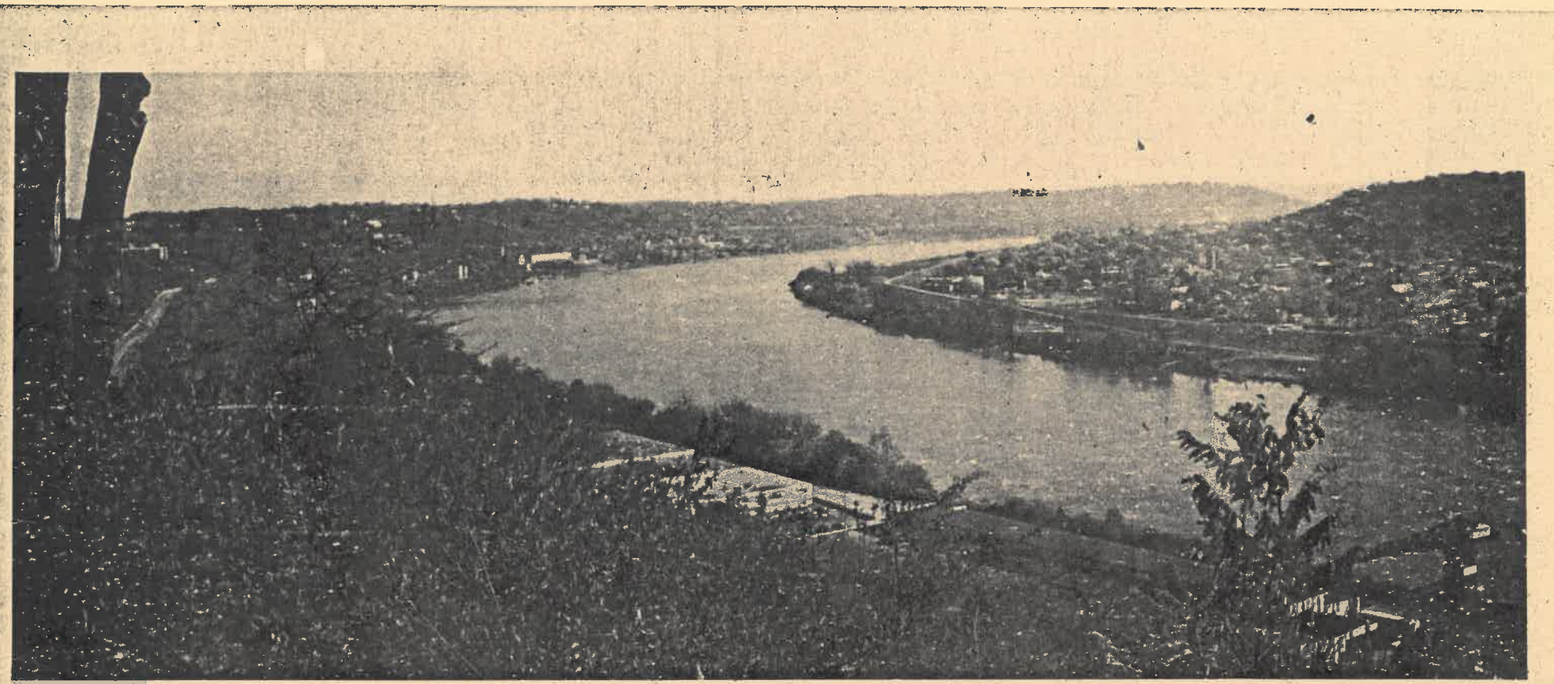

East End Riverfront

Community Development Plan and Guidelines

City Planning Department ■ Department of Neighborhood Housing and Conservation

Table of Contents

Chapter 1.0 - The East End Riverfront Community 1
1.1 - Background 1
1.2 - A Community and Its Concerns 2
1.3 - History 4
1.4 - Neighborhood Overview 6

Chapter 2.0 - The Community Development Plan 9
2.1 - Introduction 9
2.2 - The Mission 9
2.3 - Goals of the Plan 10
2.4 - The Concept Plan - 1988 14
2.5 - The Plan - 1992 15
2.6 - Phasing of New Development 18

Chapter 3.0 - East End Riverfront - Neighborhood Subareas 23
3.1 - Introduction 23
3.2 - Site A 23
3.3 - Site B 26
3.4 - Site C 28
3.5 - Site D 31
3.6 - Development Summary 33

Chapter 4.0 - Private Improvement Guidelines 35
4.1 - Introduction 35
4.2 - Renovation Guidelines for Existing Structures 36
4.3 - Infill Development 39
4.4 - Riverside Development 43
4.5 - Hillside Development 46
4.6 - Large Parcel Development 51
4.7 - Commercial Centers 56

Chapter 5.0 - Public Improvement Guidelines 61
5.1 - Introduction 61
5.2 - Streetscapes/Entries 61
5.3 - Parks 69
5.4 - Bicycle Path/Light Rail Transit System 72
5.5 - Walking Path/Shoreline Greenway 74

Chapter 6.0 - Implementation Strategy 79
6.1 - Introduction 79
6.2 - Capital Improvement Schedule 79
6.3 - Review of Current Programs 80
6.4 - Tax Abatement: Existing and Potential 84
6.5 - Truck Traffic Study to be Conducted 85
6.6 - Land Use and Zoning 85
6.7 - Geotechnical Constraints 87

Appendices
I. Hamilton County Auditor's Parcel Map
II. Engineering and Relative Stability Report
III. Report on Geotechnical and Environmental Analysis
IV. East End Area Council (EEAC) Recipe for Success
V. Riverfront Advisory Council (RAC) Response to the EEAC Recipe for Success
VI. Recipe for Successful Implementation
VII. Methodology Report for Computer Imaging in the East End Riverfront
VIII. EDAW Urban Design Questionnaire and Memoranda

Acknowledgments

The City Planning Department gratefully acknowledges the participation of the following:

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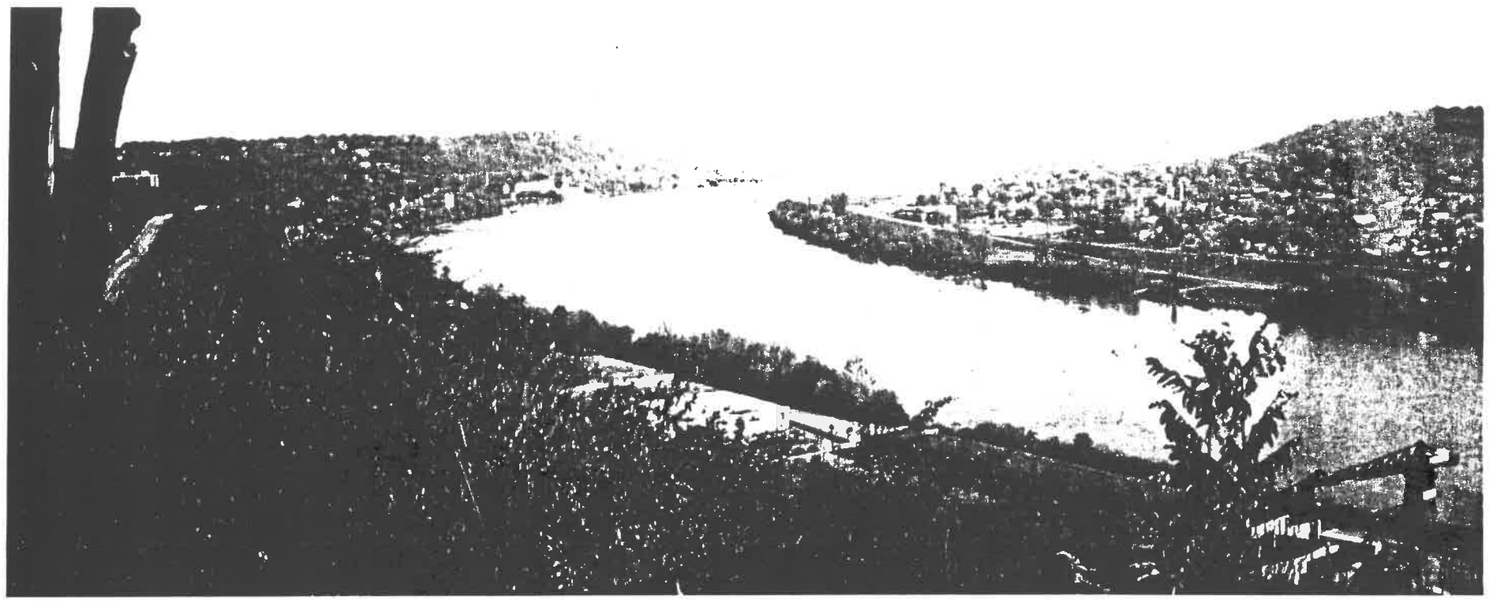


1.0 The East End Riverfront Community

1.0 The East End Riverfront

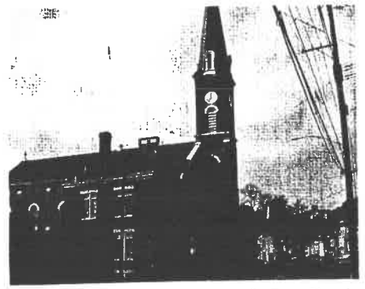
1.1 Background

The redevelopment of the East End Riverfront neighborhood has been the objective of the Riverfront Advisory Council (RAC) and the Cincinnati City Planning Department since 1987. For the purpose of this plan the East End Riverfront is defined by Columbia Parkway on the north, the Ohio River on the south, Delta Avenue on the east, and on the west the western most edge of the proposed International Friendship Park. (See Appendix for Auditor's map) The RAC, an officially designated citizen advisory group to the City Manager, adopted the "Eastern Riverfront Revised Concept Plan" in December 1988. The goals of the revised concept plan established the basis for additional planning analysis. This was followed by the RAC's adoption of the "Eastern Riverfront Redevelopment Strategy" in June 1989 and the "Eastern Riverfront Implementation Analysis" in December 1989.

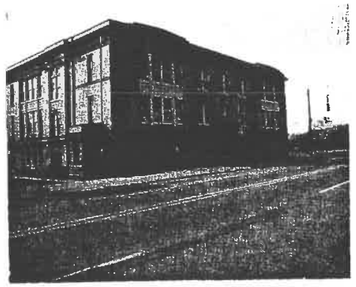
In the summer of 1990 the Department of City Planning, in association with the RAC, requested proposals from qualified planning and design firms to prepare an Urban Design Plan and Guidelines for the East End Riverfront. The team selected was headed by EDAW, Inc., of Alexandria, Virginia, and included the local firms of Jones and Speer (architects), The H.C. Nutting Company (geotechnical and environmental engineers) and Vivian Llambi Associates (landscape architects and planners).

The Community Development Plan and Guidelines were produced by EDAW, Inc., under the direction of the RAC, the City Planning Department, Department of Neighborhood Housing and Conservation, representatives of the East End Area Council, the Columbia-Tusculum Community Council and residents of the East End Riverfront Neighborhood.

This document contains the narrative and graphic portions of the Community Development Plan and Guidelines. An Appendix with background and technical information accompanies the text of the Plan.



St. Rose Church



The Highlands School

The Pendleton Storage Facility

The Cincinnati Waterworks

1.2 A Community and Its Concerns

To understand the concerns of the neighborhood residents, property owners, the RAC and the City, a series of workshops and public meetings were conducted. All were invited to submit their positions on growth and development in the East End Riverfront. Surveys resulting from these sessions reflected a community with pride and energy, but one that had experienced neglect over the years.

The concerns identified through the workshop include:

- Preserving the existing housing stock
- Creating opportunities for new affordable and senior housing.
- Protecting the small-town scale of the neighborhood.
- Increasing visual and physical access to the river.
- Removing the heavy freight railroad service.
- Continuing the mix of incomes, races, and classes that reside in the neighborhood.
- Diminishing the impact of truck traffic and noise along Eastern Avenue.
- Improving the visual appearance and integrity of the built environment, especially housing.
- Recognizing the distinct neighborhood characteristics of the East End Riverfront.
- Maintaining and upgrading green spaces with no net loss in acreage to future development.
- Removing junk yards and other health hazards.
- Obtaining city, financial and leadership commitment to the plan.

These concerns are expressed in part in the Eastern Riverfront Concept Plan and the Eastern Riverfront Redevelopment Strategy. These planning documents are part of the foundation for the Community Development Plan and Guidelines developed by the RAC and City staff in close coordination with East End residents, property owners, East End Area Council and the Columbia-Tusculum Community Council.

The East End Area Council also formulated and submitted a "Recipe For Success" in April.

1991. The Recipe For Success outlined additional specific issues of community concern and reads as follows:

1. Maintain the East End as a neighborhood without turning it into a housing project.

- Majority of new construction should be of single and two-family homes.
- Scale back total number of proposed units.

2. A commitment of no eminent domain against existing residential structures by the City of Cincinnati.

3. Provide that Municipal Code 740-9B include the East End Riverfront plan in order to provide for relocation fees to residents due to owner initiated displacement. This should be made retroactive to March 1, 1991.

4. The creation of a housing trust fund.

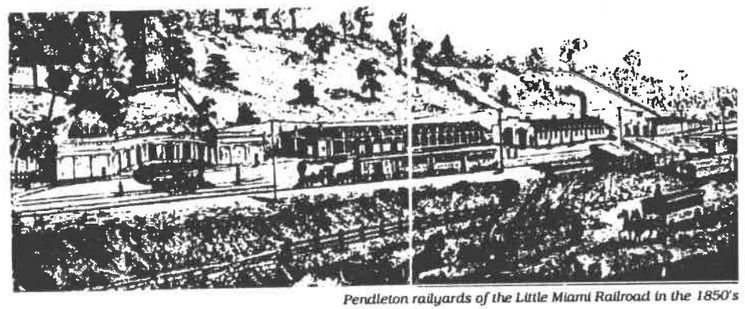
- For rental rehab loans or grants.
- For construction of senior citizen housing and low-income rentals.

5. Tax abatement for existing residential units for a period of 15 years.

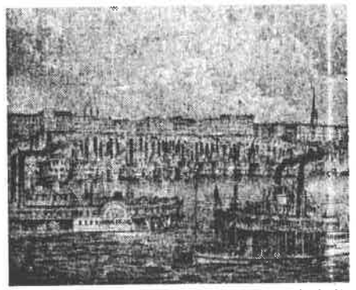
6. Provide that the plan not be required to pay for itself at the expense of the community.

The EEAC Recipe For Success and response from the RAC and City staff is included in the Appendix of this document.

In a later communication the EEAC requested the retention of Highlands School for future re-use as a community based school.



Pendleton railyards of the Little Miami Railroad in the 1850's



The busy Ohio River during the mid-1800's

East End during the flood of 1937

1.3 History

The East End consists of a seven-mile strip of land sandwiched between the steep hillsides of Walnut Hills and the Ohio River, stretching from the foot of Mt. Adams to the mouth of the Little Miami River. While this area is looked upon as a homogeneous area, it developed as a series of interrelated but distinct neighborhoods.

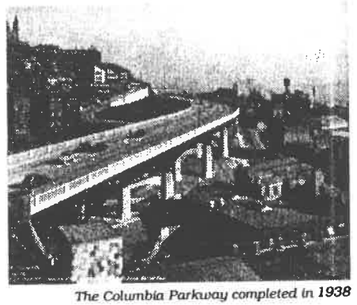
The oldest of these neighborhoods was Columbia, which was established in 1788 on the Ohio River just below the mouth of the Little Miami. However, Columbia—the first settlement in the Ohio River Valley—was gradually abandoned between 1794 and 1815 because of frequent flooding and a lack of organized military protection.

The area west of Columbia, known as the Eastern Liberties, developed as a result of the concentration of lumber and boatyards that occupied the area. The Eastern Liberties extended from what is known today as Bains Street east to Foster Street, and as far north as Grandin Road. In 1828 Eastern Liberties was incorporated as Fulton Township. The town of Fulton was a crowded community of 3,000 to 4,000 people through the 1800s. Situated along the river, this land quickly attracted additional industry and residents.

By 1830 nearly a quarter of all the steamboats on western rivers were built in Fulton. The commerce and population of the area contributed to Fulton's development as one of Cincinnati's early suburbs.

Pendleton extended east from the current Foster Street to Delta Avenue, and to an area just south of Grandin Road. In 1841, the community of Pendleton became the site for the first railroad terminal of the Little Miami Railroad. The banning of the railroad by Cincinnati within its city limits, gave the small community a chance to expand. Warehouses and factories sprang up along the rail line, and subdivisions were plotted along the foot of the hillside.

Annexation by Cincinnati of all the eastern riverfront communities (1855-1873) enabled the reorganization of a number of separate street railways into a single company, which improved the area's accessibility. In the mid-1880s, area residents and developers formed an association to seek even better transportation links with downtown. The association convinced the city to repave and widen major streets and aided the consolidated Cincinnati Street Railway in obtaining additional franchises. These improvements resulted in a burst of growth in the area.



The Columbia Parkway completed in 1938

By the turn of the century, the character of the East End had evolved from a string of individual small towns to a solid corridor of industrial and residential uses. The construction of another railyard upriver from Pendleton in 1907 further established the East End as a working-class, industrial neighborhood.

Upper-income suburbs were developed atop the hills reflecting an economic stratification still visible today. Columbia Parkway was constructed in the 1930s providing scenic access to these emerging suburbs. This improvement defined the East End as an area bypassed by the general public and accessed primarily by its own residents, through-truck traffic, and commuter traffic.

In the mid-twentieth century residential investment in the East End declined, as did the general population. Though the area retained its small-town charm, its housing stock deteriorated over the years. The population of the East End peaked at approximately 12,000 persons in the 1950s and has plunged to a present-day population of approximately 1,445 as reported in the 1990 U.S. Census count. The decline in population coupled with an expansion of industry resulted in a loss of residents, dwelling units and commercial establishments.

Periodic flooding from the Ohio River also occurs in the East End. During the winter of 1991, an Ohio River flood reached Eastern Avenue just west of Delta Avenue.

During the late 1970s and 1980s a movement back to urban neighborhoods occurred in cities nationwide, including Cincinnati. Neighborhoods such as Mt. Adams and Walnut Hills were transformed into mixed-use neighborhoods with both rehabilitated and new housing, commercial and office uses and amenities. Some neighborhoods, such as Walnut Hills, were able to change without significant resident displacement and are continuing to grow with a broad range of incomes and races.

This plan attempts to balance the demand for new development, particularly for housing, and the preservation of the existing neighborhood.

1.4 Neighborhood Overview

The East End neighborhood is a narrow strip of land that lies between Columbia Parkway and the Ohio River extending eastward from approximately three-quarters of a mile west of the Rookwood underpass to Delta Avenue. A substantial amount (47.6%) of the land in the neighborhood is open and only partially developed. Of the approximately 90 acres of parks and playgrounds, LeBlond Park and Schmidt Memorial Field make up a large portion and are primarily region-serving facilities. Residential structures—mostly single- and two-family houses—make-up the second largest (12%) land use. In general, the heaviest concentration of residential land use can be found north of Eastern Avenue and west of Delta Avenue.

Public and semi-public utilities comprise the third largest land use in the neighborhood. Both Cincinnati Gas and Electric Company and the Cincinnati Water Works have major distribution facilities along the riverside of Eastern Avenue. Together these facilities occupy just over eleven percent (11%) of the total land area. Existing neighborhood industries include warehousing and storage at the former American Building Components properties, located along the western entry to the neighborhood. The Verdin Bell Company also maintains a warehouse along the south side of Eastern Avenue.

Within this corridor, between Eastern Avenue and Columbia Parkway is a railroad line having infrequent rail services, and a major customer—the Cincinnati Gas and Electric Company. The rail right-of-way in most cases parallels the rear yards of existing residential structures on Eastern Avenue and front yards of existing residential properties along Gladstone, Hoff and Walworth Avenues.

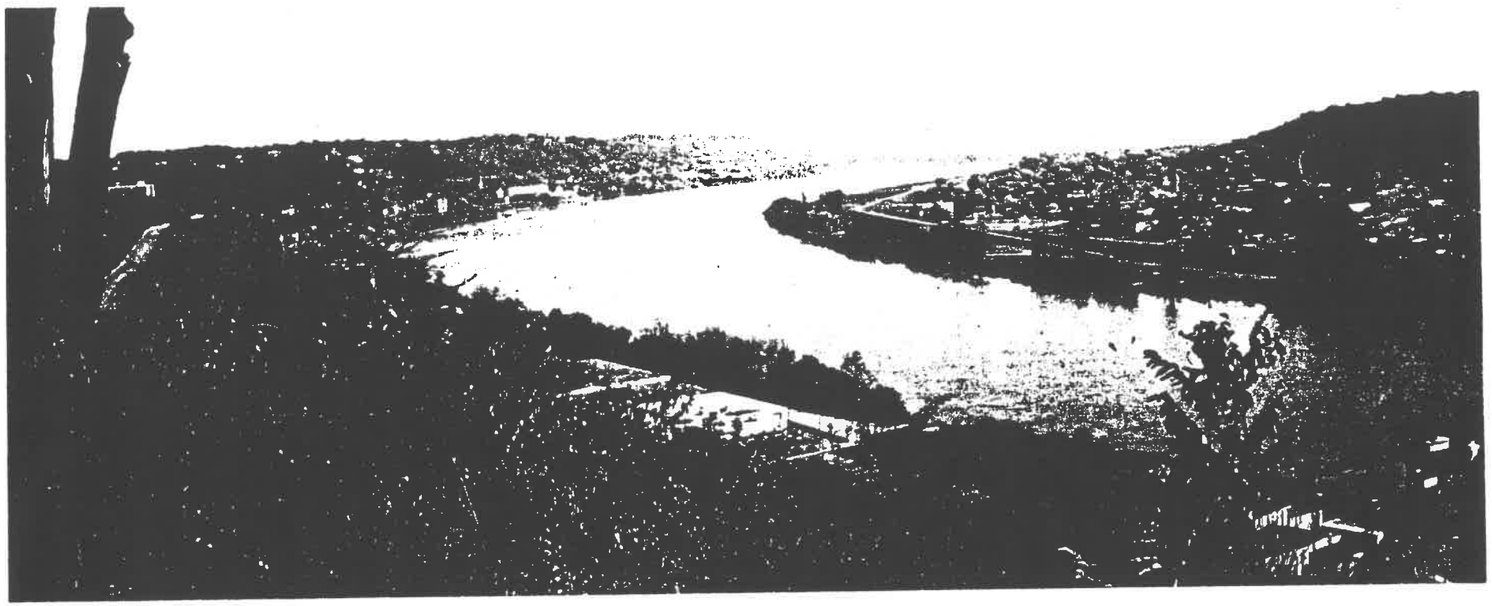
Eastern Avenue is a major east-west commuter thoroughfare and is designated U.S. Route 52 and U. S. Truck Route 50. Although total traffic volumes have shown a decrease in recent years, there appears to be a need for additional measures to further reduce traffic levels and the speed of automobiles through this predominantly residential neighborhood. Eastern Avenue also separates sensitive hillside areas from the floodway fringe.

The resident population of the East End Riverfront includes a spirited community of Appalachian and African-American households that are long-time residents of the area. According to the 1990 U.S. Census, approxi-

mately 1,443 persons reside in the East End Riverfront study area. This reflects a twenty percent decrease from a 1980 population of 1,812. In racial composition, the community continues to be predominantly white (81% in 1990).

The acreage of the East End Riverfront is in excess of 280 acres of land.

Throughout the development of the East End Riverfront Community Development Plan, it was noted by area residents that separate enclaves exist within the three-plus miles of the neighborhood. Within each neighborhood subarea, or site, there exist some characteristics that are both unique to the particular site and some that are common to the area as a whole. Four neighborhood subareas or "Sites" between Bicentennial Commons and Delta Avenue have been identified. The following section outlines existing conditions, characteristics and recommended land uses for Sites A-D of the East End Riverfront neighborhood.



2.0 The Community Development Plan

2.0

The Community Development Plan

2.1 Introduction

The purpose of the Community Development Plan and Guidelines is to provide a long term strategy for the enhancement and redevelopment of the East End Riverfront neighborhood. The strategy specifies tools to achieve those goals; tools that the City and the citizens can use to oversee and direct improvement and redevelopment of the neighborhood. The tools are intended to guide change in an organized way, promoting visual, physical and environmental compatibility. The strategy is delineated in a physical plan, guidelines and implementation framework.

The plan illustrates areas suitable for development and physical change that will contribute to the residential integrity and overall image of the neighborhood.

The guidelines support and supplement the plan and aid in directing growth throughout the neighborhood. They allow the special scale and character of the neighborhood to flourish.

The strategy is guided by the mission of the community.

2.2 The Mission

The mission of the Community Development Plan is expressed in the following statement.

Preserve the attributes and opportunities existing in the East End Riverfront Community and manage changes and development pressures acting on the community with strategies that will enhance and reinforce the character of the existing neighborhood while encouraging and creating opportunities for new development.

The mission of the Community Development Plan is outlined in the fundamental goals of the Plan.

2.3 Goals of the Plan

The goals of the Plan guide development and protect the community's concerns. The goals for the East End Riverfront Community Development Plan include the following:

1. Establish a vision and a process for the East End Riverfront community that is flexible and can be sustained over time.

- Create broad, community-based support for the Plan which reflects the concerns of the community and the goals of the City.
- Maintain the open and interactive involvement of community residents/ owners and the community-at-large.
- Discourage direct and indirect displacement of existing residents as redevelopment occurs.
- Develop a Community Development Plan and Guidelines with the involvement of neighborhood residents, property owners and businesses.

2. Improve and enhance the quality of life in the East End Riverfront Community with improvements that create a renewed focus and image in the Community.

Existing Neighborhood

- Conserve and enhance existing housing while physically and visually integrating new housing within the context of the existing neighborhood.
- Provide assistance to current residents to maintain and improve existing housing units.
- Provide opportunities for additional development of affordable and senior housing.
- Provide a neighborhood meeting facility for groups and organizations.
- Provide commercial shopping areas.

New Structures

- Identify sites and opportunities for the development of affordable housing.
- Identify opportunities for private development, including infill and large development sites.
- Develop infill housing in a way that respects the character and scale of existing housing.

- Identify opportunities for future high density, mid-rise housing at appropriate locations throughout the community.

- Provide recommendations on bulk character, quality, scale, height, and use that form the basis for zoning revisions.

Character

- Enhance the community as an unique place to live, work and play.

- Identify and acknowledge the diversity of the neighborhood's physical elements and sub-areas or communities.

- Create an image for the community that provides a unified focus and is representative of its people, values and history.

- Increase visibility and awareness of the River within the community and maintain views to the River from Columbia Parkway and the hillsides above.

- Provide a schedule for public improvements (See Chapter 6 - Implementation Strategy).

- Develop design guidelines to address the physical layout, location and massing for new construction.

- Identify an approximate number and size of new neighborhood office and retail uses.

3. Retain, renovate and/or upgrade the historic, architectural and cultural fabric of the Community.

- Recommend actions to preserve the historic and architectural integrity of the neighborhood and promote significant characteristics that reflect the heritage and traditions of the area.

Some of the structures that give historic character to the neighborhood include:

- Pendleton Club
- Cincinnati Artistic Ironworks
- St. Rose Catholic Church
- Mt. Carmel Baptist Church
- Highlands School
- The former Firehouse at Eastern Avenue and Strader Street

4. Improve transportation options to surrounding areas and within the East End Riverfront. Encourage and recommend the safe and easy flow of cars, people and bicyclists in the area.

Circulation Network
- Improve north-south vehicular access to the area.
- Acquire the railroad right-of-way (R.O.W.) and preserve for future use.
- Minimize transportation impacts of new development on the community.

Street Configurations
- Improve vehicular safety and accessibility to the community along Eastern Avenue at the Rookwood, Collins Avenue and Delta Avenue underpasses.

Street Character
- Recognize Eastern Avenue as the primary street in the community, both visually and physically, and unify the character changes that occur along its length.
- Recognize the function of the streets in the community and their capacities for accommodating traffic and parking and providing access.
- Protect the "green belt" along Columbia Parkway.

Pedestrian and Bicycle Circulation
- Identify, create and reinforce north-south pedestrian linkages between the riverfront and the hillside.
- Create separate and continuous bicycle and pedestrian paths to link the East End Riverfront community with Bicentennial Commons and the proposed International Friendship Park.

Mass Transit
- Preserve the railroad R.O.W. for future transportation and commuter opportunities.

5. Maintain, enhance and integrate existing and proposed open space within the community and create a balance between community and regional-serving recreation facilities.

River Access
- Examine the feasibility of public access to and along the riverfront.
- Determine the location of a pedestrian path and the character of the access. This will vary depending on ownership patterns and configurations, as well as development and design needs.

- Develop a riverfront path system, to be initially implemented on properties that are currently owned by the City.

Existing Facilities

- Examine existing facilities and provide recreation and open space opportunities that address the needs of the community and the City.

New Facilities

- Provide a more equitable geographic distribution of recreation opportunities throughout the community.
- Provide seasonal recreational opportunities in addition to existing recreation facilities and increase their ability to serve the City's and the community's needs.

6. Protect and enhance the natural environment by identifying the areas that should be preserved, those that are capable of accommodating change, and the character of that change.

- Identify and preserve, and when necessary enhance, the critically sensitive environmental areas, including the river's edge and the hillside.
- Preserve and maintain views to the river.
- Identify areas suitable for additional development based on environmental factors including floodplain, steep slopes and shoreline erosion.
- Identify areas of potential soil contamination and hazardous materials and determine the impact on future development.

2.4 The Concept - 1988

In 1988, the RAC established and adopted a series of broad goals and policies with respect to the East End Riverfront corridor. The goals and policies associated with the "Eastern Riverfront Revised Concept Plan" include the following:

1. Uniting and developing the quality of life in the Eastern Riverfront that is enhanced by the river orientation.

2. Promoting housing development to achieve a mix of socio-economic groups

3. Assuring community involvement and public participation as part of the development process.

4. Preserving and acknowledging the area's diversity through identification and enhancement of physical elements or subareas having significance.

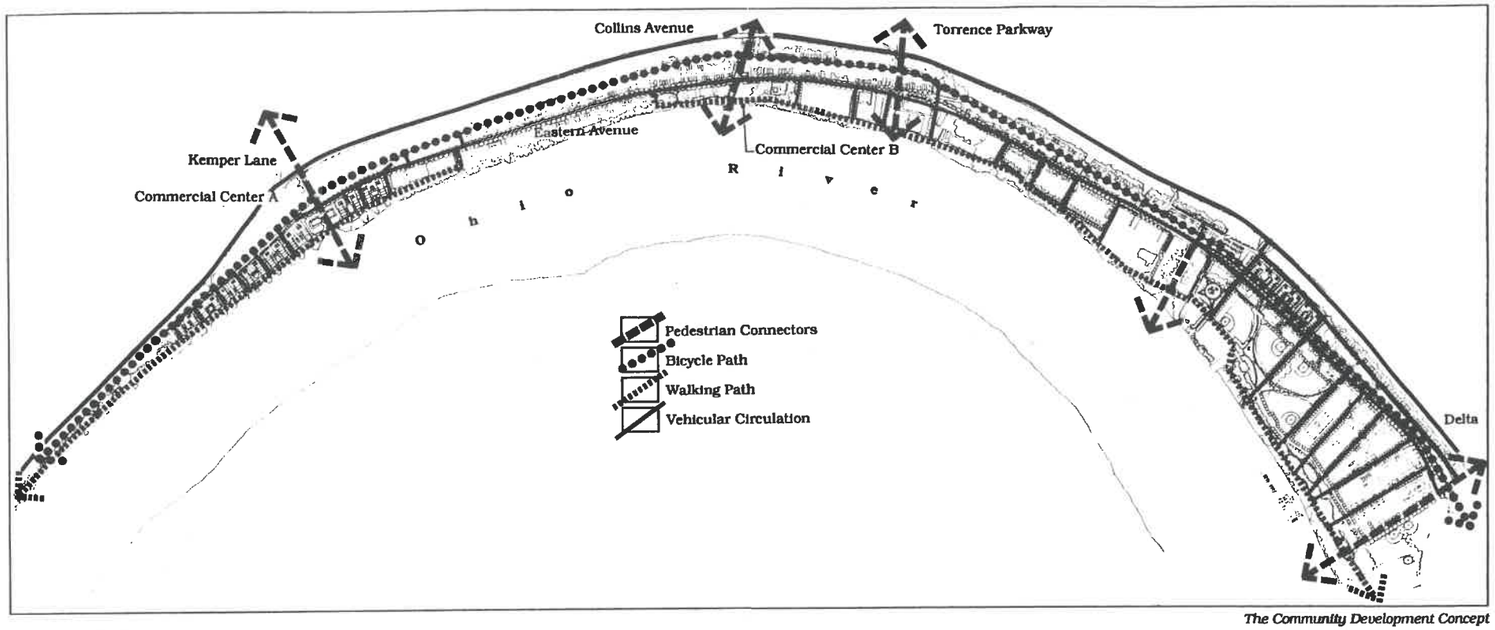
5. Developing a unified neighborhood focus and theme.

6. Maintaining, enhancing and integrating green space.

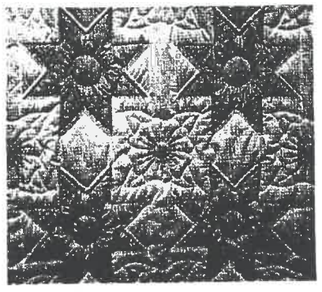
7. Upgrading vehicular and pedestrian networks into and within the East End Riverfront corridor.

8. Removing unwanted land uses and creating sites for development.

The "Eastern Riverfront Redevelopment Strategy", completed in June of 1988, outlined and recommended land uses, capital improvements and a preliminary implementation plan. It established in part a framework for stimulating and guiding redevelopment in the area with the primary purpose of preserving the existing character of the neighborhood and existing residential units.



The Community Development Concept



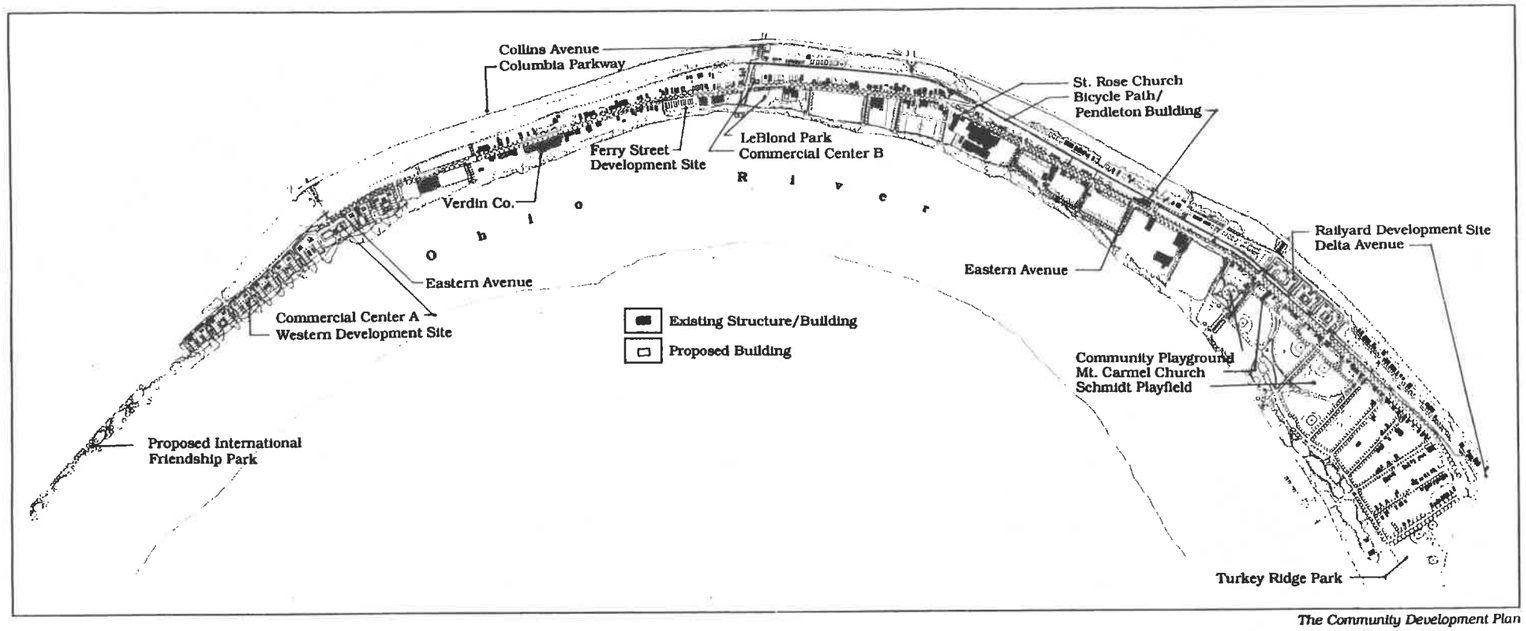
2.5 The Plan - 1992

As stated in Section 2.3, Goals of the Plan, community input was recognized as a vital part of the plan's evolution. The following specific actions highlight the results of an extensive collaborative effort by the East End community, RAC and City staff and focuses on the concerns of the neighborhood as outlined below.

The Community Development Plan for the East End Riverfront describes the specific actions necessary to achieve the agreed upon goals.

The specific actions are as follows:

- Retain all existing habitable residential dwelling units through the provision of various rehabilitation tools to existing home owners. (Refer to Chapter 6 - Implementation Plan.)
- Build infill housing throughout the neighborhood where feasible. Infill housing should be compatible in scale with the surrounding physical environment.
- Develop new infill housing, if possible, in selected floodplain areas, provided that the first habitable floor is above the 100-year floodplain or an elevation of 501 feet. No new development is proposed in the floodway.
- Consider a continuous riverfront pedestrian path to traverse through the neighborhood, typically along the top of the riverbank.
- Discontinue railroad service along the tracks that pass through the neighborhood, and develop a bicycle path on a portion of the R.O.W.



The Community Development Plan

- Replace or restore, in an architecturally consistent fashion, the three masonry bridges, at Delta Avenue, Collins Avenue, and near Kemper Lane to ensure structural integrity and to improve traffic safety.

- Make Eastern Avenue a pedestrian-friendly street through the use of the following treatments: relocation of overhead utilities along Eastern Avenue and in areas above the floodway fringe underground; installation of pedestrian-scaled street lights at locations of pedestrian activity centers; planting of street trees to line the roadway and separate pedestrians from the flow of traffic.

It should be noted that the placement of utilities underground, as well as pedestrian-scaled lighting may be subject to a special assessment and will require the approval of affected property owners. Existing residents should not be expected to bear the expense of new improvements to the area.

- Improve Schmidt Playfield with additional parking, extended pedestrian paths and additional non-structured recreation uses. Expand the boat-launch area as proposed.

- Create low to mid-rise residential development at the former railyard site. The density and height of new buildings at this site should be compatible with surrounding development and should not adversely impact views from Columbia Parkway. To accomplish this, a vehicular connection of Hoff Avenue to the railyard development is recommended, as are vehicular penetrations to Eastern Avenue under the railroad R.O.W. to provide an additional means of ingress and egress to structured parking areas.

- Provide infill housing on Eastern Avenue with adequate off-street parking areas. Along the south side of Eastern Avenue, rear-alley parking is recommended; for new development on the north side, parking courts must be provided in such a manner that vehicles do not back out into the street.

- Create new mid-rise housing at the former American Building Components site and former Rookwood Terminal site to the west. This property extends approximately 12 acres west of the Rookwood underpass and approximately eight acres east of the underpass. Due to the proximity of the 12-acre site to the approved Adams Landing development** building density, massing and scale of these two developments should be complementary. This development could also include some

commercial uses. Structured parking may be necessary to accommodate parking requirements. Public open space should be provided along the shoreline in order to link the proposed International Friendship Park with existing public parklands to the east.

For the purpose of a more detailed review, the study area has been divided into neighborhood subareas or sites. Sites A through D will be used throughout the plan to reference four geographic subareas.

- The existing and proposed residential subareas (Sites A-D) will each be served by pedestrian paths providing access to the shoreline and alternative transportation systems along the rail right-of-way.

Each commercial center should include a mix of service, retail, office, public meeting space, indoor recreation facilities and/or outdoor public space with river view. Where possible the centers and open space should have a strong orientation to Eastern Avenue. The centers are proposed along Eastern Avenue at the western edge of the neighborhood and at Collins Avenue. Residential units where possible should be positioned above the retail stores and existing buildings should be adaptively reused for this purpose.

- It is not the intent of this plan to force existing businesses out of the East End. It is envisioned that proposed re-zoning recommendations will provide the businesses to remain long into the future as non-conforming uses (See Section 6.6 - Land Use and Zoning).

- A study of alternatives to reduce truck traffic along Eastern Avenue and enforce speed limits along the corridor is a necessary component to the successful revitalization of the area. In conjunction with a traffic study, an additional means for safely crossing Eastern Avenue must be devised.

- Pedestrian walkways are proposed to connect the housing on the north side of Eastern Avenue to commercial and recreational uses on the Ohio River side of the Plan area. These connections are proposed to originate from overlooks nestled in the hillside or at points of entry into the neighborhood, and guide the pedestrian to the shoreline. Pedestrian connectors should be located at Delta Avenue; at the former railyard area connecting new residential development to Schmidt Field; along Collins Avenue; along an existing vacated alignment of Torrence Parkway connecting hillside residential area north of Eastern Avenue with LeBlond

Park; and in the vicinity of Kemper Lane connecting the hillside and the Western Development Site.

The Community Development Plan and goals address the physical improvements that are planned for the neighborhood over the next ten to twenty years. In conjunction with the proposed physical improvements, strategies have been developed that will stabilize the existing resident population of the neighborhood as redevelopment begins. These strategies include:

- Encouraging the development of the East End Community Urban Redevelopment Corporation as a housing advocacy and education center for current residents.
- Providing information about current funding sources for homeowners and tenants.
- Creation of a housing trust fund.
- Recommending that the City not use eminent domain powers for implementation of the various plan components.
- Developing of affordable housing units
- Providing tax abatements on remodeling and rehabilitation of existing housing units and for new construction.

These strategies are discussed in detail in Chapter 6 - Implementation Strategy.

** All references, throughout this report, to the Adams Landing development pertain to the agreement and master plan approved by Council Ordinance No.42-1987.

2.6 Phasing of New Development

Pivotal Nature of Railroad Purchase

The pivotal item in the implementation of the East End Riverfront Plan is the City's securing the abandonment and ownership of the railroad right-of-way. When that right-of-way is secured, many of the elements of the redevelopment of the area can go forward, such as the redevelopment of the former railyard site at the end of Walworth Avenue.

There are a considerable number of items that can be implemented in the next 24 to 36

months, regardless of whether the railroad is secured or not.

These items, roughly in priority order include the following:

- Construct new scattered site low-income housing (family and elderly).
- Design and construction of street and infrastructure improvements.
- Develop Senior housing within close proximity to community centers.
- Rezone to avoid incompatible development and limit density.
- Establish one or more Commercial Centers.
- Establish a Project Office.
- Rehabilitate existing homes (emphasis on owner-occupied).
- Construct new infill housing (homeownership and rental).
- Develope a retail convenience center.
- Construct shoreline greenway on City property.
- Provide of sewer service for areas not served.
- Repair and make minor realignments of Eastern Avenue and other streets.
- Construct new parking at recreation facilities.
- Package Riverside redevelopment site

Other elements in the plan are dependent on the abandonment of the railroad right-of-way before they can be implemented. These would include the following, also loosely in priority order:

- Restore or reconstruct railroad bridges.
- Realignment of the right-of-way and portions of Eastern Avenue.
- Construct bikeway.
- Market railyard development site.
- Dedicate and construct Gladstone Avenue.
- Realign Collins Avenue.

Benefits for Existing Residents

Low-Income Housing Development

Because the provision of low-income housing units for existing residents is the City's highest priority in the East End Riverfront Plan, it is appropriate to delineate how the City plans to provide that housing.

The Department of Neighborhood Housing and Conservation (NHC) has contracted with the Lewiston Townhomes Partnership (composed of Family Housing Developers, Inc. [FHDI] and the Eastern Riverfront Community Urban Redevelopment Corporation [ERCURC]) to build 19 townhouse apartments on the sites across from LeBlond Recreation Center and the Water Works pumping station. The construction of those units was begun, but halted by land movement. The developer is renegotiating with the financial sources and contractor on this project and expects to have these units built and occupied by the end of 1993.

FHDI is also working with NHC toward the development of an additional 24 townhouse units on the former Water Works land just west of Gotham Street. This project had received tax credits but was delayed due to the lack of sewers in the area. It is expected that these units will be completed in 1993.

NHC staff will be working with ERCURC and other non-profit sponsors to facilitate the construction of housing for the elderly at as-yet unidentified locations in the neighborhood. The total units in an initial project is anticipated to be in the 24-30 range.

In addition, NHC will work with various property owners, potential owners, and developers to urge and help facilitate the construction of and/or rehabilitation of low-income housing units.

To the extent possible, and given economies of scale, the City will attempt to scatter low-income housing throughout the community, and will make every effort to avoid actions that would result in a particular part of the community becoming a low-income ghetto.

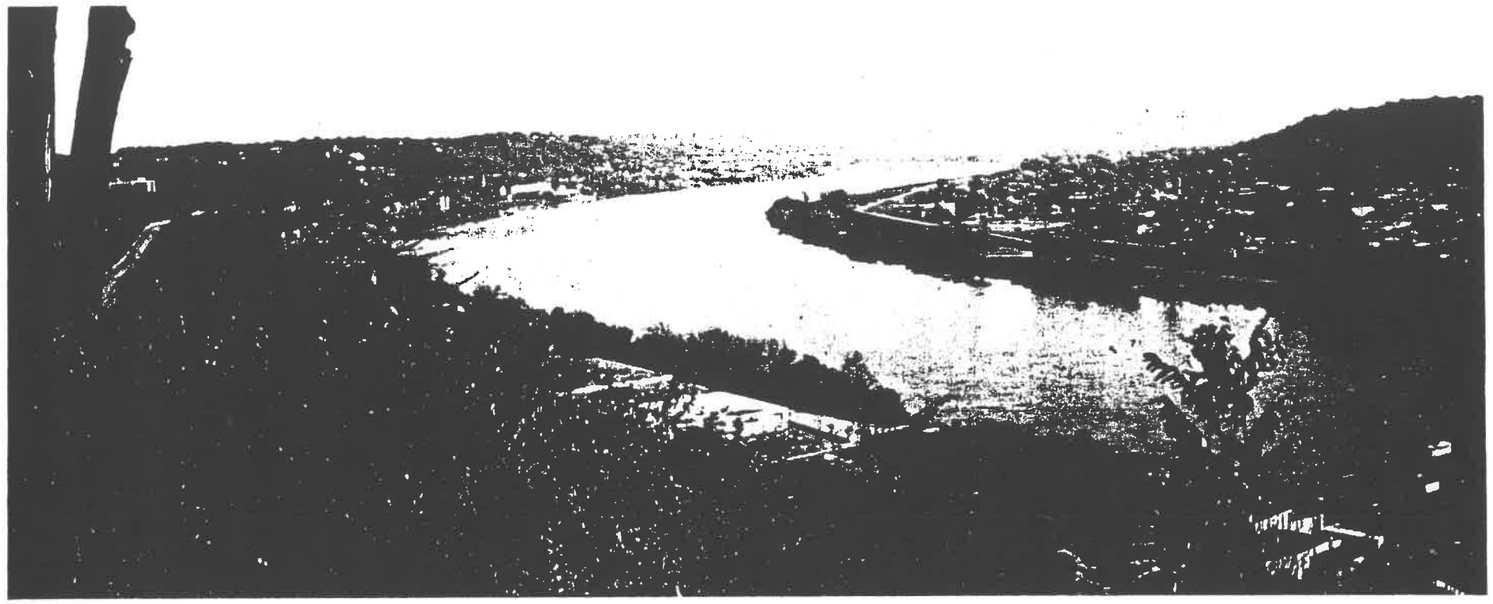
Housing Trust Fund

One of the tools NHC proposes to use to link low-income housing development to the construction of market-rate housing is a housing trust fund. As a matter of departmental policy, when NHC sells City land for the development of market- rate housing, it will link the sale of land to support low-income housing. The developer could specify that a certain percentage of his units remain low-income, finance the development of low-income units in a

nearby location, or make a contribution to a Housing Trust Fund. NHC is already testing this approach in the sale of land to one developer. As market-rate housing is constructed and occupied the developer will contribute $5,000 per unit to a Housing Trust Fund. The Trust Fund will be set up at the time of the land sale. Future land transfers will similarly identify an amount to be contributed to this fund, as those units come on line.

Rehabilitation of Existing Structures

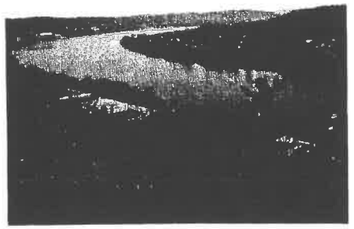
Funding vehicles are needed to aid in the rehabilitation of existing residential properties that are located in the floodplain. Alternatives for the use of City funds or private funds directed through a Housing Trust Fund should be considered.



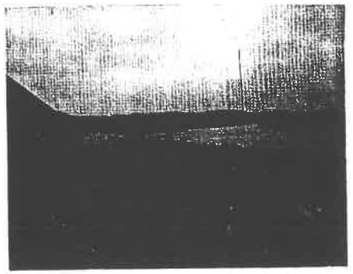
3.0 East End Riverfront Neighborhood Subareas

3.0

East End Riverfront - Neighborhood Subareas



Aerial view of Site A



View looking east along the Ohio River

View along Eastern Avenue

3.1 Introduction

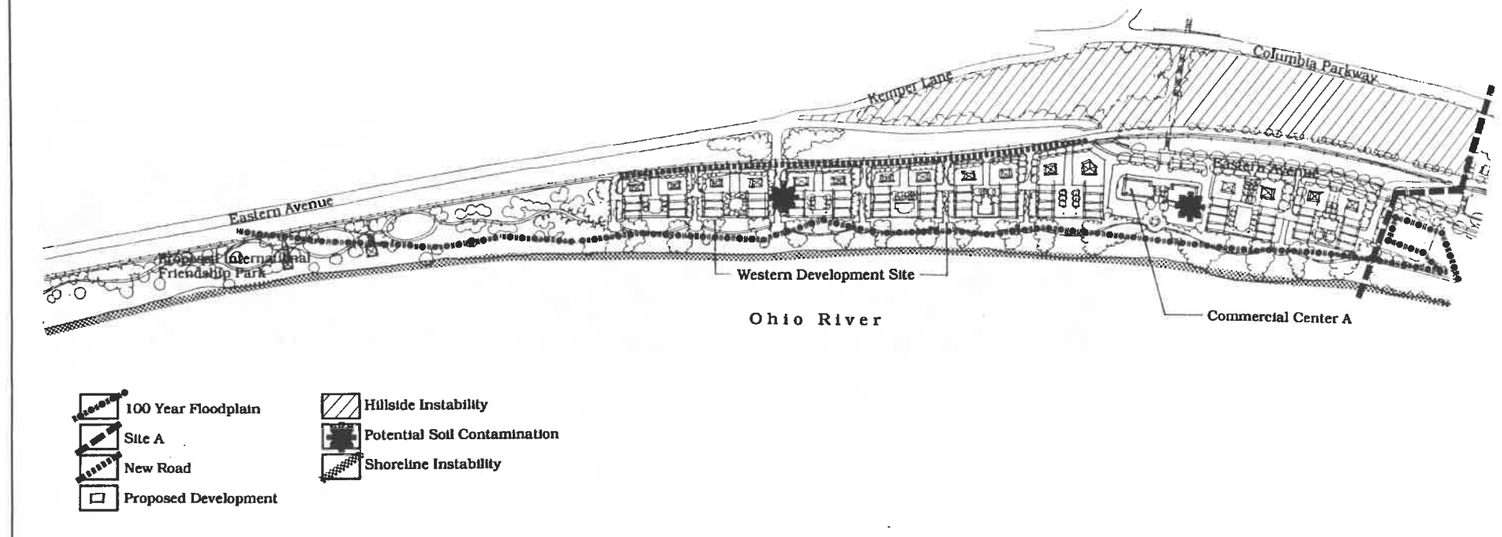
For the purposes of analysis the East End Riverfront has been subdivided into four subareas and are referred to as Sites A-D. Site A begins at the proposed International Friendship Park and extends east to the Site Oil Station. Site B extends from Site Oil to Collins Avenue. Site C extends from Collins Avenue to Corbin Street. Site D extends from Corbin Street to Delta Avenue.

3.2 Site A

Site A, located at the west end of the East End Riverfront neighborhood is a narrow strip of land between the Columbia Parkway and the Ohio River. It extends from the proposed International Friendship Park to the Johnson Electric Company, and is the primary entry to the neighborhood from downtown.

The area is characterized by steep hillsides and flat open parcels adjacent to the River. It has sweeping views of the Ohio River, Kentucky and the riverfront neighborhood itself, as it extends east. Views from this area should be directed and framed to heighten their drama, in a manner that is consistent, with the EQ-CR Guidelines.

The steep hillsides in the area above Eastern Avenue show evidence of landslides, and almost all existing structures and retaining walls in the area show the effects of earth movement. The map of Site A identifies those slopes that have a high sensitivity with respect to slope stability. Development in the area may be possible even given the instability of the hillside, however,detailed and site-specific geotechnical investigations and survey work should occur prior to development. The investigation should determine the specific engineering and construction techniques necessary to mitigate sensitive environmental conditions. Construction in this area may be spe-



cialized and more costly, requiring reinforced walls, enlarged footings and retaining walls.

The flat open land along the river provides broad views of the river. The river channel narrows in this area, resulting in increased velocity. This, in combination with the elevation of Eastern Avenue and the underlying soil conditions in the area, results in an unstable river bank. The area of unstable shoreline is indicated on the map of Site A. The instability manifests itself in tension cracks and subsidence that extend 25 to 50 feet back from the top of the bank. Special geotechnical investigations should be required for any new construction between Eastern Avenue and the river in this area in order to identify the specialized construction and stabilization techniques necessary. Development is possible in the area, but it is strongly recommended that it be set back approximately 50 feet from the top of the river bank. Stabilization may not be necessary, given the 50-foot setback, the specific development proposal and site conditions.

When stabilization is required, the following methods are suggested. One is the driving of steel sheet piling along the lower portions of the slope, combined with some grading and riprapping of the upper slope. The other technique is grading to a uniform 2.5:1 or 3:1 slope with controlled vegetation or slope surfacing. The latter method greatly reduces the amount of developable land. Another means of stabilization could include the use of bioengineering techniques and solutions to reintroduce natural materials to the site for stabilization.

Based on past uses of the site, there is a possibility of soil contamination which may require remedial action under current federal, state, and local regulations. Prior to change in ownership of properties or construction, it is recommended that an environmental assessment be made. Within Site A, the only area known to have been previously tested is the former Rookwood Terminal and the American Building Components properties. Major areas of environmental concern have been removed from the Rookwood and American Fuel Terminal properties, and this site can be safely developed. Areas of suspected near-surface contamination, as indicated on the map of Community A should be monitored during the site development process.

While the floodplain along the Ohio River is extensive, Site A is not significantly impacted by flooding because of the higher elevation of the land along this part of Eastern Avenue. The general limits of the regulatory floodplain are indicated on the map of Site A.

Historically, this has been an industrial area with railroad and river access. Currently, the area retains some industrial use; the railroad tracks, railroad bridge structure and a build-

ing supply company are the only structures remaining in the area.

Site A abuts the proposed Adams Landing housing development to the northwest.

The approved Master Plan for Adams Landing designates high rise residential buildings to a point just east of Kemper Lane along Eastern Avenue.

Site A, rather than retaining its past industrial use is better suited for residential use because of its location on the river, its commanding views, and its proximity to park facilities and amenities. Medium-density housing is recommended because of the site's proximity to downtown and its physical separation from existing residential development.

The flat open area along the river is conducive to the housing type referred to as Large Parcel Development, described in detail in Section 4.6 - Large Parcel Development. The scale of development proposed is mid-rise residential buildings (approximately 6 stories high above 2 stories of parking) around a central courtyard with views to the river.

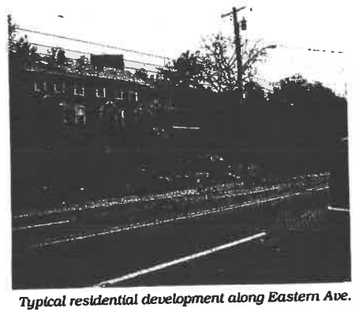
This residential development will require extensive infrastructure improvements, including new roads accessing individual residential buildings and utility connections.

A commercial center is proposed for Site A, which will provide the area with retail and service uses and river-oriented open space to complement the area's residential makeup. A description of commercial centers is found in Section 4.7 - Commercial Centers.

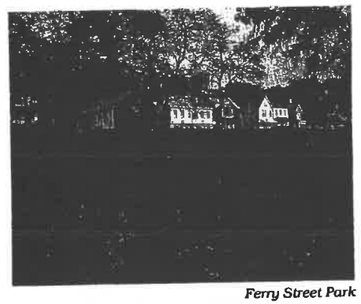
New parks and open space improvements are recommended to be developed as part of the shoreline greenway system providing pedestrian access to existing and proposed recreation areas as well as with new residential uses. The proposed pedestrian path is to extend from Bicentennial Commons through the proposed International Friendship Park and along the riverside of Site A. The design treatment recommended for the area is described in Chapter 5 - Public Improvement Guidelines.

The shoreline greenway is a long term recommendation that should be implemented only after other higher priority items are achieved and security and maintenance issues are resolved.

Existing commercial activity along Eastern Avenue



Typical residential development along Eastern Ave.



Ferry Street Park

3.3 Site B

Site B is located below Columbia Parkway, between Johnson Electric Company and Collins Avenue. Like Site A, it is characterized by steep slopes north of Eastern Avenue and flat open areas adjacent to the river's edge.

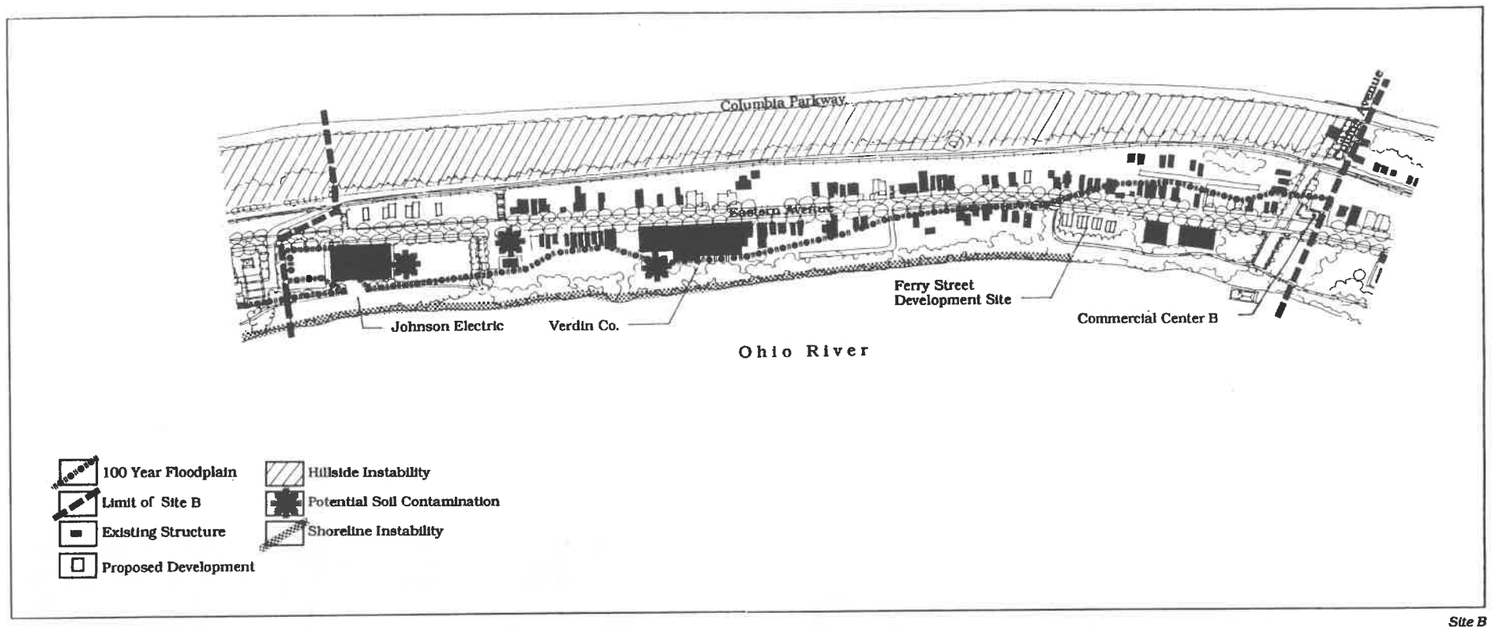
As in Site A, the steep hillsides above Eastern Avenue in Site B show evidence of landslides and almost all existing structures and retaining walls in the area show the effects of earth movement. The map of Site B generally outlines the hillside locations of slope instability. Development in the area is possible; however, detailed and site-specific geotechnical investigation and survey work are needed prior to any development to determine the specific techniques necessary in response to environmental sensitivities. Construction in this area may be specialized and more costly, requiring reinforced walls, enlarged footings and retaining walls.

Due to the high velocity of the water and the fill materials previously used to create level, developable sites, unstable areas exist along the riverbank. The area of shoreline instability is indicated on the map of Site B. The instability is displayed on the surface as tension cracks and subsidence that extend 25 to 50 feet back from the top of the bank.

As in the hillsides, special geotechnical investigations are required for any new construction between Eastern Avenue and the river in this area. New development should be set back approximately 50 feet from the top of the river bank. Stabilization may not be necessary depending on the setback, the specific development proposal and conditions of the site. Site-specific geotechnical studies should identify the required construction and stabilization techniques.

As in Site A, some areas are suspected of soil contamination, including Johnson Electric Co., the Site service station, and Verdin Bell Company. This contamination requires remedial action under current federal and state regulations. Prior to a change in ownership of the properties or construction, it is also recommended that an environmental assessment be made.

The floodplain of the Ohio River does not significantly impact this community because of the higher elevation of the land between the river and Eastern Avenue. However, the area east of Vance Street is within the 100-year floodplain. In this area the limits of the floodplain extend up to, and in some areas north of, Eastern Avenue. In general, residential development in this area should be above the 501-foot elevation. The limits of the 100-year floodplain are indicated on the map of Site B.



Site B

Because Eastern Avenue is high in relation to the river in this area, significant views to the river and toward downtown exist across Ferry Park. The steep hillsides above Eastern Avenue are heavily wooded and provide panoramic views of the Ohio River and Kentucky, especially from the upper section of Collins Avenue.

Site B is characterized by a mix of uses. Commercial uses in the area include Verdin Bell Company, Flerlage Marine and the Johnson Electric Co. Small storefront retail establishments are located along Eastern Avenue near Collins Avenue. The streetwall of building facades along Eastern Avenue is fairly consistent in this area, with buildings generally set on the front lot line. The variation in building heights along Eastern Avenue from one side of the road to the other is generally consistent in height. The typical building height ranges from 35 to 45 feet.

Site B should retain its mixed-use character of residential, commercial, recreation and retail uses. The existing development pattern and street wall along Eastern Avenue should also be preserved and reinforced.

Infill development in the flat open area between Eastern Avenue and the river should be comprised of single-family detached, rowhouses and duplexes. The recommended housing types are described in detail in Section 4.3 - Infill Development.

The proposed infill development on the north side of Eastern Avenue may not require any additional road or utility improvements.

A commercial center is proposed in this area. The center should provide the area with retail and service uses and a social gathering place for the area's residents. A description of commercial centers is found in Section 4.7 - Commercial Centers.

The proposed shoreline greenway and walking path continues through Site B along the riverbank to the rear of the existing Johnson Electric Company, past the Site Gas Station and the rear yards of existing residential properties and infill development proposed for Ferry Street Park as described in Section 4.4 Riverside Development. A short-term recommendation for the proposed shoreline greenway in Site B calls for the walking path to return to Eastern Avenue just east of the Site Gas Station. The path would continue along Eastern Avenue to Ferry Street Park, where it would return to the riverbank. The long term recommendation calls for a continuous path along the riverbank. The long-term

View along train tracks

Typical mixture of uses along Eastern Avenue

View looking west from St. Rose Church

recommendation cannot occur until suitable agreements with affected property owners are negotiated.

Public access points to the trail are recommended along Eastern Avenue at Vance Street and Collins Avenue and as part of the proposed park improvement to the west. The design treatments recommended for the shoreline greenway, walking path and LeBlond Playground are described in Chapter 5 - Public Improvement Guidelines.

3.4 Site C

Site C is located between Collins Avenue and Corbin Street, at the geographic center of the neighborhood. A railroad bridge on Collins Avenue marks the entrance into the neighborhood , and the steeple of St. Rose Church is the primary local landmark of the East End Riverfront.

This section of the neighborhood is characterized by a variety of uses and structures including St. Rose Church, the Cincinnati Water Works, Cincinnati Gas and Electric, Highlands School, LeBlond Playground, and a limited amount of storefront retail and housing. The current mix of large land parcels, public facilities and smaller residential structures creates an irregular pattern along Eastern Avenue. The continuity of the streetwall observed in Site B is not as consistent in Site C. In addition to the residential uses along Eastern Avenue, housing is located along Gladstone and Hoff Avenues, which are narrow limited access streets, uphill and parallel to Eastern Avenue.

Significant panoramas of downtown, the River and Kentucky can be seen from properties along Gladstone Avenue, and from selected properties along Eastern Avenue between Stowe Street and Highlands School.

There are steep hillsides in the area above Eastern Avenue in Site C. The Relative Stability Map (Plate 2) shows active and dormant shallow landslides between the railroad tracks and Columbia Parkway west of Torrence Parkway in Site C. In addition about 200 feet east of Collins Avenue at the site of the proposed Lewiston townhouse development, an area with active deep landsliding greater than 5 feet deep with deep dormant landslides surrounding the area of instability. The area east of Torrence, in Site C is characterized by potentially unstable ground with three isolated areas of active deep-seated landslides. Selected infill development is encouraged in the area; however, detailed and site-specific

View of existing hillside connector

geotechnical investigation and survey work should be conducted prior to any development. Construction in Site C may be specialized and more costly.

The shoreline appears to be relatively stable in this area. If new entries to the water's edge are proposed, slope analysis and erosion control measures should be considered.

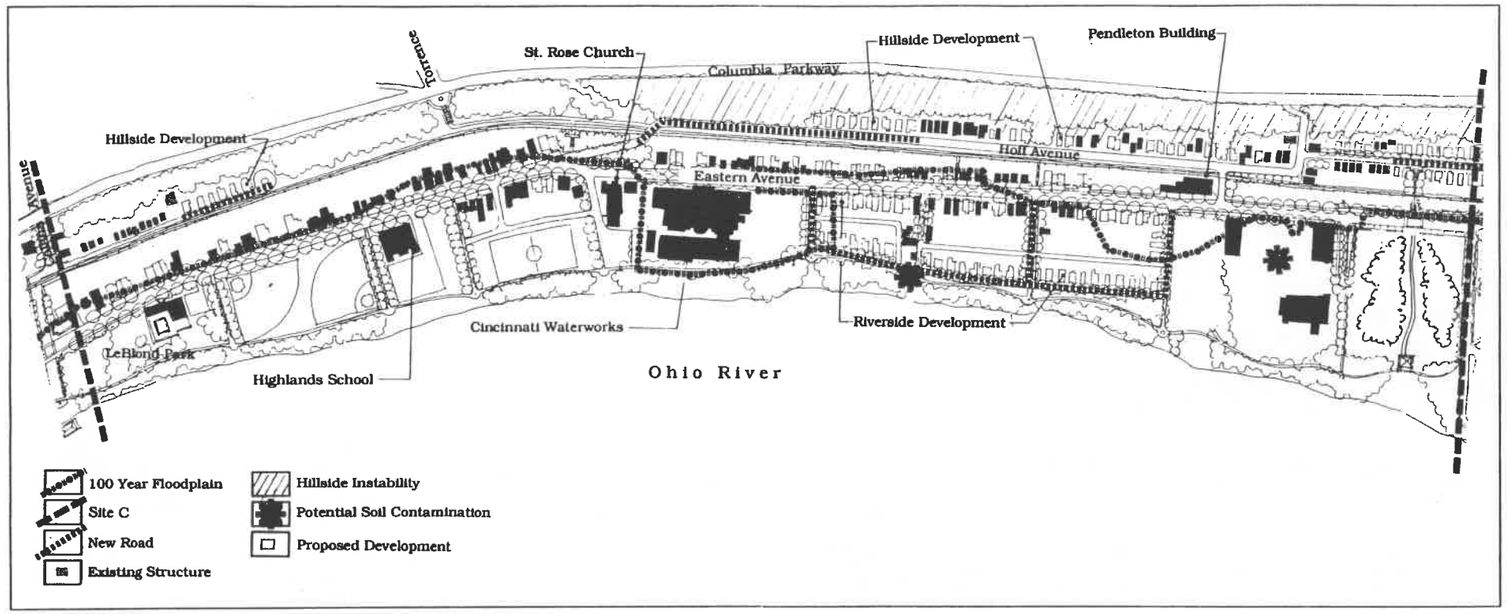
As in Sites A and B, there is a possibility of soil contamination, which could require remedial action under current federal and state regulations. Prior to a change in ownership of the properties or construction, an environmental assessment is recommended. The areas suspected of soil contamination include the former Pendleton railyard, Cincinnati Gas and Electric site, the junkyard and several previous service station sites along Eastern Avenue.

The floodplain of the Ohio River significantly impacts this area. The elevation of the land is low in relation to the river, and the limits of the floodplain extend to Eastern Avenue. In general, residential development in this area should be above the 501-foot elevation.

Site C should remain a mixed-use area of educational, residential, commercial, recreation, retail and semi-public uses. The existing fragmented development pattern and streetwall along Eastern Avenue should be enhanced and reinforced with additional residential and small-scale commercial development. The existing utilities should remain but additional facilities of a similar scale and size should not be encouraged. The existing public facilities should improve their "public" image to the neighborhood with a general clean-up of their sites, on the street and river edge. The introduction of plant material along the floodwall will help to soften the wall's impact on the street.

Pipe and valve storage buildings are proposed adjacent to and east of the existing floodwall. The proposed facilities will extend an approximate 320 feet along Eastern Avenue. These facilities should be screened and landscaped to buffer the proposed distribution and maintenance facilities from existing and proposed residential uses.

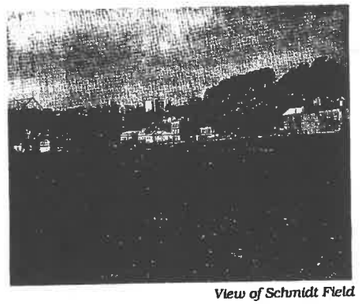
Because of the steep hillsides above Eastern Avenue and the flat parcels adjacent to the river, two different types of residential development are recommended in Site C. Hillside development should be limited to hillsides along Hoff Street and Gladstone Avenue, but only after specific geotechnical investigations determine that development is feasible. Hillside development includes single-family detached housing, rowhouses and duplexes (flat



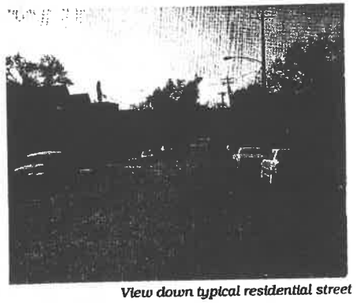
over flat) that respond to the slope condition. The flat open area along the river is in the floodplain and is described as Riverside Development. It is designated for single-family detached housing in which the habitable portions of the dwelling unit are raised above elevation 501 feet. Individual lots along Eastern Avenue are suitable for Infill Development of single-family detached, rowhouses and duplexes. The recommended housing types are described in detail in Section 4.3 - Infill Development.

The infill development will not require any substantial road or utility improvements.

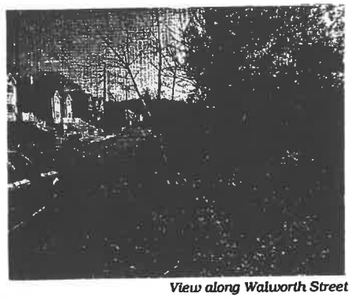
The shoreline greenway is proposed to continue from Collins Avenue east through LeBlond Park, behind the Cincinnati Water Works flood wall, past the proposed Riverside Development, and east around Cincinnati Gas and Electric to Schmidt Field. The design treatment recommended for the parks, open space and streets in the area is described in Chapter 5 - Public Improvement Guidelines.



View of Schmidt Field



View down typical residential street



View along Walworth Street

3.5 Site D

Site D is defined on the west by Corbin Street and on the east by Delta Avenue at the railroad bridge. Delta Avenue provides the third entrance into the neighborhood and is the easternmost boundary of the East End Riverfront study area. Site D is recognized for its public recreation facilities, which provide a wide green band along the riverfront with panoramic views both up river and down.

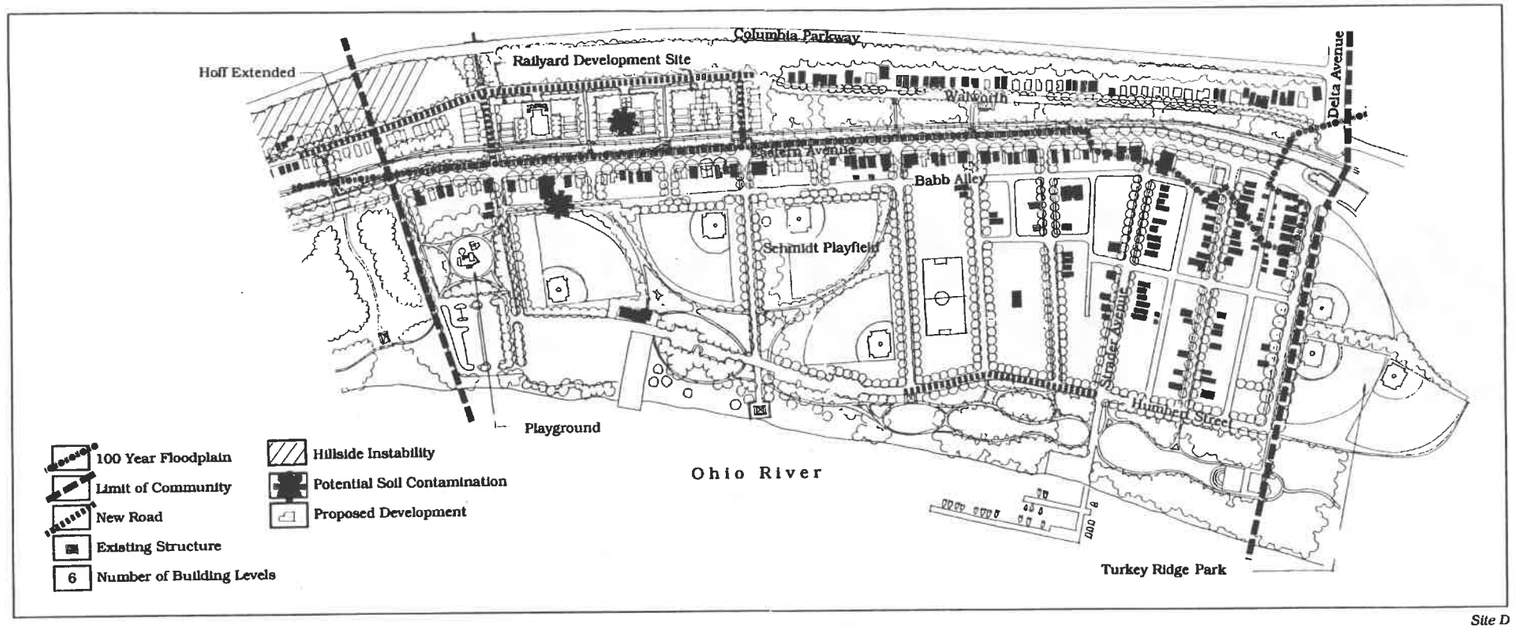
This segment of the neighborhood is characterized by a mix of residential, storefront retail, office, recreation and warehouse uses. The streetwall along the south side of Eastern Avenue is consistent, but development on the north side is interrupted by a stone retaining wall supporting the railroad tracks. The stone wall and the vegetation that has grown along it reinforce the north edge of the street. Single-family housing is located along Walworth Avenue and Hoff Avenue and streets east of Schmidt Playfield that intersect with Eastern and extend toward the river. The former Pendleton railyard, a large flat site situated at the western terminus of Walworth Avenue, is undeveloped. Two large public parks Schmidt Playfield and Turkey Ridge Park create opportunities for enhancing access to the river's edge, and their further refinement is critical to setting the quality of public green space in the entire area.

While the hillsides above Eastern Avenue and Walworth Avenue in Site D are not likely to have the slope-stability problems associated with areas to the west of Collins Avenue, detailed site-specific geotechnical investigations and survey work is recommended prior to any new development.

The stability of the shoreline is not an issue in this area. Where new access to the water's edge is proposed, slope analysis and erosion control measures should be considered.

A possibility of soil contamination is suspected at several areas in Site D, such conditions may require remedial action under current federal, state and local regulations. Prior to change in ownership of the properties or construction, it is recommended that an environmental assessment be made. Areas suspected of soil contamination include existing and previous service station sites and the Cincinnati Iron Works site. These conditions are generally located on the map of Site D.

The elevation of the area is low in relation to the river. The limits of the floodplain extend to Eastern Avenue, significantly impacting the extent to which this area can be developed. In



Site D

general, residential development in this area must be above the 501 foot elevation.

The significant views in the area are of Schmidt Playfield and Turkey Ridge Park, the river, and distant views of downtown.

Site D should remain a predominantly residential community with enhanced park and recreation facilities. The different physical conditions found in the community suggest several different types of housing development. The scale of the existing residential development along Eastern Avenue and Walworth Avenue is very similar. Dwelling units along these streets are generally two or three stories on 24-foot-wide lots. The development pattern along these streets is conducive to Infill Development (described in detail in Section 4.3 - Infill Development). The railyard, an approximately 20-acre site situated between Walworth and Hoff Avenue, can accommodate a moderate density of residential development; making the site appropriate for the housing type referred to as Large Parcel Development (described in detail in Section 4.6 - Large Parcel Development). This is a mid-rise residential development (approximately 6 stories in height above structured parking) focusing on a central courtyard with views to the river.

Development on this site should be designed in a manner that respects view corridors from Columbia Parkway and such that the building design relates to and complements existing adjacent residential development.

The Infill Housing prototype is recommended for development sites along the south side of Eastern Avenue. Infill development will not require any additional road or utility improvements. The Large Parcel Development will require the construction of access roads and the extension of utilities to service the area.

No new commercial center is proposed for Site D, in order to support existing commercial activities and uses located east of the Delta-Eastern Avenue intersection and in the Columbia-Tusculum neighborhood.

The shoreline greenway and walking path originating at the proposed International Friendship Park in Site A is recommended to continue through the Schmidt Playfield area and terminate at Turkey Ridge Park.

The design treatment recommended for the parks, open space and streets in the area is described in Chapter 5 - Public Improvement Guidelines.

Neighborhood Subareas

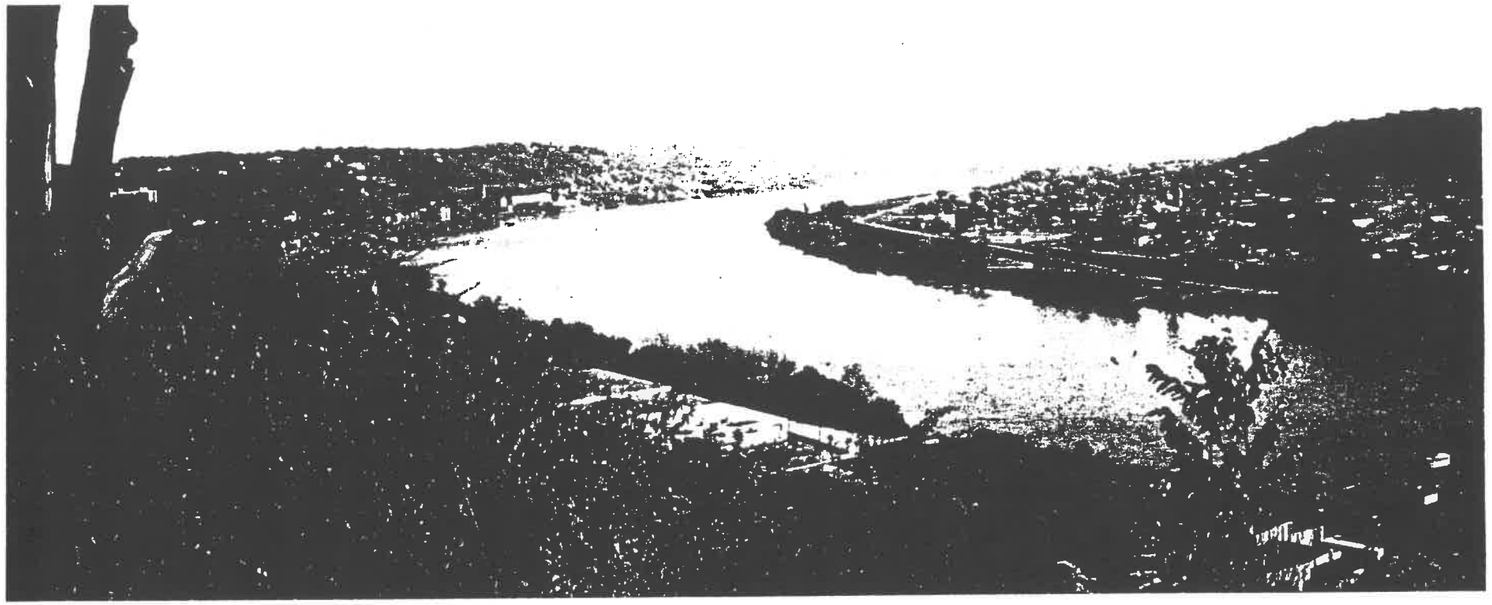
Programmed Uses	Site A	Site B	Site C	Site D	Total
Rehabilitation					
• Structures	2s	98 s	134 s	164 s	**398 s**
• Dwelling Units		143 du	204 du	213 du	**560 du**
Infill Development		24 du	134 du	88 du	**246 du**
Riverside Development			32 du		**32 du**
Hillside Development					**15s du**
Large Parcel Development	562-878* du			243-381* du	**805-1259* du**
Mixed-Use Development	20,000 sf	15,000 sf			**35,000 sf**
Parks, Recreation & Open Space	18**ac	2 ac	18 ac	50 ac	**88 ac**
Allowable Uses					
Commercial/Office	❑	❑	❑	❑	
Educational			❑	❑	
Religious	❑	❑	❑	❑	
Public Utilities			❑		
Walking Trail/Bike Path	❑	❑	❑	❑	

All development estimates are based on proposed zoning and are approximate counts.
s- structures (not individual units)
du - dwelling units
* - maximum density assumes 20% lot area reduction as per sec. 5033 of the Zoning Code
** - includes Proposed International Friendship Park
sf - square feet
ac - acreas

Development Summary Chart

3.6 Development Summary

The Development Summary identifies and quantifies the land use recommendations that have been outlined. The chart presents general densities of the proposed developments by neighborhood subareas in the East End Riverfront. Chapter 4.0 describes in greater detail the appearance and character of the different development types.



4.0 Private Improvement Guidelines

4.0

Private Improvement Guidelines

4.1 Introduction

The following guidelines address various aspects of site and architectural design as they relate to private development. These guidelines are intended to direct new development and major rehabilitation and renovation of existing structures within the neighborhood. The guidelines establish the bases by which future development can be made to enhance the existing character and appearance of the East End Riverfront neighborhood.

The guidelines are intended to be flexible and allow for a variety of design responses. They apply only to new improvements and do not require owners to restore a building to its original state. These guidelines will be used as standards to evaluate building renovations when the owner requests any form of City, State or Federal funds for rehabilitation, and when substantial rehabilitation work is undertaken.

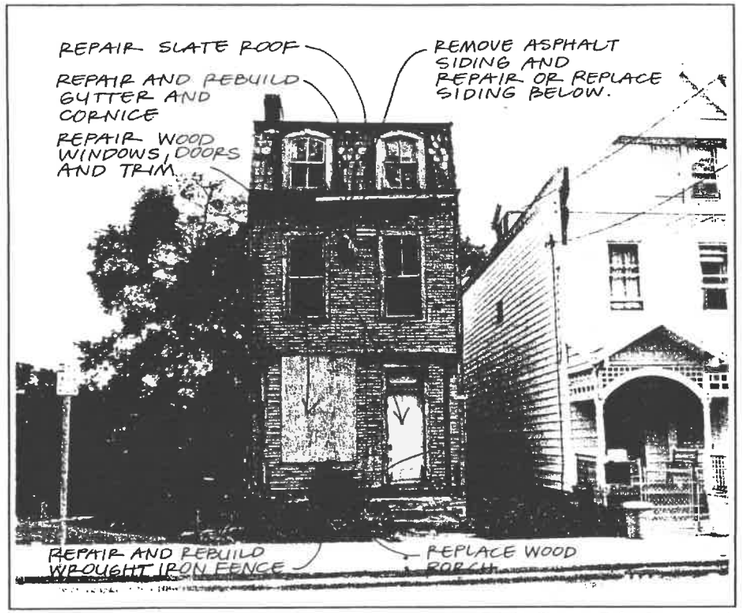
The visual character of the built environment within the East End Riverfront area should be retained and restored. The architectural design for various types of developments, ie., new one- and two-family, large-parcel residential and commercial structures and improvements to existing structures, must be integrated to reinforce the quality of the area.

Guidelines for specific types of development (infill, riverside, hillside and large parcel); and guidelines for rehabilitation are expanded upon in the following sections.

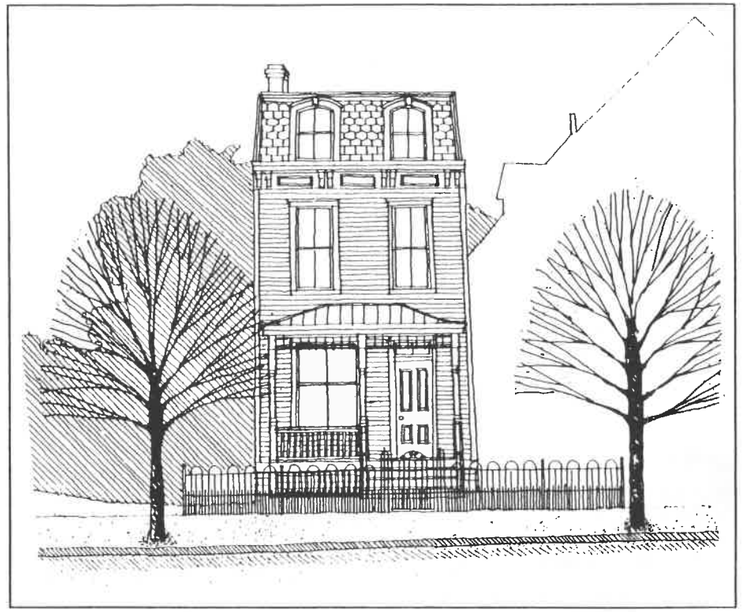
The primary architectural criteria considered for any development in the East End Riverfront are as follows:

- Front facades of buildings should be punctuated with openings for windows and access.

- Colors are recommended to be compatible with the area. Contrasting colors may be used to express different architectural features of the building.



Existing Structure Before Improvements



Structure After Improvements

- Similarly sized and massed structures.
- Roof shapes common to the area.
- Predominant materials, textures, and details.
- Articulation of buildings with a base, middle and top.
- Building entrances that are distinct, identifiable and covered.
- Vertical emphasis in the massing of the street facades and in the delineation of windows.
- Streetwalls that are broken with openings and setbacks.

4.2 Renovation Guidelines for Existing Structures

Improvements such as renovations, additions and alterations should be consistent with the following guidelines:

Additions and Alterations

All additions and alterations should be compatible with the style of the existing building and should not change the structure's architectural character.

Additions should have similar massing and details, similar visual rhythm of solids and voids, and use the predominant material of the existing structure. Additions should be background elements in the composition of the combined structure.

Original architectural details and building materials such as wood trim around openings, box gutters, eaves, wood siding and metal roofs should not be covered by other materials, if possible.

Original openings on the street facade should not be altered.

Porches, balconies and decks that are visible from the street should have detailing, especially railings, that is appropriate to the existing building, and should not introduce materials, textures, colors or details that are foreign to the existing building. All wood used for their construction should be painted or stained to integrate it with the color scheme of the existing building. Decks, defined as unroofed platforms, should be permitted on

the front facade. The use of porches, defined as covered structures attached to or recessed into the main building, should be encouraged.

Utilities

Locate utility systems in the rear or side yard and screen from view. Rooftop and frontyard utilities should be avoided.

Electric, gas, cable T.V. and telephone service wires should be installed underground from the street to the building, if possible.

Missing or Deteriorated Materials and Parts

Original architectural features and building materials such as metal roofs, box gutters, cornices, wood siding, porches, shutters, railings, iron fences and stone retaining walls should be refurbished whenever possible. When replacement is necessary, materials and parts should match the original as closely as possible.

- Wood siding should be replaced by similarly sized siding of either wood, aluminum, or vinyl.
- Architectural features such as wood trim and other decorative elements should not be obscured or removed when new siding is added.
- Original windows and doors should be repaired if possible. If not possible, replace with new ones to match original style and size.
- If replacement is necessary, new decorative details should be similar in style, form and character to the existing elements of the building.

Windows and Doors

Original windows and doors, especially those on the front facade, should be repaired. If repair is not possible, replacement windows and doors should match the original size and style.

Hazardous Building Materials

Many buildings may have asbestos or coatings of lead-based paints. Prior to beginning any work that may disrupt areas with suspect materials, proper testing and removal procedures should be employed, in accordance with existing laws and regulations.

All lead water lines should be removed and replaced with copper water lines.

Repointing Masonry

- Prepare joints properly with hand tools, being careful not to damage bricks.
- Use mortar that matches the existing in color, consistency and lime content. If the mortar used is too high in cement content, it can crack the older softer bricks.

Water-repellent coatings should rarely be necessary. Water damage to the interior usually does not occur through masonry units themselves, but through mortar joints or through roof leaks. This can be alleviated by repointing and eliminating the sources of excess water.

If after repairing the sources of excess water, i.e., leaky gutters and flashing, water is determined to be passing through masonry units, only the affected areas should be treated.

Cleaning

If cleaning is accomplished by harsh means, surfaces may be destroyed.

The following procedures are recommended to preserve original wood and masonry:

Wood

To prepare for new paint coats:

- Hand scrape, with aid of heat gun, and sanding, or use mild chemical strippers, scrape and sand.

Masonry

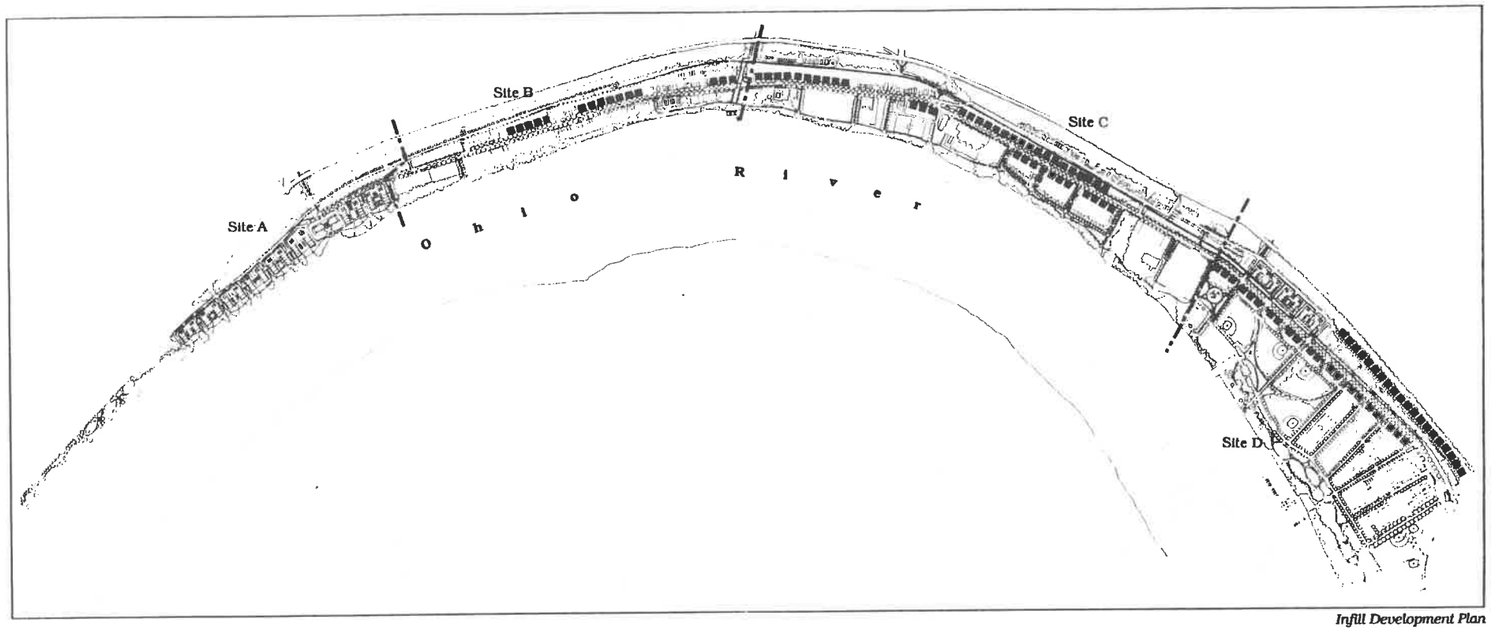
- Do not sandblast.
- Do not use wire brush.
- Hand scraping and scrubbing is preferred, but if necessary, mild chemical strippers can be used.

Painting

Prior to the removal of any paint, a test should be performed to establish lead content and appropriate action taken for safe removal according to prevailing laws and regulations.

Wood

- Should be painted or stained and should not be stripped and refinished to expose the natural wood color.
- Decorative details such as banding, brackets, railings, finials, moldings, trim and doors can be painted in contrasting colors to the body of the building.



Infill Development Plan

Masonry

- Hard brick buildings that are not already painted should not be painted.
- Soft brick buildings that are painted should be repainted, not stripped to expose natural brick color.
- Choose color for brick body to contrast with wood trim and to be compatible with the roof color.

4.3 Infill Development

Infill development is recommended for vacant sites along Eastern and Walworth Avenues. These sites are relatively flat, typically adjacent to existing residential dwellings, and characterized by an established streetwall. The areas appropriate for this development are generally diagrammed on the Infill Development Plan. This type of development will be small in scale unless adjacent properties are acquired for a larger site.

The design intent of infill development is to restore a consistent streetwall and maintain the existing neighborhood scale. In order to preserve the existing residential scale of the neighborhood and views to the river from adjacent hillside areas, the typical height of infill housing should not exceed forty-five feet above the street or grade.

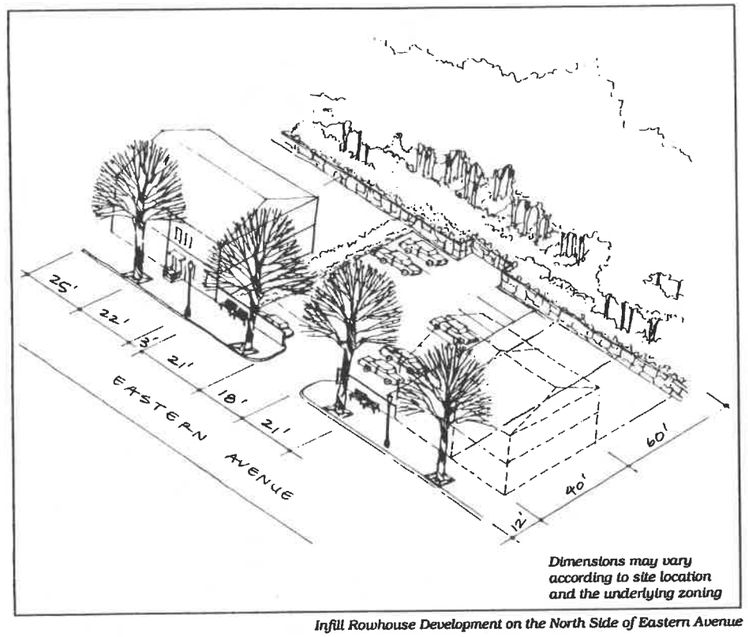
New infill housing may be configured as a single-family, detached rowhouse, duplex, or multifamily depending on market forces, economic conditions and the ability to assemble land.

Lot and Yard Requirements

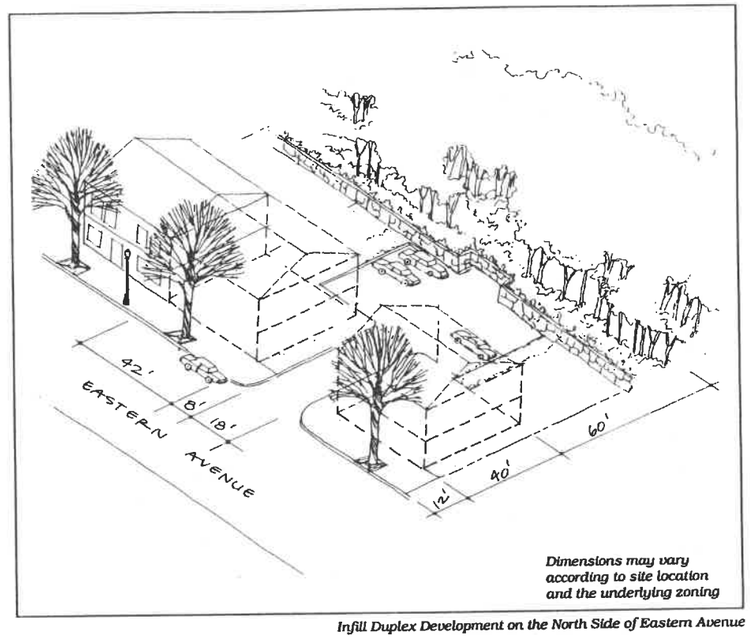
The standard lot size for infill sites in the East End Riverfront will generally measure 25' X 100' or 2500 square feet. Front yard setbacks can be a maximum of 25' from the front lot line. However, for single-family and duplex units the front yard should be consistent with the front yards of similar adjacent buildings.

While the Cincinnati Zoning Code requires side yard widths of a minimum of 14' in two-family and low-density multifamily zones, narrow lots of record may qualify for side yard reductions through the variance procedure of the Zoning Code. Rear yards should have a minimum depth of 35'.

A minimum lot size of 8,000 square feet is required to accommodate a single four-unit rowhouse or two duplexes. The front yard



Infill Rowhouse Development on the North Side of Eastern Avenue



Infill Duplex Development on the North Side of Eastern Avenue

setback requirement is generally consistent with that for single-family infill. Front yards of new development should be in keeping with the front yards of existing adjacent residential uses; however, for infill residential developments of five units or more, greater setbacks are encouraged. Some variance on side and rear yard requirements may also be requested.

Parking

Off-street parking for infill units is generally required at one-and-one-half spaces per unit. Off street parking spaces should be a minimum size of 160 square feet. Parking lots for two-family dwellings may not be located in the front yard. Parking lots in multifamily, districts must be set back at least 10 feet from any street lot line.

Lot depths, especially along Eastern Avenue, will strongly influence the provision of parking for new housing. Parcels on the south side of Eastern Avenue are deep enough to have alleys to provide direct access.

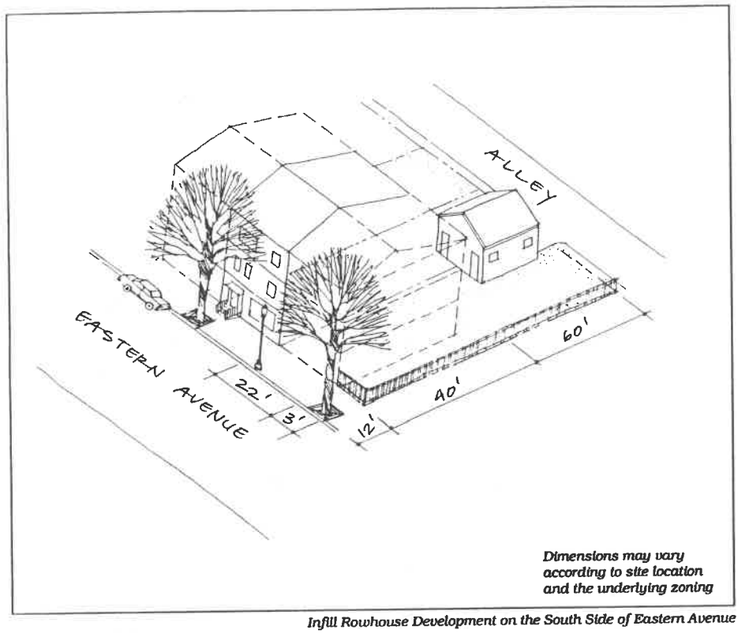
New residential development on the south side of Eastern Avenue should accommodate off-street parking behind the unit in garages or on driveways that are accessed from the alley.

Some parcels on the north side of Eastern Avenue and Walworth Avenue are sufficiently deep to allow on-site garages or parking areas. The pattern of existing development along the north side of Eastern Avenue will require remote off-street parking lots at several locations. Such lots will be used to provide shared off-street parking for existing residential properties along Eastern Avenue. Single-family, detached units on the north side of Eastern Avenue should provide room for configuring off-street parking while maintaining the scale and rhythm of adjacent existing development along the street.

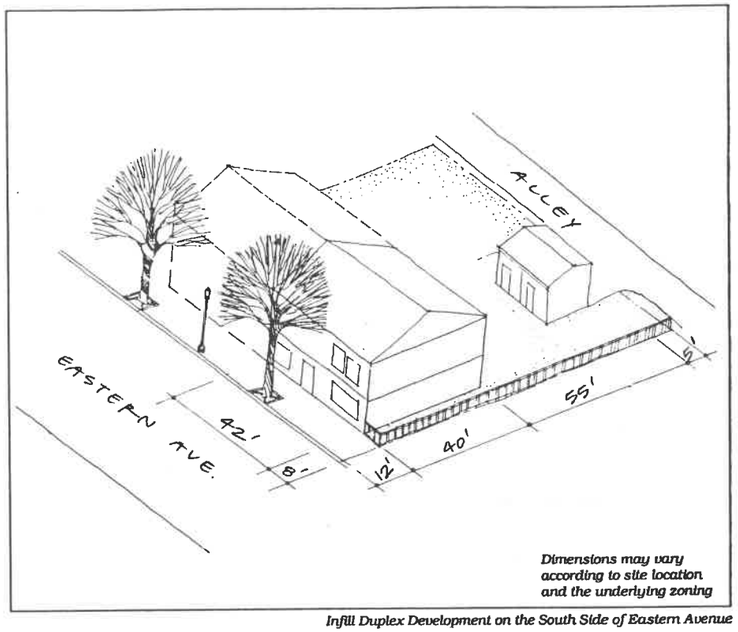
Fences/Walls

Where residential buildings are not consistent with the streetwall, fences or walls can be used instead of landscaping to establish the streetwall. They should be constructed of durable materials that are consistent with materials used in the East End Riverfront area, such as stone, wrought iron, brick, concrete and painted wood. Fences and walls should adhere to the following requirements:

- Define the frontyard setback and the streetwall with a 3'-high fence or wall that is 50% opaque. The fence or wall may be raised to accentuate entrances. The distance between the fence/streetwall and building face is recommended to be a maximum of 8'. To screen parking from



Infill Rowhouse Development on the South Side of Eastern Avenue



Infill Duplex Development on the South Side of Eastern Avenue

view, a 4' high opaque fence or wall can be used instead of a 6'-wide planting strip.

Height

The height of infill buildings should not differ from adjacent residential buildings by more than one story (12 feet) or exceed a maximum of height of 45' on the north side of Eastern Avenue or 35' on the south side of Eastern Avenue. New buildings should be designed so as to respect river views from existing buildings above Eastern Avenue.

The first floor of new buildings should be at a similar elevation to that of adjacent buildings, whenever possible.

Scale and Massing

The existing housing stock is mostly of small- to medium-sized one and two-family dwellings sited on narrow lots of varying depths. The predominant building width is 16'. The scale and massing of new buildings and their components, such as bay windows, gutter boxes, etc., should be similar to the existing housing stock.

Materials and their detailing should be similar in scale to those predominant in the area.

Building facades should express the division of base, middle and top.

Building entrances should be distinct, identifiable and covered.

Large flat walls on the front facade that are unbroken by openings or setbacks should be avoided. The total area of openings in a wall should not be greater than 50% of the total wall area of a given facade.

Porches are integral to the architectural style of the majority of houses in the area. The use of porches should be encouraged.

Proportions

The overall formal expression of new buildings when viewed from the front should be vertical, tempered by horizontal elements such as cornices, porches, railings and banding. The division of the windows should be vertically oriented. The ratio of vertical to horizontal should be no less than one to one and no greater than three to one.

Roofs

Roofs should be in keeping with the size and character of those predominant in the area. New roofs should be gabled or hipped and have slopes of no less than one-third pitch and no greater than one-half pitch, except on porches which usually have hipped roofs with shallow slopes.

Existing Condition along Eastern Avenue

Eastern Avenue with Infill Development

Elevation of existing and proposed conditions on Eastern Avenue

Rooftop decks should be permitted and should not break rooflines or cornices.

Rooftop utilities should be avoided, and roof vents should be inconspicuously placed.

Materials

Materials used for new construction should be natural and similar in color and texture to existing materials. Appropriate materials include wood siding, wood shingles, wood trim, wrought iron, steel, brick, stone and concrete.

Window glazing should be clear, non-reflective glass. Glass curtain walls should not be permitted. Window sash and frames should be wood or metal.

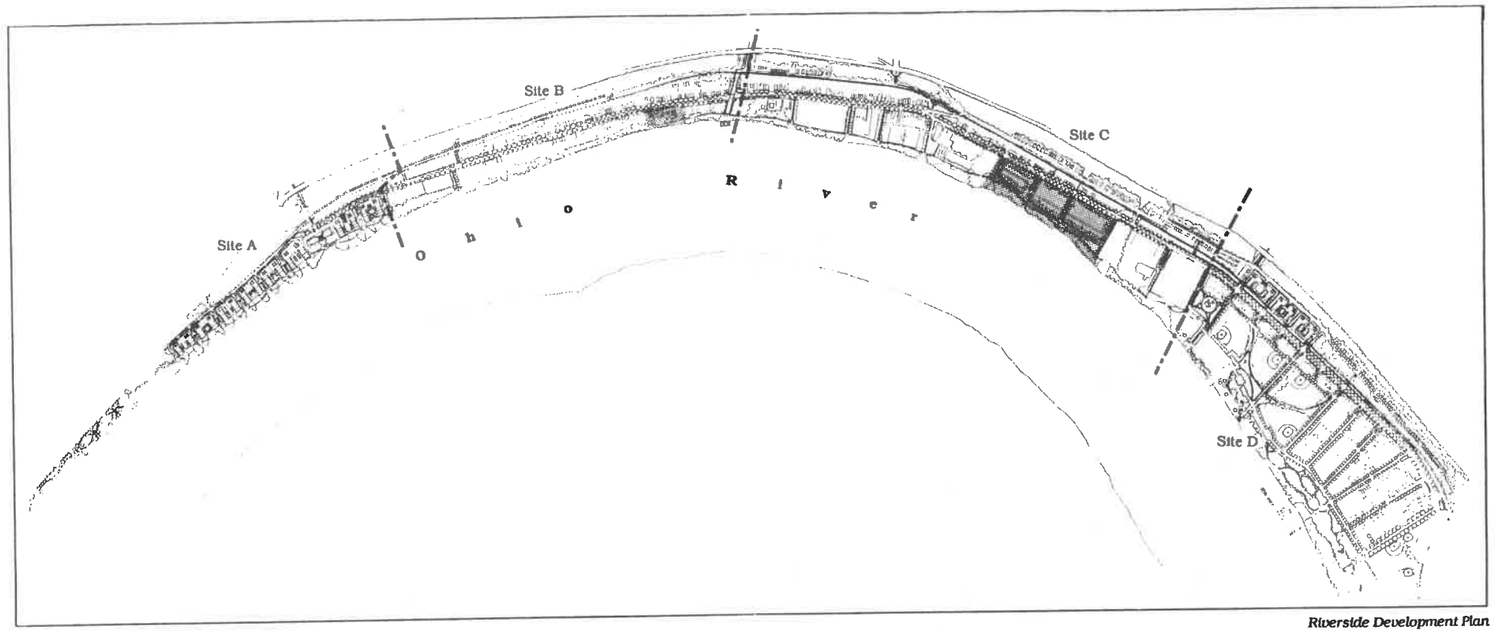
Roofing material for all sloped roofs should be slate, metal shingles, standing-seam sheet metal, or asphalt shingles.

Landscaping

Landscaping along Eastern Avenue and Walworth Avenue is recommended and is part of the Streetscape program which is described in Chapter 5 - Public Improvement Guidelines. The main component of the program is the intensive planting of street trees.

Landscaping is required to establish the street edge on lots where a building or a fence/wall is not set on the front lot line. The landscape recommended for residential lots is as follows:

- When buildings are not set on the streetwall, a 2'-wide and 3'-tall evergreen hedge should be planted at the streetwall.
- To screen parking areas from view along Eastern Avenue, a 6'-wide landscape strip should be provided along the street. This strip should be planted with a combination of deciduous and evergreen materials of varied heights to create a 50% opaque screen.



Riverside Development Plan

4.4 Riverside Development

Much of the land located south of Eastern Avenue in the East End Riverfront is situated within the 100-year floodplain. In order to build safely within the floodplain (which is allowable), the development must comply with the Cincinnati-Ohio Basic Building Code, Chapter 1133-Floodplain Management. The riverside development type and any proposed infill development within the floodway fringe limits should also satisfy all regulatory requirements of the U.S. Army Corp of Engineers as they pertain to development or alteration of the riverbank. The site plan for the riverside residential development area pertains to locations on riverfront properties along the south side of Eastern Avenue, specifically between the Cincinnati Water Works and the Cincinnati Gas and Electric Co., and the area referred to as Ferry Street Park. All other areas of proposed infill development located within the floodway fringe are also subject to these guidelines.

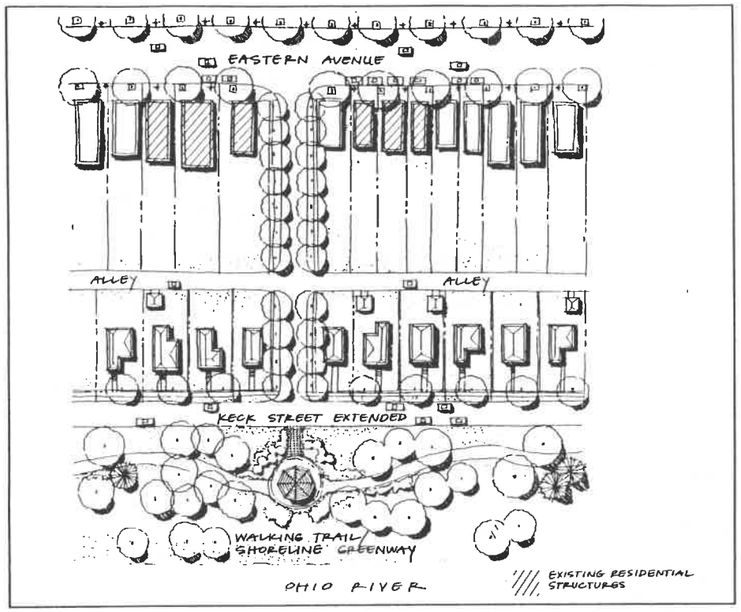
Any proposed grading within the regulatory floodway will require a hydrostatic analysis to verify that no increase in the base flood elevation will result from the proposed work.

Primary areas that are recommended for the riverside development type are diagrammed on the Riverside Development Plan.

The design intent is to create opportunities for housing that are consistent with the established character and pattern of residential development in the community, and to maximize the river frontage locations that are reasonably protected and safe from the danger of the 100-year flood. It should be noted that newly constructed dwelling units at this location could be partially or totally inaccessible during the 100-year flood conditions. The area is adjacent to the proposed shoreline greenway and has the potential to offer spectacular views along the riverfront.

In order to promote the safety and welfare of the inhabitants, housing should be configured as single-family with habitable living space above the 501' elevation. Uninhabited space, such as garages and storage areas can be located below the 501' elevation.

In areas of the floodway fringe, the recommended difference in elevation between the ground level and the first floor should not exceed 15'. For the purpose of maintaining a scale that is compatible with existing development, the base of new residential units within



Site Plan of Riverside Area

the floodplain should not be constructed below the 486' elevation.

Height

The total height should not exceed three levels—approximately 35 feet including parking. The site layout of proposed development should preserve river views from homes along Eastern Avenue and maintain a low residential scale.

Lot and Yard Requirements

Residential development proposed in the riverside development area is likely to require a minimum lot area of 8,000 square feet for single-family, detached dwellings. The recommended development pattern is single-family, detached on 50-foot wide lots. The buildings, as shown on the schematic site plan for the area, could front on a new Riverside Drive (Keck Street extended). Setbacks of approximately 30' from the edge of the road or lot line would establish yards that could be landscaped to create a park-like setting to complement the adjacent shoreline greenway. For residences fronting Eastern Avenue, it is recommended that driveways and garages be accessed from rear alleys that are shared. This will keep the street adjacent to the river and the greenway free of curb cuts and driveways, which would detract from the setting.

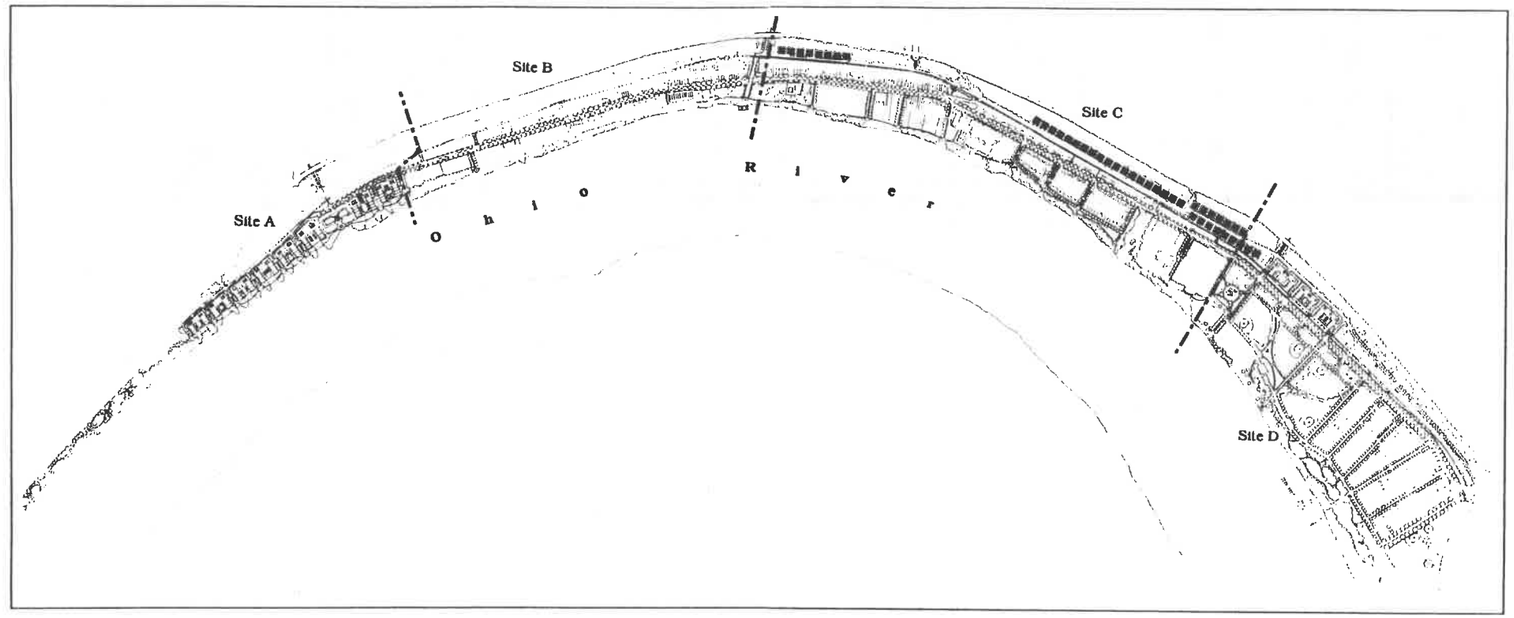
Two-family rowhouse or duplex developments would require at least 10,000 square feet of land area. Larger rowhouse-type development of the area could be accomplished through the Planned Unit Development regulations of the Cincinnati Zoning Code.

The purpose of the Planned Unit Development (PUD) Regulations is to provide for orderly improvement of a specific property while protecting the natural open space and ecological, topographical, geological, and historic features from adverse impacts that might result under conventional zoning and subdivision regulations. The PUD regulations are also intended to allow for more efficient and economic development of a specific property. The use of the PUD requires a minimum lot area of 50,000 square feet for single-family attached, detached or multifamily development. The PUD provides greater site-plan flexibility; however, it does not allow for variances in density, which is determined by the base zoning.

Parking

One to one-and-one half off-street parking spaces per dwelling unit will be required at this proposed development site.

Elevation of typical housing units in the Riverside Development Area



4.5 Hillside Development

The Hillside Development Plan identifies potential locations for development on the slope between Columbia Parkway and Eastern Avenue. The hillside residential development type should be adapted to the topography of the area and may be suited for vacant sites along Gladstone Avenue and Hoff Avenue. Hillside housing should be designed to fit the existing contour of the site rather than altering it to fit the building. A minimum amount of cutting should be used for foundations, parking and access to the steep slope above Eastern Avenue.

The site plan illustrates one way the hillside could be developed. The recommended lot size is a 22-to-25-foot-wide module that can accomodate a large single family unit or be combined for duplex or attached rowhouses.

The design intent for this housing type is to fit comfortably with the slope of the land. The units should be configured to respect the natural conditions and vegetation of the site in order to maintain hillside stability and eliminate landslide susceptibility both during and after construction.

All hillside development proposals should include a geotechnical analysis by a qualified engineering geologist and a soils engineer as per Excavation and Fill Ordinance, Chapter 737 of the Cincinnati Municipal Code.

The actual pattern for development, i.e., the dispersion of single-family/rowhouse/duplex types will be subject to market forces.

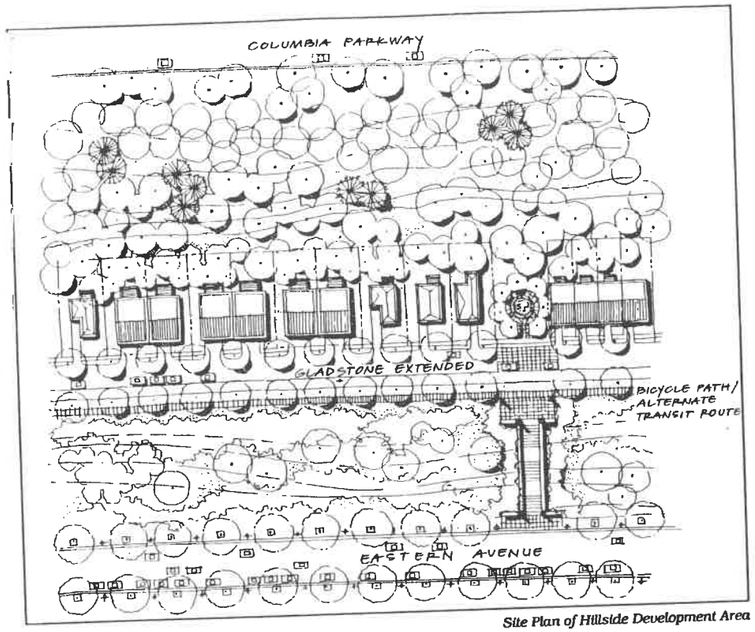
A bike path is proposed to be located in the same general area as the hillside housing along the existing rail right-of-way. The spatial requirements associated with a public bikeway are diagrammed on the cross section through the hillside housing.

A residential building site with hillside development constraints should be developed in accordance with the guidelines set forth for infill development. Proposed residential uses should be designed and constructed to avoid obstructing the views from other properties and public areas.

The following architectural standards apply to hillside development:

Height

Maximum heights should not exceed 45 feet from the base of the building at the street facade.



Site Plan of Hillside Development Area

Scale and Massing

Street elevations of large building masses should be broken down into distinct parts so that they read as a series of individual buildings. For example, a duplex built to the maximum width of 36 feet should be expressed in two parts appropriate to the functional layout of the building, which is approximately one-third and two-thirds.

Materials and the detailing of materials should be similar in scale and massing to those predominant in the area.

The building facade should express base, middle and top.

The building entry should be distinct, identifiable and covered.

Flat facades that are unbroken by openings or setbacks should be avoided.

Proportions

The overall formal expression of new buildings should be vertical, tempered by horizontal elements, i.e., cornices, porches, railings and banding.

The division of the windows should be vertically oriented.

The ratio of the vertical to the horizontal should be no less than a one-to-one and no greater than three-to-one.

Roofs

Roofs should be in keeping with those predominant in the area. New roofs should be hipped or gabled and have slopes no less than one-third pitch and no greater than one-half pitch, except for entries and porches.

Rooftop decks should be permitted but should not break rooflines or cornices.

Rooftop utilities should be avoided, and roof vents should be inconspicuously placed.

The design of the roof tops should be carefully considered and detailed because of views from above.

Materials

Materials used for new construction should be natural and similar to existing materials. Appropriate materials include wood siding, wood shingles, wood trim, wrought iron, steel, brick, stone and concrete. All wood should be either painted or stained and should not be finished to expose the natural color.

Window glazing should be clear, non-reflective glass. Glass curtain walls should not be per-

Character Sketch of Hillside Development Area

mitted. Windows and window frames should be wood or metal.

Roofing material for all sloped roofs should be slate, metal shingles, standing seam sheet metal, or asphalt shingles.

Landscaping

Landscaping on the street side of a hillside residential parcel is recommended as follows:

Single-Family and Rowhouse:

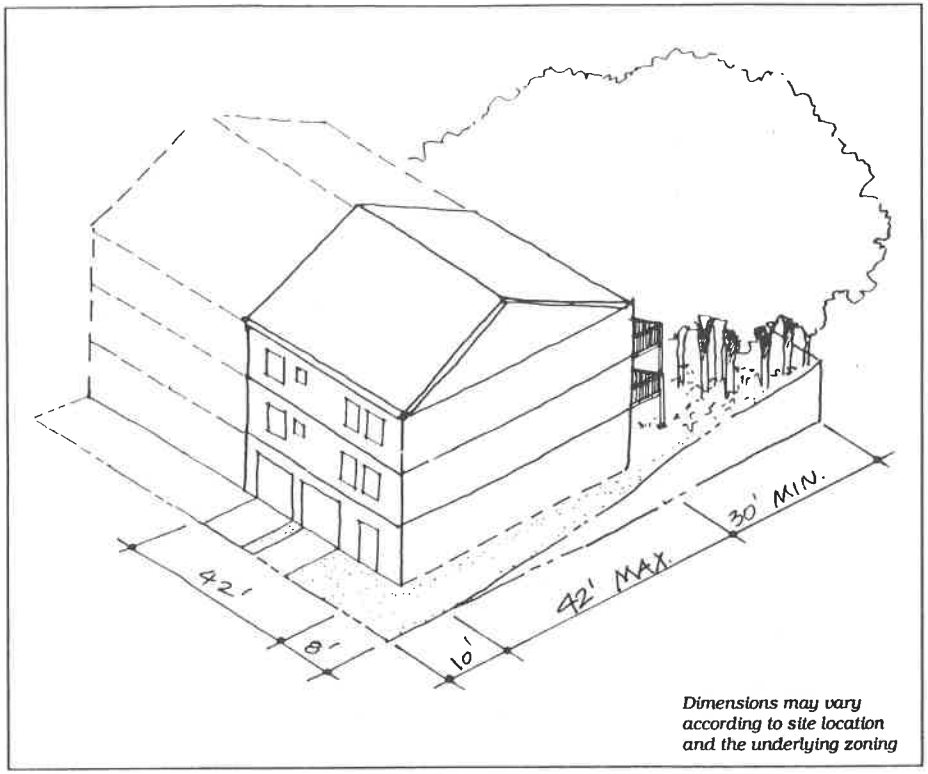
- One street tree per home in the front yard with a minimum caliper of 2"

Duplex:

- One street tree as above plus 3' wide landscape strip between each garage planted in evergreen shrubs of at least 2' in height

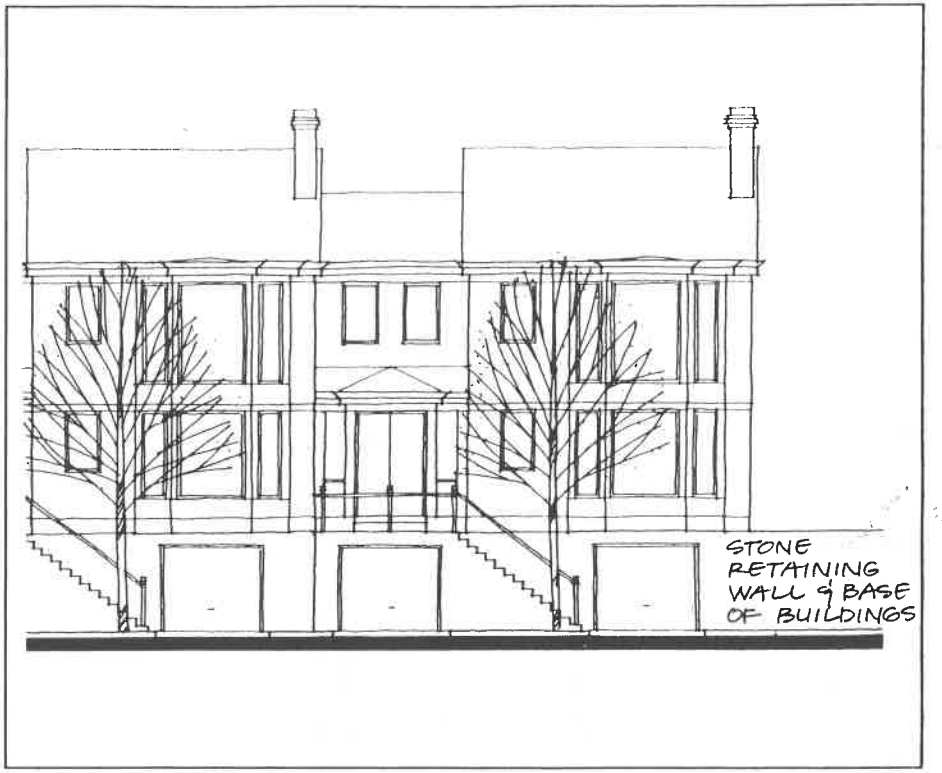
Utility Systems

- Electric, gas, cable T.V. and telephone service should be installed underground from the street to the building.

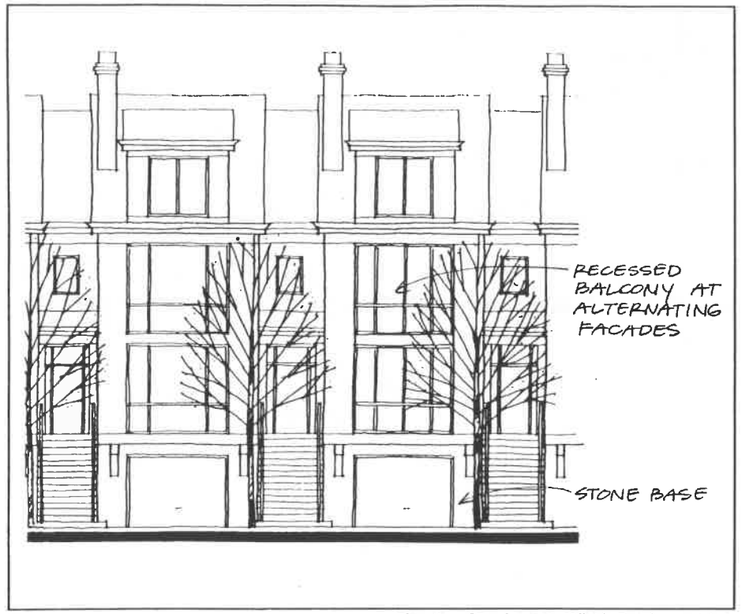


Dimensions may vary according to site location and the underlying zoning

Duplex Housing in Hillside Development Area

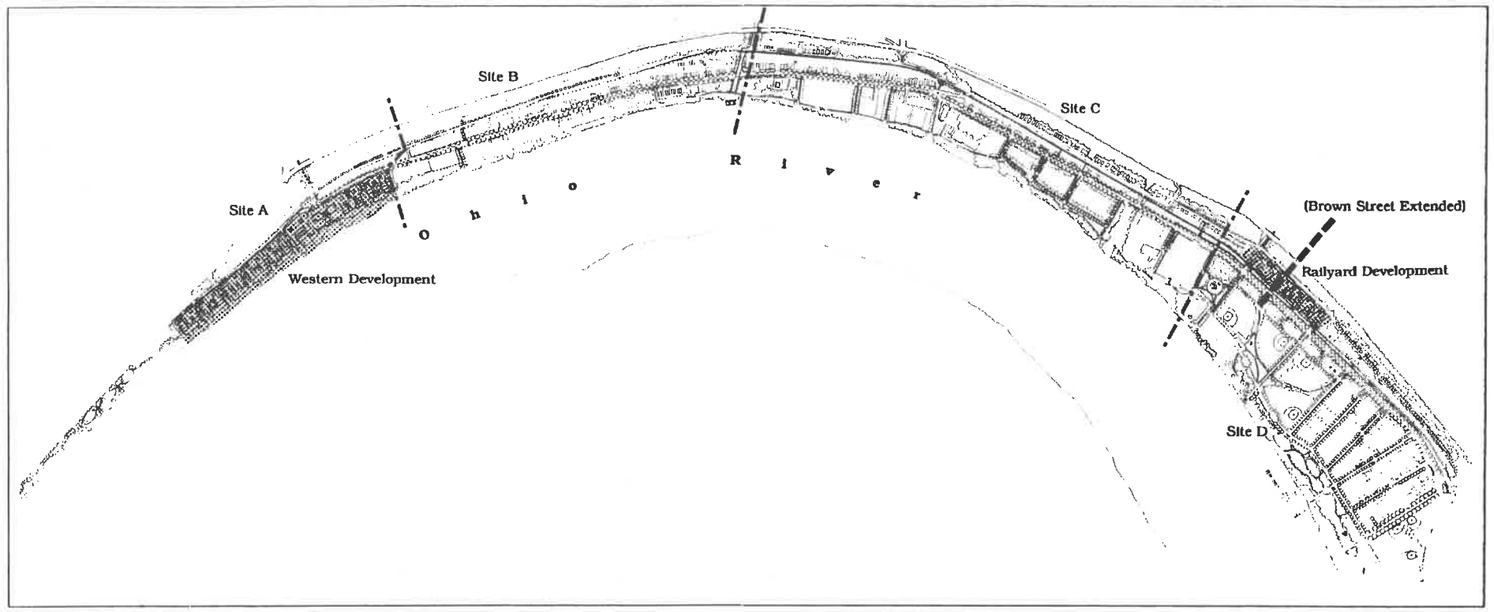


Elevation of Duplex house in Hillside Development Area



Elevation of Rowhouse in Hillside Development Area

Elevation of Single Family in Hillside Development Area



Large Parcel Development Plan

4.6 Large Parcel Development

Large parcel development is designated for two separate tracts in the East End - one an approximately 20-acre parcel west of Johnson Electric Co. and straddling the Rookwood Underpass in Site A; the other an approximately 12.5-acre parcel above Schmidt Playfield on the site of the former Pendleton railyard in Site D. Both sites are large enough to support a higher density development and while somewhat isolated from the existing neighborhoods, should respect the existing character of housing in the East End.

The intended design for these parcels is illustrated on the following site plans. It creates a low-to-mid-rise housing development on a regular grid that is consistent with the scale of the urban street grid typical in the East End Riverfront. This grid creates a development parcel that is small enough to fit into the neighborhood context, but large enough to allow the integration of structured parking within the building footprint.

The character of this residential type should be street-oriented with a majority of views facing the river.

The predominant land use of the large parcel development sites should be residential enclaves of medium density. The heights of these buildings will vary according to location and topography. New construction should be terraced in such a manner that the edges of the development, at the base of the building, relate in scale to adjacent existing structures. Successively higher floors should be stepped back from the building envelope, which becomes narrower from the base to the top of the building. The effect of creating a building design that is stepped back is illustrated in the following sketches.

The highest point of new large parcel development should be designed to avoid substantial and unreasonable obstruction of views from public areas or rights-of-way. On the railyard site the difference between the elevation at grade to Columbia Parkway ranges from approximately 80 feet to approximately 60 feet from west to east. On the western 12 acre portion of the former Rookwood fuel terminal site, subject to the Environmental Quality District guidelines, new residential development should be compatible in scale and massing to the approved Adams Landing development. The height and articulation of the building masses should serve to frame views from points along and above Eastern Avenue and Columbia Parkway.

Character Sketch of Large Parcel Development Area

Both large parcel development sites can be developed conventionally or as a Planned Unit Development (PUD). PUD allows for flexibility of the setback requirements of base zoning and requires a minimum lot size of 50,000 square feet. The proposed housing type, as with all sites in the area, will depend upon market forces and demand at the time of development.

The following architectural standards should apply to large parcel development areas.

Height

The height of the buildings will vary according to location and topography.

Heights proposed above 45 feet may be warranted on selected portions of both large development sites due to existing topographical elevations or the scale of adjacent development; specifically areas of the western Rookwood site and the western half of the former Pendleton rail yard site. Heights proposed in excess of 45 feet on properties located in the EQ District, will be subject to a public hearing process as outlined in Section 6.0 - Implementation Strategy, and the proposed EQ-CR Handbook.

The development on the former Pendleton rail yard site should not exceed the height of Columbia Parkway at the point due north of the development.

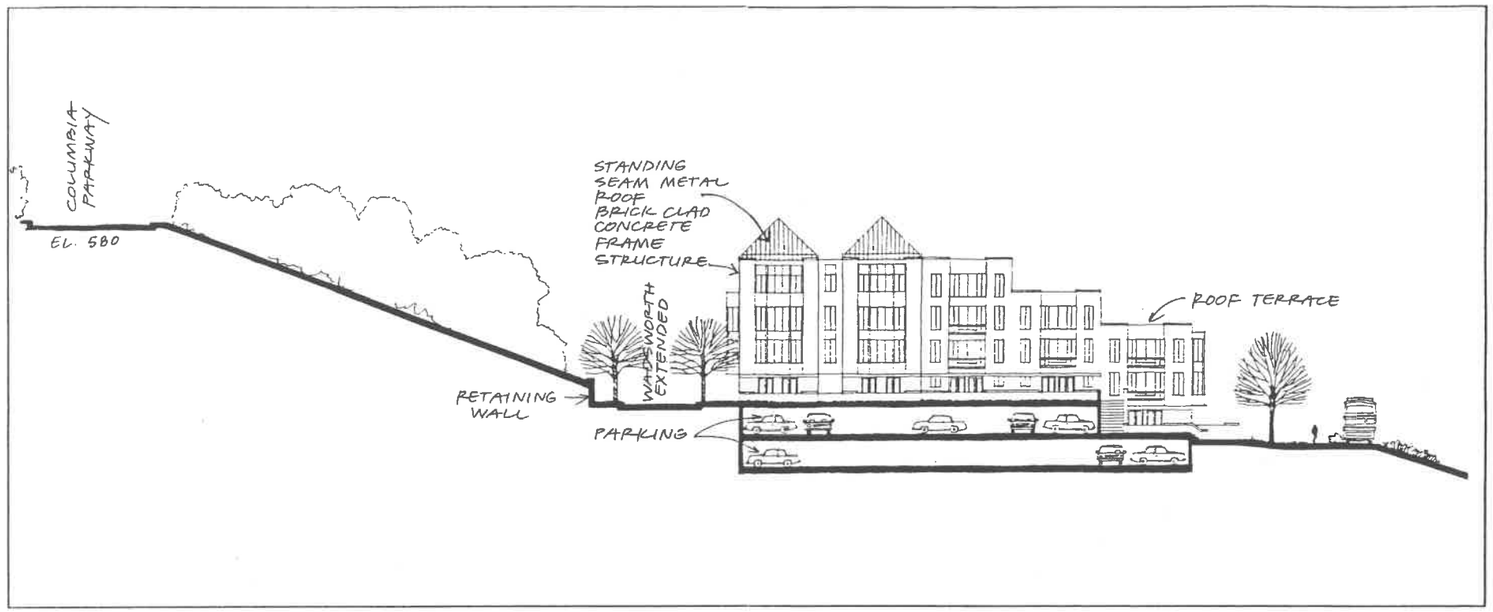
Scale and Massing

Building masses should be broken into distinct parts reflecting their functional divisions. For example, the illustration on pages 53 and 54 depict elevations that are divided into two parts separated by a building setback, and are further broken down by bay windows.

It is important to note that the western 12-acres of the potential Rookwood large parcel development lies outside the community as defined by the Rookwood underpass. This 12-acre parcel sits between the river and the approved Adams landing project.

The plan recommends two separate concepts for large parcel development. The first applies to the western half of the former Pendleton rail yard site and the eastern eight acres of the former Rookwood development parcel Both of these parcels can be developed conventionally or as a Planned Unit Development (PUD). The proposed housing for each site should be consistent with the following qualifications.

- The predominant land use should be residential enclaves of medium density.



Section through Large Parcel Focus Area-Railyard Development east of Brown Street extended

- Either a conventional or PUD development should encourage the preservation of green space on the site.

The intended design for the western 12 acres of the Rookwood large parcel development should be designed in concert with the eastern portion of the approved Adams Landing project, which lies due north just above Eastern Avenue.

Balconies, defined as uncovered projections cantilevered off the main building wall, and porches, defined as covered structures whether recessed or attached to the main body, should be encouraged. Decks are defined as unsheltered floors supported by structures below.

The base around all buildings should be enclosed from grade to first floor except where ventilation is required.

The building facade should express base, middle and top.

The building entry should be distinct, identifiable and covered.

Flat walls that are unbroken by openings or setbacks should be avoided. The total area of openings should not be greater than 50% of the total wall area on any given facade.

The site sections (pages 53 and 54) illustrate the potential scale of new development in relation to Columbia Parkway on both the western and eastern sections of the former Pendleton large parcel site.

Proportions

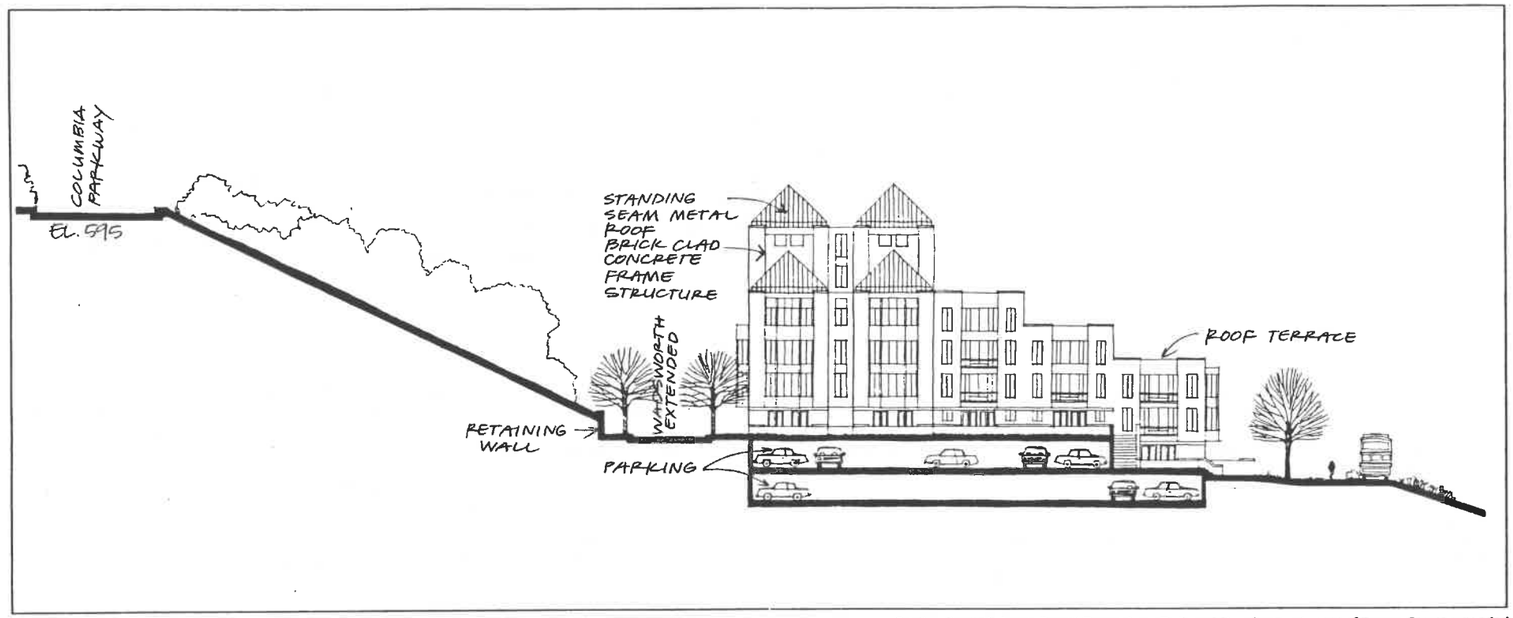
The overall formal expression of new buildings should be vertical, not horizontal and tempered by horizontal elements, i.e., cornices, porches, railings and banding. The division of windows should be vertically oriented. The ratio of the vertical to the horizontal should be no less than one to one and no greater than three to one.

Roofs

Because of the views from the hillside above, the design of the rooftops should be carefully considered.

Main roofs should be sloped to a pitch not less than one-third and not greater than one-half. The design should elaborate the buildings termination.

Rooftop decks should be permitted but should not break rooflines or cornices.



Section through Large Parcel Focus Area-Railyard Development west of Brown Street extended

Rooftop utilities should be avoided, and roof vents should be inconspicuously placed.

Materials

Materials used for new construction should be natural and similar in color and texture to existing materials. Appropriate materials include wrought iron, steel, brick, stone and concrete.

Window glazing should be clear, non-reflective glass. Glass curtain walls should not be permitted.

Roofing materials for all sloped roofs should be slate, metal shingles or standing seam sheet metal.

Landscaping

Landscaping for large parcel development involves both public streetscapes and private rooftop gardens.

The public streetscape should feature street trees planted continuously around the perimeter of the block at regular intervals. Street trees should not be planted within 50 feet of a street corner or 10 feet of a curb cut. The spacing of landscaping materials should respect existing view corridors.

Residential front yards may be fenced and landscaped. All public properties should have a second tree row and understory shrubs in the yard.

Parking structures shall be screened along Eastern Avenue with two tree rows and evergreen shrubs to create a green edge to the ground floor parking garage.

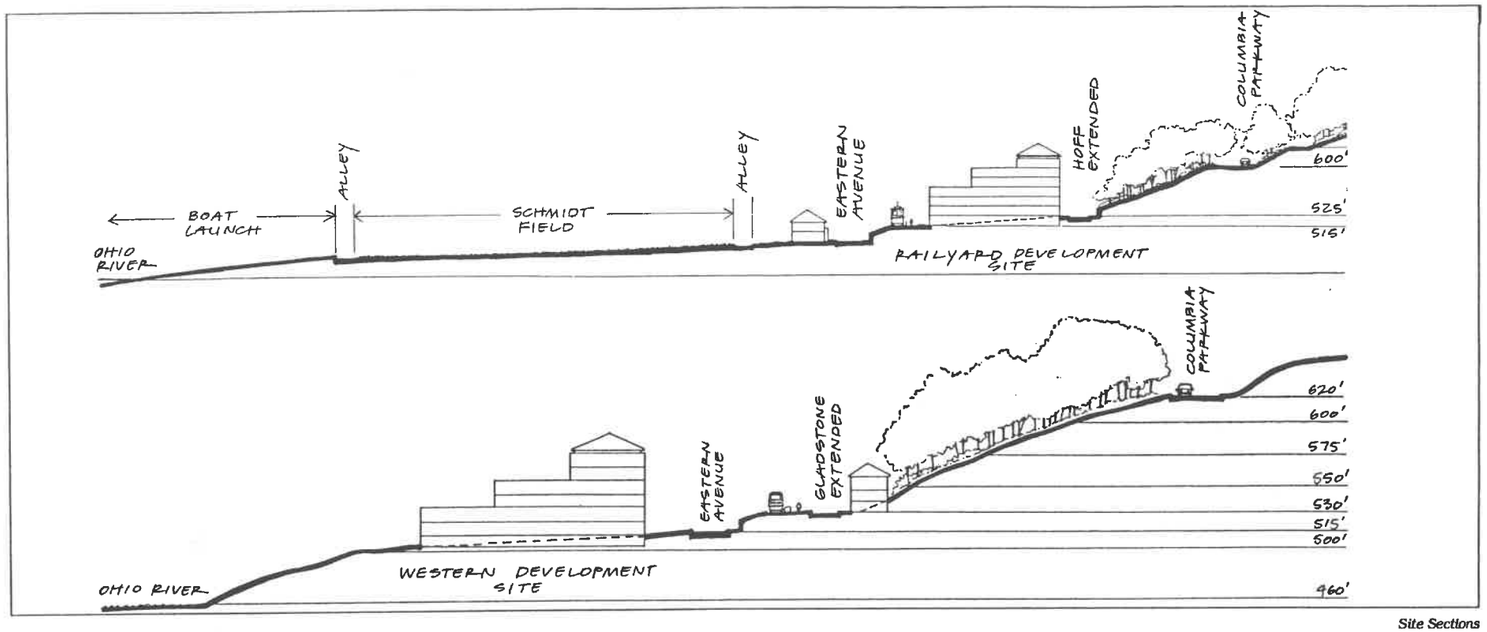
Rooftop gardens should consist of at least 40% green lawn, shrubs, or trees.

Service Areas:

All service access and loading/unloading areas should be within the building footprint or within a rear yard that is fenced or walled with an opaque, 8'-high screen. Service areas outside the building footprint should be no longer than 20% of the frontage on which they are located.

Utility Systems

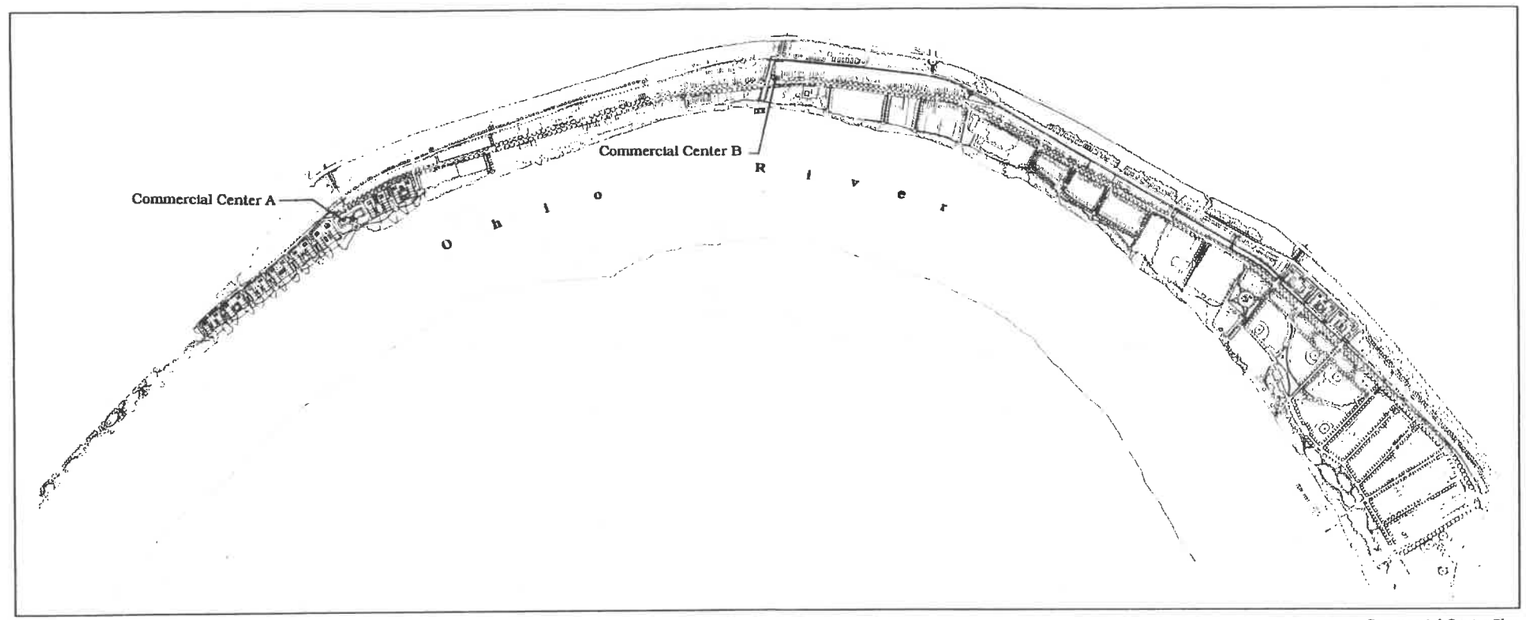
It is recommended that utilities be located within the building footprint or behind the exterior wall of a rear service yard to minimize the number of service walls and yards.



Site Sections

Transformers, backflow preventers, dumpsters, and other such utility boxes shall be screened.

Electric, gas, and telephone hook-ups should be placed underground.



Commercial Center Plan

4.7 Commercial Centers

The Community Development Plan for the Eastern Riverfront establishes the need and location for three neighborhood commercial centers. Each commercial center may consist of retail and service uses that should complement existing and new residential uses and provide appropriately scaled service facilities. The Commercial Center Plan identifies the location of the proposed facilities. It is the intent of this plan to have each center generally located at the juncture between sites and serve as both commercial and social focal points. Each center should be unique in its appearance; but share common composition elements with the others, including:

- Orientation toward Eastern Avenue: Each neighborhood center should face Eastern Avenue and have major points of entry along this street encouraging pedestrian access from the sidewalk. Commercial Centers should also be designed to have a secondary orientation to the riverfront. Therefore, each development should provide elements at both the street and river sides that will offer pedestrian access points. Open parking lots on Eastern Avenue should be avoided.
- Mixed-use Development: Each neighborhood center should include a mix of residential and office or community meeting space.
- Pedestrian Linkage and Orientation: Each neighborhood center should provide means for community interaction and should feature pedestrian plaza space, widened sidewalks, pedestrian crosswalks, seating, and pathways to the river, the parks and the surrounding neighborhood.

Location

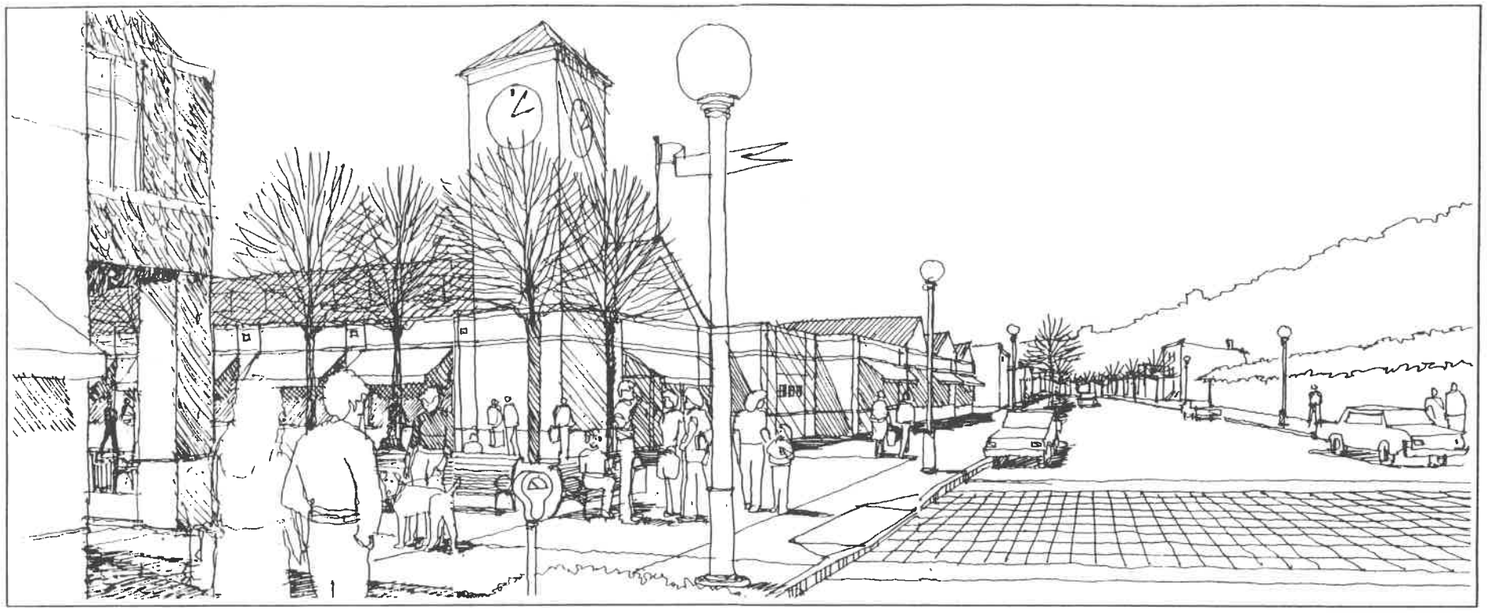
Specific commercial centers are proposed for:

- The Rookwood large development site at the western end of the East End Riverfront and on the south side of Eastern Avenue
- In the vicinity of Collins Avenue on the north side of Eastern Avenue

The final location of the proposed commercial concentrations will be dependent on the results of market analysis and site availability at the time a development proposal is made.

Recommended Land Uses

Market forces will determine the exact mix of retail and services required in each center. Some uses for consideration include: conve-



Character Sketch of Commercial Center

nience grocery, restaurant, barber/beauty salon, tailor, post office, drug store, hardware, video, general merchandise, shoes, clothing, books, news, etc.

The character sketch of the Commercial Center illustrates how a center may be organized and what it might look like. This center is located on Eastern Avenue and as such it has good visibility and vehicular access. It is within close proximity to public green space and new and existing residential development.

The design of the commercial center proposed for the Rookwood site should be arranged to provide a clear view to the Ohio River in order to draw people from the street into the center. The parking should be located behind the center and bands of landscape should lead the visitor to the center or to the river bank and the shoreline greenway.

Expansion sites serve as interim park and greenspace until the market requires more retail, services, entertainment or other uses.

Program

Each center is sized in minimum gross leasable area (gla) as follows:

Commercial Center A
approximately 20,000 square feet gla.

Commercial Center B
approximately 15,000 square feet gla.

As an incentive for mixed uses, upper-floor residential or office uses above retail shops may be programmed in addition to the gla proposed for each site.

Parking

Retail food stores require a minimum of seven parking spaces for each 1,000 square feet in excess of 2,000 square feet. Parking spaces should measure no less than 160 square feet with access drives measuring a minimum width of eight feet and a maximum aggregate width of 20 feet.

Parking areas should not face Eastern Avenue in order to maximize pedestrian access to the retail centers from the sidewalks. Where parking areas must face onto Eastern Avenue, they shall be screened with a 4' high fence or wall and street trees.

Within parking lots, at least 5% of the interior surface area should be devoted to landscape and no more than 10 spaces in a row shall exist without a 10' wide landscaped island. A landscaped berm around the perimeter of off-street parking areas should be provided of an opacity of at least 50%. This will help reduce the scale of the parking area while increasing

the amount of shade. Both features will add to the attractiveness of the site and help it to blend in with the adjacent parks and pedestrian path system.

Signs

Signs for commercial properties should communicate identity, service or products and should be consistent with the scale, character and materials of the area.

- Signs should generally be attached to the building or freestanding. Pole-mounted signs are discouraged and temporary, mobile signs are prohibited.
- Signs should fit the character of the architecture and be consistent in theme.
- Signboard heights should not exceed four feet, and individual letters on a signboard should not exceed two feet.
- Awnings, canopies, banners and hanging sign boards are encouraged. For awnings, banners, and canopies, the sign size is quantified as that area occupied only by the lettering itself, not the fabric beyond.
- Lighted signs are encouraged and may be uplit, backlit or neon, but in no case should light encroach on adjacent properties.
- Wood, steel and aluminum are encouraged as traditional materials compatible with the neighborhood. Plastic and fiberglass are discouraged.
- Signs should not project above the roofline.
- One projecting sign per multi-tenant commercial structure should be used to identify all businesses within the building.

The following are architectural standards for the commercial centers:

Height

The height of new development should not differ from the heights of adjacent buildings by more than one story (12 feet). The total height of commercial structures should not exceed 45 feet.

Scale and Massing

The street elevation of building masses for commercial centers should not be flat along

the street frontage or at major entryways. Instead the street facades should be broken into smaller masses that will be more in keeping with the scale and massing of the surrounding residential buildings.

The use of awnings should be encouraged to enhance pedestrian scale, particularly at the street level.

Materials and detailing should be similar in scale to those predominant in the area.

Building entries should be distinct, identifiable and covered.

Large flat walls on the front facade that are unbroken by windows or setbacks should be avoided. The total area of openings should not exceed 50% of the total wall area on any given facade.

Proportions

The overall formal expression of primary building parts should be vertical, tempered by horizontal elements such as window mullions, railings and banding. Windows should be vertically oriented. The ratio of the vertical to the horizontal should be no less than one to one and no greater than three to one.

Roofs

Sloped roofs in keeping with the size and character of the existing residential buildings are preferred. New roofs should be gabled or hipped and have slopes of no less than one-third pitch and no greater than one-half pitch.

If flat roofs are necessary for large commercial spaces, they should be punctuated with smaller sloped roof masses. The design of the roof tops should be carefully considered and detailed to avoid large expanses of flat roof.

Roofing materials for all sloped roofs should be slate, metal shingles or standing seam sheet metal.

Rooftop utilities should be avoided, and roof vents should be inconspicuously placed.

Materials

Materials used for new construction should be natural and similar to existing materials in color and texture. Appropriate materials include wood siding, wood shingles, wood trim, wrought iron, steel, brick, stone and concrete.

Window glazing should be clear, non-reflective glass. Glass curtain walls should not be permitted. Windows and window frames should be metal.

Awnings should be made of fabric.

Colors

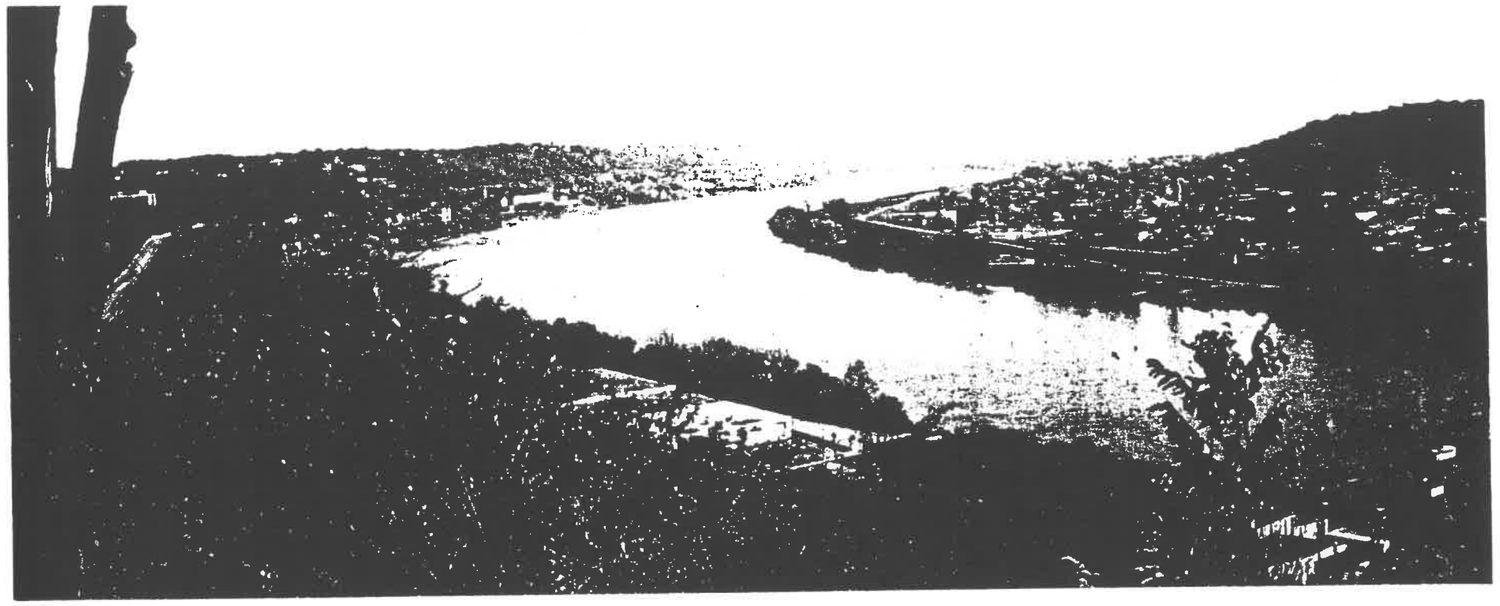
Colors should be compatible with the area and appropriate to the style of the building. Contrasting colors should be encouraged to emphasize the different architectural features of the building.

Service

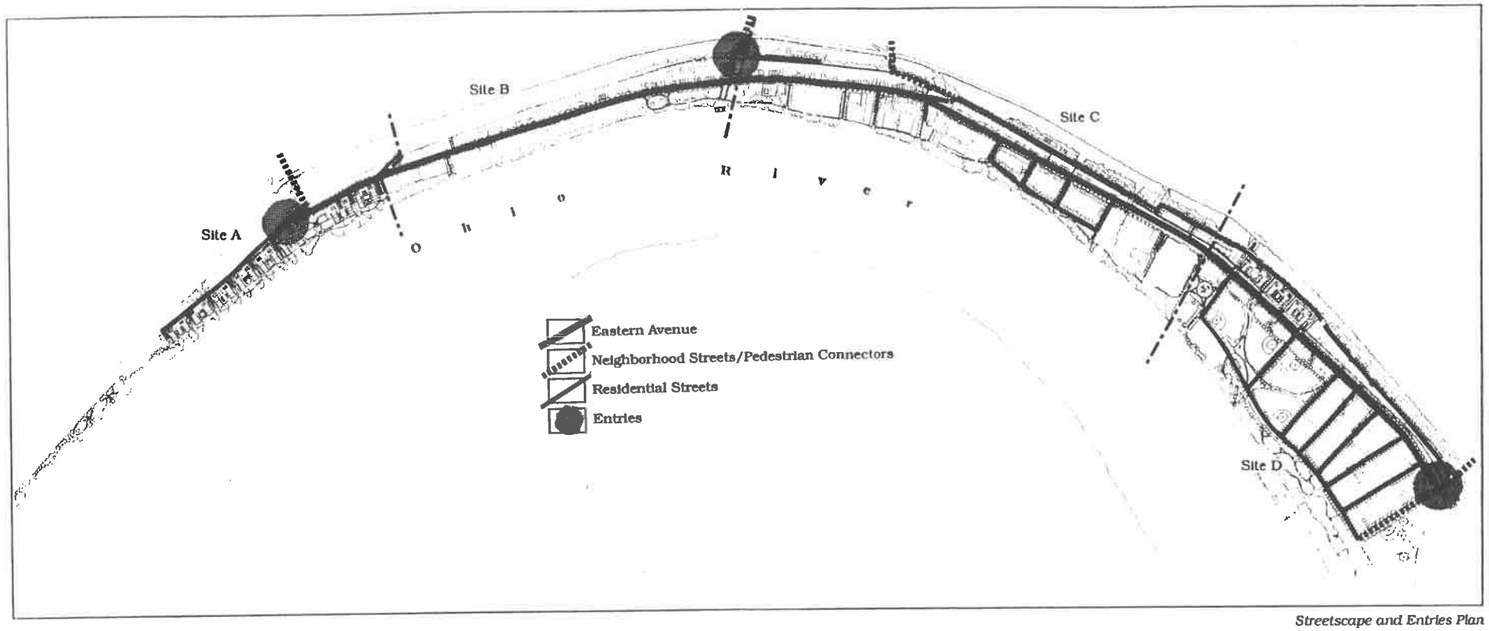
Service and loading areas should not face Eastern Avenue and should not be visible from pedestrian areas. All service areas should be screened with 6'-high opaque walls or fences and landscaped as well. Exterior dumpsters shall be completely screened on all sides with 8'-high opaque walls or fences.

Utility Systems

If possible, electric, gas, and telephone hookups should be placed underground.



5.0 Public Improvement Guidelines



Streetscape and Entries Plan

5.0

Public Improvement Guidelines

5.1 Introduction

The following guidelines address the design of public improvements, which will visually integrate and enhance public space, improve existing services and promote neighborhood stabilization and reinvestment. These guidelines are intended to be flexible and allow for a variety of design responses and for creativity. The recommended improvements should be phased in as new development and rehabilitation occurs.

5.2 Streetscapes/Entries

Wherever you are in the East End Riverfront, you are never far from the river, due to the neighborhood's location on the banks of the Ohio. Enhancing the orientation of existing and proposed development to Eastern Avenue and the river is essential in unifying the four different sites in the neighborhood. The long, linear configuration of the East End Riverfront and Eastern Avenue presents opportunities to define and enhance the image of the community.

Eastern Avenue provides the primary entry points to the neighborhood. It is the only street that runs the entire length of the neighborhood. Eastern Avenue also provides access to adjacent neighborhoods to the north and east, downtown Cincinnati to the west and Riverfront parks and openspace south of Eastern Avenue. The consistency of the building heights and setbacks from the road establishes an informal streetwall along Eastern Avenue, which contributes to the image of the neighborhood.

While the streetwall is identifiable along certain areas of Eastern Avenue, additional elements are needed to reinforce it. Providing a design treatment for Eastern Avenue and the other streets in the neighborhood will provide

stronger visual consistency and order throughout the neighborhood. The design treatments of the streets should be consistent with the hierarchy of their use within the neighborhood. The various treatments should respond to specific conditions along Eastern Avenue.

The hierarchy of existing and proposed streets within the East End Riverfront includes three levels of use:

- Main Thoroughfare— Eastern Avenue is the primary east-west thoroughfare in the community and courses the entire length of the community, connecting it directly with downtown Cincinnati. The traffic volumes and quantity of on-street parking not only reinforce Eastern Avenue's importance in the area, but also present some obstacles. These obstacles include infrequent pedestrian crossings and lack of separation between pedestrians and fast-moving traffic.

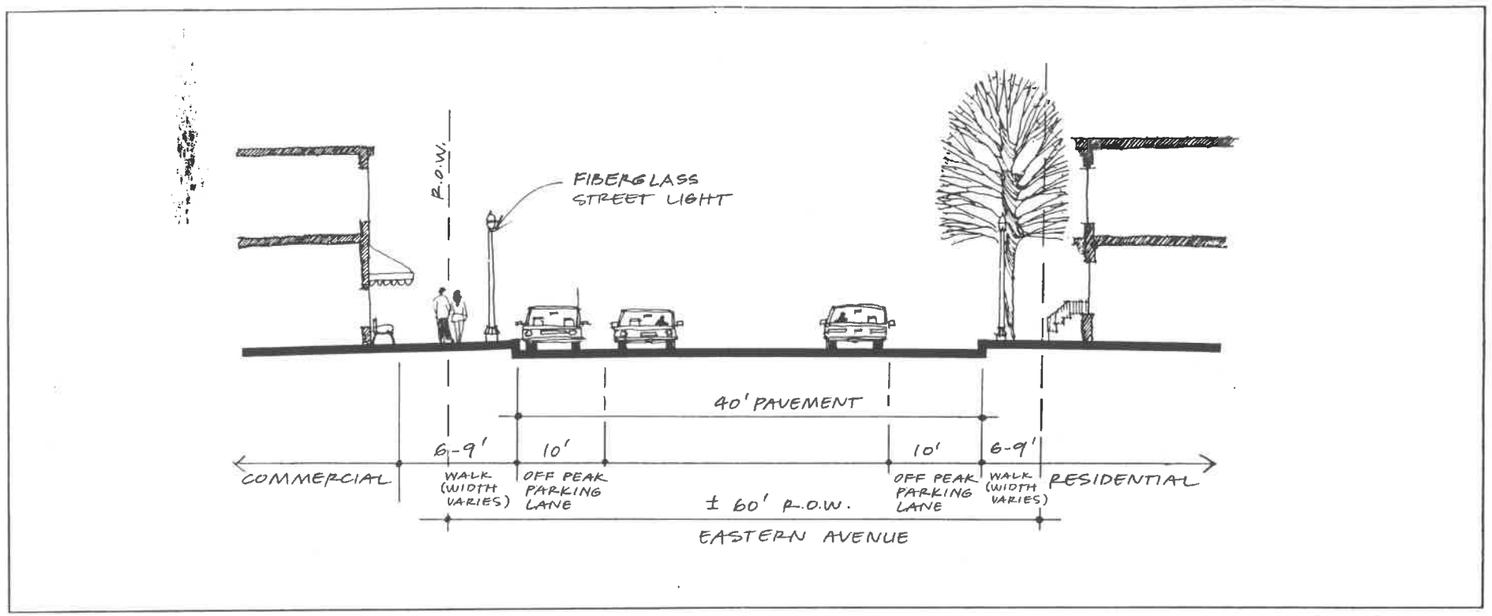
  The scale of lighting and plant materials along Eastern Avenue should reinforce the residential character of the street.

- Neighborhood Streets— These are local service streets that run perpendicular to Eastern Avenue and provide access to residences, businesses, parks and other abutting properties. These streets also provide access to the location of the commercial centers which are proposed at the juncture between Sites A-D. The neighborhood streets include Delta Avenue and Collins Avenue.

  Like Eastern Avenue, neighborhood streets should have a unified image and clear vehicular/pedestrian movement system.

- Residential Streets - Generally, residential streets have a north-south orientation, however, Walworth, Hoff, Gladstone follow an east-west direction. These are quiet, local streets where families live and children play. The residential streets carry much lower traffic volumes than Eastern Avenue, providing access principally to residential dwellings and riverfront recreation areas.

While streets convey the character, quality and image of a place, entries announce passage and mark the beginning and the end of the place. Entries establish initial impressions of the area and set it apart from its surroundings. In the East End Riverfront there are three primary entries to the community. These include:



Section of Eastern Avenue

- The railroad bridge at the intersection of Delta Avenue and Eastern Avenue
- The railroad bridge at the intersection of Collins Avenue and Eastern Avenue Rookwood.
- The underpass near the intersection of Kemper Lane and Eastern Avenue.

The overhead railroad bridges physically distinguish the points of entry. The sense of arrival and of departure is accentuated by the massive stone structures that frame initial glimpses of the neighborhood and the riverfront. Due to the age and lack of structural integrity of the viaducts, it has been determined that they should be replaced or restored to improve traffic safety at these intersections.

In addition, recommended street improvements include the following.

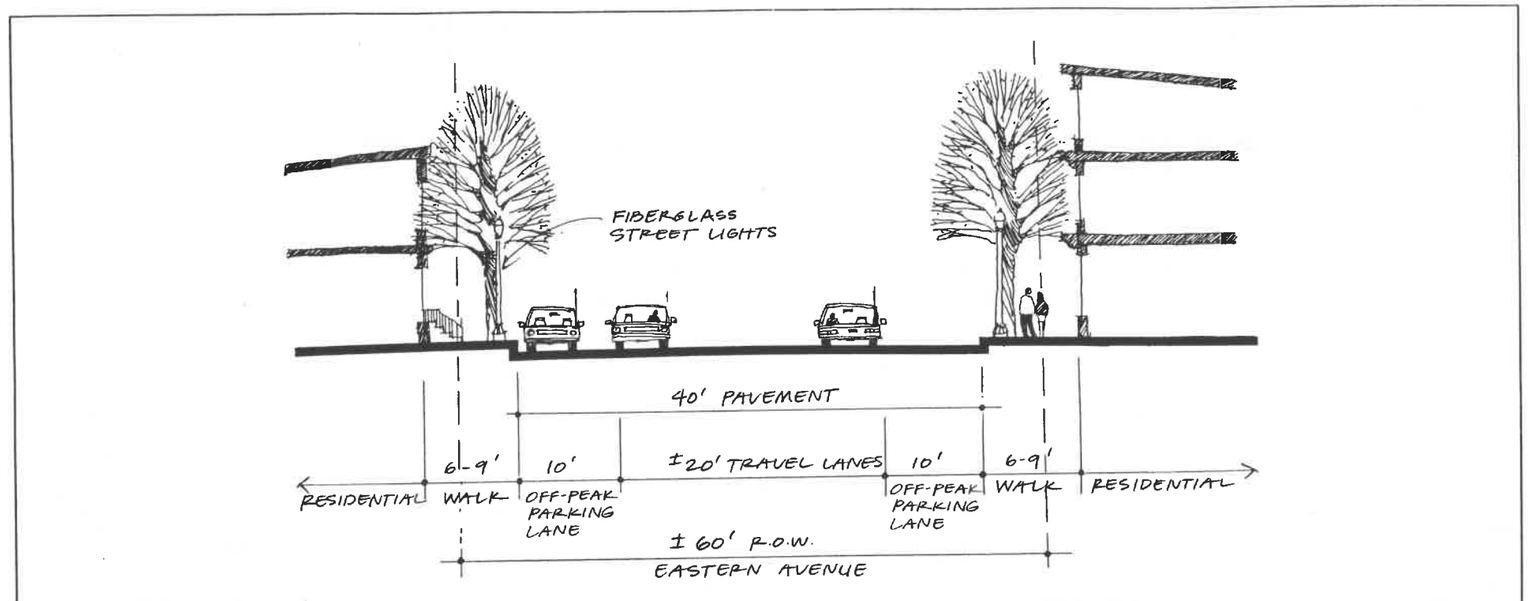
Eastern Avenue

As the "main street" of the neighborhood, Eastern Avenue should have more green along its edges, echoing the green setting of the neighborhood hillsides, riverbanks and parks. The design intent of the Eastern Avenue streetscape is to create a link between the canopies of vegetation that exist north and south of Eastern Avenue. The continuity of landscaping will reinforce the streetwall, provide shade for pedestrians and enhance visual continuity along the street. This will be achieved with combinations of ordered street tree plantings, and the selective use of sidewalk paving, and pedestrian-scaled street lighting along the length of the avenue. At major points of development, left turn lanes should be accommodated in the design of building setbacks.

Landscaping

The following landscaping is recommended:

- Tall stately canopy trees that are distinctive year-round should line the road and separate the pedestrian movement from the traffic on Eastern Avenue. A tree having a strong branching pattern, mottled bark and coarse texture is recommended.
- Street trees should line both sides of the street except in front of the commercial centers.
- Trees should be planted in a single row and spaced approximately 40' on center. Trees should be spaced in a manner that enhances view corridors north of Eastern Avenue to the Ohio River.



Section of Eastern Avenue

- Trees should be a minimum 2 1/2"-3" caliper, and staggered on opposite sides of the street.
- Trees should not be planted within 50' of an intersection and 10' of a curb cut.
- 4'-wide lateral planting trenches will encourage their vigorous growth.
- 4'x4' cast-iron tree grates should be used to denote major points of entry to recreation of commercial areas. Pedestrian linkages between the hillside and the river bank should be similarly noted.

Sidewalks

- Recommended new sidewalk widths should vary from 7-feet wide in residential areas to 12-feet wide in conjunction with neighborhood commercial centers.
- Sidewalks at major entrances should be paved with rich, warm colored bricks in a running bond perpendicular to the building face.

Crosswalks

- Crosswalks are needed at all signalized street intersections and at Eastern Avenue's intersections with the neighborhood streets.
- The crosswalks at commercial centers, and community facilities should be delineated in the pavement and should have demand-activated pedestrian-crossing signals, if warranted.
- Crosswalks should be located within close proximity to the proposed commercial centers.
- Street paving should be used at primary pedestrian crossings along Eastern Avenue
- The pattern recommended is a running bond, perpendicular to the building face and contained by a brick border.
- Handicap pedestrian-access ramps, with flush or roll-down curbs, should be provided at intersections and crosswalks along Eastern Avenue.

Lighting

- Street lights should be paired along the length of the street and spaced according to standard illumination levels.
- Pedestrian-scale lighting is also recommended along Eastern Avenue.

Pedestrian lighting should be located at commercial centers and in conjunction with major entrances from Eastern Avenue to the shoreline greenway. Such lighting will be an addition to standard lighting and may be subject to a special assessment.

- A city-approved dark green fiberglass streetlight standard with a globe fixture is recommended. They must illuminate a roadway for safe automobile or pedestrian use.

Signage

- Street identification signs are necessary at every intersection. Sign poles and sign plaque holders should be or resemble wrought iron and be indicative of the area.
- Directional and informational signs for conveying information are necessary at all public spaces, public river access points and at the commercial centers at points of ingress and egress and light to direct visitors to facilities.
- Banners may be mounted on poles in the vicinity of the commercial centers to announce seasonal or special civic events.

Site Furnishings

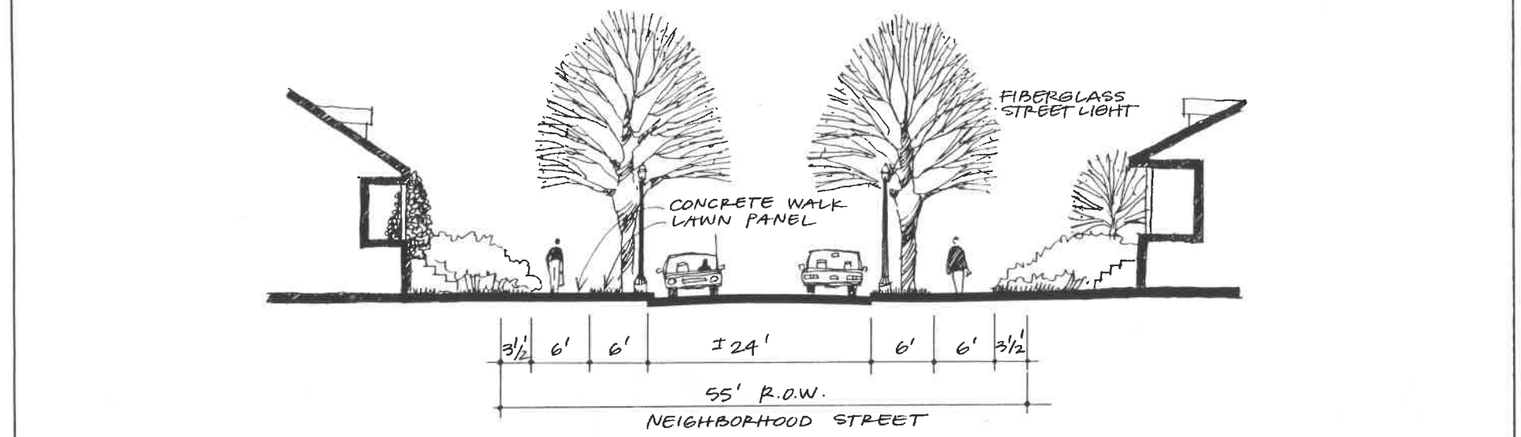
- Benches should be concentrated at the plaza area of the commercial centers and along the shoreline walking path.
- Benches should be made of wood and/or wrought iron.

Utilities

- Trash receptacles should be strategically located along the frontage of commercial centers, park areas frontage and along the pedestrian walking path.
- Where possible, remove above-ground utilities and replace underground to improve the appearance of Eastern Avenue.

Neighborhood Streets

These streets are the public's path to the river, the park and the open-space system found in the neighborhood. As such, the streets should be very open, green and inviting. Neighborhood streets should provide clear views to the river and adjacent open space. The treatment and landscaping of these streets should encourage their use for access to the community's park and open-space system. This will be achieved with a regimented street tree planting, a continuous lawn panel and



Section of Neighborhood Street

sidewalk, and a street light program that provides a green frame of views to the river and beyond.

Landscaping

The following landscaping is recommended.

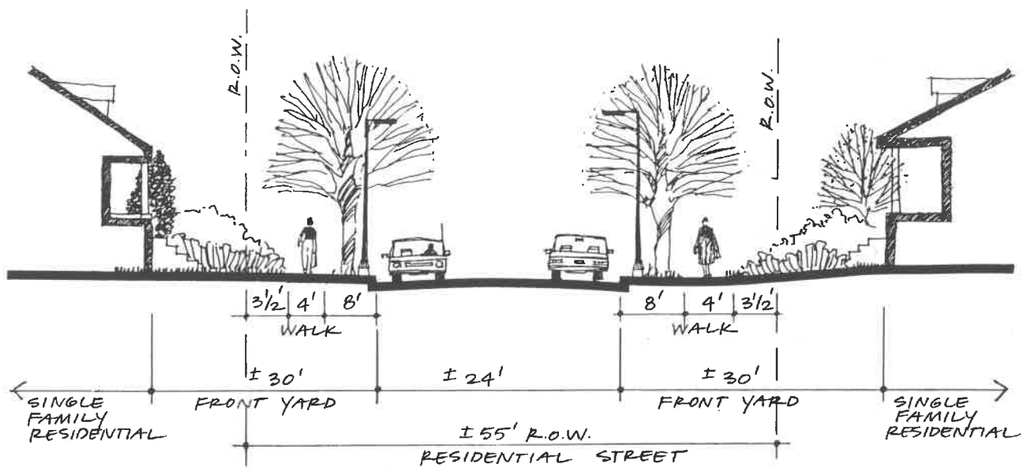
- A 6' wide continuous lawn panel should be developed, where possible.
- Large canopy trees with a high branching pattern should be used to line the road and separate the pedestrian movement from vehicular traffic.
- The high branching pattern and large canopy should allow a clear view to the public of facilities at the river's edge.
- Street trees should be planted along both sides of the street.
- The Red Oak or a tree of similar character is recommended.

The neighborhood street tree should be a minimum 4" caliper, regularly spaced along both sides of the street. Street trees should not be planted with 50' + of an intersection and 10' + of a curb cut.

- Street tree plantings are recommended for all neighborhood streets, except at Collins Avenue. Along Collins there should be an opening in the trees to frame the magnificent view to the river that appears just after turning and going under the railroad bridge.
- A continuous planting strip/lawn panel, where possible, should be located adjacent to the street. This strip will separate the pedestrian from the vehicular traffic and provide space for street trees and lights.
- Existing vegetation at the end of neighborhood streets should be regularly pruned to allow views to the river.

Crosswalks

- Crosswalks should be located at all intersections with Eastern Avenue. If the crossing areas do not have signals, they should be delineated on the pavement and should have pedestrian-crossing signals.
- Paving pattern in the crosswalks should be a running band, perpendicular to the building face.



Section of Residential Street

- Concrete handicap ramps should be located at all intersections and at major pedestrian crossings along Eastern Avenue. Ramps will have flush or roll-down curbs.

Lighting

- The placement of lighting along the neighborhood streets should be ordered and coordinated with the street trees.
- The street lights should be the same dark green fiberglass pole-and-globe fixture as the pedestrian-scale lighting recommended along Eastern Avenue.
- All street lights should conform to the City's standard illumination levels.

Signage

- Street identification signs are necessary at every intersection.
- Pedestrian scale directional and informational signs should be used where necessary to direct visitors to parks, rivers and open space areas.

Residential Streets

These are the most private and most pedestrian-scale streets in the community. These streets should not be used for access to the river; this would increase traffic on these streets. Instead these streets should be more enclosed and shaded; they should be used by residents of the neighborhood as limited access points to the river. As such, the design treatment of these streets will rely on a tight spacing of canopy trees in a continuous lawn panel to reduce the scale of the roadway. Pole-mounted street lights will illuminate the streets for safe vehicular and pedestrian movement.

Landscaping

- Street trees should be paired and planted in an 8'- wide continuous lawn panel adjacent to the edge of the road.
- A different species of tree should be used on each residential street throughout the community. A different variety of street tree should be planted on each residential street.
- Street trees should be medium in size with a lower branching pattern. They should be tightly spaced at 25' o.c. to reduce the scale and the openness of the street. Trees

Plant Material	Location: Eastern Avenue	Neighborhood St.	Residential St.	Entry	Private Yard	Bicycle Trail	Shoreline Greenway	Parks	Hillside
Street Trees:									
Maiden Hair Tree (Ginkgo)		☐						☐	
Honey Locust		☐						☐	
Village Green Zelkova			☐					☐	
Northern Red Oak	☐	☐				☐	☐	☐	
Little Leaf Linden			☐					☐	
Suger Maple	☐	☐						☐	
Green Ash		☐	☐			☐	☐	☐	
Buck Eye	☐	☐	☐				☐	☐	
Red Maple	☐	☐	☐			☐	☐	☐	
London Plane Tree	☐							☐	
Pin Oak		☐	☐			☐	☐	☐	
Medium Trees:									
Weeping Willow						☐	☐		
Redbud			☐	☐	☐	☐	☐	☐	
River Birch				☐	☐	☐	☐		
Golden Rain Tree			☐	☐			☐		
Washington Hawthorn			☐	☐			☐		
Shadblow			☐	☐		☐	☐		
Callery Pear			☐	☐			☐		
Dogwoods			☐	☐	☐	☐	☐	☐	
Crabapple			☐	☐	☐	☐	☐		
Cherry Plum			☐	☐	☐		☐		

Plant Material	Location: Eastern Avenue	Neighborhood St.	Residential St.	Entry	Private Yard	Bicycle Trail	Shoreline Greenway	Parks	Hillside
Screening/Massing Shrubs:									
Yews					☐	☐	☐	☐	☐
Viburnum					☐	☐	☐	☐	☐
American Holly					☐	☐	☐	☐	☐
Red Cedar							☐	☐	☐
Austrian Pine							☐	☐	☐
Canadian Hemlock							☐	☐	☐
Red Twig Dogwood				☐	☐	☐	☐	☐	☐
Flowering Shrubs:							☐	☐	☐
Staghorn Sumac									
Korean Spice Viburnum					☐		☐	☐	
Common Lilac								☐	
Hydrangeas					☐			☐	
Forsythia				☐	☐	☐	☐	☐	☐
Spirea				☐	☐			☐	
Rosa Rugosa				☐		☐	☐	☐	☐
Weigela				☐		☐	☐	☐	☐
Ground Cover:									
Winter Creeper					☐	☐	☐	☐	☐
Crown Vetch						☐	☐	☐	☐
Wild Flower Mix				☐		☐	☐	☐	☐
Vinca					☐	☐	☐	☐	
Spreading Cotoneaster					☐	☐		☐	
Junipers					☐	☐		☐	

Plant Matrix

should be a minimum 2" caliper. On these streets trees should not be planted within 50' of a street intersection or 10' of a curb cut or driveway.

- An 8'- wide continuous lawn panel adjacent to the street will be the container for the street trees and street lights.

Sidewalk

- Concrete sidewalks should be a minimum of 4'-wide on both sides of the road (if residences are on both sides of the road).

Lighting

- Shoebox fixtures mounted on power poles are recommended.
- Fixtures should be located on the existing power poles within the lawn panel and according to standard illumination levels.

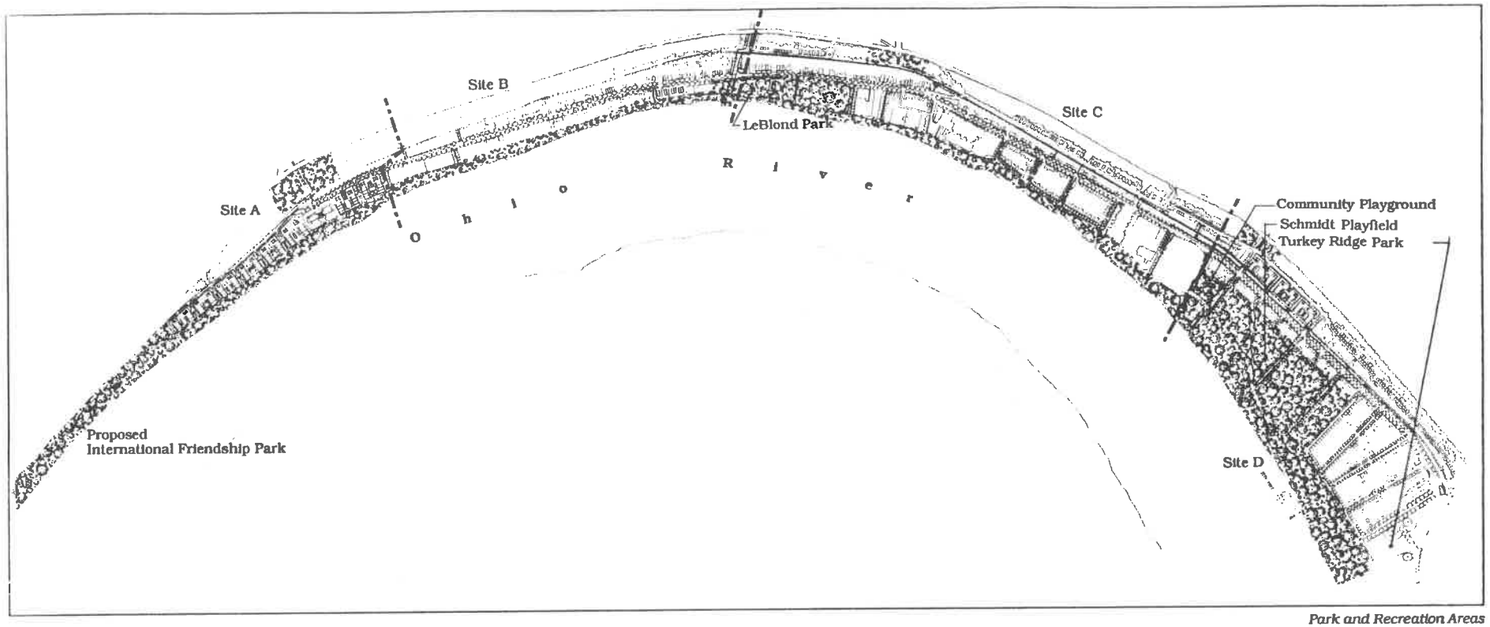
Entries

The railroad bridges frame views into the neighborhood and in some cases, such as Collins Avenue, views to the river. They physically delineate the community and due to age and condition of the structure should be replaced or restored, in an architecturally consistent fashion to improve traffic safety. New bridges should have the capability to accommodate the proposed bicycle trail and/or trolley.

Several improvements are needed to assist the bridge's function as gateway and safe circulation devices. These should include:

- Storm Water Improvements - Increased drainage in the area will help keep roadway surfaces dry and safe.
- Lighting - Roadway lighting should sufficiently illuminate the approach to and passage under the bridge.
- Signage - Signage at the approach to the bridge indicating its presence and warning motorists of tight curves, narrow lanes and slower speeds could help motorists anticipate the structure.
- Landscape - Trees currently undermining the viaduct should be removed.

The planting matrix on the this page summarizes a sample of plant materials that may be appropriate for the hierarchy of streetscape and other public improvements recommended for the East End Riverfront.



Park and Recreation Areas

Parks

Design Intent

The East End Riverfront area contains a number of existing local and regional parks within its boundaries offering active and passive recreation facilities that serve the city-wide seasonal recreational demands. It is the intent of this plan to forward recommendations to supplement, improve, and link these parks in a manner that provides greater access to and along the Ohio River.

In order to create a green edge along the riverfront, new parks recommended include:

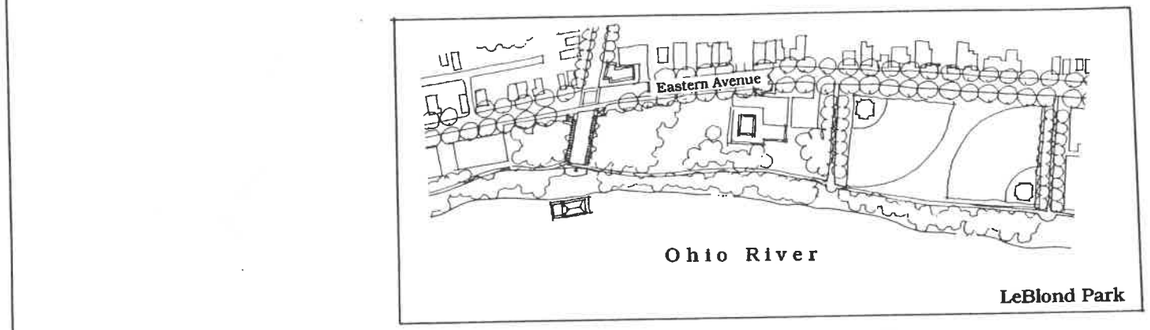
- International Friendship Park: As provided for in the Park Board Master Plan, this area is proposed to serve as a regional park encompassing approximately 16 acres on the far west end of the East End Riverfront adjacent to the large development area in Site A and adjacent to the proposed Adam's Landing development and Bicentennial Commons. This park should be passive in nature-featuring lawns, landscaping and river overlooks—and serve as a front door to the proposed Adam's Landing development, providing a passive pedestrian link between the East End Riverfront neighborhood, Bicentennial Commons and the Central Riverfront.

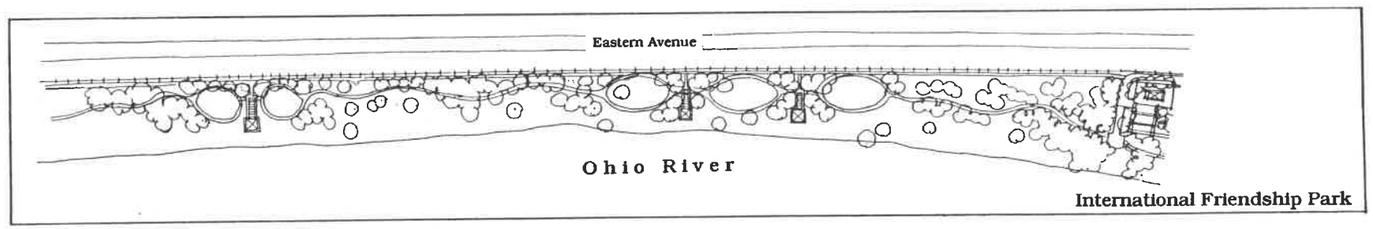
- C.G.& E. Site Enhancements: Landscaping is proposed for existing buffer yards located east and west of the CG&E gas plant. The area should be primarily passive in nature with pedestrian access along the shoreline.

- Site D Playground: A neighborhood-serving community playground of approximately 1 acre is proposed adjacent to Schmidt Playfield. This facility should feature play structures for both tots (ages 2-5) and children (ages 6-12) landscaping, and river overlooks and will serve thus reinforcing the area as a family destination. The play area should be lined with trees for shade in the summer and multiple seating opportunities should be provided to allow for adult supervision and socialization.

The play structures themselves offer a unique opportunity for the neighborhood to express its history and culture and should be designed and built with neighborhood participation.

In addition to new parks, existing parks and open space (excluding Ferry Street Park and properties transferred to the Park Board by Ordinance No. 494-1975), should be renovated and expanded to serve the public better and increase awareness of the river. These include:





Park Plans

- LeBlond Park: LeBlond Park should be upgraded by providing a comprehensive walkway system around its ballfields, river overlooks, increased parking areas, and shade trees for edge definition.

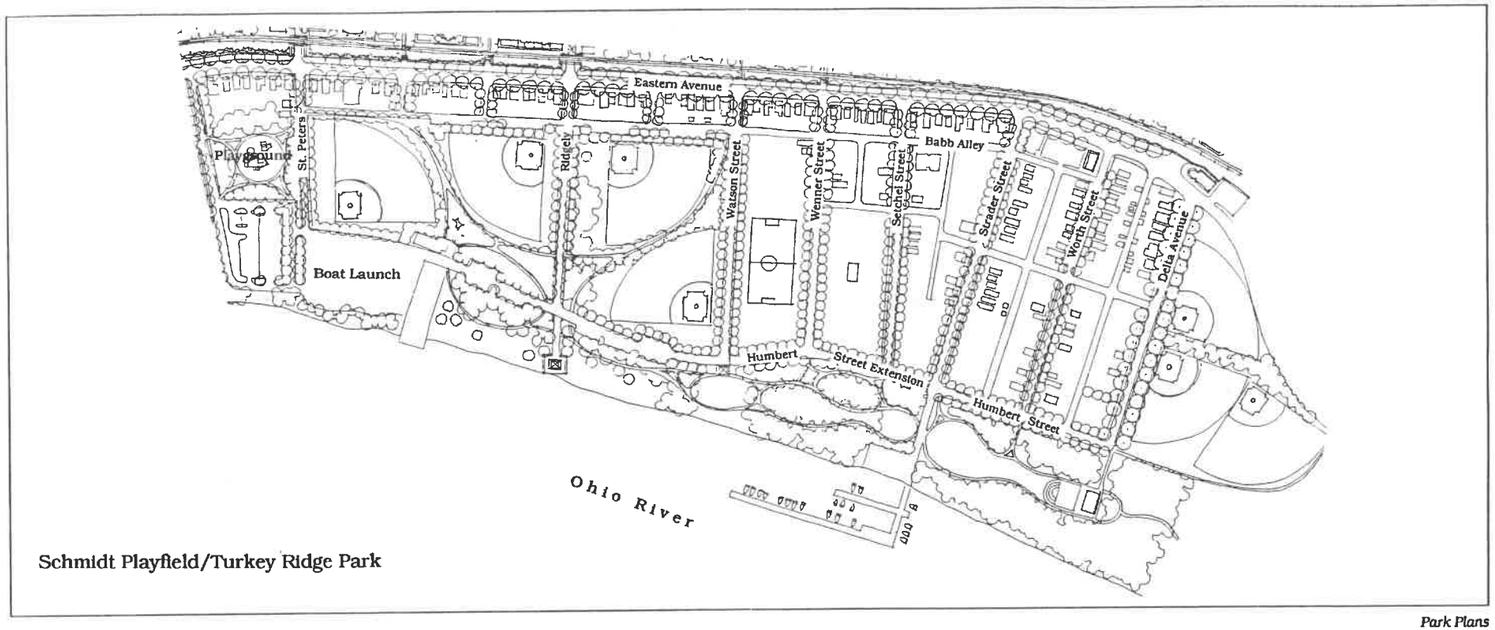
  A significant neighborhood socializing space should be added south of Collins Avenue. The proposal calls for a clearing, grading, and sodding of approximately 200 feet of river bank for a river overlook. This area would serve as a formal lawn area for small neighborhood gatherings, concerts, and festivals and reinforce the LeBlond site as a neighborhood focal point. A pair of trellises should flank the lawn and run from Eastern Avenue toward the river. The structure should frame the view from Eastern Avenue as it opens toward the Ohio River. The lawn area should provide informal seating under the trellises.

- Schmidt Playfield: This park is the neighborhood's major regional-serving park with both active and passive recreation activities. Schmidt should continue to be the neighborhood's most active and public riverfront park. The proposal for improvement focuses on the riverfront edge and access to and through the park. The river's edge from the boat launch ramp east to Turkey Ridge Park should be cleared of understory vegetation, graded, and landscaped (to supplement existing trees) into a series of meadows for informal play areas and picnic groves. Tables, shelters, and seating should be placed throughout this informal landscape. Humbert Street, the road that provides access through Schmidt Playfield, should be extended to connect with Delta Avenue providing a continuous vehicular parkway from the boat launch to Turkey Ridge Park. The extension of Humbert Street is also recommended as part of a one-way access system to improve the safety of vehicle and boat access into and through the park.

  The circulation system should flow from west to east from the established entrance to Schmidt Playfield at St. Peter's Street.

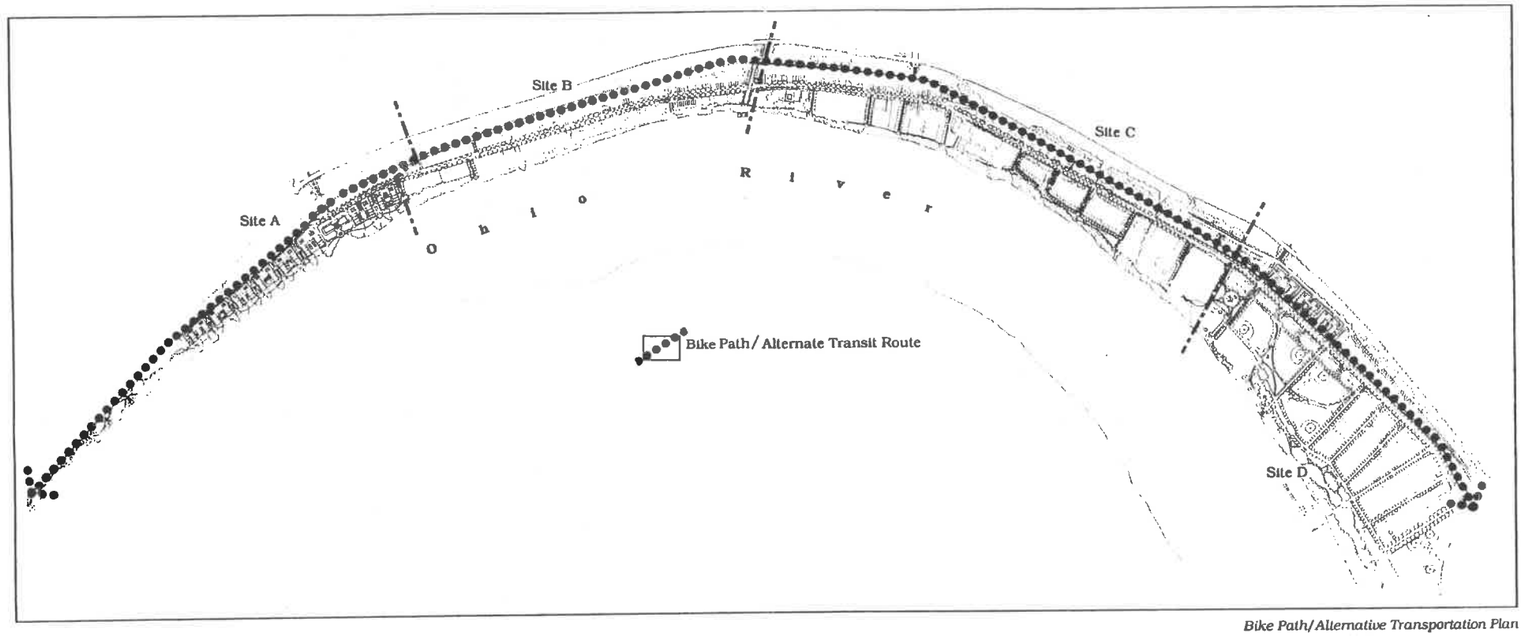
  A new road should also be created between the ballfields, breaking down their scale and creating access for both vehicles and pedestrians to the river from Eastern Avenue.

  The Corps of Engineers already has a plan under consideration for improvements to the boat launch and its parking area, and these plans should be coordinated to support a continuous riverfront experience.



Schmidt Playfield/Turkey Ridge Park

Park Plans



Bike Path/Alternative Transportation Plan

5.4 Bicycle Path/Light Rail Transit System

Design Intent

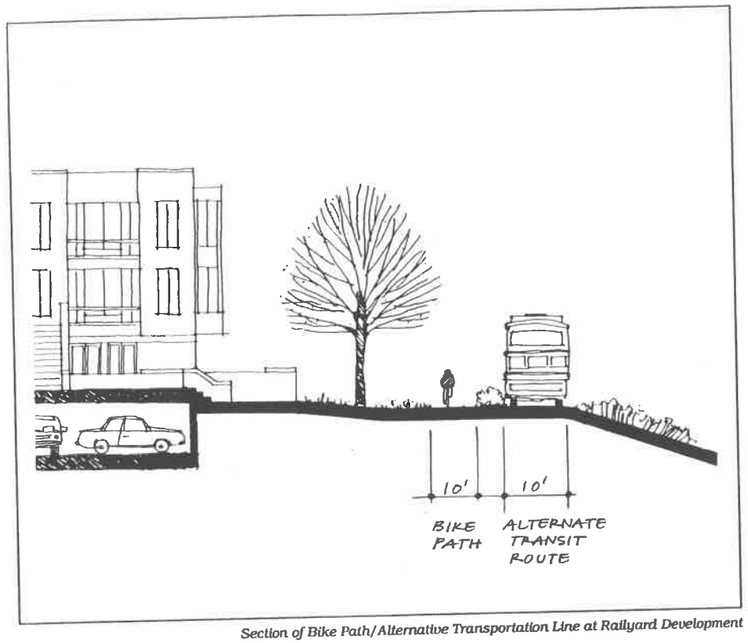
A unique opportunity is afforded in the East End Riverfront to transform the existing railroad right-of-way from a pair of heavy-gauge freight rails to a continuous bicycle path and/or light rail transit system. This is advantageous not only in the removal of the noise and visual impact of freight trains but also in the addition of an alternative mode of transportation that could reduce traffic and pollution.

Two sets of tracks currently exist in the rail right-of-way. The plan recommends removal of the northern most track as the preferred location for development of a 10 foot-wide bike path.

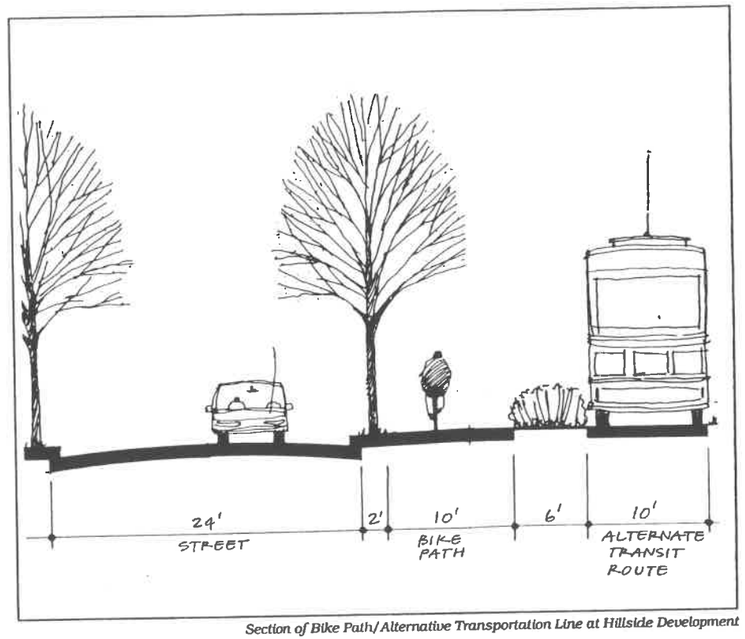
The bicycle path could be constructed as soon as the rail service is removed and title agreements made. It is a potentially low-cost system with high user-potential providing an alternate form of transportation to downtown with the potential for connections to outlying neighborhoods. The point of origin could occur downtown at the Bicentennial Commons at Sawyer Point Park and a temporary terminus could be developed at Delta Avenue to the east. It is envisioned that east of this point the bicycle path would continue on to a logical connection with the existing Lunken Airport Bike Path and Little Miami Scenic Bike Path thereby providing a bike path from downtown to the outer suburbs.

The light rail transit system line is a longer-term transportation system that would need a system design and ridership market analysis to validate its feasibility, but the fact that the track and R.O.W. are in place makes a compelling argument for preserving a pair of tracks to receive such a system in the future.

It is envisioned that the system would comprise a few, self-powered low-capacity cars. A logical routing would be from Union Terminal/Museum Center through downtown and out to Delta Avenue with potential service beyond. Logical stops would be at the proposed commercial centers. At these locations hillside-to-river pedestrian paths would provide clear, direct linkages into and through the neighborhood. Since only one pair of rails would serve both inbound and outbound traffic, a series of passing tracks may be needed to allow the rail cars to pass each other safely. It is feasible to accommodate the light rail transit system, the bicycle trail, new hillside infill residential development and yet preserve the hillsides. All



Section of Bike Path/Alternative Transportation Line at Railyard Development



Section of Bike Path/Alternative Transportation Line at Hillside Development

of these linear systems and their requirements fit the physical site except a 500-foot-long section along Gladstone near Collins Avenue. In this area the existing residential units sit high above the road. A retaining wall defines their edge at a non-public street. The existing street is one lane wide and would require enlargement to accommodate two-way traffic. Due to limited width of the rail R.O.W. along Gladstone, the location of the bike path through this section may be along the street pavement.

Design Specifications

Design specifications for the bike path (including width and clearance, design speed, horizontal alignment and superelevation, grade, sight distance, intersections, signing and marking, pavement structure, drainage, and lighting) shall conform to the Ohio Department of Transportation's Policy and Procedure Manual for Bicycle Projects. These guidelines are consistent with federal bicycle standards for the construction of bicycle facilities.

Lighting

Lighting should be installed along the entire length of the bicycle trail for visual and safety purposes.

Signage

For the bicycle path, a series of pavement markings at each one-half mile should be provided along the path.

Site Furnishings

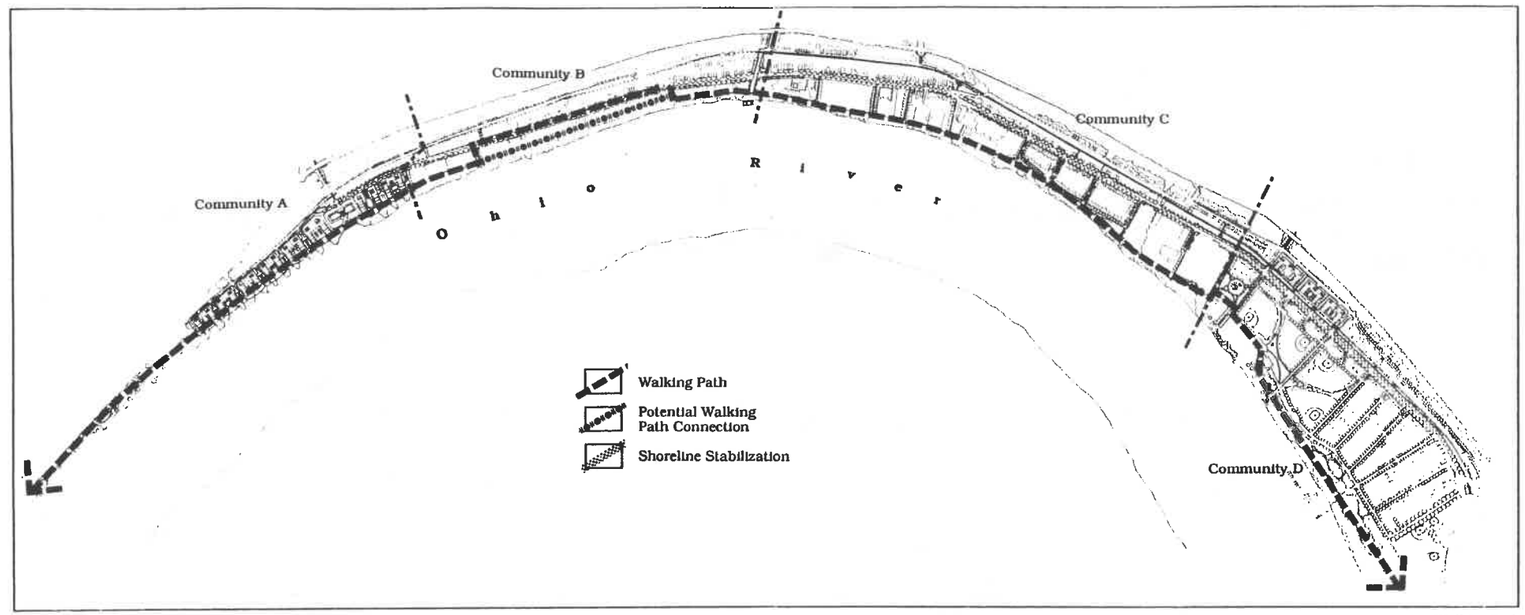
Site furnishings should be clustered at logical access points to the bike path and at commercial centers and include benches, bicycle racks and trash receptacles.

Pavement

The bicycle path should be constructed of, at a minimum, two 2" lifts of asphalt and be 10' wide. Pedestrian linkages should be constructed of 5"-thick concrete. At the intersection of pedestrian/streetcar/bicycle trails, a warm-colored, pressed concrete paver should be utilized to signal the intersection and provide appropriate warning of potential conflicts.

Landscape

The landscape treatment for the bicycle trail should serve to minimize impacts and create identity. To minimize impacts of the bicycle trail to adjacent rear yards along Eastern Avenue, a continuous evergreen hedge should be planted. To create identity and shade, flowering trees should be planted in conjunction with access points to signify the stop and to provide shade and seasonal color.



5.5 Walking Path/ Shoreline Greenway

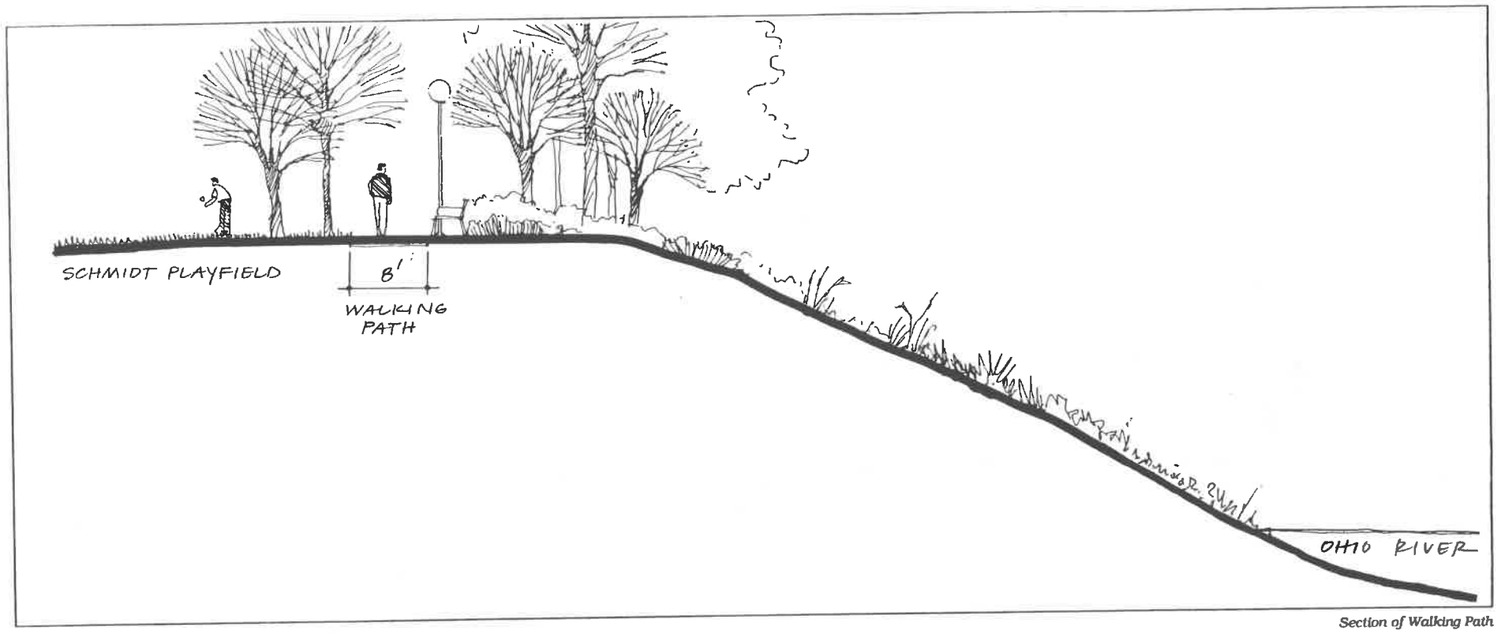
Design Intent

The East End Riverfront area has an abundance of publicly owned green space and parks along the river's edge within walking distance of the downtown area. However, a continuous riverside linkage among these elements does not exist. One of the tenets of this plan is to provide for a continuous pedestrian path from west to east to complete that linkage. This path may be expressed in a variety of ways in response to the active recreation open-space areas, and private property along the existing corridor. The mix of public, private, and open space along the proposed trail should provide a visual variety that will animate the journey.

The proposed continuous walking path is a long-term recommendation. Portions of the path could be established on current City-owned properties; however, this proposal should not be completed until there is affirmative community sentiment and a resolution of safety and security issues and higher priority improvements are accomplished.

The typical location and condition for the walking trail should generally be atop the riverbank expressed as an 8'-wide asphalt pathway. In areas of existing park land, the path will cross park areas and greenspace and open up to widths of approximately 30-40 feet. In areas where the path crosses private property, easements could be as narrow as eight to ten feet. As it courses from west to east the following conditions will apply.

- Proposed International Friendship Park - At the western edge of the park, the walking trail will be the main spine through the park, meandering through lawns and gardens and approaching the river's edge and overlooks periodically.
- Site B: The walking trail continues atop the riverbank past Johnson Electric Co. and, for the near-term, will turn to Eastern Avenue at the Site Service Station and continue on Eastern Avenue to Ferry Street development site where it will rejoin the river. This near-term detour of the trail is provided in consideration of single-family residential owners in that area. It is envisioned that over time, the trail may continue unimpeded atop the riverbank through the entirety of Site B.
- LeBlond Park: The trail should open to a major public space at the area opposite the intersection of Collins and Eastern



Section of Walking Path

Avenues. The trail should continue atop the riverbank and through the proposed lawn area, through LeBlond Park and along the south side of the soccer field near St. Rose's Church.

- Keck Street Riverside Development - At this development parcel, the walking trail should meander close to the river's edge within a continuous publicly dedicated greenway of varying widths. New residential streets should provide pedestrian access to the trail.

- Water Works - From St. Rose's Church to the Water Works, the trail will need to descend and be graded into the riverbank to proceed outboard of the Water Works flood wall. This may be accomplished with an inboard retaining wall of 3'-to-4' height or the trail may be built as a boardwalk hovering above the riverbank. This condition is envisioned for approximately 800 linear feet.

- Site C: As the trail emerges from behind the Water Works, it becomes the gracious front yard of the proposed riverside development. In this area, the trail should meander atop the riverbank within a 5-to-50-foot wide publicly dedicated greenway.

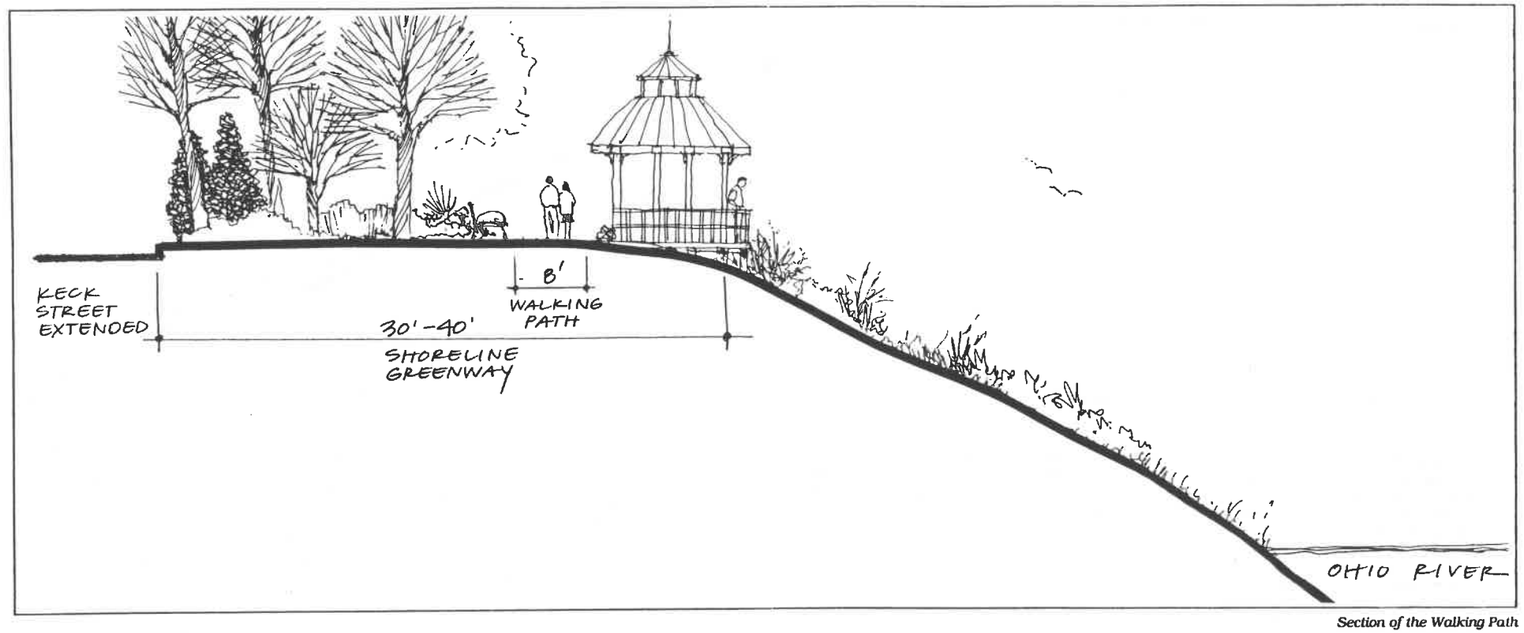
- C.G.& E.: At C.G.& E., the path would continue around the property along a boardwalk structure similar to that proposed around the Water Works wall. The structure would skirt the property for approximately 1100 feet then course inboard slightly to Schmidt Playfield. Pedestrian access from Eastern Avenue would be provided at this location as well.

- Site D - Schmidt Field: At Schmidt Field, the trail should travel around the perimeter of the boat launch facility. This meandering park path would continue to its terminus at Turkey Ridge Park. Proposed grading of the shoreline within the limits of the regulatory floodway will require a hydraulic analysis to verify no increase in the base flood elevation will result from the proposed work.

Landscape

The landscape of the walking trail and shoreline greenway should exhibit a quality strongly expressive of a riparian ecosystem.

Shade trees should be used to provide cooling relief at river overlooks, seating areas, and areas adjacent to residential development. Shade trees should be planted in irregular groves along the top of the riverbank. Trees at time of planting should be minimum 2" caliper



Section of the Walking Path

and planted. Some recommended shade trees include:

River Birch
Weeping Willow
Red Maple
Green Ash
Pin Oak

Flowering trees should be used as accent and identity plantings to give seasonal color and focus to the landscape as an understory element. These trees should be scattered in clusters throughout the greenway and have a strong expression at the commercial center's position on the greenway. Flowering trees should be 6'-8' tall at time of planting and planted 15'-20' apart in clumps of 3's, 5's, or 7's. Some recommended flowering trees include:

Flowering Dogwood
Redbud
Serviceberry
Flowering Cherry
Hawthorn

Evergreen trees should be used to screen views to parking areas, industrial areas, and service facilities. While it is desirable to block these views, care should be taken to avoid creating a tall impenetrable wall of plantings that could lead to unsafe situations along the walking trail. Thus evergreen trees should be used strategically in irregular clusters to filter views. Trees should be 6'-to-8' feet tall at time of planting and planted 10'-to-15'apart. Recommended evergreen trees include, but are not limited to:

American Holly
White Pine
Canadian Hemlock
Eastern Red Cedar

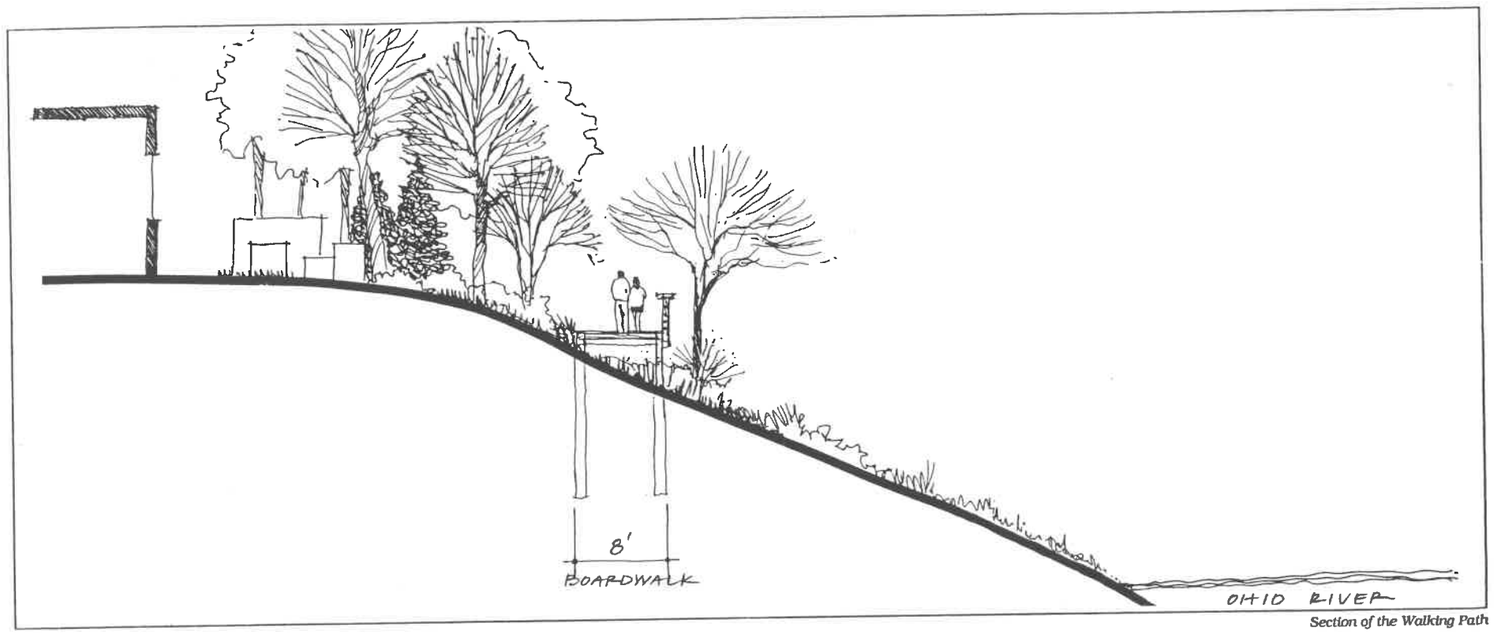
Lighting

The walking trail is envisioned for use during the day, and thus should not be lighted along the entire length of the path. However, as it abuts access points from residential areas and streets or meanders through parks, the trail should be lighted to an average of .5 foot-candles with pedestrian scaled (12'-to-15' height) lights with visible metal-halide lamps.

Signage

These are several types of signs that would be appropriate along the walking trail such as directional, identifier, interpretive and distance markers.

Directional signs should be located on the walking trail at each intersection with a neighborhood center, guiding the user inboard to that location.



Section of the Walking Path

Identifier street signs should be located at each cross street intersection for orientation. Commercial center identifiers should be located at the position of intersection of the center with the walking trail and should communicate a narrative of the history and significance of each of the neighborhoods.

Interpretive signs should be randomly located along the trail to document natural or cultural history relative to the East End. An example of this is already in place on the rear facade of St. Rose's Church where a mural depicts flood stage of the historically great floods of the Ohio. Other topics of interpretation may include boatbuilding, the river pilot school at Highlands, the Water Works, C.G.& E., significant historical individuals, the Ohio River, local flora and fauna, etc., so that the journey along the river has an educational content as well as a recreational one.

Distance markers at continuous one-tenth-mile intervals should be indicated to document progress for walkers and joggers.

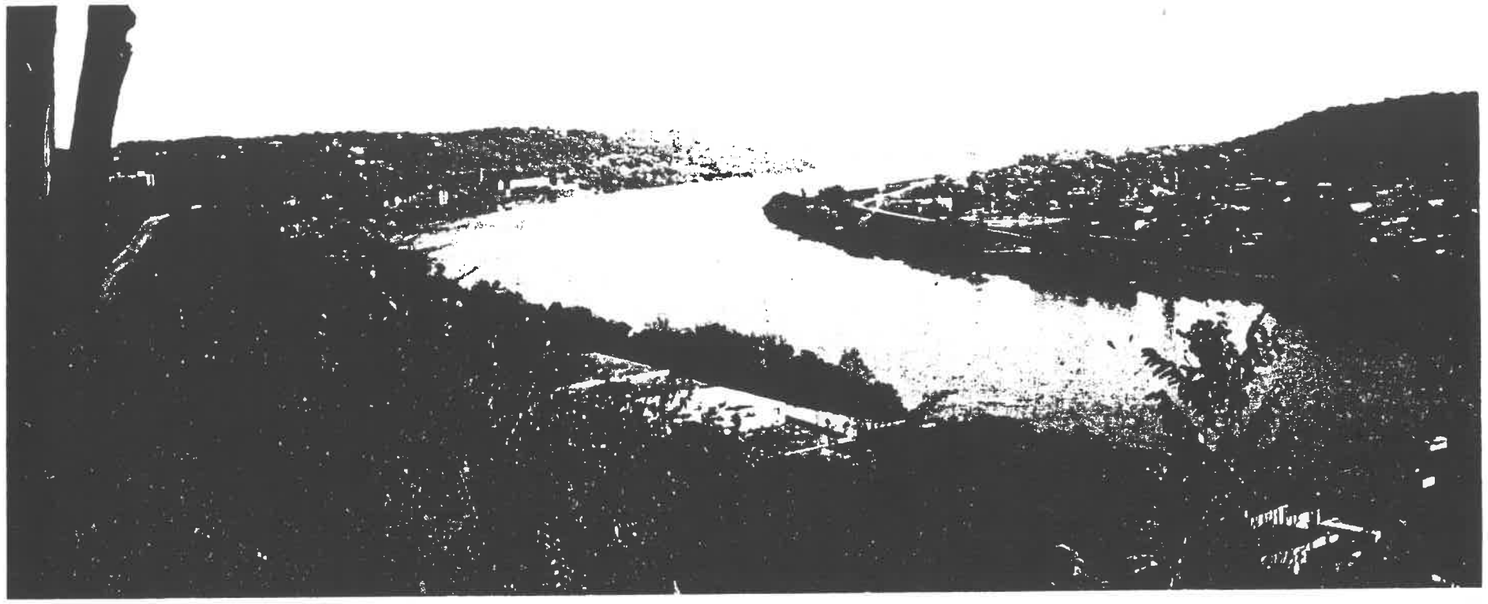
Site Furnishings

Site furnishings should be scattered along the walking trail and clustered at the commercial center. These include benches with backs, trash receptacles, and bicycle racks.

Also at commercial center along the greenway walking path, a logo should be located denoting the sub-area's or site's identity to the river. This can be a utilitarian piece or simply an art piece, but it should be rooted in neighborhood culture.

Pavements

The walking trail should be constructed of two 2" lifts of asphalt and be 8'-wide. Pedestrian linkages inboard should be constructed of 5"-thick concrete. At the four commercial centers, a warm-colored pressed concrete paver should be utilized to signify gathering areas. In the final design, vehicle access points should be identified at appropriate locations for safety, emergency and maintenance vehicles.



6.0 Implementation Strategy

6.0 Implementation Strategy

6.1 Introduction

The Community Development Plan and Guidelines are expressive of the development recommendations and a means by which to ensure compatibility between new and existing uses. The intent of the strategy is to provide the actions needed to carry out the redevelopment process. The implementation strategy also describes the priority or order of improvements by which the Community Development Plan and Guidelines can be achieved. It should be noted that a Project Manager has been appointed to oversee both public and private improvements in the East End Riverfront. Upon approval of a plan by the Planning Commission and City Council the Project Manager will officially begin implementation of approved and funded plan recommendations.

Investment from both the public and private sectors will be necessary to facilitate redevelopment activity.

6.2 Capital Improvements Schedule

Table 1 shows the projected capital costs anticipated to be incurred during the implementation of the East End Riverfront Plan. The numbers calculated in 1991 dollars, are order-of-magnitude estimates and upon more detailed evaluation are subject to revision.

Table 1 reflects the projected cost of each line item, if a federal or state match is available, if funds have been set aside to pay for the project, and the approximate amount of addi-

Department/Project/ Description	Estimated Cost (000's)	Fed/Ohio/ Exist. Funding	New Local Funding (000's)	Percent of expenditure per calendar year 1992	1993	1994	1995	1996	1997	1998	1999	2000
Public Works												
Railyard Conversion												
Abondonment of Line	17050	11372	5678		50	50						
Remove Bridges	670	670				100						
Remove Tracks	275	275				100						
Replace Bridges	2925	2632	293			100						
Site Clean/Clear	110		110			100						
Eastern Ave. Realignment												
• Rookwood Overpass	980	882	98			100						
• Delta Overpass	4260	3834	426			100						
Collins realignment incl. paving Gladstone	410	369	41			100						
CG&E unloading/pipeline	2882	2306	576			100						
Railroad Sub-total	**29562**	**22340**	**7222**									
Streets and Roads												
Widen & improve Eastern	2400	2100	300			75	25					
Improve Existing Hoff	55	49	6			100						
Rehab Gotham and Foster	13	12	1			100						
Repair Watson	25	22	3			100						
Repair Wenner	24	22	2			100						
Repair Setchell	25	22	3			100						
Street Tree Pits	213		213			57	43					
Street Trees	213		213			57	43					
New Riverside Street	549		549				100					
Repar Old Humbert	18	16	2				100					
Repair Strader	28	25	3				100					
Repair Worth	27	24	3				100					
Repair Lower Delta	25	22	3				100					
Repair Walworth	61	55	6				100					
Extend Hoff to Torrence	620		620					100				
Repair Keck, Foster	24	22	2				100					
Storm Sewer-1900 block	70		70		100							
Streets & Rds Sub-Total	**4390**	**2991**	**1999**									

Department/Project/ Description	Estimated Cost (000's)	Fed/Ohio/ Exist. Funding	New Local Funding (000's)	Percent of expenditure per calendar year 1992	1993	1994	1995	1996	1997	1998	1999	2000
Traffic Engineering Division												
Increase Lighting level Bains - Torrence	8	8							50	50		
Replace Interconnect cable Delta - Collins	72	72							100			
Possible traffic signals for 3 development sites	180		180								33	34 33
Traffic Eng. Sub-Total	**260**	**80**	**180**									
Public Works Total	**33330**	**24105**	**9225**									
Metropolitan Sewers												
Separate combined system on and north of Eastern-St. Andrews to Bayou	900	900		25	25	25	25					
Repair collapsed Sewer-2400 Block of Hoff	43	43			50	50						
Metropolitan Sewers Total	**943**	**943**										
Cincinnati Water Works												
Repl 10" Main-Eastern P. rose to Kemper	688	688				100						
Repl. 10" Main-Eastern between Kemper & Ferry	638	638					100					
Repl 48" w/54" /48" Main main station to Torrence	1500	1500		25	50	25						
Water Works Total	**2826**	**2826**										

Table 1-Capital Costs and Funding Schedule

tional dollars to finance the improvement. The right side of the table shows the year in which the item will be implemented.

The costs involved in the railway conversion are based on costs generated in 1989 and require updating.

Most of the information contained in this table was supplied by the City departments that will be most directly involved in the implementation of the specific improvements.

The shoreline walking path and the bikeway on a portion of the railroad right-of-way are of particular concern, because they will constitute large new facilities, the on-going maintenance of which will be expensive. Adequate lighting and security will be necessary along the path.

Current Park Board and Recreation budgets are not adequate to address this cost. The East End Project Manager will work with the Park Board to (1) locate and tap into private sources of funds and contributions for a maintenance endowment, and (2) work with the City budget office to determine the amount of City funds needed to complete an adequate maintenance endowment, and to set up that fund.

The East End Riverfront is greatly constrained between the river and hillsides and further serves as a conduit for regional infrastructure systems including U. S. state routes, rail right-of-way and utilities. It is important that maintenance and improvements to existing utilities are coordinated among the various public and quasi-public agencies. Such agencies must engage in joint planning and use of space as additional improvements are proposed.

6.3 Review of Current Programs

Introduction

A variety of programs are currently offered by the City's Department of Neighborhood Housing and Conservation. These programs include financial assistance for homeowners, potential homeowners and developers/investors, and programs that counsel, advise and represent. The programs are listed as follows:

I. Programs for Existing Homeowners

Department/Project/ Description	Estimated Cost (000's)	Fed/Ohio/ Exist. Funding	New Local Funding (000's)	Percent of expenditure per calendar year 1992	1993	1994	1995	1996	1997	1998	1999	2000
Recreation Department												
LeBlond Playground												
Parking Expansion	30	30		50	50							
River Vetws Areas (2)	100		100			100						
Walkways	30		30			100						
Shade Trees (definition)	50		50			100						
Schmidt Field												
Concession, residence and maintenance building	600		600					100				
Picnic and Play Equip.	100		100			100						
Walkways, Picnic (Humbert)	50		50			50	30	20				
Roadway to Turk Rdg. and thru ballfields	160		160				50	50				
Boat Launch and Parking	1100	734	366				50	50				
St. Peters Playground	300	150	150		100							
Other Recreation Parking												
Rakestraw-patch and seal	15	15		50	50							
Delta/Kellog-resurface	25	25		50	50							
Asphalt Trail on RR ROW to Lunken	1200	600	600		67	33						
Recreation Total	**3760**	**1554**	**2206**									
Park Board												
International Friendship Park	2500		2500				30	40	30			
Shoreline Walkway												
Asphalt Riverfront Trail	400	200	200		25	10	10	10	10	10	10	10
Plantings/Lights/Furn.	300		300		20	10	10	10	10	10	10	10
Shore Stabiliz./Overlooks	300		300		25	25	25	25				
Acquisition	100		100		20	20	20	20	10	10		
Parking Lot (restaurant)	400		400				50	50				
Park Board Total	**4000**	**200**	**3800**									

Department/Project/ Description	Estimated Cost (000's)	Fed/Ohio/ Exist. Funding	New Local Funding (000's)	Percent of expenditure per calendar year 1992	1993	1994	1995	1996	1997	1998	1999	2000
Neighborhood Housing and Cons.												
Rehab Community Center	200		200	20	50	30						
Housing Dev't Site Acq.												
Keck St. Site (3A)	375		374			53	47					
Railyard Site (4B)	500		500		100							
Misc. Acquisition	200		200		50	50						
Housing Dev't Site Prep.												
Keck St. Site	150		150				50	50				
Railyard Site	200		200			50	50					
Rehabilitation Programs												
Major Improvements	875	875			20	30	50					
Code Compliance	625	625			20	20	20	20	20			
Low-Income Housing												
Betz Flats Rehab	297	297			100							
Kelley's Landing (front)	172	172			100							
Market/Affordable Housing												
Kelley's Landing (riverfront)	242	242			100							
Foodplain Foundat./Infra	200		200			50	50					
Acquisition-RR land	600		600			100						
Neighborhood Housing	**4636**	**2211**	**2424**									
Grand Total	**50377**	**32545**	**17831**									

Funding Schedule

- Housing Rehabilitation Loan Program
- Home Maintenance Program

II. Programs for Potential Homeowners

- New Home Owner Program
- Urban Homesteading Program

III. Programs for Developers/Investors

- Housing Implementation Program (HIP)
- Successor to Rental Rehab Loan Program
- New Housing Program

IV. Programs that Counsel, Advise and Represent

- Fair Housing
- Housing Counseling
- Tenant Representation

Details of Neighborhood Housing and Conservation Program

I. Programs for Existing Homeowners

a. Housing Rehabilitation Loan Program

Purpose

The Housing Rehabilitation Loan Program, also known as the Single Family Loan Program, has been established to bring the homes of low- and moderate-income homeowners into compliance with the Cincinnati Ohio Basis Building Code, to stabilize Cincinnati's housing stock and to enhance the overall environment of the neighborhoods.

Form of Assistance

Single-family property rehabilitation loans are made to those low- and moderate-income persons who own a property containing from one to four living units. The first priority is to meet building codes, after which the loan can be used for energy conservation, refinancing of existing debt on the property and closing costs of the loan.

Eligibility

To be eligible for a loan the homeowner must:

- Occupy the property at the time of application and remain in the property a minimum of three years.

- Agree to use the property for residential purposes only,
- Have the ability to repay the loan with a steady source of income,
- Be current on all indebtedness and not have excessive assets,
- Qualify under Section 8 Maximum Income Guidelines as follows (these are 1991 guideline, to be updated in January of each year):

# of Persons in Family/Income

1	$22,600
2	25,850
3	29,100
4	32,300
5	34,900
6	37,500
7	40,100
8	42,650

Application Process

The typical loan process involves the following steps:

- Make appointment
- Interview with Loan Officer
- Inspection by City Housing Inspector and Specification Writer for preparation of preliminary Scope of Work
- Homeowner gives specs and work required packages to contractors/bidders
- Bid Opening
- Contractor selected
- Loan Review Board approval
- Loan closing
- "Proceed Order" issued to contractor

To apply for a Housing Rehabilitation Loan, call 352-3481.

b. Home Maintenance Program

Purpose

The Home Maintenance Program has been created to provide, through a nonprofit building-trades service contractor, the resources through which low-income homeowner residents, particularly elderly and handicapped persons, can secure home repairs. The intent is to enable such persons to remain in their current housing while enabling the City to maintain existing housing and to reduce further deterioration of such housing.

Forms of Assistance

- Home Maintenance services provided by this nonprofit contractor include:
- Major home repairs sufficient to maintain the structure in a safe, sanitary, and workable condition
- Emergency services performed as needed, where a delay of more than 24 hours would cause a critical increase in damage or affect the safety and health of the persons whose residence is affected.
- Home Maintenance Program repairs must meet the City's Buildings and Inspections Department, Safety and Maintenance standards.
- The maximum amount available for any one house is $10,000 including administrative costs and indirect cost allocation, and materials and labor.

Eligibility

To receive assistance through this program, all services must be for low-income households residing in the City of Cincinnati. Call for eligibility guidelines.

Priority is given to the most necessary and crucial repairs required.

Application Process

If eligibility requirements are met and you would like to apply, call People Working Cooperatively at 351-7921.

II. Programs for Potential Homeowners

a. New Home Owner Program

Purpose

The New Home Owner Program assists low-income families who would not otherwise be able to own their own home. Low-income families with past credit problems and minimal down payments are given an opportunity to own a home in this program.

Form of Assistance

The City works closely with Niemes Community Development, Inc. (NCDI), a private for-profit corporation. Single-family homes are purchased and rehabbed by NCDI using City funds. NCDI identifies potential homeowners and matches them with homes. NCDI acts as a co-owner and assists the potential homeowner in securing private financing. Proceeds from the refinancing are used to repay the City for its acquisition and rehab costs.

Eligibility

To be eligible for the New Home Owner Program, the applicant must:

- Complete the Better Housing League Homeownership Training and Counseling Program
- Have a minimum down payment of $500
- Be current with all debts. Past due payments, collection items and judgement liens must be paid in full
- Be two years from a bankruptcy discharge
- Have income less than 80 percent of the area median income as shown in section B.1.a.

Application Process

The typical application process includes the following steps:

- Pass telephone screen
- Make an appointment
- Complete application
- Complete Better Housing League Home Ownership training classes
- Select a home
- Execute a co-ownership agreement
- Apply for private financing
- Loan closing

To apply for New Home Owner Program, call Niemes Community Development, Inc., at 421-8523.

b. Urban Homesteading Program

Purpose

The Urban Homesteading Program was created to make home ownership possible for families who could otherwise not afford a home.

Through the Urban Homesteading Program, deteriorated homes are restored to first-class condition and declining neighborhoods are improved through renovation activity.

Form of Assistance

The Urban Homesteading staff assemble a list of restorable buildings. Through a lottery, abandoned, vacant, one-, two-, and three-family homes are awarded to eligible recipients who agree to rehabilitate the homes to City specifications.

Eligibility

To be eligible for a lottery, applicants should:

- Have the necessary funds or the financial ability to borrow funds sufficient to rehabilitate the homestead,
- Have sufficient established income to maintain the homestead after the necessary repairs have been made,
- Be households who earn less than $30,000 a year for the first individual and $1,500 a year for each additional family member,
- Be able to demonstrate that homesteading would result in a more favorable housing situation for them,
- Not own a home,
- Be a citizen of the USA,
- Comply with the Homesteading rules and procedures, and
- Take an active part in community affairs.

Homesteaders are obligated to remain in the homestead as their principle place of residence for up to five years.

Application Process

To participate in a Homestead Lottery:

- Contact the Homesteading Program at 352-3743 for an application,
- Have eligibility and financial status confirmed and be matched to the property available in the lottery,
- Attend a lottery where winners and alternatives are selected for each property,
- Sign an agreement, receive keys and have utilities transferred into one's name,
- Put out bid packages, based on City specifications, for work required by the building,
- Select a contractor,
- Have a loan closing,
- Monitor work progress and make disbursements in accordance with the contract,
- Allow specification writer to inspect all work,
- Occupy property when minimum occupancy standards are met,
- During the required 3-5 year occupancy, allow semi-annual inspections to check continuing compliance with all applicable building codes, and
- After the 3-5 year residency requirement is met, receive title to the property and enjoy privileges of ownership and the right to sell the property.

III. Programs for Developers/ Investors

a. Housing Implementation Program (HIP)

Purpose

The Housing Implementation Program was established to increase permanent housing opportunities for low- and middle-income homebuyers and renters. By removing the blighting conditions caused by neglected and vacant properties, HIP improves neighborhoods and creates more available housing units within the City.

Forms of Assistance

Housing Implementation Program assistance is provided through low-interest rate loans and grants that are given for rehabilitation and new construction. The City will finance up to 50 percent of a project's cost not exceeding:

- $15,000 per rehab rental unit
- $20,000 per rehab homebuyer unit
- $20,000 per new construction rental or homebuyer unit

Eligibility

To be eligible for a HIP loan or grant, you must:

- Be the owner of a multi-unit project proposed for resale to individual owners or for long term rental to tenants.
- Have ownership rights: fee simple title, a land contract, an option to purchase, or a purchase contract open for renewal for at least 90 days.

This program is available to all housing properties and owners not eligible under the Housing Rehabilitation Loan Program, which is for one- and two-family owner-occupied housing.

HIP loans may be given to both nonprofit and for-profit developers. Most HIP assisted projects require significant development time and advance discussion with staff. Funds are committed well into 1992.

HIP funding is provided on a competitive basis.

Application Process

To apply for a HIP loan or to get more details, please call 352-1931.

b. Successor to Rental Rehab Loan Program

Purpose

The Rental Rehabilitation Loan Program was established to assist rental-property owners in rehabilitating substandard housing, and to bring rental units for low- and moderate-income families into compliance with the City of Cincinnati Building Code. These objectives promote and stabilize Cincinnati's rental housing stock.

While this program, as currently established, is being terminated nationally and locally, a new program under the H.O.M.E. umbrella probably will be established by late 1992. Call 352-1933 for information on this new program.

c. New Housing Program

Purpose

The New Housing Program was created to induce the construction of new homes which will be made available for sale and will have a value of at least $50,000 or more. The purpose of the program is to ensure that the City increases its share of the overall owner occupied housing development in the metropolitan area in order for the City to maintain a healthy property tax base and increase the socio-economic characteristics of its population.

The New Housing Program is designed to only provide gap financing or part of the financing which is necessary to make the construction of the prospective owner-occupied housing possible.

Form of Assistance

The financial assistance can take the form of loans, loan guarantees, mortgage financing, and the construction of public improvements to prospective developers of housing built for owner-occupancy.

Eligibility

For-profit and/or not-for-profit developers or agencies whose purpose is to increase the housing stock of owner-occupied housing within the corporate boundaries of the City of Cincinnati. Each housing unit should have an appraised value of greater than $50,000. Funds should not be used to construct or rehabilitate property to be occupied by the recipient(s) of the funds. Applicants should have a prior successful history of constructing and/or renovating housing.

Application Process

Since the New Housing Program funds are allocated on a competitive basis, those projects

which have received firm financing commitments, have a high ratio of total project cost to New Housing Program Funds, and have a high ratio of unit costs per New Housing Program Funds will be given the strongest consideration. Call 352-4692 for further information.

IV. Programs that Counsel, Advise and Represent

a. Fair Housing

Purpose

The Fair Housing Program has been developed to promote affirmatively equal housing opportunities and to prevent present and future discrimination in the sale, rental, finance and insurance of housing.

Forms of Assistance

Promotion of Fair Housing is accomplished through consumer education and outreach through advertising and contact with churches, PTA's, community councils, high schools, etc.

Fair Housing consumer protection is accomplished through:

- Testing
- Complaint investigation, counseling and referral
- Industry education
- Monitoring of governmental housing programs and federally assisted private sector housing

Application Process

If you have been discriminated against and you need Fair Housing assistance, please direct your complaints, questions and suspicions about discriminatory circumstances to Housing Opportunities Made Equal (H.O.M.E.) at 721-4663.

b. Housing Counseling

Purpose

Housing Counseling is available to provide direct technical advice and remediation to help homeowners and renters solve their housing problems.

Forms of Assistance

Available services include:

- Foreclosure prevention counseling
- Home repair advice for the elderly and handicapped
- Home loan counseling
- Housing research for renters

Eligibility

All housing counseling services shall be for low- and moderate-income households residing in the City of Cincinnati, as described in section 6.31.a.

Application Process

If you are in need of Housing Counseling, contact the Better Housing League at 721-6855.

c. Tenant Representation

Purpose

The Tenant Representation Program is offered through the Legal Aid Society. They offer legal services to eligible people to resolve rental-housing problems.

Forms of Assistance

- The Tenant Representation program provides legal assistance for eligible clients who have legal problems related to landlord-tenant relations, including evictions, lockouts, landlord interference with utility service, enforcement of housing and health codes and other tenant rights under the City of Cincinnati Landlord/Tenant Ordinance.
- Assistance to eligible clients who have property damage or personal injury claims arising out of their tenancies if private legal representation cannot be obtained.

6.4 Tax Abatement: Existing and Potential

1. Background

There are several types of tax abatement which may be implemented by the City for residents and developers in Cincinnati. Two are available through the establishment of a Community Reinvestment Area (CRA), or through the use of a process established through the State of Ohio's Impacted Cities' legislation.

In order to establish a Community Reinvestment Area, a City Council Resolution must determine that the area is one in which housing facilities or structures of historical significance are located, and an established pattern that new construction and rehabilitation are discouraged.

Within a CRA, the abatements apply to all developments within each of three categories. The three categories are as follows:

- Remodeling of existing one and two family units (up to ten years)
- Rehabilitation of commercial, industrial, or residential structures of more than two units (up to twelve years)
- New construction of residential, commercial, or industrial structures (up to 15 years)

The entire city has been established as a CRA for providing for remodeling one-and two-family structures for 10 years, as described in section 'a' above.

A weakness in this approach is that the City cannot give preference to low-income housing development over market-rate development. Both must be treated the same way. The CRA is not project-specific and is applied equally to a designated area.

This problem would be rectified through the abatement process set up in the State's Impacted Cities enabling legislation. (Ohio Revised Code, ORC Chap. 1728) Tax abatement could be granted to a "Community Urban Redevelopment Corporation" on a case-by-case basis. A prerequisite for designation under this program is that the area must have an adopted Urban Design Plan.

2. Existing City Program Administered through the Neighborhood Housing and Conservation Department.

The Tax Abatement Program has been established to promote housing rehabilitation through tax incentives. This is the program whereby homeowners can tap into the tax abatement offered in the City-wide CRA discussed above. The cost of renovating or remodeling is usually added to the value of a home and therefore, increases the real estate tax bill. Under the Tax Abatement Program, the added value is not taxable for 10 to 15 years.

A rehabilitation project is eligible for tax abatement if:

- The property is located within the City of Cincinnati,
- The structure contains not more than two dwelling units,
- The cost of remodeling is at least Two Thousand, Five Hundred Dollars ($2,500), and
- The work began on or after January 1, 1981, under proper building permits, and is completed in compliance with the applicable building code and zoning regulations.

3. Other Tax Exemption/Increment Programs

Other tax programs are found in ORC Chapter 725, available in sales by a municipal corporation to a developer in an urban renewal area; ORC Sections 5709.41 to 5709.43 available in the lease of land by a municipal corporation in an urban renewal area.

ORC Sections 5709.61 to 5709.72 cover Urban Job and Enterprise Zone, and other state laws may provide property tax relief without City action, such as the elderly homesteading exemption.

4. Potential Property Tax Limitations

For several years, the Cincinnati Board of Education has been urging the State of Ohio to pass "Circuit-Breaker" legislation that would limit the tax liability of low-income and elderly homeowners. The proposed legislation would put a cap on the real estate tax they would be required to pay, equal to a percentage (2 or 3 percent) of their income. This would provide tax breaks to those most stressed by property tax increases, and would increase support by elderly and low-income voters.

It would also give tax breaks to those who do not have a high income, but live in an area of rising housing values. Such people now fear losing family homesteads through their inability to keep up with tax increases. Circuit Breaker legislation would lower the fear of displacement, thereby decreasing some of the fear-based opposition to planning in areas such as the East End.

The School Board has been urging the City to join them in lobbying the State on this enabling legislation, and the City has now joined them with City Council's passage of Resolution No. 151-1991.

Extension of Special Relocation Benefits to East End Residents.

The Legal Aid Society of Cincinnati has requested that City Council designate the East End Riverfront as an area to be covered by Chapter 740-9(b) relocation benefits as of March 27, 1991, and the East End Area Council has been requesting such designation since April 1,1991.

Such action would include, but not be limited to, evictions without just cause, and precipitous rent increases. This Plan recommends that City Council invoke Chapter 740-9(b).

6.5 Truck Traffic Study To Be Conducted

For years, the volume and speed of truck traffic on Eastern Avenue has been of great concern to East End residents. As part of this East End design plan, the City will commission a truck traffic study by the City's Traffic Engineering Division and the Ohio Kentucky Indiana Regional Council of Governments. This study would look at changes in truck volume on Eastern Avenue, the origin and destination of trucks using Eastern Avenue, actual speeds of trucks and other vehicles using Eastern Avenue, and would include an analysis and evaluation of alternate truck routes.

This study should be overseen by the City Planning Department and the Riverfront Advisory Council.

6.6 Land Use and Zoning

The East End Riverfront Plan identifies a number of goals and development criteria to enhance and stabilize the existing community. However, a number of the existing land uses and zone districts contradict the goals of the Plan.

These contradictions primarily deal with the amount and type of new development that is anticipated to occur in the East End over the next 15 to 20 years. As indicated in the History Section 1.3 History, the East End developed as a river related business and riverfront industrial area which required intensive and less restrictive business and riverfront zoning districts. However, over the past 30 years, the East End Riverfront area has lost most of its industrial uses, leaving behind a predominantly residential community with a dwindling stock of businesses and housing units. Although the character of the area has changed in recent years, the zoning has changed very little from zoning that was enacted as early as 1933. A map of the existing zone districts is shown on the following map.

Land uses inconsistent with the recommendations of the Plan and the existing community could develop in the following areas:

Eastern Avenue:

- A substantial portion of the zoning along the north and south sides of Eastern Avenue is under utilized General Business (B-4) zoning. The B-4 zoning district allows automotive and light manufacturing uses, the highest residential density (79-108 units per acre) allowable, and building heights to 85 feet.

- The Riverfront Commercial-Enclosed Industrial (RF-2) zone districts found on the south side of Eastern Avenue allow barge terminal facilities, river oriented industrial facilities, and maximum heights to 100 feet.

- A small section of Multifamily High Density Residential (R-6) and an R-6(T) (Transition) zone district exists on the north side of Eastern Avenue across from Cincinnati Water Works pump station. The R-6 district allows residential densities up to 73 units per acre and building heights well above the Plan's desired 45 feet. The Transition zone currently abuts a less restrictive B-4 district. Use in the adjacent, less restrictive district could be granted, through a public hearing.

Hoff and Walworth Avenues

The Multifamily Low Density (R-4) zone districts allow residential densities up to 21 units per acre and building heights up to 45 feet.

In order to reinforce the residential character of the neighborhood and protect against the development of adverse land uses, an Interim Development Control District (IDC No. 30 - Eastern Riverfront) was established for the area. The IDC required a review by the City Planning Commission of building permits on principal structures for demolition, new construction, or expansion of more than 25% of the existing floor area. The IDC was in effect for 24 months to the maximum two-year period to allow for the completion and adoption of the East End Riverfront Plan.

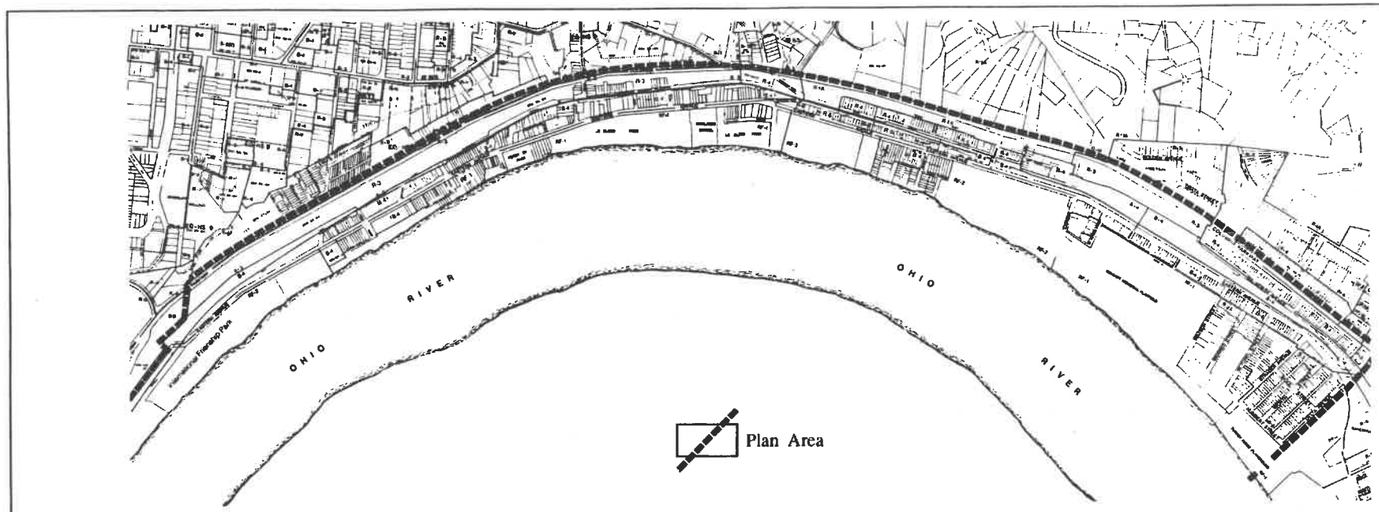
Section 2.5 The Plan-1992 outlines actions required to achieve the goals of the Plan. These actions include recommendations for future land uses, densities, and building heights either by specific areas or community-wide. The following recommendations should assist in the analysis and determination of appropriate zoning districts for the East End Riverfront plan area. (For specific densities and heights, please refer to the matrix at the end of this section.)

- Infill housing compatible in scale with the surrounding environment - zone districts should match existing building heights and densities. Applicable zoning districts would include Two-Family (R-3), Multifamily Low-Density (R-4), and Multifamily Medium-Density (R-5).

- Eastern Avenue
  South side - enact low-density single-family zone districts for floodplain areas and low-density single-family to medium-density multifamily zone districts for areas not located in the floodplain. Applicable zoning districts would include R-3, R-4, and R-5.

  North side - enact low-to medium-density multifamily zone districts where adequate parking can be provided. Applicable zoning districts would include R-3, R-4, and R-5.

  Commercial Centers - limit the three commercial centers (Western edge of neighborhood, Collins Avenue, and Corbin Street) to a zoning district which promotes community retail activities while respecting



Existing Zoning

the existing building heights and preserving views. Applicable zoning district; Community Business (B-2).

- Riverfront Pedestrian Path - Enact riverfront zoning which allows recreational uses or amend other existing riverfront zone districts to allow recreational uses. Applicable zoning districts would include Riverfront Recreational-Residential (RF-1), Riverfront Commercial-Enclosed (RF-2), and Riverfront Heavy Industrial (RF-3).

- Low-to mid-rise developments
  Rail yard site - propose zoning districts that will not greatly exceed existing building heights and densities. Applicable zoning districts would include; R-4 or R-5.

  Former American Building Components Site - propose zoning that adheres to the recommendations for areas outside the floodplain and along Eastern Avenue, allows for the development of the community's western commercial center, provides public open space along the shoreline, and permits buildings that are of a medium height and density east of the Rookwood Underpass. Sites west of the existing Rookwood Underpass are recommended to conform in scale and character to the approved Adam's Landing development. Adam's Landing is a proposed mixed-use commercial and residential development with a residential density of 44 units per acre housed in mid- to high-rise buildings. Applicable zoning districts would include a combination of R-4 or R-5, RF-1, and B-2.

Whenever recommendations for the rezoning of large communities like the East End Riverfront area are made, a number of conforming or complying uses may become nonconforming uses. These uses are defined as follows:

- Conforming - a use that is permitted in the zone district and also meets the density requirements of that district.

- Nonconforming - a legal use which existed before the Zoning Code but is not permitted by the zone district in which it is located.

- Complying - a use that is permitted in the zone district, but does not meet the density requirements of that district.

A legal nonconforming use may remain in its present location indefinitely. The use may also be expanded on its existing site by as

much as 50%, or another use may be substituted. Zoning rights run with the land, and the property containing the nonconforming use may be sold to another individual. Other nonconforming uses may be substituted within the limits prescribed in the Zoning Code. The property can lose nonconforming use rights if: (1) the building or land has not been used for a period of two years; (2) the building containing such use is damaged to the extent of 150 percent of the assessed improvement value; or (3) a use is established which conforms to the current zoning on the property.

In some cases, the standards of the zoning code may not meet all of the specific goals as identified in the Plan and cannot be accomplished solely through the use of base zoning. Environmental Quality Districts (EQ) are overlay zones that are used to protect areas that are vulnerable to damage by development permitted under conventional zoning and building regulations. An EQ district could set additional standards to limit building heights and promote view protection beyond those imposed by the underlying zone districts. At this time, Cincinnati's Zoning Code does not possess an EQ District that meets all of the conditions and needs of the East End Riverfront Plan.

The introduction of a new District or the modification of an existing District could be used to accomplish the additional goals of the Plan. Matrix:

Zone District	Units/Acre	Max Bldg Ht
R-3	10	35 ft
R-4	17-21	45 ft
R-5	29-36	*
B-2	29-36	85 ft
RF-1	10	35 ft

* - maximum building height is two times the distance from the building line to the center line of the street.

6.7 Geotechnical Constraints

Geotechnical constraints are a major concern in a community that stretches along a river at the base of steep hillsides. The two primary constraints are the certainty of periodic flooding and the necessity to protect fragile hillsides from development that would speed up the natural erosion process. This chapter will review the regulations governing development in flood-prone and landslide-prone areas.

Development Controls in the Floodway and Floodplain

When discussing flood-related regulations, there are two sources of regulations that come to bear on development in the East End. The first source is the federal Department of Housing and Urban Development (HUD), which lays out the requirements for the use of its funds on development. The second source of regulations is the Cincinnati-Ohio Basic Building Code (COBBC), which delineates the city and state building code requirements for development in flood-prone areas.

1. HUD Requirements for Activity in a Floodplain

HUD requirements vary according to how vulnerable to flooding the site is, the criticalness of the land use, and whether the contemplated development can qualify for exclusion from review or exemption. The following map shows the areas of the East End that are within the 100-year floodplain and floodway.

The table on the following page, shows the HUD requirements as they pertain in various combinations of these situations.

The six step review process specified by HUD is as follows:

a. Notify the public at the earliest possible time of a proposal to consider an action in the floodplain or wetlands and involve the affected and interested public in the decision-making process.

b. Identify and evaluate practicable alternatives to floodplain or wetland locations including alternative methods, location, or no action.

c. Identify the full range of potential, direct or indirect, adverse impacts of the activity in the proposed floodplain or wetlands.

d. Where practicable, design or modify the proposed action to minimize potential adverse impacts and to preserve natural and beneficial values of the floodplain or wetland.

e. Reevaluate the proposed action to determine first if it is still practicable in light of its exposure to flood hazards or adverse impact on wetlands, and secondly, if Step 2 alternatives are practicable in light of Steps 3 and 4.

f. Prepare and provide the public with a finding and public explanation of any final decision that there is no practicable alternative to locating an activity in the floodplain or wetland.

The local reviewing authority is the staff of the City Planning Department. They incorporate public comment as a part of their environmental review process.

2. Cincinnati-Ohio Basic Building Code (COBBC) Requirements for Structures in the Floodplain

The COBBC is the document that specifies the requirements for development or rehabilitation of structures in the floodplain, regardless of whether the projects are assisted by HUD or not. This code covers all structures, public or private. Its provisions are outlined in the section below:

The City's Buildings and Inspections and Law Departments have drafted an instruction sheet on plan-submittal requirements for structures in the floodplain for distribution to homeowners, potential rehabbers, and builders interested in working in this area. This sheet is based on Chapter 1133 of the COBBC. This Chapter is currently being revised, and once it is, Buildings and Inspections and the Law Departments will revise their handout, which will be made available to the public. Please contact either the Buildings and Inspections, City Planning, or Neighborhood Housing and Conservation Department to receive a copy of the latest information on what can and cannot be done in the floodway or floodplain.

Hillside Stability

The Appendix to this document includes a relative stability analysis indicating those areas of the East End Riverfront hillside and shoreline that have a history of instability and those areas considered to be at high risk for landslides.

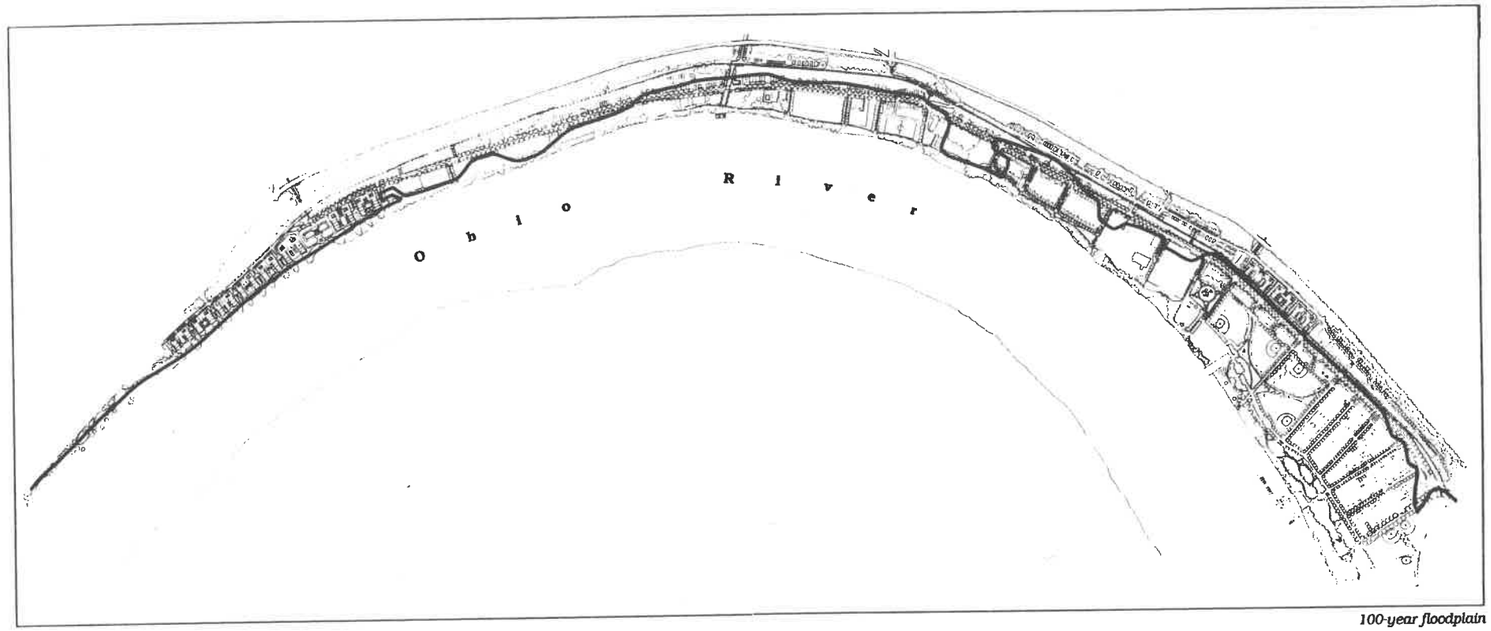
ADDITIONAL HUD REQUIREMENTS FOR PROJECTS IN FLOODPLAIN OR WETLAND
(UNDER PROPOSED / PENDING 24 CFR 55)

TYPE OF PROPOSED ACTION	LOCATION		
	I Floodway	II 100 Year Floodplain or Wetland (outside Floodway)	III 500 Year Floodplain (Not in Column I or II)
A. Actions Excluded from Review: include financial assistance for minor improvements on 1-4 family properties if not substantial improvement. See definition below.	No HUD assistance allowed.	HUD assistance allowed. No review process required. See Note.	No additional HUD requirements.
B. Non-Critical Non-Excluded Actions: 1. Substantial improvements to 1-4 family residential projects. 2. Minor or substantial improvements to non-residential projects and five units or larger residential projects.	No HUD assistance allowed unless functionally dependent use (requires proximity to water) and completion of the six-step review process. See note.	HUD assistance allowed if six-step review process is completed. Series of actions may be aggregated for review. Area-wide compliance process available through an agreement with HUD. See note.	No additional HUD requirements.
C. Critical Actions: include activities containing immobile occupants (e.g. hospital); involving toxic or flammable materials; or providing essential utilities and emergency services, including roadways.	No HUD assistance allowed.	Same as above.	Same as for 100 Year Floodplain.
D. Exempt Actions: include planning studies, administration and staffing.	No additional HUD requirements.	No additional HUD requirements.	No additional HUD requirements.

Note: All assisted financial transactions for properties in floodplain require advance notice to participating private parties and current or prospective tenants of hazards of floodplain location.

Substantial improvement: repair or improvement with cost of at least 50% of the market value before improvements or damage, or that results in increase of more than 20% in the number of dwelling units. Exceptions: Code corrections necessary to assure safe living conditions, or alterations of structures listed on national or state registers of historic places. (This definition applies only to HUD regulations; an increase in number of dwelling units is not relevant under City building code.)

June 1991



100-year floodplain

Appendix

I. *Hamilton County Auditor's Parcel Map*

II. *Engineering and Relative Stability Report*

III. *Report on Geotechnical and Environmental Analysis*

IV. *East End Area Council (EEAC) Recipe for Success*

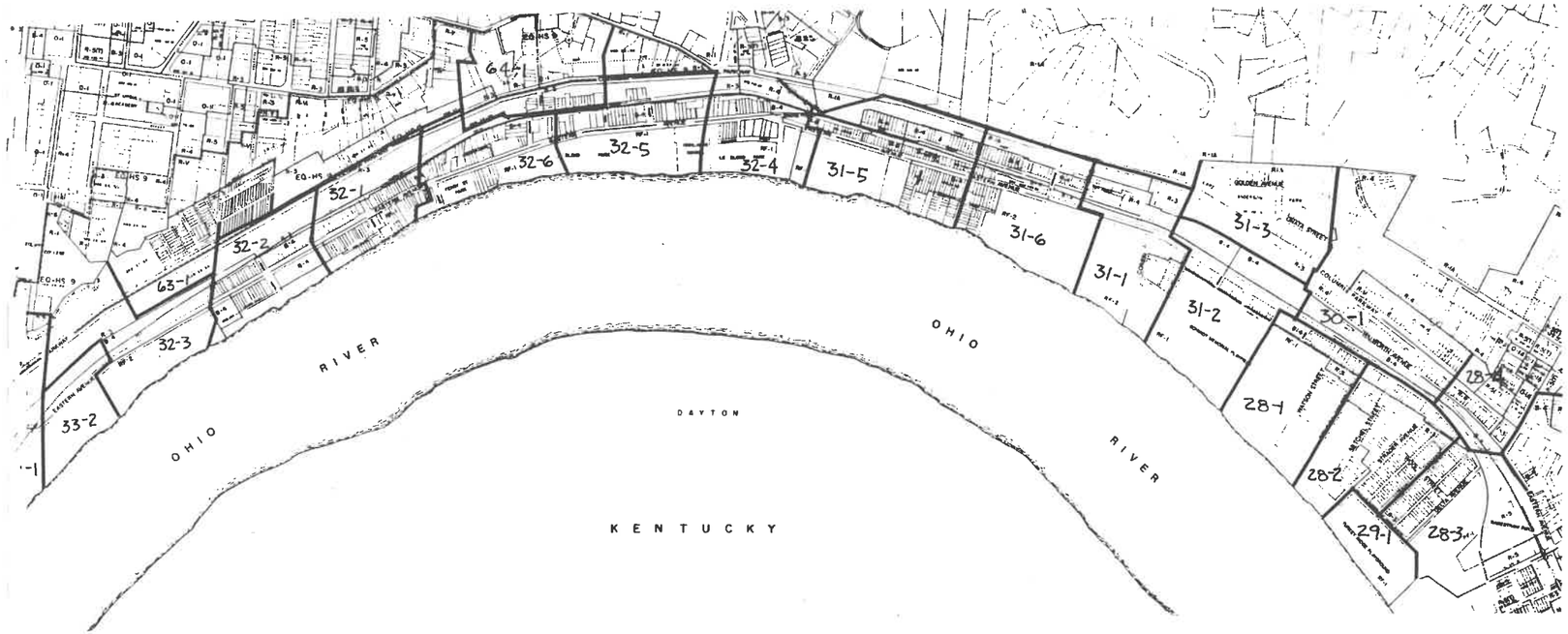
V. *Riverfront Advisory Council (RAC) Response to the EEAC Recipe for Success*

VI. *EEAC Recipe for Successful Implementation*

VII. *Methodology Report for Computer Imaging in the East End Riverfront*

VIII. *EDAW Urban Design Questionnaire and Memoranda*

I. Hamilton County Auditor's Parcel Map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29-1
28-3
OHIO
RIVER
DAYTON
KENTUCKY
OHIO
RIVER

II. Engineering and Relative Stability Report

ENGINEERING GEOLOGIC AND RELATIVE STABILITY

OF

THE EAST END RIVERFRONT DEVELOPMENT

CINCINNATI, OHIO

Prepared By

Richard E. Pohana, Engineering Geologist
City of Cincinnati
Department of Public Works
Engineering Division

January, 1992

INTRODUCTION

This report presents the results of an engineering geologic and relative stability analysis of the East End Riverfront Development area. The purpose of the report is threefold: 1) to document on a map geologic and geotechnical information concerning the area including currently active and past landslides, 2) to classify the ground with respect to slope stability and give recommendations for further geotechnical study prior to development and 3) to communicate this information to the general public, planners, engineers, architects and other professionals involved with the development of the land.

For the purpose of this study the East End Riverfront is defined by Columbia Parkway on the north, the Ohio River on the south, Delta Avenue on the east, and on the west the eastern most edge of the Bicentennial Commons at Sawyer Point. Geological information was available for portions of the hillside above Columbia Parkway and was therefore included in this study.

An Engineering Geologic map, Plate 1, and a Relative Stability map, Plate 2, are the major products of this investigation. The Engineering Geologic map show the locations of existing and past instability and the location of test borings within the area. The Relative Stability map is an interpretive map which is based on the Engineering Geologic map and the depth to bedrock as disclosed by the test borings.

A major portion of both of these maps are compilations of maps previously prepared for masters thesis by University of Cincinnati, Geology graduate students. The area above Columbia Parkway, from the west end of the project to Kemper Lane was mapped by Kenneth A. Richards, 1982 and is presented in his thesis titled "The Engineering Geology and Relative Stability of Mt. Adams, and parts of Walnut Hills and Columbia Parkway, Cincinnati, Ohio". The remaining mapped area above Columbia Parkway and the hillside between Columbia Parkway and Eastern Avenue, from the west end of the project to Torrence Road was mapped by Robert L. Olson, 1988 and is presented in his thesis, "Engineering Geology and Relative Stability of Ground Adjacent to Sawyer Place, Cincinnati, Ohio". The portion of the study area east of Torrence and the entire area between Eastern Avenue and the Ohio River was mapped by Richard E. Pohana, Department of Public Works, Engineering Division of the City of Cincinnati, 1992.

GEOLOGY OF THE EAST END RIVERFRONT DEVELOPMENT AREA

The geologic history of the area is discussed in the preceding H. C. Nutting Report and is therefore not discussed in this report. Robert L. Olson (1988) and Kenneth A. Richards (1982) also discuss the geologic history of the area in their Masters theses. The following is a general description of the bedrock and the surficial materials in the East End Riverfront area.

Bedrock

The bedrock in the East End Riverfront area consists of late Ordovician age shales and limestones of the Kope and Fairview Formations. The formation contact between the Kope and the Fairview formation occurs at an approximate elevation of 700 ft., approximately 75 ft. above Columbia Parkway.

Kope Formation

The Kope Formation is the lowest formation in the study area. The Kope Formation is primarily shale with thin limestone layers typically 2 to 6" thick. The limestone represents 20 to 30% of the total material. The shale in the Kope Formation is not tightly cemented and is therefore susceptible to physical disintergration. The higher percentage and the easy physical disintergration of shale typically results in thick accumulations of colluvium on top of the Kope Formation. The thickness of the colluvium can vary from 3 ft. near the upper contact to more than 50 ft. in the lower portions of slopes.

Located within the upper 50 ft. of the Kope Formation is a unit which has different bulk characteristics than the

typical Kope, and is named the Grand Avenue Member of the Kope Formation. The Grand Avenue Member contains a higher percentage of limestone than the majority of the Kope. Shale layers are not over 2 ft. thick and the limestone layers can be up to 1 ft. thick. The Grand Avenue has a thickness of approximately 11 ft.

Fairview Formation

The Fairview Formation overlies the Kope Formation. The Fairview Formation has an average limestone to shale ratio that varies from 1:1 to 3:1. Bedding of limestone typically is thick, and tabular. A fair proportion of the limestone layers have a thickness of more than 4 inches, some being as much as 7 inches thick and an occasional 9 or even 10 inches. The Fairview Formation supports a steeper slope than the Kope Formation and the soil cover is noticeably thinner. Natural slopes on the Kope Formation may be as low as 9 degrees while those on the Fairview Formation may exceed 20. There is commonly a noticeable topographic break at or near the Kope-Fairview contact. The thickness of colluvium on the Fairview Formation can be absent or ranges to about 6 ft.

Foundations for some of the earlier structures in Cincinnati were made from the local limestone. Practically all the quarrying on a commercial scale was done in the Fairview Formation, and most of it in its upper portion, the Fairmount member or "Hill Quarry Beds".

There is evidence that limestone was quarried from the top of the hillside. Such evidence typically consists of a steep slope which contain exposures of bedrock, with a terrace below the steep slope. In the process of quarrying the shale was often dumped over the slope opposite the exposed face or high wall. In 1975, material wasted from 19th century quarry operations slid onto Columbia Parkway opposite Foster Avenue.

Structure

The most significant structural features, relative to the engineering geology of the area, are joints in the bedrock. The infiltration of groundwater via joints into the overlying colluvium can cause high pore water pressures at the bedrock-colluvium contact. High pore water pressure is one of the major contributing factor to slope instability.

Surficial Deposits

There are basically three types of soil deposits in the study area; man-made fill, colluvium and alluvium.

Man-made Fill

The fill is generally composed of reworked colluvium or weathered bedrock and consist of brown lean to silty clay with shale and limestone fragments. The fill can contain or be composed entirely of a wide variety of earth and man-made materials, including sand and gravel, large limestone slabs, bricks, concrete, cinders, blacktop, wood and miscellaneous garbage, such as glass, metal and plastics. Fill occurs throughout the area wherever roadways, railroad tracks, housing and almost any other man-made structures exist. Fill is absent in some places and is present in thicknesses of up to 40 to 50 feet along the Ohio River. With the exception of the fill along the south berm of Columbia Parkway, the fills are most likely not engineered. Instead it seems that any material available has been used, with little regard to degree of compaction.

Colluvium

Colluvium in the area is weathered shale and limestone bedrock which has been transported down slope by soil creep. Colluvium derived from the Kope and Fairview Formations are typically a very stiff to hard medium plastic clay containing embedded pieces of shale and limestone. During dry periods colluvium at the ground surface is brittle and hard, however, it becomes highly plastic and quite soft after periods of heavy

rainfall. Colluvium occurs along the entire length of slopes above and below Columbia Parkway. The colluvial deposits reach depths of as much as 50 ft. Colluvial deposits are highly susceptible to landsliding. Colluvial deposits often contain fractures and slickensided surfaces. Slickensides are grooves cut into the soil during movement. Strength parameters developed in standard test borings and conventional laboratory tests typically overestimate the strength of colluvial deposits. These tests determine the strength of pieces of the colluvium. The strength and thus the mass stability of the colluvium, however, is determined by the effective shear strength along slickensided surfaces and fractures in the mass.

Alluvium

Alluvium is sediment deposited by streams. In the study area thick accumulations of alluvium occur between Eastern Avenue and the Ohio River east of LeBlond Park. The composition of the deposits range from a silty clay to a coarse sand and gravel.

Test Borings

The location of test borings drilled within the East End Riverfront area are plotted on the Engineering Geologic map, Plate 1. Each test boring is identified by a letter or a letter and a number. Borings numbers preceded by the letter H were drilled in 1967 for improvement of Columbia Parkway. These borings are also plotted on the Relative Stability Map, Plate 2. Inclinometer casings were installed in borings preceeded by the letter I. Boring numbers preceded by the letter B were drilled for various public and private projects. A summary table listing the thickness of fill deposits, the depth to brown and the depth to gray shale at each boring location appears on the Engineering Geologic map. The detailed boring logs of the test borings plotted on the map are available upon request. Interested parties should contact the City of Cincinnati's Geotechnical Staff, the Public Works Department in City Hall.

SLOPE MOVEMENT IN THE EAST END RIVERFRONT DEVELOPMENT AREA

The geologic processes in the area that pose problems to engineering design are soil creep, landsliding, flooding, erosion and consolidation. Problems of flooding are confined to areas below the hillslopes on the alluvial plain along the Ohio River. Problems of consolidation will be greatest in the same area. Problems of erosion will be most common in areas of steep slopes under construction and along the river bank. This study has focused on processes of landsliding and soil creep. The Engineering Geologic map, Plate 1, was constructed to delineate areas of landsliding, soil creep and seepage.

Soil Creep

Soil creep is a slow, continuous or intermittent downslope movement of soil which is induced by gravity and other factors. Creep deformation often precede slope failure. All of the slopes within the study area, especially the steep ones, are actively creeping. There are many examples of cracked retaining walls, foundations and sidewalks, partly buried foundation walls of former structures, encroachment of soil on or over roads and walls, and heavily disturbed staircases in the study area. All of these features are due to soil creep. It would be safe to conclude that soil creep was a major reason for the deterioration of any building demolished in the area.

Landslides

Landslides are a common and long standing problem in the Greater Cincinnati area. Studies performed by the U.S. Geological Survey indicate that the occurrence of landsliding in Cincinnati is of a much higher magnitude than most metropolitan areas. Cincinnati's high incidence of landslides is due to a combination of factors. These factors include clay soil derived from shale bedrock, glacial lake clays, slope,

groundwater, precipitation and human disturbance. Disturbance by construction activity is probably the most significant of all the factors.

In 1980 the consulting firm of Sowers and Dalrymple performed a study of the susceptibility of landslides in Cincinnati and concluded that human disturbance in varying degrees was evident at almost every landslide identified in the study. Disturbances typically included cuts, fills, drainage changes or combination of the three. Water is also an important factor related to landsliding in the Cincinnati area. Most landslides occur in the late winter or early spring during or after prolonged periods of precipitation.

The apparent relation of slope movements to distinct geologic (bedrock) units has also been observed. Landslide problems related to bedrock do not actually involve bedrock but occur exclusively in the colluvium derived from and overlying the bedrock. Generally, it was found that colluvium derived from the Kope and Fairview Formations, were highly susceptible to landslides when on slopes greater than 20%. The failure surface of landslides that involve colluvium are typically nearly vertical in the crown area and parallel to the bedrock surface, occurring along the gradational contact between the colluvium and weathered bedrock, in the interior of the slide.

Landslides in Cincinnati typically move very slowly, on the order of a few tenths of an inch per year. The landslides move so slowly that the increase of damage to roadways and houses generally is nearly imperciptable from year to year, and areas of slowly moving landslides are commonly called areas of creep. The rate of movement, and therefore the rate at which damage becomes apparent, can be drastically accelerated by man-made disturbances, such as digging an excavation or placement of a fill, or by excessive precipitation.

The Engineering Geologic map, Plate 1, shows the distribution of landslides, soil creep and seeps identified in the field by the geologists. Features of landslides, tension cracks, scarps and toes, are plotted on the map. Scarps are near vertical surfaces on the undisturbed ground at the extreme uphill portion of a landslide caused by the movement of slide material away from the undisturbed ground (Figure 1). A fresh landslide scarp typically appears as bare earth with protruding roots which have been broken and pulled from the soil as the slide mass moved downhill. The toe of a landslide is located at the downhill edge of a landslide and appears as a bulged or raised ridge of soil. Landslides can be complex and have several scarps and/or toes. Tension cracks generally appear as open fissures near the top of slide.

Weathering, erosion and regrowth of vegetation causes many of the landslide features to become indistinct in just a few years. Inferred features are therefore represented by dashed lines on the Engineering Geologic map.

Landslides are referred to as either deep seated, with shear planes deeper than 5 feet, or shallow seated, with shear planes shallower than 5 feet. Many of the deeper landslides are slumps or rotational slips along a failure surface whereas shallow landslides are debris slides, where a thin layer of colluvium has translated downslope.

A brief description of several of the larger landslides that occur in the East End Riverfront area and above Columbia Parkway is presented below. Reference numbers identifying the specific location of an area are given in the text. These numbers correspond to the circled numbers on the Engineering Geologic map, Plate 1 and the Relative Stability map, Plate 2.

Slope Movement Below Columbia Parkway

I-471 to Bains Street

The area between I-471 and Bains Street was mapped in 1988 prior to the

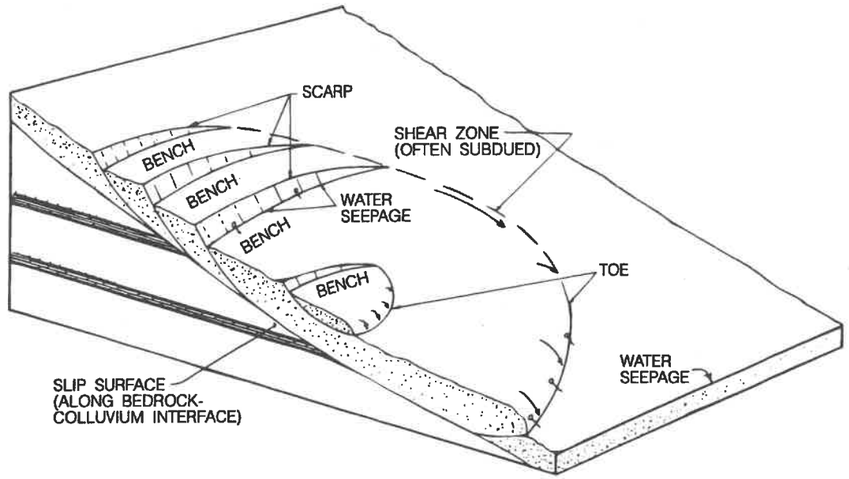


FIGURE 1
Identification of Landslide Features
of a Typical Landslide

Kenneth A. Richards, *The Engineering Geology and Relative Stability of Mt. Adams, and parts of Walnut Hills and Columbia Parkway, Cincinnati, Ohio* (Master's Thesis, University of Cincinnati, 1982).

construction of the Adams Landing Development. The landslides that were mapped in this area were shallow, inactive and isolated from each other. Construction of Adams Place and grading along Eastern Avenue west of Collard Street have removed or concealed evidence of the landslides shown on Plate 1.

Deep seated landsliding occurs below Columbia Parkway in the vicinity of the Martin Street overpass ending at Bains Place (1). This slide affects the retaining wall on the south side of Columbia Parkway. Measurements made by the City indicate that the wall has moved a maximum of 1 ft. between 1957 and 1985. The landslide also causes extensive settlement in the eastbound lanes of Columbia Parkway. There is also significant distortion and cracking within the two northern most westbound lanes of the Parkway. The distortion within the west bound lanes most likely indicates creep movement of the entire embankment and overburden materials supporting the Parkway.

Bains Street to Kemper Lane

A large deep landslide begins just east of Bains Street and ends at Kemper Lane. The slide is inactive from Bains to Weeks Street and active east of Weeks Street. The headscarp occurs in fill which forms the embankment of Columbia Parkway, and reaches within a several feet of the Parkway. The toe intersects the sidewalk, and overrides Eastern Avenue and Kemper Lane.

There is failure in Columbia Parkway and the sidewalk above Weeks Street (2). A large excavation was made in a deep-seated landslide for two school buildings on Weeks street. The result of the excavation was numerous cracks and severe bowing of the retaining wall behind the buildings directly below Columbia Parkway.

Kemper Lane to Lancaster

The area between Kemper Lane and Lancaster Street contains intense landsliding, and is shown on Plate 1. Damage to retaining walls and roadways is severe. Here landslides become greatly elongated, with their long dimensions running perpendicular to the hillslopes. Headscarps occur within six to ten feet of the Parkway, in some places cutting through several feet of roadway if not through the roadway entirely. The toes of the landslides occur at either Conrail railroad tracks or Eastern Avenue.

A deep seated landslide exists between the south side of Kemper Lane and Eastern Avenue (3). This slide occurred in May of 1972 and was the direct result of an excavation for a water line along the north side of Eastern Avenue. Reports also state substantial rain over the time period before movement was detected. The excavation resulted in tension cracks within Kemper Lane and lateral movement of the wall on the south side of Kemper Lane.

East of Kemper Lane, a deep landslide is distressing retaining walls located at the ends of the Parkway bridge (4). The slide occurs in a major erosional gully which has been filled. Borings indicate that a maximum of 35 ft. of fill has been placed in the gulley.

The headscarp of a large deep-seated landslide cuts through the entire width of Columbia Parkway approximately 1320 feet east of Kemper Lane (5). The landslide continually fills the ditch on the north side of the Conrail railroad tracks with slide debris and also disrupts the tracks. The landslide terminates at Eastern Avenue.

Deep seated sliding occurs immediately west of Lancaster Street (6). Movement in this area is documented on railroad drawings dating back to 1915. These drawings indicate that drainage tunnels were excavated within the slide area to attempt stabilization. The City of Cincinnati performed a subsurface investigation in the landslide area in 1931. Fifteen test borings were drilled as part of this investigation. The borings encountered the bedrock surface at depths ranging

from 15 ft. to 30 ft. Severely distressed pavement in the Parkway indicate that movement still occurs within the area.

Lancaster to Collins

The outer, east-bound lanes of Columbia Parkway are distressed due to landsliding between Lancaster Street to approximately 900 ft. west of Collins Avenue. Makeshift repairs to the parkway necessitated by deep landsliding have failed, showing that landslide activity continues. From approximately 900 ft. west of Collins to Collins, landslide activity is more subdued and the influence on existing paving is less pronounced.

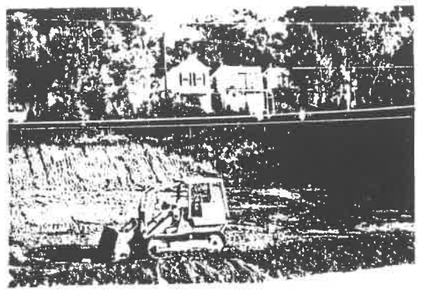
Collins to Torrence

Landsliding below the Parkway is in the fill used for the embankment of the Parkway and disturbs the parkway and sidewalk continuously from 100 feet east of Collins to Torrence Road. The slide elements are difficult to distinguish because of man-made changes.

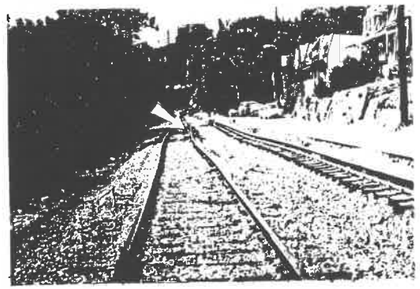
A deep landslide occurs on the lower portion of the hillside approximately 200 feet east of Collins (7). Excavation for the construction of townhomes in September of 1991, accelerated the rate of movement of the landslide (Photograph 1). Tension cracks developed within the railroad right-of-way and the railroad tracks settled and warped (Photograph 2). The rate of movement within the slide area has been reduced to the pre-excavation rate by replacing all of the excavated material back into the excavation.

Torrence to Delta

There are four isolated deep seated landslides on the hillside between Torrence and Delta. The three western most slides; along the Parkway above the intersection of Waterloo Avenue and Torrence Road (8) (Photograph 3), at the intersection of Waterloo and Columbia Parkway (9) and along the Parkway immediately east of its intersection with Audubon Avenue (10), were



Photograph 1 Northeastern corner of the excavation for the proposed townhomes along Eastern Avenue, east of Collins Ave. The houses shown are on the north side of Gladestone Ave.



Photograph 2 Tension cracks developed within the railroad right-of-way and settled and warped the tracks as a result of the excavation shown above.

caused by the placement of fill for the Parkway which surcharged the slope. The fourth slide occurs opposite Seneca Avenue above the previously existing Pendelton Railroad Yard (11). This slide resulted from the excavation of the toe of the slope. Columbia Parkway has been stabilized in all of the slides areas except the western most slide. The Parkway was stabilized by the construction of drilled pier walls in 1976 (Photograph 4). The Parkway in the western most slide area will be stabilized by the construction of a drilled pier wall scheduled for 1992. The ends of the pier walls at Audubon and above the Pendleton Yard will be extended in 1992 (Photograph 5).

The caisson walls have and will effectively stabilize the roadway along the sections where they were and will be constructed. There are, however, both subdued and well defined scarps below the existing pier walls indicating that movement still occurs on the hillside below the walls. The remaining length of the Parkway outside of the four landslide areas is affected by creep movement. This movement has caused up to 5" of settlement along the curb line and opening of joints in the eastbound lanes.

Slope Movement Above Columbia Parkway

Movement of the overburden on the hillsides above Columbia Parkway has been an ongoing problem, presumably, since the construction of Columbia Parkway. The landslides have caused earth masses to slide down to and over the uphill retaining walls and onto the roadway.

The landslides occur in colluvial soils derived from the Kope Formation. The slip surface is most likely located at the bedrock-colluvium interface. The depth to the slip surface is believed to be relatively shallow, less than 5 ft. and may be as shallow as 3 ft. directly above the retaining wall.

PHOTO #3

PHOTO #4

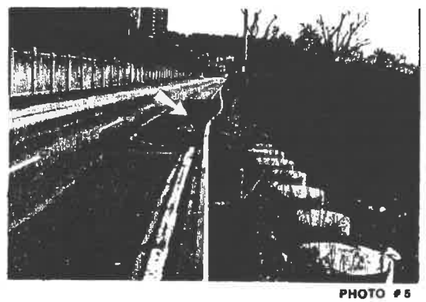


PHOTO #5

Photograph 3 Deep seated sliding along the south side of the intersection of Torrence and Columbia Parkways effects the stability of Columbia Parkway, requiring continuous pavement repair. Notice the break in the curb and the bend in the guardrail.

Photograph 4 The drilled pier wall above the former Pendleton railyard was constructed in 1976 and has a length of approximately 2000 feet. The retaining wall has effectively stabilized Columbia Parkway but ground movement still occurs below the wall.

Photograph 5 Slope movement affects the pavement of Columbia Parkway at the eastern end of the pier wall above the former Pendleton railyard. This requires continued resurfacing of the pavement. Notice the bend in the guardrail. The wall will be extended in 1992.

The original cause of the slides was the construction of Columbia Parkway which oversteepend the lower portion of the slope and removed lateral support. Other factors which caused the original movement and continued movement are groundwater flow and precipitation and continued oversteepening and removal of the lower portion of the slope, during the maintenance of Columbia Parkway.

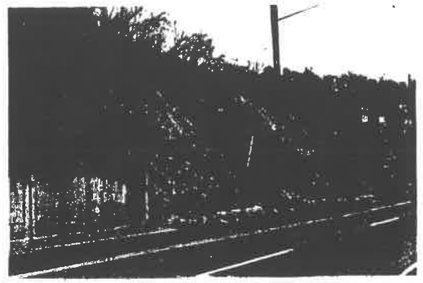
Several landslides occurred on the slopes above Columbia Parkway in the spring of 1992, requiring the City to clean up about 950 cubic yards of soil and debris costing close to $19,000. The areas which slid in 1992 include several areas between Bains and Kemper, just east of Kemper Lane (12) and just west of the intersection of William Howard Taft and the Parkway (13) (Photograph 6).

City files indicate that a large quantity of soil slide down and over the uphill retaining walls in the spring of 1973 and 1975. The 1973 slides occurred between Bains and Kemper, Kemper to Taft, and immediately east of Torrence.

A large area of deep seated landslides has been mapped above Columbia Parkway on the hillside between 1852 Columbia Parkway and 2000 Columbia Parkway (14). A second area of deep seated sliding is located above the Parkway approximately 2,500 ft. east of Torrence (15). This landslide occurred in March of 1975. An approximate 160 ft. section of retaining wall failed under the weight of the material from this slide. It was concluded that a substantial amount of the slide material was shale and clay dumped on the middle part of the slope during 19th century quarry operations.

Slope Movement Along The Bank Of The Ohio River

Three Deep seated landslides occur along the bank of the Ohio River. The slides are located behind the Verdin Manufacturing building (16), behind the building of former American Building Components (17) and at the eastern end of the parking lot of the Boathouse Restaurant (18). The three slides are primarily the result of the placement of



Photograph 6 In the spring of 1992, soil slid down onto the parkway leaving a barren slope immediately west of the intersection of William Howard Taft Road and Columbia Parkway.

fill along the bank and saturation of the soil during periods of high water.

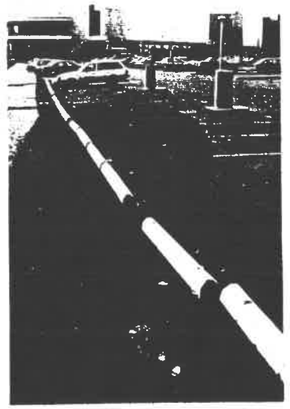
A major scarp occurs in the pavement behind the Verdin Manufacturing Building. Movement of this slide cracked and displaced the southern wall of the building. The headscarp of the slide behind the building of former American Building Components is approximately 400 ft. long with a vertical offset of 1± ft. The southern wall of the building has been damaged by the movement. The slide in the parking lot of the Boathouse Restaurant has severely damaged the concrete walk along the southern side of the parking lot and extends 8± ft. into the asphalt pavement of the lot (Photograph 7).

The H. C. Nutting Company has reported creep movement to a depth of 40 ft. behind the residence at 2057 Eastern Avenue. Slow deep movement most likely occurs along the entire river bank from Ferry St. to Bicentennial Commons. As discussed in The H. C. Nutting report, the soils east of Ferry Street are relatively stable alluvial and granular soils and the soils west of Ferry Street are unstable colluvial soils overlain by man-made fill.

Columbia Parkway Improvement Projects

Columbia Parkway was constructed in 1937-38. The original construction included a 44 ft. roadway, with a 4 ft. sidewalk along the north side and a 9 ft. berm along the south side. The 9 ft. berm on the south side included a 4 ft. wide sidewalk.

In 1976 the section of roadway between Torrence and Delta was widened to a minimum of 50 ft. The widening was accomplished by adding approximately 6 ft. onto the south side of the roadway. Retaining walls consisting of 36 diameter reinforced concrete piers at 5 ft. centers extending into bedrock were required in several areas to stabilize the upper portion of landslides. Varying degrees of slope movement continues to affect the stability of the Parkway pavement between Torrence and Delta. The City



Photograph 7 The slide in the parking lot of the Boathouse Resturant has severly damaged the concrete walk along the southern side of the parking lot and extends 8 feet (plus or minus) into the asphalt pavement of the lot.

of Cincinnati will be improving this section in 1992. The improvement will consist of the installation of additional pier walls and the underpinning of sections of existing barrier walls.

The State of Ohio is presently widening the Parkway between Bains Street and Torrence Road. The project primarily involves a 5 ft. widening of the downslope edge of the roadway. As discussed in the preceding section slope stability problems are abundant throughout this section of the Parkway. Drilled pier walls will therefore be constructed to stabilize the upper portions of landslides.

The location of existing and proposed drilled pier walls along the south side of Coumbia Parkway are shown on the Relative Stability map, Plate 2. The construction of these walls will assist in the development of the hillside below the walls. The walls will act as a barrier between slope movement that may occur on the lower portion of the hillside from damaging Columbia Parkway. The integrity of the wall however can be affected if massive movement should occur below the wall. The retaining walls will only stop the ground above the wall from moving. The ground below the wall will not be stabilized and movement may still occur on the hillside below the walls. Excavations into the hillside below pier walls must be thoroughly investigated and planned prior to any site grading.

RELATIVE STABILITY OF GROUND IN THE EAST END RIVERFRONT AREA

The relative stability of the study area was analyzed in order to identify areas of stable ground, potentially unstable ground and moving ground. The distribution of stable, potentially unstable and moving ground throughout the study area is shown on The Relative Stability map, Plate 2. Potentially unstable ground and moving ground are subdivided according to thickness into two categories; shallow and deep landsliding. Deep and shallow landsliding are differentiated because many shallow landslides can be corrected or avoided at minor cost; whereas stabilization of deep landslides can be costly.

The Relative Stability map shows the geologists assessment of the stability of ground. The map was derived from the engineering geologic map which shows areas of landsliding and soil creep, logs of soil borings indicating the types of engineering materials and their thickness, and field observations.

The intent of the Relative Stability map is to draw attention to areas which require varying levels of geotechnical investigations and possible design modifications prior to development. The map depicts levels of care which should be exercised in developing a particular area and can be used as an aid to forecast capital expenditures. It is not intended as a substitute for site specific geotechnical investigations nor as a basis for design. It is a reconnaissance and planning tool.

The areas of moving ground, deep landsliding and shallow landsliding, comprise a large part of the East End Riverfront area and is responsible for structural damage to roadways, retaining walls and foundations. Areas marked as moving ground are locations of active landslide complexes. Open excavations in these areas will cause severe ground movement. These areas should be stabilized before any development takes place. Stabilization of shallow seated landslides probably can be accomplished economically by some combination of regrading, drainage, and retaining structures. Stabilization of deep seated landslides will most likely require a substantial permanent retaining structure.

Potentially unstable ground is composed of non-moving deep landslides and shallow landslides, and adjacent areas of possible instability. These areas are probably critically stable; conditions under which renewed instability can be initiated in response to even

relatively minor amounts of slope modification.

Geotechnical evaluataion of areas identified as moving or potentially unstable ground must include an assesment of the short (construction) and long term (after development) stability of the site and possible effects of development on adjacent properties. Development in these areas must be carefully planned and include elevation and condition surveys of neighboring properties.

Stable ground is divided into the categories of deep unconsolidated and shallow unconsolidated ground. Shallow unconsolidated consists of thin colluvium and fill on bedrock while deep unconsolidated consists of primarily of thick deposits of alluvium and fill.

Stable deep unconsolidated ground is located below the Columbia Parkway to the Ohio River in areas not considered unstable or potentially unstable. Stable deep deposits present settlement problems to engineering design because of the diverse materials encountered and high water contents. Stable shallow unconsolidated ground is located above the hillslopes of Columbia Parkway and pose little difficulties to development.

Descriptions of the types and depths of ground movement and a general summary of future studies that should be initiated prior to development are presented on the following table which also appears on the Relative Stability map.

DEGREE OF STABILITY	LEVEL OF INVESTIGATION
MOVING GROUND	**EXTENSIVE GEOTECHNICAL INVESTIGATIONS AND PROPER DESIGN ARE NECESSARY FOR DEVELOPMENT OF THESE AREAS**
Deep Landsliding: Active landsliding greater than 5.0 feet deep Shallow Landsliding: Active landsliding less than 5.0 feet deep	1. Is the landslide active? (Monitor deep landslides with inclinometers for several months) 2. What are the depth and lateral boundaries of landsliding? (Monitor deep landslides with inclinometers for several months) 3. How will development alter surface and subsurface drainage? 4. How would proposed development stabilize the ground? 5. What is the factor of safety against sliding during and after construction?
POTENTIALLY UNSTABLE GROUND	**THESE AREAS REQUIRE A HIGH LEVEL OF GEOTECHNICAL INVESTIGATION**
Deep Landslides: Dormant landslides greater than 5.0 feet deep and surrounding areas of possible deep instability Shallow Landslides: Dormant landslides less than 5.0 feet thick and surrounding areas of shallow instability	1. What are the depth and lateral boundaries of potential landslides? (Explore with boring and trenches) 2. Is there active landsliding? (Monitor deep landslides with inclinometers for several months) 3. How will development alter surface and subsurface drainage? 4. How will stability be maintained? 5. What is the factor of safety against sliding during and after construction?
STABLE GROUND	**THESE AREAS REQUIRE A LOW TO MODERATE LEVEL OF GEOTECHNICAL INVESTIGATION**
Deep Unconsolidated: Areas not exhibiting movement. dominated by deep deposits of alluvium, colluvium and fill Shallow Unconsolidated: Areas not exhibiting movement dominated by thin deposites of colluvium and fill	1. Where are the materials, their distribution and engineering properties? (Explore with borings, test pits and soil tests) 2. Where is groundwater table? (Monitor with borings) 3. How much settlement will occur as a result of development? (Calculate using information from borings and soil tests) 4. How could instability be introduced by proposed development?

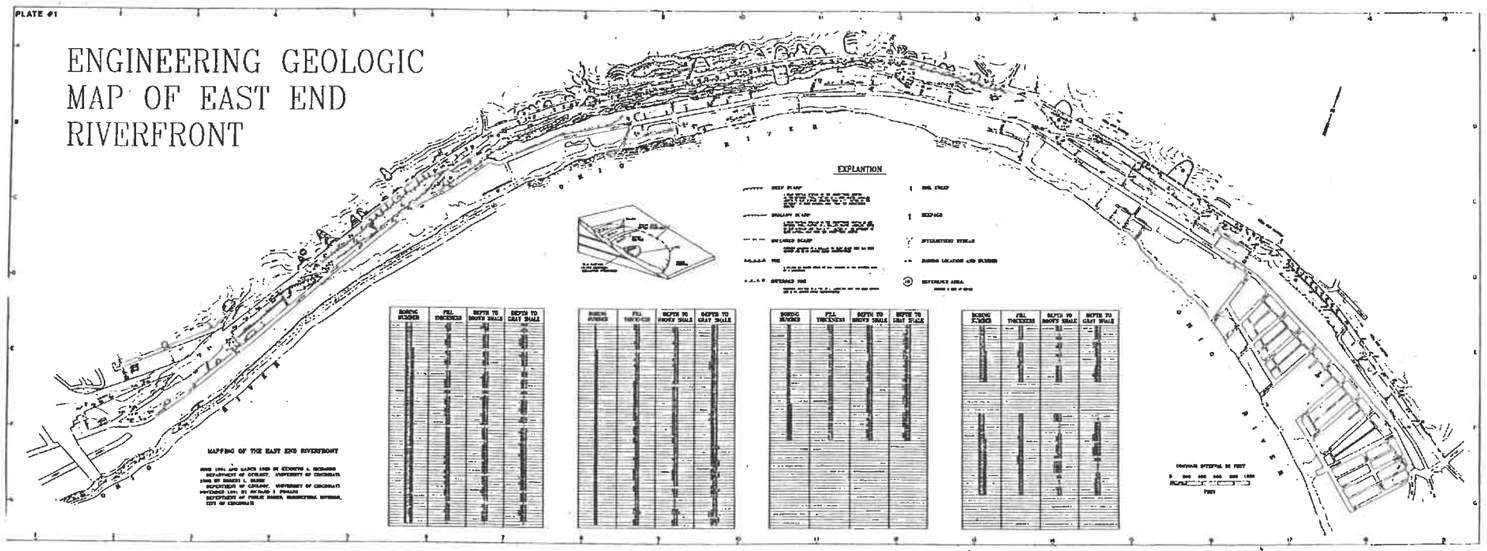
CONCLUSIONS

This study indicates that the majority of ground in the East End Riverfront Development area is moving or potentially unstable. Geotechnical investigations of varying levels are necessary prior to any new development in areas designated as moving or potentially unstable ground on the Relative Stability map, Plate 2. It is important that the investigations be conducted sufficiently early to disclose and address problems in an area considered for development so that the preliminary plans can reflect the geological conditions in the area.

It is, therefore recommended, that a report from a geotechnical engineer be submitted with all Category II Environmental Quality applications, when the site is located in an area of moving or potentially unstable ground as designated on the Relative Stability map, Plate 2. The geotechnical report should, at a minium, utilize the geological and geotechnical information, presented on the Engineering Geologic map, Plate 1 to address how the design of the grading or the design of the building responds to the geological conditions of the site. The geotechnical report should state whether further investigation is required prior to development, and if so, the scope, including number, depth and location of test borings and time schedule of the investigation. The City of Cincinnati's Geotechnical staff should be given the opportunity to review and comment on the geotechnical reports as well as the amount and sequence of additional geologic and soil engineering work required.

The City's Geotechnical staff should also be given the opportunity to review the results of site specific investigations prior to the issuance of a Cut and Fill permit. A Cut and Fill permit should not be issued until the Building and Inspection Department and the Geotechnical Staff if satisfied that: 1) a sufficient degree of subsurface exploration has been accomplished, 2) the geologic factors are properly considered and 3) the design plans reflect the conclusions and recommendations of the geotechnical report. Public Work projects and excavations by utility companies in areas designated as areas of potentially unstable or moving ground should also be reviewed by the City's Geotechnical Staff.

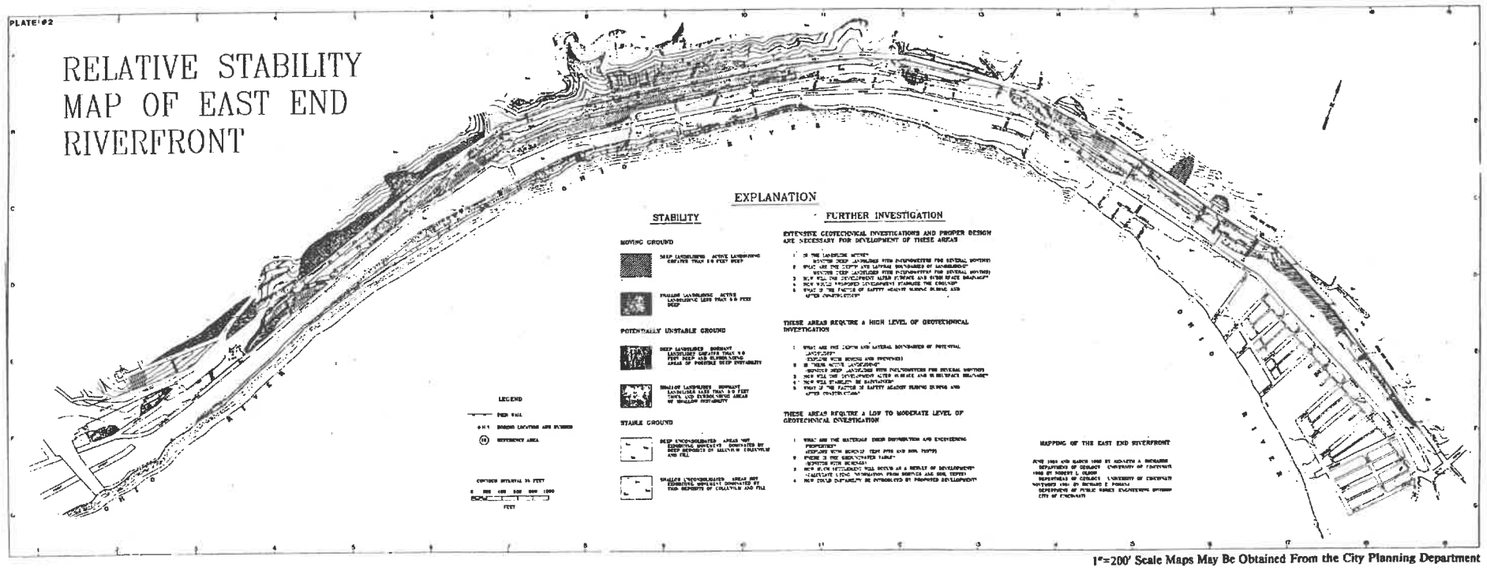
The effectiveness of this study to prevent landslides and assist in the proper development of the area is dependent on its use throughout the planning, review and construction stages of development. In order to encourage its use it is recommended that this study be incorporated or referenced in the proposed Environmental Quality District Guidelines report, be available to the general public and distributed to all city agencies which may be involved in future hillside development in the East End Riverfront area (Building and Inspection, City Planning, Neighborhood Housing, Public Works, Water Works, MSD, etc.). The City's Geotechnical staff will update the Engineering Geologic and Relative Stability maps as necessary and maintain a data base of any additional subsurface investigations in the East End Riverfront Development area.



1"=200' Scale Maps May Be Obtained From the City Planning Department

PLATE #2

RELATIVE STABILITY MAP OF EAST END RIVERFRONT



1"=200' Scale Maps May Be Obtained From the City Planning Department

III. Report on Geotechnical and Environmental Analysis

REPORT OF

GEOTECHNICAL AND ENVIRONMENTAL ANALYSIS

CINCINNATI EASTERN RIVERFRONT
URBAN DESIGN PLAN AND DESIGN GUIDELINES

FOR

EDAW, INC.

1991

INVESTIGATION BY
THE H. C. NUTTING COMPANY

THE H. C. NUTTING COMPANY
EMPLOYEE OWNED
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS
SINCE 1921

CORPORATE CENTER
4120 AIRPORT ROAD
CINCINNATI, OHIO 45226
(513) 321-5816

September 25, 1991

Order No. 13216.001 crk

Ms. Laura Wiberg
EDAW, Inc.
601 Prince Street
Alexandria, VA 22314

RE: Geotechnical and Environmental Analysis
Cincinnati Eastern Riverfront

Dear Ms. Wiberg:

We are pleased to submit herewith our final report of the geotechnical and environmental analysis performed as a part of the development of the Urban Design Plan and Design Guidelines for the Cincinnati Eastern Riverfront.

The text of the report includes discussion of the general geologic setting, specific site conditions and discussions of sensitive hillsides, shoreline stabilization and soil contamination.

Specific sites referred to in the report are identified on marked maps of communities A, B, C, and D from the Urban Design Plan.

We appreciate the opportunity to be part of your team. We are available to discuss specific site conditions as this plan is implemented.

Very truly yours,

THE H. C. NUTTING COMPANY

C. R. Lennertz, P.E.
Chief Engineer

TABLE OF CONTENTS

	PAGE NO.
GENERAL GEOLOGIC SETTING	1
SPECIFIC SITE CONDITIONS	4
SUMMARY OF GEOTECHNICAL AND ENVIRONMENTAL ISSUES	15
SENSITIVE HILLSIDE AREAS	15
SHORELINE STABILIZATION/EROSION CONTROL	18
POTENTIAL SOIL CONTAMINATION	19
APPENDIX	
REFERENCE MAP - COMMUNITIES A, B, C, AND D	

THE H. C. NUTTING COMPANY
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SINCE 1921

CORPORATE CENTER
4120 AIRPORT ROAD
CINCINNATI, OHIO 45226
(513) 321-5816

DATE: September 25, 1991 crk

MEMORANDUM

TO: Jacquelyn McCray - City Planning, City of Cincinnati

FROM: C. R. Lennertz

CC: Laura Wiberg - EDAW

RE: Geotechnical Report - Cincinnati Eastern Riverfront

Enclosed please find a copy of our final report made in conjunction with the development the Urban Design Plan and Design Guidelines for Cincinnati Eastern Riverfront. We have indexed specific sites referred to in the report to a copy of the maps for the four communities identified in the Urban Design Plan. We also made some additional modifications and clarifications on the basis of comments that you have provided.

We have a copy of the memorandum prepared by Richard E. Pohana, Engineering Geologist, Structure Section, City of Cincinnati dated June 27, 1991. Mr. Pohana has recommended that an engineering geologic map be prepared for the Cincinnati Eastern Riverfront. We endorse this recommendation. We believe that such a map would be a valuable tool for use in detailed planning of new construction within the project area.

We would be pleased to provide to the City information in our files that could be useful in preparing such a map. We have previously provided such information to students and others at the University of Cincinnati for preparation of similar maps. For example, the Olson map and reports which covers a portion of the study area.

Enclosed is a list of projects on which we have made actual borings. Although there are limitations on the dissemination of data performed for private parties, we can provide the needed information for use in a scientific study.

You should be aware that we are currently completing a detailed condition study of all the property between Columbia Parkway and Eastern Avenue from Bains to Torrence. This work is being done under contract with the City of Cincinnati in preparation for the improvement of this section of Columbia Parkway. We have video tape with commentary on all of these properties together with still pictures. This includes the railroad right-of-way. As this information was performed for the City, it should be possible to make the data available to your office.

We are anxious to assist in any way that we can. If you wish to further discuss the enclosed report, please call me.

Enclosure

GEOTECHNICAL INVESTIGATION
CINCINNATI EASTERN DEVELOPMENT

Year	Work Order	Client	Project
1956	3261.1	Cinti. Sheet Metal & Roofing Co.	Eastern Ave. Site
1957	3261.2	Cinti. Sheet Metal & Roofing Co.	Eastern Ave. Addition
1959	3261.3	Cinti. Sheet Metal & Roofing Co.	Proposed Building
1960	276.12	Standard Oil Co. of Ohio	Service Station Stanley Ave.
1962	99.405	City of Cincinnati, Ohio	Collins Ave. Rd. Proj.
1963	99.625	City of Cincinnati, Ohio	Walter S. Schmidt Boat Ramp
1963	99.584	City of Cincinnati, Ohio	Proposed Sewer/Waldon St. between Eastern Ave. and Ohio River
1967	1959.38	Hixson, Tarter and Merkel	2021 Eastern Ave. Verdin
1972	373.124	Cincinnati Gas & Electric Co.	Kemper Lane @ Eastern Ave. & Kellog Ave. at California Water Works
1973	97.772	City of Cincinnati, Ohio	Proposed swimming pool & bath house rakestraw playfield
1974	97.832	City of Cincinnati Div. of Engrg.	Columbia Parkway Torrence Parkway to Tusculumn Ave.
1975	97.990	City of Cincinnati, Ohio	Columbia Parkway
1976	3741.4	Queen City Forging	Drop Hammer Foundation
1981	9857.001	Gerald Burns	2057 Eastern Ave.
1986	4062.087	K2F, Inc.	Columbia Parkway Widening
1986	11560.001	S.A. Pastor & Associates	Wallace Ave. Development
1987	11546.001	Mr. Steve Donovan	1885 William Howard Taft
1989	12671.001	American Building Components	1725 Eastern Ave.
1981		Johnson Elevators	
1985		Site Service Station	

CINCINNATI EASTERN RIVERFRONT
URBAN DESIGN PLAN AND DESIGN GUIDELINES
GEOTECHNICAL AND ENVIRONMENTAL ANALYSIS

This report presents background information concerning terrain, geotechnical and environmental issues within the Cincinnati Eastern Riverfront. The information concerning these issues has been used in the development of the Urban Design Plan and Design Guidelines. The following text summarizes this information and describes specific source material. We have also included a description of the kinds of information that will be needed to implement the design plan.

The information contained in this report is based on existing data including topographic, geologic, and soil maps, logs of test borings, laboratory test data, geotechnical and environmental reports, and reconnaissance of the area. Included with this text are copies of the maps of communities A, B, C, and D from pages 15-21 of the Urban Design Plan. The circled numbers on these maps make reference to the numbers included in this text identifying specific sites referred to in the geotechnical report.

GENERAL GEOLOGIC SETTING

The Eastern Riverfront is a crescent shaped area along Eastern Avenue extending from Delta Avenue to the east to Bicentennial Park to the west. The overall length along Eastern Avenue is 3.6 miles. With the exception of the area west of Kemper Lane, the project area includes all the land from the south right-of-way of Columbia Parkway to the water's edge of the Ohio River. The land between Eastern Avenue and Columbia Parkway west of Kemper is not included. The width of the area varies from approximately 1800 ft. at Delta Avenue and narrows to only 300 ft. were it abuts the Bicentennial Park at the western boundary with an average width of 700 to 800 ft. in the center area around LeBlond Park.

The Eastern Riverfront is located on the lower slopes of the north valley wall of the Ohio River and on flood plain deposits that have partially filled the valley. The area is on the outside of a major curve in the river in an area where the river is meandering from the south side of its valley to the north side. The eastern half of the project is a relative level flood plain. Eastern Avenue represents the approximate north edge of the flood plain. The width of the flood plain varies from approximately 1200 ft. at Delta Avenue to approximately 200 ft. at LeBlond Park and disappears west of Collins Avenue. Alluvial deposits extend to Ferry Street Park. West of here colluvial deposits overlain by man-made fills extend to the water's edge.

The entire project is underlain by the Kope Formation of the Cincinnati Series of Ordovician Age. The Kope formation is primarily shale with thin limestone layers, typically, 2 to 6" thick. The limestone represents 20% to 30% of the total material. The formation is severely jointed. The joint system carries significant quantities of groundwater. Most of the water flows through joints in the limestone layers.

The present valley of the Ohio River was formed during early glacial periods. The river carved an approximately 400 ft. deep valley having a width of approximately 1 mile, measured at the tops of the valley walls.

Prior to the most recent glaciation, the shale that forms the valley walls weathered into a clayey soil with pieces of limestone. This clay accumulated on the lower slopes as a result of gravity and erosion into a deposit referred to as colluvium. The colluvial deposits reach depths of as much as 30 ft. These colluvial deposits together with man-made fills often constructed of colluvium are the primary source of instability on the hillsides. Following the most recent Wisconsin Age glacial period, the valley was filled with thick deposits of sand and gravel as the glacier retreated. Sand and gravel as deep as 50 ft. can be found within the flood plain areas within the east end of the project. Since the end

of glaciation frequent flooding of the river has covered the sand with a relatively thick deposit of silt that weathers into a lean clay.

There is substantial relief within the eastern front area. The U.S.G.S. elevation of the Ohio River at pool stage is approximately 455. The highest elevation along Columbia Parkway is approximately 625. This occurs within the westerly portion of the project just east of Kemper Lane. The horizontal distance between water's edge at normal pool and Columbia Parkway is only 750 ft. resulting in an average slope of 23%. The elevation of Columbia Parkway drops down to approximately 565 at the intersection with Taft and Torrence. Here the horizontal distance between Columbia Parkway and the water's edge is approximately 800 ft. resulting in an average slope of 14%. Columbia Parkway rises to approximately elevation 600 at Audubon Street where the horizontal distance to water's edge is approximately 1000 ft. resulting in an average slope of 15%. At the intersection of Delta the Parkway elevation dips down to 515 and the horizontal distance is approximately 1750 ft., mostly flood plain, with an average slope of only 3.5%.

The Ohio River is officially in flood at elevation 482 (stage 52). The "Hundred Year" flood level is approximately elevation 501 (stage 71). There are substantial restrictions on development of land where surface elevation is below the "Hundred Year" flood level, elevation 501. The 1937 flood peaked at elevation 511.7.

Eastern Avenue was constructed at the base of the hillside at an elevation above that which floods frequently and divides the hillside deposits from the flood plain within the easterly half of the project. This elevation between Delta and Collins is generally between 495 and 505. West of Collins it rises reaching a high of about 525 at the intersection with Kemper and drops again down to about elevation 500 opposite Martin Street.

The surface of the flood plain slopes gently towards the river. Where the flood plain is wide at the east end, the top of the river bank is typically around elevation 480. The top of the natural river bank rises to 485 to 490 to the west. It has been raised at commercial facilities, Verdin Manufacturing and Johnson Electric, by filling to approximate elevation 500. West of Collins the alluvial terrace becomes very narrow or is nonexistent. Here, the right-of-way of Eastern Avenue and the relatively level areas on the south side of Eastern Avenue have been created by grading and land filling. The average slope between Eastern Avenue and Columbia Parkway is steeper within the westerly half of the area than it is within the easterly half.

SPECIFIC SITE CONDITIONS

The following is a description of the terrain and general subsurface conditions within specific portions of the three following primary areas that run the length of the project.

Hillside above railroad right-of-way
Property fronting on Eastern Avenue
Property between Eastern Avenue and river bank

Walworth Avenue

This area includes Walworth Avenue, the hillside above Walworth and a relatively narrow section of previous railroad yard between Walworth and the present tracks.

The hillside above Walworth is the most stable and the most easily developed section of the entire hillside. The existing difference in elevation between Walworth Avenue and Columbia Parkway is only 15 ft. at the east end of Walworth (1) (see map) increasing to approximately 40 ft. at the west end (2). Existing slopes are generally less than 20%. There are existing houses on the majority of the lots on Walworth and new houses

have recently been constructed. There are no existing landslides of any major dimension. Geotechnical problems are minimal.

There is a level strip of land between Walworth and the existing railroad tracks ranging in width from approximately 150 ft. at the west end of Walworth (3) to approximately 50 ft. opposite Strader Avenue (4). These dimensions include the present railroad tracks. Some thickness of fill material should be anticipated throughout this area. The fill is expected to increase in thickness towards the east. Pier foundations may be required to penetrate the fill material.

Pendleton Railroad Yard

The primary part of this previously existing yard which included a turntable and maintenance building is located west of the west end of Walworth (5). This area has an east-west dimension of approximately 1500 ft. and an average north-south dimension of approximately 230 ft.

The yard is shown basically as described above on the 1912 map. The primary area west of Walworth was developed by excavating the hillside and using excavated material for embankment construction. The hillside was steepened from a natural slope of about 4:1 to the present slope in the range of 2.5 to 3:1 (6). The north half of the yard area is in cut. The south half is on embankments constructed from clayey soils removed from the hillside supplemented most likely with cinders. The existing mainline track is approximately 15 ft. north of the edge of the embankment. It appears that there may have been another track along the edge of the embankment. There are presently two tracks, the south one which is in use and the north one which has not been maintained for use. This is the case throughout the study area.

The highest embankment is believed to be the center portion opposite Brown and Mayapple Streets (7) where it is retained by a gravity wall. The height of embankment diminishes to the east where the edge of the embankment is defined by a steep slope.

Test borings made on the hillside above the yard indicates that perhaps half of the natural overburden was removed from the hillside and used in embankment construction. Steepening of the slope destabilized the hillside and resulted in accelerated creep and minor sliding. As a result, a retaining wall having the length of approximately 1050 ft. was constructed in 1976 outside the south curb line of Columbia to re-establish and permit widening of Columbia Parkway. This wall has been fully effective in accomplishing stabilization of Columbia Parkway.

A retaining wall would most probably be required if Walworth were extended along the toe of the existing hillside (8). The hillside in this area is too steep and too unstable to consider for development of housing.

The yard site is very level. Foundations and pavement associated with previous structures are visible on the surface. Where there is no paving the surface is primarily cinders.

It is likely that oil contaminated soils underlie the surface. It is likely that an environmental investigation would be required. Some environmental remediation might be necessary, however, it is not likely that its economic impact would prevent development of the site.

The geotechnical conditions as described are considered to be relatively favorable for building construction. Conventional foundations can probably be utilized for buildings with basements with a possible need for drilled piers through the deeper portion of the existing embankment close to Eastern Avenue.

Upper Hillside - Hoff Avenue West to Collins

There is a potential for extending existing Hoff Avenue westerly to connect with the existing developed portion of Gladstone Avenue and then exit onto Collins. The topography above the railroad right-of-way is such that

development of single-family housing similar to that along existing Hoff and Gladstone appears to be feasible. The depth of the slope area narrows appreciably just below Torrence and William Howard Taft (9).

It was noted that the present roadway of Gladstone east of Collins is not developed as the track is constructed within the right-of-way of Gladstone Avenue. There is sufficient room for parallel parking below the retaining walls at the front of the existing houses and one travel lane alongside the railroad track. Improvement and widening of Gladstone Avenue may require movement of existing tracks, if they are to be maintained, or a proposed trolley and bike way, south to the edge of the existing railroad embankment. Some low retaining walls would most probably be required on the downhill side of the track (10). There is an existing landslide mapped in this area (11). It is also technically feasible to build a roadway completely north of the existing railroad right-of-way at the toe of the existing hillside. Cost estimates should provide for retaining walls of various height on the uphill side.

It would appear that this area is most suitable for single-family housing built into the hillside. Hillside stability is a consideration. The slope is not severe. It is no different than that above existing Hoff and Gladstone. A retaining wall was built in 1976 outside of the shoulder of Columbia Parkway opposite Waterloo Avenue (12) and a new wall is planned to built along the new shoulder of Columbia Parkway above the existing houses along Gladstone. This wall will improve the existing 200 ft. undeveloped section and will extend approximately 200 ft. easterly from the most easterly existing house (13).

Special provisions are required for construction on this hillside to meet existing codes and to avoid destabilizing the hillside. Narrow buildings with front to back dimensions on the order of 50 ft. appear to be most feasible. Substructures need to be designed for the earth pressures resulting from the hillside that would be acting on these structures. The present buildings do not meet existing code requirements in this respect.

Planned excavation would be needed to avoid destabilizing the hillside during the construction process. Once the buildings are erected, than the stability of the hillside is substantially improved.

Upper Hillside - West of Collins

There is a potential for developing housing on the hillside above the present railroad right-of-way from Collins extending through the westerly end of the project. A new street would have to be constructed within or just above the railroad right-of-way.

Maps show Gladstone Avenue to be plotted throughout much of this area. Our research indicates that Gladstone in this section was never improved. Old maps indicate housing on the upper hillside within this section fronting on Columbia Avenue, the predecessor to existing Columbia Parkway and that this property was acquired in the 30's as a part of the development of Columbia Parkway.

The topography is such that it is feasible to develop housing on the lower part of the slope fronting on new Gladstone Street (14). The least costly way to build the street would be to utilize the roadbed for the present north track and widen as necessary into the hillside. For this scheme a roadway could be built with few retaining walls and they would be low ones. It is also feasible to construct a street uphill and immediately adjacent to the present right-of-way (15). Such a plan would require greater use of retaining walls.

A connecting street must be provided between new Gladstone and Eastern Avenue. From a point of view of grade the preferred location would be approximately 600 ft. west of Lancaster Street, approximately opposite Johnson Electric (16).

The upper hillside becomes much steeper (2.5±:1) to the west of this point (17). Substantial retaining walls would be necessary to continue a street westerly and development on the upper hillside would become more costly.

There is a substantial number of both large and small landslides on this hillside. The feasibility of construction on this hillside depends entirely on construction of a new retaining wall just outside the new south curb line of Columbia Parkway. Approximately 3300 ft. of wall is proposed for construction, covering almost the entire length (18). The construction of this wall will permit development of the hillside without jeopardizing Columbia Parkway. Hillside stability will still be a consideration. Multi-family townhouse structures may be more cost effective than single-family housing. Substructures need to be designed for the earth pressures resulting from the hillside that would be acting on these structures. Planned excavation would be needed to avoid further destabilization of the hillside during the construction process. Once the buildings are erected then the stability of this hillside is substantially improved.

Eastern Avenue - North Side

In general, there are no significant engineering restrictions to the development of empty lots on the north side of Eastern. The empty lots are narrow and construction would be close to existing houses. Foundations for new construction must extend to the same elevation as foundations of the immediately adjacent structures. Construction will include reinforced concrete basement walls as compared to mostly stone walls of existing structures. Properly designed reinforced concrete substructures will resist earth pressures that have damaged existing buildings.

Special studies would have to be made of the narrow strip of land between Eastern Avenue and the railroad, east of the westerly underpass (19) and the presently vacant land east of Collins nearly opposite LeBlond Park Recreation building (11). On-going ground movement has been mapped in both of these areas.

Eastern Avenue - South Side

Eastern Avenue is generally constructed on fill, the fill being deepest along the south right-of-way line. Foundation walls of the houses along the south side of street typically act as retaining walls for the sidewalk on the south side of Eastern Avenue. Many of these walls are of stone construction.

Most available property on the south side of Eastern Avenue is in the flood plain. The first consideration will be to determine whether it is practical to build the first occupied level at the 100 year flood elevation and how this relates to the elevation of Eastern Avenue. Relative to substructures, the conventional construction would be a basement with footings at the same level of adjacent existing buildings, probably at 6 to 8 ft. below the elevation of the sidewalk. An alternative foundation is short drilled piers.

Flood Plain Area - Delta to Ferry

The entire area is below the 100 year flood level with the exception of commercial areas that have been raised by filling. Elevations vary from as low as 475 at the top of the bank at the eastern end of the project area to 500 ft. on various properties fronting on Eastern Avenue. Flood plain considerations will be the first physical criteria to be considered. A conventional foundation would be reinforced concrete subwalls on strip footings. Older maps indicate that there has been significant filling in some areas (20). New construction will require test borings to determine the subsurface conditions. It is likely that drilled piers would be used as a foundation system in areas that have been filled.

Ferry Street through Pipe Alley

River bank stability is the primary engineering consideration starting at Ferry Street and extending westerly to the Bicentennial Commons, the westerly boundary of this project. LeBlond Park and all of the land east of LeBlond Park south of Eastern Avenue is constructed on an alluvial flood plain. The slope of the river bank is flatter and lower through this area. The river bank becomes steeper and higher west of LeBlond Park. The natural soils transition from alluvium and granular outwash to a colluvial deposited clay developed from the shale that makes up the hillside. Also, there has been substantial filling on the river bank to widen the relatively narrow strip of land between Eastern Avenue and the river bank (21).

The first thousand feet west of Ferry Street is developed in existing housing fronting on Eastern. The grade of Eastern is rising above the 100 year flood elevation. Immediately west of Ferry, substantial fill has been placed out on the river bank behind the existing houses to develop a large level area (21). To the west towards Vance Street, the grade appears to be more natural (22), although all of this area has received some fill. Pipe Alley is a paved alley extending west from Vance Street (23). It serves garage structures behind the houses fronting on Eastern. It generally follows the natural grade, although again there undoubtedly has been filling in the original development of these properties.

The residence at 2057 Eastern Avenue was substantially expanded in the early 1980's (24). A large addition was built at the rear of the original house. Access to the garages in the addition is from Pipe Alley. In 1987 cracks appeared in the section between the new and original construction. An inclinometer was set down into bedrock behind the house, which was found to be at a depth of 48 ft. below the existing grade. The samples showed clay-like soils extending to a depth of 45 ft. Readings of the inclinometer indicate creep movement to depths in excess of 40 ft.

Development in this area would presumably consist of rehabbing of existing houses and construction on Eastern Avenue on empty lots. Any major improvement of existing houses should include a careful inspection of the structure to look for signs of damage resulting from earth movement. This must also be considered in planning any construction on empty lots.

Maryvale Street to Hazen Street

The commercial building on the south side of Eastern Avenue between Maryvale and Hazen Streets houses the Verdin Manufacturing Company and other businesses, including Landscape Creation at the westerly end. There has been heavy filling between the rear wall of this building and the river bank (25), much more than was indicated by the contours on the 1954 topography. Ground movements that damaged the building occurred in 1967 following a substantial flood. Examination of the rear wall of the building and the grade between the rear wall and the river bank shows evidence of on-going earth movement. This includes cracks and displacement of the wall and a major scarp line in the graded area behind the building. The zone of greatest movement is approximately on a line with the top of the river bank behind Pipe Alley. Fill has been pushed out approximately 40 ft. further to the river past this line and this fill is very unstable, however, there is also indication of substantial movement occurring inland from the major scarp (25).

New development in this block would presumably require razing of the existing commercial building and possibly the original church structure just east of the Verdin Building. A geotechnical investigation would be required for any new construction at this site. Development of the site would probably require removal of a major portion of fill that has been placed in the last 10 to 20 years. Foundations for any new construction would most probably have to extend to bedrock, a depth of on the order of 40 ft. along Eastern Avenue, deepening towards the river.

Hazen Street - Glen Alley

The next block is again residential with an alley serving garages behind the houses facing on Eastern Avenue. The grade at the alley has been controlled for some period, although there appears to have been some filling between the alley and the river bank (26). There is no obvious evidence of earth movement in this block. The creep movement that we have measured along Pipe Alley almost certainly occurs here. If major rehabilitation of existing houses is planned, they should be carefully examined for evidence of earth movement. If new construction is planned, this should include a comprehensive geotechnical investigation.

Site Station - Johnson Electric

Both of these properties were improved in the 1980's. Comparison of the 1954 and 1912 topos shows substantial filling. This has been confirmed by test borings. The new Site Station was supported on drilled piers (27). The original Johnson Electric building appears on the 1961 Corps of Engineers' map, but not on the 1954 City map. Major modifications were made in early 1980's. Drilled piers were used for support of new construction. The 1961 Corps of Engineers' map shows a graded ramp down the river bank between the Site Station and Johnson Electric (28). This ramp is still accessible. To the west the slope rises very steeply as indicated by the contours. Any new construction in this area will require a deep foundation.

American Building Components

The original building opposite and extending west from the railroad underpass was built in 1929. The building between the original building and Johnson Electric was built in 1967. This is all filled land. Much of the filling appears to date back to railroad development. The original building, which is believed to be built on shallow foundations, has been severely damaged by earth movement. The grade between the rear wall and

the river bank has experienced substantial distortion due to earth movement (29). This earth movement is not related to erosion as such, but rather deep-seated movements which occur as the river falls during the periods of high water.

The 1967 building is supported on pile foundations. A cursory examination of the exterior indicates no significant damage from earth movement.

There have been environmental investigations of this property. The potential for subsurface contamination will be a consideration in future development.

Any new construction on this property will require pier or pile foundations.

Rookwood Terminal

All of the tanks that show on the maps have been removed (30). This again is filled land, however, it was developed at a somewhat lower grade than adjacent property and may be more stable.

Subsurface contamination needs to be considered in planning any development. There have been environmental investigations.

Any construction in this area would require pile or pier foundations.

Previous Railroad Yard

The remainder of the project from the Rookwood Terminals to the Bicentennial Park was the Pennsylvania Railroad Yard (31). It is clearly shown on all of the mapping, including the 1912 map. This is all filled land. Exploration in developed areas indicates large amounts of cinders.

Environmental and Geotechnical investigations would be required as a part of any type of development. River bank stability is a continuing concern. The type of earth movement that can be expected has been previously described and can be dramatically seen from an examination of the parking lot of the Boathouse Restaurant.

SUMMARY OF GEOTECHNICAL AND ENVIRONMENTAL ISSUES

We have prepared a discussion of specific geotechnical and environmental issues on the following subjects:

Sensitive Hillsides
Shore Line Stabilization
Soil Contamination

The material is intended to be used in preparation of preliminary plans and cost estimates. Geotechnical and environmental field investigations will be required at many sites as part of the detailed planning process.

SENSITIVE HILLSIDE AREAS

Following is an identification and classification of sensitive hillside areas with respect to slope stability. Included are all areas between Eastern Avenue and Columbia Parkway excluding the Pendleton Railroad Yard (5) where the existing grade is essentially level.

Low Sensitivity

Eastern Avenue - Torrence west to opposite Highland School (32)
Walworth Avenue (1-2)

Within the above areas existing slopes are generally less than 20% and existing stone walls including the massive wall along the railroad right-of-way west of Torrence are stable. New development is to consist of

in-fill housing on empty lots. Foundations for new houses will generally consist of conventional cast in-place concrete walls on strip footings without the need of special reinforcing. The elevation of the lowest level must be consistent with that of adjacent existing houses. Routine consideration must be given to the protection of existing buildings during the excavation process. New retaining walls are likely to be required, particularly for construction on Walworth. Costs related to site conditions should not increase the total cost of construction, as compared to construction on level lots, by more than 5%.

Medium Sensitivity

North side Eastern Avenue (with above exception) (33)
Seybold Alley (34)
Collins Avenue (35)
Gladstone Avenue (10)
Hoff Avenue (south side) (36)

All of the new construction in this area is to be in-fill, single family housing on empty lots. Existing slopes are typically in the range of 20% to 30% Existing houses and existing stone retaining walls frequently show the effects of earth movement. In evaluating these existing conditions, it needs to be recognized that existing construction, for the most part, does not meet present codes with respect to earth pressure design.

Foundations for new buildings are expected to consist of reinforced concrete walls on strip footings. Generally, the grade at the rear (uphill side) of the building will not be more than 8 ft. above the grade at the front of the building. Increased consideration must be given to the relationship of the new construction to adjacent existing construction, including existing retaining walls. Special construction procedures may be needed to protect existing buildings and walls. Site associated costs may increase the total cost of construction by as much as 10% over costs related to level sites.

High Sensitivity

Hoff Avenue (with exception noted) (37)
Audubon Street (38)
Hillside above proposed new Gladstone (14)

Proposed development in this area includes in-fill housing on Hoff and Audubon, and single family and multi-housing on the existing empty hillside west of Collins.

Existing slopes are in the range of 30% to 40%. There are wide spread shallow and some deep seated landslides. Almost all existing buildings and retaining walls show the effects of damage by earth movement.

New in-fill housing on Hoff and Audubon must be carefully planned in consideration of existing conditions. Detailed surveys will be required for each lot including elevation and condition surveys of adjacent properties. Foundations will still consist of reinforced concrete walls on conventional footings, however, special reinforcing of the walls and enlarged footings may be required depending on specific site conditions. New retaining walls are likely to be needed. Special excavation methods will often be necessary.

New construction on the hillside above the railroad right-of-way within Community B (14) depends on the construction of a new drilled pier retaining wall outside of the south curb of Columbia Parkway. Only after this wall is completed will it possible to make excavations into the existing hillside. Foundations for this construction are expected, in general, to be reinforced concrete walls on footings, however, some drilled piers may be needed.

Site related costs are expected to add 20% or more to the cost of construction.

Very High Sensitivity

Upper hillside - Community A (17)

The existing slope within this area steepens to as much as 70%. There is an existing massive landslide that includes Kemper Lane. Topographic and soil conditions will require special design and construction measures. Accessibility will be a major consideration because of the steepness of the slope. Site conditions could increase costs by as much as 40%.

SHORE LINE STABILIZATION/EROSION CONTROL

The stability of the existing river bank depends upon the shape and width of the existing channel, the height and slope of the existing bank, the type of soil underlying the bank, the presence of existing stabilization measures including vegetation, and placement of fill to develop existing land along the bank.

The river bank east of Ferry Street is relatively stable. Treatment of the existing bank should be required only when new entries to the river are made. The design of such entries should include slope analysis and erosion control measures on all new slopes.

West of approximately Ferry Street the river channel narrows resulting in increased velocity. The elevation of Eastern Avenue rises resulting in increased bank heights. The bank steepens from slopes of 2-2.5:1 to 1.5±:1. Also, of great significance, whereas the soil that underlies the channel and the river bank east of Ferry Street is an alluvial deposit, clayey colluvium having reduced shear strength underlies the river banks to the west as the river shifts to the north side of the valley. Finally, there has been significant commercial development throughout most of this area including large warehousing, a former tank terminal and previously existing railroad yards. In all commercially developed areas, fill has

been placed on the existing unstable bank to increase the width of the level land between Eastern Avenue and the river.

All the above has resulted in unstable slopes throughout much of this section. This instability manifests itself in development of tension cracks and subsidence, generally extending 25 ft. and occasionally more than 50 ft., back from the top of the bank. There is a direct relationship between the rate of movement and river levels. Most ground movement accompanies a fall in the river following periods of high water.

Special geotechnical investigations are required for any new construction between Eastern Avenue and the river west of Ferry Street. This includes any new entries to the river. The design of such entries must include a slope analysis and special erosion protection.

Any general stabilization of the bank west of Ferry Street would require costly construction. Two basic approaches could be considered. One would be to drive steel sheet piling along the lower part of the slope combined with some grading and ripraping of the upper slope. The other basic approach would be to grade the slope back to approximately 2.5 or 3:1 combined with some type of slope protection, either in the form of slope surfacing or by controlled vegetation. This method would reduce the width of the usable land above the slope within this area. Detailed engineering studies are needed for the development of any slope stabilization plan.

POTENTIAL SOIL CONTAMINATION

Following is a list of sites which have been identified on the basis of present and past usage, where there is a possibility of soil contamination that requires remedial action under current Federal and State Regulations. The list has been prepared on the basis of reconnaissance of the area and reference to topographic and Sandborn (1959) maps.

It is recommended, that prior to change in ownership or beginning of construction, that an environmental assessment be made of these properties. The first phase of the assessment should include a detailed inspection of the site, determination of the chain of ownership for the past 60 years and review of existing maps, photographs, and other records. This should include inspection of any previously made environmental investigations. It is known that environmental testing has been accomplished at the Rookwood Terminals and American Building Components property.

Where the preliminary assessment indicates the potential of soil contamination, then appropriate sampling and testing should be made to determine the presence and concentration of contaminates sufficient to develop a remediation plan and/or risk assessment plan, if deemed applicable. The site investigation should be sufficient to meet requirements of Fire Marshall Regulation 7:7:28 of the Ohio Administrative Code (OAC).

SITES HAVING POTENTIAL SOIL CONTAMINATION

Previous Rail Yards

1. Parson Street (39)
2. Washington Street (40)
3. Fulton Yard (31)
4. Pendleton Yard (5)

Commercial Institutions

5. Rookwood Terminals - 1541 Eastern Avenue (30)
6. American Building Components - 1725 Eastern Avenue (29)
7. Johnson Electric Supply - 1841 Eastern Avenue (28)
8. Verdin Manufacturing - 2021 Eastern Avenue (25)

Existing Service Station

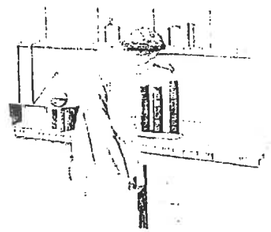
9. Site - 1903 Eastern Avenue (27)
10. Sunoco - 2740 Eastern Avenue (41)

Old Service Station

11. 1531 Eastern Avenue (42)
12. 2380 Eastern Avenue (43)
13. 2432 Eastern Avenue (44)
14. 2610 Eastern Avenue (45)
15. 3353 Eastern Avenue (46)

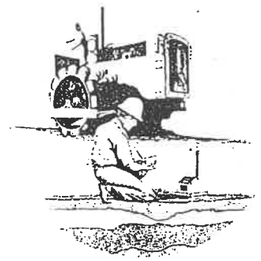
Additional Facilities

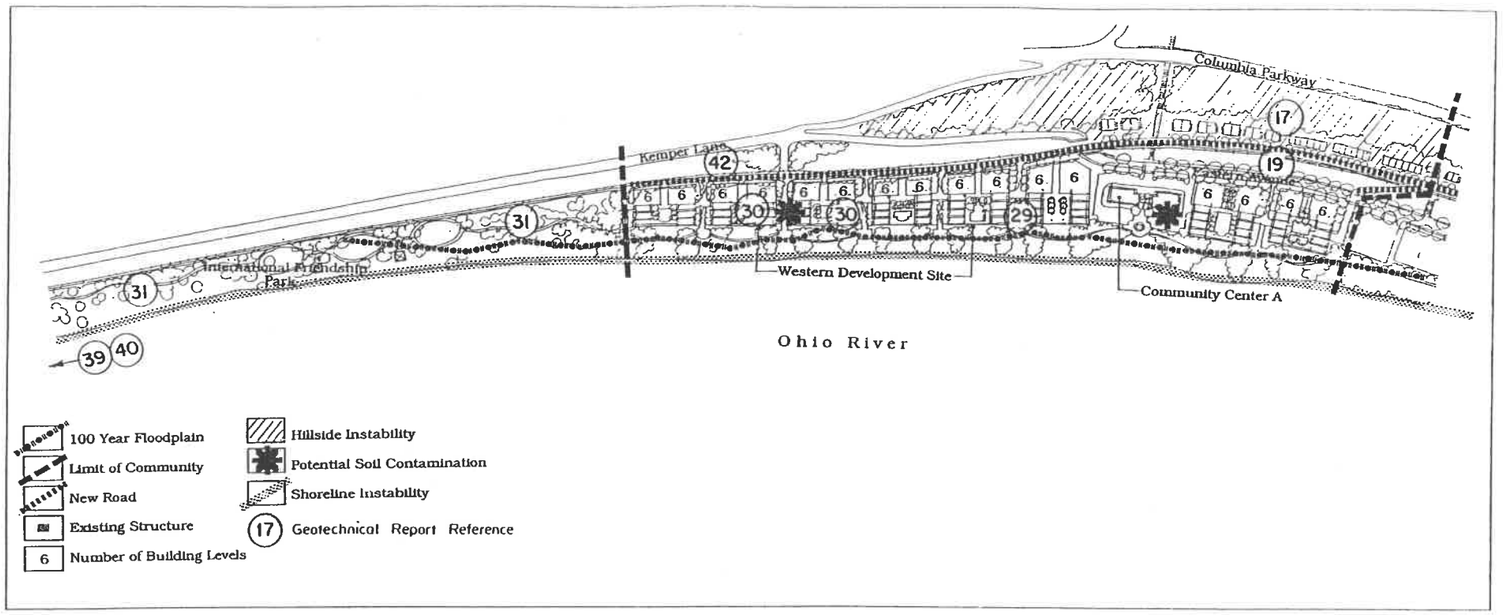
16. Manual Arts and Furniture - 2213 Eastern Avenue (47)
17. Junk Yard/Salvage Yard - Keck Street (48)
18. Cincinnati Gas & Electric - East End Works (49)
19. Cincinnati Iron Works - 2943 Eastern Avenue (50)
20. Auto Works Property - 3200 Walworth (51)



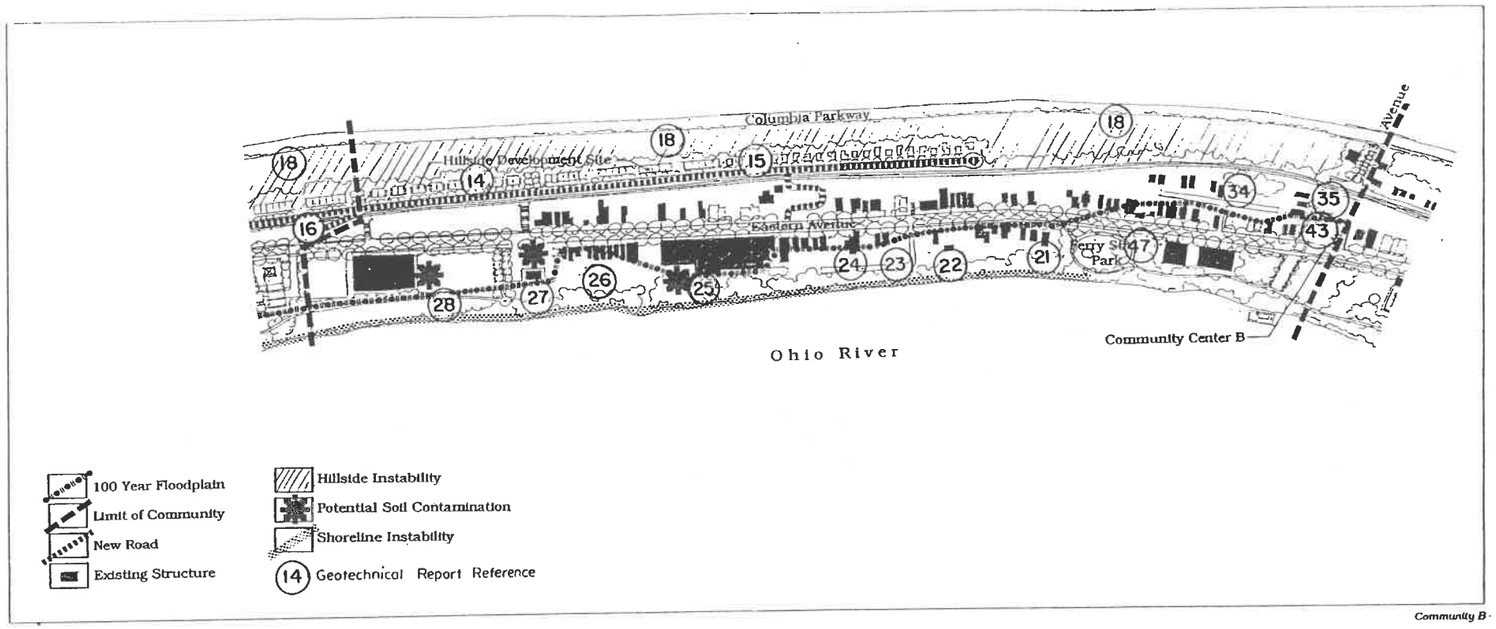
Contents

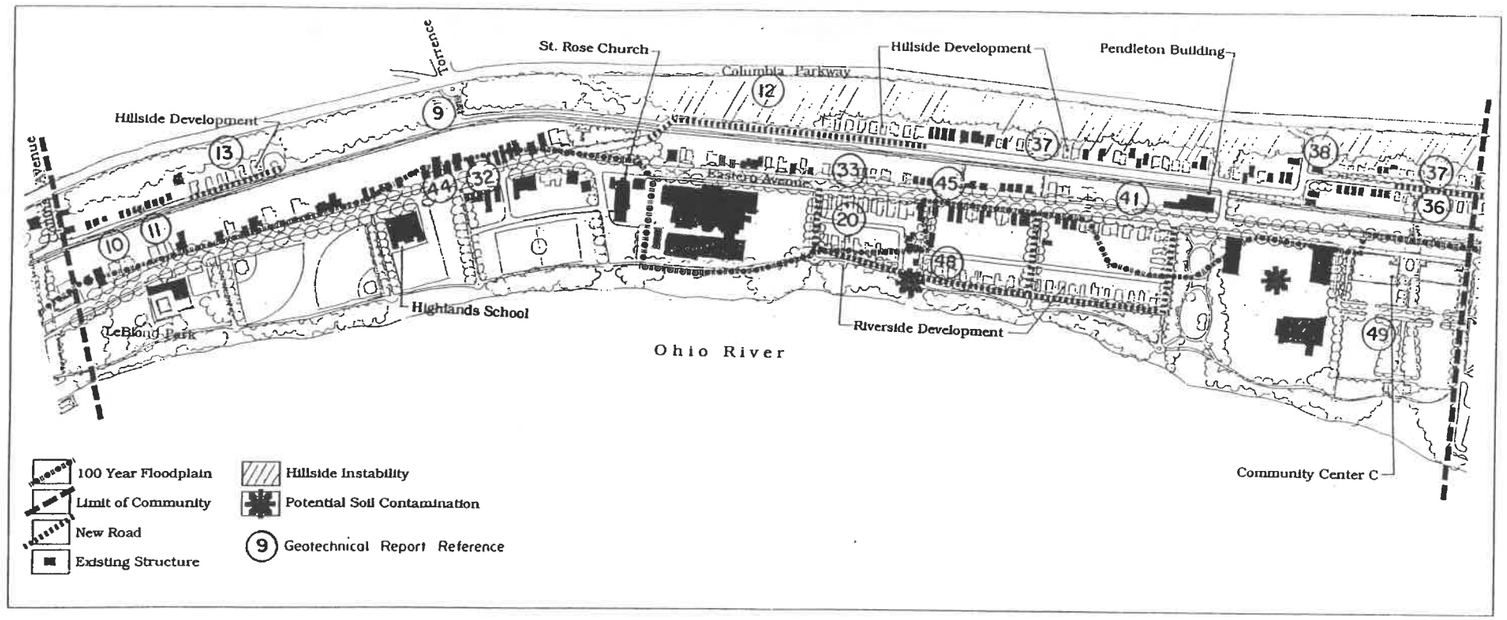
REFERENCE MAP
COMMUNITIES A, B, C, AND D

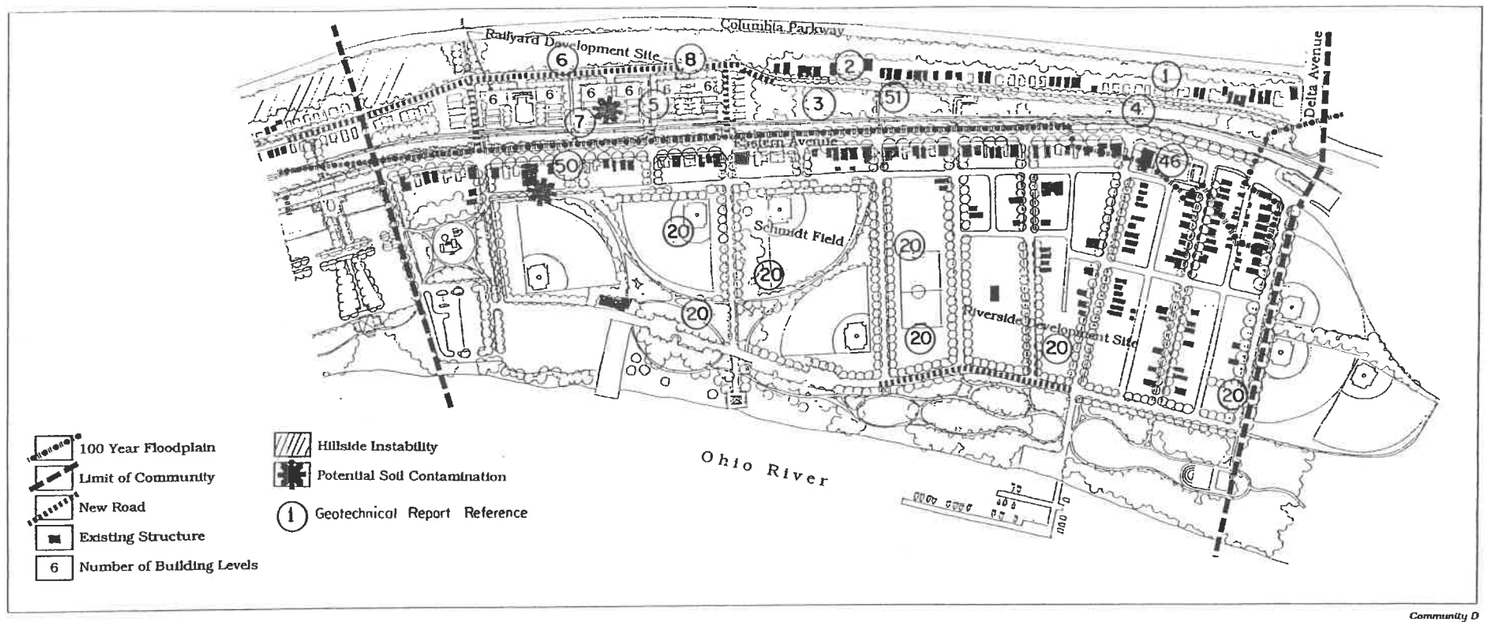



Columbia Parkway
Kemper Lane
International Friendship Park
Western Development Site
Community Center A
Ohio River
42
31
30
30
29
17
19
31
39
40
6
100 Year Floodplain
Limit of Community
New Road
Existing Structure
Number of Building Levels
Hillside Instability
Potential Soil Contamination
Shoreline Instability
17 Geotechnical Report Reference

Community A


Columbia Parkway
Hillside Development Site
Eastern Avenue
Ferry St.
Park
Avenue
Community Center B
Ohio River
18
15
14
16
28
27
26
25
24
23
22
21
47
34
35
43
100 Year Floodplain
Limit of Community
New Road
Existing Structure
Hillside Instability
Potential Soil Contamination
Shoreline Instability
14 Geotechnical Report Reference


Terrace
St. Rose Church
Columbia Parkway
Hillside Development
Pendleton Building
Hillside Development
Avenue
Eastern Avenue
Highlands School
LeBlond Park
Ohio River
Riverside Development
Community Center C
100 Year Floodplain
Limit of Community
New Road
Existing Structure
Hillside Instability
Potential Soil Contamination
9 Geotechnical Report Reference


Railyard Development Site
Columbia Parkway
Delta Avenue
System Avenue
Schmidt Field
Riverside Development Site
Ohio River
100 Year Floodplain
Limit of Community
New Road
Existing Structure
Number of Building Levels
Hillside Instability
Potential Soil Contamination
Geotechnical Report Reference

Community D

THE H. C. NUTTING COMPANY
EMPLOYEE OWNED
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS
SINCE 1921

CORPORATE CENTER
4120 AIRPORT ROAD
CINCINNATI, OHIO 45226
(513) 321-5816

NOV 06 '91
CITY PLANNING DEPARTMENT
BY _____

DATE: November 5, 1991 crk/wp

MEMORANDUM

TO: Jackie McCray - Cincinnati Department of City Planning

FROM: C. R. Lennertz

CC: Ms. Laura Wiberg - EDAW

RE: Cincinnati Eastern Riverfront

We again reviewed the Sanborn Maps at the main library where we obtained much of the information concerning industrial and commercial sites listed on pages 20 and 21 of our report. The maps show a single car garage at 3200 Walworth Street. The stone walls of this garage are still visible at the site. This was incorrectly listed as a commercial property.

Please find a revised page 21 of our report where we have removed this property from the list of additional facilities.

If you have any further questions, please call me.

Existing Service Station

9. Site - 1903 Eastern Avenue (27)
10. Sunoco - 2740 Eastern Avenue (41)

Old Service Station

11. 1531 Eastern Avenue (42)
12. 2380 Eastern Avenue (43)
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19. Cincinnati Iron Works - 2943 Eastern Avenue (50)

IV. East End Area Council (EEAC) Recipe for Success

EEAC East End Area Council
P.O. Box 26182
Cincinnati, Ohio 45226

East End Neighborhood
Recipe For Success

1. Maintain the East End as a neighborhood without turning it into a housing project.

   A. Majority of new construction should be of single and two family homes.

   B. Scale back total number of proposed units.

2. A commitment of no eminent domain against existing residential structures by the City of Cincinnati.

3. Provide that municipal code 740-9B include the Eastern Riverfront plan in order to provide for relocation fees to residents due to owner initiated displacement. This should be made retroactive to March 1, 1991.

4. The creation of a housing trust fund.

   A. For rental rehab loans or grants.
   B. For construction of senior citizen housing and low income rentals.

5. Tax abatement for existing residential units for a period of 15 years.

6. Provide that the plan not be required to pay for itself at the expense of the community.

7. To provide that all major components must pass East End Area Council review input and provide for line item veto inclusive.

Proposed by:
East End Area Council
Executive Board
Patrick Ormond, President
April 1, 1991

Recorded by: Janet Howard
Cincinnati-Hamilton County
Community Action Agency

V. Riverfront Advisory Council (RAC) Response to the EEAC Recipe for Success

EAST END AREA COUNCIL
Recipe For Successful Implementation
April 28, 1992

The East End Area Council 's Recipe for Successful Implementation represents a listing of activities and improvements that are critical to the successful revitalization of the East End Riverfront.

1. East End Riverfront Implementation Advisory Committee

There is a need for a community-based committee to oversee the implementation of the Plan. This committee would insure that this Plan moves forward in a way that makes the project manager/team and all involved city departments accountable to the community.

2. Capital Improvements

MSD needs to start a clean-up of the banks and river to stop the direct dumping of raw sewerage in the Ohio River. This is a violation of federal law and MSD needs to be held accountable.

3. Traffic Flow

Traffic engineering, public works and the Safety Dept. should be directed to work toward making Eastern Ave. a pedestrian-friendly street. Seven to nine and four to six restrictions need to be lifted, thus, making Eastern Ave. two 8 ft. parking lanes and two 12 ft. travel lanes at all times.

4. Social Services

The health and educational services in the East End need to be improved, expanded, and tailored to community needs. A mechanism needs to be created to bring about the return of a neighborhood school.

5. Housing

*Senior housing must become a reality with housing available for both independent and assisted care living.
*Rehab housing and new city-assisted low income housing has to come on line with all avenues explored for the development of the floodplain. The need for rehab assistance in the floodways must be addressed.
*A Housing Trust is essential for the survival of the current population of the East End. A housing trust exclusively for the East End has to be privately funded and organized with a board of trustees composed largely of East End residents.
*NHC must develop a blueprint for housing in the East End with a projected amount of new, city-assisted/low income housing and rehabbed housing to come on line yearly. The director of NHC would be directly responsible and accountable to the city and the community.
*Building inspection processes should be revised to separate safety issues from aesthetic concerns.

6. The Pendleton Club: The commitment of private monies with help from the city to restore the Pendleton Club to its historical form immediately to be a vital part of the East End Community. An official meeting place would cement the relationships between the East End Residents, Developers and the City to make this a plan of cooperation.

VII. *Methodology Report for Computer Imaging in the East End Riverfront*

University of Cincinnati

College of Design, Architecture, Art, and Planning

Center for Urban Design
David Gosling, B.A., M.Arch., M.C.P., Ph.D.
Director

Cincinnati, Ohio 45221-0016 USA
Phone (513) 556-3282
FAX (513) 556-3288

EASTERN RIVERFRONT STUDY
CITY OF CINCINNATI

Methodology Report

The Center for Urban Design was retained by the City of Cincinnati to produce computer imaging for two planning proposals in the eastern riverfront area of Cincinnati. Principal investigator for the Center was John Decker, Assistant Professor of Urban Design; representing the city was Jackie McCray, City Planner.

The study consisted of assembling three components:

1. Photographs of the two proposal sites taken from selected locations in the study area (refer to map of shot locations).
2. A 3-D computer model of the landform, roads, and relevant monuments (individual buildings and bridges).
3. A 3-D computer model of the two proposals as described in a planning document produced by the City.

The goal of the study was to produce objective computer views of the two projects as they would appear from the various photographically represented viewpoints. In this, the Center offered no opinion of the validity or appropriateness of the projects, as all views were assembled from data given by the City.

The computer images are meant to be tools for examination of the two proposals by various bodies of review and are not absolute representations of the projects in terms of final form or accuracy. The views produced are held to be reasonably accurate within the limits of the methods used to create them and the limits of accuracy of the given data itself. Owing to the large "size" of these computer models and memory limits of the computer, a great deal of simplification was necessary in the modeled forms. The proposals themselves were also similarly simplified due to the early stage of their proposal. They are represented as simple masses having no architectural development beyond height, location and roof forms. In that it was necessary to color them, they have been colored. This in no way implies, however, that they will be made of materials of these colors.

Images were produced by a combination of the three components. The landform, monuments, and proposal models were constructed in the computer such that parts could be "switched" on and off and viewed independently, or in combination with each other. In a higher graphic platform, they were also brought into combination with the selected photographs and switched to create views successively showing the absence or presence of the proposals and the various landform features against the photograph. The computer models are fully three-dimensional and therefore the computer "camera" could be positioned virtually anywhere in the computer "space", producing any possible view. For accurate location against the photographs, the profile of the landform and other relevant monuments, such as visible road grades, river edge and so on were used. Images were produced showing these monuments located for viewers to be able to "validate" views by having a means to judge their relative accuracy or rather account for visible flaws. Consequently, when views of the project alone against the photographs are presented, viewers can make judgments about location, perspective, and relative sizes of elements.

The model components were created in a CAD software (AUTOCAD) which only allowed viewing of them as wireframes (lines having spatial position but no surfaces). These model geometries were then assembled into a higher graphic software (TOPAS) which allowed them to be "rendered" (viewed as though objects in light and shadow). This software also allowed the photographs to be digitally supported "behind" the models on the screen. Rendered models, when carefully positioned, combine with the photograph to make the presented images.

The landform was produced by a process called "digitizing" in which the profiles of the land were literally "traced" into the computer along the 1000' control grids on the map. The computer then interpolated the surfaces in between every grid square. Some averaging or flattening therefore occurred in the model between the grid lines. What was sought was a large model generally accurate to horizon profiles, a more accurate model could be obtained by using a smaller control grid but with a significant sacrifice in memory efficiency. One visible error created in this way was the fact that certain peaks, notably Mount Adams, were shorter in elevation than they should be. Another visible problem was the fact that the landform had to be modeled free of vegetation and tree cover somewhat exaggerates the height and profiles of the real hills. This was compensated for in the actual positioning studies by making a judgment of relative forest height. For the most part, the road grades served best to position the models, and hill profiles generally agreed with the road position.

The river was represented as a flat surface within a void in the landform. Although this polygon could be raised and lowered to match changes in the riverpool, it was not, and some visual compensation was necessary for visible changes in the river elevation which occurred between two sessions of photo shooting.

Buildings and bridges were constructed (drawn) in the CAD software and assembled with

the landform and road grade elements. As previously stated, these were greatly simplified, yet modeled to the least complex recognizable forms. What was important was their spatial location and elevation for use as positioning monuments, not their qualities of "realism".

The roadways (Eastern Avenue and Columbia Parkway) were modeled in a process of digitizing similar to that used with the landforms. The roads were traced along the two edges of their route and surfaces were interpolated between these edges. Simplification, particularly of curves, was necessary for memory efficiency. Only roadbed surfaces were modeled in "route voids" left in the landform model for the roads. Earthworks, retaining walls, and bridge structures underneath roads were not modeled in some cases leaving holes visible between the roadbed edge and the landform edge.

All elements of this model were assembled into an AutoCAD file, with pre-existing components including landforms well west and north of the study area and most of the buildings in downtown. The portions of the model built specifically for the City (Columbia Parkway, Eastern Avenue, associated landforms, the Ft. Thomas landform, and the two proposal models) are on disk for future use.

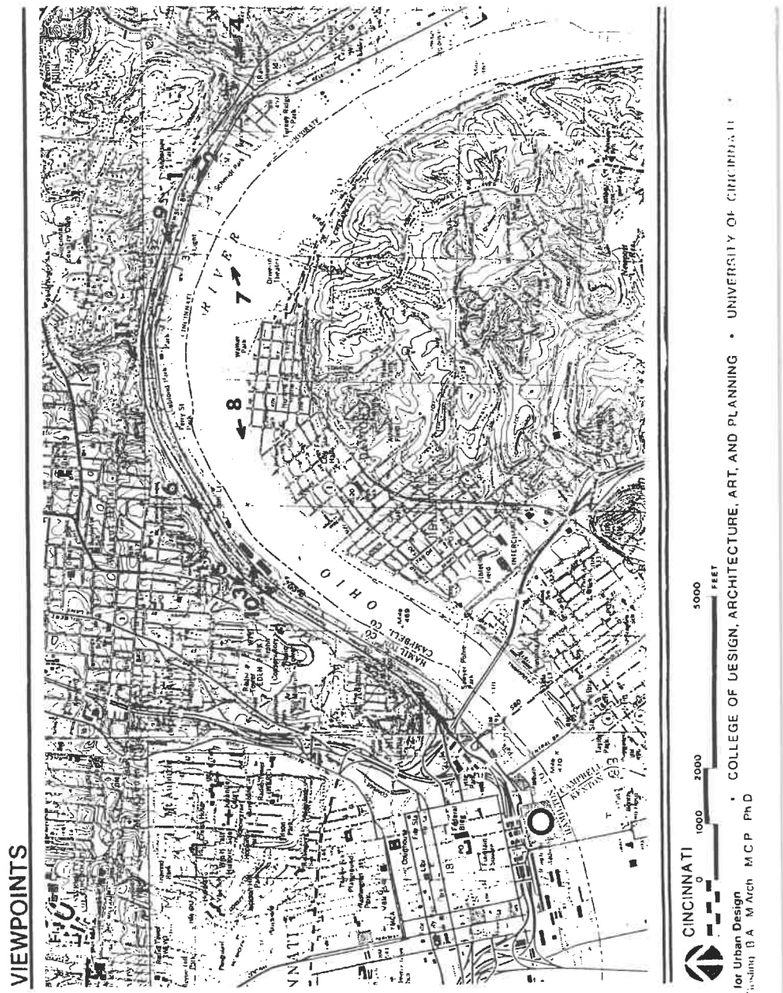
The images produced in TOPAS were made into slides by using a PCR film recorder device. This device "writes" digital images to slide, line by line, in discrete color passes (red, green, blue) creating a high resolution image.

The original photoviews lost some resolution and color quality when they were "digitally scanned" into the computer and so they are provided for reference. Some crop in the image also occurs owing to the difference between film frame proportions (aspect ratio) and the rectangular proportion of a video screen.

It should be understood that though these processes are often more "artistic" than scientific, great lengths were taken to apply mathematical control to all steps of the creation of these images, and further control has been added to their presentation structure so that they give additional support to the decision-making associated with review of these projects. The comprehensibility of these types of images could be increased by additional supportive imagery combining computer drawings with traditional rendering techniques, photomontage and physical three-dimensional models, particularly for presentation to public groups.

John Decker
Assistant Professor

JD:lc
January 10, 1992



VIII. EDAW Urban Design Questionnaire and Memoranda

Urban Design Plan Questionnaire

The EDAW-led team has been asked to develop an urban design plan and design guidelines for Cincinnati's Eastern Riverfront Community. In order for the Urban Design Plan to be successful, serve your needs and address the pertinent issues, we need your input. The following questionnaire is an important tool in obtaining this input.

The questionnaire has been developed to assist us in identifying the strengths and weaknesses of the area, so physical improvements can be made to preserve and enhance the area.

When answering this questionnaire please be as specific as possible and focus your responses to physical elements. Thank you for your cooperation.

Name:_____

10 City Staff	4 Community Resident
8 RAC Member	3 Other

1a. Identify the most positive attribute of the Eastern Riverfront Community:
- (16)The River
- (8)Heritage/Strong community pride
- (6)Historic character of residential neighborhoods
- (6)Location to downtown

1b. Should this be preserved? yes

2a. Identify two more positive attributes of the Eastern Riverfront Community:
- (6)Amount of recreational/open space
- (5)River views
- (4)Historic character
- (1)Social and economic make-up of the residential neighborhoods

2b. Should these be preserved? yes

3a. Identify the worst aspect of the Eastern Riverfront Community:
- (12)Blighted/run down
- (3)Junk yards
- (2)Railroad
- (2)Poor infrastructure
- (2)Neglect by the City
- (1)Industrial Uses
- (1)Truck route
- (1)Water works
- (1)Rat control problems
- (1)Criminal activity

3b. Should this be modified? yes

4a. Identify two more negative aspects of the Eastern Riverfront Community:
- (1)Flooding
- (1)Linear community
- (1)Lack of identity
- (1)Lack of respect/access to river
- (1)Lack of pedestrian orientation
- (1)Isolated community
- (1)Poor public amenities
- (1)Lack of parking

4b. Should these be modified? yes

5. Identify the one ingredient you would add to the Eastern Riverfront Community:
- (7)Rehabilitation
- (4)Housing
- (3)Streetscape/Greenway
- (3)Community retail/Commercial core
- (2)Infrastructure
- (1)Retension walls

6. Identify two more ingredients you would add to the Eastern Riverfront Community:
- (8)Improved river connecton
- (8)Moderate housing
- (6)Open space
- (2)Mixed uses
- (1)Parking
- (1)Improved infrastructure
- (1)Improved transportation
- (1)Link to downtown

7. Identify one ingredient you would remove from the Eastern Riverfront Community:
- (7)Junk yard
- (7)Railroad
- (2)Utilities
- (2)Blighted housing
- (1)Commercial/Industrial uses
- (1)Rats
- (1)Truck traffic
- (1)Community council

8. Identify two more ingredients you would remove:
   - (1)Fencing around gas & electric
   - (1)Wall around water works

9. Describe what the Eastern Riverfront Community will look like in 10 years or after the implemenation of the Urban Design Plan (appearance, activities, users):
   - (7)Green, River-oriented residential neighborhood with community shopping, parks and green space with river access, and a pedestrian emphasis
   - (4)Park-like setting oriented to river serving and economically integrated community
   - (4)Affordable, safe, and clean neighborhoods for singles and families of diverse backgrounds and economic status.
   - (4)Charming "villages" along Eastern Avenue with access to the river with small shops and servive areas at one end, active & passive play areas at the other end.
   - (4)A place to be. River oriented.

Note: These images will possibly take 20 years to happen.

10. Identify what needs to happen to accomplish this (answer to #9):
   - (8)Committment to change(community& city)
   - (8)Financing/Committment to invest
   - (6)Concensus/Strong direction from Urban Design Plan
   - (6)Good Urban Design Plan/Vision
   - (4)Key acquisitions
   - (3)Removal of eyesores (vacant lots, RR, Blighted buildings, etc.)
   - (3)UD/Zoning controls
   - (2)Team effort (No individual agendas)
   - (2)Protection of existing communities

11. Identify by name other places you have visited or have heard of that look like the place you described (answer to #9):
   - (3)Seattle, WA
   - (3)European river villages
   - (2)San Antonio, TX Riverwalk
   - (2)Toronto, Canada
   - (1)Columbia, MD
   - (1)Seaside,FL
   - (1)Harborsprings, MI
   - (1)St. Loius, MO
   - (3)Pittsburgh, PA
   - (3)Inner Harbor, Baltimore, MD
   - (2)Backbay of Boston, MA
   - (2)River trail, Denver, CO
   - (1)Harbour Place, Washington, DC
   - (1)Reston, VA
   - (1)Greenways, Denver, CO
   - (1)Totally unique place

12a. Describe the current image of the Eastern Riverfront Community:
   - (17)Run down, junk yard, blighted, ignored, neglected, poor economically
   - (7)Pass through neighborhood/Lacking identity/Not a place to be
   - (4)Good recreational areas: ballfields, playgrounds, and recreation centers
   - (2)Community that is physically & socially difficult to bring together/Ununify
   - (2)Residential area for generations of families/Rich in heritage
   - (1)Historic potential

12b. Describe what the image of the area will be in 10 years or after the implementation of the Urban Design Plan:
   - (6)Unique & beautiful place to live, work & recreate
   - (6)Urban, riverfront "village" that is socially & economically balanced
   - (7)Rehabilitated, infilled, mixed-use community (possibly catering too much to the upper class)
   - (3)River focus

13. Describe what will cause this effort, to develop and implement an Urban Design Plan for the Eastern Riverfront Community, to fail (the failure scenario):

- (10)Lack of city and/or community support and involvment
- (7)Lack of concensus/Overriding current residents
- (6)Lack of proper development/zone restrictions
- (4)Improper communications/Vital to a realistic and successful plan
- (4)Lack of funding for implementation of plan
- (3)Invasion of private developers

Additional comments:

- (1)Existing rail right-of-way should be saved and utilized for rapid/mass transit location, light rail, or bike/pedestrian trail
- (1)Possible need for a pedestrian over pass associated with Eastern Avenue

To: Lee Meyer, Jackie McCray
From: Dennis Carmichael, Laura Wiberg, Paul Moyer
Project: **Eastern Riverfront Urban Design Plan**
EDAW Job No. 1W046.01
Date: November 16, 1990
Revised November 29, 1990
Subject: Mission Statement and Project Goals

Based on the comments from our workshop conducted on November 8 and 9, 1990, and the public meeting held on November 10, 1990, we have developed a Mission Statement to guide the urban design effort and a series of goals and objectives that express the vision for the community. They will be the foundation for all future urban design recommendations and will be translated into a physical setting for the Community. Please review these statements and let us know of your comments and any revisions.

Mission Statement

To preserve the attributes and the opportunities of the Eastern Riverfront Community, and manage the changes and the development forces acting on the community by creating action-oriented strategies to enhance and reinforce the character of the existing neighborhood while encouraging and creating opportunities for new development.

The Eastern Riverfront community planning and urban design effort is structured around six broad principles. They include:

- •Development of broad-based community participation and consensus building.
- •Enhancement of the quality of life for Eastern Riverfront citizens.
- •Identification of key issues and opportunities.
- •Identification of short and long range focus areas, programs and projects.
- •Development of an implementation strategy to carry out the planning and design effort.
- •Development of a sound fiscal policy where new developments and tax revenues support new public improvements and services.

The Eastern Riverfront Urban Design Plan and process will be structured around the six principles and an understanding of basic community values and priorities. This will form the basis for the Plan's goals. The Plan's mission is summarized by the following points:

- •Establish a vision and a process for the Eastern Riverfront that is flexible and can be sustained over time.
- •Provide goals.and objectives that are measurable and achievable.

- •Produce a Plan, with recommendations, that identifies design guidelines, necessary public improvements, and private development efforts, and addresses the following:
  - -An image for the community that is representative of its people, values and history.
  - -The existing physical structure of the community and its strong orientation to the River.
  - -Areas of natural significance and strategies for preservation and development.
  - -The buildings and areas of architectural and historic significance and strategies for conservation, rehabilitation and infill.
  - -Recommendations on bulk, character, quality, scale, height,and use that will form the basis for zoning revisions.
  - -Improvements to existing public spaces and parks, and future additional public spaces and parks.
  - -Improvements to existing community access points and circulation routes.
  - -Opportunities for private development.
- •Develop a prioritized schedule, for design and public improvement recommendations, identifying short- and long term range actions.
- •Develop a plan that increases economic activity in the area and over time translates into property tax revenues that will support the proposed and recommended public improvements.
- •Identify public improvements that will encourage private development and build upon the image of the Eastern Riverfront Community.

Goals and Objectives

1. Create broad, community-based support for the Plan
The Plan will be designed to reflect the concerns of the community and the goals of the City.

- •Maintain the open and interactive involvement of community residents/owners and the community-at-large.

2. Improve and enhance the quality of life in the Eastern Riverfront Community.
The Plan will propose improvements which will create a renewed focus and image in the Community.

Character

- •Enhance the community as an unique place to live, work and play.

•Create a series of urban villages.

•Integrate the villages by creating a unified community-wide image.

•Increase visibility and awareness of the River within the community and maintain views to the River from Columbia Parkway and the hillsides above.

Existing Facilities

•Conserve and enhance existing housing and physically and visually integrate future housing within the existing context.

New Facilities

•Utilize infill housing to respect the character and scale of existing housing.

•Identify opportunities for future higher density, mid-rise housing at appropriate locations throughout the community.

•Utilize design solutions to promote socio-economic integration through a diversity of housing products.

•Develop design guidelines to address the physical layout, location and massing for new developments.

•Identify the appropriate number and size, of new river-oriented, and neighborhood office and retail uses.

3. Retain, renovate and/or upgrade the historic, architectural and cultural fabric of the Community.
The Plan will recommend actions to preserve the historic and architectural integrity of the community and promote significant neighborhood characteristics that are based upon the heritage and traditions of the area.

•Pendleton Club

•Ironworks

•St. Rose's Church

•Mt. Carmel Church

•Highland School

•CG&E

•Waterworks (preferably without the wall)

4. Improve circulation and linkages to surrounding areas and re-establish the Eastern Riverfront as a community and a destination.
The Plan will encourage and recommend a safe and easy flow of cars and people to and through the area.

Circulation Network

•Improve north-south vehicular access to the area.

•Address the existing truck traffic along Eastern Avenue and its impact on Eastern Avenue as the primary street in the Community.

•Minimize transportation impacts of new development on the community.

Street Configurations

•Improve vehicular safety and accessibility to the community along Collins Avenue.

Street Character

•Recognize Eastern Avenue as the primary street in the community, both visually and physically, and unify the character changes that occur along its length.

•Recognize the purpose of the streets in the community and their capacities for accommodating traffic and parking and providing access.

•Protect the "green corridor" along Columbia Parkway.

Pedestrian Circulation

•Identify and reinforce pedestrian and recreation linkages, focused on the riverfront and the hillside.

•Identify and reinforce a system of pedestrian and recreation linkages, north-south and east-west , between the riverfront and the hillside.

•Create a continuous and separate bike path and pedestrian path along the east-west length of the community.

Mass Transit

•Preserve the railroad right-of-way (R.O.W.) corridor and the opportunity in the future for mass transit.

5. Maintain, enhance and integrate existing and proposed open space within the community.
The Plan will recommend the means for creating a balance between community and regional-serving recreation facilities.

River Access

•Examine the feasibility of public access to the riverfront .

•Provide continuous east-west pedestrian and recreational access if possible, that could be located along the bank of the river, the railroad right-of-way or Eastern Avenue.

•Determine location of the path and the character of the access which will vary depending on ownership patterns and configurations, and development and design needs..

Existing Facilities

•Examine existing facilities and provide recreation and open space opportunities that address the different needs of the community and the city.

New Facilities

•Provide a more equitable geographic distribution of recreation opportunities throughout the community.

•Provide seasonal recreation opportunities to support the existing recreation facilities and their ability to serve the city's and the community's needs.

6. Protect and enhance the natural environment.
The Plan will identify areas critical to the character and quality of the community that should be preserved, those areas that are capable of accommodating change, and the character of that change.

•Identify and preserve, and when necessary enhance, the critically sensitive environmental areas, including the river's edge and the hillside.

•Preserve and maintain views to the river.

•Identify areas suitable for additional development based on environmental sensitivity and suitability, floodplain, steep slopes and shoreline erosion.

•Identify areas of potential contaminants and hazardous materials and determine the impact on future development.