4.2 Greenfield and Brownfield Sites

Two additional terms used to identify general types of sites are useful to define. These two terms are "greenfields" and "brownfields."

Greenfields: Greenfield sites are vacant, undeveloped tracts of land that are available for business or industrial use. They are referred to as "greenfields" because often their former usage (or in some cases current usage) is agricultural production. Greenfield sites are most often located in the urban fringe of the path of development or in rural areas where undeveloped land is more likely to be present.

Greenfield sites present a number of development advantages to locating business and industry provided they meet basic needs such as access to utilities and close proximity to adequate transportation resources. Since they have never been used for business, industry or uses other than agriculture, there is little danger of prior contamination leading to potential environmental problems and expensive cleanup costs. The sites are vacant and, other than necessary site preparation and grading, are ready for construction, reducing the time needed until the company can be in operation. Greenfield sites provide flexibility, allowing a business either to be the sole tenant should it desire or to share the site with other users.

The disadvantages of greenfield development include:

- The promotion of urban sprawl and "uncontrolled" land development
- A possible lack of available infrastructure, requiring the raising of public funds to support site improvements and utility extensions
- The potential compromising of environmentally sensitive areas such as wetlands or floodplains

Some site selection consultants have predicted that the development of advanced telecommunications networks in many rural or "exurb" areas may actually accelerate the use of greenfield sites because they enable business to be conducted even in relatively remote locations. Add to this the considerably lower cost of operations often found in rural communities, and greenfields can become an even more desirable place to do business from a company's perspective.

Brownfields: The term "brownfields" was coined as an antonym for "greenfields." Brownfield sites are "...unused, obsolete, and often abandoned industrial properties with known or suspected environmental contamination" (Bielen 1998). Many economic development professionals and environmentalists promote the development of brownfields as a logical, and environmentally/socially desirable alternative to greenfield development.

While they are most often an urban phenomenon, brownfields can be found in small towns where perhaps a major local manufacturer shut down years earlier. They are not few and far between. William V. Trefethen, Director of Environmental Transaction Services for Coopers & Lybrand in Los Angeles, states that "it is estimated one in eight non-residential properties in the U.S. is contaminated" (Business Facilities, June 1996).

There is an unmistakable logic to using brownfields for business/industry development. They help to counter urban sprawl by providing an alternative to development on the city and small-town fringe, they promote development in areas already serviced by utilities and well-developed transportation networks, and they eliminate the need to raise additional tax revenues to provide infrastructure. Since brownfields are oftentimes located in distressed inner cities or disadvantaged areas of small towns, they provide jobs for local residents and new capital investment in neighborhoods that have experienced physical deterioration over the years. Finally, brownfield development improves inner-city properties that are at best vacant and dilapidated and at worst environmentally at risk.
On the surface it would appear that brownfield site development provides the answer to a number of environmental, social, economic and land-use concerns. However, a number of uncertainties in the development of previously used sites can render them risky and unpredictable. Included are questions concerning potential liability for contamination, costs of remediation (cleanup), the remediation process to be followed, and the extent to which cleanup is required.

If the site and buildings are contaminated, nearby ground or surface water may be affected. An environmental assessment will need to be conducted to determine the required cleanup and related costs. Remediation can involve a variety of state and federal agencies, adding to the complexity of the development and uncertainty of the outcome. Sometimes the cost of remediation exceeds the value of the property and development of the property becomes financially infeasible. The extent of the contamination and resulting expense of cleanup might not be known until the environmental assessment is completed. These assessments can be expensive, and there is no guarantee that they will identify the full extent of the expense required.

Compounding the expense of brownfield development is the difficulty often encountered in obtaining financial assistance for site cleanup and development. According to Charles Bartsch, Senior Policy Analyst for Economic Development at the Northeast-Midwest Institute in Washington, D.C., "critical funding gaps are...the primary deterrent to site and facility re-use. The financing situation is especially gloomy for start-up firms or small companies" (Business Facilities, June 1996). Since current law holds current and previous owners and even lending institutions liable for site contamination, banks are reluctant to become involved with brownfield sites and developers are unwilling to purchase them.

Public and governmental agency involvement is necessary to spur the development of brownfields. As of 1996, over two dozen states had set up voluntary cleanup programs. Fifteen of these were enacted in 1993 or later, so the effort of states to address brownfields is growing. In the United States, these programs are available for any contaminated sites except for landfills, Environmental Protection Agency (EPA) Superfund sites, and other properties subject to other corrective action under other federal environmental programs. State oversight varies by type of site, private-sector involvement, or level of required cleanup. Cleanup standards vary according to intended use and are applied on a case-by-case basis. Assurances provided to property owners include a covenant not to sue, release of liability, certificates upon completion and commitment to no further action once the site complies. Five states provide financial assistance in the form of grants or loans, two states provide tax credits, and two states target existing incentive programs to brownfields.

The State of Ohio has a Voluntary Action Program that was operationalized in 1997. Under this program, a property owner who agrees to participate is released from liability from the Ohio EPA. However, the property owner still must meet the requirements of the Federal EPA, and while the release of liability guarantees that the owner will not be sued in civil court, it does not prevent criminal action.

Ohio provides financial relief in the form of a 10-year abatement of increases in property taxes due to increased property values. Minnesota's Contaminated Site Cleanup Fund gives grants for brownfield priority uses. Illinois offers a 25% corporate tax credit applied against site cleanup costs. Connecticut is establishing an insurance fund to aid brownfield site reuse. Some cities are testing pilot brownfield programs in which they take control of abandoned, tax delinquent properties and develop them for a predetermined purpose.

One interesting trend with brownfields is that they are often being transformed from their original manufacturing use to commercial, retail or even residential use. This has taken place because inner city sites often do not offer adequate access to interstate highways for tractor-trailer traffic, and because it may be necessary to assemble a number of contiguous sites to provide the size needed to accommodate a manufacturing facility.
In terms of brownfield site development, the future is optimistic. Increased government involvement in financing and relaxed regulatory requirements, coupled with the growing willingness of developers to consider the potential value of these properties, is leading toward their productive reuse.