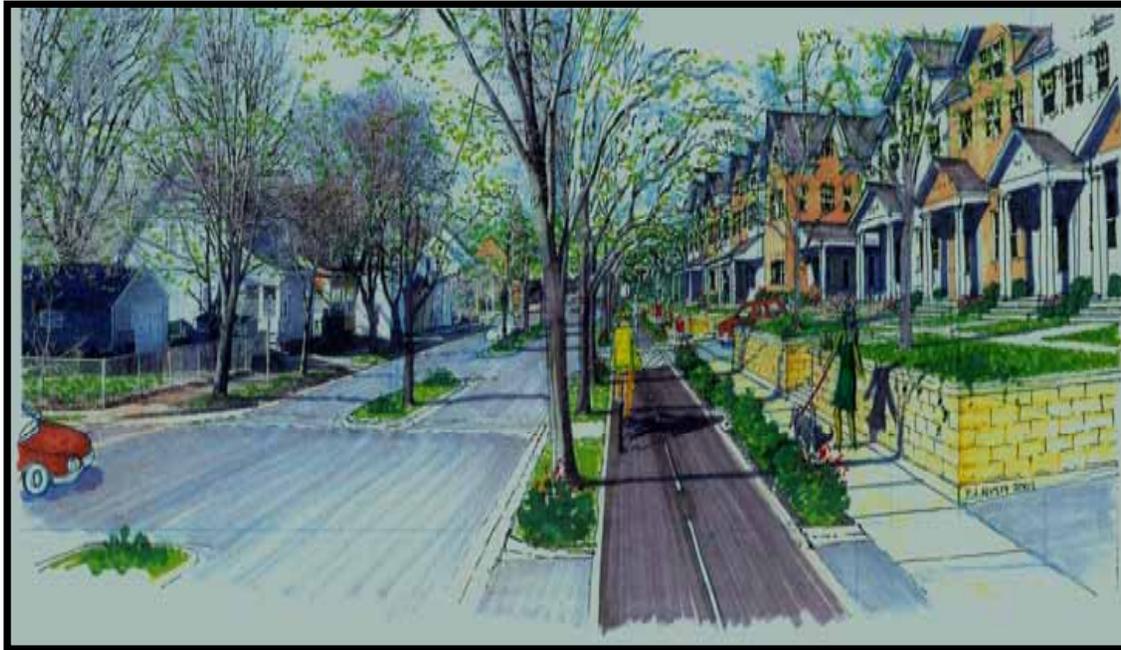


**FINAL
26TH AVENUE BIKEWAY AND GREENWAY PLAN**

Hawthorne Area Community Council



Prepared by:



May 6, 2004

26TH AVENUE BIKEWAY AND GREENWAY PLAN

**Prepared for:
Hawthorne Area Community Council
2944 Emerson Avenue North
Minneapolis, Minnesota 55411**

**Prepared by:
Biko Associates, Inc.
79 13th Avenue Northeast
Studio 104
Minneapolis, Minnesota 55413**

May 6, 2004

Acknowledgments

Hawthorne Area Community Council Environment Committee

Georgianna Yantos, Chairperson

Mindy Odegard

Carol Hammett

Richard Hammett

Nick Lemmer

Jordan Area Community Council

Aaron Brewer

Hawthorne Area Community Council Staff

Jose Velez, Director of Development

City of Minneapolis

Don Samuels, Third Ward Councilperson

Don Pflaum, PE, Transportation Division Department of Public Works

Thomas Leighton, AICP, Planning Division, Community Planning and Economic Development

Table of Contents

1.0	Introduction	1
	Purpose.....	1
	Regional Context	1
	Precedent-Setting Bicycle Facility Planning and Implementation Efforts	3
	Planning and Design Process.....	6
	Planning and Design Goals	7
2.0	Alignment alternatives	9
	Alternatives.....	9
	Evaluation	10
3.0	26th Avenue Existing Conditions	11
	Hawthorne's 26th Avenue Corridor	11
	Adjacent Properties	14
	On-Street Parking and Traffic Impacts	14
4.0	Design Alternatives	17
	Overview	17
	Phased Design Alternatives.....	18
	Alternative B Sections	20
	Design-Related Redevelopment Potential	24
5.0	Implementation	27
	Action Steps.....	27
	Phase I: Now.....	27
	Phase II: Mid-Term.....	27
	Phase III: Long Term	28
	Timeline for Agency Coordination.....	29
	Implementation cost Estimates.....	30
6.0	Supplemental Information	31

1.0 Introduction

Purpose

The Hawthorne Area Community Council (HACC) 26th Avenue Bikeway and Greenway Plan was prepared for the following purposes:

- To document a process that was conducted to involve community members in planning and design activities for a bikeway and greenway along 26th Avenue North in the Hawthorne neighborhood in north Minneapolis.
- To determine how implementation of a future bikeway/greenway along 26th Avenue might be phased over time.
- To determine how the bikeway/greenway might serve as an amenity in the neighborhood and a catalyst to spark investments in new housing.
- To prepare a document for approval by the City of Minneapolis Planning Commission and adoption by the City Council to ensure that the 26th Avenue bikeway/greenway will be considered when decisions are made regarding land use and ensure that the bikeway and greenway will be considered whenever property acquisitions and public infrastructure improvements in the Hawthorne neighborhood are proposed.
- To develop action steps to be followed by the Hawthorne Area Community Council (HACC), elected officials, and staff to ensure project implementation through: a) neighborhood and City agency coordination, b) early acquisition, where possible,

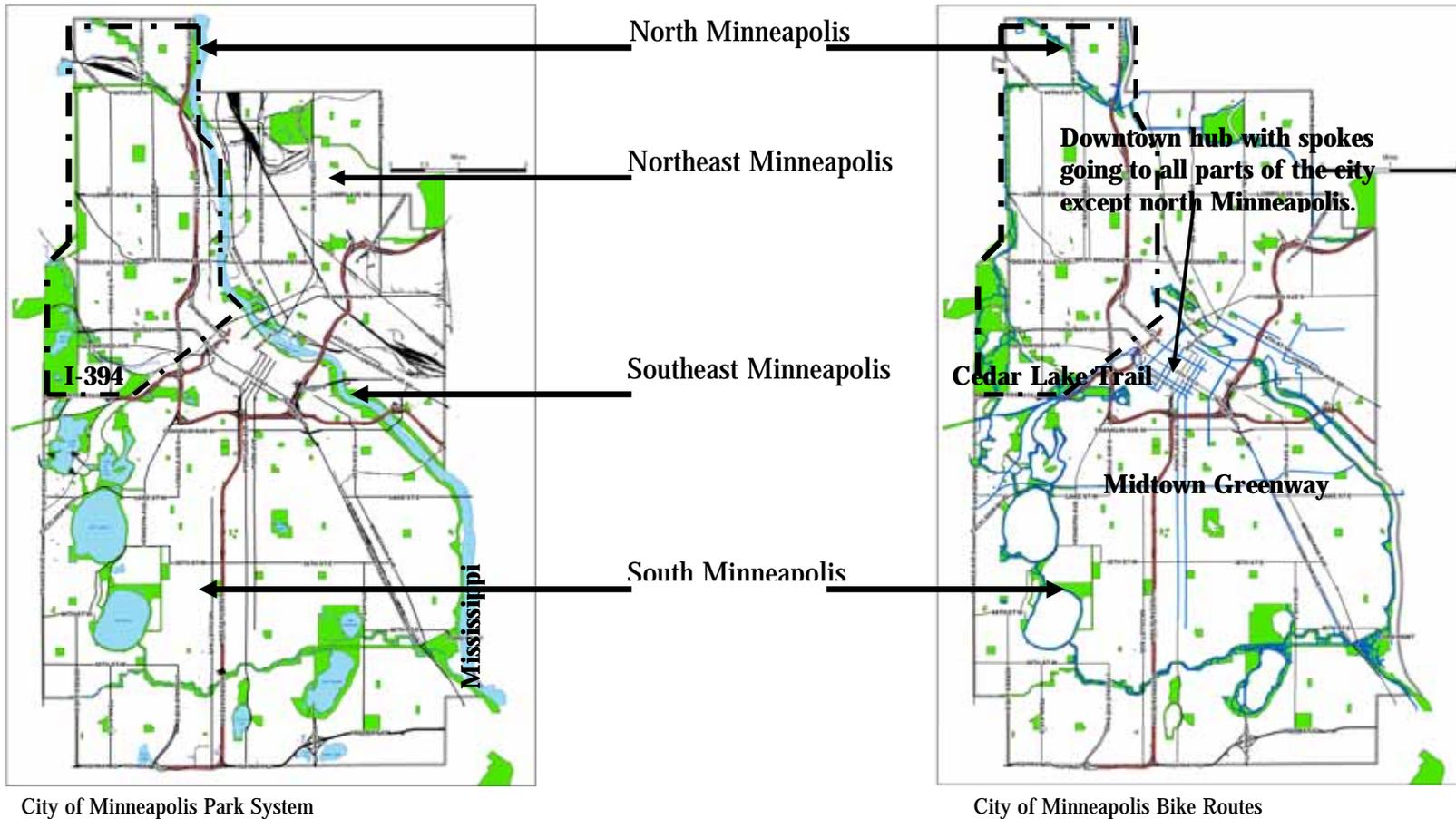
to protect right-of-way, and c) identification of and timely allocation of resources.

Regional Context

Twenty-sixth (26th) Avenue is an east/west collector street that extends across Minneapolis' northwest quadrant, from Wirth Parkway and across I-94 to the Mississippi River. Single family residential is the predominant land use along 26th Avenue, from Wirth Parkway to the western abutment of the I-94 overpass. Commercial uses (located at two nodes where 26th Avenue intersects sub-regional routes) and institutional uses (including four churches and an elementary school) are also within this western segment of 26th Avenue. Industrial uses predominate on the eastern side of the overpass, from Washington Avenue to the Mississippi River.

The northwest quadrant of the city is identified as north Minneapolis. Residents, elected officials, and staff with the Public Works and Planning Departments all recognize that this area of the city has fewer bicycle facilities than other areas. In addition to having comparatively fewer off-street bicycle paths and in-the-street bicycle lanes, north Minneapolis' system of parks (i.e., parks and parkways that link the parks) is not developed to the same level as it is in other areas of the city.

The Minneapolis Park System is shown on the next page. The park system in north Minneapolis is within the area defined by I-394 to the



south, the Mississippi River to the east, and the City Limits to the north and west. The area includes segments of the Grand Rounds regional park system (Theodore Wirth, Victory Memorial, and Webber Park and Parkway, and West River Parkway which terminates at Plymouth Avenue) and isolated neighborhood parks. The parkways are transportation links in the Grand Rounds park system. Immediately obvious in the

comparison between north and south Minneapolis, is the absence of a well-defined park system in north Minneapolis.

The City's developed bicycle routes are highlighted above in blue. As shown, recreational bicycle routes have been developed along the parkway linkages that connect elements of the park system.

Additionally, the city's bicycle system in south Minneapolis includes two east/west commuter routes (Cedar Lake Trail and Midtown Greenway) and an extensive, hub and spoke commuter route system that has been developed along major transportation corridors to link the south, southwest, and northeast areas of the city to downtown Minneapolis bike routes. Conspicuously missing from the map of commuter routes are spokes that serve north Minneapolis.

Precedent-Setting Bicycle Route Planning and Implementation Efforts

Efforts to address these deficiencies have been initiated by the neighborhood organizations in north Minneapolis and supported by elected officials and agency staff. For example, Hennepin County commissioned the Humboldt Greenway Plan study in 1995, to prepare design concepts and identify opportunities and costs associated with development of a parkway-like street along Humboldt Avenue North. Following the two-year planning study, which documented the project's feasibility, the County began a comprehensive acquisition program to gain control of affected properties. In total, the project included acquisition of approximately 210 residential and commercial properties along and adjacent to Humboldt Avenue, from 46th to 53rd Avenues.

Many of the acquired residential properties were deteriorating, declining in value, unmarketable and presented a blighting influence within the neighborhood. The housing stock in the affected area was constructed in the post-war period and, along with other factors, contributed to an overall economic deterioration in the area, which was manifest in:

- depressed employment and earning levels,
- expanding crime rate,

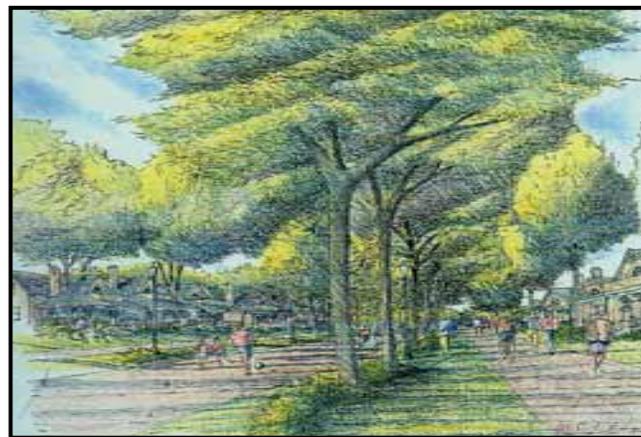
- increased reliance on public assistance and social services,
- substandard residential, commercial and public-use property, and
- a general disenfranchisement of low-income residents.



Humboldt Greenway concept plan; taken from *Humboldt Greenway Project Summary*, BRW, Inc. 1997.

The multi-faceted reinvestment in public infrastructure (*construction began in 1998-99*) has had a positive effect. First, an area of the City that was showing signs of neglect has been beautified by the development of a parkway-like street with a bicycle path and enhanced pedestrian linkages to Shingle Creek Park. With improvements in the physical environment, the desirability of the area has been increased, and private investment in new, market rate home construction along Humboldt Avenue has been catalyzed.

Consistent with development of the Humboldt Greenway, bicycle lanes were also constructed on 49th Avenue, a Municipal State Aid street. In addition to providing cyclists with a link between Humboldt Greenway and Shingle Creek Park, Bohanon Park, and North Regional Park, the 49th Avenue bicycle lanes effectively reduce the width of the driving envelope on 49th Avenue and thus assist in traffic calming.



Rendering of Humboldt Greenway and new housing. Taken from *Humboldt Greenway Project Summary*, BRW, Inc. 1997.



Rendering of Shingle Creek Park and multi-purpose path. Taken from *Humboldt Greenway Project Summary*, BRW, Inc. 1997.

Bicycle lanes and a greenway were proposed for 33rd Avenue in the *Silver Lake Reclamation Feasibility Study* (Biko Associates, Inc., 1998) and *Crossings at Lowry West: the McKinley/ Hawthorne Master Plan for the Lyndale/Lowry Intersection* (Biko Associates, Inc. 1999). These two planning and design studies identified: a) 33rd Avenue as the preferred alignment for a neighborhood-/community-level bicycle facility and b) expansive landscape treatments that should be implemented along with stormwater sewer capacity enhancements and construction of the City View Elementary School.

Lowry Avenue, a County State Aid Highway, is planned to be improved from the Lyndale/Lowry intersection to the west abutment of the Lowry Bridge over I-94. Hennepin County's improvement program includes

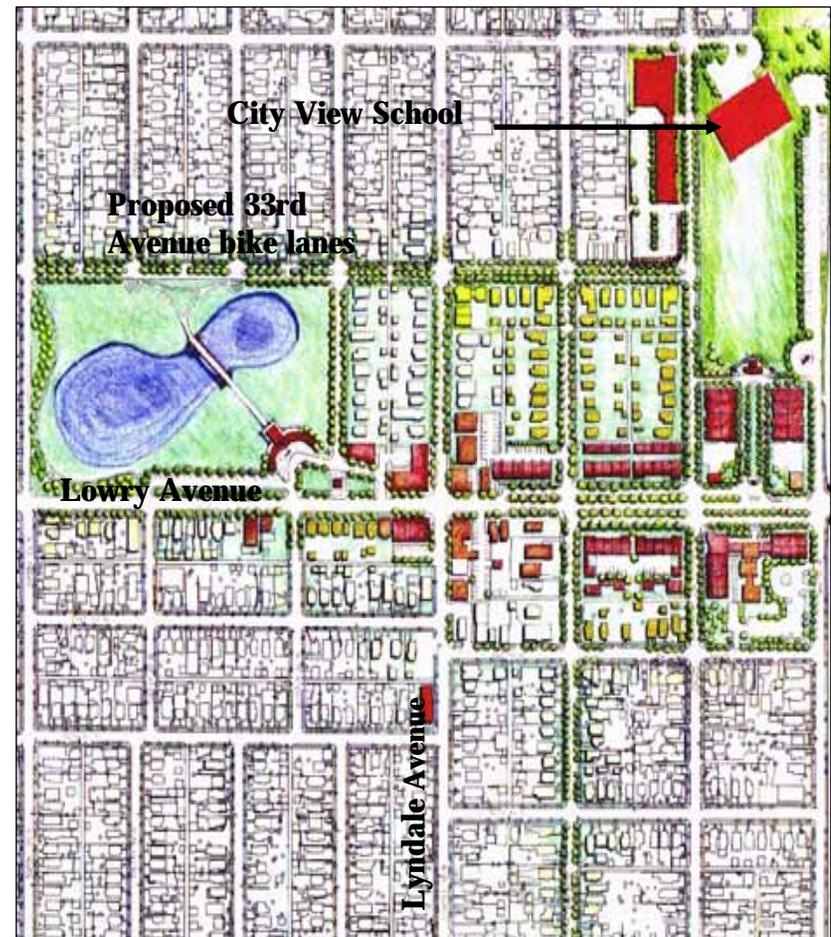
construction of bicycle lanes on Lowry Avenue. The long-range plan includes cross-city improvements to Lowry Avenue so that it will be possible to bike on Lowry from Wirth Parkway in north Minneapolis to St. Anthony Parkway in northeast Minneapolis.

The City of Minneapolis Park and Recreation board has recently selected a consultant team to prepare a preliminary design for the extension of West River Parkway from its current terminus at Plymouth Avenue to 26th Avenue. Finally, very early discussions have also begun to take place to consider bicycle linkages:

- along Plymouth Avenue between Wirth Park and the Mississippi River and
- along Fremont and Emerson Avenues between Lowry Avenue and Heritage Park.

It is anticipated that providing north Minneapolis with bicycle facilities and (in some cases) associated greenways will have an overall positive impact on the community. Studies have shown that proximity to (and convenient access to) designated in-the-street bike lanes and off-street bike paths, correlates with enhanced neighborhood livability and desirability and property values that are higher than they are in areas without these amenities or well-designed linkages to them.

Thus, this plan been prepared for two purposes. First to identify an alignment and design for the 26th Avenue bikeway to encourage bicycle use in north Minneapolis and to improve operating conditions for cyclists. It has also been prepared to plan for the development of an associated greenway that will serve as a foundation for improved livability, heightened neighborhood desirability, and as a catalyst for investments in new, medium density housing.



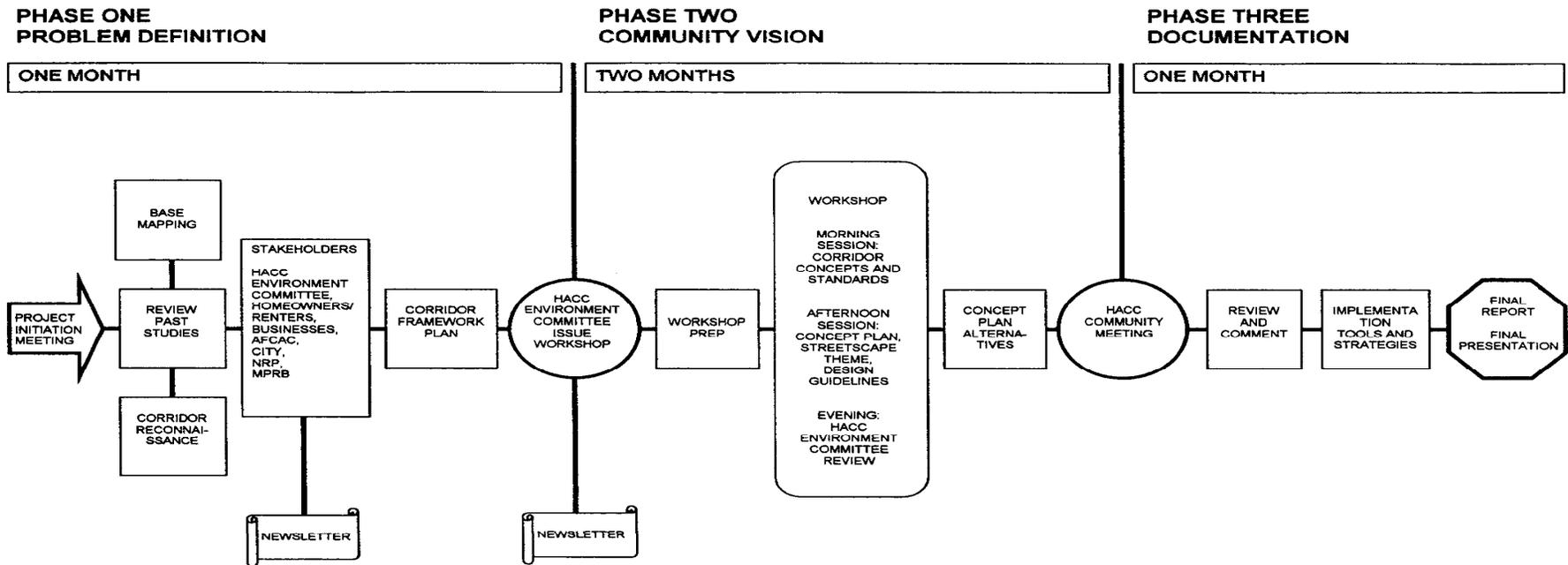
Crossings at Lowry West: the McKinley/ Hawthorne Master Plan for the Lyndale/Lowry Intersection (Biko Associates, Inc. 1999).

Planning and Design Process

The planning and design process that was followed for the 26th Avenue Bikeway and Greenway Plan is diagrammed below. The process was designed to ensure that HACC residents and City of Minneapolis officials and staff would have many opportunities to express their opinions and contribute to the selection of a recommended alignment and design for the bikeway/greenway. Included in the process were:

- Community-based leadership and overall direction provided by the HACC Environment Committee.
- A kick-off meeting where HACC Environment Committee members, HACC staff, and city staff collaborated to develop preliminary goals and objectives.
- Field studies where representatives from HACC and City of Minneapolis Public Works scoped natural and built features within the study area.

- Preparation of particles (describing plan development) that were published in the HACC newsletter.
- Four community meetings, held at strategic points during the study, to provide community members opportunities to review and comment on planning/design assumptions, directions, and products.
- Selection of a preferred alignment and design for the bikeway/greenway.
- Presentation of the draft HACC 26th Avenue Bikeway and Greenway Plan to the Minneapolis Planning Commission for plan approval.
- Meeting with the Third Ward Councilperson to review planning/design assumptions, directions, and products.



Planning and Design Goals

An early step in the process was development of goals to guide planning and design activities. Goals for the project were developed to respond to transportation, livability, neighborhood development issues and cost considerations. Once developed, the goals served as criteria against which alternative alignments were evaluated and a preferred alignment was selected. Planning and design goals for the project included:

- ***Transportation Needs:***
 - Accommodate east/west bicycle travel in north Minneapolis (specifically in the Hawthorne neighborhood).
 - Maintain collector street function and Municipal State Aid jurisdiction of 26th Avenue.
 - Minimize impacts to on-street parking or accommodate its replacement.
 - Identify potential bicycle user markets (Group A commuting, Group B commuting/recreational, or Group C recreational and children in need of supervision) and design for that purpose.

 - ***Link Hawthorne Neighborhood/Community Facilities:***
 - Nellie Stone Johnson Elementary School,
 - Farview Park, and
 - Mississippi River and extended West River Parkway.
 - Potential future linkages to Victory Memorial Parkway.

 - ***Neighborhood Development Objectives:***
 - Create a park-like amenity,
 - Beautify the neighborhood,
 - Eliminate blight and create developable parcels.
- ***Ensure Safety and Security for Cyclists:***
 - Avoid circuitous paths into the interior of the neighborhood and
 - Maintain "eyes on the bike path."

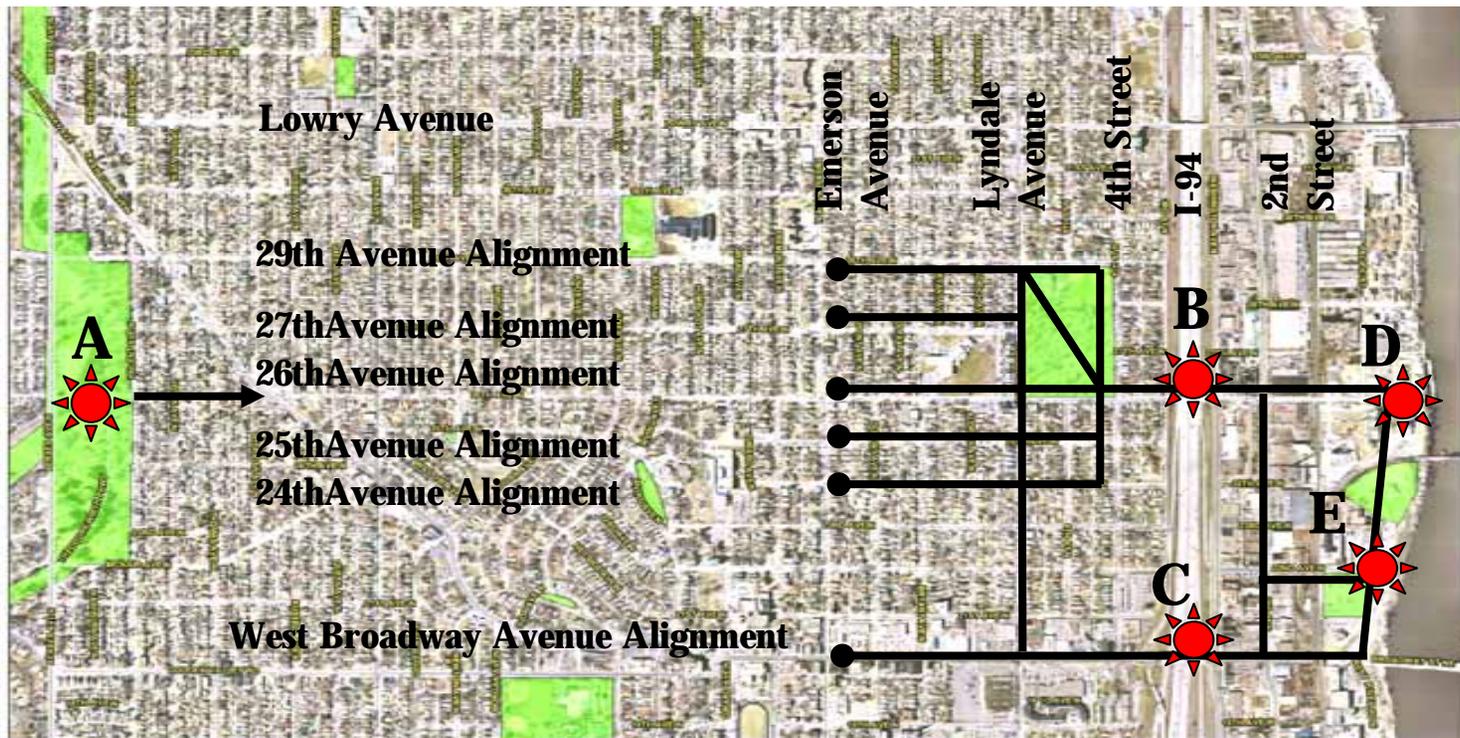
 - ***Cost Considerations:***
 - Minimize right-of-way acquisitions.
 - Coordinate with other activities to minimize costs e.g., recent reconstruction of the Wirth Parkway bike path, available funding for bike lanes, proposed extension of West River Parkway, and proposed reconstruction of 26th Avenue.

2.0 Alignment Alternatives

Alternatives

Shown below are five control points (Points A, B, C, D, and E) that were defined to assist in the development of alternative alignments in the Hawthorne neighborhood. In the interest of continuity with the existing Minneapolis Parkway System, the alignment selected for the Hawthorne neighborhood will need to pass through the Jordan neighborhood and

touch Control Point A. (Control Point A is at the intersection of Wirth Park and 26th Avenue. (During summer 2003 the Public Works Department and Park Board improved the Wirth Parkway linkage to 26th Avenue to allow better bicycle access.)



Control Points B and C are located at I-94 overpasses on 26th Avenue and West Broadway Avenue, respectively. Control Points D and E are located where two surface streets, 26th and 22nd Avenues, will intersect a planned future extension of West River Parkway.

Alternative alignments in the Hawthorne neighborhood begin at Emerson Avenue (the western border of the neighborhood and the boundary between the Hawthorne and Jordan neighborhoods) and extend to either the 26th Avenue or West Broadway Avenue overpass (Control Point B or Control Point C) and then extend to the Mississippi River at either Control Point C or Control Point D. The alternative alignments selected for evaluation are shown to be along 29th, 27th, 26th, 25th, 24th, and West Broadway.

Evaluation

The HACC Environment Committee and Public Works staff conducted the evaluation of alternatives, using the planning and design goals identified earlier as evaluation criteria. The matrices that follow present results of the evaluation and support the Committee's selection of 26th Avenue as the preferred alternative.

Based on the evaluation, the 26th Avenue alignment alternative outperforms the other alternatives because it is:

- the most direct route between Wirth Parkway and the Mississippi River, and its continuity will result in travel time savings for bicycle commuters, compared to other alternatives;
- the widest street and, with 36 feet (curb to curb), the addition of two, five-foot wide bicycle lanes will not negatively impact the through-put capacity of the street;

- a collector street, and, unlike the other alternatives, which are residential streets, on-street parking is already prohibited in many locations within the neighborhood;
- ideally spaced at approximately one-quarter mile south of Lowry Avenue, where east/west commuter bike lanes will be constructed;
- the alignment that best links community facilities (Nellie Stone Johnson Elementary School, Farview Park, and the Mississippi River) in the Hawthorne neighborhood;
- a prominent street that extends east/west across the middle of the neighborhood and is an ideal location for residential redevelopment that is anticipated to follow bike facility implementation;
- most visible route, eliminating the need for cyclists to travel on streets within the neighborhood where security and safety concerns could be issues; and
- the street where the costs of property acquisition would be the least.

3.0 26th Avenue Existing Conditions

Hawthorne's 26th Avenue Corridor

Twenty-sixth (26th) Avenue is a Municipal State Aid Street that functions as a collector route in the Hawthorne and Jordan neighborhoods. It extends between West Broadway to the west and the Mississippi River to the east. It is located halfway between Lowry Avenue (a B Minor Arterial) and West Broadway (an A Minor Arterial). Both Lowry and West Broadway Avenues are under Hennepin County jurisdiction.

With its collector street function, 26th Avenue's daily traffic volume is comparatively higher than the traffic volumes on local/residential streets in the Hawthorne and Jordan neighborhoods. Hawthorne's portion of 26th Avenue extends between Emerson Avenue and the Mississippi River, where average daily traffic volumes (ADT) are 2,700 on the I-94 overpass, 3,200 east of I-94, and 4,600 between Emerson and Lyndale.



Although transit routes on Emerson and Lyndale Avenues cross 26th Avenue, no buses travel directly on 26th Avenue within the Hawthorne portion of the corridor.

The predominant land use along the Hawthorne portion of the corridor, from Emerson Avenue to 6th Street, is residential. Within this portion of 26th Avenue, houses front both on 26th Avenue and along the north/south cross streets. Exceptions to the residential land uses are:

- An auto body repair shop on the southeast corner of Emerson/26th.
- Churches on the southwest corner of Bryant/26th and the southwest corner of Lyndale/26th.
- Nellie Stone Johnson Elementary School on the north side of 26th Avenue, between Colfax and Lyndale Avenues.
- Farview Park on the north side of 26th Avenue, between Lyndale Avenue and 4th Street.

After crossing I-94 on the 26th Avenue Bridge, the predominant land use is industrial, with heavy industrial uses on both sides of: a) 26th Avenue from Washington Avenue to the Mississippi River and b) 2nd Street from 26th Avenue to 22nd Avenue.

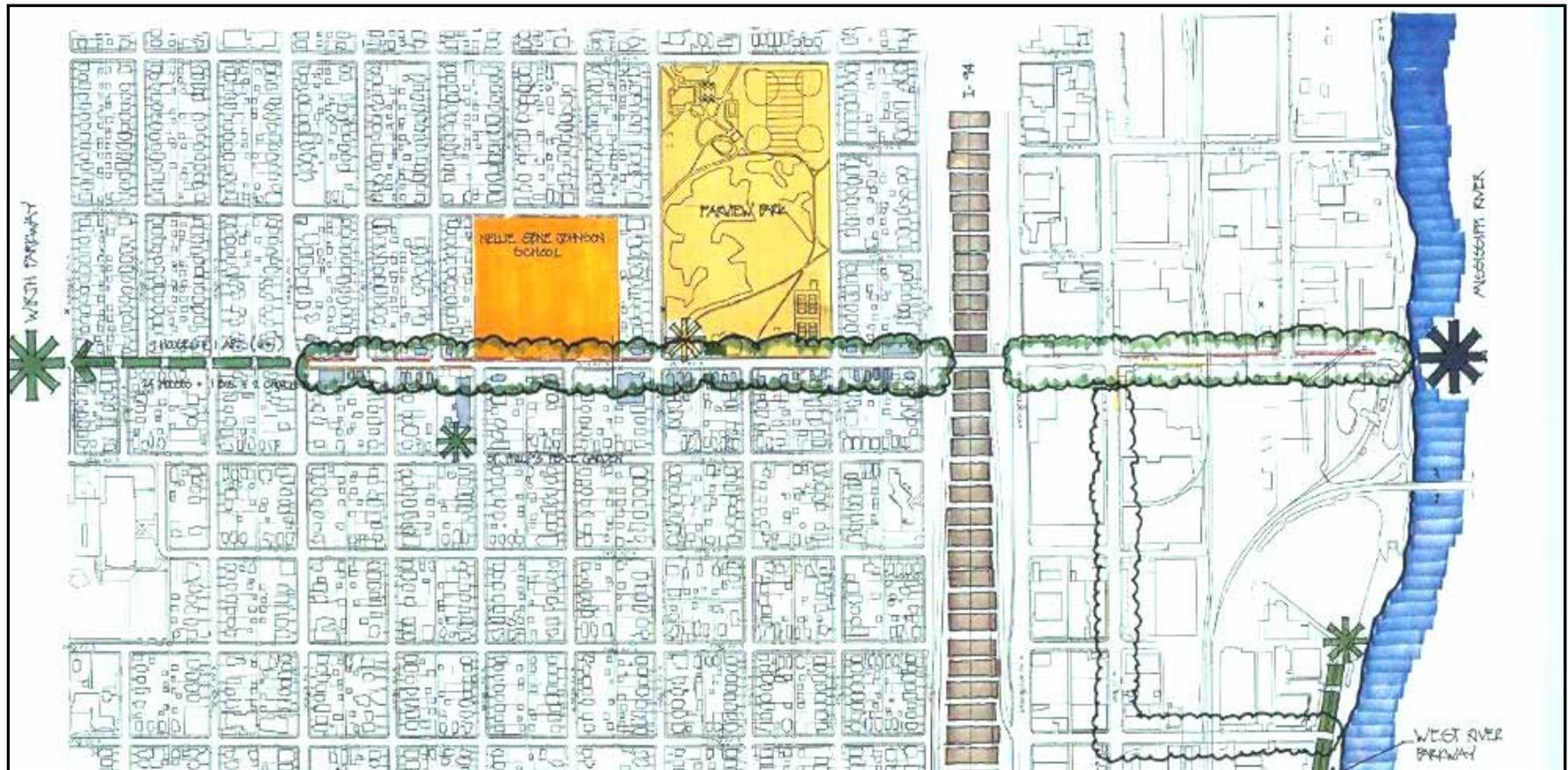
Field studies that were conducted to provide a knowledge base to guide the development of alternative bicycle facility concepts indicated that available right-of-way (r-o-w) and on-street parking are the two most critical issues. The field studies indicated the following.

- Section 1 (26th Avenue from Emerson Avenue to Bryant Avenue):
 - 55 feet r-o-w,
 - 36 feet curb-to-curb,
 - No on-street parking on the north side of the street,

- Time-restricted parking on the south side of the street from Emerson Avenue to the alley between Dupont and Bryant Avenues, and
- No on-street parking from the alley between Dupont and Bryant Avenues to Bryant Avenue.
- Section 2 (26th Avenue from Bryant Avenue to Lyndale Avenue):
 - 55 feet r-o-w,
 - 36 feet - 4 inches curb-to-curb,
 - No on-street parking on the north side of the street and
 - Permitted on-street parking on the south side of the street.
- Section 3 (26th Avenue from Lyndale Avenue to 3rd Street):
 - 56 feet r-o-w,
 - 40 feet - 2 inches curb-to-curb and
 - Permitted on-street parking on both sides of the street.
- Section 4 (26th Avenue from Washington Avenue to Pacific Street):
 - 60 feet r-o-w,
 - 44 feet curb-to-curb,
 - No on-street parking on the north side of the street,
 - Time-restricted parking on the south side of the street between 2nd Street and the BN Railroad tracks, and
 - Permitted on-street parking between the railroad tracks and Pacific Street.
- Section 5 (26th Avenue from Pacific Street to the River):
 - 65 feet r-o-w,
 - 44 feet curb-to-curb,
 - No on-street parking on the north side of the street, and
 - Permitted on-street parking on the south side of the street.

- Section 6 (2nd Street from 26th Avenue to 22nd Avenue):
 - 102 feet r-o-w,
 - 55 feet - 3 inches curb-to-curb,
 - Time restricted on-street parking on the east side of the street for 200 feet south of 26th Avenue,
 - Permitted on-street parking on the west side of the street.

- Section 7 (22nd Avenue from 2nd Street to West River Road (the future extension of West River Parkway)):
 - 67 feet r-o-w,
 - 44 feet curb-to-curb,
 - No restrictions on on-street parking.



Adjacent Properties

The right-of-way analysis showed that there are eight residential structures on the north side of 26th Avenue. These include two houses that were constructed within the last 15 years, and six older houses that vary in condition and market value.

The analysis showed that private properties on the south side of 26th Avenue include one business, two churches, and 25 residential structures. Of the residential structures, one was built within the last 10 years, and the remaining 24 vary in the condition and market value.

With comparatively less private property on the north side of 26th Avenue, it was decided that any bicycle facility improvements should avoid the south side of the street.

On-Street Parking and Truck Traffic

As mentioned, 26th Avenue provides fewer opportunities for on-street parking, compared to residential streets where on-street parking is continuously provided on both sides of the street. As discussed, however, on-street parking is permitted along some segments of 26th Avenue, and its removal would potentially impact property owners. The most significant of these would occur along 26th Avenue between:

- Bryant and Lyndale Avenues (on the south side of the street), an area used for on-street parking by members of a church located at the intersection of 26th/Lyndale Avenues.
- Lyndale Avenue and 3rd Street (on the south side of the street), an area where homes front on 26th Avenue.
- Washington Avenue and 2nd Street (on both sides of the street), an area used by employees at businesses.

Church Parking Impact Mitigation

The church does have a parking lot at the intersection of 26th/Aldrich Avenues, and replacement on-street parking is available for use by church members on Aldrich and 25th Avenues.

Residential Parking Impact Mitigation

Four of the seven residences between Lyndale Avenue and 6th Street have driveways where cars can be parked. The remaining three residences have no driveways or alley access. It is proposed that as part of the bicycle facility implementation project, a vacant parcel adjacent to the alley between Lyndale and 6th Street should be developed as a parking lot for use by residents who do not have a driveway or alley access and who would otherwise be impacted by the removal of on-street parking.

Industrial Area Parking Impact Mitigation

Field reconnaissance and analysis were conducted to determine how the proposed bicycle facility would impact on-street parking on 26th Avenue between Washington Avenue and the Mississippi River. Reconnaissance activities included a six-day parking supply/occupancy survey, which was conducted between 7:30 AM and 5:30 PM. The survey indicated that 26 on-street parking spaces on 26th Avenue would be eliminated with implementation of the proposed bicycle facility.

On-street parking is currently permitted, without restrictions, on both sides of 26th Avenue from Washington Avenue to 2nd Street. Restricted parking (for one hour only between 8 AM and 6 PM) is permitted on the south side of 26th Avenue from 2nd Street to the BN Railroad right-of-way, and parking is not permitted on the north side of 26th Avenue.

On-street parking on both sides of 2nd Street is unrestricted, north of 26th Avenue and on the west side of 2nd Street from 26th Avenue to

22nd. Avenue. Finally, restricted parking (for one hour only between 8 AM and 6 PM) is permitted on the east side of 2nd Street, between 26th and 23rd Avenues. During the investigation period, the number of parked cars was counted at two-hour intervals along: a) 26th Avenue from Washington Avenue to the BN Railroad right-of-way and b) 2nd Street between 28th and 22nd Avenues.

The general observations and conclusions were that:

- 1) The supply of on-street parking within the study area was never fully utilized.
- 2) 26 on-street parking spaces would be eliminated on 26th Avenue with implementation of bicycle facilities. These consist of:
 - 10 unrestricted spaces on the north side of 26th Avenue between Washington Avenue and 2nd Street,
 - 10 unrestricted spaces on the south side of 26th Avenue between Washington Avenue and 2nd Street, and
 - 6 restricted (one hour only between 8 AM and 6 PM) spaces on the south side of 26th Avenue between 2nd Street and the BN Railroad right-of-way.
- 3) On average there were 35 unutilized on-street spaces throughout the day on 2nd Street south of 26th Avenue. Additionally there was an average of 37 unutilized on-street spaces on 2nd Street north of 26th Avenue.
- 4) Any on-street parking spaces that would be eliminated with implementation of the bike lanes on 26th Avenue could be replaced with unutilized parking spaces on 2nd Street, both north and south of 26th Avenue.

Potential Truck Traffic Impacts

A truck traffic study was conducted over two days (October 1 and 2) to quantify the volume of trucks traveling on 26th Avenue between 2nd Street and the LaFarge and Minnegasco/Minneapolis Recycling plants and to observe the driving characteristics and behavior of the truck drivers. The study included hourly counts, between 7:30 AM and 5:30 PM and categorized truck traffic as:

- Eastbound turning left into Minnegasco/Minneapolis Recycling,
- Eastbound turning right into LaFarge,
- Turning right from Minnegasco/Minneapolis Recycling and traveling westbound, and
- Turning left from LaFarge and traveling westbound.

Results of the study showed that over the two-day study period the average daily volume of eastbound trucks was 414 and the average daily volume of westbound trucks was 413. The calculated average hourly volume of trucks was 41 trucks per lane per hour (tplph), eastbound and 41 tplph, westbound. The observed hour-long, peak volume of truck traffic occurred between 9 and 10 AM, where there were 63 tplph eastbound and 69 tplph westbound.

It was further observed that eastbound trucks traveling on 26th Avenue were sometimes traveling slightly faster than the 30 mph. They were observed to slow down (but not come to a complete stop) as they approached the 4-Way STOP at the intersection of 26th Avenue/2nd Street, the BN Railroad right-of-way, and before they turned either left or right into Minnegasco/Minneapolis Recycling or LaFarge. In general, westbound trucks were observed to exhibit slower speeds, coming to complete stops at exits to Minnegasco/ Minneapolis Recycling and LaFarge, the railroad right-of-way, and the 4-Way STOP sign.

According to *Selecting Roadway Design Treatments to Accommodate Bicycles* (Federal Highway Administration (FHWA), 1992), in urban environments where parking is prohibited and where the daily volume of vehicles (including trucks) is 2,000 or less and the speed of vehicles is between 30 and 40 mph, Group A cyclists will be able to operate safely within a 15 foot-wide lane that is shared between vehicles and bicycles. Under the same conditions, the Groups B and C cyclists will be able to operate safely within a five-foot wide, exclusive bike lane.

Analysis showed that these standards could be met along 26th Avenue between Washington Avenue and the River. Given observed truck driving behavior in the area, however, the analysis indicated a need to

include signage in the design of the bicycle facilities to: a) indicate the legal speed limit, b) clearly identify the bike lanes, and c) identify any lane channelization.

4.0 Design Alternatives

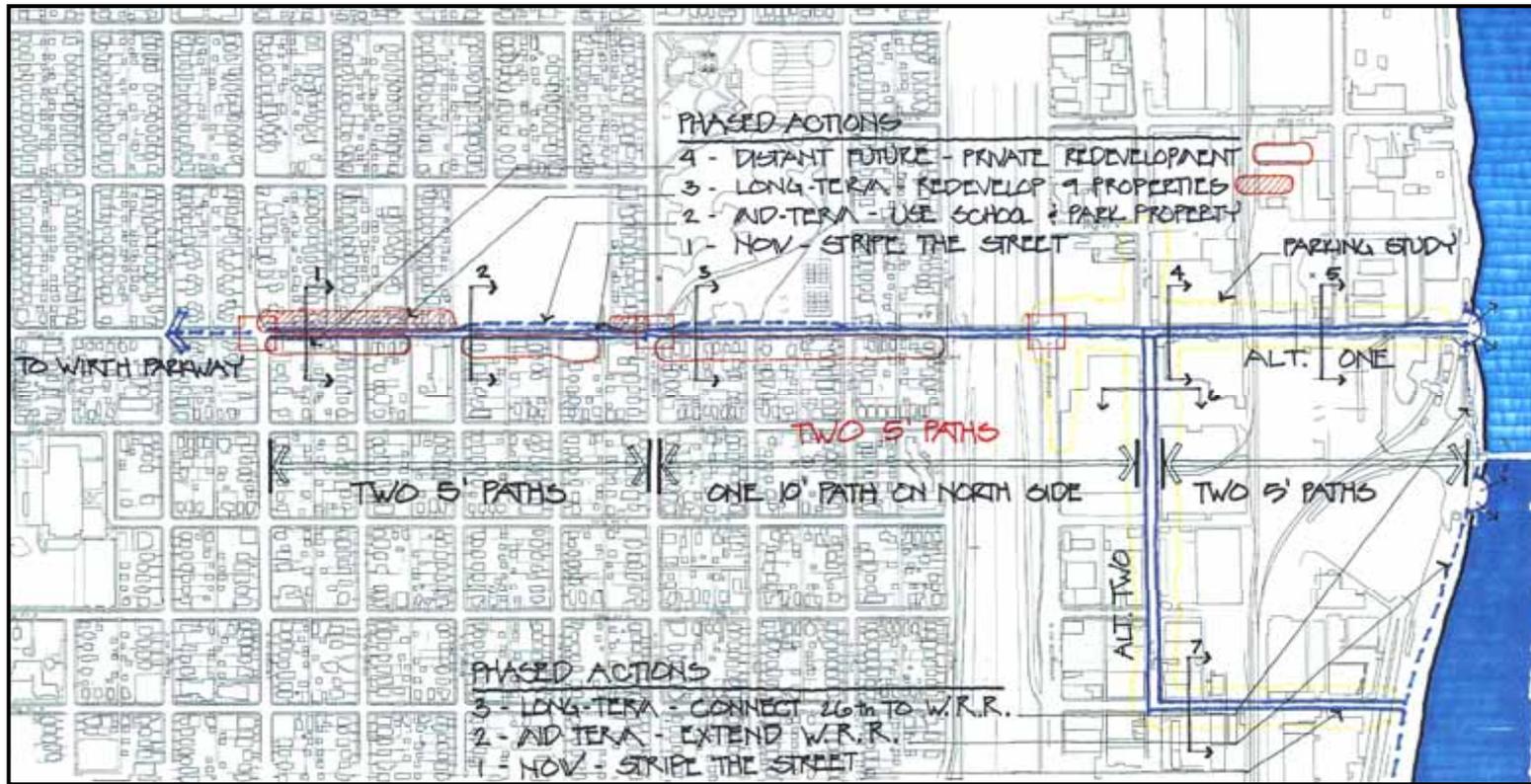
Overview

Members of the Hawthorne neighborhood approached the 26th Avenue Bikeway and Greenway Plan from two perspectives. First, there is an interest in the development of bicycle facilities in north Minneapolis, an area of the city that lacks bicycle infrastructure.

Secondly, the neighborhood is interested in developing bicycle infrastructure (bike lanes and/or bike paths) consistent with the further development of a green, park-like corridor through the neighborhood.

Countless land use-based market research studies, conducted both locally and nationally, have demonstrated how parks and park-like amenities enhance livability, positively effect neighborhood stability, and contribute to an overall increase in the economic value of the neighborhood.

Through coordination with the Transportation Division of the Public Works Department, it was learned that there are two opportunities to



develop bicycle infrastructure in north Minneapolis with potential to support both of the neighborhood's interests. The design alternatives for 26th Avenue were developed to capitalize on these opportunities, as described below.

Phased Design Alternatives

Phase I: Now Condition --- Funding is available through the Public Works Department to implement bike lanes along 26th Avenue. The bike lanes, which would be a minimum of five feet-wide and defined by a painted stripe, could be implemented within next year or two (2005).

The eastbound and westbound bicycle lanes would extend along 26th Avenue from Wirth Parkway to the intersection of 26th Avenue with 2nd Street. The bicycle lanes would then be striped on 2nd Street (south of 26th Avenue) and on 22nd Avenue (east of 2nd Street). The 22nd Avenue alignment would intersect West River Road.

As described, the bicycle lanes that could be implemented in the Now Condition, would address the neighborhood's and City's immediate problem of providing bicycle facilities in north Minneapolis. At the same time, painted stripes defining bicycle lanes on 26th Avenue would only marginally contribute to neighborhood stability and increased economic value.

Phase II: Mid-Term Condition --- The mid-term condition is defined as the period between today (2004) and approximately five years out to 2009. During this time, it is anticipated that neighborhood representatives and Public Works staff will coordinate/negotiate with the Minneapolis School District and the Minneapolis Park and Recreation Board to participate in the development of the bicycle facility along the extreme south side of their property. The affected School District property would be the Nellie Stone Johnson Elementary School, which extends from Bryant Avenue to the alley between Aldrich and Lyndale

Avenues and has a large playground area that fronts on 26th Avenue. The Park Board property would be Farview Park, which extends from Lyndale Avenue to 4th Street.

Phase III: Long Term Condition: --- The City of Minneapolis Public Works Department has identified 26th Avenue as an MSA collector street where the street's usage (annual vehicle miles of travel), age and Pavement Condition Index (PCI) indicate a need to reconstruct the street. Twenty-sixth Avenue from Wirth Parkway to the Mississippi River was constructed in segments. The segment between Wirth Parkway and Broadway was constructed in 1974 and has a PCI of 77. The segment between Broadway and 2nd Street was constructed in 1970, and the PCIs are: a) 66 between Broadway and Lyndale Avenues and b) 72 between Lyndale Avenue and 2nd Street. These ratings, which are less than 80, are indicative of an MSA street that is only in FAIR condition.

Based on its inclusion in the City's Capital Improvement Plan (CIP), 26th Avenue could be reconstructed within the next six to 10 years. Reconstruction of the street provides an infrequent opportunity to improve infrastructure and implement design enhancements that can enhance the appearance of the neighborhood. Design alternatives developed for the long-term condition were prepared to be implemented concurrently with the potential future reconstruction of 26th Avenue and include two alternative approaches.

- **Alternative A: Construct Green Corridor on the North Side of 26th Avenue.**
This alternative maintains the existing centerline and street width of all streets, including 26th Avenue, 2nd Street, and 22nd Avenue. On-street parking would be eliminated on both sides of 26th Avenue from Emerson Avenue to the River, except for the segment of 26th Avenue adjacent to Farview Park where on-street parking would be maintained on the south side of the street. The paved surface between the curbs would accommo-

date: a) two 12 foot-wide travel lanes for automobiles and b) two, minimum five foot-wide bicycle lanes.

Alternative A also includes acquisition of private properties on the north side of 26th Avenue between: a) Emerson and Lyndale Avenues and b) 4th Street and the alley between 4th Street and 3rd Street. The acquisitions would impact nine residences in total, consisting of side yard acquisitions for two newer homes at the intersections of 26th/Emerson and 26th/Lyndale and total acquisitions for seven homes on the north side of 26th Avenue. The acquired properties would accommodate a five foot-wide boulevard for tree planting, a ten foot-wide two-way bicycle path, a five foot-wide grass buffer, and a five foot-wide sidewalk.

- Alternative B: Construct Green Corridor in a Median in 26th Avenue.

This alternative includes the same private property acquisitions described for Alternative A. Instead of maintaining the existing dimensions of 26th Avenue, it holds the existing south curb line and shifts the centerline of the street to the north to allow for:

- construction of two, 14 foot-wide travel lanes for automobiles and
- a 12 foot-wide planted median.

The acquired properties on the north side the street would be developed to contain: a portion of westbound 26th Avenue, a five foot-wide boulevard for tree planting, a ten foot-wide two-way bicycle path, a five foot-wide grass buffer, and a five foot-wide sidewalk.

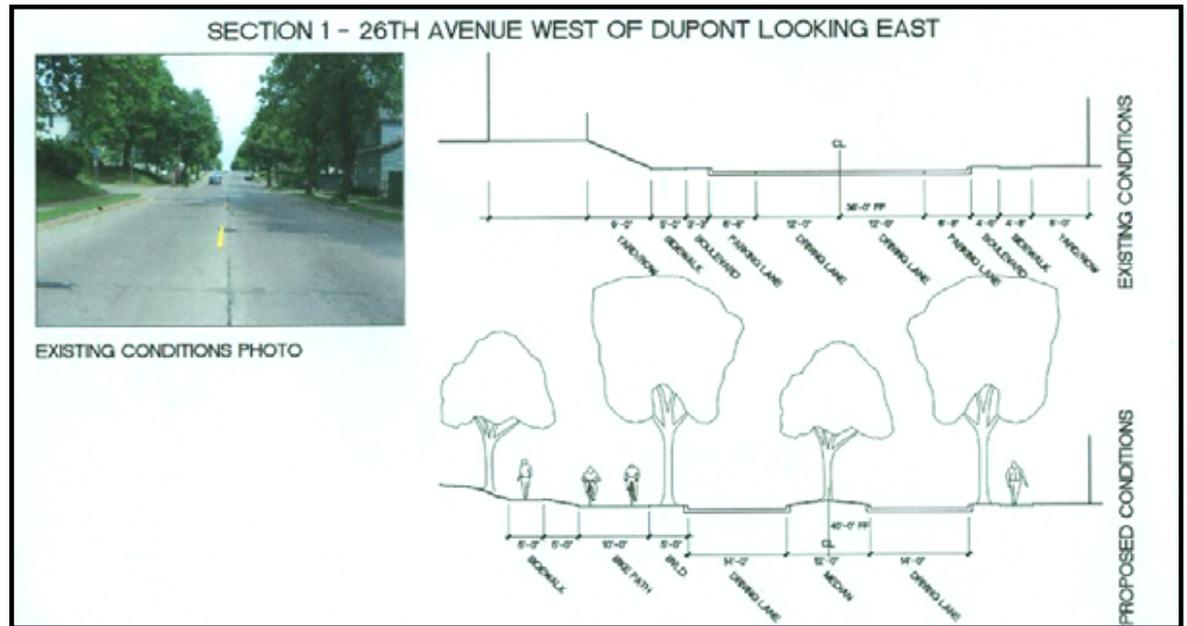
Members of the Hawthorne neighborhood selected Alternative B as the preferred design. The selection was based on the following reasons:

- The median treatment contributes to a parkway-like environment more than a green corridor on one side of the street does.
- The median, at 12 feet wide, can be planted with trees, which would further contribute to a parkway-like environment.
- The median would present the visual effect of a narrowed driving envelope and serve to calm the flow of traffic on 26th Avenue.

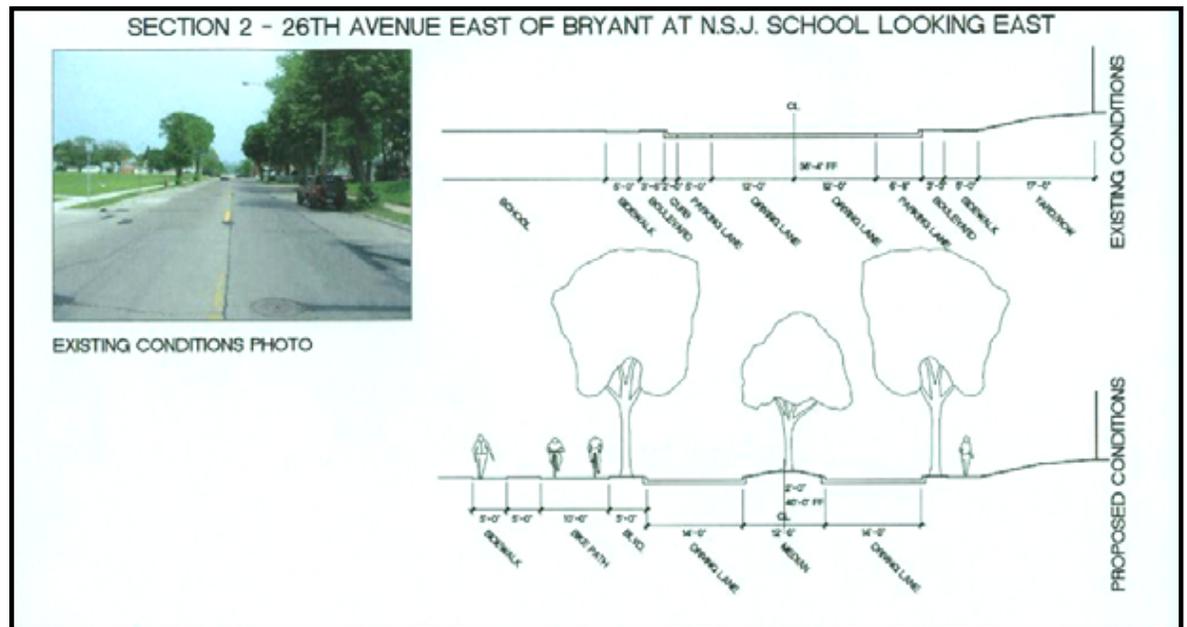
The preferred design does not include a median in 26th Avenue in the half block west of Lyndale Avenue nor between 4th Street and the Mississippi River. As well, no median is proposed to be constructed in 2nd Street. or 22nd Avenue. The preferred alternative also maintains on-street parking on the south side of 26th Avenue adjacent to Farview Park, and on 2nd Street between 26th and 22nd Avenues.

Preferred Alternative B Sections

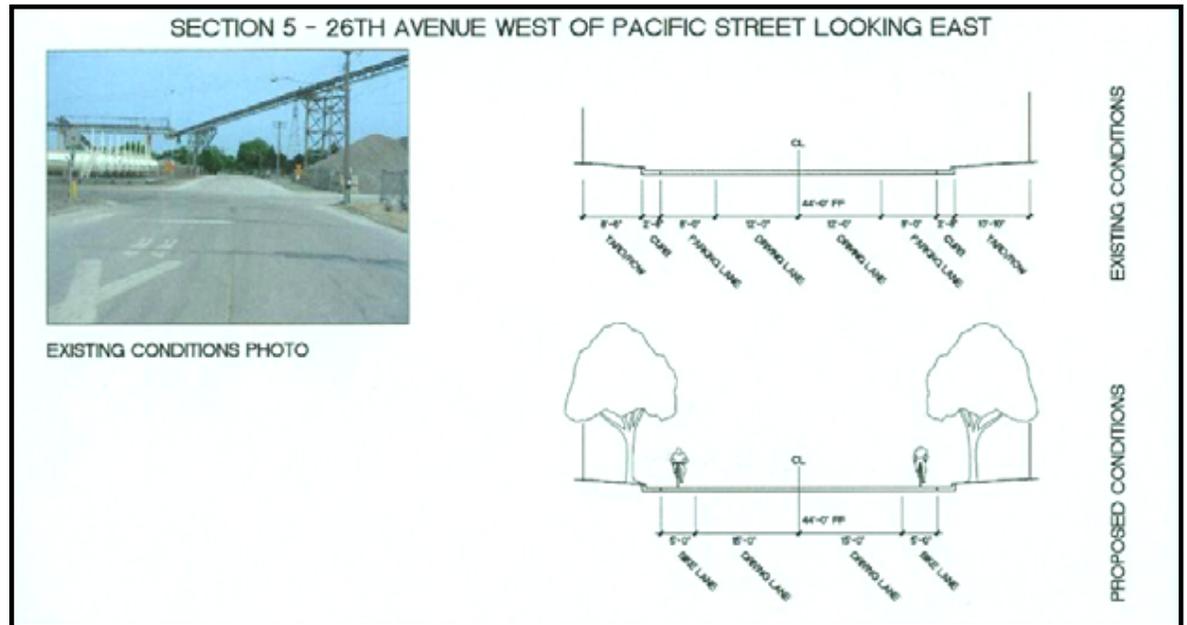
On 26th Avenue between Emerson and Bryant Avenues.



On 26th Avenue adjacent to Nellie Stone Johnson Elementary School.



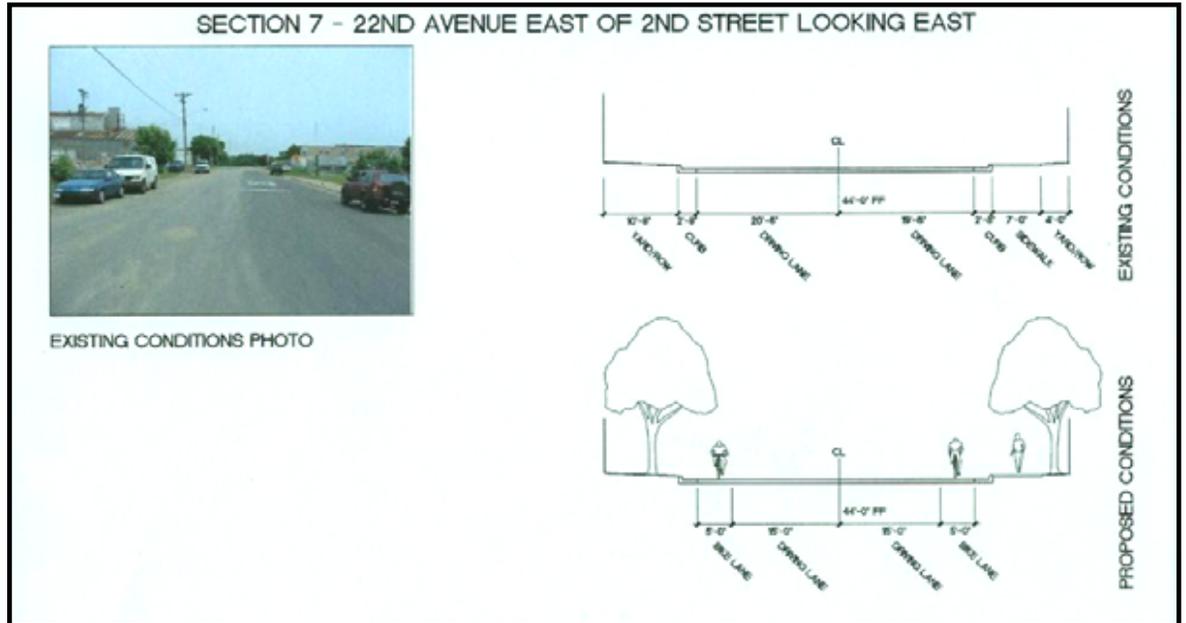
On 26th Avenue between Pacific Street and the River.



On 2nd Street between 26th and 22nd Avenues.



On 22nd Avenue between 2nd Street and West River Road.



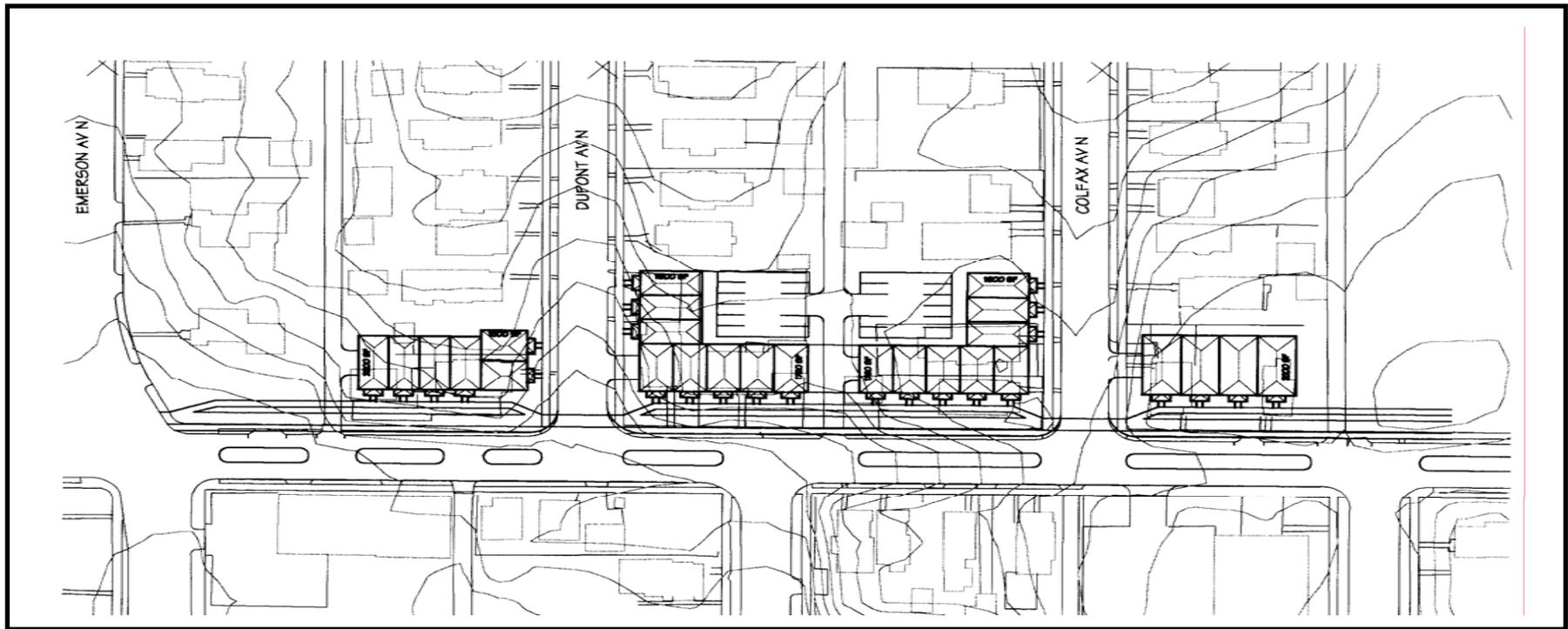
Design-Related Redevelopment Potential

It is anticipated that development of the bikeway/greenway will catalyze private investment in new housing. Through a public/private partnership, the City and a private developer could share the cost of developing new housing with the City acquiring private property and transferring ownership to the developer.

A preliminary concept-level plan is illustrated below for the segment of 26th Avenue between Emerson and Colfax Avenues to show how reconstruction of 26th Avenue and implementation of the bicycle path could catalyze new home construction.

Within this segment of the corridor, one partial side yard acquisition and six full acquisitions would be required to implement the bicycle facility. By acquiring one more residence within this segment of 26th Avenue (thus increasing the number of full acquisitions to seven), a total of 26 new townhome style residences could be developed, as shown on the preliminary concept plan.

Off-street parking for the redeveloped residential units would be provided in two configurations. Tuck-under parking could be provided where existing topography would allow; e.g., between Emerson and Dupont. Surface parking behind the new dwelling units could be constructed where the change in elevation between the street and the lots is not sufficient to construct tuck-under parking.



The housing redevelopment plan presented on the previous page is a preliminary concept of what could occur, consistent with implementation of the bicycle path. Further analysis will be needed to refine the housing redevelopment component of the plan. Remaining issues to address will be the number of dwelling units that would need to be developed to make the plan financially feasible, depth of the lots, and parking to accommodate two cars per dwelling unit.

A refinement to the illustrated preliminary concept plan could include vacating the ends of the alleys that approach 26th Avenue from the north and routing them out to one of the side streets. This would permit additional dwellings to be constructed.

Implementation of the entire project (medians, bicycle path, and new home construction) within the Hawthorne neighborhood segment of 26th

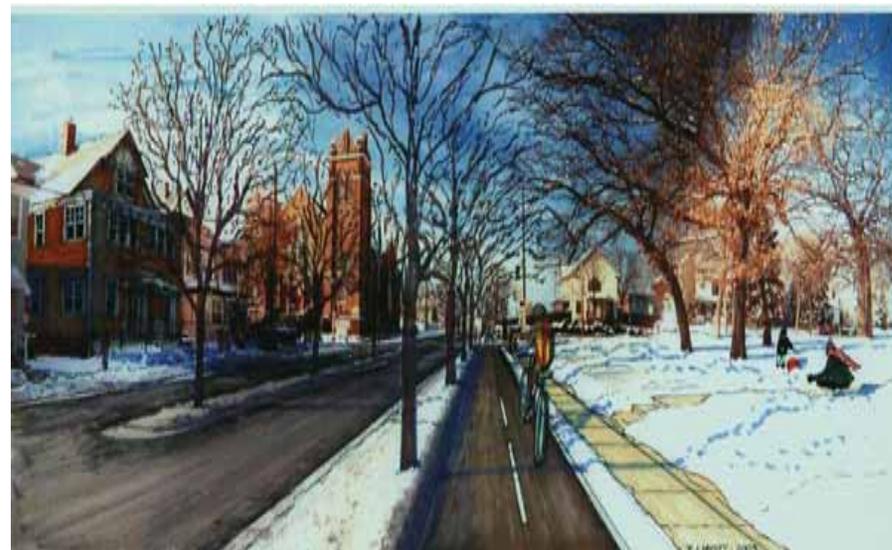
Avenue, from Emerson Avenue to the Mississippi River, would require two partial and eight full property acquisitions, as listed below:

- Partial (side yard) acquisitions for two properties: one on the northeast corner of the 26th/Emerson, and the second on the northwest corner of 26th/Lyndale.
- Full acquisition of the residence on the northwest corner of 26th/Dupont.
- Full property acquisition of three residences along the north side of 26th Avenue between Dupont Avenue and 4th Street.
- Full property acquisition of three residences that front on Colfax, just north of 26th Avenue.
- Full property acquisition of one residence on the northeast corner of 26th/4th.

As illustrated in the concept-level plan, a total of 26 townhomes could be constructed on properties where full acquisitions are proposed.



Rendering showing the planted median, boulevard, bike path, grass buffer, sidewalk, and new townhomes on the north side of 26th Avenue between Emerson and Dupont.



Rendering showing the planted median, travel lane, tree-lined boulevard, bicycle path, buffer area, and sidewalk, adjacent to Farview Park.

5.0 Implementation

Action Steps

A number of actions will need to be taken by members of the Hawthorne neighborhood and City of Minneapolis staff and officials, to ensure that the 26th Avenue Bikeway and Greenway Plan is implemented. This section of the plan document outlines the action steps by implementation phase:

- Phase I: Now
- Phase II: Mid-Term
- Phase III: Long Term

Phase I: Now

Phase I action steps will be need to be taken to ensure implementation of two, five foot-wide bicycle lanes on 26th Avenue. It is recommended that members of both HACC and JACC work together toward this end, as the bicycle lanes would be implemented between Wirth Parkway and the intersection of 26th Avenue/2nd Street, then along 2nd Street from 26th Avenue to 22nd Avenue, and finally along 22nd Avenue to West River Road. According to the Minneapolis Public Works Department, the bicycle lanes, which would require elimination of on-street parking on 26th Avenue, could be implemented in 2004 or 2005.

The cost of implementing the bicycle lanes would include painting stripes on 26th Avenue to define the bicycle lanes.

Phase II: Mid-Term

Phase II action steps should begin immediately so that they can be completed by 2009 or sooner. Phase II is focused on coordination and negotiations with the Minneapolis School District and the Minneapolis Park and Recreation Board. The goal of these activities is development of approximately 17 feet of School District property at the Nellie Stone Johnson Elementary School and 17 feet of Park Board property at Farview Park for construction of a:

- five foot-wide boulevard,
- ten foot-wide, two-way bicycle path,
- five foot-wide grass buffer, and
- five foot-wide sidewalk.

The existing playground at the Elementary School is 400 feet long, at its longest point, and it is used for soccer, football, and other outdoor play activities. The bicycle path and associated buffer and sidewalk would only minimally impact the playground and, at the same time, would provide a safe facility for neighborhood children to use as they ride their bikes to school. Because the facility improvements would be used by school children, an acquisition may not be required, and, instead, the discussions might focus on the District's voluntary development of it land for bicycle and pedestrian use.

The southern edge of Farview Park, that fronts on 26th Avenue currently consist of an undeveloped slope, and the closest structures are the tennis courts (approximately 30 feet from the existing curb line) and a sidewalk at the southwest corner of the park. Because the bicycle facility and associated buffer and pedestrian path would be used for recreational trips, as well as commuter trips, the Park Board may also

consider the voluntary redevelopment of Farview Park's southern edge, and a swap or acquisition may not be necessary.

It is anticipated that these discussions could take a far amount of time. In order for the School District and the Park Board to take these discussions seriously, Members of HACC, Public works Department staff, and the Third Ward Councilperson will need to approach them in a coordinated manner.

Phase III: Long Term

The long-term implementation plan is to acquire residences on the north side of 26th Avenue, consistent with the Public Works Department's efforts to include the reconstruction of 26th Avenue in the City's Capital Improvement Plan (CIP). Staff in the Public Works Department initiates the process for approving projects in the CIP. Street reconstruction projects from across the City are evaluated and compared to ensure that the most deserving projects are given the most immediate attention. (26th Avenue, as mentioned, is rated as a street that is FAIR condition, given its jurisdiction as an MSA street, the time since it was constructed, and its Pavement Condition Index.) It has already been recommended by staff for consideration as an approved project in 2009/2010.

It should be mentioned that the identification of approved projects is not merely based on quantifiable data or the technical evaluation. There is great concern in the City to ensure that capital improvement funds are distributed in accordance with regional equity.

It is recognized that north Minneapolis lags behind other areas in the City in terms of capital investments for public works projects; including street reconstruction and bicycle facilities. Additionally, the trail element of the proposed project is very important to the City's bicycle transportation system. The proposed east/west bicycle trail would provide connections to Wirth Parkway and the future West River

Parkway extension (from Plymouth Avenue to 26th Avenue). Since close to half the residents in the neighborhoods that border the 26th Avenue corridor are under 18, an off-street trail along 26th Avenue would get more use than on-street bicycle lanes, especially since there are large parks and schools within two blocks of the corridor.

Should the Public Works Department support staff's recommendation, the proposed project will need to be further evaluated and rated by the Capital Long Range Improvement Committee. The Committee meets each spring to select projects that will be included in the CIP.

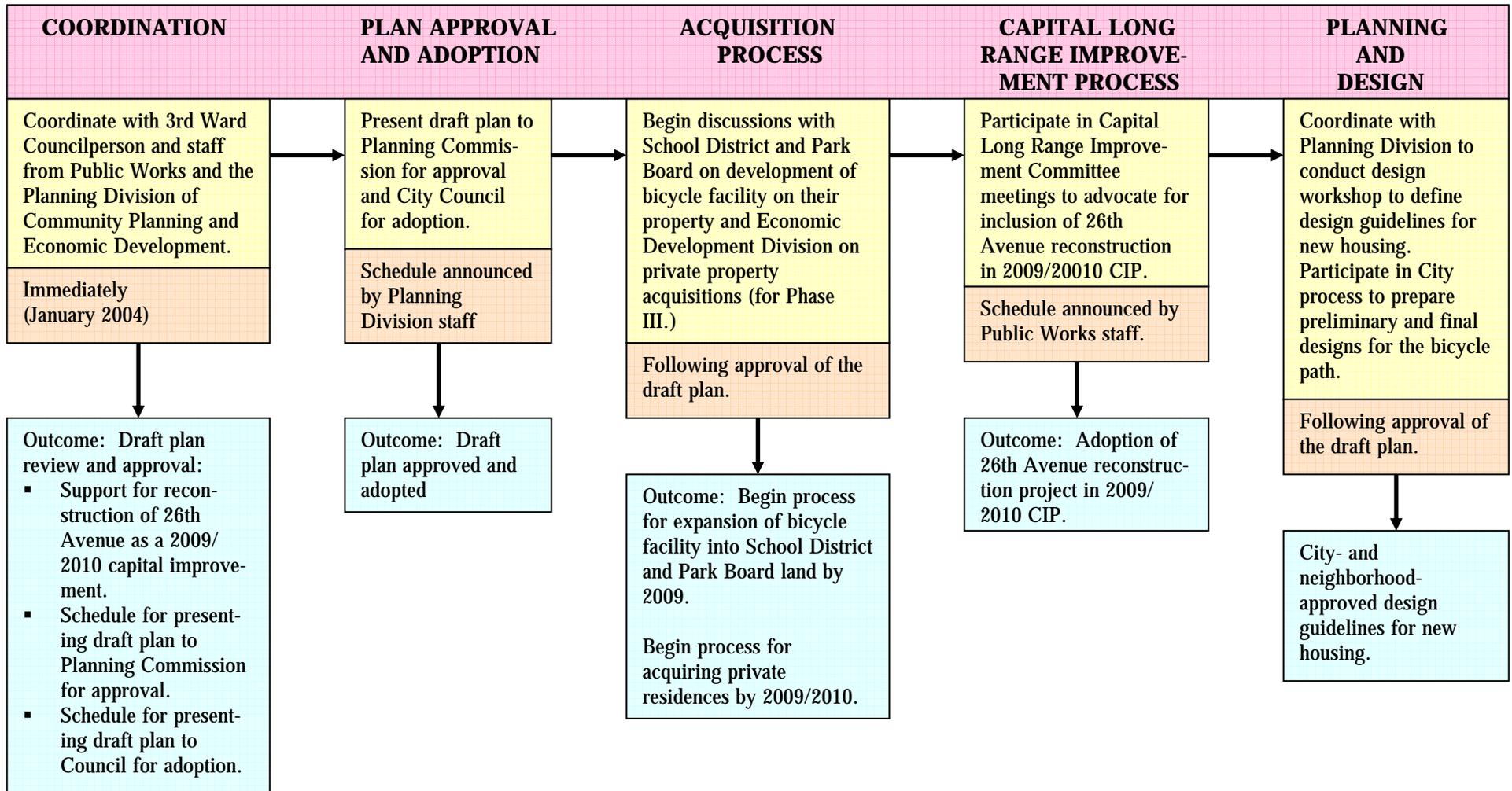
Full implementation in the long term includes private property acquisitions. It is recommended that the properties should be acquired by the City for the purposes of:

1. Relocating the centerline of 26th Avenue 12 feet to the north and constructing 26th Avenue with a median.
2. Constructing the bicycle facility and associated buffer and pedestrian path.

Timeline for Agency Coordination

The timeline that follows outlines action steps that will need to be taken. Even though full implementation is anticipated for 2010 or later,

immediate actions will need to be taken to set in motion administrative processes that will need to be implemented by 2010.



Implementation Cost Estimates

The concept-level costs for implementing the HACC Bikeway and Greenway Plan (including purchase and installation of trees and lighting) are outlined below, based on 2004 dollars:

- Phase I: Now --- \$50,000
 - \$50,000 for striping from Wirth Parkway to the River via 26th Avenue, 2nd Street, and 22nd Avenue.
- Phase II: Mid-Term --- \$225,000
 - Potentially no cost to acquire land at Nellie Stone Johnson School and Farview Park.
 - \$101,250 to construct bicycle path, grass buffer, and pedestrian path along 450 feet of School District property.
 - \$123,750 to construct bicycle path, grass buffer, and pedestrian path along 550 feet of Park Board property.
- Phase III: Long Term --- \$2,171,250
 - \$1,750,000 for acquisition and relocation for seven residences.
 - \$2,500 for purchase of two side yards.
 - \$250,000 for acquisition and relocation of residence fronting on Colfax.
 - \$168,750 to construct bicycle path, grass buffer, and pedestrian path along 750 feet on the north side of 26th Avenue.

Potential sources of funds to implement the project are listed below:

- Phase I: Now --- City of Minneapolis General Fund allocation for Special Projects.
- Phase II: Mid-Term --- Shared funding from Minneapolis Park Board, Minneapolis School District, and City of Minneapolis through a joint application for Surface Transportation Project (STP) funding.
- Phase III: Long Term --- City of Minneapolis through:
 - Economic Development Division of Community Planning and Economic Development (CDBG program funds),
 - land sale proceeds,
 - State of Minnesota bonding,
 - Federal ISTEA, and
 - Hawthorne neighborhood NRP funding

6.0 Supplemental Information

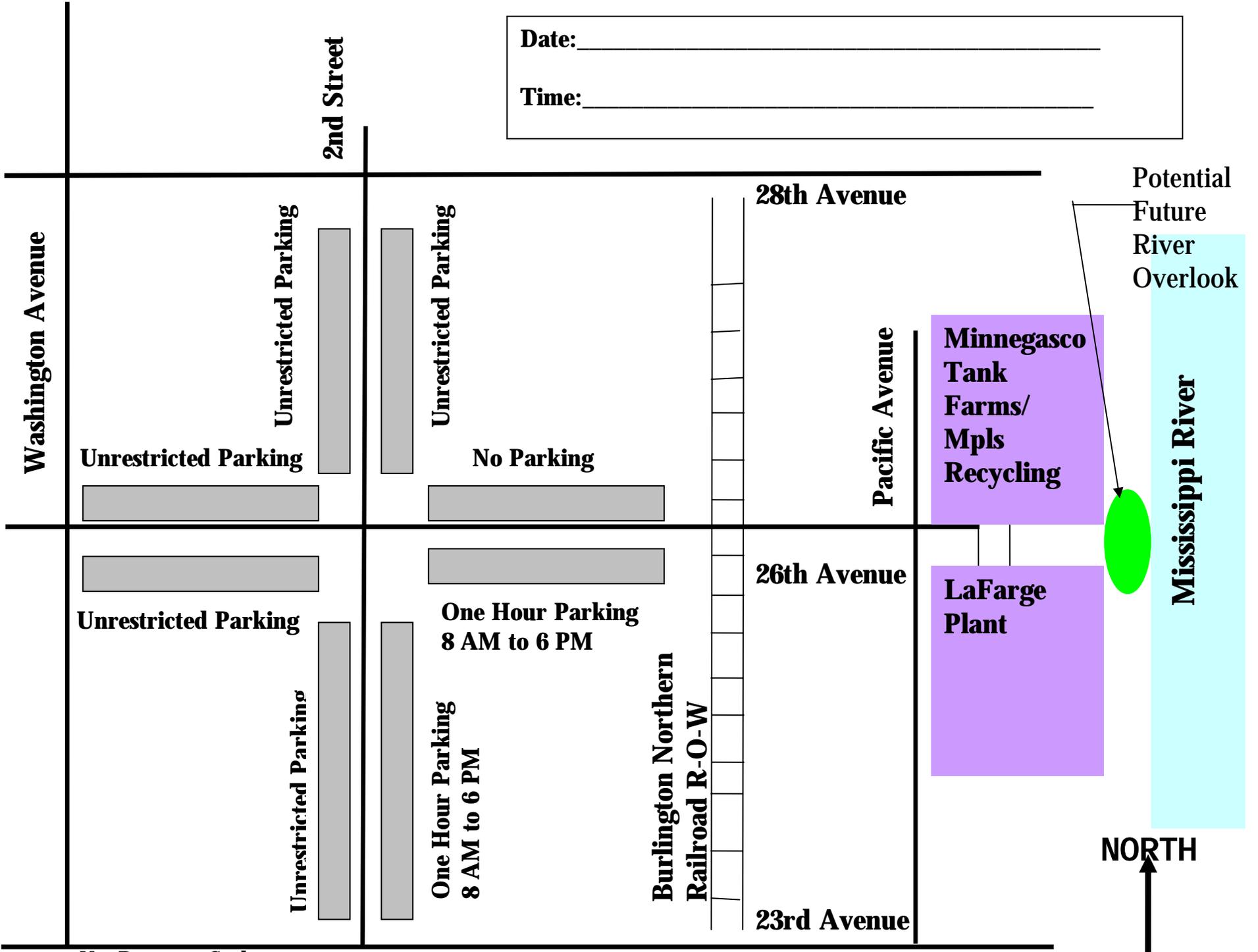
- 1. Alternative Alignment Evaluation Matrices**
- 2. Industrial Area Parking Evaluation Map**

Alignment Alternative	Transportation Needs	Link Neighborhood Facilities	Neighborhood Development Objectives	Ensure Safety/Security	Cost Considerations
29th Avenue	Duplicates future bike route on Lowry Ave. Circuitous routing between Point A along Wirth Pkwy and Point B along 26th Ave. At 32', curb-to-curb, implementing bike lanes would negatively impact traffic flow and on-street parking for residents along 29th Ave. Implementing bike path through Farview Park would require either widening of existing pedestrian paths or development of new bike paths.	Serves Farview Park but not NSJ Elementary School.	29th Ave is a local street with little traffic. Neighborhood desires development and beautification along a more prominent, showcase street.	Bicyclists on 29th Ave would not be obvious or visible to a large number of residents and traffic. They would be potentially more vulnerable in less visible areas of the neighborhood.	<p>Cost of striping bike lanes on 29th St would be minimal. There is a cost associated with removal of residential on-street parking from:</p> <ul style="list-style-type: none"> - both sides of 29th Ave between Emerson and Lyndale, - one side of 29th Ave between Lyndale and 4th St, and - one side of 4th St between 29th and 26th Aves. <p>Lack of available r-o-w would prevent further bicycle facility development beyond painted lanes in the street.</p>
27th Avenue	Same as above.	Links Farview Park and NSJ Elementary School.	Same as above.	Same as above.	<p>Cost of striping bike lanes on 27th St would be minimal. There is a cost associated with removal of residential on-street parking from both sides of 27th Ave between Emerson and Lyndale.</p> <p>Lack of available r-o-w would prevent further bicycle facility development beyond painted lanes in the street.</p>

Alignment Alternative	Transportation Needs	Link Neighborhood Facilities	Neighborhood Development Objectives	Ensure Safety/Security	Cost Considerations
26th Avenue	Good spacing (4 blks) from the Lowry bike route. Direct routing between Points A and B. Significant amt of on-street parking on 26th is prohibited or restricted by time of day. 26th is a collector street. With 36' to 36'-4", between Emerson and the western abutment of the I-94 Bridge, there is more in-the-street width than there is on the local streets.	Links both Farview Park and NSJ Elementary School.	26th is a prominent street through the middle of the Hawthorne neighborhood.	Cyclists would be more visible on a major street than they would on a local street in the interior of the neighborhood.	<p>Cost of striping bike lanes on 26th St would be minimal. There is a cost associated with removal of residential on-street parking. On-street parking, however, is confined to the following locations:</p> <ul style="list-style-type: none"> - south side of 26th between Bryant and 3rd and - north side of 26th between Lyndale and 3rd. <p>Amount of right-of-way required to develop bicycle facility improvements beyond painted lanes in the street is limited to nine houses on the north side of 26th; assuming that use of NSJ Elementary School and Farview Park land can be negotiated.</p>
25th Avenue	Good spacing (5 blks) from future Lowry bicycle route. Circuitous routing, however, between Point A along Wirth Pkwy and Point B along 25th Ave. At 32', curb-to-curb, implementing bike lanes would negatively impact traffic flow and on-street parking for residents along 25th Ave and 4th St.	Does not adequately line Farview Park or NSJ Elementary School.	25th Ave is a local street with little traffic. Neighbor-hood desires development and beautification along a more prominent, showcase street.	Bicyclists on 25th Ave would not be obvious or visible to a large number of residents and traffic. They would be potentially more vulnerable in less visible areas of the neighborhood.	<p>Cost of striping bike lanes on 25th St would be minimal. There is a cost associated with removal of residential on-street parking from both sides of:</p> <ul style="list-style-type: none"> - 25th Ave between Emerson and 4th and - 4th between 25th and 26th. <p>Lack of available r-o-w would prevent further bicycle facility development beyond painted lanes in the street.</p>

Alignment Alternative	Transportation Needs	Link Neighborhood Facilities	Neighborhood Development Objectives	Ensure Safety/Security	Cost Considerations
24th Avenue	Good spacing (6 blks) from future Lowry bicycle route. Circuitous routing, however, between Point A along Wirth Pkwy and Point B along 24th Ave. At 32', curb-to-curb, implementing bike lanes would negatively impact traffic flow and on-street parking for residents along 24th Ave and 4th St.	Same as above.	Same as above.	Same as above.	Same as above.
West Broadway Avenue	Comparatively, the best spacing (9 blks) from future Lowry bicycle route. Direct routing along Broadway, which intersects 26th two blks east of Wirth Pkwy. Broadway is an "A" Minor Arterial with moderately high daily traffic (14,800 to 26,000), which must accommodate automobiles and transit. Curb-to-curb width is approx 60'. Layouts for reconstruction of Broadway (to begin in spring 2004) have been prepared and do not include bicycle lanes. As supported by businesses and residents, any available r-o-w following reconstruction is being used to increase width of sidewalks.	Same as above.	Broadway is identified as a Commercial Corridor in the Minneapolis Comprehensive Plan. Its planned enhancement and beautification focus on store front rehabilitation and improved pedestrian and transit accessibility.	With its high level of street activity, cyclists would be safe and secure on Broadway.	Provision of bicycle lanes on Broadway would interfere with on-street parking, which is already threatened by the reconstruction program. Any r-o-w that remains after the reconstruction program has been designated for improved pedestrian and accessibility.

Date: _____
Time: _____



Not Drawn to Scale

