

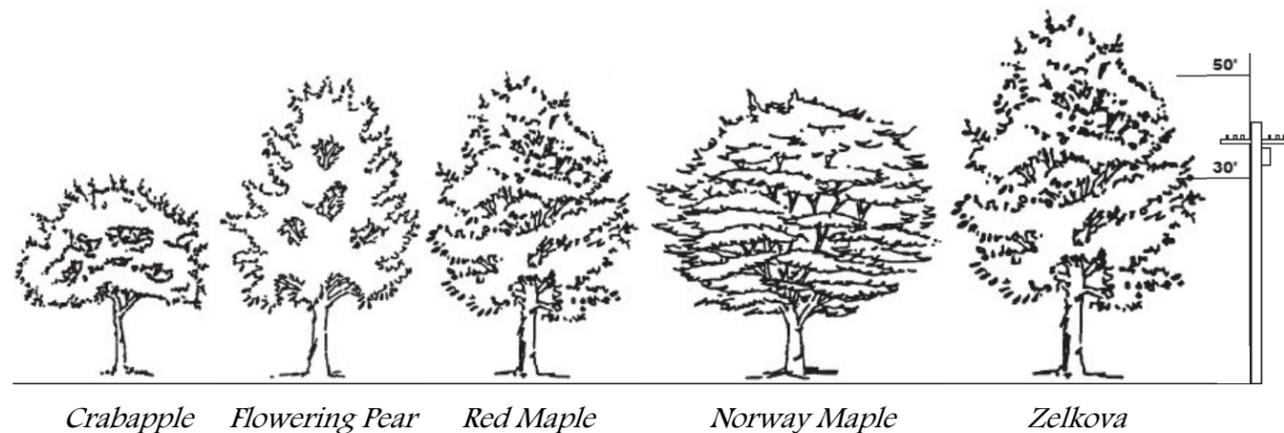
5.8 Coordination with Other Projects

The recommended NE 3rd-4th Corridor Improvements affect and are affected by other City and regional projects and programs. A set of recommendations that address the interrelationship with other projects are included here:

1. Recommend that the City formally adopt a "Renton Highlands Street Network Completion Plan"
2. Recommend that the City extend a north-south route east of Duvall (156th Ave, 164th Ave, or other) north to May Valley Rd and designate it and May Valley Rd as a north-south arterial route connecting Bellevue/Newcastle (Coal Creek Pkwy) and Maple Valley Hwy (SR 169), complementing the currently-designated Duvall Ave and NE 4th St route.
3. Make specific recommendations to the Washington State Department of Transportation (WSDOT) I-405 Corridor Project about desired/necessary characteristics of the I-405/Sunset/SR 169 Interchange (e.g., signal spacing on N 3rd St east of I-405, direct ramp from southbound I-405 to SR 169, high traffic volumes from westbound N 3rd St to southbound I-405) in order to ease congestion at the NE 3rd Street/Sunset Blvd intersection.
4. Recommend that the basic parameters and concepts of the NE 3rd-4th Corridor Improvements be applied as future annexations extend the City's eastern city limits into the East Renton Plateau Potential Annexation Area.

5. Recommend that the City redesignate the Cedar Crest Trail as 'mixed use' between NE 3rd and SR 169 (currently designated as 'pedestrian'), and build the connection between NE 3rd St and the Cedar River Trail. This connection could potentially connect from the SR 169/Cedar Park/Shari's Restaurant traffic signal to the NE 3rd St/Monterey Dr traffic signal, requiring coordination with several private properties (Shari's Restaurant, Silver Cloud Inn, Monterey Terrace). ●●●●

This connection may also be incorporated into the WSDOT I-405 Corridor Project. ■■■■



Street tree specimens proposed as part of the Mayor's Planting Day Event 2005.

6 Implementation

Complete implementation of the NE 3rd-4th Corridor Improvements will involve significant construction/ reconstruction for roughly 2.5 miles of a principal arterial within the City of Renton.

6.1 Construction / Issues

Implementation and construction issues include steep slopes, need to acquire additional right-of-way, existing transmission power utility poles, existing corner developments at key intersections, and reliance on a state I-405 improvement project.

Development of the NE 3rd-4th Corridor Improvements Conceptual Layout Plan transpired some of the following general implementation concepts:

- Widening of the roadway is generally to the south side of NE 3rd-4th Street;
- Limit private property impacts to parking/landscaping. Potential building/property use impacts are minimized.
- Where existing overhead utility lines and poles require relocation, they can be aesthetically upgraded, however high voltage transmission power lines cannot be relocated underground. (Undergrounding of franchise utilities (telephone, cable, fiber) should be pursued at the project design stage.)
- Existing sidewalk should be reused where possible. For example, if the existing curb (and sidewalk) is at the correct location, then the landscape buffer will be placed back of sidewalk rather than removing sidewalk to install the landscape buffer.

Specific implementation approaches along the corridor which were incorporated into the NE 3rd-4th Conceptual Layout Plan are identified in Figures 8 a, b, c on the next two pages.

6.2 Impacts / Mitigation

Specific impacts to private property, such as landscaping, parking, and driveways, and appropriate mitigation measures will be identified and addressed at the project design level. In certain instances, mitigation must be in place prior to corridor improvements. For example, alternate accesses for the general public and for emergency services vehicles must be in place prior to the loss of a current left-turn access due to the installation of a center median.

6.3 Utilities

There are public and private utilities that are within or cross the NE 3rd-4th Street corridor. Impacts to and potential relocation of these utilities by the proposed NE 3rd-4th Corridor Improvements will be addressed at the project design level. Impacts include those by the planting of proposed street trees.

There are existing City water mains, water telemetry conduits, and cables located within the NE 3rd-4th Street corridor.

City stormwater impacts include relocation of inlets and the overall addition or reduction in impervious surface. This corridor may need a comprehensive upgrade/retrofit. An increase in impervious surface may trigger the requirement for detention and treatment, necessitating property acquisition.

City wastewater has a sewer trunk line directly in the center of NE 4th Street, buried almost 25' deep.

6.4 Landscape / Streetscape

Landscape

One part of the NE 3rd-4th Corridor Improvement recommendations is to improve corridor aesthetics by providing roadside and median landscaping. Landscaping is shown diagrammatically in the Conceptual Layout Plan. However, specifics with regards to the landscaping including street tree type, spacing and location (such as around street lighting) are not identified in this document, but rather will be determined at the project design level in coordination with other city departments. The landscaping shown may be installed as part of staged transportation improvement projects or as part of other corridor improvement efforts such as the Mayor's Planting Day Event 2005 (see facing page).

Streetscape

Other aesthetic streetscape improvements which are not a part of these NE 3rd-4th Corridor Improvement recommendations but may be pursued in coordination with other city departments as part of other corridor improvement efforts include:

- ornamental street lighting
- street furniture/benches
- banners
- pedestrian scale lighting
- trash receptacles
- hanging flower baskets

a. *Monterey to Edmonds:* Widen to the south (cut near Monterey Ave, fill near Blaine Ave); downhill bike lane may allow for northside utility poles to remain in place; the surface water facility at Blaine Ave will require a design mitigation solution which may include a potential boardwalk style uphill sidewalk.

b. *Edmonds to Jefferson:* Widen to the north (toward the WSDOT maintenance property and avoid the Liberty Ridge slope); widening to the north will require utility pole relocations. Add an eastbound right turn lane at Edmonds Ave.

c. *Jefferson to Monroe:* Improvements in this section total 98' of width – the existing right-of-way in this section is 100'; widening in this section will require removal of mature trees on northside – a professional assessment of the trees may indicate they are advanced in age; widening in this section will also require removal of wide landscaped buffer on southside; NE 4th Street improvement may require concurrent improvements to Renton Technical College on-site vehicle circulation.

d. *Monroe to Queen:* Due to extremely limited existing right-of-way, the proposed cross-section does not have a landscaped buffer, however the bicycle lanes provide sidewalk buffering; widen to the south – will require utility pole relocates, impacts to the cemetery frontage but not to burial plots, existing rock wall may be replaced with narrower retaining wall, loss of evergreen frontage may necessitate ornamental sound wall; earthwork in SE quadrant of Monroe intersection (Greenwood Cemetery) may require wall.

e. *Queen Ave Intersection:* Widen mostly to the south; procure north segment as public property, extend south segment past Napa Auto to Maplewood Park Apartments; potential redevelopment and right-of-way dedication for Queen Ave may occur in NW and NE quadrants.

f. *Queen to Union:* Due to extremely limited existing right-of-way, the proposed cross-section does not have a landscaped buffer, however the bicycle lanes provide sidewalk buffering; widen mostly to the south – will require utility pole relocates; improvements will potentially result in the Windermere office and the Toreros Restaurant in the Eastway Center directly fronting the 6' sidewalk; bus pullout in NW quadrant of the Union intersection will impact parking for the Joe's Market, et. al. An improved shared driveway is proposed for the Eastway Center and Maplewood Park Apartments.

g. *Union to Bremerton:* Add a westbound right turn lane at Union Ave. Widen for the additional bike lane width.

h. *Bremerton to Duvall:* Potential property impacts in NE and NW quadrant of Duvall intersection. Tesoro station canopy and fueling island are too close to NE 4th Street.



Figure 8a: Implementation

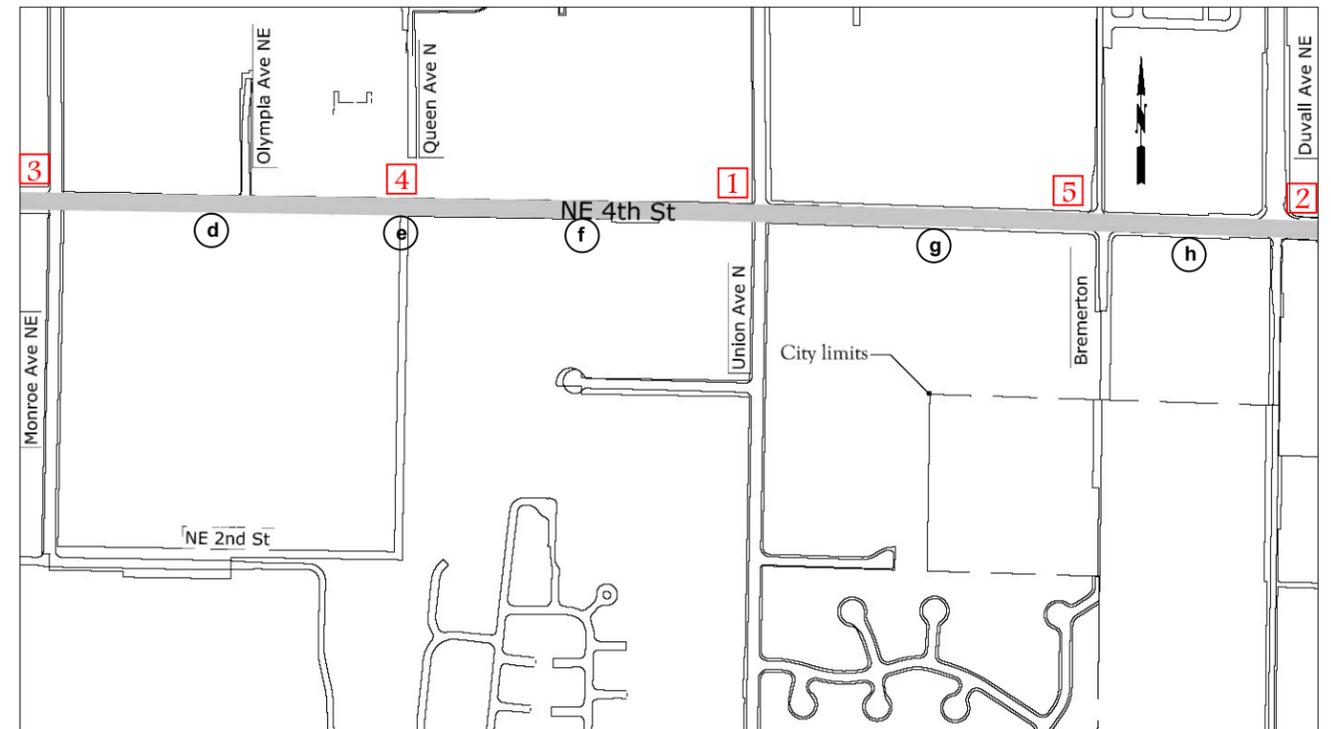


Figure 8b: Implementation

- i. *Duvall to Hoquiam*: Inadequate westbound right-turn lane at Duvall Ave will be widened to needed width. East of the commercial properties, the existing sidewalks are adequate, therefore aesthetic landscaping will be placed back of sidewalk.
- j. *Hoquiam to Jericho*: Third eastbound bus/right turn only lane will require right-of-way purchase. Existing residential developments are being planned based on the existing right-of-way.
- k. *Jericho to East City Limits*: Center median provides aesthetics and reduces illegal use of center turn lane for passing and acceleration. Bus pullouts will require right-of-way purchase.



Figure 8c: Implementation

6.5 *Costs and Staging*

Complete implementation of the NE 3rd-4th Corridor Improvements is estimated to be \$25 million (Appendix E), approximately \$10 million per mile. Significant cost items include cut and fill walls, acquisition of additional right-of-way, utilities, and existing corner developments at select major signalized intersections.

In order to implement the entire NE 3rd-4th Corridor Improvements, the corridor should be broken into stages. In general, the recommended stages are shown at right:

6.6 *Next Steps*

Due to the length and cost for complete implementation of the NE 3rd-4th Corridor Improvements, a phased prioritized implementation approach should be pursued. High priority improvement projects should be furthered into pre-design as funding is pursued and becomes available. Funding grants should be pursued.

Stages	Sub-stages	Sub-stage Cost Estimates
<i>3 Major Signalized Intersections</i>	1 Union Ave Intersection	\$ 1.30 M
	2 Duvall Ave Intersection	\$ 1.34 M
	3 Monroe Ave Intersection	\$ 1.01 M
<i>Commercial Corridor</i>	4 Monroe Ave to Union Ave, including Queen intxn	\$ 5.27 M
	5 Union Ave to Duvall Ave, including Bremerton intxn	\$ 2.49 M
	6 Jefferson Ave to Monroe Ave (RTC frontage)	\$ 1.74 M
	7 Duvall Ave to Hoquiam Ave (QFC frontage)	\$ 0.72 M
<i>“Hill Climb” Corridor</i>	8 Monterey Ave to Edmonds Ave (steep slopes section)	\$ 5.59 M
	9 Edmonds Ave to Jefferson Ave	\$ 3.05 M
<i>Residential Corridor</i>	10 Hoquiam Ave to Jericho Ave	\$ 0.74 M
	11 Jericho Ave to east city limits	\$ 1.90 M

7 Frequently Asked Questions (FAQs)

a. How do the recommended improvements help traffic when no new lanes are being added, and portions of the center turn lane are being removed?

The recommended improvements do include adding new turning lanes at several key signalized intersections, which will improve or preserve the capacity of these intersections in the future (see Appendix G).

The introduction of a “boulevard” median (termed “access management”) will reduce the number of locations where turning movements may occur while maintaining access to properties. Studies have shown that effective access management can increase roadway capacity by 23%-45%, and reduce crashes as much as 50%, thereby preserving the transportation and economic viability of a corridor.

Portions of the center turn lane are being removed, but not at all sidestreet and arterial intersections where left turns will still be allowed. Rather, in order to improve safety and traffic flow on NE 4th Street, the center turn lane is being removed where it causes unnecessary “friction”. To better understand this concept of reduced “friction”, consider a freeway. Freeways rarely become congested in long, straight sections except in the case of an incident. Rather, congestion is typically caused by the “friction” at on and off ramps at interchanges.

Due to significant impacts to properties along the corridor, including numerous building condemnations, widening of the entire corridor by 2 additional lanes was not considered as an alternative. In addition, traffic forecasting has shown that 3 lanes in each direction is not necessary.

b. Will the proposed additional traffic signals slow traffic down.

As development occurs along the corridor, access must be maintained to NE 4th Street but also managed for safety. In conjunction with left turn management, the proposed traffic signals will provide smoother, more efficient traffic flow along NE 4th Street while introducing relatively little additional through delay. Regularly spaced traffic signals can be efficiently coordinated, even more so than sporadically spaced traffic signals.

Based on comparable transportation studies, the average speed along the NE 4th Street corridor may be reduced by 3 mph, a 10% increase in travel time, or a travel time increase of roughly 30 seconds. However, the additional signals will reduce the delay experienced by vehicles accessing NE 4th Street.

The proposed traffic signal at Queen Ave is necessary for a safe pedestrian environment along the corridor.

c. Do the recommended improvements (specifically the median) eliminate access to fronting businesses?

The proposed improvements do eliminate the ability to make left turns at certain locations. However, access to fronting businesses is not proposed to be eliminated, rather it will be managed through better defined and safer locations. No one property will lose access, although the specific route to some properties may change by utilizing traffic signals, side-streets, and/or signalized u-turns.

See Appendix H for discussion regarding access for specific properties.

d. Are bus pullouts necessary and will they be used?

One of the comments heard most often from the public was concern with transit buses blocking a lane of traffic. When there are only two available through lanes, studies have shown that blocking one of these lanes actually reduces the roadway capacity by roughly 65% (greater than half). Bus pullouts are needed to maintain smooth traffic.

The proposed improvements place the bus pullout at the far side of the intersection, such that the intersection traffic signal will provide gaps in the traffic stream for the buses to pull back into traffic. Far side bus pullouts also provide additional lane width needed to allow for U-turns at the traffic signals. With this far side design, King County Metro has agreed in principal to have their buses utilize the pullouts.

Transit usage is expected to increase, including a mini-transit hub at the Renton Technical College.

e. Are bicycle lanes necessary?

The NE 4th Street corridor provides non-motorized mobility in addition to motor vehicles. The proposed improvements also improve the aesthetic and community livability aspects of this corridor. The current non-motorized mobility provisions are narrow sidewalks immediately adjacent to the traffic lanes.

Another comment heard often from the public was the need to accommodate bicycle traffic. Bicyclists can not be expected to detour to SR 900 to access downtown Renton.

The proposed bicycle lanes serve multiple purposes in addition to bicycle traffic. The bicycle lanes buffer pedestrians on the sidewalks from the traffic lanes. Improved comfort for pedestrians will enhance the boulevard feel, rather than the corridor serving only vehicles. The extra roadway width provided by the bicycle lanes will also provide additional mobility for emergency vehicle response.



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Front cover: North-south roadways of the NE 3rd-4th Street Corridor, named alphabetically after locations in Washington State as shown geographically in the background of the front cover. North-south roadways within the City of Renton are designated "Avenues". Reference Renton Municipal Code 9-11.