisory committee.

Some public authorities also had public boards. The Williams Gateway Authority is an example. Its members represented the nearby local governments of Mesa, Queen Creek, Gilbert, and the Gila River Indian Community. These governments not only acted as policy makers for authority, they contributed funds to bring existing buildings up to acceptable commercial standards and funded the marketing effort. They also assisted prospective tenants; having representatives on the board facilitated securing commitments when necessary. Similarly, the Fort Ord Reuse Authority board consisted of the top elected officials of its nine member governments.

Pease Development Authority's Board

According to Pease Development Authority Chairman Bill Bartlett,⁹ "When we put the Authority together, I insisted that there be no elected officials on the board... The idea was to minimize political posturing and grandstanding and to maintain the board's focus on private-sector development and hard-nosed decision making."

Art Nicholas, a PDA Board member who runs a local surveying company, gives the legislature credit for supporting the idea. "It keeps us all at arm's length," he said.

In creating a 7-member board, former PDA executive director and board member George Meyer noted that New Hampshire did it right. Most other boards, he said, were populated with politicians, suffered constant bickering, were too close to the political process, and didn't serve clients properly. At PDA, he pointed out, board members may not hold political office and may not be paid. Meyer said he never saw politics when he served on the Board and PDA appointees didn't experience pressure from those who appointed them.

In 1998, the board included a lawyer, the ex-mayor of Portsmouth, a real estate professional, an insurance person, a land surveyor, and a businessman. Knowing that for businesspeople time is money, the PDA Board made arrangements to make decisions quickly. The board created three subcommittees to do most of its work: marketing, finance, and transportation. When a quick decision was critical—for example, the need to approve a tenant—staff would present the plan to the marketing committee for recommendation, and within a week the board would meet to ratify the decision.

The Business Board While communities recognized that base redevelopment occurs in a political context and that political support was necessary for success, communities that created public authorities as LRAs often did so in order to limit the role of constituent politics in daily LRA operations. This generally meant creating business-oriented governing boards. Business boards tended to be small, and elected officials were often barred from serving. The advantage, said advocates, was that the board's business orientation provided a business direction to the whole operation. The preceding example describes the board of the Pease Development Authority.

In central Louisiana, local leaders feared that a tradition of divisive politics could hinder redevelopment, and they crafted an authority through which these politics could be managed. As at Pease, elected officials cannot be appointed to the England Authority board. The appointing authorities are carefully balanced—a decision that came out of early and hard negotiations.

Creating the England Authority

While the community was fighting the base closure, local leaders in charge of contingency planning decided that an independent authority controlled by a seven-member autonomous board should be responsible for redeveloping the airbase in the event of closure. A transition committee would determine membership of the board, propose specific state legislation defining various aspects of the authority, and secure political agreement for the support and passage of the legislation. Once closure became certain, Alexandria Mayor Randolph appointed a transition committee that included four chamber of commerce appointees, four appointees from the city of Alexandria, two from Pineville, two from the county, one from the county school board, and one from the governor's office. Elected officials would serve *ex-officio*.

The contingency planning process had been kept secret from everyone who was not directly involved, and when it became public, some local politicians reacted angrily to the proposal that an independent authority control the base. Meanwhile, factions in the community moved to claim board positions through the transition committee. Yet people also feared what might happen if they failed to move ahead together. As Mayor Randolph put it,

“There was a strong contingent that wanted the city of Alexandria to take over the base. I opposed that. If we had done that, we would have gotten into turf wars. The first would be with the [county] government. After all, the city had donated land for the base, and the [county] had floated bonds to buy land to donate to the base. Then Pineville would get into it. The best approach was to combine the players—most of the other successful bases did that.”

In a watershed meeting at the chamber of commerce in late April 1991, representatives of various interest groups met and hammered out an agreement. Instead of the proposed seven members, the board would have ten. Since the city had donated most of the land, it would get to appoint three members; the county, as the second major political jurisdiction, would also appoint three. Pineville would get one appointment, as would the smaller towns in the county. To ensure a business orientation to the board, the chamber would appoint two board members, to be confirmed jointly by the city of Alexandria and the county. Elected officials would be ineligible for appointment; thus, people outside of the formal political arena would represent the interests of each political jurisdiction.

Balancing local and regional concerns

For local communities whose economies had been closely tied to a particular installation, the pressure was strong to ensure that the host community captured the benefits of redevelopment, particularly jobs and tax revenues. Redevelopment also promised regional impacts, and some advocated strategies that distributed the potential benefits of base redevelopment quite broadly. Almost all LRAs except individual cities or towns had regional representation built into their governance structure, forcing consideration of regional impacts as part of ongoing LRA deliberations. Regional concerns included issues such as attracting new firms to the area versus relocating existing firms to the base and the allocation of scarce community resources such as potable water, environmental assets (beachfront, wildlife habitats, special ecological systems), and new transportation systems.

In our study, many communities with sole jurisdiction over a base sought to limit regional participation to the planning phase. They accomplished this by creating open but *ad hoc* planning groups and retaining strict municipal jurisdiction over implementation. Even when formal multijurisdictional organizations were created to undertake planning, cities found ways to ensure local control over implementation. An example is the city of Alameda. Alameda is also an island, and the city has jurisdiction over the entire base. In response to federal requirements for a broad-based planning effort, Alameda joined with Oakland, San Leandro, and Alameda County to form the Alameda Reuse and Redevelopment Authority (ARRA), a joint powers authority, to plan for the redevelopment of the Alameda NAS. However, city leaders felt strongly about local control; thus the legislation creating ARRA limited its life to five years. At the end of this time (April 1999) ARRA ceased to exist and jurisdiction and ownership of the base reverted solely to the city. In Oscoda, Michigan, a state-chartered implementation LRA failed to win local political support and it was disbanded after two years of operation. The township of Oscoda took responsibility for implementation.

At Fort Ord, which covered 28,000 acres and crossed several jurisdictions, regional concerns proved powerful. The adjacent communities struggled for years to create an LRA that would balance the desire for local control by heavily impacted communities (primarily the cities of Marina and Seaside) with demands by neighboring jurisdictions and the state that regional considerations be prominently represented. The result was the Fort Ord Reuse Authority (FORA), a state-chartered entity. Nine jurisdictions have appointing power, and appointees are themselves top elected officials from each jurisdiction. FORA has planning jurisdiction over areas of the base designated for private development (individual cities are required to amend their general plans and zoning to conform to the FORA-approved reuse plan). FORA will coordinate the implementation of basewide infrastructure improvements, allocate water rights, and receive the Economic Development Conveyance once it is approved. However, the water and transportation systems will be owned and financed by others, and land conveyances will pass through FORA to the appropriate local jurisdictions, which are responsible for developer selection and implementation. This makes FORA a forum for discussion and resolution of issues of collective concern, but

operational responsibility for implementation rests with local communities, the county, and two state universities.

The communities around Griffiss AFB, which is entirely within the city of Rome, New York, took a different approach: expanding the regional connections of the LRA.

The Regional Context of Griffiss Local Development Corporation

County concerns were present from the start of redevelopment planning at the former Griffiss AFB. The county led the redevelopment planning effort, and the initial planning group, the Griffiss Redevelopment Planning Council, began as a committee of the Oneida County Industrial Development Corporation.

The governance structure of the implementation LRA expanded these jurisdictional connections: the governor, state legislators, county executive, and mayor of Rome appointed the board of the Griffiss Local Development Authority (GLDC). Because GLDC is a private nonprofit corporation and does not meet Defense Department requirements for receipt of an EDC, the Oneida County Industrial Finance Authority became the formal LRA. It contracts with GLDC. Currently, both are housed by an umbrella organization the Oneida County Economic Development Growth Enterprise Corporation (EDGE), created in 1996 to foster a more regional approach to economic development. A 39-member board, predominantly CEOs of private companies, governs EDGE.

GLDC's Articles of Incorporation (written before the creation of EDGE) call upon it to "cooperate and coordinate its activities and plans with local governments in the city of Rome, Oneida County, and the city of Utica and coordinate its efforts with the Oneida County Industrial Development Corporation, Rome Industrial Development Corporation, the City of Utica Department of Urban and Economic Development, and other state and local economic development organizations that may be appropriate."

The closest coordination, naturally, occurs between GLDC and EDGE. At the board level, communication is facilitated by interlocking memberships on the various agency boards. For example, businessman Paul Cataldo sits on both the EDGE and GLDC Board, and County Executive Ralph Eannace is *ex officio* on the EDGE Board and acting chairman of the GLDC Board. In addition, the organizations share staff; employees use time sheets to track hours spent on projects for the different agencies. Yet the organizations retain different mandates. As GLDC Director (and EDGE executive vice-president) Steve DiMeo explained:

"GLDC has a very specific charge. It sells and leases real estate, oversees operations and plans, develops, and implements capital improvement programs."

"EDGE is the single entry point for businesses that are looking to invest in the area. EDGE oversees marketing of the region. EDGE also puts deals together and structures financing for projects."

To address similar tensions between regional and local concerns, the communities around Fort Devens established a partnership with the state to redevelop the former base. Local communities participated in the development of the reuse plan, which they ratified in three simultaneous town meetings. In that vote, the adjacent towns also ceded authority to acquire, manage, redevelop, and provide utilities and municipal services at Fort Devens to the

Massachusetts Development Finance Agency. Authority to enforce the land use plan and issue permits and licenses was given to the Devens Enterprise Commission, half of whose board members the host communities nominate. The Massachusetts legislature gave this governance arrangement a life of 40 years, at which time the legislature will designate a “permanent” governance structure.

THE LRA AND PROJECT RESOURCES

Implementation required expertise in areas such as real estate development, marketing, and business financing, plus financial resources, especially for on-site infrastructure. Securing access to these influenced the choice of LRA and its internal structure. In two of our field studies, communities turned to experienced development organizations to act as LRA for a particular base: Philadelphia Industrial Development Corporation (PIDC) and the Massachusetts Development Finance Agency.

An Experienced LRA: Philadelphia Industrial Development Corporation

Given its experience, PIDC was a natural and undisputed choice to assume overall responsibility for redevelopment of closing Army and Navy sites in Philadelphia. With over 35 years of experience, the organization was the oldest industrial development agency in the country. Tax-exempt financing was PIDC’s original and primary role for many years, and over the years it had acquired expertise in land assembly, infrastructure improvements, and direct financing. Commercial and industrial development financing had since become PIDC’s forte. Through the mid-1990s PIDC had helped more than 3,000 firms grow and expand, from manufacturers and warehouse/distributors to nonprofit corporations. PIDC had worked with firms of all sizes, from those with ten employees to Fortune 500 companies.

The agency was also an important part of a network of economic development organizations in the city. It was created as a joint venture of the 6,500-member Greater Philadelphia Chamber of Commerce and the city of Philadelphia. The chamber of commerce appointed eight of PIDC’s 30 board members. Seven positions were designated for city government and are appointed by the mayor, including the city attorney and director of the commerce department. The other fifteen members were nominated by the president of the chamber and the director of the commerce department and appointed through majority vote. Officials held senior positions both at PIDC and the city government, facilitating communication and political coordination.

PIDC has typically acquired, improved, and then sold property to developers or large end-users. Thus, it had relatively little direct experience with leasing or with longer-term property management. PIDC is using a commercial property management firm for day-to-day property management at the former naval complex.

As the following example shows, the expertise and financial strength of the Massachusetts Development Finance Agency was a key factor in the decision by the towns in which Fort Devens was located to defer to the governor’s choice of the state agency to manage the base’s redevelopment.

An Experienced LRA: Massachusetts Development Finance Agency

The Massachusetts Land Bank (now Massachusetts Development Finance Agency) offered several potential assets to the Fort Devens reuse effort. Through its staff and board, the agency had expertise in real estate development, and through its consultant, it had considerable direct experience in base reuse. Second, it had considerable financial resources with assets of \$71 million in July 1991 and net income of almost \$6 million. Third, as a state agency with the governor's mandate, it had strong standing with other state agencies, such as Environmental Affairs, whose cooperation was vital to reuse. Finally, the director, a former state representative, had strong relationships with the legislature that could prove valuable in securing future legislation and state funding.

Not only did the agency offer significant resources, it became apparent to the host communities that they lacked the financial resources and organizational capacity to oversee the process. A fiscal impact study released in February 1993 (commissioned by the state but conducted in close cooperation with the towns) reported that the three towns faced budget deficits of \$20 million over ten years since the costs of local services would exceed new tax revenues for the foreseeable future. The town of Harvard faced the largest share of these projected deficits.

As they faced the practical realities of reuse, the towns recognized the value of the agency's resources and expertise. The agency, for its part, could not succeed as the project's lead agency without a local partnership. It sought and obtained responsibility for this large, high-profile project, but any plans for Devens and the bank's ability to implement them required local acceptance and support. It was at this point that the adversaries began to collaborate.¹⁰ Both the Joint Boards of Selectmen and the agency recognized that they needed each other to succeed.

The potential creation of bonding or redevelopment districts was another important factor in the choice of an implementation LRA. The communities surrounding the 2,164-acre Norton AFB recognized the need for tax increment financing (TIF), and they chose to create a joint powers authority with a broad geographic jurisdiction. Under TIF, a community first designates a taxing district and a base year for tax collections. The community then pledges incremental tax revenues above those received in the base year to finance capital improvements in the district. And at 14,000 acres, Norton's large redevelopment district maximized the feasibility of tax increment financing. In a similar move, the creators of the England Authority in Louisiana included the power to issue tax-exempt revenue bonds in the enabling legislation, and they defined the Authority's lending area to include all of Rapides County, well beyond the area occupied by the former base.

Even for communities that chose to make the local government the LRA, potential financing was a consideration. Orlando designated its Community Redevelopment Authority as the LRA in part due to its ability to issue tax-increment financing. Glenview relied on the village's AAA bond rating to ensure that it could provide the public investment necessary for redevelopment.¹¹

Once an LRA was designated, it began to assemble the necessary expertise. For an existing organization (all eleven local governments, PIDC, and the Massachusetts Development Finance Agency), this meant complementing the skills and experience of existing staff. For a new organization (eleven public-authority and joint powers LRAs plus Griffiss LDC), it meant creating an entirely new staffing structure. In assembling the necessary expertise, LRAs in our field studies used the following options, either alone or in combination:

- Hiring consultants
- Bringing experienced outsiders (including development partners) into the organization
- Developing internal expertise
- Developing inter-organizational networks

Most sought expertise in marketing, in private-sector development, and in dealing with the military.

Using consultants

All LRAs in our study used consultants. Most communities hired consultants to prepare the initial plans, but implementation LRAs also relied on consultants to provide advice on specialized topics ranging from bond issue structuring, environmental remediation, utility operations, and infrastructure evaluations to long-term development strategies. In many cases, these consultants documented their findings, provided LRAs with the appropriate reports, and moved on to the next consulting assignment. However, in some cases, consultants provided long-term services and/or, interacted with LRA staff in such a way that they became part of the LRA's management structure.

Long-term relationships often grew out of reuse planning, when LRAs decided to develop and implement specific strategies in which the planning consultant had a special expertise. For example, the Griffiss Local Development Corporation and its related economic development agencies have continued to rely on the consulting firm originally hired to propose ways to use the resource of Rome Laboratory to stimulate business development in the area for advice on more regional economic development strategies. The reuse plan for England Airpark was prepared by a firm with expertise in aviation planning, and the England Authority has continued to rely on this firm for long-range planning related to the development of the airpark. At Fort Ord, the consultant originally retained to assess the condition and capacity of infrastructure has continued to advise the Authority on its complex infrastructure needs. In fact, given the turnover of staff, the number of different LRAs, and numerous plans created for the base, that consultant now retains much of the institutional memory about planning at Fort Ord.

Marketing was another important area of consultant services, for which LRAs relied on national brokerage firms, national accounting firms with real estate groups, and public relations firms. The Massachusetts Development Finance Agency signed an exclusive contract with a national brokerage firm to manage leasing at the Devens Commerce Center as well as

to provide marketing advice to the LRA. The city of Vallejo hired a national accounting firm to do public relations, marketing, lease negotiations with larger tenants, and to provide assistance finding developers for Mare Island. PIDC hired the local office of a national brokerage firm to help the agency build its property data base and to provide property management and leasing advice. PIDC also hired a public relations firm to help it develop and carry out its marketing strategy. Although they do not attend staff meetings, these consultants have in a sense become “members of the family,” taking on tasks and responsibilities that other agencies might conduct in-house.

Consultants provided real estate advice, in the form of strategic advice as well as detailed marketing analyses. Consultants served as advisors, acting as extensions of LRA staff and providing information and education in the process. For example, when the city of Long Beach retained a real estate predevelopment and evaluation services firm to help staff develop its strategy to market the Long Beach Naval Hospital site for retail development, its goal was not the receipt of a detailed report. Rather, the consultant interacted with staff, helping it to think through the issues and devise feasible strategies for action.

Finally, consultants often provided important advice on the workings of the military. At Kelly AFB in Texas, the closing was extended due to the potential for privatizing and continuing some of the Air Force’s aircraft maintenance and repair operations at the base. To help ensure that redevelopment plans accounted for the ongoing presence of the Air Force, the LRA hired consultants who were familiar with Air Force operations. Similarly, the city of Indianapolis brought consultants knowledgeable about naval operations onto their planning team, which was seeking to privatize operations at the Naval Air Warfare Center. Although the team had a short life (disbanding after the city and the Navy reached agreement on the privatization plan) consultants and city staff worked interactively, each bringing their particular expertise to support the team as it sought to achieve its objective.

Bringing in experienced outsiders

Another strategy for bringing outside experience into the organization was to hire new and experienced individuals as staff. This meant seeking a particular person to lead the LRA. Alternatively, it meant complementing the expertise of existing staff, as needed.

The reuse plan for Lowry AFB called for extensive private development, and the LRA search committee sought someone with a relevant private real estate background. They found James Meadows, who had had 24 years of experience with private-sector residential and commercial development, including master-planned communities, in California, Arizona, and Texas, before becoming director of the new Lowry Economic Redevelopment Authority. Meadows also knew something about the Air Force: he had graduated from the Air Force Academy and been a pilot for six years with the Strategic Air Command. (See the Lowry case in Chapter 3.)

Other communities wanted to make up for their lack of experience dealing with the military. Retired military people played key staff roles in four of our seven longitudinal cases: Orlando Naval Training Center, Fort Ord, England AFB, and Mare Island Naval Complex. Vallejo placed its priority here and hired Gil Hollingsworth, a retired Navy commander with extensive experience planning base closures, to direct its implementation LRA, the Mare Island Conversion Division. In Orlando, experience with the military was seen as an early priority that later gave way to the need for development expertise. There, the community hired Herb Smetheram, a retired Navy captain, to direct its planning commission. Smetheram had been a strategic planner for defense contractor Martin Marietta Corporation and the former commanding officer of one of the activities at the Orlando Naval Training Center. He brought with him an extensive knowledge of the facility and an understanding of the Navy's bureaucracy. However, when the city moved into implementation, it put Tom Kohler, executive director of the Community Renewal Agency, in charge of the effort, and it hired a new director of real estate and business development, Robert McClelland, to bring private-sector real estate marketing and development experience to the project. McClelland had been vice president of Lincoln Properties, an active developer in central Florida. Smetheram was reassigned as Federal Liaison Director.

For Oscoda Township, in rural northern Michigan, job creation was the priority. The township established as its implementation LRA the Office of Economic Development, and it hired as its executive director Carl Sachs, who came with extensive experience with rural economic development.

Assembling and developing internal expertise

LRAs also turned to people in their own communities to provide the necessary expertise. In some cases, key leaders in the early stages of the closure process became key staff for the redevelopment effort. In other cases, LRAs began by relying on consultants and later replaced them with internal staff. For example, Pease initially relied on outside consultants for its marketing. When George Meyer became the executive director of the Pease Development Authority in 1994, he hired George Bald, former mayor of Somersworth and economic development director in Rochester New Hampshire, to direct marketing activities. He also added new legal people, and "turned loose" people who were on staff. Similarly, the Williams Gateway Authority in Arizona chose to invest in an internal marketing team. The Authority first hired a consulting firm to prepare a marketing plan; it then hired a small marketing staff to implement the recommendations.

In Philadelphia, the LRA assembled a team of experienced staff from different departments including the city's Commerce Department and its Office of Defense Conversion (ODC), PIDC, the Zoning Board, the Redevelopment Authority, and the mayor's office. This broadly connected staff facilitated coordination, expedited a variety of transactions, and may have enhanced the city's political clout in securing additional federal funding for the conversion effort. The deputy director of the city's Commerce Department and the deputy chief of city planning regularly attend ODC's staff meetings.

In San Diego, when the Reuse Planning Committee disbanded, the city created an NTC Project Team to manage implementation. The team was led by Gail Goldberg, a former project manager for the planning effort. The city staffed the team with experienced redevelopment staff from its planning department, marketing staff from the city's real estate division, and public works staff to deal with utility systems on the base.

Using local networks

While LRAs sought to manage the multiple requirements of redevelopment by building staff capacity and hiring consultants, the challenges and time pressures often stretched these resources. In about half of our field study cases, participants said they extended the capacity of their own staff by building operational relationships with other organizations in the community.

At Castle, a prospective tenant initiated a network approach to facilitate its workforce recruitment and training and to fast-track the permitting of its new facility.

Creating a Community Team: Castle Joint Powers Authority

Before Pacific Telesis expressed an interest in setting up business operations at Castle and imposed team work as a prerequisite to the successful completion of the deal, the JPA relied on in-house expertise and worked with very few partners. The relationship of the JPA with the local broker community was minimal, and the Castle JPA participated only to a limited extent in efforts by the state of California Trade and Commerce Agency to promote regional cooperation and networking among LRAs and with other economic development organizations. Leasing and marketing coordinator Cheryl Grover described her job as “a solo venture for the most part.”

As a team-based company, Pacific Telesis was used to working with multiple players behind a leader. John Buckley described his company as a group of businesses linked together by a strong network, rather than just one pyramidal corporation. Buckley brought this team culture to Castle. According to Buckley,

“We absolutely needed a community team approach to this project... I actually wrote a letter that requested a team approach. I asked that the JPA not act independently from the Merced County Economic Development Corporation, from the economic development departments of the adjacent cities, and from the local colleges that were promising to help with training. I asked that they all be incorporated in one team.”¹²

The California State Trade and Commerce Agency organized a five-person core working group, each with specific tasks. The president of the Merced County Economic Development Corporation dealt with human resources issues and served as the team leader; the Castle JPA executive director was the main interface with the Air Force; the planning director of the city of Atwater was in charge of the annexation issues and municipal services; the planning director of Merced county took responsibility for fast-tracking the permitting process; and the economic development director of the city of Merced worked on the financing aspects.

The city of Vallejo used networks to extend the reach of its small community development staff and part-time mayor. To help the city to manage the

planning effort for Mare Island, the Mare Island Futures Work Group created a three-person “conversion staff.” The group then engaged three consulting firms. Still, the task was ambitious. Vallejo Community Development Director Alvaro da Silva explained how this very small staff was able to manage the effort in the limited time they had.

We network. We use the Solano County business assistance center. We borrow staff from other agencies... We bring ourselves to the attention of businesses and realtors... We rely on real estate brokers.

Networks have proved particularly important in marketing bases. For example, in Sacramento, the county government is the LRA, and it has strong links to other county organizations, state agencies, and area chambers of commerce. The county relies on its networks, and especially the Sacramento Area Commerce and Trade Organization (SACTO), for marketing. SACTO is a nonprofit corporation that includes both public and private groups. Its mission is to recruit to the region and retain quality companies. Another example is PIDC, an important node in Philadelphia’s economic development network and a key factor in the city’s choice of the organization to manage redevelopment. Participants say much of the city’s leasing success has been due to PIDC’s networks.

Private partners

As noted above, most local governments that chose to be LRAs also chose to give major responsibility for implementation to private developers. They then learned from their private partners, either by bringing them into the LRA organization or through the developer selection process. The village of Glenview retained the firm Mesirov Stein as its “development advisor” with an express intent to learn from the firm. Sacramento County hired Peter McCuen’s development firm to provide a wide range of development and management services for Mather AFB. The city of Orlando selected a master developer and used the selection process as an educational tool. Seaside, at Fort Ord, selected development partners for specific projects early, then used the developer’s skills and resources to extend their planning and negotiating capacity. (See detailed examples in Chapter 4)

THE LIFE OF LRAs

Ultimately, most LRAs had to convert large property holdings to multiple small uses that included privately owned and managed business operations. Key to the “conversion” process for LRAs was the ability to adapt to change.

LRAs accommodated change by becoming new organizations or by changing internally. Communities typically changed LRAs between the completion of the initial plan and the start of redevelopment activities. Planning committees disappeared as communities designated local government or public authority to take on implementation. Local governments that had managed planning turned implementation over to different government departments, to experienced nonprofit development corporations, or to new public authorities. Public and joint powers authorities that had been created to undertake planning as the first step of the development process yielded

ground to local governments, who decided to keep control of implementation. And a number of LRAs restructured themselves.

Sometimes, the intent of the reorganization was to redistribute decision-making control. In 1990, the community around Norton AFB, north of Los Angeles, created the Inland Valley Development Authority, a joint powers authority, to redevelop the former base. Two years later, it created a second joint powers authority, the San Bernardino International Airport Authority, to develop an airport on the site. The two authorities were intended to accommodate differing levels of interest in airport versus nonairport development expressed by adjacent communities. These communities have since reached agreement on a core group that will remain involved in both airport and nonairport development, and the two authorities have merged. The desire for local control also motivated the reorganization of LRAs responsible for the Alameda NAS, Wurtsmith AFB, and Fort Ord.

In other cases, the desire for a more regional approach prompted LRA restructuring. The umbrella organization that housed the Griffiss LRA was reorganized to foster a more regional approach to economic development, setting the redevelopment of Griffiss more firmly within a regional context. The creation of a succession of LRAs at Fort Ord reflected a struggle over how to balance regional concerns about resources—water, the regional transportation system, and the environment—with the development aspirations of two state educational institutions and several local communities. Managing regional and local conflicts also prompted the restructuring at Charleston naval complex.

Some LRAs, mostly public authorities, were new quasigovernmental organizations that will remain responsible for the management of new civilian business parks, airports, or multiuse communities far into the future. Examples are Williams Gateway Airport Authority, the Pease Development Authority, and the Oscoda-Wurtsmith Airport Authority. Others will live on as separate jurisdictions with police power, but no voters. The England Authority will play such a role in perpetuity at the England Airpark, and the Massachusetts Development Finance Agency will be responsible for the Devens Commerce Center for at least 40 years.

Others, such as local-government LRAs and PIDC in Philadelphia, were preexisting organizations expected to continue long into the future; the base redevelopment was simply added to its other work.

The following example shows how internal restructuring allowed an organization to change over time. Jon Grafton, director of the England Authority in Louisiana, saw “transforming the organization to meet its public mission” as his primary challenge when he became the Authority’s executive director in December 1993. He had been city clerk in Alexandria for 14 years and brought to his new job an awareness and understanding of the public sector. This is how he described the process :

An Evolving LRA: The England Authority

The England Authority, which began with a small group of businessmen skeptical of government and of public bureaucracies, has grown into a public organization governing what some call a small city. In the process, the Authority went through several phases.

Civilian to Military. Before the closing, the Authority dealt with the base commander and Air Force command structure, primarily. Although the Authority itself could behave in a private entrepreneurial way, it needed people who understood military protocol.

Local to Federal Bureaucracy. At closure, responsibility within the military shifted from the Air Force command structure to its Washington-based civilian bureaucracy, which had a different language and procedures. The Air Force Base Conversion Agency set up a 12-person operating unit at England to ensure environmental cleanup, provide caretaker oversight, and facilitate property transfer. The Authority also began dealing with other federal agencies, including Environmental Protection Agency, Federal Aviation Administration, Economic Development Administration, and Department of Labor.

While the England Authority was shifting its outlook, Grafton noted a parallel change occurring within the Air Force. “When the Air Force Base Disposal Agency became the Air Force Base Conversion Agency, its outlook also shifted, from ‘government guardian making life difficult’ to ‘steward of government assets working to help the local community as much as possible.’ The evolution did not occur overnight, however,” he said. “One could see the change over a space of about 4 years.”

Local to Local. As the Authority moved into Airpark reuse, it transformed itself into a staffed, public-purpose organization, complying with public meeting laws and opening its processes to public scrutiny. As it completed reuse and moved into redevelopment, the Authority shifted again, from an organization focused on filling the Airpark and reaching self-sufficiency to one concerned with long-term strategy.

Between early 1992 and the end of 1995, the England Authority had six organization charts. People who were perfect matches for the organization’s “civilian-to-military” phase proved inappropriate for its local-to-local phase. This made staffing a difficult and ongoing process. Early staff included a former Air Force officer who had represented the Air Force in negotiations with the community. Later staff included former senior administrators for the city of Alexandria and a former banker.

The Authority also went through a major transition from a board-run to a staff-run organization. Through March 1992, board members made the decisions and did all of the work. In the next phase, the board operated with a small staff, but it retained a great deal of operational control. The board has since made the difficult transition to become a policy-making body, relinquishing operational control to the staff.

Finally, a number of LRAs were created only to accomplish the job at hand, converting the base to civilian use. The Alameda Reuse and Redevelopment Authority ceased to exist in 1999; the Lowry Economic Redevelopment

Authority will cease to exist in the year 2009; and the Fort Ord Reuse Authority is scheduled to cease to exist in the year 2014. The intent at Fort Ord is for the boundaries around the site to disappear, for existing communities and jurisdictions to annex the land, and for a series of new communities to eliminate the military aura of the place. However, a group of people once stationed at the base, called the Fort Ord Alumni Association, has convinced at least the California State University Monterey Bay to retain the names of all streets named after soldiers on its 1,200-acre site. FORA may cease to exist, but the names of Fort Ord's soldiers will not fade away.

In the next chapter, we discuss strategies LRAs have used to replace jobs and economic activity lost when the base closed.

Protesting a closure, Kelly Air Force Base, 1993.

Source: Kelly Air Force Base Office of History



Overhauling C-5 engine, Kelly Air Force Base, c. 1985.

Source: Kelly Air Force Base Office of History



In its heyday, Building 375 at Kelly Air Force Base was filled with aircraft undergoing maintenance and modification.

Source: Kelly Air Force Base Office of History



In May 1998, Building 375 stood empty for the first time in more than four decades as Boeing prepared to assume occupancy.

Source: Kelly Air Force Base Office of History



With Boeing working as contractor to the Air Force, Building 375 returns to life.

Source: Kelly Air Force Base Office of History



*Mare Island Naval Shipyard after closure:
Facilities for heavy industry include cranes
and drydocks.*

*Source: City of Vallejo Economic
Development Department*



*An industrial building at Mare Island
Naval Shipyard now occupied by a steel
fabrication company.*

*Source: City of Vallejo Economic
Development Department*



*Environmental cleanup at Mare Island:
Detonating unexploded ordnance.*

*Source: SSPORTS Environmental
Detachment, Vallejo, California*



*Mare Island environmental cleanup:
Drilling to check for contamination.*

*Source: SSPORTS Environmental
Detachment, Vallejo, California*



*Mare Island environmental cleanup:
Testing new equipment for removing
asbestos from buildings.*

*Source: SSPORTS Environmental
Detachment, Vallejo, California*



Chapter 3: The Economic Challenge of Base Closings

Base closings create opportunities as well as dangers for their host communities. Many bases have resources that are capable of attracting new businesses—such as good access to highways, railroads, waterways, and airports—as well as desirable physical settings, such as waterfronts and woodlands. Most include at least a few buildings that can be converted to civilian use: the typical training base contains classroom buildings, housing, offices, child care centers, medical clinics, and a variety of industrial equipment. Further, many have a skilled work force that can be a great asset to new businesses. As a result, the reuse of the base itself is a core element in the economic development programs of most communities.

ENGAGING THE REAL ESTATE MARKET

Base redevelopment involves many typical features of real estate development: replacement of obsolete facilities, provision of infrastructure, subdivision of land into building sites, marketing property to developers and end-users, and new construction in compliance with land use and building regulations. As a result, real estate development has become a pathway to the long-term goals of economic development and job creation on the former bases, and LRAs learn to manage both real estate and economic development. Managing real estate development on military bases poses a series of problems for the LRAs:

Environmental contamination Contamination is typical, as at obsolete industrial sites, and may take several years to remedy. Meanwhile, federal regulations prevent conveyance of most contaminated sites to new owners, delaying redevelopment of the base. The military services take responsibility for cleanup and its costs, but progress is often slow.

Substandard infrastructure and buildings When the bases were built, federal sites were not subject to state or local building codes. Many roads, utility lines, and electrical systems do not come up to code standards or to the more demanding commercial standards for real estate development. Many buildings do not comply with standards of the Americans with Disabilities Act. Federal aid is available to pay part of the cost of bringing infrastructure up to standard, but the cost far exceeds federal assistance. So, finding the up-front money for infrastructure improvement is a major problem.

Uncertainty about the future development of particular parcels During the early years after a closing decision, the future use of specific properties is unknown and usually unknowable. As a result, potential investors cannot be sure what will be across the street from their property on land that is not yet zoned and does not yet have public services. Among public services, the case of electricity illustrates the problem: service providers do not want to risk investing funds in locations where there are no customers, and business firms do not want to locate plants in places without an assured supply of electricity.

Uncertainty about property conveyance Local communities do not know at the outset which base property may be available to them, and on what terms. In the early stages of base reuse, property is screened for possible transfer to other federal agencies, state and local governments, and providers of housing and services for homeless people before it becomes available for economic development. During the screening process—which usually goes on for several months—the community’s LRA is unable to make firm plans for base reuse, while other organizations with higher priority carve out sites they consider useful. In the process, the base could be converted from a large property in single ownership into a checkerboard of parcels selected for their attractiveness to an assortment of potential users.

Figure 3.1 Typical Steps in a Marketing Procedure

Market research: Obtaining and assembling reliable information on the demographics, labor force, quality of life, and economy of the region where the base is located. Market researchers compare the local area with competing markets, in order to identify the competitive strengths and weaknesses of a location.

Market positioning: Identifying industries whose characteristics are compatible with the particular strengths of the region. Positioning is based on a comparison of the region with competing areas and their population characteristics, economic trends, industrial makeup, construction costs, transportation access, housing costs, school systems, and other factors likely to concern a prospective company or industry.

Determining a market niche: Defining sites suitable for development and finding the most promising use of these sites, reflecting their most unusual strengths or assets.

Marketing promotions: Preparing informative material for distribution to potential tenants and buyers, financial institutions, community groups, and public officials; using advertising targeted to selected industries or geographic regions; and using public relations promotions, events, and media stories to build general awareness and support in the community and among business and political leaders.

Market outreach: Generating leads by building and maintaining communications with brokers, utilities, economic development agencies, and national business and trade associations.

To cope with these problems, the most prevalent practice among LRAs is the *normalization* of base property: that is, changing the status of a military base from a federal property unsuitable for private development in its present form, and subject to many uncertainties about future use and ownership, to a property that can be integrated within the normal functioning of private real estate markets. Normalization is a prerequisite for industrial or commercial development. It amounts to repackaging base property to make it essentially like other real estate—that is, divided into parcels of manageable size, with full utility services brought to the site, subject to state and local land use and building regulations but unencumbered by special federal restrictions or review procedures, with clear title, and available for rent or sale on conventional terms. To manage this transition, the LRA must establish control over the property and must conduct its real estate operations in general conformity with local practices.

Beyond normalization of property, LRAs learn to operate within real estate markets. To accomplish this purpose, they typically take a series of actions to learn about the characteristics of the real estate market within which they operate and they devise plans consistent with those characteristics.

PROMOTING ECONOMIC DEVELOPMENT

In addition to coming to terms with the real estate market, LRAs must design economic development strategies that will attract job-creating businesses to the base. More specifically, their task is to identify and make contact with appropriate businesses—appropriate for the community and appropriate for the business. This kind of identification, often referred to as market positioning, involves evaluating the community's strengths and weaknesses for particular industries, learning about the local and regional demand for industrial and commercial real estate, and finding a market niche that will attract new investment and business expansion based on the competitive advantages of the location. To help acquire this knowledge, LRAs typically hire experienced marketing staff and/or consultants who conduct analytical studies and make contact with potentially interested companies.

In planning the redevelopment of a base, successful communities have not relied on a single strategy: they have used multiple approaches to accomplish their objectives. Economic development strategies differ from base to base and also change over time as local authorities accomplish the various stages of their work. This chapter will explain and illustrate how LRAs have made use of economic development strategies. The cases described here do not represent a cross-section of all LRAs nor are they representative of all base closings. Our purpose in this chapter is to report on a group of LRAs that are beyond the planning stage and are well into the implementation of economic development programs, with special attention to strategies and procedures that appeared most prominently in our research:

- Finding business that will benefit from regional growth trends and regional advantages
- Providing special infrastructure to promote economic development
- Selecting business firms and public users as magnets to draw more business
- Capitalizing on military assets (such as aviation facilities or industrial equipment)
- Bringing together clusters of companies in related fields that do business with one another
- Taking advantage of synergies between business and educational institutions
- Outsourcing government work to businesses in the area
- Finding promising market niches
- Working with experienced consultants and business developers

Marketing Mare Island

Vallejo, California, illustrates how local redevelopment authorities learn to engage real estate markets. Vallejo tried multiple approaches. Faced with the announced closing of the Mare Island Naval Shipyard in 1993, local officials recognized their own limitations and turned to outside experts for advice. They contacted the Urban Land Institute, the leading professional association of real estate developers, and commissioned the Institute to send a panel of experts who would spend a week advising Vallejo in January 1994. The key question Vallejo officials posed was whether shipbuilding had a future in California. The advice they received was unequivocal: the prospects for attracting shipbuilding were virtually nonexistent and Vallejo should not waste time and resources investigating the matter. As further steps to become more knowledgeable about the market, Vallejo staff networked with county and state economic development organizations, established contact with realtors and other business people, and discovered that with proper incentives they could get real estate brokers to help them identify prospective businesses to recruit.

Further, Vallejo staff and consultants conducted a series of analytical studies to help identify their comparative advantages. One study surveyed the supply of vacant industrial land in their region and discovered that sites for light industry were plentiful but that Mare Island was exceptional in offering suitable locations for heavy industry. To find out more about the kinds of businesses that might want to locate on the base, the LRA organized “Vallejo by Invitation,” an open house that would test the market for business sites. Contrary to early expectations that interested businesses would come mostly from out of state, most firms that responded to the invitation were already established in California and were looking for places to expand.

By 1995, their efforts to increase their contacts with the private sector led them to integrate nationally recognized firms within their own operations. They hired experienced consultants for recruiting businesses, negotiating leases, financing tenant improvements, and developing a marketing and real estate disposition strategy for the base. Recognizing that Vallejo was not a major real estate market, they hired a San Francisco public relations firm to spread the word about their accomplishments and succeeded in getting national exposure in the *New York Times* and *Wall Street Journal*. Publicity, plus word-of-mouth, began to generate many leads. When people called to ask about space availability, they organized tours of the base—with more than 200 tours in 1997 alone.

Taking a further step toward integrating private-sector people within the LRA, Vallejo decided to bring in private real estate firms as master developers. In 1996, they chose Legacy Properties of California to develop a 192-acre parcel near the main entrance to the base as a light-industrial and business park. The following year they selected the national firm of Lennar Corporation as master developer for 650 acres in the center of Mare Island, also designating Lennar as property manager for the site.

Another important step was to remedy infrastructure defects and to find companies that would provide gas, electricity, and telephone service to the

base. Vallejo took responsibility for upgrading the drinking water, stormwater, sanitary sewer, and transportation systems at an estimated cost of \$205 million. The Navy invited bids for the telephone, gas, and electricity systems. It awarded the telephone system to the sole bidder, GST Telecom, for \$10,000. The local utility company, Pacific Gas & Electric, declined to bid on the electric system. The Navy then accepted an offer of \$50,000 from the city of Pittsburg, California, for both the gas and electric systems. Pittsburg established a municipal utility district and arranged for a subsidiary of San Diego Gas and Electric to operate the gas and electric systems. As of December 1997, GST Telecom had spent \$1 million to upgrade and expand the telephone system, and the gas and electric improvements were expected to cost \$8.2 million. Normalizing the infrastructure required large up-front investments.

The LRA followed the results of its own survey of industrial land and took steps to attract heavy industry to Mare Island. Recognizing the importance of rail service to heavy-equipment manufacturers, it brought in California Northern Railroad to operate the rail tracks on the base for moving raw materials as well as finished products. The first large civilian employer to come to Mare Island was a manufacturer of steel products such as bridge sections, oil derricks, missile towers, and petroleum refinery equipment. The factors that attracted this company included the experienced shipyard work force; the fenced and secure industrial area; the availability of rail, barge, and highway transportation; and a variety of surplus equipment that was leased with the building, including fork-lifts, cranes, and high-strength docks.

The firm had started as a shop with four employees in 1986, and soon outgrew its quarters in Napa. It moved to Mare Island with 40 people in 1995. By 1999, it had about 120 employees, many of whom were former workers at the Mare Island Shipyard. When it first came to Mare Island, it did so on what was then a standard Navy lease for five years. Company executives who saw their business expanding were investing substantially in worker training and property improvements. They were extremely unhappy about the shortness of their lease and the insecurity of their tenure at Mare Island. The Navy at first refused to extend their lease, but in 1997 took an important step to keep them on the base by converting the initial lease to a 15-year term.

The company's satisfaction with its facilities led two industrial painting companies to move to Mare Island. On the basis of their prior work with the steel manufacturer they had a favorable impression of Mare Island, and both needed more space than they had in their existing plants in the area. They leased the shipyard's former paint and blast shop and agreed to a provision requiring them to fill at least 90 percent of an estimated 100 newly created positions with former shipyard workers.

The good fit between Mare Island and heavy industry was predictable. In addition, however, Mare Island soon began to attract types of business that were not anticipated. One was film-making. Warner Brothers, Disney, and other studios filmed parts of major movies at Mare Island, using large interior spaces for sound stages and the wide variety of building exteriors as

outdoor sets. The film studios paid rent to Vallejo, hired as many as 300 people at a time, and turned to local businesses for goods and services.

Business firms turned out to have an interest in office space as well as industrial buildings. One of the most attractive and historic areas of Mare Island consists of 11 large homes built for Navy commanders in 1903. By 1998, Vallejo had leased six of these as corporate headquarters, mostly for manufacturers and construction firms operating at industrial facilities on Mare Island. Nonindustrial occupants include a U.S. Forest Service regional headquarters relocated from offices in the San Francisco area to a former training facility at Mare Island, moving three hundred employees to the base. Still another break from the industrial pattern was a decision of the Touro University College of Osteopathic Medicine to relocate from leased space in San Francisco to classroom buildings at Mare Island. Touro officials anticipate an enrollment of some 2,000 students within ten years.

Vallejo's multiple strategies and its early success in converting the military base into marketable real estate made a promising start, but it is still a long way from replacing lost civilian jobs. In 1993, the year of the closing decision, the civilian work force at Mare Island was just below 6,000. By early 1998, there were some 1,400 civilian jobs on the base.

Normalization at Lowry Air Force Base

Lowry AFB in Denver provides another illustration of the normalization process. In this case, normalization of the property also involved changing the reuse organization from a planning LRA to an implementation LRA. The program of the LRA changed from early emphasis on political mobilization to a business orientation suitable for implementing base reuse plans.

During the two years after the closing announcement in 1991, neighborhood politics set the tone for most of the work. Since the base was partly in Denver and partly in adjacent Aurora, the two cities joined together to work on reuse plans and assigned major roles to neighborhood associations; Denver and Aurora together had no fewer than 370 officially recognized neighborhood associations. The governing board of the planning LRA, known as the Lowry Economic Recovery Program (LERP), consisted mostly of local elected officials, and the two mayors appointed a citizen advisory group of forty residents with good connections to neighborhood groups.

By late 1993, LERP completed the reuse plan. It focused on strengthening the local economy, extending nearby residential neighborhoods into the former base, and providing a substantial amount of recreational and other open space for an area wedged between two built-up cities. The economic development strategy was to bring together business offices with educational facilities that would serve many business needs and help to attract firms to the site. The plan proposed using the northeast part of the base for a campus offering education ranging from full training in business and vocational trades to graduate degree programs. This campus would bring together a consortium of colleges from metropolitan Denver that needed more space to accommodate growing enrollments and new programs. The southwest

section was set aside for a variety of office and classroom buildings sited among tree-lined streets and architecturally significant buildings. The schools were expected to enroll some 10,000 students and to generate a substantial number of jobs. Together the campus and the business center would fill 20 percent of the 1,866-acre base. Residential neighborhoods would occupy close to 30 percent of the site, and open space and recreation would account for 40 percent. Denver and Aurora formally adopted the plan in 1995.

LERP also put forward an important set of proposals for implementing its plan, including an organizational strategy in keeping with the concept of normalization. Its disposition plan was to transfer appropriate parcels from federal ownership to nonprofit and public-sector agencies for the education and training centers and several other public uses. The transfer would be effected through public benefit conveyances, an established procedure for giving federal property to local organizations at no cost, provided that the property would be used for specified nonprofit public purposes. For the new private-sector activities in the business and training center, and for the residential neighborhoods, the plan was to set up a new LRA that would represent both Denver and Aurora, would work with the Air Force on property disposition, and would negotiate an acceptable financial arrangement. This implementation LRA would be responsible for marketing land, working with city officials to facilitate zoning and development approvals, and coordinating the construction of infrastructure to promote cost-effective redevelopment. As LERP completed its work, project manager Kay Miller left the organization for a position at a California base, and the executive committee searched for a new director to take charge of implementing the reuse plan.

A new business perspective The shift from planning and politics to real estate development and business recruitment led to a search for a new director with relevant business experience. In May 1994, the executive committee appointed James E. Meadows as executive director of LERP and of the successor organization that had not yet been created. Meadows brought to the position 24 years of experience in private-sector residential and commercial development including master-planned developments in Arizona, California, and Texas. His most recent position had been as senior vice president and head of California and Arizona homebuilding operations for Castle and Cooke Homes. His responsibilities had included real estate acquisition, lease negotiations, marketing, financial planning, infrastructure planning, and asset management. An engineering graduate of the Air Force Academy, he had served as a pilot for six years. Before accepting the Lowry position, he insisted on having a businessman's board rather than citizen activists. His new board of directors had the private-sector orientation he wanted, with two finance specialists, two real estate attorneys, and several people experienced in retail real estate development.

Meadows continued the strategy that the LERP executive committee had begun by seeking public benefit conveyances for organizations that would help draw desirable businesses to Lowry: the Community College and Occupational Education System, Colorado Department of Public Health and Environment microbiology and chemistry laboratories, Belle Bonfils Blood

Bank and research facility, and the nonprofit public broadcasting and instructional programming Pacific Mountain Network. These moves were in line with LRA efforts to attract high-tech organizations, including biotechnology firms, to the base. Meadows explained his strategy this way: “Rather than monetary incentives, we’re using things like having a college campus as a draw. A couple of the public benefit conveyances are medically oriented. We’re only two miles from the state medical school, and a state lab and blood center will bring incubator-type companies. We’re going after magnets.”

Meadows used his real estate background to size up the competition Lowry would face from several important development sites nearby. Denver had already embarked on a large redevelopment project on industrial land close to the city center. That site was slated for an extension of downtown featuring professional sports facilities, entertainment, and high-density housing. Meadows believed that Lowry could offer an alternative to downtown. Another large development area had been created by the closing of Stapleton Airport. Meadows noted, however, that the Stapleton site was still controlled by city government, while Lowry was managed by an independent authority. “We’re able to do real estate transactions in almost real time. If they want to put together a transaction, they have to go through a lot more layers than we have to. The bureaucracy of city government doesn’t allow you to move very quickly.”

Meadows also devised a strategy for marketing base property. Making maximum use of what was already on the base was one element of his strategy. He noted that Air Force classroom and dormitory buildings were readily convertible to the community college campus. He described this reuse as “almost a turnkey situation. The colleges will use a half-million square feet right away and will build another half-million.” Similarly, he considered much of the military housing readily usable for family tenants. Of the nearly 900 housing units on the base, most met local codes and more than half were occupied by 1996 with an average rent of about \$700 per month. The houses were not elegant, but they had large rooms and hardwood floors, and tenants were getting twice the amount of space for the same price they would pay in the city. By 1996, they were important revenue generators at a time when the new LRA needed up-front revenues to pay for infrastructure improvements.

Building a community The Lowry Redevelopment Authority moved quickly to promote development. Meadows cut short the usual system of large-scale homebuilding that involves selling large tracts of raw land to developers, who then prepare them for construction. Instead, the Lowry Authority itself acted as master developer, taking responsibility for platting, zoning, and subdivision, and then selling finished lots ready for construction. The Authority also made development move faster by helping the homebuilders deal with regulatory problems. City department heads and middle managers from Denver and Aurora met regularly to resolve whatever development issues arose.

Normalizing the infrastructure at Lowry was an essential and urgent part of the program. Marketing needs made the infrastructure construction high priority. To sell land for development, it was essential to deliver water, waste

disposal and storm sewerage, gas, electricity, and telephone service. Most important, the LRA had to build confidence among real estate developers that the vision of a planned community would be realized, and that tangible progress would be evident. Nothing was more tangible than making a start on rebuilding the road system and incorporating new utilities within the right-of-way. As construction manager Davis Reinhart put it, "The first thing we saw was tearing up roadways and then reinstalling utilities. Road construction itself was a big driver in the marketing of the project." The Lowry LRA gave high priority to replacing and improving the entire infrastructure, scheduling the completion within three years. To finance the infrastructure improvements, the LRA issued \$33 million in revenue bonds in June 1996. The bonds were to be repaid over a 14-year term through revenues generated by income from the rental housing, by real estate sales, and by infrastructure fees paid by property owners at Lowry.

Finding qualified agencies to operate the utility systems was troublesome. The Air Force had hoped to transfer the water, sanitary sewer, and stormwater systems as a public benefit conveyance to two city agencies: Denver Water and Denver Wastewater. After inspecting the systems, however, these agencies told the Air Force they would not accept them. As a result, the Air Force and the Lowry Redevelopment Authority decided to include them in an economic development conveyance, with the LRA using its real estate income to upgrade the systems and to convey them upgraded to Denver and Aurora. The Air Force conveyed the gas and electricity systems by a negotiated sale to the Public Service Company of Colorado, which agreed to pay from 80 to 90 percent of the cost of upgrades and new construction, with the Authority making up the rest. The financing plan consisted of an EDA grant of \$6 million plus \$2 million in matching funds from Denver and Aurora, with the balance coming from the \$33 million revenue bond issue.

The LRA managed its housing program in a way that demonstrates exceptional skill in understanding the real estate market and promoting the sale of new homes. In consultation with 33 neighborhood groups, it pursued normalization in residential design by establishing land use controls to give Lowry's new residential areas the style and appearance of well-established, successful Denver neighborhoods. These controls required two-thirds of the new homes to be built of brick and more than half to have front porches. House colors and trim would have to be compatible with surrounding neighborhoods. Most streets would have trees planted along the sidewalks and some would be landscaped parkways. The business center would be a campus-like area with low office buildings and parking in the rear.

Lowry's planners found ways to blend traditional houses and streets with the latest technologies. All the new homes were to be equipped with high-tech wiring systems that would allow the residents to integrate the control and management of telephones, VCRs, cable television, home office equipment, and security and environmental management systems. In addition, they would have access to facilities for distance learning, teleconferencing, and telemedicine. As Meadows put it, "They'll live in a classic Denver neighborhood with technologically advanced amenities."

The plans and design guidelines drew on many features of the “new urbanism” in order to market housing at Lowry. These features include a mix of different housing types close to one another, including duplexes, town homes, custom houses on large lots, loft homes, and apartments in a wide range of prices including many moderate-cost units. Streets are designed for pedestrians, with wide sidewalks and trails for walking or bicycling.

Marketing was a major consideration throughout. The LRA started by working with the three most prominent builders in the region. The fact that these builders signed up and were successful went a long way to establish market confidence. Further, houses were not only selling well, but house prices increased steadily. Real estate director Anne Rosen at Lowry found that there was no better marketing tool than the conspicuous success of builders already there.

The design of a town center followed the same approach of marketing by providing traditional features to create a sense of comfort and familiarity. For the center, the staff wanted to create Main Street America rather than a suburban strip center. The sidewalks had space set aside for bike racks, tables, and benches.

The LRA found still another way to let the public know that a master-planned, mixed-use community was taking shape at Lowry. For a dozen years the Home Builders Association of Metropolitan Denver had been sponsoring an annual Parade of Homes to showcase new custom-built houses. The LRA decided to host the 1998 Parade of Homes to let people see the new homes in an urban setting with the “hometown” feel of Denver neighborhoods. Lowry staff maintained that the best way to meet people is face-to-face, and did their best to draw a crowd. The Homebuilder Association spent some \$3 million on advertising and publicity, drawing 130,000 visitors from August 1st through Labor Day, and suddenly Lowry became a quality place to live. Public affairs manager Hilary Portell spoke of a land rush from people and builders who wanted lots in and around the parade area.

Mindful of the importance of image-building, the Lowry staff arranged their visitor exhibits to avoid any suggestion of an old military base. Even the language had to be normalized: displays in the information center avoided such military terms as “the base, civilians, BRAC” and the like. Instead they talked about the property, new residents, and master-planned development. And the staff worked quickly to take down sentry posts, fences, and military signs. They also avoided references to the cold war, missiles, and nuclear weapons. Instead they went back to World War II and Jimmy Stewart, to recall the time when people felt warm and fuzzy about the military. Meanwhile, they also traded on nostalgia for old neighborhoods, in the spirit of the new urbanism.

Early responses to Lowry’s new neighborhoods have been strong and positive. Sales prices have been creeping up, and there has been surprising interest in costly custom-built homes. In June 1998, the LRA offered reservations for 20 custom-home lots in one attractive neighborhood. Of a total of 81 lots planned for the area, 36 were pre-sold directly to builders and

23 more near the Parade of Homes site were set aside for release in July. The real estate response suggests that the LRA's planners found ways of matching their project to the character of the Denver housing market.

Housing was not the centerpiece of Lowry's economic development strategy: that strategy depended more on locating educational and scientific institutions at Lowry in order to attract businesses in related fields. Housing was, however, part of the LRA's stated intention to redevelop Lowry as "an urban, mixed-use, master-planned community where people can live, learn, work, and play." Further, the evident demand for housing at Lowry provided an important source of up-front revenue to help pay for the extensive infrastructure work necessary to redevelop the base. Having moderate-cost housing in attractive neighborhoods where people could walk to work was more than a revenue generator: it was also part of strategy for attracting businesses and jobs. And the record of job generation has been stronger than at most bases. Of 2,275 civilian jobs lost by the closing, two-thirds (1,490) had been replaced by early 1999.

Economic strategies at Williams Air Force Base

Williams AFB in Arizona made use of an exceptionally broad range of economic development approaches. The LRA chose four clear and straightforward ways to engage the market—that is, to design an economic development strategy compatible with the real estate market of the area:

1. Selecting realistic reuse objectives consistent with the prevailing growth trends of population and the economy of the Phoenix area. Continued rapid growth appeared likely to create a demand for expansion of the state university and of community colleges, as well as an increasing demand for air transportation and businesses linked to it.
2. Getting expert advice on the competitive advantages and disadvantages of Williams AFB
3. Anticipating the needs of end-users by developing an unusual mix of educational and business reuses that would be supportive of one another and would offer special attractions to aviation-related activities
4. Strengthening its competitive advantages within the Phoenix metropolitan area by developing a business setting different from any that already existed in the region

At Williams AFB, engagement with the market started very early. Shortly after the base closing announcement in mid-1991, Governor Fife Symington appointed the Economic Reuse Advisory Board to coordinate reuse efforts. By 1992, the board completed a reuse plan with an unusual emphasis on economic factors, and the governor gave it his approval. The plan laid out broad outlines for the reuse of the base as an aerospace center and an educational and research facility with an airport that would serve as a backup to Phoenix Sky Harbor International Airport. The proposed aviation uses included commercial passenger service; aircraft manufacturing, maintenance, and modification; air cargo operations; and flight training.

These recommendations have continued to guide the reuse planning ever since. The insight that gave rise to them was essentially an appreciation of the rapid growth of the Phoenix area and the likely consequences of continuing growth of population and the economy. From 1950 through the early 1990s, the metropolitan area population grew by more than 500 percent, and recent state forecasts predict continued rapid growth in the future. At the time of the BRAC announcement, the Arizona Board of Regents expected further population growth to produce many more applications to the state university than existing campuses could handle, and began to consider building new ones.

At about the same time the main Phoenix air terminal, Sky Harbor Airport, completed a master plan showing traffic growth that would soon require new airport construction and either abandoning or expanding Sky Harbor. The city of Phoenix and its downtown leadership, however, wanted the airport to stay where it was. Further studies by the state legislature suggested that some expansion of Sky Harbor plus the conversion of Williams AFB to a civilian airport could meet growing air transportation needs without the expense and the upheaval of creating a new airport. The Economic Reuse Advisory Board took note of these twin growth pressures facing the community and recommended using the base to develop a new educational campus as well as expanded aviation facilities to supplement Sky Harbor. Engaging the market for economic development, in this setting, meant taking advantage of the base closing to cope with demands for classrooms and aviation facilities based on rapid growth.

More systematic studies of the market for space at Williams AFB got under way after the base closed in 1993 and after the establishment in 1994 of the Williams Gateway Airport Authority (WGAA) to oversee airport operations and development of an adjacent aviation industrial park. The Gateway Authority commissioned a consulting firm to guide the development process by proposing a course of action to achieve both short- and long-term goals. As Lynn Kusy, executive director of WGAA, recalled: “We asked the consulting team to look at the aviation industries and tell us what was growing, what wasn’t growing, where we should focus our energies. We also asked them to do a comparative analysis with other airports.” The consulting team studied the Phoenix economy, evaluated the condition of existing facilities on the base, drew up land use and circulation plans, and recommended a phasing sequence.

Meeting the competition To position Williams within a competitive market, the consultants addressed four key questions:

1. What factors would make the Williams area a logical locational choice over its competitors?
2. What forces are at work that might discourage business and industrial operations from locating at Williams Gateway Airport?
3. What advantages do the area and the airport possess that will encourage firms to locate there?

4. What would enable Williams to compete for aviation-related businesses within the Phoenix area?

To weigh the competition, the consultants compared Williams Gateway Airport with seven other Air Force bases scheduled for closure. They concluded that Williams did not always compare favorably with the other bases in terms of facilities available for aviation, but could improve its competitive position by upgrading existing buildings and developing available land. In contrast, the team believed that the attributes of the area around Williams (work force, utilities, transportation, markets, taxation, quality of life) made it an outstanding competitor for business recruitment.

To evaluate the ability of Williams to compete for aviation-linked businesses within the Phoenix area, the consultants first defined these businesses as aviation refurbishing or maintenance operations, manufacturers that distribute their products by air cargo, and other firms that need direct airport access. They concluded that Williams would be able to compete very effectively for these aviation-related uses, pointing to such advantages as excellent runways, uncongested air space, lack of land use conflicts and ground congestion, the availability of 4,000 acres of land on airport property for aviation-related users, extensive open land around the airport for expansion, and the education, research, and training complex that would attract certain aviation-related companies.

Lynn Kusy recalled other recommendations of the marketing committee that played to Williams' competitive advantages: they recommended that the Gateway Authority focus on selected elements of the aviation industry—cargo, maintenance, modification, and manufacturing—rather than trying to be all things to all people. They also suggested that the Williams staff not try hard to serve businesses in Mexico, Central America, or South America, since other airports in Texas and Florida were better positioned to reach those markets.

The Williams Gateway Airport Authority proceeded to define a very focused niche for its marketing efforts. The Authority made a deliberate choice not to act as a real estate developer building a typical industrial park. Airport industrial parks, Kusy noted, frequently have businesses in them that choose to locate there because of high development standards, design codes, or simply because they find it interesting to be close to an airport. Williams, however, tried deliberately to limit businesses to those that need access to a runway, even turning away some others that wanted to locate there. “We did this,” Kusy explained, “because we wanted this project to contribute something to the community that isn't already here. We have areas of high-tech business parks. We have areas of intense retail development. We have areas of office development. What we don't have in this community is an area where people can land corporate jets, put regional business centers that are tied to other centers by aircraft, put aircraft modification and maintenance facilities. We don't have places for those kinds of things in this community. So what we wanted to do was to expand the economic base rather than compete with other private-sector developments.”

This strategy served both the political needs and the economic goals of the Authority, as Kusy explained it: “We are trying to generate jobs that otherwise wouldn’t be here, that otherwise would go to California or Texas or Idaho or wherever. So we’re trying to generate new things. We have private-sector people and even some public groups that have large industrial parks in the area and our specific mission is not to compete with them.”

Building an education complex Another part of engaging the market was to attract aviation-linked educational institutions and to capitalize on their presence at the base. The early vision of the Economic Reuse Advisory Board led to the creation of an educational consortium known as the Williams Campus. Its members include Arizona State University East, Maricopa Community Colleges, Chandler-Gilbert Community College, a branch of Embry-Riddle Aeronautical University, and the University of North Dakota Aerospace Flight Training Center. By 1995, classes were under way at the Arizona State University East campus, home of the University’s School of Agribusiness and Resource Management and School of Technology, and at Chandler-Gilbert Community College and the University of North Dakota flight training program.

The consultants’ report characterized the proposed combination of a reliever airport, facilities for industrial development, and a major education, research, and training campus as offering “a wide range of possibilities unavailable anywhere in the nation.” The educational institutions, Kusy noted, are prepared to mount special courses to suit the needs of firms at Williams at the community college level, the university level, and the postgraduate level. With two flight training programs on the campus, an aviation technology degree program at Arizona State University, a Chandler-Gilbert program on airframes and aviation engines, and an Embry Riddle master’s degree program in airport and aviation management, the campus and airport are linked closely together in ways that are advantageous to both.

The consulting team prepared a marketing plan that identified specific industrial classifications appropriate for firms locating at Williams, and went a step further by drawing up lists of individual firms to approach. The Gateway Authority hired a small marketing staff that narrowed the lists to focus on firms most likely to be interested in Williams. Two community members of the Authority were also members of the Greater Phoenix Economic Council and brought additional aviation-related leads to the Authority. The marketing staff used direct mailings to reach some firms and also made hundreds of follow-up phone calls. At the suggestion of the consulting team, they also began setting up booths at trade shows to make the aviation industry aware that Williams was open for business. By talking to many people in the industry, they spotted firms that wanted to be in the area or were already in the area and wanted to open another branch.

The marketing staff consisted of just two people. As Kusy explained, however, “everybody in the organization is involved in marketing. Our front-line people out on the airport, this office, our maintenance staff—everybody who’s out there interfacing with our clients, our customers, our tenants, is part of the marketing effort.”

Financial support began with OEA grants for early planning and administration, totaling more than \$1 million in the first five years. The state of Arizona put up the money for actual marketing efforts, including staff salaries, printed materials, trade missions, and computer equipment, with grants of \$350,000 per year for 1995, 1996, and 1997.

Improving base facilities For the marketing to succeed, however, it was necessary to improve the quality of base facilities and property. For the airfield part of the base, state capital grants ranged from \$500,000 to \$900,000 per year for 1995, 1996, and 1997, supplementing FAA awards of \$5.7 million in FY 1996 and \$2.4 million in FY 1997 for airport improvements. Before Williams was eligible for FAA awards, EDA grants were critically important for infrastructure and site improvements, lead paint removal, and some demolition. The state capital grants provided required matching funds for these EDA awards. From FY 1994 through FY 1998, EDA grants for the Williams project totaled \$9.0 million to the city of Mesa, Williams Gateway Authority, Arizona State University, and Arizona Board of Regents. In addition, the state took full responsibility for funding development of the educational campus.

For successful leasing of business space at Williams, it was essential to bring the old military buildings up to market standards. Air conditioning is a necessity in Phoenix, but equipment in most of the buildings was either inadequate or inoperable. Electrical systems, too, needed reconstruction. “We could market all day long,” said Kusy, “but without making those kinds of improvements to the systems, we would not find companies able to move into the buildings. The bigger companies might be able to make improvements in lieu of rent, but the small companies just can’t do that.” The local government members of the Williams Authority—Mesa, Queen Creek, Gilbert, and the Gila River Indian Community—contributed funds to bring the buildings up to acceptable commercial standards.

The organizational structure of the Williams Authority, whose members consist of nearby local governments, has contributed directly to local financial support for its marketing efforts, as well as motivating the communities to assist prospective tenants in other ways. The base itself is in the city of Mesa, and the marketing staff works very closely with Mesa officials when they have a potential tenant in hand. Mesa has a large stake in the success of the base and has been very helpful in guiding new companies through the regulatory and permit system.

The chief obstacles confronting the marketing effort were twofold, according to Kusy. One was the slowness of the Air Force to release property for reuse, and the other was the delay in transferring the utility systems to new providers. A major source of the delay in making property available was an early disagreement between the Air Force and the communities about how to divide the base property. At an early point, according to one member of the Authority board, “the Air Force wanted to retain most of the developable land around the airport, leaving us with just a facility that we would have to subsidize forever without any chance of breaking even and actually getting some revenue. They wanted to keep the best land for themselves and sell it off to the private sector, leaving us with all of the cost but none of the

property that it would take to underwrite and eventually develop.” As for the utility system delay, Kusy pointed to the complexity of designing a major utility corridor with gas and electricity under the main street, plus the slow pace of Air Force actions to convey the utility systems to new service providers.

An additional but less troublesome obstacle has been the delay in bringing the airfield up to civilian standards. “It’s not necessarily a quality issue,” Kusy explains, “it’s a standards issue. The Air Force standards on the airport are different than the FAA standards. So we have had to re-paint, re-stripe, re-fence, re-sign, re-mark the airport, the runways, and taxiways. And we’re still not done with that.” Since proximity to an airport is a key element of the marketing strategy, delays in making the airport usable for passenger traffic weakened the marketing effort.

At the same time, the Authority set ambitious targets for bringing new jobs to the base and came very close to meeting them. Its goal was to replace the 1,567 civilian jobs lost by the closing within five years. As of early 1999, eight years after the closing announcement and six years after the actual closing, Williams had replaced the lost jobs with 1,557 new ones, counting the educational campus as well as the aviation and business parts of the base. A further sign of success is that aviation-related businesses are beginning to form a cluster at the base. Business firms are now approaching the Authority in part because they have relationships with companies already on the base. GEC Marconi, McDonnell Douglas, and Hughes Aerospace, for example, are recent arrivals who came because they provide services to other companies already at Williams or because they have research relationships with them. The emergence of an industrial cluster of aviation-related firms is consistent with the thinking behind the entire marketing strategy.

Off-site development using base assets:

Rickenbacker Air Force Base

Rickenbacker AFB in Ohio is an outstanding example of an LRA providing economic infrastructure as its main strategy for attracting business firms. Specifically, the Rickenbacker LRA made use of the following strategies:

1. Capitalizing on its advantageous location for distributing consumer goods to a large geographic region after the opening of the Interstate Highway System
2. Defining its function as that of a multimodal freight transportation center and an industrial park for companies requiring cost-effective distribution facilities
3. Enhancing its transportation advantages by developing full air cargo facilities, 24-hour customs service, a foreign trade zone, and business connections to major seaports
4. Providing large industrial sites by acquiring desirable land outside the boundaries of the former military base and preparing this land for development

5. Hiring an experienced developer of commercial and industrial property to manage base development
6. Working within a network of other organizations in the region that shared their interest in creating an “inland port” for central Ohio as a way to promote economic development

Rickenbacker AFB near Columbus trained pilots during World War II, the Korean War, and the Vietnam War. Then, beginning in 1978 and prior to the first round of BRAC closings in 1988, the Air Force began to transfer its functions to other bases and in 1979 announced the phased closing of Rickenbacker. The Commissioners of Franklin County, where the base was located, responded by creating the Rickenbacker Port Authority as a new public agency to receive and redevelop any land released for civilian use. In 1982, the Port Authority entered into a seventy-year joint-use agreement with the Air Force to keep the aviation facilities operating as a cargo airport for civilian and Air Force Reserve use. In 1990, the Air Force transferred control of the airport to the Port Authority. Subsequent BRAC actions in 1991 and 1993 eliminated the Air Force Reserve work force of some 600 military and 590 civilian jobs.

Unforeseen events, however, led to false starts and tied up the base in a way that blocked redevelopment in the 1980s. First the Authority succeeded in attracting Flying Tigers, then the largest air cargo carrier in the world, to operate an air cargo hub and to service the county-state bond issue that financed its development. The airline, however, was in weak financial shape and could not secure the sale of the bonds. State officials then persuaded a local firm to develop the Flying Tigers facility and guarantee the bonds. In turn, the Port Authority agreed to give this new firm a master lease of all property it owned at the base and exclusive development rights on the property for 70 years. This firm, however, had little experience in real estate development and proved unable to attract new tenants. The Port Authority, serving as LRA, then turned to Bruce Miller, former development director for Columbus and an experienced commercial-industrial developer, to manage development of the base. Miller worked with Columbus officials to build new water and sewer facilities. The Port Authority, serving as LRA, set the stage for attracting businesses by applying for a foreign trade zone offering substantial tax advantages to companies engaged in international trade, and then by securing the cooperation of the county commissioners to offer 15-year tax abatements for any capital improvements made at the base.

As of 1990, additional infrastructure investments were still needed, including road improvements. A prospective major tenant appeared at that time in the form of Eddie Bauer, which needed a site for a 500,000-square-foot distribution center. The Authority worked with the city and state to bring new roads and utilities to a site for Eddie Bauer. The parent company of Eddie Bauer, Spiegel, became interested in locating in the foreign trade zone and considered a consolidated distribution center that would add 1.6 million square feet of floor space to the project.

The Authority, however, did not have a suitable site for so large a project. It faced a difficult situation. It had neither the legal right to develop the property nor the resources to subsidize the company that held exclusive development rights but lacked the resources to make use of them. Developing large industrial sites on the base for firms such as Eddie Bauer was going to be slow and costly. There were dilapidated buildings, obsolete streets and utility systems, seventeen contaminated sites, and a toxic landfill at the edge of the base. The Air Force began its environmental remediation in 1994, but it was clear that a full cleanup would take many years.

Finding adjacent sites An unusual strategy began to emerge for dealing with these problems: expand off the base. As Miller put it later, “Our best move was not to redevelop the base but to buy more land nearby and redevelop that. Then we weren’t dealing with an urban renewal type of mess and obsolete utilities. We could do ‘greenfield’ development instead of ‘brownfield’ development. And we didn’t have to get tangled up with federal rules and bureaucracy.”

The Authority identified a suitable undeveloped area north of the base and negotiated with local, state, and federal officials to annex the land and extend water and sewer lines in cooperation with Columbus. The Authority enlarged its foreign trade zone to include this property, Columbus extended its water line, the Air Force built a sewage main, and the state financed new road construction. The Port Authority learned to avoid a mistake its predecessor had made by trying to market industrial land “as is.” Instead the Authority offered sites that were clean, clear, and ready for development, with all utilities brought up to the lot line. The Eddie Bauer/Spiegel project went ahead, and the Authority proceeded with a development program that brought in 35 companies and 4,800 jobs by early 1998. While many small projects were sited on the military base, farmland purchased outside the base boundaries supplied the sites for large developments. As a result, nearly three-fourths of the new floor space built by early 1999 was located outside the original boundaries of the air base. The smaller projects on the base, however, included 24 companies, in comparison with 11 companies in the larger projects off-base.

With additional land purchases supplying desirable industrial sites, the Authority was able to improve its financial position. It had no immediate need for more base property and informed the Air Force that it had no interest in acquiring the obsolete utility systems. With an eye to future development, the Authority also moved to regain control of the land it had tied up in its 70-year master lease by negotiating a termination of that lease and agreeing to absorb certain settlement costs.

The core economic development strategy that continues to bring new companies to Rickenbacker is centered on transportation advantages—“powerful market factors” as Miller describes them. Access to transportation is exceptionally favorable. Rickenbacker is two miles from the I-270 Beltway around Columbus, which connects interstates going east-west (I-70) and north-south (I-71). More than 130 trucking companies operate out of central Ohio, which is within one day’s truck drive of 58 percent of the U.S. population, 50 percent of the Canadian population, and 61 percent of

the U.S. manufacturing capacity. Norfolk Southern, CSX, and Conrail provide rail service, with three intermodal railyards in the Columbus area.

Creating a business infrastructure The aviation facilities on the base remain among the strongest selling points. These include FAA-funded runway improvements and other upgrades, and parallel 12,000-foot runways capable of handling even the largest cargo planes. Southern Air Transport added to the available facilities when it relocated its world headquarters to Rickenbacker. Rickenbacker also offers 24-hour customs service, land for expansion, and a foreign trade zone. Further, Authority staff point out that one of the main advantages is that Rickenbacker is an all-cargo airport: “That is our bread-and-butter and that is our prime concern. At other airports, cargo carriers are viewed as an impedance to moving passengers. Cargo is a stepchild at most airports.”

The Port Authority had many selling points in its efforts to bring companies to Rickenbacker and retained consultants to help plan specific marketing strategies. It also benefited from a regional economic development effort known as the Greater Columbus Inland Port Initiative. In 1992, a combination of business leaders in partnership with Franklin County, the city of Columbus, and the Rickenbacker Port Authority established the Greater Columbus Inland Port Commission, housed in the Greater Columbus Chamber of Commerce, to help with business development related to intermodal transportation.

The regional development effort provided Rickenbacker with another powerful advantage in the form of good connections to ocean shipping. The Inland Port Commission negotiated marketing agreements with the Ports of New York/New Jersey, Virginia, and Los Angeles that expedite the movement of rail container freight through these congested seaports directly to central Ohio for customs clearance and forwarding by air, truck, or rail to its final destination. And Rickenbacker costs compare favorably with those of its main airport competitors: the cost of moving cargo through Rickenbacker is 50 percent lower than at New York’s JFK and 35 percent lower than at Chicago’s O’Hare airport. One of the reasons for the cost differentials is that Rickenbacker does not have the time delays of these other gateway airports.

Regionwide interest in developing the “inland port” helped to create a network of important contacts and gave encouragement to government officials at the state, county, and local levels to support the Rickenbacker effort financially and in numerous other ways. Port Authority marketing staff report that their initial contacts with companies that located at Rickenbacker almost always came about through other organizations: gas and electric companies, Ohio state government agencies, local economic development committees, real estate agencies, and the Greater Columbus Chamber of Commerce.

The Rickenbacker experience illustrates the important role of an economic infrastructure for attracting business to a former military base. At Rickenbacker, the relevant infrastructure consisted of physical assets such as a well-equipped cargo airport, excellent highway and rail connections,

improved water and sewer systems, “greenfield” land in desirable locations, and industrial sites fully prepared for development. It also consisted of less tangible infrastructure, such as the business advantages of a federally designated foreign trade zone, a supportive network of economic development organizations, and negotiated agreements with major ports of entry for freight shipments.

Economic development strategy at Kelly Air Force Base

Kelly AFB illustrates once more how LRAs use multiple economic development strategies to help the local community cope with the effects of a base closing. In this case, the Air Force is preparing to close Kelly’s Air Logistics Center, a highly specialized industrial complex where a skilled work force of 11,000 civilian employees made use of advanced technologies for the maintenance and repair of aircraft, jet engines, electronics, weapon systems, and support equipment. The Greater Kelly Development Corporation (GKDC), established as the Local Redevelopment Authority, has a primary strategy of continuing to utilize the Kelly work force by bringing private companies into a new center for aerospace maintenance and repair that will serve the Air Force as well as commercial clients. But this is not their only strategy. In addition, the plan is to create “a world-class maintenance, manufacturing, and distribution based industrial park that will employ at least 21,000 people by 2006.”

This multiple-strategy approach is essentially the same tactic that real estate developers use when they build mixed-use projects containing several different but complementary activities—such as a shopping mall, hotel, and office building—as part of a single venture. The logic is to diversify risk by having several possible sources of income, so that if one falls short of expectations another may offset it. A multistrategy base also spreads the risk by creating more than a single job-producing activity.

The strategies at Kelly are particularly interesting because this base has superb resources to attract private industry, and yet the privatization of Air Force work at Kelly has proven difficult to achieve because procedures for awarding Air Force contracts through workload competition do not control where the work will be done.

The composite economic development strategy at Kelly can be summarized as follows:

1. Making use of exceptional resources already available—including highly skilled and experienced labor, and a wide variety of high-technology equipment for aviation maintenance, modification, and repair—to attract public or private organizations to locate on the base and hire local workers
2. Bringing flagship aerospace companies to the base in order to attract clusters of medium-size and small firms that want to have business connections with the flagships
3. Using awards of military work to public or private contractors via workload competitions as a bridge to further commercial development, in the

expectation that these contractors will find commercial work to make use of excess capacity in base facilities and equipment

4. Using locational and transportation advantages to attract firms in logistics, distribution, and multimodal transportation

The decision in 1995 to close Kelly AFB posed a serious threat to San Antonio. With 11,000 civilian jobs, Kelly was the largest employer in the region. In addition, it had a central role in raising the living standards of the large Mexican–American community. In the 1940s and 50s, when local employers stereotyped Mexican-Americans as people incapable of doing precision work, the Air Force hired them, trained them for skilled blue-collar work, and paid them at federal pay scales. The result was the creation of a productive technical staff with the skills to overhaul jet engines and maintain some of the world’s largest aircraft. The Air Force developed the work force it needed, and the employees are now among the magnets helping to attract private companies to locate at Kelly.

At the time of the closing announcement, the Kelly work force accounted for 48 percent of the entire Hispanic population of Air Force civilian employees; and 14 percent of all Hispanic employees of the Department of Defense worked at Kelly Air Force Base. The importance of these jobs to the Mexican-American community gave special urgency to local economic development planning. After the June 1995 BRAC recommendation, the mayor and city council of San Antonio put together an initial strategy committee with 167 members to propose a direction for the redevelopment of the base. By December, the committee came around to the view that while the closure posed grave risks, it could also be a great opportunity to diversify the economy by bringing civilian work to Kelly while still maintaining a high level of work for the Air Force.

The work of this early committee led to the essential strategy for converting the base closure into a plan to attract a substantial volume of new, nonmilitary work to San Antonio. In this respect Kelly’s experience was similar to that of many LRAs: an early phase of planning and political consensus-building generated broad directions for a subsequent phase of more specific planning and implementation. The strategy itself had its origin in the realization that the Kelly Air Logistics Center was operating far below its capacity. The initial plan was to outsource (“privatize”) work now done at Kelly by contracting with civilian companies to do the aircraft maintenance and modifications formerly performed by the Air Force itself, and to do this work at Kelly AFB. The contractors selected for this work would presumably keep many of the same civilian staff that worked for the Air Force, thus preventing the base closure from shrinking the number of jobs available to the community and protecting the job security of the large skilled work force at the base. This concept of privatization would also allow the government to continue to have the benefit of specialized industrial facilities on the base without having to maintain the entire base. And it would guarantee the contractor a certain workload to meet the needs of the Air Force.

Although the White House supported the concept of privatization-in-place for the workload at Kelly AFB, congressional opposition and a provision in the defense spending bill for fiscal year 1998 led the Air Force to rule it out. Air Force procedures instead provided an equal opportunity for public and private bidders to compete for the Kelly maintenance workload on C-5 cargo planes without regard to where the work would be performed. The private contractors who entered the competition recognized that facilities at Kelly were designed to support C-5 maintenance and proposed performing the workload there. A public competitor, however, the Warner Robins Air Logistics Center, won the competition and proceeded to move the work to its own location in Georgia.

Putting excess capacity to work The LRA adapted to this situation by conceiving of outsourcing not as the end of the story, but as a bridge to further commercial development of the base. They reasoned that government contracts could serve as the basis for starting some private operations at Kelly, and that civilian contractors would use only part of the capacity of the facility to service the Air Force, since the base has already been meeting Air Force needs while operating below capacity. To make the operation more profitable, the contractor would want to find an additional workload, most likely servicing commercial clients. As the contractor succeeded in bringing additional work to the base, it would generate a bonus for the community: not only would outsourcing save existing jobs, but the commercialization that followed could produce even more jobs than when Kelly was open.

Contracts to supply services to the Air Force are not the only magnet for attracting firms to Kelly. Other attractions, closely related, are the availability of an experienced work force and specialized industrial equipment that would otherwise require huge up-front investments. The largest concentration of industrial jobs is in the propulsion business area, where more than 3,000 workers repair and overhaul jet engines. The Greater Kelly Development Corporation estimates the value of Air Force equipment in the propulsion area alone as just under \$500 million if fully utilized. (Under the terms of an Economic Development Conveyance, the Air Force is transferring this equipment as well as land, buildings, and utilities to the Greater Kelly Development Corporation for \$108 million.) Paul Roberson, executive director of the Greater Kelly Corporation, characterizes the equipment that will be available as “a big deal that helps make these facilities a lot more marketable.” Tim O’Krongley, former airfield operations manager for GKDC, judged that the equipment to be made available is worth more than the buildings and other property. “If we don’t have that equipment to offer,” he observed, “a lot of businesses are not interested in coming here, because there’s going to be hangars and empty buildings all over the country.”

As a result of prior military use, Kelly AFB has the resources to attract work in aircraft maintenance and modification and jet engine overhaul. The Development Corporation believes it also has the location and resources to serve as a warehousing and distribution center. There are some four million square feet of warehouse space at Kelly, interstate highways going north-south and east-west, an adjacent Union Pacific railyard that goes directly into Mexico, and an 11,000-foot runway—one of the finest commercial runways

in the state of Texas, according to deputy director Tom Ruffini—twice the width of a normal commercial runway and capable of handling the largest and heaviest cargo planes. The main transportation facilities are in place for bringing freight north from Mexico by rail and breaking it down for truck or air distribution north, east, and west. Adding another helpful resource, the Development Corporation has succeeded in getting authorization to establish a foreign trade zone at Kelly.

Still another effort to develop Kelly and the San Antonio area as a staging area for goods going in or out of Mexico is a project to end the long delays created by customs inspection at the border. Ryder Integrated Logistics, a tenant at Kelly, is working with the United States Customs Service to test equipment for electronic sealing and monitoring of truck cargo destined for Mexico. Trucks leaving San Antonio would have an electronic seal and equipment to transmit their manifest ahead to customs offices at the border. If the system lives up to expectations, it would provide a way to pre-clear cargo to cross the border without stopping, in contrast to the day-long bottlenecks that now occur.

The marketing strategy now focuses on several different industrial sectors: aviation maintenance and modification, related light manufacturing, logistics and distribution, and multimodal transportation.

Another dimension of the marketing effort is to seek out flagship companies that in turn will attract clusters of small and medium-size companies with business connections to the flagship. In early 1998, Boeing decided to locate an aerospace logistics and support center in four hangars at Kelly. Boeing will service C-17 cargo planes for the Air Force and convert former DC-10 passenger planes into cargo planes for Federal Express. During negotiations that led up to the Boeing decision, Kelly staff discussed their interest in recruiting a cluster of firms linked to Boeing. Boeing executives were receptive and pointed out that they were already drawing in local companies to serve other facilities they had established in Texas.

The Development Corporation also has a clear sense of purpose with respect to job creation for the community. Tom Ruffini characterized the purpose as creating good-paying jobs for the San Antonio community: “We’re not interested in attracting companies that are going to bring a work force with them.” Further, Ruffini explained, “We’re not interested in minimum-wage type jobs. Our real target is comparable wages to what Kelly employees were making.”

Kelly officials negotiate to achieve these goals and have rejected companies that would not meet them. In the case of Boeing, Kelly included lease language requiring the company to give preferential consideration to Kelly employees and provided for rent rebates keyed to the percentage of Kelly employees hired and the wage levels they are paid. In keeping with these goals, Boeing expects to hire 800 former Kelly workers during its first two years on the base.

Acquiring outside expertise is also part of the program. To target specific industries and firms, Greater Kelly has hired a number of nationally known

consulting and marketing organizations. Their target industry study singled out aircraft maintenance and overhaul, intermodal distribution, and warehousing as industries with a need for the location and resources that Kelly has to offer. A nationally known real estate firm works on prospect development and acts as leasing agent.

GKDC also networks with other important economic development organizations: the Texas Department of Economic Development, and in the San Antonio area the Economic Development Foundation; the Economic Development Department of the city of San Antonio; and the Free Trade Alliance, which specializes in relations with Mexico and South American countries.

An unexpected problem: too little space The result of this combination of base resources, skilled labor, market strategizing, and targeted efforts has been a response beyond the ability of GKDC to handle. The biggest obstacle is a commitment the Air Force made to close the base on a six-year schedule, the maximum time allowed, in order to help San Antonio. Roberson acknowledges that “back in 1995 when the Air Force said they were going to take six years to close, we all thanked them so profusely for the wonderful gift they were giving us of keeping jobs here for all that time. But now that we’re into this, I would tell you that six-year closure was a curse. The reason is that with very little money spent on advertising we are being bombarded with interest in facilities at Kelly. My problem is that the Air Force is still here occupying most of these facilities, and companies aren’t interested to talk to you when you say, ‘Hey, I’ve got all this space coming available in 2001.’ ”

In spite of the shortage of space, Kelly has been able to accommodate well-known firms in aviation, transportation, and logistics. In addition to Boeing, they include Pratt & Whitney, General Electric, Rail Car America, and Ryder Integrated Logistics. Private companies in the aviation field are beginning to locate in small workshops at Kelly where they lease Air Force equipment and hire local workers. One is AAR, a leading supplier of products and services to the aviation and aerospace industry worldwide. Another is Cooperheat-MQS Inspection, Inc., which specializes in nondestructive examination services, including ultrasonics, x-ray, and metallurgical and chemical analysis. Further, the Defense Logistics Agency awarded a privatization contract to EG&G to manage its large warehouse and distribution operations at Kelly. EG&G will be responsible for redistributing this warehouse inventory at Kelly to other government facilities, and will bring civilian work into the Kelly warehouses as they are vacated. To make room for more companies, GKDC plans to develop several new buildings on vacant land that the Air Force will transfer to them. The prospects for successful development are clear enough that local banks are willing to fund Greater Kelly’s operating expenses for these projects.

Another part of the Kelly marketing strategy is to anticipate the needs of target companies. A major part of this task is to bring deteriorated Air Force buildings up to commercial standards. In the case of Boeing, it was necessary to make many modifications to meet federal requirements for occupational health and safety. Although the Air Force did not always comply with these

requirements, federal law requires Boeing to meet OSHA standards. As a result, Kelly expects to spend some \$30 million dollars on building upgrades in order to accommodate Boeing. LRA staff also anticipate a need for additional job training as the businesses on the base expand and enter new civilian fields. Although some training facilities are already in place, Roberson is concerned that Kelly may attract jobs faster than a work force with the necessary skills becomes available. He is trying to encourage the local community college district to expand its offerings, and intends to explore partnership possibilities between Kelly and San Antonio high schools and technical training organizations.

Contamination is another problem confronting the marketing effort. Kelly is more like an industrial zone than a traditional Air Force base. It has been a place for bringing in the world's largest aircraft, stripping off all the paint, making body repairs, and priming and repainting the plane. Maintenance and repair crews remove and dismantle the engines completely, clean the parts with solvents, and remachine and rebuild the engines. Almost everything associated with metallurgy, maintenance, repairs, casting, and remachining has generated byproducts that are now known to be dangerous to health and the environment. The civilian companies that use the base next will generate hazardous waste, but the Greater Kelly Development Corporation has the job of preventing new contamination. It is working with the Air Force on designing new work practices, spill prevention measures, and waste disposal procedures.

The base at large has shallow groundwater contamination that could take 30 years to remedy. Meanwhile the Corporation wants to develop industry on top of these contaminated sites. The task now is to prevent fresh contamination above ground while the Air Force is cleaning up below-grade contamination. A further complication is the problem of turning over a still-active base to new users. Since there will be little or no break between Air Force use of the facilities and new civilian reuse, Roberson calls the process "a hot turnover." As the Air Force is going out the door, civilian companies are coming in to do similar work and produce similar hazardous materials. The new company wants to be protected from any liability for contamination caused by the Air Force, and the Air Force wants protection from liability for whatever the new company may do. GKDC is cooperating with state and federal regulators to come up with workable procedures. The Texas Natural Resource Conservation Commission will check the site physically to be sure the contamination is fully documented before the Air Force conveys it to new users, and projects a cleanup cost of more than \$300 million.

As the Air Force continued its efforts to reduce military infrastructure costs, it organized the last major workload competition in connection with the realignment and closing of Kelly. This competition invited offers to carry out the engine repair and maintenance workload formerly done at Kelly's propulsion business area. With a contract value of \$10.1 billion for 15 years of work, it was the largest repair and overhaul contract in Air Force history. The winning proposal, a joint offer by the Oklahoma City Air Logistics Center and Lockheed Martin, provided about 2,900 jobs. Its results were mixed as far as Kelly was concerned: 1,500 jobs will go to Oklahoma, while

Lockheed Martin will perform its share of the work by keeping 1,400 jobs at Kelly.

As of early 1999, the Greater Kelly Development Corporation brought some 1,200 new civilian jobs to Kelly AFB, but workload reductions cut federal civilian employment from approximately 10,900 jobs at the time of the BRAC decision in July 1995 to some 7,900 jobs in December 1998.

Although the problems are troublesome, and the initial concept of privatization-in-place did not prove to be a workable solution, the base nevertheless offers remarkable assets and its marketing strategy has passed the early tests. The Boeing experience is particularly encouraging. Boeing, in fact, has been acting out the scenario of the underlying strategy, which regards outsourcing as a bridge to commercialization. Boeing's first operation at Kelly will be that of a private contractor to the Air Force, providing maintenance and support for C-17 Globemaster cargo planes. Its second operation, noted earlier, however, will be all-commercial, converting former United Airlines DC-10s into cargo planes for Federal Express.

CONVERTING AIR BASES TO CIVILIAN AIRPORTS

Describing the work of LRAs in terms of their economic development programs is one way to understand the ways in which local communities act to strengthen their economies in the wake of a base closing. This framework presents a picture of reuse organizations proceeding in carefully considered ways consistent with their beliefs about what actions will succeed in attracting economic activity to the base and to the community. It also furnishes numerous examples of LRAs learning from experience how to solve problems that retard or block their economic development efforts. A systematic, strategic approach is characteristic of many LRA efforts, as described in this chapter, but it is not the only way they operate.

Another approach is for LRAs to focus their efforts on redevelopment opportunities that have a high degree of feasibility and are also likely to produce economic benefits—whether or not these opportunities result from a comprehensive and systematic development program. An example of this opportunity-centered approach is the conversion of military airfields to civilian airports. The widely perceived need for civil airport expansion, and the availability of military air bases for commercial reuse, has created an attractive opening for LRA action. The large number of LRAs that chose to convert air bases to civilian airports has had the unexpected result of turning part of BRAC into a major airport construction program. Of the 44 military airports designated for closing since 1988, FAA reports identify 20 that are already being operated as civilian airports and estimate that as many as 36 of the 44 will eventually be converted to civilian airports.

Airport conversions are popular for several reasons. First, the military base closings have been coming at a time when many existing civil airports are less than adequate to keep up with the demand for air travel. Commercial aviation relies increasingly on larger, more efficient planes for both passengers and cargo. These newer planes require longer runways and larger support facilities than are available at many airports serving base

communities. Military airports scheduled to close often have long runways that can handle large aircraft and heavy loads, even exceeding commercial standards. Converting these airports to civilian use is an obvious way to deal with the obsolescence of existing airports.

Second, the cost of conversion is far lower than the cost of building new airports. Third, the FAA offers considerable financial aid in the form of no-cost conveyances of airport property, and grants for planning and construction of needed improvements. Finally, these conversions are usually far less troublesome politically than introducing a new airport into an area that has been free of aircraft noise and airport traffic.

The decision to convert Bergstrom AFB in Austin, Texas, to a civilian airport illustrates the considerations that motivate airport conversions. Austin's municipal airport, located on a 900-acre site close to built-up neighborhoods, was problematic by the 1970s. It had only one runway, its passenger terminal was 25 percent too small, and its cargo facilities were overloaded. Passenger airlines could not operate full flights because of weight restrictions. By 1975, city officials began to explore possibilities for a new airport, including joint use of Bergstrom AFB by the city and the Air Force. Unable to come to terms for joint use, Austin found a site ten miles from downtown and in 1987 won voter approval to build a new airport.

In 1990, Bergstrom appeared on a BRAC list of bases to be considered for closing. City officials then organized planning studies to determine if rebuilding Bergstrom would be technically and economically feasible. Austin had given land for most of the base to the federal government during World War II, with a stipulation that it would revert to city ownership if the military had no need for it in the future. The feasibility studies were positive, and the conversion of Bergstrom to a new municipal airport won early approval from the city council and the voters at large. In contrast to the old 900-acre airport, Bergstrom had 3,200 acres and plans called for expanding it to 4,100 acres. Further, the move to Bergstrom took the airport away from a heavily populated area and reduced the number of people living in an airport noise impact area from 30,000 to 1,500; and new zoning regulations prohibit noise-sensitive land uses with the impact area.

By mid-1999, with the passenger terminal in full operation, the airport is expected to generate between 4,000 and 6,000 new jobs—approximately equal to the combined 4,900 military and civilian jobs lost when Bergstrom AFB closed. Five hotels and several businesses have announced plans to locate in or near the airport. Forecasts for the year 2012 anticipate more than 16,000 new jobs directly or indirectly associated with the airport, with airport operations jobs accounting for more than 70 percent of the total.

The twenty air bases converted to civilian airports with FAA assistance since 1988 constitute a major addition to the country's transportation infrastructure. Whether they are also producing important economic benefits in the base community or its region cannot be determined without further research at the local level. If a base participates in the FAA's Military Airport Program, however, it must meet federal criteria indicating specific contributions to local as well as national needs.

Figure 3.2. Converting Bergstrom AFB to a Civilian Airport

Improvements:

- A new 9,000-foot runway
- Upgrades to a 12,250-foot military runway
- A new 25-gate passenger terminal
- A new taxiway system
- Parking garage for 3,300 cars
- Parking lots for 7,000 cars
- Five miles of new access roads
- New airport fire station
- Air cargo facilities
- Fuel tank farm
- Central heating and cooling plant

Construction timetable: 1994–1999

Adding up the costs:

City of Austin expenditures: \$583.2 million

FAA grants: \$132.4 million

Savings compared with cost to build a new airport: \$200 million

The FAA program makes funding available only to current or former military airports that have been designated as civil commercial service or reliever airports in the National Plan of Integrated Airport Systems. In addition to having the necessary designation to fit within the National Plan, an approved project must be able to reduce delays at an existing commercial service airport that has more than 20,000 hours of annual delays in passenger takeoffs and landings. In short, the reuse of a military air base must add a major new facility to the national inventory and also reduce congestion at another major airport. Of the twenty former military bases now operating as civilian airports, nineteen participated in the Military Airport Program. There is no specific requirement for job generation or other economic development results, but perhaps there is no need for an explicit standard. Even without a regulation, it is hard to imagine a busy airport that does not handle a high volume of the two types of passengers likely to help the local economy: business travelers and tourists.

Airports—including converted military bases—are also important job centers. Those located in large urban areas usually employ 5,000 or more people. In addition to jobs directly related to airport operations, many businesses that value an airport location generate jobs close to airports. Most conversions of military airports include plans for business or industrial parks adjoining the airport. Of the twenty former bases now operated as civil airports, eighteen have made provision for business parks or other forms of commercial and industrial development as part of their plan. Airport conversions aim at meeting community needs for both transportation and economic development.

BRINGING JOB-RELATED EDUCATION TO THE BASES

Another community need that is proving highly compatible with resources available on military bases is job-related education and training. As the demand for skilled workers has increased, and less-skilled workers face prospects for limited wage increases and the possibility of layoffs, the proportion of employed workers who enrolled in training courses inched up from 30 percent in 1991 to 32 percent in 1995. Similarly, workers without college degrees accounted for 34 percent of all workers who took training programs in 1991 and 36 percent in 1995. And those with high school diplomas or less made up 17 percent of workers in job training programs in 1991 but 20 percent in 1995.

One of the major institutions for job-related education is the community college. It is not surprising, then, that by the 1990s many community colleges were feeling pressure to expand in order to meet a growing demand for more post-secondary education. But by the mid-90s many were outgrowing their facilities. Base closings, meanwhile, were creating surplus classroom buildings formerly used for military training. LRAs at more than 25 bases sensed this growing demand for adult education and began applying for no-cost or low-cost public benefit conveyances to make room for job-related training facilities: Ft. Monmouth, New Jersey, planned a site for Brookdale Community College; the Detroit Arsenal tank plant secured 80 acres for a community college; Ft. Devens, Massachusetts, opened a Department of Labor Job Corps Center; Ft. Ritchie, Maryland, brought a large training operation by the International Masonry Institute to the base; the Marine Corps Air Station at El Toro in California provided 133 acres for an educational campus and vocational training center; and the Philadelphia Naval Base found a site for the Shipyard Community College.

Some bases are making room for large college campuses: the University of Colorado Health Science Center at Fitzsimons Army Medical Center in Denver; a new California State University, Monterey Bay at Ft. Ord, California; and the Higher Education and Advanced Technology Center at Lowry Air Force Base in Denver. Williams AFB in Phoenix includes a new campus of Arizona State University as well two community colleges and aviation-oriented college programs of Embry-Riddle Aeronautical University and the University of North Dakota Aerospace Flight Training Center. The base-closing program is producing not only airports and business parks, but also a wide variety of post-secondary educational institutions.

THE CHOICES LRAs MAKE

Converting military airfields to civilian airports, providing sites for job-related educational programs, and pursuing focused strategies to strengthen local economies represent a broad and varied approach to economic development, much to the credit of the LRAs that conceive and carry out these activities. How LRAs actually choose their redevelopment strategies, however, reflects local needs and resources more than any uniform point of view.

One question, noted in Chapter 1, is the extent to which the prior military use of a base influences its redevelopment for civilian use. Since prior military uses leave certain assets on a base, there is obviously some continuity of use over time. LRAs face the question of how to make use of these assets in redeveloping bases. If the assets are generic rather than specialized—such as classroom buildings rather than engine repair facilities—they may lend themselves to a wide variety of reuse possibilities. If they are more specialized, they may prompt LRA staff to consider bringing in businesses that can use them. That was the case at the Mare Island Naval Shipyard, where drydocks, cranes, machine shops, testing equipment, and a skilled work force were all focused on shipbuilding. The LRA, as a result, first considered whether to pin future hopes for the base economy on a continuation of shipbuilding and repairing. An informed analysis, however, persuaded the LRA that the shipbuilding industry offered poor prospects for this California base. The LRA found a more promising way to utilize the labor skills and shipyard facilities by refocusing on the closely related field of heavy industry.

Williams AFB had an obvious asset in its air field, but faced potential competition from seven other air bases scheduled for closing as well as from other civilian airports in the Southwest. LRAs have been inventive in finding ways to combine aviation with other economic activities. The Williams LRA chose to combine aviation with educational institutions on the base, including a university campus, two community colleges, flight training programs sponsored by two universities, and degree programs in airport and aviation management, and airframe and aviation engine technology. These efforts set the groundwork for attracting a complex of aviation-related businesses that provide services and research to one another. The prior military use offered a starting point in the form of a backup airport, but the LRA went far beyond it.

Other LRAs were also attuned to the idea of joining an airport to other economic activities. Among the variations were aircraft maintenance, transshipment of cargo, business uses, air museums, theme parks, aviation education, retail and service centers, and staging bases for military operations.

At Kelly AFB, the prior military functions formed the core of a redevelopment strategy. Kelly had highly specialized facilities for the maintenance and modification of aircraft plus an experienced, technically qualified work force. The LRA's overriding objective was to keep these functions in place and to maintain the jobs at Kelly. Even though Kelly had a strong and comprehensive system for carrying out its specialized work, the changing needs of the military services made it very difficult to keep that system and its work force in place. The long-term vision of bringing in commercial contracts to supplement Air Force workloads is a logical strategy, but its feasibility is not yet clear.

Which of the economic development strategies will prove to be most powerful for attracting business is an open question. Locating magnets to draw business firms, capitalizing on military assets, organizing mutually

supportive clusters of industry, and facilitating connections between business and education are all plausible courses of action.

Among the economic development strategies cited in this chapter, one that appears particularly effective is the creation of a specialized infrastructure matched to the needs of target industries. The Rickenbacker LRA exploited this strategy with unusual depth and thoroughness and produced impressive results. The underlying infrastructure for warehousing and distribution at Rickenbacker was a rail and interstate highway network offering excellent access to large market areas in the United States and Canada. To this physical infrastructure, the LRA added an all-cargo airport, a supply of vacant sites ready for development next to the airport, and a series of managerial arrangements that made its location even more desirable for business purposes. The managerial initiatives included a regionwide business development effort known as the Inland Port Initiative, a foreign trade zone, round-the-clock customs clearance, and marketing agreements to expedite cargo shipments to Rickenbacker from major ports on the East and West Coasts. If this composite approach continues to produce notable results, the next question will be how adaptable the strategy is to bases with other objectives and different assets.

Results do not flow only from well-conceived programs, however. The management of base redevelopment is equally important in determining whether attractive strategies produce tangible results. How LRAs manage the ambitious plans that follow from economic development initiatives is the subject of the next chapter.

Chapter 4: Managing Redevelopment

The creation of opportunities to which private developers, businesses, homebuyers, and other end-users could respond, has posed significant management challenges to LRAs. Preparing large holdings for civilian development requires investment in infrastructure and related site improvements that can total tens and sometimes hundreds of million of dollars per base. At least some of this has to be spent long before revenues can be realized. And projected development timetables are quite long—usually 10 to 20 years, but 40 to 50 years, in some cases. Table 4.1 suggests the scale of the challenge. The smallest 20% of surplus bases we studied were under 200 acres each, the equivalent of a very large civilian redevelopment project. (Most urban renewal projects undertaken in the 1950s and 1960s were on the order of 50 acres; the very largest ranged from 200 to 500 acres). For surplus military bases, the largest were vast.

Table 4.1
Surplus Property at 95 Local Impact Installations
BRAC 1988 to 1995

Percent of Sites by size	Total Surplus Acreage	Acreage Avail. for Nonfederal Use*
1 to 20%	30 to 183 acres	30 to 176 acres
21 to 40%	249 to 842 acres	183 to 842 acres
41 to 60%	909 to 2,174 acres	882 to 1,871 acres
61 to 80%	2,211 to 3,929 acres	1,895 to 3,725 acres
80 to 100%	4,000 to 55,270 acres	3,727 to 17,541 acres

Source: MIT Project on Military Base Redevelopment

Notes: *Acreage available for nonfederal use represents surplus acreage less federal-to-federal transfers. Two transfers to the Bureau of Land Management account for 80 percent of federal-to-federal transfers. Surplus acreage includes land that reverted to local jurisdictions as well as land conveyed by military services.

The typical LRA is managing a redevelopment project of about 900 acres. This is the median acreage the military services will convey to communities that plan job-related reuse, including new civilian airports, after all closures are complete.¹ Much of the other land is being distributed through various kinds of public benefit conveyances for environmental conservation, recreation, housing the homeless, and the like.

The complexity of redeveloping such a large site was an important factor driving the management process. LRAs often faced projects that involved multiple reuses, required substantial reconfiguration to accommodate such reuse, and needed significant up-front investment. LRAs that chose to manage the redevelopment directly faced different challenges from those that chose to manage the process in partnership with private developers. The

relationship between the management choice, the complexity of the project, and the form of the LRA produced an interesting pattern. In general, public-authority LRAs, which often managed the most complex projects, also tended to manage the redevelopment themselves. Local-government LRAs, on the other hand, which often managed more straightforward and time-limited projects, often chose private developer as partners in implementation. (Chapter 2 contains a discussion of this issue.)

We use the term “master development” to describe the most important activities related to land development on a base: reconfiguring the site to civilian norms, platting and subdividing the property into development sites, preparing individual sites for development, marketing sites, and installing and/or upgrading core infrastructure.² We differentiate this from “component development”: the development of sites for specialized end-uses such as housing, offices, research and development space, and hotels. Component development includes subdividing sites into lots for end-users, marketing, installing or upgrading the infrastructure networks, and constructing buildings.³ Of course, some LRAs undertook both master and component development, as did some private developers.

The chapter is organized around the two main management approaches: master development directly by LRAs and in partnership with private master developers. We focused on the following questions:

- How did the project cost and complexity affect management?
- How did LRAs that chose to be their own master developers raise the necessary capital, finance their own operations, and balance long- and short-term objectives?
- What roles have private developers played, what kinds of agreements have LRAs used with them, and how have they controlled the pace and quality of development?

CHALLENGES AND COSTS OF REDEVELOPMENT

The kind of reuse, the degree to which the base had to be reconfigured, the timetable required, and the cost were key issues LRA management had to address.

Reconfiguring bases: adding up the costs

The configuration of former military bases is unlike that of most civilian holdings. Bases were built on large tracts of land, isolated from their neighbors, and improved with utilitarian and sometimes Spartan buildings and centralized infrastructure. Reconfiguring a base for civilian use required costly improvements. At the eight large installations described below, LRAs anticipated a total of over \$800 million for capital costs related to master development—an average of over \$100 million per base.⁴ LRAs planned improvements to on-base roads, water and sewer systems, and utilities. Some LRAs also invested in off-site infrastructure such as access roads, interstate connector roads, and new intersections, although more often state highway departments funded these improvements. Even small bases could require major investment. An example is the 60-acre Stratford Army Engine Plant in

Table 4.2
Redevelopment Costs at Eight Large Installations

Base	Nonfederal Acreage	Redevelopment Goals	Total Expected Master Development Costs
Fort Devens	3,023	Development of business and industrial sites in park settings, with secondary residential and commercial use	\$74 million in the first five years plus annual operating costs of \$7.5-\$10 million over 40 years
England AFB	2,282	International airport with supporting aviation-related, industrial, business, and residential development, largely in existing buildings	\$119 million in capital costs plus \$158 million in operating costs for a total of \$277 million from 1997 to 2020
Lowry AFB	1,751	New mixed use development combining residential neighborhoods, parks, education campus, and business center.	\$123 million in capital costs, \$29 million in operating costs, plus \$25 million in interest (on first series of revenue bonds only) for a total \$177 million over 15 years
Norton AFB	2,164	International airport as transportation magnet, with related industrial park/tradeport	\$191 million in infrastructure costs plus annual operating costs of \$3 to \$4 million
Orlando NTC	1,093	Development of a new planned community, with housing, business park, and related uses	\$110.6 million in private master developer costs including profit
Pease AFB	2,954	Regional hub civilian airport with adjacent corporate, industrial, and research park	Total development costs have not been projected. Costs from FY 1992 through FY 1997 were \$69 million.
Philadelphia Naval Complex	1,140	Reuse of existing maritime and industrial property for industrial, warehousing, and distribution, with ancillary research and development and commercial uses	\$115 million in infrastructure costs. Operating and maintenance costs not reported.
Wurtsmith AFB	4,624	Airport and aviation-related industrial and business uses, with recreation-oriented residential redevelopment	\$13 million in capital costs plus \$23 million for operations for a total \$36 million over 15 years

Sources: Survey of six master developer LRAs plus field studies of Fort Devens and Orlando NTC. Notes: Data as of early 1998. Land at Wurtsmith includes 2,683 acres that reverted to state and local jurisdictions. Orlando data pertain to the main site only.

Connecticut, originally built by Igor Sikorsky in 1929 to manufacture seaplanes and later helicopters. Because the now-obsolete buildings might only be attractive to marginal businesses, the Stratford Town Council is considering spending \$20 million to demolish most of the existing buildings and prepare the site for new first-class office, research, and development space. Table 4.2 summarizes the projected cost of master development reported at the eight large bases.

The type of new use affected infrastructure costs. Large-parcel industrial and office parks required basic public (water and sewer) and private (gas, electric, telephone) utility improvements, whereas new residential communities often involved the development of related schools, recreation facilities, and other amenities. In addition, the development of many small buildings required denser internal road and utility systems. For example, the reuse plan for Fort Devens anticipated that 176 acres, or 4 percent of the 4,400-acre site, would go to roadways and rights-of-way, while roads at the new community in Orlando will consume 125 acres, 11 percent of that site's total land area (1,093 acres). Airport development required substantial investment in runways and operating facilities.

The payoff for master developers—public or private—was investment by component developers and end-users of several times the cost of site development for new industrial, commercial and residential buildings. The village of Glenview projected that its investment in master development, including infrastructure costs of at least \$100 million, would generate a total investment at build out of \$600 million to \$1 billion. LRAs did not have to wait until the project was built out to see these returns. For example, between 1991 and 1998 the Massachusetts Development Finance Agency spent \$45.4 million as master developer of the Devens Commerce Center, while private investment in building and equipment during this period totaled \$103.2 million.

The development team: public-authority and local-government LRA models

As noted previously, public-authority LRAs tended to be their own master developers, whereas local-government LRAs often sought private developers to act as master developers or as their development partners. Within this generalized pattern, individual LRAs differed with respect to how much responsibility they took for master development and component development. Figure 4.1 illustrates the range of choices.

The right end of the spectrum represents the most traditional public/private relationship, where the private sector undertakes land development, and local government plays a regulatory role. One local government (Oscoda Township) that tried to take on day-to-day development functions (in this case, a residential project) subsequently turned these functions over to a private developer.

The left end of the spectrum represents a more activist public role, where the public entity assumes full responsibility, and the associated risks, of development. Here we found more public-authority LRAs than local-

government LRAs. Between these two extremes, LRAs created a variety of public-private partnership arrangements. Following are some examples:

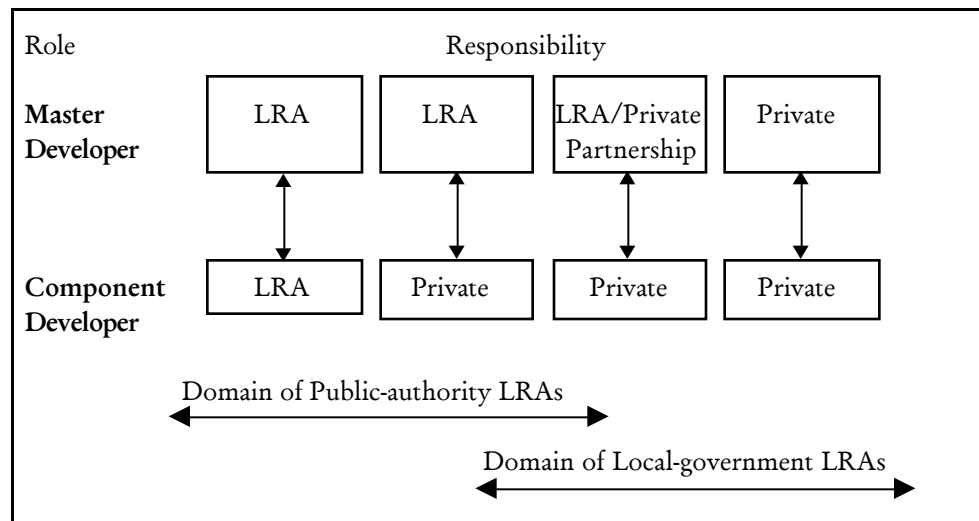
Examples of Public-authority LRAs

- Public-authority LRA is both master developer and component developer (Griffiss Local Development Corporation, which built a speculative office building at the base)
- Public-authority LRA is master developer and sells finished lots to builders (Lowry)
- Public-authority LRA is master developer and sells sites to private component developers (Fort Devens, Fort Harrison, Norton AFB)

Examples of Local-Government LRAs

- Local-government LRA is master developer and sells sites to private component developers (Wurtsmith)
- Local-government LRA includes a private development firm as part of the its development team (Glenview)
- Local-government LRA retains a private developer to manage development (Mather)
- Local-government LRA sells the site to a private master developer, city then shares profits (Long Beach)
- Local-government LRA sells the site to a private master developer, city then regulates (Orlando, Alameda)

Figure 4.1
Spectrum of Development Arrangements



The selection of a type of LRA was related most strongly to the presence of multiple jurisdictions having a claim on the base, as pointed out in Chapter 2, as well as to the history and culture of the community. The city of Alameda credits its history of working with private developers for shaping its plan to rely on private developers at Alameda Point. Glenview officials pointed to the entrepreneurial and corporate village government culture as a clear factor in its decision to be master developer of the Glenview NAS. And

in Massachusetts, the role played by the Massachusetts Development Finance Agency in the redevelopment of the Charlestown Navy Yard and other bases in the 1970s and 1980s clearly prompted its pursuit of the Fort Devens project.

The mission of the LRA also affected its strategy. Operating LRAs that planned to own their bases over the long term, manage the property, and provide services such as police and fire were concerned not only with redeveloping the bases but with creating organizations that could sustain themselves and developing assets that would return revenues over time. This meant ensuring that operating revenues matched or exceeded operating costs and budgeting for replacement reserves. The England and Pease authorities are examples of operating LRAs; each also managed an airport. Another example is Massachusetts Development Finance Agency, which planned to operate the Devens Commerce Center and provide it with municipal services for at least 40 years; its business plan included special sections associated with these ongoing responsibilities. The Lowry authority, on the other hand, was a development LRA: its goal was to redevelop the property, turn ownership over to other parties (the city of Denver would acquire the roads, and utilities would be transferred to utility companies), and go out of business after its job was completed. Consequently, the authority viewed its operating costs as a fixed component of the development cost, and it did not seek to create long-term revenue streams. Its mission was similar to that of Orlando Partners, the private team developing the Orlando Naval Training Center. The partners anticipated that development activities would end in five to seven years. The development organization was temporary, and management costs were fixed.

The form of LRA also influenced how it raised funds. Public authorities, including joint powers authorities, generally had authority to issue revenue bonds and could sometimes issue tax increment bonds. None of the LRAs that we studied used private equity investment to fund their own master-developer activities, although private equity was used for individual development projects.⁵ Cities, on the other hand, could issue a broader range of bonds, including general obligation bonds, revenue bonds, or tax increment bonds. Glenview, for example, issued bond anticipation bonds—general obligation bonds to be repaid later when project bonds were issued. Finally, private developers had access to equity capital.

Phases and strategies

When a base contained readily usable building area, the LRA tried to take over the operations of the facility “as is,” make modest investments that were required to bring existing systems to code, and lease buildings to various kinds of tenants to produce up-front revenues. We considered this a “reuse phase.” In some cases, such as Indianapolis, Chanute, and Kelly, this activity constituted a major part of the redevelopment plan. For other LRAs, such as Alameda, Charleston, England, Mare Island, and Philadelphia, reuse was a significant activity, but one that would be followed by a more extensive “redevelopment phase.” Redevelopment involved long-term investments to increase or change the type and intensity of use, by extending infrastructure to serve undeveloped land or by creating other opportunities for major new

uses. When a base contained very marginal buildings the LRA did not want to renovate, or extensive raw land holdings, the LRA chose to begin significant redevelopment without much reuse. Examples in our field studies included San Diego, Orlando, significant portions of Lowry, Fort Devens, Norton, Mather, Long Beach Hospital, Glenview, and much of Fort Ord.

Reuse and redevelopment were often at the beginning and end of the conversion process. The difficulties came in the middle. Current needs and opportunities were powerful. Fledgling LRAs needed to generate income to run their organizations, make the old military installation look active and not abandoned, and respond to organizations and firms in the community that wanted to use space. However, tenants seeking space did not necessarily serve the long-term interest of development: public organizations wanted free space, while firms seeking to locate in older cheap space were sometimes themselves marginal.

The long-term vision was often more attractive than reuse as-is; LRAs envisioned industrial and office campuses attractive to high-class and high-paying companies. Yet major redevelopment of a very large base required significant investment, sometimes more than a community thought it could afford, and it committed the community to the project for a very long time. Meanwhile, the proliferation of tenants in older buildings on the site, products of successful reuse, could inhibit such redevelopment. Managing the transition from active reuse to active redevelopment challenged some LRAs. Others chose to do one at the expense of the other.

Adaptive reuse at Fort Ord

A new campus for the California state university system—California State University, Monterey Bay (CSUMB)—is a major component of the Fort Ord redevelopment plan. By the year 2030, the university's planners hope to build an entire campus with over 2.2 million square feet of building area to serve 25,000 students. Initial development, however, depended on the creative adaptation of existing buildings, used by the military mostly for residential and educational use. The school admitted its first students in 1995, just four years after Fort Ord was ordered closed. By the fall of 1998, the new university had 42 existing buildings containing 500,000 square feet in use.

When the California State University Board of Trustees agreed to develop a new campus at Fort Ord, the decision was contingent on its low cost, which depended, in turn, on extensive use of existing buildings. Congress provided the initial capital, with special appropriations totaling almost \$50 million over 4 years.

Those responsible for developing the new campus pointed out a variety of difficulties in creating a new university on a military base, even when the previous and new uses of many buildings were similar. Residential rooms for soldiers were much smaller than those college students have come to expect; heating, ventilating, air conditioning, and lighting systems did not meet civilian standards; and buildings did not meet Americans with Disabilities Act and seismic requirements. Roads were narrow, the layouts were

irregular, and there were long stretches without sidewalks. Campus planner David Salazar stressed that the importance of eliminating the “military persona” of the place, exemplified by rows of old barracks that the university plans to demolish, and the 8.5 miles of fencing on the 1,350 acres the school is acquiring. “What kind of picture should CSUMB graduates have on their diplomas?” he asked. At the same time, CSUMB president Peter Smith noted the need to make sense of and build on the history of Fort Ord.

CSUMB planned to use a series of three-story Korean War-era structures to create “living and learning centers” as the core of the first phase of development. However, the school’s master planner estimated that it would cost close to \$3 million to convert and seismically reinforce each 40,000-square-foot building, and converting all 21 of them would cost over \$60 million. With only \$15 million for the first year of renovations, the CSUMB decided to “bank those buildings and come back to them later.”

Instead, CSUMB decided to phase the development over time and to begin with relatively new, single-story buildings that required less investment.

A key to the renovation strategy involved identifying buildings to focus on—there were too many to use all—and the best reuse for each. Most reuse followed the former use: the service club became a student center, the theater was reused as a theater, and the chapel became a music hall. Another key involved creating a cosmetic architectural treatment that made the utilitarian buildings look contemporary. In most cases, this involved the use of color, murals, and canopies to lead the eye around the stark basic forms. An architect advised the school on design themes, and a design review committee reviewed all plans. The school also invested in a new signage system and new entry road, with trees along the new roadway and beyond to provide a vision of how the road would look in the future.

Balancing short- and long-term development at Alameda NAS

At Alameda, the community chose to use two different implementation LRAs in sequence as a way of balancing short- and long-term development needs. A joint powers authority, Alameda Reuse and Redevelopment Authority (ARRA), was created in 1993 to manage planning and the early stages of reuse. ARRA had a nine-member board—five from Alameda and four from other jurisdictions impacted by the closing. ARRA focused on generating the revenues needed to operate and manage the installation, and its primary activities involved interim leasing. ARRA also had a five-year life; in April 1999, the city became the implementation LRA. The city, through its redevelopment agency, crafted a long-term development strategy that will involve parceling out the site for private development. The case illustrates potential conflicts between reuse and redevelopment.

Interim leasing and ARRA ARRA was responsible for managing and marketing the installation and building a source of revenues to support its operation prior to a conveyance from the Navy. During ARRA’s tenure, it had some control over about half of the installation under a 15-year master interim lease with the Navy. (The final conveyance was not expected until after ARRA’s sunset date.) The Navy approved each of ARRA’s subleases.

ARRA aggressively pursued leasing opportunities as its primary revenue source, and it found a strong market. As of mid-1998, 34 properties amounting to almost 1 million square feet were occupied, 29 under long-term leases, and leases covering another 1 million square feet were pending. ARRA also leased three piers to the U.S. Department of Transportation's Maritime Administration. Lease revenues during 1998 were projected to be \$2.5 million;⁶ and by March 1999, ARRA had generated over 1,500 jobs through leasing. In addition, the caretaker agreement between the Navy and the city generated important revenues: \$4.5 million from April to September 1997, \$8.7 million for FY 1998, and \$4.5 million for FY 1999.

To avoid conflicts between the leasehold interests of tenants and the need for clear site control by the eventual developers, ARRA tried to limit leases to five years in areas scheduled for early redevelopment. Nevertheless, interim leasing inevitably may affect long-term redevelopment by locking in some interim uses. As former ARRA director Kay Miller⁷ explained, several large hangars occupy the lower part of what is known as the Civic Core of the site. The original plan was to allow these structures to continue to be used "as is" for the next 10 to 15 years, then to tear them down and redevelop the area at a higher density. In reality, said Miller, several factors make it likely that these hangars will be there forever. First, some potential tenants needed long-term leases to allow them to amortize the investment in the buildings. Second, overall development on the site will be limited by constraints on access to the island. In 15 years, it is possible that the site would have reached the maximum allowable density and that new construction would be allowed only to replace existing buildings. Having tenants in place and no opportunity for higher density development could change the economics of new construction.

Redevelopment and the city Meanwhile, the city of Alameda moved ahead with plans to offer the site to private developers. As Bruce Knopf, the city's economic development manager, pointed out, the city had developed a policy of "taking only that action necessary to make private development happen" over twenty-five years of working with private developers.⁸ The first project was the redevelopment of the 225-acre former Bethlehem Steel Shipyard, which closed in 1982. To make the development feasible for a private developer, the city used tax increments to finance needed infrastructure, and it loaned the developer the proceeds of a \$1.8 million federal Urban Development Action Grant (UDAG).⁹ Later, the city used special assessments to support the development of 3,000 units of housing and 5 million square feet of R&D space at a site known as Bay Farm Island—a development that approaches the scale of Alameda Point. In another case, the city helped a developer assemble land to create a useful redevelopment site.

At Alameda Point, the city plans to act as master developer and to parcel out individual opportunities. The use of multiple component developers reflected the advice of an Urban Land Institute panel convened by ARRA early in the planning process. The panel suggested that it would be difficult for the city to find a master developer to take on the variety of different kinds of industrial, office, and educational projects the reuse plan envisioned. The city plans to support infrastructure development, as it has in the past, and to seek

developers to do the rest. Creating a consistent infrastructure investment strategy might still push the city to seek a single master developer who would help with financing. Projections are that the site will need \$106 million in infrastructure upgrades and new capital investment over the 15-year build-out period, and this may be more than Alameda, not an affluent community, can afford.¹⁰

Financing Leasehold Improvements at Alameda Point

Alameda Reuse and Redevelopment Authority (ARRA) used several strategies to finance tenant improvements. In some cases, tenants paid for improvements up front and amortized the costs over the term of the lease. ARRA set rents to reflect the unimproved status of the space it provided. To help tenants finance these improvements, ARRA granted long leases—sometimes equal to the remaining term of the Navy’s master interim lease. For example, ARRA leased a hangar to a 10-year-old company from Oakland that makes industrial valves. The company, which had 100 employees, had searched widely for a possible location, and it had been considering a move to Tahoe, Nevada, to save money on taxes. As part of its search, the company asked its customers, “do you want us cheap, or do you want us local and responsive?” Customers, including refineries in the Bay area who use their products, said the latter. Out-of-town customers also said they liked coming to stay in San Francisco and taking the ferry across the Bay to Alameda to do business. The company invested \$470,000 in building improvements that included new sprinklers (hangar sprinklers were designed to flood the building in case of fire), office space, access for the handicapped, electricity, and heat. ARRA made surplus equipment available to the tenant, at liquidation value.

In other cases, ARRA made the improvements, delivered a fully improved building, and charged market rents to tenants. This strategy allowed ARRA to attract tenants that could not get their own financing. ARRA received two matching grants from EDA to make such improvements: \$3 million in 1997 and \$1.6 million in 1998. ARRA used \$1 million of the EDA funds to improve 110,000 square feet in Building 39 for lease to a company that designs and manufactures exhibits for trade shows, museums, and special events. ARRA received \$300,000 in annual rent on the improved space. In a variation on this theme, ARRA arranged to lease the largest building on the base, 270,000 square feet in Building 5, to a private developer, who would make the necessary improvements, and sublease space in increments of 5,000 to 10, 000 square feet. ARRA and the developer would each receive part of the sublease revenues. The building had been difficult to lease because of its large size and configuration, and it had been scheduled for early demolition. The subdivided units, on the other hand, were in high demand.

The city tested its developer selection process at a 140-acre site adjacent to the naval air station known as the Oakland Fleet Industrial Supply Center (FISC) Annex. The site was conveyed to the city under special legislation. In 1996, the city issued a Request for Qualifications and subsequently selected Catellus Development Corporation to become exclusive developer of the site. (Catellus redeveloped the adjacent Bethlehem Steel site.) In March 1998, the city created a community improvement district covering the naval air station and the annex. The intent was to use development proceeds and tax increments generated by the FISC redevelopment for both the naval air

station and annex. In mid 1998, ARRA added a 70-acre housing site at Alameda Point to the Catellus project.

How the city resolves the apparent constraint presented by significant leasehold investment in existing property remains a question. According to Bruce Knopf, the city will sell the property subject to existing leases. If a developer chooses to renew these leases, it will be at his or her discretion.

HOW DID MASTER-DEVELOPMENT LRAs FINANCE REDEVELOPMENT?

LRAs that chose to be master developers had to find financing for infrastructure development, sustain their own organizations, phase development, and attract end-users. To understand in some detail how LRAs addressed these challenges, we undertook a separate survey of LRAs that chose to be their own master developers. Five were public authorities and one was a local government.¹¹

Finding the money for master development

The LRAs in our survey anticipated investing at least \$865 million to redevelop their bases and to support their own organizations during the development period. Through FY 1997, they had raised \$327.3 million for land development, infrastructure, and operations using four financing tools in roughly equal measure: government grants, government appropriations, debt, and project revenues. Table 4.3 summarizes the frequency of use and the amount raised by each of the four tools.

Funds came from essentially three sources: government funds, private lenders, and LRA project revenues. All six LRAs used federal grants and project revenues; these also provided the most funds, accounting for 60% of all reported financing. Table 4.4 shows the sources of funds raised by each LRA.

EDA grants, the most important federal grants, played a critical enabling role in LRA revenue generation. At three bases, EDA grants funded new roads, demolition, and building improvements that were preconditions for revenue generation. Pease Development Authority used EDA grants for demolition and infrastructure upgrades needed to bring property to leasable condition. EDA grants also funded building improvements to secure specific tenants. At Norton, Inland Valley Development Authority (IVDA) needed to construct a road providing access to the property before any leasing could occur. A \$6.8 million EDA grant funded 75% of this critical project. England used its first EDA grant to build a new concrete ramp to attract its first tenant, a J.B. Hunt driver training school. More significantly, a \$5.2 million EDA grant was the main funding source to build an access road and passenger terminal required to establish the commercial airport. The other major federal grant source was the FAA. At three sites, the conversion of a military airfield to civilian airport was a key element of the redevelopment plan, and two, England and Pease, received FAA grants for improvements to runways and other airport infrastructure.¹²

State governments provided three times the funds provided by local governments at the six bases. Moreover, states contributed significantly at three bases—England, Pease, and Wurtsmith—providing 20% to 30% of total funding to date. While five LRAs used local government funds, the local contribution was a small portion of total funding. The two largest local financial contributions, \$4.8 million to the Philadelphia Naval Complex and \$3 million to IVDA, represent only 8% and 2% of total financing at each base, respectively.

Table 4.3
Financing Tools Used by Six Master Developer LRAs

Financing Tool	Number Using Tool	Amount Raised (In \$000s)
Grants		74,282
Federal EDA Grants	6	44,562
Federal FAA Grants	2	23,504
State Categorical Grants	4	5,906
Foundation Grants	1	310
Government Appropriations		84,322
Federal ¹	1	50,000
State	2	25,519
Local	4	8,803
Bonds and Private Debt		95,511
Tax Increment Financing ²	1	46,683
Revenue Bonds	1	39,000
Private Debt	1	7,903
Public or Quasi-public Debt	2	1,925
LRA Revenues		73,137
Real Estate Lease and Sale Revenue	6	50,064
User Fees	4	12,441
Impact Fees ³	1	6,200
Sale of Utility Systems ⁴	2	4,432
Rent Offsets for Tenants	5	Unknown

Source: MIT Survey of six LRAs.

Notes: Data as of early 1998. Amounts exclude OEA planning grants and revenues from caretaker agreements with the military services and support to end-users. Grants came from categorical programs. Appropriations were facility specific.

Footnotes: 1. Special congressional appropriation to Philadelphia . 2. Two other LRAs plan to use Tax Increment Financing. 3. Amount to be collected over 10 years . 4. Reflects gross sale price, part was paid over several years

Private debt financing generated substantial capital; however only two LRAs used it. As of 1998, Lowry Economic Redevelopment Authority had raised \$39 million through two revenue bond sales secured by multiple revenue streams (the most important was from rents) and borrowed \$7.9 million from local banks for a line of credit, infrastructure construction for individual subdivisions, and tenant improvements at a commercial building.

Table 4.4
Amounts Raised for Master Development Through FY 1997 (in \$000s)
Six Case Study LRAs

Base	EDA Grants	Other Federal Grants	State Govt. Appropriations and Grants	Local Govt. Appropriations and Loans	Private Debt	Internal Revenue
England ¹	6,475	2,909	7,099	1,525	0	14,673
Lowry	7,178	0	106	1353	46,903	16,224
Norton ²	9,384	0	300	3,000	46,683	32,793
Pease ¹	8,475	20,595	18,420	0	0	21,557
Philadelphia ³	3,250	50,000	500	4,800	0	1,000
Wurtsmith	9,800	0	5,000	50	0	2,200
Total	44,562	73,504	31,425	10,753	93,586	88,447

Source: MIT Survey of six LRAs

Notes: Data as of early 1998. Amounts exclude OEA planning grants and revenues from caretaker agreements with the military services and support to end-users. Grants came from categorical programs. Appropriations were facility specific.

Footnotes: 1. Other Federal Grants are from the FAA. 2. Internal Revenue includes tax increments and interest on unexpended bonds not shown in 4.3. 3. Other Federal Sources consists of a special congressional appropriation.

How to Reduce Repayment Risks

LRAs that borrowed to finance large up-front costs faced risks related to the timing and size of future development revenues. The Lowry authority and IVDA mitigated these risks by including in their bond issues large reserves to cover interest and principal payments in the event of cash flow shortfalls.¹³ Over \$5 million, or 15% of the \$33 million in proceeds from Lowry's first revenue bond, were used for a capitalized interest reserve. In IVDA's 1993 and 1996 TIF bonds, 10% and 8% of the proceeds, respectively, (\$4.2 million and \$3.7 million) were used for reserves. In the early years, the LRAs needed these capitalized reserves to make debt service payments as tax revenues fell below projections.

Graduated repayment schedules also mitigated risks. Principal payments on Lowry's debt were deferred for 4 years and then increased over the following ten years, from \$2 million to \$4.2 million annually. This structure reduced debt service in the first four years as the LRA built infrastructure and placed the property on the market. Payments will increase as development and associated revenues grow. Similarly, IVDA deferred principal payments on its 1997 TIF bonds until 2002. Payments from 2002 to 2027 will increase gradually from \$980,000 to \$2,730,000 per year.

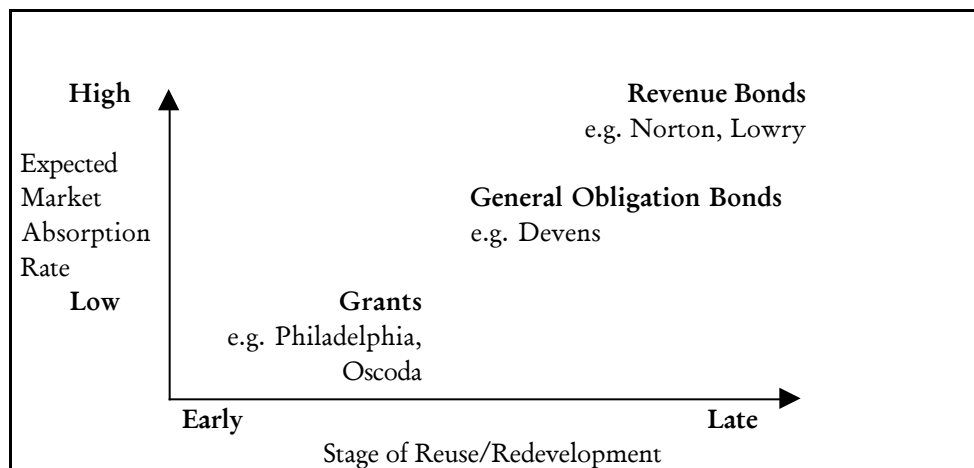
To protect IVDA's 1997 TIF bondholders, San Bernardino County and the cities of San Bernardino, Colton, and Loma Linda agreed to cover any shortfalls in tax increments needed to pay principal and interest. This guarantee allowed IVDA to obtain a letter of credit from Sumitomo Bank and an investment-grade bond rating, both of which made the bonds more attractive to investors and helped secure a low 4.2% interest rate.

This borrowing accounts for 45% of all funds raised by the Lowry authority. Another \$25 million in additional debt backed by tax increment financing (TIF) revenues is planned at Lowry. At Norton, IVDA has issued three interim financing notes followed by a long-term bond refinancing, all backed by TIF revenue. It raised almost \$47 million, net of refinanced debt, through these four borrowings, accounting for 32% of its total financing.¹⁴

Matching financing to LRA needs

Several patterns emerged from a comparison of funding sources and uses. First, federal public benefit conveyances (PBC) and flexible economic development conveyance (EDC) terms were significant in helping master developer LRAs finance initial capital costs in all but one case. LRAs at England, Wurtsmith, and Pease acquired the property at no cost, the first two through PBCs and the latter through a rural EDC. At Norton and Lowry, the Air Force agreed to very advantageous terms for acquisition as part of the EDC agreement. At Lowry, EDC terms included a zero percent interest rate and a 15-year repayment period. This reduced the cash flow demands on the LRA and freed up cash to support debt. The Air Force's agreement to subordinate payments on the EDC note to payments on the bonds further reduced bondholders' risk. Recent authorization of no-cost EDCs will allow other LRAs to use funds once reserved for acquisition to invest in up-front costs.

Figure 4.2
Type of Financing based on Market and Stage of Redevelopment



Second, federal and state grants funds were the most common funding source for infrastructure and demolition costs, and four of the six LRAs relied exclusively on grants and appropriations to fund up-front infrastructure costs. This pattern may in part reflect the categorical nature of federal and state grants funds, which are often restricted to infrastructure and other project-specific costs. LRAs often needed grants early in the redevelopment process, when future revenues were most unpredictable. Debt proceeds were the other major source of infrastructure investment. Strong market demand and a development process that was well underway meant that revenues to repay the debt were more certain, making debt financing more feasible. Figure 4.2 shows the relationship between the type of funding and these factors.

Third, lease and fee revenue was the primary source to pay overhead and operating costs. This may be because internal revenues are flexible and can cover expenses such as property management and staff that are ineligible for grants. Most LRAs also relied on tenants to help fund property improvements, often providing rent offsets as an incentive. Most LRAs also supplemented these revenues with other sources.

Table 4.5
Principal Financing Sources for Major Uses of Funds,
Six Bases

Acquisition	Infrastructure & Demolition	Overhead & Organization	Property Management	Tenant Improvements
England AFB FAA Public Benefit Conveyance	EDA Grants FAA Grants State Grants Foundation Grants Internal Funds	Lease Revenue User Fees OEA Grants State Grants	Lease Revenue User Fees Caretaker Agreement State Grants	Tenant Funds (rent offsets) State Grant Public Agency Loan
Lowry AFB Extended payment EDC plus negotiated sale	EDA Grants Revenue Bonds Infrastructure Assessments Bank Loans TIF Bonds	Lease Revenue Land Sales EDA Grants OEA Grants Contract Revenue	Lease Revenue Land Sales Caretaker Agreement Contract Revenue	Bank Loan City Loan
Norton AFB Extended payment EDC plus FAA Public Benefit Conveyance	EDA Grants FAA Grants TIF Bonds State Grants	Lease Revenue TIF Bonds	Lease Revenue TIF Bonds Caretaker Agreement Water Fees	Tenant Funds (rent offsets) TIF Bonds
Pease AFB FAA Public Benefit Conveyance	EDA Grants FAA Grants State Appropriation	State Appropriation Lease Revenue Golf Revenue	State Appropriation Lease Revenue	Tenant Funds (rent offset) EDA Grants State Bonds
Philadelphia Naval Complex EDC funded by City	Service Agreement* Special Congressional Appropriation EDA Grant City Funds State Grant	OEA Grants Lease Revenue City Agency Support (PIDC) TIF Revenues	Caretaker Agreement Lease Revenue TIF Revenues	Tenant Funds City Loan Funds Special Congressional Appropriation
Wurtsmith AFB FAA Public Benefit Conveyance & Rural EDC	Service Agreement* EDA Grants State Grant (Small Cities CDBG)	OEA Grants Township Appropriation Lease Revenue Recreation Fees Utility Sales State Grant	Lease Revenue Recreation Fees State Grant	Tenant Funds (rent offset) State Grant EDA Loan Fund Air Force ¹

* At Philadelphia and Wurtsmith, the Navy and the Air Force made infrastructure improvements related to their own use, and the LRA deferred acquisition until these were complete.

How did LRAs use their own revenues?

LRA revenues and assets were the most flexible sources of funds, and we took a special look at how LRAs used these resources. They included commercial and industrial building leases, land sales, housing rentals and sales, recreation fees, asset sales, and user fees.

Lease revenue from existing buildings was an important early revenue source. LRAs used some buildings to generate lease income while awaiting final property transfer and before major infrastructure investments. For example, at Wurtsmith AFB, the Oscoda Township reported over thirty tenants that provided close to \$180,000 in annual rental income. Lease income, the only current internal revenue source at the Philadelphia Naval Complex, generated \$1 million in income through FY 1997. For the England Authority, nonaviation lease revenue totaled over \$2.7 million dollars in FY 1997. Five LRAs also used negative lease revenue in the form of rent offsets to finance building improvements for tenants.

Housing generated a significant amount of income at three bases. At Lowry, 700 units of housing yielded an estimated \$2.2 million in annual net cash flow that provided the LRA with an early and large income source. This income allowed the LRA to obtain an early line of credit and complete its 1994 revenue bond sale. England Airpark generated over \$600,000 from housing leases in 1997, with England Oaks, a 178-unit retirement community being developed by California Lutheran Homes, Inc., contributing most of this revenue.¹⁵ With approximately 50% of England's 540 units leased, housing revenues were expected to grow considerably. At Wurtsmith, Oscoda Township sold 1,198 housing units to a private developer who will pay the town over a ten-year period as he sells the units. This arrangement was projected to generate \$200,000 annually, exceeding revenue from commercial and industrial building rents. The housing was also expected to generate water and sewer fees to help offset other base reuse costs.

Recreational assets were also potential revenue generators.¹⁶ Pease Development Authority (PDA) obtained substantial revenue through its golf course. The golf course, PDA's second-largest revenue source since FY 1993, generated over \$1 million in annual revenue from FY 1994 through FY 1997 and was expected to contribute over \$300,000 in net cash flow in FY 1998. PDA plans to build an additional nine-hole public golf course to expand this successful profit center. The England Authority received \$86,000 annually from leasing a nine-hole golf course to a private company. With the assistance of a \$5.2 million state grant, the LRA plans to rebuild and expand this course into a championship course and the center of a group of tourism-oriented uses. This addition will significantly increase the LRA's future revenue. While Wurtsmith lacks a golf course, it provided Oscoda with Michigan's largest campground. The town earned \$100,000 in its first year. Although profits dropped in the second year, Oscoda projected that new management would increase the campground's annual net cash flow to \$150,000. While Norton's golf course produced \$1.6 million in annual revenue, it operated at break-even, providing no cash flow to support other development activities.

User fees supplemented other revenue at four bases. The Lowry authority financed its infrastructure trunk lines in part through infrastructure assessments. During the planning process, Lowry began making the case that such assessments were essential and should be paid by all users, including governmental and nonprofit users, since all would benefit. The LRA negotiated voluntary payment agreements (called Infrastructure Payment Agreements or IPAs) with each user. The impact fee was \$24,000 per acre and could be paid in a lump-sum fee or over a ten-year period. IPAs were expected to generate \$6.2 million over ten years from current users (the community college campus alone accounts for \$4.5 million). Since this fee also applied to private developers, it would grow as private development at the base expanded. Pease Development Authority collected close to \$1 million annually in municipal service fees in lieu of property taxes to offset the cost of fire, police, and public works services to the development. The England authority collected \$200,000 annually from a 5-cent-per-gallon fuel flowage fee collected on aviation fuel purchased at the airport. Oscoda projected \$200,000 annually in net cash flow from water and sewer fees, after substantial residential development occurs.

Tax increments—new property taxes produced by new development—were the primary revenue source at Norton and were expected to help finance development at Lowry and the Philadelphia Naval Complex. Tax increments from four jurisdictions generated over \$2 million annually and were IVDA's largest single revenue source. This revenue allowed IVDA to borrow over \$40 million to invest in infrastructure and provide a substantial reserve to cover operating costs. IVDA created such a large tax increment by creating a large taxing district: the LRA acquired 2,000 acres from the Air Force, but the taxing district covers 14,000 acres. Since the Air Force property was not on the tax rolls, all taxes generated at the former base property go to IVDA. Lowry expected to raise \$25 million from TIF bonds to fund demolition, park construction, drainage systems, and a new school.¹⁷ The first TIF bond, issued in June 1998, was expected to raise \$13.8 million. At both Lowry and Norton, local school districts resisted contributing their share of incremental taxes to the base reuse project. Both LRAs gained school district acceptance by agreeing to build new schools with a portion of the TIF bond proceeds. While Philadelphia has established a TIF district at the naval complex, detailed plans for using the tax increment revenues for overall base redevelopment have not been formulated. However, PIDC planned to use \$30 million in TIF financing to fund improvements needed for an important anchor tenant, a Norwegian shipbuilding firm (discussed further below).

Finally, two LRAs sold utility systems, with mixed results. At Wurtsmith, Oscoda obtained the gas and electrical distribution systems at no cost through an EDC and then sold them to private utilities for \$3.6 million, with \$1.7 million received up-front and the balance to be paid over ten years. Oscoda Township invested the up-front proceeds and used the \$60,000 in annual interest income to help defray base overhead and operating costs. IVDA incurred a small loss from its sale of the Norton electric, gas, and telephone distribution systems that it acquired from the Air Force. While IVDA netted over \$100,000 from the electric utility sale, it lost \$193,000 on the gas system (due to its poor condition) and broke even on the telephone system.

Transition financing after base acquisition

After acquiring bases through long-term leases or deeds, LRAs were increasingly on their own with respect to operating and financial responsibility. Prior to base acquisition, an LRA's mission was largely to plan reuse, navigate the federal property disposition process, and, in some cases, serve as the base caretaker. Federal grants and contracts generally funded these operations. During the initial reuse planning process, LRAs received OEA planning grants for up to 75% of core staff and consultant costs, and LRAs that entered into caretaker agreements with the military services received federal compensation for base maintenance and security. After base acquisition, however, most federal grants and contracts were phased out (since these were designed to support preacquisition activities). At the same time, the LRA became responsible for maintaining property, marketing the base to new users, managing the development process, and, in some cases, providing public services such as police and fire protection and airport operation. LRAs needed a much larger operating budget to pay for these expanded activities.

Although federal resources declined after an LRA acquired a base, they remained important sources of financing during the transition. OEA grants and military caretaker agreements were phased out gradually, allowing LRAs time to cultivate new revenue sources. For example, Lowry executed its EDC in June 1995; during the next two years, it received over \$500,000 in OEA grants and \$1.5 million in caretaker revenues. Similarly, IVDA completed Norton's EDC in March 1995, but its caretaker agreement continued through 1997, providing well over \$2 million for maintenance, utility, and security costs.

Early leasing provided important transitional revenue. England Airpark was particularly successful in this respect. Prior to signing a master lease in March 1995, the LRA completed leases with the Army for an intermediate staging base, J.B. Hunt for a driver trainer school, and ten smaller firms for 470,000 square feet of building space. Successful interim leasing allowed the LRA to achieve \$3.8 million in lease revenue by FY 1995, 80% of the amount needed for financial self-sufficiency. Housing rentals played a similar role at Lowry, generating \$1.3 million in net cash flow during the first year the LRA owned the base. The 16 tenants Oscoda Township attracted to Wurtsmith prior to base acquisition provided over \$100,000 in rental income.¹⁸

Operating LRAs also controlled increases in operating costs during the transition by delaying expenditures and shifting some costs to tenants. At Wurtsmith, Oscoda Township phased acquisition of the airport and housing to coincide with phased development of the property. It also deferred acquisition of the water and sewer system until the Air Force completed needed repairs. PIDC's lease with the Navy allowed it to take over buildings, and their associated costs, gradually as it secured tenants for each building. All six LRAs primarily leased commercial and industrial buildings on a triple net basis where tenants pay their own utility costs and a pro-rata share of building taxes, insurance, and maintenance costs.

LRAs also carefully controlled their own direct expenditures by pursuing new ways to deliver or purchase services. England Airpark reduced its \$6 million operating budget by \$1.5 million through contracting for private fire protection services, replacing outside grounds maintenance firms with an internal department, and securing more cost-effective insurance coverage. Prior to its takeover of the Wurtsmith water system, Oscoda Township arranged for cost savings through staff reductions and outside contracting. Oscoda also convinced the Air Force to close its central heating system early, saving \$3.2 million in heating costs. The Air Force agreed to use 75% of these savings to reimburse tenants half of their installation costs for new heating systems.

Despite their ingenuity during the transition, most LRAs required back-up funding, typically from state or local governments, to cover operating losses until they achieved self-sufficiency. New Hampshire covered \$5 million in operating losses at Pease International Tradeport until positive cash flow was realized in FY 1997. Similarly, Louisiana provided over \$2.3 million to support business park and airport operations during the England Authority's first three years. Philadelphia funds the Philadelphia Industrial Development Corporation, which provides legal, overhead, and technical support to the naval complex project, and it has appropriated \$4.8 million for reuse costs to date. The city was recognized as the "funder of last resort" if internal revenues and federal and state grants were insufficient to cover project costs. Oscoda Township was responsible for the Wurtsmith reuse project and, according to its EDC application, anticipated covering up to \$290,000 in annual cash flow shortages from the project, largely due to operating deficits. The importance of this kind of "patient money" is discussed further below.

Coordinating development and investment

How did the LRAs in our survey make their phasing decisions? They first looked at market and land use considerations and other external constraints such as the timing of property transfers to the LRA. They then looked at their funding limits and created financing plans to meet these several requirements. Several issues were significant elements of the phasing strategy: the potential to reuse and lease existing buildings, the need to create an anchor activity (such as a civilian airport) or attract an anchor tenant to give the project market credibility, and the need for major infrastructure improvements.

Reuse opportunities often shaped the phasing strategy. At the Philadelphia Naval Complex, PIDC first focused on the shipyard area: buildings there were readily useable, available for lease, and required minimal improvements. A second phase will focus on the commerce center near the main gate, an area considered attractive to new users because of its proximity to existing activity. Accordingly, PIDC focused first on attracting users to the shipyard area (an existing city program finances tenant improvements) and on raising capital for a new roadway to improve access from the main gate to the shipyard and commerce center. City capital appropriations, an EDA grant, and a state grant will fund the new road. More distant portions of the site

will be developed last due to environmental issues and the need for large infrastructure investments.

Several LRAs chose to complete substantial airfield improvements to establish a viable commercial airport as a magnet activity. An example is the England authority, which made the establishment of the Alexandria International Airport a major priority parallel to its efforts to market existing buildings. The airport was to be the critical anchor and engine for reuse. In a first phase of airport development, completed in August 1996 and supported primarily with EDA grants, the LRA built a new terminal and improved the access road. Further airport development will be necessary to expand capacity as demand and airport usage increases over time. This development, part of a long-term airport master plan, will entail an investment of \$89 million over 23 years. The LRA expects to fund long-term development through FAA grants, state grants, and net cash flow from other operations.

LRAs that chose to move quickly into redevelopment faced substantial up-front infrastructure costs for the initial development phase. At Norton, the IVDA had to spend \$10 million to build an access road to the new industrial park. Similarly, Oscoda Township needed to spend \$10 million to expand its water supply system and survey, zone, and subdivide the site before substantial new development could occur. At Lowry, the LRA decided to try to take advantage of strong residential market demand by developing planned new residential uses as quickly as possible. The LRA planned to subdivide and sell development lots at the retail level over a 15-year period. This would allow the LRA to maximize its return and finance part of the development. However, the strategy required raising capital to install new trunk infrastructure for the entire site in one phase. To finance the infrastructure, the LRA received an \$8 million EDA grant, and in 1996 it issued its first revenue bond. Demand for lots has been even greater than the LRA anticipated, and the projected completion of development has dropped from 15 to 7 years. Financing limitations are affecting the phasing of interior infrastructure, which the LRA is financing with construction loans from private banks to be repaid with revenue from the lot sales.

The long-term financing plans prepared by some LRAs suggest how they planned to match long-term investment and long-term development. Lowry projected that revenue bonds, TIF bonds, and bank loans would cover long-term infrastructure costs. Wurtsmith expected to rely on several revenue-generating enterprises to cover operating costs and some capital costs, and to use state and EDA grants to fund the large infrastructure needs. The England Authority anticipated that FAA grants, state grants and its own operating revenues would finance \$119 million in infrastructure costs through 2020. The authority also proposed raising \$14 million from private third-party sources that could include airport tenants, contractors, or private equity or debt investors. At Pease, the LRA planned to continue using federal grants and state appropriations to fund infrastructure and to cover its operating costs with internal revenues supplemented by state appropriations. PIDC planned to expand its reliance on real estate lease and sales revenue to fund operating expenses. It expected to be able to cover its operating and property maintenance costs with operating revenues within five years; it would

continue to rely on federal and state grants along with city capital appropriations to fund infrastructure.

Attracting anchor tenants

Facility financing has been an important incentive to attract initial tenants at several bases. These tenants are asked to invest in the base at an early and therefore more risky stage, and LRAs often provided special incentives to offset the risks. Tenants expected the LRA, as a property owner, to fund the fit-out of building space to address their particular space needs. Moreover, when a company's decision to locate at the base depended on its ability to secure sufficient financing for both real estate and business operations, the LRA was motivated to contribute, directly or indirectly, to securing the needed capital. Finally, LRAs offered financial incentives to compensate for site disadvantages, such as a payroll tax (Philadelphia) or a remote location (Wurtsmith), to make the base a more attractive business location. While LRAs have provided facility financing, they have largely chosen not to provide direct business financing, preferring to refer firms to state and local financing programs.

Philadelphia offered tenants a variety of incentives. An existing city loan program in Philadelphia assists tenants in financing building improvements. The purpose of this program is in part to offset the impact of the city's payroll tax, which firms would not incur at suburban locations. These loans typically require an equal investment in company funds. At the naval complex, PIDC loaned \$3 million under this program to four tenants at below-market rates, averaging 4 percent. The city also committed significant city resources and secured commitments by state and federal agencies to assemble a \$242 million incentive package to attract as an anchor tenant Kvaerner, a Norwegian shipbuilder and Europe's largest shipbuilder. Funds would pay for improving existing dry docks, renovating existing buildings, constructing a new building, and acquiring cranes and other equipment.

Pease sought to attract aviation users and technology firms to the largely unknown site by upgrading the airfield, demolishing dilapidated housing to improve the site's appearance and marketability (as well as to clear land for future development), and renovating existing buildings to have market-ready real estate for new users. It also used state-guaranteed bonds to help its first tenants raise capital. New Hampshire backed \$41 million in bonds to finance investments by two airlines and a British biotechnology company. Two firms have succeeded, but the failure of one airline in 1996 required the state to pay almost \$13 million to the firm's creditors. With Pease now well established in the marketplace, the PDA no longer offers state-backed financing to attract firms.

LRAs have also used their resources to create other incentives to attract firms to their sites. Most used rent offsets to reimburse tenants for building improvements. Two LRAs, the England Authority and Oscoda Township, provided equipment left by the military to tenants at no cost. Since this property includes expensive aviation equipment and industrial machinery, it is an important financial benefit to firms. The England Authority also rented former officer housing to employees from tenant companies, and it rebated 10

percent of the employee's rent payments when an employee bought a house in the community.

The role of patient money

LRAs, faced with large up-front investments necessary to generate future income and no guaranteed revenue in the early years, needed a supply of "patient money." This was money that either did not have to be repaid or that could be repaid far enough in the future that revenues would be available. Equity served this purpose for private developers. For LRAs, grant funds under existing programs, such as the EDA infrastructure grant program, were an important source, as was debt properly structured to ease repayment requirements in the early years. Equally important was a good relationship with an organization with "deep pockets," often the public organization that created the LRA.

States acted as deep pockets for state-chartered LRAs, including those at the Pease Development Authority, the England Authority, and LRAs at Charleston and Myrtle Beach. States appropriated funds to match federal funds, cover operating deficits, and address infrastructure needs. For the South Carolina bases, the legislature made available the proceeds of the state's liquor tax. At Wurtsmith, the state originally set up and funded an authority; when the authority was disbanded, the state made the funds available to the township. And the Massachusetts Development Finance Agency, the LRA for Fort Devens, had its own deep pockets; it drew on its substantial resources in the early years of the reuse process, and it successfully petitioned the legislature for a \$200 million bond authorization for later redevelopment. In like fashion, Congress has acted as the deep pockets for PIDC in the redevelopment of the Philadelphia Naval Complex, providing direct appropriations at two critical junctures, first early in the reuse process, and then to help complete the financing package offered to Kvaerner ASA.

There were other sources of patient money. Long-term debt served as patient money in the redevelopment of Lowry and Norton Air Force bases. Large early borrowings raised significant funds for infrastructure improvements, and the bonds were structured to postpone required repayment until revenues could be secured. Local governments were the source of patient money for some local-government LRAs. Wurtsmith benefitted from local government backing. Glenview, another example, assigned village staff to the redevelopment effort and floated bonds to support the enterprise in the early years.

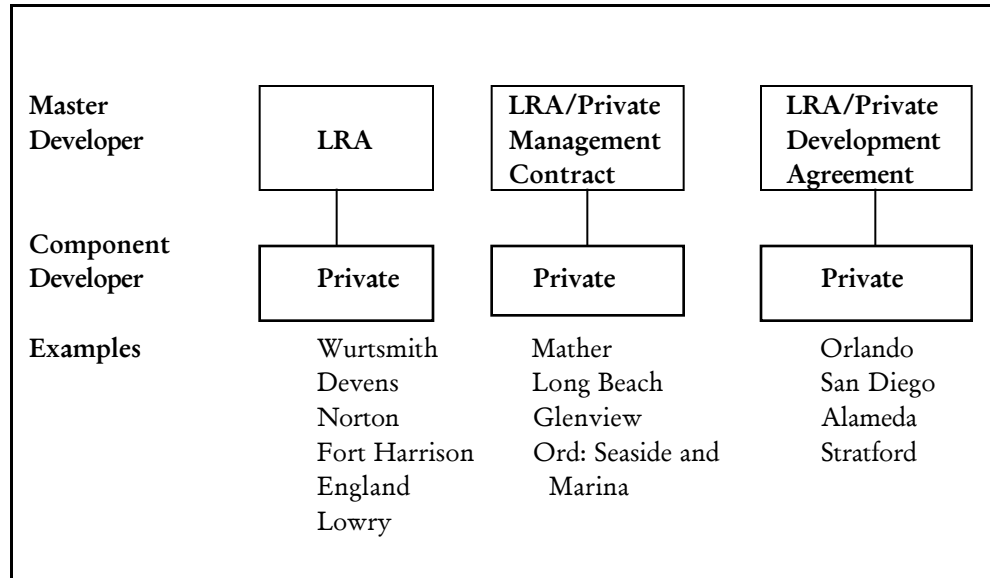
WORKING WITH PRIVATE PARTNERS

As LRAs moved into the redevelopment phase, they began to consider ways that private real estate companies might contribute to the redevelopment effort. In some cases, LRAs proposed that private developers serve as master developers and manage redevelopment for the LRA. This is what happened at Orlando and at Fort Sheridan just north of Chicago. Other LRAs expected developers to take on individual components of a project while the LRA would be the master developer. Still others sought some kind of partnership with a private firm.

Private developer roles

In our studies, we found several types of private developers, from teams created to develop of an entire mixed-use site (Orlando) to firms specializing in a particular product such as housing, hotels, retail, and other commercial projects. There was similar variety in the roles developers played, ranging from master developer to advisor to an LRA. Figure 4.3 illustrates some of the different arrangements LRAs made with developers.

Table 4.3
Arrangements with Private Developers



Note: Under management contracts, LRAs and private developers shared development risks and returns. LRAs used development agreements to specify project outcomes; developers retained risks and returns.

The following examples illustrate some of the different kinds of arrangements between local-government LRAs and private developers. The first highlights the management agreement entered into by the city of Sacramento and private developer Peter McCuen for the Mather Commerce Center. The second describes the public-private partnership the village of Glenview developed with Mesirow Stein Real Estate Group for the Glenview NAS. The third describes the process used by the city of Orlando to select a master developer for the Orlando Naval Training Center (NTC) and its strategy for regulating that development.

A development manager for the Mather Commerce Center

The Sacramento Board of Supervisors chose a private-sector company to manage development at the Mather Commerce Center. As Paul Hahn, County Director of Economic Development, put it, “We needed help. We’re not in the development game; we’re government. We can certainly aid in economic development, but when it comes to developing land, finding tenants, and so on, it’s not what we do. So we needed someone who knows how to market, who knows the private sector, a real

estate broker, someone who knows how to develop. And if we were going to build and lease buildings, we needed a property manager.”

The supervisors selected Peter McCuen, a Sacramento developer and former professor of engineering at Stanford University. McCuen, a successful entrepreneur had also founded two firms in Silicon Valley. McCuen’s agreement with the County specified the following:

- (1) Development management services: help preparing a detailed plan for Mather; monitoring surrounding development and land use for consistency with Mather plans; and adding a private-sector perspective to the county’s infrastructure development strategy.
- (2) Asset management services: preparation of a database on each building and parcel; a strategy for dealing with excess real estate; a strategy to determine the highest and best use for properties; short- and long-term investment strategies, and assistance with EDC negotiations.
- (3) Financial services: help to tenants seeking funds for construction and permanent financing; in bringing in international capital for Mather; and to county staff seeking state and federal capital grants.
- (4) Leadership: development of clear lines of communication and coordination among governmental agencies involved with Mather.
- (5) Construction management: design review, assessment of infrastructure requirements, and coordination of schedules and budgets.
- (6) Marketing and tenant recruitment: development of marketing materials and a Web site; maintaining contact with brokers; opening and staffing a marketing center; producing standard lease documents; helping to identify target industries; and working closely with other economic development organizations to promote Mather.
- (7) Property management: collecting rents; overseeing lease and contract compliance; conducting facility inspections; maintaining accounting records; and providing reports.

McCuen received compensation for staff assigned to Mather and brokerage commissions for selling or leasing property. McCuen also earned incentive credits on leases and sales that result in 50 or more new jobs; payments are scaled to the number of new jobs. For each transaction McCuen also received a credit equal to .2 percent of the total associated capital investment. McCuen could use these credits to purchase for development on his own account up to \$2 million of real estate without further board approval.

A public-private partnership: Glenview NAS

The village of Glenview decided that it wanted to control the redevelopment of the former Glenview NAS, but it also acknowledged the need for private-sector expertise to get the job done. To accomplish both, the village decided to be its own master developer, and it hired a private firm as its development advisor, in effect making the firm part of the LRA staff. It chose this

arrangement so that the village could learn to become a master-developer from an on-the-job teacher. Its advisor, now called Mesriow Stein Real Estate Group,¹⁹ had done several billions of dollars in real estate development. Richard Stein, who founded the firm, had become interested in former military bases when Fort Sheridan closed in his home town.

The culture of Glenview As one of Chicago's highly desirable north shore communities, Glenview had a strong residential real estate market, a fact that was not lost on the Navy as it considered which sites in the BRAC 1993 round it might auction to private buyers. Because of the prominence of the 1,121-acre site—it sat in the center of the village occupying 15 percent of its land area—the village felt very strongly that it wanted to control the development. It argued that an auction by the Navy would leave the community with little control over the site's future. The Navy agreed to convey the property to the community for development, and it eventually approved an economic development conveyance for the entire site.

The entrepreneurial character and business orientation of village government made its choice to become master developer of the former naval air station seem natural. Voters had confidence in the management ability of its government partly because it had been successful in delivering a high quality of service without imposing high taxes on property owners. The village had a track record of entrepreneurship. For example, it paid for infrastructure improvements with net revenues from its water distribution operation, under which it sold water to several adjacent jurisdictions having several times the village's own population.²⁰ Village government also had a strong nonpartisan business orientation. It was governed by a seven-member board of trustees, to whom the village manager reported. Local leadership was remarkably stable, and issues tended not to be overly politicized. As village manager Paul McCarthy noted, the board had more of the taste and feel of a corporate board than a city council. McCarthy himself was a strong leader able to create local consensus for action. The financial structure of the village was also remarkably sound. At the time of the closing, it was one of only 60 communities in the country with an AAA bond rating.

Finally, village government felt strongly about local control, and was unwilling to delegate redevelopment to another entity. As a home rule municipality, Glenview had the financial and contracting powers necessary to undertake redevelopment.²¹ Village officials felt they had enough development experience to consider managing the development themselves.

Planning the redevelopment Soon after the closure announcement, Glenview requested that the village be designated the official LRA for planning and implementation; village manager Paul McCarthy became LRA executive director. McCarthy and his staff then spent the next two years negotiating issues related to closure, clean-up and conveyance and in preparing a reuse plan. The final plan described a broad land-use mix for the 1,121-acre site. New uses would include about 900 housing units; 650,000 square feet of commercial and retail space; 1.9 million square feet of office, light industrial, and warehouse space; and 1.1 million square feet of entertainment, sports, and leisure activities.

Even during the planning process, the village was anticipating the redevelopment phase. The reuse planning team included a development company that evaluated the real estate issues and marketability of the proposed reuse concept. The company also invited two dozen developers to a focus group to explore the development opportunities the reuse plan presented.

Building a development team Once the reuse plan was complete, the village moved ahead to build a team for the redevelopment phase. This team would be responsible for detailed development planning and management, including the preparation of a master development plan for the site, preparation of an EDC application, management of design and construction contracts for infrastructure, and management of the development and marketing of each component.

The village identified marketing, financial analysis, and project management as key areas of expertise that it lacked and that it would need for success. Its options were to hire staff directly or to contract with a private firm, and it chose to contract. McCarthy gave several reasons the LRA did not want to hire staff directly to cover these areas. “We did not want to bulk up for this project; it would be too hard to slim down later.” Also, the LRA felt it was at a disadvantage competing with the private sector for top talent, since the private sector had a better capacity to compensate and reward people.

The village issued a request for proposals from development advisors in mid-1995, and about 50 individuals and firms responded. The village narrowed the field to three finalist firms, and in late 1995 the board awarded the contract to Mesirow Stein.

Stein proposed creating an integrated on-site team to manage the redevelopment, an idea that appealed to the village board. This made the firm essentially an extension of Glenview’s staff; it built the developer’s point of view into the team; and it allowed the village to learn about development as it proceeded. The village had decided to use existing personnel as its core staff for just this reason. All staff were put on-site in the same office; having “everyone in the same boat” was a critical aspect of the management plan. Although the team functioned as a single unit, individuals brought different expertise to the effort. Stein’s personnel managed about 60 percent of the work; village staff managed 40 percent. Stein’s project manager Karen Butler managed financial issues. McCarthy designated Matthew Carlson, who had been in charge of budget preparation and other financial and administrative issues for the village, to provide overall project direction. McCarthy also hired the Navy’s former base transition coordinator to co-lead the on-site effort with Carlson. A former real estate broker who worked for Stein directed the marketing effort. The team made recommendations to the village board, which met as the LRA board. The board met in executive session whenever it considered real estate issues.

The village planned to finance and construct the roads, public utilities, and a storm water management system that includes an artificial lake. Infrastructure costs were projected to exceed \$100 million. The village expected to recoup its investment through land sales and tax increments. Private investment at

build-out of between \$600 million and \$1 billion will expand the village's tax base by 35 percent.²²

Although the village expected to use bond financing for most of this investment, its ability to secure federal and state assistance was critical for early projects. As of late 1997, the village had received \$3 million from EDA to finance infrastructure design, matched with \$1 million in local funds, and a \$1.4 million infrastructure grant from the Illinois Department of Transportation was pending. The EDA grant was particularly timely. Although the village would ultimately have the resources to finance the infrastructure design—it had sold \$60 million in general obligation bonds at the start of the project, to be repaid later with project bonds—it was unwilling to risk spending these funds until it had a firm agreement with the Navy on site acquisition. By using an EDA grant to finance the design, said McCarthy, “we were able to share the risk with other taxpayers in the country, not just those in Glenview.” By the time the village reached agreement with the Navy on acquisition of the site, the first major infrastructure project was ready to be bid.

Stein's fee was \$1 million per year for 5 years. The village board had considered and rejected several other compensation alternatives. Payment of commissions, a typical practice, might have motivated Stein to work for the commissions and not for the village, the board felt. To ensure that Stein acted as the village's agent, the firm was also prohibited from developing on-site. However, beyond its annual fee, Stein has a financial incentive to help the village generate a net financial return on the project. Within one year of agreement on the economic development conveyance (reached in the summer of 1997), the village and Stein agreed to mutually establish a development *proforma* showing expected costs and revenues. If the project exceeded these expectations, Stein would share a portion the gain.

The Navy transferred the site under an economic development conveyance to the LRA at no cost, provided that the city adheres to its commitment for job creation. The conveyance included the golf course. As consideration for the golf course, the LRA has provided \$2.1 million for the construction of a child development center in the retained Navy housing area.²³

Development strategy One of the first tasks of the redevelopment team was the preparation of a master plan that amplified the reuse plan by specifying the level of quality and materials for the final development, the organization and phasing of the work, and the strategy for each development element. According to Butler, “developers make a four-corners decision when they bid on a project”—that is, they want to know what would be built next to and across from their own parcel. The master plan addressed this uncertainty by providing a physical framework for development, including specification of the road network, open space system, and key public places. The master plan also included design guidelines that were intended, in part, to assure component developers that all development would meet certain standards of architectural character and quality.

The Glenview team designed a four-phase development schedule that matched infrastructure investment with property sales. Phase one, the most expensive,

involved removal of the old runway, creation of the artificial lake, development of roads on the southeast side of the site, and an intersection at Willow Road. In phase two, the village would complete the lake and the road network on the site's northeast side. Roads on the west would be done in phase three, and those on the east in phase four.

Having the developer's point of view as part of the team helped the village to maximize its return on the development. For example, the reuse plan designated for residential land use an area adjacent to the existing golf course. Rather than just develop this area as is, Stein advised the village on ways to reconfigure the boundary of the golf course to maximize the value of the adjacent residential building lots.

The village will sell parcels through a public competition, selling the higher value parcels early to support its cash flow. However, it has not decided whether it will be more profitable to offer components to developers or to lay out streets and sell fully developed lots to builders. Overall, the project will entail the development of 1,300 housing units and 2.6 million square feet of commercial, industrial, sports, leisure, and entertainment space. Commercial and business development was scheduled to generate 5,600 jobs.

Partnership perspectives Although the developer and the LRA staff operate as a single team, the public and private partners retain different perspectives. McCarthy characterized the private sector as having "a sharper but narrower focus. The developer approaches problems strictly in financial terms." The village, said McCarthy, "has to vet things, go through a democratic process, consider the dissenting voices. You really can't run government as a business. You need to account for the public aspects of an issue." In particular, the village has to meet political demands that the development enhance the village's existing quality of life.

Each side has come to appreciate the other partner's point of view. Stein's project manager Richard Shields says, "when we begin a meeting with Glenview, we say: 'Glenview, remember, you are the developer.' They in turn say, 'developer, remember your civic responsibilities.' Then we go to work." Glenview project manager Matt Carlson has expressed another kind of concern: that the village might learn to think too much like a developer. "There is an awful lot of real estate and an awful lot of money here," he says, "I worry about the community's soul."

Other communities chose different strategies to assure public control over the development while making use of private development partners. Orlando chose to seek a private developer for the Orlando Naval Training Center (NTC) and then to regulate its activities.

The Orlando NTC: a private development team

In December 1994, the City of Orlando Reuse Commission approved a plan for the main campus of the Orlando NTC that called for residential neighborhoods, a village center, and a business park. The city later established the NTC Community Redevelopment Agency (NTC CRA) as the its implementation LRA for the project. The NTC CRA was a new legal

entity but it shared staff with the city's existing Community Redevelopment Agency. The Orlando City Council sat as NTC CRA's board.

While it was negotiating with the Navy over the terms of the economic development conveyance (EDC), the city decided that it wanted a private firm to be master developer of the 1,093-acre site. Rather than auction the property, however, the city wanted to manage the selection process itself, to ensure that any developer who acquired the site would build a quality development based on the reuse plan. Both the Navy and the city eventually agreed to share the proceeds of a sale resulting from this process.

The EDC terms called for initial consideration of \$1.2 million, to be paid to the Navy at the time of conveyance from the city to the selected developer. Subsequent consideration would equal 75 percent of the first additional \$10 million of gross sale proceeds and 60 percent of gross proceeds above \$10 million. The purchase price was to be established by the sale of the property via a competitive request for qualifications (RFQ) and request for proposals (RFP) process. A schedule was established for Navy review and comment on the RFP, its issuance, and the final award to a developer.

Originally, the city intended its Vision Plan and design objectives to guide zoning and platting for the site. After the Navy and Orlando decided to convey the property through a competitive developer selection process, the goal became to provide potential developers with a clear and detailed picture of the city's concept for the site.

The winning proposal was submitted by Orlando NTC Partners, a team led by Mesirow Stein Real Estate. Their plan closely followed the city's Vision Plan but added an innovative park system that integrated the stormwater system into the park plan. It also had a well-developed circulation plan consistent with the city's concerns about traffic, and it clearly demonstrated how mixed use development would work. The development is expected to create over 12,000 jobs on the site.

Orlando NTC Partners had successful experience with projects of similar scale and type, including military base redevelopment. Their prior experience with military base projects at Glenview and Fort Sheridan and their understanding of the challenges faced in completing the conveyance with the Navy were important factors in their selection.

The developer's perspective Richard Shields, a Mesirow Stein Managing Partner, had begun evaluating the NTC opportunity several years before Orlando issued its RFQ. He focused on three issues to assess whether the NTC was a good development opportunity:

- He hired consultants to evaluate the strength of the Orlando real estate market.
- He looked for a potential partner with strong Florida community development experience, eventually identifying Atlantic Gulf Communities.

- He began attending NTC CRA board meetings and NTC community meetings in 1997 to better understand the city’s political process and commitment to the project.

After this initial research convinced Shields to pursue the NTC opportunity, he assembled a development team for the project. Given the scope and complexity of the project, Shields sought top-notch development and planning firms that could create neighborhoods built around “new urbanist” notions of traditional neighborhood development. Through other development work, he learned of Atlantic Gulf Communities and invited the firm to join as a codeveloper. Since office development was the hardest part of the project, Shields also invited Carter and Associates, the largest office developer in the Southeast, to join the development team; their client’s relationships with major regional corporations would be an asset in leasing the office space. The three firms were equal partners. When the partners prepared the financial plan for the proposed development, the Pritzker family came in as a 50 percent limited partner in return for a \$15 million equity investment. The three general partners evenly split the \$1.25 million cost to complete the proposal.

Shields chose an experienced designer with whom he had worked on many commercial office and public building projects, most recently the Glenview NAS project, to oversee planning for the development proposal. After deciding on the leading design firm, Shields filled out the design and engineering team with experienced local architectural and engineering firms. Shields also chose as his construction manager the largest such firm in the region; its strength meant that it could get the best prices and responses from contractors.

The team first prepared a design for the site, then projected the land sale revenue from development sites. They then deducted their projected development cost including demolition, infrastructure, and financing. After accounting for their required return on investment, the partners determined the residual amount of money left to pay for the site. This amount was the basis for the acquisition bid.

While Orlando Partners’ plan closely mirrored the City’s Vision Plan, it reduced its density, including the size of the Village Center development, the number of square feet of office space, and the number of houses. In turn, Orlando Partners expanded the City’s plans with regard to wastewater systems, street layout, and parks.

Managing development Orlando Partners expect to implement the development plan in three phases over five to seven years. Phases include the following:

- An eleven-month demolition phase
- A three-year infrastructure and landscaping phase
- A three- to five-year vertical development phase, overlapping the infrastructure phase

Developer Selection at the Orlando Naval Training Center

Orlando selected Orlando NTC Partners as master developer for the site through a five-step process:

- (1) Request for qualifications (RFQ)
- (2) Request for proposals (RFP) to a short list of developers who submitted design concepts and development plans that met the City's Vision Plan and Design Guidelines
- (3) City review and due diligence on the proposals, including oral interviews and site visits to a comparable project for each development team
- (4) Submission of a financial plan, purchase price, and terms
- (5) City council selection of a developer

A Developer Selection Committee assisted in qualification and proposal review.

Request for Qualifications The RFQ contained the city's detailed design objectives and included a Vision Plan based on the reuse plan plus urban design plans. The plan featured a mixed-use pedestrian-oriented community built according to New Urbanism design principles. Specific design objectives included

- mixed-use village center built as a series of complete blocks with interconnected streets that included shops, services, restaurants, civic uses, and higher density housing;
- residential neighborhoods with a diverse mix of dwelling types and within a five-minute walk of neighborhood centers that included retail, civic, office, and higher density residences, as well as either a small public park, a plaza, or open space;
- relatively narrow tree-lined residential streets that form a connected network to disperse traffic, connected to surrounding neighborhoods, providing convenient transportation access, having traffic calming measures, and being pedestrian and bicycle friendly;
- buildings in the village center and neighborhood centers that are placed close to the street forming a strong street wall and sense of place;
- parking located in the rear of buildings and accessed by alleys; and
- prominent sites dedicated to civic uses and located at the termination of street vistas, within neighborhood centers, or linking adjacent neighborhoods.

Request for Proposals The RFP required the finalist teams to submit detailed plans for site development reflecting their interpretation and implementation of the city's Vision Plan. Teams had only two and one-half months after their qualification to prepare the plan. The final submission package required final design concepts and diagrams for the site; plans for traffic, circulation, infrastructure, and stormwater management; a timetable for development; and a comprehensive financial plan. The RFP listed the following criteria:

- quality of the plan;
- capability to implement the plan;
- financial considerations; and
- ability to offer long-term assurances of completion.

During the RFP process, staff worked with each of the four development teams to help them strengthen the plans to better achieve the city's goals.

Orlando Partners planned to demolish all existing infrastructure and buildings (other than those used by federal agencies) in the first phase and to install new infrastructure for the site in phase two. Infrastructure will include streets; a stormwater management system; an underground sanitary sewer system that will eventually be transferred to the city's wastewater bureau; a water distribution system to be connected and transferred to the city's water commission; a plastic-pipe gas distribution system; an underground duct bank system to hold electric and telecommunications wires and cables installed by these utility companies; and street lighting. With the exception of the village center, the partners have identified component developers and secured development rights to all sites. Mesriow Stein and Carter and Associates will undertake the office campus development, the Pritzker family, an equity investor in the project, will develop the multi-family sites, and several home developers will complete the single-family development.

Richard Shields oversees the overall development with an eight-person staff drawn from the different firms participating in the development. Extensive internal communication, information-sharing, decision making, and scheduling is critical to the project, and an Intranet and Web site for the project have been established to facilitate this process. Team members post documents, engineering plans, and other materials on the Web site so that all team members can access and use them. Routine daily communications update team members on the project. Development meetings are held weekly. An internal business plan with detailed policies and procedures governs the project.

The city's ongoing role Following the transfer of the site to Orlando Partners, the city of Orlando will regulate the development. The city wants to ensure that Orlando Partners implements the project according to the development agreement and in accordance with the city's Growth Management Plan and the Planned Development Ordinance (PDO). The city will also oversee the issuance of building permits, fire permits, and other locally issued construction permits. Under the PDO, the city also must approve detailed neighborhood plans, design guidelines, and subdivision plans for each portion of the development. These will be reviewed by a seven-member Town Design Review Committee (TDRC), which recommends action for city council approval. TDRC recommendations can be appealed to the Orlando Planning Board.

The city may also have a role in financing the development. Orlando is considering using its own assessment powers, rather than a separate Community Development District, to raise the \$43 million in infrastructure funding. Such a role would give the city additional control over the development.

Financing the Redevelopment of the Orlando Naval Training Center

To finance the infrastructure and land development, Orlando Partners planned to rely on three financing sources: land sale revenue, proceeds from Community Development District bonds, and private developer equity. Land sale revenue was expected to generate \$90.3 million, of which \$66.7 million, or 74 percent, is from residential sites. Community Development District (CDD) bonds were projected to raise \$57.6 million, with net proceeds after issuance and finance costs and reserves to be \$43.2 million.²⁴ Developer equity totals \$17 million.

Sources of Funds

Developer Equity	\$17,000,000
Land Sale Revenue	90,321,000
Net CDD Bond Proceeds	43,183,000
Total Sources	\$150,504,000

Uses of Funds

Land and land related costs	\$12,800,000
Master Infrastructure Costs	43,183,000
Lot Development Costs	18,315,000
Marketing/Other Costs	16,601,000
Contingency	7,810,000
Developer Payments on CDD Bonds	22,944,000
Repayment of Equity	17,000,000
Total Expenses	\$138,653,000

Net Cash Flow \$11,851,000

Land costs include a \$5.8 million purchase price and payment toward the city's homeless buy-out; infrastructure costs include the cost to develop a park to be given to the city.

What Do LRAs look for in forming relationships with private developers?

When an LRA chose a private developer to participate in the redevelopment of a former base, the developer became the city's partner. This was true for all the arrangements we studied: the kind of partnership varied, but none of the relationships was entirely arms-length. LRAs were thus careful to select partners that were qualified, met the LRA's specific requirements, and were compatible with the LRA. Given this, LRAs sought partners with general expertise in real estate, capabilities related to the specific project, experience working with public-sector organizations (often with the specific

community), and a financial proposal that met the communities expectations about an appropriate distribution of public and private responsibilities.

An important resource that developers provided was experienced staff. Even if LRAs could find and hire people with the requisite expertise, they were unwilling to “bulk up” to do so, as Paul McCarthy noted in the Glenview case. Particularly for local-government LRAs, hiring meant creating a long-term commitment to an employee, a commitment that might not match a redevelopment project perceived to be relatively short-term. Thus LRAs were willing to invest in internal staff capabilities for long-term projects, but not for short-term ones. This matched developers’ preferences for projects with defined terms; thus we found private developers most often involved in short-term projects.

Compatibility with the public sector was another factor. Even when communities determined that private developers were appropriate as master developers, no one saw these projects as straight private-sector endeavors. LRAs wanted developers that had worked in other public partnerships or in other base-closing communities.

Developers that knew the community had a strong advantage, and successful bidders on base projects often began building a relationship with the community long before the formal developer selection process began. Richard Shields began attending LRA meetings in Orlando a year and a half before the base was advertised for development. In Alameda, the winning proposal for the redevelopment of the FISC annex was made by the developer that had worked with the city over 20 years before on the adjacent site. In both cases, the developer and the community began to create a trust relationship well ahead of time. Compatibility was particularly important in cases like Glenview, where the developer became part of the city’s redevelopment organization. Glenview wanted to learn from its development partner, and this learning required trust and sharing of information.

LRAs that chose to be their own master developers had to provide their own financing, as the village of Glenview is doing. Those that rely on private master developers hoped to shift much of this responsibility to their private partners. In Orlando, Orlando NTC Partners’ proposal included a contribution to the city’s financial obligation to homeless housing providers, the provision of a site for public school construction, and the development of a public park. However, the city will retain some responsibility for infrastructure investment. As part of the city’s agreement with Orlando Partners, the developer proposed issuing Community Development District bonds. Part of the bond repayment will come from impact fees the city will forgo. Similarly the city of Alameda plans to invest only what is needed to make the development work, but the specific terms are yet to be determined.

How do communities ensure that developers meet their expectations?

Communities wanted to ensure that the developers adhered to reuse plans, adhered to promised timetables, provided the kind and number of jobs desired, and created finished products that met particular standards of quality

and design. This kind of control is hard to achieve with a straight auction sale—as communities in which the General Services Administration (GSA) auctions took place under pre-1991 base closing rules have found. In Rantoul, Illinois, site of Chanute AFB, GSA auctioned 762 acres to private developers. The current developers have moved much more slowly to redevelop these properties than the village would have liked, and many remain vacant. At least one large vacant building and adjacent overgrown land have become a significant eyesore, compromising the campus-like setting of the rest of the installation.

LRAs used three mechanisms to control private development: regulation, management contracts, and development agreements. Cities regulated private development through traditional zoning, subdivision, and planned development ordinances, as well as through site-specific regulations such as master plans and design guidelines. Management contracts were used by LRAs that wanted to play an active role in development yet involve private partners. The contracts governed the way developers worked with these LRAs, defined the relationship, and specified how the LRA and the developer would share risks and returns. Such contracts did not dictate the specific outcomes of the redevelopment. Glenview used such a contract with Mesirov Stein, as did Sacramento County in its contract with Peter McCuen. Development agreements on the other hand, such as that between the city of Orlando and Orlando Partners, specified specific outcomes and performance expectations to which both parties would adhere.

Communities used traditional regulation to control development, but they tried to not make things complicated. At Fort Devens, for example, the state set up a separate organization, the Devens Enterprise Commission (DEC), to manage permitting. This separates the regulatory activity from the development activity, which is done by the Massachusetts Development Finance Agency. DEC operates a unified permitting system under which development permits are generally approved within 60 days of application. A number of LRAs, for example those in San Diego, Glenview, and Fort Harrison, created design guidelines that specified the quality and type of permissible construction.

When seeking master developers, LRAs defined their expectations through master plans—documents developed as follow-on to reuse plans and that describe the specific plan for development of the entire site—and through design guidelines. By including these in the request for proposals, LRAs set these as minimum requirements, on which developers were encouraged to improve. The final developer's proposal then became the basis for a development agreement with the LRA.

How does the community decide how much and what kind of public investment is needed?

When an LRA took on the role of master developer, it defined the level of public investment by its own actions. For example, the Lowry LRA determined that the private market could have done the component infrastructure. However, the LRA determined that if it did the development directly, it could use the funds that would have gone into private profits to

help finance this infrastructure. In this case, the level of public investment depended on the LRA's willingness to assume development risk and the public resources available for investment.

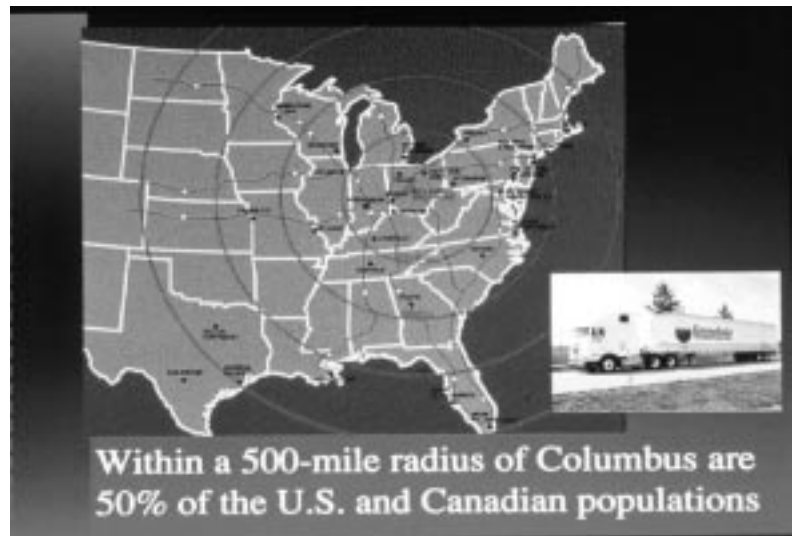
LRAs that relied on private developers sought private investment, but public investment was also necessary in most cases. This meant that the LRA and the private developer had reached some agreement about how much each would put in. The city of Orlando built the necessary negotiations into its planning and developer selection process. The business plan prepared as part of the EDC application set the overall context for negotiations by specifying the kind of financing the development would need and could support. The city then used the RFP to open negotiations, asking potential developers to indicate how they would contribute to the community's homeless buy-out and how they would handle infrastructure investment. During the RFP process, staff worked with each finalist to fine-tune its proposal.

Other dilemmas

In the next chapter, we discuss some of the choices LRAs face related to their job-creation strategies; summarize practices LRAs have found to be effective; give examples of redevelopment practices used for projects other than former military bases; and provide a status report on job replacements to date.

Transportation advantages were the key element in the economic development strategy for Rickenbacker Air Force Base.

Source: Rickenbacker Port Authority



Within a 500-mile radius of Columbus are 50% of the U.S. and Canadian populations

The Rickenbacker Port Authority publicized the concept of an inland port.

Source: Rickenbacker Port Authority

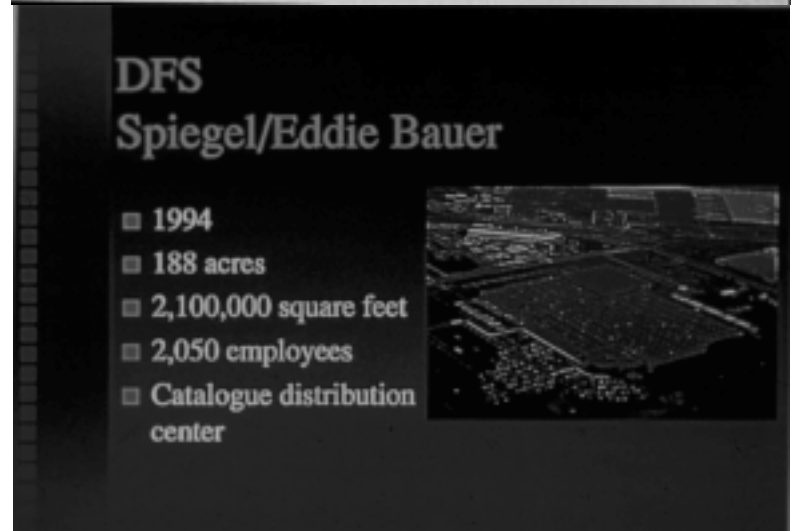


Who Needs An Ocean?
A port with an ideal location, easy international transportation services and immediate inland access.
The Greater Columbus Inland Port

Central Ohio is an emerging Inland Port

Spiegel/Eddie Bauer, one of the companies whose distribution center required a large site off the base.

Source: Rickenbacker Port Authority



DFS Spiegel/Eddie Bauer

- 1994
- 188 acres
- 2,100,000 square feet
- 2,050 employees
- Catalogue distribution center

The post movie house at Fort Ord after the closure.

Source: California State University, Monterey Bay



The post movie house renovated for multimedia presentations, internet/cable broadcasts, and student plays.

Source: California State University, Monterey Bay



The flight simulator building at Williams Air Force Base, a resource for aviation education.

Source: Williams Gateway Airport Authority



Rebuilding infrastructure at Lowry Air Force Base.

Source: Lowry Redevelopment Authority



Neo-traditional housing development at Lowry Air Force Base.

Source: Lowry Redevelopment Authority



Job-related education at new community college, Lowry Air Force Base.

Source: Lowry Redevelopment Authority



Chapter 5: Advancing Redevelopment Knowhow

To succeed at base redevelopment, LRAs must go beyond the economic strategies described in Chapter 3 and the management methods noted in Chapter 4. In their day-to-day work they must respond in a practical way to unexpected problems that have no obvious solutions. Where can LRAs learn about effective practice? They can and do learn from their own experience, but they can also learn by observing the work of other organizations in related fields. In this chapter, we draw on additional sources of knowledge that can improve the practice of base redevelopment.

First, we turn to the experience of LRAs that have a successful record of replacing lost jobs. We define success as the replacement by early 1999 of at least half the number of civilian jobs lost through base closings, and we identify actions they have taken that differ from conventional LRA practice.

Second, we turn to the methods that American business corporations employ when they convert surplus property to new uses, noting especially methods that differ from those of most LRAs.

Third, we examine the techniques that state governments employ when they dispose of public trust land in order to produce revenue for education and other public purposes.

Fourth, we consider possible ways that LRAs might extend their practice through improved connections with professional organizations in fields related to base reuse.

Finally, this chapter concludes with a progress report on federal and LRA accomplishments to date in the reuse of military bases, including an evaluation of recent data on job replacements at closed bases.

LEARNING FROM SUCCESSFUL LRAs

By March 1999, LRAs at 31 of 56 closed local impact installations had created enough new jobs to replace at least half the civilian jobs lost when the base closed. Fifteen of these bases were among our field study cases. Practices successful LRAs had in common included the following:

Taking early action

Redevelopment planning began at several bases well before the actual BRAC announcement, and communities cited this early action as important to their eventual success. At England AFB, the community pursued parallel strategies to save the base from closing and to plan for reuses should these efforts fail. The timing was such that the legal notice creating the LRA appeared in the local newspaper the day after the formal BRAC announcement that the base would close. Years before the announcement, the community of Rantoul anticipated that Chanute AFB would close and it took several actions to

decrease the community's economic dependency on the base. In the early 1980s, it began an active economic development program to bring new employers to the community. This both eased actual dependency on base employment and gave the community important economic development experience. Second, as soon as the closing was announced the village created a "Chanute Impact Fund" to mitigate anticipated declines in public revenues. This fund gave the community resources to weather short-term losses.

In Indianapolis, Mayor Stephen Goldsmith took the lead in designing and promoting a plan to save jobs at the Indianapolis Naval Air Warfare Center. Goldsmith learned of the likely closure of the base several years before the actual BRAC announcement and he immediately began searching for a way to keep the center's business and its workforce in Indianapolis. Broadening the effort beyond city hall, he brought together the center's director with other local leaders and funded research and consulting professionals to help create options for the team to consider. Their efforts were not designed to prevent the closing. Instead, the team wanted to create a closing process that would allow the community to recover quickly. As part of the effort, Goldsmith and the team also mobilized the Indiana congressional delegation including Senator Richard Lugar, who had served earlier as the city's mayor. They had good access to Pentagon officials and began to discuss various options in Washington.

Goldsmith himself had already earned a reputation as an expert in privatizing governmental functions in Indianapolis, and he used his expertise to formulate a similar approach to keep the Air Warfare Center servicing the Navy even while the Navy reduced its staff. The plan that emerged was to turn over the operation of the center to a private firm and to offer that firm a five-year contract to provide services and equipment for the Navy, after which the company would have to compete for further contracts. Goldsmith personally presented the plan to Navy officials, found the support he needed, and arranged for the city to manage a competition to select the firm. Acting on the city's recommendation, the Navy then negotiated a workload agreement and a series of commitments with Hughes Technical Services. Without early planning, Indianapolis could not have achieved the "hot turnover" upon which the privatization depended, and without the mayor's personal interest and involvement, it is unlikely that the city and the Navy could have found a mutually acceptable solution.

Mobilizing state resources

State assistance, financial and otherwise, was crucial in a number of cases. States provided the key support necessary to convince important tenants to locate at the base, as well as investment funds for infrastructure, operating support to the LRA, and links to state business development and technical assistance programs. For example, the state of Louisiana worked with the England Authority to identify companies that might locate at England Airpark, providing funds to permit the authority to operate the airfield on a 24-hour basis to suit the needs of an early tenant. It also provided capital funds for infrastructure improvements. The state of Massachusetts took the lead in the redevelopment of Fort Devens with a commitment to support the operating costs associated with redevelopment and investment in

infrastructure. New Hampshire also provided important support to the Pease International Tradeport in the early stages of its redevelopment.

At Griffiss, area officials brought together existing and newly created local, county, and state institutions to form a network of economic development entities. A key step was the creation by the state legislature of the New York State Technology Enterprise Corporation (NYSTEC). Its creators intended NYSTEC to identify, develop, and transfer dual-use technologies, including those developed at Rome Lab (a National Lab that will remain open at Griffiss), to nonmilitary users and to diversify the lab's nonmilitary customer base. Also prominent in Griffiss' marketing efforts to date have been strong partnerships with various New York State authorities and programs, particularly New York's Empire State Development Corporation (ESDC). ESDC was formed as an umbrella organization to house and better coordinate several of the state's economic development agencies and functions. Through ESDC and NYSTEC, New York State has offered significant support not only to the Griffiss Business and Technology Park but also to regional development efforts in which the Griffiss Local Development Corporation participates.

Streamlining the approval process

Delays in obtaining necessary approvals can be a serious obstacle in developing a project. In real estate, time is money: developers must keep up their payments on borrowed money while regulatory agencies deliberate on their plans. Furthermore, delays with permits introduce fresh uncertainty into the development process and discourage developers and investors from making commitments to a project. When new development was a significant redevelopment strategy, successful LRAs found ways to reduce delays normally associated with the local approval process.

At Lowry AFB, the LRA arranged regular meetings of relevant Denver and Aurora city agencies to help with base redevelopment. Department heads and middle managers from the two cities meet to resolve regulatory issues face-to-face. As the LRA director put it: "The client knows he has full city cooperation. It is basically one-stop permitting."

At Fort Devens, the LRA coordinated preparation of environmental impact studies required by federal and state law to allow early sharing of information and to accelerate progress on cleanups. Furthermore, the state created a special commission with responsibility for instituting a unified permit system. It consolidated reviews that that were normally processed by seven different boards, each with its own public notice, public hearing, and technical requirements.

Similarly, at Griffiss AFB the LRA requested a planned-development designation from the city of Rome, which would allow businesses consistent with the planned development to locate on the site without additional zoning review—an action that removed at once a potential source of uncertainty, delay, and extra cost.

Using marketing professionals

In some cases, LRAs relied on professional real estate firms to market the base. In other cases, they created teams of marketing professionals from the community. The Massachusetts Development Finance Agency contracted with a real estate brokerage firm to market opportunities at the Devens Commerce Center. At Mather, Sacramento County retained Peter McCuen, a professional real estate developer, to manage redevelopment of the base. In addition to his own marketing efforts, the development manager worked with commercial brokers to find tenants for the Mather Commerce Center. At England AFB, the professionals were in the community, at the Central Louisiana Chamber of Commerce and the Central Louisiana Electric Company (CLECO).

Formal marketing of the England Airpark began before the LRA had hired an executive director. CLECO's staff included four professional economic developers, whose job was to develop new business prospects and convince them to locate in central Louisiana. England AFB was a CLECO customer, and the company was very interested in recouping losses resulting from the closing. The other leader of the marketing group was the executive director of the Chamber of Commerce, with the former mayor of another Louisiana community serving as Chamber of Commerce chairman. Other participants included the LRA's lead planning consultant and LRA staff.

At the core of marketing and recruiting was the methodical pursuit of specific prospects. A primary source of leads was the Louisiana Department of Economic Development, which actively recruited companies to come to Louisiana. Other leads came from the chamber of commerce, the city administration, and just about anyone else in the community who heard of a potential tenant. The team assigned each prospect to a team member, who contacted the prospect and did whatever follow-up was appropriate. The group also brought prospects together with local leaders. Members reported progress with each prospect at the bimonthly breakfast meetings.

Making the base look better

Several LRAs made special efforts to improve the appearance of a base before putting it on the market. At Pease AFB, the LRA rebuilt the entrance and chose three prominent buildings for renovation and early occupancy. To make it easier for the public to see the base, they also set up a commuter bus and a Trailways depot, and made plans for a tourist trolley.

At Mather Commerce Center, development manager Peter McCuen gave special emphasis to creating a positive image and high-quality appearance at the base. "As quickly as we can," he observed, "we need to change the aesthetics from military base to business park." He moved promptly to demolish buildings that had no economic value and to get rid of military symbols that had no historic importance. Along with building demolition, McCuen believed that funds spent on landscaping and the renderings that depicted it had the biggest payoff.

As further steps to improve the appearance, McCuen changed several street names, selecting new ones from the National Aviation Hall of Fame in keeping with the business park's aviation heritage. He also speeded up the construction of new street, sidewalk, and lighting improvements.

Problem-solving skills

Overall, successful LRAs had good problem-solving skills, with an ability to turn challenges into opportunities and opportunities into new investment on the base. In most cases, this was a skill learned from experience. The Charleston Redevelopment Authority is a good example.

Early on, the Charleston Redevelopment Authority learned that the cleanup and conveyance process would take much more time than originally anticipated. As a result, the LRA would have to rely on lease income, and leasing presented problems. The Navy's standard procedure was to determine the suitability of properties for leasing on a building-by-building basis as prospective tenants expressed interest. The process took a great deal of time and inhibited leasing. To solve the problem, the LRA worked with the Navy to speed up the process of writing interim leases for tenants who wanted to use Navy property. At the request of the LRA, the Navy agreed to determine the suitability for leasing of all leasable facilities at one time. With the Navy findings in place, business firms could become paying tenants within a week rather than waiting a few months.

The LRA then found that leasing property at the Naval Complex provided a built-in indicator of market demand for sites, and it has used this information to modify its reuse plan. Leasing has convinced the LRA that the shipyard has a future as a shipyard: one of its earliest interim leases and the most significant in terms of both job generation and square footage was to a consortium of maritime manufacturing firms. Leasing experience also revealed that there was a market for high-tech training, both for federal agencies and for private organizations.

Faced with unexpected problems, LRAs learn to come up with ingenious ways to proceed. The LRA at Rickenbacker AFB, for example, seeing an opportunity to bring in large corporate distribution centers but lacking sites that were suitable, decided to buy and develop open land just outside the base where there was room for spacious developments. Castle AFB, in a location remote from population centers, did not have a large enough local market to attract many businesses. But it was close to the main highway route from Los Angeles to Yosemite National Park. The LRA reasoned correctly that a large number of park visitors driving through the area could provide a sizable potential market for the Castle Air Museum already on the base, and for two new aviation education programs and an aviation theme park.

Having patience, or the "time-sense of a geologist"

Redevelopment projects, whether on or off military bases, usually take many years to complete. They involve stakeholders with conflicting interests. They require a series of approvals from regulatory agencies, each of which conducts its own studies, reviews, and hearings. Negotiations between public

officials and private developers over cost and design are controversial and time-consuming. Finally, the projects are vulnerable to unpredictable but life-threatening events. The nonmilitary Horton Plaza redevelopment project in downtown San Diego, for example, took 11 years from start to opening day. During that time, public officials and private sponsors had to cope with three mayoral elections, three economic recessions, double-digit inflation that raised interest rates to new levels, two lawsuits challenging the project, a change in ownership of the development company, and passage of a state measure known as Proposition 13 which paralyzed redevelopment financing in California.

LRAs cannot reasonably expect to rebuild entire bases within a few years. When we interviewed LRA staff to ask when they expected to complete their buildout, some measured the time in generations and most thought of twenty years or more. Since these drawn-out schedules are usually unavoidable, the problems for LRAs are how to adjust financing schedules over many years, how to prepare for project-threatening delays, and how to maintain continuity while staff members come and go and circumstances affecting the project keep changing.

LEARNING FROM CORPORATE EXPERIENCE

Base redevelopment is not a unique enterprise: it belongs to a class of activities that have become widespread in the United States and in other industrialized countries. Changing markets and new production technology have led corporations across America to reorganize the production, marketing, and delivery of goods, changing the demand for physical facilities and prompting corporations to alter the way they invest in real estate. In their quest to downsize, right-size, and shift manufacturing offshore, corporations have shed real estate, especially large obsolete manufacturing complexes on large sites. As with military bases, the decision to close a corporate facility often leaves behind a distressed property with obsolete structures and contaminated land. In both situations, the closure of a facility throws people out of work and poses a threat to the local economy; yet the property owner wants to maintain good relations with the community.

On the other hand, the differences between corporations and LRAs affect how they approach the project. Corporate property is owned by the stockholders, and management wants to sell it for a price high enough to protect their interest. Base property is in public ownership, however, and the federal government has determined that its appropriate use is to help generate jobs rather than revenue. Accordingly, Congress has authorized the military services to transfer base property to local communities at no cost as long as it will be used to promote job growth. As a result, different objectives drive corporate and federal land disposition. Site characteristics also differ: most surplus industrial sites are small relative to military bases—on the order of 50 to 150 acres compared to a several-thousand-acre base. Despite these differences, corporate managers and LRAs face many problems in common, and LRAs can benefit from observing corporate methods for converting surplus property to new uses.

The way corporations handle their real estate development, facility management, and property disposition has changed in recent years. Following World War II, corporations built large manufacturing plants designed for the production of standard commodity goods. These companies changed their products and their facilities infrequently, and when they needed the occasional new building, they contracted with private firms for the necessary design and construction services. They turned to brokers when they wanted to buy or lease space, and they generally relied on in-house staff to maintain their facilities.

During the 1970s, a few companies developed in-house divisions to handle real estate development, an activity that was rapidly becoming a specialized business. The Ford Motor Company, for example, established the Ford Motor Land Development Corporation in 1970 to provide real estate services to the parent company. Today, Ford has worldwide real estate needs. Ford Land's activities include property acquisition and disposition, site selection, space planning, and plant engineering and construction. The chairman of Ford Land, Wayne Doran, came from a background in real estate development.

A network of advisors

In explaining how Ford Land determines the highest and best use for a surplus parcel, and how it finds developers or end-users, Doran stressed Ford Land's access to advice from real estate experts. The company deals with a large number of real estate organizations across the country and has developed an extensive network of personal contacts. Through this network, Ford Land executives discover what the needs are in a particular real estate market area, and what the possibilities are for a surplus site. As a result of long development experience in the Detroit area, the staff knows the Detroit market well. In other areas, Ford Land hires real estate advisers familiar with local markets, primarily market analysts and brokers. Doran noted that national accounting firms tend to be less knowledgeable about local communities and that, in many cases, appraisers have difficulty identifying comparables when a property's use is expected to change. Ford Land finds brokerage firms to be the most helpful real estate advisors. Over the years, Ford Land has built a network of brokers nationwide, and very often the first specialist it consults is a local broker. Brokers, Ford Land believes, have the pulse of the community and know who is looking for what kind of property. Brokerage firms today may do much more than manage lease and sales transactions. These firms often have subsidiaries that advise institutions such as pension funds on their real estate investments, offer mortgage banking, provide real estate consulting and transaction management services to corporate clients, provide locational consulting and site acquisition services to retailers, provide financial and analytical consulting services, and conduct econometric forecasting and market research.

Using multiple specialists: converting an assembly plant

Ford Land recently converted Ford's 2-million-square-foot San Jose Assembly Plant in Milpitas, California, to the Great Mall of the Bay Area in

one of the largest industrial plant reuses in the United States. The plant closed in 1983, after 25 years of operation. Soon after the closing, Ford Land sold the 147-acre site to a developer who intended to convert the building to high-tech research and development office use. The venture failed, however, and in 1987 Ford Land bought back the land and building.

Ford Land staff then considered other uses for the property. They rejected office, research and development, and warehouse reuse because of high vacancy levels in these categories within the market area. They considered but ruled out multifamily housing because of the large size of the parcel and the proximity of railroad lines. They considered using it for a shopping mall, but determined that it was not well located for a regional mall and would have difficulty competing with other malls located more centrally with respect to residential areas where potential customers lived.

An experienced retail development company approached Ford Land with another idea: to develop the factory as an outlet or discount mall. This possibility looked more promising. Shoppers drive farther to get to an outlet mall than they do to go to a typical regional mall. As a result, the slightly off-center location, which was detrimental to a conventional mall, would not be problematic for an outlet mall. Further, there was little competition for this category of retailing in the large market area around San Jose and the southern end of San Francisco Bay. To determine whether the site characteristics—size, layout, and access—were appropriate for an outlet mall, Ford Land commissioned further feasibility studies which confirmed their suitability.

Recognizing that retail development is a specialized field, and that established business contacts are important in order to bring in the major national chains needed for an outlet mall, Ford Land executives decided to develop the property in partnership with the firm that had approached them. This company specialized in developing, leasing, and managing shopping centers and had developed more than five million square feet of retail projects in the past eight years. Ford Land contributed the site and building to the partnership, and through a Ford Land subsidiary financed the construction and the first five years of operations.

Several points are noteworthy about the way Ford Land implemented this project. First, Ford Land had extensive development experience prior to dealing with the Milpitas site. Since 1970, it had developed major commercial projects in Colorado and California, and had implemented one of the largest urban projects in the country—the Fairlane community—on some 2,400 acres of land in single ownership surrounding Ford headquarters in Dearborn, Michigan. Fairlane includes shopping centers, office parks, hotels, restaurants, research parks, a medical center, residential areas, and recreational areas. Despite this successful experience, Ford Land executives did not think they had the in-house expertise necessary to plan and implement the Milpitas project, nor did they assume that knowledge of the Detroit market was transferable to the South Bay area of California. Particularly in light of their early misstep in selling the site for high-tech office development, they saw a need to get informed advice from real estate organizations knowledgeable about the South Bay market. Then they

recognized their need to learn not just about conventional retail malls but also about the newer field of outlet retailing. Finally, they understood the advantages of having a partner with direct retail experience and an impressive track record.

Using outside expertise and working with joint-venture partners are both standard practices for Ford Land. Ford Land hires outside environmental companies to conduct property surveys and advise on cleanup procedures. Furthermore, the company makes extensive use of outsourcing to obtain staff specialists. Most important, when Ford Land officials are deciding on the reuse of surplus property, they seek advice from more than a single consultant. In one case, Ford Land decided to develop a retail strip and commissioned a market study that verified the economic demand for it. Then they went to other professionals who looked at the site and advised them that access would be unworkable: “just too difficult to get that many cars in and out; it would be a nightmare.” With this advice in mind, they decided to sell the vacant property to an adjacent landowner. As for bringing in experienced partners, Ford Land Vice President James F. Hurlbert observed: “I can’t really think of a situation where we’ve had the full spectrum of competency in house so that we could do it without a joint-venture partner.”

Ford Land staff are respectful of expert opinion, not only because it expands their own expertise but also because they have learned to value having an outside perspective. In the case of the Great Mall project, Ford Land staff concede that they were not thinking about the kind of retail mall that eventually took shape. “Our joint-venture partners came to us on that,” Hurlbert noted. “They knew the site, they heard about it, and it just happened to be what they were looking for. The pieces happened to fit together nicely. I think sometimes we go in with a lot of preconceived notions. So it’s good to get outside ideas just to make sure you’re thinking outside the box.”

Advice from Ford Land

When asked what advice he would have for local redevelopment agencies working on closed military bases, Wayne Doran’s reply was: get experts, build a real estate network, and choose the first project very carefully, since it sets the tone for later efforts. He also reiterated the importance of getting advice from people knowledgeable about particular local real estate markets. Recently Ford Land had been able to sell a surplus industrial building in a weak market area to a major furniture dealer who needed a large warehouse, thanks to advice from a locally based broker. National accounting firms, Doran noted, have special expertise in finance but not in local real estate markets: they would not have known about a furniture company searching for a large warehouse in a particular city in Tennessee.

Implications for base redevelopment

Corporate experience suggests operating methods that could expand LRA procedures. These are the principles that many corporate property disposition organizations follow:

Focus on the reuse, not the closure Looking at the project this way has important implications. For one, it generates a different series of steps than typically occur in planning the redevelopment of military bases. For example, for a military base many LRAs first want to do a complete physical inventory of all the buildings and other property. A corporate real estate consultant might advise only inventorying property relevant to a defined use, and doing a complete inventory only when a building was about to be developed, not before. Focusing on the future can also expand the options. Real estate advisor C. Lincoln Jewett suggests several questions that can apply to either corporate property or military bases:

- For what new use can the property be adapted, and is there a market for such a use?
- What are the potential opportunities from the point of view of the buyer?
- Can government approvals be obtained for the new use?
- Is government or other economic development assistance available?

Create an action plan The master plan can identify areas and sectors; it is a good basis upon which to start; and it plays a role as a basis on which to test assumptions. But the corporate planners recommend that reuse planners spend most of their time and energy on what it will take to make the plan work.

Rethink components For example, communities often define rail lines as infrastructure. They can also be considered businesses that move freight from a facility to a main line. Thinking this way allows one to ask different questions, and find new solutions, to problems of who will manage and pay for such an operation.

Get expert advice in depth LRAs recognize the importance of getting expert advice, but they may need specialized consultants on several levels, such as estimating market demand and analyzing the strengths and weaknesses of particular sites. They can also derive benefits from advisors who bring a fresh perspective to their work. In finding advisors, it is particularly important to identify people who know the local market in depth and who are well acquainted with recent real estate trends and transactions.

Build long-term support for the project Financial returns are not the only objectives of redevelopment projects. LRAs, no less than automobile manufacturers, are appropriately attentive to community relations and public responsibility. Like a major local business establishment, they need long-term support from local elected officials and business people in order to carry out their plans. One way to build that support is by giving high priority to the needs of local community groups in the planning and implementation of base projects as long as this is consistent with market realities. Another way is to show how market-feasible reuse will generate benefits for the community.

Plan for the long haul Most LRAs will be in the real estate business for a long time. They could benefit greatly from building a network of experienced people and organizations to advise them on the reuse of property and to help find developers and end-users for projects on the bases. Since an LRA's

territory is local and limited, building this network can be simpler and less expensive than maintaining ongoing business relations with companies across the country, as Ford Land does. Finally, LRAs need to allow time for finding developers and end-users, and for revising plans, financing, and work schedules as market conditions change.

MANAGING PUBLIC LANDS TO PRODUCE REVENUE

Twenty-two state governments currently manage some 150 million acres of trust lands, almost twice the land area managed by the National Park Service. These trust lands had their origin in legislation that predates the Constitution. The purpose of the federal land grants was to provide a source of revenue to support schools and other public institutions. The states, accordingly, manage these lands in a variety of ways in order to produce revenue, currently amounting to \$4.5 billion a year distributed to educational and other beneficiary organizations. Agencies that manage state trust lands face some of the same issues that confront LRAs with the reuse of closed military bases, as well as some issues facing the military departments when they dispose of surplus bases.

For many years, state land agencies limited their methods of raising revenue to two approaches: leasing trust land for grazing, farming, lumbering, or mineral extraction; and selling raw land for development. Recently, however, several state land agencies have begun to manage trust lands more aggressively in order to generate greater returns.

First, they have expanded their operations to include leasing or selling trust land for commercial development, landfills, and other waste disposal facilities. Second, they have utilized a wide range of disposition methods to promote commercial uses of trust lands:

Adding value to land: the Arizona program

The Urban Lands Act, enacted in Arizona in 1981, established a new framework for the state to increase the value of trust lands in urban areas. It has three key concepts: the state should plan and develop trust lands in cooperation with local government; should provide for high-quality growth and development on trust lands; and should establish zoning prior to leasing, selling, or exchanging land in order to add value.

The State Land Commissioner may initiate the planning process for an urban trust land property, or an interested party may apply to the State Land Department to classify specific trust lands as suitable for urban planning. The state convenes a public hearing to allow interested parties to submit oral or written testimony on suitability of the land for planning. Issues to be addressed include existing and proposed land uses, existing and proposed public facilities, existing zoning, quality and quantity of water, market trends, and potential trust revenue. The Land Department then decides whether or not to classify the land as suitable for planning.

Figure 5.1 How States Dispose of Trust Land

Selling raw land. Selling land without improvements has been the traditional approach of state agencies and the quickest and least expensive way to dispose of trust land.

Selling land together with a master plan for its development. State agencies can add greatly to the value of trust land if they establish market-ready master plans before they put it up for sale. In this approach the state takes responsibility for preparing a master plan, obtaining appropriate local zoning, subdividing the land into tracts suitable for development, and arranging annexation to a government that will provide public services.

Planning and building infrastructure. Providing complete infrastructure allows the state to sell individual parcels for development instead of entire tracts, adding still more value to the land

Establishing joint-venture partnerships. A state may enter into a joint venture or limited partnership with a developer. In this approach, the state contributes land and possibly infrastructure, and the developer handles the rest of the project. In exchange for its contribution, the state receives revenue from the project, such as a percentage of receipts.

Using ground leases. The most common arrangement for commercial developments on state trust lands is a ground lease, where the state retains title to the land and leases development rights

Leasing structures. If the state constructs a building or obtains one through foreclosure, it may lease the building to a commercial tenant.

Conducting operations. In a few cases, the state may build or operate a business, usually on an interim basis until it can be sold.

If the land is classified as suitable for urban planning, the Urban Lands Act requires the preparation of a general plan. The State Land Department then works with the local jurisdiction to prepare a general plan if one is not already in place. The commissioner may, however, waive the general plan phase with concurrence from the local jurisdiction.

After approval or waiver of a general plan, the next phase is to prepare a specific development plan. One way to prepare the development plan is for the state to use appropriated funds to hire a planning consultant through a request for proposals. The other way is for the state to issue a planning permit to an interested party who files an application for this purpose. Under the planning permit method, the permit holder pays all planning costs and is compensated for these costs by whoever obtains the land at auction. (The permit holder usually hopes to acquire the land for development and, if successful, requires no further compensation for preparing the plan.) Under either method, the state specifies the scope of work and cooperates with the local jurisdiction in preparing the development plan and rezoning the property. The State Land Commissioner has ultimate authority over the

zoning. Following zoning approval from the local jurisdiction, the commissioner may approve the development plan and may reclassify the land consistent with the development plan.

Upon receipt of an application to lease or purchase the parcel, the State Land Department typically commissions two outside (third-party) appraisals to determine the fair-market value, and conducts a lease/sale analysis to determine whether it would be more advantageous to the trust, over time, to lease or sell the land. The department takes its sale or lease recommendation to the state board of appeals for approval. Following a 10-week advertising period, and a promotional marketing campaign, the land is offered for long-term lease or sale at public auction, with the State Land Department establishing a starting price based on the two appraisals. (Washington state officials also reported that they hire private, third-party appraisers to get their highest and best use appraisal. They choose outside appraisers for two reasons: they believe an in-house appraiser would have a bias toward producing revenue for the state; and they want to get an informed market value from an appraiser who is in the market every day, rather than from someone who is trying to get the best price for the government.)

Figure 5.2 Experience with the Arizona Program

In the 1995–96 fiscal year, Arizona conducted 93 public auctions and sold more than 2,750 acres of land for a total price of \$34.2 million. Most of the land was for residential development, but other uses included future school sites, a medical facility site, municipal projects, and a biological preservation site. The urban land process clearly added value to trust land: urban land sold during the year averaged \$40,721 per acre, while other land averaged \$7,373.

What can LRAs learn?

There are differences as well as similarities between the management of state trust lands and the management of military base reuse. The guiding principle for managing trust lands is to generate long-term revenues for the benefit of educational and other public institutions. The purpose of base reuse is to redevelop former military sites in ways that will help local communities recover from the economic problems associated with the closing of bases. Since communities differ in terms of their reuse priorities and their realistic market opportunities, no single goal such as producing revenue for the beneficiaries drives the system.

Nevertheless, generating financial resources is one of the most important prerequisites for almost every community effort to reuse a base. Like other large development projects, the bases require heavy up-front investments long before they generate major cash flows. And the experience with state trust land may suggest ways in which LRAs can manage base property to meet their pressing need for investment funds.

The most obvious lesson to learn is that effective management can add considerable value to raw land by getting it ready for development before putting it up for sale. Getting it ready, in the style of Arizona's urban land program, includes preparing a master plan and a development plan, securing

necessary zoning, constructing streets and infrastructure, and dividing the site into tracts sized appropriately for rapid sale and development. Land prepared in this way brought more than five times the price per acre than other trust land in Arizona in 1995–96, although there is no way to know how much of the differential resulted from these preparations and how much resulted from more advantageous locations of the urban parcels.

Preparing the land for sale can be time-consuming and risky, however. Arizona has special advantages in this process, since it can use trust funds to pay for infrastructure and since the State Land Commissioner has great leverage over local zoning decisions. LRAs seldom have these advantages. While LRAs may face greater risks, they operate with a long time-horizon that improves their prospect for getting a return from making value-adding investments in raw land. Few bases have extensive “raw land” in the sense of forests or meadows, but many have a functional equivalent in the form of parcels encumbered by inadequate utilities, substandard roads, and obsolete buildings.

CONNECTING WITH RELATED PROFESSIONS

Redeveloping surplus land for economic use has already emerged as a distinct field of work requiring technical knowledge and the exercise of informed judgment based on a combination of theory and experience. These are the typical characteristics of a profession, and the scope of base redevelopment in the United States since 1988 has laid the groundwork for the emergence of a new professional specialization. Technical staff and consultants are at work on redevelopment for approximately 100 former military bases, and their work on these bases is likely to continue for another twenty years. If the federal government decides to close additional bases, as the Department of Defense has requested, specialists in base redevelopment will be in demand for an even longer time.

The skills required for planning and managing base redevelopment overlap with those of other specializations that have emerged as new professions in recent years. One is real estate development. Through the 1960s, real estate development was a field whose practitioners seldom ventured beyond their own local markets and who had a reputation for basing their business decisions on back-of-the-envelope calculations. A few developers, however—William Levitt and William Zeckendorf most prominently—began to operate on a national and even international scale and pioneered in the systematic management of large projects. Distinct specializations began to emerge: merchant builders who developed large residential areas and sometimes entire new communities, developers of business and industrial parks, and developers who built urban renewal projects on substandard sites in older cities.

Aside from the growing variety and complexity of real estate ventures, another sign of professionalization was the rapid growth of university programs offering specialized education in real estate development and management. Starting with a small handful of academic offerings, these programs grew explosively by the 1980s. By the 1990s, there were some thirty real estate programs offering graduate education in development as well

as management. Many are at the country's leading universities. Their steady stream of graduates has made it possible for both public and private organizations to hire professional staff and consultants instead of back-of-the-envelope practitioners. With the growth of these programs came an increasing number of professional publications, books as well as journals, and the growth of a professional and educational organization, the Urban Land Institute (ULI), whose conferences facilitate the exchange of information and experience among professionals. Real estate practices that were once known only to a handful of people in the field soon became available to anyone who hired a well-qualified adviser or staff member.

In addition to real estate development, economic development also emerged as a professional specialization, complete with graduate curricula generally located within university departments of urban planning. EDA and several professional organizations provided a forum for the exchange of ideas and helped establish economic development as a field of professional practice with its own tools and theories.

Specialists in these and related fields have staffed and advised LRAs responsible for base redevelopment. Among them are economic development advisers, infrastructure engineers, urban designers, environmental technologists, financing experts, site planners, and business analysts. One platform for bringing together these specialists to focus on their work at military bases is the National Association of Installation Developers (NAID). This organization is affiliated with the Council for Urban Economic Development (CUED) and has a membership that includes consultants, contractors, and public officials with special interests in base redevelopment. CUED, with its main focus on economic development practice, also provides common ground for specialists who work on military bases.

Organizations that connect people who have related professional commitments have been important in spreading the word about current practices and experiences, and keeping members informed of problems and solutions in the field. It would be very advantageous for LRAs to continue to devote time and resources to maintaining this network of professional contacts. However, we believe the network should be extended even further. In our experience, some important specializations have been underrepresented at professional meetings with the result that potentially important connections have not been made. Two groups of specialists mentioned in this chapter—redevelopers of corporate real estate and managers of state land trusts—have not been represented among the speakers at any military base conferences we have attended in the past three years. Nor have we seen more than a dozen base redevelopment specialists among the hundreds of people attending conferences of the Urban Land Institute, even though real estate developers and military base specialists have much to learn from one another. We strongly recommend greater LRA recognition of the several professional specialties relevant to base reuse, and closer links among the organizations that represent them.

A PROGRESS REPORT

The closure of more than 100 major military bases between 1988 and 1999 was a shock to many parts of the country. Cities and towns had fought hard to obtain these bases and then to protect them against earlier proposals to shut them down. People understood that, in addition to safeguarding national defense, these were valuable sources of jobs and revenue. Plans to close them caused widespread concern and in many cases led to organized opposition. Many citizens expected dire outcomes. Yet they rose to the occasion in remarkable ways.

The federal government promised financial aid and supportive policies to help communities recover from a closure. It offered closure communities an opportunity to take responsibility for the future reuse of the base without federal pressure to determine the character of that reuse. Local communities understood that taking responsibility for a base would expose them to demands to take care of the property as federal support was withdrawn. They also understood that nobody was offering them base redevelopment free of charge. Furthermore, managing a closed base was beyond the experience of local people and of their government: nobody knew just what it would involve or how to do it.

Under the circumstances, it would not have been surprising to find local communities refusing the responsibility and demanding that the federal government take charge of the bases it was closing, but consult with local people on what needed to be done. Yet we learned of few instances where the local community decided against taking charge of the base. Why were ordinary citizens willing to commit their time and effort to the unpromising venture of looking after an abandoned base?

That brilliant observer of American society, de Tocqueville, suggested an answer in the character of the young democracy he studied in the 1830s: “The inhabitant of the United States learns from birth that he must rely on himself to combat the ills and trials of life; he is restless and defiant in his outlook toward the authority of society and appeals to its power only when he cannot do without it. ... The same attitude turns up again in all the affairs of social life. If some obstacle blocks the public road halting the circulation of traffic, the neighbors at once form a deliberative body; this improvised assembly produces an executive authority which remedies the trouble before anyone has thought of the possibility of some previously constituted authority beyond that of those concerned.”

Base communities were unhappy over the closing, but they preferred to rely on their own efforts to handle it rather than trust others to do it for them. Knowing that their own prosperity was linked to the base made them all the more determined to shape its future themselves. Unlike de Tocqueville’s public road example, however, elected officials typically helped to organize ordinary citizens to take part in reuse planning.

All the main groups involved in base redevelopment acted responsibly. The federal government gave substantial financial aid as well as real estate and valuable equipment to the communities; the military services worked out

acceptable ways of conveying bases to the localities; and federal procedures gave the communities great freedom to formulate their own plans and make their own reuse decisions. From the vantage point of both federal and local responses to the closures, people and institutions behaved admirably in the face of a troublesome challenge.

Federal and LRA accomplishments

The federal government created a framework for local action to redevelop former military bases:

- Guidance in setting up LRAs
- Incentives for attracting jobs, particularly the availability of economic development conveyances
- Funds for planning (from the Office of Economic Adjustment) and implementation (from the Economic Development Administration). Federal funds paid for a substantial start, and states and localities secured most of the financing that followed.
- Base property in the form of land, buildings, infrastructure, and personal property such as furnishings, fixtures, and equipment
- Flexibility when federal procedures proved troublesome for local communities. Examples are changes to allow more options for local governments in providing housing for the homeless, extension of FAA airport conveyances to include property adjoining airports, and recent congressional authorization for no-cost economic development conveyances when base property is to be used for generating long-term jobs.

Given the federal framework and resources, local communities moved quickly to establish their own programs for redeveloping closed bases and replacing lost jobs:

- Creating local organizations capable of planning and managing base redevelopment, as described in Chapter 2
- Changing the nature of these organizations to fit the different stages of the redevelopment process. Most communities established an initial “planning LRA” with broad representation of citizen groups to reach consensus on reuse goals, prepare and adopt a reuse plan, and build political support for a long-term effort. After adoption of a plan, typical communities would establish a new business-oriented “implementation LRA” as a more permanent organization to take charge of base property and manage the redevelopment program.
- Choosing organizational formats compatible with the local governance structure. The two most prevalent types of long-term organization were (1) the “local-government LRA” in which local elected officials served as the policy board and the staff was assigned to an existing or new administrative department of local government and (2) the “public-authority LRA” organized either as a public nonprofit corporation or a joint powers authority with several local governments sharing redevelopment powers, and with policy boards separate from local governing bodies.

The implementation LRAs turned their attention to managing redevelopment consistent with the approved community plans. Their early accomplishments included securing financing for the large up-front investments necessary to redevelop bases. Their principal financing tools, described in Chapter 4, were the following:

- Federal and state grants
- Federal, state, and local government appropriations
- Bonds and private debt
- Project revenues, such as real estate lease and sale income, user fees, and proceeds from the sale of utility systems

Almost all LRAs devised strategies to attract new jobs to the base, in order to offset job losses resulting from the closure. Their principal strategies, described in Chapter 3, included the following:

- Normalizing base property by repackaging it to make it essentially like other real estate: divided into parcels of salable size, with full utility service, subject to state and local building regulations, with clear title, and available for rent or sale on conventional terms
- Identifying and targeting businesses likely to benefit from regional growth trends and comparative advantages
- Selecting business firms and public users as magnets to draw more business
- Capitalizing on military assets, such as aviation facilities and industrial equipment
- Taking advantage of synergies between business and educational institutions
- Bringing together clusters of companies in related fields that do business with one another
- Working with experienced consultants and business developers

In addition to devising promising strategies, the LRAs also proceeded to implement a large number of physical projects to strengthen local economies:

- The conversion of twenty former military airfields to civilian airports, noted in Chapter 3, and preliminary steps to convert another sixteen military air bases likely to generate airport jobs and to attract businesses that value a location near an airport
- The development of community colleges and other job-related educational institutions at more than 25 bases
- Development of new post-secondary education campuses at Fitzsimons Army Medical Center, Fort Ord, and Williams AFB—intended in part as magnets to draw business firms into the community

Assessing results: a look at the job numbers

If we judge the results of base redevelopment according to the objective cited most often by both federal and local officials, the relevant question is how well base redevelopment is succeeding in replacing lost jobs. By that measure, a look at the numbers is revealing. The Office of Economic Adjustment has

kept tabs on civilian jobs lost as of the time of closing and total new civilian jobs added for 78 major bases selected for closure between 1988 and 1995. For the sample as a whole, the bases lost 136,000 civilian jobs and added 54,000 new ones through March 1999. In short, they replaced 40 percent of the number of jobs that were lost.

Given the positive responses of the communities themselves and their success in developing projects geared to local economic growth, what explains the forty percent figure? The most obvious explanation is the length of time it takes to bring new jobs to a base. Bases closed in the earlier BRAC rounds show far greater job results than those that closed more recently. For bases closed in the 1988 round, job losses were 14,200 and job additions totaled 10,800. Put another way, these bases replaced 76 percent of the number of jobs they lost.

This pattern is consistent for the other rounds as well:

Table 5.4
Job Replacements by BRAC Round

BRAC round	1988	1991	1993	1995
New jobs as percent of job losses	76.0%	59.5%	41.6%	14.2%

Source: Office of Economic Adjustments, "Base Utilization Status" report, March 1999.

Time is the most plausible explanation. When the time is short, as for the last two rounds, even a booming economy with low unemployment does not bring jobs to closed bases in a hurry. Patience, as noted earlier, is one of the key requirements for success in base redevelopment. That judgment applies not only to the time required for redevelopment, but also to the time required to identify promising companies, persuade them to locate on the base, find a suitable site on the base, negotiate an acceptable lease or sale, recruit qualified workers, and find jobs that match worker skills and expectations.

The evidence of job numbers reinforces the point made earlier that base redevelopment will be a lively field for at least the next twenty years and possibly longer. People who learn it as a professional specialization can count on a long career. And in time, it is likely that recently closed bases will achieve job growth similar to that of earlier closures.

Unemployment rates are another way to measure the impact of base closings. A General Accounting Office study of 62 base-closing communities found that two-thirds, or 42 of them, had 1997 unemployment rates at or below the national rate of 5.1 percent. These figures compared favorably with the situation in 1988, when the recent BRAC rounds of closings began. At that time 37 of the 62 communities, or 60 percent, had unemployment rates at or below the national average

Still another way to gauge the impact of the closings is to look at changes in the counties where closed bases are located. We collected data on county

population growth, employment, and income relative to the nation at large from the time of the BRAC announcement to 1997, the most recent year for which county economic information is available. The analysis covers 52 bases that closed through the end of 1996, located in 51 counties.

Military-based civilian employment dropped in almost every county, as could be expected. The big losers of military jobs were California counties containing the Long Beach Naval Shipyard, Fort Ord, Oakland Army Base, George and Norton Air Force Bases, and the counties hosting shipyards in Philadelphia and Charleston, South Carolina. Each of these counties lost more than 10,000 military jobs. Military job losses, however, did not necessarily translate into employment losses at the county level. In 21 of the 51 counties, job growth was higher than the national average, and in six of these counties job growth was more than twice the national rate. In the remaining 30 counties, job growth was lower than the national figure and seven had job losses. A surprising finding was that in more than half the counties (31 of 51), per capita income in 1997 relative to the nation was higher than it was at the time of the BRAC closing announcement.

Which counties have not fared well? Those where the four major shipyards were located: Mare Island, Long Beach, Philadelphia, and Charleston. Ten of the 20 income losers were in California, and most of the remaining losers were rural, such as Aroostock County in Maine, Clinton County in New York, Bee County in Texas, and Tooele County in Utah.

Table 5.5
Economic Changes from Closing Announcement to 1997
(51 counties with base closings through 1996)

Element of change	Counties higher than the nation	Counties lower than the nation
Population growth	20	31
Employment growth	21	30
Per capita income growth	31	20

In interpreting these indicators, the time factor noted earlier is a dominant part of the context. Most of the base closings at these counties took place in the early to mid-1990s. Economic data for 1997 therefore reflect a time span of only two to five years for base redevelopment efforts to produce job results. To find a longer time period for assessing job results it is necessary to review the pre-BRAC experience with base closings. An OEA study of job changes at 97 military bases selected for closure in the 1960s and 1970s has tracked information for closures between 1961 and 1993. This 32-year time period was long enough to produce dramatic results: the 97 bases lost 87,707 civilian jobs through closures but then added 171,177 civilian jobs, nearly twice as many as before. This long-term experience, as well as the substantial differences already noted between early and later BRAC rounds, suggest that

a stronger economic recovery is highly likely as reuse plans take shape on the ground.

CHAPTER ONE

Notes

¹ In seven of these cases, we revisited the same community over a period of several years to see how redevelopment unfolded over time.

² Local impact installations include facilities whose closing or realignments were determined by the Defense Department's Office of Economic Adjustment (OEA) to affect a sufficient number of civilian jobs and/or release sufficient land to the private market to warrant grant assistance. They include all major closings (defined as those in which 300 or more civilian and/or military jobs were lost) that resulted in real estate transfers to state and local jurisdictions, major realignments that met the same criteria, and minor closings that resulted in significant transfers of real estate.

³ EDA uses these criteria to define economic distress.

⁴ Data on new jobs is from OEA's "Base Reutilization Status" reports. At three facilities, LRAs replaced all civilian jobs lost through closure with new jobs and subsequently lost jobs when individual businesses down-sized or relocated.

⁵ As of this writing, known dispositions totaled 183,934 acres of the 218,548 acres that will become available for nonfederal use.

⁶ Congress authorized no-cost rural EDCs in 1994.

⁷ Since local impact installations exclude facilities at which no nonfederal transfers were planned, the dispositions described here differ from those reported by GAO for all BRAC actions. For example, GAO reported that BRAC actions between 1988 and 1995 will result in a surplus of 464,000 acres of military property. Of this, 213,000 acres were to be retained by the federal government. The largest federal user was the Fish and Wildlife Service, which GAO reported would receive 163,000 acres.

⁸ About 60% of all air bases were between 1,000 and 4,000 acres. Air bases and air training centers ranged from 70 acres to 17,541 acres. England AFB, at 2,282 acres, represented the median. Air training facilities ranged from 1,866 acres to 4,000 acres, and Chanute AFB, at 2,125 acres, represented the median.

⁹ Orlando Naval Training Center contains over 2,000 acres, however, the property is split among four sites. The largest site contains 1,093 acres and was the subject of an MIT field study.

¹⁰ See Chapter 4 for more information on uses of federal funds.

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CHAPTER 2

¹ The city of New York delegated redevelopment of the Staten Island Naval Station to the Economic Development Corporation of New York, an established nonprofit organization similar to PIDC in Philadelphia. No public umbrella corporation was necessary, since the site reverted to the city and was not subject to federal conveyance rules.

² Three organizations planned redevelopment of more than one of the 95 local impact installations.

³ In two other cases, land was transferred to an existing adjacent civilian airport, and one community developed a small noncommercial airfield.

⁴ At Norton AFB, the community set up two authorities, one for the operation of the new San Bernardino International Airport, and the other, the Inland Valley Development Authority, to redevelop the balance of the base. These later merged.

⁵ The one in Alameda is known as the Community Improvement Commission.

⁶ Under California redevelopment law, governmental entities that want to pursue regional redevelopment projects can pool their authority regarding land use planning, creation of special redevelopment and taxing districts, and utilization of state revenue bonding authority. This is accomplished by passage of legislation creating a Joint Powers Authority governed by the participating jurisdictions.

⁷ Each is a 501(c)(3) corporation.

⁸ See Chapter 4 for a definition of component development.

⁹ Former State Commissioner of Resources and Economic Development and Senate President

¹⁰ The collaboration was also made possible by other events that eased the concerns of the towns about the bank's intentions with respect to developing the base. Most important was the determination by the Massachusetts Aeronautics Board that it would not build a major airport in the Fort Devens region.

¹¹ Glenview is one of only 60 communities in the country with a AAA bond rating.

¹² The Merced County Economic Development Corporation is a nonprofit organization dedicated to helping local businesses expand and recruiting new industry, jobs, and investment to Merced County.

CHAPTER 3

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CHAPTER 4

Notes

¹ Public benefit conveyances for economic development purposes included economic development conveyances (EDCs) plus conveyances for airport development, prison construction, ports, and education. The number reported covers 79 local impact installations where specific conveyance types were known.

² Also known as "horizontal development."

³ Also known as “vertical development.”

⁴ This total does not reflect annual operating costs of IVDA or PIDC, and the total reported by the Pease Development Agency included costs only through FY 1997.

⁵ The lack of private equity use by public-authority LRAs may reflect the political and legal complexity of structuring private equity investment in publicly owned projects. These LRAs also may be reluctant to give up ownership and control over development.

⁶ Quoted in *Transition Talk*, 2/98.

⁷ Miller became director of ARRA after she left LERA.

⁸ The policy echoed that governing the old UDAG program, under which communities had to demonstrate that UDAG financing was critical to making a project feasible.

⁹ The city has since used the repaid funds to capitalize a matching grant/loan program for facade improvements in the island’s commercial core.

¹⁰ Financial pressures came from limitations on revenues imposed by Proposition 13 and a recent Educational Resource Augmentation Fund, which diverts property tax receipts from cities and directs them to school districts, plus the effects of the 1990–1991 recession on sales tax revenues. In 1993, the city reduced its personnel by 22 positions to balance its books. In 1997, over 80 percent of the city’s general fund was encumbered by long-term debt.

¹¹ Karl Seidman undertook the survey and analysis. The six LRAs that participated were the England Economic and Industrial Development District, Inland Valley Development Agency (developers of Norton AFB), Lowry Economic Redevelopment Authority, Oscoda Township Office of Economic Development (developer of Wurtsmith AFB), Pease Development Authority, and Philadelphia Industrial Development Corporation. We also collected detailed financial data from the Orlando NTC Community Redevelopment Authority and Massachusetts Development Finance Agency (on Fort Devens). At four sites—Pease, England, Norton, and Wurtsmith—implementation LRAs were developing new airports plus supportive uses. At Devens and Philadelphia, the LRA focus was on industrial and business development. At Lowry and Orlando, LRAs were undertaking mixed-use developments that included substantial recreation and housing components, along with commercial and industrial development. LRAs generally reported funds raised through FY 1997. However, Lowry included revenue bonds and bank loans through May 1998.

¹² Wurtsmith did not meet the FAA’s criteria for grant assistance.

¹³ For a further description, see Scott M. Resnick. 1998. *Defense Adjustment Infrastructure Bonds: Credit Enhancement Grants Make Affordable Capital Available*. Washington, DC: Economic Development Administration.

¹⁴ The Lowry authority could not issue tax-increment financing. The Denver Urban Redevelopment Authority issued the TIF bonds on Lowry’s behalf.

¹⁵ England Airpark also provides short-term rentals to employees of airpark tenants.

¹⁶ Revenues generated on parcels acquired under recreational PBCs can only be used to support activities on that parcel. However, revenues from recreational assets acquired as part of larger conveyances, for example through the FAA or under an EDC, can be used more broadly.

¹⁷ The Denver Urban Renewal Authority is the formal bonding authority.

¹⁸ However, lease terms were inadequate to offset LRA overhead.

¹⁹ Mesriow Financial, the Chicago-based insurance and securities firm, acquired Stein and Company in December 1996. Richard Stein, principal of Stein and Company, heads the new group, and the acquisition has not affected the Glenview partnership.

²⁰ Glenview's population was 38,000. The water district served 150,000.

²¹ Municipalities are the creation of states, which generally specify the activities that a municipality can undertake. As a home-rule municipality under the Illinois constitution, Glenview could engage in any activity not specifically restricted by the state constitution.

²² The lower figure appears in LRA promotional material prepared in 1996. The higher figure appeared in a June 8, 1998, article in the *Orlando Sentinel* about Mesriow Stein's pending acquisition of the Orlando Naval Training Center.

²³ At most bases, golf courses and other amenities for servicemen and women are owned by them; when these amenities are sold, the proceeds are deposited in a revolving fund and must be used to fund similar amenities elsewhere.

²⁴ Proposed CDD bonds would be repaid by an assessment on property owners, developer contributions from land sales, and Orlando's development impact fees, which the city would allow the developer to collect and use for bond repayment.

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Craig Calhoun, Transition Lands Section Manager, and Bruce H. Monell, Property Management Manager, Washington State Department of Natural Resources, January 16, 1997.

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C. Lincoln Jewett, Executive Vice President, North American Realty Advisory Services, March 5 and March 13, 1997.

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Alameda Naval Air Station, May 18–20, 1998

Samuel Doctors, Executive Director, Alameda Center for Environmental Technology. Jeff Gile, Vice President, Zebra Motors. James Gollub, Principal, Information Design Associates. John Huetter, Director, Project Hatchery Alameda. Bruce J. M. Knopf, Economic Development Director, City of Alameda. Lee Kostler, Quality Assured Products. Edward Levine, Facilities Manager, Alameda Reuse and Redevelopment Authority. Randy Mellinger, president, Quality Assured Products. Kay Miller, Alameda Reuse and Redevelopment Authority Executive Director. Nathan Sangaran, Director of Operations, Zebra Motors.

Castle Air Force Base, July 1997

Jonathan W. Buckley, Account Executive Negotiator, Pacific Telesis Shared Services. Cheryl K. Grover, Leasing/Marketing Coordinator, Castle Joint Powers Authority. Deirdre F. Kelsey, Supervisor, Merced County Board of Supervisors. Mary Jo Knudsen, Council Member, City of Merced. Andy Krotik, Realtor, Codwell Banker Gonella Realty. Richard D. Martin, Executive Director, Castle Joint Powers Authority. Tim Marshal, City Manager, City of Merced. Michael G. Miller, Base Transition Coordinator, Castle Air Force Base. Robert E. Smith, Planning Director, Merced County.

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Chanute AFB, April 20–24, 1998

Gary Adams, Administrator, Village of Rantoul. Harrold A. Blake, Manager, Caradco. Ray M. Boudreaux, Executive Director, Rantoul National Aviation Center. Joseph T. Brown, Mayor, Village of Rantoul. William S. Clayton, Former Director, Octave Chanute Aerospace Museum. Kirk Harney, President, Rantoul Chamber of Commerce. Helen A. Lewis, Village of Rantoul Board of Trustees. Katy Podagrasi, Former Mayor, Village of Rantoul. Wayne Rasmus, Village of Rantoul Board of Trustees. Kenneth Roessler, President, Roessler Construction Company. Gary Sadler, Director, Lincoln's Challenge, Illinois National Guard. James A. Snyder, Director, Octave Chanute Aerospace Museum. Virlon J. Suits, Site Manager, Air Force Base Conversion Agency. Kent Tucker, Community Development Director, Village of Rantoul. Yu Wang, Amerinvest. Jerry Zachary, Superintendent, Rantoul High School.

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Earl G. Baham, Director, South Division, Naval Facilities Engineering Command. Robert Behre, Reporter, Post and Courier News. James Bryan, Chairman, Charleston Naval Complex Redevelopment Authority. Ben Cole, President and CEO, Charleston Regional Development Alliance. C. Ronald Coward, Former Executive Director, Charleston Naval Complex Redevelopment Authority. Kathy Gardner, Charleston Naval Complex Redevelopment Authority. Richard Gregory, President, Charleston Marine Manufacturing Corporation. Robert Ryan, Economic Development Director, Charleston Naval Complex Redevelopment Authority. Jack C. Sprott, Executive Director, Charleston Naval Complex Redevelopment Authority. R. Keith Summey, Mayor, North Charleston. Chair, BEST Committee. Jacquelyn M. Warren, Manager, Business Development Research, Charleston Metro Chamber of Commerce. Charles Way Jr. Chairman, Base Reuse Subcommittee.

Fort Devens

Hank Amabile, Vice President, Grubb & Ellis Company, December 21, 1998. Timothy Bassett, former Executive Director, Massachusetts Development Finance Agency (Land Bank), November 27, 1996. William Burke, Director of Municipal Infrastructure, Devens Commerce Center, May 7, 1996 and January 29, 1999. Linda Burke, Community Planning Director, Devens Commerce Center, November 10, 1998. Tracy Carter and Lou DiMinico, Learning Express, January 14, 1999. James Chambers, U.S. Army, BRAC Environmental Coordinator, July 17, 1996. Glen Garber, Land Use Administrator, Devens Enterprise Commission, April 2, 1996, December 12, 1996, and November 10, 1998. Carter Hunt, Fort Devens Base Commander, May 14, 1996. David Knisely, Garrity and Knisely, March 1, 1996 and July 15, 1996. Judith Kohn, Senior Project Manager, Devens Commerce Center, July 17, 1996. Scott Ledbetter, General Manager, Parker Hannifin/Nichols Aircraft Division, December, 1998. Thomas Linden, Town Administrator, Town of Shirley, February 4, 1999. Bruce MacDonald, Selectman, Town of Shirley, June 10, 1996. Rick Maiore,

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Fort Benjamin Harrison, April 14, 1998

Thomas M. Bartlett, Administrator, Division of Planning, City of Indianapolis. J. Lynn Boese, Executive Director, Fort Harrison Reuse Authority. Thomas A. Crouch, Project Development Manager, Fort Harrison Reuse Authority. John McNatt, President, Board of Directors, Fort Harrison Reuse Authority. Alan R. Vander Meer, Board of Directors, Fort Harrison Reuse Authority. Charles W. Ricks, Director of Economic Development, City of Lawrence. Thomas D. Schneider, Mayor, City of Lawrence. Frederick C. Terzo, Terzo & Bologna, Inc.

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England Air Force Base

Fred Baden, Mayor, City of Pineville, April 25, 1996. Travis Brann, Director, J.B. Hunt Driver Training School, May 1, 1996. Brady Baudin, Senior Account Executive, Corporate Sales, Central Louisiana Electric Company, May 1, 1996. Richard Billings, President, Rapides County board member, April 26, 1996. Sammy J. Bonnette, Director of Economic Development, England Economic & Industrial Development District, April 25, 1996. Terry Bounds, Director, Redirection Center, April 26, 1996. Henry B. Bruser III, Gold, Weems, Bruser, Sues and Rundell, April 24, 1996 and October 20, 1998. Bruce Capps, Office Manager, Greiner Engineers, Inc., April 29, 1996. R. Eugene Cotton, Commissioner, England Economic & Industrial Development District, May 1, 1996. Wayne L. Denley, President, Hiberia National Bank, October 20, 1998. Albin Doggett, Provosty, Sadler & DeLaunay, general counsel to England Economic & Industrial Development District, May 1, 1996. Jay Ellington, Economic Development Research Assistant, Central Louisiana Chamber of Commerce, October 20, 1998. Ray Funk, Director of Communications, International Computer Services, April 25, 1996. Jon Grafton, Executive Director, England Economic & Industrial Development District, February 1, 1996, April 26, 1996, March 20, 1998, June 4, 1998, and October 19, 1998. Ron Hair, Director of Operations, England Economic & Industrial Development District, April 26, 1996. Barry Hines, former Chairman of the board, England Economic and Industrial District, October 19, 1998. William Gary Jackson, Project Development Manager, California Lutheran Homes and Community Services, October 21, 1998. Gordon Kime, Chief Operating Officer, International Computer Services, April 25, 1996. Rod Knoles, Knoles-Frye Realty, Inc. October 20, 1998. Myron Lawson, former president, Rapides County board member, May 1, 1996. Keith LaBauve, Director, Production Administrative Support, Cleco Corporation, October 20, 1998. Jim Leggett, Opinions Editor, Alexandria Daily Town Talk, April 29, 1996 and October 22, 1998. Garland Lawrence, former vice president, Central Louisiana Electric Company, May 9, 1996. Mark L. Mavrinac, General Manager, Cleco Services LLC, October 20, 1998. James L. Meyer, Commissioner, England Economic & Industrial Development District, April 30, 1996. Bobbi Morgan, England Oaks, October 21, 1998. Michael J.

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Karen Butler, Mesirow Stein Real Estate Group. Matthew Carlson, Glenview Project Manager. Paul McCarthy, Manager, Village of Glenview. Richard Shields, Mesirow Stein Real Estate Group.

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Dan Bollana, Deputy Chief, Site Operations, Rome Laboratory. Tedd Cupp, Board of Directors, Griffiss Local Development Corporation (GLDC). Steven J. DiMeo, Executive Vice President, EDGE. RoAnn M. Destito, Board of Directors, Economic Development Growth Enterprises Corporation (EDGE) and GLDC. Ralph Eannace Acting Board Chairman, GLDC. Ralph Eannace, Jr., Oneida County Executive and Chair, GLDC. Brian Gaetano, Gaetano Company. Ray Gillen, Deputy Director, Empire State Development Corp. William K. Guglielmo, Board of Directors, EDGE and GLDC and President, Rome Area Chamber of Commerce. Ron Johnson, Program Manager, ArticCool/EMI. Joseph G. Karam, Senior Vice-President, GLDC. Ray Lawrence, Empire State Development Corp. Nicholas Matt, Board President, EDGE. Dave Metzger, Director of Administration, DFASC. Mark F. Mojave, Director of Marketing & Economic Development, EDGE. Shawna Papale, Economic Development Manager, GLDC. Nancy Patterini, Vice President, Paige/Smith Group. Dave Pernella, Business Manager, GDE Systems, Inc. Igor Plonisch, Principal Physical Scientist, Rome Laboratory. George Proakis, Public Affairs Director, Alternative Fuel Technology Center. Len Pugh, Carucci Real Estate/The Prudential. Edward Ratazzi, Board of Directors, EDGE. Mark W. Reynolds, Director of Planning & Development, EDGE. Sam Russo, Utica Dept. of Economic Development. Edwin Schreiner, President, NYSTEC. Donna Skibitski, Community Relations Specialist, GLDC. Fred Tillman, Board of Directors, GLDC. Robert Traube Board of Directors, GLDC.

Kelly Air Force Base

Sean W. Dooley, Business Development Manager, AAR Aircraft Component Services, San Antonio, February 22, 1999. Patricio Elizondo, Jr., Logistics Management Specialist, San Antonio Air Logistics Center, February 22, 1999. Mark W. Frye, Senior Manager, KPMG Peat Marwick, February 19, 1998. Rudy L. Garcia, Operations Manager, Cooperheat-MQS Inspection, Inc., Kelly Air Force Base, February 22, 1999. Kathi Jones, Director, Office of History, Kelly Air Force Base February 22, 1999. Jesse Lopez, Commercial Development Manager, February 14, 1998. Teresa Nino,

Community and Public Relations, Greater Kelly Development Corporation, February 14, 1998. Tom O'Krongley, Aviation Manager, Greater Kelly Development Corporation, February 14, 1998. Kate Ortiz, Greater Kelly Development Corporation, February 14, 1998. Dean Pound, Facilities Environmental Manager, Greater Kelly Development Corporation, February 19, 1998. Paul Roberson, Executive Director, Greater Kelly Development Corporation, February 19, 1998. Tom Ruffini, Deputy Director, Greater Kelly Development Corporation, February 19, 1998. Indianapolis Naval Air Warfare Center, April 14–16, 1998. Larry Gigerich, President, Indianapolis Economic Development Corporation. Stephen Goldsmith, Mayor, City of Indianapolis. Steven B. Kaspar, Vice President, Depot and Engineering, Raytheon Systems Company. Michael Sargent, Project Manager for Naval Air Warfare Center, Indianapolis Reuse Planning Authority. James W. Wheeler, Arthur Anderson LLP.

Long Beach Naval Hospital and Complex, March 10 and 11, 1998

Dell Davis, Navy Reuse Coordinator, Economic Development Bureau, City of Long Beach. Jim Hankla, City Manager, City of Long Beach. Gerald Miller, Manager, Economic Development Bureau, City of Long Beach. Douglas Otto, Attorney, and Chairman, Long Beach Planning Commission. Gordon Palmer, Manager of Master Planning, Port of Long Beach. Braden Phillips, Capital Project Manager, Public Works Dept., City of Long Beach. Dan Krenitsky/Leslie Unruh, Project Managers, Sealaunch Project, Boeing Corporation. Susan Shick, Director, Community Development Department, City of Long Beach. Mo Tidemanis, Director of Property Development, California State University at Long Beach Foundation. Ben Williams, Deputy Director, Governor's Office of Planning and Research.

Lowry Air Force Base

Larry Beach, former Base Transition Coordinator at Lowry AFB, February 28, 1996. Jane Blackstone, Deputy Director, Lowry Redevelopment Authority, February 27, 1996 and February 3, 1998. Nadine Caldwell, Member of Aurora City Council, February 29, 1996. Forrest Cason, Chair, Lowry Redevelopment Authority Board of Directors, February 28, 1996. Louis X. ("Kip") Cheroutes, Director, District Office of Congresswoman Patricia Schroeder, March 1, 1996. Tim Dreese, former staff member of HOH consultants, February 28, 1996. Polly Flobeck, Member of Denver City Council, February 27, 1996. M. Deanna Kaskie, Environmental and Safety Manager, Lowry Redevelopment Authority, November 10, 1998. Don Lindemann, chairman of Community Advisory Committee to Lowry Redevelopment Authority, February 27, 1996. Thomas O. Markham, Deputy Director for Infrastructure, Lowry Redevelopment Authority, February 27, 1996. Thomas O. Markham, Executive Director, Lowry Redevelopment Authority, November 10, 1998. James E. Meadows, Executive Director, Lowry Redevelopment Authority, February 27, 1996. John Parvensky, Executive Director, Colorado Coalition for the Homeless, March 1, 1996. Hilarie Portell, Public Relations and Marketing Manager, Lowry Redevelopment Authority, February 16, 1999. Davis Reinhart, Construction Manager, Lowry Redevelopment Authority, November 10, 1998. Terry Rosapep, Transportation Planner, Denver Planning and Development Office, February 29, 1996. Anne Rosen, Real Estate Director, Lowry

Redevelopment Authority, February 16, 1999. Daniel J. Schnepf, Vice President, BRW Inc., February 27, 1996. Dennis Swain, Senior City Planner, Denver Planning and Development Office, February 29, 1996. Robert Waxman, Controller, Lowry Redevelopment Authority, February 26, 1998, June 1, 1998, and November 10, 1998.

Mare Island Naval Shipyard

Al Bottini, President, XKT Engineering, Inc., Mare Island, January 4, 1999. Alvaro P. da Silva, Director of Community Development, City of Vallejo, July 9, 1996; January 6, 1999. Larry Bartholomew, Personnel Office, Mare Island Naval Shipyard, April 9, 1996. Gil Hollingsworth, Mare Island Conversion Program Manager, January 6, 1999. Greg and Steve Jeffress, owners of Jeffco/ABC, Mare Island, January 4, 1999. Tom Sheaff and Bill Moore, Lennar Mare Island, January 8, 1999. Howard Siegel, Administrative Analyst, Mare Island Conversion Program, City of Vallejo, January 18, 1996; April 15, 1996; May 23, 1996; June 3, 1996; July 10, 1996. Thomas Womack, President, Womack Intervational, Inc., Mare Island, January 4, 1999. Ken Zadwick, Mare Island Historic Park Foundation, January 8, 1999. Dr. Bernard Zeligler, Dean, College of Osteop[athic Medicine, Touro College, San Francisco, January 7, 1999.

Mather Air Force Base, March 11–13, 1997

Paul Hahn, Director of Economic Development for Sacramento County. Mary Leonard, Asset Manager, McCuen Properties. Rob Leonard, Director of Military Base Conversion for Sacramento County. Jim R. Mayfield, President and CEO, Sub-Sea Systems, Inc. Patrick McGuire, LAMBRA Program Director, State Department of Trade and Commerce. Don Nottoli, Supervisor, County Board of Supervisors. Peter McCuen, President, McCuen Properties. Carolyn Radisch, Project Manager, The Roma Group. Tom Truszkowski, Economic Development Department, County of Sacramento. Alan Tubbs, District Field Services Manager, Airborne Express. Tom White, Associate Development Specialist, State Department of Trade and Commerce. Ben Williams, Deputy Director, Office of State Planning.

Norton Air Force Base, July 1997

Bruce Beck, Manager, Ming Plaza Development. William L. Bopf, Executive Director, Inland Valley Development Agency. Charles Eason, Incubator Manager/Business Consultant, Inland Empire Business Incubator. Jerry Eaves, Chairman, Board of Supervisors, San Bernardino County. Alex Estrada, Senior Project Director, Inland Valley Development Agency. G. Louis Fletcher, General Manager, San Bernardino Valley Municipal Water District. Thomas R. Laurin, Director, Department of Economic and Community Development, County of San Bernardino. Rick Lazar, President/Broker, Lazar & Lauer. William E. Leonard, Real Estate Investments. John K. Mirau, Attorney, Mirau, Edwards, Cannon, Harter & Lewin. Tom Minor, Mayor, City of San Bernardino. Teri Ooms, Interim President, Inland Empire Economic Partnership. James E. Rohrer, Manager of Real Estate, Facilities & Contracts, San Bernardino International Airport Authority. Martin Romeo, Chief Financial Officer, Inland Valley Development Agency, July 1997, January 30, 1998, and June 3, 1998.

Timothy J. Sabo, Attorney at Law, Sabo & Green. Linda A. Summers, Manager/Clerk of the Agency, Inland Valley Development Agency.

Orlando Naval Training Center

Orlando City Commissioner Don Ammerman, January 24, 1996. Robert E. Ansley Jr., Orlando Neighborhood Improvement Corporation, January 8, 1999. Debra Braga, Assistant City Attorney, City of Orlando, January 26, 1996. Gary A. Brewer, Mayor, City of Winter Park, January 25, 1996. Tom Chandler, Chair, NTC Advisory Committee Developer Selection Committee, January 7, 1999. David Dunap, BRW, Inc., April 18, 1996. Arthur Hamerschlag, U.S. Veterans Administration, April 4, 1996. Frankee Hellinger, Commissioner, City of Orlando, January 23, 1996. Theodore Hoepner, President, Sun Trust Bank and member, Reuse Planning Committee, January 24, 1996. Glenda Hood, Mayor, City of Orlando, January 25, 1996.

Bruce Hossfield, City of Orlando NTC Community Redevelopment Agency, July 24, 1996, June 15, 1998, and January 8, 1999. Mary I. Johnson, Commissioner, Orange County, January 24, 1996. Harry Kaplan, City of Orlando NTC Community Redevelopment Agency, January 8, 1999. Howard Kelsey, Naval Facilities Engineering Command, January 28, 1999 and April 21, 1999. Thomas Kohler, Executive Director, Orlando Community Redevelopment Agency, January 24, 1996 and April 30, 1999. Dave Larsen, Department of Defense Office of Economic Adjustment, October 1, 1998. Robert McClellan, Orlando Community Redevelopment Agency, January 24, 1996. William Owen, President, Real Estate Research Consultants, January 24, 1996. Michael Poole, former President, Coalition for the Homeless, January 25, 1996. Michael Schemer, Facilities Planner, Orlando NTC, January 26, 1996. Richard Shields, Orlando NTC Partners, LLP, January 7, 1999. Harry L. Smith, Jr. former Base Transition Officer, Orlando NTC, January 24, 1996. Herbert E. Smetheram, Federal Liaison Officer, Orlando NTC, January 23 and 24, 1996, April 18 and 19, 1996, July 19 and 22, 1996. Harry L. Smith, Jr., former Base Transition Officer, Orlando NTC, January 24, 1996. Rick Tesch, Co-Chair, NTC Reuse Commission, January 26, 1996. F. Lee Tillotson, former Base Commander, Orlando NTC, January 26, 1996. Douglas Yesensky, Base Transition Officer, Orlando NTC, April 19, 1996.

Pease Air Force Base

George M. Bald, Economic Development Director, PDA. February 12, 1998. Roger Booker, Vice President of Operations, Objective Communications, February 12, 1998. F. David Choate, Coldstream Real Estate Advisors, Inc. January 23, 1998. Robin Comstock, Director, Greater Portsmouth Chamber of Commerce, February 12, 1998. Lynn Marie Hummel, General Counsel, February 12, 1998. David Jackson, V.P. Manufacturing, Lonza Biomedical, February 12, 1998. David Kimball, ColorVision, January 23, 1998. Peter Loughlin, PDA Board Member, February 12, 1998. Susan R. MacDonald, Assistant to Executive Director, PDA, March 12, 1998 and April 8, 1998. George Meyer, Executive Director, PDA, January 23, 1998. Jerry Prial, President and General Manager, Redhook Ale Brewery, Inc., New England, January 23, 1998. Marie Roth, Economic Development Specialist, PDA, January 23, 1998.

Philadelphia Naval Complex, August 12–14, 1997

Ellen S. Brown, General Counsel, Philadelphia Industrial Development Corporation (PIDC). John Claypool, Executive Director, Greater Philadelphia First. Tim Colton, President, Colton and Company. Stephen A. Cooper, Cushman and Wakefield of Pennsylvania, Inc. John Corrigan, Regional Director, Economic Development Administration. Peter E. Fleming, Deputy Director, Office of Defense Conversion, PIDC, August 12–14, 1997, January 7, 1998, and June 1, 1998. Lori Flynn, Vice-President, Office of Defense Conversion, PIDC. William P. Hanowsky, President, PIDC. Paul M. Matyskiela, Chief, Economic Adjustment Division, Economic Development Administration, Philadelphia Regional Office. Robin Kimzey, The Mullahy Company. Michael Maier, Planner, PIDC.

Rickenbacker Air Force Base

Bruce Miller, Executive Director, Rickenbacker Port Authority, June 1, 1997 and May 18, 1999. Randy Forister, Real Estate Development Manager, Rickenbacker Authority, July 1, 1997. William Snyder, Marketing Manager, Rickenbacker Port Authority, July 1, 1997.

San Diego Naval Training Center

Ralph Armstrong, Reuse Project Engineer, San Diego Naval Training Center project, February 23, 1998. James Davies, Project Manager, San Diego Redevelopment Agency, February 23, 1998. Sister RayMonda DuVall, Executive Director of Catholic Charities, Diocese of San Diego, December 7, 1995. Gail Goldberg, City Planner, City of San Diego and Reuse Project Director, Naval Training Center Project, January 23, 1996, and November 6, 1998. Cynthia Kodama, Property Agent, City of San Diego Asset Management and Marketing Division, November 5 1998. Michael Stepler, former Project Director, Naval Training Center reuse planning process, January 23, 1996; May 7, 1996; February 10, 1997. Betsy B. Weisman, Senior Planner Community and Economic Development and LRA Director, City of San Diego, 1998, 1999.

Stratford Army Engine Plant, May 4, 1998

Mark S. Barnhart, Town Manager, Town of Stratford. Fred Harris, Base Transition Officer, Stratford Army Engine Plant. James F. Neale, III, LRA Project Coordinator, Department of Community/Economic Development, Town of Stratford.

Williams Air Force Base

Dr. Charles Backus, Provost, Arizona State University East, June 25, 1997. Mary Baldwin, Director of Marketing, Williams Gateway Airport Authority, June 27, 1997. Wayne Balmer, Community Development Director, City of Mesa, June 26, 1997. Terry Isaacson, Director of Administrative Services, Arizona State University East, June 27, 1997. Lynn Kusy, Executive Director, Williams Gateway Airport Authority, June 30, 1997. Mark Schnepf, Mayor of Queen Creek and member of the board, Williams Gateway Airport Authority, June 27, 1997.

Wurtsmith Air Force Base, April 6–8, 1998

Donald R. Aune, Oscoda Township Board of Trustees. Jeff Brownlow, Manager, American International Airways. Timothy L. Hayes, Michael T. Jones, James, Koenig, William S. Leichtman, Edward W. Roddy, Carl B. Sachs, Executive Director, Oscoda Township Office for Economic Development. April 6-8, 1998, April 17, 1998, and June 1, 1998.