

# Project Memorandum #3

## Coburg Loop Path: Design Standards and Preferred Alignment

Date: Last Updated, November 13, 2008

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Prepared for: Coburg Loop Citizen Advisory Committee and Technical Advisory Committee and the Oregon Transportation and Growth Management Program

### 3.1 Preferred Path Alignments and Routing Options

Using the general lineal park alignment identified in the adopted *Coburg Parks and Open Space Master Plan* (2005) as a starting point, several routes for the Coburg Loop Path were considered. From this, a preferred alternative was ultimately selected based on site analysis and input received from the Citizen Advisory Committee, Technical Advisory Committee, and the general public. The preferred route will likely be adjusted based on input from property owners and additional study. The following is the route description by segment:

#### Industrial Way Corridor:

This corridor will provide an important path connection parallel to Industrial Way from Pearl Street to Wetland Park, a distance of approximately 4,000 feet. In addition to providing access to one of Coburg's major employment centers, the path would also provide a direct connection to Wetland Park at the north end of Industrial Way and to the adjacent residential neighborhood to the west.

Industrial Way currently has no sidewalks or on-street bicycle lanes. The preferred path alignment is along the west side of Industrial Way for several reasons including the fact that it would provide a safer intersection crossing at Pearl Street and because the Muddy Creek Irrigation Channel also runs on the west side of Industrial Way and would provide an excellent point of interest for path users. One additional benefit of the west side siting will be that the path will make the connection to the neighborhood to the west without the need for a crossing of Industrial Way. This connection to the neighborhood will consist of a 750-foot path running east-west from Industrial Way to Sarah Lane in the vicinity of Moody Park at the northeast corner of Coburg's traditional residential district. This area is also a gateway to the historic district. This connector will likely follow a planned wastewater easement and would cross the irrigation channel on a maintenance access bridge that will be constructed as part of a planned development on that site.

The City will work with property owners along Industrial Way to accommodate the path in a way that avoids impacting existing street trees, utility boxes, driveways, and signs to the greatest extent possible. This may result in a path alignment that moves between the road right-of-way and adjacent properties in order to avoid impacting existing features.

#### Roberts Road Corridor:

Coburg's other major employment area lies to the south of Pearl Street along Roberts Road. The Oregon Department of Transportation (ODOT) is planning to realign Roberts Road in 2009 so that it intersects directly with Industrial Way at the existing signalized intersection at Pearl

Street. As part of this planned re-alignment, ODOT will be constructing a 10-foot wide concrete path on the west side of the newly reconstructed Roberts Road, extending approximately 1,000 feet from Pearl Street. This path will set back five feet from the road to improve user safety and to allow ample room for street tree plantings. From here the path would extend south, either continuing to parallel Roberts Road or along the irrigation channel where it will meet up with the path segments proposed for the Mill Slough corridor and the former rail corridor.

#### North Coburg Corridor:

The area to the north of the current UGB, will be served by two paths. The first path segment will extend between Wetland Park on the north end of Industrial Way and the Coburg Elementary School, a distance of approximately 5,400 feet. From Industrial Way, the path would likely run along the southern edge of the City owned Wetland Park for approximately 300 feet. From there, the path could continue to the southwest toward the Coburg Elementary School in any number of alignments through what is now privately owned agricultural land. The path through this area will be incorporated into the future development pattern should the UGB be expanded northward in the future.

A second path segment will extend along the northern edge of the existing UGB between Coleman Street and the elementary school, a distance of approximately 3,000 feet. This will be a key connector from the existing neighborhood on the northeast side of Coburg and the school. The path through this area will be incorporated into the future development pattern should the UGB be expanded northward in the future. However, this is an important path connection with, or without, UGB expansion since it will serve the existing neighborhood and will be a high priority segment.

#### Rail Corridor:

This former rail corridor extending between Roberts Road and Dixon Street will provide a key connection between the employment center, Coburg's southeast neighborhood, Kamping World RV Park, and the planned path system to the north and west. This tree lined path segment, approximately 2,000 feet in length will be relatively easy to construct once acquisition occurs, due to the gravel surfacing already in place. It could also be used in the short-term simply as a gravel surfaced path until funding is secured for construction of the concrete surface. One major obstacle that currently exists in this corridor is a single house that is situated at the east end of Dixon Street. This house effectively blocks the through connection. The City may consider options such as acquisition of a short access easement adjacent to the house or eventual relocation of the structure.

#### Mill Slough Corridor:

The total length of this path segment will be approximately 6,900 lineal feet (4,500 to the east of Willamette Street and 2,400 to the west) and extends along the entire southern and western edges of the city. This will provide an excellent route for the path for several reasons. Not only would this route provide an enjoyable user experience, it would also provide path access to the existing residential neighborhoods to the north as well as future residential development anticipated in the area to the south should the UGB ever be extended in that direction. Where Mill Slough intersects with Coburg Bottom Loop, the path will run parallel to the road to the Coburg Elementary School. To avoid conflicts with active management of the adjacent filbert orchard, the path will be sited on the east side of the road. Two connector trails, one at the end of Vintage Way and one from Abby Road will be constructed to improve connectivity between the path and the neighborhood. A bridge crossing may be necessary to complete the connection to Abby Road. Because this segment lies almost entirely outside of the current UGB, implementation would be dependant on land acquisition and grant funding or would be

included as an element of future development plans should be UGB be expanded into this area in the future.

#### Canterbury Bio-Swale:

This 1,200 lineal foot path segment will run along the City owned bio-swale between Coburg Bottom Loop Road and Van Duyn Street. A future parking lot may be sited on this trail segment near Van Duyn Street to accommodate visitors who will be using the path.

#### Armitage Park Connector:

A connector trail will extend approximately one mile between the southern edge of Coburg and Armitage County Park on the McKenzie River. This path concept was first identified in the *Rivers to Ridges Regional Parks and Open Space Vision* (2002) and subsequently in the *Coburg Park and Open Space Master Plan* (2004) and was also a popular theme at the public outreach event for the Coburg Loop Path held in March 2008. A path in this location will serve both a recreation and transportation function and would provide access to and from Eugene and Springfield and the existing and planned network of multi-use trails located there. The historic rail bridge that crosses the McKenzie River has already been retrofitted for bicycle and pedestrian use and would be utilized as the crossing point over the river. Because most of this path connection lies outside the City's UGB, a partnership approach that could include Lane County, Eugene, Springfield, and other entities would be the most logical approach for achieving this connection. This path segment is approximately 6,500 feet in length including 4,500 feet to the south of Coburg's UGB.

This segment would ideally follow the route of the former railroad corridor, although a portion of this segment to the north of Roberts Court could potentially be routed along the irrigation channel and away from the busy Roberts Road as a second alternative. Much of the path segment inside the UGB can be accommodated on existing public right of way. To the south of Roberts Court, the remainder of the path will need to cross land that is currently in private ownership all the way to Armitage Park. Because of this, the exact location of the path will ultimately be based on the success of public acquisition of land or access easements through this area. The alignment of the path along the rail corridor is advantageous for two reasons. First, it is the most direct route between the City and Armitage Park and follows an almost level grade. In addition, the gravel surfacing that was placed for the railroad forms a solid base and would likely reduce the cost of constructing the path.

#### Bicycle Boulevards:

The easiest way to achieve connectivity to the planned path from existing developed neighborhoods in Coburg will be to utilize the existing network of local streets, selecting certain streets as designated boulevards for bicycles and pedestrians. Because much of the local street network in the residential areas of Coburg was platted as a connected grid, these streets already provide for very good bicycle and pedestrian movement. However, it would be beneficial to designate official routes so that measures can be taken to further improve these streets for bicycle and pedestrian movement. Improvements along these designated bicycle boulevards will include addition of signage, improved crossing points at major streets (see section 3.2), and traffic calming where necessary. Because many of the local streets in Coburg are quite narrow, traffic speeds tend to be very slow already, but some further modifications could be made to limit traffic volumes on these streets if it becomes a problem in the future.

On the east side of Willamette Street, Colman Street was selected for the primary north-south bicycle boulevard, with a one block segment of Miller Street also making a north-south connection. Portions of Mill Street, Dixon Street, Thomas Street, and McKenzie Street will be

included as the east-west bicycle boulevards. Abby Road, McKenzie Street, and Vintage Way will be the designated bicycle boulevards on west side of Willamette Street. In total, 8,500 lineal feet of existing roadway will be designated as bicycle boulevards. As additional residential development occurs in the future, the bicycle boulevard concept should be considered in those areas as well.

### **3.2 Street Crossings**

With the Coburg Loop Path extending around the perimeter of the entire city, several crossings of arterial or collector streets will be necessary. Improvements that make these crossing points safe for bicycles and pedestrians is a critical element for the implementation of the proposed Coburg Loop Path system. Combinations of different approaches are being proposed for these key crossings including installation of raised medians, addition or improvement of painted cross walks, signage, and illumination. Key crossing points for the Coburg Loop Path system and proposed bicycle and pedestrian improvements are as follows:

#### Pearl Street at Industrial Way:

The proposed path will cross Pearl Street on the west side of the signalized intersection with Industrial Way, with both bicycles and pedestrians utilizing the marked pedestrian crosswalk in this location. Due to its proximity to Interstate-5, this intersection carries significant truck and commuter traffic with a peak volume of approximately 1,700 vehicles per hour (Coburg TSP, 2005). This volume is particularly high during shift changes at local industries. The majority of the vehicles at this intersection turn east toward I-5, making the west side crossing for the path a much more desirable and safer option. The path has been sited with this in mind.

*Proposed Improvements:* Because this intersection is already signalized with a walk activated pedestrian crossing and ample illumination, it should function well as a bicycle and pedestrian crossing point in its current configuration. The primary improvement proposed for this area is to the crosswalk on the west side of the intersection, which will be made more visible to motorists by using striped (zebra) markings. These are much more effective than the double lines that are currently in place at this intersection.

#### Coburg Road:

The proposed path will cross Coburg Road approximately 800 feet south of the current UGB. Coburg Road is a primary connection between Eugene and Coburg and carries a peak volume of approximately 820 vehicles per hour (Coburg TSP, 2005). The likely crossing point for the path is not signalized, so additional treatments will be required to create a safe crossing at this point. This crossing point has good sight distance in both directions. The primary issue in this area is the need to slow traffic as it approaches the path crossing and the city limits from the south.

*Proposed Improvements:* When the path is constructed in this area, a crosswalk will be painted onto the road surface using striped (zebra) markings. In addition, illumination (two ornamental lighting standards to match the downtown lighting) and signage will be added to further emphasize this crossing.

#### Willamette Street Crossing at Vintage Way:

Just inside the UGB on the City's southern edge, the proposed path/bicycle boulevard will intersect with Willamette Street at Vintage Way. Although traffic speeds are reduced in this area with a posted 25 mph speed limit, volumes are still high, so improvements are needed.

*Proposed Improvements:* Treatments similar to those proposed for the Coburg Road crossing described above would likely be employed in this area as well. This will include striping, illumination (addition of at least one ornamental lighting standard), and signage.

#### Willamette Street Crossing at McKenzie:

In the heart of downtown Coburg, the proposed bicycle boulevard crosses Willamette Street at the intersection of McKenzie Street. Willamette Street has a posted speed limit of 25 mph in this location and although traffic volumes can be high, speeds tend to be low in this area. Illumination is adequate and sidewalks, curb and gutter, and bicycle lanes are currently in place at this intersection. Crosswalks are not present.

*Proposed Improvements:* Proposed improvements to this intersection include installation of a striped (zebra) crosswalk across Willamette Street on the south side of the intersection and installation of a raised pedestrian median in conjunction with the cross walk. Adequate space for installation of this median currently exists in this location, so major modifications to the road would not be required (see photo and diagram). These medians are referred to as *pedestrian safe islands* because they provide refuge to pedestrians at the half way point of the crossing. They also help visually highlight the crossing to motorists. Ideally, raised medians are constructed with a smooth, traversable surface, such as brick pavers, but can also be landscaped. If landscaping is included, the plants must be low enough so they do not obstruct visibility. Design specification will be developed when funding is secured.

#### North Coburg Road:

West Van Duyn Street, Coburg Bottom Loop, North Coburg Road, and Coburg Road converge at this four way intersection, which is currently a major bicycle and pedestrian crossing point between the City and the Coburg Elementary School. The proposed Coburg Loop Path from the north and south will also utilize this intersection as a crossing point. North Coburg Road carries a peak volume of approximately 230 vehicles per hour (Coburg TSP, 2005), much of it truck traffic. Stop signs are currently in place on the north and south sides of the intersection (Coburg Bottom Loop and Coburg Road North), but no stop is required for vehicles coming from the east or west (Coburg Road and West Van Duyn Street). Highly visible striped crosswalks are currently in place on three sides of this intersection, excluding the east side. Although traffic volumes are relatively low in this area, numerous participants in the March 2008 workshop expressed concerns about the safety of this intersection for bicycles and pedestrians traveling to the school. Field observations indicated that one of the primary safety issues at this intersection is the fast moving traffic coming from the west along Coburg Road, which does not consistently yield to pedestrians in the crosswalk. Adequate pedestrian crossing and school zone signage is currently in place and the intersection is well illuminated by two ornamental light standards and a pole mounted light.

*Proposed Improvements:* Proposed improvements in this area focus on the west side of the intersection where a raised median (pedestrian safe island) will be installed and curb and gutter will be added to the south side of Coburg Road and the west side of Coburg Bottom Road at the intersection. These combined, will help define the edge of the roadway and narrow the crossing distance. In addition to providing a refuge for bicycles and pedestrians, the median will better highlight the approaching intersection for drivers coming from the west on Coburg Road (see diagram). Additional treatments that might be considered for this intersection in the future include highlighting the crosswalk through addition of texture or color or the installation of a flashing yellow light.

In the long-term, an additional intersection along North Coburg Road may be added to the north of the school if the City's UGB is expanded in that direction. If this were to happen, this new intersection could potentially be utilized as a secondary bicycle and pedestrian crossing point for new residents in that area traveling to the school.

### **3.3 Proposed Coburg Loop Path Standards**

Based on an analysis of cost of materials, estimated life spans, ADA standards, and Citizen Advisory Committee input, the following standards have been developed for the Coburg Loop Path:

#### Path Width:

The standard width for the Coburg Loop path is 10 feet or approximately 3 meters (see cross section). Exceptions to the 10-foot path width may be made for areas with significant constraints such as slope, the presence of sensitive natural resources, or the presence of existing large trees. However, these exception areas should be minimized in length whenever possible and should not result in a path of less than 8 feet in width at any point since it is likely to pose significant safety issues.

#### Lateral and Vertical Clearance:

A 2-foot or greater "shy" or clear distance is required on both sides of the path to provide visual clearance and to allow recovery by errant bicyclists. This area should be free from vertical objects such as signs, posts, or trees. Exceptions may be made in cases where large trees would otherwise have to be removed. The standard clearance to overhead obstructions including tree limbs is 10 feet.

#### Setback from Roadways:

Where the path is parallel and adjacent to a roadway, there should be a 5 foot or greater width separating the path from the edge of roadway wherever feasible. This serves the function of providing separation from moving vehicles as well as providing ample space for street trees and other landscaping. Where a five foot separation is not possible, a physical barrier such as a fence or railing of sufficient height should be installed.

#### Surfacing:

To provide long-term durability and minimal maintenance costs, the path will be constructed from Portland cement concrete, with a minimum thickness of 5-inches, set on a 6-inch compacted aggregate base. In addition, a 2-foot wide compacted aggregate apron will be placed on either side of the path to help prevent cracking along the edges (see cross section). Saw-cut joints should be provided along the path at intervals between 6 and 8 feet. Where the path is crossed by a driveway or other location where regular vehicle crossing will occur, the concrete on the path should be reinforced with steel mesh, re-bar, or other similar reinforcing material to prevent cracking.

#### Optional Soft Surfaced Trail Parallel to Path:

An optional soft-surfaced running/walking trail could be added to the shoulder of the hard-surfaced path if desired. This bark or wood chip surface would be approximately 2 feet in width and would be placed on top of the gravel shoulder that lies immediately adjacent the path (see cross section).

#### Grades and Cross-Slope:

The maximum grade of the path will be 5%, with steeper grades allowable for a short distance (up to 500 feet), but not to exceed 8%, providing there is good horizontal alignment and sight

distance. The standard path cross-slope is 2% to provide adequate drainage, with a maximum of 5% allowed. All path elements must comply with ADA standards throughout its length.

**Bridges:** Construction of up to four bridges will be necessary to complete the path following the proposed route. This includes two crossings of the irrigation channel (adjacent to Industrial Way and on the area west of the Wetland Park) and one bridge crossing possibly two needed over Mill Slough adjacent to Coburg Bottom Loop Road. The exact bridge design will be determined as funding becomes available, but all bridges should follow the following standard:

- Bridges will be the same width as the approaching concrete path, plus an additional one-foot shy distance on both sides. Bridges will include fences or railings along their length on both sides. The fence should be high enough to prevent a cyclist from toppling over. 54" is recommended. Openings in the railing must not exceed 6 inches in width. Where a cyclist's handlebar may come into contact with a fence, a smooth wide "rub-rail" may be installed at a height of approximately 3 feet.

**Bollards at Road Intersections:** To limit illegal vehicle traffic on paths, bollards (barrier post) will be installed at all locations where the path meets a roadway. A single bollard is preferred, placed in the center of the path. The bollard must be designed to be removable to allow passage of maintenance and emergency vehicles as needed. Bollards should be painted with bright, light colors for visibility and include reflective material for visibility at night.

**Lighting:** Lighting will be installed along the path and bicycle boulevard only at major intersections.

The key locations recommended for supplemental lighting include:

- The intersection of Coleman Street and Pearl Street (bicycle boulevard crossing)
- The Coburg Road crossing at the Mill Street Path (south of UGB)
- The Coburg Road crossing at Vintage Way

Two light standards are recommended for each crossing point (one on each side) and should be ornamental lighting fixtures similar to those already in place in the downtown.

The remainder of the path will not be illuminated. Limiting the lighting on the path will reduce total project cost, cut down on light pollution, reduce risk of vandalism, and minimize long-term maintenance costs. Lighting the path may also give users a false sense of security and encourage late night/early morning use.

### **3.4 Amenities and Support Facilities**

#### **Mileage Markers**

Markers indicating mileage will be placed at quarter-mile intervals along the path. These will allow path users to calculate distances and serve an important safety function for any emergency response. The markers could either be painted onto the path surface (using non-slip paint) or placed onto posts adjacent to the path (see photo). If posts are used, they should be placed at least two feet from the path edge to minimize risks of errant bicyclists hitting the posts. Mileage markers are often funded through donations.

#### **Parking**

The Coburg Loop Path will draw users from outside of the community and many of those will likely travel Coburg by car and require parking. In the short-term, existing parking facilities will

likely be adequate. On-street parking at the north end of Industrial Way and the area around downtown Coburg can be utilized. Signage and possibly road paint would be all that would be needed in these areas. In addition, the parking lot at the Coburg Elementary School could be utilized for path related event parking when school is not in session. Over the long-term however, additional parking facilities may be needed. A small parking lot (4-6 auto spaces) could be constructed in the future if needed on City owned property along the bio-swale near Bruce Street.

### **Signage**

Way-finding and informational signage will be placed at key locations along the path including at trailheads, road intersections, path intersections, and designated parking areas. Signage will include information on rules for path use, mileage to destinations, and route maps. In addition, interpretive signage will be placed at key locations along the path network (see Themes section below). A common logo (City logo or a new Coburg path logo) and style will be used for all signage. Interpretive signage is often funded through donations.

### **Benches**

A series of benches will be placed along the route. Benches will be sited in areas with interesting features, shade trees, and viewpoints. Benches are often funded through donations.

## **3.5 Themes**

To help celebrate the uniqueness of Coburg and the surrounding landscape and to provide interest and educational opportunities for users, a series of themes will be applied to individual path reaches. Interpretive signage will be placed along the route and will provide information about each of the adopted themes. The proposed themes are suggestive based on Citizen Advisory Committee and public input and may be adjusted as individual path segments are constructed. Proposed themes include the following (see map for theme locations):

**Agriculture:** The northern and southern segments of the path will pass through agricultural lands that are currently in active production and will provide sweeping views to the surrounding agricultural lands. Interpretive signage could focus on crops and agricultural techniques. Also, this segment of the path crosses the irrigation channel, providing an opportunity for interpretation of irrigation practices.

**Trees:** Coburg is already well known for its picturesque street trees and this theme could be continued along portions of the path. The path segment between Colman Street and Coburg Bottom Loop Road is well suited for this theme. This corridor could function as a lineal arboretum, lined with a diversity of tree species, each labeled with common and botanical names. If the UGB were to be expanded in the future, the path segments in those areas could be designed to carry this theme as well.

**Waterways and Riparian Vegetation:** The southwest segment of the path follows the mature riparian forested area along Mill Slough and the City owned bio-swale. This area is well suited for interpretation of native riparian forest, flood storage, and water quality issues.

**Coburg History:** The City of Coburg is already known for its historic themed downtown and antique shops. This “Historic Coburg” theme could be expanded on along portions of the path and associated bicycle boulevards and along the former rail corridor.

**Wetland Ecology and Public Works:** The Coburg Loop Path will provide direct access to the City owned Wetland Park at the north end of industrial way, which will eventually include a short

interpretive trail. This provides opportunities for interpretation of wetland flora and fauna, the origin of the ponds. In addition, this area provides good access to the planned Coburg wastewater treatment and water re-use facility and opportunities abound to interpret the City's interesting public works functions at this location.

Industry: The path will pass through the length of Coburg's industrial corridor along Industrial Way and Roberts Road. Interesting facts and information about current industrial uses could be located within this reach.