APPENDIX J

PUBLIC OUTREACH AND COMMENT

Appendix J: Public Outreach

Public Outreach Process

The public outreach efforts were guided by Jeanne Lawson & Associates. There were several opportunities for public outreach and involvement in the study. Public outreach consisted of:

- A "Public Comment" portion of each of the Steering Committee meetings
- RTC Board Presentations, March 7, April 4, May 2, June 6, August 1, and September 5, 2006, August 7 and November 6, 2007
- Bi-State Coordination Committee Presentations, May 18, 2006, February 15, July 19, October 18, and November 15, 2007
- Open House, November 15, 2007
- RTC Website (http://rtc.wa.gov/studies.htm#vision)
- The Clark County Fair – August 3-4, 2007
- SR 502 Corridor Project Open House (Battle Ground) – May 9, 2007

All were open to the public and there were citizens present at many of the Steering Committee meetings.

The press release advertising the Open House is attached to this memo.

Summary of Public Comments

Tad Winiecki, owner of Higherway Transport Research, attended the Steering Committee Meetings and had comments regarding the future of transportation and how it will be automated. Therefore the impact of the new technologies is not going to be as great as some of the old technologies that we now use. Impacts on land use will be less as less space will be required and less space will be taken up by infrastructure. The goals of his company are to increase mobility, reduce congestion, and make profits for transit system owners. Attached is a paper titled "Automation Will Benefit Clark County Transport" written by Mr. Winiecki.

Sharon Nasset urged the Steering Committee to look at the I-5 Columbia River Crossing project Task Force numbers and compare them with the Vision Plan. She said the Columbia River Crossing study did no engineering, no modeling and no design but said 27% of trips would be taken off I-5 whereas this Study reports 8% shift from I-5. She quoted analysis reports from the I-5 Columbia River Crossing.

Tad submitted materials he wanted considered by the Steering Committee. Those materials are attached to this memo.

Southwest Washington
Regional Transportation Council

Press Release

FOR IMMEDIATE RELEASE
November 8, 2007

RTC to Hold Open House on Metropolitan Transportation Plan and New Corridors Visioning Study

Vancouver, Washington -- The Southwest Washington Regional Transportation Council will hold a public open house on Thursday, November 15, 2007, from 4 p.m. to 7 p.m., at the Clark County Public Service Center lobby, 1300 Franklin Street, Vancouver, Washington. The open house will provide information on the Draft 2007 update to the Metropolitan Transportation Plan (MTP) and on the New Transportation Corridors Visioning Study. The Metropolitan Transportation Plan is the long-range transportation plan to meet forecast transportation needs in Clark County over the next twenty years. The New Transportation Corridors Visioning Study looks at longer-term transportation needs when this County's population may reach one million in population.

At the open house, there will be opportunity to learn about plans for this region's transportation future and to gather public feedback on the plans. You can contact RTC at 360-397-6067, visit RTC's website, or e-mail comments to info@rtc.wa.gov

Contacts: Regional Transportation Council
P.O. Box 1366
Vancouver, Washington 98666-1366
360-397-6067

Automation Will Benefit Clark County transport

by Tad Winiecki, Higherway Transport Research

Background

Engineers are adopting automation and other new technologies to build driverless cars and taxis, personal monorails and high speed transport through vacuum pipelines. With such automation we can save people's time by providing demand-response systems (which operate like taxis and elevators) instead of fixed schedule systems such as buses, trains, and airliners. Automated transport can provide increased mobility for those who don't drive or bike. We will save real estate and money by having one automated taxi take many passengers during a day and not need as many private cars with several parking spaces each. Elevated personal rapid transit (PRT) guideways go above streets and sidewalks like small power lines and add transport capacity without using valuable real estate.

Barely a decade after the Wright brothers' first flight Lawrence Sperry demonstrated his autopilot in 1914. Automation was used to guide torpedoes, missiles and space launch vehicles beginning in the 1940s. Nearly all elevators were automated in the 1950s. The Bay Area Rapid Transit (BART) system began mostly automated operation in 1972. In 1975 the Morgantown PRT began operation at West Virginia University. Six driverless vehicles competing in the Defense Advanced Research Projects Agency Urban Challenge November 3, 2007 completed the sixty mile course. At the current rate of progress automated taxis (robotaxis) should be available in a decade or two. A General Motors spokesman predicted production of driverless cars in ten years. Then taxi rides will cost lower overall than bus rides because of the passengers' time saved and no expense for a driver. People without driver's licenses or cars will have much better mobility. Many parents will find that the robotaxis are more efficient for transporting their children than taking them in a family car. This will reduce the chores and scheduling conflicts for many parents. The robotaxis will operate mostly on neighborhood streets and collectors where speeds are less than 35 mph.

Personal rapid transit (PRT) is a technology of automated small vehicles which could carry one to six passengers nonstop from origin to destination on guideways below ground, at grade or elevated above road traffic. ULTra PRT is being installed at Heathrow Airport near London, UK, now. Other systems are in development in several other countries. Almost all the PRT guideways would be elevated so they could have a high speed (up to 100 mph on arterials) with grade separation for intersections and so they wouldn't interfere with ground-level traffic. Building a PRT system to cover Clark County would result in a net gain in real estate because the utility easements for guideways and space for stops and maintenance facilities would be offset by reduced need for parking spaces for some of the cars people wouldn't need. Much of the materials, such as steel needed for the guideways, would be offset by materials not needed to build automobiles.

The most efficient high-speed manned transport vehicle is the International Space Station which travels at 17,000 mph and uses very little fuel to maintain its speed. Its stability controls are automated. To achieve a similar efficiency in ground transport it is necessary to reduce the friction of the air, wheels and tires that ground vehicles have. If we were to construct vacuum pipelines and run magnetically levitated vehicles through them we could attain much higher speeds and efficiencies compared to present earthbound vehicles. The needed vacuum in the pipeline is not as low pressure as the vacuum in a television picture tube although the volume is much greater. There will be airlocks to be pumped out each time a transport capsule enters or leaves the pipeline. The expected capsule speeds range from up to 350 mph for regional networks to 3000 mph for intercontinental routes. The speed-limiting factors are the distances needed to accelerate the capsules, the curvature of the pipeline, and the linear electric motor technology.

Planning for Clark County

As a complement to the Future Transportation Corridor Visioning Study I have been planning routes for PRT arterials and vacuum pipelines. I have been doing this as a private citizen, not a paid contractor. The illustration is a photo of an RTC map which I marked with red, blue and brown lines to show what I thought would be good routes for these advanced transport modes.

ETT

The red lines represent Evacuated Tube Transport (tm) pipelines. These would carry magnetically levitated six-person pressurized cabins at speeds up to 350 miles per hour in a vacuum. The two routes shown roughly parallel I-5/ I-205 and the Olympic Pipeline petroleum route. From a station in Ridgefield one could travel to Seattle in forty-five minutes. The line through Ridgefield goes underneath Vancouver Lake to cargo stations at the ports of Vancouver and Portland. The chosen acceleration limit is 10 meters/s/s (one gravity) which results in a minimum curve radius of 2.5 kilometers. The biggest challenge is finding a route which can be very straight without costing too much. Dredging a trench under Vancouver Lake and a new bridge across the Columbia will cost more than most places, but not as much as highway tunnels and bridges because the pipelines are smaller and the vehicles are lightweight. Where the pipelines are near highways and railroads they must be protected against derailed trains and trucks which run off the highway.

PRT/PAT

The blue and brown lines show a grid network of elevated arterial guideways for personal rapid transit (PRT) or personal automated transport (PAT) vehicles. Depending on the system chosen, these vehicles could carry one to six passengers, or a half-ton of cargo, or a dual mode vehicle which would also operate on surface streets. The speed on the arterial guideways could be as high as 100 mph.

The blue lines represent one-way guideways and the brown lines represent two-way guideways. One-way guideways can serve more area for the same cost and the grade-separated intersections are simpler, cheaper, and use less space. Two-way guideways

are for rural sections between towns and long bridges where there are no or few intersecting arterials.

The philosophy behind the grid layout is to have long straight paths as much as possible, placed beside surface roads which can provide access for construction, maintenance and emergency rescue vehicles. Long straight paths allow the average speeds to be near the top 100 mph top speed. It is desirable to have arterial guideways near arterial streets because many stops will be on or near arterial streets and there should be fewer NIMBY (Not In My Back Yard) objections. Where present streets are not continuous along a desired guideway path because of natural or manmade barriers, PRT guideways can usually go over or around the barriers just as power and phone lines do. There is a requirement that means are provided for emergency escape from an immobilized vehicle. Where there is a road near the guideway, fire trucks and maintenance trucks could be used to rescue passengers. In places where a guideway is not accessible by a truck, emergency walkways will be needed. Examples are the new bridges over the Columbia, Lake, and Lewis rivers and some wetlands.

Many stops could be located in parking lots of schools, churches, apartment complexes and office buildings which are not near a PRT arterial. These would be connected to the arterials with lower speed collector guideways not shown on the map. The lines on the map are approximate - they may be 200 meters or more from the best alignments. For instance, one of the arterials shown in downtown Vancouver is along Broadway and Main Streets.

Recommendations for Government Planning

- Plan more through streets with sidewalks in straight lines so walking and bicycling are safer and quicker and people don't have to drive roundabout routes. This will also save time and expense for the robotaxis and reduce congestion on the arterial streets.
- Stay aware of new technologies being implemented elsewhere and work to remove obstacles to implementing them in Clark County if they are cost effective in improving mobility or reducing congestion.
- Encourage competition in robotaxi services by awarding franchises for many companies in the county.
- Regulate PRT/PAT and ETT as utilities like cable TV and electricity, with eminent domain powers for needed utility easements for their guideways. Avoid using tax money for subsidizing transport services except for building stops at public schools and other government facilities. Subsidize poor users rather than transport providers.

For more information on ETT and PRT/PAT see http:www.et3.com, http:higherway.us, http://advancedtransit.org/news.aspx, http://faculty.washington.edu/jbs/itrans/ .


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1:50,000
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two-way guideway with acceleration lanes, cross section
Personal Automated Transport
Rural two-way arterial
Two-track cross section
Personal Automated Transport
Urban two-way arterial
Two-track cross section
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