OMAHA BROWNFIELDS' COALITION

SOUTH OMAHA

AREA-WIDE PLAN

[fields of opportunity...]

MAPA | METROPOLITAN Community College | benesch | HDR | vireo


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SILVER SMELTING WORKS
U.P. DEPOT
STONE QUARRY RESERVE

[Contents]

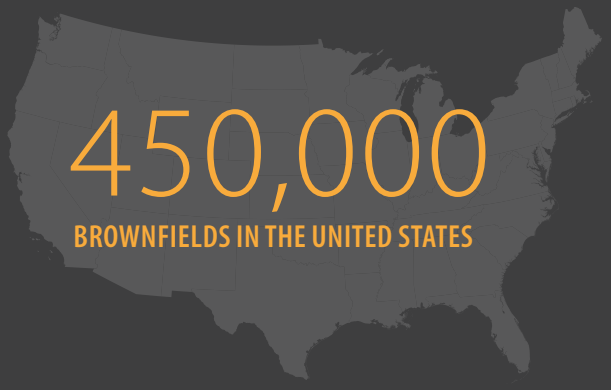
[Contents]

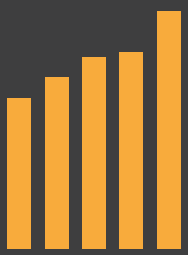
[Contents]

#1 [Introduction]

1.1 U.S. EPA'S BROWNFIELDS PROGRAM

The U.S. Environmental Protection Agency (EPA) defines a brownfields as **"a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant"** (EPA, 2012). It is estimated that there are more than 450,000 brownfields in the United States. Cleaning up and reinvesting in these properties increases local tax bases, facilitates job growth, utilizes existing infrastructure, takes development pressures off undeveloped, open land, and both improves and protects the environment. **The EPA's brownfields program empowers states, communities, and other stakeholders in economic redevelopment to work together in a timely manner to prevent, assess, safely clean up, and sustainably reuse brownfields.** Under the Small Business Liability Relief and Brownfields Revitalization Act, passed in 2002, the EPA provides financial assistance to eligible applicants through four grant programs: assessment grants, revolving loan fund grants, cleanup grants, and job training grants. These brownfields grants are the foundation of the brownfields program, and support revitalization efforts by funding environmental assessment, cleanup, and job training activities.





REINVESTING IN BROWNFIELDS PROPERTIES:

Increases local tax bases
Facilitates job growth
Utilizes existing infrastructure
Reduces development pressure
Improves and protects the environment

[1]

The Omaha Brownfields Coalition consists of the Metropolitan Planning Agency (MAPA), Metropolitan Community College (MCC), and the Papio-Missouri River Natural Resources District (P-MRNRD). MAPA is the grant administrator, and subcontracted Alfred Benesch & Company (Benesch) as the lead consultant.

In 2010, the EPA created the Brownfields Area-Wide Planning (AWP) program to provide assistance to communities facing brownfields challenges. The brownfields AWP program is a grant program which enhances EPA's core brownfields assistance programs (e.g. brownfields assessment grants) by helping communities perform the research needed to develop an area-wide plan for brownfields assessment, cleanup, and reuse.

The resulting AWP document provides direction for future brownfields cleanup, reuse and related improvements. It should be noted that this AWP was not funded using an AWP grant, but is being funded by a brownfields assessment grant. This AWP does not necessarily follow the guidelines or format of a traditional AWP document that would have been prepared using AWP grant funding. The key components of the two different grant types (i.e. AWP vs. brownfields assessment) are outlined below.

AWP GRANTS VS BROWNFIELD ASSESSMENT GRANTS

AWP grants provide direction for future brownfields cleanup, reuse and related improvements. Core elements of the AWP program include:

- Collecting information and identifying community priorities related to brownfields cleanup and near- and long-term revitalization;
- Evaluating existing environmental conditions, local market potential, and needed infrastructure improvements;
- Developing strategies for brownfields site cleanup and reuse; and
- Identifying resources or leveraging opportunities to help implement the plans, including specific strategies for public and private sector investments and improvements necessary to help with cleanup and area revitalization

Brownfields assessment grants provide funding for brownfields inventories, planning, environmental assessments, and community outreach. Assessment grants provide funding to:

- Inventory Sites: Compile a listing
- Characterize Sites: Identify past uses
- Assess Sites: Determine existing contamination
- Conduct Cleanup and Redevelopment Planning: Scope and plan process
- Conduct Community Involvement: Inform and engage community

In 2011, the Omaha Brownfields Coalition was awarded a brownfields assessment grant with the focus being on brownfields sites in South Omaha. The grant funding was to be used to address South Omaha brownfields, as well as risks and development needs in South Omaha, by performing health monitoring, supporting community outreach activities, performing Environmental Site Assessments, and conducting area-wide and cleanup planning. This AWP is a key component of the South Omaha Brownfields Assessment Grant. One of the objectives of the AWP is to help guide the redevelopment of brownfields sites within a portion of South Omaha by assessing known or suspected brownfields, directing cleanup of sites, and identifying a plan for the redevelopment of these properties. If these objectives are to be realized, efforts to redevelop brownfields cannot merely stop once this brownfields assessment grant project is completed, but rather must continue to be explored until the redevelopment becomes a reality.

1.2 PROJECT AREA AND BACKGROUND

PROJECT AREA

The overall project area for the South Omaha AWP consists of the South Omaha Redevelopment Area (SORA), which encompasses most of southeast Omaha. The SORA boundary was adopted from the Greater Omaha Chamber's South Omaha Development Project (SODP), a community development planning document. The SORA encompasses approximately nine (9) square miles, bordered by Harrison Street on the south and the Missouri River on the east. The western boundary varies from Interstate 480 (I-480) to 42nd Street, while the northern boundary varies from Center Street to Interstate 80 (I-80). See the figure on page 4 for the Project Area boundary.

Initially, the proposed project area for the brownfields assessment grant was focused on an approximately 1.5 square mile industrial corridor within the larger SORA. Several properties within the industrial corridor were targeted as High Priority and Secondary Priority sites, as they were identified by the SODP process and by economic development officials to represent the greatest opportunity for redevelopment. However, some property owners were indifferent or opposed to participating in assessment efforts. As a result, the project area was expanded, and additional commercial and industrial properties in and around the SORA were identified as potential assessment sites.

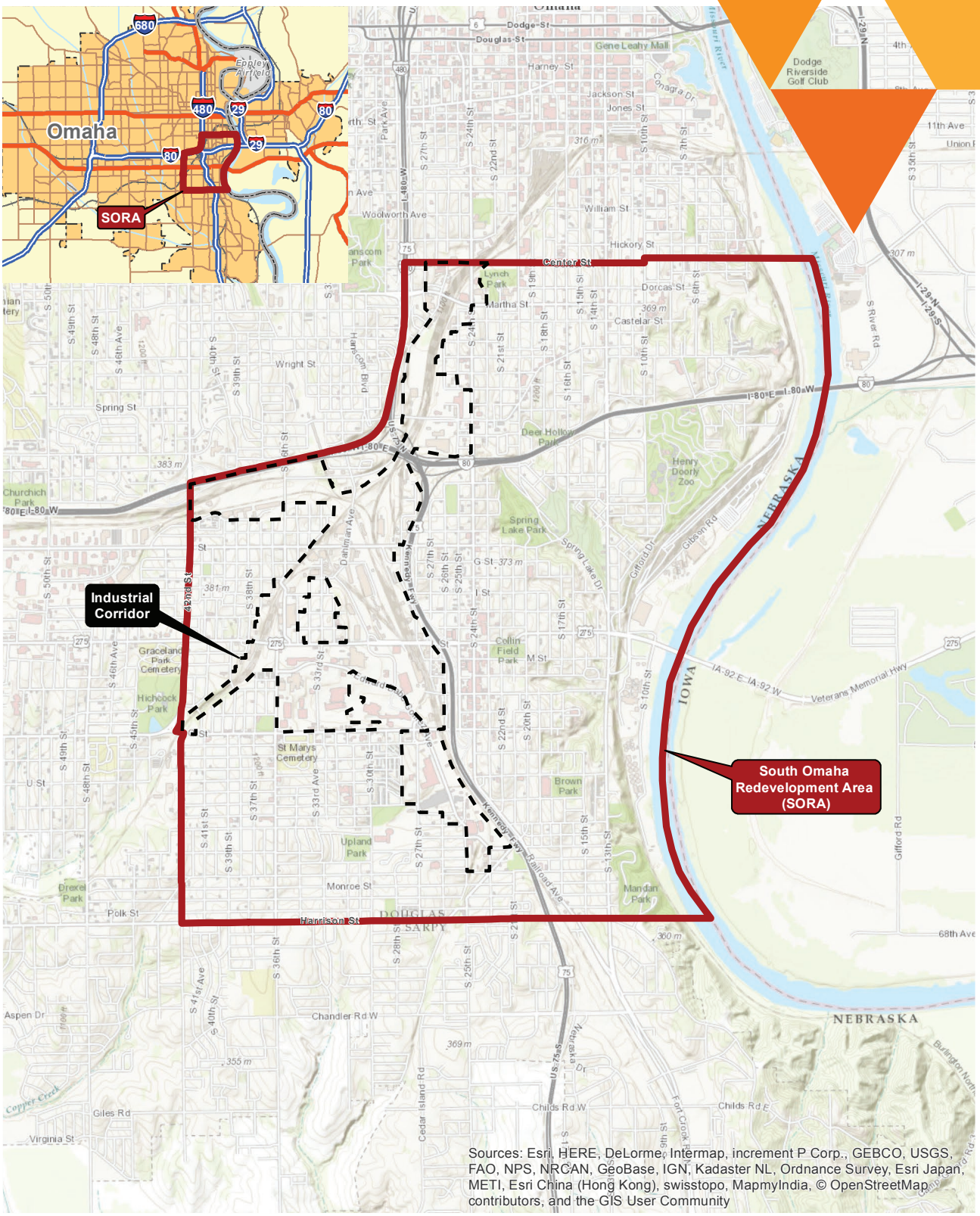
BACKGROUND

Heavy industrial development in Omaha initially flourished on the west bank of the Missouri River as a result of the transcontinental railway; barge and trucking infrastructure; livestock slaughter and meat processing; grain storage and processing; agricultural chemical and nutrient formulation and distribution; steel fabrication; and lead reprocessing. In time, however, new industries such as medical, insurance, and banking opted for westward development out of the historical industrial core, often leaving abandoned, idled, or underused properties at the early commercial and industrial sites in eastern Omaha. While the early industrial development led to growth and prosperity in the community, each sector left a substantial legacy of environmental impairments in older, inner-city portions of the community such as South Omaha.

A variety of land uses exist within the project area, including residential, industrial, commercial, railroad, and recreation, among others. Due to South Omaha's long history, the SORA is largely developed, resulting in limited available undeveloped areas (i.e., greenfields); however, there are numerous properties that are developed, but are no longer in operational use – potentially due to contamination issues. These properties (i.e., brownfields) offer great opportunities for cleanup and redevelopment. This is where the cleanup of potentially contaminated, underutilized properties can provide a great beneficial impact by making these areas available for redevelopment, while also being good environmental stewards and improving Omaha's environmental legacy. The redevelopment of these properties could provide many benefits to the community and City, including minimizing urban sprawl, allowing for the use of existing infrastructure and services (e.g. railroads), presenting new opportunities within a community (e.g. jobs, recreation, shopping), providing an increase of money (e.g. taxes) and a positive financial asset to a community or city, and improving the overall safety and environment of an area. By helping business owners, land owners, and developers address environmental issues, we are opening the door for new jobs, businesses, and greenspace to be created.

[1]

PROJECT AREA BOUNDARY



1.3 OMAHA'S ENVIRONMENTAL LEGACY

The westward development out of the historic industrial core has led to many abandoned or underused properties at the early sites in older, inner-city portions of Omaha, including South Omaha. Although the early industrial development helped the City thrive, industrial uses have left a substantial legacy of environmental impairments. However, great strides have been taken in recent years to improve Omaha's environmental legacy. With outstanding public and private initiatives, Omaha has been able to cleanup and redevelop numerous major brownfields sites that once posed significant environmental issues into usable, productive areas.

Several prime examples of the cleanup and redevelopment of these sites are discussed on the following pages. The first two illustrate the success of large redevelopment efforts in other areas of the City using brownfields as a catalyst for redevelopment. The latter three are examples of brownfields sites within the SORA that have already been or are currently being used as a catalyst for redevelopment.

OMAHA'S LEAD SMELTING PLANTS - ASARCO AND AARON FERER

The Omaha Lead Site is an approximately 27 square mile area in eastern Omaha where many surface soils (e.g. lawns) had unsafe levels of lead. The primary lead source was from historic industrial air emissions from lead smelting operations, but may have also come from other sources including lead-based paint and auto exhaust. In 1998, the City of Omaha sought assistance from the EPA to address problems with lead contamination. In response, the EPA began cleaning up lead-contaminated soils at the Omaha Lead Site in 1999. The Omaha Lead Site was added to EPA's Superfund National Priorities List (NPL) in 2003. The NPL is a list of the nation's most contaminated sites, which pose the greatest threat to health, welfare, and the environment. In December 2011 the EPA completed its 10,000th cleanup of lead from residential yards in the City.

The American Smelting and Refinery Co. (ASARCO) was a lead refining plant that operated on approximately 23 acres situated on the bank of the Missouri River in downtown Omaha near 5th and Douglas Streets. The ASARCO plant was in operation from 1871 until 1997, and once produced up to 35 percent of America's pig lead[2]. Around 1925, the ASARCO plant was the largest lead refinery in the world. The plant emitted lead and other heavy metals into the atmosphere through smokestacks and other processes. These pollutants were transported by the wind and deposited on the surface of the surrounding areas. The former ASARCO plant was one of the primary sources that contributed pollutants to the Omaha Lead Site. The plant closed in 1997 after being fined for polluting the Missouri River. The ASARCO smelting facility was successfully cleaned up in October 2001 under the Nebraska Department of Environmental Quality (NDEQ) Voluntary Cleanup Program (VCP). The former ASARCO site was then turned over to the City and developed into a riverfront park, now known as Lewis and Clark Landing. This park hosts many events each year, including concerts, festivals, and Taste of Omaha.

A secondary lead smelter and lead battery recycling plant was constructed in the 1950s by Aaron Ferer and Sons Co. This plant was located at 5th and Farnam Streets, near the ASARCO plant. In 1963 the plant was purchased by Gould Electronics, Inc. (Gould), who operated the facility until it closed in 1982. At one point, the Gould plant was the top lead battery recycler in the nation. Although the Gould smelting plant was smaller than the ASARCO plant, the Gould plant was considered to be a primary source contributing to lead pollution at the Omaha Lead Site as it released contaminated particles into the atmosphere through smoke stacks and other sources. Gould sold the property to Douglas County in the early 1980s. Douglas County performed clean-up of the property, which was then converted to the Heartland of America Park in the mid-1990s. Heartland of America Park is now one of Omaha's most prized open spaces, hosting hundreds of public and private events each year, and offering boat rides on a placid lake with a spectacular fountain that is lit up at night. The park also serves as the focal point of the ConAgra campus, and offers a picturesque backdrop for weddings, concerts, picnics, and family gatherings.

[2] Pig lead refers to molded lead cast in pigs, or blocks.

[1]

Railyard to Riverfront

UNION PACIFIC RAILROAD'S OMAHA SHOPS FACILITY

The Union Pacific Railroad (UP) has a long history and deep connection with the City of Omaha, beginning in 1862 when UP was created by the signing of the Pacific Railway Act and continuing to present day. UP remains headquartered in Omaha. For nearly a century, the general area just east of 10th and Cuming Streets was home to a 210-acre UP property that consisted of maintenance and repair facilities, a diesel shop (i.e. refueling facility), and the Omaha rail yard. The rail yard was the largest in America at one time. By 1988, the majority of operations at this site moved out of state, and demolition of facilities began.

Over the years, the maintenance, repair, and refueling activities at the UP site led to contamination issues on the property since these activities often involved hazardous substances. In an effort to clean up the riverfront the City of Omaha approached UP about voluntarily cleaning up this property.

Shortly after, UP entered the property into the VCP. The railroad property has since been cleaned up and redeveloped, and the area is now home to two of Omaha's main attractions: Century Link Convention Center and Arena (formerly the Qwest Center) and TD Ameritrade Park, host of the NCAA College World Series. The construction of these two facilities alone has led to the redevelopment and resurgence of the surrounding area, making the area more attractive to businesses like restaurants and hotels. The redevelopment of the rail yard has also opened up the riverfront, allowing for new parks and trails as well as making riverfront land available for businesses and multi-family residences (i.e. condominiums). With construction of the Bob Kerry Pedestrian Bridge (over the Missouri River), and Tom Hanafan River's Edge Park (on the Council Bluffs side of the river), these properties represent a multi-million dollar investment in public green space and a partnership between the two cities to re-connect to the Missouri River.

Cattle Pens to Community Places

OMAHA'S LIVESTOCK MARKET & MEAT PACKING CENTER - UNION STOCKYARDS COMPANY

Omaha's Union Stockyards began in the early 1880s when the first cattle pens were built on ten acres of land south of the City. The Livestock Exchange Building and numerous meatpacking plants opened in the stockyards, and Omaha quickly became an important hub for the meat packing industry. The stockyards continued to expand, eventually covering more than 200 acres. In 1956, the Omaha Stockyards became the largest stockyards in the world. During its peak, stockyards extended from 27th Street to 36th Street and from L Street to Q Street. This booming era for Omaha's Union Stockyards only lasted 20 years due to new innovations in the meatpacking industry as well as new competitors in nearby towns and cities that lured many meatpackers to relocate. By the 1970s, Omaha's stockyards and livestock exchange had declined greatly. In 1999, Omaha's livestock exchange officially closed.

According to the South Omaha Business Association, South Omaha was incorporated as an independent town in October 1886. The incorporation of South Omaha as its own town was directly connected to the construction and rapid growth of the stockyards. However, in 1915 South Omaha was annexed by Omaha and became a part of the City proper.

Since closure of the stockyards and livestock exchange, this area of South Omaha has been successfully redeveloped into the Stockyards Plaza and Stockyards Business Park. Redevelopment started on the west end and progressed east. In 1996, 50 acres of land was sold to the City of Omaha, and remaining facilities condemned. Soon after, the last of the remaining livestock pens that were once part of the world's largest stockyards were torn down. The former stockyards now feature several shopping plazas, small businesses and restaurants, a soccer complex, Metropolitan Community College, and the South Omaha Library, as well as several meatpacking facilities that still reside in the area. The Livestock Exchange Building is listed on the National Register of Historic Places, and has been recently remodeled and converted to apartments with two ballrooms on the top level. Prior to redevelopment, the stockyards area posed many environmental issues, such as the presence of fuel storage tanks and soil contamination, but due to remediation and abatement activities, the area has been successfully cleaned up and converted to new uses that benefit the community.

Landfill to Lake

MUNICIPAL AND ILLEGAL DUMPING - SPRING LAKE PARK

Spring Lake Park is an approximately 96 acre park located within the SORA, generally situated at 16th Street and Spring Lake Drive. The park features a golf course, and is a popular spot for winter sledding due to steep hills. Previously, the park was a local attraction for its natural springs and lake, which have since been filled and its natural environment significantly altered. Prior to its use as a park, much of the area was used for municipal land filling and illicit dumping for over 60 years. Much of the filling and dumping was not properly covered and park ravines periodically exhibit exposed trash and debris due to erosion, presenting a risk to public who utilize this land.

Currently, this park is undergoing a massive renovation, thanks in part to the City of Omaha's Combined Sewer Overflow (CSO) program[3]. This park recently underwent a sewer separation project, which also included the revitalization of the park through the construction of recreational features and green infrastructure. A primary feature includes a pond that will support fish and other aquatic wildlife, and will provide public recreation opportunities. A new parking lot with a rain garden is also planned for construction. Construction of these features is expected to conclude in late 2017, and will be open to the public shortly thereafter.

Gas Plant to Great Park

FORMER CITY OF OMAHA MANUFACTURED GAS PLANT – LYNCH PARK

Manufactured gas plants (MGPs) produced gas from coal or oil, and in the process also generated wastes and contaminants as byproducts. Wastes from MGPs include potentially hazardous chemicals and cancer-causing agents. MGPs often left these types of residues on their former sites. These facilities were primarily in operation prior to the availability of natural gas around the 1930s.

One such MGP was formerly located in Omaha near 20th and Dorcas Streets, and was once the largest MGPs west of the Mississippi, and possibly within the entire United States. Operations began at this location around 1898. The site was transferred to the City of Omaha around 1920, and eventually to the Metropolitan Utilities District (MUD). Sometime around 2005, most of what remained from the facility was cleared from the site. In 2012, the site was entered into the EPA's Remedial Action Plan Monitoring Act (RAPMA) Voluntary Cleanup Program (VCP). Recently, efforts to install monitoring wells, conduct subsurface soil investigations, and characterize groundwater and surface water conditions have been led by MUD and the City of Omaha. Cleanup activities at the former MGP are anticipated to begin in 2016[4].

A portion of this site (approximately 15 acres) has already been reclaimed for green space as James F. Lynch Park, which includes two baseball fields, a basketball court, four tennis courts, a playground, parking, picnic areas, and restrooms. The remainder of the former MGP (approximately nine acres) has been acquired for the eventual expansion of the park, which is planned to occur sometime after completion of remediation and cleanup activities.

Omaha has made tremendous strides in redeveloping its way out of a potentially unfavorable environmental legacy. The redevelopment of properties with past environmental issues throughout the City provides great examples for the South Omaha area and for this AWP to follow. The solution for continuing to improve Omaha's environmental legacy is planning and implementing economic redevelopment and reuse of properties in South Omaha. Redeveloping properties tainted by environmental issues should be made a priority, as the transformation of these properties into usable, productive sites will contribute to and benefit the local community, while also continuing to improve Omaha's environmental legacy.

[3]Spring Lake Park was mentioned in the South Omaha Brownfields Assessment Grant Application as a priority recreational redevelopment opportunity; however, the CSO project was too far underway to be included in this Grant project.

[4]Additional information can be found in the Public Notice on NDEQ's website: http://deq.ne.gov/press.nsf/PNForm.xsp?databaseName=CN=DEQSER6/O=NDEQ!!PublicNo.nsf&documentId=96A7E242831B55B786257EC3006EE323&action=openDocument

ONE OF THE "GREATEST OPPORTUNITIES IDENTIFIED FOR SOUTH OMAHA IS AVAILABLE LAND FOR REDEVELOPMENT."

- Greater Omaha Chamber's
  South Omaha Development Project

#2 [Vision and Goals]

The South Omaha AWP provides recommendations for redevelopment of underutilized, contaminated properties within the SORA. The vision of the South Omaha AWP is to provide a guide for sustainable economic redevelopment and reuse of brownfields properties, while also creating jobs and facilitating and ensuring community health. This vision can be achieved through redeveloping and transforming brownfields properties into usable spaces that contribute to and benefit the community. According to the SODP, one of the "greatest opportunities identified for South Omaha [is] available land for redevelopment." The vision and goals of the South Omaha AWP coincide with goals and strategies from other local planning and economic development documents, such as the SODP, MAPA's Heartland 2050 Vision, and the City of Omaha's Master Plan. Key brownfield goals and objectives are explained in greater detail on the following pages.

VISION FOR THE SOUTH OMAHA AWP:

Provide a guide for:

- Sustainable Economic Redevelopment
- Reuse of Brownfields Properties
- Job Creation
- Facilitate and Ensure Community Health

[2]

MAPA HEARTLAND 2050 VISION GOALS:

- Strengthen the economy
- Provide quality education
- Have healthy living and safe neighborhoods
- Provide a range of housing options
- Develop infrastructure that supports economic development
- Protect and utilize the area's natural features

SOUTH OMAHA DEVELOPMENT PROJECT

The SODP, produced by the Greater Omaha Chamber of Commerce, is an outline to guide future growth and development of the South Omaha area. This effort involved participation from community leaders and the public. The SODP outlines recommendations for development opportunities, neighborhoods, commercial centers and corridors, industry and employment, mobility and parking, parks and recreation, marketing and tourism, and finally, implementation. Recommendations provided in the SODP reflect input received from the community, and aim to promote economic growth and development while honoring the history of South Omaha and building its cultural diversity.

Many of the ideas and plans contained in the SODP are also mirrored in the South Omaha AWP, as the SODP was used as a road map during the creation of this AWP. The SODP and AWP are tools that can be used together to assist with and provide direction for economic growth, redevelopment, and revitalization of the SORA through the identification, cleanup, and redevelopment of underutilized, contaminated properties.

Other concepts mentioned in the SODP include preparing shovel-ready sites for industrial development, applying for EPA Brownfields clean-up grant funding, and removing barriers to the use of Tax Increment Financing (TIF) as a tool for redevelopment.

MAPA HEARTLAND 2050 VISION

The Heartland 2050 Vision is a long-term regional planning document that identifies strategies for improving the quality of life in the MAPA area (Douglas, Sarpy, Cass, Washington, and Saunders Counties in Nebraska, and Pottawattamie, Harrison, and Mills Counties in Iowa) and ensuring that it continues to be an attractive area for future generations. The Heartland 2050 Vision identifies goals related to people, places, and resources that will help enhance the region, support the communities, and preserve the resources that make these areas unique. These goals include strengthening the economy, providing quality education, having healthy living and safe neighborhoods, providing a range of housing options, developing infrastructure that supports economic development, and protecting and utilizing the area's natural features. Redeveloping brownfields, providing employment opportunities, and improving the environment are in alignment with the goals outlined in the Heartland 2050 Vision.

INDUSTRY AND EMPLOYMENT POLICIES OUTLINED IN SODP:

- Promote and facilitate the location and expansion of desired industries
- Protect and expand the existing industrial land base
- Champion workforce development

CITY OF OMAHA MASTER PLAN REDEVELOPMENT GOALS:

- Encourage redevelopment of underused and/or obsolete commercial and industrial development sites
- Reclaim, restore, and/or redevelop degraded land
- Industrial property with rail access should not be allowed to change to other uses
- Reverse deterioration in older areas of the central city

CITY OF OMAHA MASTER PLAN

The City of Omaha's Master Plan represents the overall vision for Omaha. This document provides an essential legal basis for land use and regulation, such as zoning and subdivision control. It presents a vision for the community and establishes actions necessary to fulfill that vision. The Master Plan consists of various Elements, including the Concept Element, Environment Element, Public Facilities Element, Housing Element, Transportation Element, Future Land Use Element, Parks Element, and the Urban Development Element. There are many goals within each Element; a few examples that relate to the redevelopment of South Omaha and align with the Brownfields Grant and this AWP include:

- "Objective 1 – Encourage redevelopment of underused and/or obsolete commercial and industrial development sites within the 2010 city limits and mixed use developments or other suitable uses. In supportive environments, include medium- and high-density urban residential development as a preferred component of redevelopment projects.
  - 1.1 - Complete an inventory of potential reuse sites within the city. Include in this inventory an assessment of the range of appropriate uses for each site.
  - 1.2 - Maintain and market an "opportunity list" of underused and obsolete commercial/industrial sites that might be suitable for future redevelopment, with appropriate site development guidelines." (Urban Form and Transportation section of the Environment Element)
- "Objective 4 - Reclaim, restore, and/or redevelop land that is degraded by erosion, contamination and pollution, improper filling, or dumping.
  - 4.1 - Create and maintain an inventory of brownfields properties.
  - 4.2 - Coordinate with appropriate organizations, agencies and others to secure and utilize resources to reclaim and restore damaged land." (Natural Environment section of the Environment Element)
- "Generally, industrial property with rail access should not be allowed to change to other uses." (Land Use Considerations Related to Transportation section of the Land Use Element)
- "Reverse deterioration in older areas of the central city." (Goals and Concepts section of the Land Use Element)

SUMMARY

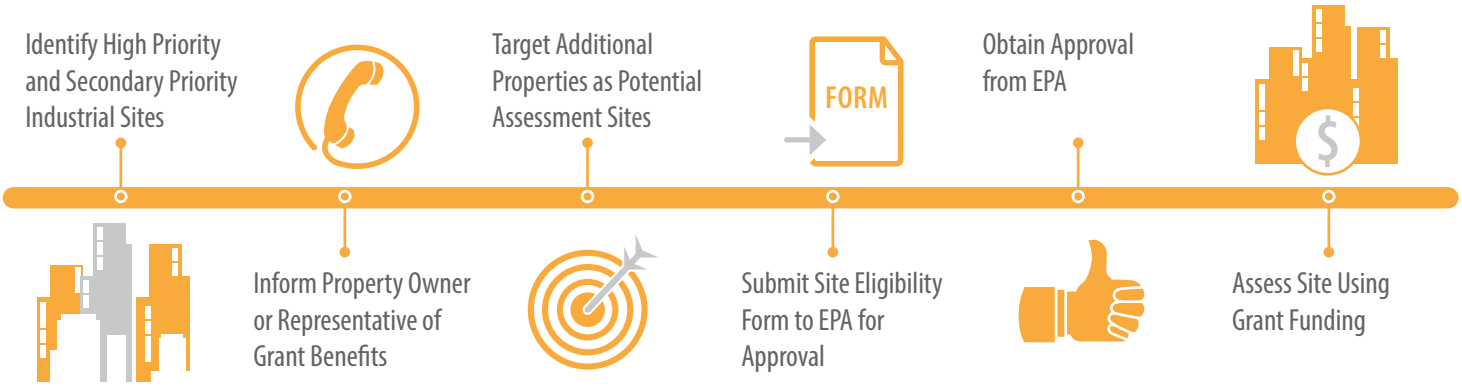
The three documents described in this chapter share many similarities for the vision and future of South Omaha and the City as a whole. Common concepts reflected throughout each of these documents include encouraging future growth and development, promoting industry, and redeveloping underutilized land. The goals, objectives, and policies outlined in these past documents provided the basis for obtaining the brownfields grant, and continue to be driving factors in the cleanup and redevelopment of South Omaha brownfields.

[2]

#3 [Brownfield's Inventory and Assessment]

As part of the South Omaha Brownfields Assessment Grant, the Omaha Brownfields Coalition set out to assess potential redevelopment sites in the SORA. The Coalition initially focused on several industrial parcels identified as High Priority and Secondary Priority sites in the SODP as candidates for redevelopment. After identifying a property as a potential assessment site, the property owner or representative was contacted to inform them of the availability and benefits of the grant. However, many property owners were indifferent (or opposed) to participating. As a result, additional commercial and industrial properties in and around the SORA were identified as potential assessment sites. Many of these identified properties were targeted based on the general availability of the property (e.g. the property was listed for sale) or the observed underutilization of a site. Once a property owner agreed to participate in the grant, a Site Eligibility Form was submitted to the EPA for approval. Finally, once approved by the EPA, the site could be assessed using grant funding. The addition of sites not initially identified in the grant had the effect of expanding the general study area to the entire SORA, and in some cases, outside the SORA. All assessed sites are illustrated on the figure on page 15.

REDEVELOPMENT SITE ASSESSMENT PROCESS:



[3]

3.1 PHASE I AND PHASE II ENVIRONMENTAL SITE ASSESSMENTS

In general, site assessments began by conducting background research on the site, and performing a Phase I Environmental Site Assessment (ESA). Upon completion of a Phase I ESA, the decision to perform additional assessments (e.g. Phase II ESA or Analysis of Brownfields Cleanup Alternatives) was left to the property owner, unless no further action (NFA) was recommended. These ESA reports were supplied to the property owner since Phase I ESAs are often required as part of a property transaction for commercial or industrial properties. By participating in the grant, landowners benefit from having the costs of investigations and cleanup defrayed, easing any property transaction process, assisting in marketing the property to interested buyers or developers, and enhancing property values by eliminating or resolving any perceived stigma of a brownfields site.

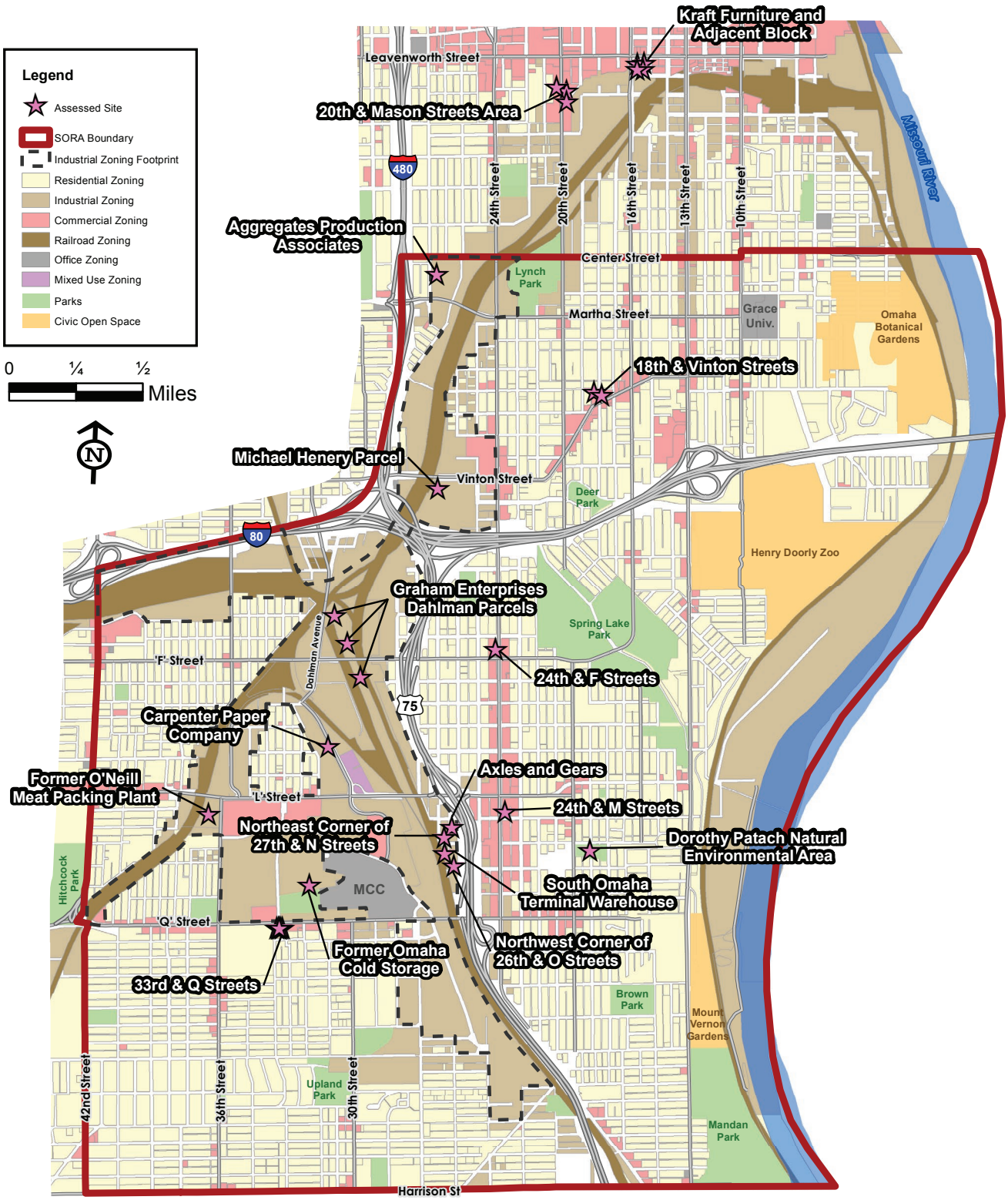
As part of the South Omaha Brownfields Assessment Grant, seventeen (17) Phase I ESAs, nine (9) Phase II ESAs, four (4) asbestos containing materials (ACM) surveys, two (2) lead based paint (LBP) surveys, and one (1) Analysis of Brownfields Cleanup Alternatives (ABCA) were have been completed to date using grant funding. See the figure on page 15 for the location of these properties. Summaries of the ESAs are provided below. The full ESA reports can be found on MAPA's website (http://www.mapacog.org/current-projects). A summary table of all sites is included in Appendix B.

Special Note: *Much of South Omaha (essentially the southeastern quarter of the City, covering the SORA in its entirety) is within the Final Focus Area of the Omaha Lead Superfund Site (OLS). The OLS includes surface soils present at residential properties, child-care centers, and other residential-type properties in the City that have been contaminated as a result of air emissions from historic lead smelting and refining operations. Residential-type properties include parks, churches, schools and other properties that are often used extensively by children. The OLS encompasses the eastern portion of the greater metropolitan area of Omaha, and is centered around on downtown Omaha, where two former lead-processing facilities operated.*

The OLS includes only those residential properties where the EPA determines through soil sampling that soil lead levels represent an unacceptable risk to human health. Currently, the lead concentration in soil that represents an unacceptable risk is 400 parts per million (ppm). Residential properties where soil sampling indicates that soil lead concentrations are below this level of concern are not considered part of the OLS.

Because children are typically not exposed to lead in the soil at industrial and non-residential commercial properties, these types of properties do not represent a risk to human health. However, because these properties are within the boundary of the OLS there is a public perception of risk, and the perception of risk is a deterrent to development.

Since all of the properties that were assessed under the South Omaha Brownfields Assessment Grant are located within the boundaries of the OLS, lead and other heavy metals represent a Recognized Environmental Condition (REC) for all of the properties listed below. Therefore, a recommendation was made in the Phase I ESA for each property to be further investigated regarding potential impacts to the soil and/or groundwater as a result of the property's location in the OLS.


Legend
Assessed Site
SORA Boundary
Industrial Zoning Footprint
Residential Zoning
Industrial Zoning
Commercial Zoning
Railroad Zoning
Office Zoning
Mixed Use Zoning
Parks
Civic Open Space
0
¼
½
Miles
N
Kraft Furniture and Adjacent Block
Leavenworth Street
20th & Mason Streets Area
480
24th Street
20th Street
16th Street
13th Street
10th Street
Missouri River
Aggregates Production Associates
Center Street
Lynch Park
Martha Street
Grace Univ.
Omaha Botanical Gardens
18th & Vinton Streets
Michael Henery Parcel
Vinton Street
Deer Park
80
Henry Doorly Zoo
Graham Enterprises Dahlman Parcels
Spring Lake Park
Dahlman Avenue
'F' Street
24th & F Streets
75
Carpenter Paper Company
Former O'Neill Meat Packing Plant
'L' Street
Axles and Gears
24th & M Streets
Northeast Corner of 27th & N Streets
Dorothy Patach Natural Environmental Area
Hitchcock Park
MCC
South Omaha Terminal Warehouse
'Q' Street
Former Omaha Cold Storage
Northwest Corner of 26th & O Streets
33rd & Q Streets
Brown Park
Mount Vernon Gardens
42nd Street
36th Street
Upland Park
30th Street
Mandan Park
Harrison St

[3]

CARPENTER PAPER COMPANY – DAHLMAN AVENUE NEAR J STREET
4436 Dahlman Avenue, Omaha, NE 68107

ASSESSMENT TYPE
Phase I (October 2012)

PROPERTY DESCRIPTION
This property (approximately 4 acres) is currently utilized as a warehouse and distribution facility. Previously, it was utilized as a meat packing facility and was also the location of the Cornhusker Mushroom Farms.

PHASE I FINDINGS – RECS
- An apparent inactive water well is located on the property.

RECOMMENDATIONS
- Decommission (i.e. abandon) the well according to applicable regulations.
- Sample site soils for lead contamination.
- Perform LBP and ACM surveys prior to the redevelopment or demolition of the existing building.

No further assessment of this site was conducted under the South Omaha Brownfields Assessment Grant.

[3]

AGGREGATE PRODUCTION ASSOCIATES – 27TH AND CENTER STREETS
2623 Center Street, Omaha, NE 68105

ASSESSMENT TYPE
Phase I (November 2012)

PROPERTY DESCRIPTION
The property (approximately 3 acres) is currently leased to Utility Services Group. The property is being utilized for office space, fleet maintenance, and equipment storage. Previously, it was utilized as a seven bay shop facility for a cereal mill and was also utilized by Drum Industries, Mid-American Industrial Storage, JJ Parks Asphalt, and Aggregate Production Associates.

PHASE I FINDINGS – RECS
- Historic land use of the property as a shop facility, and the historic utilization of adjoining parcels for bulk oil storage.
- Leaking underground storage tank sites on an adjoining parcel.
- Poor housekeeping and floor drains
- The property (Drum Industries, 2623 Center Street) is listed as a CERCLIS-NFRAP site; however it was determined that the Drum Industries (DI) site is not located on the current property parcel; therefore, the DI CERCLIS-NFRAP site does not appear to represent a REC for the property.

RECOMMENDATIONS
- Assess the parcel for petroleum impacts to soil and groundwater.
- Power wash the concrete shop floor surfaces to remove petroleum residues.
- Implement a 55-gallon drum storage containment system.
- Perform periodic maintenance of floor drains including silt traps and sumps.
- Determine if a waste oil underground storage tank (UST) is located at the shop, and if so, excavate and abandon it in accordance with applicable regulations.
- Sample site soils for lead contamination.

No further assessment of this site was conducted under the South Omaha Brownfields Assessment Grant.

[3]

MICHAEL HENERY PARCEL – 25TH STREET AND DEER PARK BOULEVARD
2625 Deer Park Boulevard, Omaha, NE 68105

ASSESSMENT TYPE

Phase I (November 2012), Phase I Update (August 2015)

PROPERTY DESCRIPTION

This property (approximately 1 acre) consists of an office building, warehouse building, a fenced outdoor storage area, and an area leased to AT&T for a cellular communication tower and equipment shelters. The property has recently been used by a shopping cart company. Previously, the property was utilized as a maintenance shop for the Falstaff Brewery facility from 1958 to 1987, and was vacant from 1987 to 1995.

PHASE I FINDINGS – RECS

- Potential LBP due to the construction date of the property's building.

RECOMMENDATIONS

- Sample for LBP prior to redevelopment or demolition.
- Sample site soils for lead contamination.

A Phase I ESA Update was conducted for this site in 2015 under the South Omaha Brownfields Assessment Grant.

PHASE I UPDATE FINDINGS

- The AT&T cellular tower is listed in the NE AIRS database due to the presence of the emergency generator on-site and the air emissions from the generator; however, the AT&T facility is still not considered to represent an REC for the property.
- The RECs identified in the 2012 Phase I ESA Report are still valid and do not need to be updated. No additional RECs were identified.

[3]

18TH & VINTON STREETS
1724 Vinton Street and 2702 South 18th Street, Omaha, NE 68109

ASSESSMENT TYPE

Phase I (October 2012)

PROPERTY DESCRIPTION

The 1724 Vinton Street parcel encompasses approximately 0.16 acres, and the parcel at 2702 S. 18th Street is approximately 0.13 acres. The Vinton Street parcel consists of a three floor level building, and the 18th Street parcel is vacant with no structures. Previously, the Vinton Street parcel was utilized as a social hall, and the 18th Street parcel was utilized as a residence and then a parking lot.

PHASE I FINDINGS – RECS

- The ESA revealed no evidence of RECs in connection with the properties.

RECOMMENDATIONS

- Sample site soils for lead contamination since site is located within the OLS boundaries.

No further assessment of this site was conducted under the South Omaha Brownfields Assessment Grant.

[3]

KRAFT FURNITURE AND ADJACENT BLOCK - 16TH & LEAVENWORTH STREETS
801 South 16th Street, 1501 & 1507 Leavenworth Street, and 1508 Marcy Street, Omaha, NE 68176[5]

ASSESSMENT TYPE

Phase I (January 2013), Phase II (April 2013)

PROPERTY DESCRIPTION

These properties (approximately 1.65 acres in total) consist of the former Kraft Furniture (National Furniture Company) store and warehouse building (Kraft) at 801 South 16th Street, the Monico Diesel Engine Service facility (Monico) at 1508 Marcy Street, a paved surface parking lot at 1501 Leavenworth Street, and a vacant lot located adjacent to the Kraft property at 1507 Leavenworth Street. The Kraft furniture building was constructed in 1916, and the Monico Diesel building and associated garage was constructed around 1950. Historically, the Kraft parcel was occupied by residences and a retail building (rug factory) and was also utilized for auto related businesses. The Monico parcel was historically occupied by residences and was then operated as the Nebraska Tractor & Equipment facility. The 1501 and 1507 Leavenworth Street parcels were previously occupied by residences.

PHASE I FINDINGS – RECS

- Historic auto service and metal plating uses of the Kraft parcel.
- Historic diesel salvage yard and tractor painting uses of the Monico Parcel.
- Leaking underground storage tank (LUST) facility designation of the Kraft parcel.
- Numerous property features including the former paint bay, 55-gallon drums/containers, former oil/water separator, stained soil/pavement, and auto salvage materials.

PHASE II FINDINGS

- The observed levels of arsenic, lead, and total extractable hydrocarbons (TEH) in the property's soils and the concentration of TEH in the groundwater beneath the site are not a significant concern with respect to property liability and/or construction concerns with the projected redevelopment of the project site into loft apartments.
- Soil vapor constituents were minimal and considerably below the NDEQ soil vapor VCP remediation goals (RGs) for residential use.
- The observed ACM in the properties' structures was non-friable and in generally good condition at the time of the investigation; therefore, ACM do not pose an immediate threat to human health.

RECOMMENDATIONS

- Properly remove ACM if they will be disturbed during construction, renovation, or demolition of the structure.

[5]Although they are located outside of the SORA, the EPA approved these sites for assessment under the South Omaha Brownfields Assessment Grant.

[3]

20TH AND MASON STREETS AREA
904, 911, and 1007 South 20th Street, Omaha, NE 68176

ASSESSMENT TYPE

Phase I (March 2013)

PROPERTY DESCRIPTION

The property consists of three separate (i.e. non-adjoining) parcels totaling approximately 2.5 acres. The parcels are separated from each other by public roads. Three buildings are located on the 911 South 20th Street parcel, including the former King Automotive Warehouse and attached shop and the former Jim's Auto Parts building. The parcels at 904 and 1007 South 20th Street consist of vacant undeveloped lots. Previously, the 911 South 20th Street parcel was occupied by the aforementioned former businesses, parts storage, a junk yard, American Glass Company, and Darts Used Auto. The 904 and 1007 South 20th Street were previously occupied by residences, and the 1007 parcel was also occupied by a church.

PHASE I FINDINGS – RECS

- The adjacent address listings of C&J Chemical and Ochs Paint & Repair may be indicative of RECs. If any spills of materials used or stored by these businesses have occurred, such material could have impacted the soil or groundwater beneath the site and migrated onto the property.

RECOMMENDATIONS

- Conduct a Phase II ESA involving soil and groundwater sampling to assess presence of chemicals of potential concern (COPC).

No further assessment of this site was conducted under the South Omaha Brownfields Assessment Grant.

[3]

33RD AND Q STREETS
3301, 3305, 3307, 3309 & 3311 Q Street, Omaha, NE 68107

ASSESSMENT TYPE
Phase I (March 2013)

PROPERTY DESCRIPTION
The five assessed parcels (approximately 0.60 acres in total) are contiguous and consist of four parcels with five structures, and one parcel of vacant land. The parcels front Q Street and extend from 33rd Street to 33rd Avenue. Previously, the properties were utilized as a tavern, a café, a confectionery, a retail grocer, and an auto sales facility.

PHASE I FINDINGS – RECS
- The adjacent Kwik Shop LUST site and the Tuffy Auto Service Leaking Above Ground Storage Tank (LAST) site, both of which are located to the north across Q Street, meet the ASTM definition of a historical REC for the property.

RECOMMENDATIONS
- No further assessment was recommended for the historical RECs based on the down gradient location of the adjacent LUST and LAST sites relative to the property.
- Based on the anticipated redevelopment of the properties for commercial use, further assessment regarding the Omaha Lead Site was not recommended.

No further assessment of this site was conducted under the South Omaha Brownfields Assessment Grant.

[3]

24TH AND F STREETS
4012 South 24th Street, Omaha, NE 68107

ASSESSMENT TYPE
Phase II (August 2012, October 2012)

PROPERTY DESCRIPTION
The property (approximately 0.8 acres) consists of the former Business Printing facility and adjacent parking lot. Historically, the adjacent lot was occupied by a dry cleaning facility.

PHASE I FINDINGS – RECS[6]
- Past uses of the property as a printing facility and dry cleaning facility.

PHASE II FINDINGS
- Lead and arsenic were detected above the VCP RGs for residential standards in soil. All other constituents were either non-detect or below the residential soil standards.
- The industrial/commercial standards for Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), and metals were not exceeded in any of the borings at the site.
- ACM was detected in the building in several locations, none of which appeared to be in a form or condition representing a threat to human health.
- The impacts observed at the site do not pose an immediate threat to human health or the environment given the current and proposed commercial use of the facility.

RECOMMENDATIONS
- Should future soil disturbance occur in the parking area south of the structure, it is advisable to develop a soil management plan for any soils to be removed from the property.

No further assessment of this site was conducted under the South Omaha Brownfields Assessment Grant.

[6]A Phase I ESA was prepared for this facility in July of 2012 on behalf of the prospective purchaser. Grant funds were not used for the Phase I ESA.

[3]

24TH AND M STREETS
4725 South 24th Street, Omaha, NE 68107

ASSESSMENT TYPE
Phase I (May 2013)

PROPERTY DESCRIPTION
The property (approximately 0.3 acres) consists of a building with six commercial use bays and 24 residential apartments. The bays currently consist of retail shops, beauty parlors, and apartment access. The building was previously utilized for various commercial enterprises.

PHASE I FINDINGS – RECS
- The ESA revealed no RECs in connection with the property.

RECOMMENDATIONS
- Due to the building's age ACM could be present; therefore, it was recommended that an ACM survey be performed prior to conducting remodeling or repurposing of the building.

No further assessment of this site was conducted under the South Omaha Brownfields Assessment Grant.

[3]

FORMER OMAHA COLD STORAGE – SOUTH 33RD STREET
5025 South 33rd Street, Omaha, NE 68107

ASSESSMENT TYPE
Phase I (August 2013), Phase II (April 2014)

PROPERTY DESCRIPTION
This property (approximately 6.4 acres) was originally developed as part of an adjoining meat packing facility, which was one of the major meat packing facilities associated with the South Omaha Union Stockyards. The meat packing facility was later converted into an animal processing and cold storage facility. The facility is currently not in use or inhabitable.

PHASE I FINDINGS – RECS
- Property is listed as a LUST site.
- Floor and soil staining indicative of past releases.
- Potential groundwater contamination, ACM, LBP, and health and safety concerns.

PHASE II FINDINGS
- No concerns observed regarding soil or groundwater contamination.
- ACM and LBP were observed.
- With the exception of ACM and LBP, there are no other concerns with respect to property liability and/or constructability concerns with redevelopment of the project site.

RECOMMENDATIONS
- Properly remove ACM and LBP if the property is demolished, renovated, or redeveloped.

[3]

NORTHEAST CORNER OF 27TH AND N STREETS
2630 N Street, Omaha, NE 68107

ASSESSMENT TYPE

Phase I (January 2014), Phase II (April 2014)

PROPERTY DESCRIPTION

Historically, this property (approximately 0.6 acres) was utilized for various purposes including a stable, offices, a salon, print shop, theater, and hotel. The current structure was constructed in 1910, and was occupied by the Omaha Tanning Company, General Fur Industries, and Sturges Hide Company Warehouse. In more recent years, the building has been utilized as a thrift store, music center, boxing club, dance studio, karate studio, and banquet hall.

PHASE I FINDINGS – RECS

- Historical use of the property as a printing business and hide tanning facility.
- Historical presence of a gasoline UST.

PHASE II FINDINGS

- ACM and LBP were observed on the property.
- The observed levels of arsenic, chromium, lead, soil vapor constituents, and TEH in the property's soils and the concentration of TEH in the property's groundwater are not a significant concern with respect to property liability and/or construction concerns with the projected redevelopment of the project site into a commercial property.
- With the exception of the presence of ACM and LBP, there are no concerns with respect to property liability and/or constructability concerns with redevelopment of the project site.

RECOMMENDATIONS

- Properly remove and dispose of the non-friable ACM if the materials will be disturbed during construction, renovation, or demolition.
- Abate the LPB on structures if they are renovated.
- If impacted soils, buried tanks, or other waste are encountered during excavation or redevelopment, they should be properly handled in accordance with applicable requirements.

[3]

SOUTH OMAHA TERMINAL WAREHOUSE – SOUTHEAST CORNER OF 27TH AND N STREETS
4913 South 27th Street, Omaha, NE 68107

ASSESSMENT TYPE

Phase I (February 2014)

PROPERTY DESCRIPTION

The property (approximately 0.4 acres) is occupied by a two-story warehouse building and parking lot. Historically, the property had several different commercial uses including a lumber yard, a kitchen, and a hide tanning warehouse.

PHASE I FINDINGS – RECS

- Historical use as a hide tanning facility.
- Historical use of adjacent properties, which could have led to contaminated material migrating onto the site.
- Suspect ACM and LBP on the property.

RECOMMENDATIONS

- Conduct Phase II ESA involving soil and groundwater sampling to assess presence of COPC.

No further assessment of this site was conducted under the South Omaha Brownfields Assessment Grant.

[3]

AXLES AND GEARS TRUCK PARTS WAREHOUSE – 26TH AND M STREETS
4808 South 26th Street, Omaha, NE 68107

ASSESSMENT TYPE

Phase I (February 2014), Phase II (September 2014), Analysis of Brownfields Cleanup Alternatives (March 2015)

PROPERTY DESCRIPTION

The property (approximately 0.9 acres) is currently utilized as a truck parts warehouse. Historic uses of the property consisted of a bakery and stable, a boarding house, a public school, a laundry cleaning facility, a salvage yard, and an auto repair facility.

PHASE I FINDINGS – RECS

- Historic uses as an auto repair shop, salvage yard, and laundry cleaning facility.
- Historic use of adjacent properties, which could have led to contaminated material migrating onto the property.
- Suspect ACM and LBP on the property.

PHASE II FINDINGS

- The Phase II ESA found concerns with respect to property liability and/or constructability concerns with the redevelopment or re-use of the project site in regards to the ACM, LBP, and lead impacted soils observed at the site.

ANALYSIS OF BROWNFIELDS CLEANUP ALTERNATIVES (ABCA) FOR LEAD IMPACTED SOILS

Three cleanup alternatives were considered:

1. No Action
2. Capping the area of concern
3. Excavation of soils with offsite disposal and placement of a clean soil cap

Alternative 3 was chosen as the recommended cleanup alternative for the site as this alternative was the most effective way to eliminate risk, most cost effective, and easiest to implement. The cleanup of the lead-impacted soils occurred in June 2015. However, brownfields assessment grant funds were not used for this effort as cleanups are not covered under this grant.

FORMER O'NEILL MEAT PACKING PLANT – 36TH AND L STREETS
4710 S. 36th Street, Omaha, NE 68107

ASSESSMENT TYPE
Phase I (September 2013), Phase II (April 2014)

PROPERTY DESCRIPTION
This property (approximately 6.9 acres) was originally developed as two parcels, and had numerous historic uses, including a boiler house with railroad siding, residential property, Union Stock Yards Company department store, Kingan & Company wholesale meats, Hygrade Food Products Corporation, O'Neill Meat Packing Plant, Aksarben Meats, and freight trailer and vehicle storage. The structures on the property were demolished sometime between 1988 and 1993. This property is now a gravel lot that serves as a storage area for semi-trailers.

PHASE I FINDINGS – RECS
- Historic use of the property as a heavy industrial facility (former meat packing facility).
- The property is a LUST facility on the NDEQ priority list. NDEQ files show that holes were observed in a UST containing heating oil, and that a sheen was observed on the surface water runoff during removal.
- The property is listed as a US Historical Auto Station (Union Stock Yards Company Department Store, 3601 L Street). The historical gas and service station represents an REC for the property.
- Presence of buried material from the demolition of the former structure.

PHASE II FINDINGS
- Soil or groundwater contamination are not a significant concern with respect to property liability and/or constructability concerns with the redevelopment of the site.
- ACM was present at the site, but was observed to be non-friable.
- With the exception of a leaking former heating oil UST, there was no evidence of releases as a result of a former service station or other USTs.
- No indication that a service station existed at the site.
- With the exception of the buried materials observed at the site, there are no concerns with respect to property liability and/or constructability concerns with redevelopment of the project site as an industrial facility.

RECOMMENDATIONS
- If redevelopment occurs at this site, buried debris should excavated from the area of any proposed building footprint, as the existing conditions are unsuitable for support of buildings.
- If excavated, the soils can be disposed of as special waste in a licensed Subtitle D landfill, while the debris should be segregated from the soils and disposed of as construction and demolition (C&D) debris at a licensed C&D landfill. The observed ACM can be disposed of as C&D debris, rather than hazardous waste, due to the non-friable nature of the materials. Excavated soils should not be used for beneficial re-use.

[3]

NORTHWEST CORNER OF 26TH AND O STREETS
4940 South 26th Street, Omaha, NE 68107

ASSESSMENT TYPE

Phase I (February 2014), Phase II (June 2014)

PROPERTY DESCRIPTION

The past uses of the property (approximately 0.2 acres) include a printing shop, office, boarding house, various stores, bakery, barber shop, restaurant/bar, and auto accessories store. The structure that stood on this property was damaged by a fire around 1990, and was demolished in 2013. The property is currently a vacant lot.

PHASE I FINDINGS – RECS

- Historic use of the property as a printing facility.
- Historic presence of an AST.
- Historic use of the adjacent property as an auto body shop.

PHASE II FINDINGS

- No concerns with respect to the property liability and/or constructability concerns with regards to redevelopment of the project site were identified.

RECOMMENDATIONS

- If impacted soils, buried tanks, or other waste are encountered during excavation for redevelopment, they should be properly handled in accordance with applicable requirements.
- Assess soils for lead impacts prior to redeveloping the western sloped portion of the property.

[3]

GRAHAM ENTERPRISES DAHLMAN PARCELS – DAHLMAN AVENUE AND F STREET

3811 and 4003 Dahlman Avenue and 2929 F Street, Omaha, NE 68107

ASSESSMENT TYPE

Phase I (September 2013)

PROPERTY DESCRIPTION

The properties (approximately 5.3 acres in total) consist of three narrow parcels of land located along railroad corridors. The parcels at 3811 and 4003 Dahlman Avenue are adjoining, while the 2929 F Street parcel is separated from the other two by F Street. The parcels at 3811 and 4003 Dahlman Avenue are former meat processing facilities. The 2929 F Street parcel was identified as being associated with current and prior asphalt facilities.

PHASE I FINDINGS – RECS

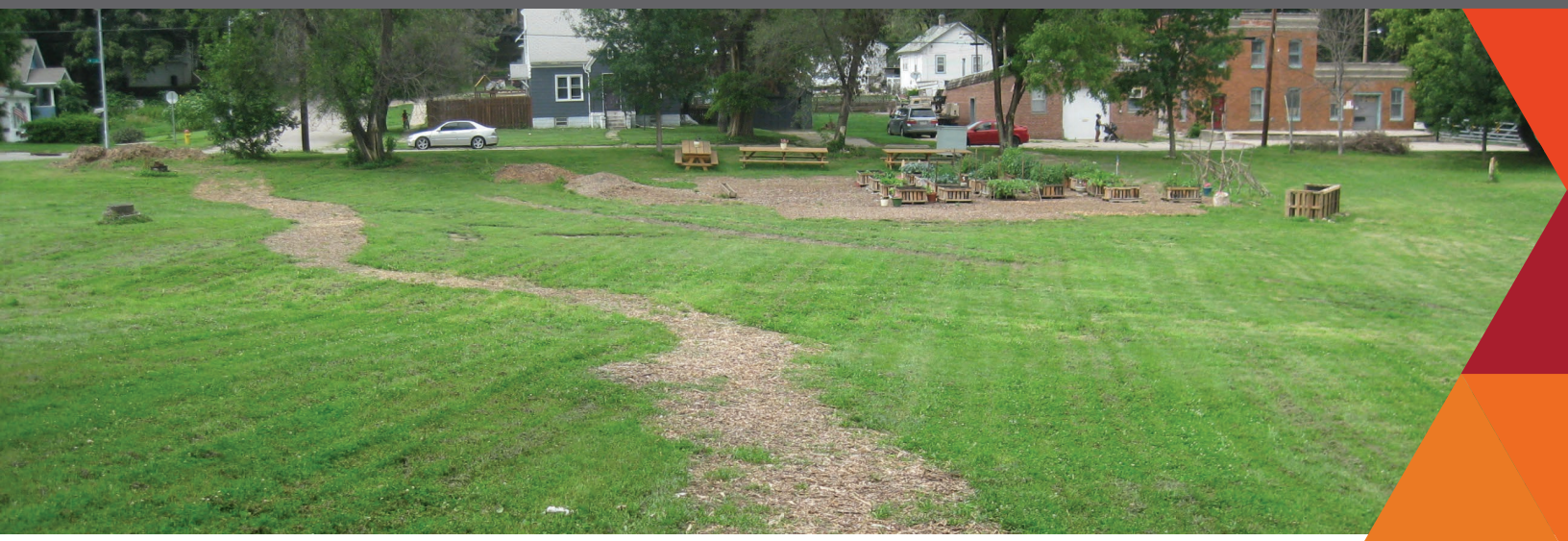
- Historic and/or current use of the properties as heavy industrial facilities (historic meat processing, asphalt operations, and railroad spurs).
- 55-gallon drums with unknown contents.
- Noxious odors in a remnant building.
- LBP surfaces likely present based on the age and historic use of the structure.

RECOMMENDATIONS

- Conduct a Phase II ESA to include soil and groundwater sampling.
- Perform LBP and ACM surveys prior to any renovation or redevelopment.

No further assessment of this site was conducted under the South Omaha Brownfields Assessment Grant.

[3]



DOROTHY PATCH NATURAL ENVIRONMENTAL AREA – 19TH AND N STREETS

4903 South 20th Street; 4920 South 19th Street; 1815 and 1819 N Street; 4911, 4915, 4919, and 4923 South 19th Street; 4904, 4908, 4912, 4916, 4920, 4924, 4928 South 18th Street; and one parcel with no address

ASSESSMENT TYPE

Phase I (August 2015)

PROPERTY DESCRIPTION

The property (approximately 3.2 acres in total) consists of numerous contiguous, undeveloped parcels owned by the City of Omaha. The perimeter of the property was developed prior to 1901 as residences, but by 1926 only one residence occupied the property. The property then reverted to open space along a ravine, until 1975 when portions of the property began to be used as an unlicensed construction and debris landfill. Around 1995, the property was donated to the City of Omaha, which continued to use the property as a landfill until 2000 when it was capped. For the last fifteen years, the property has been open space, but recently, a small community garden has been established by a local neighborhood group.

PHASE I FINDINGS – RECS

- The historic use of the site as a landfill is considered a controlled REC (CREC).
- The historic use of an adjacent property as an auto service facility.

PHASE II FINDINGS

- Low levels of metals in soils above VCP RGs for residential standards.
- Low level TEH impacts to groundwater.

RECOMMENDATIONS

- Further assessment of the property to address the CREC is not recommended based on the type of material disposed and the issuance of a NFA letter from NDEQ in regards to the cap.
- Properly cap or remove all C&D materials and remove trash.
- No further investigation recommended based on Phase II findings.

#4 [Integrated Development Strategy]

The concept of an integrated development strategy suggests that efforts to develop or redevelop a site will not be simply focused on one single aspect or goal, but rather, that they will bring together various aspects from multiple planning efforts to meet several goals simultaneously. From the many planning efforts that have focused on South Omaha, and the numerous tools that have been created to spur redevelopment, there are various ways to combine information into an integrated development strategy.

INTEGRATED DEVELOPMENT STRATEGY COMPONENTS:

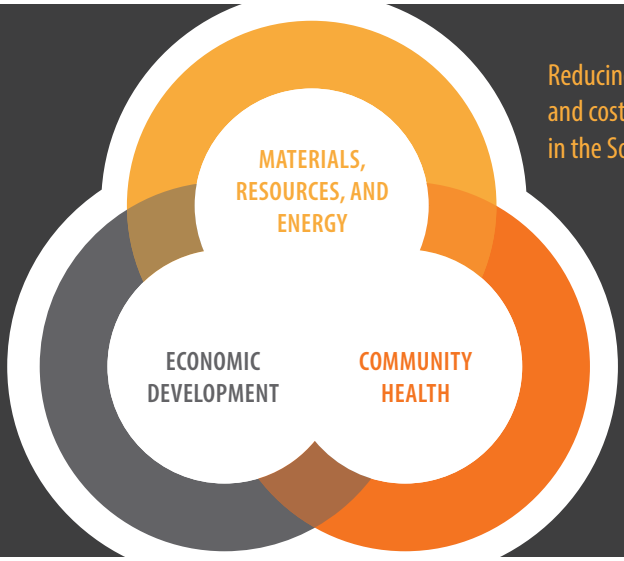
- Sustainable and low-impact development concepts
- Economic development and new employment centers
- Workforce enhancement, education, job training
- Transportation and mobility improvements (vehicular, pedestrian, transit)
- Revitalization of commercial corridors
- Creation or improvement of green space, parks, and trails
- Making usable and appropriate connections between residential areas, industrial areas, the riverfront, tourist attractions, employment centers, and education facilities

[4]

4.1 GREEN SOLUTIONS

In order to maximize future benefits, site design and redevelopment strategies should incorporate sustainable design principles and techniques, or Green Solutions[7]. Brownfields redevelopment in South Omaha should follow a systematic framework for identifying, assessing, and prioritizing Green Solutions opportunities throughout the development process; from site assessment, to prioritization, and finally development of cleanup alternatives and redevelopment plans. Planners and developers recognize that Green Solutions benefits may also be achieved to varying degrees with open space uses as well as commercial or industrial redevelopment. Finally, Green Solutions can be an important component of a phased redevelopment approach by promoting beneficial community uses in the short- to medium-term, until more intensive redevelopment is feasible. An in-depth discussion about Green Solutions and how they can be employed in South Omaha redevelopment efforts is included in the *Green Solutions and Sustainable Redevelopment Strategies Report,* which was developed specifically for this AWP and is provided as Appendix A. Several key points from this report are outlined briefly below.

GREEN SOLUTION OBJECTIVES FOR SOUTH OMAHA



Reducing resource, materials, and energy usage and costs; and capturing resources and savings in the South Omaha community.

Attracting and promoting green businesses and providing green collar jobs and training.

Promoting a healthier South Omaha community through site design, recreation, regional amenities, and services such as local food production.

GREEN SOLUTIONS FRAMEWORK FOR BROWNFIELDS PLANNING AND REDEVELOPMENT

The Green Solutions and Sustainable Redevelopment Strategies Report also describes a "Green Solutions Framework for Brownfields Planning and Redevelopment," which lays out the process for identifying opportunities to implement Green Solutions. The Green Solutions process includes three basic components:

1. Initial screening of major opportunities.
2. Consideration of direct benefits for materials, energy, and resource flows.
3. Identification of other community health benefits.

Following this process allows for the assessment and determination of the most appropriate sites for Green Solutions in redevelopment areas. This process also allows for Green Solutions to be incorporated early on in redevelopment planning rather than being an afterthought.

SUMMARY

Implementing Green Solutions during redevelopment can provide various benefits, such as improving individual and community health, supporting environmental design and sustainability, reducing public and private sector costs, and positively impacting resource, material, and energy flows. Incorporating Green Solutions into brownfields redevelopment projects is one example that supports the concept of an integrated development strategy. Overall, utilizing Green Solutions and green business approaches to redevelopment could truly maximize environmental, economic, and community benefits.

[7]Green Solutions is a general term that is often used to refer to environmentally beneficial solutions for urban problems.

#5 [Conceptual Future Land Use Plans]

Due to the limited availability of undeveloped land in the SORA, existing industrial and commercial land should be conserved and expanded, if possible. As part of the EPA's brownfields assessment grant funding, conceptual future land use plans were developed for several sites and/or corridors in the SORA that present opportunities for redevelopment. Renderings of these sites are based on current or future land use plans developed by other planning efforts, with ideas on how to incorporate or utilize brownfields redevelopment to encourage or spur the materialization of these plans. A summary of sites and their potential uses is included in Appendix B.

POTENTIAL REDEVELOPMENT SITES

Throughout the South Omaha Brownfields Assessment Grant implementation process, several High Priority sites and corridors were identified that represent tremendous opportunities for redevelopment, some of which were also identified in the SODP; however, not all of the property owners of these sites wished to participate in the grant. Although not all of these sites were able to be assessed using grant funding, they still represent great opportunities for cleanup and redevelopment; therefore, conceptual plans for potential redevelopment of these areas is discussed on the following pages.

SCOULAR GRAIN SITE

The Scoular Grain Site is located along 28th Avenue and Vinton Street, just east of I-480. The site is approximately 21 acres, and is zoned as Heavy Industrial (HI). This site was identified as having high redevelopment potential due to its proximity to I-480, its location along an active rail spur, and its large size. Another benefit of this site is due to the fact that the majority of the structures have already been demolished; however, cleanup activities would likely still be required.

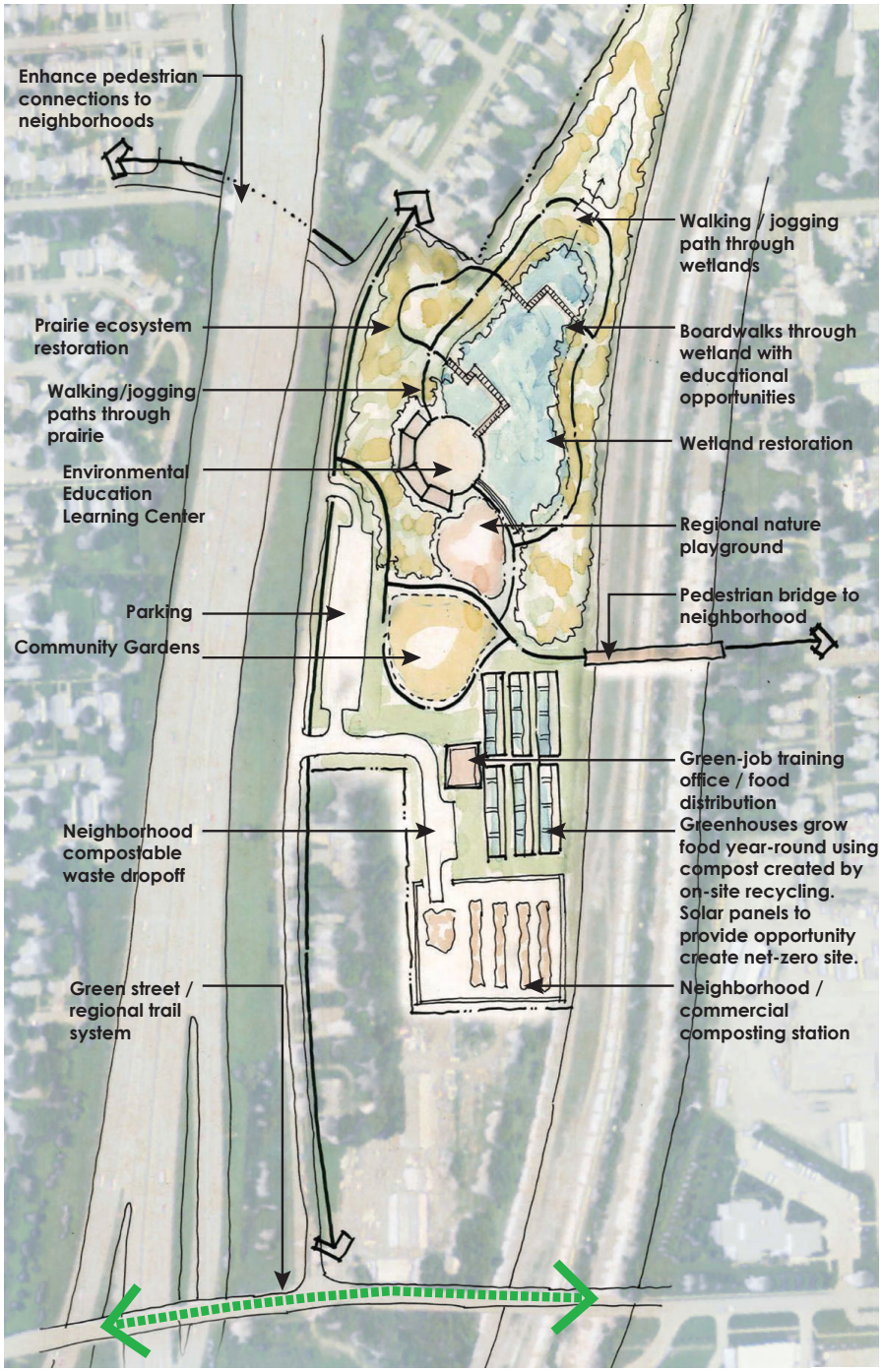
Many land use options exist for the redevelopment of this site, ranging from industrial to low intensity recreation. Several concepts were developed for this site under the grant, which show three different alternatives for this site as a community garden, a recreational/ educational area, or as industrial use.

The figure on page 37 shows an open space redevelopment concept for the Scoular Grain Site where Green Solutions are also incorporated. This type of redevelopment would be expected to generate economic, environmental, and community benefits. This concept includes elements of publicly accessible open space, recreation, education and economic development. More detail on this redevelopment concept is provided in Appendix A.

The figure on page 38 shows a redevelopment concept for the site where urban agriculture is the primary focus. The concept also includes walking paths at the site with connections to the adjacent neighborhoods, as well as Green Solutions such as bioretention ponds. More detail on this redevelopment concept is provided in Appendix A.

The figure on page 39 shows an industrial use redevelopment concept for the site, which would include two buildings, ample parking, service areas on the north and south sides of the buildings, and a new rail spur that would service the facility. The concept also shows a potential future expansion site on the south side of the existing buildings.

SCOULAR GRAIN SITE OPEN SPACE REDEVELOPMENT CONCEPT

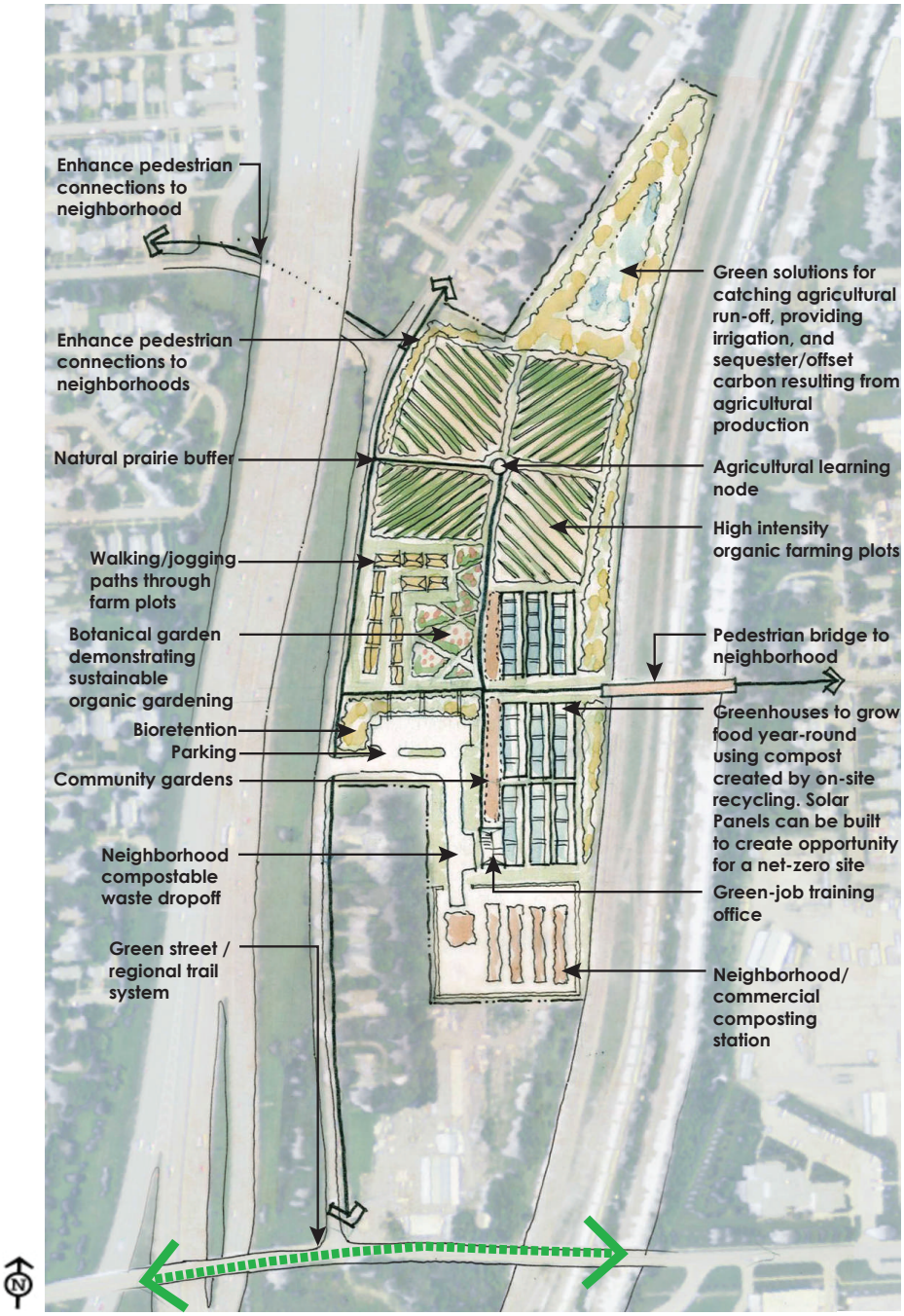


Description:

If, by necessity, the remediation requires removal of large quantities of soil, it would be possible to convert it into a Regional Nature and Recreational Hub, including:

- Nature laboratories
- Restored ecosystems integrated with recreational features
- Outdoor classrooms, playgrounds, and walking paths
- Greenhouses and a regional compost station
- Food and compost processing businesses that could be expanded to serve a greater service area

SCOULAR GRAIN SITE URBAN AGRICULTURE REDEVELOPMENT CONCEPT



Description:

To maximize the idea of water, energy, and nutrient recycling, there is redevelopment potential of creating high-intensity urban farming that could include:

- Use of fertilizers and nutrients provided from compostable waste generated by the community
- Reduction of waste in landfills while providing sustenance back to the community in the form of fresh produce
- Farmers market to distribute and create a neighborhood feature
- Educational gardens to provide recreation while educating the public of sustainable practices
- Opportunities to expand, providing the community with greater potential to integrate a 'closed loop' lifestyle

SCOULAR GRAIN SITE INDUSTRIAL USE REDEVELOPMENT CONCEPT

[5]

SALVATION ARMY MILL, 24TH AND CENTER, AGGREGATE PRODUCTION, AND ADJACENT SITES

The Salvation Army Mill Site is located at 26th and Center Streets, and is zoned as HI. As noted in the SODP, this site has a high potential for industrial redevelopment in the SORA primarily due to its close proximity to I-480 and its location along an active rail spur. There are several challenges to redevelopment at this site including the existing structures, topography, and a rail spur which splits the two parcels that make up the site. However, even with these challenges, the property's size, which totals almost 3.25 acres, and location could appeal to a new major employer, making this site a great candidate for redevelopment.

Furthermore, the Salvation Army Mill Site is situated adjacent to several other candidate sites, including the 24th & Center and Aggregate Production properties. These parcels, combined with several other smaller adjacent properties, total approximately 20 acres. By combining these properties into one redevelopment site, the vast amount of land that would be made available would provide exceptional potential and countless possibilities for redevelopment.

The overall redevelopment concept for this site depicts the area as an office and/or industrial park with several rail-accessed buildings, warehouse and office uses, and some limited retail or commercial parcels.

SALVATION ARMY MILL SITE CONCEPTS

Adjacent Sites

24th and Center Street

Salvation Army and Aggregate Productions

SALVATION ARMY MILL SITE OVERALL CONCEPT

DAHLMAN AVENUE AREA

Dahlman Avenue runs generally north and south and is a little-known connection between 32nd Avenue south of I-80 and 30th Street south of L Street; however, the street has an irregular alignment which deters unfamiliar travelers from using it as a through street. This street is embedded in an industrial-zoned area, and has secondary sites for potential industrial redevelopment. The SODP identifies a re-alignment concept for Dahlman Avenue, which would shift the segment of the roadway between H and K Streets to the west, while keeping the existing north and south alignments. This re-alignment would create larger parcels of land for potential redevelopment, which could attract employers.

In recent years redevelopment has occurred in the area along the east side of the south segment of Dahlman Avenue (i.e. just north of L Street) at the location of the former Sutherlands Lumberyard. This area now functions as a commercial area known as Sutherlands Plaza. The continued redevelopment of this area would benefit from the re-alignment of Dahlman Avenue and the resulting larger parcels of land made available for potential employers. Adding to the potential for redevelopment is nearby access to US Highway 75 (US-75) from both F and L Streets. US-75 is a major north-south route through eastern Omaha that also provides connections to I-80 and I-480 (US-75 overlaps with I-480 north the I-80/I-480/US-75 interchange).

L STREET AND US HIGHWAY 75 AREA

This site, which consists of approximately three blocks, is bordered by L Street on the north and O Street on the south, and US-75 on the east and a UP rail line on the west. The area is zoned as HI, and was identified in the SODP as a Secondary Potential site for redevelopment. This site is approximately 9.5 acres in total, and consists of several existing businesses, along with numerous vacant parcels and buildings. Redevelopment potential for this site is high due to its size location along an active rail line, and proximity to US-75, which connects to I-80 and I-480.

Four properties at the L Street and US Hwy 75 area redevelopment site were assessed under the grant. In addition, a mock rendering was developed for the assessed parcel at 26th & O Streets.

The picture above shows the vacant lot at 4940 South 26th Street. This site was assessed using grant funding. This parcel is part of a larger "Secondary Potential" site for redevelopment identified in the SODP, and discussed above as the "L Street and US Highway 75 Area." View is facing west-northwest.

The rendering above depicts the site as a loft and retail building. View is facing west-southwest.

18TH AND VINTON STREETS

The 18th and Vinton Streets Site is part of the larger Vinton Street Commercial Corridor, which was identified as a secondary commercial corridor in the SODP. The 18th and Vinton Streets Site was assessed under the brownfields grant, and no RECs were identified for this site. This site has since been successfully renovated and is being operated as a banquet hall. Although one property has been renovated, the overall Vinton Street Commercial Corridor still presents an opportunity for redevelopment or rehabilitation.

BEFORE RENOVATION

AFTER RENOVATION

OMAHA COLD STORAGE FACILITY

This site is approximately 6.5 acres in size, and is situated east of 33rd Street, just north of Q Street. Due to its size, proximity to Metropolitan Community College, and adjacency to the Bob Campos Soccer Complex, the site presents many possible opportunities for redevelopment. A local community group, the Midlands Latino Community Development Corporation, was engaged to complete a visioning workshop in July 2014. The workshop brought together community members and technical staff, who conducted a two-step process. The first step was a SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis to establish redevelopment components, and the second step was a geographic mapping exercise, which placed components in various configurations on the site. The results of the SWOT Analysis and the geographic mapping exercise are included below.

Strengths of the site were: potential synergy with the surrounding area, proximity to MCC, and the overall size of the site. Primary **Opportunities** were seen as: providing opportunities to new entrepreneurs, a large site for a variety of businesses, and true economic development potential. **Weaknesses** and **Threats** were identified as the amount of heavy industrial traffic in the area, difficult pedestrian access and logistics, the high cost to redevelop or renovate the space, and the potential oversaturation of existing similar businesses in the area. Redevelopment scenarios focused on either re-conditioning the existing building into an entertainment, food, retail, and business complex; providing a retail, market, and festival space, with connections to the adjoining soccer complex; and razing the site to create a South Omaha Museum, complete with a new open air plaza and retail space.

Many other possibilities exist for this site, and could include making new connections to MCC, both physically and economically; simply providing a much larger recreational area; or could include a complete re-envisioning of the space by either using existing buildings or constructing new ones.

The former Omaha Cold Storage property was purchased by Community Investments Opportunities, LLC (CIO) of Omaha, Nebraska in April 2015 with the intention of spurring a community economic development project and revitalizing the area by turning this abandoned property into a usable and valuable space. According to CIO's website, the property will be redeveloped and will consist of a shopping center, light manufacturing, and planned meeting rooms and offices (CIO, n.d.). CIO has dubbed this project as the "South Omaha Mixed Real Estate Project." More information about the project can be found on the CIO website http://ciopportunities.com/.

Community Investment Opportunities, LLC (CIO) was "created by a group of persons who formed an organization to promote opportunities for the South Omaha area" (CIO, n.d.). CIO was founded with support from Midlands Latino Community Development Corporation (MLCDC) and several business leaders from the community. According to the MLCDC website, other important partners in this project include the National Association for Latino Community Asset Builders (NALCAB), Nebraska Department of Economic Development, Omaha Public Power District (OPPD), Latino Economic Development Center (LEDC) in Minneapolis, and La Hacienda in Portland (MLCDC, n.d.). As of April 2016, MLCDC is currently holding monthly meetings to plan the project.

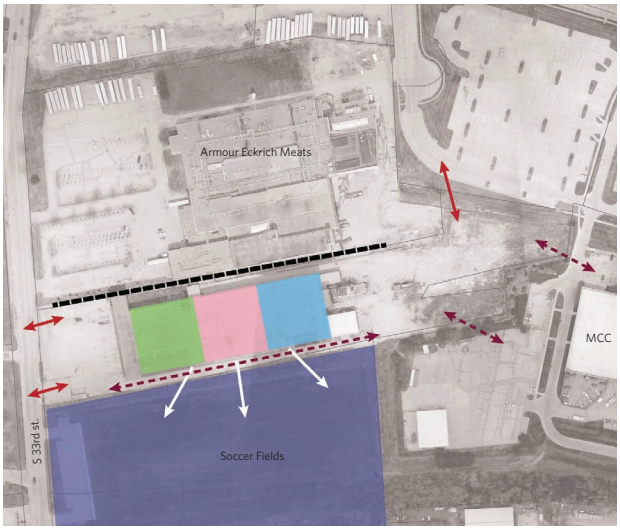
OMAHA COLD STORAGE FACILITY CURRENT PLANS

GEOGRAPHIC MAPPING EXERCISE GROUP 1

Legend

- Family Entertainment (2nd floor)
- Retail
- Food Court/Dance Area
- Food Prep Areas (1st floor)
- Businesses
- Garden
- Parking Structure

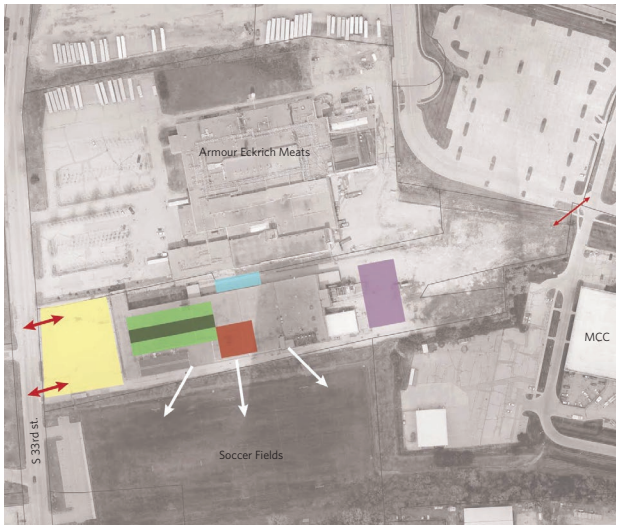
GEOGRAPHIC MAPPING EXERCISE GROUP 2



Legend

- Retail
- Theater/Arts Area
- MCC Related Shops
- Festival/Cultural Space
- Vehicular Access
- Pedestrian Walkways
- Views
- Wall/Screen

GEOGRAPHIC MAPPING EXERCISE GROUP 3



Legend

- Parking Lot
- Retail
- Ave. Of The World
- Shipping Dock
- South Omaha Museum
- Parking Structure
- Vehicular Access
- Views

[5]

33RD AND Q STREETS

The pictures below shows the assessed sites located immediately south of the intersection of 33rd and Q Streets (3301, 3305, 3307, 3309 & 3311 Q Street). Currently, this site is being underutilized as it sits vacant. View is facing southwest.

Assessed site located south of 33rd and Q Streets.

Redevelopment possibilities for the five parcels at 33rd and Q Streets.

Renderings above show two possibilities for redevelopment of five parcels at 33rd and Q Streets. The rendering on the left shows the site as a gas station, while the rendering on the right shows the site as a pharmacy. Q Street is heavily traveled in this area of South Omaha, making it a great location for businesses like these. In addition, this site is only a half mile from Metro Community College's South Omaha Campus. Both of these redevelopment options would improve the local economy. Both renderings face east-southeast.

16TH AND LEAVENWORTH STREETS

The image below shows the Kraft building (background) at 801 South 16th Street and parking lot at 1501 and 1507 Leavenworth Street. This site takes up a city block, bordered by 15th and 16th Streets on the east and west, and Leavenworth and Marcy Streets on the north and south. The site is located on the southern edge of Downtown Omaha. View is facing southwest.

Kraft building at 801 S. 16th Street and parking lot at 1501 and 1507 Leavenworth Street

Rendering of parking lot at 15th and Leavenworth Street

The rendering above depicts what the parking lot at 15th and Leavenworth Streets could look like if it were redeveloped into apartments. This site is situated within walking distance of many Downtown Omaha attractions, including the Old Market, Durham Museum, and Heartland of America Park, making this an optimal place to reside for millennials looking for urban apartment living options. View is facing southwest.

DIVERSITY OF SORA PROJECTS

Public transportation
Park improvement
Public developments
Private projects

#6 [Interconnected Redevelopment Opportunities]

There are numerous projects in the SORA that have been recently completed, are currently underway, or will occur in the near future. These projects include transportation projects, park improvements, other public developments; and private projects, such as the Henry Doorly Zoo expansion. These projects should be viewed as opportunities to redevelop and reinvigorate the surrounding areas. These projects can serve as the spark that ignites redevelopment in the surrounding areas. Brownfields sites near these improvement projects should be targeted for redevelopment because these projects can provide incentive for the surrounding area to be enhanced. For example, if one brownfields site redevelopment were to complement another recent improvement project, then that one redevelopment could create a ripple effect, giving other property owners the desire to redevelop or rehabilitate their properties. As discussed, if projects were to be piggy-backed by other brownfields redevelopments or area improvement projects, they could lead to the transformation and revitalization of much larger areas. These improvement projects, even one as apparently simple as a roadway improvement, can be viewed as the spark to redevelopment of an area. Redeveloping a nearby brownfields property can be viewed as kindling, which could eventually lead to a larger fire that would be the redevelopment of a whole community or corridor.

6.1 BRIDGE/ROADWAY IMPROVEMENT PROJECTS

- New South Omaha Veterans Memorial Bridge
- Q Street bridge and construction of roundabouts at 42nd Street
- 42nd Street bridges at C Street and D Street
- Q Street bridge over Edward Babe Gomez Drive near MCC
- L Street bridge between Dahlman Avenue and US-75
- Roundabout at Spring lake Drive and F Street
- 24th Street Road Diet (bike lanes on 24th Street between L Street and Leavenworth Street)

6.2 PARK RENOVATIONS/IMPROVEMENTS

Renovation of Hanscom Park
This is a collaborative renovation project between the City of Omaha Parks Department and the City of Omaha CSO Program. Renovations will upgrade existing park features, construct new park amenities, introduce green solutions and perform sewer separation.

Renovation of Spring Lake Park
This City of Omaha CSO project is focusing on sewer separation to improve water quality and reduce runoff, while also providing new recreation opportunities and green solutions, enhancing community pride, discouraging illegal dumping, and improving wildlife habitat. Construction of this project is planned to be completed in late 2017.

Dorothy Patch Natural Environmental Area (DPNEA) and Community Gardens
According to historical records, the DPNEA was originally a ravine, quite possibly with one or more groundwater springs, which were of medicinal purposes to the native inhabitants of the region, and which later became a profitable source of mineral water known as the Curo Mineral Springs. Unfortunately, the DPNEA, as well as many adjacent parcels, were used as a landfill for dumping of construction debris and materials from street maintenance projects. These activities ceased in 2001, and the site was graded over. In recent years, a group of neighborhood and community members known as the Dorothy Patach Environmental Area Supporters (DPEAS) has developed a community garden on the property, generating produce and hosting gardening events.

Situated across 20th Street from the DPNEA is the H.P. Smith Sports Training Complex, and also nearby are the American Legion, the American GI Forum, the Boys and Girls Club of the Midlands, and Collin Field, the Omaha South High School Athletic field. Further to the southeast is Gomez Heritage Elementary School, and the Southern Valley Townhomes development (a newly constructed, privately funded, low-income housing development which used TIF funding).

DID YOU KNOW?

Dorothy Patach was born in South Omaha in 1923 to a family of Czech immigrants. She was educated at Hawthorne Elementary School and graduated from South High School in 1941. She went on to the University of Nebraska at Lincoln and graduated with a nursing degree in 1944. After terms at Clarkson Hospital in Omaha and Jenny Edmundson Hospital in Council Bluffs, she was involved with the development of surgical drapes and Formula 99 (which later became known as Dial Soap), and finally joined the staff at the University of Nebraska at Omaha, until she retired in 1989. Dorothy was and continues to be a community activist and volunteer. If ever there were problems in her neighborhood, she arose to address them. Her volunteerism with the local Sokol centers, the Spring lake Neighborhood Association, the South Omaha Neighborhood Alliance, and the South Omaha Business Association, as well as the University of Nebraska Medical Center, earned her memorialization by the naming of the seven acre natural environmental area after her.

With all the activity in and around the area of the DPNEA, there could be many redevelopment opportunities. Possible scenarios could range from the simple redevelopment of adjacent commercial properties, to adding more baseball or soccer fields to enhance the H.P. Smith Sports Training Complex, making trail connections through the wooded area southeast of DPNEA to Gomez Heritage Elementary School, or job training and employment opportunities for veterans from the American GI Forum.

Lynch Park Remediation and Expansion
Remediation and cleanup activities at the former MGP site immediately north of Lynch Park are anticipated to begin in 2016. Once the cleanup has been completed, expansion of Lynch Park is expected to follow, which will provide an additional nine acres for recreation. The Lynch Park expansion was also identified in the SODP as a high priority project.

Lynch Park and Spring Lake Park plans from KSU Master's Thesis
Park master plans were developed with input from the communities surrounding these parks, and with specific elements aimed at enhancing the parks and adjacent commercial areas. In 2014 and 2015, a Kansas State University graduate student prepared a comprehensive report entitled "Re-envisioning South Omaha Parks with Community Diversity in Mind" which re-imagined Lynch Park (and a portion of Spring Lake Park) with ethnic and cultural components, including a Great Lawn, picnic pavilions, diagonal and orthogonal walkways, fountains, a public art space, concession stands, a dog park, a nature area, and a plaza along 20th Street (Leise, 2015). These plans also call for redevelopment of the former MGP and the commercial and industrial corridor along 20th Street, to tie the park into the community. Park plans suggest transforming the Michelin Tire Retread facility into a community center. These plans were based on interviews with the public and community leaders, and would likely be well received by the residents.

Omaha's Henry Doorly Zoo Redevelopment and Expansion Plans
This plan includes reconstruction of many existing exhibits, construction of new exhibits, reconfiguring nearby public roads to improve access and traffic flow to the zoo, and adding new parking lots. The Henry Doorly Zoo could benefit from the re-development of adjacent businesses and residential areas, which would provide a more welcoming entrance to South Omaha from the Interstate. Additionally, adjacent businesses could also prosper from the large numbers of zoo visitors that pass through the area on a daily basis.

6.3 NEIGHBORHOOD REVITILIZATION EFFORTS

Omaha By Design's Vinton Street Project (Neighborhood Conservation and Enhancement Overlay District)
The Vinton Street Neighborhood Conservation and Enhancement Overlay District (NCE) was published in December 2013, and was approved by the City Council in February 2014. The ordinance approving the NCE supplements the City of Omaha Master Plan, and incorporates three fundamental planning tools into one document: a new Sub-Area Plan, a Land Use Plan, and Zoning Code Adjustments. With overwhelming support from the Vinton Street Merchants Association, Deer Park Neighborhood Association, the Planning Department, and surrounding residential neighborhoods, the NCE provides for a phased approach for compatible development, historic preservation, neighborhood revitalization, pedestrian accessibility, and economic development.

Deer Park Neighborhood Redevelopment
In September 2014, the City of Omaha approved the Deer Park Neighborhood Redevelopment Plan. The redevelopment area is generally bounded by Martha Street on the north, I-80 on the south, 21st Street on the West, and 15th Street on the East. The plan proposes the acquisition of vacant property, and the demolition of vacant, deteriorating housing, followed by the construction of affordable housing on the sites. Rehabilitation of vacant housing would also occur where possible. The redevelopment plan also calls for City-provided housing rehabilitation resources for approximately 40 rental and 40 homeowner units targeting areas in which housing construction is occurring. Funding for this project would come from Community Development Block Grant (CDBG) funds, HOME Investment Partnerships Program, and Nebraska Affordable Housing Trust Funds. Private funds, such as mortgages and matching funds from rental property owners would also help pay for the project.

[6]

Demolition of Southside Terrace Apartments

These 70-year-old apartments are owned and maintained by the Omaha Housing Authority (OHA), and have fallen into disrepair beyond acceptable levels. The buildings are not energy efficient, do not have modern conveniences, are poorly lit, and contribute to a sense (perceived and real) of increased crime in the area. OHA recently announced that they are planning to demolish the entire property, and are currently applying for a Choice Neighborhood Planning Grant from HUD that supports the "development of comprehensive neighborhood revitalization plans." Situated within the complex is the Girls Incorporated of Omaha – Emma Lozier Branch, a non-profit organization which serves girls between the ages of 5 and 18 with many different programs, focusing on physical and educational empowerment. Also nearby is an Educare of Omaha facility at Indian Hill Elementary School. This early childhood development center focuses on kindergarten readiness for vulnerable children. Their mantra of being a "catalyst for change" would resonate well with other opportunities for change in the immediate area, and would serve as a beacon to other projects attempting to make a change in the lives of South Omaha Residents. Other nearby facilities including the Salvation Army Kroc Center, Miguel Hernandez Keith Park, Upland Park, the South Omaha Community YMCA, the Juan Diego Center of Catholic Charities, and the newly constructed Stephen Center Permanent Supportive Housing and Pettigrew Emergency Shelter provide both human and physical resources to encourage economic development, job creation, and neighborhood stability. Furthermore, there are a number of vacant parcels between Southside Terrace and Q Street, which would provide more opportunities for connecting this area to MCC, and providing retail, commercial and supporting facilities. The demolition of Southside Terrace Apartments and the opportunities present in this area make it a perfect candidate for a site-specific Area-Wide Plan or other community planning exercise.

#7 [Plan Forward and Implementation]

In order to move forward with this plan, which aims to achieve sustainable economic redevelopment and reuse, future environmental issues, development partners, and funding sources need to be identified. Vacant or underused sites that may pose environmental issues (i.e. brownfields) should continue to be identified and assessed as potential redevelopment opportunities. MAPA or other stakeholders should identify and work closely with development partners, which could include City agencies, community groups, neighborhood associations, and other South Omaha stakeholders. Funding sources should be explored to aid with performing environmental site assessments and cleanups on sites that require them, and for the purpose of redeveloping these properties. Funding sources could include sources from private entities, grants, the City of Omaha, or MAPA.

The Conceptual Future Land Use Plans discussed in Section 5 of this document should be refined and implemented moving forward, as these areas provide the greatest opportunities for redevelopment in the SORA. In addition to the Conceptual Land Use Plan, the recommendations of the SODP and Heartland 2050 Vision should also be implemented to encourage economic growth and job creation in South Omaha, while also identifying redevelopment and reuse opportunities in the process that could contribute to achieving these goals. MAPA should continue to seek out additional EPA brownfields grants to leverage the success that has been had to date, and to facilitate future redevelopment and reuse in South Omaha.

Discussed on the following pages are several examples of concepts and tools that can be used in the future to continue moving forward with the identification and eventual redevelopment of brownfields.

[7]

FUND A CITY/COUNTY BROWNFIELDS COORDINATOR POSITION

Fund a city or county brownfields coordinator position to facilitate future area wide redevelopment and reuse. The Cities of Indianapolis and Kansas City fund a Brownfield Redevelopment Coordinator position, which has helped both of these Cities to make strides in addressing brownfields. For example, Indianapolis has recently been able to conduct a county-wide brownfield site inventory, and Kansas City has performed multiple brownfields cleanup and redevelopment projects. Kansas City has had tremendous success with its brownfields program and coordinator position. By forming a brownfields program and hiring a brownfields coordinator, Kansas City has been able to realize the economic benefits of redeveloping brownfields. According to the 2015 summary for the Kansas City brownfields program, the program has accomplished the following: utilized over $21 million in federal and state funds to assist 121 projects; assessed over 2,691 properties; cleaned up 109 sites; helped create at least 1,408 new jobs and retain 1,764 jobs; generated over $333 million in new private investment; and supported nearly $2.7 billion in new and anticipated development in the city (Kansas City Department of City Planning & Development, 2015). Funding a city or county brownfields coordinator would allow for the continuous identification and inventory of brownfields sites, and ensure that brownfields redevelopments do not fall by the wayside.

STATE LEGISLATURE ACTIONS

Seek ways to enact special incentives for redevelopment of underutilized and potentially contaminated sites. For example, legislation in New York created a Brownfield Cleanup Program (BCP), which among other things, provides BCP tax credits in return for the cleanup and redevelopment sites. Administering tax credits can be a great way to provide incentive for the cleanup and redevelopment of sites.

DEVELOPING A LAND TRUST OR EXPANDING THE CITY OF OMAHA LAND BANK

The creation of a land trust/bank specifically focused on brownfields in South Omaha would allow other non-profit entities to hold and assemble land, including brownfields. Alternatively, the Omaha Municipal Land Bank, which was recently established, should be encouraged to not only target residential properties, but to also pursue underutilized industrial and commercial properties for redevelopment.

CITY PLANNING AND ZONING ACTIONS

Existing industrial and commercial areas/corridors should be protected and promoted. This could include planning activities and zoning changes that would protect these existing areas. By making zoning changes, the City can protect lands that are available for large scale development, and can also make additional lands available to attract large employers.

TAX INCREMENT FINANCING

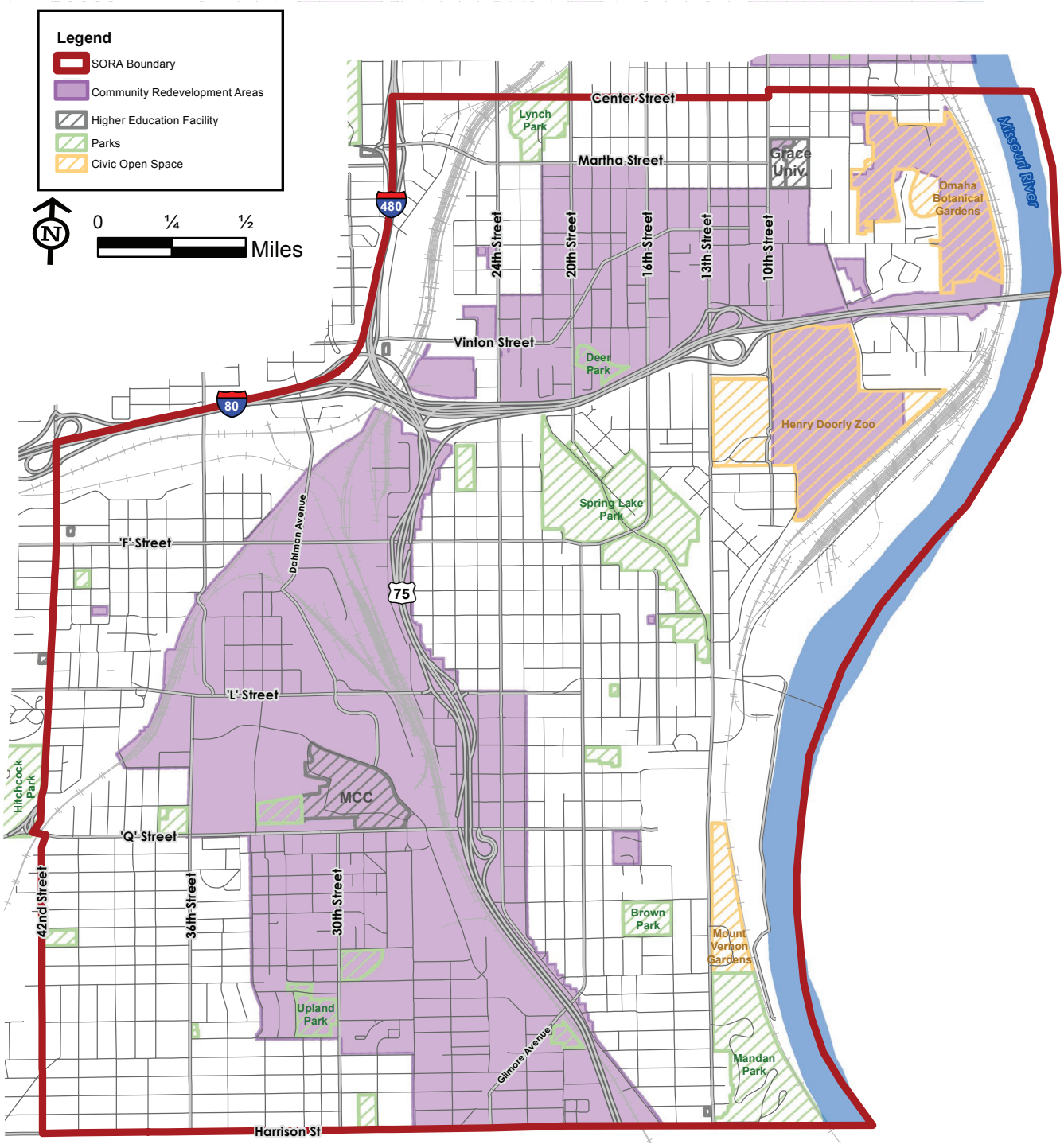
Tax Increment Financing (TIF) can be used to help finance the cost of making improvements in a redevelopment area. TIF makes it more economically feasible to locate and build in areas that would otherwise have less appeal and be more expensive than competing areas. TIF offers an economic development incentive to encourage private investment and redevelopment, allowing the City to replace and/or rehabilitate deteriorated buildings, such as brownfields. TIF is one of the City's most effective redevelopment and economic development tools. TIF funds have been used successfully on projects around Omaha including the creation of Aksarben Village and the Stockyards Business Park, as well as the revitalization of downtown and midtown Omaha.

The goals of this AWP and for the redevelopment of the SORA align with the TIF goals above. TIF should be explored further as an option for the redevelopment of brownfields in the SORA once these areas are identified and become available. The figure on page 56 illustrates the areas in Omaha that are already designated as Community Redevelopment Areas, and thereby eligible for TIF funding.

TIF GOALS:

1. Support and Encourage Economic Development
2. Support and Encourage Community Development and Neighborhood Revitalization
3. Support and Encourage Sustainable Development

FIG 7. TIF COMMUNITY REDEVELOPMENT AREAS



[7]

SITE SPECIFIC AREA-WIDE PLANNING GRANTS

Opportunities for redevelopment should be narrowed down to specific sites. Within the SORA, these sites should include high-priority brownfields sites, such as the Dahlman Avenue Corridor, Scoular Grains, Salvation Army Mill, and Spring Lake Park, among others, such as the former Omaha Cold Storage property, which is nearly ten acres in size, and presents many possible opportunities for redevelopment, spanning from industrial reuse, to educational uses, high and low intensity recreation, as well as mixed use opportunities. (Other sites and surrounding areas to include as a list if given the opportunity would include the O'Neil Packing Plant, Graham Enterprises, Carpenter Paper, Lynch Park, Spring Lake Park, Southside Terrace Apartments, and the Dorothy Patach Natural Environmental Area)

During the formation of this AWP, it was realized that the SORA was much too large of an area to go into great detail or to focus only on one site. Part of the reason for this, as mentioned in Section 1, is because this document was written under a brownfields assessment grant rather than under an AWP grant. These two grants have different processes and key components that are used when approaching brownfields cleanup, reuse, and redevelopment. Rather than being a traditional AWP, this document can be used as a first stepping stone for identifying and targeting key brownfields sites that could be eligible for AWP grant funding.

It was realized that using the entire SORA as the project area provided an area much too large for a detailed analysis on the redevelopment of one specific site. This is where AWP grant funds would be of great benefit, in allowing specific sites to be analyzed and assessed in greater detail. AWP funding is directed to specific areas or sites affected by brownfields, such as a neighborhood, district, corridor, block, or even several contiguous parcels. By narrowing the project area and focusing on a specific site, this would allow us to get one step closer to the actual redevelopment of a key or targeted brownfields. AWP grant funding is beneficial in that it allows land use concepts to be developed, and also incorporates public opinion on potential land uses. By allowing the local community to be more directly involved in the redevelopment process, it creates a sense of community ownership and acceptance.

Receiving AWP grant funding for a specific site would not only allow for the improvement of that site, but could also act as a catalyst for the redevelopment of the larger surrounding area. Results from this could include a myriad of benefits including job creation, property value increases, and a heightened sense of community pride.

The concepts and tools presented in this chapter are only a few examples of aids or means to support brownfields redevelopment, and other means should continue to be identified. Implementing these concepts and tools are great ways to ensure that brownfields identification, cleanup, and redevelopment remain a priority and do not fall by the wayside. By continuing to move forward on brownfields issues, the City of Omaha is taking another step toward achieving the ultimate goals of supporting economic growth through reuse; facilitating community betterment, enhancement, and revitalization; promoting community health; and improving Omaha's environmental legacy.

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A [Appendix]

SOUTH OMAHA AREA-WIDE PLAN
GREEN SOLUTIONS AND SUSTAINABLE REDEVELOPMENT STRATEGIES

Planning & Design
vireo

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Omaha
1111 N. 13th Street
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Kansas City
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APPENDIX A

South Omaha Area-Wide Plan
Green Solutions and Sustainable Redevelopment Strategies

1.0 Introduction

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment by removing contamination or pathways for human and ecological exposure, reduces blight, and takes development pressures off greenspaces and working lands (EPA 2015a). By redeveloping a Brownfield in an older city or suburban neighborhood, a community can remove blight and environmental contamination, create a catalyst for neighborhood revitalization, lessen development pressure at the urban edge, and use existing infrastructure. For these reasons and others, Brownfields redevelopment is integral to more comprehensive and sustainable "smart growth" urban development. Smart growth is development that serves the economy, the community, and the environment. It changes the terms of the development debate away from the traditional growth/no growth question to "how and where should new development be accommodated"(EPA 2015b).

In addition, communities recognize that in order to maximize future benefits and avoid repeating past mistakes, site design and redevelopment strategies need to incorporate sustainable design principles and techniques, from "green buildings" to "Green Solutions" across the site and integrating into the surrounding environs.

As described in the October 14, 2010 Brownfields Coalition Assessment Grant Application, one of the project goals is to incorporate green space and sustainability (or "Green Solutions") into Brownfields redevelopment. The Coalition partners recognize that Green Solutions provide numerous economic, health, and quality of life benefits that can be realized at a variety of scales, as evidenced by their prominence in the community plans upon which this redevelopment effort are based. Green Solutions will help satisfy many of the project's other goals and will enhance the effectiveness of implementation strategies.

For this reason, Brownfields Redevelopment in South Omaha should follow a systematic framework for identifying, assessing, and prioritizing Green Solutions opportunities throughout the development process; from site assessment, to prioritization, and finally development of cleanup alternatives and redevelopment plans. Planners and developers should recognize that Green Solutions benefits may also be achieved to varying degrees with

open space uses as well as commercial or industrial redevelopment. Finally, Green Solutions can be an important component of a phased redevelopment approach by promoting beneficial community uses in the short- to medium-term, until more intensive redevelopment is feasible.

This brief report suggests specific goals, objectives and strategies to integrate Green Solutions into Brownfields redevelopment in South Omaha, and describes their relationship to past and present redevelopment efforts and policies, as well as the current community context.

1.1 Green Solutions Overview

In the South Omaha community, Green Solutions can go further than simply reducing existing contamination and exposure pathways and addressing blight with "greener" methods. Green Solutions will provide multiple and significant benefits for the South Omaha community. A comprehensive Green Solutions framework that considers the site, neighborhood, and district context will address the Coalition goals of improving community health and promoting sustainable job creation. These goals may be achieved through both redevelopment and open space restoration (and combinations of the two). Green solutions can make individual redevelopments more cost-effective, attractive, and profitable. And integrating Green Solutions into larger redevelopments and at the corridor or district scale will significantly enhance the community benefits.

Green Solutions is a general term that is often used to refer to environmentally beneficial solutions for urban problems. A common component is stormwater best management practices (BMP) for managing stormwater runoff or reducing combined sewer overflows (CSO). Also known as "green infrastructure," many BMPs capture and filter or infiltrate runoff using surface detention with native vegetation that mimics natural hydrology. Other, more structural BMPs such as pervious pavement provide similar services in more urban applications. A Low-impact Development (LID) approach utilizes site design that minimizes impervious surfaces, maximizes vegetation, and mimics natural drainage processes, with BMPs to reduce or eliminate the need for "gray infrastructure" such as expensive concrete pipes and pump stations, reducing overall costs or enhancing function for a similar cost. In addition, Green Solutions can provide other benefits such as water quality treatment, urban open space, and wildlife habitat; and reduce construction and maintenance costs.

At the larger area or community planning scale, sustainability strategies often go by the name of Smart Growth, which is defined as development that serves the economy, the community, and the environment. It changes the terms of the development debate away from the traditional growth/no growth question to how and where new development should be accommodated (EPA 2015b).

In the South Omaha context, specific Green Solutions objectives include:

- Reducing resource, materials and energy usage and costs; and capturing resources and savings in the South Omaha community

- Promoting a healthier South Omaha community through site design, recreation, regional amenities, and services such as local food production
- Attracting and promoting "green" businesses and providing "green collar" jobs and training

These objectives are described in more detail below. Subsequent sections describe how Green Solutions may be integrated into the overall planning and redevelopment approach to achieve these objectives.

1.1.1 Materials, Resources and Energy

Sustainable Brownfields redevelopment in South Omaha will incorporate Green Solutions that reduce the waste and maximize the reuse of materials, resources, and energy at the site, neighborhood, and district levels. While it is generally not possible to achieve all of the goals of a sustainability plan at once over an entire urban region, it is possible to affect several systems and material and energy flows within one "tile" (or in this case, district) of the urban region at a time, creating a synergistic effect that multiplies the benefits. A "multi-barrier approach" (Marsalek and Schreier 2009) or material flow-based approach (Brunner and Rechberger 2003) to analyzing urban region tiles can help identify opportunities to create closed loops or "short-cycles" of stormwater and greywater, soils, plants, organic wastes and nutrients, food production, and the atmosphere. This approach is what the *Environmental Element* of the *Omaha Master Plan* refers to as "relocalization" of resources (City of Omaha 2010).

A material flow-based approach to redevelopment planning and design for stormwater management, wastewater recycling, food production, energy production and air emissions (including carbon dioxide [CO_2]) will help South Omaha increase the efficiency of the "urban metabolism" (Haberl and others 2003), possibly even turning one-way flows into cyclical flows where outputs from one material flow are used as inputs to another. This approach will maximize the environmental, community health, and economic benefits at the site, neighborhood, and district level.

These objectives should be pursued by prioritizing redevelopment of sites that meet the sustainability objectives of existing community plans; by attracting redevelopment that uses local resources to produce goods, services, and benefits for the South Omaha community; and through LID approaches and environmental design strategies during site redevelopment.

1.1.2 Community Health

Community health benefits are another important Green Solutions framework. Reducing asthma and blood-borne lead levels and eliminating other contamination and exposure pathways will improve community health. The built environment also has a profound impact on individual and community health. The "built environment" refers to the man-made aspects of the community we live in, including physical features such as streets, buildings, parks, recreational facilities, and more. The individual built environment of a

community results from choices that government, property owners and residents make about how to design homes, businesses, institutions, communities, cities, and regions.

The World Health Organization defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" [World Health Organization 1946]. A January 2012 feature article in The New York Times graphically documented our national battle with obesity: "the built environment" – where we live, work, play and shop – has become a leading cause of disability and death in the 21st century" [Brody 2012]. While we have long understood that air and water quality are important to human health, public health professionals are now realizing that the design of communities and the distribution of resources within them can have dramatic consequences for health and wellbeing. As a result, public health professionals are increasingly assessing the built environment and creating programs and policies to influence it.

Dr. Richard J. Jackson, professor and chairman of environmental health sciences at the University of California Los Angeles, has become one of the leading voices calling for better community design for the sake of good health. According to Georges C. Benjamin, executive director of the American Public health Association, Dr. Jackson's work has been highly influential in public health and public policy. His new book, "Designing Healthy Communities," is a companion piece to the February 2012 PBS television series that explores the relationship between design and health. In his book Dr. Jackson says: "People who walk more weigh less and live longer. People who are fit live longer. People who have friends and remain socially active live longer. We don't need to prove all of this, despite the plethora of research reports demonstrating the ill effects of current community structures." And "Health happens in neighborhoods, not doctors' offices" [Carlson 2012]. The American Institute of Architects, an underwriter of the PBS series, is also working to shift the professional focus to a more balanced view of the world, as described by Clark D. Manus, FAIA, 2011 President: "Gaining a more balanced, integrated view of how we interact with the environment and one another is the role of design. Moving toward such a balance goes far beyond diet and exercise. It means giving people choices in how they negotiate their environment. It means restoring whole neighborhoods to health" [Manus 2011]. Our health is affected by where we live, work, and play.

Omaha is facing many of the same environmental issues as other communities and has taken a proactive approach by creating an Environment Element plan. The Environment Element is not only a guide for City actions and policies; it is a vision for the long-term environmental health and sustainability of the Omaha community as defined through five framework topics: Natural Environment; Urban Form and Transportation; Building Construction; Resource Conservation; and Community Health. The Community Health section of the Environment Element states that, "For Omaha to be a community that nurtures health and promotes safety, a diversity of issues must be addressed together: neighborhood design; local food systems; health care systems; transportation systems; natural hazards; pollution prevention; public safety and crime prevention; public recreation; and others." Community health issues include the design of sites and neighborhoods for active living; economic opportunities throughout the community; access to essential services for all neighborhoods; and access to affordable and healthy food. Safety issues

include crime prevention, design for safe active transportation modes, and natural hazards such as flooding or severe storms/wind (City of Omaha 2010).

1.1.3 Economic Development

Finally but of no lesser importance, the Green Solutions framework includes the type of economic development envisioned for Brownfields redevelopment sites. Commercial or industrial redevelopment that employs low-impact development and environmental design can positively impact resource, material, and energy flows; reduce public and private sector costs; and improve community health; while providing jobs and income for the South Omaha economy. A common example is designing to Leadership in Energy and Environmental Design (LEED) standards, which will reduce pollutant generation, increase material and energy efficiency, reduce operating costs, and provide a healthier working environment. A LEED-certified South Omaha redevelopment that employs local workers will also reduce combined sewer flows with stormwater BMPs and native landscaping, which in turn would provide urban habitat.

These benefits can be compounded if the redevelopment is a green business and strategically located within South Omaha. An example would be a recycling center that collects waste from neighborhood residences and businesses and recycles the waste material into products for sale in the area neighborhood, using captured stormwater runoff in the process. If the redevelopment is located on street with sidewalks or a trail and mass transit, employees and patrons will have healthier, less costly and more efficient travel options. Combining the benefits of a LEED-certified green business in a strategic location would maximize resource, materials, energy, and income localization, while improving community health. An urban agriculture use would provide even greater benefits by providing a product that directly impacts community health - nutritious, locally-grown produce.

2.0 Links to Area Redevelopment Plans

The Green Solutions framework stems from the October 14, 2010 Brownfields Coalition Assessment Grant Application, and a variety of community plans. Related goals, objectives, and implementation strategies of each plan include:

Brownfields Coalition Assessment Grant Application

- Reducing asthma and blood-borne lead concentrations
- Reusing existing infrastructure
- Protecting surface water and sensitive natural environments
- Providing open space, recreation, and trail connections
- Creating jobs, including "green collar jobs"
- Workforce education and development

South Omaha Development Plan (Greater Omaha Chamber of Commerce DRAFT)

- Creating recreational opportunities

- Expanding local and regional trails
- Workforce training and development
- Transit oriented development

Omaha Master Plan - Environment Element (City of Omaha 2010)

- Promoting Low Impact Development, stormwater BMPs, and rainwater harvesting
- Improving recreational opportunities
- Reducing energy usage, and locally generated energy
- Reducing air pollutant and greenhouse gas emissions
- Developing Green Streets, Complete Streets, walkable communities and multimodal transportation options
- Promoting resource-efficient building construction and operation
- Creating sustainable urban food systems
- Attracting and creating green jobs and sustainable industry

Green Streets for Omaha Master Plan (City of Omaha 2007)

- Integrating stormwater BMPs into street design, including ponds, wetlands, and bio-swales
- Providing opportunities and networks for multi-modal transportation, particularly bicycle and pedestrian travel
- Designates Green Streets and Candidates, including numerous streets in South Omaha (See Figure A-1)

Complete Streets Omaha (City of Omaha 2015)

- Requiring the community's streets and right-of-way to serve all users and modes.
- Creating a safe, reliable, efficient, integrated and connected transportation system that will promote access, mobility and health for all users, including people traveling as pedestrians and by bicycle, transit riders, motorists and others.
- Requiring connected travel networks that provide travelers with multiple choices of travel routes within and between neighborhoods reducing congestion on major roadways.

City of Omaha Long Term Control Plan for the Omaha Combined Sewer Overflow Control Program (Long-Term Control Plan; City of Omaha 2009)

- Developing for stormwater BMPs and green infrastructure to capture runoff, reduce infrastructure costs and enhance performance, and improve water quality
- Includes a Long-Term Control Plan of capital improvements for CSO reduction, including Green Solutions projects and elements.

Omaha Regional Stormwater Design Manual (City of Omaha 2012)

- Requiring BMPs to capture and treat stormwater runoff on-site
- Providing BMP selection and design guidance

Heartland 2050 (Metropolitan Area Planning Agency 2014)

- Envisioning region that values, protects and utilizes natural resources to provide access to green space and resilience from natural disasters, including:
  - Maintaining productive farmland, clean air, high-quality water resources, and pristine landscapes.
  - Providing good access to parks and green space; and creating a connected, regional network of greenways and trails for healthy, active recreation and transportation.
  - Providing access to fresh, locally grown foods.
  - Providing resilience for floods and droughts by managing stormwater as a resource, and preserving floodplains for flood storage and water quality treatment.
- Calling for investments in efficient infrastructure that supports economic development, provides more transportation choices, and reduces energy consumption, such as:
  - Sound investments in transportation systems, utilities, renewable energy and new technology to support prosperity for all residents.
  - More options for getting around the region, like expanded bike and pedestrian facilities and new transit.
- Promoting healthy living, safe neighborhoods, preservation of arts and culture, and exceptional health care, specifically:
  - Revitalizing neighborhoods to create places that are safe, active, healthy and desirable for residents.

3.0 Green Solutions Framework or Brownfields Planning and Redevelopment

As the previous sections indicate, the process for identifying Green Solutions must consider the site-, neighborhood-, and district-scale context, influences and opportunities. And as described in the Coalition's grant application, it should help identify Green Solutions related to redevelopment as well as open space uses that in themselves can help revitalize South Omaha. The analytical process described below will help focus on identifying open space, multi-modal transportation, recreation, water, energy, and organic waste/nutrient management opportunities at the planning area and site level. The analysis will also look at the "big picture," including the opportunities to make larger-scale improvements and provide multiple community benefits, and opportunities to create synergy among multiple redevelopment and Green Solutions opportunities. Finally, green businesses approaches to redevelopment could truly maximize environmental, economic, and community benefits.

The Green Solutions process described below includes three basic components: 1) initial screening of major opportunities; 2) consideration of direct benefits for materials, energy,

and resource flows; and 3) identification of other community health benefits. The process considers several factors for each component.

A more comprehensive Smart Growth analysis that incorporates the Green Solutions benefits of given redevelopment options could be developed, as described in Attachment 1.

3.1 Initial Green Solutions Screening

At the planning, site investigation, and redevelopment prioritization phases, the process is based on an analysis of existing Green Solutions opportunities throughout South Omaha. The analysis includes existing natural resources, the built environment and neighborhood characteristics, as well as current policies and future plans. Planners can overlay this information on potential Brownfields Redevelopment sites and priority areas to understand their relationships to the Green Solutions opportunities. Potential site- or larger-scale Green Solutions can then be identified and factored into site evaluation, prioritization and redevelopment.

Figure A-1 provides a base map of Green Solutions opportunities across the planning area. Relevant factors for consideration in redevelopment planning were identified in existing plans policies described in Section 2.0, and include:

- Proximity to combined sewers and proposed CSO program improvements
- Stormwater BMP value
- Existing and planned trail connections, and new trails proposed in the South Omaha Development Project
- Green Streets and candidate Green Streets
- Existing land use, transportation networks
- Existing vegetation

The more of these factors that a given redevelopment site or opportunity benefits, the greater the initial indication of Green Solutions value.

3.2 Material, Resource, and Energy Flow Reductions

The next step is to apply principles of material flow analysis to the evaluation of site redevelopment potential, to identify added benefits that a given site and redevelopment plan could provide. Identifying potential increases in efficiency across a variety of systems and opportunities to create cyclical flows will help evaluate reductions in capital and operations and maintenance costs, and possible new income streams. Potential future benefits for related City infrastructure and services, and longer-term economic development opportunities can also be assessed.

At a minimum, relevant factors include:

- Improved stormwater management and CSO reductions
- Potable water conservation and wastewater reduction or reuse

- Human food production and organic food waste management
- Reduced energy consumption and air emissions
- Alternative energy generation

For example, the inclusion of green technologies and approaches into redevelopment concepts, such as a building greywater and rainwater system that utilizes the nutrient laden water for garden and landscaping, would reduce demand on sewers and flows to the wastewater treatment plant and cycle nutrients back into food that enters the local food supply. Clearly this example would reduce energy use and air emissions, increase availability of healthy foods, reduce soil nutrient loss (or even increase buildup of healthy soil over time as in the Terra Preta or Mayan Chinampa systems of agriculture), and of course reduce stormwater flows. The capital and operations and maintenance savings could help justify or enhance the project's return on investment, as could income streams generated by sustainable site uses. Community health benefits could also be significant and should be evaluated as described below.

3.3 Community Health Factors in Site Selection and Redevelopment Planning

One reason for studying how the built environment affects health is that it is possible for communities to make changes to the built environment that, in time, could lead to improvements in residents' health. As the Omaha Master Plan *Environmental Element* identifies, the built environment is only one of many factors that influence health. Other important factors include genetics, economic means, and education.

When considering health as a factor in screening and selecting sites and in redevelopment concept development, the evaluation framework looks at the distribution of community opportunities and constraints and how they affect health and well-being. Community opportunities include places such as parks, walkable places, and full-service grocery stores. Community constraints include barriers to health and safety such as housing near busy freeways, and vacant or abandoned lots.

The built environment factors included in the analysis are the factors that have the strongest demonstrated connection to health and well-being and, therefore, are important areas of focus in efforts to make people healthier. Factors would include demographics, food access, physical activity opportunities, and mobility.

Demographics

Demographic maps answer the question, "So who lives here?" Second, they show relationships between socioeconomic status and built environment characteristics. Example demographic criteria include:

- Family type
- Race/ethnicity
- Income levels
- Ownership and rental patterns

Food Access

Food access maps answer the question, "What food is available near people's homes that will influence their diets?" Living near convenience stores is associated with an increased risk of obesity. Some areas are so-called "food deserts" because they lack sources for fresh, nutritious food. Example food access criteria include:

- Grocery store density
- Pop. within 0.5 mile of a grocery store
- Access to grocery stores via transport
- Fast food per capita
- Proximity of fast food to schools
- Retail Food Environment Index
- Grocery store density
- Proximity and access to community gardens, urban farms and farmers markets

Physical Activity

Physical activity maps answer the question, "What opportunities for recreational physical activity exist here?" Parks, trails, and recreational facilities give people options for being active. Neighborhood design also influences people's activity choices. Example physical activity criteria include:

- Population within 0.25 mile of a park/trail
- Density of recreation facilities
- Mixed-use residential zoning
- Open space and green space

Mobility

Mobility maps answer the question, "What active mobility choices exist here?" Such as mass transit, walking, and bicycling. Example mobility criteria include:

- Population within 0.25 mile of active transport options
- Sidewalk density
- Walkability scores
- Bike path or bike lane proximity

4.0 Green Solutions in Redevelopment Planning

During redevelopment concept development, Green Solutions opportunities would be identified and evaluated as part of site analysis. Redevelopment and open space alternatives would incorporate appropriate Green Solutions based on the district-wide analysis and site-specific features.

Figures A-2 and A-3 provide hypothetical examples of how Green Solutions could be integrated in this way into development planning of the former Scoular Grain site, a priority

[A] redevelopment parcel at 2727 South 28th Street. The site redevelopment concepts illustrate ways to maximize the sustainability of the site plan itself, and to provide multiple benefits for the South Omaha community. One concept is for open space creation and the other illustrates more intensive commercial redevelopment. However, each concept includes elements of publicly accessible open space, recreation, education, and economic development.

4.1 Open Space Concept

Figure A-2 provides a hypothetical example of how Green Solutions could be integrated into open space creation to generate economic, environmental, and community benefits. As with the previous concept, this example includes elements of publicly accessible open space, recreation, education, and economic development.

The open space concept shown on Figure A-2 is a neighborhood park centered on a stormwater BMP that would detain stormwater runoff from the surrounding area and prevent or slow its discharge into the combined sewer system, helping enhance the benefits of future BMPs along the Vinton Green Street corridor (a designated Green Street candidate). The nature park concept includes wetlands and prairie restoration areas and an outdoor classroom, and would be located on a trail spur as well as a Green Street. The plan could incorporate additional neighborhood access as illustrated. A neighborhood yard waste drop-off and small-scale composting program would provide soil for a community garden and greenhouse operation, allowing residents to turn their waste into nutritious food and even generate some income from selling excess produce. Outdoor classrooms could be used for Green Collar Job training and education programs, and other community events.

Materials flow cycles that would be relocalized would include:

- Stormwater capture for habitat restoration, landscape irrigation, and community gardening; as well as CSO reduction
- Nutrient recycling for food production for local consumption
- Reduced energy consumption and air emissions from stormwater management, waste hauling, and food production and distribution
- Reduced energy and resource consumption for food production

Finally, the open space concept could represent the ultimate site use (particularly if a park is created); however, it could instead be the first phase in a long-term redevelopment plan for the site. The lower-intensity open space use could constitute the first phase, establishing a basic neighborhood yard waste recycling program. It could then be scaled up to a more intensive urban agriculture operation like the one illustrated in Section 5, as public and private resources become available.

4.2 Urban Agriculture Concept

The redevelopment concept shown on Figure A-3 is based on an urban agriculture operation that would collect and process yard and food waste from surrounding residents

and businesses into compost for growing produce. A small stormwater BMP would capture site stormwater runoff for irrigation rather than discharging it into the combined sewer system. The agricultural operation could include organic produce beds and a larger greenhouse complex than the open space concept, which could be sold back to residents and area restaurants. However, this concept would still provide local recreation, education, and food production opportunities. The plan includes a small community garden area, and trails where residents and visitors could learn about the operation while enjoying the outdoors and exercising. The urban agriculture operation could provide Green Collar Jobs training and employment.

Materials flow cycles that would be relocalized would include:

- Stormwater capture for habitat restoration, landscape irrigation, and community gardening; as well as CSO reduction
- Nutrient recycling for food production for local consumption
- Reduced energy consumption and air emissions from stormwater management, waste hauling, and food production and distribution
- Reduced energy and resource consumption for food production

Material flows that are relocalized would be similar to those above but the benefits would be even greater under this scenario. In addition, a commercial operation could possibly incorporate alternative energy such as solar power generation (such as to power a drip irrigation system or similar).

4.3 Green Buildings and Site Development

Green Solutions may be incorporated into more traditional redevelopments, even on sites with limited space and higher-intensity and density uses. Figures A-4 through A-6 illustrate redevelopment concepts for several of sites that were assessed through the Coalition project, which incorporate stormwater BMPs and landscaping required by the City's development and stormwater codes. Native plant species would reduce or eliminate the need for supplemental watering and would improve the landscape's drought resilience; while providing some habitat value for bird and insect species.

"Green buildings" would further increase environmental and community benefits of redevelopment. Building environmentally-friendly buildings on what was once contaminated (or perceived to be contaminated) land can be symbolic of a new, environmentally-sound direction for communities, as well as tangible growth for their economies. Green building is the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction. This practice expands and complements the classical building design concerns of economy, utility, durability, and comfort. Green building is also known as a sustainable or high performance building (EPA 2014).

Green buildings are designed to reduce the overall impact of the built environment on human health and the natural environment by:

[A]

- Efficiently using energy, water, and other resources
- Protecting occupant health and improving employee productivity
- Reducing waste, pollution and environmental degradation

For example, green buildings may incorporate sustainable materials in their construction (e.g., reused, recycled-content, or made from renewable resources); create healthy indoor environments with minimal pollutants (e.g., reduced product emissions); and/or feature landscaping that reduces water usage (e.g., by using native plants that survive without extra watering; EPA 2014).

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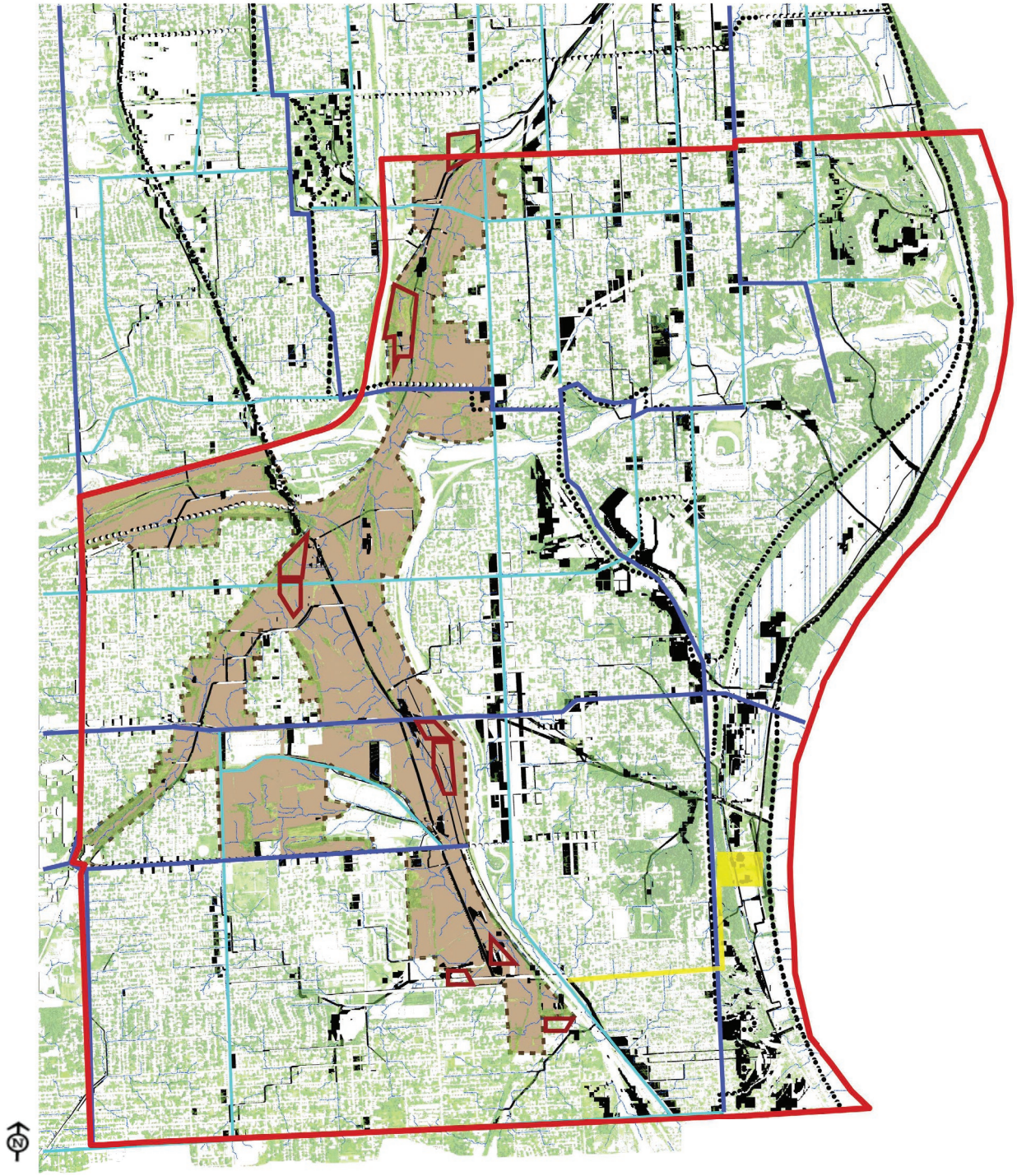
FIGURES

SOUTH OMAHA AREA-WIDE PLAN

Figure A-1 | Initial Green Solutions Base Map



LEGEND

- South Omaha Development Project Boundary
- Priority Parcels
- Industrial Zoning
- Industrial Zoning Footprint
- Commercial Zoning
- Surface Flow Line
- CSO Sewer
- Green Streets
- Green Street Candidate
- CSO Projects

Ranked BMP Potential

- Low
- Moderately Low
- Moderate
- Moderately High
- High

Trail Types

- Enhanced Pedestrian Accommodations
- Existing
- Planned
- Proposed

Vegetation

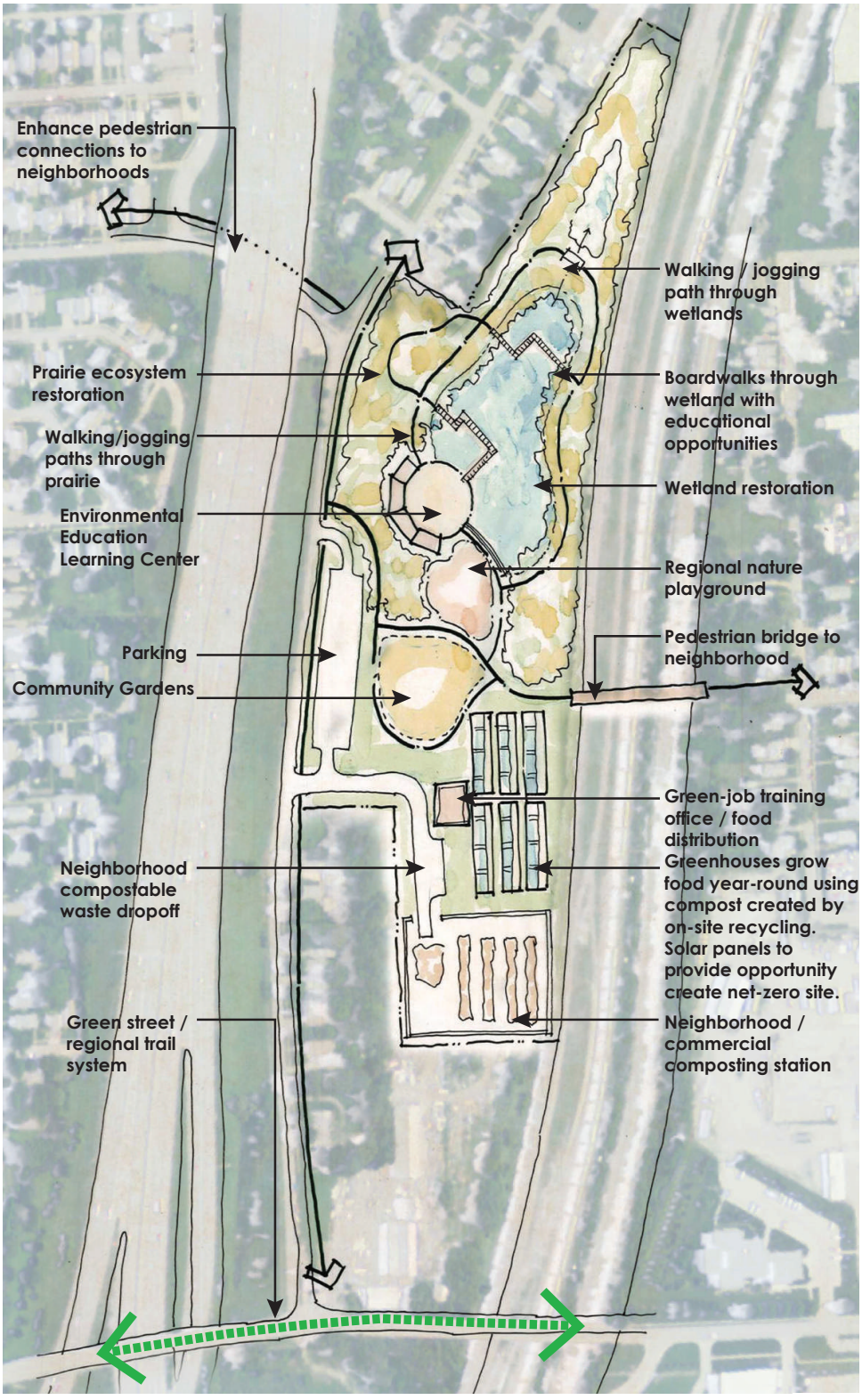
- Grasses
- Trees

Vireo

benesch MAPA HDR

SOUTH OMAHA AREA-WIDE PLAN

Figure A-2 | Typical Open Space Redevelopment Concept



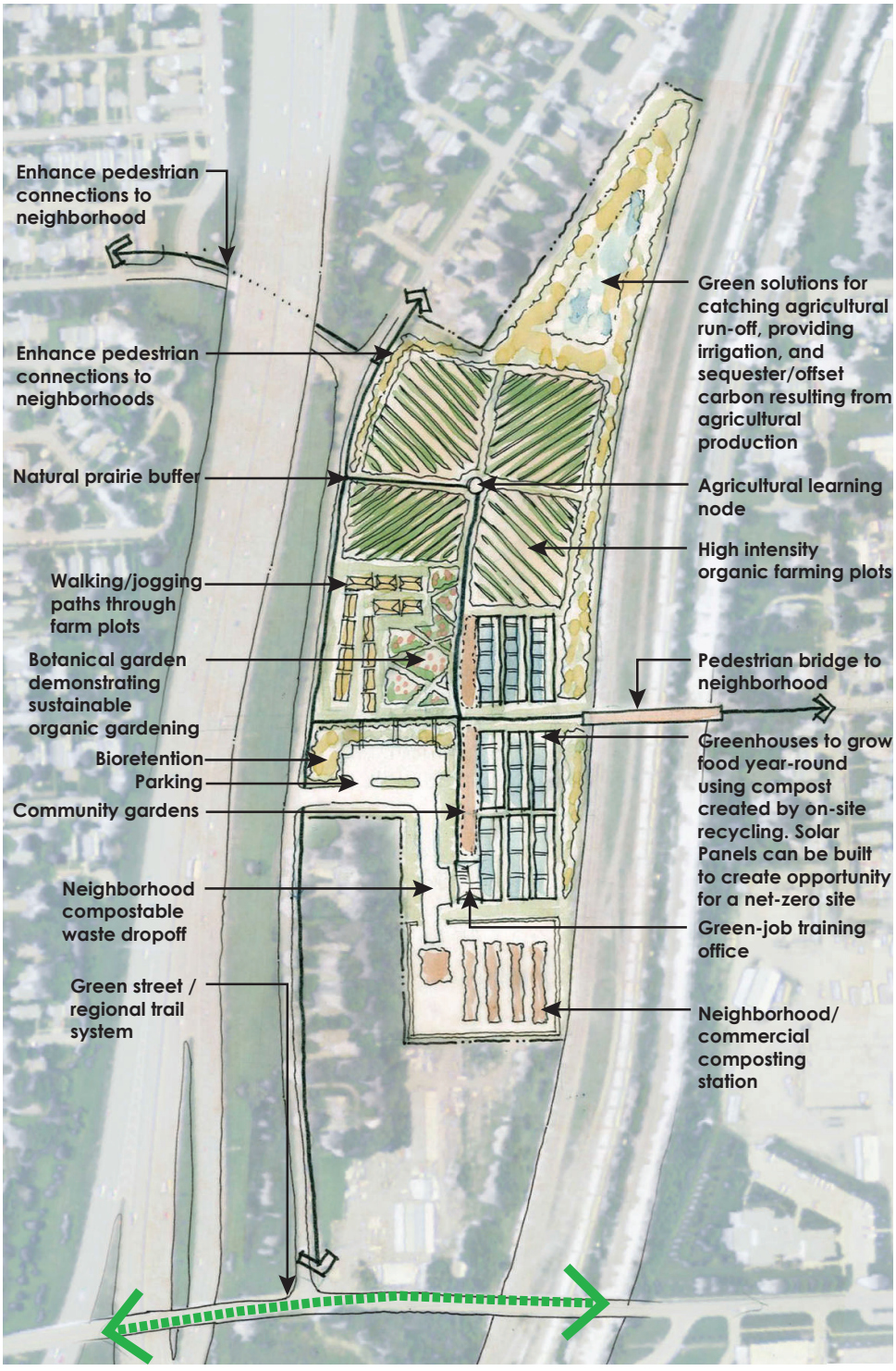
Description:

If, by necessity, the remediation requires removal of large quantities of soil, it would be possible to convert it into a Regional Nature and Recreational Hub, including:

- Nature laboratories
- Restored ecosystems integrated with recreational features
- Outdoor classrooms, playgrounds, and walking paths
- Greenhouses and a regional compost station
- Food and compost processing businesses that could be expanded to serve a greater service area

SOUTH OMAHA AREA-WIDE PLAN

Figure A-3 | Typical Urban Agriculture Redevelopment Concept



Description:

To maximize the idea of water, energy, and nutrient recycling, there is redevelopment potential of creating high-intensity urban farming that could include:

- Use of fertilizers and nutrients provided from compostable waste generated by the community
- Reduction of waste in landfills while providing sustenance back to the community in the form of fresh produce
- Farmers market to distribute and create a neighborhood feature
- Educational gardens to provide recreation while educating the public of sustainable practices
- Opportunities to expand, providing the community with greater potential to integrate a 'closed loop' lifestyle

Figure A-4 Redevelopment Concept at 26th & O Street

Figure A-5 Redevelopment Concept at 3309 & 3311 Q Street

Figure A-6 Redevelopment Concept at 16th & Leavenworth

ATTACHMENT

Attachment 1

Smart Growth Approach to Brownfields Redevelopment

Introduction

Communities must assess and determine the most appropriate sites for Green Solutions in redevelopment areas with the best information available and make the right decision based on the overall merits of the sites present. Site selection can be difficult with far reaching implications, such as the effects of a proposed project on adjacent neighborhoods and the community at large; as well as broader issues about the direction and quality of future community growth.

This approach is intended to help local government officials decide how to screen and select sites in the redevelopment area. It can also help to educate property owners, developers, and builders about community expectations for development. While it is unlikely that any particular site will meet every community goal, local government officials need tools to balance these needs and to determine the best possible site in the context of the real estate market, state and federal regulations, and short and long-term needs.

Principles

In preparing this section, the ten principles of Smart Growth were utilized as a decision-making framework for outlining the many goals and objects identified in the South Omaha Area-Wide Plan and can form the basis for a sensible and effective smart growth plan. This approach was created by the Smart Growth America coalition and adopted by the U.S. Environmental Protection Agency, National Governors Association, and the International City and County Management Association.

These principles for balanced community development have been adopted by many organizations and communities across the United States. The ten principles are:

1. Mix land uses: New, clustered development works best if it includes a mix of stores, jobs, and homes. Single-use districts make life less convenient and require more driving.
2. Strengthen and direct development toward existing communities: From local parks to neighborhood schools to transit systems, public investments should focus on getting the most out of what we've already built. Before we plow up more forests and farms, we should look for opportunities to grow in already built-up areas.
3. Choices: Not everyone wants the same thing. Communities should offer a range of options: houses, condominiums, affordable homes for low-income families, and "granny flats" for empty nesters.
4. Create walkable neighborhoods: Livable places offer not just the opportunity to walk — sidewalks are a necessity — but something to walk to, whether it's the corner store, the transit stop, or a school. A compact, walkable neighborhood contributes to people's sense of community because neighbors get to know each other, not just each other's cars.
5. Foster distinctive, attractive places with a strong sense of place: In every community, there are things that make each place special, from train stations to local businesses. These should be protected and celebrated.
6. Take advantage of compact building design: Development should take into account the ecology of a site and protect the most valuable natural resources.
7. Preserve open space and critical environmental areas: People want to stay connected to nature and are willing to take action to protect farms, waterways, ecosystems, and wildlife.

8. Provide a variety of transportation choices: People cannot get out of their cars unless we provide them with another way to get where they are going. More communities need safe and reliable public transportation, sidewalks, and bike paths.
9. Make development decisions predictable, fair, and cost-effective: Builders wishing to implement smart growth should face no more obstacles than those contributing to sprawl. In fact, communities may choose to provide incentives for smarter development.
10. Encourage community and stakeholder collaboration: Plans developed without strong citizen involvement do not have staying power. When people feel left out of important decisions, they will not be there to help when tough choices have to be made.

Decision-making Criteria

Building on these principles, this section poses a series of questions to help local officials evaluate proposed sites. The information generated by these questions will help local planners make hard decisions and reach conclusions about the sensibility of the sites selected. Note, not all factors will apply to all sites, depending on types of proposed uses and project size and complexity.

1. How will this proposal promote the economy of the community?
2. How will this proposal encourage an array of quality housing options throughout the community?
3. How will the proposal provide desirable and/or innovative types of development and design?
4. How will the proposal contribute to a mix of uses within the neighborhood?
5. How will the proposal provide public facilities to support development in a cost-effective manner?
6. How will the project promote efficient transportation mobility in the neighborhood?
7. How will the proposal contribute to neighborhood livability and sense of place?
8. What is the proposal's Initial Green Solutions Screening potential?
9. What is the proposal's Material Flow Analysis potential?
10. What is the proposal's Green Solutions in Community Health potential?

Smart Growth Score Card Template

Criterion	Answer	Points	Weight	Score
Insert criterion	Yes or no	0 – 1 points	X 4 (or other)	
			Sub total	

	Column 1	Column 2	Column 3	Column 4	Column 5
Smart Growth Criteria Summary	Total Possible	Section Scores	Calculation (Col 2/Col 1)	Final Score (Col 3 x 100)	Final Grade (A-F)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

Final Score	Grade
100 - 80	A
79 – 50	B
49 – 0	C

B [Appendix]

AWP PROPERTIES & FUTURE USES

[B]

AWP PROPERTIES & FUTURE USES

PROPERTY	SIZE (AC)	ZONING	PHASE I	PHASE II	LBP	ACM	ABCA	OLS STATUS	UPDATE	REDEVELOPED?	POTENTIAL FUTURE USES: Rail Served	Industrial	Commercial	Residential*	Educational	Mixed-Use	High Intensity Recreation	Low Intensity Recreation	Community Gardens	Green Solutions	Job Creation / Employment	Connections	COMMUNITY REDEVELOPMENT AREA (TIF)
24th & Center	8.3	Ind						NSP			•	•	•								•		NO
Scoular Grain (28th & Vinton)	21	Ind						NSP			•	•	•		•	•		•	•	•	•	•	YES
Salvation Army Mill (26th & Center)	3.3	Ind						NSP			•	•	•				•	•			•		NO
Dahlman Avenue Sites (Between 30th St & 32nd Ave)	9.8	Ind						NSP			•	•	•								•		YES
Johnny's Steakhouse Site (27th & L)	9.6	Ind						NSP			•	•	•			•					•		YES
Carpenter Paper (Dahlman Ave Near J St)	4	Ind	•					NSP				•	•								•		YES
Aggregate Production (27th & Center)	2.7	Ind	•					NSP			•	•	•			•					•		NO
Michael Henery Parcel (25th & Deer Park)	1	Ind	•					NSP	•			•	•								•		NO
18th & Vinton	<1	Comm	•					NSP		•			•	•		•					•		YES
Kraft Furniture/Monico Diesel (16th & Leavenworth)	1.5	Comm	•	•		•		NSP				•	•	•		•					•		YES
20th & Mason	2.5	Comm	•					NSP				•	•								•		YES
33rd & Q	<1	Comm	•					NSP					•			•					•		YES
24th & F	<1	Comm		•				NSP				•	•	•		•					•		NO
24th & M	<1	Comm	•					NSP					•	•		•					•		YES
Omaha Cold Storage (33rd & north of Q)	6.4	Ind	•	•	•	•		NSP				•	•	•	•	•	•	•	•	•	•	•	YES
NE Corner 27th & N	<1	Ind	•	•				NSP			•		•					•		•	•		YES
South Omaha Terminal (27th & N)	<1	Ind	•	•				NSP			•	•	•					•		•	•		YES
Axles and Gears (26th & M)	<1	Ind	•	•	•	•	•	NSP				•	•								•		YES
O'Neil Packing Plant (36th & L)	6.9	Ind	•	•		•		NSP			•	•	•	•		•	•			•	•		YES
NW Corner 26th & O	<1	Ind	•	•				NSP				•	•								•		YES
Graham Enterprises (Dahlman & F)	5.3	Ind	•					NSP			•	•	•								•		YES
Patach Property (19th & N)	3	Res	•	•				SCNR						•	•		•	•	•	•		•	NO
Lynch Park / FMGP (20th & Dorcas)		Park						SCNR									•	•	•	•			NO
Spring Lake Park (16th & Spring Lake)		Park						CC									•	•	•	•			NO

NSP = Non-Superfund Property SCNR = Soil Cleanup Not Required CC = Cleanup Completed LBP = Lead Based Paint ACM = Asbestos Containing Materials Survey ABCA = Analysis of Brownfields Cleanup Alternatives OLS = Omaha Lead Site FMGP = Former Manufactured Gas Plant

** Sites moving from industrial or commercial use to residential or residential-type use would trigger the Superfund designation, in which case soil testing and cleanup (if found to be contaminated) would be required.*

[B]