Market Study, Engineering, and Land Use Plan for the Menomonee Valley

Final Report
Prepared for the Department of City Development
City of Milwaukee

Co-Sponsors:
Milwaukee Metropolitan Sewerage District
Menomonee Valley Business Association

Lockwood Greene Consulting
Fluor Daniel Consulting
Trkla, Pettigrew, Allen & Payne, Inc.
Edwards & Associates, Inc.

October 1998

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CITY PLAN COMMISSION
CITY OF MILWAUKEE

Resolution approving the *Market Study, Engineering, and Land Use Plan for the Menomonee Valley* as an element of the Comprehensive Plan.

Whereas, One step in the City's comprehensive planning process is the review and revision of plans for subareas of the City; and

Whereas, A plan for the Menomonee Valley, titled *Market Study, Engineering, and Land Use Plan for the Menomonee Valley*, has been prepared; and

Whereas, The new plan supersedes the plan for the Menomonee Valley that was approved by the City Plan Commission on March 5, 1990;

Whereas, The new plan was prepared with the participation of the Menomonee Valley Business Association and the Milwaukee Metropolitan Sewerage District; and

Whereas, The new plan has been reviewed by numerous institutions, public agencies, community and business organizations, individuals and firms; and

Whereas, Public comment was obtained through a public hearing and public information meeting; and

Whereas, The City Plan Commission at its meeting on August 10, 1998 modified the proposed plan to reflect the comments received; and

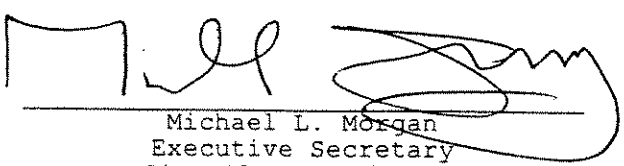
Whereas, Adoption of the new plan will establish the plan as a guide for the City of Milwaukee regarding the use and development of the lands and waterways in the Menomonee Valley, encourage common understanding and coordination among levels of government and private interests, and facilitate implementation of the plan; now, therefore, be it

Resolved, That the City Plan Commission, pursuant to sec. 62.23, Wisconsin Statutes, hereby adopts the *Market Study, Engineering, and Land Use Plan for the Menomonee Valley* as an element of the Comprehensive Plan of the City of Milwaukee; and be it

Further Resolved, That the Executive Secretary is authorized and directed to distribute copies of the plan to appropriate City departments, governmental agencies, and private interests; and, be it

Further Resolved, That the Executive Secretary is hereby authorized and directed to transmit a certified copy of this resolution to the Common Council of the City of Milwaukee in accord with sec. 62.23 (3) (b), Wisconsin Statutes.

I do certify that the foregoing is a true and exact copy of a resolution adopted by the City Plan Commission of the City of Milwaukee, Wisconsin, on August 10, 1998.



Michael L. Morgan
Executive Secretary
City Plan Commission

City of Milwaukee

Milwaukee 150 1846 1996

Michael L. Morgan
Commissioner
Patrick G. Walsh
Deputy Commissioner

Department of City Development

Housing Authority
Redevelopment Authority
City Plan Commission
Historic Preservation Commission

October 1998

File Reference:

Dear Friend of the Menomonee Valley,

As we pursue economic development programs for the City of Milwaukee, we are addressing several related goals:

- Retaining jobs that are accessible to our residents and encouraging employers to create new jobs.
- Encouraging high quality and sustainable development.
- Using the existing city infrastructure in job development.
- Promoting development that reduces sprawl in southeastern Wisconsin.

We have focused on the economic development of the Menomonee Valley because of its potential to help achieve our goals. The Menomonee Valley is the geographic center of the City of Milwaukee. It is surrounded by the most densely populated neighborhoods in Wisconsin, which can supply the workforce that employers need. The necessary infrastructure is available. Vacant and underutilized land is available to meet the demand for business sites. Redevelopment of the Valley can counteract sprawl by providing attractive, centrally located sites and reducing the pressure to develop farmland for industrial use.

The *Market Study, Engineering, and Land Use Plan for the Menomonee Valley* provides a detailed blueprint for us to use to achieve our goals. The plan has been formally adopted by the City Plan Commission as part of the Comprehensive Plan of the City of Milwaukee and formally endorsed by the Common Council. With this support and the support of other partners like the Menomonee Valley Business Association and the Metropolitan Milwaukee Sewerage District, we are moving forward with implementation of the plan.

I encourage you to watch our progress and the transformation of the Valley from an area of under-realized potential to a powerful economic asset of the City of Milwaukee.

Sincerely,

Michael L. Morgan
Commissioner, Department of City Development
and
Executive Secretary, City Plan Commission

File: MRV-COMM

200 E. Wells Street
Milwaukee, Wisconsin

City of Milwaukee

Office Of The City Clerk

Certified Copy of Resolution

FILE NO: 980698

Resolution approving the Market Study, Engineering, and Land Use Plan for the Menomonee Valley as an element of the Comprehensive Plan. (DCD)

Whereas, One step in the City of Milwaukee's ("City") comprehensive planning process is the review and revision of plans for subareas of the City; and

Whereas, A new plan for the Menomonee Valley, titled Market Study, Engineering, and Land Use Plan for the Menomonee Valley ("Plan"), has been prepared; and

Whereas, The new Plan supersedes the Plan for the Menomonee Valley that was approved by the Common Council on April 23, 1991, by File No. 892377; and

Whereas, The new Plan was prepared with the participation of the Menomonee Valley Business Association and the Milwaukee Metropolitan Sewerage District; and

Whereas, Pursuant to Sec. 62.23, Wisconsin Statutes, the City Plan Commission adopted the new Plan as an element of the City's Comprehensive Plan on August 10, 1998, following a public hearing and public information meeting; and

Whereas, Approval of the new Plan by the Common Council will establish the Plan as a guide for the City of Milwaukee regarding the use and development of the lands and waterways in the Menomonee Valley, encourage common understanding and coordination among levels of government and private interests, and facilitate implementation of the Plan; now, therefore, be it

Resolved, That the Common Council of the City of Milwaukee approves the Market Study, Engineering, and Land Use Plan for the Menomonee Valley as adopted by the City Plan Commission, a copy of which is attached to this Common Council File; and, be it

Further Resolved, That the Market Study, Engineering, and Land Use Plan for the Menomonee Valley as approved shall provide guidance and serve as a basis for decision making by the Common Council in its consideration of land use and physical development issues; and, be it

Further Resolved, That the Department of City Development, the Department of Public Works, and other appropriate City departments and agencies are directed to work toward implementation of the Plan; and, be it

Further Resolved, That the Commissioner of City Development is authorized and directed to send copies of the Plan to the parties identified in it as having responsibility for implementation of the Plan for their reference and use.

I, Ronald D. Leonhardt, City Clerk, do hereby certfiy that the foregoing is a true and correct copy of a(n) Resolution passed by the COMMON COUNCIL of the City of Milwaukee, Wisconsin on September 23, 1998.

Ronald D. Leonhardt

Ronald D. Leonhardt
City Clerk

September 30, 1998

Date Certified

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Executive Summary

Purpose of the Study

The City of Milwaukee Department of City Development (DCD) retained the Consulting Team to complete a market study, transportation and land use plan for the Menomonee Valley. The purpose for undertaking the study is to update the City's Master Plan. Co-sponsors of this study were the Milwaukee Metropolitan Sewerage District and the Menomonee Valley Business Association.

This document, **A Market Study, Engineering and Land Use Plan for the Menomonee Valley,** presents the findings of the study process and the recommendations for the Menomonee Valley. It will be formally submitted for adoption as a part of the City's Comprehensive Plan Series.

Location

The Menomonee Valley (the Valley) is primarily an industrial area, located west of Downtown Milwaukee and the Historic Third Ward, an area that is being rejuvenated with retail, entertainment, restaurant and other commercial and wholesale trade uses. Its general boundaries are the East-West Freeway on the north, Milwaukee River on the east, Bruce Street and the Soo Line Railroad tracks on the south, and U.S. 41 on the west. The Menomonee River flows through the Menomonee Valley.

For the purposes of this study, a greater Menomonee Valley Study Area was identified and defined by DCD and analyzed by the Consulting Team. Its boundaries are Wisconsin Avenue on the north, the Milwaukee River on the east, National Avenue on the south and Hawley Road on the west. The greater Study Area includes Marquette University, Mitchell Park, the Milwaukee Brewer's stadium, the Veteran's Administration Medical Center as well as portions of the residential neighborhoods bordering the Valley to the north and south.

The Study Process

This study has involved significant input and participation on the part of City officials and staff, the Menomonee Valley Business Association (MVBA), the Milwaukee Metropolitan Sewerage District, businesses in the Menomonee Valley and others in Milwaukee. The major tasks undertaken to complete the **Market Study, Engineering and Land Use Plan for the Menomonee Valley** are briefly described below.

- **Public Outreach and Stakeholder Participation,** which included two Issues Workshops, Key Person Interviews and a survey of the businesses in the Menomonee Valley.

- **Economic Evaluation,** which analyzed the demographic and economic conditions and trends affecting the Menomonee Valley, including population, households, income, and employment.
- **Market Assessment,** which assessed the future redevelopment potentials for industrial, retail, office, and park and recreation uses in the Menomonee Valley Study Area.
- **Land Use Analysis,** which evaluated existing conditions, future potentials and key issues and concerns regarding land use and development in the Menomonee Valley.
- **Engineering Analysis,** which evaluated existing conditions and future improvement projects related to access, circulation and environmental conditions in the Menomonee Valley.
- **Implementation Strategy,** which identifies an implementation strategy (with potential funding and technical assistance resources) for undertaking the recommended market, engineering and land use projects and actions, and includes a marketing plan.

Recommendations for the Menomonee Valley

The market, engineering and land use recommendations and ultimate Land Use Plan for the Menomonee Valley strive to: a) retain and strengthen viable and existing industries; b) attract desirable and new industrial and business development; c) promote compatible new mixed-use development in selected locations; and d) maintain and protect adjacent neighborhoods and business areas.

The Land Use Plan recommends that the Menomonee Valley be upgraded and revitalized as an urban industrial and mixed-use district, providing sites for a wide range of land uses. Industrial uses will be emphasized in the central portion of the Valley. New industrial/business park development will be promoted on vacant land in the western portion. New commercial, residential, public and open space uses will be encouraged east of 6th Street.

The City's initial revitalization efforts will be focused on four high-priority development areas in order to help stimulate new investment and development at key locations within the Menomonee Valley. These priority areas are: A) the railroad shops site; B) the Reed Street Yard; C) the properties along Canal Street, just east of Emmber Lane; and D) the properties near 6th and Canal Streets. Specific recommendations for these priority development areas are shown on Figure 8 in the Land Use section of this report.

The Implementation Strategy

Because of the vast size of this undertaking, the implementation of the recommended Land Use Plan for the Menomonee Valley will require the proactive efforts of both the public and private sectors. Extensive environmental testing, remediation and infrastructure improvements will have to be completed before any significant new development can be undertaken. A broad range of funding and technical resources will have to be made available for these purposes from City, State and Federal governments as well as from the private sector.

It will only be with public sector involvement and private sector funding that potential development sites in the Valley can be improved and offered for sale at prevailing market prices. In short, the cooperative efforts of a true public/ private partnership will be the key to successful implementation of this recommended land use plan.

The Action Agenda

The Action Agenda to implement the plan is presented below. It includes:

- The recommended action or project to be undertaken.
- The suggested timing for initiation and completion of each project and action.
- Responsible parties in the public and private sectors who should initiate and participate in the project
- Suggested funding sources and assistance programs that might be available for implementing each action and project.

All of the recommended actions should be undertaken and completed as soon as possible within a reasonable time frame. The recommended timing for the projects in the Action Agenda is as follows:

- Timing **1** projects should be undertaken immediately and be completed or in the process of completion within one year following the approval of the Land Use Plan. These projects call for an administrative and/or public policy action, and will not require significant financial investments.
- Timing **2** projects should begin as soon as possible and be completed within two years following approval of the Plan. These projects involve physical improvements essential to facilitate new development in the Valley.
- Timing **3** projects should begin as soon as reasonably possible and be completed within a three to five year time frame. These projects are additional desirable initiatives to support and encourage redevelopment in the Menomonee Valley.

An inventory of the funding and technical resources is included in the Master Appendix of this report, which is in the possession of DCD, the Milwaukee

Metropolitan Sewerage District and the Menomonee Valley Business Association. The abbreviations identified in the Action Agenda relate to the following: Department of City Development – DCD; Milwaukee Economic Development Corporation – MEDC; City of Milwaukee Department of Public Works – DPW; Redevelopment Authority of the City of Milwaukee – RACM; Wisconsin Department of Natural Resources – DNR; Wisconsin Department of Commerce - DOC; Wisconsin Department of Transportation – DOT; Wisconsin Housing and Economic Development Authority – WHEDA; U.S. Environmental Protection Agency – EPA; U.S. Department of Housing and Urban Development – HUD; National Park Service – NPS; Small Business Administration – SBA; Tax Increment Financing - TIF; Community Development Block Grants - CDBG; Industrial Revenue Bonds - IRBs; Transportation Economic Assistance Program – TEA, and Intermodal Surface Transportation Efficiency Act – ISTEA.

Action Agenda Recommendations

1. A public/ private partnership should be formed to implement this Land Use Plan.

Due to the significance of successful implementation of this Land Use Plan and the magnitude of this undertaking, a public/ private partnership should be formed as soon as possible. Its members should include representatives of the City of Milwaukee and private sector entities, including stakeholders in the Menomonee Valley who commit to taking a proactive role in guiding the Valley's development. The partnership should be a legal entity, responsible for the implementation of this Land Use Plan. This would include the marshalling of private and public sector financial and technical resources and promoting public and private sector participation in future planning and development/redevelopment initiatives in the Valley.

Recommended Actions

- A formal public/ private partnership (henceforth referred to as The Partnership) should be organized to oversee the implementation of the Land Use Plan.
- The Partnership should take all steps necessary to make it a legal entity recognized by City, State and Federal governments.

Responsibility

The three sponsors of this study- the City of Milwaukee, Milwaukee Metropolitan Sewerage District, and the Menomonee Valley Business Association should take the lead role in establishing The Partnership. Committed private sector stakeholders in the Valley should also be involved in its organization.

Timing: 1

Funding and Technical Resources:

Local financial institutions, City of Milwaukee funds, as well as property and business owners and civic and community groups in the Menomonee Valley Study Area.

2. **The City of Milwaukee zoning ordinance should be amended to facilitate implementation of the Land Use Plan.**

Virtually the whole of the Valley is covered by a single zoning classification, I-A-125, "Industrial District." This permissive classification has allowed uses that detract from the environment and physical appearance of the area, thereby discouraging new development. A single zoning classification is also inadequate to provide for the different types of uses that are best suited to the different sections of the Valley.

Recommended Actions

- The zoning ordinance should be amended to prohibit future uses in the Valley that generate significant odors, excessive noise, point-source pollution, and visual pollution.
- Zoning classifications should be created for the Priority Development Areas that will prohibit uses that are incompatible with the development plan.

Responsibility

New zoning regulations to be drafted by DCD and approved by the City of Milwaukee Planning Commission and Common Council. The Partnership should provide assistance as needed.

Timing: **1**

Funding and Technical Resources:

None required, other than staff time.

3. **Environmental and soil analyses should be undertaken at all sites suitable for redevelopment in the priority areas.**

An exhaustive review by the Consulting Team indicates that only a limited amount of detailed data is available from public sources on the environmental and soil conditions that will determine the feasibility and cost of new construction in the priority areas. Environmental investigations have been conducted by some property owners, but the Consulting Team has not been given access to their findings.

Nevertheless, there is strong evidence of widespread soil and groundwater contamination in the Valley; and because the soil consists of landfill, its suitability for new construction with low cost foundations is uncertain. In the case of Priority Development Area A, the foundations of demolished structures will have to be removed to permit redevelopment. A thorough understanding of these conditions is an essential prerequisite to redevelopment in the Valley.

Recommended Actions

- Environmental testing should be undertaken to determine the nature and extent of the remediation that will be needed by State code to permit redevelopment of the potential sites in the priority development areas.
- Soil tests should be conducted at each potential site to determine conditions affecting construction (*e.g.,* soil composition, bearing capacity, and water table).
- An analysis of flood patterns in the Valley should be conducted to determine what flood protection measures might be needed to permit construction on potential development sites.

Responsibility

The Partnership, RACM and landowners in the Valley.

Timing: 2

Estimated Cost:

Based on verbal description of the Menomonee Valley, Lockwood Greene Engineering **estimates** the following range in costs:

- Preliminary (scoping) geotechnical tests - $1,000 for a ten-acre site to $25,000 for a 100-acre site; estimate includes costs for tests, lab work, analyses, and report of findings. It is understood that to design foundations a much more comprehensive scoping would need to be undertaken.
- Environmental tests- Phase I is $3,800 for property under 50 acres and an additional $100 per 50 acres for property over 50 acres. Phase II costs will depend upon the size of the site and the number of environmental factors being analyzed. Costs are estimated to range from $15,000 to $50,000 per site.

Funding and Technical Resources:

TIF, CDBG; DNR, such as Brownfields Environmental Assessment Program, Land Recycling Municipal Loan, ERTIF, and Redevelopment Assistance; WHEDA's Brownfield Remediation Loan Guarantee Program; EPA's Brownfields Economic Redevelopment Initiative; the U.S. Army Corps of Engineers; lending institutions and CRA, and other private sources.

4. **Financing for environmental remediation and site improvements should be made available.**

For the reasons given above, it is probable that major expenditures for environmental remediation and site preparation will be required to make new construction both technically and economically feasible at the potential

development sites. The magnitude of these costs will be indicated by the results of the analyses of environmental and soil conditions and the kind of development on each site. Public and private sector financing capabilities should be mobilized to cover these costs as redevelopment proceeds in the Valley.

Recommended Actions

- The Partnership should work closely with public and private sector property owners to seek assistance for environmental remediation and brownfield redevelopment from State and Federal agencies and private funding sources.
- All available assistance programs from private sources and state and federal agencies, including DNR, DOC, EPA, HUD, etc., should be utilized to facilitate and support redevelopment in the Valley.

Responsibility

The Partnership along with State and Federal agencies and private funding sources.

Timing: 2

Funding and Technical Resources:

TIF; CDBG; MEDC, RACM, CRA; Development Zone; Enterprise Development Zone; SBA; DOC's Brownfields Grant Program and PECFA; DNR, such as Brownfields Environmental Assessment Program, Land Recycling Municipal Loan, ERTIF, and Redevelopment Assistance; WHEDA's Brownfield Remediation Loan Guarantee Program; and EPA's Brownfields Economic Redevelopment Initiative. The Federal Tax Payer's Relief Act can help reduce the costs of environmental clean-ups for property/business owners.

5. The Partnership and other official representatives of the City should take the leadership role in promoting redevelopment within the Valley

Almost all of the sites suitable for redevelopment within the priority areas of the Valley are privately owned. With the exception of the new distribution center planned by Emmpak, the Consulting Team has not been informed of any immediate plans for new projects on any of these sites. Due probably to the physical, financial and legal obstacles to new development, the private property owners appear to be unwilling to independently undertake the task of redevelopment of their own properties. This situation could continue indefinitely unless actions are taken to encourage and facilitate the development process. Some City-owned property may also be suitable for redevelopment, including one presently vacant parcel in Priority Area D and sites occupied by the Department of Public Works.

Recommended Actions

- Meetings should be held with all property owners of potential development sites in the priority areas to encourage them to redevelop their properties in accordance with the Land Use Plan. If possible, a development strategy for each site should be agreed upon.
- The cooperation and support of WEPCO should be sought in planning for the development of potential sites for steam using industries in Priority Areas C and D.
- Private developer interest should be actively sought to acquire the sites in the Valley in cases where the owners would prefer to sell rather than invest in redevelopment.
- If implementation of this Land Use Plan proves to be unachievable through the initiatives of The Partnership and the private sector, the City should be prepared to consider acquiring and redeveloping potential sites.
- A needs analysis of all City-owned property in the Valley should be conducted to identify any sites which can be used more productively for projects that will generate additional jobs and tax revenue. Such sites should be made available for redevelopment in the same manner as the privately-owned properties.

Responsibility

The Partnership should direct the redevelopment initiatives. Official representatives of the City who are not members of or involved in the formal partnership should give assistance. Analysis of City-owned sites should be conducted by the Department of Administration-Budget Office, with assistance from DPW and DCD as needed. All other property owners should be involved.

Timing: 2

Funding and Technical Resources:

See #3 for funding sources for environmental remediation and redevelopment. Other funds for land acquisition, building construction, expansion, and rehabilitation, equipment, business start-ups, etc., include: lending institutions; MEDC's Second Mortgage Financing, Target Loan Program, 504 Debenture Program, Disadvantaged, Minority and Women-Owned Business Program, Partnership Loan Program and Capital Access Program; DCD's Tax Exempt Bond Financing and Job Opportunity Bond Fund; DOC's Industrial Revenue Bonds and Major Economic Development Project Program; the SBA 7A Loan Guarantee; Rehabilitation Tax Credits, the Wisconsin Women's Business Initiative's Revolving and Micro Loan and Venture Fund; and foundations.

6. Land uses that degrade the environment or impede redevelopment should be eliminated

Some existing land uses in the Valley are sources of contamination, potential hazards to safety and health, and eyesores. Because of their negative impact on the appearance, visual image and environment of the Valley, they also represent a severe disincentive to new investment. These uses include sand, gravel and salt piles; the remains of partially demolished structures; obsolete vacant buildings; and an older rendering plant generating noxious odors.

Industrial operations that underutilize sites are also an impediment to future redevelopment. In particular, two cement terminals in Priority Area D are situated on sites suitable for more intensive uses that could generate more jobs and taxes and have minimal environmental impact.

Recommended Actions

- The Partnership should work with property owners and users to expeditiously achieve the following:
  a) Relocation outside the Valley of Morton Salt and Lake Shore Sand and the City's asphalt plant on Canal Street.
  b) Removal of the gravel pile and auto pound on site M-3 and Milwaukee Tallow on site M-15.
  c) Removal of remaining above ground structures on the Car Shops site
  d) Demolition of the Balco buildings and remaining structures on former Tews cement plant site
  e) Evaluate the relocation of St. Mary/Blue Circle and Lonestar cement operations from the Valley and the demolition of their buildings in Priority Area D. The City has no present intent to acquire their properties.
- These actions should be undertaken as joint public/private initiatives through The Partnership. If The Partnership cannot achieve the above through its own initiatives and actions, the City should be prepared to consider employing its enforcement and acquisition powers as needed.

Responsibility

The Partnership, and businesses/ property owners. Additional assistance may be needed in the long-term from the City of Milwaukee.

***Timing*: 3**

***Funding and Technical Resources*:**

TIF, CDBG

7. **Roadway reconstruction projects to support redevelopment in the Valley should be undertaken.**

The lack of direct access to Priority Area D via a major arterial street is an obstacle to redevelopment. Improved access is essential if this area is to achieve its full potential as a location for such high quality uses as offices and showrooms per the Land Use Plan.

Similarly, the improvement of Canal Street is critical to the promotion of new development in Priority Area C. The presence of an active rail spur within the roadway is a serious hindrance to vehicular circulation within the area. On a long-term basis, the extension of Canal Street into Priority Area A will probably be necessary to support the full redevelopment of the former Car Shops site.

Recommended Actions

- The proposed reconstruction of the 6th Street viaduct to create a grade level intersection with Canal Street should be carried out.
- The Canal Street rail spur should be relocated and the roadway reconstructed in accordance with the recommendations of the West Canal Concept Study.
- When and as needed, access to the east side of Priority Area A should be provided through the extension of Canal Street or a similar roadway.

Responsibility:

DPW, DOT

Timing*: *2 for the Sixth Street viaduct; **3** for the Canal Street reconstruction; the timing for the third recommended action would be when needed and approved.

Funding and Technical Resources:

TIF; ISTEA and TEA

8. **The appearance of the Menomonee Valley should be enhanced through the creation of green space and other visual amenities.**

Making the Valley a more attractive place to work and to visit will be of general benefit to the citizens of Milwaukee and facilitate the attraction of new investment to the area and serve the needs of adjacent neighborhoods.

Recommended Actions

- Landowners in the Valley should take steps to bring about the "greening" of vacant sites and the screening of storage yards and outdoor work areas with plantings and landscaping. Storage yards should be placed in structures, fully

enclosed and under roof. Surface parking is not appropriate along river banks and should be prohibited.

- All necessary actions should be taken to continue the extension and development of the Henry Aaron Trail through the Valley.
- Riverfront amenities including trails, a plaza and a park should be developed as indicated in the Land Use Plan.
- Appearance and safety improvements should be made along the principal streets in the Valley, including lighting, sidewalks and parkways.
- The principal entrances to the Valley should be designated as gateways and embellished with special signage and other appropriate features.
- Maintaining and enhancing visual amenities, including public art, and recreational amenities, including consideration of the needs of the adjacent neighborhoods for recreational space, should be an ongoing effort.
- Construction of additional wetlands for storm water and flood control, water quality improvement, and open space should be considered where appropriate.

Responsibility

The Partnership as well as DPW, DCD, MEDC, RACM, DNR, NPS and property owners.

Timing: **2**

Funding and Technical Resources:

TIF; ISTEA; DNR Stewardship Program; NPS Rivers, Trails and Conservation Assistance; and Rails to Trails.

The Marketing Plan

A marketing plan is an integral component of a successful economic development strategy. Retaining existing industry and recruiting new firms into an area is a competitive and challenging task. A successful marketing program and economic development initiative gets and keeps the name of the region or community in front of location decision makers and the consultants who advise them.

In Milwaukee, like many mature urban metropolitan areas, 75 to 80 percent of growth is internally generated. Therefore, a proactive effort should be launched which markets all of the industrial areas of the City of Milwaukee, including the Menomonee Valley, with primary focus on the Southeast Wisconsin Region.

This marketing strategy outlined for the Menomonee Valley will help the City of Milwaukee, DCD, The Partnership, and other stakeholders retain existing businesses and attract new companies to the Menomonee Valley and the City of Milwaukee, thereby creating economic growth, increased tax revenues and jobs.

Section I. The Menomonee Valley Study

Purpose of the Study

The City of Milwaukee Department of City Development (DCD) retained the Consulting Team to complete a market study, transportation and land use plan for the Menomonee Valley. The purpose for undertaking the study is to update the City's Master Plan. Co-sponsors of this study were the Milwaukee Metropolitan Sewerage District and the Menomonee Valley Business Association.

The study, as commissioned, has four major objectives:

1. To determine what the market is for the vacant and underutilized land in the Study Area;
2. To enhance the tax base growth and job creation potential for the City;
3. To determine what land assembly, infrastructure, environmental and aesthetics improvements and environmental remediation are needed to support the land uses recommended; and
4. To develop a strategy for implementing the proposed land uses and infrastructure improvements.

This document, **A Market Study, Engineering and Land Use Plan for the Menomonee Valley,** presents the findings of the study process and the recommendations for the Menomonee Valley. It will be formally submitted for adoption as a part of the City's Comprehensive Plan Series.

Location

The Menomonee Valley (the Valley) is primarily an industrial area, located west of Downtown Milwaukee and the Historic Third Ward, an area that is being rejuvenated with retail, entertainment, restaurant and other commercial and wholesale trade uses. Its general boundaries are the East-West Freeway on the north, Milwaukee River on the east, Bruce Street and the Soo Line Railroad tracks on the south, and U.S. 41 on the west. The Menomonee River flows through the Menomonee Valley.

For the purposes of this study, a greater Menomonee Valley Study Area was identified and defined by DCD and analyzed by the Consulting

Team. Its boundaries are Wisconsin Avenue on the north, the Milwaukee River on the east, National Avenue on the south and Hawley Road on the west. The greater Study Area includes Marquette University, Mitchell Park, the Milwaukee Brewer's stadium, the Veteran's Administration Medical Center as well as portions of the residential neighborhoods bordering the Valley to the north and south.

Interstates 94 and 43, U.S. Highway 41 as well as Interstate 894 (approximately three miles to the west) provide very good regional accessibility to the Menomonee Valley. St. Paul, 6th, 11th, 13th, 16th and 25th Streets provide local access to the Valley. Several active Canadian Pacific (CP) railroad tracks run through the Menomonee Valley, connecting Milwaukee to Minneapolis, Chicago and beyond. A number of the Valley businesses use rail spurs to receive raw materials and ship finished goods. Some transport goods via the Menomonee River and South Menomonee Canal.

History of the Menomonee Valley

The Menomonee Valley has an industrial history dating back to the mid-1800s. In the 1870s, the Milwaukee Road Rail Road purchased the entire western area of the Menomonee Valley for the site of repair and maintenance shops. The area of the shops continually expanded and the influence of the railroad grew through 1945 when the last major improvement to the yards ($4.3 million project) was undertaken. The Menomonee Valley Shops played a significant role in the growth of the Milwaukee Road from a 2,500 mile regional line to a 10,000 mile national line extending to the Pacific Northwest.

The eastern portion of the Valley also has had an industrial heritage. It was the connection between cargo arriving by way of Lake Michigan or the emerging railroad system of Southern Wisconsin and the local street and highway system of the growing City of Milwaukee. Due to its strategic location, the Valley became home to labor intensive heavy industry, such as stockyards, tanneries, grain elevators, slaughter houses, meat packers, cement plants and foundries. As changes occurred in the structure of these industries and they relocated from the Valley, they were replaced by coal yards, junk yards, low labor intensive and high polluting bulk storage uses.

Within 40 years, the Menomonee Valley evolved from a major transportation and industrial center, employing over 50,000 (1920s) to a largely polluted former industrial area with obsolete buildings located in the heart of the City of Milwaukee (1960s).

The City undertook an extensive urban renewal program in the 1970s and 1980s, and acquired acres of blighted land. Many of the junkyards and coal yards were eliminated, and street and highway improvements were made to upgrade the important connections between the Valley, the City's street grid and the Interstate highway system. Unfortunately, in 1977, the Chicago, Milwaukee, St. Paul and Pacific Railroad went into bankruptcy, and then into receivership. It phased out its operations in the Valley and left hundred of acres of vacant and polluted land.

The Menomonee Valley has a number of environmental problems. The Menomonee River has been identified as a polluted river. However, based upon the interviews undertaken for this study, its problems are not as severe as many believe. Soil contamination exists throughout the Valley, and the soil is generally filled material. In addition, much of the land adjacent to the river is in a floodplain or floodway, causing an unstable base for building foundations. Dust problems have abated because of past actions by the City, but odors from some heavy industry still remain.

Due to concern about the condition in the Menomonee Valley, the City adopted **A Plan for the Menomonee Valley** in 1990. Its sections discuss existing conditions, circulation, environmental quality, visual image and development patterns. Part of the Plan has been updated since its adoption.

The City hired the Consulting Team for the current planning effort following the commitment to the Valley in 1996 when a decision was made to construct a new baseball stadium near the Milwaukee Brewer's existing stadium. In the same year, the Wisconsin Natural Resources Board approved the designation of the Henry Aaron State Greenway Corridor along the Menomonee River. It will result in a trail system that traverses the Valley. Both of these projects will impact future development in the Valley, and are of importance in this market, transportation and land use plan.

The Study Process

This study has involved significant input and participation on the part of City officials and staff, the Menomonee Valley Business Association (MVBA), the Milwaukee Metropolitan Sewerage District, businesses in the Menomonee Valley and others in Milwaukee. The major tasks undertaken to complete the **Market Study, Engineering and Land Use Plan for the Menomonee Valley** are briefly described below.

- **Public Outreach and Stakeholder Participation,** which included two Issues Workshops, Key Person Interviews and a survey of the businesses in the Menomonee Valley. These are summarized at the end of this section with full responses in the Appendix of this report.
- **Economic Evaluation,** which analyzed the demographic and economic conditions and trends affecting the Menomonee Valley, including population, households, income, and employment.
- **Market Assessment,** which assessed the future redevelopment potentials for industrial, retail, office, and park and recreation uses in the Menomonee Valley Study Area.
- **Land Use Analysis,** which evaluated existing conditions, future potentials and key issues and concerns regarding land use and development in the Menomonee Valley.
- **Engineering Analysis,** which evaluated existing conditions and future improvement projects related to access, circulation and environmental conditions in the Menomonee Valley.
- **Implementation Strategy,** which identifies an implementation strategy (with potential funding and technical assistance resources) for undertaking the recommended market, engineering and land use projects and actions, and includes a marketing plan.

Stakeholder Participation

• Menomonee Valley Issues Workshop

In order to obtain a first-hand understanding of the opportunities and constraints of the Menomonee Valley, workshops were held on March 19 and April 24, 1997. Participants in the March 19 workshop included representatives of the City's Department of City Development (DCD)

and the Menomonee Valley Business Association. Participants in the April 24 workshop were representatives of DCD, business owners, and civic groups located in the Menomonee Valley, and representatives of the business associations from the neighborhoods adjacent to the Valley.

Workshop participants were asked questions about the Menomonee Valley's assets and advantages as well as its limitations and constraints. Its major assets include central location in the city and region, proximity to downtown and major highways, available land, land reuse potential, industrial focus, and proximity to the workforce. Major limitations and constraints were environmental issues, access, its internal transportation network, road maintenance, image and appearance.

Workshop participants were also asked to identify three specific projects and improvements each would like to be made in the Menomonee Valley. Infrastructure improvements were mentioned the most. The Henry Aaron State Park Trail and the proposed Canal Street Extension were also cited as important.

The participants' full responses are included in a Master Appendix for this study, which is in the possession of the Department of City Development, the Milwaukee Metropolitan Sewerage District and the Menomonee Valley Business Association.

- **Key Person Interviews**

Personal confidential interviews were conducted with 35 individuals to discuss existing conditions and future potentials within the Menomonee Valley Study Area. Persons interviewed (listed in the Master Appendix) included public officials; business owners in the Menomonee Valley; real estate brokers; representatives of the Milwaukee Metropolitan Sewerage District, Wisconsin Department of Natural Resources, Marquette University, the Southeast Wisconsin Baseball District, and the Milwaukee Brewers; and representatives of community-based organizations and business associations located in the neighborhoods surrounding the Menomonee Valley.

The majority of the interviews were conducted by the consultant in April and May, 1997. Each interview lasted approximately 30 to 45 minutes. Each person was asked a series of questions regarding the Menomonee Valley.

The interviews indicated: 1) a number of assets and advantages which should be built upon and preserved in the future in the Menomonee Valley; 2) several locally perceived problems and issues which should be addressed; and 3) the types of projects, actions and improvements respondents would like to see made in the Valley.

Many of the responses were similar to those identified during the Issues Workshops. However, the confidential nature and length of each interview allowed for more in-depth discussion of the responses, ideas and perceptions of the interviewees.

A summary of the Key Person Interview responses is in the Master Appendix.

- **Menomonee Valley Business Survey**

In Spring, 1997, the Consulting Team conducted a survey of the businesses located in the Menomonee Valley. The purpose of the survey was to obtain an understanding of the types of businesses located in the Menomonee Valley and their thoughts and perceptions about the strengths and weaknesses of the Menomonee Valley, and its current and future market appeal.

Over 100 surveys were mailed to business owners; 25 responded to the survey, for a good response rate. Respondents included twelve manufacturers, seven distributors, one manufacturer/distributor, two contractors, and three others. Although not a scientific survey, the instrument provided the Consulting Team with specific information about the Valley businesses, and supplemented our understanding of the Menomonee Valley obtained through the workshops and key person interviews. The surveys were supplemented by 10 confidential interviews with the owners or representatives of small, medium and large companies in the Menomonee Valley.

In summary, there are many well-established businesses in the Valley – some have had operations in the Valley for over 100 years while others have been in the Valley for a little more than 10 years. The overwhelming majority reports their business is growing or stable. Over one-half have expanded their facilities and 80 percent indicate improvements are planned for the next five years. Business owners identified concerns about the growing labor shortage, the education levels of existing employees

and the greater labor force, and crime.

Nearly all of the business owners interviewed indicated the Menomonee Valley should remain an industrial area. They are concerned about: 1) the mixing of uses in the Valley; 2) the appropriateness of development of recreational uses at the expense of industry; and 3) security and transportation access if recreational and other non-industrial types of uses are developed.

The responses to the Business Owner Surveys and confidential interviews are in the Master Appendix to this report, which is in the possession of DCD, the Milwaukee Metropolitan Sewerage District and the Menomonee Valley Business Association.

Section II. Economic Conditions

An understanding of the economic and demographic conditions affecting the Menomonee Valley, the City of Milwaukee and the four-county Milwaukee region (Milwaukee, Ozaukee, Washington, and Waukesha Counties), how they have changed in recent years and how they are projected to grow and change in future years is a prerequisite to an analysis of the economic development environment and the redevelopment potentials in the Menomonee Valley. This section utilizes data from Federal, State, and local government and private sources to develop an overview of population, income and employment in the Menomonee Valley and the Menomonee Valley Study Area, the City of Milwaukee, and the Milwaukee region.

As a basis for reviewing this study, it is important to understand the difficulty in obtaining consistent population and other demographic estimates and projections for 1996 and beyond from local, State and Federal sources. According to the Census Bureau's, *Current Population Reports,* the City of Milwaukee's population was 617,044 in 1994 while the four-county Milwaukee region had a population of 1,457,655 in 1996. Population and other demographic projections for the City and the counties composing the region are not available from the Census.

The Southeast Wisconsin Regional Planning Commission (SEWRPC) projects population, households and employment for the year 2010 in its official Adopted Land Use Plan and for the year 2020 in its updated Recommended Land Use Plan. The review of the latter document was recently completed. Other demographic projections, such as race, age and income, are not available from SEWRPC. Therefore, for comparative purposes in this study, the projections provided by a national data provider, Claritas/Urban Decision Systems, Inc., are used.

The Menomonee Valley Study Area

For the purposes of the current study, the boundaries of the Menomonee Valley Study Area are Wisconsin Avenue on the north, the Milwaukee River on the east, National Avenue on the south and Hawley Road on the west. The Menomonee Valley Study Area is defined as the Census Tracts which are inclusive of these aforementioned boundaries. That is, Census Tracts 125, 131, 132 (the Menomonee Valley), 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160. See Figure 1.

The Menomonee Valley Study Area is located west of Downtown Milwaukee and the Historic Third Ward, an area that is being rejuvenated with retail, entertainment, restaurant and other commercial and wholesale trade uses. The Menomonee River flows through the Menomonee Valley. Interstates 94 and 43, U.S. Highway 41 as well as Interstate 894 (approximately three miles to the west) provide very good regional accessibility to the Menomonee Valley. St. Paul, 6th, 13th, 16th, and 25th Streets provide local access to the Valley.

The Study Area is an area of diversity. It includes heavy manufacturing uses in the heart of the Menomonee Valley; Marquette University northwest of the I- 94/43 intersection (the Marquette Interchange); and the Milwaukee Brewer's Baseball Stadium at the west end of the Valley.

There also is demographic and economic diversity. The residential neighborhoods in the Study Area have large growing non-White populations. The neighborhoods north of the Menomonee Valley have a large number of Afro-American residents and those defined by the U.S. Census as persons of other races, *e.g.*, Asians, Native Americans, Pacific Islanders and others. The neighborhoods south of the Valley have significant Hispanic populations and growing numbers of Asian, Pacific Islander and residents of other races, as defined by the U.S. Census.

The median household income level in the Study Area ranges from low to middle income. Unemployment is high, despite the residents' proximity to jobs in the downtown and the Menomonee Valley.

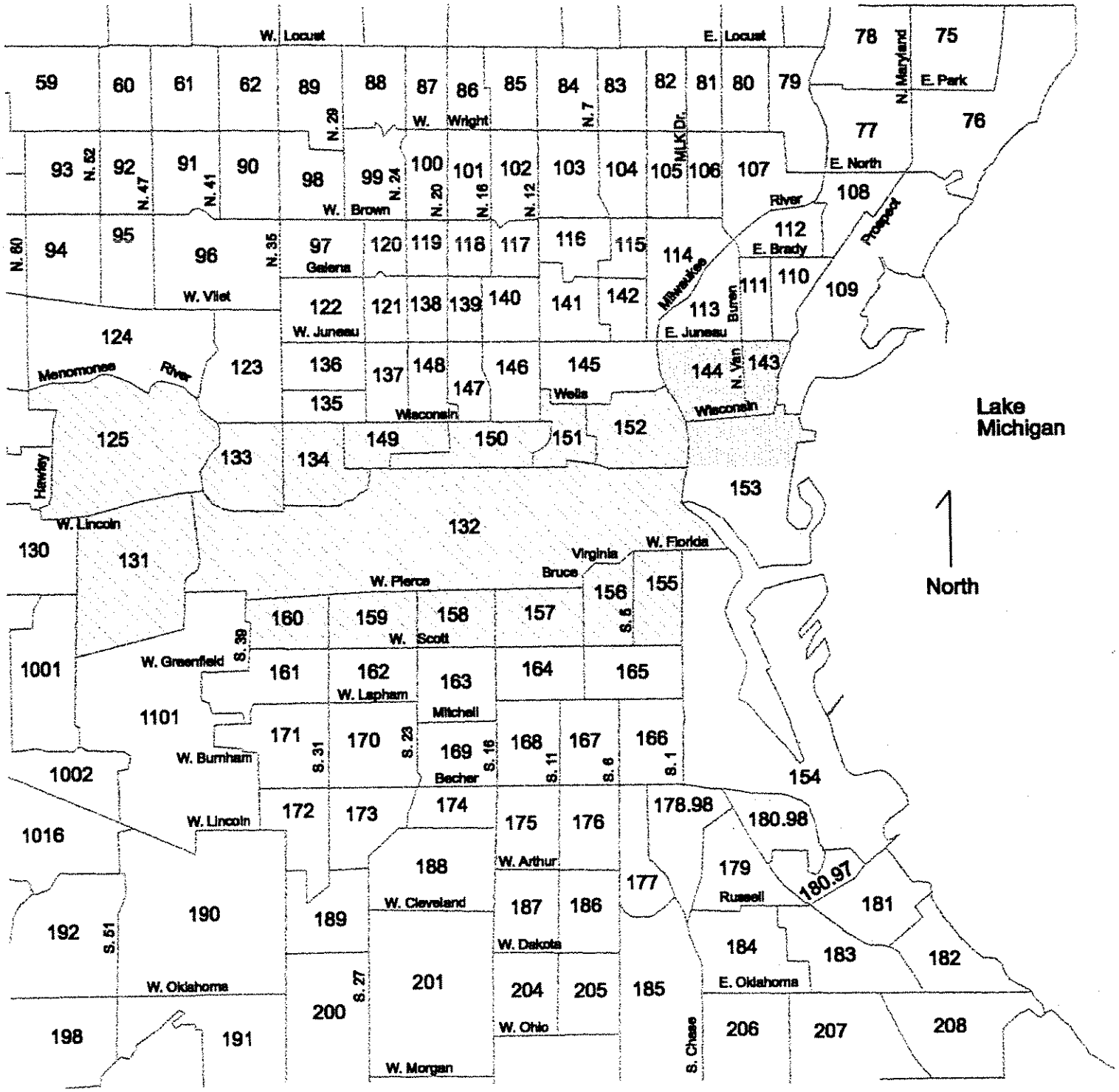

Figure 1

Milwaukee, Wisconsi

Menomonee Valley Study Area

1990 Milwaukee County Census Tracts

Study Area

Census Tract 132 is the Menomonee Valley

Downtown Milwaukee

Projected Population and Employment Growth in the Milwaukee Region

As a basis for reviewing this study for the Menomonee Valley, it is important to recognize and understand population and employment growth in the four-county Milwaukee region. Over the past 20+ years, decentralization of population and economic activity in the region has occurred. Based on SEWRPC's *2020 Recommended Land Use Plan*, this trend is projected to continue. SEWRPC projects that population in the four-county region will reach 1,627,700 in 2020. Of this projected total, 40 percent of residents are forecasted to live in the City of Milwaukee; 63 percent should live in Milwaukee County (including the city). This compares to a regional population of 1,432,149 (Census) in 1990 with 44 percent of the population residing in the City of Milwaukee and 67 percent in Milwaukee County (including the city).

While there is projected to be a continued movement of residents from the City of Milwaukee and Milwaukee County, the City, after years of decline, is projected to experience a population gain. SEWRPC projects the City of Milwaukee's population should increase to 646,200, a gain of nearly three percent over 1990's 628,088. (Note: SEWRPC's *2015 Adopted Land Use Plan* projected the City of Milwaukee's population would continue to decline and reach 585,800 in 2010, a decrease of nearly seven percent from 1990.) This significant population projection change reflects what has been reported by local sources interviewed for this study. That is, the City of Milwaukee is retaining more of its existing residents and benefiting from the in-migration of new residents.

SEWRPC projects similar patterns of economic and employment growth. In its *2020 Recommended Land Use Plan*, employment in the four-county region is projected to reach 1,037,400, a gain of nearly 17 percent from 1990. Of this projected total, 39 percent of jobs, or 408,800, are projected to be found in the City of Milwaukee while 64 percent will be located in Milwaukee County (including the City of Milwaukee). In comparison, in 1990, 361,300 jobs, or 41 percent of the four-county region's total were located in the City of Milwaukee and 69 percent were in Milwaukee County (including the city). However, the City is retaining a greater share of its jobs than Milwaukee County, only losing two percent of its jobs compared to the County's five percent. Moreover, the number of jobs in the City is projected to increase by more than 13 percent between 1990 and 2020. This growth

trend illustrates the increasing attractiveness and importance of the City of Milwaukee as a place to work and "do business."

Please note that these recent unadopted population and employment projections by SEWRPC are not reflected in the following narrative. As described in the Introduction, the source of the demographic projections is Claritas/Urban Decision Systems, Inc., a national data provider. The basis of the projections is the 1990 Census.

Population and Employment in the Study Area

Population

The Menomonee Valley Study Area experienced an increase in population between 1980 and 1990, after losing population in the 10 year period between 1970 and 1980. The 1990 population in the Study Area totaled 29,733. The Study Area's population rose to an estimated 29,794 in 1996. It is projected to decline by less than 0.5 percent to 29,668 in 2001.

The City of Milwaukee's population has declined since 1970. Population in the City fell from 636,210 in 1980 to 628,088 in 1990. The Milwaukee region gained population between 1980 and 1990, after experiencing a decrease in population between 1970 and 1980. The region is projected to continue to grow through 2001 when it should reach 1,476,768.

Population Trends are illustrated in Table 1 on the following page.

Table 1
POPULATION TRENDS AND PROJECTIONS, 1970 -2001

Area	1970	1980	1990	Estimate 1996	Projection 2001
Menomonee Valley Study Area [1]	34,203	28,172	29,733	29,794	29,668
City of Milwaukee	717,099	636,210	628,088	601,500	575,895
Milwaukee Region [2]	1,403,688	1,397,143	1,432,149	1,462,015	1,476,768

	Percentage Change		
Area	1970-80	1980-90	1990-2001
Menomonee Valley Study Area [1]	-17.6%	5.5%	-0.2%
City of Milwaukee	-11.3%	-1.3%	-8.3%
Milwaukee Region [2]	-0.5%	2.5%	3.1%

[1] The Menomoneee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160.
[2] The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: 1970, 1980 and 1990 data from U.S. Bureau of the Census; 1996 estimate and 2001 projection from Claritas/Urban Decision Systems, Inc.

Households

National trends show household formation increasing at a rate that exceeds population growth or declining at a rate that is less than the decrease in population. This is largely the result of the rising number of single person households, longer life expectancies, single parent households and the rate of divorce. A by-product of these trends is smaller household size. The City of Milwaukee and the region conformed to these trends; however, the Study Area did not. This was largely due to its racial and ethnic diversity and the tendency of Hispanics, Afro-Americans and those of other races to have large families.

Study Area households totaled 10,628 in 1990. This was a gain of nearly two percent over 1980, but less than the 5.5 percent increase in population experienced during this same ten year period. The number of households in the Study Area is projected to grow to 11,267 in 2001, an increase of 6.0 percent which exceeds the 0.2 percent projected population decline.

In the City of Milwaukee, households decreased by less than one percent between 1980 and 1990, falling from 241,817 to 240,540. During the same ten year period, population declined by 1.3 percent. In contrast, the number of households in the four-county region has been increasing since 1970 and should continue to do the same through 2001. Households in the region totaled 537,722 in 1990 and should rise to 568,862 in 2001.

Following national trends, population per household in the City and the Milwaukee region has consistently grown smaller, a trend anticipated to continue. In contrast, population per household in the Study Area has fluctuated between 1970 and 1990, falling from 2.63 in 1970 to 2.39 in 1980, and rising to 2.54 in 1990. Study Area household size is projected to decline to 2.47 in 2001. In 1990, population per household in the Census Tracts comprising the Study Area ranged from a low of 1.30 in one of the Census Tracts that includes the Marquette University campus to a high of 3.47 in a Census Tract with a large Hispanic population.

Household trends are illustrated in Table 2 on the following page.

Table 2
HOUSEHOLD TRENDS AND PROJECTIONS, 1970 - 2001

Area	1970	1980	1990	Estimate 1996	Projection 2001
Menomonee Valley Study Area [1]	11,469	10,442	10,628	11,122	11,267
City of Milwaukee	236,981	241,817	240,540	236,192	227,296
Milwaukee Region [2]	432,678	500,684	537,722	561,793	568,862

Percentage Change

Area	1970-80	1980-90	1990-2001
Menomonee Valley Study Area [1]	-9.0%	1.8%	6.0%
City of Milwaukee	2.0%	-0.5%	-5.5%
Milwaukee Region [2]	15.7%	7.4%	5.8%

Population per Household

Area	1970	1980	1990	Estimate 1996	Projection 2001
Menomonee Valley Study Area [1]	2.63	2.39	2.54	2.48	2.47
City of Milwaukee	2.96	2.56	2.53	2.48	2.47
Milwaukee Region [2]	3.17	2.73	2.60	2.55	2.54

[1] The Menomoneee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160.
[2] The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: 1970, 1980 and 1990 data from U.S. Bureau of the Census; 1996 estimate and 2001 projection from Claritas/Urban Decision Systems, Inc.

Age Distribution

As in other areas in the country, residents in the City of Milwaukee and the Milwaukee region are getting "older" and median ages are rising. However, for Study Area residents, the age trend is different. Between 1970 and 1990, Study Area residents grew "younger" and median ages fell. Between 1990 and 2001, trends are projected to reverse. Residents should grow "older" and median age should rise, similar to the City and four-county region. Median age in the Study Area should be considerably "younger" than in the City and region in 2001. (See Table 3)

In 1990, median age was 27.3 years in the Menomonee Valley Study Area, compared to 30.3 years in the City and 32.7 years in the Milwaukee region. The Study Area had a larger share of children 17 years and under, and a smaller share of elderly residents 65 years and older. The median ages in the Census Tracts composing the Study Area ranged from a low of 20.0 years in one of the Census Tracts which includes the Marquette University campus to a high of 61.6 years in the Census Tract in which the Veterans Administration Medical Center is located.

By 2001, the median age of Study Area residents is projected to rise to 29.3 years. For the City and region, median age will increase to 32.7 years and 35.8 years, respectively. In 2001, the Study Area will still have a higher percentage of children 17 years and under and a smaller percentage of elderly residents than does the City of Milwaukee or the Milwaukee region.

Table 3
POPULATION BY AGE, 1970-2001

Menomonee Valley Study Area [1]	1970	1980	1990	Estimate 1996	Projection 2001
0 to 13 Years	21.8%	18.7%	22.9%	23.6%	22.9%
14 - 24 Years	23.5%	26.2%	23.0%	21.1%	21.5%
25 - 44 Years	19.7%	23.7%	29.5%	28.8%	26.6%
45 - 64 Years	21.4%	18.7%	14.0%	15.5%	17.5%
65 Years and Over	13.7%	12.7%	10.4%	11.1%	11.3%
Median Age	29.5	28.0	27.3	28.6	29.3

City of Milwaukee	1970	1980	1990	1996	2001
0 to 13 Years	27.5%	22.1%	23.6%	22.7%	22.0%
14 - 24 Years	18.1%	20.2%	16.0%	16.1%	16.8%
25 - 44 Years	22.5%	26.3%	32.4%	31.3%	29.1%
45 - 64 Years	20.9%	18.9%	15.6%	17.0%	19.2%
65 Years and Over	11.0%	12.5%	12.4%	12.8%	12.9%
Median Age	29.0	28.7	30.3	31.7	32.7

Milwaukee Region [2]	1970	1980	1990	1996	2001
0 to 13 Years	29.5%	22.6%	22.3%	21.2%	20.6%
14 - 24 Years	16.7%	18.9%	14.1%	14.4%	14.8%
25 - 44 Years	23.7%	27.5%	32.8%	31.8%	29.6%
45 - 64 Years	20.5%	20.0%	18.4%	20.0%	22.7%
65 Years and Over	9.6%	11.1%	12.5%	12.6%	12.4%
Median Age	27.7	29.8	32.7	34.4	35.8

[1] The Menomonee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160.
[2] The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: 1970, 1980 and 1990 data from U.S. Bureau of the Census; 1996 estimate and 2001 projection from Claritas/Urban Decision Systems, Inc.

Racial/Ethnic Composition

In many areas throughout the country, the racial and ethnic composition of cities is more diverse than the overall racial and ethnic composition of the regions in which they are located. This is true of the City of Milwaukee and the Menomonee Valley Study Area.

In 1970, the Study Area's racial composition was 95.2 percent White, 2.6 percent Afro-American, and 2.1 percent persons of other races, e.g., Asian, Pacific Islander and Native American. By 1990, its composition had changed to 63.2 percent White, 11.3 percent Afro-American, and 25.5 percent persons of other races. Claritas/Urban Decision Systems projects the Study Area's racial profile should be 59.3 percent White, 15.2 percent Afro American and 25.6 percent persons of other races in 2001. (See Table 4)

The 1970 racial profile of the City was 84.4 percent White, 14.7 percent Afro-American and less than 1.0 percent persons of other races. By 1990, the City had become 63.4 percent White, 30.5 percent Afro-American and 6.1 percent persons of other races. It is projected the City's racial composition should be 60.0 percent White, 32.8 percent Afro-American, and 7.3 percent persons of other races in 2001. In comparison, the region's racial profile was 91.8 percent White, 7.6 percent Afro American and 0.6 percent persons of other races in 1970, changing to 82.6 percent White, 13.8 percent Afro-American and 3.6 percent persons of other races in 1990. In 2001, the region's racial composition is projected to be 80.4 percent White, 15.1 percent Afro-American and 4.4 percent persons of other races.

Although Hispanic is not a race, the Census Bureau does single out and count this growing population. Proportionately, the Menomonee Valley Study Area has had, and should continue to have, a significantly larger Hispanic population than Milwaukee and the region. In 1990, 26.1 percent of the Study Area's population was Hispanic, compared to 6.3 percent in the City and only 3.6 percent in the region. The 2001 projections for Hispanic residents are 32.2 percent, 10.1 percent, and 5.5 percent, respectively, in the Study Area, City and region.

Table 4
POPULATION BY RACE & ETHNICITY, 1970-2001

Menomonee Valley Study Area [1]	1970	1980	1990	Estimate 1996	Projection 2001
White	95.2%	80.0%	63.2%	61.2%	59.3%
Black	2.6%	5.7%	11.3%	13.3%	15.2%
Other	2.1%	14.3%	25.5%	25.5%	25.6%
Hispanic	11.3%	20.4%	26.1%	29.6%	32.2%

City of Milwaukee	1970	1980	1990	1996	2001
White	84.4%	73.3%	63.4%	61.8%	60.0%
Black	14.7%	23.1%	30.5%	31.4%	32.8%
Other	0.9%	3.6%	6.1%	6.8%	7.3%
Hispanic	2.2%	4.1%	6.3%	8.3%	10.1%

Milwaukee Region [2]	1970	1980	1990	1996	2001
White	91.8%	87.0%	82.6%	81.5%	80.4%
Black	7.6%	10.8%	13.8%	14.4%	15.1%
Other	0.6%	2.2%	3.6%	4.0%	4.4%
Hispanic	1.6%	2.5%	3.6%	4.6%	5.5%

[1] The Menomonee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160.
[2] The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: 1970, 1980 and 1990 data from U.S. Bureau of the Census; 1996 estimate and 2001 projection from Claritas/Urban Decision Systems, Inc.

In 1990, within the Census Tracts composing the Study Area, the Tracts containing the residential areas to the north of the Menomonee Valley (north of Interstate 94) had the highest share of Afro-American residents, while the Census Tracts to the south of the Menomonee Valley had the highest percentage of Hispanic residents.

Educational Attainment

As can be seen in Table 5, in 1980 the Menomonee Valley Study Area lagged behind the City of Milwaukee and Milwaukee region in the percentage of adults who had graduated from high school and college. In 1980, high school graduates comprised 31.8 percent of the adult population in the Study Area compared to 63.6 percent in the City and 71.7 percent in the region. College graduates composed 10.4 percent of the adults versus 12.3 percent in Milwaukee and 17.1 percent in the four-county region.

In 1990, the Study Area still lagged behind the City and region in its share of high school graduates, but not by as much. Nearly 60 percent of the Study Area's adult population had graduated from high school compared to 71.5 percent in the City of Milwaukee and 79.7 percent in the region. Over 11.5 percent in the Study Area had college diplomas compared to 14.8 percent in the City and 21.3 percent in the region. Education is a critical issue as the Menomonee Valley employers report the education levels of many of their employees are inadequate.

Trends in educational achievement in 1980 and 1990 are illustrated in Table 5 on the following page.

Table 5
TRENDS IN EDUCATIONAL ACHIEVEMENT, 1980 AND 1990

Area	Persons 25 And Over 1980	Persons 25 And Over 1990	Percent of Adult Population Who Graduated From: High School Percent 1980	High School Percent 1990	High School Change %	College Percent 1980	College Percent 1990	College Change %
Menomonee Valley Study Area [1]	15,549	16,077	31.8%	59.9%	94.8%	10.4%	11.6%	15.3%
City of Milwaukee	366,827	380,545	63.6%	71.5%	16.6%	12.3%	14.8%	24.8%
Milwaukee Region [2]	817,674	913,016	71.7%	79.7%	24.1%	17.1%	21.3%	39.1%

[1] The Menomonee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160.
[2] The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: U.S. Bureau of the Census.

Income

In many metropolitan areas throughout the country, central cities and some of their neighborhoods often have median household income levels that are lower than those for the regions in which they are located. This is true of Milwaukee, as the median household income of the Study Area is less than the median household income for both the City and the region. Between 1990 and 2001, the disparity between income levels in the Study Area and the City and region should lessen.

In 1970, the median household income in the Menomonee Valley Study Area was $6,649, 65 percent of the City's median household income and 59 percent of the region's. The 1990 Study Area median household income of $15,685 was 66 percent of the City's median household income of $23,627 and 49 percent of the region's $32,316. The Study Area median household income should rise to $24,907 in 2001, increasing to 74 percent of the City's median household income of $33,467 and 55 percent of the region's income of $45,588.

Within the Census Tracts composing the Study Area, median household incomes in 1990 ranged from a low of $6,881 to a high of $40,893. Over 35 percent of Study Area families were below the poverty level compared to 18.5 percent of families in the City of Milwaukee and 8.9 percent in the region.

The Census Bureau and Claritas/Urban Decision Systems, Inc. do not adjust incomes for inflation. However, the median household incomes can be adjusted for inflation by indexing them to the Consumer Price Index, as reported by the Bureau of Labor Statistics (BLS). According to the BLS, the CPIs are 38.8 in 1970, 82.4 in 1980, 130.7 in 1990 and 156.9 in 1996. The median household incomes, adjusted for inflation to 1990, are also shown in Table 6.

In 1970, the inflation-adjusted median household incomes were $1,974 in the Study Area, $3,046 in the City and $3,366 in the region. The 1996 incomes, adjusted to the 1990 CPI, are estimated to be $24,111 in the Study Area, $32,884 in the City and $45,224 in the region. Median household incomes are shown in Table 6.

Table 6
MEDIAN HOUSEHOLD INCOME, 1970 - 2001

Area	1970	1980	1990	Estimate 1996	Projection 2001
Menomonee Valley Study Area [1]	$6,649	$12,236	$15,685	$20,085	$24,907
City of Milwaukee	$10,262	$16,028	$23,627	$27,393	$33,467
Milwaukee Region [2]	$11,338	$20,099	$32,316	$37,672	$45,588

Area	Percentage Change 1970-80	1980-90	1990-1996	1996-2001
Menomonee Valley Study Area [1]	84.0%	28.2%	28.1%	24.0%
City of Milwaukee	56.2%	47.4%	15.9%	22.2%
Milwaukee Region [2]	77.3%	60.8%	16.6%	21.0%

Median Household Income, Indexed to 1990

Area	1970	1980	1990	Estimate 1996	Projection 2001
Menomonee Valley Study Area [1]	$1,974	$7,714	$15,685	$24,111	n.a.
City of Milwaukee	$3,046	$10,105	$23,627	$32,884	n.a.
Milwaukee Region [2]	$3,366	$12,671	$32,316	$45,224	n.a.

	1970	1980	1990	1996
Consumer Price Index	38.8	82.4	130.7	156.9

	Percentage Change 1970-80	1980-90	1990-1996
Consumer Price Index	112.4%	58.6%	20.0%

[1] The Menomoneee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160.
[2] The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: 1970, 1980 and 1990 data from U.S. Bureau of the Census; 1996 estimate and 2001 projection from Claritas/Urban Decision Systems, Inc.
1970, 1980, 1990 and 1996 Consumer Price Index from the U.S. Bureau of Labor Statistics.

Labor Force

In many cities and metropolitan areas throughout the country, the unemployment rates in older urbanized neighborhoods with racial and ethnic diversity are high, despite low unemployment rates in the city and for the entire region. Table 7 shows that the unemployment rate in the Menomonee Valley Study Area has been higher than that of the City of Milwaukee and the Milwaukee region since 1970.

The Study Area's unemployment rate was 6.1 percent in 1970, rising to 8.2 percent in 1980 and 11.5 percent in 1990. In comparison, the City's unemployment rate was 4.3 percent in 1970, 6.9 percent in 1980 and 8.9 percent in 1990. The region has had the lowest unemployment rates - 3.5 percent in 1970, 5.4 percent in 1980 and 5.4 percent in 1990.

Unemployment rates vary significantly within the Census Tracts composing the Study Area. According to the 1990 Census, unemployment rates ranged from a low of 4.4 percent to a high of 18.2 percent in the Study Area to the north of the Menomonee Valley. The 18.2 percent unemployment rate was more than two times the unemployment rate in the City and over three times the unemployment rate in the four-county region. In the Census Tracts to the south of the Menomonee Valley, the unemployment rates ranged from a low of 5.5 percent to a high of 22.2 percent, nearly two and one-half times greater than the City's unemployment rate and over four times the region's unemployment rate.

According to the Labor Market Information Unit of the Wisconsin Department of Workforce Development, the 1996 unemployment rates in the City of Milwaukee and the four-county Milwaukee region were 5.1 percent and 3.4 percent, respectively. As of the end of May, 1997, the City had an unemployment rate of 5.2 percent while the region's unemployment rate was 3.5 percent. These low unemployment rates indicate a very "tight" labor market, functioning at a full employment level.

Table 7
CIVILIAN LABOR FORCE, 1970-1990

Area	1970 Labor Force	1970 Employment	1970 Unemployment Rate	1980 Labor Force	1980 Employment	1980 Unemployment Rate	1990 Labor Force	1990 Employment	1990 Unemployment Rate
Menomonee Valley Study Area [1]	14,680	13,833	6.1%	13,092	12,021	8.2%	12,885	11,398	11.5%
City of Milwaukee	313,174	300,294	4.3%	306,547	285,291	6.9%	301,032	274,237	8.9%
Milwaukee Region [2]	594,307	573,490	3.5%	697,470	659,529	5.4%	740,963	700,737	5.4%

Area	Percentage Change: 1970-80 Labor Force	Percentage Change: 1970-80 Employment	Percentage Change: 1980-90 Labor Force	Percentage Change: 1980-90 Employment
Menomonee Valley Study Area [1]	-10.8%	-13.1%	-1.6%	-5.2%
City of Milwaukee	-2.1%	-5.0%	-1.8%	-3.9%
Milwaukee Region [2]	17.4%	15.0%	6.2%	6.2%

[1] The Menomoneee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160.
[2] The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: U.S. Bureau of the Census.

Table 8 illustrates that nearly three-quarters of the Study Area residents with jobs worked in the City of Milwaukee. This was greater than the 67 percent of City residents who worked in the City and the 44 percent of the region's residents. The table also illustrates that very few residents commute outside the region to work. In 1990, less than two percent of Study Area and City residents worked outside the region. For the total region, 2.8 percent commuted outside its boundaries for employment.

Table 9 shows that the majority of residents with jobs travel to work by driving alone in a car. Not surprisingly, this means of transportation was lowest in the Menomonee Valley Study Area, 48.1 percent, and the highest in the Milwaukee region, 76.7 percent. Approximately 67.0 percent of City residents drove to work alone in a car.

The Study Area had the highest percentages of residents who commuted to work by carpool, public transportation or walking. This was 15.1 percent by carpool, 17.4 percent by public transit and 15.4 by walking. In comparison, 13.2 percent of City residents traveled to work by carpool, 11.0 percent used public transportation and 6.0 percent walked. In the region, only 11.0 percent participated in a carpool, 5.2 percent used public transportation and 4.0 percent walked.

The average travel time to work for all residents, regardless of residence, was approximately 20 minutes.

Table 8, Place of Work, 1990, and Table 9, Travel to Work (in percent), 1990, are on the following pages.

Table 8
PLACE OF WORK, 1990

Area	Workers 16 & Over	Worked Inside City of Milwaukee Number	Worked Inside City of Milwaukee Percent	Worked Inside Milwaukee Region Number	Worked Inside Milwaukee Region Percent	Worked Outside Region Number	Worked Outside Region Percent
Menomonee Valley Study Area [1]	11,213	8,097	72.2%	11,053	98.6%	160	1.4%
City of Milwaukee	269,401	179,694	66.7%	264,777	98.3%	4,624	1.7%
Milwaukee Region [2]	690,002	302,185	43.8%	670,791	97.2%	19,211	2.8%

[1] The Menomonee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160.
[2] The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: U.S. Bureau of the Census.

Table 9
TRAVEL TO WORK (IN PERCENT), 1990

Area	Workers 16 & Over	Means of Transportation						Average(min.) Travel Time To Work
		Alone in Car	Carpool	Public Transit	Walk	Other	Worked At Home	
Menomonee Valley Study Area [1]	11,231	48.1%	15.1%	17.4%	15.4%	1.8%	2.2%	18.8
City of Milwaukee	269,401	67.2%	13.2%	11.0%	6.0%	1.0%	1.6%	20.1
Milwaukee Region [2]	690,002	76.7%	11.0%	5.2%	4.0%	0.9%	2.2%	20.1

[1] The Menomonee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160.
[2] The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: U.S. Bureau of the Census.

Employment

Table 10 illustrates the changes that have occurred in the structure of the Milwaukee area economy reflect some of the economic diversification that has occurred and is occurring in the country and worldwide. In 1970, manufacturing provided the greatest number of jobs to residents, followed by services and retail trade. In the two decades between 1970 and 1990, the economic profile shifted so that the service industry provided the greatest number of jobs to residents, followed by manufacturing and retail trade.

In 1990, 37.2 percent of employed Study Area residents worked in the service sector, exceeding the 34.3 percent of Milwaukee residents and 27.6 percent of residents in the four-county region. Manufacturing still played a very important role in the economy, providing jobs for 22.6 percent of Study Area residents, 22.4 percent of City residents and 23.2 percent of all residents in the region. In comparison, manufacturing provided jobs to only 20.5 percent of U.S. residents in 1990.

Table 11 also illustrates the structural change in the Milwaukee economy. The table presents employment by place of business for the second quarter of 1990 and 1996 for Milwaukee County and the four-county Milwaukee region. Information is not available for the City of Milwaukee. The data was compiled from reports to the Division of Unemployment Insurance by "employers" covered by Wisconsin's Unemployment Compensation Law. Table 11 shows the growing dominance of the service sector, and the slowly declining role of manufacturing. The changes in the other industrial sectors have been minimal or none.

Table 10
EMPLOYMENT OF RESIDENTS BY MAJOR INDUSTRY GROUP, 1970-1990

Area	1970	1980	1990	Percentage Distribution 1970	1980	1990
Menomonee Valley Study Area [1]						
Construction	414		464	3.0%		4.1%
Manufacturing	4,976	not	2,553	36.0%	not	22.6%
TCPU	962		652	7.0%		5.8%
Wholesale Trade	463	available	468	3.3%	available	4.1%
Retail Trade	2,037		2,028	14.7%		17.9%
FIRE	723		612	5.2%		5.4%
Services	3,895		4,216	28.2%		37.2%
Government	363		328	2.6%		2.9%
TOTAL	13,833		11,321	100.0%		100.0%
City of Milwaukee						
Construction	10,845	7,679	10,142	3.6%	2.7%	3.7%
Manufacturing	104,451	90,307	60,991	34.8%	31.8%	22.4%
TCPU	18,481	19,047	18,711	6.2%	6.7%	6.9%
Wholesale Trade	13,019	10,096	10,846	4.3%	3.6%	4.0%
Retail Trade	49,287	46,115	48,270	16.4%	16.2%	17.7%
FIRE	15,439	16,879	19,814	5.1%	5.9%	7.3%
Services	74,453	82,404	93,491	24.8%	29.0%	34.3%
Government	14,319	11,676	10,422	4.8%	4.1%	3.8%
TOTAL	300,294	284,203	272,687	100.0%	100.0%	100.0%
Milwaukee Region [2]						
Construction	24,768	23,522	31,657	4.3%	3.6%	4.3%
Manufacturing	201,339	209,189	168,746	35.1%	32.0%	23.2%
TCPU	32,017	42,026	43,653	5.6%	6.4%	6.0%
Wholesale Trade	25,941	27,864	29,752	4.5%	4.3%	4.1%
Retail Trade	93,381	108,532	120,401	16.3%	16.6%	16.5%
FIRE	28,564	40,148	52,932	5.0%	6.1%	7.3%
Services	144,641	181,228	201,083	25.2%	27.7%	27.6%
Government	22,839	20,995	80,192	4.0%	3.2%	11.0%
TOTAL	573,490	653,504	728,416	100.0%	100.0%	100.0%

[1] The Menomonee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159, and 160.
[2] The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: U.S. Bureau of the Census.

Table 11
EMPLOYMENT BY PLACE OF BUSINESS BY MAJOR INDUSTRY GROUP, SECOND QTR. 1990 - 1996

Area	1990	1996	Percentage Distribution 1990	1996
Milwaukee County				
Construction	14,926	12,620	2.9%	2.4%
Manufacturing	108,534	97,504	20.8%	18.8%
TCPU	26,553	27,619	5.1%	5.3%
Wholesale Trade	27,624	26,106	5.3%	5.0%
Retail Trade	91,760	85,507	17.6%	16.5%
FIRE	41,821	42,043	8.0%	8.1%
Services	151,508	169,036	29.1%	32.5%
Government	57,885	59,268	11.1%	11.4%
TOTAL	520,611	519,703	100.0%	100.0%
Milwaukee Region				
Construction	28,455	29,820	3.9%	3.7%
Manufacturing	174,335	176,505	23.6%	22.1%
TCPU	35,681	38,530	4.8%	4.8%
Wholesale Trade	44,490	47,978	6.0%	6.0%
Retail Trade	130,405	132,488	17.7%	16.6%
FIRE	51,566	56,531	7.0%	7.1%
Services	193,110	231,889	26.2%	29.0%
Government	80,062	85,306	10.8%	10.7%
TOTAL	738,104	799,047	100.0%	100.0%

TCPU is Transportation, Communications, Public Utilities
FIRE is Finance, Insurance, Real Estate

NOTE: The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: Department of Workforce Development, Employment and Wages Covered by Wisconsin's U.C. Law, 2nd Quarter 1990 (published April 1991) and 1996 (published March 1997). Figures for June 1990 and June 1996 used.

Table 12 shows employment and percentages by major industry group (Standard Industrial Classification major divisions) for the City of Milwaukee and the four-county Milwaukee region. Employment and percentages for the U.S. are included for comparative purposes. As can be seen, manufacturing provides a much greater share of total employment in the City of Milwaukee and in the Milwaukee region than it does in the U.S. - 25.4 percent and 23.1 percent versus 16.3 percent, respectively

According to Dun & Bradstreet, the four leading employment sectors in the City in 1997 (ranked in order of employment) are services, 36.3 percent; manufacturing, 25.4 percent; finance/insurance/real estate (FIRE), 12.1 percent; and retail trade, 10.7 percent. In the four-county Milwaukee region, the leading employment sectors are services, 36.0 percent; manufacturing, 23.1 percent; retail trade, 15.0 percent; and finance/ insurance/ real estate (FIRE), 8.1 percent. Services and manufacturing at the City and regional levels account for approximately 60.0 percent of total employment.

A comparison of the data in Table 11 from the Department of Workforce Development and Table 12 from Dun & Bradstreet will show some discrepancies between the two sources. Reasons for these variations include different years of coverage, differences in classifications of businesses, and different means of collecting and using data.

The last column in Table 12 is the ratio (City of Milwaukee/Milwaukee region) of the percentages of total employment accounted for by each major industry group. A ratio number greater than one indicates that the City has proportionately more employment in this industry than does the region, and a ratio of less than one indicates the opposite.

Table 12 shows that the City of Milwaukee has relatively more employment than the region in each of the following industries:

(1) Manufacturing
(2) Transportation/ Communications and Public Utilities (TCPU)
(3) Finance, Insurance and Real Estate (FIRE)
(4) Services

Table 12
1997 EMPLOYMENT BY MAJOR INDUSTRIAL GROUP
City of Milwaukee, Milwaukee Region and the U.S.

SIC Name	Number of Firms City of Milwaukee	Number of Firms Milwaukee Region[2]	Total Employment City of Milwaukee	Total Employment Milwaukee Region[2]	% of Total Employment City of Milwaukee	% of Total Employment Milwaukee Region[2]	Employment City/ Region
Agriculture, Forestry, and Fishing	125	871	842	4,715	0.3%	0.6%	0.45
Mining	10	54	30	422	0.0%	0.1%	0.18
Construction	727	4,363	5,413	29,031	1.7%	3.7%	0.47
Manufacturing	1,155	4,319	79,850	183,499	25.4%	23.1%	1.10
Transportation and Public Utilities	644	2,129	23,714	44,690	7.5%	5.6%	1.34
Wholesale Trade	975	4,213	14,254	44,970	4.5%	5.7%	0.80
Retail Trade	3,453	10,493	33,640	119,063	10.7%	15.0%	0.71
Finance, Insurance, and Real Estate	1,452	4,951	38,203	64,390	12.1%	8.1%	1.50
Services	7,202	21,493	114,211	285,986	36.3%	36.0%	1.01
Government	134	468	4,491	17,618	1.4%	2.2%	0.64
Total	15,877	53,354	314,648	794,384	100.0%	100.0%	

SIC Name	Firms U.S.	Employment U.S.	% of Total U.S. Employment
Agriculture, Forestry, and Fishing	288,107	1,608,568	1.3%
Mining	40,505	669,583	0.6%
Construction	947,260	6,003,080	5.0%
Manufacturing	590,000	19,459,763	16.3%
Transportation and Public Utilities	310,008	4,185,654	3.5%
Wholesale Trade	708,888	6,398,935	5.4%
Retail Trade	2,482,914	22,008,250	18.4%
Finance, Insurance, and Real Estate	912,474	8,274,776	6.9%
Services	4,286,499	43,190,009	36.1%
Government	123,948	7,695,606	6.4%
Total	10,690,603	119,494,224	100.0%

[1]For purposes of data analysis, the following zip codes were used to determine City of Milwaukee data: 53201-53208, 53210-53212, 53215, 53216,53218, 53222-53225, 53233.
[2]The Milwaukee Region is composed of Milwaukee, Ozaukee, Washington and Waukesha Counties.

Source: Dun & Bradstreet; calculations by Lockwood Greene

The industries in which the City of Milwaukee has a smaller share than the Milwaukee region include:

(1) Agriculture, Forestry, and Fishing
(2) Mining
(3) Construction
(4) Wholesale Trade
(5) Retail Trade
(6) Government

The Wisconsin Manufacturers & Commerce (WMC) compiles a directory of the manufacturers in Wisconsin. Table 13 presents the 50 largest manufacturers, ranked by employment, in the City of Milwaukee from WMC's *1997 Classified Directory of Wisconsin Manufacturers*. The largest manufacturers are Ameritech-Wisconsin; Harnischfeger Industries, Inc.; Rockwell Automation/Allen Bradley; Briggs & Stratton Corporation; and Journal Communications, Inc.

Five of the 50 largest companies are located in the Menomonee Valley: Emmpak Foods, Inc; The Falk Corporation; United States Leather, Inc.; Aldrich Chemical Company, Inc., and Pfister & Vogel Tanning Co. The presence of the five Valley industries among the 50 largest in the City of Milwaukee illustrates the importance of the Menomonee Valley in the City's economy.

Unfortunately, Dun & Bradstreet does not have employment data by place of business at the Census Tract level. However Claritas Inc. is able to provide employment data by two digit Standard Industrial Classification (SIC) code for the Census Tracts which are inclusive of the Menomonee Valley Study Area. This information is derived from the database of American Business Information, Inc. (ABI).

Table 14 shows employment and percentages by major industry group (SIC major divisions) for the Menomonee Valley (Census Tract 132) and the Menomonee Valley Study Area. According to ABI, the leading employment sectors in the Menomonee Valley (ranked in order of employment) are manufacturing, 38.7 percent; services, 17.3 percent, and wholesale trade, 14.8 percent.

Table 13
Largest Manufacturers in the Menomonee Valley and City of Milwaukee

Company	Employment	Year Established
Ameritech-Wisconsin	6,200	1882
Harnischfeger Industries, Inc.	5,000	1884
Rockwell Automation/Allen Bradley	4,800	1903
Briggs & Stratton Corporation	4,000	1909
Journal Communications, Inc.	3,400	1882
Jason Incorporated	3,000	1986
Miller Brewing Company	3,000	1855
Johnson Controls, Inc.	2,500	1885
Delco Electronics Corporation	2,400	1949
Master Lock Company	1,500	1921
Grede Foundries, Inc.	1,450	1920
Emmpak Foods, Inc.*	***1,400***	***1890***
Milwaukee Journal Sentinel Inc.	1,388	1882
Meridian Industries, Inc.	1,300	1944
The Falk Corporation*	***1,250***	***1892***
Western Industries, Inc.	1,200	1944
Delphi Automotive Systems	1,100	1973
Harley-Davidson, Inc.	1,000	1903
Rexnord Corporation	1,000	1892
United States Leather Inc*.	***1,000***	***1848***
W. H. Brady Co.	1,000	1914
Marquette Electronics, Incorporated	950	1965
Astronautics Corp. of America	850	1959
Aldrich Chemical Company, Inc.*	***820***	***1951***
Siemens Power Corporation	800	n.a.
Strattec Security Corp.	800	1909
WICOR Inc.	800	1980
Applied Power, Inc.	600	n.a.
Milwaukee Valve Company, Inc.	600	1901
Badger Meter, Inc.	540	1905
Super Steel Products Corp.	525	1966
Weyco Group, Inc.	525	1906
Pfister & Vogel Tanning Co.*	***520***	***1848***
ABB Industrial Systems, Inc.	500	1988
Brady Ind'l Identification & Specialty Tape	500	1914
Eaton Corporation	500	1895
Grunau Company Inc.	500	1920
Pieper Electric, Inc.	500	1947
Universal Foods Corporation	500	1882
Maynard Steel Casting Company	430	1916
OMC-Milwaukee	425	1909
Wisconsin Color Press, Inc.	425	1847
Dana Corporation/Victor Products Division	420	1943
HM Graphics Inc	400	1970
Kleen Test Products	400	1944
Nordberg Inc.	400	1886
Western States Envelope Company	400	1908
Coca-Cola Bottling Co. of Wisconsin	375	n.a.
Rexnord Corporation	364	1892
Stainless Foundry & Engineering, Inc.	360	1946

**** Located in the Menomonee Valley***

Source: 1997 Classified Directory of Wisconsin Manufacturers, Wisconsin Manufacturer's & Commerce

Table 14
EMPLOYMENT BY MAJOR INDUSTRIAL GROUP
MENOMONEE VALLEY AND THE MENOMONEE VALLEY STUDY AREA

SIC Name	Number of Firms		Total Employment		Percent of Total Employment		Employment Ratio:
	Menomonee Valley [1]	Valley Study Area	Menomonee Valley [1]	Valley Study Area	Menomonee Valley [1]	Valley Study Area	Valley/ Study Area
Agriculture, Forestry, and Fishing	-	5	-	52	0.0%	0.1%	-
Mining	-	1	-	-	0.0%	0.0%	-
Construction	16	65	293	752	4.1%	1.8%	2.36
Manufacturing	53	136	2,747	7,213	38.7%	16.8%	2.30
TCPU	25	65	569	5,799	8.0%	13.5%	0.59
Wholesale Trade	61	145	1,047	2,756	14.8%	6.4%	2.30
Retail Trade	38	463	506	6,708	7.1%	15.6%	0.46
Finance, Insurance, and Real Estate	8	173	34	6,266	0.5%	14.6%	0.03
Services	72	1,052	1,224	12,108	17.3%	28.2%	0.61
Government	5	51	640	1,190	9.0%	2.8%	3.25
Non-Classifiable Establishments	9	43	35	43	0.5%	0.1%	4.92
Total	287	2,199	7,095	42,887	100.0%	100.0%	

* Menomonee Valley is Census Tract 132.
TCPU is Transportation, Communications, Public Utilities

Source: Claritas, Inc. using database from American Business Information, Inc.

The sectors in the Menomonee Valley accounting for the most manufacturing employment include food and kindred products; leather and leather products; primary metals; fabricated metal products and industrial and commercial machinery and computers. Service sectors providing the greatest employment include amusement and recreational services, social services, business services and membership organizations.

Table 14 also shows that the major employment sectors in the Study Area are services, 28.2 percent; manufacturing, 16.8 percent; retail trade, 15.6 percent; finance/insurance/real estate, 14.6 percent, and transportation/ communications/public utilities, 13.5 percent. The service sectors providing the highest employment include health services, educational services, social services, legal services and amusement and recreational services. Manufacturing sectors with the greatest employment are industrial and commercial machinery; computers and electric and electronic equipment; leather, glass and leather products; and food and kindred products.

The last column in Table 14 is the ratio (Menomonee Valley Census Tract 132/Menomonee Valley Study Area) of the percentages of total employment accounted by each major industry group. A ratio number greater than one indicates that the Menomonee Valley has proportionately more employment in this industry than does the Study Area, and a ratio of less than one indicates the opposite.

Table 14 shows that the Valley has relatively more employment than the total Study Area in each of the following industries:

(1) Construction
(2) Manufacturing
(3) Wholesale Trade
(4) Government

The industries in which the Menomonee Valley has a smaller share than the total Study Area include:

(1) Transportation/ Communications/ Public Utilities
(2) Retail Trade
(3) Finance/ Insurance/ Real Estate
(4) Services

Table 15 goes one step further and presents the manufacturing employment by sector in the Menomonee Valley (Census Tract 132) and the Menomonee Valley Study Area. It is based on information from American Business Information, Inc. As in prior tables, the last column is the ratio between the percentages of employment per sector in the Menomonee Valley and the Menomonee Valley Study Area. Again, a ratio greater than one indicates the Valley has proportionately more employment in the industrial sector than the Study Area, and a ratio of less than one indicates the opposite.

Table 15 shows that the Menomonee Valley has relatively more employment than the total Study Area in each of the following:

(1) Food and Kindred Products
(2) Leather and Leather Products
(3) Stone, Clay, Glass and Concrete Products
(4) Primary Metal Industries
(5) Fabricated Metal Products

The manufacturing sectors in which the Menomonee Valley has a smaller share than the Study Area include:

(1) Apparel and Other Fabric Products
(2) Furniture and Fixtures
(3) Paper and Allied Products
(4) Printing, Publishing and Allied Industries
(5) Chemicals and Allied Products
(6) Industrial and Commercial Machinery and Equipment/ Computers
(7) Electric/Electronic Equipment (excluding Computers)

Table 15
MANUFACTURING EMPLOYMENT
MENOMONEE VALLEY AND THE MENOMONEE VALLEY STUDY AREA

SIC Code	Manufacturing Description	Number of Firms		Total Employment		Percent of Total Employment		Employment Ratio: Valley/ Study Area
		Menomonee Valley [1]	Valley Study Area	Menomonee Valley [1]	Valley Study Area	Menomonee Valley [1]	Valley Study Area	
20	Food and Kindred Products	6	7	794	798	28.9%	11.1%	2.61
21	Tobacco Manufacturers	0	0	0	0	0.0%	0.0%	0.00
22	Textile Mill Products	0	2	0	74	0.0%	1.0%	0.00
23	Apparel & Other Fabric Products	3	7	30	229	1.1%	3.2%	0.34
24	Lumber & Wood Prod, excl Furn	0	0	0	0	0.0%	0.0%	0.00
25	Furniture & Fixtures	1	3	1	27	0.0%	0.4%	0.10
26	Paper & Allied Products	2	4	25	110	0.9%	1.5%	0.60
27	Printing, Publishing & Allied Ind.	8	31	68	207	2.5%	2.9%	0.86
28	Chemicals & Allied Products	2	5	70	295	2.5%	4.1%	0.62
29	Petroleum Refining & Rel. Prod	0	0	0	0	0.0%	0.0%	0.00
30	Rubber & Misc. Plastic Prod.	0	2	0	113	0.0%	1.6%	0.00
31	Leather & Leather Products	6	6	980	980	35.7%	13.6%	2.63
32	Stone, Glass, Clay & Concrete Prod	4	5	27	31	1.0%	0.4%	2.29
33	Primary Metal Industries	4	5	326	376	11.9%	5.2%	2.28
34	Fabricated Metal Products	8	15	220	291	8.0%	4.0%	1.99
35	Ind & Comm Machinery/Computers	6	22	184	1,942	6.7%	26.9%	0.25
36	Electric/Electron Equipmt (ex Comp)	2	6	18	1,232	0.7%	17.1%	0.04
37	Transportation Equipment	0	2	0	424	0.0%	5.9%	0.00
38	Instruments & Related Products	0	2	0	38	0.0%	0.5%	0.00
39	Misc. Manufacturing Industries	1	12	4	46	0.1%	0.6%	0.23
	Total	53	136	2,747	7,213	100.0%	100.0%	

Source: Claritas, Inc. using database from American Business Information, Inc.

Section III: Market Overview & Redevelopment Potentials

This section presents an assessment of the future redevelopment potentials for industrial, office, retail and park-related uses in the Menomonee Valley Study Area. It begins with an overview of the relevant real estate markets in the four-county Milwaukee metropolitan area of Milwaukee, Waukesha, Washington and Ozaukee Counties, and highlights the real estate markets in the City of Milwaukee. Also included is an overview of the park system in the City of Milwaukee and Milwaukee County. This section concludes with an overview of the existing development in the Menomonee Valley and a market-based assessment of the Valley's future redevelopment potentials.

Sources of information include key person and market interviews plus reports and publications of the City of Milwaukee Departments of City Development and Public Works; Milwaukee Public Schools Department of Schools and Community Services; Southeast Wisconsin Regional Planning Commission (SEWRPC); the Wisconsin Department of Workforce Development (DWD); the Wisconsin Department of Natural Resources (DNR); The Polachek Company; *Midwest Real Estate News* (January, 1997); Urban Land Institute (*Market Profile for the Milwaukee Metropolitan Area, 1996, Shopping Center Development Handbook* and *Developing Power Centers*); Census Bureau; Bureau of Labor Statistics, and Claritas/ Urban Decision Systems, Inc.

Overview Of The Markets In The Milwaukee Region

As was noted in the ***Economic Conditions*** analysis, decentralization of population and economic activity in the four-county Milwaukee region has been occurring, a trend projected to continue by SEWRPC in its *2020 Recommended Land Use Plan.* However, SEWRPC forecasts that the City should benefit from a gain in population over the 1990 to 2020 period, a significant reversal of historic trends and former population projections. SEWRPC also forecasts that the City should retain an increasing share of its employment base. These significant population and employment projections reflect trends perceived by several local sources interviewed for this Menomonee Valley study. That is, the City of Milwaukee is increasingly becoming a more attractive place to live and "do business."

In 1997, as in the past several years, the economy in the Milwaukee region is strong; unemployment rates are low. For the region as well as the City, the retention of residents and businesses, the internal expansion of businesses, and the attraction of new residents and businesses have combined to create growing demand for housing, retail centers, and commercial and industrial facilities. This demand is further bolstered by the need to replace obsolete residential, commercial and industrial buildings, which do not meet contemporary use and structural standards.

In response, new construction, expansion, and rehabilitation are occurring in the City and region. This construction activity will need to continue if the City and region are to retain their economic viability and their competitive positions.

Industrial Market

Milwaukee is one of the leading manufacturing centers in the nation. Milwaukee area companies produce more than $24 billion worth of manufactured products annually. The Milwaukee area is a major producer of industrial controls, machinery and equipment, medical equipment, and gasoline engines, and is home to a number of printing and publishing companies. These and other industrial sectors have all experienced growth in this decade through internal expansion, new company formation, and the attraction of new businesses. This growth, coupled with the demand to replace obsolete industrial space and buildings, has resulted in a strong and active industrial real estate market. Given the limited supply of available space in the City and region, demand is increasing for newly constructed as well as rehabilitated industrial space.

The *1997 Polachek Real Estate Market Survey* reports that the four-county region's industrial supply is nearly 196.2 million square feet, compared to 187.9 million square feet in 1995. The vacancy rate is an extremely low 3.5 percent, a reduction from the already low vacancy rate of 5.2 percent posted in 1995. Of the industrial space for sale or lease, 30 percent is in buildings of 20,000 to 49,999 square feet; 23 percent is in buildings of 50,000 to 999,000 square feet; 19 percent is in buildings over 250,000 square feet; 14 percent in buildings between 100,000 and 249,999 square feet, and 14 percent in buildings less than 20,000 square feet.

According to *Midwest Real Estate News*, approximately 500,000 square feet of speculative space is under construction, most of which is located in

suburban industrial parks. Given the dynamics of the marketplace, it is likely that this space will be absorbed by continued demand.

The distribution of industrial space in the metropolitan area is shown on the following table.

MILWAUKEE METROPOLITAN AREA INDUSTRIAL SPACE

County	Total Square Feet		Percent of Total Square Feet		Vacancy Rate	
	1995	1997	1995	1997	1995	1997
Milwaukee	129,410,475	131,029,146	69%	67%	5.3%	3.5%
Waukesha	41,180,063	45,763,433	22%	23%	4.0%	3.4%
Ozaukee	8,330,709	9,176,003	4%	5%	7.5%	5.8%
Washington	8,995,087	10,190,196	5%	5%	6.2%	3.0%
TOTAL	187,916,334	196,158,778	100%	100%	5.2%	3.5%

Source: The Polachek Company

An inventory of the industrial and business parks in the four counties appears in the Master Appendix of this study, which is in the possession of the Department of City Development, Milwaukee Metropolitan Sewerage District and the Menomonee Valley Business Association. The inventory includes the name of the park, location, total acres, percent developed, freeway access, price per acre, resident companies, contact and telephone number. It is current as of September 1, 1996, and includes parks with more than four acres of available land. The source for the inventory is the *1997 Business Resource Guide for Metropolitan Milwaukee*, published by the Metropolitan Milwaukee Association of Commerce.

Milwaukee County has the largest industrial base - 131.0 million square feet with a vacancy rate of 3.5 percent. As the number of developable sites in the county decreases and the number of obsolescent buildings increases, Milwaukee County continues to lose its industrial base to Waukesha,

Ozaukee and Washington Counties.

The City of Milwaukee plays an important industrial role in Milwaukee County as well as in the region. The City has over 88.5 million square feet, 68 percent of the industrial space in the county. Its vacancy rate is a low 3.7 percent. Milwaukee's industrial base has grown since 1995 when it totaled 87.7 million square feet. Its vacancy rate has declined from the 1995 rate of 4.9 percent.

- **The Milwaukee Land Bank**

Much of the industrial space in the City of Milwaukee is located in the former City-owned Land Bank and in two industrial parks developed with City of Milwaukee assistance. The City transferred 66 acres of land from the Land Bank and its capital reserves to the Milwaukee Economic Development Corporation (MEDC) at the end of 1997. MEDC is a non-profit City of Milwaukee-sponsored corporation, established to assist area businesses by creating employment opportunities and facilitating new investment.

The City created the Land Bank in 1962 to retain its industrial base and provide opportunities for attracting and expanding industries. It purchased and improved more than 1,000 acres in six industrial parks and in several inner city locations. The Land Bank has been a key component of a proactive effort by the City to offer reasonably priced sites in contemporary industrial park environments, similar to those in the Milwaukee suburbs and in "in-city" locations. MEDC will be taking over this proactive role for the City of Milwaukee. (Please note: While the name "Land Bank" may be changed in the future, it is still used in this report to refer to this significant land inventory formerly owned by the City of Milwaukee.)

As of year-end 1997, over 780 acres of competitively-priced land had been sold to more than 150 small and medium-sized companies who have built new facilities. The majority of companies in the Land Bank are manufacturing-related. In total, the companies provide more than 5,000 jobs and generate approximately $6.0 million in annual property tax revenues.

Sixty-three (63) Land Bank transactions occurred during the 1988 to 1997 period. This activity resulted in the sale of 260 acres and in the construction of approximately 2.0 million square feet of new industrial space. Over 2,500 jobs were retained, and, according to the City, the potential exists to create an additional 1,000 new jobs. Between 1992 and 1997, there have been 26

Land Bank transactions, involving the sale of nearly 105 acres. The average sales price was approximately $29,300 per acre. The total investment exceeded $33.3 million. Over 758,000 square feet has been constructed, 1,587 jobs retained, and 634 new jobs created. There have been no additions to the Land Bank base since 1992 when 17.5 acres were added.

The City's most recent industrial park-related activities have focused on assisting private landowners with the development of industrial sites. Two new 40 acre parks, the Northwest Commerce Center and the Calumet Woods Business Park, have been jointly developed. To date, nearly 54 acres have been sold to 11 businesses. The average sales price per acre is $44,000. Similar projects are planned, including the recently-approved 64-acre Towne-Granville Corporate Park.

The City and MEDC would like to maintain a competitive inventory of industrial sites that totals 40 to 80 acres. This inventory would enable the City to accommodate and attract new industry as well as retain existing industry that needs to expand or construct new facilities. The availability of suitable sites is a prerequisite to successfully competing for desirable industrial development in the city, *i.e.*, development which adds to the tax base, produces living wage jobs, adds value to its product and imports capital into the area. [1]

MEDC is considering a number of initiatives that will grow the Land Bank program and add to its land inventory. According to MEDC, the Menomonee River Valley is "the largest remaining source of available land in Milwaukee." One of MEDC's goals is to help develop the vacant and underutilized land in the Menomonee Valley.

- **Other Industrial Land**

In addition to the Land Bank industrial parks, there are other industrial areas in the City of Milwaukee. These are located on the north, northeast and west sides, and in the 30th Street industrial corridor, Milwaukee River Valley, Menomonee River Valley, the Kinnickinnic River Valley area and in the Mitchell Field Industrial Area.

A number of municipalities in Milwaukee County have competitive industrial space. According to the Polachek report, these include Brown Deer with 1.9 million square feet and a vacancy rate of 15.3 percent;

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[1] **Milwaukee Industrial Development, Land Bank Program**, Department of City Development.

Glendale with 4.4 million square and a vacancy rate of 7.2 percent; Oak Creek with 8.0 million square feet and a vacancy rate of 0.7 percent, and West Allis with 8.5 million square feet and a vacancy rate of 1.4 percent. The majority of this industrial space is privately-owned; a small portion is owned by municipalities.

Waukesha County has the second largest concentration of industrial space. It is experiencing increases in its industrial supply and in improved business and industrial park sites as demand continues westward. In 1997, Waukesha County's inventory totals nearly 46.8 million square feet, and the vacancy rate is 3.4 percent. New Berlin has the largest industrial inventory in Waukesha County, 9.1 million square feet, and it continues to be very attractive to industry. Its vacancy rate is a very low 2.7 percent. Sites in its Westridge Business Park, developed by Wispark, have sold quickly. Between 1996 and 1997, Menomonee Falls added 1.0 million square feet to its industrial inventory, growing to 7.8 million square feet. In spite of this significant addition of new space, its occupancy rate is over 97 percent.

Other municipalities in Waukesha County with a competitive industrial supply include Waukesha with 9.4 million square feet and a vacancy rate of 2.7 percent; Brookfield with 7.2 million square feet and a vacancy rate of 1.1 percent and the town of Pewaukee with 5.0 million square feet and a vacancy rate of 5.5 percent.

Ozaukee and Washington Counties each contain five percent of the industrial space in the metropolitan area. In 1997, Ozaukee County has 9.2 million square feet and a vacancy rate of 5.8 percent. Cities experiencing the strongest industrial interest are Mequon with 2.2 million square feet and a vacancy rate of 3.1 percent (note: the 1996 vacancy rate was 11.1 percent); Grafton with 2.0 million square feet and a vacancy rate of 5.3 percent, and Cedarburg with 2.3 million square feet and a high vacancy rate of 12 percent.

In 1997, Washington County has approximately 10.2 million square feet and a vacancy rate of 3.0 percent (the 1996 vacancy rate was 1.6 percent). Cities experiencing the strongest industrial interest are Germantown with 2.5 million square feet and a vacancy rate of 2.3 percent and West Bend with 3.3 million square feet and a vacancy rate of 5.2 percent.

The geographic dispersion in the industrial marketplace is causing a "mismatch" between jobs and homes. With fewer developable sites in the City of Milwaukee and Milwaukee County, industrial development is pushing farther away from the local labor supply. Moreover, many

employees and persons in the potential labor market do not live near or have easy transportation to suburban manufacturing firms, and there is little public transportation to the areas outside of Milwaukee County. Competition for good employees is strong, and local sources report that labor availability is beginning to affect the location and operating decisions of industrial companies. (This was confirmed by the key person and employer interviews undertaken as part of this study.)

Industrial companies and communities are beginning to react and respond to labor availability in several ways. Some companies, like Allen Edmond Shoes, have moved back to the south side of the city of Milwaukee. The City of Milwaukee, itself, is partnering with private developers to develop industrial parks, like the Northwest Commerce Center and the Calumet Woods Industrial Park, to attract manufacturing companies from the suburbs and relocate them closer to its labor pool and transportation system. In addition, Milwaukee County and Milwaukee are trying to develop commercial and industrial sites near Mitchell Field.

Like the City of Milwaukee, the communities of West Allis and Glendale are redeveloping former environmentally tainted brownfield sites into industrial and commercial parks. West Allis acquired, "cleaned" and redeveloped the former Allis Chalmers site into an industrial park and a retail community center. Interest in the park has been strong, even though West Allis marketed and sold the land at market rate prices, ranging from $50,000 to $70,000 per acre. Current users include C&H Distributors, Siemens and Poblocki Sign.

The city of Glendale is redeveloping 55 acres, which includes the former Continental Can Company's Crown Cork and Seal building (650,000 square feet) into the Glendale Technology Center. Glendale purchased the entire site, which is located in a tax increment financing district. It demolished the Crown Cork and Seal building, is environmentally remediating the site, and constructing new infrastructure. Eleven acres have been sold to a local business interiors company which is building a new corporate headquarters consisting of a 75,000 square foot office, resource and distribution center. A Midwest developer purchased the remaining acreage. Two buildings are under construction for specific users, and the developer has plans for three light manufacturing facilities and a speculative building. Glendale "wrote down" the price of the land and sold it for $40,000 an acre, rather than the $70,000 per acre asking price for industrial land in the area.

These brownfield developments in Glendale and West Allis, close-in mature

suburban cities adjacent to Milwaukee, bode well for redevelopment in the Menomonee Valley.

Retail/Commercial Market

Retail is part of commercial land use development which is composed of retail, office and service uses. Retail uses are found in shopping centers and in freestanding locations, in "strip" development along arterials and major commercial corridors as well as in downtowns.

There are several different categories of shopping centers, including convenience, neighborhood, community, super community, regional, super regional, and power centers. The Urban Land Institute in its publications, *Shopping Centers Development Handbook* and *Developing Power Centers*, defines the retail center categories and types of retail uses that are popular in today's retail environment. These include the following.

- Convenience Shopping Center - Typified by a quick-stop convenience store, such as a 7-Eleven, which either is in a freestanding building adjacent to a neighborhood center or combined with one or two other convenience stores in a short strip. No minimum support population since a large percentage of business is drawn from drive-by traffic.
- Neighborhood Shopping Center - Oriented around convenience goods and personal services that serve the daily needs of people living within a five to ten minute drive. The typical trade area population is 2,500 to 40,000 within a 1.5 mile radius or five to ten minutes driving time. The principal tenant is usually a supermarket. Its average size is 50,000 square feet of gross leasable area (GLA), and it may range from 30,000 square feet to 100,000 square feet.
- Community Shopping Center - Built around a junior department store, variety store, or discount department store as the major tenant. It does not have a full-line department store, although it may contain a strong specialty store. Its typical size is 150,000 square feet of GLA, and it may range from 100,000 square feet to 450,000 square feet. It typically serves a trade area population of 40,000 to 150,000 people within a three to five mile radius or a 10 to 20 minute drive.
- Super Community Shopping Center - Provides the same basic goods and services as a community center, but offers a greater variety. It does not have a full line department store, but may have several strong specialty stores, promotional stores or off-price anchors. It ranges in size

from 250,000 square feet to more than 450,000 square feet.

- Regional Shopping Center - Provides general merchandise, apparel, furniture and home furnishings in depth and variety as well as a variety of services and recreational facilities. It is built around one or two full-line department stores of generally not less than 100,000 square feet each. Its typical size is 450,000 square feet of GLA, and it may range in size from 300,000 square feet to 850,000 square feet. It serves a population in excess of 150,000 people within an eight mile radius or 20 minutes driving time.
- Super Regional Shopping Center - Provides general merchandise, apparel, furniture and home furnishings in depth and variety as well as a variety of services and recreational facilities. It is built around three or more full-line department stores of generally not less than 100,000 square feet each. The typical size is about 800,000 square feet of GLA, and it may range from 600,000 square feet to more than 1.5 million square feet. It serves a population of 300,000 or more within a 12 mile radius who will drive at least 30 minutes to reach the center.
- Power Shopping Center - A type of super community center containing multiple anchors that sell staple products, hard goods and discount merchandise. It can range in size from 250,000 square feet to 1.0 million square feet, with 450,000 square feet being the average size of new power centers. Comprising 80 to 90 percent anchor space, compared with 55 to 65 percent in regional and super regional malls, a power center attracts big-box retailers such as Wal-Mart, Home Depot and Office Depot. It serves a population of 200,000 or more. It often attracts consumers from a trade area that is up to seven miles in major markets and up to ten miles in smaller markets.
- Big-Box - Store contained within one large, usually single story building that is surrounded by several acres of parking. A typical big-box store ranges in size from 100,000 square feet to 200,000 square feet.
- Category Killer - A retail chain, typically a national chain, that is the dominant retailer within a trade area for a particular category of merchandise, and which "kills" the competition. An example is Home Depot in the home improvements sector.

The retail/commercial market in the Milwaukee region is healthy. The Polachek Company reports that there are high occupancy rates with little space available. In its *1997 Real Estate Market Survey*, the company reports

there are 295 regional, community, neighborhood and strip shopping centers with more than 24.0 million square feet in the four-county Milwaukee region. The occupancy rate is 91.3 percent. Regional centers total nearly 6.5 million square feet and have an occupancy rate of 90.5 percent. Community centers are at 7.8 million square feet with an occupancy rate of 89.8 percent; neighborhood centers are at 6.1 million square feet with an occupancy rate of 93.3 percent; and strip centers are at 3.6 million square feet with an occupancy rate of 92.3 percent.

The majority of retail space, 62 percent, is located in Milwaukee County. In total, Milwaukee County has 171 centers with nearly 15.0 million square feet of space. The occupancy rate is 89.2 percent. Four of the county's seven regional and super regional malls are located in the City of Milwaukee, providing a substantial retail base in the City.

In comparison, Waukesha (6.4 million square feet) and Ozaukee (1.4 million square feet) Counties, where space is more limited and new growth is occurring, have retail occupancy rates of 96 percent and 95 percent, respectively. Most of the space in these counties is found in community and neighborhood shopping centers. Washington County has the smallest supply of retail space, 1.2 million square feet, and the lowest occupancy rate at 88.5 percent.

A table presenting the distribution of retail space in the region follows.

MILWAUKEE REGION RETAIL SPACE

County	Total Square Feet	Percent of Total	Occupancy Rate
Milwaukee	14,961,904	62%	89.2%
Waukesha	6,424,737	27%	96.0%
Ozaukee	1,423,707	6%	94.9%
Washington	1,224,629	5%	88.5%
TOTAL	24,034,977	100%	91.0%

Source: The Polachek Company

According to the Polachek survey, there was no new construction of shopping center space in Milwaukee County in 1996. Construction of all new space occurred in outlying communities, such as Germantown and

Pewaukee. However, retailers are expanding by adding new locations, relocating existing stores into freestanding locations and upgrading existing stores. There was limited shopping center space constructed in 1997. According to the *1996 ULI Market Profile for Milwaukee*, suburban retail land prices range from $225,000 to $300,000 per acre.

Expansion for many retailers, and especially the national chains, is taking place through the construction of large freestanding stores in urban locations, including the City of Milwaukee. Retailers are finding they do not need to be an anchor or tenant in a retail center. Moreover, many want their own identity.

The Milwaukee market should experience the development of additional free-standing food stores, drug stores, and computer and furniture stores, ranging in size from 20,000 to 100,000 square feet. This will likely occur in infill locations in the City of Milwaukee as well as in the region's retail corridors, such as along and near Blue Mound Road in Brookfield and Mayfair Road in Wauwatosa. Developers are focused on bringing national and regional retail chains to Milwaukee.

The market should also see additional food stores that are one-stop shopping experiences, such as the 100,000 square foot Mega Mart that recently opened at 20th Street and National Avenue (in the Menomonee Valley Study Area.) This is a large food store that offers an array of customer services, including daycare, banking, and a pharmacy.

Both Milwaukee County and the City of Milwaukee should experience retail development on infill locations, sites once considered as secondary. In addition, existing centers will need to be upgraded and renovated to remain competitive. Also, mature retail corridors and business districts, such as the City's Historic King Drive, should become more competitive as retailers discover unfulfilled demand in the urban neighborhoods of the city.

Office and Business Parks

Over the past several years, the metropolitan area office market continues to recover and become more stable. The Polachek Company's *1997 Real Estate Market Survey* reports Milwaukee's office market contains nearly 26.5 million square feet and has an occupancy rate of 84.1 percent. The total suburban office market exceeds the supply of space in the Downtown. Suburban office buildings are generally found in freestanding locations in major office corridors or in business parks. The latter combines a number of commercial activities, such as office, retail and restaurants, or specializes in

a specific niche, such as research and development. The suburban office market, where land is available and competitively priced, is experiencing more new construction and leasing activity than the Downtown.

The distribution of office space in the metropolitan area is shown on the following table.

METROPOLITAN AREA OFFICE SPACE

Submarket	Buildings	Square Feet	Percent of Total	Occupancy Rate
DOWNTOWN				
East of River	81	8,037,432	30%	88.2%
West of River	60	4,858,243	18%	80.4%
TOTAL	141	12,895,675	48%	85.2%
SUBURBAN				
Mayfair	57	2,046,221	8%	90.5%
Bishop's Woods	19	906,980	3%	87.0%
Brookfield Square	79	3,892,538	15%	90.2%
West Allis/Southwest	57	2,399,472	9%	76.8%
North/Park Place	48	2,347,375	9%	79.5%
Waukesha	46	1,983,025	8%	71.0%
TOTAL	306	13,575,611	52%	83.0%
MARKET TOTAL	447	26,471,286	100%	84.1%

Source: The Polachek Company. Note: Some of the buildings identified in the Southwest and Park Place submarkets may be located within the City of Milwaukee.

As previously noted, the suburban office market is experiencing more new construction and leasing activity than the Downtown Milwaukee market. Several large suburban buildings have been constructed with anchor tenants commitments. In addition, a few small speculative buildings are under construction in the far western suburbs.

Of the suburban markets, Bishop's Woods is seeing activity and developer interest in its A. O. Smith office park on the westside of Bishop's Woods. In Mayfair and Brookfield Square, a limited amount of space is available in a number of existing buildings; space is not available for large tenants. The Mayfair submarket with its new office buildings and business parks is the closest suburban submarket to the Menomonee Valley.

The Mayfair submarket is home to the 175-acre Milwaukee County Research Park in Wauwatosa. The mission of the Research Park is "to develop a successful business park that nurtures technology-based companies in order to strengthen Milwaukee County's business base, creates new employment opportunities and facilitates technology transfer in the Milwaukee metropolitan area." The Research Park has an affiliation with the Medical College of Wisconsin, Marquette University, Milwaukee School of Engineering and University of Wisconsin-Milwaukee. However, these universities undertake limited research and have not had an impact on the development of the Milwaukee County Research Park or the users located in it.

Although the Research Park Corporation was formed in 1987, the first development activity has occurred over the past two years. Prime Care has constructed a 137,000 square foot office building, and Boldt Development is building the Woodlake Business & Technology Center, two 43,700 square foot buildings with fiber optic cable capabilities. The Milwaukee County Research Park is selling land at $125,000 to $150,000 per acre. The Research Park is finding it difficult to compete with land prices in the better suburban parks ($60,000 to $100,000 an acre) and with land prices in the City of Milwaukee's Land Bank. The Milwaukee County Research Park is home to the Technology Innovation Center, an incubator for technology-based start up companies. The incubator occupies three floors totaling 48,000 square feet, and is 100 percent occupied. An additional 27,000 square feet can be added once space in the building it occupies is rehabilitated. The rental rate is $11-$11.25 per square foot gross.

In West Allis/Southwest, developers are renovating former industrial buildings for office and other uses, which is reflected in its low occupancy rate. (West Allis has the largest supply of vacant older industrial factories.) The occupancy rate is near 100 percent on South 102nd Street.

In the North/ Park Place submarket, the low occupancy (80 percent) reflects the 200,000 square feet of sublet space that Woolworth and Kohl's have vacated and put on the market. In addition, a large building was

constructed by M&I data at Park Place. All other buildings in this submarket have occupancy rates with Class A space exceeding 90 percent.

The Waukesha submarket benefits from being at the easternmost side of Waukesha County, adjacent to Milwaukee County. The submarket has access to I-94 and available land. Moreover, the taxes in Waukesha County are lower than in Milwaukee County. There has been no recent construction of multi-story buildings, but the submarket has seen the development of new service/research and development (R&D) and single story office buildings to meet the needs of tenants in the market.

Downtown Milwaukee has experienced limited new office construction. Much of the new construction has been of low to mid-rise buildings, west of the Milwaukee River, such as the United Health building. No major high rise buildings have been constructed, and local real estate sources indicate that it is unlikely any new buildings will be constructed in the near-term. Existing space is slowly being absorbed by downtown tenants with expansion needs.

The Downtown East submarket, which is east of the Milwaukee River, is the primary office area in the downtown. The occupancy rate of Class A properties now exceeds 90 percent, and rental rates will likely rise. This should have a positive impact on the Class B buildings in this submarket. There are few Class C buildings.

The Downtown West submarket, which is west of the Milwaukee River and east of Marquette University, has a greater number of Class B and C buildings. Occupancy is improving, and has increased by seven percent since 1996. Development of the new convention center might stimulate increased office occupancy in this submarket.

A downtown-related project noted in the *1996 ULI Market Profile: Milwaukee* and in Polachek's *Market Survey* as well as by key person interviewees is The Tannery Urban Business and Living Center on West Virginia Street. This project is located in the southeasternmost part of the Menomonee Valley Study Area.

The Tannery is the former Pfister & Vogel leather tannery that is being redeveloped for commercial and residential uses. The fourteen former tannery buildings have 900,000 square feet of space. Residences will be located in the six buildings that are adjacent to the Burnham Canal and north of the railroad tracks that bisect the property. Commercial uses are located in the remainder of the buildings.

Redevelopment of the commercial buildings was started about two and one half years ago. The buildings total 400,000 square feet, and they are virtually 100 percent leased. The Tannery markets itself as Class B office space. This rapid leasing pace has overcome a lot of skepticism about the project and its location.

Parks in the City of Milwaukee and Milwaukee County

The City of Milwaukee's public outdoor recreational areas are the joint responsibility of the City of Milwaukee Department of Public Works and the Milwaukee Public Schools Department of School and Community Services. Milwaukee County and the State of Wisconsin Department of Natural Resources also own and operate public outdoor recreational facilities in the City. Milwaukee County is responsible for the County-wide park and parkway system which serve all of the County's residents as well as immediate neighborhoods. The State is responsible for the Havenswoods Forest Preserve.

- **City of Milwaukee/Milwaukee Public Schools.** The City of Milwaukee and the Milwaukee Public Schools develop and maintain five types of outdoor recreational areas. The spatial standards noted below are based on recommendations, not requirements, of the National Recreation and Park Association.

  Playfields (minimum 10 acres) - An area for organized sports with recreational facilities, such as ball fields and tennis courts. Playfields typically serve a population of 15 years and older within a ½ to 1 mile radius.

  Playgrounds (minimum 3 acres) - A highly developed area with paved and non-paved areas for recreational equipment and activities, like softball. Playgrounds typically are found near schools and serve a population of children aged 5-18 years within a ¼ to ½ mile radius.

  Playlots (no minimum acreage) - A highly-used area that is smaller than a playground. Playlots typically serve children between 5 and 12 years within a ¼ to ½ mile radius.

  Totlots (2,500 square feet) - A small area with play equipment for preschool and elementary school-aged students within a ¼ to ½ mile radius.

  Greenspaces (no minimum acreage or service area radius) - Typically a passive recreational area serving everyone, regardless of age.

The most recent recreation plan prepared and adopted by the City and Public Schools is the *Public Outdoor Recreation Plan for City of Milwaukee Neighborhoods, 1994-1998*, dated June 20, 1994. According to this Plan, there are 1,273 acres in Milwaukee Public Schools playfields and playgrounds and 137 acres in playlots, totlots, green spaces and other City-owned areas. The County owns and manages 4,539 acres of parks in the city while the State owns and manages 237 acres (the Havenswoods Forest Preserve).

The *Public Outdoor Recreation Plan* also evaluates the need for additional parkland in the City. The analysis is based upon the City's 1990 population of 628,088 and the recommended spatial standards of the National Recreation and Park Association. These indicate there should be 1.25 playground acres, 1.25 playfield acres, 1.0 neighborhood park acre and 1.0 community park acre for every 1,000 residents, and that there should be 10 acres of total recreation space for every 1,000 residents.

According to the *Plan's* assessment, the City's acreage exceeds the recommended standards for playfields, neighborhood parks and community parks, and nearly equals the recommended standards for playgrounds. In summary, the City's parkland total of 4,035 acres is 1,209 acres more than the recommended standard of 2,826 acres, per the National Recreation and Park Association.

The Recreation Plan indicates that there also are 1,977 acres of other public outdoor recreation areas, including parkways, nature centers and metropolitan parks, in the City. Adding the 1,977 acres to the 4,035 acres produces total public outdoor recreational area acreage of 6,012. However, given the general recommended standard of 10 acres per 1,000 residents and the City's 1990 population of 628,088, Milwaukee should have 6,288 acres of public outdoor recreational space, more than the 6,012 acres noted above.

The City's *Public Outdoor Recreation Plan* does not suggest that the City undertake a large-scale acquisition program to meet this deficit. Rather, it states that the deficit can be compensated for by the number of acres of County parks located in the City and through the recreational areas of local parochial schools, colleges, universities and other private facilities.

The *Plan* includes a Local Action Plan which identifies six recommendations to direct the development and operations of the City's public recreation areas. The recommendations are: 1) monitor maintenance needs; 2) extend the use of existing sites; 3) assess the costs and benefits of acquisition, improvement and disposition proposals; 4) work with other government

and private organizations to improve public access to natural resource areas; 5) study the current usage of public outdoor recreational facilities; and 6) use the safest and most technically advanced recreation systems.

The City's *Public Recreation Plan* identifies special projects to be undertaken, *e.g.,* the riverwalk along the Milwaukee River, lakefront-related improvements and updating the Hawthorn Glen Environmental Center on North 60th Street. It also identifies totlots, playfields and playlots to be rehabilitated and new totlots to be constructed between 1994 and 1998. Several of the rehabilitation and new construction projects are in the Menomonee Valley Study Area. Rehabilitation projects include the renovation of the totlot at 35th and Pierce Streets and reconstruction of the tennis courts at Merrill Park, located at 35th and Clybourn Streets. Both of these are given a priority ranking of three (priority one projects will be completed first). The construction of totlots is recommended for Kagel School at 12th Street and Mineral (immediately south of National Avenue) and at the Wisconsin Avenue School at 27th Street and Wisconsin Avenue.

- **Milwaukee County Parks.** According to *A Park and Open Space Plan for Milwaukee County,* completed by SEWRPC in November 1991, the County's park and parkway system is comprised of 140 sites, totaling 14,725 acres. Of these, 128 sites with 7,217 acres are regional, community, neighborhood, and central business district parks and greenspots; the remainder is parkways. The parks and parkways are located throughout the county. Regional, community and neighborhood parks are defined below.

  Regional (250 acres or more) - Large outdoor recreation areas with a multi-county service area. Regional parks are largely dependent upon their natural resource amenities to provide recreational opportunities.

  Multi-Community (100-250 acres) - Intermediate size parks with a countywide or multi-community service area. Community parks also rely on their natural resource amenities; recreational opportunities are less than in regional parks.

  Community (25-99 acres) - Intermediate size parks with a multi-neighborhood service area. Community parks rely upon developed uses, such as swimming pools and tennis courts, to provide recreational opportunities.

  Neighborhood/School Recreation Area (less than 25 acres) - Small sites which serve a neighborhood. These parks offer intensive nonresource-related recreational opportunities.

The County's parks offer a wide range of recreational activities and facilities, including five swimming beaches; 20 swimming pools; 42 wading pools; 17 skating rinks and eight regulation 18-hole and eight par-three hole golf courses.

Forty-four (44) of the County's parks have picnic areas; 34 parks have tennis courts; 58 have softball diamonds; 25 have baseball diamonds and 46 have basketball courts. There also are several special recreational facilities which include the horticultural conservatory at Mitchell Park (located in the Menomonee Valley Study Area) and the botanical gardens at Whitnall Park. The County also maintains a number of biking trails along the rivers and in environmental corridors.

A Park and Open Space Plan for Milwaukee County includes recommendations for the preservation, acquisition and development of parks and open space through the year 2000. *The Plan* recommends that the County continue to provide and maintain its regional and major parks, including Brown Deer Park, Lincoln Park, Greenfield Park and Lake Michigan North and South Parks. It also recommends that the County should expand and develop Bender and Oakwood Parks in the southern part of the County, and that it develop four undeveloped parks, Franklin, Falk and Grobschmidt Parks in the southern part of the County, and Park Site 72 in the extreme northwest of the County. Recommendations are made to maintain and improve the County's special recreation sites, which include Mitchell Park and the Milwaukee County Zoo and Stadium.

Also noted are improvements for the Menomonee River Corridor in the northwestern portion of the County, between Waukesha County and the Underwood Creek corridor. These include developing hiking and biking trails and nature areas. A recommendation is also made to develop a seven mile bike route in the Menomonee River Valley, from Hoyt Park to Lake Michigan North Park.

The County's park and open space acquisition objectives recommend that an adequate number and distribution of local park and open spaces be located in the urban areas. Locations are noted where community and neighborhood park facilities should be provided. According to the County's *Park and Open Space Plan,* no additional community and neighborhood parks are needed to serve the residents of the Menomonee Valley Study Area and adjacent neighborhoods.

Existing Uses In The Menomonee Valley Study Area

As was described in the ***Economics Conditions*** section of this report, the Menomonee Valley Study Area is composed the Menomonee Valley and of an area that extends to Wisconsin Avenue on the north, Milwaukee River on the east, National Avenue on the south and Hawley Road on the west.

A number of different uses are located in the Study Area, including manufacturing; wholesale trade (warehouse and distribution); retail; financial, business and professional services; medical and educational institutions; entertainment and recreation facilities; parks, and uses that are government-related. The Study Area also contains residential uses, including college dormitories, single and multi-family housing, and living quarters in the Veteran's Administration Center.

Industrial Uses

The predominant use located in the Menomonee Valley is manufacturing. The Menomonee Valley has been the home to major industrial companies since the late 1800s, and it is still the home to a significant component of Milwaukee's manufacturing base.

Based upon the key person and employer interviews and the business owner surveys conducted for this study, manufacturers in the Valley are well-established and have stable or growing businesses. A number of the companies have been located in the Valley since the late 1800s and early 1900s. The majority of other companies have been located in the Menomonee Valley for 10 years or more.

According to American Business Systems, Inc. (See ***Economics Conditions*** section of this report), there are 53 manufacturers with 2,747 employees in the Menomonee Valley (Census Tract 132) and 136 manufacturers with 7,213 employees in the greater Study Area. There is a wide range of manufacturers producing a diverse array of products. These include food processors; scrap metal recyclers; and those who make machinery and equipment; tanning and leather products; school and office furniture; ready-mix concrete, sand and gravel; marine wall panel and insulation supplies.

There are several unique manufacturers with national and international customers, including Aldrich Chemical, Cerac and Emmpak. Aldrich Chemical conducts organic chemical research, manufacturing and distribution. Cerac produces specialty inorganic chemicals and other evaporating materials for a variety of uses, including the optical coatings for the carbon dioxide lasers used in medical applications and military defense;

coatings for semiconductor chips and computer hard drives; rechargeable and specialty batteries; high temperature resistant coatings for the space shuttle and aerospace; and anti-counterfeiting of currency and security documents. Emmpak is one of the prime meat processors in Milwaukee. Its Valley operations include animal slaughtering, food processing, freezer storage and research and development (R&D).

The markets for the Valley's manufacturers range from the Milwaukee metropolitan area to worldwide, and the materials and supplies for their products come from local suppliers and throughout the nation. One company that responded to the survey imports cane sugar from Central America. The Menomonee Valley is the headquarters location for companies with national and international markets, including Cerac, Falk, Emmpak, Aldrich Chemical, and Red Star Yeast.

The manufacturers range in size from several thousand square feet to Emmpak, which has seven buildings and owns 47 acres, and Falk with nearly 1.2 million square feet on 52 acres.

A number of the manufacturing companies have plans to expand their facilities and/or upgrade their operations. Specifically, Cerac would like to add manufacturing and R&D space as well as parking for its employees and customers.

Emmpak is studying the feasibility of adding an 88,000 square foot distribution center. If constructed, the company would add a rail spur to obtain access to the Milwaukee port for shipping overseas. This would be a $10 to $13 million investment. Emmpak is currently adding 4,000 square feet of production space. It had been studying the feasibility of bringing a steam line to its facility from the Wisconsin Electric power plant in the Menomonee Valley, but put the project "on hold" because of the costs involved. The company is still very interested in accessing a steam line, and would be interested in working jointly with others in the Menomonee Valley, the City, State and with Wisconsin Electric to bring a steam line through the Valley.

Other industrial-related uses in the Menomonee Valley include wholesale trade operations which are showrooms, warehouses and/or distributors of both durable and non-durable goods; motor freight transportation facilities and warehouses; sand and salt storage yards; and scrap metal hauling and storage. The Menomonee Valley is also home to the Milwaukee Stockyards, which provides beef to Emmpak and livestock to other companies.

Retail Uses

The Menomonee Valley has a limited number of retail establishments. According to American Business Information, Inc. (ABI), there are 38 retail establishments, employing 506 and with retail sales of $28 million. (See Table 16 on the following page.) Excluding miscellaneous retail facilities, the largest retail category (based on number of establishments and employees) is furniture, furnishings and equipment. According to ABI, there are only four eating and drinking establishments in the Valley. Although the number of stores is limited, Valley employers report in the interviews and surveys conducted for this study that additional retail establishments are not as important for their operations as are job training, education and building improvements.

As can be seen in Table 16, the number of retail establishments grows when the total Study Area is considered. ABI reports that there are 463 retail establishments with 6,708 employees and retail sales of $417 million in the Menomonee Valley Study Area. The newly-opened Pic'n Save/Mega Mart sales are not included in the sales total. Of the $417 million, nearly 26 percent is generated by auto-oriented convenience uses that are frequented by local residents and businesses and others driving through the area. Shopping and convenience goods stores, such as general merchandise, food stores and eating and drinking establishments, typically generate greater percentages of total retail sales than are shown in Table 16.

Residents of the Study Area shop for retail goods and services at the establishments located in the National Avenue and Wisconsin Avenue commercial corridors where the majority of the stores in the Study Area are located. Along Wisconsin Avenue and the adjacent arterials are fast food outlets, restaurants, clothing and accessory stores, book stores, video stores, computer stores, other miscellaneous retail and convenience stores, gas stations and a wide range of service establishments, such as banks, printers, copy shops, etc. These businesses largely serve the students and faculty of Marquette University and the residents of the surrounding neighborhoods. They also are patronized by those driving through the area.

Table 16
RETAIL USES AND RETAIL SALES (in millions)
MENOMONEE VALLEY AND THE MENOMONEE VALLEY STUDY AREA

	Menomonee Valley [1]				Menomonee Valley Study Area [2]			
Business Description	**Businesses**	**Employees**	**Retail Sales**	**Percent of Total Sales**	**Businesses**	**Employees**	**Retail Sales**	**Percent of Total Sales**
Building Materials, Garden Supplies	1	30	$5.0	17.9%	9	80	$12.0	2.9%
General Merchandise Stores	0	0	$0.0	0.0%	9	1,986	$37.0	8.9%
Food Stores [3]	5	6	$1.0	3.6%	46	389	$37.0	8.9%
Auto Dealers & Gas Service Stations	5	20	$3.0	10.7%	29	368	$108.0	25.9%
Apparel and Accessory Stores	3	19	$1.0	3.6%	64	399	$37.0	8.9%
Furniture/Furnishings & Equipment	7	238	$2.0	7.1%	40	430	$36.0	8.6%
Eating and Drinking Places	4	18	$0.0	0.0%	162	1,946	$66.0	15.8%
Miscellaneous Retail	13	175	$16.0	57.1%	104	1,110	$84.0	20.1%
Total	38	506	$28.0	100.0%	463	6,'708	$417.0	100.0%

[1] The Menomonee Valley is Census Tract 132
[2] The Menomonee Valley Study Area is composed of Census Tracts 125, 131, 132, 133, 134, 149, 150, 151, 152, 155, 156, 157, 158, 159 and 160.
[3] Does not include new Mega Mart that recently opened at National Avenue and 20th Street.

Source: Claritas, Inc. using database from American Business Information, Inc.

Many of the establishments in the National Avenue commercial corridor are small owner-operated "mom and pop" stores with an ethnic orientation. They largely serve the growing Hispanic and Asian residents in the nearby neighborhoods and from other areas in Milwaukee. Some shop at these stores daily to purchase food, clothing and accessories, gifts, books and other retail goods. Study Area residents also patronize the other retail shopping and convenience businesses, gas stations and service establishments along National Avenue and the adjacent arterials. These businesses also are patronized by those driving through the area.

In addition, residents of the Study Area shop at the new Pick N Save in the Mega Mart which opened at National Avenue and 20th Street. The Pick N Save and the Mega Mart's other uses provide Study Area residents, especially those living south of the Menomonee Valley, with their first opportunity to shop for lower-priced goods and services in a new big-box store located close to home.

Study Area residents also shop at the discount centers, power centers and big-box retailers along East Capitol Drive on the northern edge of the City of Milwaukee, along Chase Avenue and Interstate 94 (south of the downtown), and in other locations outside the Study Area but within the City. While their purchasing dollars are leaving the Study Area, they are staying in the City, enabling Milwaukee to benefit from local sales tax revenue. And, like others living in the Milwaukee region, Study Area residents shop at the regional malls, big-box stores, power, off-price and discount centers, and at stores in the commercial corridors, such as Blue Mound Road, located throughout the region.

Representatives of the local community-based organizations voice legitimate concerns that the large national and regional chain retailers, the big-box stores and the category killer chains are taking sales from the local "mom and pop" business owners and entrepreneurs along National Avenue, Wisconsin Avenue and in other commercial corridors in the city. These larger companies often can provide less expensive goods than the local retailer, due to economies of scale, technological advancements within the manufacturing, transportation and retail industries, and globalization.

The Polachek Company in its *1997 Retail Market Survey* reports regional and national chains are looking in the Milwaukee area for new locations. Much of this new development will likely occur on infill sites in the suburbs and the City or adjacent to existing regional malls and other shopping centers. Other than in infill locations, such as 20th Street and National Avenue site

for the new Mega Mart, the City has very few vacant available sites to accommodate large-scale retail development which might include some of these chains. While some of the vacant and underutilized sites in the Menomonee Valley might be suggested as possible retail locations because of their size and future availability, vehicular, bus and transportation access to these sites is constrained. Sites located on top of the bluff overlooking the Menomonee Valley on the north, sites located closer to where residents live, and sites located along major established commercial corridors are more appropriate locations for retail centers and commercial uses.

Office Uses

The newest competitive office space in the Menomonee Valley Study Area is located in the Tannery Urban Living and Business Center on West Virginia Street in the southeast portion of the Study Area.

The Tannery is the former Pfister & Vogel leather tannery that is being redeveloped for commercial and residential use. The Tannery occupies 18 acres. The fourteen former tannery buildings have 900,000 square feet of space. Residences will be located in the six buildings that are adjacent to the Burnham Canal and north of the railroad tracks that bisect the property. Commercial uses are located in the remainder of the buildings, south of the railroad tracks. The Tannery campus is a tax increment financing (TIF) district that was approved in 1995. TIF revenues have been used to bury utilities and add necessary infrastructure. All the grounds are monitored by 24-hour security.

Redevelopment of the commercial buildings began about two and one half years ago. The buildings total 400,000 square feet, and they are virtually 100 percent leased. This rapid leasing pace has overcome a lot of skepticism about the project and its location. Tenants who have moved to the Tannery include The Milwaukee Business Journal, PrimeCo (wireless communications), Compuware, Allied Computer and other similar types of tenants.

The Tannery markets itself as Class B office space. Its biggest competitors are similarly redeveloped buildings in the Third Ward and Walker's Point, Schlitz Park and older buildings in the western suburbs. Its rental rate is $13 to $15 per square foot, and includes everything but electricity. The Tannery charges for parking (discounted now to $50 to $60 per month) because a parking deck may need to be constructed in the future. Other amenities already completed include a 10,000 square foot daycare and small deli and sundry shop. A "full-fledged" restaurant(s) and small onsite

fitness center may also be added.

The 100 residential units will be bi-level and tri-level lofts of approximately 1,000 to 1,400 square feet. The rent is projected to be $900 to $3,000 per month. Each loft will be custom-built. Currently, 15 lofts are finished and occupied, and there is a waiting list.

The success of The Tannery Urban Living and Business Center is significant. It illustrates how an obsolete building complex in a largely industrial area can be successfully renovated and leased, over a very short time period, for commercial office space to well-established major tenants. It is anticipated that the residential lofts will be as successful and well-received as The Tannery's commercial space.

The Tannery is also significant because it represents a potential "turning point" for the area in which it is located, an area that lies between the revitalizing Historic Third Ward and the industrial uses in the heart of the Menomonee Valley. According to the developer, several similar types of buildings near The Tannery have redevelopment potential. In time, if these are redeveloped into viable commercial space, retail stores, restaurants, etc., like The Tannery, they would attract employees, residents, shoppers and visitors, and help revitalize this neighborhood and this portion of the Menomonee Valley Study Area.

Entertainment

The Potawatomi Bingo and Gaming Casino opened in the Valley in 1991. In February 1997, the Potawatomi tribe bought out the operator and now has full administrative and operating control of the bingo and gaming casino. The casino has 1,600 seats for bingo and 200 slot machines. It is open 24 hours a day for the slot machines and offers three daily bingo sessions of two hours each during the week and four sessions per day on the weekend. There is also a complete kitchen and cafeteria in the facility. The bingo and gaming casino provides its own security. All corporate and administrative functions are located in a building rented from Emmpak.

The Potawatomi Bingo and Gaming Casino has 450 full time employees and an annual payroll of $9.0 million. Employee salaries average $18,000 to $20,000 per year, and health insurance is provided. According to a survey provided by the Forest County Potawatomi Gaming Commission, 40 percent of the employees were unemployed or working part-time before beginning work at the casino. Many of the employees live in the adjacent neighborhoods. The survey reports 52 percent live in two zip codes (53215

and 53204) in the area bounded by Morgan Street on the south, 43rd Street on the west, and I-94 on the north and east. The others live in 36 zip codes throughout the Milwaukee area.

The Potawatomi Casino attracts 1.5 million visitors annually from throughout Wisconsin and other states. Of the annual revenues generated by the casino, $20 million goes to the Indian school in Milwaukee.

The Potawatomi wish to expand their facility and add unlimited slot machines and blackjack. The expansion would boost employment to 850. In order to expand, a revision to its State compact is needed. The tribe will be seeking this revision in its new compact with the State of Wisconsin. Negotiations began in late 1997.

If allowed to expand, the Potawatomi tribe will need to determine where the expansion will occur because its existing casino and parking lot are land-locked. The tribe is considering the possibility of building its expansion on its parking lot, purchasing additional property from adjacent property owners, and/or becoming a party to a speculative hotel entertainment development complex proposed by an out-of-town developer.

Parks and Recreation

- **Public Parks.** Mitchell Park, a special regional recreation site in Milwaukee County's park system, is located in the Menomonee Valley Study Area in the northeast quadrant of the South Layton Boulevard (27th Street) and West Pierce Streets intersection. Mitchell Park is a 61-acre park and home to the Domes, a magnificent horticultural conservatory, which is popular with residents throughout the region as well as visitors to Milwaukee. According to a market survey completed in 1991, between 225,000 and 235,000 persons visit the Domes annually. A representative of Milwaukee County estimates current visitor attendance at 225,000. Mitchell Park also has softball and football fields, basketball courts, ice skating, three picnic areas, four tennis courts and a wading pool.

Milwaukee County also owns and manages other parks in the Menomonee Valley Study Area. In the far northwest corner of the Study Area (northwest of the I-94/U.S. Highway 41 intersection) are Bluff Park (seven acres) at Story and I-94, and Mitchell Boulevard Park (15.6 acres) at 51st Street and Blue Mound Road. Located east of this intersection is Valley Park (1.7 acres) at 42nd Street and Mt. Vernon Avenue. The latter has a basketball court. Two neighborhood parks are located immediately south of

National Avenue, the southern boundary of the Study Area: Clark Square (2.1 acres) at 23rd Street and Mineral, and Walker Square (2.1 acres) at 9th Street and Mineral. Both of these have wading pools.

The City of Milwaukee owns and manages several public recreation areas outside the heart of the Menomonee Valley but within the boundaries of the Study Area. Merrill Park at 35th and Clybourn Streets has a 12-acre playfield with a play area, softball and baseball diamond, basketball and tennis courts, and an area for football, soccer and rugby. Two 2-acre playgrounds are found at Hawley Environmental School at Hawley and Wisconsin Avenues and at the Wisconsin Avenue School at Wisconsin Avenue and 27th Street. The Hawley Environmental School has a play area and basketball courts. The Wisconsin Avenue School only has basketball courts. These three public recreation areas are north of the Valley.

South of the Menomonee Valley along or near National Avenue, there are playgrounds at Kagel School (4 acres) at 12th Street and Mineral, Longfellow School (4 acres) at 21st Street and Mineral and Vieu School (2 acres) at 3rd Street and National Avenue. Kagel School has a softball/ baseball diamond and an area for football, soccer and rugby; Longfellow School has basketball courts. Vieu School has a play area, basketball and tennis courts. In addition to these, the Milwaukee Trade and Technical High School at 3rd and Bruce Streets has a two-acre playground with an area for football, soccer and rugby. There are playlots at 4th Street and Mineral and at 35th and Pierce Streets. Playgrounds, playfields and playlots are also found at the public schools and in the neighborhoods located south of the Study Area boundaries.

- **Private Athletic Fields.** In addition to these public recreation areas, Marquette University has its athletic fields in the Menomonee Valley. The athletic fields include an eight-lane track which surround a football field, a natural turf soccer field and a clubhouse. The athletic fields are used for intercollegiate programs and intramural sports, and others can use them. Marquette would like to expand the fields in order to accommodate field events, such as the javelin, discus and hammer throws. It also would like to add a soccer field practice area. Marquette's preference is to expand near the existing athletic fields by acquiring property from nearby landowners, such as CMC or Tews.

A second private recreation area in the Valley is the Latino Sports Association Soccer Field, located near 6th and Canal Streets.

- **Milwaukee Brewers Stadium.** The Milwaukee Brewers Baseball

stadium is located at the western end of the Study Area, west of Highway 41. The Brewers are building a new stadium, Miller Park, which will be south of its existing facility. The new stadium will open at the beginning of the baseball season in 2000. Miller Park will have seating for 43,000, a decrease from the current 51,500, and a 13,000-car parking lot. Amenities will include a stadium club, luxury suites, Hall of Fame restaurant and brew pub. It is anticipated that the new stadium will be used year round for a variety of events, such as concerts, festivals, etc.

The State of Wisconsin is the landowner of all the property, which includes the approximate 48.1 acres transferred from CMC that was part of its Railroad Shops Property. There is a 99-year ground lease between the State and the Southeast Wisconsin Professional Baseball Park District.

The land transfer agreement between the State, CMC, Baseball Park District and the Milwaukee Brewers includes restrictive covenants that prohibit the development of certain types of commercial uses on specific properties by the Brewers Baseball Club. Permitted uses include parking, restrooms, concessions and related facilities; restaurants; facilities from which to sell sports-branded merchandise, which is primarily 80 percent team-branded; pro shop; sports museum; visitors information center; baseball and athletic fields; and fan-related interactive facilities, such as a batting cage. The covenants place a moratorium of 10 years on the development of other types of commercial uses. The moratorium begins when the South Access Road to the River East Parking Lot has been completed.

- **Henry Aaron State Park Trail.** A significant public recreational project that will impact the Menomonee Valley is the Henry Aaron State Park Trail. This will be a trail of approximately eight miles, stretching from the confluence of the Milwaukee and Menomonee Rivers on the east, through the Menomonee Valley to Milwaukee County's Hoyt Park on the west. Five (5) miles will be developed by DNR, from the trail's eastern end to Doyne Park. The County will be responsible for developing the remainder of the trail.

The Henry Aaron State Park Trail will be a non-motorized multi-purpose trail, with approximately six miles of riverwalk, a .5 acre vest pocket park on a City-owned site at Canal Street and Emmber Lane, and approximately six miles of river conservation areas with access points as well as pedestrian and multi-purpose trails. There will be fishing and boat access points in Hoyt and Jacobus Parks; at 45th Street east of Doyne Park and in a Future Integrated Planning Area. There also will be natural and cultural

interpretive sites. The State Park Trail plan identifies the Menomonee Valley as a Future Opportunity Area.

The Henry Aaron State Park Trail Feasibility Study, Master Plan and Environmental Assessment were approved the Department of Natural Resources Board in October, 1996, and by the Governor of Wisconsin in February, 1997. Funding for the Trail was recently approved. DNR is now authorized to spend $690,000 for wetland creation and streambank stabilization; trail development, including a river access and bridge; landscaping of the river banks and recreation areas, and for signs and other site amenities.

Market-Based Recommendations for The Menomonee Valley

Overview

The Menomonee Valley plays an important role in the City and region's economy. It is the home to a wide range of manufacturers as well as to warehouse and distribution and other types of companies. It also provides jobs for residents of the City and the metropolitan area.

Much of the Menomonee Valley east of the 35th Street viaduct is built-out with existing uses. However, there are several vacant and underutilized parcels in the Valley that might be redeveloped with new industrial and other types of uses once environmental assessments and requisite remediation occur. In light of the limited number of available sites and limited acreage in the City, the properties are an asset for the City. They provide potential locations to accommodate new and expanding businesses and industry.

Several of the vacant parcels are owned by CMC, the agency that acquired through receivership the properties of the bankrupt Milwaukee Road Railroad. The largest of the CMC properties is the Menomonee Valley Shops Property located west of the 35th Street viaduct. This is the former home of the Milwaukee Road Shops and Yards where, from 1880 and until the railroad went into bankruptcy, thousands of rail cars and locomotives were constructed and repaired.

Approximately 48.1 acres of the CMC Shops Property were transferred to the State of Wisconsin to accommodate the construction of the aforementioned new Brewer's stadium. The remainder of the property under CMC ownership totals approximately 141 acres. This total includes the CMC acreage west of 35th Street, the Lapham and Davies Yard east of 35th Street and the Airline Yard. CMC also owns the Plankinton Yard, Petit Point and Reed Street Yard properties in the Menomonee Valley. All of these have redevelopment potential. Other vacant and underutilized sites, not owned by CMC, are scattered throughout the Menomonee Valley. These also provide opportunities for future redevelopment.

The following narrative assesses the market-based redevelopment potentials for industrial, retail and office uses as well as parks and recreational facilities in the Menomonee Valley Study Area. The recommendations assume Phase I, II and III environmental assessments will

be undertaken and that requisite remediation will occur so that a base of "clean" properties can be available for marketing to prospective purchasers and users. However, since (through the public record) the environmental conditions of many potential redevelopment sites are unknown, the market-based recommendations could be affected by the environmental conditions of the property in the Menomonee Valley.

Industrial Potentials

Manufacturing is a very important component of Milwaukee's economy. According to Dun & Bradstreet, in 1997, manufacturing comprises over 25 percent of the City's employment base and more than 23 percent of the region's. In comparison, it composes only 16 percent of the nation's employment base.

The Department of Commerce's *County Business Patterns* provides an historic perspective of the strength of manufacturing in the Milwaukee economy. According to this source, manufacturing comprised over 36 percent of the region's employment is 1980, more than 25 percent in 1990 and nearly 24 percent in 1994 (the most recent year for which data is available). In comparison, manufacturing composed over 28 percent of the nation's employment in 1980, approximately 21 percent in 1990 and nearly 19 percent in 1994, almost 25 percent less than in the Milwaukee region. Given Milwaukee's long heritage as a manufacturing region, it is more than likely that manufacturing will continue to play a significant role in the local area economy.

In terms of economic development, manufacturing will bring the greatest economic return to the City of Milwaukee. Manufacturing is an "export" or "basic" industry because its products are sold to consumers outside of the region, thereby bringing in outside expenditures and income and supporting many service and retail industries. The retail sector is at the opposite end of the economic development spectrum. It mainly serves local customers and redistributes income already in the community, rather than creating new income. Therefore, in any locale, targeting the manufacturing sector for growth is most beneficial. The City of Milwaukee has a competitive advantage and is blessed because it already has a strong manufacturing base from which to grow and expand in the future.

- **Projected Industrial Demand** (Shown in Table 17)

The projection of the amount of additional industrial space that will be needed to support future demand in the City of Milwaukee and the region

is based upon information obtained from SEWRPC, Dun & Bradstreet, the U.S. Department of Commerce and the Wisconsin Department of Workforce Development (DWD). The specific information, which is the basis for the projections, includes the following.

- The SEWRPC employment projections in its *2020 Recommended Land Use Plan* which show 1,037,400 jobs in the region and 408,800 jobs in the City. (Note: the SEWRPC projections are used because the agency is the only source projecting employment for both the region and the City.)
- The 1997 employment totals by Dun and Bradstreet which show employment of 794,384 in the region and 314,648 in the City.
- Manufacturing employment in 1990 and 1996 from DWD's *Employment and Wages Covered by Wisconsin's U.C. Law, 2nd Quarter 1990 and 1996.* The reports indicate manufacturing comprised 23.6 percent of the region's employment in 1990 and 22.1 percent in 1996 while wholesale trade comprised 6.0 percent of the region's employment in both 1990 and 1996.
- Manufacturing and wholesale trade employment from the Department of Commerce's *County Business Patterns* which shows:

Employment Sector	1980	1990	1994	2005 Proj.
Manufacturing				
Milwaukee Region	36.4%	25.5%	23.9%	N.a.
U.S.	28.6%	20.7%	18.8%	15.6%
Wholesale Trade				
Milwaukee Region	6.3%	6.5%	6.6%	n.a.
U.S.	7.0%	6.8%	6.6%	6.0%

- Thus, based on the aforementioned employment data and projections from *County Business Patterns,* DWD and Dun & Bradstreet, it is assumed in the industrial demand calculations in Table 17 that manufacturing will compose 20 percent of the region's employment and

23 percent of the City's employment, and that wholesale trade will be 6.0 percent of the region's employment and 5.0 percent of the City's employment in the 1998 to 2020 industrial demand projection period.

Additional assumptions and information are also used in the industrial demand projections shown in Table 17. These include the following.

- The square foot demand per employee is based upon the Urban Land Institute's, *Business and Industrial Park Handbook*. That is, square feet per employee is 624 square feet for light industrial, 485 square feet for research and development, and 724 square feet for industrial service, for an average of 611 square feet per employee for manufacturing-related uses, and 2,746 square feet per employee for warehouse uses.
- Vacant industrial space is based upon The Polachek Company's *1997 Real Estate Market Survey* which shows vacant industrial space totals 6,927,649 square feet in the region and 3,291,086 square feet in the city.
- Vacant acreage is based upon the 1997 *Business Resource Guide for Metropolitan Milwaukee,* published by the Metropolitan Milwaukee Association of Commerce.
- To be conservative, a vacancy rate of 7.0 percent is assumed for industrial space in the City and region, rather than the 1997 vacancy rate of 3.5 percent, noted in the Polachek report.
- An industrial floor area ratio (FAR) of 0.3 is assumed. Industrial FARs generally range between .25 and .35.

The industrial demand calculations are presented in Table 17. The formula for the calculations in the table is on the following page. The definitions of the symbols used in the formula are found below.

Proj. Emp. = Projected Employment

Emp. - 1997 Employment

Add'l. Emp. = Projected Gain in Employment between 1998 and 2020

20%=Assumed Percent in Manufacturing in the Region, 1998 to 2020

23%=Assumed Percent in Manufacturing in the City, 1998 to 2020

Man. Emp. = Assumed Additional Employment in Manufacturing between 1998 and 2020

611 s.f. = Square Feet Standard per Manufacturing Employee

Man. s.f. = Projected Additional Manufacturing S.F. Demand between 1998 and 2020

6% = Assumed Percent in Wholesale Trade in Region, 1998 to 2020

5% = Assumed Percent in Wholesale Trade in City, 1998 to 2020

W.T. Emp. = Projected Additional Employment in Wholesale Trade between 1998 and 2020

2,746 s.f. = Square Feet Standard per Wholesale Trade Employee

W.T. s.f.= Projected Additional Wholesale Trade S.F. Demand between 1998 and 2020.

Total s.f. = Total Projected Manufacturing and Wholesale Trade S.F. Demand between 1998 and 2020.

Vac. s.f. = Vacant Industrial S.F. in 1998

Proj. Dem. = Total Projected Unmet Industrial Demand S.F. between 1998 and 2020

.3 = Assumed Industrial Floor Area Ratio in S.F.

43,560 = S.F. per Acre

Tot. A. = Total Projected Industrial Demand in Acres between 1998 and 2020

Vac. A. = Available Acres in Industrial Parks in 1997

Proj. A. = Projected Industrial Demand in Acres between 1998 and 2020

Prop. A. = Acreage in Industrial Parks Currently Being Planned by City

Net A. = Projected Net Acre Demand between 1998 and 2020

23=Number of Years in 1998 to 2020 Period

A/Yr = Annual Acres per Year Absorbed over the 1998 to 2020 period.

Note: The following formula is for the industrial demand projection for the City of Milwaukee. The formula for projected industrial demand in the region would be the same, but it would incorporate the assumed percent employed in manufacturing and wholesale trade in the region, rather than in the City.

- **Formula for Industrial Demand Projections (City) in Table 17**

	Proj. Emp.
minus	- Emp.
equals	=Add'l. Emp.
times	x 23%
equals	= Man. Emp.
times	x 611 s.f.
equals	= Man. s.f.
	Add'l. Emp.
times	x 5%
equals	= W.T. Emp.
times	x 2,746 s.f.
equals	= W.T. s.f.
	Man. s.f.
plus	+ W.T. s.f.
equals	= Total s.f.
minus	- Vac. s.f.
equals	= Proj. Dem.
divided by	/ .3
equals	= Proj. Dem. s.f.
divided by	/ 43,560
equals	= Tot. A.
minus	- Vac. A.
equals	= Proj. A.
minus	- Prop. A.
equals	= Net A
divided by	/ 23
equals	= A./Yr.

Table 17
Projected Industrial Potentials: Milwaukee Region and City of Milwaukee

	2020	
	Region	City
Projected Employment in 2020 [1]	1,037,400	408,800
Employment in 1997 [2]	794,384	314,648
Projected Gain in Employment 1998-2000	243,016	94,152
Assumed Percent in Manufacturing [3]	20%	23%
Assumed Additional Employment in Manufacturing, 1998-2000	48,603	21,655
Square Feet per Manufacturing Employment [4]	611	611
Total Projected Manufacturing Square Foot Demand, 1998-2000	29,696,555	13,231,181
Assumed Percent in Wholesale Trade [3]	6%	5%
Assumed Additional Employment in Wholesale Trade, 1998-2000	14581.0	4707.6
Square Feet per Wholesale Trade Employee [4]	2,746	2,746
Total Projected Wholesale Trade Square Foot Demand, 1998-2000	40,039,316	12,927,070
Total Projected Industrial (Mfg. & W.T.) Square Foot Demand, 1998-2000	69,735,871.4	26,158,250.2
Less Vacant Industrial Square Feet in 1997 [5]	6,927,649.0	3,291,086.0
Total Projected Unmet Demand	62,808,222	22,867,164
Assumed 7% Vacancy Factor [6]	67,204,798	24,467,866
Projected FAR	0.3	0.3
Total Projected Acre Demand 1998-2000	5,142.7	1,872.3
Less Available Acres in Industrial Parks, 1997[7]	2,516.4	86.7
Projected Acre Demand 1998-2000	2,626.3	1,785.6
Less Acreage in City's Proposed Industrial Parks [8]	164.0	164.0
Projected Net Acre Demand, 1998-2000	2,462.3	1,621.6
Annual Acreage to be Absorbed per Year, 1998 to 2020	**107.1**	**70.5**

[1] Southeastern Wisconsin Regional Planning Commission
[2] Dun & Bradstreet
[3] See ***Market Overview*** section of the report.
[4] Urban Land Institute, *Business and Industrial Park Handbook,* Average square feet per employee is 624 square feet for light industrial, 485 square feet for research & development, and 724 square feet for industrial service uses, for an average of 611 square feet per employee for manufacturing-related uses, and 2,746 square feet per employee for warehouse uses.
[5] The Polachek Company, *1997 Real Estate Market Survey.*
[6] 7 percent vacancy rate is assumed to be conservative, rather than the 3.5 percent in the *1997 Real Estate Market Survey.*
[7] *1997 Business Resource Guide for Metropolitan Milwaukee,* Metropolitan Milwaukee Association of Commerce adjusted for vacant acreage in city in improved industrial parks, January, 1998.
[8] Department of City Development, March, 1998

Source: Lockwood Greene Consulting

As can be seen from Table 17, total unmet industrial demand is projected to exceed 62.8 million square feet in the region and be nearly 22.9 million square feet in the City over the 1998 to 2020 period. Multiplying the unmet demand figures by a seven percent vacancy rate increases total projected demand to 67.2 million square feet in the region and nearly 24.5 million square feet in the City. Based upon a 0.3 FAR, this translates to 5,142.7 acres of total unmet demand in the region and 1,872.3 acres of total unmet demand in the City over the 1998 to 2020 period.

Subtracting vacant acreage from the total unmet acreage demand produces the net unmet industrial demand in acres. This is 2,626.3 acres in the region and 1,785.6 acres in the City over the 1998 to 2020 period. The City recently approved development of the 64-acre Towne-Granville Corporate Park. In addition, two industrial parks totaling 100 acres are in the planning phase at the City's Department of City Development (DCD), and likely will be started over the next 12 to 24 months. Subtracting the 164 acres from the projected demand of 2,626.3 acres in the region and 1,785.6 acres in the City produces projected net demand of 2,462.3 acres in the region and 1,621.6 acres in the City through the 1998 to 2020 period.

Assuming the acreage is absorbed in equal increments over the 23 year 1998 to 2020 period, the region would absorb 107.1 acres per year to accommodate the projected gain in industrial employment. The City's absorption would be 70.5 acres per year. Thus, the annual average demand for industrial acreage is projected to be **107.1 acres in the region and 70.5 acres in the City**.

This projected demand could be satisfied by newly created industrial parks, existing and new single user industrial sites, and by existing non-obsolete industrial properties, not located in the improved industrial parks included in the demand projections in Table 17. The available acreage in the Menomonee Valley, if redeveloped for industrial uses, would help the City meet this projected demand for industrial space.

The Menomonee Valley has a number of strategic assets which support and enhance its redevelopment potentials for industrial uses. These include its highway and rail accessibility; proximity to the Downtown and Port of Milwaukee; accessibility to Mitchell Field; strong existing base of industrial-related companies; ability of existing Menomonee Valley businesses to attract technical, professional and managerial level employees; availability of utilities; availability of business support services; presence of colleges and universities; and City and regional support for economic development. The

Valley also benefits from an important underutilized asset- the local vocational and technical schools and community organizations which offer training and programs.

The Towne-Granville Corporate Park and the two industrial parks developed by private sector developers with City assistance should be used as models for the CMC Shops Property. This would enable the future industrial park to be most competitive to suburban and other industrial parks located in the City. The future industrial park should have a comprehensive plan; compatibility among operations; compatibility with the area's character; and design controls. It should also offer improved sites as the vast majority of companies with expansion and location needs do not like to look at sites in unimproved industrial parks.

Moreover, the future industrial park should be marketed to users which are similar to those located in the former Land Bank and City-assisted parks. This would include light manufacturing, wholesale trade and distribution uses, such as the Menomonee Valley's Standard Electric whose building might be a prototype for future wholesale trade facilities.

As previously noted, the City of Milwaukee is committed to retaining and expanding its industrial base through its own efforts as well as through partnerships with private developers to develop industrial parks. MEDC is also committed to retaining and expanding the City's industrial base. In 1997, the City transferred 66 acres of land and the capital reserves of the Land Bank to MEDC so that it could grow this important asset and use the properties to create employment and new investment opportunities.

MEDC's current land resource inventory totals 62.5 acres. According to information obtained from DCD, 260 acres in the former Land Bank were purchased in the 10 year 1988 to 1997 period, for an average rate of 26 acres per year. Based upon this sales pace, the 62.5 acres of available MEDC land could be sold in approximately two and one-half years. (Note: according to DCD sources, the 26 acres per year is a conservative annual sales rate since the former Land Bank did not have much marketable property to sell in the past few years.)

In 1995-1996, the City assisted with the development of two privately-owned industrial parks, each of approximately 40 acres. Of this total, 53.7 acres have been sold, leaving an inventory of 26.3 acres. If these 26.3 acres are added to the current MEDC inventory of 62.5 acres, the 88.8 acres could be sold in approximately three and one-half years, based on a conservative

sales pace of 26 acres per year.

Table 17 shows a projected average annual demand in the City for approximately 70.5 acres per year between 1998 and 2020. Redeveloping the CMC Shops Property as an urban industrial park and redeveloping appropriate vacant and underutilized properties for industrial uses would help accommodate the projected long-term market demand for industrial acreage and industrial space in the City. The Menomonee Valley properties would also help meet the City's and MEDC's strategic objective of having 40 to 80 acres of available industrial land for new, existing, expanding and spin-off companies.

The greatest market potential in the Menomonee Valley is for the development of sites for industrial users similar to those located in the former Land Bank and City-assisted industrial parks, *e.g.*, light manufacturing, research and development, warehouse and showroom space, and distribution. These types of uses create job potential for unskilled, semi-skilled, technical and professional level employees and pay living wages.

Based upon the manufacturing companies already located in the Valley, potential types of uses include food processing; printing and publishing; furniture manufacturing and distribution; chemical-related research and manufacturing, similar to Aldrich Chemical and Cerac; industrial and commercial machinery and equipment; and industrial service and repair.

Another major resource for industrial development is the Wisconsin Electric Power Plant. This facility provides steam heat and has ample additional steam available for other users. The vacant land in proximity to the Plant would be highly suitable for steam-using manufacturing, such as food processing, and for other steam users, such as an industrial/commercial laundry.

It is also recommended that the sites be marketed for warehousing, showroom space, catalogue operations and distribution. The facilities for these types of operations should be similar to and of the quality of two newer Menomonee Valley businesses, Anderson Graphics and Standard Electric. In addition, a training facility, dedicated to Menomonee Valley employers, might also be established.

Retail Potentials

As previously described, there are a limited number of available sites to accommodate the new large scale retail development and big-box retail uses

in the close-in neighborhoods of the City. In addition, residents of these neighborhoods, like those in the Menomonee Valley Study Area, often travel from their neighborhood to do "price sensitive" shopping in the newer power centers and at big-box chains.

Based on this lack of "big box" retail development in the City of Milwaukee and its close-in neighborhoods, CMC proposes to develop a big-box shopping center on its Shops Property. This site will be made accessible through the roadway and parking improvements that will be undertaken in conjunction with the construction of the new Brewer's stadium.

The CMC proposal is supported by The Melaniphy Company of Chicago, which completed market studies (Spring 1996) for CMC for a big-box center and restaurant and entertainment uses on the CMC Shop site. The studies analyze the demand for the center based upon the general radial trade area criteria used by big-box retailers. That is, the primary market area consists of a radial area of three miles, which is the area generally used by supermarkets to assess development opportunities. The Menomonee Valley Study Area is located within the primary trade area. The secondary trade area is a three to five mile radial ring while the tertiary trade area is a five to ten mile radial area. The proposed trade areas for the CMC Shops Yard property are truncated on the east because of the Grand Avenue Mall in downtown Milwaukee, making their easternmost boundaries I-94.

The radial ring approach to defining shopping center trade areas is often used because it enables any type of retailer to obtain a quick understanding of a local marketplace. This approach does not take into full consideration such key factors as the location of existing competitive stores and shopping centers, natural and physical boundaries, trade area demographics, and accessibility and driving time, making it possible to underestimate or overestimate potential demand and retail sales. The proposed trade areas and demand calculations in the report for the CMC Shop site are based on the generic radial ring approach.

Based upon the trade area demographics, retail market activity, the limited number of retail uses in the primary market area, and projected market penetration (sales capture) rates, the Melaniphy study indicates that a 543,000 square foot big-box center could be supported on the CMC Shops site.

The report recommends that the first phase be 385,000 square feet with tenants that include a 65,000 square foot supermarket/drug store, a 125,000 square foot discount department store, and an electronics store, restaurants,

book store, office supply store, family entertainment center and miscellaneous retail stores. The second phase would total 158,000 square feet with tenant types that might include a promotional department store, home improvement store, cinema, sporting goods stores, restaurants and/or miscellaneous retail space.

There is a lack of neighborhood and community-type retail space to serve the residents of the Menomonee Valley Study Area and adjacent neighborhoods. However, the type of space proposed by CMC and studied by Melaniphy is inappropriate at this location and does not match the needs of the residents. Certain issues need to be considered when assessing the potential of developing a big-box retail center on the CMC Shops Property and in identifying the highest and best use of the CMC site.

The issues include the following:

1. **Zero Sum Game.** Industry experts agree that retail is a zero sum game, i.e., there is only a limited number of available purchasing dollars in a trade area. When new category killers, big-box stores and other types of retailers enter into the retail pie (*i.e.*, trade area), they take dollars away from existing merchants, whether or not they are small "mom and pops" or other category-killers and big-boxes. The sales revenues of the new entrants are generated at the expense of other retailers in the trade area, often putting existing stores out of business. This is why Phar-Mor, Comp USA, well-established Service Merchandise and other retailers are no longer in business, and why revenues have been so disappointing for the Super K Mart Center. The number of retail dollars available in a trade area cannot be expanded ad infinitum.

2. **Retail Areas in the City and Suburbs.** Construction of a big-box shopping center on the CMC Shops Property will pull retail sales from the Grand Avenue Mall in downtown Milwaukee as well as from the City's commercial corridors, like National and Wisconsin Avenues, and its business improvement districts (BIDs). Currently, the City of Milwaukee is committed to the success of the Grand Avenue Mall in the downtown and to stabilizing and improving its commercial corridors and BIDs, such as the Historic Dr. Martin Luther King BID. The proposed big-box center would also take sales away from West Milwaukee, West Allis and other suburban communities. The construction and opening of a big-box center on the CMC Shops Property would be done at the expense of all these existing shopping centers, downtowns, business improvement districts and commercial

areas.

3. **Economic Development Return.** The strategic goal of economic development is to target those industries that will bring the greatest economic return to an area or region. Manufacturing is at the high end of the economic development spectrum. It is an "export " or "basic" industry because its products are sold to consumers outside of the region, thereby bringing in outside expenditures and income and supporting many service and retail industries. The retail industry is at the low end of the economic development spectrum because it mainly serves local customers and redistributes income already in the community, rather than creating new income. Manufacturing will bring the greatest economic return to the City of Milwaukee, and the Car Shops and other sites in the Menomonee Valley are appropriate locations to accommodate additional manufacturing and related types of uses.

4. **Jobs.** A retail center is likely to generate lower paying, lower skilled jobs than those that would be created by manufacturing and other industrial-related uses that could be located in the Menomonee Valley. Manufacturing jobs also offer the greatest opportunity for linking employers, employees and future employees to vocational and technical training from schools and community groups to improve educational levels and skills. In addition, the number of jobs that are generated per square foot of manufacturing uses exceeds the number of jobs that are generated by the big-box uses proposed for the CMC retail center.

5. **Business Retention – Maintaining the Industrial Character of the Menomonee Valley.** Retail uses would conflict with the industrial character of the Menomonee Valley and the operations of the Valley's existing manufacturers and other related types of businesses. Establishing an industrial park would preserve the character of the Valley that is desired by existing employers and which would help retain them in their current Menomonee Valley locations. Business retention is just as important as new business attraction for the City of Milwaukee as 75 to 80 percent of growth in a local economy comes from existing businesses.

6. **Location.** The CMC Shops Property and other vacant and underutilized sites in the Menomonee Valley might be suggested as possible retail locations because of their size and future availability.

However, they are not located in a convenient accessible location since vehicular, bus, and pedestrian access to these sites is constrained. Other sites located on the bluff overlooking the Menomonee Valley, sites located in the City's commercial corridors, and sites located closer to where residents live are more appropriate locations for retail and commercial uses.

7. **Projected Retail Sales.** Retail sales in the CMC market study are likely over-projected since the study does not include the recently-opened Pic 'n Sav and Mega Mart located in the primary trade area at National Avenue and 20th Street.

8. **Accessibility.** Accessibility is an important location criterion for retail uses, and can significantly impact the profitability and viability of a retail center. Accessibility to the CMC Car Shops property, for a future retail center, is constrained. Accessibility is primarily dependent upon the construction of an access road from Highway 41 to the new stadium parking on the west side of the Highway. However, on game days, this roadway likely will be very busy and congested with cars driving to and from the parking lots. The site's secondary access would be by the proposed Canal Street extension through the Menomonee Valley, but construction of this roadway is not assured.

9. **Conflicts between the Uses.** A retail center's best shopping days and hours are weekend days and weekday nights. These are the times when many baseball games or other events are scheduled. Moreover, the proposed center will likely have restaurants, and a cinema and entertainment facilities are proposed. These types of uses are popular throughout the day, but they usually are busier during the evenings, especially on the weekends. These are times when special events, concerts, and other activities might be held at the stadium. These time-of-the day scheduling conflicts might cause traffic conflicts and congestion.

   Industrial park traffic is largely generated on weekdays between 7 A.M. and 9 P.M., quite different from the patterns for a retail center. An industrial park developed on the CMC Shops Property would cause fewer traffic conflicts and less congestion.

For these aforementioned reasons, the highest and best use of the CMC Shops Property is manufacturing and related industrial uses, not retail. The Shops Property should developed with industrial uses in an urban industrial park setting, similar to the former Land Bank industrial parks and

City-assisted parks developed by private sector developers.

Retail and service uses that support the businesses in the Menomonee Valley, such as eating establishments and office supplies, might be developed in highly visible and easily accessible locations around the periphery of the Valley. In addition, a limited number of supportive retail and service uses might be an amenity in an industrial park developed on the CMC Shops site. Businesses that could be included in the industrial park are a restaurant(s) with take-out service and/or delivery, a commissary that sells pharmacy-related goods, a dry cleaners and shoe repair, and a business repair service establishment.

Retail and service uses are also recommended for the southeast part of the Study Area near The Tannery Urban and Business Living Center. The developer of The Tannery would like to include a restaurant/bar in the complex. If additional former manufacturing buildings in that location are redeveloped with commercial and residential uses, restaurants, retail and service establishments would be appropriate at the sidewalk level. Possible types of uses include new or used book stores, second-hand stores, convenience grocery, dry cleaners, and a shoe and leather goods repair.

In addition, there are several riverfront sites, such as CMC's Reed Street Yard and Morton Salt, that might be redeveloped with specialty mixed-use developments, including specialty retail, restaurants, service and commercial uses, and possibly housing. Redevelopment with these types of uses in this portion of the Study Area could serve to connect the Menomonee Valley with the rejuvenating Historic Third Ward.

Office Potentials

The Menomonee Valley has limited competitive office space. The commercial space in The Tannery Urban Living and Business Center is the first competitive office space that has been redeveloped in the Menomonee Valley Study Area. It also is the first adaptive reuse project to be redeveloped for commercial and residential uses in an area composed of similar types of former manufacturing and related buildings. Within two and one-half years, its commercial space is 100 percent leased to tenants who include the Milwaukee Business Journal and PrimeCo. The Tannery has met with greater and quicker success than its developer anticipated.

A number of the vacant buildings in this southeastern portion of the Study Area near The Tannery have historic interest and character. Given the success of The Tannery, it is recommended that other buildings could be

rehabilitated for office and complementary service and commercial uses. Potential tenants might include insurance, accounting and medical/dental offices. These types of commercial and professional uses could serve the residents living in the Walker's Point neighborhood as well as those in The Tannery loft apartments and in any other residences developed in this area.

Parks, Recreation and Related Uses

Facilities for leisure activities represent another category of possible future uses for vacant or underutilized properties in the Menomonee Valley. As previously noted, one proposal envisions a hotel and entertainment complex which might possibly include a theme park.

The Consulting Team has not conducted a detailed review of the potential market for hotel and recreational facilities of this magnitude in the Valley because it is beyond the scope of this study. However, it is our conclusion that such developments would not be feasible in the absence of large-scale expenditures for infrastructure beyond those already planned to accommodate the new Brewer's Stadium, Miller Park. Further, a major recreational complex could seriously conflict with the operations of existing firms in the Valley, thereby jeopardizing their future expansion and long-term viability. Our surveys indicate that this concern is widely shared by Valley stakeholders.

The only tract large enough for a theme park would be the CMC Car Shops site. The same objections to the use of this site for a large retail center would apply with even greater force to a large recreational complex. Significant vehicular and pedestrian traffic would be generated in the western Valley, adding to the already heavy demands of Miller Park. This traffic would interfere with track and rail movements essential to the operation of Valley industries. The accompanying safety problems for recreational visitors would be both serious and difficult to solve. A rebuilding of the street and highway infrastructure of the Valley would be needed to make traffic flows to a major recreational complex, in addition to Miller Park, compatible with the traffic generated by Valley industries.

As in the case of a retail center, the jobs created by a recreational facility would typically provide lower pay and benefits and less stability than would industrial jobs. Finally there is serious doubt that a site in the western Menomonee Valley would be attractive to the family recreation seekers who attend events on the Lakefront or travel to the Great America theme park, just south of the Wisconsin-Illinois state line. Even if access issues could be resolved, the heavily traveled overpasses, frequent and

noisy truck and train movements at ground level, massive industrial buildings and inevitable industrial odors in the western part of the Valley would create a less than inviting setting for a large-scale leisure activity.

The proposed expansion of the Potawatomi Casino in the vicinity of 16th and Canal Streets would also have significant impacts. While a substantial number of new jobs would be created, auto and bus traffic into the Valley would greatly increase. An assessment of the feasibility and desirability of this expansion must take into account the opposition to gambling on moral and social grounds, and the uncertainty about future changes in the tribal compact with the State of Wisconsin. The moral, social and political issues related to Indian casino gaming are not within the scope of this study.

In contrast to large-scale developments, an expansion of less intensive recreational uses would be compatible with physical conditions in the Valley. Such uses could include biking, nature walks, boating, fishing and outdoor games. The Henry Aaron State Park Trail will provide opportunities for residents to engage in these passive recreational activities. While many of the Valley employers interviewed and surveyed indicate they are concerned about the Henry Aaron State Park Trail, especially its segment which will extend through the heavily industrial built-out area of the Valley, they would welcome the creation of more green space.

Green space and outdoor recreation facilities could be expanded or created at relatively low cost and would greatly enhance the appearance and image of the Valley. This would contribute to the long-term economic viability of the Valley by making it a more appealing place to work and visit.

The undeveloped portions of the riverbank, which already have extensive natural vegetation, offer significant potential for the future expansion of green space and related recreation. Due to its location in the floodplain and its environmental conditions, the CMC Car Shops Property would be suitable for low impact recreational facilities, such as ball fields, soccer fields, bike and walking paths and an exercise course. These could be developed on the property, on an interim basis, as a means of landbanking the acreage until any necessary environmental remediation is completed and industrial demand for the property exists. They also could be temporary amenities of a future industrial park or permanent amenities that are used advantageously for marketing initiatives.

Specific tracts suitable for future green space and outdoor recreational development in the Menomonee Valley are identified in the ***Land Use***

Analysis.

Summary of Recommendations

Based upon the assessment in this ***Market Overview,*** the Consulting Team's market-based recommendations for industrial, retail, office/service and park uses in the Menomonee Valley Study Area are summarized below. These recommendations should enable the City of Milwaukee to enhance and grow its competitive position in the region's economy, and focus on retaining the Menomonee Valley as a vibrant industrial center in the heart of the City of Milwaukee. Recommendations are also included for parks and recreational types of uses and opportunities.

- **Industrial Development** - Industrial uses, *e.g.*, light manufacturing, research and development, warehousing, showrooms, and similar uses, should be developed on selected vacant and underutilized sites (See ***Land-Use Analysis***).

- **Industrial Park** - A planned industrial park, comparable to those in the City's former Land Bank program and to the industrial parks developed by the private sector with City assistance, should be developed on the CMC Shops Property by CMC. Appropriate uses in the industrial park would include light manufacturing, research and development, warehousing, showrooms, distribution facilities, and complementary offices. A training facility for Menomonee Valley employers and employees might also be established.

- **Retail and Service Uses** - Limited retail and services uses could be developed as a component of the prospective industrial park as well as in highly visible and accessible locations around the periphery of the Valley. These uses could support the businesses located in the heart of the Menomonee Valley. Representative types of uses include restaurants, office supplies, and repair shops.

- **Specialty Retail and Support Services** - Uses such as restaurants, new and used bookstores, secondhand stores, and craft shops would be appropriate in the southeast part of the Study Area near The Tannery Urban and Business Living Center. These might be located as first floor uses in buildings redeveloped similar to The Tannery, or they could be components of mixed-use River redevelopment sites. This type of development would link the Menomonee Valley with Walker's Point

and the rejuvenating Historic Third Ward.

- **Office** - A number of buildings near The Tannery complex might be suitable for adaptive reuse and conversion to office space for commercial and professional tenants. Some of the buildings are vacant, and many have historic interest and character. By redeveloping them for office and service use, such as accountant's offices or medical/dental space, the business could serve others in the area as well as the residents of the Walker's Point neighborhood and the future residents of mixed-use projects, like The Tannery.

- **Parks and Open Space** - Green space and outdoor recreation facilities should be expanded or created. This would greatly enhance the appearance and image of the Menomonee Valley. The undeveloped portions of the riverbank, which already have extensive natural vegetation, offer significant potential for the future expansion of green space and related activities. Sites that are not suitable for future development might also provide opportunities for parks and open space. A portion of the CMC Shops Property could be developed as parkland or for low impact recreational activities. However, if environmental conditions on the Car Shops property are insurmountable, the entire site could be developed as parkland and/or for recreation activities.

  The recently-funded Henry Aaron State Park Trail will extend through the Menomonee Valley. It will provide opportunities for residents and others to engage in passive recreational activities, such as biking, hiking, and visiting natural and cultural interpretive sites. Singly and in combination, these park and open space recommendations would contribute to the long-term economic viability of the Valley by making it a more appealing place to work and visit.

Section IV - Engineering Analysis

Access And Circulation

Existing Vehicular Access and Circulation

Interstate 94 (I-94) parallels the Menomonee Valley on the north and crosses southerly over the Valley at the east end near N. 8th Street. Access to I-94 is at N. 25th Street and W. St. Paul Avenue and at N. 13th Street.

Local street access into the Valley is available from 6th Street, 11th Street, 13th Street, 16th Street and 25th Street. The Falk Corporation has a privately maintained roadway access to N. 32nd Street from West Greves Street.

Public Transit

The Milwaukee County Transit Service operates several bus lines within the Menomonee Valley area.

- **Route 2, Metrolink Southwest Express** operates between the Downtown Transit Center and Southridge Mall, crossing the Menomonee Valley on the 16th Street Viaduct
- **Route 6, Quad/Graphics West Allis** operates between N. Teutonia Avenue and W. Capitol Drive to N. 108th Street and the Milwaukee County Zoo, crossing the Menomonee Valley on the 27th Street viaduct
- **Route 8, Quad/Graphics Sussex/Pewaukee** operates between S. 1st and W. Mitchell Avenue and W. Silver Spring to Sussex/Pewaukee, crossing the Menomonee Valley on the 35th Street viaduct
- **Route 13, St. Paul Avenue B Michigan Avenue** line provides east-west service along St. Paul Avenue from the Downtown Transit Center to N. 47th Street. This is the only bus service operating in the Valley.
- **Route 18, National Avenue** provides east-west service from N. 1st and W. Wisconsin Avenue to S. 124th and W. Greenfield, crossing the Menomonee Valley along Plankinton/2nd Street
- **Route 19, Martin Luther King Drive-S. 13th Street** provides service from N. 35th and W. Silver Spring, N. Martin Luther King Drive and south to S. 43rd and W. Greenfield, crossing the Menomonee Valley along Plankinton/2nd Street
- **Route 20, S. 16th-20th** provides service from the Downtown Transit

Center along Wisconsin Avenue, south to 20th Street and W. Wood, crossing the Menomonee Valley along the 16th Street Viaduct

- **Route 27, 27th Street** provides service from W. Hampton Avenue and N. Green Bay Avenue to S. 27th Street and W. College Avenue, crossing the Menomonee Valley along the 27th Street viaduct
- **Route 35, 35th Street** provides service from W. Capitol Drive and N. 35th Street south to Southridge Mall, crossing the Menomonee Valley along the 35th Street viaduct.

The Milwaukee County Transit Service does not have plans for additional service to the Menomonee Valley at this time.

Pedestrian Access and Circulation

Pedestrian access to the Valley is provided by direct access on 11th and 13th Streets. Indirect access to the Valley is provided by stairways from the 16th viaduct and the 27th viaduct.

Pedestrian access is being improved through two projects. The City of Milwaukee is in the process of constructing portions of the Riverwalk system in the Valley.

The other improvement for pedestrian access is the Henry Aaron State Park Trail. This was a project undertaken by the Wisconsin Department of Natural Resources (WDNR) in partnership with the National Park Service and the Menomonee Valley Greenway Advisory Committee. The WDNR Board approved the Study on October 23, 1996 and by Governor Tommy G. Thompson on February 10, 1997. The State of Wisconsin Legislature's Joint Finance Committee has unanimously authorized $690,000 in funding for development of the Trail over the next two years for wetland creation and streambank stabilization; trail development, including a river access and a bridge; landscaping of the river banks and recreation areas, and for signs and other site amenities.

Railroad Circulation

CP Rail operates 24-hours a day Monday through Friday, and 2 shifts normally operate on weekends. There are 16 scheduled road trains per day, including 2 between Milwaukee and Minneapolis and 10 between Milwaukee and Chicago. Unscheduled road trains can increase the total daily operations by as much as 50%. Wisconsin Rail and Amtrak also operate in the Valley on CP Rail tracks.

There are 2 main line tracks through an east-west corridor in the Valley. The main line on the north side of the Valley through the Amtrak terminal and continuing west along W. Mount Vernon Avenue is the passenger line. The main line on the south end between the South Menomonee Canal and the Burnham Canal is the freight line. Several businesses in the Valley have observed that a significant number of movements on the passenger line are freight. There are regular delays for several minutes of vehicles traveling on 13th Street at the crossing of Mount Vernon due to freight trains blocking the intersection.

Operations in the West Yard, Airline Yard and Adams Yard consist of Industrial Switching, Car Classification and Fill Trains. There are 4 to 7 operations assignments per shift. Switching occurs daily at St. Mary's Cement, whereas Miller Compressing switching occurs on the 3rd shift. The road trains and yard activities result in about 50 movements per day in the area of 27th Street.

All of the yards in the Valley are active. The Airline Yard has 8 tracks, West Yard has 17 tracks and Adams Yard has 14 tracks. Adams Yard is where 30 to 40 cars are being stored on 5 tracks waiting to be sold. Adams Yard is also being considered to be rehabilitated, possibly to be upgraded to an Industrial Classification. A decision regarding the rehabilitation of Adams Yard is anticipated in 1998.

CP Rail has 4 bridges that cross the Menomonee River at 25th Street extended. These bridges restrict the navigability of the Menomonee River. CP Rail is willing to consider replacing these bridges to improve navigation of the Menomonee River.

CP Rail expressed concern about increased vehicular and pedestrian activity that would occur with the Canal Street Extension and the Henry Aaron State Park Trail. The concern is for the health and welfare of the public as well as potential conflicts, especially in the area of 27th street. There are several ways to reduce the potential for conflicts between railway operations and vehicles or pedestrians. One is to combine the Canal Street Extension and the Henry Aaron State Park Trail as proposed. Another is for CP Rail to shift freight movements exclusively to the dedicated freight line, minimizing the potential conflicts with pedestrians and eliminating freight from passing through the Amtrak passenger terminal.

Proposed Canal Street Improvement and Extension

A study for the improvement and extension of West Canal Street was conducted for the City of Milwaukee by BRW dated February 1995. The recommended alternative is summarized below and shown on Figure 2.

The west terminus at USH 41 has been positioned to tie into the New South Access Road at Miller Park. The south access road will intersect USH 41 with a partial cloverleaf interchange, providing access to the north and south. Proceeding east, the alignment crosses the river and continues on the north side of the river with approximately a 50-foot buffer between the south right-of-way line and the riverbank. Approaching 35th Street the alignment crosses the river again passing under the 35th Street viaduct. The area traversed by the alignment between the two river bridges is in the 100-year floodplain. The planned grade line of Canal Street is shown to be infill and above the estimated 50-year flood elevation.

Between 35th and 27th Streets, the roadway crosses the Airline Yard area, a parcel of land between W. Canal Street and the river with a depth of over 200 feet. At 27th Street the alignment is located in the span immediately north of the Airline Yard tracks.

East of 27th Street the alignment crosses the railroad yards in the central valley area, intersecting with the centerline of the existing joint Canal Street/railroad spur right-of-way near 20th Street. At about 20th Street, a new intersection is developed to connect W. Pittsburgh Avenue extended and W. Canal Street.

From 20th Street east to 17th Street, the alignment is centered on the existing 110-foot right-of-way currently occupied by the railroad spur and existing Canal Street. The railroad spur is relocated out of the Canal Street right-of-way.

Between 16th Street and Emmber Lane, the alignment is curved to provide increased clearance to the Traffic Engineering and Electrical Services Division building. Between Emmber Lane and 11th Street, the proposed W. Canal Street alignment utilizes the existing 110-foot right-of-way.

Between 11th Street and 7th Street, the existing right-of-way is 72 feet. Near 7th Street the alignment curves to the east, crossing 6th Street approximately 100 feet south of the current crossing. The 6th Street viaduct across the Valley is currently being redesigned by the City of Milwaukee, Department of Public Works, (DPW). DPW has recommended an alternative for an at-

grade intersection with Canal Street.

East of 6th Street, the alignment crosses the South Menomonee Canal and connects with W. Pittsburgh Avenue. The structure over the South Menomonee Canal is proposed as a 280-foot Bascule bridge with a 150-foot opening. Between 3rd Street and 2nd Street the alignment is centered on Pittsburgh Avenue.

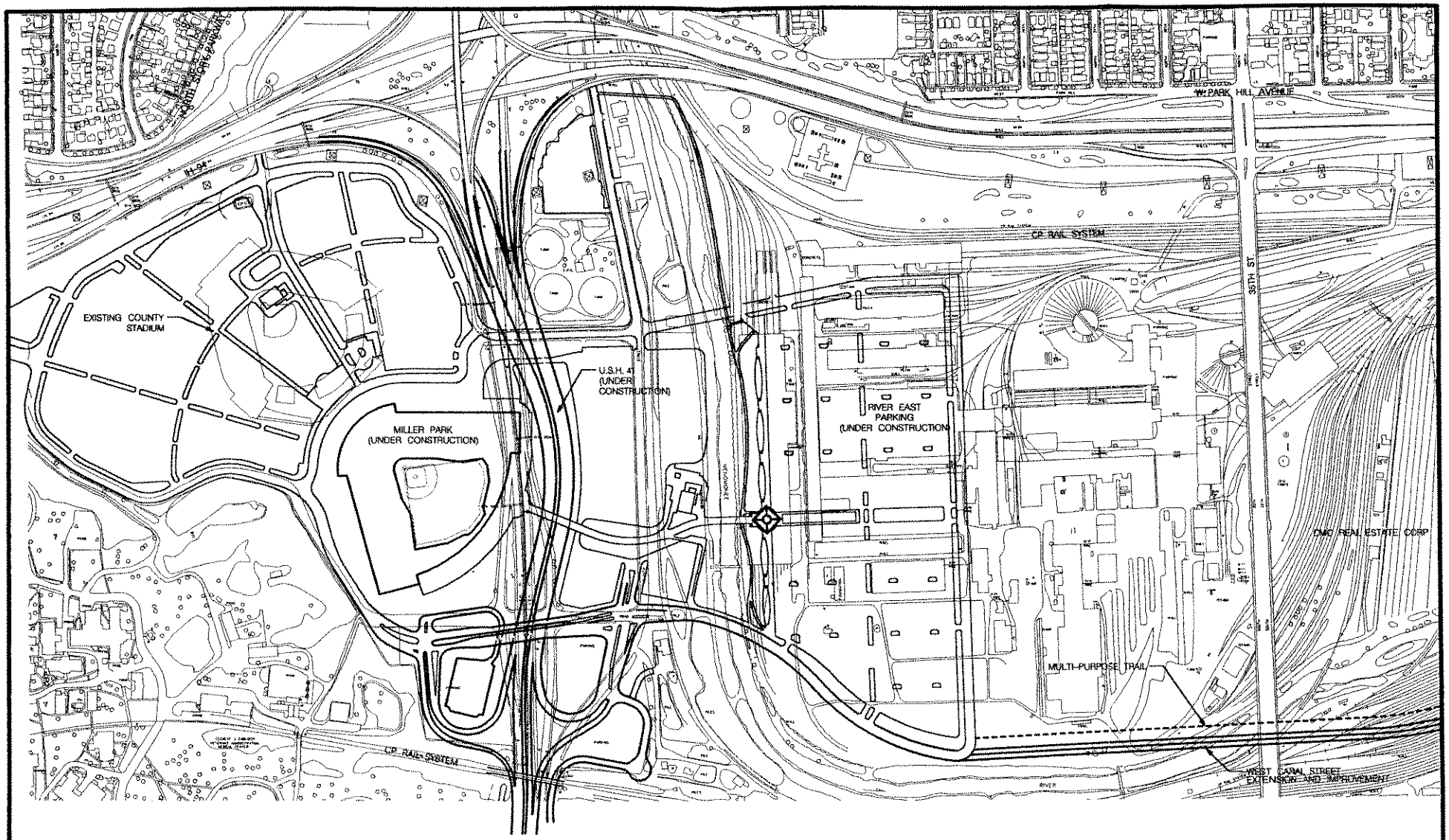
The Canal Street Extension and Improvements would provide a means to tie Miller Park, the Historic Third Ward, Downtown and the Lakefront together in a beneficial manner. It would also improve access to the interstate system at the Stadium Interchange and at the reconstructed 6th Street. Such connections could influence circulation, land use, open space and economic development policies for the immediate area. This east-west corridor may also provide the opportunity to provide public transit bus service from the Stadium to Downtown through the Valley. This may encourage entertainment businesses, residences and hotels in the Downtown and Historic Third Ward areas to provide/promote shuttle services to Stadium events. The Canal Street Improvement could serve as an important relief route during construction activities on I-94.

The Canal Street Extension and Improvement also would provide the opportunity to highlight entry gateways into the Valley to establish an image and character of the area for economic development purposes. The gateways could be:

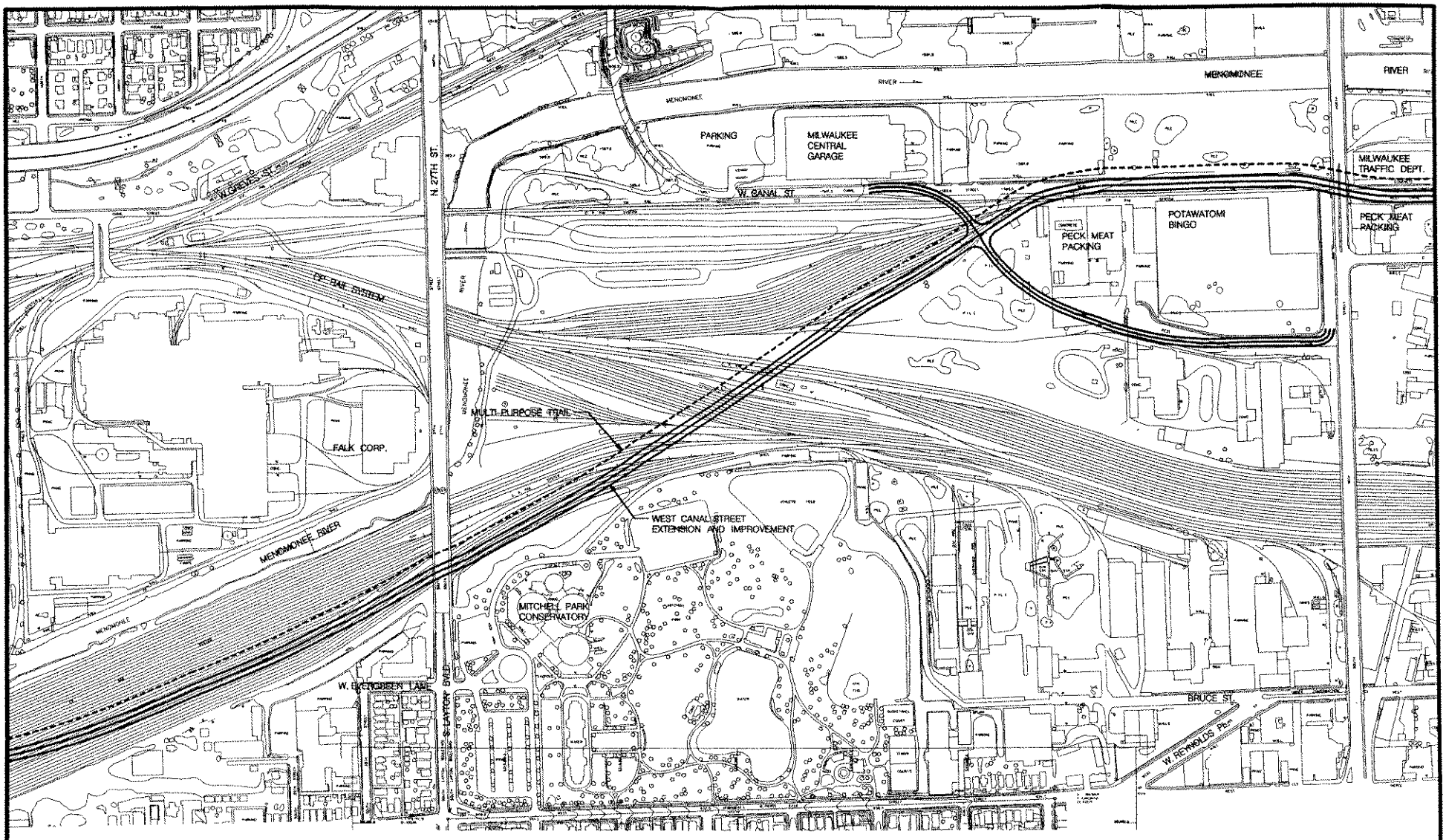
1. The new Bridge over the Canal near Pittsburgh;
2. The 6th Street/Menomonee River Bridge;
3. The 6th Street/Menomonee Canal Bridge;
4. The Emmber Lane Bridge; and
5. The 25th Street Bridge.

Figure 2, on the next page, shows the following:

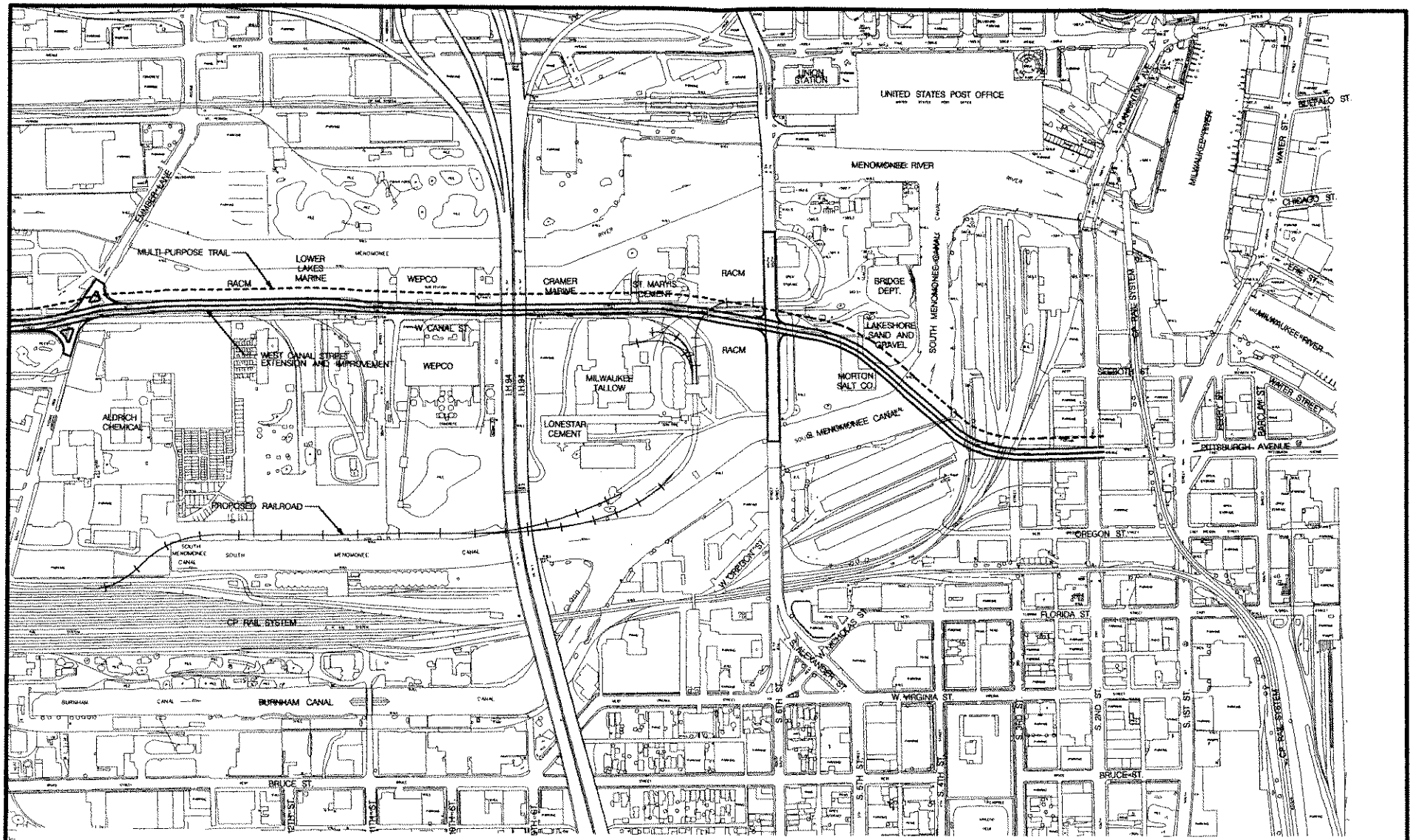
- Alignment of W. Canal Street as recommended in the BRW Study
- Extension of W. Pittsburgh Avenue as recommended in the BRW Study
- Relocated railroad spur from W. Canal Street as recommended in the BRW Study
- Closure of lower 16th Street as recommended in the BRW Study
- Reconstruction of USH 41
- Miller Park River East Parking Lot
- Henry Aaron State Park Trail



EDWARDS & ASSOCIATES, INC. *Engineering Planning Public Affairs* EAI	SOURCES: BRW STUDY OF FEBRUARY 1995 USH 41 RECONSTRUCTION PLAN MILLER PARK	ENGINEERING ANALYSIS TRANSPORTATION IMPROVEMENTS	DATE JUNE 1998	FIGURE 2 SHEET 1 of 3



EDWARDS & ASSOCIATES, INC. *Engineering Planning Public Affairs* EAI	SOURCES: BRW STUDY OF FEBRUARY 1995 USH 41 RECONSTRUCTION PLAN MILLER PARK	ENGINEERING ANALYSIS TRANSPORTATION IMPROVEMENTS	DATE JUNE 1998	FIGURE 2 SHEET 2 of 3



EDWARDS & ASSOCIATES, INC. *Engineering Planning Public Affairs*	SOURCES: BRW STUDY OF FEBRUARY 1995 USH 41 RECONSTRUCTION PLAN MILLER PARK	ENGINEERING ANALYSIS TRANSPORTATION IMPROVEMENTS	DATE JUNE 1998	FIGURE 2 SHEET 3 of 3

Other Roadway Improvements Underway

DPW is presently programming three roadway improvement projects in the Menomonee Valley. The City has retained a consultant engineering team to design improvements for the 6th Street viaduct. The recommended alternative includes an at-grade intersection with W. Canal Street. The horizontal alignment curve at the north end of 6th Street will be improved. Also, the intersection of 6th Street with Virginia Street is part of the 6th Street design. Construction is planned to begin in 2000.

Another improvement underway is replacement of the Emmber Lane Bridge. The intersection of Canal Street and Emmber Lane will be reconstructed to provide improved capacity and turning maneuvers. Construction is planned to begin in August, 1998.

Environmental Conditions

Soils

SEWRPC notes there are three principal aquifers underlying the Menomonee River Watershed: Sandstone Aquifer, deepest of the three, the Dolomite Aquifer and the Shallow Sand and Gravel Aquifer. The latter two are hydraulically interconnected and are sometimes considered a single aquifer. Maquoketa Shale (generally 150 to 200 feet thick) separates the Sand and Gravel and Dolomite aquifers from the Sandstone aquifer.

The most significant environmental issue facing the development of the Menomonee Valley is the potential for soil and groundwater contamination. Once a marsh and wetland, the Valley was filled in the 1850's with a combination of clean soils, waste materials, and cinders. These substances have decomposed over the years, creating toxic substances that have infiltrated soils, groundwater, and rivers.

The processing plants, foundries, manufacturing plants, and railroad maintenance shops that occupied the area for the last 100 years also utilized, stored and disposed of chemicals that are now classified as health and safety hazards. The type of fill material that has been used throughout the Valley has resulted in the WDNR defining the entire Menomonee Valley as an abandoned landfill. Wisconsin Administrative Code Chapter NR500 prohibits construction on an abandoned landfill. Therefore, proposed development projects in the Valley have to submit a Request for Exemption to Build on Abandoned Landfills, per NR504.07 (9).

While a comprehensive analysis of soil and groundwater contamination in the entire study area has not been conducted, several sites in the Menomonee Valley have been investigated as part of proposed land development and transportation improvement projects.

The western section of the Menomonee Valley study area, bounded by Hawley Road to the west, and 32nd Street to the east, has the greatest likelihood for contamination. Former home to the Milwaukee Road Railroad, the area was used for construction and repair of boxcars and locomotives, materials storage, and storage of railroad cars. Activities at the site also included painting, foundry operations, oil changes, and fueling. Most of these activities took place at the Milwaukee Road Shops complex located east of the Menomonee River. Railroad activity was not confined to this site, but spread west of the river to 44th Street and south of the river to the bluff. These areas were used for railroad tracks and storage of railroad cars and materials. Activities in this area also include metal salvage operations.

The eastern end of the project area bounded by I-94/I-43 on the west and Milwaukee River on the east also has the potential for contaminated sites. Previous uses in this area included tanneries, chemical plants, chemical warehouses, commercial coal piles, salt piles, railroad right-of-way, and cement manufacturing plants.

Sites in the Valley have undergone Phase II, III and IV Environmental Assessments and are on file at the WDNR. Section 5 of this report, Land Use Analysis, describes four priority development areas, which are shown in Figure 8. The following summarizes the findings and recommendations for remediation of sites in these development areas.

Priority Development Area A

Site RR-2 (Phase II)

- RCRA hazardous metals, SVOC, VOC, leaded gas, diesel, fuel oil waste oil contaminants in soil
- 85 cubic yards of lead contaminated soil
- The hazardous materials in drums stored in a trailer dumped by L & R Crane was reported cleaned up in June 1993. A closure request is under review by the WDNR.

Priority Development Area B

There are no environmental assessment documents on file with WDNR for sites in this development area.

Priority Development Area C

There are no environmental assessment documents on file with WDNR for sites in this development area.

Priority Development Area D

Potential Development Site V-11 (Phase II)

- RCRA hazardous waste, SVOC, VOC, diesel, leaded gas, unleaded gas, and fuel oil contaminants

Potential Development Site M-2 (Phase II)

- Emmpak requests to construct 87,000 ft^2 on site submitted to WDNR for approval in October 1997.
- Soil is fill material 10' to 12' thick, underlain by organic rich clayey silt with interbedded loose silty fine sand seams, frequent snail shell remnants.
- Ground water is 3' to 6' below grade
- Methane investigation determined no harmful levels of gas present.

Other sites in the Valley which have environmental assessment documents on file at the WDNR are shown in Table 18. Sites in the Valley which have environmental assessment documents prepared for the City of Milwaukee, Department of City Development are also shown in Table 18.

Sites with soil and groundwater contamination, known as brownfields, will affect the implementation of land use plans. Recently, the State of Wisconsin and the Federal government have enacted legislation that will offer new opportunities to encourage the reuse of developed real estate. The State of Wisconsin enacted the "Brownfields Initiatives Package" on October 11, 1997 which offers a mix of liability reforms and financial incentives. Financial incentives include awarding $10 million in grants over a two-year period to individuals, municipalities or local development corporations, and offering $4 million in loans through the Wisconsin Housing and Economic Development Authority.

On August 5, 1997, the federal government enacted the Taxpayer Relief Act which offer a $1.5 billion in incentives for environmental cleanup costs for

properties in targeted areas.

Potential Development Site	Facility Name	Address	WDNR FID NUMBER	Environmental Investigation Phase	Contaminants	Remarks
PU-2	Vehicle Emissions Testing Facility	2463 W. St. Paul Ave.	241495540	IV	VOC, Fuel Oil, Diesel, Leaded Gas, RCRA Hazardous Waste	Remediation complete. Formerly a manufactured gas plant operated by Wisconsin Gas. Tar pit identified in the southwest corner of the site.
V-1		164 N. 44th, 104&400 S. 44th	241839620	IV	Metals, RCRA Hazardous Waste.	Site being restored as part of Miller Park River East Parking Lot.
M-3		260 N. 12th St.	241096790	II	Other	Formerly Alram Bros Salvage Yard. First Bank Milwaukee took ownership after business failed.
	Stimac Brothers	600 S. 44th St.	241517870	II	Metals, RCRA Hazardous Waste, PCBs.	
RR-1	State of Wisconsin	554 S. 44th St.	241012750 241838190	IV	Metals, RCRA Hazardous Waste, Fuel Oil, Other, Free Product	Site being restored as Miller Park River East Parking Lot including Free Product Removal.
RR-2	CMC Heartland Partners		241838190	II	Metals, RCRA Hazardous Waste, Fuel Oil, Lead, Other	Clean up of abandoned hazardous waste by L&R Crane; submitted closure request to WDNR 8-25-93 for approval. The WDNR approved CMC request to cease operating the WWTP (Oil Separater) January 1997.
RR-3	CMC Heartland Partners		241840060	II	RCRA Hazardous Metals,	Additional fill material on top of an old railroad bed that appeared to have sunk. New tracks built on top of additional fill.
	Menomonee River	I-94 to S. 35th St.	241840500	II	RCRA Hazardous Metals, TRPH, DDT, PAH, DRO, VOC	Contaminants in River Sediment.
	Milwaukee County Parks, Recreation & Culture	County Stadium, other Areas titled F5-F5h	241684740	II	Metals, Other, Methane Gas	Phase IV remediation underway for Miller Park, including Methane Gas Venting System.
	Harnischfeger Corp	4400 W. National Ave	241010990	II		

Source: WDNR Files

Potential Development Site	Facility Name	Address	WDNR FID NUMBER	Environmental Investigation Phase	Contaminants	Remarks
V-29	WisDOT	W. Wiscon Ave. & N. 42nd St.	241494660	IV	Metals, RCRA Hazardous Waste	Remedian underway. City of Milwaukee creating a wetland on this site.
	Allen D Everitt Knitting Co.	234 W. Florida Ave.	241665600	III	Fuel Oil, 8,000 gallons	Spill of cleaning solvents. Status open as of June 3, 1997.
	Hydrite Chemical	229 E. National Ave.	241020890	IV	Fuel Oil, RCRA Hazardous Waste, SVOC	WDNR issued Condition Closure in August 1994.
V-11	City of Milwaukee	1300 W. Canal St.	241850400	II	RCRA Hazardous Waste, VOC, SVOC, Waste Oil, Leaded Gas, Unleaded Gas, Diesel, Fuel Oil	
		Florida Yards	241498070	IV	VOC, SVOC, RCRA Hazardous Waste, Metals	Remediation complete. Currently occupied by Usinger Sausage.
		942 N. Hawley Road	241208110	IV	VOC, RCRA Hazardous MetWaste, Chlorinated Solvents, Fuel Oil, Methane Gas.	Gas system design approved by WDNR 12-20-96.
	Milwaukee Scrap Metal	1300 W. Pierce St.	241915190	II	DRO in soild and groundwater, Lead, Other	
	National Ave. Property	2127 W. National Ave.	241458910			
	Peters-Johnson	142 N. Milwaukee St.	241496530	IV	VOC, SVOC, Unleaded Gas, Leaded Gas, RCRA Hazardous Waste, Fuel Oil, Waste Oil	Remedial Action Plan submitted to WDNR for approval Auguat 18, 1997.
	WEPCO Power Plant	1035 W. Canal St.	241007800	IV	Fuel Oil	Remedial Action report submitted to WDNR January 19, 1996. Free Product Recovery System submitted April 18, 1997. Fuel oil covering 0.5 acres, up to 4' thick.
	Didion Grains	335 S. Emmber Ln.	241095470	IV		
	Bell Aromatics	710 W. National Av	241049930	IV	DRO, PVOC, GRO, VOC	Coontaminants at 630-40 W. National Ave. Remedial Action Plan submitted to WDNR August 22, 1997.
M-2	Emmpak	200 S. Emmber Ln	241255740	IV		Emmpak submitted request to WDNR to construct on an abandoned landfill (M-2). Methane gas investigation program submitted August 7, 1997 showed no harmful levels of gas present.

Source: WDNR Files

Potential Development Site	Facility Name	Address	WDNR FID NUMBER	Environmental Investigation Phase	Contaminants	Remarks
		1904 W. National Ave.		I		Completed as of 12-18-95
		1924 W. National Ave.		II		Completed in 1995
		1333 W. Pierce St.		II		WDNR Brownfields Pilot Demonstration Grant
		1313 W. Pierce St.		III		Completed 1990 or earlier by USEPA. Cost of about $385,000
		612 S. 2nd St.		I		Completed 1990 or earlier
		1901 W. Bruce St. (a.k.a. 1900 W. Pierce St)		I		Completed in 1991
		1301,1313,1357-1419 W. St. Paul Ave.		I		Completed in 1994
		1101-17 W. Piece St.		I		Completed in 1994
		100-110, 112-116 S. 2nd St.		I		Completed in 1995
		1220 & 1224 W. Canal St.		I		Completed in 1995
		1600-1800 W. Canal St.		II		Completed 1990 or earlier
		611 W. National Ave.		III		Completed in 1991. Cost of $172,680
		840 W. Virginia St.		II		Completed in 1993
		1205 W. Mount Vernon		III	Abandoned barrels.	Completed in 1993
		1300 W. Canal St.		II		Completed in 1994
		1717-1741 W. Pierce St.		II		Completed in 1995
		1823-1923 W. Pierce St.		II		Completed in 1995

Source: WDNR Files

Groundwater

The Menomonee Valley is in the heart of the Milwaukee Harbor Lake Michigan estuary. In this complex hydrogeologic system, groundwater elevations and flow are quite unpredictable, and, in fact, may reverse direction over time. As the Valley was reclaimed in the mid 1800's from rice marsh and tamarack swamp, it was filled with any available material (including household and industrial waste, demolition debris, excavation material, foundry sand and dredging spoil.) Thus, the likelihood for contamination of the groundwater is high, although largely undocumented.

Due to these factors, as well as the historic industrial operations of Valley businesses, the determination of a specific cause for any groundwater condition is difficult, at best, to make. It follows further that, for a specific site, it is almost impossible to develop an effective remedial action plan to clean up the groundwater.

However, because of the Valley's development potential, the City of Milwaukee applied for and has recently received a grant from the U.S. EPA to study the groundwater condition in the Menomonee Valley. This study should lead to an area-wide solution to groundwater problems and thus facilitate redevelopment.

Floodplains

Future development in the study area will need to consider the flooding characteristics of the Menomonee River. Both the WDNR under Chapter NR 116 of the Wisconsin Administrative Code, and the City of Milwaukee zoning regulations place restrictions on development that can occur in flood impacted areas. The river along with its south canal plays a significant role in defining the Valley landscape, and runs through the study area and enters the Lake Michigan/Milwaukee Harbor Estuary at the Falk Corporation dam near 29th Street.

The Menomonee River is one of eight perennial and intermittent streams in the Menomonee River Subwatershed. The River drains an area of about 135 square miles of which approximately 50 percent is urbanized. Overland flooding of buildings has occurred periodically in the West Canal Street Study area. Structural flood control works in the Valley have helped to alleviate overland flooding problems. These controls include a 0.50-mile long flood wall at the Falk Corporation property near the 27th Street Viaduct, a 0.64-mile long sheet pile flood wall on the east side of the Menomonee

River at the Shops Site, and a 0.49-mile long earthen dike along the south side of the former railway yards. The 0.64-mile flood wall is being removed as part of the Miller Park development The east river bank will be cut back and greenspace area is being created.

The Falk Corporation has a low head sheet metal dam structure located upstream of S. 29th Street. The dam is to provide a constant source of water for a steam electric generator that was used as a backup power source. According to a representative of the Falk Corporation, the company has upgraded its electrical system and the steam electrical generator is no longer needed as a backup power source. The representative stated the Falk Corporation is interested in having the dam removed. According to the BRW Study, the dam is not hydraulically significant and could be removed without affecting the floodplain. The Menomonee Valley Conservation Project, Phase I Feasibility Study, dated March 5, 1996, was prepared by R. A. Smith & Associates, Inc. for the City of Milwaukee. The Feasibility Study estimates the cost to remove the dam is $10,000.

Flood-prone areas in the Valley are delineated in the Federal Emergency Management Agency Flood Insurance Study flood profile mapping, 1987. This study identified the floodwater elevations along area streams, which would occur during a 100-year or regional flood. A regional flood is defined as a flood which might be expected to occur once every 100 years or has a one percent chance of occurring in any one year. Lands with elevations lower than the regional flood elevation along the river are mapped as floodplain and are subject to local and state development restrictions.

The 100-year floodplain, shown in Figure 3, covers a significant part of the study area, beginning near the South Menomonee Canal to the east and continuing to the point where the river parallels 44th Street to the west. For the study area east of 16th Street, approximately 30 acres are located within the 100-year floodplain. An additional 60 acres of land between S. 27th Street and 16th Street fall within the floodplain zone. Most of the area between 27th Street and the western banks of the Menomonee River are also included in the floodplain. The one exception is the former railroad Airline Yard, located south of the river between 27th Street and 35th Street.

On June 20-21, 1997, southeast Wisconsin experienced a 30-hour rainfall, which caused significant flooding. According to City of Milwaukee and MMSD precipitation gauges, Milwaukee received between 5.39"and 7.64"of rainfall. This storm exceeded a 100-year event in Milwaukee.

Anticipating the potential for future development in the Valley, the City of Milwaukee and several potential developers have investigated methods of protecting the area from overland flooding. In 1990, SEWRPC prepared a Storm Water Drainage and Flood Control Plan for the Milwaukee Metropolitan Sewerage District.

This report, prepared at the Sewerage District's request, developed a flood control plan for a portion of the Valley bounded on the north by the Menomonee River, on the south and east by the Burnham Canal and the South Menomonee Canal extended, and on the west by 27th Street. Flood protection alternatives were developed for the area east of 16th Street. Some of the actions recommended in the plan include: flood-proofing structures, fill placement, regrading/repaving parking and materials storage areas, raising storm sewer inlets, manholes, railway tracks, and constructing flood walls.

Stormwater retention is vital to decreasing the risk of overland flooding in the Menomonee Valley, and can help support successful development. It is important that the City of Milwaukee require any development to have proper stormwater retention, and that it meet the relevant City of Milwaukee stormwater management ordinances.

The low-lying areas in the floodplain west of 35th Street will require flood protection before development can occur. Development studies of this area have considered removing the lands from the floodplain by filling or flood-proofing the area by levee construction. The fill option would remove the area from the floodplain, and after zoning and mapping modifications, would eliminate any additional floodplain-related requirements or liabilities. This option can create aesthetic and roadway grade problems for adjacent low-lying properties.

The levee option is a more complex alternative, requiring City approval, maintenance and annual inspection by engineering staff. Although protected from flooding, areas with levees may still require floodplain insurance.

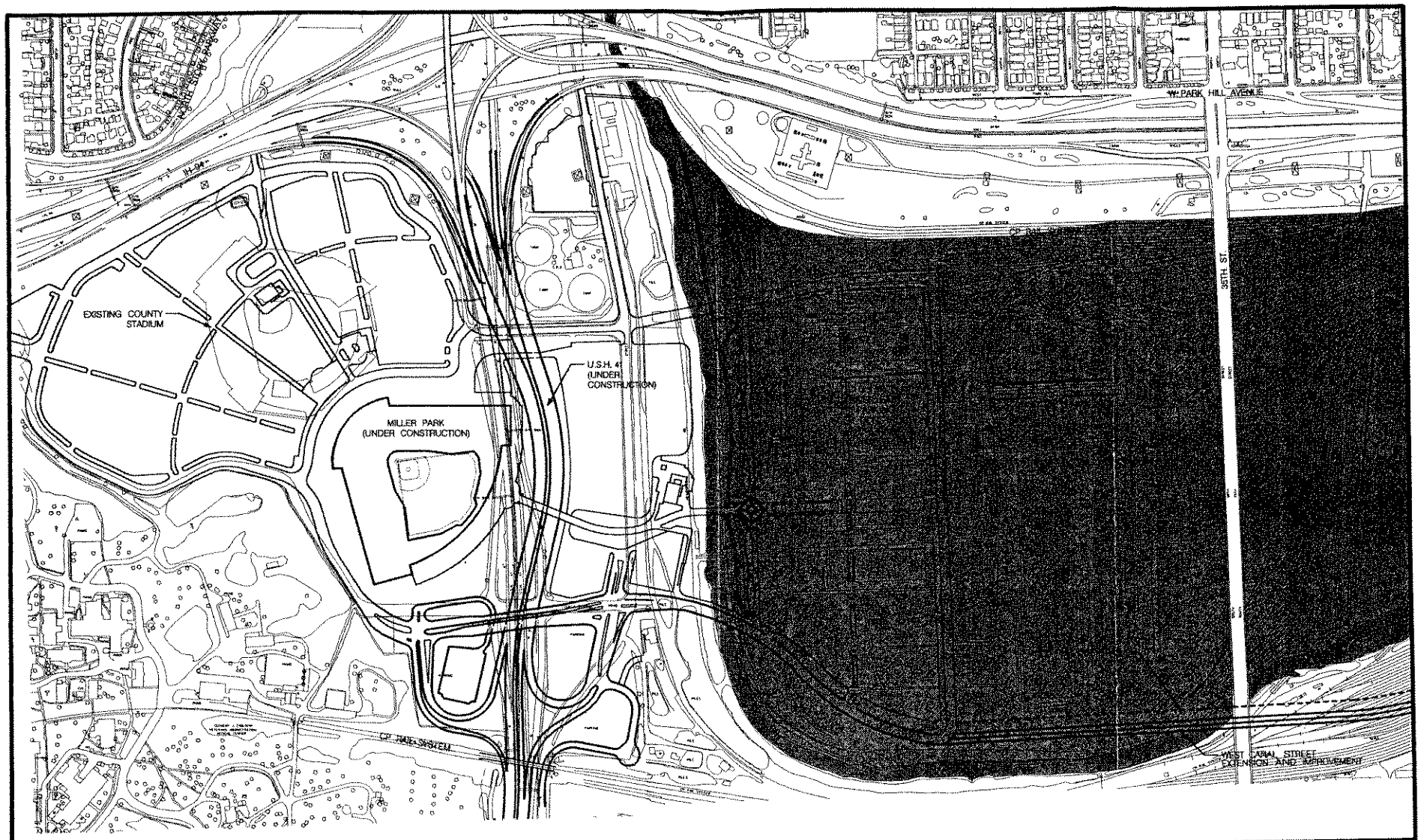
As indicated in Figure 3, the proposed alignment for West Canal Street will cross the 100-year floodplain between 35th and 44th Streets. The alignment would be placed on fill in this area to above the 50-year flood elevation level. Crossing and filling a section of the floodplain may have some backwater effects for the area north of the river. In addition, the proposed alignment calls for the construction of two new bridges, which also have the potential

for creating backwater effects.

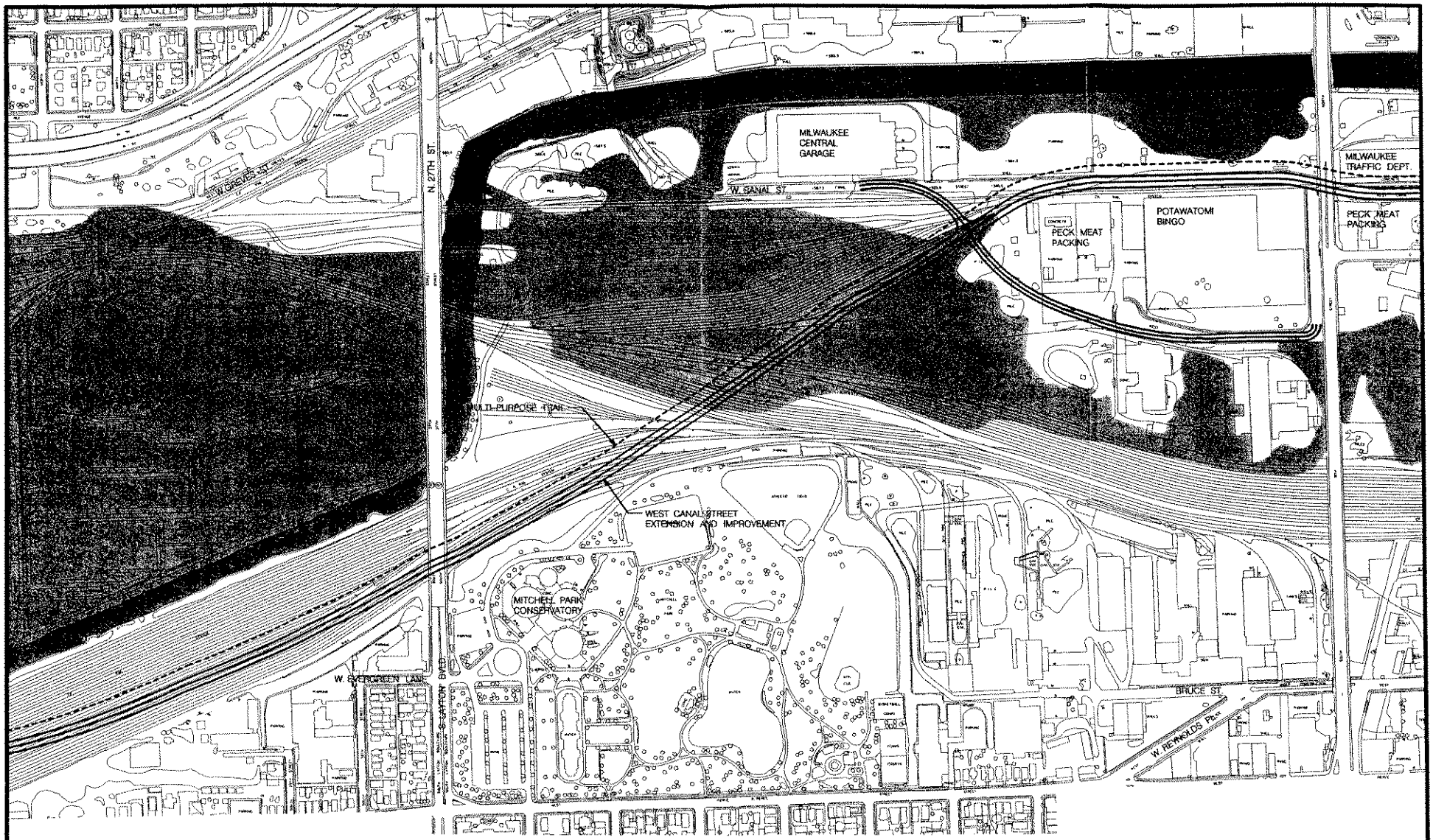
The proposed alternatives for flood protection and the proposed alignment for West Canal Street are all based upon the current FEMA flood map. However, several studies have been conducted since the floodplain map was last updated in 1987. They include:

- The Menomonee Valley Conservation Project, Phase I Feasibility Study by R.A. Smith;
- Flood profiles prepared for the Menomonee Valley River, from its mouth at Lake Michigan to 500 feet below I-94 by HNTB as part of the Miller Park project;
- The Menomonee River Drop Structure removal project, prepared by Inter Fluve, Inc., which modeled Menomonee River flows from 500 feet below the I-94 bridges to the private bridge 2,000 feet above the drop structure;
- A watercourse study underway by the Milwaukee Metropolitan Sewerage District.

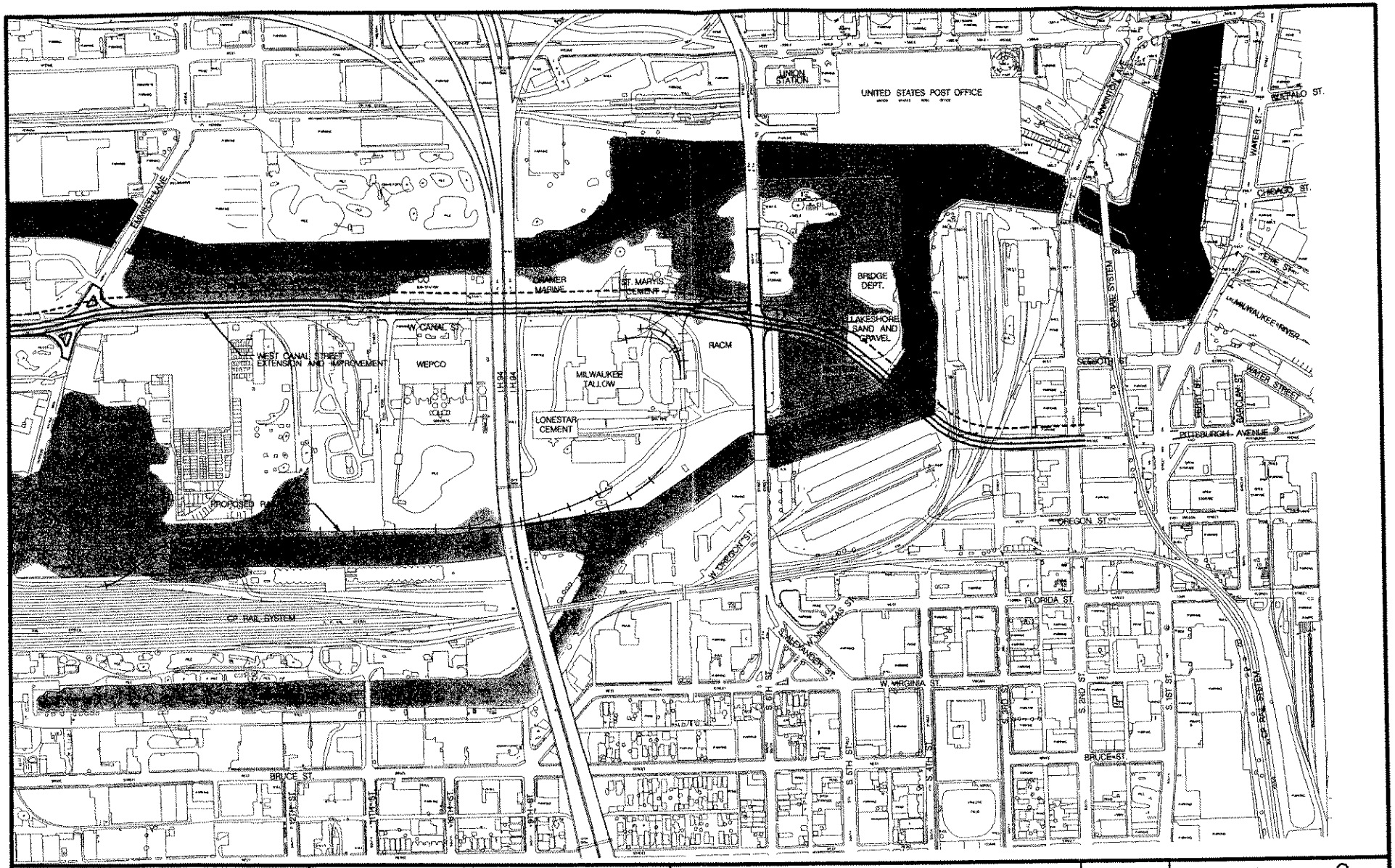
Based upon the findings of these studies and the changes that have occurred and might yet occur in the Menomonee River due to removal of the sheet piling on its east bank near Miller Park and the removal of the drop structure, it may be a good idea to consider updating the floodplain map for the Menomonee Valley.



EDWARDS & ASSOCIATES, INC. *Engineering Planning Public Affairs* EAI	SOURCES: BRW STUDY OF FEBRUARY 1995 USH 41 RECONSTRUCTION PLAN MILLER PARK	ENGINEERING ANALYSIS AREAS IN 100-YEAR FLOOD PLAIN	DATE JUNE 1998	FIGURE 3 SHEET 1 of 3



EDWARDS & ASSOCIATES, INC. *Engineering Planning Public Affairs*	SOURCES: BRW STUDY OF FEBRUARY 1995 USH 41 RECONSTRUCTION PLAN MILLER PARK	ENGINEERING ANALYSIS AREAS IN 100-YEAR FLOOD PLAIN	DATE JUNE 1998	FIGURE 3 SHEET 2 of 3



EDWARDS & ASSOCIATES, INC. *Engineering Planning Public Affairs*	SOURCES: BRW STUDY OF FEBRUARY 1995 USH 41 RECONSTRUCTION PLAN MILLER PARK	ENGINEERING ANALYSIS AREAS IN 100-YEAR FLOOD PLAIN	DATE JUNE 1998	FIGURE 3 SHEET 3 of 3

Wetlands

The topography of the Menomonee Valley has changed substantially over the last 150 years. Once a marsh and wetland surrounded by steep bluffs, the process of filling the area began in the 1830's. Fill material came from grading of the bluffs, residue of dredging operations, and household and industrial waste. Current mapping shows no wetlands in the area that would affect the development of the roadway or future land development. Interviews with U.S. Army Corps of Engineer officials indicate that the Valley is no longer classified as a wetland, and thus no special USACE permits are required for development.

Water Resources

The proposed use of the Menomonee River as a recreational resource and natural amenity in the Menomonee Valley Study area will depend, in part, on improving water quality conditions in the river. River sampling studies conducted by the Milwaukee Metropolitan Sewerage District (MMSD) from 1979 to 1988 detected above average levels of several metals including lead, cadmium, copper and zinc. Bottom sediments from the river and canals showed evidence of PCB and DDT contamination. Historical data also show violations of bacteria and fecal coliform standards. Further, the river water quality may be affected by the heated water discharge from the WEPCO generating facility. Downstream of 45th Street, the river is currently classified as restricted for recreational uses. While sport-fish attempt to spawn in the river, low dissolved oxygen levels and the concrete lining of the river have affected their success.

Water quality in the Menomonee River has also been impacted by the flow of contaminated groundwater from the industrial valley. These flows, which have contained chloride, cadmium, iron and other substances, have decreased over time and are not considered a significant source of pollutants to the river.

Several factors contribute to the poor water quality conditions in the Menomonee River. Significant pollutants are generated by the six combined sewer outfalls that discharge to the South Menomonee Canal. In addition, non-point storm water runoff from surrounding industrial land uses and the large urbanized area that drains into the river may have negatively impacted water quality. Stockpiles from coal and salt storage, scrap iron, auto salvage operations, and other recycling activities may have contributed

pollutants including toxic contaminants.

The recent Milwaukee Metropolitan Sewerage District $2.3 billion Milwaukee Water Pollution Abatement Program (MWPAP) has reduced pollution levels. According to the Milwaukee Harbor Estuary Study conducted by SEWRPC, the deep tunnel should reduce the deposition of sediments in the Menomonee River by 50%.

The Army Corps of Engineers is responsible for dredging the Menomonee River. The river is dredged along the centerline for a width of 50-feet, and to a depth of 18 to 21 feet. Dredging occurs from east of 25th street to its confluence with Lake Michigan. Before the deep tunnels were placed in service, the Corps removed approximately 200,000 cubic yards of sediment every 2 years, disposing of the material at a facility near the South Shore Yacht Club. Now the Corps has been dredging once every five years and the rate of sedimentation is approximately 50,000 cubic yards. Therefore, the deposition of sediment reduction has met the anticipated reduction of 50%.

While municipal point source abatement in the headwaters has improved water quality in the Menomonee River, storm water management programs to control urban runoff will be a key to additional quality improvements. Development plans for the Valley will need to include provisions for effective management of non-point source pollution created by storm water runoff.

Water Resources Improvement Projects

MMSD has recently awarded two design projects to improve water and environmental qualities of the Menomonee River. The Central Metropolitan Interceptor Sewer (MIS) was not repaired or replaced during the MWPAP since its condition could not be investigated because there was no place to divert the flow. Now that the Inline Storage System is complete, existing sanitary flows from the Central MIS can be diverted so that inspection and construction activities can occur.

The purpose of the Central MIS Improvement Project is to replace, rehabilitate and upgrade about 36 miles of pipeline, which carries 60 percent of the district's wastewater flow, and serves 14 of the 28 communities served by MMSD. The project would also fix and replace 700 manholes constructed between 1885 and 1925. This project will integrate the new system with the MMSD's Inline Storage System.

The project goal will be to reduce the risk of structural failures and cave-ins

that could potentially result in injury, death, property damage, the interruption of sanitary sewer service for prolonged periods, the discharge of raw sewage into local waterways, or sewer backups that could threaten the public health or welfare.

A new MIS Relief Sewer for the Menomonee Valley is proposed as part of the Central MIS project. The new MIS could be constructed either north or south of the Valley to minimize construction in the poor soils known to exist in the Valley. Rehabilitation of the existing MIS in both the Canal and Bruce Streets subregions is also recommended pending findings of the system investigations. The new MIS could allow abandonment of the existing Pump Station at 42nd and Mt. Vernon Avenue.

The other MMSD project presently under design is for the removal of the Menomonee River drop structure at North 45th and West State Streets and the naturalization of the river channel. The goal of the project is the restoration of the Menomonee River to a more natural state, while not increasing the risk of flooding for the area adjacent to the drop structure, along with downstream areas.

A draft Pre-Design Memorandum for this project, dated January, 1998, was prepared by Inter-Fluve, Inc., identifying seven alternatives. MMSD has begun the design and engineering work necessary to remove the drop structure and approximately 1,000 feet of downstream concrete channel. Removal of the concrete channel would require the construction of a 1,000 foot, four foot high flood wall on the west side of the Menomonee River to contain the slight rise in water level in that area. However, Inter-Fluve studies have determined that there would be no increase in flood water levels or possible flooding downstream of the project area as a result of the removal of the drop structure and naturalization of the river channel.

MMSD officials have said that if necessary easements for the flood wall are easily secured, and the necessary permits from the WDNR issued in a timely fashion, construction could take place in 1998. If not, the removal of the drop structure and the naturalization of the river channel would take place in 1999. The awarding of a construction contract for the project must still be approved by the MMSD Commission.

An investigation of sediment removal from the concrete lined channel was conducted by MMSD concurrent with the Drop Structure Removal Project. The 1996 study, Menomonee Valley Conservation Project, by R. A. Smith & Associates reported sediment deposition in the channel beginning below the

middle railroad bridge and continuing to the end of the concrete pavement, approximately 500-feet below I-94. As a result of the study, MMSD removed about 10,000 cubic yards of accumulated sediment from the concrete channel adjacent to the neighborhood in December, 1997. This will lower flood water levels by an average of 14 inches in the Valley Park neighborhood and help reduce the risk of flooding.

If water levels are appropriate to allow passage over the Falk Dam, spawning trout and salmon from Lake Michigan can currently migrate only 4 miles upstream from Lake Michigan until the drop structure blocks them. Removal of these artificial barriers would not only expand spawning opportunities, but also increase this recreational fishery by extending the migration route beyond the drop structure. There is also potential for expanding the warm water fishery to the concrete lined reach. A return to natural stream banks in this section would reduce flow velocities and promote additional habitat, shading and cover for warm water species. Recreational boating opportunities would be enhanced by removal of the drop structure, allowing a continuous paddling corridor through this reach. Removing the unnatural elements in this section could also enhance the aesthetics of the Valley, and if the floodplain can be re-established, additional benefits could be gained in the form of detention flow storage, water quality improvements, wetlands development, scenic park land, and trail and bike pathways.

MMSD is considering construction of a Side Stream Elevated Pool aeration system to improve the Dissolved Oxygen levels in the Menomonee River. Potential sites are the vicinity of 6th and Canal, or 25th and Canal Streets. MMSD anticipates making a decision on this project in 1999.

The Miller Park construction project presently underway also includes enhancement of the Menomonee River as part of the River East Parking Lot. The river embankment in this reach (site V-1 in the Potential Development Sites map) will be cut back on each side. Sheet pile currently present along the east side would be removed or cut off following cut back of the slope. A picnic area would be provided between the river and the east parking area. This area would include some small pavilion areas and also a walking path. Cutback areas would be covered with approximately 3 feet of clean fill as a barrier to the existing fill and as a base for revegetation. No river sediments (channel deepening) would be necessary as part of the project site development.

The City of Milwaukee is also underway with development of a wetland on the site V-29 of the Potential Development Sites map. The 3.3 acre site has been remediated of contaminates and water quality of potential storm water runoff from the Wisconsin Avenue Viaduct will be marginally improved according to the WDNR. The project cost of $450,000 is nearly $150,000 per acre, which is significantly higher than the typical cost to create a wetland.

Water Taxis can also use the rivers on a seasonal basis connecting the same destinations.

Air Quality

Air quality conditions in the Menomonee Valley have steadily improved over the years. The number of exceedances of ambient air quality standards for sulfur dioxide, particulates (TSP), and carbon monoxide has decreased dramatically. The Milwaukee area has also been able to maintain low levels of lead and nitrogen oxide, with no record of exceeding the standards since they were imposed in 1980. These improvements can be attributed to the regulations and control imposed by the Clean Air Act of 1972, Wisconsin's Acid Rain Law of 1985, the reduction of the number of heavy industrial businesses operating in the Valley, and the regulatory efforts of the City of Milwaukee and the State of Wisconsin to reduce dust and odor emissions not covered by federal laws.

Despite these accomplishments, the Menomonee Valley still faces some challenging air quality problems. At the center of the Milwaukee Metropolitan Area, the Menomonee Valley is affected by the Southeast Wisconsin area's designation as a severe non-attainment area for ozone. This has several implications for the proposed development of the West Canal Street study area. Under the Intermodal Surface Transportation Efficiency Act, transportation improvements in severe non-attainment areas must be enumerated and evaluated as part of the metropolitan area's transportation system improvement plan. The West Canal Street roadway project will need to be listed in the system plan and subsequently become part of the plan's ozone impact analysis. The project's inclusion in the plan will need to occur before state and federal funds are allocated. In addition, the metropolitan location of the project means that an air quality screening analysis will be required as part of the environmental documentation process. The screening analysis, which uses computerized models to predict future emission levels, may point to the need for an air quality permit before construction can begin.

From the perspective of ozone reduction, the West Canal Street development plan outlined in this report has some important positive consequences. If the Valley can attract industry that would otherwise locate in the suburbs, commuters may have increased opportunities for car and van pooling, bus ridership, and other mass transit options. Reduced use of single vehicle trips can significantly reduce ozone levels. The type of in-fill development proposed for the West Canal Street area is reinforced by the requirements of the Clean Air Act Amendments of 1990.

The area bounded on the north by Center Street, on the south by Oklahoma Avenue, on the west by 55th street, and on the east by Lake Michigan, is a Secondary Non-Attainment Area for Total Suspended Particulates (TSP). The Menomonee Valley is within the secondary non-attainment area for Total TSP. Fugitive dust, sulfates, and other suspended particulates have historically plagued the Menomonee Valley. Unpaved streets and parking lots, junkyards, and storage piles for coal, gypsum and salt have produced dust levels that exceeded national health standards up until the late 1970's. Since many dust producing industries have left the Valley, TSP levels have dropped to acceptable levels. In 1991, the Valley recorded only one TSP exceedance as compared to over twenty recorded ten years ago. The Valley still exceeds the secondary TSP standard for public welfare. Development plans calling for light industrial uses, improved roadways, and bike paths and greenways will continue to reduce the presence of particles in the air.

The odor emanating from many Menomonee Valley businesses is another environmental concern that faces future development efforts. The offensive odors produced by tanneries, rendering plants, stockyards, chemical companies, Americology, sewage treatment plants, and a yeast factory have generated complaints from the broader downtown area as well as surrounding residential communities. The 1990 industrial and odor control program adopted by the city of Milwaukee has provided a mechanism for monitoring odor emissions and complaints, identifying companies that violate odor standards, and assisting business with odor control improvements. As a result of this program, Milwaukee Tallow, and Pfister and Vogel Tanning, have purchased odor control equipment. The odor control program, now part of the Milwaukee Health Department, reported a small decrease in odor complaints between 1991 and 1992. The Valley continues to generate the largest percentage of these complaints.

Parks, Historic Sites, Endangered Species And Archaeological Resources

Parks

The Valley currently contains several isolated recreational areas. These include the Marquette University soccer fields located south of the Menomonee River, a soccer field adjacent to the South Menomonee Canal and I-94, Potawatomi Bingo Hall, Mitchell Park and Miller Park.

The proposed West Canal Street extension is not likely to have direct impacts on publicly or privately owned park, recreation land, wildlife or waterfowl refuge. Right-of-way acquisition for the roadway will not include any properties covered under Section 4(f) or Section 6(f) of the federal code.

The bike path and greenway that are part of the development plan are consistent with the plans of the governmental units focusing on Valley revitalization efforts. A joint study of WDNR and the National Park Service has identified the feasibility of bike trails and other green space along the Menomonee River. This development should be coordinated with the extension of West Canal Street so as to avoid a future conflict.

Historic Sites

The historic significance of the Menomonee Valley derives from its prominence in the 19th century as a major industrial center for the United States. From 1870 until the 1940's, industries located in the Valley supplied the nation with both processed raw materials and a wide range of manufactured goods. Names such as Palmolive, Milwaukee (International) Harvester, Allis-Chalmers, A. O. Smith, Pfister and Vogel Leather and the Falk Corporation dominated their respective industries from their Valley locations. The Valley served as a major transportation hub, offering both excellent rail and port access.

While only a few of the original industries continue to reside in the Valley, many of the buildings they operated from still remain. A 1980 Historic American Engineering Record Survey, conducted by the U.S. Department of the Interior, identified 195 Menomonee Valley structures as having local, regional, or national historic significance. Eleven of these structures are located within the West Canal Street study area reported by BRW in the West Canal Street Study. One structure, the Falk Corporation, is classified

as having national historic consequence.

Endangered Species

The Environmental Assessment conducted for Miller Park, approved January 1996, contains in its Appendix A, correspondence dated August 18, 1993, from the United States Department of the Interior, Fish and Wildlife Service. This letter reports the Peregrine Falcon is a federally-listed threatened or endangered species in Milwaukee County.

Archaeology

To date, few archaeological sites have been reported in the Menomonee Valley. Historical records and the physical setting suggest that the Valley had significant potential for aboriginal settlements. The presence of bluffs, bottomlands, rivers and wetlands suggest that settlements were likely in this area.

The archaeological potential of the Valley has been negatively affected by various activities that have disturbed the soils. These include filling the marsh and wetland areas, rechanneling the river, and the construction disturbances associated with over 100 years of industrial development.

The west end of the Menomonee Valley study area, between 35th Street and the river, was the site of an intensive archaeological survey in 1983. This study, part of an environmental impact statement for a proposed prison site, failed to uncover any prehistoric resources. Investigators reported that disturbances may have destroyed or obliterated significant artifacts.

Since only one section of the study area has been the focus of archaeological investigation, additional surveys may be required for Menomonee Valley, Milwaukee.

Table 19 on the following page shows *Potential Historic Structures in the Menomonee Valley Study Area.*

TABLE 19
POTENTIAL HISTORIC STRUCTURES IN THE MENOMONEE VALLEY STUDY AREA

STRUCTURE NAME (FORMER USE)	CURRENT USE	ADDRESS	PRIORITY RATING*	CONDITION	YEAR CONSTRUCTED
Pillsbury Flour (Warehouse)	Warehouse	101-105 S. 2nd	Local	Good	1921
Seeboth Brothers (Rag & Scrap Metal)	Warehouse	169 S. 2nd	Local	Good	1899
Marine House (Warehouse)	Warehouse	191 S. 2nd	Local	Good	1903
Drake Brothers (Drug, Oil Warehouse)	Tavern	235-239 S. 2nd	Local	Fair	1890
Hein Flour (Flour Co.)	Warehouse	211 W. Seeboth	Local	Good	1938
Teweles Seed (Agricultural Seed Co.)	Warehouse	222 S. 3rd	Regional	Good	1918
National Enamel and Stamping (Tinware Manufacturer)	Office/Warehouse	270 N. 12th	Local	Excellent	1918
Universal Atlas Cement (Cement Distribution Center)	Cement Manufacturer	712 West Canal	Local	Good	1930
City of Milwaukee Municipal Service Building (Repair Shop)	Service Warehouse	1540 West Canal	Local	Good	1925
Falk Corp. (Machine Shop)	Machine Shop	3100 West Canal	National	Good	1900
Grant Marble (Marble Work)	Tannery	123 N. 27th	Regional	Fair	1898

*Indicates level of historic significance.
Source: Department of Interior, 1980. Historic American Engineering Record Survey of the Menomonee Valley, Milwaukee.

Environmental Documentation And Permits

The expansion and extension of West Canal Street will require a series of documents and reports that analyze the environmental impacts of the project. Several special permits may also be needed before the project is approved for construction. This section will review the major elements of the environmental process. The documents, reports, and permits that may be required for the project are summarized in ***Table 2***.

Documentation for the Canal Street Project

Transportation improvement projects utilizing state or federal funds must be preceded by a detailed evaluation of the possible environmental impacts of the action. This evaluation is mandated in the National Environmental Policy Act of 1969, and the Wisconsin Environmental Policy Act of 1972, and is summarized in a formal environmental document.

WisDOT will determine the type of environmental documentation required for the West Canal Street project. The Department utilizes Trans 400, the Wisconsin Administrative Rule governing the implementation of state environmental legislation, to guide its decision making process. Typically, new highway construction of 2.5 miles or longer can be classified as either Type I or Type II actions. Type I actions usually involve major roadways with substantial right-of-way acquisition and significant local impacts. A Type I action requires extensive environmental documentation and analysis in the form of a draft environmental document. This document is subject to in-depth regulatory review and approval before a project can be constructed. Type II actions are used for roadway projects in which significant environmental impacts are not clearly established. This action requires the preparation of a more limited evaluation in the form of an environmental assessment. A finding of no significant impact (FONSI) in the environmental assessment can serve as the final environmental approval for the project.

Preliminary discussions with staff of the Bureau of Environmental Analysis, WisDOT, suggest that West Canal Street can be classified as a Type II action, and thus will require an environmental assessment. This classification was based on the following project characteristics: (1) failure to clearly meet the criteria for an environmental impact statement (i.e. less than 2.5 miles on new alignment), (2) location in an industrial area, (3) existence of other environmental documentation for the project site.

Environmental impact assessments typically cover the entire project scope, regardless of any staged construction plans for the improvement. This suggests that the West Canal Street assessment will need to address the impacts of the entire alignment and the associated bascule and fixed bridges.

Type II assessments should address and analyze all issues which have the potential for environmental impact. The assessment is structured around a set of screening worksheets, which cover eleven environmental factors. These factors include: economics, community, residential, commercial and industrial, agriculture, wetlands, streams, lakes upland wildlife habitat, unique areas (e.g. parks, historic sites), air quality and sound quality.

For the West Canal Street Project, several of these areas, such as agriculture and wildlife habitats, wetlands, and community and residential impacts, will be of minimal importance. Other areas, however, will require more extensive technical analyses, reports, and coordination with various state and federal agencies. The areas of particular significance for the project and the type of analysis that may be required are as follows:

- Stream/Floodplain Impacts: Hydraulic report for structures or roadways that crosses 100-year floodplain. NR 116 and National Flood Insurance Program are applicable.
- Upland Habitat Impacts: Analysis of fish spawning activities in the Menomonee River.
- Air Quality Impact: Emission screening analysis for carbon monoxide.
- Sound Quality Impact: Traffic noise analysis.
- Unique Area Impacts: Historical and archaeological survey and investigation under Section 106 of the National Historic Preservation Act.

Review by oversight agencies and the public is required before an environmental assessment can be approved. The public can also request a public hearing.

TABLE 20
ENVIRONMENTAL DOCUMENTATION REQUIRED FOR MENOMONEE VALLEY ROADWAY DEVELOPMENT

DOCUMENT TYPE	APPLICABLE LAWS	AGENCY OVERSITE
A. Primary Environmental Document Type II Action – Environmental Assessment	National Environmental Policy Act, 1969 Wisconsin Environmental Policy Act, 1972 National Historic Preservation Act, 1966	Wisconsin Department of Transportation Wisconsin Department of Natural Resources Wisconsin State Historical Society Federal Highway Administration U.S. Army Corps of Engineers U.S. Coast Guard U.S. Fish & Wildlife Service
B. Special Reports Hazardous Material Assessment	National Environmental Policy Act, 1969 Wisconsin Environmental Policy Act, 1972 Comprehensive Environmental Response, Compensation & Liability Act, 1980 Superfund Amendments Reauthorization Act, 1986 Resource Conservation Recovery Act	Wisconsin Department of Natural Resources U.S. Environmental Protection Agency
C. Permits Section 9 Section 401 Section 402 Section 404 NR406	 Rivers and Harbors Act, 1899 Clean Water Act Clean Water Act Clean Water Act Clean Water Act, 1977	 U. S. Coast Guard U. S. Army Corps of Engineers Wisconsin Department of Natural Resources Wisconsin Department of Natural Resources Wisconsin Department of Natural Resources

Given the likelihood of contaminated soils in the Valley, it is likely the assessment will require all four phases. Phases I through III are completed before the submission of plans, specifications and estimates, and can take up to 30 months to complete. This time frame may be reduced for West Canal Street because environmental reports have been compiled for the area at the west end of the Valley.

Both WisDOT and the WDNR must approve the hazardous waste assessment report.

Permits

Several features of the West Canal Street roadway project call for special permits. The permit process can typically be initiated as soon as preliminary plans for the project are available. The time necessary to secure a permit varies among agencies, but can take anywhere from three to six months. It is likely that the following permits will be required:

- **Section 9, U. S. Coast Guard.** The proposed bascule bridge over the South Menomonee Canal at the east end of the roadway affects commercially navigable water under the jurisdiction of the Cleveland District of the Coast Guard.
- **Section 404, U. S. Army Corps of Engineers.** Any discharge of dredge or fill into the Menomonee River associated with the construction of the two proposed fixed span bridges is controlled by the St. Paul District of the Corps of Engineers. Nationwide permits that may apply to this project include: No. 13 (bank stabilization), No. 15 (fills incidental to bridge construction) and No. 25 (concrete in steel forms or cells).
- **NR 406, WDNR.** Projects that exceed the National Ambient Air Quality Standards must obtain a construction, modification, or new operation permit.
- **Section 402, WDNR.** Under the Wisconsin Pollution Elimination Discharge legislation, projects disturbing 5 or more acres of land must submit plans for erosion control and storm water management during construction.

Potential Projects And Actions

We have reviewed the West Canal Street Extension and Improvement Study prepared by BRW and concur with its recommendations described as Alternative 1, which was summarized earlier in our report. Providing and east-west corridor in the Valley is the most significant way to connect this industrial district to the surround transportation system and the surround districts of the City. After the Canal Street Extension and Improvement Project is constructed, the City may want to consider a study to determine if new or improved access to the Valley is needed.

Recommendations

We recommend that a comprehensive Phase I investigation of the entire Menomonee Valley be conducted.

We recommend that the land recommendations of our report be reviewed by MMSD to insure that there is adequate sewer flow capacity for the full build-out of the Menomonee Valley.

We recommend that proper stormwater retention be insured for anticipated development of the Menomonee Valley. The rate of stormwater runoff must meet all relevant City of Milwaukee stormwater management ordinances.

We recommend that CP Rail eliminate freight movements through the passenger terminal and confine freight movements along the main freight line.

The following is also recommended:

- Encourage the development of the Menomonee Valley Greenway.
- Extend water and local sanitary sewer and other utility services into the west valley area and put all wires underground.
- Develop and supplement urban design standards to create a distinctive character for the valley using landscaping, entry gateways, and perpetuation of landmarks and special lighting fixtures.
- Continue the cooperative efforts to reduce dust, odor and noise causing activities in the Valley.
- Update the 1987 FEMA floodplain study.

Section V: Land Use Plan

*The **Land Use Plan** for the Menomonee Valley strives to: a) retain and strengthen viable existing industries, b) attract desirable new industrial and business development, c) promote compatible new mixed-use development in selected locations, and d) maintain and protect adjacent neighborhoods and business areas.*

The Land Use Plan recommends that the Menomonee Valley be upgraded and revitalized as an urban industrial and mixed-use district providing sites for a wide range of land uses. Industrial uses will be emphasized in the central portion of the Valley. New industrial/business park development will be promoted on vacant land in the western portion. New commercial, residential, public and open space uses will be encouraged east of 6th Street. The City's initial revitalization efforts will be focused on four "high-priority development areas" in order to help stimulate new investment and development at key locations within the Valley.

The Land Use Plan consists of eight (8) maps and accompanying text which describe: a) existing land use and development conditions, b) issues and concerns that will influence or affect future land development, c) potential improvement and development sites, d) land use recommendations, and e) development priorities for the Valley.

The Land Use Plan is based on a review of previously prepared reports and studies dealing with the Valley; meetings and discussions with local business people, property owners, City staff and public officials; and field surveys and investigations undertaken by the Consulting Team.

It should be emphasized that the Land Use Plan is based on the Consulting Team's analysis of the full range of conditions and potentials within the Valley. In addition to land use and design concerns, the Plan also reflects the market potentials, environmental constraints, access concerns and infrastructure needs of the Valley, as described in other parts of this report.

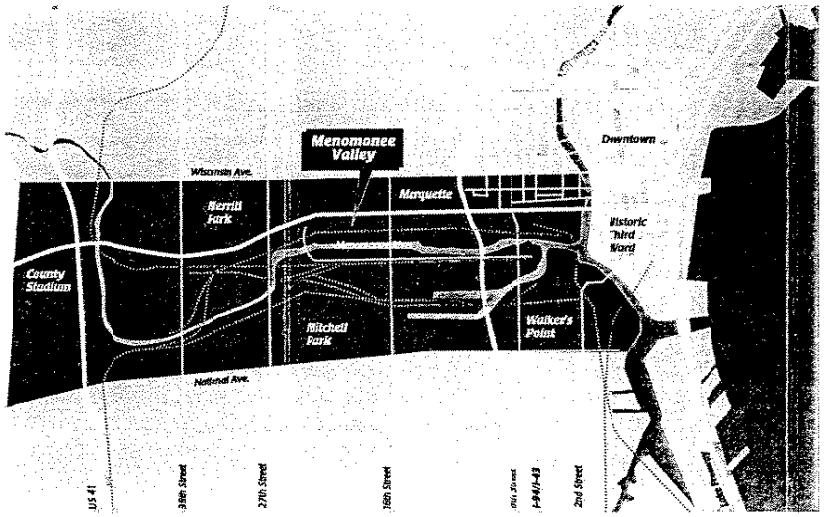
*The Land Use Plan is supplemented by **Land Use Appendix 1**, which describes the features and characteristics of potential development sites, and **Land Use Appendix 2**, which presents design and development guidelines for public and private improvements within the Valley.*

1 ***Generalized Existing Land Use.*** Figure 1 highlights existing land use within the Menomonee Valley. The Valley encompasses a wide range of industrial, business, commercial, public, institutional and residential and uses. The existing land use pattern has a major influence on future development potentials.

2 ***Land Use Issues & Concerns.*** Figure 2 highlights the key land use issues that have been considered in the development program for the Valley. These include the unique opportunities and constraints of various parts of the Valley, and the characteristics of surrounding land use areas and development districts.

3 ***Urban Design Issues & Concerns.*** Figure 3 highlights the urban design issues that have been considered in the development program. The Menomonee Valley shares many of the same urban design concerns as other industrial districts, and design improvements will do much to enhance the Valley for existing industries and new development.

4 ***Other Development Concerns.*** Figure 4 highlights other concerns that influence land development within the Valley, including access, circulation, utilities, waterways, rail lines, topography and environmental conditions. These aspects of the Valley are described in more detail in Section IV of this report.



The Menomonee Valley Land Use Plan encompasses the area from the Milwaukee River to the Woods Veterans Administration Center, between Wisconsin and National Avenues.

While the focus of the Land Use Plan is the industrial corridor, the adjacent neighborhoods and business areas as they relate to the industrial district have also been considered.

Prepared By:

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Fluor Daniel Consulting/
Lockwood Greene Consulting
Edwards & Associates, Inc.

June, 1998

Potential Development Sites. Figure 5 highlights the specific properties within the Valley which will be suitable for development or redevelopment in the future. These include: a) vacant land, b) vacant buildings, c) marginal uses, d) underutilized properties, and e) public facilities.

Land Use Recommendations. Figure 6 presents and use recommendations for the Valley. In general, industrial and business uses are emphasized in the central and western portions of the Valley, and commercial and mixed-use development is encouraged in the eastern portion.

Priority Categories. Figure 7 highlights eight "priority categories" for improvement and development within the Valley. The priority categories take into consideration each site's unique characteristics and potentials, including size, configuration, accessibility, infrastructure and environmental conditions.

Priority Development Areas. Figure 8 presents specific recommendations for four "clusters" of properties which should receive priority improvement and development attention. These include: a) the railroad shops site, b) the Reed Street Yard, c) the properties along Canal Street, just east of Emmber Lane, and d) the properties near 6th and Canal Streets.

1 Generalized Existing Land Use

For purposes of this analysis, the Menomonee Valley generally extends from the Milwaukee River to the Woods Veterans Administration Center, between Wisconsin and National Avenues. It includes a wide range of industrial, commercial, public, institutional and residential land uses.

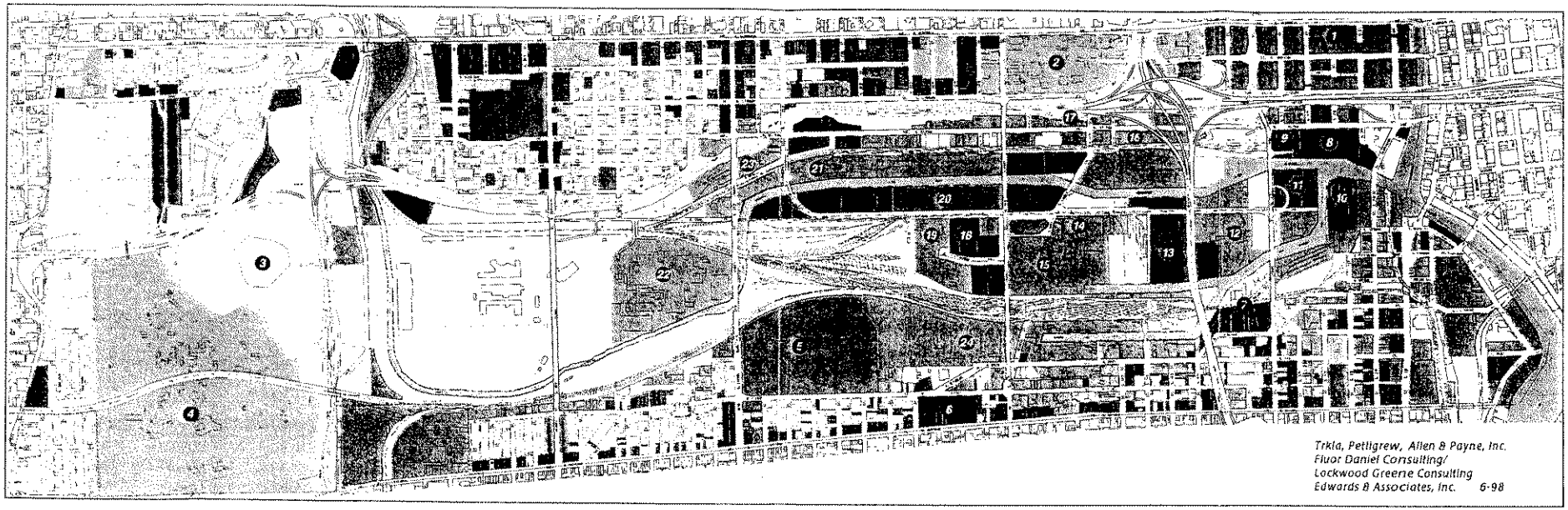
Figure 1 highlights generalized existing land use within the Menomonee Valley. The existing land use pattern has a major influence on future development potentials within the Valley.

Industrial Uses. Industrial uses predominate within the Menomonee Valley, particularly in the central portion of the Valley. Existing industrial uses are quite diverse and include manufacturing, assembly, distribution, warehousing, salvage yards and office/research facilities. Industries range in size from large facilities of over 50 acres, to small operations occupying one or two residential lots. While most industries are sound and well maintained, some are characterized by deterioration and/or underutilization.

Commercial Uses. Commercial uses are scattered throughout the Menomonee Valley, particularly around the periphery. Commercial uses within the heart of the Valley include Potawatomi Bingo and a number of repair garages, body shops and auto salvage yards. Several of the auto-related uses are characterized by deterioration and a poor image and appearance. Retail and convenience commercial uses are located primarily around the periphery of the Valley, particularly along National Avenue, Wisconsin Avenue, 27th Street and 6th Street.

One/Two-Family Residential. Urban neighborhoods border the industrial area to the north and south. These include Avenues West, Merrill Park and Story Hill to the north; and Silver City, Clark Square and Walker's Point to the south. Several residential enclaves along the southern edge of the industrial area are physically isolated from a larger neighborhood context, and are characterized by deferred maintenance and deterioration.

Multi-Family Residential. Apartments and condominiums are scattered throughout the adjacent neighborhoods, particularly within Avenues West. A cluster of multi-family buildings, including some newer construction, is located near 27th and Pierce Streets, in close proximity to the industrial area. Several older commercial and industrial buildings in the eastern portion of the Valley are being converted to residential use, which reflects reinvestment in the area and a change in the established land use pattern.



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Major Existing Uses:

1. Downtown Milwaukee
2. Marquette University
3. County Stadium
4. Woods Veterans Center
5. Mitchell Park and Domes
6. Clark Square Mega Mall
7. P&V Tannery Complex
8. US Post Office
9. Amtrak Station
10. Metropolitan Sewerage District
11. Bureau of Bridges & Streets
12. Milwaukee Tallow
13. WEPCO Generating Plant
14. Stockyards
15. Emmpak Foods
16. Aldrich Chemicals
17. Cerac Chemicals
18. Potawatomi Bingo
19. Peck Meat Packers
20. Marquette Athletic Fields
21. Southstar Steel
22. Falk Corporation
23. Redstar Yeast
24. Miller Compressing

Public/Semi-Public Uses. Public and semi-public uses are scattered throughout the Valley, and are particularly prominent in the area between 2nd and 16th Streets. Virtually all public and semi-public uses are sound and well maintained.

Parks and Open Space. Marquette University recently developed new athletic fields within the heart of the Valley. Mitchell Park, a major regional attraction, is located adjacent to the industrial area. Several other parks and open spaces are located in surrounding neighborhoods.

Institutional Uses. Marquette University is located just north of the Valley, and the Woods Veterans Center is located just west. While a number of schools, churches and other institutional uses are scattered throughout the adjacent neighborhoods, none are located within the heart of the Valley.

Downtown. The Valley encompasses the southwestern corner of Downtown Milwaukee, which contains a diverse array of retail, service, office, entertainment and institutional uses.

County Stadium. Milwaukee County Stadium and its associated parking lots are located at the west end of the Valley. Construction is currently underway to replace the existing facility with a new stadium--Miller Park--just east of the existing stadium.

Cemeteries. Two cemeteries are located along the western edge of the Study Area.

Vacant properties. Vacant land and buildings are widely scattered throughout the Menomonee Valley, and are particularly prominent in the western portion of the Valley. The most significant vacant properties are former railroad lands, including the 106-acre shop site near 35th Street. Most vacant properties are not maintained and detract from the overall image and appearance of the Valley.

Land Use Issues & Concerns

In terms of land use, the primary objectives of the Menomonee Valley Study are to: a) retain and strengthen viable existing industries; b) attract desirable new industrial and business development; c) promote compatible new mixed-use development in selected parts of the Valley; and d) maintain and protect adjacent neighborhoods and business areas.

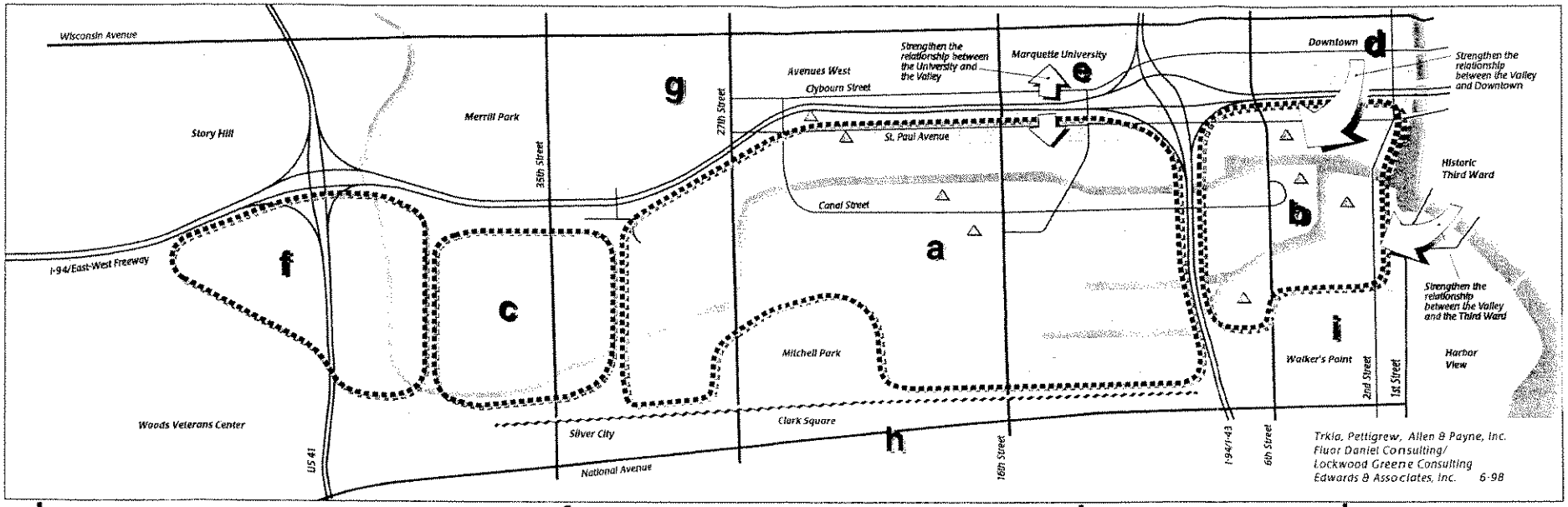
Figure 2 highlights key land use issues and concerns that should be considered in the improvement and development program for the Valley.

a ***Industrial Core.*** The heart of the Valley is an active industrial district, and the site of several major existing businesses. Historically, the Valley's negative image has been largely due to the industrial activities carried out within this subarea. Many improvements have been made within the industrial core in recent years. However, this subarea still suffers from physical isolation, limited accessibility, aging infrastructure, environmental problems, and a poor overall appearance. Major environmental, infrastructure and image improvements are still needed.

b ***River's End Area.*** While the eastern portion of the Valley contains several important existing uses, it is also characterized by underutilization and vacant land. However, this subarea has a potentially attractive waterfront orientation. If this subarea is cleaned up and reclaimed, it will provide a suitable location for new office, commercial or other more intensive uses related to Downtown and the Historic Third Ward. When the proposed at-grade intersection is constructed at 6th Street and Canal Street, this subarea will have new visibility and exposure, and new mixed-use development should be considered.

c ***Maintenance Shop Area.*** This subarea was previously the location of railroad shops and maintenance facilities. This land is now vacant, except for several unused, unsafe and dilapidated buildings. While the property appears to have significant potential for new development, it is currently landlocked and polluted. However, the western portion of this subarea is now being developed as surface parking to serve the new Miller Park, which will bring new access and infrastructure service to the general area.

Non-Industrial Development. Several non-industrial developments have occurred within the Valley in recent years, including Potawatomi Bingo, the Tannery and various public and institutional uses. As the Valley continues to be revitalized and redeveloped, there will be increased pressure to rezone portions of the Valley for office, commercial and mixed-use development. Clear policies should be established regarding the degree to which non-industrial uses will be permitted within the Valley, and where these uses may be located.



d ***Downtown.*** The industrial corridor is located adjacent to Downtown Milwaukee and the Historic Third Ward, although the presence of the East-West Freeway, the river and other physical barriers separate these nearby activity centers from the heart of the Valley. Vehicular and pedestrian connections should be improved so that the eastern portion of the Valley can be redeveloped for new uses and facilities that more directly serve and support Downtown.

e ***Marquette University.*** Like Downtown, Marquette University is located just north of the Valley, but is separated from the industrial area by the Freeway and the bluff. Marquette recently developed athletic fields within the Menomonee Valley, and has a strong presence within the general area. Opportunities for further strengthening the relationship between the University and the Valley should be explored.

f ***Stadium Area.*** The west end of the Valley is anchored by the VA Center and County Stadium. Current plans call for construction of the new Miller Park stadium directly east of the existing facility, together with street and access reconfiguration. These major public improvement projects should be used as an impetus for large-scale new development within the former railroad shops site (Subarea C).

g ***Neighborhoods to the North.*** The Valley is closely bordered on the north by established urban neighborhoods. While the bluff and major transportation corridors separate these neighborhoods from the industrial area, the neighborhoods do experience some odor and other objectionable impacts. In general, efforts to improve and upgrade the industrial area should not be allowed to adversely impact adjacent neighborhoods. If the Valley can be revitalized, the neighborhoods will also benefit.

h ***Neighborhoods to the South.*** The neighborhoods to the south are more directly impacted by the Valley's industrial uses, including traffic, trucks and pollution. In several blocks, industrial uses are located directly adjacent to residential properties. More effective screening, buffering and transitions should be provided between industrial and residential uses.

i ***Neighborhoods to the Southeast.*** The southeast corner of the Valley includes a diverse mix of industrial, commercial and residential uses. While this area is characterized by some deterioration and underutilization, it also has an attractive historic scale and character, and has been the site of some new investment and development. This area is now being considered for new office, service, housing and mixed-use development that will complement and support the nearby industrial area.

3 Urban Design Issues & Concerns

The Menomonee Valley has many urban design concerns that are typical of older industrial districts. These include poorly maintained sites and buildings, unkempt vacant lots, poorly screened outdoor storage yards, little landscaping or usable open space, few pedestrian amenities or conveniences, an antiquated canal system, and minor fugitive dust problems.

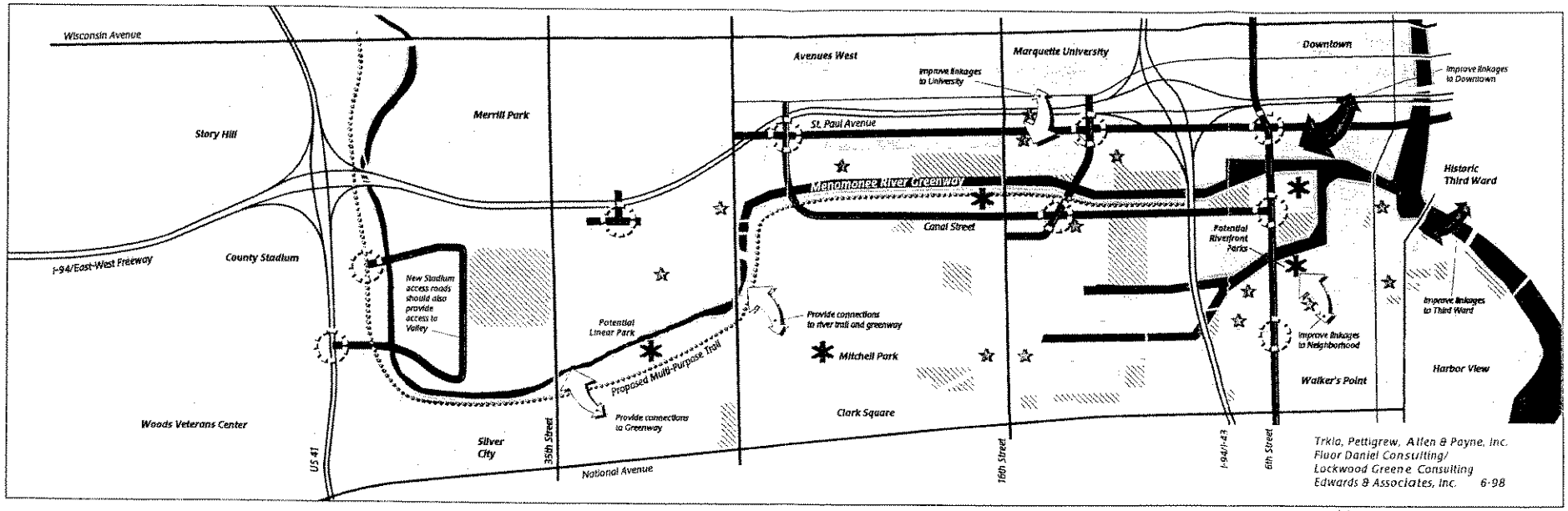
Figure 3 highlights urban design issues and concerns that should be considered in the improvement and development program for the Valley.

Community Context. The Valley is currently separated and isolated from the surrounding community by the presence of several major transportation corridors, the rivers, the bluff and various other barriers. There is little direct relationship between land uses within the Valley and those in surrounding areas. Few surface streets link the Valley to adjacent activity centers. The Valley should be better connected to and integrated with the surrounding community and the City as a whole.

Sites & Buildings. While most existing commercial and industrial properties are well-kept, several are characterized by deferred maintenance and a poor image and appearance. A range of actions should be undertaken to improve and upgrade private properties, including the repair of buildings in poor condition, landscaping within front yards, and the screening and buffering of parking and outdoor storage areas. These improvements are particularly desirable along major roadways, adjacent to residential neighborhoods, and in other areas highly visible to the public.

Public Rights-of Way. Several projects should be undertaken to improve the appearance of public rights-of-way within the Valley. Streetscape improvements should be undertaken along major roadways, including street trees, street light fixtures and distinctive public signage. Street and sidewalk surfaces should be adequately maintained. Utility corridors and rail lines should be landscaped and otherwise screened in areas where they are highly visible to the public. The number of utility poles should be minimized. Public lands which are to remain undeveloped should be periodically cleaned up and maintained.

Parks & Open Spaces. There are few parks or usable open spaces within the heart of the Valley. However, landscaped open spaces and recreational areas can be valuable amenities within an industrial district. Several park improvements have been discussed in recent years, including the Henry Aaron State Park Trail and expansion of Mitchell Park. Other open space opportunities include the river corridor, vacant lots, unused streets and alleys, picnic areas and playfields on private properties, playgrounds in adjacent neighborhoods, and ornamental parks at key intersections.



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Importance of Urban Design:

Improvement of the physical environment is too often overlooked in the economic development strategies for industrial areas. However, urban design improvements such as attractive streetscapes, usable open spaces, well maintained sites and buildings, and distinctive signage and gateway treatments can help create a unified and marketable image for the Valley, provide a safe workplace for employees, and create an attractive environment for potential employers. Urban design improvements will not conflict with the operational aspects of the industrial district.

Urban Design Objectives:

1. *Improve the image and perception of the Valley for existing businesses and potential investors;*
2. *Improve the appearance of public rights-of-way;*
3. *Upgrade industrial sites and buildings;*
4. *Provide open spaces and other new amenities for employees and nearby residents;*
5. *Create an environment that is safe and convenient for pedestrians; and*
6. *Connect and relate the Valley to the surrounding community.*

River Corridor. The Menomonee River should become an attractive open space and recreational corridor which extends through the full length of the Valley, providing a focal point for recreation and new development. The State is currently developing plans for the Henry Aaron State Park Trail. Landscaping, walkways and pedestrian amenities should be provided along the river. Sites abutting the river should take advantage of their waterfront locations. The confluence of the rivers and canals in the eastern portion of the Valley represents a unique opportunity for park and open space development.

Pedestrian Facilities. Pedestrian demand within the Valley is currently very small and there are few pedestrian conveniences or amenities within the industrial area. However, as revitalization continues and the Valley is better linked to the surrounding community, the need for pedestrian facilities will increase. To the extent possible, Milwaukee's traditional grid street pattern should be extended into the Valley. Roadways should have sidewalks along both sides of the street. Pedestrians should have safe and convenient access to businesses, parks and open spaces within the Valley.

Historic Buildings. The historic significance of the Valley derives from its prominence in the late 19th and early 20th centuries as a major industrial center. Several buildings within the heart of the Valley which have historic or architectural interest are highlighted in Figure 3. In addition, the adjacent Walker's Point neighborhood is a historic district, which offers certain incentives for reinvestment. To the extent possible, historic structures should be retained, repaired and upgraded as necessary, and converted to new uses as required.

Entryway Areas. Entryway design features should be developed to help establish a positive new identity for the Valley, distinguish it from surrounding activity centers, and signify new public and private commitment to revitalization of the area. Entryway design features should be provided at key locations where major streets actually enter the Valley, and might include special signage, lighting, landscaping and/or sculptural feature. A new Valley 'logo' should be developed for use on entryway design features and other public signage.

Other Development Concerns

In addition to the land use and urban design issues described in previous exhibits, several other physical conditions will influence future improvement and development within the Menomonee Valley.

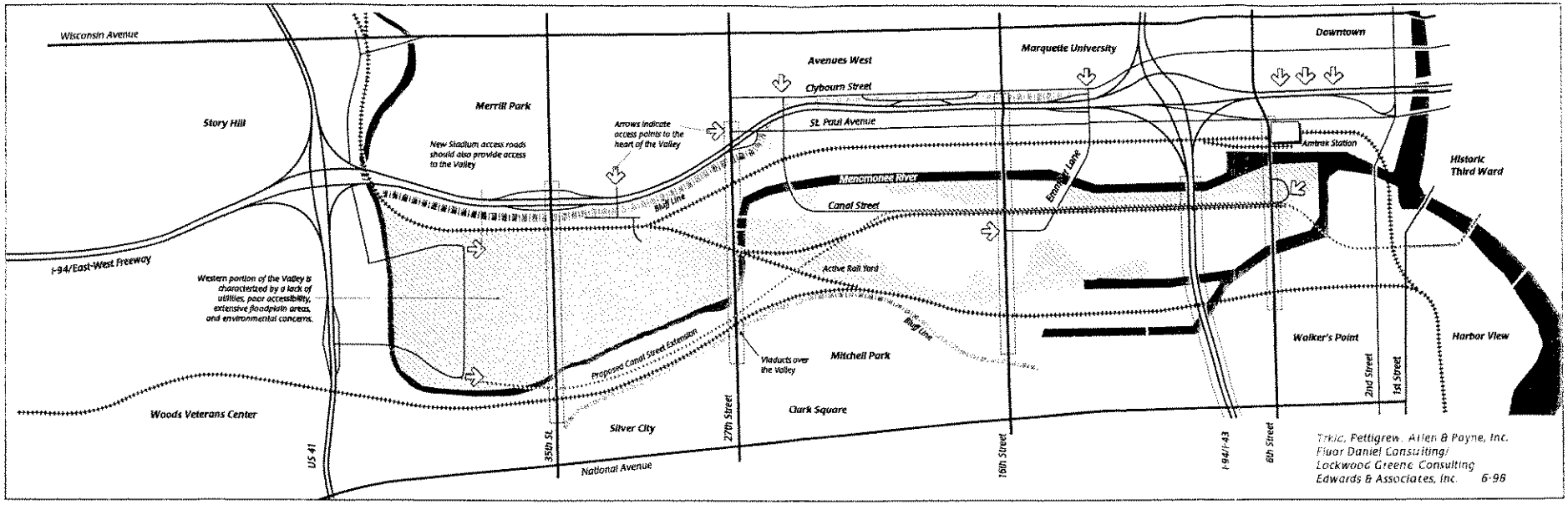
Key development considerations related to transportation, utilities and the environment are highlighted in Figure 4. These components of the Valley are described in more detail in other sections of this report.

Regional Access. Even though the Menomonee Valley is located close to several regional transportation routes, it suffers from limited accessibility and poor internal circulation. Full and partial interchanges along I-94 and US 41 are highlighted in Figure 4. Topography, numerous rail lines and waterways, and the presence of several large industrial sites and rail yards tend to isolate the Valley. These conditions have precluded connections to the surrounding street system and rendered parts of the industrial area essentially "land locked." Opportunities to improve access to the nearby freeway system should be further explored.

Surface Streets. Overall, the Valley's internal street system is poor. It has relatively few streets for an area its size, lacks a continuous east-west traffic route, and has limited access to north-south arterials. Arterial connections to the heart of the Valley are highlighted in Figure 4. Canal Street and St. Paul Avenue are the only east-west arterials. Large tracts of land, particularly in the western portion of the Valley, have no street access. Improvements should include: a) extending streets where they do not exist, b) providing connections between streets, and c) integrating the Valley's streets into the surrounding street system.

Public Transit. The Valley is not well served by public transportation. Only one bus route directly serves the Valley, along St. Paul Avenue. While several north-south bus routes pass "over" the Valley, bus stops are located along the viaducts, and bus riders must descend to the Valley floor along vehicle ramps or pedestrian stairways. As the Valley's street system is upgraded and better connected to the surrounding community, more efficient transit service should be extended to the Valley.

Rail Lines. While the Valley's significance as a rail hub has diminished significantly, extensive railroad activity still remains, including passenger and freight movement, and maintenance and staging yards. Rail spurs are scattered throughout, including one along the south side of Canal Street which is considered unsafe and disruptive. Many of the former rail yards are unused and available for development. While the extensive rail facilities are constraints for land development, access and circulation in several parts of the Valley, rail service is an important asset for the industrial area.



Waterways. The river and the two canals continue to accommodate barges and freighters. The river is negotiable west to 25th Street. The Valley's waterfront was historically used for the transfer of freight from land to barge and shipping vessels, although this activity has diminished. The remaining bulk commodity and water-using shippers should eventually be relocated to Inner Harbor locations, and the Valley's waterways made available for more intensive recreation. However, the presence of the waterways also represents a constraint for land development and circulation in several locations.

Transportation Projects. Several major transportation projects are now under review that would significantly improve access to and circulation within the Valley. The 6th Street viaduct will be replaced, and an at-grade intersection at Canal Street has been recommended. US 41 will be reconfigured as a part of the new Stadium project, and will provide more efficient service to the western portion of the Study Area. Projects described in more detail in other sections of this report include the East-West corridor project, the Light Rail Transit system, and the proposed extension of Canal Street.

Utility Service. The east end of the Valley, from about 25th Street east to the Milwaukee River, is well served by public utilities. Existing utilities include storm sewer, sanitary sewer, electric power, gas, telephone and steam distribution lines. Several utility facilities are located within the heart of the Valley, including the WEPCO steam generating plant and power substation along the north and south sides of Canal Street just west of I-94. While the west end of the Valley is not currently served by public utilities, construction of Miller Park will entail new utility extensions into this area.

Environmental Conditions. The Menomonee River Valley is a filled rice marsh and tamarack swamp, and new development will entail significant environmental challenges. Previous studies have documented soft soils, a high water table, pervasive soil and groundwater contamination, point and non-point source water pollution, and air quality concerns. Because of historic land uses, the western section of the Valley, between 32nd and 44th Streets, has the greatest potential for contamination. However, the eastern end of the Valley, between I-94 and 2nd Street, also has the potential for contaminated sites.

Topography. Topography will be an important development determinant within the Menomonee Valley. The difference in elevation between the Valley floor and the bluffs to the north and south impede vehicular and pedestrian movement, and have historically served to separate businesses within the Valley from the surrounding community. However, the Valley's topography can become an attractive visual feature and design component.

Floodplain. Future development within the Valley will need to consider the flooding characteristics of the Menomonee River. The 100-year floodplain covers a significant part of the study area, beginning near the South Menomonee Canal and continuing west to 44th Street. The low lying areas west of 35th Street will require flood protection before development can occur. Previous studies have considered removing the lands from the floodplain by filling or flood-proofing the area by levee construction.

Potential Development Sites

A number of properties within the Menomonee Valley may be suitable for development or redevelopment in the future. These include: a) vacant land, b) vacant buildings, c) former railroad lands, d) marginal or underutilized properties, e) public uses subject to relocation, and f) residential properties located along the southern edge of the Valley.

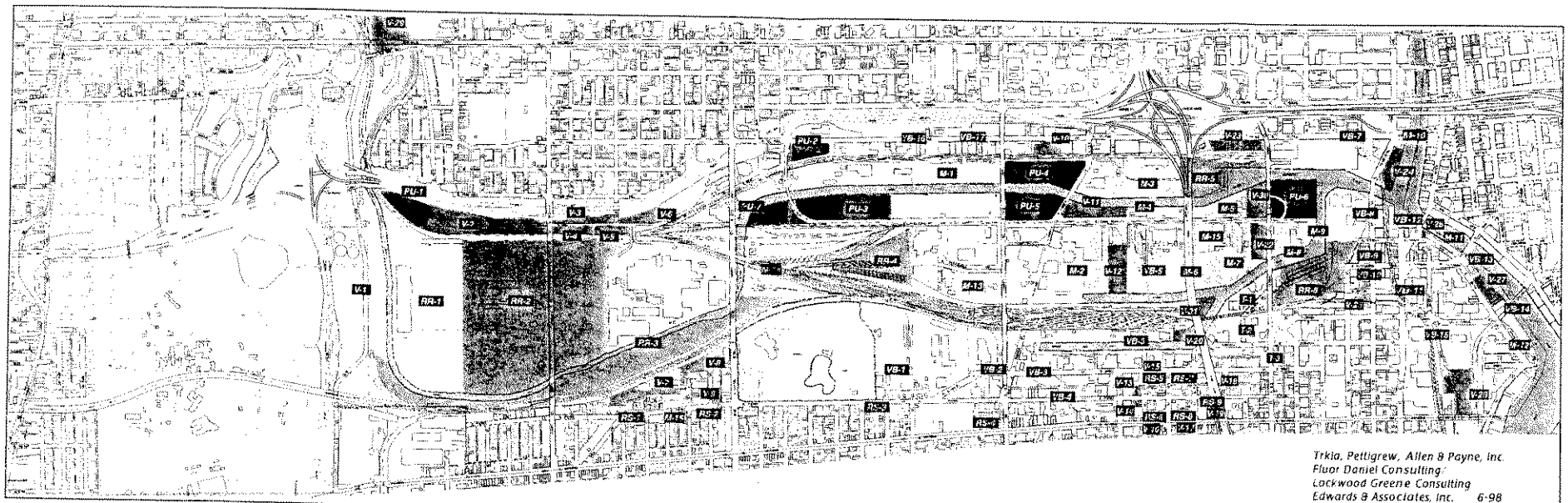
The properties highlighted in Figure 5 represent opportunities for new building development, open space and other productive uses.

Vacant Land. The Menomonee Valley includes a number of vacant land parcels, particularly in the eastern and western portions of the Valley. A number of these vacant parcels are publicly owned. While all vacant parcels are conceivably available for development, several are characterized by poor accessibility, environmental problems or other constraints that will influence their future use and disposition.

Vacant Buildings. While the Menomonee Valley does not have a high vacancy rate, there are several vacant and partially vacant industrial and commercial buildings scattered throughout the Valley, particularly east of 3rd Street. While some vacant buildings are characterized by deferred maintenance and/or functional obsolescence, many appear to have reuse potential. Several vacant buildings in the eastern portion of the Valley have historic interest.

Former Railroad Properties. A major portion of the Valley was previously used for rail yards, rail maintenance shops and other railroad activities. Although several active rail lines still pass through the Valley, many of the railroad properties have been vacated and are available for redevelopment. The largest is the 106-acre "shops" site located near 35th Street. The former railroad properties are characterized by environmental concerns and most have limited accessibility.

Public Land Holdings. A significant portion of the Valley is in public ownership, including several operational sites and buildings. Public uses likely to remain include the Post Office, the WEPCO facilities and the new Metropolitan Sewerage District complex. However, City-operated facilities, such as the DPW Repair Garage or the Bureau of Bridges and Streets, might conceivably be made available for new employment-generating private development in the future.



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Analysis of Development Sites:

The existing characteristics and future potentials of each development site are summarized in Land Use Appendix 1. For each site, Appendix 1 indicates:

Site number. *Each site is numbered, and its location is indicated on Figure 5.*

Site size. *Sites range in size from small residential lots to over 100 acres.*

Owner. *While several of the sites are publicly owned, most are in private ownership.*

Current Use. *While most sites are vacant, some sites are used for low-intensity uses.*

Current Zoning. *Most sites are zoned for industrial use.*

Accessibility. *The accessibility of each site for vehicular, rail and water transportation is highlighted.*

Utility Service. *The availability of water, sanitary sewer, storm sewer and other utilities at each site is highlighted.*

Environmental Conditions. *Environmental conditions that may influence the future use of each site are highlighted, including soils, topography, possible contamination, etc.*

Development Potential. *The relative potential of each site for new development is assessed.*

Recommended Future Use. *Based on each site's unique characteristics and potentials, one or more recommended future land uses are listed. Land use recommendations are highlighted in Figure 6.*

Improvement & Development Priority. *Each site is placed in one of several "priority development categories," as highlighted in Figure 7.*

Underutilized or Marginal Properties. In addition to vacant land and buildings, the Valley includes a number of underutilized properties, particularly in the central portion of the Valley. These include outdoor storage areas, marginal industrial and commercial operations, and excess land owned by the railroads and others. These properties should be devoted to more productive uses in the future.

The Tannery. The former Pfister & Vogel Tannery complex is in the process of being converted to office, commercial and residential use. While several of the buildings have already been converted, a significant amount of vacant space remains within the complex, particularly north of the rail tracks.

Stadium Development Sites. While these sites were vacant at the time of the land use survey, they are now being developed as surface parking to serve the new Miller Park Stadium facility.

Residential properties. Several residential properties in the southern portion of the Valley are located in blocks that are zoned for industrial use, or are surrounded by existing industrial uses. These properties may be under pressure for land-use change in the future.

Other Potential Development Sites. It should be emphasized that Figure 5 highlights only the potential development sites that have been identified as a part of the current study. There may well be other buildings and land parcels with potential for redevelopment or land use intensification that have not yet been identified. Furthermore, as the revitalization program continues, additional opportunities for expansion and new development within the Valley will undoubtedly arise.

Land Use Recommendations

It is recommended that the Menomonee Valley be upgraded and revitalized as an urban industrial and mixed-use district providing sites for a wide range of land uses. While industrial and business uses will be emphasized in the central portion of the Valley, commercial, residential, public and open space uses will be permitted in certain locations.

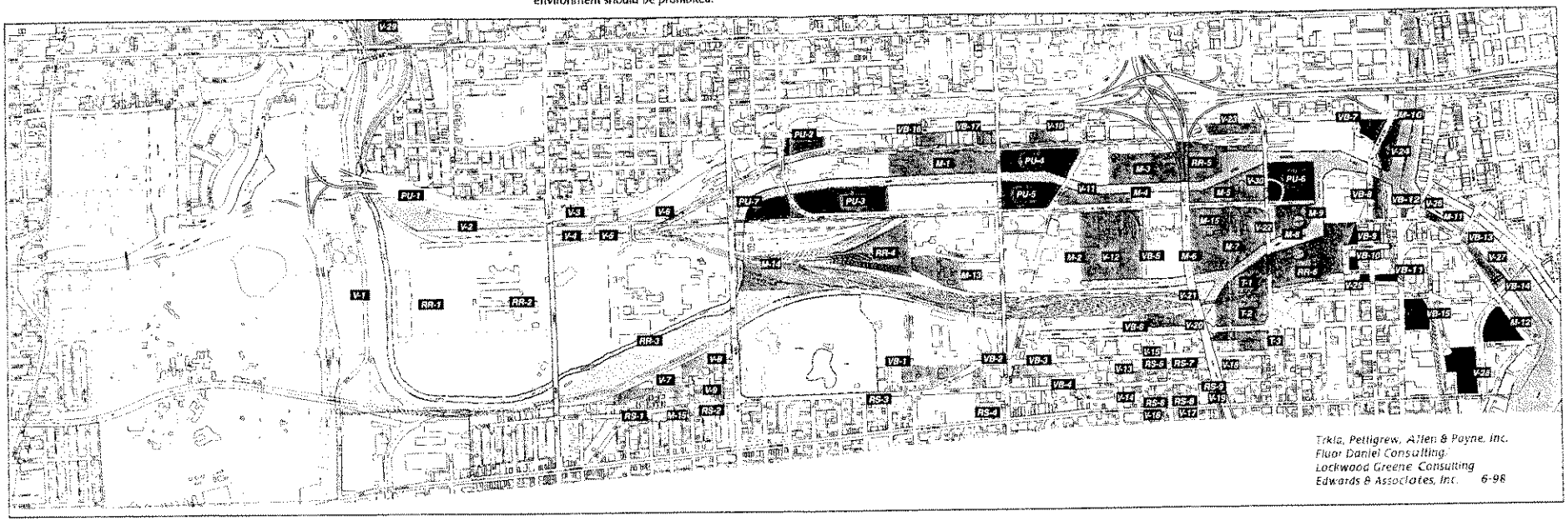
Land use recommendations for each potential development site are highlighted in Figure 6.

Industrial Development Sites. Most sites within the heart of the Valley are recommended for industrial use. These sites will entail the development of vacant land, the reuse of vacant buildings, and the redevelopment of marginal properties. These sites are suitable for manufacturing, assembly, warehousing, distribution, research facilities and similar industrial uses. Labor-intensive uses should be encouraged, and new uses that relate to or complement existing industries should be promoted. New uses which generate excessive noise, odor, dust or other adverse impacts that will degrade the Valley's environment should be prohibited.

Industrial Park Site. The dilapidated buildings at the railroad shops site (Site RR-2) should be removed and the site cleaned up and landscaped. If environmental issues can be resolved, the site should be marketed and redeveloped as a planned industrial/business park, offering sites for a range of manufacturing, warehousing, distribution and office uses. Development of this area should include a greenway/trail along the river's edge. If environmental problems cannot be overcome and building development is not possible, this site should be maintained as landscaped open space.

Mixed-use Development Sites. The string of sites along and near the rivers and canals represent unique opportunities for mixed-used development that will serve to connect the Valley with Downtown, the Historic Third Ward and the Walker's Point neighborhood. These sites should be promoted for offices, service uses, specialty retail and housing. Several of the vacant buildings have historic interest and appear to have reuse potential. Where possible, public access to the river's edge should be provided as a part of the improvement and development of these sites.

Industrial/Commercial Sites. The sites located south of Seeboth Street between 2nd and Water Streets are recommended for a mix of office, commercial service and light industrial uses. Most vacant buildings appear to have reuse potential, and several have historic interest.



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The recommendations presented in Figure 6 are based on the Consulting Team's analysis of the full range of conditions and potentials within the Menomonee Valley. In addition to land use and design considerations, these recommendations also reflect the market potentials, environmental constraints, access concerns and infrastructure needs of the Valley, as described in other sections of this report.

Development priorities within the Valley are presented in Figure 7; recommendations for high-priority sites are presented in Figure 8.

Parks and Open Spaces. Several sites are recommended for park or open space use. These include land parcels along the bluff and the river that are not suitable for building development, and several sites where small open spaces should be provided in conjunction with new mixed-use development. As mentioned above, if Site RR-2 proves to be unsuitable for building development, it should be maintained as a green space and open space amenity for the Valley.

Stadium Development Sites. The sites on the western edge of the Valley are being developed as surface parking to serve the new Miller Park stadium facility. Development of these sites will include construction of a new "ring road" which will also serve to provide vehicular access to Site RR-2. Public access to the river should be provided. Fences along the river's edge should be prohibited.

Public Use Sites. It is recommended that DPW undertake a study of its properties within the Valley to determine if these operations should be eliminated or relocated in order to provide additional land for new revenue producing and employment generating private development. Most public use sites are located along the river, and public access to the river should be provided. Fences along the river's edge should be prohibited.

Residential Retention Sites. The residential sites along the southern edge of the Valley should be maintained for residential use in the immediate future. To the extent possible, screening and buffering should be improved between industrial uses and adjacent residential areas. Vacant lots within theses residential blocks might be developed as park sites to help serve the growing youth population within the adjacent neighborhoods.

7 Priority Categories:

Potential development sites within the Menomonee Valley have been evaluated and compared in terms of size and configuration, access, utility service, environmental conditions and other development considerations (see Land Use Appendix I).

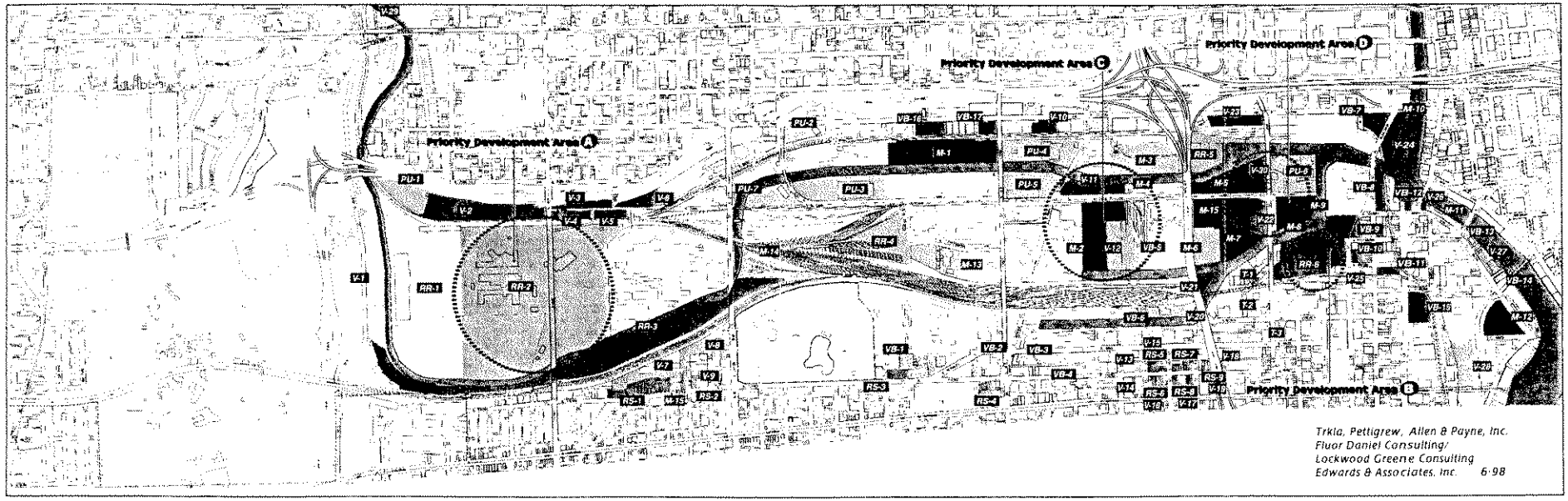
Based on this evaluation, Figure 7 highlights eight "priority categories" which indicate the relative potential of each site for improvement, development and/or redevelopment.

Category 1. These sites are already committed for improvement or development. They include the stadium development sites at the far western end of the Valley, and the Tannery complex at 6th and Virginia Streets.

Category 2. These sites are vacant, well served by public infrastructure, and have good size and configuration. While several of these sites have environmental concerns and/or existing structures, they appear to have good potential for immediate improvement and development. Category 2 sites include vacant properties along St. Paul Avenue, the Reed Street Yard, City-owned parcels along Canal Street, and several other sites in the eastern portion of the Valley.

Category 3. These sites are also vacant but are characterized by certain additional limitations or constraints, including poor accessibility, a lack of utility service, unknown environmental conditions, and/or poor size and configuration. Many Category 3 sites will require off-site improvements and/or additional study prior to development or redevelopment. Category 3 sites include the maintenance shops property and other former railroad lands, and several small sites along the southern edge of the Valley.

Category 4. These sites have good size and configuration, are well served by public facilities and infrastructure, but are currently occupied by marginal or low-intensity uses. These sites appear to be well suited for redevelopment, although they will require land assembly and the potential displacement of existing uses. Category 4 sites include several properties within the heart of the Valley, including a cluster of sites near the intersection of 6th and Canal Streets.



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High-Priority Development Areas:

While potential development sites are widely scattered throughout the Valley, and some sites are more suitable for immediate development than others, there are several "clusters" of properties which should receive high-priority improvement and development attention.

More specific recommendations for these "High-Priority Development Areas" are presented in Figure 8.

Category 5. These sites are also occupied by marginal or low-intensity uses, and are similar to the sites in Category 4. However, these properties are characterized by additional redevelopment constraints that will need to be addressed, including limited accessibility, a lack of utilities, and/or poor size and configuration. Category 5 sites are widely scattered throughout the Valley.

Category 6. This category encompasses public facility sites. It is recommended that DPW undertake a study of its properties within the Valley to determine if these uses should be eliminated or relocated in order to make these sites available for new revenue producing and job generating private development. Based on the results of such a study, certain of these public use sites could become high priority development sites in the future.

Category 7. These sites are quite small, poorly sized, physically isolated, or characterized by other severe development constraints. These properties appear to be unsuitable for building development, although a few might serve as expansion space for nearby existing businesses. In addition, several of these properties might receive priority attention as public or private open space. Most Category 7 sites are located along the waterways or the bluff.

Category 8. This category includes the residential sites along the southern edge of the Valley. These sites should be maintained for residential use, at least in the immediate future, and redevelopment for non-residential uses is not recommended. Selected vacant lots within these blocks might be developed as park land to serve the growing youth population in the adjacent neighborhoods.

Priority Development Areas

While potential development sites are widely scattered throughout the Menomonee Valley, there are several "clusters" of properties which should receive priority improvement and development attention.

Four high-priority redevelopment areas have been identified that could initiate the revitalization program. They include:

A - *the former railroad shops site, which is recommended for industrial/business park development;*

B - *the Reed Street rail yard site, which offers exciting potential for waterfront-oriented and mixed-use development;*

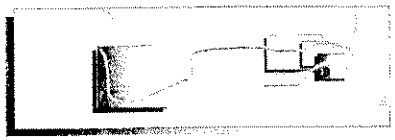
C - *the cluster of vacant and marginal properties along the north and south sides of Canal Street east of Emmber Lane, which is recommended for new industrial development; and*

D - *the cluster of properties near 6th and Canal Streets, which is recommended for office/showroom or industrial development.*

Figure 8 highlights improvement and development recommendations for each high-priority area within the Valley. In some cases, two alternative "scenarios" are presented for the improvement and development of specific properties, together with an indication of the "preferred" scenario for generating jobs, revenues and other benefits.

In general, it is recommended that the City of Milwaukee cooperate with and assist existing industries and property owners within the Valley to achieve land use and development recommendations, as described in the ***Implementation*** *section of this report.*

Additional ***Design & Development Guidelines*** *for sites, buildings and public rights-of-way are presented in Land Use Appendix 2.*

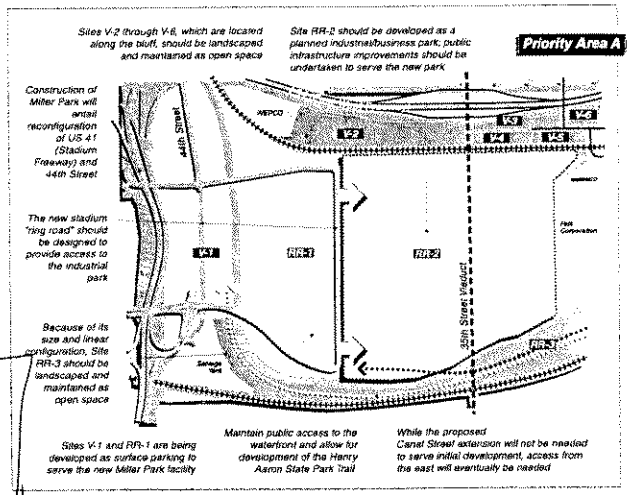


PRIORITY AREA A

Priority Development Area A consists of the former railroad shops site. It encompasses approximately 106 acres of land at the far west end of the Menomonee Valley, just east of the new Miller Stadium.

Development Assets & Advantages:

- Vacant property
- Excellent size and configuration; one of the largest expanses of unused industrial land in the City
- Single ownership
- Potential rail service
- Adjacent to Miller Stadium, which is already undergoing significant infrastructure improvement
- Riverfront location



Development Limitations & Constraints:

- Lack of interior street system
- Lack of internal utility service
- Documented evidence of environmental pollution
- Located within the 100-year floodplain
- Problematic soils
- Presence of dilapidated and unsafe vacant buildings
- Visual eyesore

Improvement & Development Recommendations:

- Detailed environmental analyses should be conducted to: a) more fully document soil and environmental conditions, b) estimate the extent and cost of environmental remediation, and c) determine the feasibility of new urban development at this location.
- If urban development is determined to be feasible, this property should be redeveloped as an industrial/business park. The new park should accommodate a range of manufacturing, assembly, distribution, warehousing and office/research uses. It should offer an environment that will successfully compete with other newer industrial parks in the Milwaukee area, but should be designed to reflect its urban location.
- The property should be designed and developed according to an overall master development plan in order to ensure the coordination of building sites, circulation, parking and pedestrian and open space facilities. While the industrial/business park could be phased over a period of years, it should not be parceled off and designed on a piece-meal basis.
- In addition to environmental clean up, several other projects and improvements should be undertaken to allow for industrial park development. These include: a) access improvements, including connections to the new "ring road" to be constructed as a part of Miller Park; and b) extension of all required public utilities, including water, sewer, gas and electric service.
- While the proposed Canal Street extension is not considered essential to the initial development of this property, access from the east will eventually be needed as the industrial park is developed. Design of the industrial park should allow for construction of the Canal Street extension--or a similar roadway--at some point in the future.
- Pending the implementation of a development program for this property, the existing dilapidated structures should be removed and the appearance of the site improved with appropriate plantings and landscaping. This will serve to eliminate a major eyesore within the Valley and make the site more appealing to potential users. If development of any or all of the property proves to be infeasible, the remaining green space should be maintained as a visual amenity, enhancing the overall appearance of the Valley.

PRIORITY AREA B

Priority Development Area B consists of the Reed Street Yard. It encompasses approximately 17.5 acres of land along the south side of the South Menomonee Canal, generally extending from 6th to 3rd Streets.

Development Assets & Advantages:

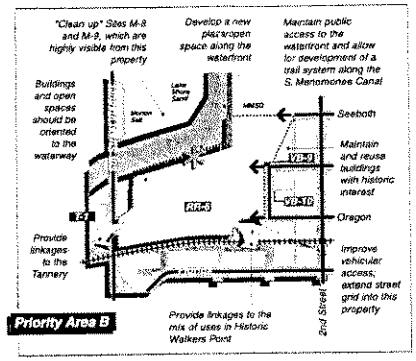
- Predominantly vacant
- Good size and configuration
- Good utility service
- Single ownership
- Rail service is available
- Waterfront location
- Good proximity to Downtown and the Historic Third Ward
- Adjacent to the P&V Tannery, which is already undergoing reuse and revitalization

Development Limitations & Constraints:

- Limited access
- Environmental concerns due to former railroad and industrial land uses
- Problematic soils
- Presence of several low-intensity warehouse and industrial uses
- Poor visual image and appearance

Improvement & Development Recommendations:

- While it is assumed that new development will be feasible at this site, detailed environmental analyses should be undertaken to more fully document soil and environmental conditions, and estimate the extent and cost of any environmental remediation to be required.



Scenario 1: Mixed-Use Redevelopment

- Under Scenario 1, this site should be redeveloped as a unique mixed-use, waterfront-oriented activity center. The site should be devoted to a more intensive mix of land uses that relate to the nearby Downtown, Walker's Point and Historic Third Ward. This preferred scenario will continue the recent trend of upgrading land uses within this portion of the Valley.
- Existing industrial and warehousing uses should be removed and perhaps relocated elsewhere within the Valley. New specialty retail, office and residential uses should be promoted, similar to the mix of uses being developed within the Tannery complex immediately west of this property.
- The property should be redeveloped according to an overall master development plan in order to ensure the coordination of building sites, traffic circulation, parking and pedestrian and open space facilities. While redevelopment might occur over a period of years, subdivision and piece-meal development should be avoided.
- While new construction will be required within much of the site, several of the older industrial buildings might be rehabilitated and reused for new activities, including Site VB-9.
- To the extent possible, the surrounding street grid should be extended into this property to enhance access and better link the site to the surrounding community.
- Buildings and open spaces should be designed and oriented to take advantage of the site's waterfront location. Public access should be provided to the waterfront. An easement should be maintained to allow for the development of a trail system along the waterway. A new public plaza along the water should also be encouraged.
- Redevelopment of this site for commercial and residential uses will also require major improvements to the properties immediately north of the canal, which are currently an eyesore and are highly visible form this site (see recommendations for Priority Area D).

Scenario 2: Industrial Improvement & Development

- In the event that new mixed-use development cannot be successfully attracted, this site should be improved and upgraded as a light industrial/warehousing area. Under Scenario 2, viable existing uses should be maintained and enhanced, and compatible new industrial development should occur on vacant and underutilized land.
- Vehicular access and internal circulation should be improved. To the extent possible, the surrounding street grid should be extended into this property to enhance access and better link the property to the surrounding community.
- Public access should be provided to the waterfront. An easement should be maintained along the northern edge of the property to allow for the development of a trail system along the waterway.
- The perimeter of the site should be screened and landscaped to enhance views from the waterway and from nearby development sites.

Priority Development Areas

PRIORITY AREA C

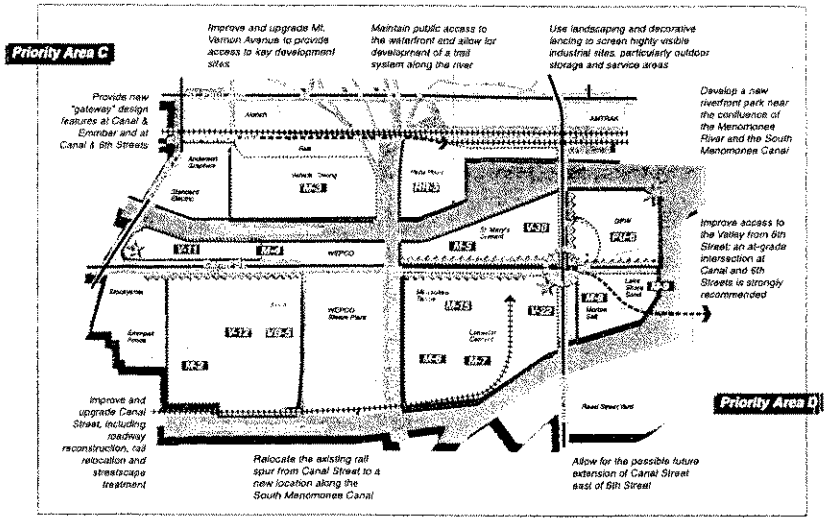
Priority Development Area C consists of the cluster of properties located along the north and south sides of the Menomonee River, just east of Emmber Lane. It encompasses vacant land, vacant buildings, marginal industrial properties, and former railroad land (see *Land Use Appendix 1* for the acreages and other features of each parcel).

Development Assets & Advantages:

- Located within the heart of the industrial district
- Relatively good accessibility, except for sites M-3 and RR-5
- Most sites have good size and configuration
- Utility service is available
- Rail service is available both north and south of the river
- Waterfront location
- Good proximity to the WEPCO Steam Plant
- Several vacant land parcels and vacant buildings

Development Limitations & Constraints:

- Fragmented parcelization, with multiple land owners
- Environmental concerns due to current and former industrial land uses
- Problematic soils
- Portions are within the 100-year floodplain
- Parcels M-2, M-3 and M-4 are occupied by low-intensity industrial uses
- Parcels M-3 and VB-12 are visual eyesores
- Presence of the rail spur along Canal Street



Improvement & Development Recommendations:

- While it is assumed that new development will be feasible in this area, detailed environmental analyses should be undertaken of each potential development site to more fully document soil and environmental conditions, and estimate the extent and cost of any environmental remediation to be required.
- Promote improvement and intensification of this area for industrial use. The area should provide sites for manufacturing, assembly, distribution, warehousing and similar uses. Because of this area's close proximity to the steam plant, steam-using industries such as food processing, commercial laundries, etc., should be promoted.
- Improve and upgrade Canal Street as it passes through this area. Improvements should include: a) roadway reconstruction, b) relocation of the rail spur, and) provision of sidewalks, street lights and streetscape features.
- Proceed with the current plans of Emmpak to develop a distribution center at Site M-2.
- Promote redevelopment of Sites M-3 and RR-5 for industrial use. If possible, these two sites should be combined to create a larger, consolidated development parcel. Access to these properties should be improved, perhaps via St. Paul Avenue and/or an improved Mt. Vernon Avenue. The existing auto pound and gravel pile at Site M-3 should be removed. A portion of Site RR-5 (Pettit Point) might be considered for boat storage.
- Promote small-scale industrial development at Site V-11, which is owned by the City. Redevelopment of this property should include a small new "gateway" design feature at the intersection of Canal and Emmber Lane. This site should be combined with Site M-4, which is currently used for boat storage.
- Promote redevelopment of Sites V-12 and VB-5 for industrial use. If possible, these two sites should be combined to create a larger, consolidated development parcel. The vacant Balco Metals buildings should be demolished to allow for new development.
- Where possible, the improvement and development of all sites within this area should provide public access to the waterfront. An easement should be maintained along the edges of all waterfront properties to allow for development of a trail system along the river.
- Encourage WEPCO to become an active participant in promoting and attracting desirable new development within this area.

PRIORITY AREA D

Priority Development Area D consists of the cluster of properties located near 6th and Canal Streets, in the eastern portion of the Valley. It encompasses vacant land, marginal industrial properties and public use sites, and is situated at the confluence of the Menomonee River and the South Menomonee Canal (see *Land Use Appendix 1* for the acreages and other features of each parcel).

Development Assets & Advantages:

- Relatively good accessibility, which will be improved even more with the 6th Street reconstruction project
- Most sites have relatively good size and configuration
- Utility service is available
- Rail service is available
- Highly visible waterfront location
- Good proximity to Downtown and the Historic Third Ward
- Good proximity to the WEPCO Steam Plant
- Parcel V-22 is vacant and City-owned
- Parcel PU-6 is also City-owned, but is occupied by the Bureau of Streets and Bridges

Development Limitations & Constraints:

- Fragmented parcelization, with multiple land owners
- Environmental concerns due to current and former industrial land uses
- Problematic soils
- Parcels M-5, M-6, M-7, M-8, M-9 and M-15 are occupied by low-intensity industrial uses
- Parcels M-8 and M-9 are visual eyesores
- Presence of the rail spur along Canal Street
- Rebuilding of the 6th Street viaduct will be a temporary constraint for redevelopment

Improvement & Development Recommendations:

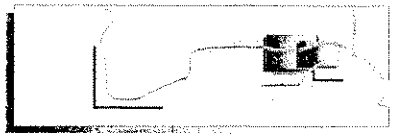
- While it is assumed that new development will be feasible in this area, detailed environmental analyses should be undertaken of each potential development site to more fully document soil and environmental conditions, and estimate the extent and cost of any environmental remediation to be required.
- Improve the 6th Street and Canal Street "intersection." An at-grade intersection is strongly recommended in order to enhance the accessibility, visibility and development potential of this portion of the Valley.
- Improve and upgrade Canal Street as it passes through this area. Improvements should include: a) roadway reconstruction, b) relocation of the rail spur, and) provision of sidewalks, street lights and other streetscape features. In addition, sufficient right-of-way should be maintained to allow for the possible extension of Canal Street east of 6th Street in the future.
- Relocate Morton Salt and Lake Shore Sand to more suitable locations, perhaps to the port area. These uses generate dust and other adverse impacts, and represent an underutilization of land within this portion of the Valley. They are also eyesores which are highly visible from nearby priority development areas.
- Where possible, the improvement and development of all sites within this area should provide public access to the waterfront. An easement should be maintained along the edges of all waterfront properties to allow for the development of a trail system along the river and canal.

Scenario 1: Office/Showroom Redevelopment

- If an at-grade intersection is constructed at 6th and Canal Streets, it is recommended that this area be redeveloped for more intensive office and commercial uses. Under this scenario, heavy industrial uses should be phased out, and offices, showrooms, light industry and service uses should be promoted.
- Sites V-22 and V-30 should be developed for office/showroom use. Redevelopment of these properties should include small new "gateway" design features at the intersection of Canal and 6th Street.
- Sites M-8 and M-9 should be redeveloped for office/showroom/commercial use. Buildings and open spaces should be designed and oriented to take advantage of the site's waterfront location. A new public plaza along the water should also be encouraged.
- The existing cement plant properties at Sites M-5 and M-7 should be redeveloped for office/showroom use. Existing uses might be relocated to the port area.
- If possible, Sites M-6, M-7, M-15 and V-22 should be combined to create a single, large office/showroom redevelopment parcel.
- DPW should undertake a study to determine the feasibility of either eliminating or relocating each of its sites within the Valley. The Bureau of Streets and Bridges (Site PU-6) is located on the riverfront, but does not require or make use of this valuable waterfront location. Its redevelopment would make over 8 acres of land available for new uses which generate jobs, revenues and other benefits for the City. If the current use remains, landscaping and decorative fencing should be used to screen outdoor storage yards along 6th and Canal Streets, and along the waterways.

Scenario 2: Industrial Improvement & Development

- If an at-grade intersection is not provided at 6th and Canal Streets, it is recommended that this area be maintained and upgraded as a light industrial/warehousing area. Under this scenario, viable existing uses should be retained and enhanced, and compatible new industrial development should occur on vacant and underutilized land.
- Sites V-22 and V-30 should be developed for light industrial use. Redevelopment should include small new "gateway" design features at the intersection of Canal and 6th Street.
- Sites M-8 and M-9 should be redeveloped for industrial use. The perimeter of these sites should be screened and landscaped to enhance views form the waterway and from nearby development sites.
- The existing cement plants at Sites M-5 and M-7 could be retained, although landscaping and screening should be improved along the Canal Street frontages of these properties.



Section VI. Implementation Strategy

Introduction

Because of the vast size of this undertaking, the implementation of the recommended Land Use Plan for the Menomonee Valley will require the proactive efforts of both the public and private sectors. Extensive environmental testing, remediation and infrastructure improvements will have to be completed before any significant new development can be undertaken. A broad range of funding and technical resources will have to be made available for these purposes from City, State and Federal governments as well as from the private sector. It will only be with public sector involvement and private sector funding that potential development sites in the Valley can be improved and offered for sale at prevailing market prices. In short, the cooperative efforts of a true public/ private partnership will be the key to successful implementation of this recommended land use plan.

There are several examples in the Milwaukee Region where the redevelopment of brownfield sites, *i.e.,* sites with environmental problems, is successfully occurring. The City of Milwaukee has been a leader in brownfield redevelopment for several years. Included in this effort are the Marquette University athletic fields in the Menomonee Valley and smaller industrial sites on Dr. Martin Luther King Drive and South 3rd Street.

Another example is West Allis, less than two miles west of the Menomonee Valley, which is redeveloping the former Allis-Chalmers tractor plant site. The city of West Allis acquired this 26-acre brownfield site from Allis Chalmers, a cooperative landowner, in 1993, and undertook the improvements needed for redevelopment. These included extensive environmental remediation, removal of existing foundations, soil compaction and construction of new water, sewer and storm sewer lines. The same types of improvements will be needed at potential industrial sites in the Valley, such as the Car Shops property.

The redevelopment costs incurred by West Allis amounted to nearly $80,000 per acre, in addition to the land acquisition cost of about $46,000 per acre. The land has been offered for sale to industrial and office users at market rates of $55,000 to $65,000 per acre. Thus, the city's investment in the property will amount to roughly twice the total revenue from land sales. Tax increment financing is being used to cover the write-down of the land cost to market rates.

Most of the potentially developable land in the Menomonee Valley is under private ownership. The expenditures required to make this land suitable for reuse may approach, or possibly exceed, the levels experienced in the West Allis and similar

brownfield projects. Hence, development efforts by private landowners will need public sector support.

While the costs of brownfield site redevelopment in an urban center can be very high, the potential returns to the community in the form of jobs and tax revenue can be equally as high. Again citing the example of West Allis, two companies have acquired 17 acres of the former tractor plant site and have constructed new facilities with a total of 300 employees.

The two companies on the former tractor plant site paid a total of $385,000 in real and personal property taxes in 1997. At this rate, the property tax revenue stream will cover the city's investment in improvements in less than six years. In fact, the employment and tax revenue generated by this project will continue to grow, since the property still contains sufficient acreage to permit substantial new construction and the expansion of the existing facilities. In the judgement of the Consulting Team, equally favorable results can be achieved through redevelopment in the Menomonee Valley as set forth in the Land Use Plan.

Fortunately, new and expanded funding and technical resources are becoming available for use by the public and private sectors in environmental testing and remediation and the redevelopment of brownfield properties. In Wisconsin, a significant package of financial resources and liability reforms was signed into law by the Governor in October, 1997. Thus, environmental testing, remediation and brownfield redevelopment that was financially and/or legally infeasible in the past can now be accomplished. These significant changes bode well for the redevelopment potential of the Menomonee Valley and the successful implementation of this Land Use Plan.

The Action Agenda

The Action Agenda to implement the plan is presented below. It includes:

- The recommended action or project to be undertaken.
- The suggested timing for initiation and completion of each project and action.
- Responsible parties in the public and private sectors who should initiate and participate in the project
- Suggested funding sources and assistance programs that might be available for implementing each action and project.

All of the recommended actions should be undertaken and completed as soon as possible within a reasonable time frame. The recommended timing for the projects in the Action Agenda is as follows:

- Timing **1** projects should be undertaken immediately and be completed or in the process of completion within one year following the approval of the Land Use

Plan. These projects call for an administrative and/or public policy action, and will not require significant financial investments.

- Timing **2** projects should begin as soon as possible and be completed within two years following approval of the Plan. These projects involve physical improvements essential to facilitate new development in the Valley.
- Timing **3** projects should begin as soon as reasonably possible and be completed within a three to five year time frame. These projects are additional desirable initiatives to support and encourage redevelopment in the Menomonee Valley.

An inventory of the funding and technical resources is included in the Master Appendix of this report, which is in the possession of DCD, the Milwaukee Metropolitan Sewerage District and the Menomonee Valley Business Association.

The abbreviations identified in the Action Agenda relate to the following: Department of City Development – DCD; Milwaukee Economic Development Corporation – MEDC; City of Milwaukee Department of Public Works – DPW; Redevelopment Authority of the City of Milwaukee – RACM; Wisconsin Department of Natural Resources – DNR; Wisconsin Department of Commerce - DOC; Wisconsin Department of Transportation – DOT; Wisconsin Housing and Economic Development Authority – WHEDA; U.S. Environmental Protection Agency – EPA; U.S. Department of Housing and Urban Development – HUD; National Park Service – NPS; Small Business Administration - SBA; Tax Increment Financing - TIF; Community Development Block Grants - CDBG; Industrial Revenue Bonds - IRBs; Transportation Economic Assistance Program – TEA and Intermodal Surface Transportation Efficiency Act - ISTEA.

Recommendations

1. A public/ private partnership should be formed to implement this Land Use Plan.

Due to the significance of successful implementation of this Land Use Plan and the magnitude of this undertaking, a public/ private partnership should be formed as soon as possible. Its members should include representatives of the City of Milwaukee and private sector entities, including stakeholders in the Menomonee Valley who commit to taking a proactive role in guiding the Valley's development. The partnership should be a legal entity, responsible for the implementation of this Land Use Plan. This would include the marshalling of private and public sector financial and technical resources and promoting public and private sector participation in future planning and development/redevelopment initiatives in the Valley.

Recommended Actions

- A formal public/ private partnership (henceforth referred to as The Partnership) should be organized to oversee the implementation of the Land Use Plan.
- The Partnership should take all steps necessary to make it a legal entity recognized by City, State and Federal governments.

Responsibility

The three sponsors of this study- the City of Milwaukee, Milwaukee Metropolitan Sewerage District, and the Menomonee Valley Business Association should take the lead role in establishing The Partnership. Committed private sector stakeholders in the Valley should also be involved in its organization.

Timing: **1**

Funding and Technical Resources:

Local financial institutions, City of Milwaukee funds, as well as property and business owners and civic and community groups in the Menomonee Valley Study Area.

2. The City of Milwaukee zoning ordinance should be amended to facilitate implementation of the Land Use Plan.

Virtually the whole of the Valley is covered by a single zoning classification, I-A-125, "Industrial District." This permissive classification has allowed uses that detract from the environment and physical appearance of the area, thereby discouraging new development. A single zoning classification is also inadequate to provide for the different types of uses that are best suited to the different sections of the Valley.

Recommended Actions

- The zoning ordinance should be amended to prohibit future uses in the Valley that generate significant odors, excessive noise, point-source pollution, and visual pollution.
- Zoning classifications should be created for the Priority Development Areas that will prohibit uses that are incompatible with the development plan.

Responsibility

New zoning regulations to be drafted by DCD and approved by the City of Milwaukee Planning Commission and Common Council. The Partnership should provide assistance as needed.

Timing: **1**

Funding and Technical Resources:

None required, other than staff time.

3. **Environmental and soil analyses should be undertaken at all sites suitable for redevelopment in the priority areas.**

An exhaustive review by the Consulting Team indicates that only a limited amount of detailed data is available from public sources on the environmental and soil conditions that will determine the feasibility and cost of new construction in the priority areas. Environmental investigations have been conducted by some property owners, but the Consulting Team has not been given access to their findings.

Nevertheless, there is strong evidence of widespread soil and groundwater contamination in the Valley; and because the soil consists of landfill, its suitability for new construction with low cost foundations is uncertain. In the case of Priority Development Area A, the foundations of demolished structures will have to be removed to permit redevelopment. A thorough understanding of these conditions is an essential prerequisite to redevelopment in the Valley.

Recommended Actions

- Environmental testing should be undertaken to determine the nature and extent of the remediation that will be needed by State code to permit redevelopment of the potential sites in the priority development areas.
- Soil tests should be conducted at each potential site to determine conditions affecting construction (*e.g.,* soil composition, bearing capacity, and water table).
- An analysis of flood patterns in the Valley should be conducted to determine what flood protection measures might be needed to permit construction on potential development sites.

Responsibility

The Partnership, RACM and landowners in the Valley.

Timing: *2*

Estimated Cost:

Based on verbal description of the Menomonee Valley, Lockwood Greene Engineering **estimates** the following range in costs:

- Preliminary (scoping) geotechnical tests - $1,000 for a ten-acre site to $25,000 for a 100-acre site; estimate includes costs for tests, lab work, analyses, and report of findings. It is understood that to design foundations a much more comprehensive scoping would need to be undertaken.
- Environmental tests- Phase I is $3,800 for property under 50 acres and an additional $100 per 50 acres for property over 50 acres. Phase II costs will depend upon the size of the site and the number of environmental factors being analyzed. Costs are estimated to range from $15,000 to $50,000 per site.

Funding and Technical Resources:

TIF, CDBG; DNR, such as Brownfields Environmental Assessment Program, Land Recycling Municipal Loan, ERTIF, and Redevelopment Assistance; WHEDA's Brownfield Remediation Loan Guarantee Program; EPA's Brownfields Economic Redevelopment Initiative; the U.S. Army Corps of Engineers; lending institutions and CRA, and other private sources.

4. **Financing for environmental remediation and site improvements should be made available.**

For the reasons given above, it is probable that major expenditures for environmental remediation and site preparation will be required to make new construction both technically and economically feasible at the potential development sites. The magnitude of these costs will be indicated by the results of the analyses of environmental and soil conditions and the kind of development on each site. Public and private sector financing capabilities should be mobilized to cover these costs as redevelopment proceeds in the Valley.

Recommended Actions

- The Partnership should work closely with public and private sector property owners to seek assistance for environmental remediation and brownfield redevelopment from State and Federal agencies and private funding sources.
- All available assistance programs from private sources and state and federal agencies, including DNR, DOC, EPA, HUD, etc., should be utilized to facilitate and support redevelopment in the Valley.

Responsibility

The Partnership along with State and Federal agencies and private funding sources.

Timing: 2

Funding and Technical Resources:

TIF; CDBG; MEDC, RACM, CRA; Development Zone; Enterprise Development Zone; SBA; DOC's Brownfields Grant Program and PECFA; DNR, such as Brownfields Environmental Assessment Program, Land Recycling Municipal Loan, ERTIF, and Redevelopment Assistance; WHEDA's Brownfield Remediation Loan Guarantee Program; and EPA's Brownfields Economic Redevelopment Initiative. The Federal Tax Payer's Relief Act can help reduce the costs of environmental clean-ups for property/business owners.

5. **The Partnership and other official representatives of the City should take the leadership role in promoting redevelopment within the Valley**

Almost all of the sites suitable for redevelopment within the priority areas of the Valley are privately owned. With the exception of the new distribution center planned by Emmpak, the Consulting Team has not been informed of any immediate plans for new projects on any of these sites. Due probably to the physical, financial and legal obstacles to new development, the private property owners appear to be unwilling to independently undertake the task of redevelopment of their own properties. This situation could continue indefinitely unless actions are taken to encourage and facilitate the development process. Some City-owned property may also be suitable for redevelopment, including one presently vacant parcel in Priority Area D and sites occupied by the Department of Public Works.

Recommended Actions

- Meetings should be held with all property owners of potential development sites in the priority areas to encourage them to redevelop their properties in accordance with the Land Use Plan. If possible, a development strategy for each site should be agreed upon.
- The cooperation and support of WEPCO should be sought in planning for the development of potential sites for steam using industries in Priority Areas C and D.
- Private developer interest should be actively sought to acquire the sites in the Valley in cases where the owners would prefer to sell rather than invest in redevelopment.
- If implementation of this Land Use Plan proves to be unachievable through the initiatives of The Partnership and the private sector, the City should be prepared to consider acquiring and redeveloping potential sites.

- A needs analysis of all City-owned property in the Valley should be conducted to identify any sites which can be used more productively for projects that will generate additional jobs and tax revenue. Such sites should be made available for redevelopment in the same manner as the privately-owned properties.

Responsibility

The Partnership should direct the redevelopment initiatives. Official representatives of the City who are not members of or involved in the formal partnership should give assistance. Analysis of City-owned sites should be conducted by the Department of Administration-Budget Office, with assistance from DPW and DCD as needed. All other property owners should be involved.

Timing: 2

Funding and Technical Resources:

See #3 for funding sources for environmental remediation and redevelopment. Other funds for land acquisition, building construction, expansion, and rehabilitation, equipment, business start-ups, etc., include: lending institutions; MEDC's Second Mortgage Financing, Target Loan Program, 504 Debenture Program, Disadvantaged, Minority and Women-Owned Business Program, Partnership Loan Program and Capital Access Program; DCD's Tax Exempt Bond Financing and Job Opportunity Bond Fund; DOC's Industrial Revenue Bonds and Major Economic Development Project Program; the SBA 7A Loan Guarantee; Rehabilitation Tax Credits, the Wisconsin Women's Business Initiative's Revolving and Micro Loan and Venture Fund; and foundations.

6. Land uses that degrade the environment or impede redevelopment should be eliminated

Some existing land uses in the Valley are sources of contamination, potential hazards to safety and health, and eyesores. Because of their negative impact on the appearance, visual image and environment of the Valley, they also represent a severe disincentive to new investment. These uses include sand, gravel and salt piles; the remains of partially demolished structures; obsolete vacant buildings; and an older rendering plant generating noxious odors.

Industrial operations that underutilize sites are also an impediment to future redevelopment. In particular, two cement terminals in Priority Area D are situated on sites suitable for more intensive uses that could generate more jobs and taxes and have minimal environmental impact.

Recommended Actions

- The Partnership should work with property owners and users to expeditiously achieve the following:
  a) Relocation outside the Valley of Morton Salt and Lake Shore Sand and the City's asphalt plant on Canal Street.
  b) Removal of the gravel pile and auto pound on site M-3 and Milwaukee Tallow on site M-15.
  c) Removal of remaining above ground structures on the Car Shops site
  d) Demolition of the Balco buildings and remaining structures on former Tews cement plant site
  e) Evaluate the relocation of St. Mary/Blue Circle and Lonestar cement operations from the Valley and the demolition of their buildings in Priority Area D. The City has no present intent to acquire their properties.
- These actions should be undertaken as joint public/private initiatives through The Partnership. If The Partnership cannot achieve the above through its own initiatives and actions, the City should be prepared to consider employing its enforcement and acquisition powers as needed.

Responsibility

The Partnership, and businesses/ property owners. Additional assistance may be needed in the long-term from the City of Milwaukee.

***Timing*: 3**

***Funding and Technical Resources*:**

TIF, CDBG

7. **Roadway reconstruction projects to support redevelopment in the Valley should be undertaken.**

The lack of direct access to Priority Area D via a major arterial street is an obstacle to redevelopment. Improved access is essential if this area is to achieve its full potential as a location for such high quality uses as offices and showrooms per the Land Use Plan.

Similarly, the improvement of Canal Street is critical to the promotion of new development in Priority Area C. The presence of an active rail spur within the roadway is a serious hindrance to vehicular circulation within the area. On a long-term basis, the extension of Canal Street into Priority Area A will probably be necessary to support the full redevelopment of the former Car Shops site.

Recommended Actions

- The proposed reconstruction of the 6th Street viaduct to create a grade level intersection with Canal Street should be carried out.
- The Canal Street rail spur should be relocated and the roadway reconstructed in accordance with the recommendations of the West Canal Concept Study.
- When and as needed, access to the east side of Priority Area A should be provided through the extension of Canal Street or a similar roadway.

Responsibility:

DPW, DOT

Timing*: *2 for the Sixth Street viaduct; **3** for the Canal Street reconstruction; the timing for the third recommended action would be when needed and approved.

Funding and Technical Resources:

TIF; ISTEA and TEA

8. **The appearance of the Menomonee Valley should be enhanced through the creation of green space and other visual amenities.**

Making the Valley a more attractive place to work and to visit will be of general benefit to the citizens of Milwaukee and facilitate the attraction of new investment to the area and serve the needs of adjacent neighborhoods.

Recommended Actions

- Landowners in the Valley should take steps to bring about the "greening" of vacant sites and the screening of storage yards and outdoor work areas with plantings and landscaping. Storage yards should be placed in structures, fully enclosed and under roof. Surface parking is not appropriate along river banks and should be prohibited.
- All necessary actions should be taken to continue the extension and development of the Henry Aaron Trail through the Valley.
- Riverfront amenities including trails, a plaza and a park should be developed as indicated in the Land Use Plan.
- Appearance and safety improvements should be made along the principal streets in the Valley, including lighting, sidewalks and parkways.
- The principal entrances to the Valley should be designated as gateways and embellished with special signage and other appropriate features.

- Maintaining and enhancing visual amenities, including public art, and recreational amenities, including consideration of the needs of the adjacent neighborhoods for recreational space, should be an ongoing effort.
- Construction of additional wetlands for storm water and flood control, water quality improvement, and open space should be considered where appropriate.

Responsibility

The Partnership as well as DPW, DCD, MEDC, RACM, DNR, NPS and property owners.

Timing: **2**

Funding and Technical Resources:

TIF; ISTEA; DNR Stewardship Program; NPS Rivers, Trails and Conservation Assistance; and Rails to Trails.

A Marketing Plan for the Menomonee Valley

A marketing plan is an integral component of a successful economic development strategy. Retaining existing industry and recruiting new firms into an area is a competitive and challenging task. For every company looking for an expansion or new facility site, there are far more choices to consider than ever before. A successful marketing program and economic development initiative gets and keeps the name of the region or community in front of location decision makers and the consultants who advise them.

This is especially important in more mature metropolitan areas like Milwaukee and nearly every city in the Midwest, where most of the growth is internally generated from within their respective regions. According to industry experts, in mature areas like Milwaukee, 75 to 80 percent of economic growth is due to internal expansion. While most of the growth comes from the expansion of existing industry, new ventures created by local entrepreneurs also make a significant contribution

And in mature areas like Milwaukee, cities oftentimes find themselves competing against the suburbs and far reaches of the region to retain their existing employment base and to attract new investment. Thus, the need to develop a coordinated economic development effort and an effective marketing plan is imperative if the city is to maintain and strengthen its competitive position.

According to an annual survey (by the Growth Strategies Organization) of economic development organizations nationwide, their annual budgets to undertake marketing and other economic development-related initiatives, such as those described in the following Marketing Plan, are:

Budget	Percent of Organizations
Less than $10,000	4%
$10,000 to $25,000	3%
$25,000 $50,000	6%
$50,000 to $100,000	18%
$100,000 t0 $250,000	31%
$250,000 to $500,000	38%

The budget range for the economic development organizations depends upon the level of effort undertaken for marketing and economic development and the amount of funding available from private and public sector sources.

The Menomonee Valley is an underutilized asset in the City of Milwaukee with strong industrial-related potential. The Valley is adjacent to the Downtown, close to the Port of Milwaukee and Mitchell Field, and benefits from rail and highway accessibility. It also has a strong base of existing industrial–related companies

which have successfully attracted a wide range of employees, from laborers and machinists to technical, professional and managerial level employees.

The Valley also benefits from its proximity to local colleges and universities as well as to business support services in the City and suburbs. It has the potential to become an important factor in the City of Milwaukee's business retention and attraction initiatives. However, to reach its potentials will require the implementation of this **Market Study, Engineering and Land Use Plan.** The following marketing plan is an integral component of the Plan.

NB: The Consulting Team has reviewed DCD's 1998 Strategic Plan which includes Marketing Action Plans. Some of the initiatives in the recommended marketing strategy for the Menomonee Valley are included in DCD's Plans. We recommend that efforts be made to implement as many of the marketing strategies and plans as financially and technically possible for the betterment of the City of Milwaukee as well as the Menomonee Valley.

The Target Audience

Marketing the Menomonee Valley to potential investors within and outside the region will require distinctive approaches. The following are recommended marketing and related initiatives directed to each of these target audiences.

The Southeast Wisconsin Region

Clearly, the most promising audience for the marketing of the Menomonee Valley Priority Development Sites consists of the company managers and entrepreneurs of Southeast Wisconsin. As noted above, local firms will be the source 75 to 80 percent of the economic growth in Milwaukee. When sites become available for reuse in the Valley, companies throughout the region need to be made aware of the advantages of this location for any new facilities they may be planning to construct. The most effective means of gaining the attention of these companies are discussed.

- **The Real Estate Community.** Typically, an industrial or commercial realtor will be the first point of contact for a local company seeking a site for new facilities within the region. Realtors are also networked with developers interested in acquiring sites for new investment. It is thus critical for realtors to be kept informed of development opportunities in the Valley. The can be done through informal contacts with area realtors, newsletters, presentations to real estate association meetings and special events. At least once per year, DCD and MEDC should sponsor a tour of the city's industrial site areas, including the Valley, for local realtors and their clients.

- **Public Relations.** The negative image of Valley as an industrial backwater is an obvious barrier to the attraction of new investment. As progress is made in redeveloping the Valley, a public relations effort should be undertaken to

upgrade its image in the minds of area residents and potential investors. Improvements that are planned, in progress or completed along with "success stories" about existing businesses in the Valley should be publicized in the business and general media publications in the Milwaukee region. (In a recent nationwide survey, economic development organizations rate public relations as the most effective use of their marketing dollars.)

- **WEPCO.** Wisconsin Electric Power Company has long experience in promoting economic growth and industrial site development. As the power supplier to the region's business and industry, WEPCO has unique insights into industrial growth trends in Southeastern Wisconsin. Because of the presence of its steam plant, WEPCO also has a strong interest in the revitalization of the Valley. DCD and MEDC should seek to establish a working partnership with WEPCO in promoting industrial growth in the Valley, and particularly the attraction of new steam using industries.

The External Market

Although lower in priority, opportunities to attract new investment from outside the Southeast Wisconsin Region should not be overlooked. In this case, the marketing of Milwaukee will take precedence over the marketing of the Menomonee Valley, since prospects will have to be persuaded of the city's location advantages before they are willing to commit to any specific site. To more effectively market to the outside world, Milwaukee should participate in or undertake the following.

- **Forward Wisconsin.** Forward Wisconsin is an established public/ private partnership that is the state's lead business recruitment and marketing organization. It has a marketing plan which focuses on 10 target industries, and undertakes a number of marketing activities. DCD and the City of Milwaukee could leverage their own marketing efforts by more actively supporting, cooperating with and participating in the initiatives of Forward Wisconsin, such as its prospecting trips, direct mail and promotional campaigns, special events, and trade show booth appearances. The biggest cost commitment to participation in Forward Wisconsin's initiatives would be time.

  In the short term, Forward Wisconsin's list of target industries should be used to conduct a direct contact program to reach prospects in growth companies that are relevant to the Milwaukee economy. This should be accompanied by a promotional campaign which should include article placement in trade journals and attendance at trade shows. Once a prospect shows interest in Milwaukee, all of the industrial areas in the City should be marketed, including the Menomonee Valley.

- **Promotional Materials and the Internet.** In today's global marketplace where competition is so keen, the City needs to portray itself from the first point of

contact (*i.e.,* its promotional materials and web site) as a progressive, healthy and attractive city that is a "first class" location to work, do business and live. Higher quality brochures and mailers and an expanded web site should be produced, which promote the City as well as its business and industrial parks, industrial corridors and industrial areas, including the Menomonee Valley. Pictures, maps and graphics should be included in all printed materials.

The Menomonee Valley should be added to the City's web site. It should be described as a vital industrial area that will be benefiting from public/private sector investment over the next several years, and its locational assets and available financial incentives should be highlighted. The web site should also include maps of the Valley, showing the Tax Increment Financing district, Development Zone and available sites. Information about the Valley should be updated as new developments occur.

- **Promotional Campaign.** An aggressive public relations (PR) campaign should be conducted to spread the word to the external marketplace about the good things happening in Milwaukee. Although editorial placements and articles in publications like the Wall Street Journal, the New York Times and Barron's are not as effective for reaching business leads and prospects as direct contact, they will provide the City with a strategic means of communication. The PR campaign should focus on Milwaukee's healthy economy and favorable new developments affecting business in Milwaukee, the Menomonee Valley and its other industrial areas.

- **Executive Tours.** Many states, regions and cities (*e.g.,* Omaha and Nashville) host Executive Tours for site selection consultants and representatives of companies in selected target industries. The purpose of the tours is to enable decisionmakers to personally experience the strengths and assets of the area and the benefits of doing business there. Interaction with representatives of the local governments, business community, residents and other stakeholders in both work and leisure environments are a key component of Executive Tours. In the future, Executive Tours should be considered to get the message out about the city.

- **Target Marketing Program.** Above all, a target industry marketing program should be considered. While Milwaukee has many strengths, it does not have the obvious appeal of the low cost Sun Belt locations that have been most successful in attracting new industry. For cities like Milwaukee, targeted marketing is a more effective strategy than generalized appeals to companies of all types. Therefore, to ensure long term marketing success, the following actions should be pursued:

  - Undertake the research necessary to identify the types of industries for which a City of Milwaukee location would be most competitive.

- Identify growth companies in these industries.
- "Sell" Milwaukee through directly contacting the key decision-makers in the growth companies. Follow-up is imperative.
- Conduct a targeted promotional campaign, including article placement in trade journals and attendance at trade shows.

Once a prospect shows interest in Milwaukee, all of the City's industrial areas should be marketed, including the Menomonee Valley.

Other Economic Development Initiatives

The consulting team has identified other initiatives that would have a favorable impact on economic growth in Milwaukee and therefore on the revitalization of the Menomonee Valley. Though not a part of the marketing plan, these actions would support the marketing effort by contributing to the retention and expansion of existing business. They have proven to be effective in many other cities and are listed below for future consideration by DCD:

- **Business Call Program** - A continuous program of scheduled visits to local businesses to gain insights into issues affecting growth, provide "early warning" of serious problems, and help find solutions.
- **Training Support** – Establish an employer training council to serve as liaison between business and local training institutions. The goal is to ensure that training providers are fully aware of employers' needs and that employers are fully aware of local training capabilities. Based on the surveys and confidential interviews completed for this study, there is clearly a need for better communication between the Valley businesses and the training and education institutions.
- **Resource Center** – A "one stop shopping" center for information and assistance with government programs affecting business including permits, financing incentives, etc.
- **Entrepreneurship Forum** – A scheduled program of events enabling local entrepreneurs to network with colleagues, business and technology experts and venture capital sources.

- **Organization Memberships** - Participation by appropriate DCD and MEDC staff in regional and national economic development organizations, i.e. American Economic Development Council (AEDC), Midwest American Development Council (MAEDC), and Council on Urban Economic Development (CUED). Membership and participation will provide unique opportunities to exchange ideas, network with other professionals, and acquire knowledge of leading edge thinking and techniques in urban and economic development.

Conclusion

This marketing strategy for the Menomonee Valley will help the City of Milwaukee, DCD, the Partnership and other stakeholders retain existing businesses and attract new companies to the Menomonee Valley and the City of Milwaukee, thereby creating economic growth, increased tax revenues and jobs.

Land Use Appendix 1

Potential Development Sites

Menomonee Valley Market, Transportation & Land Use Study

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
V-1	578,000	CMC Heartland Partners	Vacant land	II/A/125	***Vehicular:*** Good. Frontage along N. 44th Street, with good proximity to Stadium. Pedestrian accessibility will be provided by the Henry Aaron State Park Trail. ***Rail:*** None. ***Water:*** Good. Frontage along west bank of the river. Removal of the drop structure will improve potential recreational uses.	***Health-Welfare:*** Water and sewer will be provided with the construction of Miller Park River East Parking. ***Production:*** Electric and gas service will be provided with the construction of River East Parking. ***Other:*** Storm drainage is available through the drainage design for Miller Park River East Parking Lot.	***Physical:*** River embankment to be enhanced by cut back and creating green space areas as part of the River East Parking. ***Environmental:*** Phase II investigation shows Petroleum and VOC contamination proposed to be contained with backfill. Designated as a solid waste landfill by DNR.	***Committed.*** Will be developed as a picnic area as part of the River East Parking. Adjacent to proposed Henry Aaron State Park Trail.	• Stadium picnic area, parking and support facilities	*1*
V-2	433,000	Wisconsin Electric Power Co.	Vacant land	R/C/40	***Vehicular:*** Poor. Only access is via unimproved roadway west of N. 32nd Street ***Rail:*** Good. Mainline tracks along south side of property. ***Water*** None.	***Health-Welfare:*** Water and sewer available. ***Production:*** Electrical service is available. ***Other:*** Good. Storm drainage is available. Upgrading the Menomonee Valley MIS system is being designed by MMSD.	***Physical:*** Severe. Located along bluff line with significant topography. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Topography and physical isolation will make development difficult.	• Landscaped open space	*7*
V-3	110,000	Milwaukee County	Vacant land	R/C/40	***Vehicular:*** Limited. Limited frontage along Canal Street west of N. 32nd Street ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Water and sewer available. ***Production:*** Good. Electrical service available. ***Other:*** Good. Storm drainage available.	***Physical:*** Severe. Located along bluff line with significant topography. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Site configuration and topography will make development difficult.	• Landscaped open space	*7*
V-4	60,000	CP Railway; Wisconsin Electric Power Co	Vacant land	R/C/40	***Vehicular:*** Limited. Limited frontage along Canal Street west of N. 32nd Street ***Rail:*** Good. Mainline tracks along south side of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer available. ***Production:*** Good. Electrical service available. ***Other:*** Good. Storm drainage available.	***Physical:*** Severe. Located along bluff line with significant topography. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Site configuration and topography will make development difficult.	• Landscaped open space	*7*
V-5	50,000	Wisconsin Electric Power Co.	Vacant land	R/C/40	***Vehicular:*** Limited. Limited frontage along Canal Street west of N. 32nd Street. ***Rail:*** Good. Mainline tracks along south side of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer available. ***Production:*** Good. Electrical service available. ***Other:*** Good. Storm drainage available.	***Physical:*** Severe. Located along bluff line with significant topography. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Site configuration and topography will make development difficult.	• Landscaped open space	*7*
V-6	75,000	Falk Corporation	Vacant land	R/C/40	***Vehicular:*** Limited. Limited frontage along Canal Street east of N. 32nd Street ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer available. ***Production:*** Good. Electrical service available. ***Other:*** Good. Storm drainage available.	***Physical:*** Severe. Located along bluff line with significant topography. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Site configuration and topography will make development difficult.	• Landscaped open space	*7*
V-7	119,000	CP Railway	Vacant land	M/B/85	***Vehicular:*** Poor. Interior land area with limited access off S. 29th Street. ***Rail:*** Railroad tracks on north side of site; proposed W. Canal Street Extension may limit access. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer available. ***Production:*** Good. Electrical service available. ***Other:*** Good. Storm drainage available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR. ***Other,*** Located adjacent to residential uses.	***Poor.*** Site configuration, poor visibility and interior location will make development difficult unless combined with parcels to the south.	• Expansion space for nearby industrial uses • Small-scale new industrial development • Consider combining with parcels to south to create larger development site	*3*

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
V-8	81,000	S.J. Ignasiak	Vacant land	M/B/85	***Vehicular:*** Fair. Potential access off S. 29th Street and W. Evergreen Lane. ***Rail:*** Railroad tracks on north side of site; proposed W. Canal Street Extension may limit access. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Suitable for small-scale infill development.	• Expansion space for nearby industrial uses • Small-scale new industrial development	3
V-9	10,000	Hatco Corp. G.G. and M. Miller	Two small vacant land parcels	M/B/40	***Vehicular:*** Fair. Frontage along W. Pierce Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Storm drainage is available	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Small site size will make development difficult unless combined with adjacent parcels.	• Expansion space or parking for nearby existing uses • Combine with adjacent parcels to create industrial development site	7
V-10	65,000	1435 Corporation	Vacant land	I/A/125	***Vehicular:*** Good. Frontage along W. St.. Paul Avenue. ***Rail:*** Fair. Mainline tracks adjacent to property. However, East-West Corridor LPA recommends HOV lanes in the existing track alignment, which would preclude access to rail for this site. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm sewer is available.	***Physical:*** No known constraints. ***Environmental:*** Phase I completed in 1991 by DCD. Designated as a solid waste landfill by DNR.	***Good.*** Small, established industrial site with potential for development	• Small-scale new industrial development • Expansion space or parking for nearby existing uses	2
V-11	159,000	Redevelopment Authority of City of Milwaukee	Vacant land	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street ***Rail:*** None. ***Water:*** Good. Menomonee River along north side of property.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. WEPCO may also provide steam. ***Other:*** Good. Storm drainage available.	***Physical:***. Located in the FEMA 100-year flood plain. ***Environmental:*** Phase II completed in 1994 by DCD. Designated as a solid waste landfill by DNR.	***Fair.*** Good accessibility and visibility, but small size, difficult configuration and environmental concerns will influence future development. Proximity of WEPCO plant represents special opportunity for steam-using business. Adjacent to proposed Henry Aaron State Park Trail.	• Small-scale new industrial development • Expansion space or parking for nearby existing uses • Entryway park and/or design feature at Canal and Emmber	2
V-12	212,000	RNC Canal St. Property	Vacant land	I/A/125	***Vehicular:*** Poor. Site is land-locked, and has no vehicular access from public road ***Rail:*** None. ***Water:*** Good. Burnham Canal on south side of property.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. WEPCO may also provide steam. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Because of its interior location, this site will be difficult to develop unless it is combined with adjacent parcels. Proximity of WEPCO plant represents special opportunity for steam-using business.	• Combine with Site M-2 and/or Site VB-5 to create opportunity for larger-scale new industrial development • Expansion space or parking for nearby existing uses	3
V-13	23,000	Redevelopment Authority of City of Milwaukee	Vacant land	I/A/125	***Vehicular:*** Good. Frontage along S. 11th Street and W. Pierce Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Although small, this site is vacant and publicly owned, and has reasonably good accessibility	• Small-scale new industrial development • Expansion space or parking for nearby existing uses	3
V-14	15,000	Redevelopment Authority of City of Milwaukee	Vacant land	M/B/85	***Vehicular:*** Good. Frontage along S. 11th Street and W. Pierce Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical: Fair.*** No known constraints. ***Environmental:*** Phase I completed in 1991 by DCD. Designated as a solid waste landfill by DNR.	***Fair.*** Although small, this site is vacant and publicly owned, and has reasonably good accessibility	• Small-scale new industrial development • Expansion space or parking for nearby existing uses	3

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
V-15	15,000	M. Mikolic and B. Antoniak	Vacant land	I/A/125	***Vehicular:*** Fair. Limited frontage along S. 11th Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Because of its small size and mid-block location, this site will be difficult to develop unless it is combined with adjacent parcels.	• Combine with Site RS-5 to create opportunity for new industrial development • Expansion space or parking for nearby existing uses	7
V-16	8,000	City of Milwaukee	Vacant land	M/B/85	***Vehicular:*** Fair. Limited frontage along W. Pierce Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Because of its small size and mid-block location, this site will be difficult to develop unless it is combined with adjacent parcels.	• Combine with Site RS-6 to create opportunity for new industrial development • Expansion space or parking for nearby existing uses	7
V-17	24,000	SHP Properties Ltd. c/o Black Hawk Leather Ltd.	Vacant land	M/B/85	***Vehicular:*** Good. Frontage along West Pierce Street and S. 9th Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Although small, this site is vacant and has reasonably good accessibility	• Small-scale new industrial development • Expansion space or parking for nearby existing uses	7
V-18	3,000	---	Vacant land	R/C-1/40	***Vehicular:*** Fair. Limited frontage along West Pierce Street west of S. 7th Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical: Fair.*** No known constraints, although site is located directly beneath I94/I43. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Because of its small size and location beneath the expressway, this site will be difficult to develop industrial or business use.	• Develop as public open space to serve nearby residential uses • Expansion space or parking for nearby existing uses	7
V-19	4,000	City of Milwaukee	Vacant land	M/B/85	***Vehicular:*** Fair. Limited frontage along West Pierce Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints, although site is located directly beneath I94/I43. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Because of its small size and location beneath the expressway, this site will be difficult to develop unless it is combined with adjacent parcels.	• Combine with Site RS-9 to create opportunity for new industrial development • Expansion space or parking for nearby existing uses	7
V-20	40,000	Triple S Auto Parts, Inc.	Vacant land, some outdoor storage	I/A/25	***Vehicular:*** Poor. No vehicular access. ***Rail:*** Good. Rail yard is along north side of site. ***Water:*** Good Burnham Canal is along south and east sides of site.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical is available. WEPCO steam may be available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Because of its small size, irregular shape and poor accessibility, this site will be difficult to develop unless it is combined with adjacent parcel.	• Combine with Site VB-6 to create opportunity for new waterfront oriented industrial development	3
V-21	48,000	---	Vacant land, some outdoor storage	I/A/25	***Vehicular:*** Poor. No vehicular access. ***Rail:*** Good. Rail yard is to west of site. ***Water:*** Good. South Menomonee Canal is on north side of site; Burnham Canal is on east.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical is available. WEPCO steam may be available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Because of its small size, irregular shape and poor accessibility, this site will be difficult to develop.	• Public open space and design feature, possibly accessible from waterway and visible from nearby development sites	7

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
V-22	125,000	Redevelopment Authority of City of Milwaukee	Vacant land	I/A/25	***Vehicular:*** Good. Frontage on W. Canal Street. 6th Street viaduct is being designed as an at-grade roadway, which will enhance access to this site. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** Fair. South Menomonee Canal is accessible from W. Canal Street.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical is available. WEPCO steam may be available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Site is vacant, publicly owned and has good accessibility. Proximity of WEPCO plant represents special opportunity for steam-using business.	• New industrial development • Combine with Site M-7 to create larger development site	2
V-23	165,000	Rose Realty	Vacant land	M/A/125	***Vehicular:*** Good. Frontage on W. St. Paul Avenue. However, proposed HOV lanes located in the track alignment would turn north, bisecting this property, rendering it inaccessible. ***Rail:*** Good. Mainline tracks on the south side of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical is available. WEPCO steam may be available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Small site size and limited lot depth will be a constraint for new development.	• Small scale new industrial development • Expansion space or parking for nearby existing uses	2
V-24	92,000	Sidney and Happy Hack and Julius Bernstein Trusts	Vacant land	6/9/G	***Vehicular:*** Good. Frontage along N. Plankinton Street. ***Rail:*** Fair. Rail track is accessible at south end of property. ***Water:*** Good. Property is at the confluence of the Milwaukee and Menomonee Rivers.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Good accessibility, with attractive waterfront location. If combined with Site M-10, the development potential of this site would be enhanced.	• New riverfront oriented mixed use development that could help link Valley to the Downtown • Combine with Site M-10 to create larger development parcel.	2
V-25	23,000	---	Vacant land	I/A/125	***Vehicular:*** Good. Accessible from S. 2nd Street and W. Oregon Street. ***Rail:*** Fair. Rail tracks border the south end of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Although small, this site is vacant and has reasonably good accessibility	• New office, commercial service or light industrial development	3
V-26	8,000	Great Lakes Towing	Vacant land	I/A/125	***Vehicular:*** Good. Frontage along S. Water Street and W. Seeboth Street. ***Rail:*** None. ***Water:*** Good. Located on Milwaukee River	***Health-Welfare:*** Good. Water and Sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Even though this site has excellent visibility, its small size and irregular shape will make it difficult to develop unless it is combined with Site M-11.	• Combine with Site M-11 to create opportunity for new riverfront oriented mixed-use development. • Small riverfront park and design feature at bridgehead.	7
V-27	79,000	Kurth Maltin Corp. c/o Kurth Corp.	Vacant land and dilapidated vacant buildings	I/A/125	***Vehicular:*** Good. Frontage on S. Water Street. ***Rail:*** None. ***Water:*** Good. Located on Milwaukee River.	***Health-Welfare:*** Good. Water and Sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Although small, this site is vacant and has good accessibility and a potentially attractive riverfront location.	• New riverfront oriented mixed-use development. • Combine with Site VB-13 and/or VB-14 to create larger development parcel.	3
V-28	260,000	Redevelopment Authority of City of Milwaukee	Vacant land	I/A/125	***Vehicular:*** Fair. Limited access from W. National Avenue and S. Barclay Street. ***Rail:*** Fair. Rail tracks on west side of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and Sewer are available ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Good size and configuration, but difficult accessibility.	• New light industrial development.	3

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
V-29	206,000	State of Wisconsin	Vacant land	R/B/40	***Vehicular:*** Fair. Access from West Blue Mound Road. ***Rail:*** Rail on west side of parcel. ***Water:*** Adjacent to river, although fence and vegetation currently preclude access.	***Health-Welfare:*** Good. Water and Sewer are available ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Phase III underway. Contamination is being remediated by City of Milwaukee DPW and this site is being developed as a wetland.	***Committed.*** Being developed as a wetland.	• Wetlands area • Landscaped open space	1
V-30	139,000	Redevelopment Authority of City of Milwaukee	Vacant land	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street. Proposed 6th Street intersection will enhance accessibility. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** Good. Located on Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical and gas are available. WEPCO may also provide steam. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Site is vacant and has good accessibility. Proximity of WEPCO plant represents special opportunity for steam-using business.	• New industrial development • Combine with Site M-5 to create larger development site	2
VB-1	301,000	Emmber Foods, Inc.	Group of vacant industrial buildings	I/A/125	***Vehicular:*** Good. Frontage along W. Reynolds Place. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Phase I completed 1991 by DCD. Designated as a solid waste landfill by DNR.	***Good,*** if environmental concerns can be overcome. Site has good accessibility and several existing buildings appear to have reuse potential.	• New industrial development • Reuse of existing buildings for new industrial uses.	3
VB-2	68,000	Five separate land owners	Vacant residential and industrial properties	I/A/125	***Vehicular:*** Good. Accessible from W. Reynolds Place and W. Pierce Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Relatively small site which would require assembly of several properties; located adjacent to scrap yard.	• Small scale new industrial development • Expansion space or parking for nearby existing uses	3
VB-3	60,000	Kalman Realty Corp.	Vacant industrial facility	I/A/125 & DP6	***Vehicular:*** Good. Access from S. Muskego Street and W. Bruce Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Site has good accessibility; existing building may have reuse potential.	• Small scale new industrial development • Reuse of existing building for new industrial use. • Expansion space or parking for nearby existing uses	3
VB-4	46,000	Try Chem Corp.	Vacant industrial facility	I/A/125	***Vehicular:*** Good. Frontage on W. Pierce Street ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Phase I performed in 1991 by DCD. This site was also a Brownfield Pilot Demonstration project in January 1996.	***Fair,*** if environmental concerns can be overcome. Relatively small site.	• Small scale new industrial development • Expansion space or parking for nearby existing uses	3
VB-5	294,000	Balco Metals, Inc.	Vacant industrial facility	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** Good. Located on Menomonee Canal.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good,*** if environmental concerns can be overcome. Site has good size and accessibility. Could be combined with adjacent sites to create large-scale redevelopment opportunity. Proximity of WEPCO plant represents special opportunity for steam-using business.	• New industrial development • Combine with adjacent Sites M-2 and V-12 to create opportunity for larger-scale new industrial development	3

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
VB-6	89,000	Huron Transportation, Inc.	Vacant industrial facility	I/A/125	***Vehicular:*** Poor. Limited access from north end of S. 11th Street. ***Rail:*** Good. Rail tracks on north side of property. ***Water:*** Good. Located on Menomonee Canal.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Limited.*** Poor accessibility, environmental concerns and isolated location will constrain future development.	• New industrial development • Expansion space or parking for nearby existing uses	*3*
VB-7	91,000	Julius Bernstein IRR Trust	Vacant multi-story warehouse building	6/9/G	***Vehicular:*** Good. Access from W. St. Paul Ave. and N. Plankinton Street. ***Rail:*** Good. Rail spur on south side of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Attractive historic building with reuse potential. Good accessibility and visibility.	• Reuse existing building for new riverfront oriented mixed use development that could help link Valley to the Downtown	*2*
VB-8	92,000	Five separate land owners	Partially vacant warehouse building	I/A/125	***Vehicular:*** Good. Frontage along N. 2nd Street. ***Rail:*** Good. Rail spur on east side of property. ***Water:*** Good. Adjacent to Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Will be scheduled for Phase II assessment by DCD, if necessary.	***Good.*** Attractive historic building with reuse potential. Good accessibility and visibility.	• Reuse existing building for new riverfront oriented mixed use development that could help link Valley to the Downtown	*2*
VB-9	24,000	CMC Heartland Partners	Vacant industrial building	I/A/125	***Vehicular:*** Fair. Accessible from S. 3rd Street and W. Pittsburgh Ave. ***Rail:*** Fair. Rail tracks are accessible at west side of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical is available. WEPCO steam may be available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Attractive historic building with reuse potential. Reasonably good accessibility. Irregular building configuration will be a constraint.	• Reuse existing building for new light industrial, office or commercial service uses	*2*
VB-10	26,000	Herbert Thatcher	Vacant industrial building	I/A/125	***Vehicular:*** Fair. Accessible from S. 3rd Street and W. Oregon Street. ***Rail:*** Fair. Rail tracks are accessible at south end of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical is available. WEPCO steam may be available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Attractive historic building with reuse potential. Reasonably good accessibility.	• Reuse existing building for new light industrial, office or commercial service uses	*2*
VB-11	35,000	CP Railway, Peter C. Plautz	Vacant warehouse building	I/A/125	***Vehicular:*** Good. Accessible from S. 2nd Street and W. Oregon Street. ***Rail:*** Fair. Rail tracks are accessible at south end of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical is available. WEPCO steam may be available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Attractive historic building with reuse potential. Good accessibility and visibility.	• Reuse existing building for new light industrial, office or commercial service uses	*2*
VB-12	11,000	Karl R. Kopp	Vacant commercial/ industrial building	I/A/125	***Vehicular:*** Good. Frontage along E. Seeboth Street. ***Rail:*** None. ***Water:*** Good. Located on the Milwaukee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical is available. WEPCO steam may be available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Phase I completed 1991 by DCD.	***Good.*** Attractive historic building with reuse potential. Good accessibility and visibility. Building size and configuration will be a constraint.	• Reuse existing building for new riverfront oriented mixed use development that could help link Valley to the Downtown	*2*
VB-13	32,000	W.A. and N.L. Friedman dba Admiralty LLC	Vacant industrial building	I/A/125	***Vehicular:*** Good. Frontage on S. Water Street. ***Rail:*** None. ***Water:*** Good. Located on Milwaukee River.	***Health-Welfare:*** Good. Water and Sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Attractive waterfront location, although small site size will be a constraint. If this site could be combined with adjacent parcels, development potential would increase.	• Redevelopment for new riverfront oriented mixed use development that could help link Valley to the Downtown • Combine with Sites V-12 and VB-14 to create a larger redevelopment site	*3*

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
VB-14	34,000	Kurth Malting Corp.; F. Wilson	Vacant industrial building	I/A/125	***Vehicular:*** Good. Frontage on S. Water Street. ***Rail:*** None. ***Water:*** Good. Located on Milwaukee River.	***Health-Welfare:*** Good. Water and Sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Attractive waterfront location, although small site size will be a constraint. If this site could be combined with adjacent parcels, development potential would increase.	• Redevelopment for new riverfront oriented mixed use development that could help link Valley to the Downtown • Combine with Sites V-12 and VB-13 to create a larger redevelopment site	*3*
VB-15	129,000	Karp & Sons, Inc.	Vacant commercial/ industrial building		***Vehicular:*** Good. Frontage on S. 1st Street ***Rail:*** Fair. Rail tracks located on east side of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Recently vacated building appears to have excellent reuse potential.	• Reuse existing building for new light industrial, office or commercial service uses	*2*
VB-16	87,000	ZZ Investment LLC	Vacant industrial building	I/A/125	***Vehicular:*** Good. Frontage along W. St., Paul Avenue just east of N. 17th Street. ***Rail:*** Fair. Mainline tracks adjacent to property. However, East-West Corridor LPA recommends HOV lanes in the existing track alignment, which would preclude access to rail for this site. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Vacant building appears to have reuse potential.	• Reuse existing building for new industrial use	*2*
VB-17	52,000	Ware Investment Co.; Monitor Properties	Vacant industrial building	I/A/125	***Vehicular:*** Good. Frontage along W. St., Paul Avenue just west of 16th Street. ***Rail:*** Fair. Mainline tracks adjacent to property. However, East-West Corridor LPA recommends HOV lanes in the existing track alignment, which would preclude access to rail for this site. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Vacant building appears to have reuse potential.	• Reuse existing building for new industrial use	*2*
RR-1	2,362,500	CMC Heartland Partners; State of WI Dept. of Health and Social Services	Vacant Railroad Shops Site (western portion)	I/A/125	***Vehicular:*** Good with planned improvements. Access to US 41 will be provided with construction of Miller Park and the River East Parking Lot. ***Rail:*** Good. Mainline tracks located north of property. ***Water:*** Good. Located on Menomonee River. Removal of the drop structure will improve potential recreational uses.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical and gas are available. ***Other:*** Good. Storm drainage is available.	***Physical:*** Area is in the FEMA 100-year floodplain, although site is being raised several feet above the flood elevation as part of the River East Parking Lot. ***Environmental:*** Miller Park River East Parking Lot Free Product Removal and Long-term Groundwater Monitoring Plan submitted to WDNR for approval dated April 23, 1997.	***Committed:*** River East Parking is being constructed to serve Miller Park. The State of Wisconsin will become the owner with a 99 year ground lease to the Southeast Wisconsin Professional Baseball Park District. Adjacent to proposed Henry Aaron State Park Trail.	• Stadium parking and support facilities	*1*
RR-2	4,617,500	CMC Heartland Partners	Vacant Railroad Shops Site (eastern portion)	I/A/125	***Vehicular:*** Good with planned improvements. Access to US 41 will be provided with the construction of Miller Park and the River East Parking Lot. Proposed Canal Street extension will pass through this site. ***Rail:*** Good. Mainline tracks located north of property. ***Water:*** Located on Menomonee River. Removal of the drop structure and the Falk Dam will improve potential recreational uses.	***Health-Welfare:*** ***Poor.*** Limited water and sewer may be available by extending service from Site RR-1. ***Production:*** ***Poor.*** Limited electrical and gas may be available from Site RR-1. ***Other:*** Good. Storm drainage is available.	***Physical:*** Area is in the FEMA 100-year floodplain ***Environmental:*** Phase II investigation is complete by CMC Heartland. Findings to be received from CMC. Milwaukee Road Locomotive Dept. Historic District.	***Potentially Good.*** If access can be provided and environmental concerns overcome, this site could have significant potential for large-scale planned development. Adjacent to proposed Henry Aaron State Park Trail.	• Redevelopment as a planned industrial park offering sites for a range of manufacturing, warehousing, distribution and office uses	*3*

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
RR-3	1,515,000	CMC Heartland Partners	Vacant Airline Yard Site and other vacant land along the south side of the river	I/A/125	***Vehicular:*** Fair with planned improvements. Vehicular access is via an unpaved road accessed from W. 44th Street through Stimac Brothers Corporation property. The proposed Canal Street extension will provide good service to the eastern portion of the site. ***Rail:*** Good. Rail is adjacent to west side of site. ***Water:*** Good. Located on Menomonee River. Removal of the drop structure and the Falk Dam will improve potential recreational uses.	***Health-Welfare:*** Poor. Limited water and sewer may be available by extending service from Site RR-1. ***Production:*** Poor. Limited electrical and gas may be available from Site RR-1. ***Other:*** Storm drainage is available in the area.	***Physical:*** Some vegetation along waterway. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** While the Canal Street extension will provide new accessibility, it will also consume a significant amount of land within the eastern portion of this site. Since this site is also adjacent to proposed Henry Aaron State Park Trail, there will likely be little land remaining for building development.	• Development as a linear park along the river, providing a connection between Mitchell Park and the new State Park Trail • Small-scale industrial development in selected locations, if sufficient land is available	7
RR-4	502,000	CMC Heartland Partners	Vacant Plankinton Yard Site	I/A/125	***Vehicular:*** Good with planned improvements. No vehicular access at present, but proposed Canal Street and W. Pittsburgh extensions will improve access. ***Rail:*** Good. Railroad spurs on the north and south sides of the property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Good. Storm drainage is available.	***Physical:*** Area is within FEMA 100-year flood plain. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** If proposed roadway improvements are undertaken, this site will have renewed development potential, although its triangular configuration will be a constraint.	• Redevelopment for industrial use	3
RR-5	383,000	CMC Heartland Partners	Vacant Pettit Point Site	I/A/125	***Vehicular:*** Poor. No vehicular access. ***Rail:*** Good. Mainline tracks on the north side of property. ***Water:*** Good. Located on Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. Steam may also be available. ***Other:*** Good. Storm drainage is available.	***Physical:*** Fair. Portion of site is located under I94/I43. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Unless access can be provided, development of this site will be difficult. Adjacent to proposed Henry Aaron State Park Trail.	• Combine with Site M-3, provide new access road from the west, and redevelop for industrial use.	3
RR-6	774,000	CMC Heartland Partners; H.E. Thatcher	Vacant Reed Street Yard Site; several warehouse structures	I/A/125	***Vehicular:*** Fair. Limited access from S. 3rd Street. ***Rail:*** Good. Rail spurs on site. ***Water:*** Good. Located on the South Menomonee Canal.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Attractive waterfront location will become more desirable as a development site: a) when Tannery is completed, and b) if Morton Salt and cement plant are relocated. Adjacent to proposed Henry Aaron State Park Trail.	• Redevelopment for a mix of commercial, office and residential uses that could help connect the Valley with the Downtown. Should have strong waterfront orientation and design "theme." Possible location for a "festival market" development.	2
M-1	543,000	Concrete Acquisition Company	Low intensity industrial and outdoor storage	I/A/125	***Vehicular:*** Fair. Frontage along W. Mount Vernon Ave. west of N. 16th Street. ***Rail:*** Good. Rail spur is on the north side of W. Mount Vernon Ave. ***Water:*** Good. Located on Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Although this site is currently in operational, it could be intensified or redeveloped for more labor-intensive uses. Adjacent to proposed Henry Aaron State Park Trail.	• Intensification or redevelopment for industrial use.	4
M-2	425,000	PFC, Inc.	Excess Stockyards land	I/A/125	***Vehicular:*** Good. Frontage along W. St. Paul Ave. east of N. Emmber Lane. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** Good. South Property line is located on Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Good. Storm drainage is available.	***Physical:*** Southern portion of this site is located in the FEMA 100-year flood plain. ***Environmental:*** Phase IV completed for proposed 80,00 SF addition. Methaner investigation program submitted August 7, 1997 showed no harmful levels of gas. Proposed addition to be built on grade, with crawl space designated as a solid waste landfill by DNR.	***Good.*** Good size and accessibility. Could be combined with adjacent parcels to create opportunity for large-scale redevelopment. Proximity of WEPCO plant represents special opportunity for steam-using business.	• New industrial development, may be the site of new distribution center to be developed by Emmpak Foods • Combine with adjacent Sites V-12 and VB-5 to create opportunity for larger-scale new industrial development	4

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
M-3	447,000	B.E. Ryan, Jr.	Salvage yard and outdoor storage	I/A/125	***Vehicular:*** Poor. Access from Emmber Lane via an internal service road. ***Rail:*** None. ***Water:*** Good. Located on Menomonee River.	***Health-Welfare:*** Water and sewer are available. ***Production:*** Good. Electrical, gas and steam are available. ***Other:*** Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Phase I completed 1991. Designated as a solid waste landfill by DNR.	***Poor.*** Unless access can be improved, intensification of development of this site will be difficult. Adjacent to proposed Henry Aaron State Park Trail.	• Intensification or redevelopment for industrial use. • Consider combining with Site RR-5 to create larger development site.	5
M-4	23,000	Wisconsin Electric Power Co.	Boat storage	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street east of W. Emmber Lane. ***Rail:*** None. ***Water:*** Good. Located on Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical and gas are available. WEPCO may also provide steam. ***Other:*** Good. Storm drainage is available.	***Physical:*** In the FEMA 100-year flood plain. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Small size will be a constraint unless this site is combined with adjacent parcels. Proximity of WEPCO plant represents special opportunity for steam-using business. Adjacent to proposed Henry Aaron State Park Trail.	• Combine with Site V-11 and develop for industrial use • Expansion space or parking for nearby existing uses	5
M-5	218,000	St. Mary's Enterprises, Inc.	Cement plant	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street. Proposed 6th Street intersection will enhance accessibility. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** Good. Located on Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical and gas are available. WEPCO may also provide steam. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Site has good size and accessibility, but redevelopment would require relocation of long-standing business. Proximity of WEPCO plant represents special opportunity for steam-using business. Adjacent to proposed Henry Aaron State Park Trail.	• Eventual redevelopment for more intensive industrial or office use, as a part of revitalizing the 6th and Canal area	4
M-6	192,000	WEPCO	Outdoor storage and parking for WEPCO	I/A/125	***Vehicular:*** Poor. Vehicular access is from WEPCO site. ***Rail:*** None. ***Water:*** Good. Located on Menomonee Canal.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical and gas are available. WEPCO may also provide steam. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Isolated location will make development difficult unless it is combined with adjacent parcels. Adjacent to proposed Henry Aaron State Park Trail.	• New industrial development • Combine with Sites M-7 and V-22 to create larger development site	5
M-7	341,000	Marquette Cement Co.	Cement plant	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street west of N. 6th Street. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** Good. Located on Menomonee Canal.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical and gas are available. WEPCO may also provide steam. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Site has good size and accessibility, but redevelopment would require relocation of long-standing business. Proximity of WEPCO plant represents special opportunity for steam-using business. Adjacent to proposed Henry Aaron State Park Trail.	• Eventual redevelopment for more intensive industrial or office use, as a part of revitalizing the 6th and Canal area •	4
M-8	165,000	Morton International, Inc.	Salt facility	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street east of N. 6th Street. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** Good. Located on Menomonee Canal.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical and gas are available. WEPCO may also provide steam. ***Other:*** Good. Storm drainage is available.	***Physical:***. In the FEMA 100-year flood plain. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Site has good, but redevelopment would require relocation of long-standing business. Canal Street eastern extension would require relocation. Proximity of WEPCO plant represents special opportunity for steam-using business. Adjacent to proposed Henry Aaron State Park Trail.	• Eventual redevelopment for more intensive industrial or office use, as a part of revitalizing the 6th and Canal area • Improvement and enhancement of the waterfront, which is highly visible from other potential development sites	4

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
M-9	71,000	Construction Aggregates Corp. of Michigan	Gravel facility	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street east of N. 6th Street. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** Good. Located on Menomonee Canal.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical and gas are available. WEPCO may also provide steam. ***Other:*** Good. Storm drainage is available.	***Physical:*** In the FEMA 100-year flood plain. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Site has good, but redevelopment would require relocation of long-standing business. Canal Street eastern extension would require relocation. Proximity of WEPCO plant represents special opportunity for steam-using business. Adjacent to proposed Henry Aaron State Park Trail.	• Eventual redevelopment for more intensive industrial or office use, as a part of revitalizing the 6th and Canal area • Improvement and enhancement of the waterfront, which is highly visible from other potential development sites	*4*
M-10	21,000	J.R. Minelli	Gas station	6/9/G	***Vehicular:*** Good. Frontage along N. Plankinton Street. ***Rail:*** None. ***Water:*** Good. Located on Milwaukee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Although small, site has excellent accessibility and visibility. If combined with adjacent parcel, this site could have good potential for redevelopment.	• Eventual redevelopment for riverfront oriented mixed use development that could help link Valley to the Downtown • Combine with Site V-24 to create larger development parcel.	*4*
M-11	30,000	Great Lakes Towing Co.	Marine towing service	I/A/125	***Vehicular:*** Good. Frontage along S. Water Street and W. Seeboth Street. ***Rail:*** None. ***Water:*** Good. Located on Milwaukee River	***Health-Welfare:*** Good. Water and Sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Although small, site may have potential for more intensive waterfront oriented development. However, redevelopment would require relocation of long-standing business.	• Eventual redevelopment for riverfront oriented mixed use development that could help link Valley to the Downtown • Combine with Site V-25 to create larger development parcel.	*5*
M-12	113,000	J. and B. Rohs	Partially vacant warehouse	I/A/125	***Vehicular:*** Good. Frontage along S. Water Street and E. Bruce Street ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Good.*** Existing building has historic interest and appears to have reuse potential, although major rehabilitation will likely be required.	• Reuse existing building for light industrial or office uses	*4*
M-13	448,000	John Hennes Trucking; RACM	Trucking facility; vacant land	I/A/125	***Vehicular:*** Fair. Frontage along W. Pittsburgh Ave. west of N. 16th Street. Proposed Pittsburgh Ave. extension will enhance accessibility of this site. ***Rail:*** Good. Railroad on south side of the property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Storm drainage is available.	***Physical:*** Located in FEMA 100-year flood plain. ***Environmental:*** Phase I completed 1991 by DCD. Designated as a solid waste landfill by DNR.	***Fair.*** Proposed extension of Pittsburgh Ave. may create the opportunity to intensify or redevelop this property.	• Eventual intensification or redevelopment for industrial use • If the current use remains, building and site improvements should be undertaken	*5*
M-14	312,000	CMC Heartland Partners	Part of active rail yard	I/A/125	***Vehicular:*** Poor. Access is from Mitchell Park to an unpaved road, which continues west through Stimac Brothers to W. 44th Street. ***Rail:*** Good. Rail lines border this site. ***Water:*** Good. Located on Menomonee River. However, the existing railroad bridges inhibit commercial use of the river in this reach.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Canal Street extension may render this site developable, although it will have a small size and irregular configuration. This property may also be needed for long-term rail yard operations. Adjacent to proposed Henry Aaron State Park Trail.	• If possible, redevelopment for small-scale industrial use	*5*
M-15	206,500	Milwaukee Tallow	Milwaukee Tallow plant	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street west of N. 6th Street. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Electrical and gas are available. WEPCO may also provide steam. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Fair.*** Site has good size and accessibility, but redevelopment would require relocation of long-standing business. Proximity of WEPCO plant represents special opportunity for steam-using business.	• Eventual redevelopment for more intensive industrial or office use, as a part of revitalizing the 6th and Canal area	*4*

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
RS-1	204,000	Thirty-seven separate land owners	Grouping of single-family and multi-family residential uses		***Vehicular:*** Good. Frontage on W. Pierce Street and S. 29th Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Redevelopment would require major land assembly and the relocation of a large number of dwelling units	• Maintain existing residential uses • Consider eventual redevelopment of the residential properties near S. 29th Street, which are zoned for industry, for light industry or business use	8
RS-2	4,800	Two separate land owners	Three residential properties		***Vehicular:*** Good. Frontage on W. Pierce Street ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Small site size and the need for land assembly and relocation will influence redevelopment. However, these residential properties are zoned for industry and are surrounded by non-residential uses.	• Eventual removal of residential uses and redevelopment for light industry or business use • Combine with Site V-9 to create a somewhat larger development site	8
RS-3	47,000	Eleven separate land owners	Grouping of single-family and multi-family residential uses	R/C/40	***Vehicular:*** Good. Frontage on W. Pierce Street . ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Redevelopment would require land assembly and the relocation of a number of dwelling units	• Maintain existing residential uses	8
RS-4	32,000	Twelve separate land owners	Grouping of single-family and multi-family residential uses	M/B/85	***Vehicular:*** Good. Frontage on W. Pierce Street W. of S. 16th Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Redevelopment would require land assembly and the relocation of a number of dwelling units. However, these residential properties are zoned for industry and are surrounded by non-residential uses.	• Eventual removal of residential uses and redevelopment for light industry or business use • Expansion space or parking for nearby existing uses	8
RS-5	29,000	Nine separate land owners	Grouping of single-family and multi-family residential uses	I/A/125	***Vehicular:*** Good. Frontage on W. Pierce Street between S. 10th and S. 11th streets. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Redevelopment would require land assembly and the relocation of a number of dwelling units. However, these residential properties are zoned for industrial use.	• Eventual removal of residential uses and redevelopment for light industry or business use • Combine with Site V-15 to create a somewhat larger development site	8
RS-6	22,000	Eight separate land owners	Grouping of single-family and multi-family residential uses	I/A/85	***Vehicular:*** Good. Frontage on W. Pierce Street between S. 10th and S. 11th streets. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Redevelopment would require land assembly and the relocation of a number of dwelling units. However, these residential properties are zoned for industrial use.	• Eventual removal of residential uses and redevelopment for light industry or business use • Combine with Site V-16 to create a somewhat larger development site	8
RS-7	39,000	Fifteen separate land owners	Grouping of single-family and multi-family residential uses	I/A/125	***Vehicular:*** Good. Bounded by W. Pierce Street, S. 9th Street and S. 10th Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Redevelopment would require land assembly and the relocation of a number of dwelling units. However, these residential properties are zoned for industrial use.	• Eventual removal of residential uses and redevelopment for light industry or business use	8
RS-8	13,000	Four separate land owners	Grouping of single-family and multi-family residential uses	M/B/85	***Vehicular:*** Good. Frontage on W. Pierce Street and S. 10th Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Redevelopment would require land assembly and the relocation of a number of dwelling units. However, these residential properties are zoned for industrial use.	• Eventual removal of residential uses and redevelopment for small-scale light industry or business use • Eventual expansion space or parking for nearby existing uses	8

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
RS-9	13,000	Four separate land owners	Grouping of single-family and multi-family residential uses	M/B/85	***Vehicular:*** Good. Frontage on W. Pierce Street east of S. 9th Street. ***Rail:*** Severe. Removed from access. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other;*** Good. Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Redevelopment would require land assembly and the relocation of a number of dwelling units. However, these residential properties are zoned for industrial use.	• Eventual removal of residential uses and redevelopment for small-scale light industry or business use • Combine with Site V-19 to create a somewhat larger development site	*8*
PU-1	170,000	Wisconsin Electric Power Co.	WEPCO substation	R/C/40	***Vehicular:*** Poor. Only access is via unimproved roadway west of N. 32nd Street ***Rail:*** Good. Mainline tracks along south side of property. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Good. Storm drainage is available.	***Physical:*** Severe. Located along bluff line with significant topography. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Poor.*** Poor access, topography and physical isolation will be development constraints for this site.	• Maintain current the public use for the present time • Consider relocation and redevelopment if industrial development opportunities arise	*6*
PU-2	127,000	RF Harris, W White, J Topp	Vehicle emissions testing facility	I/A/125	***Vehicular:*** Good. Frontage along W. St.. Paul Avenue east of N. 25th Street. ***Rail:*** Fair. Mainline tracks adjacent to property. However, East-West Corridor LPA recommends HOV lanes in the existing track alignment, which would preclude access to rail for this site. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical service is available. ***Other:*** Storm drainage is available.	***Physical:*** Moderate. Located along bluff line with some topographic change. ***Environmental:*** Phase IV completed. Formerly a manufactured gas plant operated by Wisconsin Gas. Tar pit identified in southwest corner of the site. Designated as a solid waste landfill by DNR.	***Possible Future.*** Although this site is in active use, it does have good size, accessibility, and visibility, and could attract developer interest. Small site size and topography will influence future development.	• Maintain current the public use for the present time • Consider relocation and redevelopment if industrial development opportunities arise	*6*
PU-3	474,000	City of Milwaukee	Central Repair Garage	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street east of N. 25th Street. ***Rail:*** Fair. Mainline tracks are located in W. Canal Street. ***Water:*** Good. Located on the Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Storm drainage is available.	***Physical:*** Parking lot area is in the FEMA-100 year flood plain. ***Environmental:*** Priority 1 LUST; unleaded gas; closeout denied. Designated as a solid waste landfill by DNR.	***Possible Future.*** Although this site is in active use, it does have good size, accessibility, and visibility, and could attract developer interest. Adjacent to proposed Henry Aaron State Park Trail.	• Maintain current the public use for the present time • Consider relocation and redevelopment if industrial development opportunities arise	*6*
PU-4	421,000	City of Milwaukee	Recycling facility	I/A/125	***Vehicular:*** Good. Frontage along W. Mount Vernon Ave. west of N. Emmber Lane. ***Rail:*** Fair. Mainline tracks adjacent to property. However, East-West Corridor LPA recommends HOV lanes in the existing track alignment, which would preclude access to rail for this site. ***Water:*** Good. Located on Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Priority 1 LUST; unleaded gas; last action is SI report received. Designated as a solid waste landfill by DNR.	***Possible Future.*** Although this site is in active use, it does have good size and accessibility, and could attract developer interest. Adjacent to proposed Henry Aaron State Park Trail.	• Maintain current the public use for the present time • Consider relocation and redevelopment if industrial development opportunities arise	*6*
PU-5	309,000	City of Milwaukee	Bureau of Traffic Engineering and Electrical Services	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street west of N. Emmber Lane. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** Good. Located on Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Priority 1 LUST; leaded gas; RP letter sent. Designated as a solid waste landfill by DNR.	***Possible Future.*** Although this site is in active use, it does have good size, accessibility, and visibility, and could attract developer interest. Adjacent to proposed Henry Aaron State Park Trail.	• Maintain current the public use for the present time • Consider relocation and redevelopment if industrial development opportunities arise	*6*

Site Number	Site Size (SF)	Owner	Current Use	Current Zoning	Accessibility	Utility Service	Environmental Conditions	Development Potential	Land Use Recommendation	Priority Category
PU-6	353,000	City of Milwaukee, Construction Aggregates Corp.	DPW Field Headquarters; Bureau of Bridges; etc.	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street east of N. 6th Street. ***Rail:*** Uncertain. Currently served by rail spur along W. Canal Street, although this spur is proposed to be relocated to the north bank of the South Menomonee Canal. ***Water:*** Good. Located on Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Storm drainage is available.	***Physical:*** In the FEMA 100-year flood plain. ***Environmental:*** Priority 1 LUST; leaded gas; RA workplan received. Designated as a solid waste landfill by DNR.	***Possible Future.*** Although this site is in active use, it does have good size, accessibility, and visibility, and could attract developer interest. Proximity of WEPCO plant represents special opportunity for steam-using business. Adjacent to proposed Henry Aaron State Park Trail.	• Maintain current the public use for the present time • Consider relocation and redevelopment if industrial development opportunities arise	*6*
PU-7	165,000	City of Milwaukee	MSD West Service Facility	I/A/125	***Vehicular:*** Good. Frontage along W. Canal Street west of N. 25th Street. ***Rail:*** Fair. Mainline tracks are located in W. Canal Street. ***Water:*** Good. Located on Menomonee River.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical and gas are available. ***Other:*** Storm drainage is available.	***Physical:*** Eastern portion is in the FEMA 100-year flood plain. ***Environmental:*** Potential site for Side Elevated Pool Aeration by MMSD. Designated as a solid waste landfill by DNR.	***Possible Future.*** Although this site is rather isolated and in active use, it could attract developer interest. Adjacent to proposed Henry Aaron State Park Trail.	• Maintain current the public use for the present time • Consider relocation and redevelopment if industrial development opportunities arise	*6*
T-1	240,000	CMC Heartland Partners	Predominantly vacant industrial buildings	6/9/G	***Vehicular:*** Poor. Access is from Site T-2. ***Rail:*** Fair. Rail line borders property. ***Water:*** Good. Located on Menomonee Canal.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical is available. ***Other:*** Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Committed.*** Part of the former P&V Tannery in the process of being converted to office, commercial and residential use. This portion of the complex is scheduled for residential uses.	• Convert existing historic buildings for residential uses	*1*
T-2	338,000	P&V Atlas Corp.	Vacant buildings being converted to office use	6/9/G	***Vehicular:*** Good. Frontage along W. Virginia Ave. west of S. 6th Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical is available. ***Other:*** Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Committed.*** Part of the former P&V Tannery in the process of being converted to office, commercial and residential use. This portion of the complex is scheduled for office uses.	• Reuse existing historic buildings for offices	*1*
T-3	148,000	Four separate land owners	Residential and commercial properties and vacant land	6/9/G	***Vehicular:*** Good. Frontage along W. Virginia Ave. west of S. 6th Street. ***Rail:*** None. ***Water:*** None.	***Health-Welfare:*** Good. Water and sewer are available. ***Production:*** Good. Electrical is available. ***Other:*** Storm drainage is available.	***Physical:*** No known constraints. ***Environmental:*** Designated as a solid waste landfill by DNR.	***Committed.*** Part of the former P&V Tannery in the process of being converted to office, commercial and residential use. This portion of the complex is scheduled for meeting space, commercial uses and parking.	• Reuse existing historic buildings for office and commercial uses	*1*

Land Use Appendix 2

Design & Development Guidelines

Land Use Appendix 2 supplements the maps and graphics presented in *Section 5* of this report. It describes, in narrative form, the overall revitalization concept for the Menomonee Valley, and presents the guidelines to be used by the City to coordinate the improvement and development of public and private properties within the Valley.

Overall Revitalization Concept

The Menomonee Valley will be revitalized as a cohesive and distinctive urban industrial, business and employment district. It will consist of industrial and business areas offering a range of site development opportunities; mixed-use areas that serve and support the industrial area and surrounding neighborhoods; and a range of public facilities, open spaces and pedestrian amenities.

The central portion of the Valley will be maintained and enhanced as an urban industrial district. Within this portion of the Valley, viable existing industries will be retained and enhanced, and new industrial development and redevelopment will be promoted.

The eastern portion of the Valley will continue to be upgraded as a mixed-use district providing sites for office, service, specialty retail and residential uses that relate to and support the adjacent downtown, Historic Third Ward and Walker's Point areas.

Large-scale new industrial/business park development will be promoted in the western portion of the Valley, on the site of the former railroad maintenance shops. The infrastructure improvements currently being made to serve Miller Park, located just west of the proposed industrial park, will be extended into this property to allow for new industrial development.

The entire Menomonee Valley will be marked by improvements in safety and infrastructure, retention and expansion of jobs and industries, new industrial and business development, and enhancement of the area's overall image and appearance. Improvement projects will include: the

rehabilitation and reuse of existing industrial buildings, new industrial and business construction, street and infrastructure improvements, landscaping and other appearance enhancements, and the provision of new amenities which companies expect to find in a contemporary industrial park environment.

The Valley will have improved accessibility and will be served by a street system and public transportation facilities that provide safe and convenient access to and circulation within the Valley.

The Valley will be characterized by a planned network of open spaces and public amenities which will organize and provide focus to the Valley. The Menomonee River will be improved and enhanced as an open space amenity and pedestrian/bicycle corridor. An open space network will be created which links major industries, the waterways, open spaces, landscaped streets and surrounding amenities and development districts.

The Valley will have a coherent overall image and character. Individual developments will be visually distinctive and compatible. To the extent possible, the Valley will respect Milwaukee's traditional neighborhood form which is characterized by a grid pattern of streets, with buildings facing the street.

The Menomonee Valley will become one of the City's premier employment centers that will complement and enhance surrounding community areas.

Design & Development Guidelines

The *Design & Development Guidelines* listed below will assist the City of Milwaukee in directing and coordinating public and private improvement and investment within the Menomonee Valley.

The *Design & Development Guidelines* are intended to help retain and strengthen viable existing industries, attract desirable new industrial and business development, foster a consistent and coordinated development pattern, and create an attractive and quality image and identity for the Menomonee Valley.

The *Design & Development Guidelines* focus on the industrial portion of the Valley; the mixed-use area in the far eastern portion of the Valley will be subject to the City's guidelines and standards for Walker's Point neighborhood.

Land Use

- Promote area-wide revitalization of the Menomonee Valley as a cohesive and distinctive urban industrial, business and employment district.
- Provide sites for a wide range of land uses, including manufacturing, assembly, distribution, warehousing, office and research and development facilities.
- Promote business retention and new employment development throughout the Valley.
- Promote the removal or relocation of existing uses that generate excessive noise, odor, dust or other adverse impacts that degrade the Valley's environment.
- Prohibit new uses that generate excessive noise, odor, dust or other adverse impacts that degrade the Valley's environment.
- Remove or relocate bulk storage piles of salt, coal, aggregates and similar materials away from the Valley's waterways; ensure that bulk storage areas to remain are adequately screened and enclosed.
- Promote commercial and service uses around the periphery of the Valley which support the needs of the industrial district's employees and business patrons.
- Protect sites designated for industrial and employment use from competing and conflicting land uses.

Building & Site Development

- Where feasible, repair and rehabilitate existing industrial buildings in poor condition.
- Reuse vacant industrial buildings in serviceable condition for new business or industrial uses.
- Where reuse or rehabilitation is not feasible, demolish deteriorated and obsolete existing buildings to allow for new industrial development.
- Where possible, preserve buildings with historic and architectural value.

- Ensure that the design of new industrial buildings is compatible with the surrounding building context.
- Promote the use of architectural treatments or landscaping to add visual interest to industrial buildings located along major streets or on other highly visible sites.
- Locate building service and loading areas away from front entrances and major streets where possible.
- Encourage parking, service and support facilities which can be shared by multiple industries.
- Encourage decorative metal fencing around the perimeter of industrial sites to provide street level identity and enhance public safety. Discourage the use of chain link fencing, except in areas that are not visible to the public.
- Clean up "high-priority development sites" and landscape these sites with inexpensive and easy-to-maintain materials; these sites should also have signs which indicate size, owner, contact phone number and other pertinent information.

Transportation & Infrastructure

- Provide safe and convenient access to the Menomonee Valley for trucks, autos and public transportation.
- Alleviate traffic congestion and operational problems along major roadways within and around the Valley.
- Improve street surface conditions, street lighting, viaduct conditions and traffic signalization.
- Reconstruct and upgrade Canal Street throughout its length within the Valley.
- Relocate the rail spur which now exists along the Canal Street right-of-way.
- Replace the existing 6th Street viaduct with an at-grade intersection at Canal Street.

- Consider the use of "traffic calming" devices such as cul-de-sacs, limited access and street closures in areas where industrial activity is located adjacent to residential areas.
- Consider closing selected public rights-of-way in order to create larger building sites and enhance opportunities for new development.
- Provide well-defined, safe pedestrian connections between developments within the industrial district, and between the Valley and nearby destinations.
- Promote the development of a continuous pedestrian and bicycle trail along the Menomonee River.
- Upgrade public utility services and infrastructure facilities throughout the Valley.

Urban Design

- Promote high quality and harmonious architectural and landscape design throughout the industrial district.
- Establish a comprehensive streetscape system to guide the design and location of light fixtures, sidewalks, paving materials, landscaping, street furniture and public signage within the Valley.
- Develop a distinctive new name and logo for the Menomonee Valley; use the logo extensively to increase public awareness and establish a new identity for the Valley.
- Enhance the appearance of the industrial district by landscaping the major street corridors.
- Provide distinctive design features, including landscaping and signage, at the major entryways into the Valley.
- Install streetpole banners throughout the Valley to signal revitalization and reinvestment.
- Explore the possibility of placing all overhead utility wires underground, particularly along the Valley's major roadways.

- Clean-up and maintain vacant land, particularly in highly visible locations; where possible, use vacant lots for green space or off-street parking.
- Promote the development of "public art" at key locations to enhance the image and character of the Valley.
- Prohibit billboards and other outdoor advertising.
- Eventually upgrade all industrial uses within the Valley to meet RACM design and development standards.

Landscaping & Open Space

- Provide landscaped transitional areas around the periphery of the industrial district and reduce the adverse impact of industrial activities on adjacent residential neighborhoods and other development districts.
- Encourage landscaped open spaces in front setbacks, particularly along major roadways.
- Promote the use of landscaping and attractive fencing to screen parking lots, waste collection areas, loading and service areas and outdoor storage yards from public view.
- Promote the development of "shared open spaces" within industrial district, including courtyards, eating areas, recreational areas, etc.
- Expand the City's tree planting program to provide extensive plantings along major streets and on public use sites.
- Screen active rail tracks and rail yards with berming and landscaping.
- Restore the river channel and its borders to a more natural character.
- Promote a continuous landscaped open space area along the Valley's waterways; discourage the use of fencing along the edge of the waterways.
- Ensure that all open spaces are landscaped and maintained, and that they are designed and lighted to achieve a high level of security.