

West Eugene EmX Design Concepts

Final Draft Report

TGM Quick Response

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ACKNOWLEDGEMENTS

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OVERVIEW

Lane Transit District (LTD) and the City of Eugene are in the planning and preliminary design stages for the Phase III Bus Rapid Transit (BRT) corridor – the West Eugene EmX (Emerald Express) Extension. A major focus of planning for this corridor is the examination of two alternative alignments on the corridor's east terminus. The alignments link neighborhoods west of Eugene's downtown with the rest of the proposed corridor and the larger BRT system. The EmX alignment alternatives under study extend from Eugene Station to Garfield Street, via west 13th Avenue (at its intersection with Amazon Creek) and via West 6th and 7th Avenues; and the respective adjoining neighborhoods.

At the time of this report, LTD and the City of Eugene are gathering information from public meetings, focus groups, and design professionals regarding current conditions, potential concerns, and opportunities for neighborhood enhancement based on context sensitive urban and environmental design. These efforts are examining ways to ensure that either of the alternatives chosen for Phase III development will compliment and enhance the neighborhoods they will eventually serve and exist within. This project is an extension of these efforts.

BACKGROUND & HISTORY

Bus Rapid Transit (BRT) emerged as the clearly preferred transit strategy for the region resulting from the 1996 Eugene/Springfield community's regional transportation plan update. BRT was viewed as a way to significantly enhance transit service and achieve many of the benefits of light rail without the high cost. As a result, Eugene, Springfield, Lane County, and LTD approved BRT in 2001, as a key element of the new transportation plan.

LTD favors the BRT concept because it is appropriate in scale and cost for a community our size, it results in more efficient transit operation, and can be developed one line at a time, as warranted by community demand and as allowed by funding. BRT is a system that the community can grow around. Emerald Express (EmX) is an investment in the community's future. As the metropolitan area grows, EmX will play an increasingly important role in providing mobility, reducing traffic congestion, and maintaining the community's quality of life.

Phase I of that new transit system, the community's Emerald Express BRT, opened in January of 2007. The first phase of EmX links downtown Springfield to downtown Eugene. This corridor also serves the University of Oregon, Northwest Christian University, and Sacred Heart, Peace Health's University District Medical Center.

Prior to the opening of this pilot corridor, and to accommodate this new approach to transit, a new transit center was opened by Lane Transit District (LTD) in the historic downtown area in Springfield. Necessary modifications were also made to the previously constructed transit center in downtown Eugene. The first EmX corridor operates primarily on Franklin Boulevard. Approximately 60 percent of this corridor consists of exclusive bus lanes, which allow EmX to operate efficiently, even in high traffic situations.

At the time of this report, the Phase II corridor is under construction in Springfield and will begin service January 9, 2011. The Pioneer Parkway – Gateway EmX Extension, as it is being referred to, links the transit center in downtown Springfield with major medical, employment, housing, and commercial centers to the north. The Peace Health RiverBend medical campus, the McKenzie-Gateway campus industrial area, and the Gateway

commercial and housing districts will all have simple, fast, and convenient BRT linkage to downtown Springfield and destinations previously described.

PURPOSE

The proposed Phase III extension of EmX along and through neighborhoods close to downtown requires close integration of land use and transportation planning. The potential for transportation to have a negative affect on adjoining lands is a consideration. Equally of interest is the opportunity for efficient use of land that will be created by the increase in transit service.

Prior to the initiation of this project, concerns about potential neighborhood impacts within one-third of a mile of the alternative alignments were identified. Good design of the transitway is critical to minimizing potential negative effects while fully capitalizing on the potential to enhance neighborhoods.

Recognizing that there are many options for how to design the transitways for BRT; LTD and the City of Eugene sought designs that address neighborhood concerns. The primary objective of the designs is consistency with compact, mixed-use, pedestrian-friendly development practices.

Project Goals

1. Involve a wide range of interests in the design process including, residents, property owners, LTD staff, city staff, state agencies and anyone else with an interest in the design.
2. Develop design options that respond to the context of land uses adjoining alternative alignments for EmX to enhance neighborhoods and mitigate impacts.
3. Provide information that will be incorporated into the Draft Environmental Impact Statement (DEIS) to assist in the decision making occurring in the broader planning project (beyond the scope of this project) in compliance with NEPA.
4. Provide design objectives and considerations that will be used during development of the final Environmental Impact Statement (EIS) and during advanced engineering stages.

Relationship to Other Planning Projects

LTD is currently involved in a broad planning project for the entire scope of the West Eugene EmX Extension that is being carried out in compliance with NEPA. This project provides technical analysis on a critical segment of the corridor. This project identifies possible design concepts for each alignment (13th Avenue and 6th/7th Avenue), but does not make decisions or recommendations about which alternative is preferable.

The LTD Board of Directors, the Eugene City Council, and the Metropolitan Policy Committee will make decisions about the Locally Preferred Alternative in a broader process.

ISSUES & OPPORTUNITIES

The following summary represents selected issues and opportunities identified during the first round of Local Area Group meetings held on March 4, 8, and 12, 2010.

- » Identify difficult opportunities for crossing and address positively
- » Create safe crossings and reinforce not crossing mid-block near existing Uhlhorn Apartments
- » Recognize bike boulevard crossing at Chambers Street and 12th Avenue
- » Limit cars entering 12th Avenue west of Chambers Street
- » At Monroe Street and 13th Avenue, construct a crossing along the west side (better for pedestrian and vehicle traffic)
- » Consider access to 13th Avenue south-side residences between Polk and Tyler
- » Consider providing setbacks between curbs and paths
- » Design stations with neighborhood influence
- » Improve sidewalks and pedestrian experience between stops
- » Consider wider bike lanes next to BRT lanes
- » Consider design of 6th Avenue and 7th Avenue and Blair Street intersections
- » Consider closing stub of Adams Street at Blair Street and incorporating a pedestrian plaza with improved pedestrian access
- » Consider bicycle/pedestrian crossings at Monroe Street and 6th Avenue/7th Avenue intersections
- » Consider bike lane on Garfield Street
- » Design of 11th Avenue and Garfield Street intersection

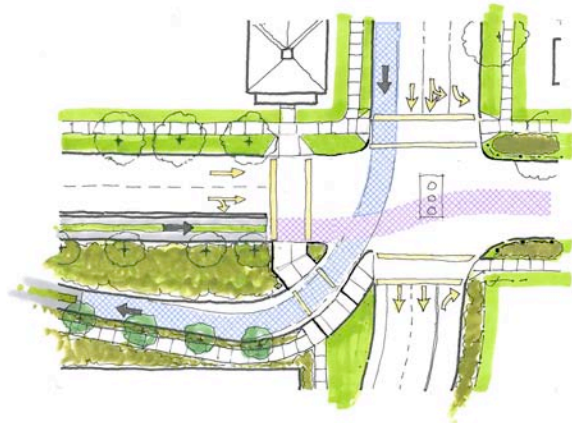
The following summary represents selected issues and opportunities raised during a public event on March 29, 2010 in the Eugene Public Library.

- » Design of 13th Avenue and Monroe Street intersection
- » Consider how EmX can assist with commercial development along corridor
- » Design of EmX along Chamber Street; opportunity to improve safety, especially for cyclists
- » Consider Washington Street and/or Lawrence Street as gateways to downtown
- » Design of 6th Avenue and Garfield Street intersection
- » Consider bulb-out at the intersection of 13th Avenue and Polk Street
- » Design of 10th Avenue and Lincoln Street intersection
- » Add trees to traffic calming curbs north of 13th Avenue
- » Consider bike route from south of Lane County Fairgrounds to Monroe in design
- » Consider design of Lincoln and Charnelton Street and associated bike lanes
- » Avoid EmX stops in bike lanes or near bike paths
- » Consider design of 13th Avenue and 12th Avenue and Jackson Street intersections

The above issues and opportunities guided the development of a first-round of context sensitive design options.

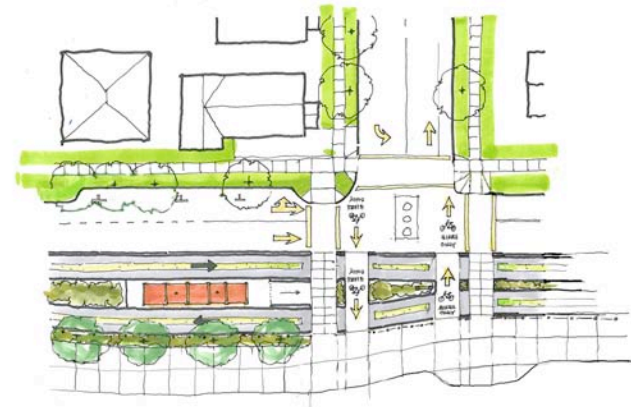
DESIGN CONCEPTS

Following are a series of design concepts that address opportunities and constraints raised from the Local Area Committee meetings and the Public Event participants.



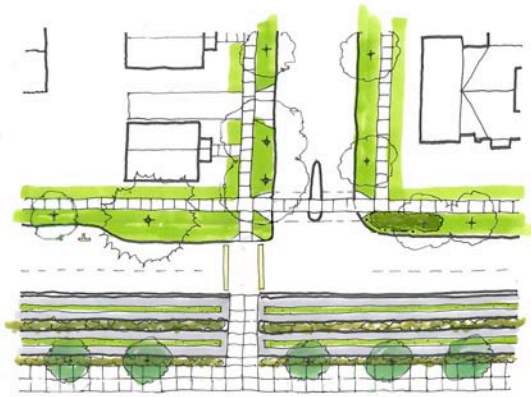
1A W 13TH AVENUE AND JEFFERSON STREET

The intersection of W 13th Avenue and Jefferson Street provides an opportunity for pedestrians to cross one Transit Lane and pause before crossing the EmX Guideway and two traffic lanes. The proposed crossing is located on the west side of the intersection to avoid conflicts with traffic merging on W 13th Avenue from Jefferson Street, and has a refuge area in the median. The sidewalk on the south side of W 13th Avenue is setback to allow for a planting strip to buffer the pedestrians and BRT, enhancing separation of uses.



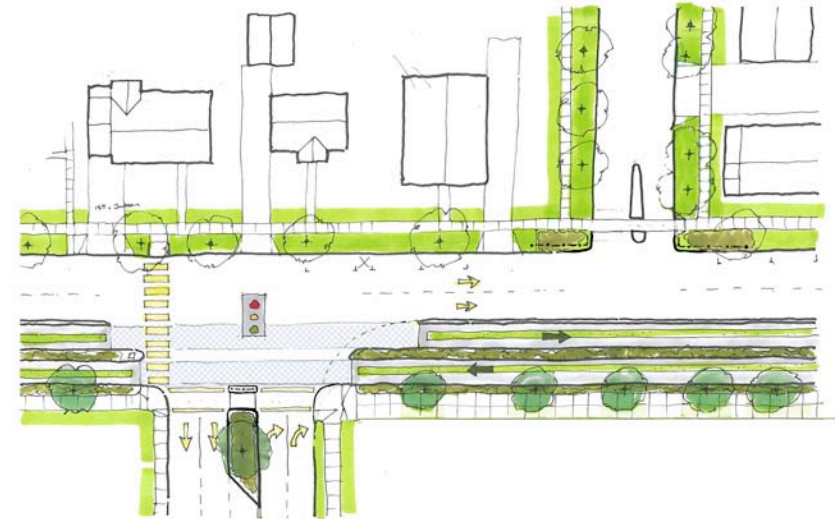
1B W 13TH AVENUE AND MONROE STREET

Participants at local area meetings and public events conveyed the importance of Monroe as a heavily used bike thoroughfare. In response, this design concept separates bike and pedestrian queuing into legible areas. Pedestrian crossings are characterized with bold markings and/or colored concrete. Barriers are incorporated into the design to address the safety of pedestrians using the paths where planting strips cannot be used due to space limitations. The path is wide to accommodate multi-modal users. The northeast corner of the intersection has a reduced radius because cars do not need the space for turning.



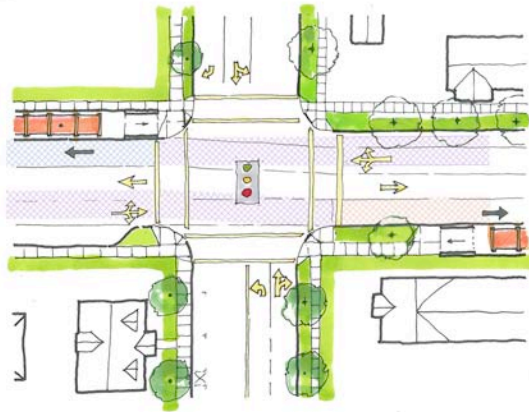
IC
W 13TH AVENUE AND ADAMS STREET

Medians along the EmX Guideway are planted to act as a barrier to discourage unsafe crossing and to reinforce safe routes with bold markings and/or colored concrete. Existing large street trees are preserved. The pedestrian crossing on the east side of the intersection is closed to minimize pedestrian and traffic flow conflicts. The path on the south side of W 13th is wide to accommodate bicyclists and pedestrians. It is also buffered with a planting strip. The radius at the northwest corner has been reduced where cars do not need the space for turning.



ID
W 13TH AVENUE AND JACKSON STREET

Local Area Committee members voiced the possibility of incorporating a planted median at the entrance of the fairgrounds because it was seen as unnecessary to have three entrance lanes when there are only two lanes of traffic entering. A pedestrian crossing at the west side of the intersection minimizes potential pedestrian and traffic conflicts and is marked with continental markings, as it is a mid-block intersection. New utility friendly street trees are planted in the planting strips buffering setback sidewalk and the EmX Guideways. Northbound traffic on Jackson Street will potentially be closed via a planted diverter if a traffic increase causes the need. Striping helps to direct the flow of traffic exiting the fairgrounds onto W 13th Avenue around the EmX Guideways. The radii of the Jackson intersection have been reduced to increase plant bed space where cars do not need the room for turning.



**IE
W 13TH AVENUE AND GARFIELD STREET**

A new stoplight is incorporated at this intersection to manage pedestrian crossings with traffic flow and BRT. Existing street trees are protected and new trees incorporated where space allows. EmX stations will have the vernacular style of the neighborhood areas to blend in to the quieter areas. This option only applies if the Amazon Creek Option is selected to implement.



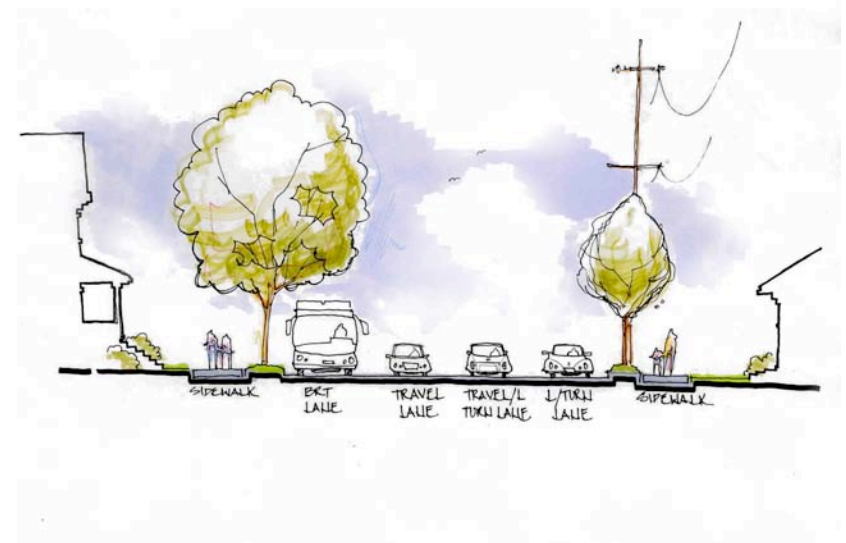
**IF
CHAMBERS STREET AND W 12TH AVENUE**

Feedback from the local area meetings and public events dictated that W 12th Avenue is a 'Bike Boulevard'. To maintain that essence, a closure is proposed for westbound traffic on W 12th Avenue. The closure also allows for a planted median on the south side of the intersection and the creation of a pass-through for the pedestrian crossing. A short planted median on the north side of the intersection helps to calm traffic while preserving center turn lanes.



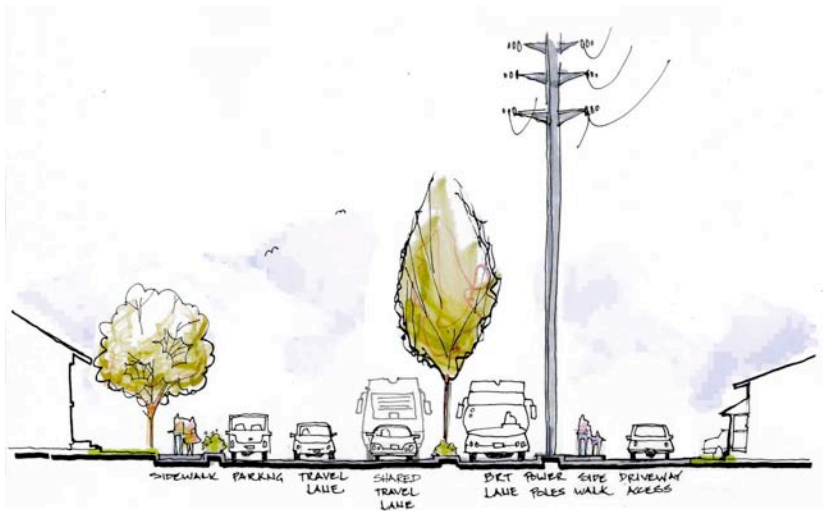
**2A
W 6TH AVENUE AND BLAIR BOULEVARD**

The public expressed the importance of the triangle created by the intersection of Blair Boulevard with Adams Street. It is a busy node of bicycles, pedestrians, traffic and BRT. This area offers an opportunity to incorporate many new street trees and to create a pedestrian plaza with potential activities, such as vendors or food carts. With the EmX travelling through this area, local businesses are encouraged about the potential increase in customers through convenient access to the area provided by EmX.



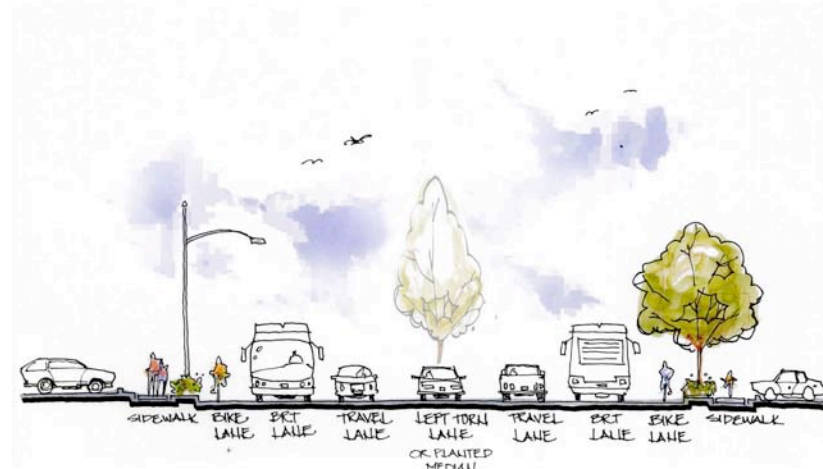
**IG
JEFFERSON STREET:
NORTH OF W 13TH AVENUE**

On Jefferson Street north of W 13th Avenue, utility-friendly street trees are incorporated on the east side of the street.



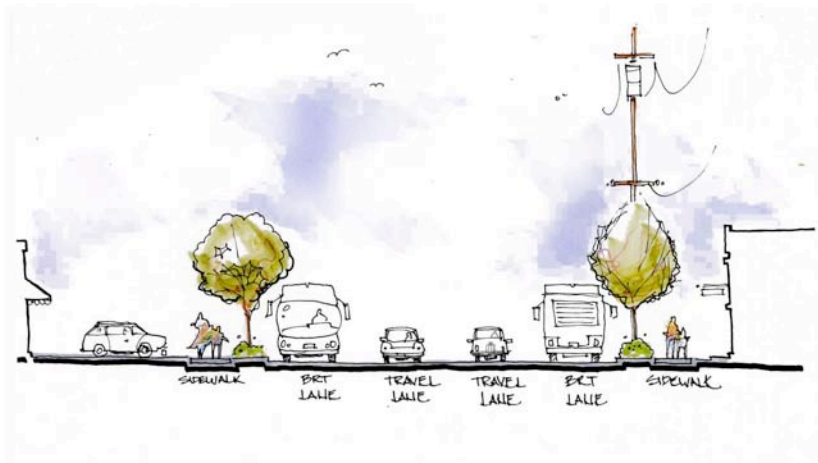
**IH
W 13TH AVENUE:
TYLER STREET TO POLK STREET**

Driveway access is provided to residents on the south side of 13th Avenue, with sidewalks further separating the homes. Vase shaped street trees are proposed in the medians between BRT lanes, as the space is narrow and restrained vertically by the buses.



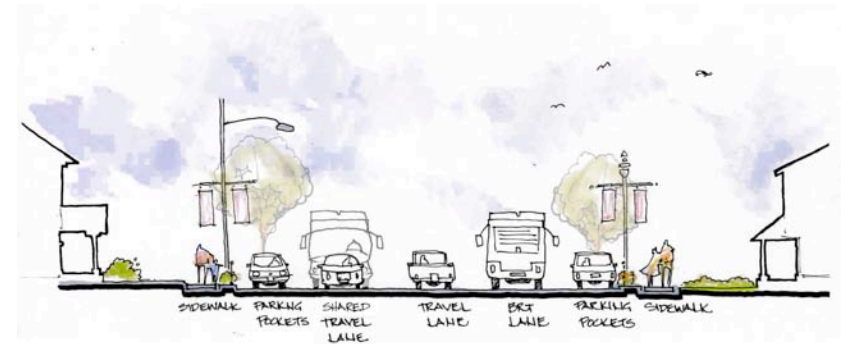
**II
CHAMBERS STREET:
12TH AVENUE**

Chambers Street at 12th Avenue includes a planted median where the turn lanes end. The planting strips will also provide buffering shrubs to further protect the sidewalks.



IJ
W 11TH AVENUE:
CHAMBERS STREET TO GARFIELD STREET

Utility friendly street trees are proposed under existing power lines. Plantings in planting strips further buffer pedestrians on sidewalks.



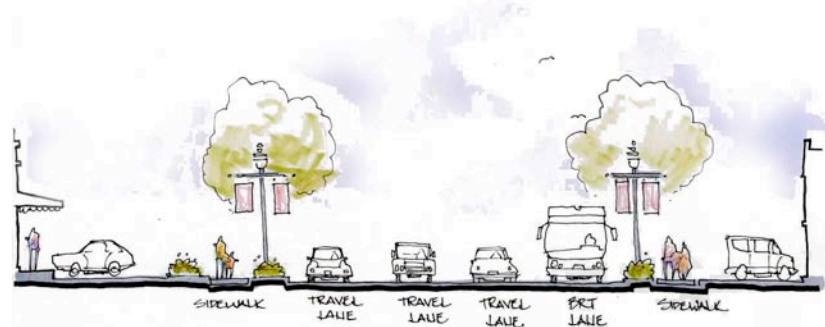
IK
W 13TH AVENUE:
CHAMBERS STREET TO GARFIELD STREET

Light posts with seasonal banners offer a sense of locale and help to create a pedestrian realm, separating the transitways from the residential realm.



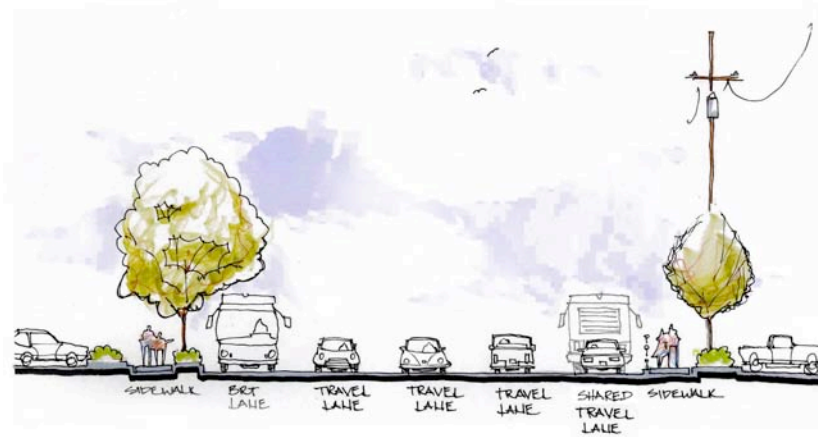
**2B
LINCOLN STREET:
W 6TH AVENUE TO W 11TH AVENUE**

Large street trees screen the residential areas from the public transitway. Planting strips with buffering plants help to protect the pedestrians.



**2C
W 6TH AVENUE:
BLAIR BOULEVARD TO VAN BUREN STREET**

Light posts with seasonal banners offer a sense of locale and help to create a pedestrian realm, separating the transitways from the residential realm.



**2D
GARFIELD STREET:
BROADWAY AVENUE TO W 11TH AVENUE**

Utility friendly street trees are proposed under existing powerlines. Plantings in planting strips further buffer pedestrians on sidewalks.



**2E
W 7TH AVENUE:
BLAIR BOULEVARD TO FILLMORE STREET**

Light posts with seasonal banners offer a sense of locale and help to create a pedestrian realm, separating the transitways from the residential realm.



2F
CHARNELTON STREET:
W 7TH AVENUE TO BROADWAY AVENUE

Trees and plantings in planting strips help to buffer uses and establish a pedestrian realm.



2G
W 6TH AVENUE:
BLAIR BOULEVARD TO MADISON STREET

Trees and plantings in planting strips help to buffer uses and establish a pedestrian realm.

SUMMARY

Findings

The design concepts have been developed and refined in response to the input and suggestions of the Local Area Committee members and the general public through the public events. The design concepts were also refined and grounded with the comments and expertise of the Technical Advisory Committee members and additional invited participants. This group included professional staff assigned to the project by the State of Oregon (DLCD), Lane Transit District (Planning), and the City of Eugene (Public Works Transportation), and the project consultants. The group also included participants from the Oregon Department of Transportation and City of Eugene (Public Works Maintenance).

In general, neighbors and the public alike are concerned with the potential for the project to negatively impact adjoining neighborhoods. There are also concerns about cutting off public access across the transitway and access to areas previously freely accessible by pedestrians and bicyclists. The design concepts address both these primary concerns. The recommendations incorporated in the design options address these concerns and make suggestions about mitigating identified issues by incorporating a heightened approach to urban design through aspects of the project to come, as planning, design engineering, and budgeting proceed. In some cases the recommendations incorporate a heightened, more refined design for the pedestrian experience, and include additional landscape buffering associated with the project.

Recommendations

The following summary provides an array the common design elements that were repeatedly used in the design concepts. As such, they form a generalized series of design recommendations that should be implemented throughout transit corridor planning. Incorporating the concepts early in the planning, design engineering, and budgeting phases for the project should help assure that the extension of the EmX into West Eugene is an asset to the neighborhoods it impacts and the community as a whole.

- » Develop highly visible and safe pedestrian and bicycle crossings at intersections
- » Protect existing trees and vegetation
- » Protect urban forest anchors of large trees over 25" DBH
- » Introduce new street trees selected for particular growth patterns next to BRT
- » Where appropriate, use utility approved trees under power lines
- » Integrate improved bicycle facilities with BRT showing preferred routes and queuing
- » Increase safe, convenient and distinct crossings through BRT guideways
- » Employ buffer plantings in medians to discourage pedestrian and bicycle crossing where no crosswalk occurs.
- » Emphasize pedestrian facilities
- » Create setback sidewalks with planter strips
- » Introduce new street trees in planter strips and medians where appropriate

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- » Develop barriers and No-Crossing signs to discourage safe crossing where pedestrian and bicycle crossings are undesirable or unsafe
- » Incorporate BRT way-finding signs with rest areas (benches) located in neighborhoods
- » Utilize local artists for work on handrails and crossing barriers
- » Consider future traffic diverters (landscaped planters if possible) if new traffic impacts satisfy City Traffic Diverter Policy requirements
- » Widen multi-use paths adjacent to transit lanes to allow for inclusion of site-sensitive railings or other safety barriers including landscape buffer plantings
- » Incorporate design features consistent with existing LTD urban design elements including but not limited to: distinctive station architecture, quality railings/guardrails (that might incorporate artwork), public art, convenient wayfinding signage and benches, well maintained landscape plantings (including street trees), highly visible pedestrian crossings.