CORRADINO

Technical Memorandum No. 1

DRAFT

Portage Creek Corridor Reuse Plan

Environmental Feasibility Report

Submitted to:

City of Kalamazoo, Michigan

Submitted by:

The Corradino Group of Michigan, Inc.

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1. Introduction

Over the last two decades the Portage Creek area has devolved from a thriving industrial location with an emphasis on the paper mill industry to a blighted, largely abandoned area that is in the middle of two Kalamazoo neighborhoods – Milwood and Edison – that are home to thousands of Kalamazoo residents.

The Portage Creek Corridor Reuse Plan is important to the City of Kalamazoo, the residents of the Milwood and Edison neighborhoods, and to those in the region who may benefit from new jobs, housing, or recreational opportunities in the Portage Creek Corridor (Figure 1-1).

The City of Kalamazoo has retained The Corradino Group of Michigan to prepare the plan. The planning process includes outreach to the community and coordination with on-going analyses being conducted by the United States Environmental Protection Agency (EPA) of the former Allied Paper Superfund site.

The project is being conducted with the support of a Steering Committee, whose role is to provide input throughout the process.

The planning for this effort is expected to take about six months (Figure 1-2) and involves the following tasks:

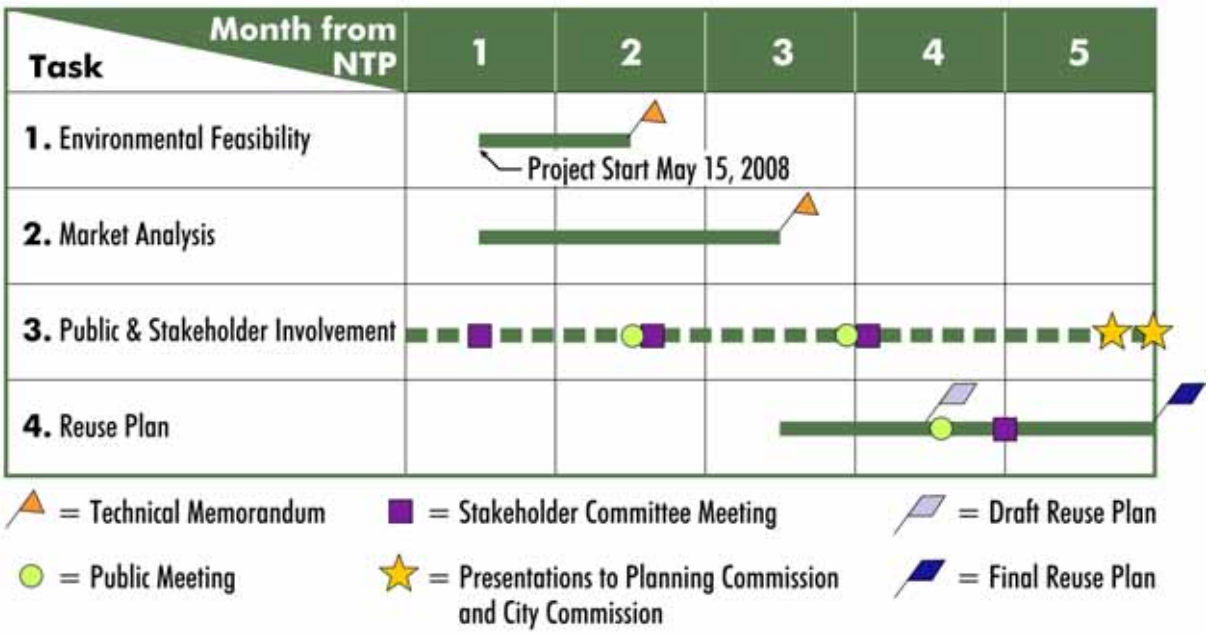
- Task 1: Determine Environmental Feasibility;
- Task 2: Perform Generalized Market Analysis;
- Task 3: Conduct Public and Stakeholder Involvement; and,
- Task 4: Develop Portage Creek Corridor Reuse Plan.

Figure 1-1
Portage Creek Corridor

This report presents a summary of the work that has been done to date by the City, which includes a detailed analysis by the consultant firm of Fishbeck, Thompson, Carr & Huber, Inc.[1] that presents information on properties within the study area with potential environmental issues and their potential future uses.

This report and the assessment presented therein will be one of several factors involved in determining potential reuse. These will include other factors such as market conditions, availability of public funds, public input and the findings of the ongoing Allied Paper Superfund process.

Figure 1-2
Project Schedule



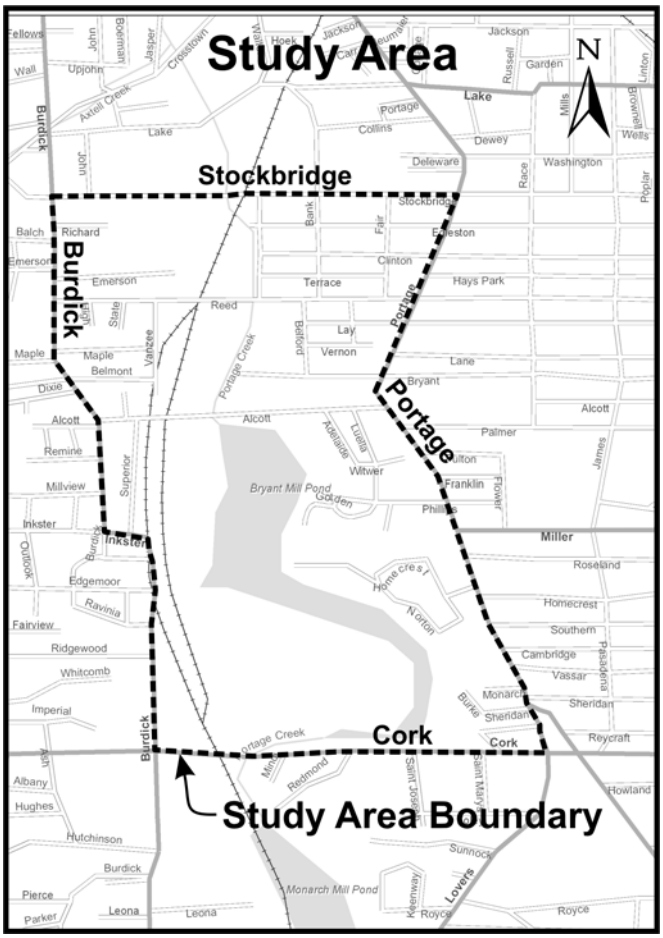
[1] Existing Conditions Report, Fishbeck, Thompson, Carr & Huber, Inc., prepared for the City of Kalamazoo, 2008.

2. Review of Existing Conditions Analysis

2.1 Overview of Report

This section presents an assessment of conditions in the study area as reflected in the Existing Conditions Report prepared by Fishbeck, Thompson, Carr & Huber, Inc. (FTC&H).[2] FTC&H was retained by the City to identify properties with known or suspected environmental issues in the study area (Figure 2-1) and to evaluate their future potential use as residential, commercial, industrial or green space.

Figure 2-1
Project Study Area



[2] Ibid.

Table 2-1 presents a summary of information presented in the report. Thirty-three sites, ranging from quarter-acre size lots to the 95-acre Allied Paper property, were examined in the analysis. These sites were included in the analysis, regardless of size or current land use, because they had known or suspected environmental contamination issues.

A view of Portage Creek.

More than 100 acres in the southern part of the corridor (the Allied Paper and Panelyte properties) have soil and groundwater contamination from polychlorinated biphenyls (PCBs) and other contaminants (see Figure 2-2). PCBs have also been detected in surface water, sediments and fish tissue from Portage Creek. These properties are being investigated and remediated by Michigan Department of Environmental Quality (MDEQ) and EPA. According to the Existing Conditions Report, these properties have a low potential for residential, commercial or industrial land use. Additional information regarding the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund site is presented in Section 2.2.

The Panelyte Property s a 22-acre vacant industrial site that is adjacent to the Allied Paper site. Environmental investigations are currently being conducted to define the extent of soil and groundwater contamination from PCBs, metals and volatile/semivolatile organic compounds. Land use/activity restrictions will likely be required. This property could be used as commercial or industrial land but would require a high level of effort. The report suggests that it could be used as green space with a low level of effort.

An eight-acre site owned by Lyondell Chemical Company is located immediately north and adjacent to the Panelyte site. Parts of this property along Portage Creek have been impacted by PCBs and are part of either the Allied Paper Superfund site Operable Unit 1 (OU1) or OU5. The report indicates green space as the highest land use potential but also suggests that it could be well-suited for industrial if combined with the adjacent Panelyte property. A high level of effort would be required to use this site for residential.

A 5.2-acre site owned by Strebor, Inc. is situated to the west of the Lyondell Chemical site. Contaminated groundwater at this site is being cleaned up by a responsible party with MDEQ oversight. Soil impacts will likely require capping/excavation. According to the report, the highest uses of the site with the lowest level of effort are commercial or industrial.

Table 2-1
Summary of FTC&H Existing Conditions Analysis

Property	Size (Acres)	Current Use	Environmental Issues	Best Potential
107 E. Cork	0.63	Commercial	Yes	Commercial
222 E. Alcott	0.78	Commercial/Residential	No	Residential/Commercial
223 E. Alcott	1.28	Commercial	No	Commercial/Industrial
322 Stockbridge	14.05	Commercial	Yes	Commercial/Industrial
400 Bryant	1.62	Industrial	Yes	Commercial/Industrial
403 Reed	0.14	Commercial	Yes	Residential/Commercial
420 E. Alcott	14.03	Industrial/Commercial	Yes	Commercial/Industrial
422 Stockbridge	0.23	Commercial/Residential	No	Residential/Commercial
423 Reed/315-405-505 E. Alcott	31.56	Vacant	Yes	Commercial/Industrial/ Green Space
500 Phillips	3.20	Industrial	Yes	None Identified
504/512 E. Alcott	2.16	Industrial	No	Commercial
823 E. Cork	0.46	Commercial	Yes	Commercial
839 Monarch	5.80	Vacant	No	Residential/Green Space
1808 Portage	0.44	Vacant/parking lot	Yes	None Identified
1809 S. Burdick	0.28	Residential/Retail	Yes	Residential/Commercial
1908 Portage	0.24	Vacant	Yes	Residential/Commercial/ Green Space
2006 Portage	0.28	Commercial	Yes	Commercial
2030 Portage	1.85	Non-profit/Commercial	No	Commercial
2045 S. Burdick	0.27	Commercial	Yes	Commercial
2103 S. Burdick	0.19	Residential/Commercial	Yes	Residential/Commercial
2104 Portage	0.42	Commercial	Yes	Commercial
2305 Superior	5.22	Industrial (vacant warehouse)	Yes	Commercial/Industrial
2403 S. Burdick	22.47	Vacant	Yes	Commercial/Industrial/ Green Space
2706 Portage	0.90	Commercial	Yes	Commercial
2720 Portage	6.20	Vacant	Yes	Green Space
2724 Portage	0.18	Commercial	Yes	Commercial
2918 Portage	0.15	Non-profit Commercial	Yes	Commercial
2922 Portage	0.16	Commercial	Yes	Commercial
3003 S. Burdick	4.29	Commercial	Yes	Commercial/Industrial
3130 Lovers Lane	0.31	Commercial	Yes	Commercial
303, 401, 425, 455, 501, 525, and 603 E. Cork	95.00	Vacant (contaminated materials landfill)	Yes	Green Space
314, 316, 320 and 350 E. Alcott	8.08	Vacant	Yes	Green Space/Commercial
1015 E. Cork	0.13	Commercial	Yes	Residential/Commercial

1. Potential uses are those listed as High in the Existing Conditions Report except for Green Space where both High and Medium are referenced. If there are no High uses identified then Medium uses are shown. If all potential uses are rated as Low than None Identified is listed in this table.
2. The most prevalent environmental issues are the presence of possible underground storage tanks on properties where it has not been determined whether they have been removed.
3. The evaluation of the best potential use took into account the level of effort that would be required for implementation. For example, if it was determined that a property is currently developed as commercial it was deemed less likely to be suitable for another purpose because of the need to acquire and remove the existing structures.
4. Total acreage of the sites identified for possible redevelopment is 222.90.

Source: The Corradino Group

Former power plant, now owned by the City and being demolished.

The Performance Paper site is a 31.6-acre site located north of Alcott Street. This vacant industrial site has known soil and groundwater contamination from metals and volatile/semivolatile organic compounds. Several underground storage tanks (USTs) have been removed at this site. Portage Creek runs through this property and its sediments are also impacted. Some of the parcels that comprise this site are owned by the City of Kalamazoo, which has demolished a former power house structure that was located on the east side of the property. This site has a high potential use as commercial, industrial or green space, but a higher level of effort would be required for use as commercial or industrial. The City recently obtained approval for a stream relocation plan and is currently awaiting funding to construct. Additional information regarding this plan is presented in Section 3.

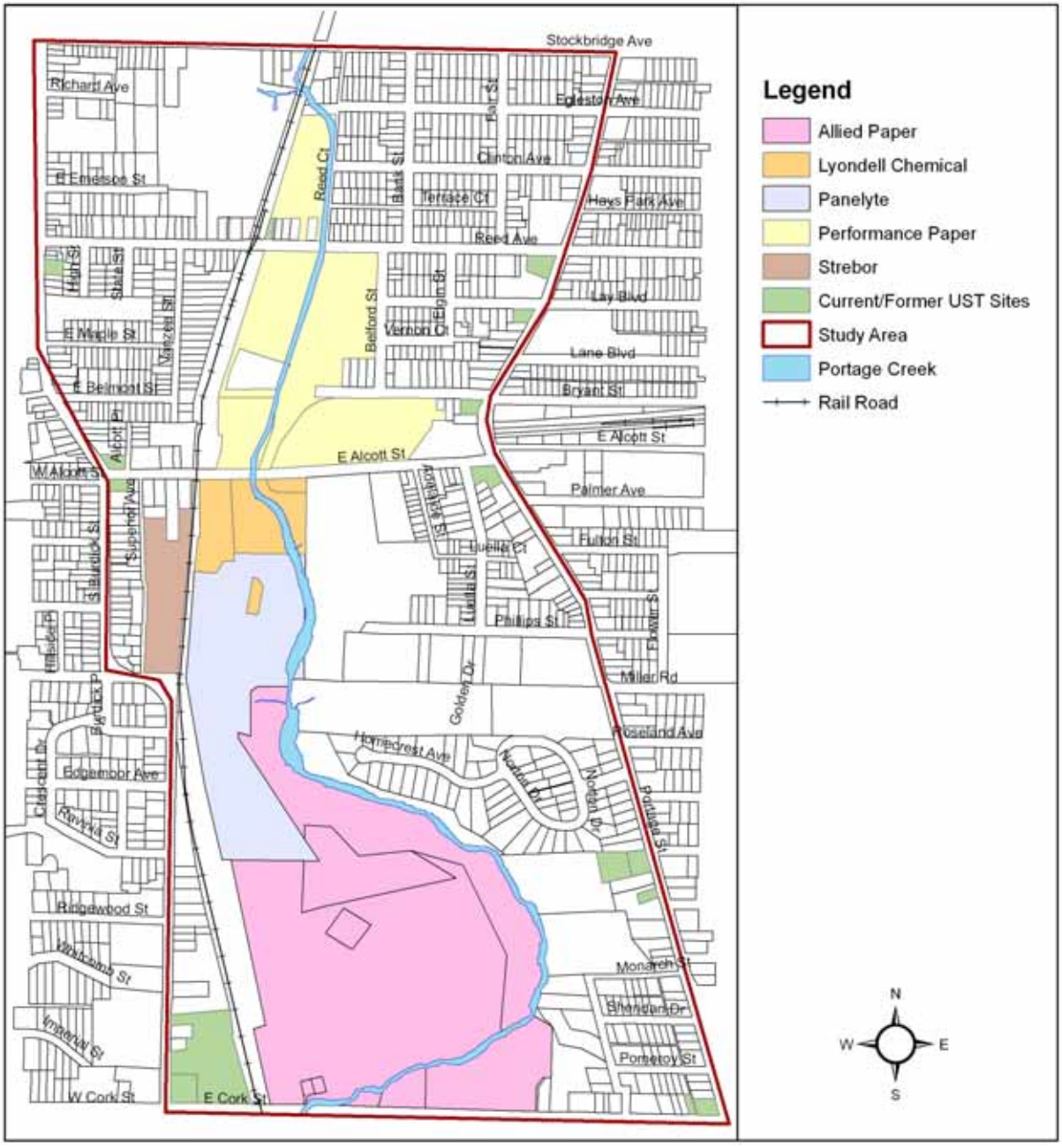
Nearly half of the sites examined in the report are current or former UST sites and include four active gas station sites and ten former gas station sites (see Figure 2-2). These sites are typically half-acre lots or smaller and are located on the periphery of the study area along the mostly-commercial arterials (Portage, Cork and Burdick Streets). A few of these are known leaking UST (LUST) sites that are currently being addressed by parties under MDEQ oversight and at least two of these sites have land use restrictions and/or groundwater use prohibitions. The report indicates that the highest potential use for these sites is commercial, and that use of these sites for residential use would require a high level of effort to assess and/or clean up. These sites are generally too small for industrial use and conversion to green space would remove them as tax revenue sources.

Two sites, Treasure Quest at 2922 Portage and the First Presbyterian Church Health Clinic at 2918 Portage are former automotive repair sites, and have not been assessed for possible contamination. The laundromat at 823 E. Cork has known soil impacts from a dry cleaning solvent. Because of documented or suspected contamination and their small size (<0.5 acres), the highest use of these sites is also commercial.

Two medium-sized tracts located in the southeast part of the study area, 2720 Portage and 839 Monarch, are zoned residential. The property at 839 Monarch is vacant and has no known contamination issues. It was rated high for residential use in the Existing Conditions Report. The adjacent tract which borders Portage Creek to the west has documented PCB soil and sediment contamination along its flood plain. The report also indicates that the site may have groundwater contamination from an adjacent auto repair facility and that historical photographs show disturbed soil at the site. This property was rated medium for residential, commercial and industrial and high for green space.

The Existing Conditions Report indicated no documented contamination of the following sites: 504/512 E. Alcott (Supply Co.); 2030 Portage (Living Ways Family Health Center); 222 E. Alcott (upholstery/furniture repair/residence); 223 E. Alcott (roofing and home building materials store); and, 422 Stockbridge (Keystone, Inc. offices). These sites range in size from about 0.20 to 14.05 acres. The potential future land uses for these sites include residential, commercial, industrial and green space, although some of these sites may not be suited for industrial use because of their small size.

Figure 2-2
Map of Key Properties



2.2 Allied Paper Superfund Site

This approximately 95-acre site comprises most of the Allied Paper OU1. Paper manufacturing operations ceased at this site in the late 1970s and early 1980s and no active mills remain on site. Investigation and cleanup of PCBs and other paper mill residual contaminants began in 1998 with an interim response measure (IRM), which included the following:

- Excavation of approximately 146,000 cubic yards of PCB-containing sediment, residuals and soils from the former Bryant Mill Pond and placement of these materials into an on-site "landfill," which was later capped.
- Installation of approximately 2,600 linear feet of sheetpile along the west bank of Portage Creek.
- Installation of a groundwater recovery and treatment system.
- Removal of residuals within the floodplain on the east side of Portage Creek and placement under the landfill cap.
- Removal of several hundred cubic yards of soil containing residuals from locations between the sheetpile and Portage Creek and placement under the landfill cap to minimize the potential for PCB releases to Portage Creek.

In March 2008, an EPA-approved Remedial Investigation (RI) Report[3] for Allied Paper OU was published. Some of the findings of the RI are as follows:

- Soils/sediments contamination exceeding background/residential and other potentially applicable soil criteria (commercial/industrial and ecological) exists at the site and that contaminated residuals have also migrated onto adjacent residential/commercial areas.
- PCBs are present in the groundwater and seeps at the site and are still being transported to Portage Creek.
- Average PCB concentrations in surface water from Portage Creek from 2000 to 2006 are approximately two times higher downstream of the site versus upstream locations.
- PCB concentrations in fish tissue samples from Portage Creek exceed some health consumption criteria.

The RI states that the Feasibility Study "should consider the current and future land uses . . . and determine whether an area poses an actual or potential risk to human health and the environment." The RI also suggests that areas that will be restricted to industrial uses should be evaluated with respect to the State's health-based soil criteria for industrial/commercial land uses and that areas zoned residential need to be evaluated using criteria for residential land use.

[3] Remedial Investigation Report, Allied Paper, Inc. Operable Unit, Camp, Dresser and McKee, prepared for Michigan Department of Environmental Quality, March 2008.

The Feasibility Study is the next step in the Superfund process. It will be followed by Remedy Selection, which identifies cleanup levels and selects a site remedy. These are documented in a Record of Decision (ROD). After the ROD, the Superfund steps include Remedial Design, Remedial Action and Post Construction (i.e., operation, maintenance).

3. Evaluation of Possible Future Uses

3.1 Identified Future Reuses from Existing Conditions Report

The Existing Conditions Report identified possible future reuses of each site. These evaluations did not represent recommendations but rather "first-cut" assessments based on FTC&H's knowledge of the site. For each site, FTC&H assigned a High, Medium, or Low for each land use category and an estimate of the level of effort required to achieve each land use. High, Medium, and Low were used to indicate the level of effort. Sites that had existing viable buildings were judged likely to remain in a similar land use.

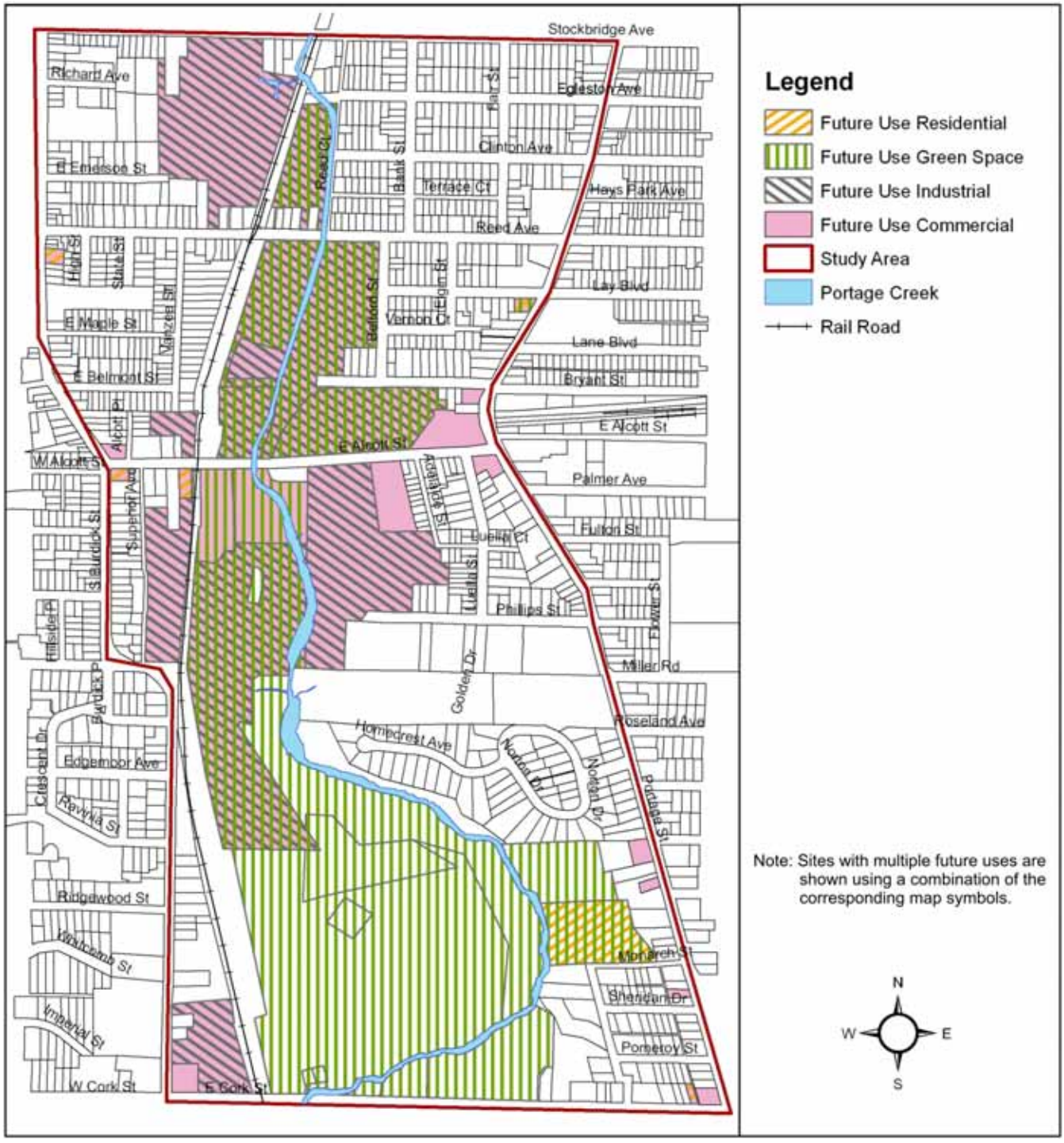
Figure 3-1 presents a map that shows the future land use in the corridor if the identified best potential uses in the FTC&H report were put into place. It should be emphasized that these uses represent "first-cut" assessments and that they may not consider actions such as severing-out contaminated areas from otherwise non-impacted properties or combining parcels to create a more useable site for specific uses.

An example using both these concepts involves the two adjoining sites at 2720 Portage and 839 Monarch. The site at 2720 Portage has documented PCB contamination from the Allied Paper site in the floodplain along its western border. Additionally, the site may have groundwater lead contamination from an adjacent automotive repair shop. Depending on the findings of future assessment at this site, the non-contaminated portion of this site could potentially be combined with the neighboring site (839 Monarch) to create a 10±-acre site that could be used for residential and/or green space.

As part of the discussions with the project Steering Committee, there is a strong sense that the recreational possibilities of the corridor be explored both in their own right and as a stimulus to attracting additional office, commercial, and residential development. For example the Allied Paper site could potentially be used for a variety of "green" uses including sports fields, nature areas/trails, etc. Although not absolutely impossible, it is unlikely that there would be commercial or residential development on the property.

The potential future uses of this site will depend on the potential/actual risks to human health and the environment and selection of cleanup criteria, which will be determined during the upcoming Feasibility Study. It will be important for the City and its residents to provide input to EPA/MDEQ during the Feasibility Study/Remedy Selection process to help them decide what remedial actions need to be undertaken at the Allied Paper site. Secondly, even though it will take several years to complete remedial activities, coordination with EPA/MDEQ can favorably impact the timing and/or phasing of remedial construction activities.

Figure 3-1
Possible Future Use of Properties in the Study Area
with Known or Suspected Environmental Contamination



3.2 Performance Paper/Portage Creek Relocation Plan

The City of Kalamazoo's Brownfields Redevelopment Authority completed acquisition of the Performance Paper site in 2005 and demolished all of the aboveground structures at the site. The second phase of the project includes the relocation of approximately 1,380 feet of Portage Creek between Alcott Street and Reed Avenue and demolition of the Bryant Street bridge. In March 2008, the City received a Part 31 Floodplain/Water Resources Protection and Part 301 Inland Lake and Streams Permit for the relocation project. The main components of this plan include:

- Excavation and relocation (on site) of approximately 37,800 cubic yards of soil to create a new meandering channel;
- Removal and disposal of concrete and metal from the existing channel;
- Stream bank stabilization;
- Creation of riffles using riprap; and,
- Replace/modify storm drainage fixtures.

The City is expected to begin construction when funding becomes available. The plan is intended to improve aquatic habitat and restore the stream to a more natural state. When completed, the relocation work is anticipated to create additional public interest in the area and facilitate development of adjacent and nearby vacant properties.

3.3 Other Opportunities for Reuse for Brownfield Eligible Sites

The Existing Conditions Report identified about ten "Brownfield Plan Eligible" properties within the study area. These include the Panelyte (22.5 acres), the Lyondell Chemical (8.1 acres) properties, and the 5.2-acre vacant warehouse site at 2305 Superior. The Panelyte site is listed as a "future project" on the City's list of Brownfield Redevelopment Initiative sites.

4. Next Steps

A public meeting will be held on June 24 to introduce the Portage Creek Corridor Reuse Plan to the public and to discuss the findings of the environmental review conducted as part of Task 1. Then, the consultant will focus on a market study to determine what is the real potential in terms of attracting development for the corridor.

Following the market analysis work, a second public meeting will be held in mid-summer. At this meeting, the public will be briefed on the likelihood of various combinations of land uses in the corridor.

As noted earlier in this report, a Feasibility Study/Remedy Selection is being conducted for the Allied Paper Superfund site. The City is coordinating the Portage Creek Corridor planning effort with EPA. The Portage Creek Reuse Plan will likely be completed before a final remedy for the Allied Paper site is selected. As a result, the reuse plan will include the best available information from EPA and its consultant regarding likely uses of this site.