



# KILLINGSWORTH STREET

## IMPROVEMENTS PLANNING PROJECT

**Final Report**



August 2003  
CITY OF PORTLAND  
OFFICE OF TRANSPORTATION

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The Killingsworth Street Improvements Project is one of two project areas that are the focus of the Station Access Street Improvements Project that focuses on two key opportunity areas along the Interstate Max light rail line: N Killingsworth Street and N Russell Street. This project is partially funded by a grant from the Transportation and Growth Management (TGM) Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Transportation Equity Act for the 21st Century (TEA-21, local government, and the State of Oregon funds).

The contents of this document do not necessarily reflect views or policies of the State of Oregon.

Photos on the front cover from top to bottom:  
N Killingsworth Street and N Albina Avenue looking east, 1927.  
N Killingsworth Street and N Albina Avenue looking east, 2003.  
N Killingsworth Street and N Albina Avenue looking east, in the future.

# KILLINGSWORTH STREET IMPROVEMENT PLANNING PROJECT

## Final Report



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# EXECUTIVE SUMMARY

## PROJECT BACKGROUND, PURPOSE AND SCOPE

The Killingsworth main street is at the center of Portland's most diverse community. Residents, business owners, developers and area institutions are working with the city to transform a cycle of disinvestment on Killingsworth St into a vibrant mixed use main street. The construction of the Interstate MAX and the PCC Cascade Campus expansion serve as catalysts for positive change in neighborhood livability, accessibility, and economic development and provide an opportunity to plan improvements that will connect the light rail station to destinations along Killingsworth. Street improvements on Killingsworth St provide the key unifying element to tie together the efforts occurring in the community.

The Killingsworth Street Improvements Planning Project creates a streetscape concept plan and new street standards and guidelines for Killingsworth St between N Interstate Ave and NE Martin Luther King Jr. Blvd. The plan addresses streetscape improvements including trees, curb ramps and sidewalk improvements, street lights, pedestrian crossing and bus stop changes, traffic signs, trash containers, bicycle access, and art. The plan creates a public investment strategy for the street in order to improve the quality of the street for local businesses and residents and helps strengthen the connection between Killingsworth St, the Interstate MAX, the surrounding community, and major destinations such as Portland Community College (PCC) Cascade. Through improving these connections the project will also help bridge the perceived divide caused by the I-5 freeway.

## COMMUNITY PROCESS

The street improvement plan is the result of an extensive public process involving more than 1000 community members and a 19-person Citizen Advisory Committee. The public process for the Killingsworth Street Improvements Planning Project included a wide range of public involvement opportunities for residents and stakeholders throughout the process.

The goal of the community involvement process was to build the capacity of diverse community members to make informed recommendations by respectfully listening, promoting dialogue, and providing information in accessible, understandable, and creative formats. Through its inclusive process, this project served to build trust, and it solicited the participation of traditionally underrepresented peoples. Community members have seen their views and input reflected in each step of the planning process.

To respond to the diverse nature of the community using Killingsworth St, a variety of non-traditional approaches to public outreach were utilized, including canvassing, survey and project flyers in five languages, and translation services and childcare for community meetings.

The community involvement process included the following activities:

- Public surveying of more than 500 community members
- Focus groups
- Community Advisory Committee meetings
- Four public events, including a Community Walk, Design Work Session, Alternatives Evaluation Workshop and Preferred Plan Open House
- Public information presentations and outreach to groups and individuals



# RECOMMENDED PLAN

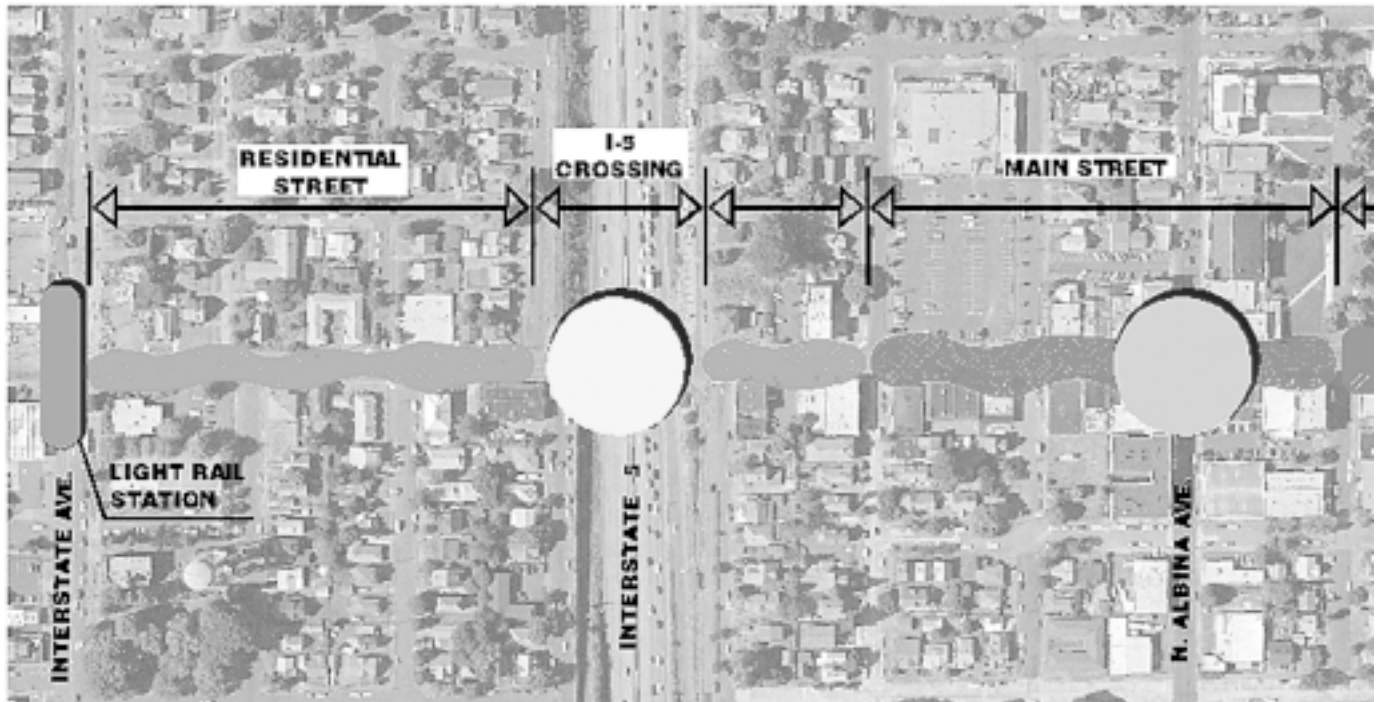
The recommended plan adopted by the Citizens Advisory Committee reflects the community's vision for a vibrant mixed-use Killingsworth main street. The recommended plan calls for reconstructed and widened sidewalks, adding curb extensions at key locations to improve street crossings and bus stop locations and to add space for trees. The plan identifies transit stop improvements, new ornamental street lights and street furniture to improve the pedestrian environment. The project also proposes widening and landscaping the I-5 overcrossing to reduce its effect as a barrier.

The final design concept adopted by the Community Advisory Committee, is as follows:

“Different streetscape treatments are applied in residential, main street and campus areas to highlight their character, with a special treatment at the I-5 crossing. The places or intersections identified by the community as most important are given the most attention with design solutions focused at critical crossing locations.”

The four themes selected by the CAC to guide and add community context to this design are:

1. Multicultural community of diversity: live what we teach our children
2. Celebrating the people and history of the community: remember, teach, honor
3. Education, Art and Commerce
4. SUCCESS Society, United, Community, Construction, Educational, Skills, Service



## RECOMMENDED CONCEPT

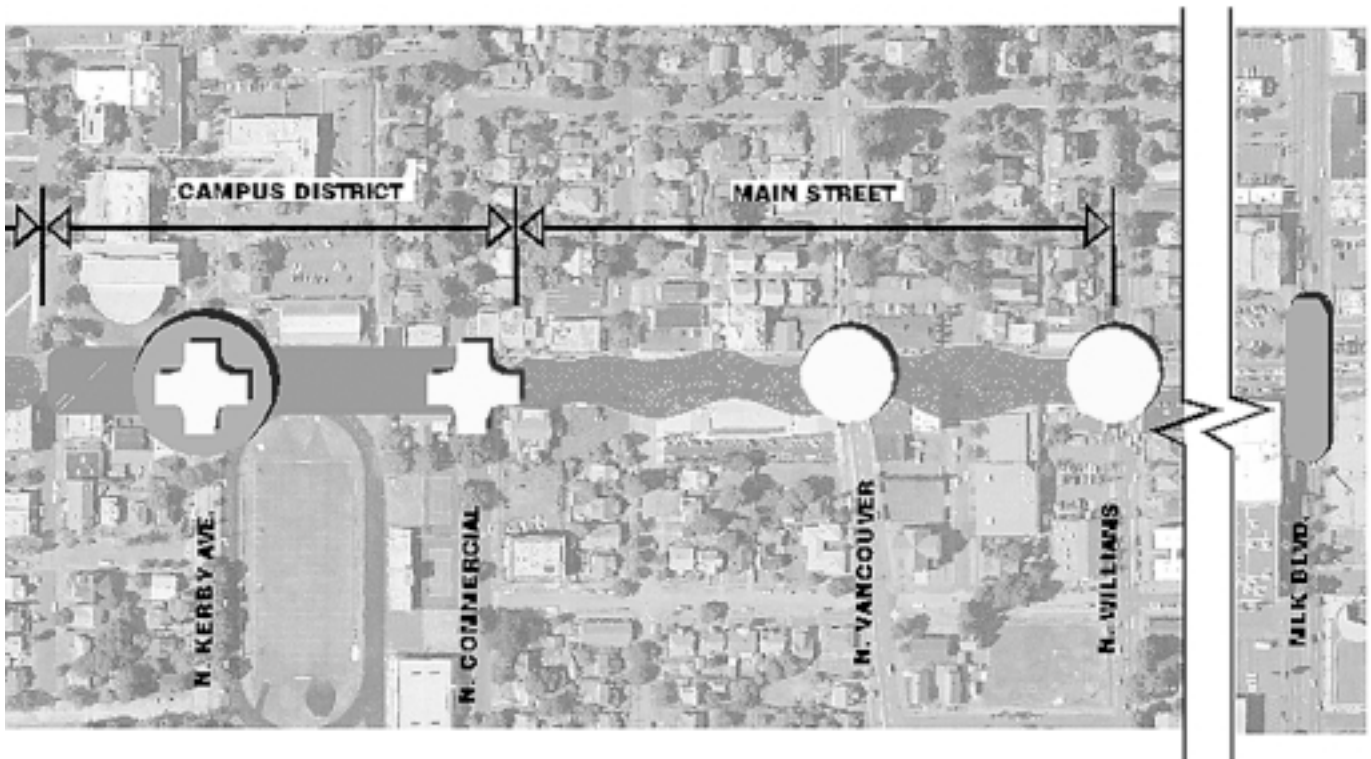


As shown in the concept sketch below, there are two areas called out for the “Main Street” treatment, between N Michigan Ave and N Borthwick Ave, and between N Commercial Ave and N Williams Ave. The design of this area is intended to enhance the feeling of a traditional main street that existing historic buildings bring to these areas. The intersection of N Albina Ave and Killingsworth St is recognized as the center of the plan area and a location for special design treatments.



A “Campus” area was identified between N Borthwick Ave and N Commercial Ave. This area is designed to support the expanding educational hub of Jefferson

High School and PCC Cascade Campus along this portion of Killingsworth St. This area includes the “N Kerby Promenade” south of Killingsworth St, which widens the existing sidewalk along the high school track to 20 feet to provide a better connection between the campuses.

A more “Residential” design is emphasized between N Interstate Ave and N Michigan Ave. The emphasis in this area is to supplement the existing 6-foot sidewalk with planted curb extensions to create space for street trees and ornamental lights. This area also includes significant changes to the I-5 Overcrossing to improve the pedestrian environment on the bridge.



**KEY:**

-  Crossing Improvements: Intersections that are to be redesigned in order to improve pedestrian safety
-  Places: Locations identified by the community as deserving a special design treatment that establishes an identity for the district

**CONCEPT PLAN**  
 Killingsworth Street  
 Improvements Planning Project  
 Preferred Plan Open House  
 November 14, 2002

## IMPLEMENTATION

The Killingsworth Street Improvements project will be implemented through a combination of publicly and privately funded improvements. The City of Portland Office of Transportation is pursuing public funding options to complete the project. Design standards and guidelines have also been created through the project to ensure that improvements to individual sites that occur prior to public improvements are consistent with the recommended design of the street.

## PUBLIC IMPROVEMENTS

### PROJECT PHASING

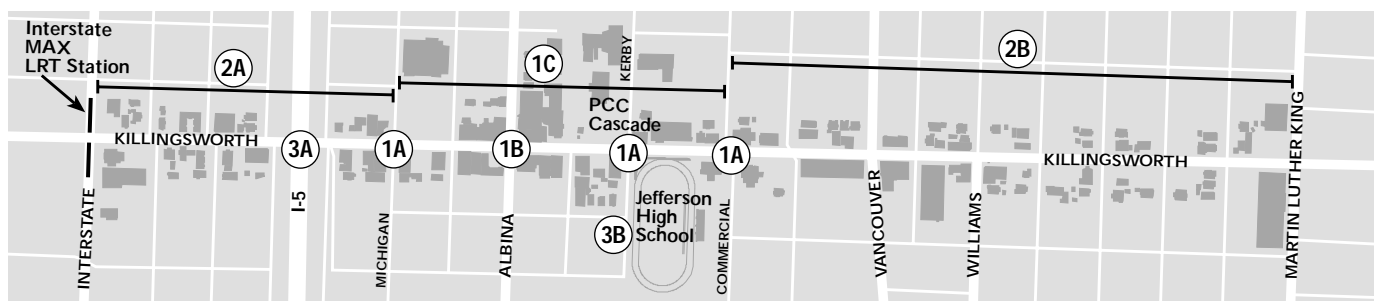
Phase I improvements emphasize the key crossing and sidewalk improvements in the “Main Street” and “Campus” areas as the top priority. The CAC felt that phased improvements should start in the commercial and campus core of the street. This area is receiving significant investment from Portland Community College and is, therefore, the most logical location for public improvement on adjacent blocks. The crossing and intersection improvements are specifically highlighted due to their lower cost and the greater possibility that smaller funding sources could be secured to complete these improvements.

Phase II improvements include the remaining sidewalk improvements required to connect the center of the project area to N Interstate Ave to the west and to N

Williams Ave to the east. Phase II also extends streetlight and street tree improvements (but not sidewalk improvements) farther east to NE Martin Luther King Jr. Blvd to link the Killingsworth Project Area to the improvements and redevelopment occurring along that corridor.

Two project elements were identified as requiring a targeted funding strategy. The I-5 Overcrossing is owned by the Oregon Department of Transportation and will require additional design feasibility, review and a funding partnership with that agency to be implemented. The Kerby Promenade is located on a local street and is not eligible for federal funding. Implementing these project elements will require working with local funding partners to determine the best funding strategy and timeline.

### KILLINGSWORTH PROJECT PHASES



#### PHASE I \$2.2M

- 1A. Crossing improvements at N Kerby, N Commercial, N Michigan and N Missouri
- 1B. Sidewalk and bus stop improvements at the N Killingsworth/N Albina intersection
- 1C. Sidewalk improvements N Michigan to N Commercial (the Main Street and Campus District)

#### PHASE II \$2.8M

- 2A. Sidewalk improvements N Interstate to N Michigan
- 2B. Sidewalk improvements N Commercial to N Williams and streetlights and trees to NE MLK Jr. Blvd

#### OTHER LARGE PROJECT ELEMENTS (requiring a targeted funding strategy)

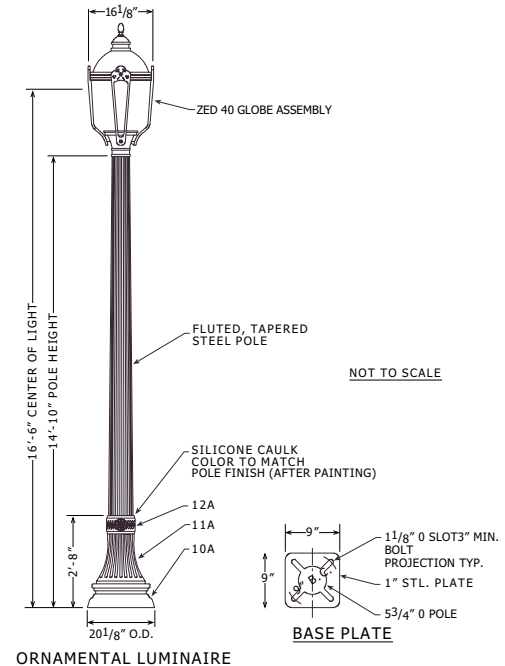
- 3A. I-5 Overcrossing \$1.7M – \$5.5M
- 3B. Kerby Promenade \$400K

## STREET LIGHT STANDARD AND DESIGN GUIDELINES

This project establishes a new city standard for street lights and design guidelines for street improvements to the Killingsworth St right-of-way between N Interstate Ave and NE Martin Luther King Jr. Blvd. New private development will be required to complete site improvements to this new standard. Design guidelines and standards ensures right-of-way improvements completed on individual sites prior to public improvements are consistent with the recommended street design.

Required improvements include:

- 15 foot sidewalks- When new buildings are constructed on a site additional right-of-way will be required to be dedicated by property owners
- Street lights- Conduit, J boxes and bases for Zed-40 ornamental street lights (lights to be installed by Office of Transportation)
- Street trees- Tree list and proposed tree locations established in cooperation with the Urban Forestry
- Scoring pattern and decorative pavers- Scoring and paver design to create a distinct look



### STREET LIGHTING ZED Z-40 LUMINAIRE AND POLE ASSEMBLY

STANDARD  
DWG. NO. D-303P  
REV. 11/01/2001

## FUNDING OPPORTUNITIES

### METROPOLITAN TRANSPORTATION IMPROVEMENTS PROGRAM (MTIP)

The Portland Office of Transportation applied for \$1,000,000 in federal funding through the 2006-2007 regional MTIP process for Preliminary Engineering of the project. The project scored well but did not make the 100% list for this funding cycle. The Office of Transportation may submit the project for consideration in a future funding cycle.

### PORTLAND DEVELOPMENT COMMISSION (PDC)

The Portland Development Commission (PDC) will be a key funding partner in implementing the street improvements outlined in this document. PDC, as part of the Interstate Corridor Urban Renewal Area (URA) is a committed partner in implementing the Killingsworth Street Improvements Project and a funding source for redevelopment projects along Killingsworth St including mixed income housing and transit oriented development. The PDC acting on the recommendation of the Interstate URA Transportation Subcommittee has already allocated \$42,000 in the 2003-2004 funding cycle for crossing improvements on N Killingsworth St at N Kerby Ave and N Commercial Ave.

### CITY OF PORTLAND CAPITAL IMPROVEMENTS PROGRAM (CIP)

The Portland Office of Transportation's Capital Improvement Program (CIP) identifies capital improvements to be considered throughout the city for fiscal years 2003-04 through 2007-08. The Transportation CIP budget for 2003-08 of \$140 Million continues to strive to achieve the goals of City Council and to provide for diverse Transportation modes. The Killingsworth Street Improvements Project is eligible for CIP funding under the Centers and Main Street program category.



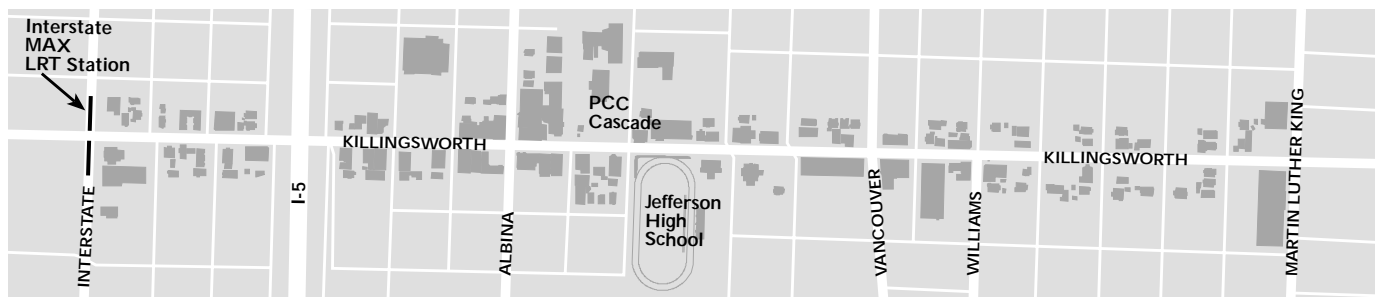
## PROJECT BACKGROUND

**K**illingsworth Street is the commercial center of the Humboldt Neighborhood and a key commercial corridor serving North and Northeast Portland. It is designated as a 2040 Main Street and Station Community and functions as the center for commercial and educational activity for surrounding neighborhoods. This function is supported by high quality transit service, including two of TriMet's new frequent bus routes and the new Interstate MAX light rail located at the west end of the Project Area at Killingsworth St and N Interstate Ave.

However, the existing street design on Killingsworth does not support its function today as a neighborhood commercial center or its larger policy designation as a 2040 Main Street and Station Community. The existing sidewalk conditions are substandard, in some areas as narrow as six feet, and lack pedestrian and transit amenities. The I-5 freeway and overcrossing bridge form a divide between neighborhoods and are significant barriers to access to the light rail station.

Street improvements on Killingsworth St will improve the street environment encouraging pedestrian activity and transit patronage. The project will slow traffic through narrowing vehicle lanes, widen sidewalks and add trees and pedestrian scale street lights, add curb extensions, and improve crossings at key locations. Street improvements will also help catalyze and support public and private redevelopment currently occurring along this under-invested street.

### KILLINGSWORTH PROJECT AREA



### PROJECT AREA

The Project Area focuses on the specific rights-of-way that will be included in the detailed streetscape design concepts. The Killingsworth Street Improvements Project Area is the Killingsworth St right-of-way between N Interstate Ave on the west and NE Martin Luther King Jr. Blvd to the east. This section of Killingsworth St was chosen for a detailed design focus because it has been repeatedly identified as a community priority for street improvements and redevelopment. The project also investigated intersection improvements at N Killingsworth St and N Greeley Ave and N Killingsworth St and N Denver Ave but did not receive community support for making specific improvements at those intersections.

### STUDY AREA

A larger study area includes businesses and institutions that are connected to the Project Area but are not contained within it. The larger Study Area also allows the project to develop solutions to traffic issues related to the Project Area. The Killingsworth Study Area includes Killingsworth St from N Greeley Ave to NE Martin Luther King Jr. Blvd. Local streets perpendicular to Killingsworth St between N Emerson St and N Jessup St were also included in the study area to identify opportunities to improve access to Killingsworth St from adjacent neighborhoods.

# HISTORY OF THE STREET

## WHERE DID KILLINGSWORTH STREET GET ITS NAME?

William M. Killingsworth was a prominent real estate developer in north Portland in 1880s. Killingsworth Street was dedicated and named for him in 1882. Mr. Killingsworth moved from Eugene to Portland in 1880. Later he was a state legislator and investor in transportation enterprises. He was the notary for the documents filed for the Central Albina plat of 1887, the year Albina was incorporated.

The Killingsworth family homestead was just south and east of Jefferson High School at 323 N Alberta St. The house was built in 1890 for a cost of \$7,190 (which was over 3 times the cost of an average home in the Piedmont neighborhood.) The house was demolished in the 1940s for apartments.



N Killingsworth Street and N Albina Avenue looking east, 1927.

## STREET CAR TRANSPORTATION AND THE GROWTH OF KILLINGSWORTH

Transportation played a major role in the development of Killingsworth St and the surrounding area. William Killingsworth granted a right-of-way to the rail lines for along Killingsworth Street. In 1887, the Investment Company was incorporated and purchased the Piedmont tract on June 22, 1888 for \$25,000.

Almost immediately, the Investment Company invited the Portland and Vancouver Railway Co. to extend its tracks to Piedmont, granting a 20 foot strip along present day NE Martin Luther King Jr. Blvd.

Train service began as soon as the tracks could be laid in September 1888. In addition to the Piedmont, other subdivisions were being planned for the Peninsula and so train service lines were constructed to service those neighborhoods.

The St. John's line was one of the first lines that opened November 1, 1889. It was a steam train line run by the Willamette Bridge Railway. This line went over the Steel Bridge, through the town of Albina traveling up N Commercial Ave to Killingsworth St. The line then ran west along N Killingsworth St to N Greeley Ave, north up N Greeley Ave to N Lombard St

and west to the city of St. Johns. This line continued to be a steam train until 1903 when it was electrified.

By 1891, over 30 trains made daily trips through Killingsworth to Piedmont.

In 1905, another line was added up N Williams Ave (from the Steel Bridge) and terminated at the Killingsworth car barns until it was extended in 1909 to join the line that ran along NE Martin Luther King Jr. Blvd.



NE Killingsworth Street at Union (now MLK) looking east, 1939.

## HISTORIC STREET CAR COMMERCIAL BUILDINGS ON KILLINGSWORTH

Due to the strong influence of the original transit lines on the development of Killingsworth St and other Portland streets, many of the commercial buildings along Killingsworth St are referred to as “Street Car Era Commercial.”

Examples of these historic buildings along Killingsworth St:

- 1909 Jefferson High School (5210 N Kerby Ave)
- 1912 Carnegie Library (512 N Killingsworth St)
- 1922 Masonic Lodge (5308 N Commercial Ave)
- 1930 Odd Fellows Lodge (5308 N Commercial Ave)
- 1932 Little Chapel of the Chimes (N Killingsworth St)

## KILLINGSWORTH'S DECLINE

The 1940's and 50's brought dramatic changes in the transportation system and community resources of N/NE Portland and Killingsworth St.

In 1948, the streetcar line that had shaped the growth of Killingsworth St was replaced by buses. The removal of the streetcar coupled with increased use of the automobile and new retail business practices emphasizing larger stores reduced the customer base of small businesses on Killingsworth St.

The displacement of thousands of African American and working class residents from the 1948 Vanport flood and through the construction of the Memorial Coliseum and Emanuel Hospital put increased pressure on the Albina Community and changed the character and perception of the neighborhoods surrounding Killingsworth St.

The construction of Interstate 5 in the 1960's removed most North/South through traffic from local streets, further reducing the customer base of businesses on Killingsworth St and other neighborhood commercial streets. The I-5 alignment also literally cut the North Portland Community in half, creating a barrier and visual blight that reduced the attractiveness of the area to residents, businesses and their potential customers.



Carnegie Library.

## KILLINGSWORTH REBORN

Similar to much of N/NE Portland, Killingsworth St began to experience a rebirth in the 1990's. New residents, attracted to the area by an affordable and historic housing stock, began to move in and rehabilitate old residences. In response to this increased customer base new and refurbished commercial investment has also begun to appear along Killingsworth St.

The Albina Community Plan, completed in 1993, was an extensive effort to establish a common vision for the Albina community and spur revitalization of one of Portland's oldest inner-city areas. This effort was part of the city's larger commitment to invest in N/NE Portland. The plan contains land use and public service strategies intended to increase housing and employment opportunities, spur reinvestment in local commercial and industrial areas and improve neighborhood livability. The plan contains a number of Killingsworth specific goals and strategies and designates the vision for future private and public investments on the street including the location of attractions, gateways, focal points.

Today it is clear that change is under way on Killingsworth St. Residents, business owners, developers and area institutions are working with the City and TriMet to transform Killingsworth St into a vibrant main street. Elements of the revitalization effort on Killingsworth St are described on page 4.

# INTRODUCTION

## Humboldt Target Area/ Jefferson Pavilion Project

In November 1997, the Humboldt Neighborhood Association received a Target Area Designation Grant from the Portland Bureau of Housing and Community



Development. The goal of the target area plan was to improve the residential livability and commercial viability of the area by revitalizing Killingsworth St and N Albina Ave. Target area staff worked with residents and businesses to develop a vision for improvements along Killingsworth St.

The Target Area's Jefferson Pavilion Project (scheduled for completion in the summer of 2003) emphasizes Killingsworth St as the educational and cultural center of the Humboldt Neighborhood through a decorative border design of the sports field along N Killingsworth St. The project design includes sidewalk improvements and pedestrian plazas along Killingsworth St.

## PCC Expansion

Portland Community College (PCC) is in the process of a \$57 million dollar expansion of its Cascade Campus along Killingsworth St. The campus is projected to have



an increased enrollment from 3,313 full time equivalent students today to 4,874 in phase I and 7,594 students in a potential future phase. New construction will include an advanced technology and skill center, an arts and humanities facility, a physical education center, and other instructional facilities. Campus expansion site improvements will include four blocks of sidewalk improvements on Killingsworth St to the new city standards created by this project.

## Interstate Max and Frequent Bus Service

TriMet and the City are investing \$350 million in Interstate Max light rail including a station at N Interstate Ave and Killingsworth St. Frequent Bus service and improved bus stations are also planned along Killingsworth St. The construction of the light rail and improved bus service catalyses and supports the growth of businesses and residences along Killingsworth St.

## Interstate Corridor Urban Renewal Area

The Portland Development Commission through the Interstate Corridor Urban Renewal Area and Plan brings new resources to the efforts along Killingsworth and serves as the primary means for implementing core components of the Albina Community Plan. It creates a funding source for the local share of the Interstate MAX light rail line. It is also an important funding source for redevelopment projects, including mixed income housing, transit oriented development projects, and supportive public infrastructure investments.

## Interstate Max Station Revitalization Strategy

The Portland Development Commission and the Office of Transportation conducted a station area planning study in 2000 to develop a community vision for six stations along the Interstate Max light rail line. The Killingsworth light rail station received considerable interest for the community. In the plan Killingsworth St is described and a high density mixed use Mainstreet linking the station to Portland Community College and the Humboldt Neighborhood. Street improvements along Killingsworth St were identified as a top priority to establish an environment for retail development and to improve pedestrian comfort.



## COMMUNITY INVOLVEMENT

The public process for the Killingsworth Street Improvements Planning Project included a wide range of involvement opportunities for residents, business owners and the variety of people who use the street on a daily basis.

The community involvement plan for the project was carefully designed to meet the needs of a diverse community- many of whom were approaching a new planning process with a fundamental distrust of the intentions of “the city” and the possibility for meaningful input. The planning process was designed to directly address this historic frustration and create new ownership of Killingsworth St by the community.



The goal of the community involvement process was to build the capacity of diverse community members to make informed recommendations by respectfully listening, promoting dialogue, and providing information in accessible, understandable, and creative formats. The project sought to create a public process that would identify the character of the street and develop streetscape design concepts to support the identified character.

One aspect of the project’s success in involving diverse peoples had to do with the relationship building that the project team has established during the past three years. The involvement process was based on a track record that reflected a consistent commitment to fully informed, constructive participation that stresses the importance of inclusiveness, encouragement of expression, and a desire to bring conflicting perspectives to the table to negotiate the best plan possible.

## PROJECT ADVERTISEMENT AND OUTREACH

### WRITTEN MATERIALS

One key to making an accessible process is to produce project materials that are clear and understandable to a variety of audiences. Written materials were created to advertise the project and inform potential participants and the interested public on project objectives, timeline and opportunities for involvement. Scheduling and publicizing the entire community process at the beginning gave community members advance notice of the process timeline and allowed them to choose when to participate.

Posters, flyers and postcards were distributed widely to households, businesses and institutions in the area. Fliers were distributed during the door-to-door survey to residents within a two-block radius of the project area and businesses within the broader study area and beyond.

**To make project information accessible to as many community members as possible, project fliers, posters and survey materials were printed in multiple languages to be reflective of the community’s ethnic background.**

**Materials were produced in:**

- English
- Spanish
- Cantonese
- Korean
- Vietnamese
- Mandarin

## PLANNING PROCESS

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### COMMUNITY SURVEY

The project team conducted a door-to-door community survey with the help of local youth and nonprofit volunteers to gain input from community members less likely to participate in public meetings. Survey efforts were targeted towards residents within two blocks of Killingsworth St, business owners and staff, Portland Community College and Jefferson HS students and other street patrons. A total of 473 community members completed surveys on how the street was used and what improvements might be needed.

The survey process enabled the project team to spread the word about the project to a larger number of people early in the process, directly engage them in a conversation about possibilities on Killingsworth St and to recruit their participation in the more formal public process.

The survey process was also a key way to connect with people for whom English is not their first language. Like the project fliers and posters, survey materials were translated into six primary resident languages. During the survey periods, interpreters were immediately available by cell phone in the above mentioned six languages, plus Somali.

### COMMUNITY-BASED GROUPS AND ONE-ON-ONE OUTREACH

Community-based racial/ethnic identified groups, environmental and social service organizations, government agencies, churches, and neighborhood and business associations were briefed on a regular basis. The briefings served to inform community members about the project, to encourage thinking about the various ramifications of the project decisions, to build organizational representative capacity and to sustain community involvement.

One-on-one meetings and phone calls were made to both traditional and non-traditional community stakeholders, as “regular folks” need to be kept apprised of the decisions being made and how those decisions might affect their specific interests. Updated fliers describing the specific agenda of each meeting and display board with translated materials were presented

over the duration of the project while attending local community-based meetings/events and during one-on-one meetings with non-participating, yet pivotal stakeholders.

### MEDIA

Public Service Announcements for the community meetings were distributed to print, radio, and television media for each of the four community meetings. Media representatives serving underrepresented populations received personalized phone calls explaining the significance of each of the four community meetings

Articles and announcements that we know of appeared in: The Portland Observer, The Asian Reporter, El Hispanic News, The Scanner, The Chinese Times, The Portland Tribune, Piedmont Neighborhood Association Newsletter, Humboldt Neighborhood Association Newsletter, Boise Neighborhood Association Newsletter, Interstate Corridor Urban Renewal Area Bulletin, Portland Cable Access Community Calendar, and KBOO radio.

## PUBLIC EVENTS/COMMUNITY MEETINGS

This project had significant opportunities for involvement from the general public through large events. The public was given an opportunity to provide input at each key phase of the planning process, from the identification of issues at the beginning of the process to the final location of street furniture and the type of streetlights.



Community meetings were preceded with the following contact methods that described what would be discussed and why community members should be involved: phone calls (more than 500 per meeting), emails (over 1,000 per meeting), and postal mailers (more than 5,000 first and last meeting and the other two went to more than 1,600).

Extra efforts were taken to make the public meetings more welcoming to parents and accessible to the special needs of the community. Special provisions included:

- Meals provided from local vendors
- Certified child care
- Language interpretation and translation provided upon request
- Individualized transportation provided when requested

## COMMUNITY ADVISORY COMMITTEE MEETINGS

A Community Advisory Committee (CAC) of 19 community members was appointed to advise the project team on the design process, evaluate public comment and represent the varying perspectives towards the project. CAC members were recruited to bring diverse backgrounds and interests to the table to formulate a fully considered final recommendation.

The CAC met five times over the course of the public process. CAC participation was integral in establishing the goals and objectives for the project and to provide guidance on project direction. The CAC assisted the project team in key decisions and provided final decisions in areas where there wasn't clear feedback from community members. At their final meeting, the CAC recommended the preferred plan and project phasing to be presented to City Council.

## FOCUS GROUP

After the survey and before the Community Walk, a focus group convened to explore potential issues and ideas to help frame the future community meeting discussions. Focus Group members were selected because of their diverse interests, backgrounds, and relationships to the street. The facilitated Focus Group lasted 2 hours and was audio-taped as well as recorded by three note takers. Notes are documented in the 'Summary of Community Input' report in Appendix A.



Community Advisory Committee meeting before public workshop.

## PLANNING PROCESS

### COMMUNITY WALK

More than 75 community members participated in this opportunity to talk with each other and the project team about specific issues and ideas on Killingsworth as they walked through the project area. At the beginning of the walk, a history of the area was led by community historian Julie Green to provide some context for the discussion.

Participants were given note pads and divided into groups staffed by a facilitator and an architect. The facilitators

moved the groups along, took written notes, while the architects sketched participants' ideas. Notes and drawings are documented in the 'Summary of Community Input' report in Appendix C.



### DESIGN WORK SESSION

A Design Work Session was held to establish ideas for alternatives. The design team presented the "toolbox" of design items available to redesign the street. The 86 participants broke into small groups, each of which included at least one CAC member, a facilitator, a designer, and a policy expert.

The groups spent the majority of the evening hovering over large table maps depicting the project area, discussing and deciding how to apply the design tools.



Community members applied stickers depicting the design tools (such as benches, trees and streetlights) directly to the maps and drew in additional ideas. Each group also identified unifying themes for the project to help the design team connect proposed design ideas.

### ALTERNATIVES EVALUATION WORKSHOP

The Alternatives Evaluation Workshop was designed to get the help of the community in narrowing the alternatives generated in the Design Work Session to a preferred alternative and making decisions on specific design issues.



The project team started the workshop with presentation of each of the design issues to be discussed. More than 54 participants broke into small groups and discussed identified issues and decided the solutions the groups' community members preferred.

The second part of the workshop was a discussion of broader area organizing concepts that, when applied to a design and identified themes, serve to unify the details of the design throughout the project area. The discussions were summarized by the facilitators and given to the design team to produce a preferred alternative.

**OPEN HOUSE**

Over 76 community members attended the final public meeting and reviewed the proposed plan for Killingsworth St. The Open House was designed to give participants a chance to comment on the Community Advisory Committee’s preferred alternative for the Killingsworth Street Improvement Plan for the streetscape design.

The Open House included three separate station areas separated by curtains. Community members progressed through the three areas in order:

- The first station was a PowerPoint slide show on the history of the project and the process, along with an opportunity for initial questions and answers.
- At the next station there was a display of the actual maps and documents from previous community meetings, showing the decision making progress. Central to the second station was the large map and picture display of the preferred alternative for people to make comments on. The design team was on hand to facilitate the comments and answer questions.
- The final station gave participants an opportunity to vote on the details of the plan, including their preferred streetlights, trees, benches, pavers, banners and waste receptacles.

The project meeting schedule is shown below:

EVENTS	DATES											
Existing Conditions Community Walk	◆ June 13, 2002											
Design Work Session	◆ July 11, 2002											
Community Advisory Committee Meeting	◆ August 3, 2002											
Alternatives Prioritization Workshop	◆ Sept. 12, 2002											
Community Advisory Committee Meeting	◆ Oct. 10, 2002											
Preferred Plan Open House	◆ Nov. 14, 2002											
Community Advisory Committee Meeting	◆ Dec. 5, 2002											
City Council Hearing Adoption	Summer, 2003 ◆											



## EXISTING CONDITIONS SUMMARY

The Killingsworth Street Improvements Planning Project Area is home to a variety of commercial, residential, and institutional uses. Along the street there are distinct differences in the land uses and design of the street and sidewalk area. On the west end of the Project Area, roughly between Interstate and the I-5 Freeway, Killingsworth has a more residential character with a mixture of single family homes, apartment buildings, and small businesses.

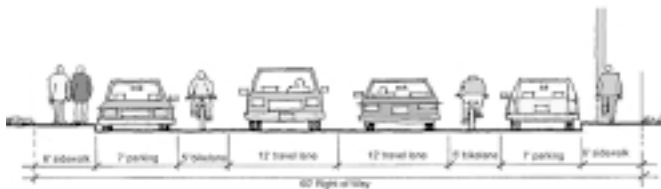
Between the I-5 Freeway and N Albina Ave and between N Commercial Ave and N Williams Ave, the street has a community commercial character containing primarily small locally owned restaurants and stores. In the center of the Project Area, approximately between N Albina Ave and N Commercial Ave, Killingsworth St has a campus feel, bounded on both sides by PCC Cascade, Jefferson High School and the North Portland Branch Library.

### ROADWAY CONFIGURATION

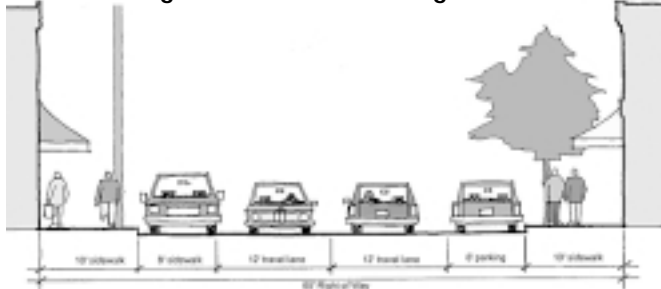
Killingsworth St has a 60-foot wide right-of-way for the length of the Project Area. East of N Michigan Ave the sidewalks are 10 feet on each side and the roadway is 40 feet from curb to curb. West of N Michigan Ave, the roadway widens to 48 feet, reducing the sidewalks to 6 feet on each side.

Killingsworth St has one travel lane in each direction between N Interstate Ave and N Williams Ave with on-street parking in most locations and no designated bicycle lanes. As part of the Interstate MAX construction, bike lanes were constructed on Killingsworth St between N Interstate Ave and N Michigan Ave.

#### Killingsworth Street – Interstate to Michigan



#### Killingsworth Street – Michigan to MLK



### SIDEWALKS

Killingsworth St has a continuous sidewalk adjacent to the street. The sidewalk is 6 feet wide between N Interstate Ave and N Michigan Ave and 10 feet wide between N Michigan Ave and N Williams Ave. Recent construction including the Interstate MAX and McCuller Crossing have widened the sidewalk to the city standard for Killingsworth St of 15 feet. Wheelchair accessible curb ramps were added to the majority of the Project Area in December 2002. Several alley entrances still do not have curb cuts or ramps to facilitate wheelchair access.



Six-foot sidewalks between N Interstate Ave and N Michigan Ave.

## LIGHTING

The existing standard for street lights on Killingsworth St is cobra head fixtures mounted to wood utility poles. Pedestrian-scaled campus lighting is used where the Portland Community College Cascade Campus faces Killingsworth St.

## TRANSIT

Killingsworth St is served by a number of transit lines. TriMet line #72, a “Frequent Bus” line, runs the length of the street. Three other transit lines cross Killingsworth in the Project Area:

- #5 on N Interstate Ave

- #4 on N Albina Ave

- #40 on N Vancouver Ave and N Williams Ave

Interstate MAX light rail line (Opening summer of 2004)

## TREES

The current placement of street trees along this portion of Killingsworth St is inconsistent, and the trees are not similar in type, age or health. Recently, some street trees have been planted in front of newer buildings and buildings with new retail tenants.



New street trees planted at McCuller Crossing Building.

## TRAFFIC

### EXISTING TRAFFIC VOLUMES

On average, Killingsworth St carries between 7,000-12,000 vehicles per day. Traffic volumes are highest around N Vancouver Ave and N Williams Ave and lowest around N Interstate Ave. N Albina Ave, N Interstate Ave and the Vancouver-Williams couplet are the main intersecting streets in the Project Area.



Traffic on Killingsworth St at N Vancouver Ave.

### SPEED

The speed limit currently posted on Killingsworth St is 30 mph. Currently, the 85th percentile speed is 33 mph between N Interstate Ave and N Missouri Ave 30 mph between N Missouri Ave and N Albina Ave, and 31 mph between N Albina Ave and Vancouver/Williams.

The Oregon Department of Transportation (ODOT) sets speed limits for the entire state. They have set the speed limit on Killingsworth St at 30 mph. A request can be submitted to the State Speed Control Board to rescind this speed resolution. If that happens, the speed limit reverts to the statutory speed of 25 mph.

### SAFETY

The signalized intersections of N Albina Ave and N Vancouver Ave had the highest number of crashes between 1997 and 2001. At N Albina Ave, the crashes were vehicles making improper turns, or rear-end collisions as a result of cars following too closely, and/or excessive speed. At N Vancouver Ave, the largest number of collisions was drivers disregarding the signal. Pedestrian and bike collisions were reported at the intersections of N Killingsworth St and N Mississippi Ave, N Kerby Ave, N Vancouver Ave and N Moore Ave.



**PEDESTRIAN CROSSINGS**

Crosswalks are marked at each signalized intersection. The current spacing between signalized crossings is approximately 1,500 feet (N Albina Ave and N Vancouver Ave). There is an additional unsignalized marked crosswalk at N Killingsworth St at the N Kerby Ave intersection. This serves Portland Community College on the north side of Killingsworth and Jefferson High School on the south. PCC is currently constructing a new facility on the south side of N Killingsworth St at N Kerby Ave and will add a curb extension on the south side at this crosswalk. Street crossings at N Michigan Ave and N Commercial Ave are both highly used and are in need of some improvements.

**ON STREET PARKING**

The majority of the Killingsworth Project Area has on-street parking on both sides of the street. At bus stops, parking is not allowed for 40-80 feet to provide for bus maneuvering. Parking is limited to one hour and two hour zones on most blocks where businesses are located.



**TRAFFIC SIGNALS**

Traffic signals are located at N Interstate Ave, N Albina Ave, N Vancouver Ave and N Williams Ave. Currently, the intersection of Killingsworth St and N Interstate Ave is under construction for the new Interstate MAX Light Rail line. The signal is also being remodeled, and any assessment of the signal or the intersection is not possible at this time.

The following is a table of the other 3 signalized intersections along with their current automobile level of service (LOS), and the projected LOS for the year 2020. LOS is related to the amount of vehicle delay at intersections. For signalized intersections, LOS B is 10-20 seconds delay and LOS C is 20-30 seconds delay.

<b>Intersection</b>	<b>LOS - Existing</b>	<b>LOS - 2020</b>
Albina	B	C
Vancouver	B	B
Williams	C	C

# POLICY CONTEXT SUMMARY

## REGION 2040/ REGIONAL TRANSPORTATION PLAN

Killingsworth St is designated a Main Street in the Region 2040 Growth Concept. Main Streets are linear neighborhood centers featuring nodes of development and are typical of how the city has grown in the past. Main Streets are served by high-quality transit and are characterized by neighborhood and special shopping areas. Main Streets feature street designs that emphasize pedestrian activity, public transit, and bicycle travel.

The Growth Concept anticipated the development of a light rail line in the interstate corridor and designated the western edge of the Project Area a Station Community. Station communities are nodes of development centered around a light rail or a high-capacity transit station that features a high-quality pedestrian and bicycle environment.

## TRANSPORTATION SYSTEM PLAN (TSP) STREET CLASSIFICATIONS

The street classifications included in the TSP specify the functional purpose of the street and dictate what types of automobile, transit, bicycle, pedestrian, truck, and emergency response uses should be emphasized in the design of each street and its surrounding land uses.

### TSP STREET CLASSIFICATIONS FOR KILLINGSWORTH

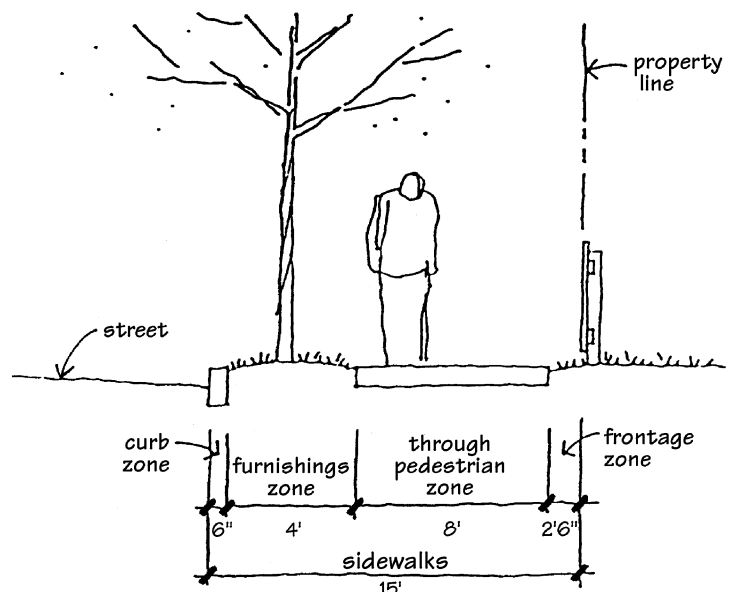
Traffic	District Collector
Transit	Major Transit Priority Street
Bikeway	Local Service Bikeway
Pedestrian	City Walkway & Pedestrian District
Truck Routes	Minor Truck Street
Emergency Response	Major Emergency Response Street
Street Design	Community Main Street

Project improvements are included in Portland's Transportation System Plan (TSP) under four project numbers:

- **30028** Killingsworth, N (Denver – Williams): Street Improvements – \$2,100,000 (Years 1-5)
- **30029** Killingsworth Bridge, N (at I-5): Bridge Improvements – \$2,700,000 (years 11-20)
- **40051** Killingsworth Pedestrian District, NE – \$670,000 (years 6-10)
- **40053** Killingsworth, NE (33rd to Williams): Pedestrian Improvements – \$900,000 (years 6-10)

## PEDESTRIAN MASTER PLAN/ DESIGN GUIDELINES

The Killingsworth Street Improvements Project Area east of I-5 lies within the Killingsworth Pedestrian District. Sidewalks in pedestrian districts are recommended to be 15-feet wide and should be separated from vehicular traffic by landscaping or on-street parking. Where two arterial streets cross within a Pedestrian District, design treatments such as curb extensions, and median pedestrian refuges are recommended. In addition, marked crosswalks and traffic signals should be considered.



At cross street locations with high pedestrian use, crosswalks, signalized crossings, curb extensions and pedestrian refuges are also recommended. Protected crossings should be considered at every corner or at 400-foot intervals whichever is less. The current spacing between protected intersections on Killingsworth St is approximately 1500 feet (N Albina Ave and N Vancouver Ave). This indicates that another protected pedestrian crossing should be considered in the Project Area.

### SPECIAL STREET SETBACK

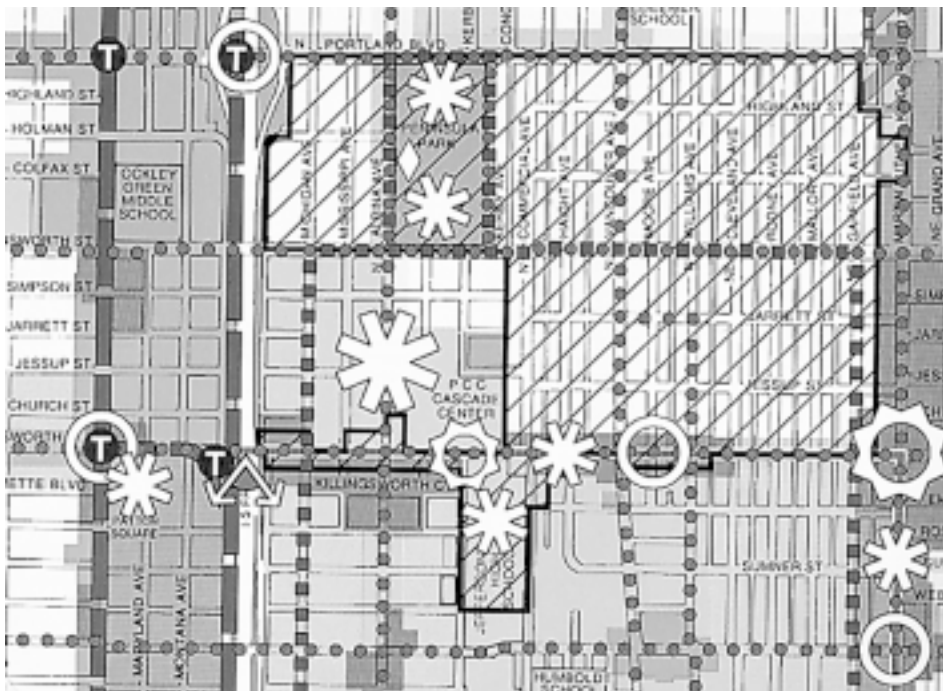
Killingsworth St is designated with a Special Street Setback of 36 feet from the centerline (center of the street) or a total of 72 feet wide. The section of Killingsworth St in the Project Area has a 60 foot right-of-way or 30 feet from centerline on each side. By adding 6 feet of sidewalk on each side of the street, the Special Street Setback would extend Killingsworth St’s existing sidewalks from N Interstate Ave to N Michigan Ave from 6 feet to 12 feet and from N Michigan Ave to N Williams Ave from 10 feet to 16 feet. The Pedestrian Design Guidelines recommend 15 foot sidewalks on streets in Pedestrian Districts which is 3 feet larger than the setback from N Interstate Ave to N Michigan Ave and 1 foot less than the setback between N Michigan Ave and N Williams Ave.

### ALBINA COMMUNITY PLAN/ HUMBOLDT NEIGHBORHOOD PLAN (1993)

The Albina Community Plan, and Humboldt Neighborhood Plan, represent a commitment to improving the quality of life in north and northeast Portland. The plans emphasize job and wealth creation in the Albina Community, and implements land use, transportation and public use strategies. It also focuses on the preservation of the Albina neighborhoods, historic areas, and housing stock.

The plans define the long term vision and policy objectives for the Killingsworth Project Area. The plan contains a number of Killingsworth St specific policy goals and action items and designates the vision for future private and public investments on the street including the location of attractions, gateways, focal points that have been carried forward in this project. Plan elements include emphasizing light rail transit as the major transportation investment and improving access to freeways to serve industrial and employment centers. The plans emphasize protecting neighborhood livability and the viability of commercial areas when making transportation improvements, and recognize Killingsworth as a community main street.

Both plans also identified action items that address ancillary elements that support light rail and the Killingsworth main street, such as pedestrian, bicycle and transit connections to the light rail line.



ALBINA COMMUNITY CONCEPT PLAN MAP

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## LAND USE AND ZONING

The portion of Killingsworth St in the Project Area has long served as the commercial center for the Humboldt neighborhood. The street once carried a streetcar line and much of the street consists of the typical ‘streetcar’ development found in a number of Portland neighborhoods.

West of the I-5 freeway the land use is predominately residential, with a mixture of single family homes and small apartment buildings. East of the freeway the primary land use consists of commercial storefronts as well as the Portland Community College (PCC) Cascade Campus and Jefferson High School. PCC is currently planning a campus expansion that includes new buildings on both sides of Killingsworth Street.

The zoning for Killingsworth St in the Project Area is:

- Central Employment (EX) on the south side of the street from N Interstate Ave to I-5.
- Residential (R1) on the north side of the street between N Maryland Ave and I-5.
- Storefront Commercial (CS) between I-5 and N Albina Ave on the north side of the street and I-5 and N Kerby Ave on the south side. Both sides of Killingsworth St east of N Commercial Ave are also zoned CS.
- Institutional Residential (IR) between N Albina Ave and N Commercial Ave on the north side of the street and N Kerby Ave and N Commercial Ave on the south side.
- In addition, there is a small area zoned as General Commercial (CG) between N Interstate Ave and N Maryland Ave on the north side of the street.

Killingsworth St east of I-5 is part of the Piedmont Historic Design Zone/Neighborhood Conservation district. Design guidelines for this district are meant to encourage the retention and rehabilitation of those elements that constitute the historical and architectural character of the district while accommodating reasonable changes. These elements include buildings built right to the front and side property lines, and pedestrian orientation in scale and function.



## DESIGN ALTERNATIVES

The analysis also revealed some common themes identified by the community. For example, several maps call for gateway elements to mark the entry into the neighborhood. A stronger connection between PCC and Jefferson High School is also mentioned.

Based on the analysis of the community design maps, the design team began to formulate some choices for the community to make at the alternatives evaluation workshop, and to think about organizational structures for the design elements identified by the community. In August, the design team prepared seven distinct concept ideas for the project for staff to present to the Community Advisory Committee.

Each concept is a way of thinking about the project area that guides the design decisions and choices of improvements.

The CAC did some mixing and matching to narrow the field to three concepts, outlined below and shown in schematic form on pages 19 and 20. These concepts then informed the questions and choices that the design team took to the community at the Alternatives Evaluation Workshop in September.

To help guide the design process, the CAC established objectives and criteria for evaluation the street design concepts.

### OBJECTIVES AND CRITERIA FOR EVALUATING STREET DESIGN CONCEPTS

#### TRANSPORTATION OBJECTIVE

**Transportation improvements should provide ease of movement while balancing the needs of all modes of transportation including pedestrians, bicycles, automobiles, and trucks. Improvements should enhance livability for local residents and businesses.**

Criteria:

Vehicle Operations	Maintain adequate vehicle and truck access to local businesses and residences. Provide adequate parking. Discourage through truck traffic.
Access to Transit	Improve pedestrian and bicycle access to bus transit and to the light rail station
Pedestrian Enhancements	Enhance the pedestrian environment through sidewalk improvements, street furnishings, and crossing improvements at major crossing locations.
Bike Accessibility	Support accommodations for bicyclists by providing safe access and parking in the project area.
Safety	Create an attractive, safe environment for all users of the street with adequate lighting and other design improvements.

#### STREET DESIGN OBJECTIVE

**Create a street design that establishes a sense of place, acknowledging the importance of the heritage of people living in the community, and how the street is used.**

Criteria:

Character	Encourage and reinforce the historic, existing, and aspirational characters of the, commercial, institutional, light industrial and residential street segments. Support commercial viability. Reinforce existing activity locations and distinct segments with different design elements.
Consistency	Use similar materials, patterns or street furniture as consistent visual elements throughout the project.
Greening	Encourage environmentally sensitive design including trees and other plantings to soften and add beauty to the street environment.
Identity	Highlight the unique identity of the project area through the use of elements such as gateways, banners and public art.

#### PROJECT COST CONSIDERATION

Project design should consider construction and maintenance costs and funding opportunities in determining the recommended streetscape plan. Consideration should include the following issues:

- Construction impacts to businesses
- Construction costs competitive with other transportation projects
- Maintenance of streetscape elements
- Public/private funding opportunities



# CONCEPT EVALUATION

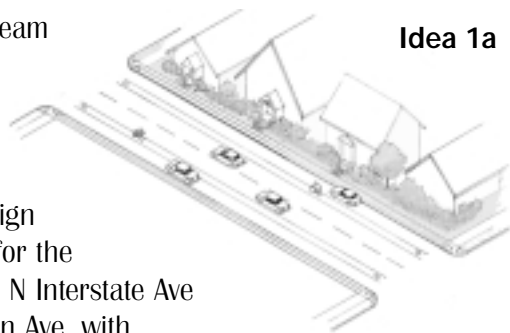
At the Alternatives Evaluation Workshop the design team posed a series of fourteen questions for the community to address. Participants divided into small groups to address the questions in detail.

Following the evaluation workshops, City staff synthesized the community’s responses and prepared draft staff recommendations for consideration by the Community Advisory Committee. This is included in the Summary of Community Input in Appendix C.

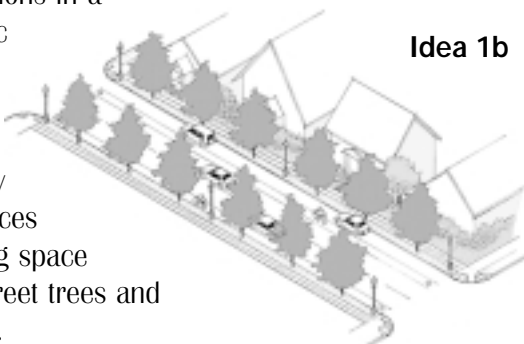
## 1. INTERSTATE TO MICHIGAN

In this section the roadway is wide and the sidewalk is narrow, just six feet adjacent to the curb. Bike lanes were added to this part of the corridor as part of the Interstate MAX construction, and although not everyone agreed that bike lanes are needed here, the project team felt a need to respect the decisions that had been made through other community-based processes. However, the addition of bike lanes in this section meant that widening the sidewalk to introduce amenities like street trees and street lighting was not an option.

The design team asked the community to consider three possible design alternatives for the section from N Interstate Ave to N Michigan Ave, with progressively greater potential for amenities but also greater impact to on-street parking. The first, **Idea 1a**, would leave the roadway configuration as it is, but replace existing sidewalks with new sidewalks and appropriate curb ramps for accessibility.

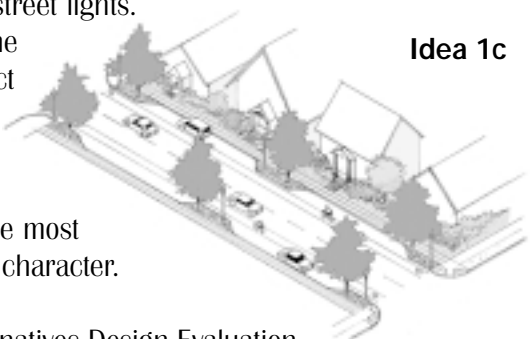


The second, **Idea 1b**, would introduce curb extensions in a few strategic locations, removing on-street parking only in those places and allowing space for a few street trees and street lights.



Finally, the third, **Idea 1c**, would completely remove on-street parking along all of one side of the street, which would allow for a 4 foot planting strip with street trees and street lights.

This had the most impact on parking but might also produce the most residential character.



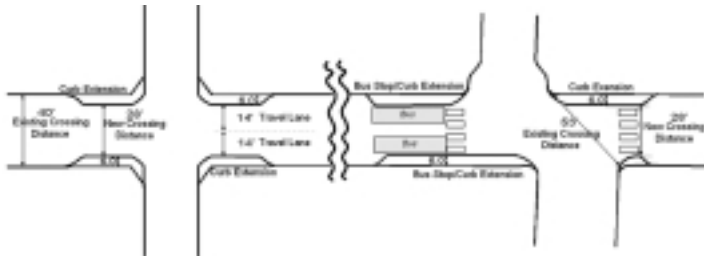
In the Alternatives Design Evaluation Workshop, the community was fairly clear in preferring Idea 1b, the curb extensions in strategic places, so these were carried into the next phase of the design.

One thing to note about the use of curb extensions in the design is that, during the earlier Community Design Workshop, some members of the community had strongly indicated that they did not like the idea of curb extensions. However, in the analysis phase, as the design team and the traffic engineer explored together how to address the other issues brought up by the community – issues like wanting street trees and street lights in some areas, wanting to cross the street more easily and wanting to slow the cars coming off and heading towards the freeway – they found that, in many cases, narrowing the roadway by installing curb extensions was the most straightforward way to address those issues. That finding was reflected in several places in the alternatives offered to the community.

Curb extensions are frequently used to improve pedestrian crossings on mainstreets. Curb extensions extend into the roadway approximately 6 feet on each side of the street. They remove parking, and give



pedestrians the opportunity to better see oncoming traffic. They shorten the actual distance pedestrians must cross in the roadway, and therefore shorten the time needed to cross the street. At offset intersections, and intersections with bus stops, crossing locations may be confusing. Crosswalk markings may be placed in the roadway to guide pedestrians to the shortest and safest crossing locations. The following illustration compares a standard intersection with curb extensions and an offset intersection with curb extensions, bus stops and the use of crosswalk markings.



**2. MINNESOTA**

Community members reported that cars turning from westbound Killingsworth St south onto N Minnesota Ave hit parked vehicles on N Minnesota Ave. The design team responded with the idea of narrowing the throat of N Minnesota Ave on the south side of the intersection. Curb extensions on the south side of the intersection may help direct turning cars toward the center of the roadway on N Minnesota Ave and reduce the incidence of turning cars hitting parked vehicles. The community generally supported this idea, and the staff recommended including it in the plan. In discussion with the business owner he requested that the size of the curb extension be minimized to maintain parking.



**3. THE I-5 OVERCROSSING**

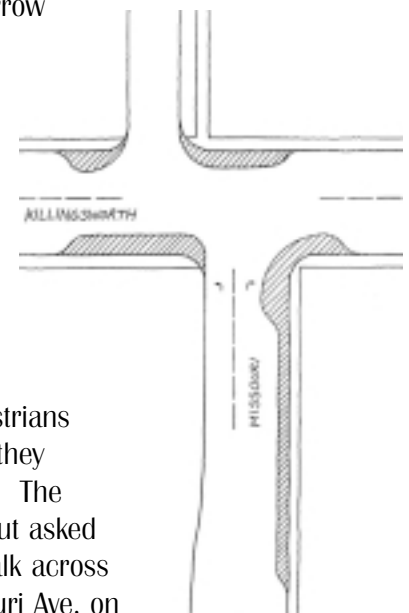
The overcrossing functions to link the two sides, but lacks any interest for the pedestrian. The design team proposed two possible solutions. **Idea 3a** would retain the existing overcrossing structure but widen

the sidewalks by removing the on-street parking. Other streetscape amenities such as landscaping and art could then be added to increase visual interest. **Idea 3b** was a major construction project to cap the freeway. The resulting area could be developed either as a park or with new buildings to house businesses oriented to the street. No dollar figure was attached to Idea 3b, but it was understood to represent a major capital investment. Based on the community’s responses, the staff recommendation was to include Idea 3b in the plan, with 3a included as a low-cost alternative.



**4. MISSOURI**

At the southeast corner of Killingsworth St and N Missouri Ave, the sidewalk is extremely minimal as it passes the building on the corner. Pedestrians have no space on the corner and a long crossing with cars turning quickly. The design team proposed to narrow the roadway by adding a curb extension to the east side of N Missouri Ave, as well as on both sides of Killingsworth. This would shorten the crossing distance considerably and add more space for pedestrians at the corner, where they can see and be seen. The community agreed, but asked for a marked crosswalk across the throat of N Missouri Ave, on the south side of Killingsworth St.

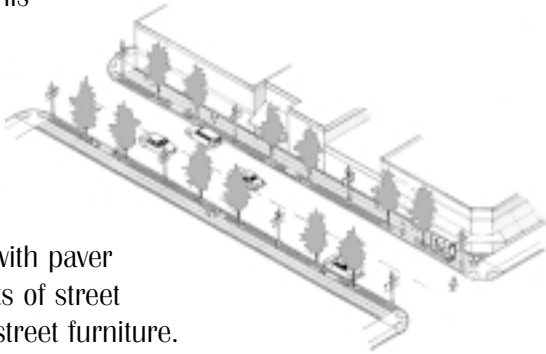


## DESIGN ALTERNATIVES

### 5. MICHIGAN TO WILLIAMS

The design team recognized that this is an opportunity area for strengthening the main street image and supporting the revitalization of business activity. The team proposed four different ways to apply streetscape elements, as illustrated below.

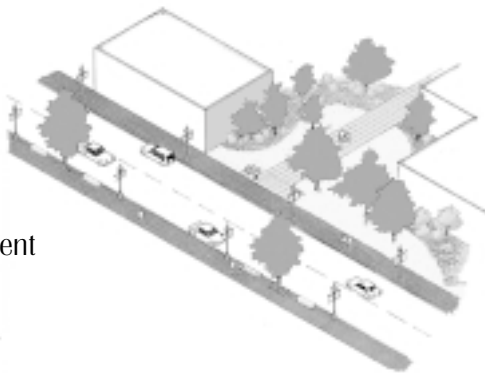
**Idea 5a:** This idea would add many street trees. It would have concrete sidewalks with paver accents, lots of street lights and street furniture.



**Idea 5b:** This idea focuses on special treatment at intersections, with gathering places for people. Fewer trees are used near the intersections to increase the visibility there.



**Idea 5c:** This idea has pavers throughout sidewalk area, with a relatively infrequent placement of trees to allow visibility of significant adjacent buildings.



**Idea 5d:** This idea would add significant planters and benches near the curb in areas where the sidewalk is very wide, such as at McCuller

Crossing. The same type of treatment could be encouraged at new development if the buildings are set back according to the City Code.



There was spirited debate about these ideas. In the end, the staff synthesis of the community's discussion was to recommend including Idea 5b in the design, with elements of the other designs incorporated in accordance with some community suggestions.

### 6. ALBINA INTERSECTION (TRAFFIC)

A concern that the design team heard over and over was that left turns going south on N Albina Ave create congestion on Killingsworth St. The design team asked the community to decide whether this should be addressed by removing parking along Killingsworth St to add a left turn lane at N Albina Ave. The City's policy classifies N Albina Ave as a Local Service Street, so encouraging additional traffic on N Albina Ave would be counter to adopted City policy. If a left turn lane were installed here it would not be a dedicated left-turn signal.

Installing the left-turn pocket would require removing parking along both sides of the block and cutting back the curbs at the corners. It would also mean that no curb extensions would be possible at this intersection.



The community was clear in rejecting this solution to the congestion, and staff's recommendation was not to include this in the Preferred Plan.

**7. ALBINA INTERSECTION (IDENTITY)**

The N Albina Ave intersection was repeatedly identified as the heart of the project area. The design team proposed to create a unique identity for the intersection using a gateway or markers with or without curb extensions. A suggestion for highlighting this

intersection as a place is to add integrated outdoor community space where



PCC will redevelop the northeast corner, perhaps also on the opposite, southwest corner. It was noted that highlighting this intersection could be done with or without curb extensions, and that enhanced transit stops might be part of the design.

The community strongly supported identity improvements at N Albina Ave, and the staff recommended that these be incorporated into the final plan.

**8. KERBY PROMENADE**

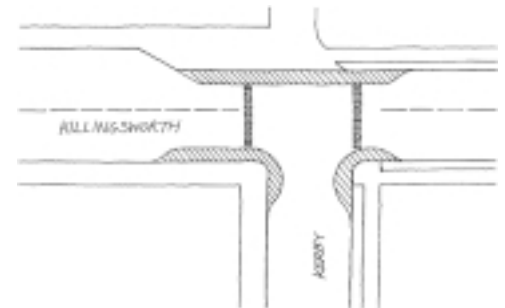
The issue of strengthening the connection between PCC and Jefferson High School was raised during the Design Workshop. The design team noted that N Kerby Ave to the north of Killingsworth St is a pedestrian corridor through the PCC campus and the PCC master plan calls for strengthening the character of Kerby as a corridor. The design team proposed to create a pedestrian-oriented street or “festival” street along N Kerby Ave south of Killingsworth St to reinforce the connection between the two campuses as well as strengthening the impact of the Jefferson Pavilion Project (see page 4). There was nearly unanimous support for this idea from the community.



**9. KERBY AVENUE CROSSWALK**

Many community members expressed the desire for some kind of pedestrian crossing improvement to cross Killingsworth St at N Kerby Ave. Several asked for a signal to be considered.

The new PCC gym will already add a long transit curb extension on southwest corner of this intersection, and the bus stop will move from the other side of N Kerby Ave to this location once the curb extension is in place. Curb extensions will reduce the crossing distance and allow pedestrians to see and be seen. The design team agreed the crossing could be improved by matching the new curb extension on other corners.



In the evaluation workshop, community members reiterated their desire

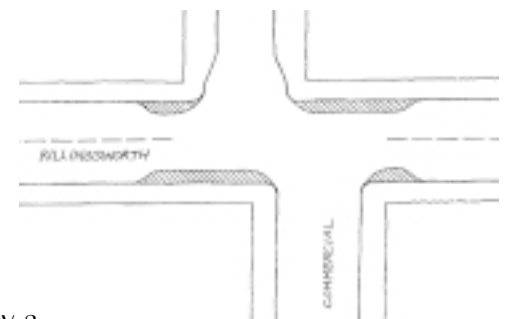
that a signal be investigated. Staff recommended that the crossing improvement be included in the plan, and a pedestrian signal be investigated in the future.

**10. COMMERCIAL AVENUE CROSSWALK**

The community indicated a need for safer crossing at the library. The design team looked at two options at this location: to add a median pedestrian refuge or to add curb extensions. Median refuges provide convenience for pedestrians because there are more gaps suitable for crossing just half the street at a time. However, medians also require parking removal. By comparison, adding curb extensions might even create the

opportunity to add on-street parking to the street.

Community input on this issue was divided, but by a



slight margin the majority lay with those who wanted to retain or increase on-street parking by using the curb extensions.

### 11. VANCOUVER/WILLIAMS (TRAFFIC)

Several community members noted a problem with N Moore Ave being used as a cut through street. The design team asked whether discouraging or preventing left turns at N Moore Ave would solve the problem. Analysis of peak hour traffic subsequently showed that about 50 cars during the peak hour use N Moore Ave as a cut through from Killingsworth St to N Vancouver Ave, compared to 40 cars making the left turn at N Vancouver Ave. The N Vancouver Ave intersection could handle all these turns without resulting in serious congestion or degrading level of service. The cars on N Moore Ave are generally not speeding. Many are accessing the YMCA daycare. The design team and the traffic engineer also studied whether to make N Moore Ave a one-way street. In the end, it was decided that the problem does not warrant any change.

### 12. VANCOUVER/WILLIAMS (TRANSIT)

Several community members brought the northside bus stop to the attention of the staff and team. At N Vancouver Ave, the westbound #72 stops in the right-turn-only lane and then moves back into the travel lane. The concern from community members was that this situation disrupted traffic on Killingsworth St.



Traffic on Killingsworth St at N Vancouver Ave.

The apparent solution was to move the #72 stop to the far side of intersection and the #40 stop around the corner onto N Vancouver Ave. This suggestion was made by several members of the community. However, the traffic analysis showed that the problem was not significant, and other community members reported that it was important to be able to transfer buses easily at that point. The staff recommended that the issue be studied further. In the end, it was decided not to move the bus stops.

### 13. WEST OF INTERSTATE

The Project Area includes the intersections of Killingsworth St with N Denver Ave and N Greeley Ave, and some the people living in that area asked for improvements on their part of Killingsworth St. Currently there is a “slip lane” for right turns from Killingsworth St onto northbound N Greeley Ave. The idea proposed by the design team would remove the slip lane and fill in the area with pedestrian space. This idea would also require an upgraded signal. There was not significant support for this design alternative, and staff recommended that this not be included in the Preferred Plan.

### 14. KILLINGSWORTH SPEED

The design team felt that the posted speed limit of 30 mph is higher than the character of the neighborhood should support. Working with the traffic engineer, the team suggested petitioning the State to reduce the speed limit to 25 mph. The State Speed Control Board has granted such requests in the past. The community enthusiastically supported this and the staff recommended inclusion in the Preferred Plan.

## PREFERRED DESIGN CONCEPT AND THEMES

The chosen options from the design alternatives were combined with the recommended concept and themes to create the preferred plan. The preferred plan is intended to reflect the larger vision the community has for a revitalized Killingsworth St and the specific solutions community members chose for the problem locations along the street.

The design concept represents a way of thinking about and organizing the design elements for the street improvements. The final concept that guided the Killingsworth Street Improvements Planning Project, as adopted by the Community Advisory Committee, is as follows:

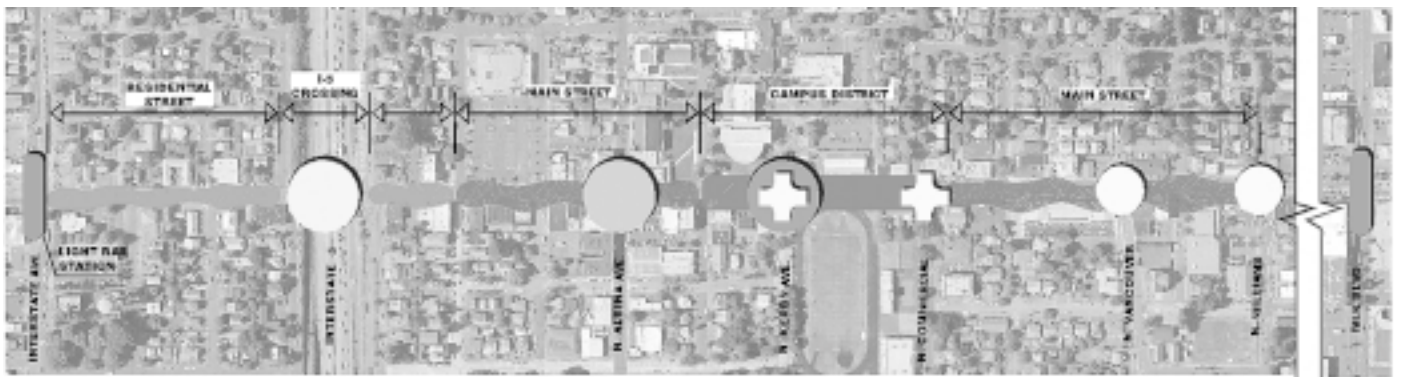
“Different streetscape treatments are applied in residential, main street and campus areas to highlight their character, with a special treatment at the I-5 crossing. The places or intersections identified by the community as most important are given the most attention with design solutions focused at critical crossing locations.”

As shown in the concept sketch, there are two areas called out for the main street treatment, between N Michigan Ave and N Borthwick Ave, and between N Commercial Ave and N Williams Ave. The Campus area is between N Borthwick Ave and N Commercial Ave, and includes N Kerby Ave south of Killingsworth St. The Residential area is between N Interstate Ave and N Michigan Ave.

The four themes selected by the CAC to guide this design are:



1. Multicultural community of diversity: live what we teach our children
2. Celebrating the people and history of the community: remember, teach, honor
3. Education, Art and Commerce
4. **SUCCESS** Society, **U**nited, **C**ommunity, **C**onstruction, **E**ducational, **S**kills, **S**ervice

## RECOMMENDED CONCEPT



(See Executive Summary, page ii & iii for larger version of map.)

### KEY:

-  Crossing Improvements: Intersections that are to be redesigned in order to improve pedestrian safety
-  Places: Locations identified by the community as deserving a special design treatment that establishes an identity for the district

# REALIZING THE CONCEPT AND THEMES IN THE DESIGN

## THE DISTRICTS

The plan includes new sidewalks, street trees and streetlights throughout the project. As called out in the concept, these elements are applied differently in the three types of design districts.

### MAIN STREETS

The idea in the main street areas is to enhance and foster the feeling of a main street that the existing buildings bring to these sections, using traditional Main Street elements such as street furniture, paving, streetlights and street trees. The design treatment for the main street areas includes the following features:

- New concrete sidewalks with colored concrete paver accents at tree wells
- New streetlights at a frequency of (usually) three per block
- Pairs of street trees spaced between streetlights
- Colored concrete pavers at the “place” corners

The philosophy behind the selection of trees for the main street areas embodies two somewhat contradictory notions. On one hand, the main street character is reinforced when the trees are similar in shape and color, and consistently placed. On the other hand, a “monoculture” of trees may not do well in every location, and the selected tree variety may not be available in the future should a tree need to be replaced. For the Killingsworth Street Improvements Planning Project, the recommended solution is to select different species or varieties for the corners and midblock locations. In addition, different midblock trees might be selected for different blocks to enhance their individual identity.

There are two sections designated for the main street design treatment: between N Michigan Ave and N Albina Ave (N Borthwick on south side only), and N Commercial Ave and N Williams Ave. In the western section the plan calls for widening the sidewalk to 12 feet on the blocks between N Michigan Ave and N Albina Ave, by narrowing the roadway.

### CAMPUS

Here the concept is to have a more open feeling. There is a distinct scoring pattern for the sidewalks and no pavers are used. Street trees are used where they complement and don't obstruct views of existing landscaped areas. The design treatment for the Campus area has the following features:

- New concrete sidewalks with a large-scale scoring pattern
- New streetlights
- Street trees placed to complement existing landscaping on adjacent property

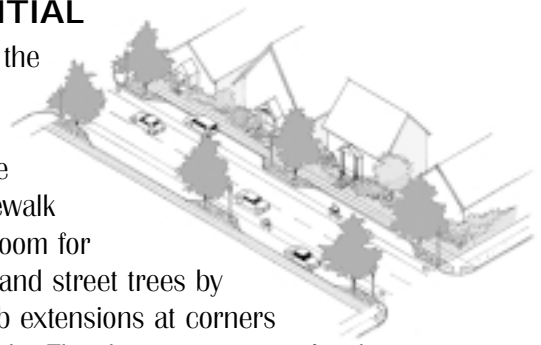
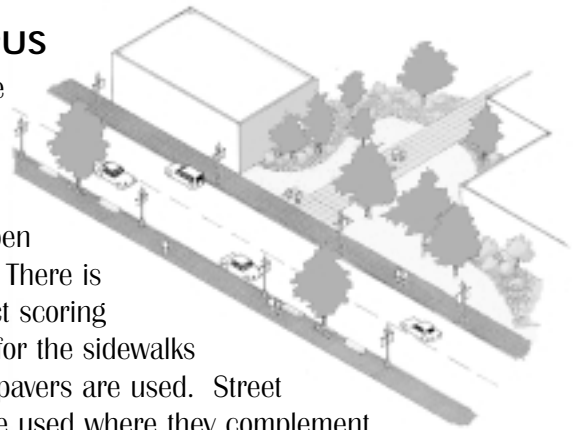
The current bus pullout on the north side of Killingsworth St in front of the PCC Library will be filled in and that westbound stop will be consolidated with the N Albina Ave stop for a new near side stop on the east side of N Albina Ave at Killingsworth St.

The principle for street tree selection and placement in the Campus area is to maximize the view corridors where the buildings are set back from the street.

### RESIDENTIAL

The idea in the Residential area is to enhance the narrow sidewalk and make room for streetlights and street trees by placing curb extensions at corners and midblock. The design treatment for the Residential area has the following features:

- Addition of curb extensions at corners and midblock to accommodate streetlights and street trees



- Large street trees, widely spaced
- New concrete sidewalks
- New streetlights

The concept for street trees in the Residential area is to use fairly large trees, since the curb extensions provide wide planting areas spaced far apart. If the appropriate trees are selected, they can be limbed up to be above the new streetlights that occupy the same curb extensions.

## THE PLACES

### ALBINA: THE CENTER

Albina is recognized as the center of the plan area with a number of special treatments. Pedestrian space and space for transit waiting is expanded using curb extensions. Special high-design transit shelters draw attention to the importance of the corner. The westbound transit stop on Killingsworth is moved in front of the new PCC Arts building and bookstore. Colored concrete pavers are used throughout the corner to emphasize the sense of place.



Albina Before



Albina After

### KERBY: THE PROMENADE

The two blocks of N Kerby Ave south of Killingsworth St are transformed to a “promenade” that forms a north-south axis with the N Kerby Ave corridor through the PCC campus to the north. The transformation is achieved by reducing the street to a single northbound travel lane for automobiles and widening the sidewalk on the east side of the street. The sidewalk along Killingsworth St is raised across the intersection to create a “driveway-like” exit for vehicles onto Killingsworth St, mirroring the similar treatment on the PCC side. There is parallel on-street parking on both sides of the street. Existing street trees are left in place and augmented with additional similar trees, aligned in the center of the promenade. A low wall between the N Kerby Ave promenade and the Jefferson High School track allows for seating facing either direction.



Kerby Before



Kerby After

## PREFERRED PLAN AND CONCEPTS

### THE OVERCROSSING

Creating a place at the I-5 overcrossing will require significant changes to the bridge to make it more hospitable to pedestrians. Two versions of the I-5 overcrossing improvements were created by the design team. The emphasis of both improvements is on creating a pleasant space to move through rather than a place to linger.



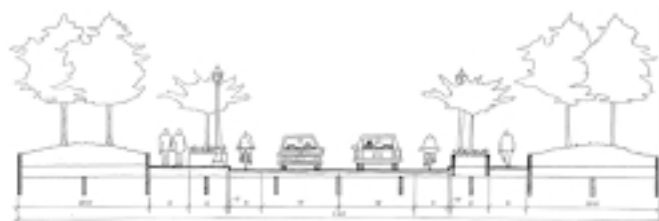
I-5 Overcrossing Before



I-5 Overcrossing After

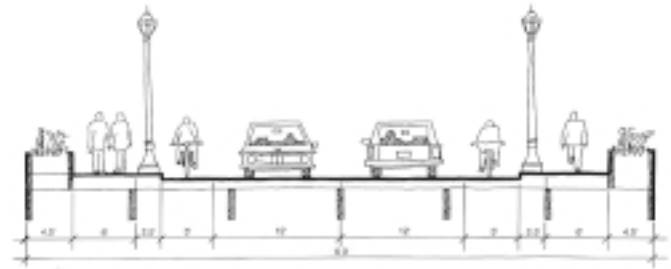
#### 100 foot wide bridge

Under the more aggressive approach the existing I-5 overcrossing structure is expanded with new structure for a total structure width of 100 feet. The sidewalk is widened by removing the on-street parking lane. Planted areas are added between the sidewalk and the edge of the bridge as a buffer to I-5.



#### 60 Foot Wide Bridge

A second lower-cost I-5 Overcrossing improvement was also created by the project team. Under this approach the sidewalks on the existing 60 foot structure are improved to create more pedestrian space. The sidewalk is widened by removing the on-street parking lane. Since the structure is not widened under this approach limited space is available to add planted areas on the outside edge of the bridge as a buffer from I-5



### VANCOUVER AND WILLIAMS

The corners at N Vancouver Ave and N Williams Ave are recognized as special places by the application of colored concrete pavers throughout the corner, with the exception of the curb ramps, which are concrete.

### THE CROSSINGS

#### MISSOURI

The corner of N Missouri Ave and N Killingsworth St will be improved with a curb extensions on the east side of N Missouri Ave at N Killingsworth St. A crosswalk will be marked across N Missouri Ave.

#### MICHIGAN

The corner of N Michigan Ave and N Killingsworth St will be improved with curb extensions on all four corners. Crosswalks will not be marked.

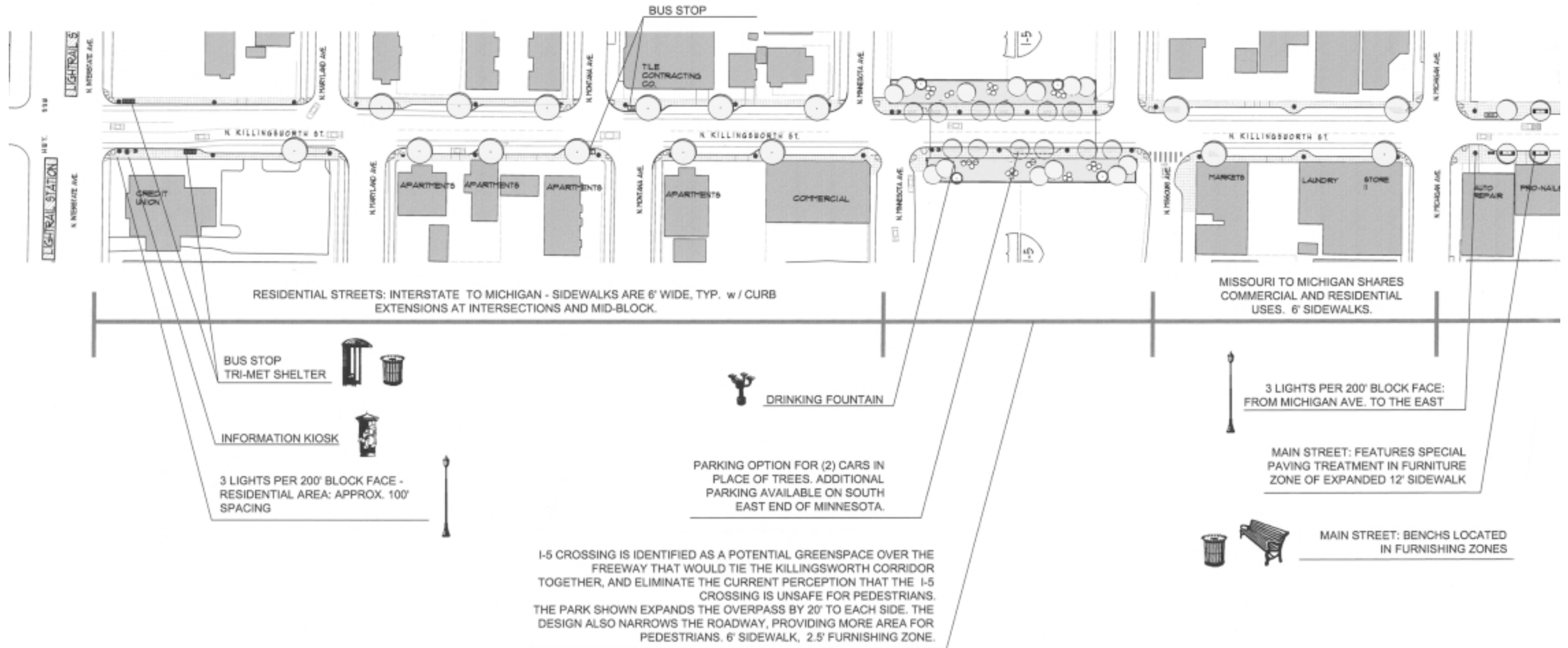
#### KERBY

At N Kerby Ave, curb extensions and a marked crosswalk across N Killingsworth St will be added on the east and west side of the intersection. Additional crossing improvements will be investigated at time of implementation.

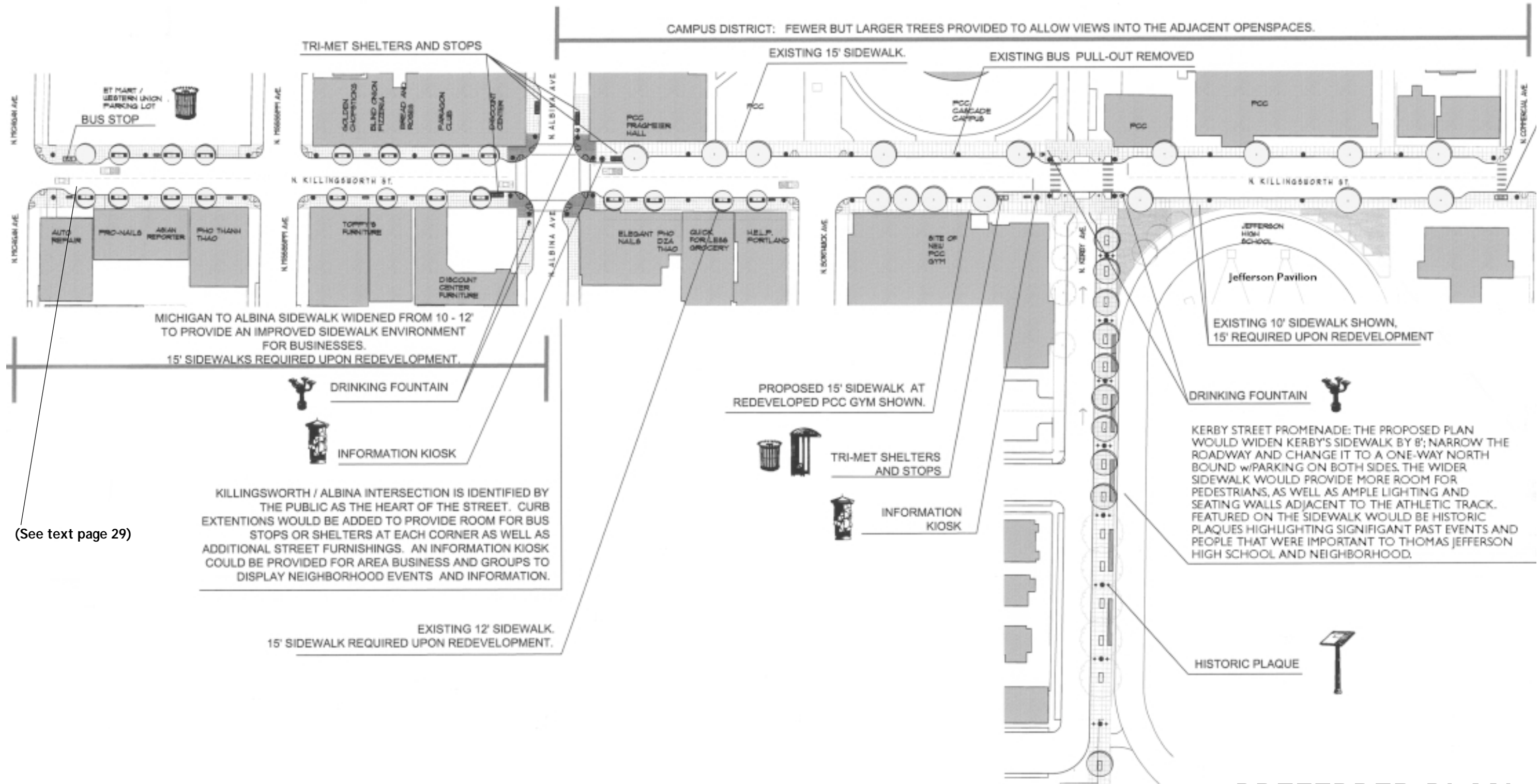
#### COMMERCIAL

At N Commercial Ave, curb extensions and a marked crosswalk across N Killingsworth St will be added on the west side of the intersection.



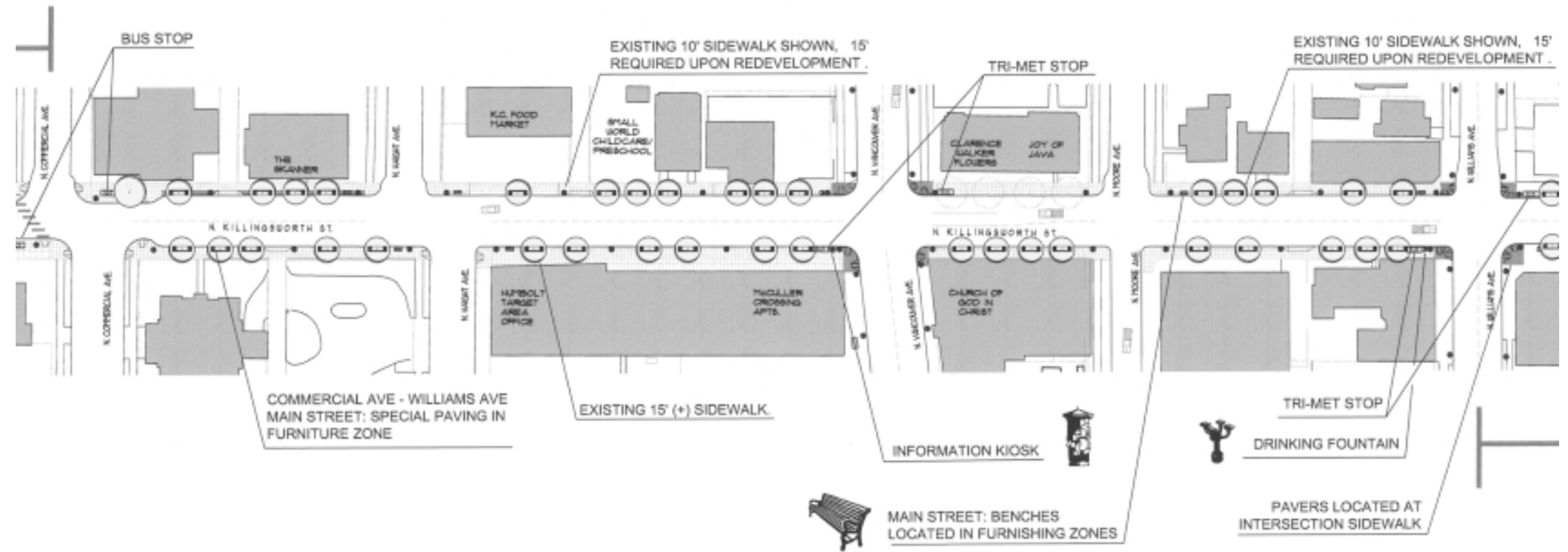


## PREFERRED PLAN N. Interstate Avenue to N. Michigan Avenue

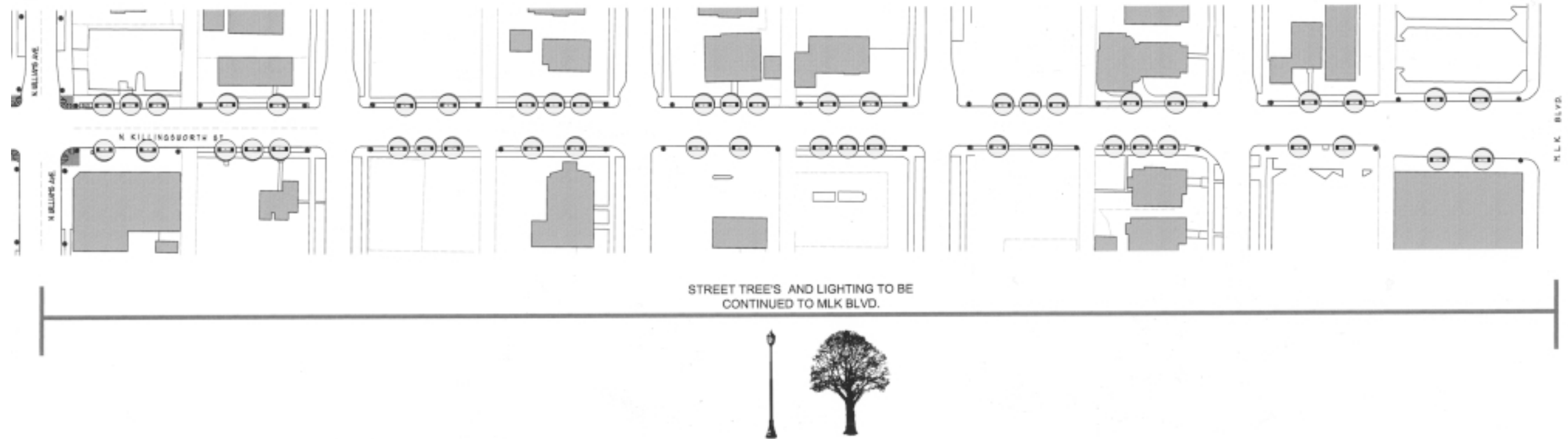


(See text page 29)

**PREFERRED PLAN**  
**N. Michigan Avenue to**  
**N. Commercial Avenue**



## PREFERRED PLAN N. Commercial Avenue to N. Williams Avenue



**PREFERRED PLAN**  
N. Williams Avenue to  
Martin Luther King Jr. Blvd.

The Killingsworth Street Improvements project will be implemented through a combination of publicly and privately funded improvements. The City of Portland Office of Transportation is pursuing public funding options to complete the project. Design standards and guidelines have also been created through the project to ensure that improvements to individual sites that occur prior to public improvements are consistent with the recommended design of the street.

## PUBLIC IMPROVEMENTS PROJECT PHASING

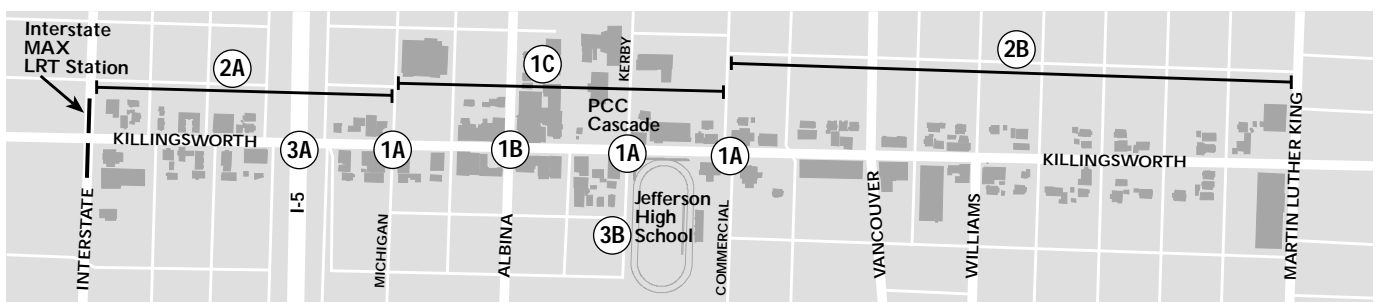
Phase I improvements emphasize the key crossing and sidewalk improvements in the “Main Street” and “Campus” areas as the top priority. The CAC felt that phased improvements should start in the commercial and campus core of the street. This area is receiving significant investment from Portland Community College and is, therefore, the most logical location for public improvement on adjacent blocks. The crossing and intersection improvements are specifically highlighted due to their lower cost and the greater possibility that smaller funding sources could be secured to complete these improvements.

Phase II improvements include the remaining sidewalk improvements required to connect the center of the project area to N Interstate Ave to the west and to N Williams Ave to the east. Phase II also extends

streetlight and street tree improvements (but not sidewalk improvements) farther east to NE Martin Luther King Jr. Blvd to link the Killingsworth Project Area to the improvements and redevelopment occurring along that corridor.

Two project elements were identified as requiring a targeted funding strategy. The I-5 Overcrossing is owned by the Oregon Department of Transportation and will require additional design feasibility, review and a funding partnership with that agency to be implemented. The Kerby Promenade (along the Jefferson High School track) is located on a local street and is not eligible for federal funding. Implementing these project elements will require working with local funding partners to determine the best funding strategy and timeline.

### KILLINGSWORTH PROJECT PHASES



#### PHASE I \$2.2M

- 1A. Crossing improvements at N Kerby, N Commercial, N Michigan and N Missouri
- 1B. Sidewalk and bus stop improvements at the N Killingsworth/N Albina intersection
- 1C. Sidewalk improvements N Michigan to N Commercial (the Main Street and Campus District)

#### PHASE II \$2.8M

- 2A. Sidewalk improvements N Interstate to N Michigan
- 2B. Sidewalk improvements N Commercial to N Williams and streetlights and trees to NE MLK Jr.

#### OTHER LARGE PROJECT ELEMENTS (requiring a targeted funding strategy)

- 3A. I-5 Overcrossing \$1.7M – \$5.5M
- 3B. Kerby Promenade \$400K

### UTILITY UNDERGROUNDING

During the community process, undergrounding overhead utilities was identified as a desired element of the implementation of the Killingsworth Street Improvement Project. However there was concern raised by some community



members that the cost of utility undergrounding could damage the viability of small businesses along Killingsworth St that would be required to upgrade site utilities as part of the undergrounding process.

The CAC supported the pursuing utility undergrounding as part of project implementation if it can be accomplished without creating adverse economic effects on property owners that could lead to displacement.

### TRANSPORTATION DEMAND MANAGEMENT SUMMARY

The Killingsworth Street Improvements Project Team and Transportation Options staff worked with institutions and businesses on and around Killingsworth St to establish/ further programs in transportation demand management (TDM). The goal of this work was to help area businesses prepare employees for the improved transit service and pedestrian environment on Killingsworth St.

Staff conducted an inventory of TDM programs already occurring in the area and identified businesses and institutions that do not currently have a TDM program or only have a minimal program. Staff met with representatives or groups of employees to discuss ways to start or expand their program. Staff created a list of potential TDM strategies and worked with representatives to evaluate their applicability. Staff also made recommendations for first steps in implementing the new programs. (See Appendix B)

### FUNDING OPPORTUNITIES

#### METROPOLITAN TRANSPORTATION IMPROVEMENTS PROGRAM (MTIP)

The Portland Office of Transportation applied for \$1,000,000 in federal funding through the 2006-2007 regional MTIP process for Preliminary Engineering of the project. The project scored well but did not make the 100% list for this funding cycle. The Office of Transportation may submit the project for consideration in a future funding cycle.

#### PORTLAND DEVELOPMENT COMMISSION (PDC)

The Portland Development Commission (PDC) will be a key funding partner in implementing the street improvements outlined in this document. PDC, as part of the Interstate Corridor Urban Renewal Area (URA) is a committed partner in implementing the Killingsworth Street Improvements Project and a funding source for redevelopment projects along Killingsworth St including mixed income housing and transit oriented development. The PDC acting on the recommendation of the Interstate URA Transportation Subcommittee has already allocated \$42,000 in the 2003-2004 funding cycle for crossing improvements on N Killingsworth St at N Kerby Ave and N Commercial Ave.

#### CITY OF PORTLAND CAPITAL IMPROVEMENTS PROGRAM (CIP)

The Portland Office of Transportation's Capital Improvement Program (CIP) identifies capital improvements to be considered throughout the city for fiscal years 2003-04 through 2007-08. The Transportation CIP budget for 2003-08 of \$140 Million continues to strive to achieve the goals of City Council and to provide for diverse Transportation modes. The Killingsworth Street Improvements Project is eligible for CIP funding under the Centers and Main Street program category.

## DESIGN DETAILS

The community was given a chance to choose between different details at the Open House. The CAC then made a final decision for each of the following street furnishings. CAC Members felt strongly that the design details on Killingsworth St needed to be distinct to create a unique look. The CAC chose the following color scheme:

- Burgundy colored accent pavers (where specified in the plan)
- Black furnishings including streetlights, benches, trash receptacles and bike racks.

### STREETLIGHT:

Black “ZED 40”

The ZED 40 streetlight is the model used currently along NE Martin Luther King Jr. Blvd. Because the Project Area is within the Piedmont Conservation District the black pole and fixture color is consistent with the City of Portland Streetlight Standard for areas within historic districts.



### BENCH:

The CAC chose a black metal bench as the desired bench type. Example: Timberform Restoration 2118 bench



### TRASH RECEPTACLE:

Black iron or steel trash receptacle.



### DRINKING FOUNTAIN:

Accessible single Benson Bubbler.

### PAVER:

The CAC chose a burgundy colored cement paver, sandset around trees in the “main street” areas, and as a sidewalk accent at in the corners of the sidewalk at the intersections of N Albina, N Vancouver and N Williams Avenues.

The specific paver the CAC identified at the meeting is Holland Smooth Fall Blend from Mutual Materials.

### BIKE RACKS:

Bike racks should be placed in the sidewalk area with the approval of business/property owners. More extensive bike racks should be included with the Jefferson High School Pavilion improvements.



### BANNERS:

Community members supported the idea of attaching banners to utility poles along Killingsworth St as a location for street art to highlight the character of the street. The CAC chose twin banners as the preferred design.

Note: the ownership and maintenance of banners is normally the responsibility of local businesses or target areas and will have to be implemented in a cooperative effort with those groups.



### TRANSIT SHELTERS:

Shelters will be included at all transit stops within the Project Area. Special “high capacity” shelters will be installed at the transit stops on N Killingsworth St at N Albina Ave.

### STREET ART:

An important component of this design, the street art, still needs to be defined. This street art implementation process can be realized as a truly community-based effort through the definition, creation and selection of that art.

The art for Killingsworth St will provide an opportunity to reflect the themes that the community has identified for this project. Different pieces, installations or performances may emphasize different themes. A diversity of styles and media will be appropriate. Among the art projects will be the design of a kiosk to be included in the special places.

# STREET LIGHT STANDARD AND DESIGN GUIDELINES

This project establishes a new city standard for streetlights and design guidelines for street improvements on Killingsworth St between N Interstate Ave and NE Martin Luther King Jr. Blvd. Design guidelines and standards ensure that right-of-way improvements completed on individual sites prior to public improvements are consistent with the recommended street design.

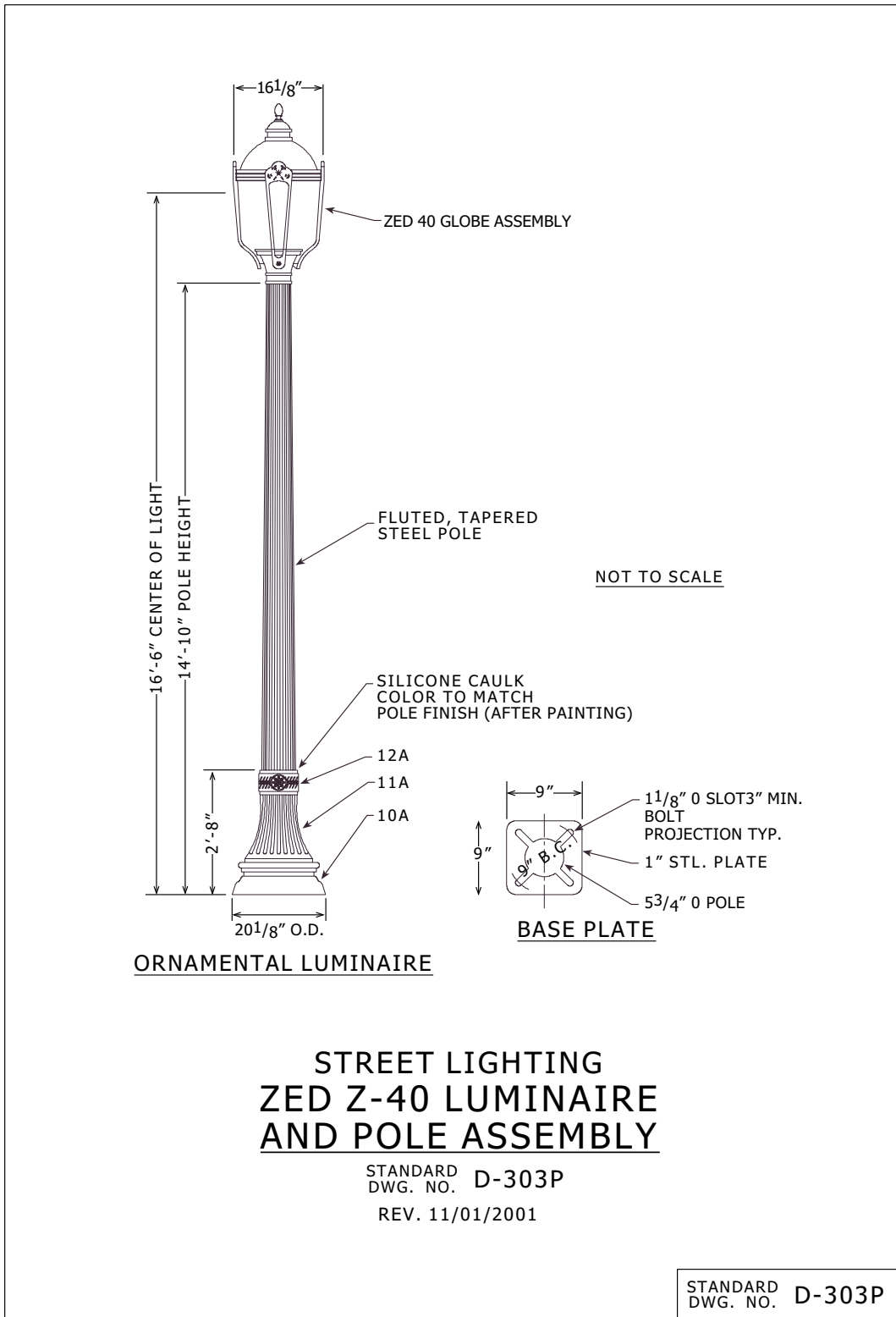
These standards and guidelines are intended to complement existing standards for the right-of-way. New private development will be required to bring site improvements up to the new street light standard and comply with design guidelines.

PG 41	STREET LIGHT STANDARD
PG 42-47	DESIGN GUIDELINES
PG 42	Sidewalk Width
PG 42	Curb Extension Locations
PG 43	Scoring Pattern
PG 44	Decorative Pavers
PG 46	Street Trees



**STREET LIGHT STANDARD:**

The project has established the ZED-40 Ornamental Streetlights as the new street lighting standard for Killingsworth St. Lights will be spaced at 90-100' spacing. Private development will be required to install conduit, junction boxes and bases for lights. The Office of Transportation will install light poles and luminaires.



# DESIGN GUIDELINES

## SIDEWALK WIDTH

A 15 foot sidewalk is required on Killingsworth St per existing City Engineer standard for streets with a City Walkway designation. Property owners will be required to dedicate additional right-of-way for wider sidewalk.

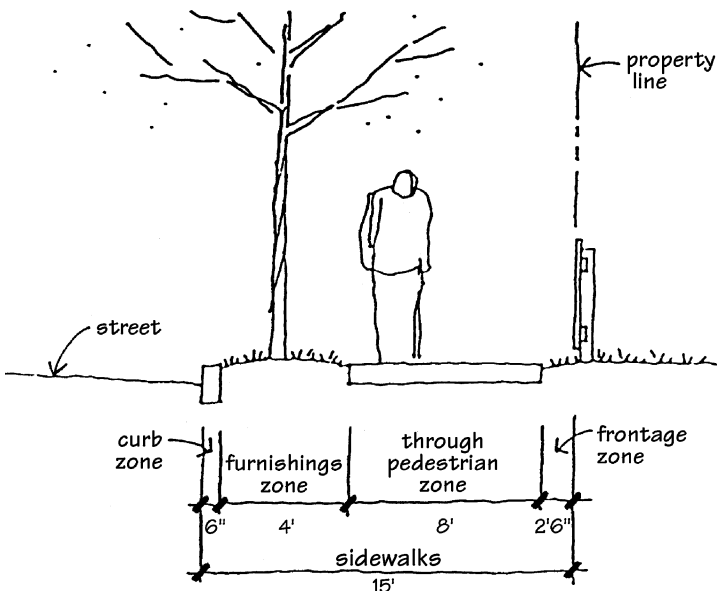
The additional sidewalk width on Killingsworth St creates a more usable pedestrian environment and space for merchant use or street furnishings.

The sidewalk area is comprised of 4 functional zones:

- **Building Frontage Zone:** The area of the sidewalk directly abutting adjacent buildings.
- **Through Pedestrian Zone:** Space with free of obstructions for through-pedestrian traffic.
- **Furnishing Zone:** Space for elements supporting pedestrian and vehicular use including signage, lighting, furniture, landscaping and transit facilities.
- **Curb Zone:** The width of the curb, typically 6" to 1"

### Jefferson High School Frontage

A substandard 10 foot sidewalk will be considered by the Office of Transportation’s internal design exception process on the south side of Killingsworth along the Jefferson High School frontage. This exception is necessary to allow space for the Jefferson Pavilion Project to construct decorative fencing on this frontage without impacting the existing high school track.



## CURB EXTENSION LOCATIONS

Property owners will be required to included curb extensions in sidewalk at time of sidewalk reconstruction at the locations shown in the preferred plan drawing (PG 29-PG 35) and summarized in the table below. At bus stop locations, curb extensions will be longer to accommodate the loading and unloading of passengers. Curb extensions will also be included mid-block between Maryland and Michigan (excluding I-5 overcrossing bridge) to allow additional space for furnishings such as streetlights and street trees. These mid block curb extensions are not intended to be designed as crossing locations.

Curb extensions will meet city standards but design will vary according to site location. Details of design including American Disabilities Act access, scoring pattern and curb radius will be developed by property owner and reviewed and approved by the City Engineer. It may be necessary to include a step or valley gutter in curb extension design depending on the slope of the roadway at the site location and floor grade of the proposed development.

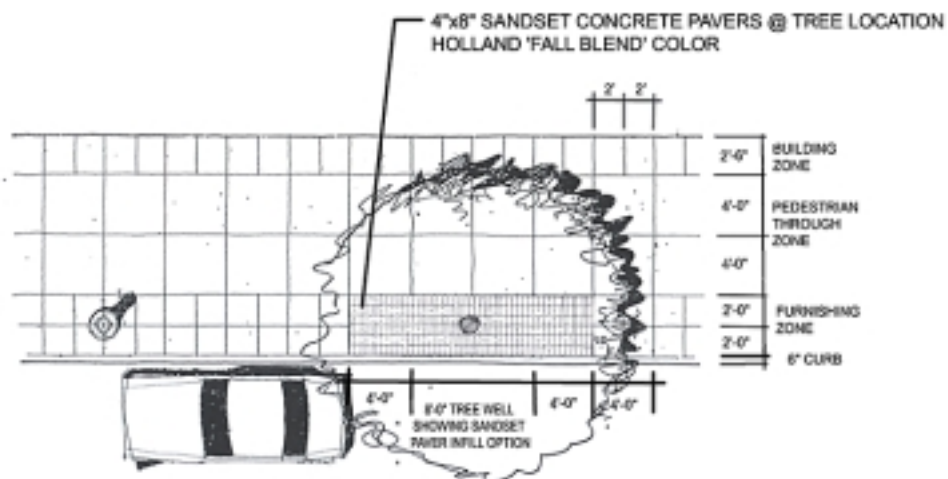
CURB EXTENSION LOCATIONS					
Intersection of Killingsworth and:	Corner				Mid-Block
	NW	NE	SE	SW	Between
Interstate					
Maryland		✓	✓	✓	✓
Montana	✓	Bus	✓	Bus	✓
Minnesota	✓	✓	✓	✓	✓
Missouri	✓	✓	✓	✓	✓
Michigan	✓	Bus	✓	Bus	✓
Mississippi					
Albina	✓	Bus	✓	Bus	
Borthwick					
Kerby	✓	✓	✓	Bus	
Commercial	✓	Bus	✓	Bus	
Haight					
Vancouver					
Moore					
Williams					

## SIDEWALK SCORING PATTERN

Two specific sub scoring patterns are proposed in the preferred plan design for the Main Street area and the Campus area to help contribute to the unique look and character of those portions of the street.

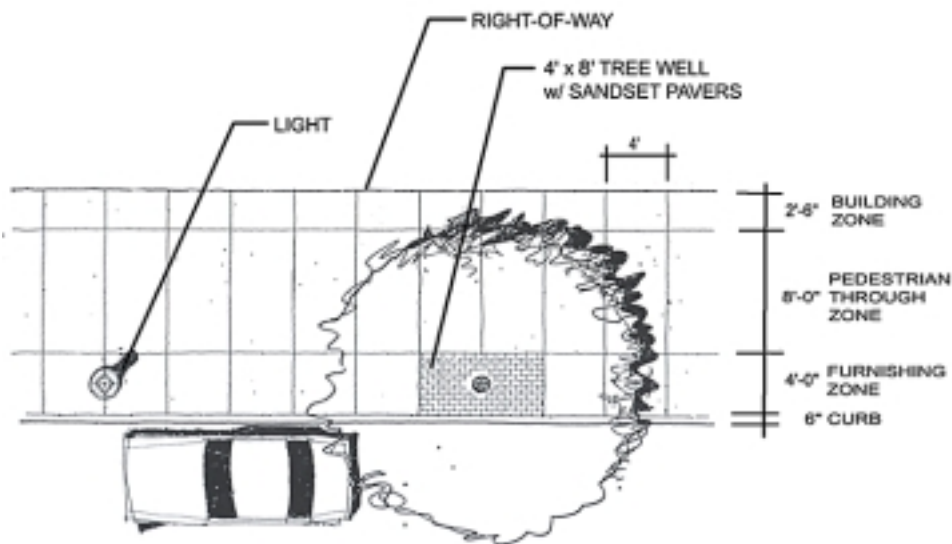
**Main Street Area-** Between N Michigan Ave and N Albina Ave, on the south side of the street between N Albina Ave and N Borthwick Ave, and between N Commercial Ave and N Williams Ave.

A denser sub-scoring pattern in the building zone and furnishing zone is proposed in the Main Street area. This sub score pattern should be incorporated into the design of sidewalks that have a reduced width due to physical constraints such as historic structures built out to the lot line.



**Campus Area-** Between Borthwick and Commercial on the south side of Killingsworth St and between Albina and Commercial on the north side of Killingsworth St.

A wider scoring pattern is proposed in the campus area. This scoring pattern matches the design under construction by PCC for their campus expansion and is intended to highlight the change to campus uses along this segment of Killingsworth St.



# IMPLEMENTATION

## DECORATIVE PAVERS

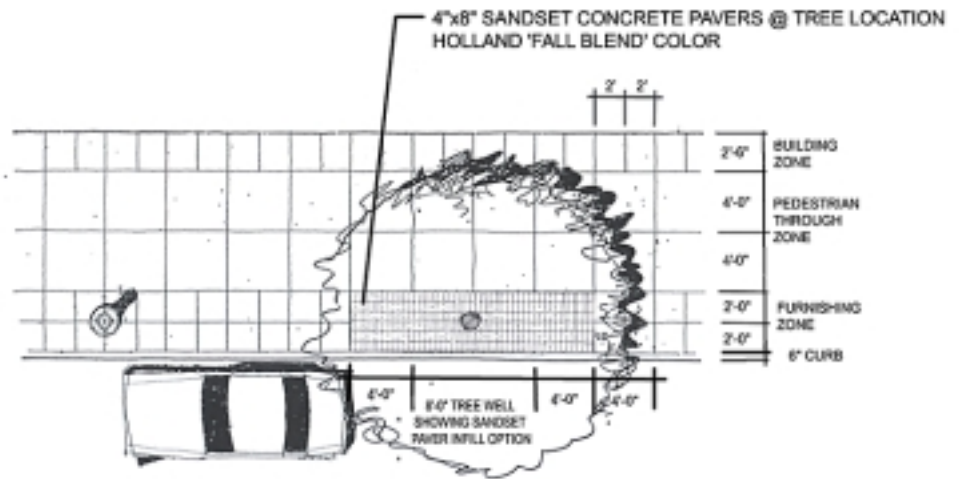
The Community Advisory Community chose a burgundy colored cement paver, sandset around trees in the Main Street areas, and concrete set in the sidewalk corners at the intersection of Killingsworth St and N Albina, N Vancouver and N Williams Avenues.

The paver used by property owner should be similar to the paver identified by the CAC (listed below).

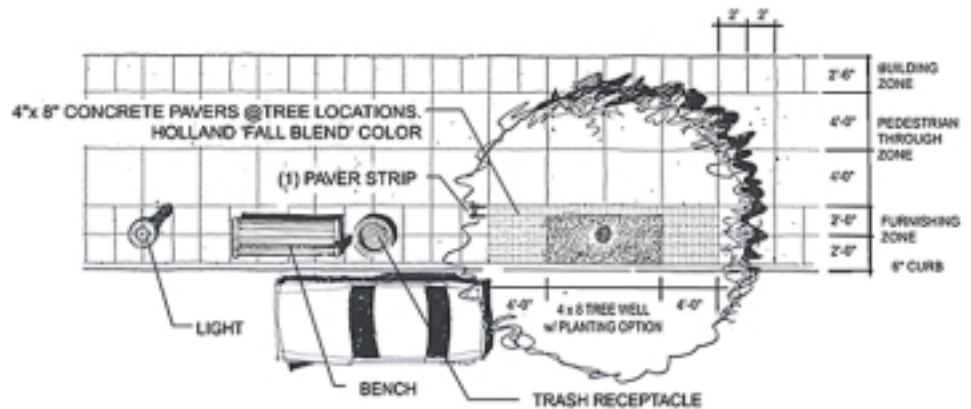
- Size: 4" by 8"
- Manufacturer: Holland
- Texture: Smooth
- Color: Fall Blend
- Distributor: Mutual Materials

## DECORATIVE PAVERS AROUND TREES IN THE MAIN STREET AREAS

In the Main Street areas concrete pavers will be placed around trees in an enlarged tree well area of 4' by 15' in the furnishing zone.

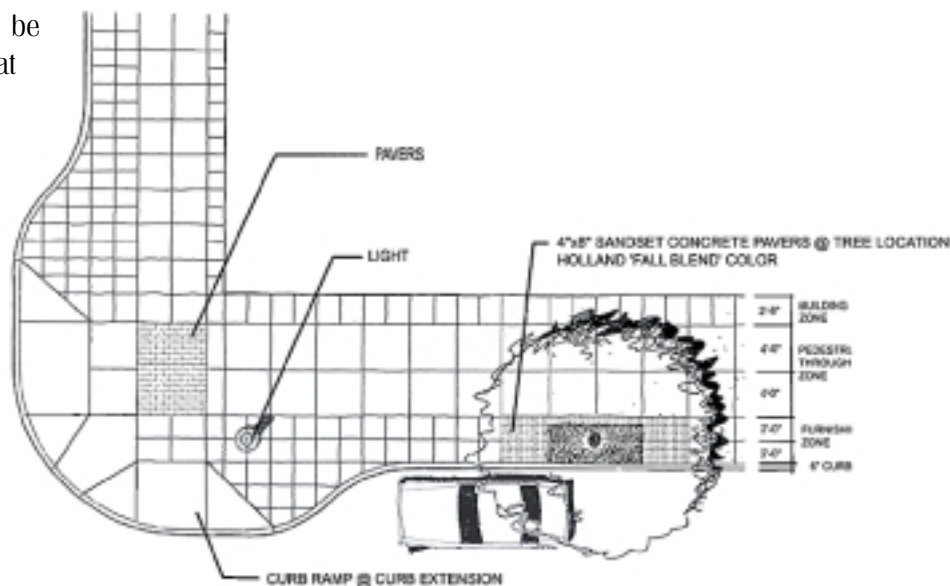


For locations where the property owner would prefer to include planting in the tree well, a second option was developed that included a planted area within the paver area.



**DECORATIVE PAVERS AT CORNERS OF N ALBINA, N VANCOUVER AND N WILLIAMS INTERSECTIONS**

A decorative pavement treatment will be included in sidewalk reconstruction at the intersection of Killingsworth and Albina, Vancouver and Williams Avenues. At these locations, improvements to each corner will include concrete set pavers placed in the area at the intersection of the through zones of each sidewalk.



### KILLINGSWORTH STREET TREES

The design team and Urban Forestry recommend planting many different species of trees along Killingsworth. This strategy reinforces the design concept by helping to differentiate the districts along the study area. It also allows the designer to select trees of the right size and habit to fit the different spatial opportunities or limitations. As the streetscape is incrementally built when each property redevelops, the designer can select trees based on availability using the list as a guideline. Public street improvements will add additional trees to areas without trees or with unhealthy trees at time of project implementation.

The following are guidelines for selecting trees at different conditions along Killingsworth St:

- Overhead power lines exist on one side of Killingsworth. Between Interstate and N Michigan Ave, they are on the north side of the street. Between N Michigan Ave and NE Martin Luther King Jr. Blvd, they are on the south side. Trees selected to be planted underneath power lines should not exceed 30 feet at maturity.
- The trees in the curb extensions between N Interstate Ave and N Michigan Ave may be broad-headed trees because, in most cases, buildings are farther away. The mature height under power lines should still be 30 feet.
- The trees selected for the I-5 overpass should be able to grow in a shallow soil condition. Smaller trees should be used.
- The sidewalks on both sides of the Killingsworth St between N Michigan Ave and N Albina Ave and on the south side between N Albina Ave and N Borthwick Ave are either 10 feet or 12 feet wide. These widths and the placement of existing and future buildings constrain the space available for street trees. Small to medium trees are most appropriate. Larger trees may work if they can be pruned effectively to fit the space without destroying the trees character. The mature height under power lines should still be 30 feet.
- The sidewalks along north side of Killingsworth St between N Albina Ave and N Commercial Ave and the south side between N Borthwick Ave and N Commercial Ave are wider and in many cases, the buildings are set back even farther. These trees may be broad-headed trees and larger species if not underneath power lines. The mature height under power lines should still be 30 feet.
- The sidewalks between N Commercial Ave and NE Martin Luther King Jr. Blvd will be 15 feet wide after redevelopment. Buildings are set back from the sidewalk at many locations. Medium size trees and in some cases, large trees may be planted. The mature height under power lines should still be 30 feet.

The following are tree selections with characteristics noted are provided to help the designer select trees to fit the varying conditions along Killingsworth St. Other trees may be proposed by the designer subject to approval by Urban Forestry:

*Acer buergerianum* – Trident Maple  
Height 20', spread 20', deciduous, glossy green foliage, red orange fall color

*Acer campestre* – Hedge Maple  
Height 35', spread 30', deciduous, dark green foliage, yellowish fall color

*Acer davidii* – David's Maple  
Height 35', spread 25', deciduous, glossy deeply veined foliage, yellow, red, orange and purple fall color, distinctive bark with silvery white stripes on glossy green background

*Acer truncatum x platanoides* – Pacific Sunset Maple  
Height 30', spread 25', deciduous, dark green glossy smooth foliage, yellow orange – bright red fall color.

*Betula jacquemontii* – Jacquemontii Birch  
Height 40', spread 30', deciduous, dark green thick glossy foliage, yellow fall color, whitest bark of all birches, does not suffer from aphids as other birches

*Cladrastis kentukea* – Yellowwood  
 Height 30', spread 40', deciduous, bright green foliage, brilliant yellow fall color, spectacular white fragrant flowers May - June

*Cornus capitata* 'Mountain Moon'  
 Height 30', evergreen, grey-green foliage, large sulfur-yellow flower bracts June - July

*Cornus kousa* – Kousa Dogwood  
 Height 20', spread 20', deciduous, medium green foliage, reddish fall color, many varieties with different colors of flowers

*Cornus omeiense* – Mt. Omei Dogwood  
 Height 30', evergreen, glossy foliage with red new growth, creamy yellow flowers in June

*Davidia involucrata* – Dove Tree  
 Height 30', spread 30', deciduous, unique flowers with long white bracts that flutter in the wind

*Fagus sylvatica* 'Roseo-marginata' – Tricolor Beech  
 Height 30', spread 20', deciduous, purple foliage marked white with pink edge

*Gleditsia triacanthos* – Honeylocust  
 Height 35'-45', spread 35'-40', deciduous, several varieties suitable for use as street tree, can be shaped to fit tight conditions, open habit allows filtered sun through

*Magnolia denudata* – Yulan Magnolia  
 Height 30', deciduous, densely branched, pure white, fragrant, orchid-scented flowers Mar-Apr, flower petals edible, buds used in traditional Chinese medicine

*Magnolia officianalis biloba* – Bi-lobed Medicinal Magnolia  
 Height 65', deciduous, interesting bi-lobed leaves, fragrant creamy white flowers with red tips in June, bark and flowers used in traditional Chinese medicine

*Michelia maudiae*  
 Height 30', evergreen, Magnolia relative, fragrant pure

white flowers that are used in traditional Chinese medicine

*Nyssa sinensis* – Chinese Tupelo  
 Height 40', deciduous, coppery red new growth, glossy deep green foliage, brilliant pink – red fall color

*Parrotia persica* – Persian Parrotia  
 Height 30', spread 20', pink-tinted new growth, green foliage, yellow orange red fall color, exfoliating bark, hazy red flowers

*Prunus cerasifera* 'Thundercloud' – Thundercloud Plum  
 Height 20', spread 20', deciduous, dark purple foliage, featuring light pink plum blossoms

*Quercus coccinea* – Scarlett Oak  
 Height 50', spread 40', deciduous, dark green glossy foliage, red fall color

*Quercus frainetto* 'Schmidt' – Forest Green Oak  
 Height 50', spread 30', deciduous, dark green glossy foliage with rounded lobes, yellowish brown fall color

*Quercus rubra* – Red Oak  
 Height 50', spread 45', deciduous, dark green foliage, red fall color

*Styrax obassia* – Fragrant Snowbell  
 Height 25', spread 15', deciduous, large deep green foliage, white fragrant flowers in June, drought tolerant

*Ulmus parvifolia* 'Emer II' – Allee Elm  
 Height 50', spread 35', deciduous, medium green glossy foliage, yellow orange to rust red fall color, resistant to Dutch Elm disease and Phloem Necrosis

*Viburnum odoratissimum* 'Awabuki' – Awabuki Viburnum  
 Height 30', evergreen, glossy green foliage, fragrant white flowers in spring

*Zelkova serrata* – Zelkova  
 Height 40'-50', spread 40', green foliage resembles Elm, orange fall color, varieties include 'Green Vase' and 'Village Green'





APPENDIX A: SUMMARY OF COMMUNITY INPUT

APPENDIX B: TRANSPORTATION DEMAND MANAGEMENT STRATEGY

APPENDIX C: TRAFFIC ANALYSIS REPORT

