OREGON CITY

Transportation Advisory Committee

625 Center Street | Oregon City OR 97045
Ph (503) 657-0891 | Fax (503) 657-7829

Members:
Mary Smith, Chair
Betty Mumm, V. Chair
Jonathan David
Scott Failmezger
Ronald Haas
Betty Schaafsma
Don Slack
Nancy Walters
Terry Wright

AGENDA

TUESDAY, OCTOBER 19, 2010
6:00 pm
City of Oregon City
City Hall
625 Center Street, Oregon City
Commission Chambers

I. CALL TO ORDER

II. ROLL CALL

III. APPROVAL OF MINUTES

September 21, 2010 (*Wright, Haas and Mumm absent*)

IV. AGENDA ANALYSIS

V. BUSINESS

A. **Safe Routes to School** (*Discussion - Ted Thonstad*)
B. **Downtown Parking Committee -** *Rolling Agenda Item*
C. **99E Tunnel -** *Rolling Agenda Item*
D. **Turn Signal at 14th and 99E** *(Update – Lewis)*
E. **Downtown Circulation Study** - *(Update – Lewis)*
F. **Beavercreek Road School Speed Zone -** *(Update – Lewis)*
G. **Bicycle Safety Treatments/Sharrows** (*Update)*
H. **McLoughlin Neighborhood Concerns** (*Update – Lewis)*
I. **Signal Configuration at S. 2nd and 99E** (*Information*)
J. **Construction Projects** (*Update*)
K. **Membership** (*Update*)

VI. FUTURE AGENDA ITEMS

VII. ADJOURNMENT

Next Meeting: November 16, 2010

Attachments:

1) Minutes of September 21, 2010 (5 pages)
2) Safe Routes to School Web Page (1 page)
3) Safe Routes to School Flyer (2 pages)
4) Draft Commission Report for Resolution 10-26, Downtown Circulation Study Recommendations (2 pages)
5) Draft Resolution 10-26, Downtown Circulation Study Recommendations (3 pages)
6) PDOT Guidelines for Using Shared Lane Pavement Markings (7 pages)
7) Shared Lane Pavement Parking (Sharrows) Script (2 pages)
8) Considerations for Using Shared Lane Pavement Markings (3 pages)
9) Letter to Editor by Kathleen Cook to "Fix Highway 99E light before it causes a pileup", dated September 15, 2010 (1 page)
10) E-mail response from Kathleen Freitag, ODOT, dated October 14, 2010 (4 pages)
11) E-mail from Amber Holveck requesting new Chamber of Commerce appointment to the TAC (1 page)

City Staff:
John Lewis, Operations Manager
Kathy Griffin, Administrative Support
Nancy J.T. Kraushaar, City Engineer/Public Works Director

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Transportation Advisory Committee Web Site
http://www.orcity.org/cityrecorder/transportation-advisory-committee
Complete Agenda Packets and Minutes available

Transportation Advisory Committee Minutes

September 21, 2010

I. CALL TO ORDER

The Transportation Advisory Committee meeting of **Tuesday, September 21, 2010**, was called to order by Chair Smith at approximately 6:00 PM in the Commission Chambers at Oregon City Hall, 625 Center Street, Oregon City, Oregon.

II. ROLL CALL

Committee members present included Chair Mary Smith, Scott Failmezger, Don Slack, Betty Schaafsma, Jonathan David and Nancy Walters. Terry Wright, Ron Haas and Betty Mumm were excused.

Staff members present included John Lewis, Operations Manager, and Kathy Griffin, Administrative Assistant.

III. APPROVAL OF MINUTES

Betty Schaafsma moved to approve the minutes of June 15, 2010. Don Slack seconded the motion.

The motion **carried** with Mary Smith, Don Slack, Betty Schaafsma, Jonathan David and Nancy Walters voting yes. Terry Wright, Ron Haas and Betty Mumm were absent. Scott Failmezger abstained.

IV. AGENDA ANALYSIS

Updates on the turn lane light at the intersection of 14th Street and 99E and an update on the Hazelwood Drive traffic counts were both added to the agenda.

V. BUSINESS

A. Pearl Street Traffic Concerns

Nancy Walters thought the restriping on Pearl Street was a big help and the commission agreed.

Looking at the traffic counts, John Lewis noted that the 85th

percentile speeds were surprisingly high at around 29 mph. It was noted that the westbound traffic volume counts were much higher than the eastbound counts which supported the theory that a lot of westbound traffic was cut-through traffic trying to avoid the Division/Molalla/7th Street intersection.

It was noted that before installing any speed bumps, the City and the TAC needed to make sure to involve emergency services in order to get their input regarding speed bumps on Pearl Street.

It was agreed to ask that Betty Mumm advise her neighbors that the City has adjusted the striping so as to widen the travel lane on the north side and completed traffic studies. Because the speeds are somewhat high, the Public Works Street Division will look into pouring a permanent foundation along the roadway so the City's portable speed sign can be installed on the roadway on a rotational schedule.

The neighborhood shall be advised to leave things status quo for the time being so it can be ascertained if the situation improves prior to entertaining any further solutions.

B. Downtown Parking Committee

The City Commission authorized implementation of the plan.

C. 99E Tunnel

John Lewis explained that he was waiting to hear back from ODOT staff and will report back to the TAC when he has new information.

D. Beavercreek Road School Speed Zone

John Lewis reported that the State of Oregon denied a 35 mph speed zone at the high school. Instead, the speed limit on Beavercreek Road will be 35 mph from the CCC entrance to Loder Road and 45 mph from Loder Road to the city limits. The State's reasoning was that there was no pedestrian activity there warranting a school zone.

He explained that he and Joe Marek from Clackamas County went before a transportation committee in Salem where they continued to advocate for a school speed zone. They were told by State officials that school zones were for pedestrians, not for slowing down young drivers which was a need reported by the Oregon City School District.

He added that Joe Marek has been pushing really hard to work with the School District to develop a safe routes to school plan.

John was in the process of drafting an agreement for the City to work with the School District to design signal improvements at Meyers and Beavercreek Roads and Mary Smith would be sitting on a committee related to the improvements. Jonathan David cautioned against building something based on projected warrants. He also asked that police enforcement of the area adjacent to the school be increased.

E. Bicycle Safety Treatments

Mary Smith and Don Slack went to a webinar on the new MUTCD updates held at the City. They agreed that a lot of interesting information regarding bikes was presented. One of them was the use of reflectors on the face of curbs which stood out really well.

Kathy Griffin was asked to contact Roger Geller at the City of Portland to get information regarding sharrows and provide it to the TAC.

F. McLoughlin Neighborhood Concerns

The Committee reviewed the letter submitted by the McLoughlin Neighborhood. The TAC thought it would be helpful to have pedestrian counts in some areas. They also added that the McLoughlin Neighborhood needed to understand that some of their concerns were as a result of the Carnegie Center being used as a library. However, the library was a temporary situation and they were asking for permanent traffic improvements that may not be needed once the library was relocated.

John Lewis reported that Nancy Kraushaar would be hiring a traffic engineering consultant to do a traffic study on a couple items in the letter to see if they were warranted.

G. TriMet Ballot Measure

The item was for information only.

H. Metro - Community Investment Strategy

The item was for information only.

I. Construction Projects

1. **Holcomb Boulevard Pedestrian Improvements** - It was pointed out that with the completion of construction, there seemed to be too many street lights in the area. Nancy Walters thought that anyplace with a light on the north side could probably have the lights on the south side turned off/removed. Additionally, the intersection of Hunter and Holcomb has both old and new lights. John Lewis agreed to check into the removal of the old lights.

   Don Slack noted that the construction signs were still out and said drivers were confused about whether they should go construction or non-construction speed. Ms. Griffin would forward the concerns to the project manager for action.

2. **The Jughandle** - Nancy Walters asked about the timeframe to submit comments on the design of Phase 2 of the project. She was advised to contact Aleta Froman-Goodrich promptly because that phase was under design. In particular, the Park Place neighborhood was interested in pedestrian facilities in the neighborhood of the retaining wall on the east side of Hwy. 213 at Holcomb.

J. Turn Signal at 14th and 99E

Don Slack asked whether or not Donald Belshaw's concerns regarding the intersection had been handled. John Lewis said that he had contacted Mr. Belshaw but he would make sure it was handled to Mr. Belshaw's satisfaction.

K. Hazelwood Street

A Hazelwood Street resident requested traffic counts on Hazelwood to see if traffic calming measures were warranted. The counts were provided to the Committee and came in below the 30 MPH speeds necessary to qualify for speed bumps.

Ms. Griffin would notify the resident that the traffic counts don't meet warrants for speed bumps.

L. Other Business

John Lewis passed out some traffic sign ideas.

Another MUTCD webinar was scheduled at City Hall and Ms. Griffin was asked to forward the information on it to the Committee.

The group was asked if they wanted to work on a safe routes to schools program. If so, something needed to be prepared so that funding could be applied for. Nancy Walters was particularly interested in a safe routes to school program for Holcomb Elementary because there was no pedestrian route and the children were not allowed to walk to schools. Mary Smith agreed to stop by the School District and get boundary maps for all the schools.

Jonathan David explained that there were noninfrastructure and infrastructure grants. The noninfrastructure grant should be applied for by the School District. The infrastructure grant should be applied for by the City.

John Lewis asked about the Committee's goals and what they wanted to work on during the coming year. It was noted that the Transportation System Plan needed to be updated and a safe routes to school program could be worked on.

VI. ADJOURNMENT

There being no further business, the meeting adjourned at approximately 7:54 p.m.

Respectfully Submitted,

Kathy Griffin
Administrative Assistant

A video recording of this meeting is available at http://www.orcity.org/cityrecorder/meeting-agendas-minutes-and-videos.

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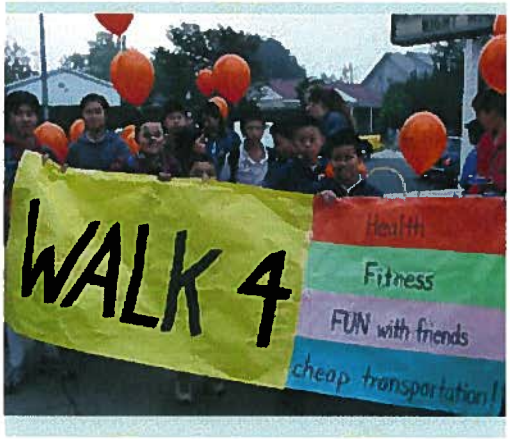
SafeRoutes
National Center for Safe Routes to School

Getting Started: Steps to Safe Routes to School



The steps below provide a framework for a Safe Routes to School (SRTS) program based on what has worked in other communities. These steps are meant to provide guidance. Getting things done may require different approaches or using these steps in a different order. For more information on steps to get your SRTS program started, visit the SRTS Online Guide.

1. Bring together the right people: Identify people who want to make walking and bicycling to school safe and appealing for children, including children with disabilities. Sharing concerns, interests and knowledge among a variety of community members with diverse expertise can enable groups to tackle many issues.

2. Hold a kick off meeting and set a vision: A goal of the first meeting is to create a vision and generate next steps for the group members.

3. Gather information and identify issues: Collecting information can help to identify needed program elements and provide a means to measure the impact of the program later.

4. Identify solutions: Solutions to identified issues will include a combination of education, encouragement, engineering and enforcement strategies. Safety is the first consideration.

5. Make a plan: It doesn't need to be lengthy. Include encouragement, enforcement, education and engineering strategies. Create a time schedule for the plan.

6. Get the plan and people moving: Hold a kick off event starting with a fun activity. Participate in International Walk to School Day or celebrate a Walking Wednesday.

7. Evaluate, adjust and keep moving: To sustain the program, consider building additional program champions and letting people know about your successes.

visit the Federal SRTS Program site

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the National Center for Safe Routes to School within the University of North Carolina Highway Safety Research Center in partnership with the American Association of State Highway and Transportation Officials, America Walks, the Governors Highway Safety Association, the Institute of Transportation Engineers, and Toole Design Group.

Children Deserve Safe Routes to School

and Communities **Across the US** are Making it Happen

Safe Routes to School (SRTS) programs use a comprehensive approach to make school routes safe for children to walk and bicycle. Community leaders, parents and schools are using these programs to better the lives of their children one step at a time.

Issue	Why Safe Routes Works
Traffic clogs the roads around schools, creating a difficult and unsafe environment for walking and bicycling	Leaving the car at home reduces the traffic surrounding schools and improves air quality
Parents and children are walking and bicycling in unsafe conditions	Safety is the core component of all good SRTS programs
More children are becoming less physically active	Walking and bicycling to and from school can contribute towards the development of a lifelong habit of physical activity

Success

A successful Safe Routes to School program is a sustained effort that involves bringing the right mix of people together, identifying the issues and finding ways to improve walking and bicycling conditions. Safe Routes to School programs work to...

- assess the safety of school travel routes
- encourage more walking and bicycling to school through fun promotions and events
- make engineering changes such as building sidewalks, improving streets crossings and training crossing guards
- educate students, parents and drivers about safe travel
- promote safe walking and bicycling throughout the community

Start Now

New legislation has recognized the value of Safe Routes to School programs and is providing funding for States to establish programs. To learn more about Safe Routes to School, please visit the National Center for Safe Routes to School Web site at **www.saferoutesinfo.org**

SafeRoutes
National Center for Safe Routes to School

International Walk to School

Many established Safe Routes to School programs have been launched as a result of Walk to School events. Traditionally held in October, Walk to School events offer communities an excellent launch for a Safe Routes to School program conducted throughout the year. Please visit www.walktoschool.org for more information and resources for Walk to School events in the U.S.

Promising Examples from Across the Country

- The city of Phoenix, Arizona works with parents and schools to create routes to school maps used to show parents and students the walking routes and crossing locations
- Frequent Walker cards used in Elmhurst, Illinois encourage students to walk or bicycle to school as they received prizes for hole punches in their cards.
- Residents in East Cleveland, Ohio, sought to change an unsafe pedestrian environment by improving and adding signals, signs and cross walks
- Schools in Marin County, California offer an impressive array of walking and bicycling opportunities, leading to an increase in the number of children walking and bicycling

For more examples of how communities are making it happen with Safe Routes to School, please visit www.saferoutesinfo.org

Safe Routes Resources

The National Center for Safe Routes to School offers a host of tools and resources for program coordinators to establish, implement and promote their SRTS programs, including:

- SRTS-related education and promotional materials
- A comprehensive online guide offering a variety of information and materials needed to create a SRTS program
- Training options ranging from a multi-day course to providing a speaker for a conference
- An online database with information about State SRTS programs, as well as local projects and activities that receive federal funding
- Technical assistance resources to answer SRTS inquiries

National Center for Safe Routes to School

730 Martin Luther King Jr. Blvd,
Suite 300
Campus Box 3430
Chapel Hill, NC
27599-3430

1-866-610-SRTS

www.saferoutesinfo.org

SafeRoutes

National Center for Safe Routes to School

Agenda Item No. 7b
Meeting Date: 20 Oct 2010

COMMISSION REPORT: CITY OF OREGON CITY

TO:	Honorable Mayor and City Commission
FROM:	Nancy Kraushaar, City Engineer and Public Works Director
PRESENTER:	Nancy Kraushaar, City Engineer and Public Works Director
SUBJECT:	Resolution No. 10-26 - City Commission Approval of Downtown Circulation Study Recommendations and Addition of Projects to Transportation System Plan Capital Facilities Improvement Plan
Agenda Heading: General Business	
Approved by: David Frasher, City Manager	

DRAFT

RECOMMENDED ACTION (Motion):

Move to approve Resolution 10-26 approving the Oregon City Downtown Circulation Study recommendations and adding projects to the Transportation System Plan Capital Facilities Improvement Plan.

BACKGROUND:

The Oregon Departments of Transportation (ODOT) and Land Conservation and Development (DLCD) have sponsored a Quick Response Transportation Growth Management (TGM) grant to study the circulation in downtown Oregon City and determine if reverting to two-way traffic on Main Street between 6th and 9th is beneficial for multi-modal users and businesses.

ODOT has jurisdiction of Main Street between 5th Street (McLoughlin Boulevard) and about half-way between 7th and 8th Streets. Oregon City has jurisdiction over other Main Street blocks.

During the last nine months, the City of Oregon City has been closely working with Main Street Oregon City, community stakeholders, and agency partners (ODOT, TriMet, and Clackamas County) on the Oregon City Downtown Circulation Study (Study). A summary of the meetings is attached.

The upcoming January 2011, two-year Highway 43/Arch Bridge construction closure has given us an opportunity to raise questions about downtown multi-modal traffic circulation – particularly while the bridge is closed:
1 - Are the way visitors and residents driving through downtown the most conducive to the commercial health of our downtown marketplace?
2 - Does the current traffic circulation pattern make it easy for visitors to get to the downtown retailers, restaurants and professional services they're seeking?

The Study (led by Crandall Arambula, urban design consultants) has helped us explore this issue and found that a two-way Main Street:
• Increases drive-by exposure to businesses.
• Encourages Downtown to be a "destination" versus a thoroughfare.
• Eliminates out of direction travel and improves access to businesses and parking.
• Provides traffic speeds which tend to be slower than on one-way streets.

The Study has revealed the following facts and figures:
• The ideal traffic flow for a retail friendly Main Street like ours is between 8,000 and 15,000 cars a day. Currently our one way Main Street underperforms this benchmark.

• The Arch Bridge closure may reduce traffic flow to less than 3,000 cars per day.
• Two-way traffic on the 600, 700, and 800 blocks of Main Street would increase daily traffic from the one-way configuration and improve exposure for businesses located on these blocks.
• A return to a two-way Main Street on the 600, 700, and 800 blocks of downtown should be strategically implemented to optimize on-street parking.

The Study has reported the following challenges associated with a to two-way Main Street on the 600, 700 and 800 blocks:
• More congestion at 7th and Main Intersection onto and off the Arch Bridge.
• Changes in on-street parking.
• Changes in bus stop and trolley stop locations.
• Tight turns for trucks and buses.
• Changes in existing curb extensions.

The goal of the Study was to come to some determination about a return to a two-way Main Street and a two-way 7th Street, so that if changes do need to be made, they can be made in coordination with the Arch Bridge restoration project. Changes must be approved by ODOT and the City Commission.

Resolution No. 10-25 approves the recommendations of the Study and adds the projects recommended by the Study to the Oregon City Transportation System Plan Capital Facilities Improvement Plan.

BUDGET IMPACT:

FY(s):
Funding Source:

ATTACHMENTS:

Oregon City Downtown Circulation Meeting Summaries
Resolution No. 10-25

DRAFT

RESOLUTION NO. 10-26

A RESOLUTION APPROVING THE OCTOBER 2010 OREGON CITY DOWNTOWN CIRCULATION STUDY RECOMMENDATIONS AND ADDING PROJECTS TO THE OREGON CITY TRANSPORTATION SYSTEM PLAN CAPITAL FACILITIES IMPROVEMENT PLAN

WHEREAS, the Oregon Department of Transportation (ODOT) and Land Conservation and Development (DLCD) have sponsored a Quick Response Transportation Growth Management grant to study the circulation in downtown Oregon City and determine if two-way traffic on Main Street between 6th and 9th Streets is beneficial for multi-modal users and businesses; and

WHEREAS, the Oregon City Downtown Circulation Study (Study) focused on the area located in downtown Oregon City bounded by McLoughlin Boulevard, Railroad Avenue, 5th Street, and 10th Street.

WHEREAS, the Study goals were to:

- Explore the pros and cons of restoring two-way traffic to portions of the downtown area.
- Simplify circulation and parking to improve desirability of the downtown as an activity/shopping destination.
- Identify specific recommendations for improving the pedestrian environment of the area.
- Improve access to the area for alternate modes of transportation, including bicycle and transit.
- Identify specific action items which will further the long-term goals of the circulation plan and can be implemented during the bridge restoration period.

WHEREAS, the Study included regular meetings, information exchange, and public outreach with Main Street Oregon City, downtown stakeholders, the community at-large, and agency partners (ODOT, TriMet, and Clackamas County); and

WHEREAS, ODOT has jurisdiction of Main Street between 5th Street (McLoughlin Boulevard) and about half-way between 7th and 8th Streets, and Oregon City has jurisdiction over other Main Street blocks; and

WHEREAS, the Study considered circulation issues relating to downtown retail success, Main Street bus and trolley service, vehicle turning movements at the Main/7th Street intersection, and downtown bicycle accessibility; and

WHEREAS, traffic engineering analysis was completed for traffic volumes and intersection operations on Main Street in the study area for existing conditions, Hwy 43/Arch Bridge construction closure conditions,and two-way Main Street conditions (during bridge construction closure, post bridge construction, and 2035 projected conditions); and

WHEREAS, the Study recommends Near-Term Projects and Minimum 2013 Projects that would correlate with the period when the bridge is closed for construction and when the bridge re-opens; and

WHEREAS, the Oregon City Transportation System Plan Capital Facilities Improvement Plan and the Metro 2035 Regional Transportation Plan already include the Main Street Sidewalk

Improvements between 5th and 15th Streets Project which is intended to serve as traffic calming elements and safety improvements through an improved pedestrian and bicycle friendly environment in downtown Oregon City; improve safe, pedestrian and bike-friendly connectivity to the TriMet Oregon City Transit Center, the 13th Street public parking lot, the Courthouse, the newly constructed Willamette Terrace and McLoughlin Boulevard improvements, the Willamette River Trail, the Municipal Elevator, the recently completed Amtrak station, and the many downtown businesses; improve downtown aesthetics and pedestrian comfort through updated street lighting and landscaping; and contribute to economic stability and enhance the livability of Oregon City and; and

WHEREAS, the Study Near-Term Projects include categories for Downtown Retail Success and Main Street Bus and Trolley Service:

1. Downtown Retail Success
   - Remove angled parking curb extensions (7th to 9th Streets)
   - Remove landscaped island at 6th Street
   - Restripe roadway for two-way traffic (6th to 9th Streets)
   - Replace signal with stop signs at Main and 7th Street
   - Restripe parallel parking and designate 2-hour parking (6th to 10th Streets)
   - Relocate or replace parking meters for parallel parking (7th to 9th Streets)
   - Determine feasibility of curbing Main Street alley accesses (7th to 9th Streets)
2. Main Street Bus and Trolley Service
   - Maintain trolley layover/stop at courthouse only during trolley service
   - Remove Main Street bus pullout; and

WHEREAS, the Study Minimum 2013 Projects include categories for Downtown Retail Success, Vehicle Turning Movements at Main and 7th, and Rerouting Trucks:

1. Downtown Retail Success
   - Convert three-way stop to 4-way traffic control (evaluate need for new signal) at 7th Street
2. Vehicle Turning Movements at Main and 7th Street
   - No right-turn (buses and trucks) on/off bridge and 7th Street
   - Consider restricting left turns off bridge and 7th Street
3. Rerouting Trucks
   - Two-way 7th Street (Main Street to Railroad Avenue)
   - Two-way Railroad (6th to 7th Streets)
   - Reverse 6th Street direction
   - Restripe angled parking on Railroad Avenue from 6th to 7th Streets
   - Restripe curbside parallel parking on 7th Street
   - Modifiy sidewalk corners for truck turning movement; and

WHEREAS, the Oregon City Transportation System Plan (TSP) Capital Facilities Improvement Plan (CFIP) includes transportation projects that the City wishes to construct and that may be funded through revenues generated by system development charges and have been publicly considered for other local, state, and federal funding resources and inclusion in the Metro Regional Transportation Plan (RTP); and

WHEREAS, the City's TSP CFIP may be modified "at any time" pursuant to ORS 223.309(2) and was most recently updated through Resolution 09-30; and

WHEREAS, the Study projects would be consistent with the Oregon City TSP goals that address multi-modal transportation options, safety, capacity, and implementation; and

WHEREAS, the Study projects would assist in Oregon City downtown economic development and retail success.

NOW, THEREFORE, OREGON CITY RESOLVES AS FOLLOWS:

The City Commission approves:

1. The October 2010 Downtown Circulation Study recommendations; and
2. Adding the Near-Term and Minimum 2013 projects recommended by the Downtown Circulation Study to the Oregon City Transportation System Plan Capital Facilities Improvement Plan.

Approved and adopted at a regular meeting of the City Commission held on the 20th day of October 2010.

ALICE NORRIS, Mayor

Attested to this 20th day of October 2010

Nancy Ide, City Recorder

Approved as to legal sufficiency:

City Attorney

PDOT Guidelines for Using Shared Lane Pavement Markings
3/28/05 Draft

BACKGROUND AND GENERAL GUIDELINES

A recent study in San Francisco demonstrated that Shared Lane Pavement Markings are an effective bikeway tool in a shared lane environment on roadways that should otherwise be striped with bicycle lanes. They have been shown successful at increasing separation between cyclists and parked cars and between cyclists and overtaking vehicles. Despite these benefits, they are not to be seen as a substitute for bicycle lanes, but are rather a method of last resort for roadways where the preferred treatment is striped bicycle lanes. Shared lane markings can be used on corridors in the absence of bicycle lanes, or to fill gaps on roadways where bicycle lanes are otherwise striped. Their intent is to improve operating conditions for cyclists on City Bikeways where bicycle lanes are not feasible.

A developed bikeway represents a commitment to city residents to provide safe and convenient conditions for bicycling. This is especially true on streets striped with bicycle lanes, where the decision to stripe bicycle lanes acknowledges that an untreated shared lane riding environment on the street in question is inappropriate for safe and convenient bicycle travel. According to a recent survey conducted by the Bicycle Transportation Alliance, among the top complaints of area cyclists are bicycle facilities that abruptly end without connecting to another facility. It is also our policy to develop bikeways that provide travel as direct as possible and to not divert cyclists from a direct route, as might be the case when needed bicycle lanes cannot be striped. For these reasons, the highest priority for applying shared lane pavement markings should be on bikeway corridors where striped bicycle lanes drop due to operational or geographic barriers to their continuation.

DRAFT

WARRANTS FOR USE

Shared lane pavement markings should be used in limited circumstances on roadways only after all other possibilities that would allow for striped bicycle lanes have been exhaustively and comprehensively explored. Shared lane markings should only be used on City Bikeways when bicycle lanes are the recommended treatment but cannot be striped due to one or more of the following conditions:

- A change in automobile operations needed to stripe bicycle lanes would result in a level of service that falls short of City of Portland guidelines.
- A change in automobile operations needed to stripe bicycle lanes would result in conditions considered unsafe by city traffic engineers.
- Striping bicycle lanes would result in a significant and widespread loss of needed automobile parking.

Recommended Applications.

Bridging Gaps on a Developed City Bikeway. Shared lane pavement markings are appropriately used to bridge gaps in bikeways otherwise developed with striped bicycle lanes. The obvious application is along a roadway segment with a gap in striped bicycle lanes. Another, similar application would be at intersections where a bicycle lane is dropped to allow for needed turning lanes. In addition to signing ("Right Turn Only Except Bikes"), the shared lane marking would be used as a more obvious indication about where cyclists should position themselves.

Corridor Improvements on an Undeveloped City Bikeway. Roadway corridors that are classified City Bikeways, with conditions that would warrant striped bicycle lanes, but that have not been striped with lanes, can also be considered for shared lane markings.

Factors to Consider

For all Roadways. There are five typical roadway configurations in which shared lane markings might be used. They are listed below, in order of preference for use.

1. One-way highway with more than one travel lane in the direction of travel.
2. Two-way highway with more than one travel lane in the direction of travel.
3. Two-way highway with one travel lane in the direction of travel with dashed centerline.
4. Two-way highway with one travel lane in the direction of travel with solid centerline.
5. One-way highway with one travel lane in the direction of travel.

Roads with more than one travel lane in the direction of travel (Roadway Configurations 1 and 2). Encouraging cyclists to ride more toward the middle of the travel lane on roadways with more than one travel lane in the direction of travel is arguably supported by the Oregon Revised Statutes.[1] These configurations seem to offer no legal complications.

Roads with one travel lane in the direction of travel (Roadway Configurations 3, 4, and 5). This condition is more problematic from a legal perspective. In these situations a cyclist is obliged to yield to overtaking vehicles "into an area sufficient for safe turnout…." In the absence of on-street parking this may not be an issue as with a narrow lane there is no area sufficient for safe turnout. However, where there is on-street parking and it is not used, cyclists could reasonably be expected to pull over into those areas. They may naturally do so, but the presence of the shared lane markings could encourage cyclists to stay more in the lane than out of it. For this reason, these configurations should be a lower priority for use of the marking than the previous two configurations.

Additional Factors to Consider for Corridor Improvements on Undeveloped City Bikeways.

- The presence of existing, developed parallel bikeway corridors and whether these corridors were developed as alternatives to the roadway in question.
- Existing bicycle use of corridor.
- Automotive operating conditions on corridor.

DRAFT

The above should be considered for undeveloped bikeway corridors because shared lane markings on such corridors could create the type of traffic operations purposefully avoided by not striping the corridor with bicycle lanes. This should be carefully considered especially where parallel corridors exist, as shared lane markings could attract riders currently using the parallel corridors. While each corridor should be evaluated independently, the above are significant, and should be considered as follows:

- The presence of existing, developed parallel bikeways. The presence of functional, parallel corridors is an argument against shared lane markings. This is especially true if the corridor is of a roadway type and conditions unfavorable to shared lane markings, as described below. Their presence is more significant if they were identified in a planning process specifically as an alternative to the corridor and were developed in a capitol project into a functional Bikeway. Conversely, the absence of parallel routes argues for a shared lane treatment for the principal corridor.
- Existing bicycle use of corridor. The desirability of the corridor for bicycle use should be considered. A good indication of that is the current level of bicycle use. Parallel corridors may not exist, or may not serve as well the same destinations as the corridor. A well-used corridor should be considered for a shared lane treatment.

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[1] ORS 814.430 allows for cyclists to not ride "as close as practicable to the …curb or edge of the roadway" "when reasonable necessary to avoid hazardous conditions, including…[a] roadway that is too narrow for a bicycle and vehicle to travel safely side by side." Since ODOT recognizes defines a "wide outside lane," at 14-15 feet, as a bicycle facility, and states that it "usually allows an average size motor vehicle to pass a bicyclist without crossing over into the adjacent lane", we assume that any travel lane narrower than 14 feet does not allow for safe side-by-side passage within the same travel lane.

Under ORS 811.425, a cyclist, as a "slower moving vehicle," is normally required to yield to overtaking vehicles and pull off the main traveled portion of the highway when it is safe to do so. However, a slower moving vehicle is only required to pull over when operating on a "two-directional, two-lane highway…." Thus, on roads other than two-directional two lane highways a cyclist is not legally required to yield to overtaking vehicles.

- Automotive Operating Conditions on Corridor. High speeds, and volumes sufficient to subjectively clog available travel lanes for many hours of the day, are likely inimical to shared lane markings.

Length of Segments with Shared Lane Markings
Gaps in existing bikeways striped with bicycle lanes should use shared lane pavement markings regardless of the length of the gap.

If a bikeway corridor currently not striped with bicycle lanes is to be marked instead with shared lane pavement markings, based on the criteria in this document, then the segment length is defined by the length of the corridor.

Placement of Marking
Longitudinal Alignment
These markings should be used in travel lanes regardless of lane width in the presence of on-street parking[2]. There will be two typical situations in which shared lane markings will be used, with on-street parking, and without on-street parking.

With On-Street Parking. San Francisco's draft guidelines call for placing the shared lane pavement markings a minimum of 11' from the face of curb in the presence of on-street parking. They note this distance can be increased for:

- Downhill sections (greater than 5%)
- Areas where wider vehicles park
- Where cyclists may still encounter motorists trying to pass without changing lanes, as in lanes at 20'-21' wide.

Without on-street parking. To be used in any travel lane narrower than 14'. Recommended placement is at 4' from face of curb, but may be shifted further into travel lane to avoid obstacles near the curb, such as longitudinal joints or seams, or depressed inlets, etc.

On highways with one lane in direction of travel; either one-way or two-way with solid centerline. In the situation where there is only one travel lane in the direction of travel, either on a one-way street or on a two-way street with solid centerline, there presumably is no means for a motorist to safely pass a cyclist[3]. On these streets, the shared lane pavement marking should be placed so as to send an unequivocal message that motorists cannot pass in the segments with the markings. Therefore, the markings should be placed closer to the center of the travel lane (see Attachment A).

Frequency of Application
San Francisco recommends placements so as to provide two markings per block face, which in that city translates into one marking every 250-400 feet. The effectiveness of this marking is likely increased by its frequency, therefore, install two markings per block face in locations where motorists are likely to be neither turning, accelerating nor decelerating.[4] Place markings 50' toward the center of the roadway segment from the inside of crosswalks at both ends of the segment. If the roadway segment is 300' or greater, as measured from inside of crosswalk to inside of crosswalk, add another marking midway between the first two.

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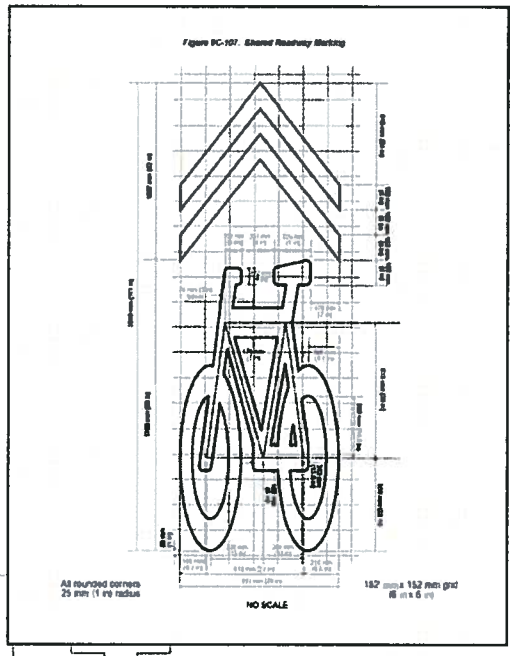
[2] The caveat here is that beyond a certain lane width (generally 23.5') it makes sense to provide a striped bicycle lane.
[3] SE Woodstock between 42nd and 52nd is an example.
[4] This recommendation is for purposes of increasing the marking's longevity. It is acceleration, deceleration and turning movements across markings that hastens their wear.

Material and Design
Material is likely a standard thermoplastic, though a more durable material, if it exists, is desirable. Design should borrow from that used in San Francisco, as shown on this page.



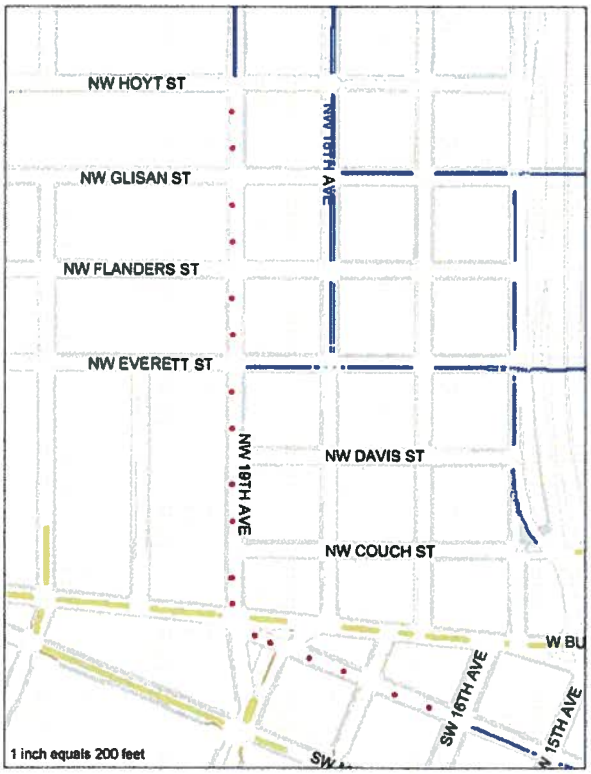
Discussions about design and maintenance should continue other issues are resolved.

Candidate Streets Based on Above Guidelines
The best candidate streets on which to begin using the shared lane pavement markings are the NW 19th-NW Alder corridor between NW 19th and Hoyt and NW Alder and 16th. There are existing bicycle lanes on NW 19th north of Hoyt and on NW Alder east of 16th. The gap between these intersections exists due to operational and physical constraints. These streets are one-way roadways with two travel lanes. Using the above guidelines, we would apply 18 markings in this corridor.

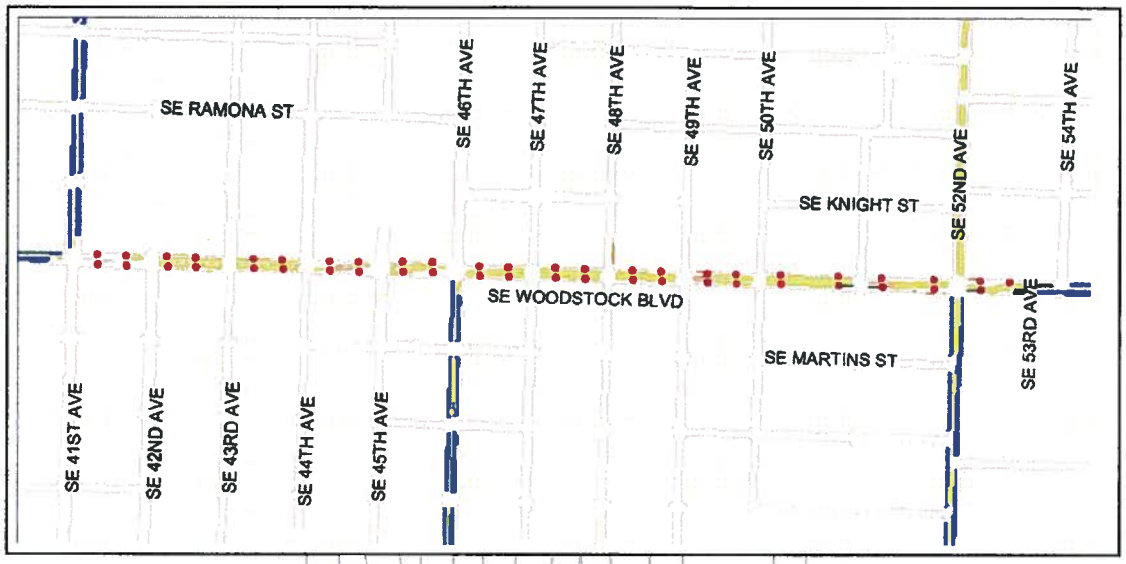
Other candidate streets include SE Woodstock between 41st and 53rd, where there is a half-mile gap in a bicycle lane system. Woodstock. Because Woodstock has only one travel lane in the direction of travel and a solid centerline, operational issues are likely to be more problematic than on 19th and Alder. Following the above guidelines, we would apply 47 markings in this corridor.

DRAFT

Study Design
Alta Planning and Design conducted a study of shared lane markings in San Francisco. Their study resulted in the adoption in August of the bike and chevron "sharrow" by the California Traffic Control Device Committee. Adoption is expected by Caltrans for adoption into the MUTCD 2003 California Supplement, making it available for use in California.



Based on the above, and on our lack of funding for duplicating the above study, our analysis should consist of before and after observation (video and live) and noting any concerns.

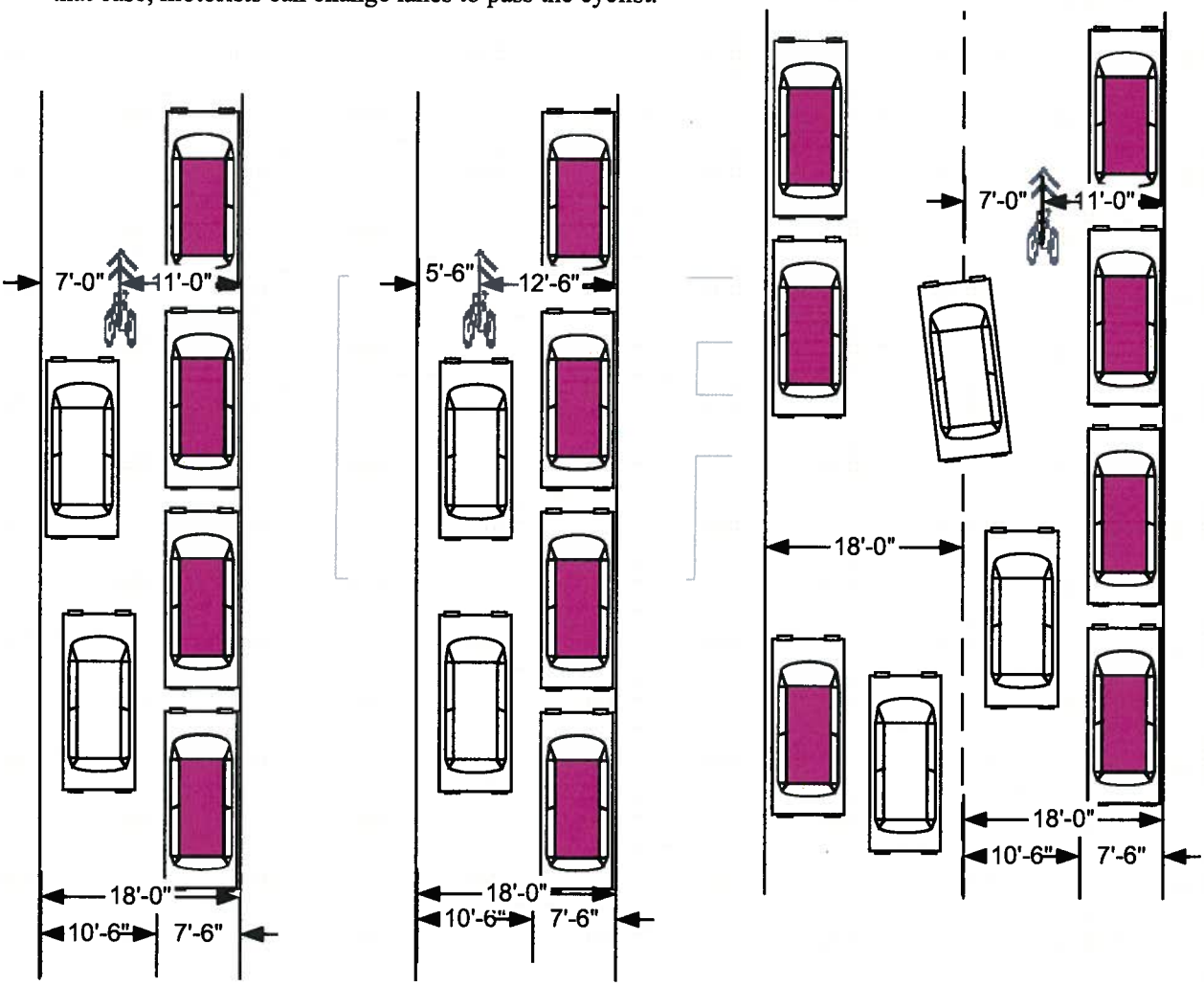


DRAFT

Attachment A. One-way roadway with one travel lane in direction of travel (applies on street with median)

In this situation, in an 18' travel lane, overtaking motorists may try to pass within the same lane, as there remains 7' from center of marking to curb/centerline. As the intent of the marking is to discourage unsafe passing in the travel lane the marking may be more effective positioned further from the curb—at 12' or 13'—in order to send the unequivocal message that there is insufficient room for passing in the travel lane.

Compare this to the signature where there is an adjacent lane into which an overtaking vehicle can go. In that case, motorists can change lanes to pass the cyclist.



A. No passing lane available; marking at 11'

B. No passing lane available; marking at 12.5'

C. Passing lane available; marking at 11'

Drawings are to scale with cars at 74" wide.

Matrix for Assessing Use of Shared Lane Pavement Markings

Evaluation Criteria	YES	NO	Comments
City Bikeway?			Because the intended use of shared lane markings is to address gaps in the City's bikeway network where lanes are called for but cannot be provided, they are primarily to be used on roads classified as City Bikeways.
Is segmented bracketed by existing bicycle lanes/developed bikeways?			
Assessment & Evaluation Process			Shared lane pavement markings are a method of last resort for City Bikeways that otherwise warrant striped bicycle lanes. They are at the bottom of the hierarchy of facilities for roadways with more than 3,000 ADT, ranking below bicycle lanes and wide outside lanes. As such, before they can be applied there needs to be a thorough process that both documents the inability to provide either of the other facilities—through either lane reconfiguration or parking removal—and that communicates that to the public. Only then should shared lane pavement markings be considered.
Public Involvement as part of Process?			
Traffic Study Conducted to Assess Feasibility of Lane Reconfiguration?			
Parking Demand Study Conducted to Assess Feasibility of Parking Removal?			
Roadway Configuration			Cyclist and motorist behaviors in response to the shared lane pavement markings are intended to be those supported by ORS 814.430 and 811.425. These conditions are best created when there is either more than one lane in the direction of travel or the absence of a centerline, or a dashed centerline. In these conditions, an overtaking motorist can change lanes to pass a slower-moving vehicle (i.e., the cyclist) and the cyclist is not required to move out of the way.
More than 1 lane in direction of travel?			
If only 1 lane in direction of travel is there…			
…no centerline?			
…a dashed centerline?			
…a solid centerline?			
Are there developed parallel bikeways?			Parallel bikeways may serve the same function as the primary corridor. Factors to consider in evaluating the functionality of the parallel bikeways are: commercial nature of primary corridor and whether or not parallel bikeway serve commercial areas; impediments to travel along the parallel bikeways; existing bike use of primary corridor
If yes, were they developed specifically as alternatives to proposed roadway?			The classification and development of parallel bikeways as a direct response to an inability to provide lanes on the primary corridor signal an acknowledgement that the corridor cannot be made usable for cyclists in its current configuration.
Length of Proposed Segment:		feet	Gaps in established bikeways are a more comfortable application than an entire corridor.
Average Daily Traffic:		vpd	Volumes and speed enter into the equation of how appropriate it is to direct cyclists into a shared lane environment.
85th Percentile Speed:		mph	
Current Bicycle Use			A lot of current bicycle use would tend to argue for some facility.

DRAFT

Shared Lane Pavement Marking ("Sharrows") Script

BICYCLE LANE MARKINGS HAVE SHOWN UP IN THE MIDDLE OF A STREET. CAN I STILL DRIVE THERE?

If there is not accompanying white stripe with the marking then it is not a bicycle lane. What you're seeing is a shared lane pavement marking, also known as a "sharrow." You may still drive in that travel lane.

WHAT ARE "SHARROWS"?

Sharrows are short-hand for "shared lane pavement markings." The indicate that motorists and cyclists are to share the travel lane.

MOST STREETS IN PORTLAND ARE SHARED BY CYCLISTS AND MOTORISTS AND DON'T HAVE SHARROWS. WHY MARK ONLY SOME STREETS?

Most Portland streets carry low volumes of traffic with relatively slow speeds and special markings aren't needed. We are placing sharrows only on streets where traffic is relatively heavy, speeds are a little higher, and the streets should be marked with bicycle lanes but cannot be because of demands for on-street parking or the number of travel lanes.

WHY ARE THESE MARKINGS ON THE STREET (/WHAT IS THEIR PURPOSE)?

To create safer conditions for bicycling. In the absence of bicycle lanes on busy streets cyclists often ride too closely to parked cars. If somebody were to open a car door as a cyclist passed the cyclist could get "doored" and possibly get injured, perhaps seriously—especially if there was passing automobile traffic. Also, when cyclists stay far right in narrow travel lanes passing motorists often pass too closely to the cyclists. This is not only unnerving for the cyclist, but it also leaves little margin for error.

WHY NOT JUST STRIPE BICYCLE LANES?

There would be our preference on these streets. We're using the sharrows instead because there isn't enough room on the street for bicycle lanes in those areas. This is typically because of a combination of a high demand for on-street parking, and the inability to either eliminate a travel lane, or narrow the existing travel lanes. It is often also either physically too difficult or prohibitively expensive to widen the roadway.

AS A CYCLIST, WHAT SHOULD I DO IN THE PRESENCE OF SHARROWS?

We've placed the sharrows outside of the parked car's "door zone." Because the travel lane is too narrow for safe side-by-side travel by a motorist and a cyclist we expect cyclists to ride through the center of the sharrow.

AS A MOTORIST, WHAT SHOULD I DO IN THE PRESENCE OF SHARROWS?

Slow down and drive carefully. Because the travel lane is too narrow for safe side-by-side travel by motorists and cyclists we expect motorists to slow down and either wait for the cyclist to turn off the roadway, or wait until you can move into an adjacent travel lane.

WHY NOT PUT SHARROWS ON ALL BUSY STREETS?

Right now we're using sharrows to fill in relatively short gaps in bicycle lanes. We're also in a testing phase right now. Depending on how well they work, we may expand the use of sharrows to longer gaps on City Bikeways. Currently, our draft guidelines only allow them to be used on streets that are classified as "City Bikeways." We can make our draft guidelines available to you if you'd like.

WHAT DO YOU HOPE TO ACCOMPLISH WITH THE SHARROWS?

We want to create safer conditions for bicyclists on busy streets where we should have bicycle lanes but cannot. We hope to do this by moving cyclists a little further away from parked cars than they would normally ride in the absence of sharrows, and creating a little more separation between passing motorists and cyclists than would normally exist.

DO SHARROWS WORK?

They seem to. A 2003 study in San Francisco showed that in the presence of sharrows cyclists moved further away from parked cars and passing motorists moved further away from cyclists than in the absence of sharrows. California recently adopted sharrows as a standard roadway treatment, and San Francisco has already painted hundreds of them on their streets.

WILL YOU USE THEM ON OTHER STREETS?

Right now we're testing how well they will work in Portland as part of a test that's being monitored by the US Government's Federal Highway Administration (FHWA). If the markings prove effective then we'll slowly expand their use to other, similar locations that meet our guidelines.

SINCE SHARROWS DON'T REQUIRE REMOVING PARKING OR TRAVEL LANES, AS OFTEN OCCURS WITH THE STRIPING OF BICYCLE LANES, WHY NOT JUST USE SHARROWS INSTEAD OF BICYCLE LANES?

We still consider bicycle lanes to be the best treatment for creating safe and encouraging conditions for bicycling on streets with higher volumes of motor vehicle traffic because motorists are not delayed by the presence of slower-moving cyclists in front of them, and cyclists are not feeling intimidated by the presence of following motorists who wish to pass them. We will consider using sharrows only after exhausting all possibilities for installing bicycle lanes.

Considerations for Using Shared Lane Pavement Markings

Roadway must be a classified City Bikeway

This is consistent with the idea that shared lane markings are to be used to address gaps in the City's Bikeway Network

The decision to not stripe bicycle lanes on the segment must have resulted from a public process

Because shared lane markings are not to be used indiscriminately, the public must have been given a chance to fully understand the trade-offs associated with not providing bicycle lanes.

A Parking Demand Study (or equivalent) needs to have been conducted

Every effort must have been made to determine if parking can be removed in order to accommodate bicycle lanes.

A Traffic Study (or equivalent) needs to have been conducted

Every effort must have been made to determine if the roadway can be reconfigured (lane removal, lane narrowing) to accommodate bicycle lanes.

Now, consider roadway characteristics and operating conditions.

Segments with unsupporting characteristics

- Only 1 lane in direction of travel
- Solid centerline
- Good parallel route options for cyclists developed specifically as alternate to corridor
- Long segment length
- 85th percentile speed > 40 mph
- High ADT
- Low existing bicycle use

Segments with supporting characteristics

- More than 1 lane in direction of travel
- No parallel route options for cyclists
- Short segment length representing gap in bicycle lanes
- 85th percentile speed < 30 mph
- Low ADT
- High existing bicycle use

	YES	NO
Is segment part of a City Bikeway?	✓	
Is segment bracketed by bicycle lanes?	✓	
Was there a public involvement process resulting in the decision to not stripe bicycle lanes?	✓	
Was a traffic study conducted to consider roadway cross-sections?	✓	
Was a parking study conducted to assess feasibility of removing on-street parking?	✓	
Are there developed parallel bikeways?	-1	
Were developed parallel bikeways developed specifically as an alternate route for corridor under consideration?	-1	
Is there more than one lane in the direction of travel?	3	
If only one lane in direction of travel is there…		
…no centerline?	1	
…a dashed centerline?	1	
…a solid centerline?	0	
Is the 85th percentile speed…		
<30 mph?	0	
Between 30-34 mph?	-1	
Between 35-39 mph?	-3	
>39 mph?	-6	
Is existing bicycle use…		
…high?	1	
…moderate?	0	
…low?	-1	
Is the segment length…		
<501 ft?	2	
Between 501-2640 ft?	1	
Between 2641-5280 ft?	0	
>5280ft?	-1	
Is the Average Daily Traffic…		
<10,001	0	
Between 10,001-15,000	-1	
Between 15,001-25,000	-2	
>25,000	-3	

Maximum Score: 13 (6 if not considering top five elements)
Minimum Score: -19 (-13 if not considering top five elements)

Above criteria and scoring strongly penalizes segments that do not meet the first five criteria. Scoring is disproportionate for 85th percentile speed, as high speeds generally create conditions highly unfavorable to cyclists riding toward the middle of travel lanes.

Matrix of Evaluation Criteria for Assessing Use of Shared Lane Pavement Markings

Evaluation Criteria	YES	NO	Comments
City Bikeway?			Because the intended use of shared lane markings is to address gaps in the City's bikeway network where lanes are called for but cannot be provided, they are primarily to be used on roads classified as City Bikeways.
Is segmented bracketed by existing bicycle lanes/developed bikeways?			
Assessment & Evaluation Process			Shared lane pavement markings are a method of last resort for City Bikeways that otherwise warrant striped bicycle lanes. They are at the bottom of the hierarchy of facilities for roadways with more than 3,000 ADT, ranking below bicycle lanes and wide outside lanes. As such, before they can be applied there needs to be a thorough process that both documents the inability to provide either of the other facilities—through either lane reconfiguration or parking removal—and that communicates that to the public. Only then should shared lane pavement markings be considered.
Public Involvement as part of Process?			
Traffic Study Conducted to Assess Feasibility of Lane Reconfiguration?			
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Roadway Configuration			Cyclist and motorist behaviors in response to the shared lane pavement markings are intended to be those supported by ORS 814.430 and 811.425. These conditions are best created when there is either more than one lane in the direction of travel or the absence of a centerline, or a dashed centerline. In these conditions, an overtaking motorist can change lanes to pass a slower-moving vehicle (i.e., the cyclist) and the cyclist is not required to move out of the way.
More than 1 lane in direction of travel?			
If only 1 lane in direction of travel is there…			
…no centerline?			
…a dashed centerline?			
…a solid centerline?			
Are there developed parallel bikeways?			Parallel bikeways may serve the same function as the primary corridor. Factors to consider in evaluating the functionality of the parallel bikeways are: commercial nature of primary corridor and whether or not parallel bikeway serve commercial areas; impediments to travel along the parallel bikeways; existing bike use of primary corridor
If yes, were they developed specifically as alternatives to proposed roadway?			The classification and development of parallel bikeways as a direct response to an inability to provide lanes on the primary corridor signal an acknowledgement that the corridor cannot be made usable for cyclists in its current configuration.
Length of Proposed Segment:		feet	Gaps in established bikeways are a more comfortable application than an entire corridor.
Average Daily Traffic:		vpd	Volumes and speed enter into the equation of how appropriate it is to direct cyclists into a shared lane environment.
85th Percentile Speed:		mph	
Current Bicycle Use			A lot of current bicycle use would tend to argue for some facility.

clackamas county

editorial & Opinion

ORIAL

op erosion education

stle of a new school year brings outward children being educated. School park- re full again, classrooms are bulging with ung faces and teachers are diving into a with the optimism that only September

his activity may deceive people into think- it's business as usual for Portland-area But what's less visible to the public is the erosion that's occurring within Oregon ucation.

days, approximately three-quarters of Or- seholds don't contain school-age children. egonians have little contact with public hey may see school buses on the road, but 't see firsthand confirmation of overcrowd- ooms, staffing cutbacks and programs that n eliminated.

Letters to the Editor

Fix Highway 99E light before it causes a pileup

Note: The following letter appeared last week, but was cut short. We apologize for the error.

To the Editor:

I propose that a much needed Oregon City traffic signal change be made for those traveling south on Highway 99E toward Canby, at the corner of South 2nd and 99E. The Highland Restaurant is to the left and the falls on the right.

For them the signal shows TWO green lights, indicating in error that there are TWO through lanes down 99E towards Canby, when, in fact, there is only ONE lane proceeding south; the other is limited to being a left turn lane, with a third traffic signal light indicating so.

I am VERY concerned that someone seeing the two green lights in error will cause a very bad rear-end accident for those who happen to be legally waiting to turn left. PLEASE, someone in transportation, just take the light bulb out on that extra green signal or cover it with black paper so that that pileup does NOT take place, as I so fear! Thank you!

Kathleen Cook
Oregon City

Wyden trying to make up for a bad choice

To the Editor:

ditched his principles and voted with Harry Reid to pass Obamacare. Now, when he trails in polls for one of the first times in his 29 years in Congress, he is trying to score political points with Oregonians by asking the Obama administration for an Oregon exemption from parts of Obamacare!

Which is it senator? Is Obamacare something you proudly voted for or is it a disaster you thought you were safe voting for until you realized 60 percent of Americans want it repealed before it even takes effect or takes a dime out of their pocket?

Your voting record is yours, Mr. Wyden, and begging for a get-out-of-your-unpopular-vote card from Mr. Obama is political cowardice at its finest. Time to take responsibility for your actions, you voted for it. Don't tell Oregonians you're looking out for us, you missed that chance months ago.

Mr. Wyden, you've been in Washington, D.C. long enough. It's time to get a job in the real world.

Casey Flesch
Oregon City

Letter policy

• Letters should be 250 words or less, and longer submissions will be considered for Community Soapboxes. The deadline for letters is Friday at noon. We reserve the right to edit letters for clarity and space constraints. Submit letters to editor@clackamasreview.com, or mail to 6605 SE Lake Road, Milwaukie, OR 97222. Contact editor Anthony Roberts at 503-546-0745.

• We will try to run as many political letters as possible through

Kathy Griffin

From: FREITAG Kathleen M * Kate [Kathleen.M.FREITAG@odot.state.or.us]
Sent: Thursday, October 14, 2010 12:46 PM
To: ANDERSON Doug B; John M. Lewis
Cc: Kathy Griffin; ROMERO Shelli; Nancy Kraushaar; WATANABE Richard F; DAGNESE Susanne L; WURFEL Bradley J
Subject: RE: Attached Image
Attachments: 1664_001.tif

All,
The purpose of this email is to provide the technical background and information for the response to the letter to the editor that was printed in the newspaper (the Clackamas Review, I believe). I am attaching a copy of the letter for everyone's reference, but the summary is that the citizen wants to see one of the two southbound signal heads removed because she feels it indicates to drivers that there are two through lanes instead of just one. She feels it may cause a rear-end crash due to a motorist in the left lane not realizing that it becomes a left-turn drop lane and rear-ending vehicles waiting for the left-turn phase to turn green.

ODOT will not be removing one of the two southbound signal heads for a number of reasons. One reason is that having two signal heads for the through movement is a federal requirement through the MUTCD, but the more important reason is because of the safety reasons why that federal requirement was made. Here are a few of the safety-related reasons why there should be a minimum of two through signal heads for all through movements at all signals where a through movement can be made:

- To improve visibility of the signal heads. Visibility can be easily be blocked by oversize vehicles so having at a minimum the second signal head for the through movement improves the opportunity for drivers to see at least one of the signal heads.
- Provides redundancy and a backup in case of a lamp burning out, electrical failure, or damage or knockdown of a signal face/head resulting in one of the red lights not being visible. If there was only one signal head and the red indication burned out or was dark for any reason, motorists who aren't familiar with the ORS requiring motorists to stop for a blank indication might drive through the intersection when the side street has a green light. If that were to occur, it could potentially cause a very serious car crash.

As I mentioned above, there is a requirement in the MUTCD (section 4D.15 in the 2003 Edition) regarding this requirement for a minimum of two signal heads per direction for the major movement. It states:
"A minimum of two signal faces shall be provided for the major movement on the approach".

Although ODOT has not yet adopted the 2009 MUTCD, it is also important to note that it has been updated to be even more clear on the issue of the minimum number of signal heads for through movements:
"If a signalized through movement exists on an approach, a minimum of two primary signal faces shall be provided for the through movement." (Section 4D.11)

FHWA came out with an interpretation letter (Interpretation Letter 4-297(I)-Number of Signal Faces for Through Movements) due to some confusion on the part of agencies as to whether or not two through signal heads needed to be included on all intersections if a left or right-turn movement is the dominant traffic movement. Although this letter is addressing a different issue, the reasoning behind the determination that there must always be two signal heads if a through movement can be made at the intersection. Here is an excerpt from this letter:

"In Section 4D.15 (Size, Number, and Location of Signal Faces by Approach), the second Standard statement includes this text:

> "The signal faces for each approach to an intersection or midblock location shall be provided as follows:
>
> > A. A minimum of two signal faces shall be provided for the major movement on the approach, even if the major movement is a turning movement."

The through driver needs to be provided with an adequate signal display to properly indicate when he or she may proceed or must stop, which may occur at different times in the cycle than applies to the turn movement. The provision of two signal faces for the through movement improves visibility of the applicable signal indications and assures a backup display in the case of burnout, failure, or knockdown of one signal face."

The letter in its entirety can be found at the following link:
http://mutcd.fhwa.dot.gov/resources/interpretations/4_297.htm

There is an overhead "Left Turn Only" sign over the left lane approximately 440' to the north of the intersection. This is also where the regular skip striping changes to indicate an upcoming transition in the lane usage and where the advance left-turn pavement marking arrow is located.

The crash history indicates that in the past 5 years, there were 17 reported crashes between Tumwater Drive (where the left lane begins to transition into the left-only lane) and 2nd Street. 12 of those were property-damage only crashes and one crash resulted in serious injuries (that one involved a motorcyclist losing control of his motorcycle). There were no fatalities. Most of the crashes were rear-end crashes which is typical for a signalized intersection. There were 3 sideswipe crashes which resulted from traffic changing lanes due to the dedicated left-turn drop lane that terminates south of the 2nd Street intersection. None of the three reported sideswipe crashes resulted in any injuries. This is not a Top 10% SPIS site.

It is really for the safety reasons listed in the FHWA interpretation letter and that I expanded upon earlier in this email that the federal requirement through the MUTCD exists for a minimum of two signal heads for the through movement. ODOT will not consider deviating from that requirement because it would degrade safety of the overall intersection, especially if something were to happen to cause the remaining signal head to not operate correctly. There are design features currently out there to alert traffic to the left lane becoming a left-turn drop lane and the crash history does not indicate an elevated crash problem at this location due to the lane configuration or the signal head configuration.

I hope this information is adequate to assist whomever will be responding to the letter to the editor. Please let me know if there are any questions.

Sincerely,

Kate Freitag, P.E.
ODOT Region 1 Traffic
123 NW Flanders
Portland, OR 97209
(503) 731-8220

From: ANDERSON Doug B
Sent: Tuesday, September 21, 2010 1:07 PM
To: 'John M. Lewis'; FREITAG Kathleen M * Kate
Cc: Kathy Griffin; ROMERO Shelli; Nancy Kraushaar; WATANABE Richard F; DAGNESE Susanne L
Subject: RE: Attached Image

All,

Kate Freitag is writing something up that describes the requirements for this situation and the reason why for whoever will be responding. It is fairly straightforward that it is an MUTCD "shall" requirement for 2 signal heads. She will also be informative in describing the reasons behind the requirement.

Doug Anderson
Region 1 Traffic Unit

From: John M. Lewis [mailto:jmlewis@ci.oregon-city.or.us]
Sent: Tuesday, September 21, 2010 12:59 PM
To: WATANABE Richard F; DAGNESE Susanne L
Cc: Kathy Griffin; ROMERO Shelli; Nancy Kraushaar; ANDERSON Doug B
Subject: RE: Attached Image

Hello.

FYI - I spoke to Doug Anderson about this today. He sounded like he would be following up with others at ODOT. I'm not sure if this would be one of you.

Also Richard, a couple weeks ago I sent you an email about the east end of the Oregon City Bridge. Did you get a chance to consider the email and can you get back to me with a response. I really appreciate your help.

John.

John M. Lewis
Operations Manager
Public Works Department
City of Oregon City
PO Box 3040
122 S Center Street
Oregon City, Oregon 97045
503.657.8241 phone
503.650.9590 fax
jmlewis@ci.oregon-city.or.us
www.orcity.org

From: WATANABE Richard F [mailto:Richard.F.WATANABE@odot.state.or.us]
Sent: Tuesday, September 21, 2010 12:10 PM
To: Nancy Kraushaar; DAGNESE Susanne L
Cc: John M. Lewis; Kathy Griffin; ROMERO Shelli
Subject: RE: Attached Image

Nancy- Thanks for letting us know about this.
Sue- please have your folks look into this and let Nancy and Shelli know what we find out.

Thanks again.

Rich

From: Nancy Kraushaar [mailto:nkraushaar@ci.oregon-city.or.us]
Sent: Monday, September 20, 2010 9:16 AM
To: WATANABE Richard F; DAGNESE Susanne L
Cc: John M. Lewis; Kathy Griffin
Subject: FW: Attached Image

Rich and Sue: I thought that you would want to be included in any discussion about this editorial article. I imagine that you may prefer to provide a response to this rather than the City? ODOT designed the signal about eight to ten years ago. What are your thoughts? -Nancy

From: John M. Lewis
Sent: Thursday, September 16, 2010 5:03 PM
To: Kathy Griffin; Nancy Kraushaar
Cc: David Frasher
Subject: FW: Attached Image

I have a call in to ODOT to get a written response regarding the signal at 99E and S 2nd. Something that we could then incorporate into a written response to the attached news paper letter.

Thanks.

From: admin@orcity.org [mailto:admin@orcity.org]
Sent: Thursday, September 16, 2010 4:35 PM
To: John M. Lewis
Subject: Attached Image

Kathy Griffin

From: Nancy Ide
Sent: Tuesday, October 12, 2010 4:23 PM
To: Kathy Griffin
Subject: FW: Chamber appointment to TAC

Kathy,

How do you normally handle this appointment? Does the mayor then interview the Chamber's appointee? I will eventually need an application. Let me know your process. Thank you.

Nancy

From: Amber Holveck [mailto:aholveck@oregoncity.org]
Sent: Tuesday, October 12, 2010 2:30 PM
To: Nancy Ide
Cc: 'Blane Meier'; 'Mumm, Betty J'; mellingson@lewisandclarkbank.com
Subject: Chamber appointment to TAC

Nancy, I wanted to inform you that the Oregon City Chamber has made a new appointment to the City of Oregon City's Transportation Advisory Committee. Blane Meier will replace Betty Mumm, due to her job reassignment with Providence. His contact information is below:

Blane Meier
Meier Wealth Management Inc.
421 High Street Suite 220
Oregon City, OR 97045
503-496-3641
bmeier@crownmail.net

Nancy, please let me know if I need to provide you with meeting minutes (approved or unapproved) of his approval by our Board of Directors.

Thank you, Betty!

Good luck, Blane!

Amber Holveck, Executive Director
Oregon City Chamber of Commerce
P.O. Box 226 / 1201 Washington St.
Oregon City, OR 97045
PH: 503.656.1619