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April 29, 2016

Memo to Southwest Corridor Steering Committee on public input received April 2016

In March 2016 the Southwest Corridor Steering Committee received a compilation of all public comment received on the May 9th steering committee decisions to select a preferred mode for the corridor and whether to continue studying the PCC Sylvania light rail tunnel. This memo supplements that information with additional feedback received since then, including feedback on the staff recommendation via an April online survey, public testimony from April 6 steering committee meeting, comment cards and results of interactive "dot voting" at April 6th community forum, discussions with regional committees and all public letters and emails received since the March 2016 public engagement summary and public comment was published. It also includes the previously published March 2016 public engagement summary for your reference.

At the April 6th public forum, staff presented its recommendations and engaged with dozens of attendees. Feedback from participants was strongly in support of the recommendation to select light rail. Many participants expressed support for the recommendation to remove the light rail tunnel to PCC Sylvania, while some participants continued to feel that an underground tunnel is the best way to serve this important regional destination.

In a non-scientific online survey conducted after the staff recommendations were released that generated 57 comments, a strong majority supported light rail as the preferred mode, citing reasons such as higher ridership capacity in the future, integration with the existing system and light rail's dedicated right-of-way. Two-thirds of respondents supported the recommendation to remove the PCC Sylvania tunnel, citing the high cost of tunnel, need to extend light rail to Bridgeport Village and preference for bus shuttles to serve the campus. Those that did not support removing the tunnel expressed the need to directly serve major regional destinations and that the long term benefit outweighs the additional cost.

In addition to the public forum and online survey, staff continued to discuss the recommendations with local groups and regional transportation committees. During a March meeting of ID Southwest, a committee of community and business leaders throughout the corridor, members expressed very strong support for light rail as the preferred mode. Many supported removing the PCC Sylvania tunnel from further consideration, although one member maintained a preference for continued study of the tunnel, explaining that conveniently serving PCC without a transfer is critical.

Please don't hesitate to contact staff with any additional questions about public input received.

##

Public Input: Light rail or bus rapid transit

Throughout the last year there were several opportunities to connect with stakeholders to understand their questions, concerns and preferences regarding whether bus rapid transit (BRT) or light rail is the best choice to serve residents in the Southwest Corridor and surrounding communities. To date, project partners have collected public input on a preferred mode through open-ended questionnaires, online surveys and in-person dialogues.

During all types of public outreach, four themes consistently rise to the top when the public is asked what benefits they want a Southwest Corridor project to deliver:

- shorter travel time,
- higher ridership,
- greater reliability,
- increased access to employment and education centers.

When asked specifically about the choice between light rail and bus rapid transit respondents echoed the above themes and added additional factors that people feel are important when making the mode decision:

- capacity to serve future rush hour demand,
- capacity to extend line in the future,
- lower ongoing cost to operate per rider,
- flexibility under road blockages and extreme weather.

"Not completing the [MAX] system would be unfair to the thousands of daily SW commuters who have so far supported MAX to every other part of the metro area."

"High speed bus service can change with the times."

"Simply adding more buses is not going to provide any relief to the growing congestion in that coridor."

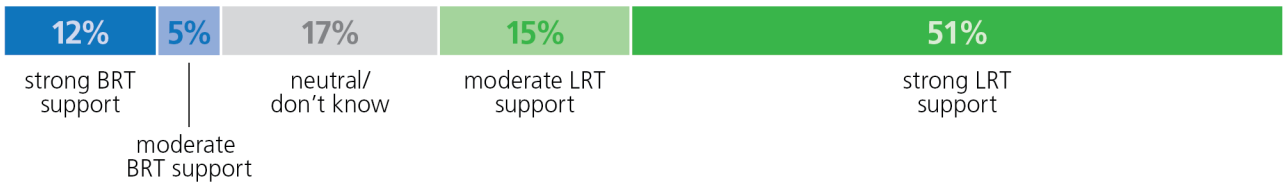
"This is about improving transportation and supporting neighborhood development for the next 50 years. It makes sense to go big."

"Expanding the light rail system is prohibitively expensive to build and operate, and inflexible for changing transportation needs."

Open-ended survey questions and in-person discussions provided a sense of how the public views the trade-offs between the mode options and their perspectives in selecting their preferred mode.The largest number of open-ended comments were in support of light rail, citing the need to think long-term, higher ridership capacity, automatic exclusive right of way and more positive public perceptions of light rail as comfortable and modern. Comments in support of BRT cite the perception that BRT is more flexible, it doesn't require fixed infrastructure, that the fleet is easier to upgrade than MAX, lower construction costs and public perception that MAX is unreliable.

What is your opinion about whether bus rapid transit or light rail is better for the Southwest Corridor?

Results from Jan-Feb 2016 online survey (2,412 responses)



Public input: Access to PCC Sylvania campus

The public has a diverse set of opinions about the need to improve transit access to PCC Sylvania and what direct and indirect options are most preferred. Staff generated input through open-ended questionnaires, online surveys and in-person discussions from winter 2015-winter 2016.

Key overall themes

- A majority of people who responded online and in person felt that directly serving the campus with high capacity transit or increased bus service was important.
- Many people online and in person felt that the high cost of tunnels exceeded their benefits. Others felt the cost was worth it to create opportunity and deliver the most benefit to the region over the long term.
- People who participated in-person at meetings felt more strongly than online respondents that construction impacts to communities should be a major factor for decision makers to consider.
- Many respondents felt that improved local buses or campus shuttles were the best way to connect to campus.
- Many respondents wanted the project to improve campus connections from communities in Washington County.

January-February 2016 online survey (2,424 respondents)

We presented high-level details and links to additional technical information on each of the eight options to directly or indirectly serve the PCC Sylvania campus with high capacity transit or improved local bus service. We asked repondents to select any and all options that they felt were promising.

- 25-38% of respondents selected bored light rail tunnel (38%), light rail on Barbur Blvd. with local bus hubs (38%), improved walk/bike facilities on SW 53rd Ave. (32%), cut-and-cover tunnel (30%), use of shared transit way and "branded" buses (26%) as promising options.
- 11-23% of respondents selected aerial tram plus walk/bike improvements along SW 53rd Ave. (22%) and bus rapid transit options on Capitol Hwy. (23%) and Barbur Blvd. (19%) as promising options.

The input highlighted in this report occured throughout many months during which new options for serving the campus were added or refined. Not all surveys asked about the same set of connection options.

Spring 2015: cut-and-cover tunnel to campus, light rail on Barbur Blvd with SW 53rd Ave. walk/bike improvements and bus rapid transit on Capitol Hwy. or Barbur Blvd.

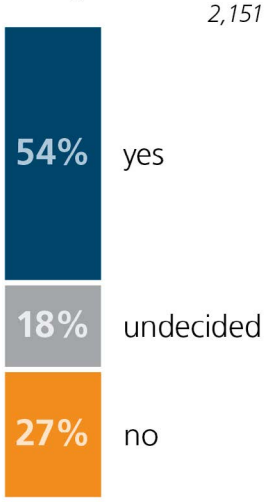
Fall 2015: light rail bored tunnel option and mechanized connections from Barbur Blvd. to campus added

Winter 2015: aerial tram, local bus improvements using shared transitway, bus hub and branded lines added

Spring 2016: additional evaluation of all options being considered

Should the steering committee continue more detailed study of the light rail tunnel options?

2,151 responses



West Portland Park Neighborhood Association

Neighborhood leaders developed their own online survey in September 2015 that generated 69 responses.

- Survey results indicated overall support for the Southwest Corridor project (83%), and support in general for a high capacity transit connection to PCC Sylvania and the West Portland Park area (74% support).
- Support was split somewhat evenly between a light rail tunnel (42%) and bus rapid transit (52%) as the preferred high capacity transit option for the area.

Far Southwest Neighborhood Association

Neighborhood leaders developed their own online survey in September 2015 that generated 58 responses.

- Results show a majority opposition to both a bored tunnel (67% oppose) and a cut-and-cover tunnel (79% oppose) to directly serve the Sylvania campus.
- A majority of respondents (65%) and many open-ended comments favored increasing the frequency of current bus lines or creating new express bus lines to PCC Sylvania from downtown Portland.
- Respondents were divided in their support (56%) or opposition (40%) for Metro continuing plans for any high capacity transit.

"I understand the need to improve access to PCC. However, I urge the committee to focus its efforts on the other options [than the tunnel]."

"Tunnels always greatly exceed budget predictions."

"PCC or bust. Not serving a major regional destination with a major regional transit line would be a huge mistake."

"A light rail line [to campus] would greatly assist students and decrease excessive on-campus parking."

"Please keep in mind that Sylvania is in session something like 180 days a year. It's not a business where employees go on a daily basis."

PCC student and staff survey

Project staff engaged in person and developed an online survey for PCC students, faculty and staff in September-October 2015. The survey generated 676 responses.

Key findings:

- Most respondents (78%) would use transit more if there was improved transit service to PCC Sylvania.
- A majority of respondents (61%) think a light rail tunnel is the most viable way to serve campus.
- A majority of respondents (60%) said they were somewhat likely or very likely to use improved bike and pedestrian access along SW 53rd Ave. to campus.
- Open-ended comments addressed a variety of issues including a need to improve frequency and reliability of existing TriMet routes and campus shuttles, and concerns regarding cost and neighborhood distruption with tunnel construction.

You can read the previously published full summaries of these online surveys and public discussions, and appendices of all survey data at the project library, www.swcorridorplan.org.

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Comments from event comment cards and interactive posters, April 6, 2016 Southwest Corridor Steering Committee meeting and community forum

Comment cards

• Metro is expecting an additional one million people moving to the area by 2020 if an article in the Oregonian was correct. This drives a need for more transportation to get to the new industries and communities being built and services needed from PDX to Tualatin. The need to plan for this and education will be needed so build it now while it is affordable.

• 21% is not much increase at today's loan costs to build for future size of PCC campus. The expected growth with new classes could also drive new industries near the campus, so I would agree to 21% increase. Plan for future!

• Please don't exclude the Crossroads from the further study area. This intersection is already so complicated that adding light rail will make it impossible to navigate. It is supposed to be a town center, an asset not an additional impediment.

• I appreciate the shuttle connection to PCC as the most viable option to provide connection to Barbur Transit and to take vehicles off Capitol Hwy. But the service should also serve the neighbors and Capitol Hwy needs to be improved/adjusted to carry that additional bus service.

• There are two major destinations on this Corridor, OHSU and PCC. And Metro proposes to miss both of them. Big mistake. This LRT line is "forever" and short term finances are being used to justify bad design. Corridor should first plan the best LRT and then negotiate how much can be afforded in the first phase. The MOS future LRT projects will mostly be extensions.

• Include the Marquam Bridge (a pedestrian bridge in the Taylor's Ferry Rd Master Plan that crosses I-5 at SW 48th and Alfred) in the pedestrian improvement to support light rail. The only way to get form the Crestwood NA to Barbur by foot is through the "gulch" near 43rd and TFR. For many people that is not a viable option.

• Great job. Lots of hard work and great information. I would still like to see a tunnel or at least something technical directly to the PCC campus that does not use the existing roads.

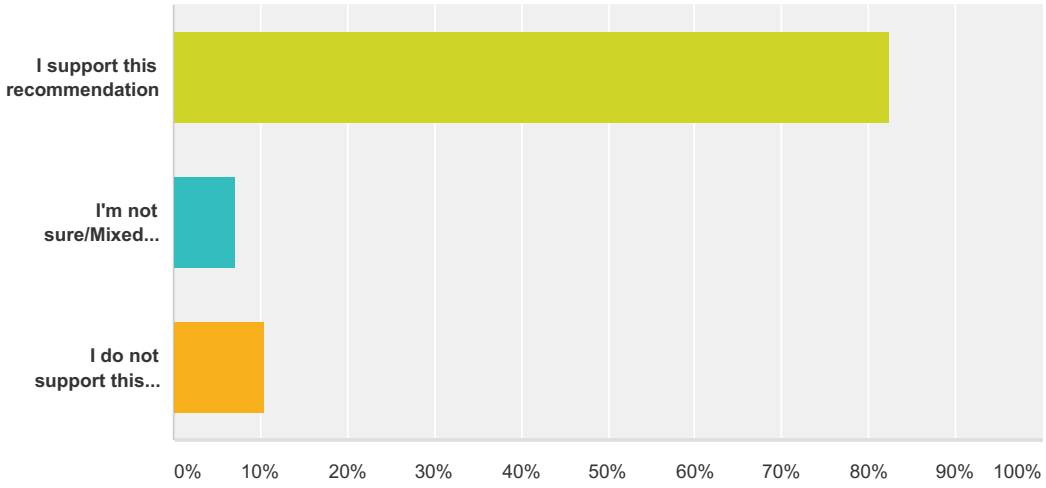
Results from "dot voting" on interactive posters

Feedback on staff recommendations	
Staff recommendation: Remove the light rail tunnel to PCC Sylvania from further consideration I support this recommendation (2 dots) *Comments: tunnel is not cost effective. Big impact on neighborhood.* I'm not sure/Mixed opinion (no dots) I do not support this recommendation (no dots)	**Staff recommendation: Select light rail as the preferred high capacity transit mode** I support this recommendation (4 dots) I'm not sure/Mixed opinion (no dots) I do not support this recommendation (no dots)
Improving transit options to PCC Sylvania	
Option #1: Barbur Blvd. light rail + SW 53rd walk/bike connection to campus <u>Yes, I think this is a viable option (9 dots)</u> *Comments: still prefer tunnel, prefer tunnel, covered walkway?; appreciate improved ped/bike routes with this approach; yes; use best practices with separated bike and ped facilities on 53rd, not a multi-use path due to the grade* <u>I'm not sure/Mixed opinion (3 dots)</u> *Comments: consider how disabled student can access* <u>I don't think this is a viable option (2 dots)</u> *Comments: Disservice to PCC, LRT should go to campus; Long bore tunnel to exit campus to keep LRT off surface streets and above yards; this solution should be included with the other solutions (ie: do it regardless)*	**Option #2: Barbur Blvd. light rail + a campus bus hub** <u>Yes, I think this is a viable option (6 dots)</u> *Comments: yes, a transit/busway on Capitol Hwy is needed from PCC to Barbur, include road diet; yes, but minimize property acquisition in the segment west of PCC to Tigard; Good option if the route between Tigard to PCC uses shared overpass with LRT; And the corridor as a whole* <u>I'm not sure/Mixed opinion (1 dot)</u> <u>I don't think this is a viable option (3 dots)</u> *Comments: too expensive to provide the level of service needed by PCC; more traffic; more traffic and increased buses is outdated transportation*
Option #3: Barbur Blvd. + SW 53rd mechanized connections <u>Yes, I think this is a viable option (2 dots)</u> *Comments: consider disabled students; better than more buses/traffic on roads* <u>I'm not sure/Mixed opinion (3 dots)</u> *Comments: Cost seems to outweigh benefit/usage; may need traffic calming on 53rd between SW*	**Option #4: Barbur Blvd. light rail + TriMet shuttle to campus** <u>Yes, I think this is a viable option (12 dots)</u> *Comments: Shuttle should be free and open to neighbors from West Portland Park and Far SW as well; yes, but it should include capacity to transport bikes on the shuttle; route to Tigard Triangle should go via new overpass and shared with LRT; with traffic improvements because*

Capitol and Barbur to prevent increased car traffic <u>I don't think this is a viable option (10 dots)</u> *Comments: too expensive for too few users; something on the steep part of 53rd (1 ½ blocks south from Barbur) would make sense, not the whole way; too much construction not enough available service to community; doesn't fit with neighborhood, tram is ridiculous not enough elevation. Too much elevation for motorized walkway*	*Barbur/Capitol/Huber/I-5 is a nightmare* <u>I'm not sure/Mixed opinion (no dots)</u> <u>I don't think this is a viable option (2 dots)</u> *Comments: puts more buses/traffic on the road; need direct access to PCC*

Q1 Q1. Staff recommendation: Select light rail as the preferred high capacity transit mode. Rationale:• Light rail has greater long term carrying capacity and can accommodate ridership growth past 2035• Light rail has better transit performance including faster travel times, higher ridership and lower operating cost per rider• Light rail can best integrate into the existing transit system with less impact on the downtown Portland Transit Mall• Light rail has a higher level of public supportWhat do you think of this recommendation?

Answered: 57 Skipped: 0



Answer Choices	Responses	
I support this recommendation	**82.46%**	47
I'm not sure/Mixed opinion	**7.02%**	4
I do not support this recommendation	**10.53%**	6
Total		**57**

Q2 Q2. If you support the recommendation, why? If you do not support the recommendation, what are your suggestions for improving the recommendation?

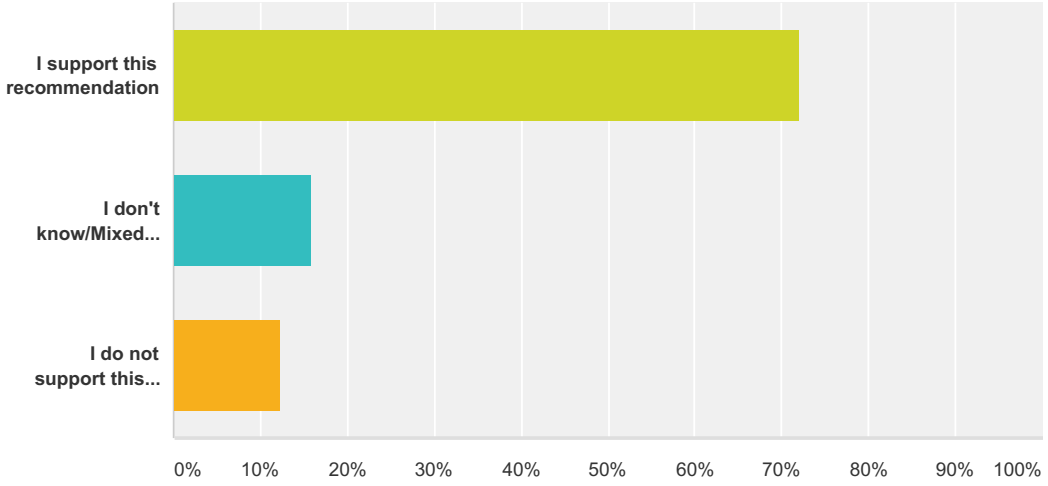
Answered: 42 Skipped: 5

#	Responses	Date
1	I agree with the rationale. LRT is considered successful by those who know or use it. Several BRT projects in larger cities are in trouble. Ottawa is scrapping its BRT in favor of LRT - at huge cost. LA wants to convert the Orange BRT line to LRT. We are falling behind in the race to add transportation capacity to match future demand. Get on with it	4/25/2016 12:50 AM
2	Adequate parking and safety cameras. How long will parts be available to fix the light rail? This has been a problem in other states. Alternate plans when lines go down so people aren't stranded.	4/23/2016 8:01 PM
3	The construction costs of light rail are outrageously high, and light rail lacks adaptability to serve areas of new growth, which bus routes can easily do. I fail to understand why more public input is being sought, as it appears the decision to build light rail has already been made despite major opposition from the citizenry.	4/23/2016 12:14 PM
4	Light rail has dedicated ROW, this is absolutely necessary for a high-functioning HCT system.	4/21/2016 4:10 PM
5	First three points in the "rationale".	4/21/2016 2:27 PM
6	Seems light rail integration in the SW corridor will mesh well with the system wide light rail throughout the Metro area.	4/20/2016 1:25 PM
7	Complete BS. Buses are cheaper, flexible and can haul more people...simple math proves it. And the best part is the buses can share the existing roads with all the other traffic. We don't need light rail or bus rapid transit. We just need plain old simple regular and express bus service!	4/20/2016 11:50 AM
8	I believe strongly in rail transit as the best high capacity transit option. Particularly because so much of Portland's high capacity integration work has already been done around the MAX lines. Light rail is more comfortable and considered by many to be more up scale which will attract a much wider range of commuters. I have experienced both LRT and BRT in different cities and I find there to be no comparison in terms of quality of commute.	4/19/2016 11:51 PM
9	Yes, I support Light Rail. It is the last leg in/out of downtown Portland. It's important to complete what we started.	4/19/2016 9:38 PM
10	I support light rail because of the potential for increased mixed use growth along a new light rail corridor.	4/19/2016 7:15 PM
11	I agree that light rail is the most reliable option (fewer delays and hold-ups compared to buses) and also that it will better support future populations increases	4/19/2016 4:33 PM
12	All that justification is false and lies...buses can use the same roads as cars and you can simply add buses and frequency and carry more capacity for less and adapt to changes in need. And buses can use the existing roads with no cost or impact...a toddler could figure this out. But they wouldn't be on the take and want to make money off pushing a wrong solution to such a simple obvious decision.	4/19/2016 3:11 PM
13	I'm very supportive of light rail, but wanted to see it tunneled. Subway systems work around the world, allow longer trains/more cars because they don't need to limit length due to surface streets, and accommodate many more people. I've ridden underground trains in Toronto and Paris. Portland is falling behind because we aren't addressing rail lines underground now. My generation will not see this built, but we need to focus on the future, not the past.	4/19/2016 2:18 PM
14	How will light rail vs buses hold up after the earthquake tears up Barbur? Buses can be re-routed or drive over dirt or gravel. Trains can only go on track. Maybe it won't matter due to great destruction?	4/19/2016 11:32 AM
15	Time to integrate our area into the regional light rail system. It will be harder to do this after further built environment develops in the region. So we should do it now.	4/19/2016 9:43 AM
16	Avoids auto traffic, better for environment, higher capacity for future population growth, cheaper now than it will be later.	4/19/2016 8:26 AM
17	We have needed a light rail option in SW for decades. With auto traffic at an all time high light rail would help alleviate some of the SW traffic. It can also bring more viable businesses to SW.	4/19/2016 7:41 AM
18	I agree with the rationale presented above	4/19/2016 12:26 AM

19	I think that a rapid bus system would be less expensive, buses can be added as need increases, if a route needs to be adjusted as people's commutes change, it would be easier to change, and the bus system would last longer.	4/18/2016 10:44 PM
20	Faster travel times and higher ridershp	4/18/2016 7:40 PM
21	I support the bus option.	4/18/2016 4:46 PM
22	I want a max line down Barber because it will connect SW Portland to downtown and mean that I don't have to drive as much.	4/18/2016 4:08 PM
23	Connecting to the existing system, more attractive to riders.	4/18/2016 4:00 PM
24	Easier to load and unload bikes.	4/18/2016 2:41 PM
25	Light rail is by far the most efficient (speed, capacity, passenger comfort) option for mass transit.	4/18/2016 2:33 PM
26	For all the reasons stated above.	4/18/2016 2:15 PM
27	Better capacity potential; faster	4/18/2016 1:36 PM
28	if you manage how many stops you have, this is the fastest way to move people. Fast will actually decrease cars.	4/18/2016 1:30 PM
29	I support this for all the reasons highlighted in the rationale especially future capacity.	4/18/2016 1:28 PM
30	I find it ironic that METRO the agency which is pushing a "Complete Community" Centers and Corridors policy turns around and recommends a system on grounds that we need to have more commuter capacity from downtown to Tigard and Tualatin. Aren't downtown Portland, Tigard and Tualatin suppose to become the Complete Communities that reduces the need for this type of commuting. The BRT would support the all time functioning of string of complete communities adequately. LRT just supports an "all things to downtown" policy of commuting.	4/18/2016 1:10 PM
31	Reasons are given above. It is more reliable and less expensive to operate.	4/18/2016 12:41 PM
32	I support it if it is completely isolated from vehicle traffic. If is still going to be part of the traffic system (be stopped at any point due to traffic and or traffic lights) then I do not support it.. We have enough light rail that is inefficient and sits in traffic in Portland.	4/18/2016 12:27 PM
33	I strongly support on LRT goes with Green Line instead of Yellow.	4/18/2016 12:25 PM
34	Light rail is the only thing that makes sense to take us into the next couple of decades of growth. Better yet would be a real subway system but given cost constraints we get what we can get.	4/18/2016 12:24 PM
35	I would love to use my car less but the bus options for Hillsdale are not appealing for a number of reasons. I would be a new user to the light rail system and pretty excited about it.	4/18/2016 12:23 PM
36	I do not wish to have my home taken away from me.	4/18/2016 12:21 PM
37	Light rail moves people more quickly, and will connect SW to Expo Center, Convention center, and perhaps even Gresham and Airport.	4/18/2016 12:16 PM
38	Light rail provides the greatest capacity and flexibility for our growing region. Bus transport is short-sighted.	4/18/2016 12:15 PM
39	Light rail is a better long-term solution and integrates with the current MAX system	4/18/2016 12:06 PM
40	Dedicated right of way rail service will best serve my commute and recreational travel needs.	4/18/2016 12:02 PM
41	Light rail is reliable and unaffected by traffic.	4/18/2016 12:00 PM
42	This is Allison testing the survey.	4/18/2016 11:11 AM

Q3 Q3. Staff recommendation: Remove the light rail tunnel to PCC Sylvania from further consideration.Rationale:• Ridership gains do not outweigh the construction cost• Substantial trade-offs include a shortened alignment with less ridership, and less funding for station connectivity and local bike/pedestrian/road projects• Significant neighborhood impacts• Unclear Return on Investment on campus• Viable alternate improved transit connections to campus are available

Answered: 57 Skipped: 0



Answer Choices	Responses	
I support this recommendation	71.93%	41
I don't know/Mixed opinion	15.79%	9
I do not support this recommendation	12.28%	7
Total		**57**

Q4 Q4. If you support the recommendation, why? If you do not support the recommendation, what are your suggestions for improving the recommendation?

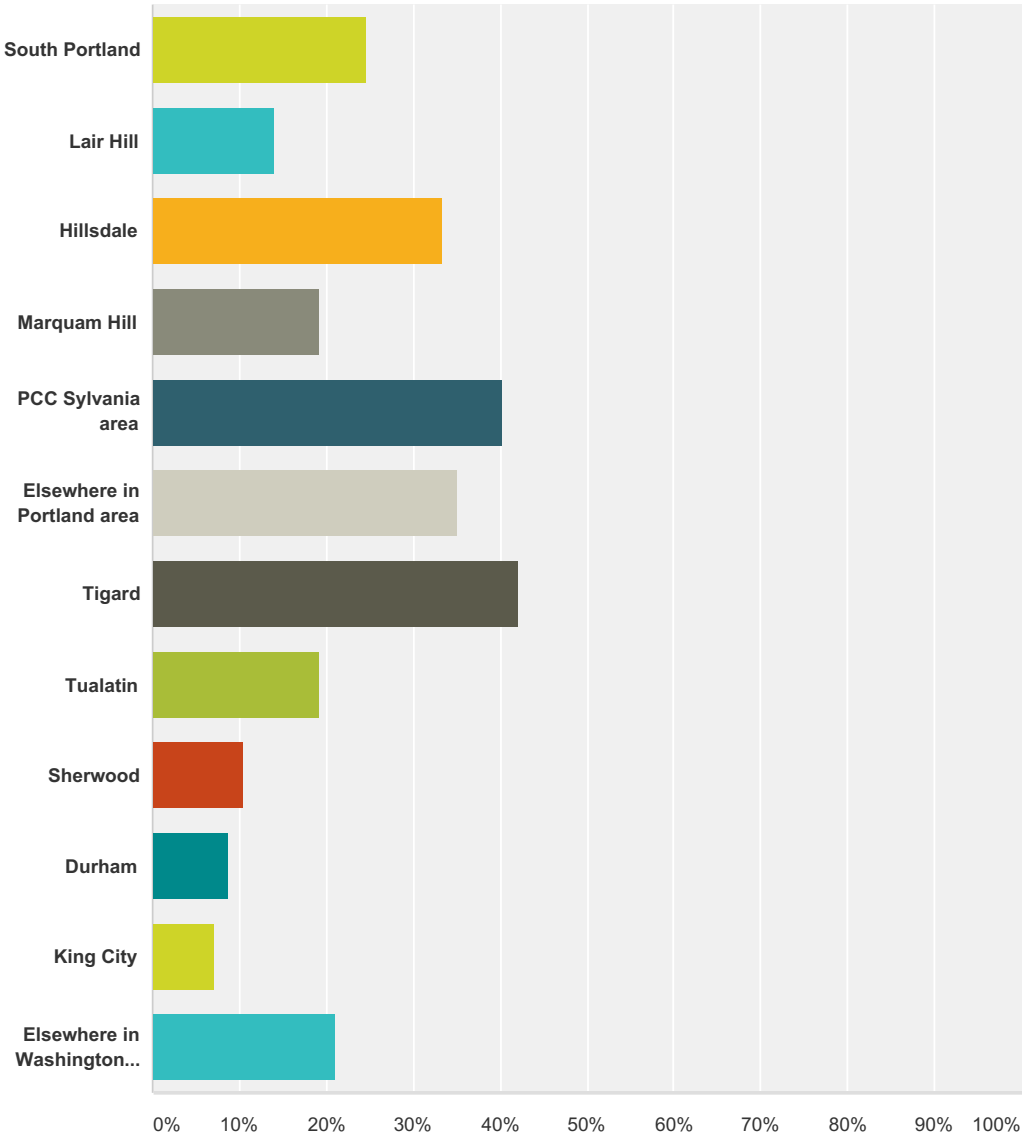
Answered: 39 Skipped: 8

#	Responses	Date
1	LRT is "forever". We are trying to build the system to meet long term needs. This means the LRT ought to go to the major trip attractors., even if it's costly to achieve. We don't get a second chance. Every time I drive to my doctor at OHSU I think how short sighted that the OHSU tunnel has been dropped. We will regret this .	4/25/2016 12:50 AM
2	The construction costs of a tunnel are prohibitive, although I don't believe any money saved will be spent on road projects because the steering committee is opposed to private vehicular travel.	4/23/2016 12:14 PM
3	I favor bike/ped connections	4/21/2016 4:10 PM
4	Rationale points 1,2,3,5.	4/21/2016 2:27 PM
5	Other major light rail projects included the Tillicum Bridge and long bore tunnel under the zoo. We taxpayers funded these major expenses. Now it's our turn. Our needs in SW should not be dismissed or shelved. PCC needs this improvement. Some of the Far SW neighbors feared the idea of a tunnel - but not for rational reasons. Although "expense" is sometimes mentioned as a concern, it' not measurable on an individual level. The long term good of the tunnel outweighs concerns and expenses. HUGE mistake to ignore PCC as a major destination in this area. Transfers are not a viable option.	4/20/2016 1:25 PM
6	Let people walk, ride a bike or an existing bus. Really very simple, cheap and easy.	4/20/2016 11:50 AM
7	Tunnels are very expensive and since this is also not the option best supported by the neighborhood, it should be removed.	4/19/2016 11:51 PM
8	I live very close to light rail, but my work is just North of downtown Portland. The connection to bus increases my travel time considerably to the point I just drive to work everyday, which is a shame because I would take the train if my job with within walking distance to a train station. Don't underestimate how inconvenient and how much longer a trip takes using a transfer. Not having direct access will encourage automobile use to PCC, not matter how good you try to make that connection.	4/19/2016 9:38 PM
9	I have no interest in transport to PCC.	4/19/2016 7:15 PM
10	I think that access to PCC definitely needs to be improved but may not necessitate a direct light rail to the campus	4/19/2016 4:33 PM
11	People can walk, bike or take an existing bus...very simple and cheap.	4/19/2016 3:11 PM
12	rail, underground, is the future for moving large groups of people. Rail should connect other institutions in the SW city: PCC, PSU, OHSU, Collaborative Science Center in So Waterfront.	4/19/2016 2:18 PM
13	I favor the tunnel. But if the opportunity costs are not getting Max all the way to Bridgeport then we should remove the tunnel. Surface improvements from Barbur to PCC (on 53rd) must be state of the art. An elevated station on Barbur could facilitate a skybridge a block or two south on 53rd, thus skipping the steepest part of 53rd.	4/19/2016 9:43 AM
14	The cost outweighs the advantages. Seems like there could be a less intrusive, more affordable option.	4/19/2016 7:41 AM
15	"Construction cost" is not a valid reason for choosing an option. The thrust of a transit recommendation should be on what serves transit needs best. Once that is decided,only then should costs be considered. I also see underground transit as having numerous advantages over surface options. The NIMBY attitude of the neighbors, while important, is not a basis for choosing a transit improvement.	4/19/2016 12:26 AM
16	Most students drive their cars. Very few take the bus. I know as I drove a bus to PCC and watch how few got on.	4/18/2016 10:44 PM
17	Very expensive and unnecessary	4/18/2016 7:40 PM
18	If Gains do not outweigh the construction costs and there would be significant negative impact on the neighborhoods nearby, with unclear return on investment... pretty clear decision to take of the docket.	4/18/2016 4:46 PM
19	we don't need the tunnel and I would rather a line between Bridgeport and PSU then a tunnel to PCC	4/18/2016 4:08 PM

20	Seems like now would be the right time to try and incorporate the campus into the LTR's path. I understand the cost restraints, but still seems like a missed opportunity if we don't connect to PCC.	4/18/2016 4:00 PM
21	PCC should be served by direct light rail access. It is an equity and a social justice issue.	4/18/2016 2:48 PM
22	Many nearby roads need to be overhauled with stormwater management and bike upgrades.	4/18/2016 2:41 PM
23	A tunnel is super expensive.	4/18/2016 2:33 PM
24	For all the reasons stated	4/18/2016 2:15 PM
25	Shuttles from Barbur Transit Center is a better option.	4/18/2016 1:48 PM
26	Too costly	4/18/2016 1:36 PM
27	Tunnel's are expensive. Not a smart decision for a small community college.	4/18/2016 1:30 PM
28	I support recommendation because ROI for public and private parties is too low.	4/18/2016 1:28 PM
29	I agree that this decision has to be made if it must be LRT has getting to Bridgeport is obviously required. Stepping away from BRT should not be based solely on the capacity in downtown basis. BRT capacity needs might be changed by the Powell-Division intertie problem. METRO ought to answer the weather and elevation issue before this mode decision is made, right now TriMet's chained buses are an important component of getting and KEEPING weather impacted streets in the upper elevations of SW open, if BRT has a problem in that situation then LRT is probably the only viable choice. But that won't make the PCC shuttle a viable alternative ever. They shut the school for nasty weather and shuttle shuts down that means multiple days of closure with no improvement to the streets. A Bus Hub at PCC is essential. By way the description of all the corridor in Portland except SP-LH-HD-MH as being either PCC or elsewhere is basically stupid.	4/18/2016 1:10 PM
30	Install a aerial gondola system from the PPC lightrail station up to campus.. Will reduce traffic, green house gases and be extremely cost effective.	4/18/2016 12:27 PM
31	I need LRT get to Tualatin through PCC Sylvania tunnel.	4/18/2016 12:25 PM
32	See comment earlier, subway would be best but given cost constraints if connecting service to light rail during peak hours can be created with no longer than 20 minute wait times I think it will be ok.	4/18/2016 12:24 PM
33	This is a financial decision with which I agree.	4/18/2016 12:23 PM
34	N/A	4/18/2016 12:21 PM
35	Too costly. Going to Bridgeport is more important. 53rd station is close to campus; not a bad walk.	4/18/2016 12:16 PM
36	The cost of serving PCC with a tunnel was too high	4/18/2016 12:06 PM
37	I think this is a big mistake. 25 years from now we'll be asking why there isn't a rail line to one of the largest employers in the region and the largest educational institution in the state. Prioritizing suburban commuters in Washington County (Bridgeport) over community college students is not the equity I would like our region to display.	4/18/2016 12:02 PM
38	A station near the bottom of the hill near SW 60th and Barbur can easily do the same	4/18/2016 12:00 PM
39	This is Allison testing the survey.	4/18/2016 11:11 AM

Q5 Q5. Which parts of the corridor do you primarily live in, work in, or frequently visit? Select as many as apply.

Answered: 57 Skipped: 0



Answer Choices	Responses	
South Portland	**24.56%**	14
Lair Hill	**14.04%**	8
Hillsdale	**33.33%**	19
Marquam Hill	**19.30%**	11
PCC Sylvania area	**40.35%**	23
Elsewhere in Portland area	**35.09%**	20

Tigard	**42.11%**	24
Tualatin	**19.30%**	11
Sherwood	**10.53%**	6
Durham	**8.77%**	5
King City	**7.02%**	4
Elsewhere in Washington County	**21.05%**	12
Total Respondents: 57		

GREAT PLACES
SW Corridor

Please be aware that all information submitted here will become public record, per state law, and will be made available to those who request it.

Event: Southwest Corridor Plan Steering Committee

Location: Southwest Community Center, 6820 SW 45th Ave, Portland, OR 97219

Date: April 6, 2016

Time: 6:00 p.m.– 8:00 p.m.

Representative	Representative Sign-in	Alternate	Alternate Sign-In
Craig Dirksen			
Bob Stacey			
John Cook		John Goodhouse	
Denny Doyle			
Steve Novick		Chris Warner	
Neil McFarlane		Dan Blocher	
Krisanna Clark		Sally Robinson	
Lou Ogden		Monique Beikman	
Roy Rogers		Andy Duyck	
Gery Schirado		Linda Tate	
Rian Windsheimer		Alan Snook	
Al Reu			

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SW Corridor

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www.swcorridorplan.org

Event sign-in

Southwest Corridor Plan Steering Committee & Public Forum
April 6, 2016

Name: Karl Eggemeyer
Phone: 503-752 9129
Email: eggemeyerkarl@gmail
Address:
City, State, ZIP:
☐ Yes, please add me to the plan's email/mailing list.

Name: Don McFarling
Phone: 503-504-3205
Email: OregonRail@aol.com
Address: 20565 SW Cheshire Cr
City, State, ZIP: Aloha 97078
☐ Yes, please add me to the plan's email/mailing list.

Name: Lorraine Wadman
Phone: 503 244-5225
Email: lorrainebwadman@gmail.com
Address: 942 SW PLUM DR
City, State, ZIP: Ptld 97219
☑ Yes, please add me to the plan's email/mailing list.

Name: Paul Thiers
Phone: 503 90 9031
Email:
Address: 4931 SW Vesta St
City, State, ZIP: PDX 97219
☐ Yes, please add me to the plan's email/mailing list.
Already On

Name:
Phone:
Email:
Address:
City, State, ZIP:
☐ Yes, please add me to the plan's email/mailing list.

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Event sign-in

Southwest Corridor Plan Steering Committee & Public Forum
April 6, 2016

Name Donna Lewis Address
Phone City, State, ZIP Portland 97219
Email dnl72260@gmail ☒ Yes, please add me to the plan's email/mailing list.

Name ALICE CANNON Address CITY OF TUALATIN
Phone (503) 691-3019 City, State, ZIP
Email alice.acannon@ci.tualatin.or.us ☐ Yes, please add me to the plan's email/mailing list.

Name Karen Pell Fox Address
Phone 503-860-5628 City, State, ZIP
Email KpFox@cpahinc.org ☒ Yes, please add me to the plan's email/mailing list.
Kper18@gmail.com

Name GEORGE THANOS Address 6016 SW HAINES
Phone City, State, ZIP
Email georgeter@earthlink ☐ Yes, please add me to the plan's email/mailing list.

Name Deborah Honthaner Address 8430 SW 37th Ave
Phone (503) 313-5787 City, State, ZIP Pld, OR 97219
Email honthand@yahoo.com ☑ Yes, please add me to the plan's email/mailing list.

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Southwest Corridor Plan Steering Committee & Public Forum

April 6, 2016

Name: KEN PARISEN	Address: 5638 SW HUMER ST.
Phone: 503 245-6546	City, State, ZIP: PORTLAND OR 97219
Email: kparchitect@comcast.net	☒ Yes, please add me to the plan's email/mailing list.
Name: Marjorie Hansel	Address:
Phone:	City, State, ZIP:
Email:	☐ Yes, please add me to the plan's email/mailing list.
Name: Andy Adkins	Address: 2831 SW Moss
Phone:	City, State, ZIP: Portland 97219
Email: adkinsandy@gmail.com	☒ Yes, please add me to the plan's email/mailing list.
Name: Joshua Geisner	Address:
Phone:	City, State, ZIP:
Email: jleis66@yahoo.com	☑ Yes, please add me to the plan's email/mailing list.
Name:	Address:
Phone:	City, State, ZIP:
Email:	☐ Yes, please add me to the plan's email/mailing list.

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Southwest Corridor Plan Steering Committee & Public Forum

April 6, 2016

Name	Gerald Robertson	Address	7205 SW Norwood
Phone	503 638 9318	City, State, ZIP	Tualatin 97062
Email	gerald@earthlink.net	☐ Yes, please add me to the plan's email/mailing list.	
Name	John Prouty	Address	5262 SW Taylors Ferry Rd.
Phone	503-705-9902	City, State, ZIP	Portland, OR 97219
Email	johnprouty@g.com	☐ Yes, please add me to the plan's email/mailing list.	
Name	Robert Powers Jr	Address	7337 SW 31st Ave
Phone	503 909 9832	City, State, ZIP	Portland, OR 97219
Email	pizzacaboose71@gmail.com	☒ Yes, please add me to the plan's email/mailing list.	
Name	Anna Hersey	Address	
Phone		City, State, ZIP	
Email		☐ Yes, please add me to the plan's email/mailing list.	
Name	Gerald Fox	Address	
Phone		City, State, ZIP	
Email		☐ Yes, please add me to the plan's email/mailing list.	

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Event sign-in

Southwest Corridor Plan Steering Committee & Public Forum
April 6, 2016

Name: Kate Spielmann
Address: 6232 SW Bluggen St.
Phone: Bill Edwards
City, State, ZIP: Portland, OR 97219
Email: Kate.Spielmann@Gmail.com
☒ Yes, please add me to the plan's email/mailing list.

Name: John Gibbon
Address: 9822 SW. ~~Barbur~~ Quail Post Rd Blvd.
Phone: 503-452-8567
City, State, ZIP: PDX 97219
Email: jtgovygun@aol.com
☒ Yes, please add me to the plan's email/mailing list.

Name: Jim Hensel
Address:
Phone:
City, State, ZIP:
Email: James@hensel.com
☐ Yes, please add me to the plan's email/mailing list.

Name: CAMERON LIEN
Address: 22429 SW 112th Ave
Phone: 503 734 8424
City, State, ZIP: TUALATIN OR 97062
Email: Cameron.Lien@Gmail.com
☐ Yes, please add me to the plan's email/mailing list.

Name: Vern Krist
Address: 5905 SW California
Phone: 503-312-0870
City, State, ZIP: 97219
Email: Sumoagent@msn.com
☒ Yes, please add me to the plan's email/mailing list.

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Southwest Corridor Plan Steering Committee & Public Forum
April 6, 2016

Name Marcia Leslie
Address on file FSWNA
Phone
City, State, ZIP
Email
☐ Yes, please add me to the plan's email/mailing list.

Name Leonard Gard
Address
Phone 503-823-4592
City, State, ZIP
Email
☐ Yes, please add me to the plan's email/mailing list.

Name Eric Sing
Address 7214 SW Neveda per
Phone 503-928-0467
City, State, ZIP
Email edaddy67@yahoo.com
☐ Yes, please add me to the plan's email/mailing list.
edaddy67@yahoo.com

Name Kenny Ashe
Address TIGARD
Phone
City, State, ZIP
Email
☐ Yes, please add me to the plan's email/mailing list.

Name ROGER AVERBECK
Address
Phone
City, State, ZIP
Email TRANSPORTATION@SWNI.ORG
☐ Yes, please add me to the plan's email/mailing list.

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Southwest Corridor Plan Steering Committee & Public Forum

April 6, 2016

Name: Milt Jones
Address: Homestead RVA
Phone:
City, State, ZIP:
Email:
☐ Yes, please add me to the plan's email/mailing list.

Name: Jim Christenson
Address: 15655 SW 114 CT 14
Phone: 503.701.9657
City, State, ZIP: TIGARD OR 97224
Email: already on
☐ Yes, please add me to the plan's email/mailing list.

Name: JIM HOWELL
Address: 3325 NE 45TH AVE
Phone: 503-341-3264
City, State, ZIP: PORTLAND 97213
Email: JIMHOWELL69@HOTMAIL.COM
☒ Yes, please add me to the plan's email/mailing list.

Name: Linda Degman
Address:
Phone:
City, State, ZIP:
Email: ldegman@pcc.edu
☐ Yes, please add me to the plan's email/mailing list.

Name: MICHAEL KISOR
Address: ON FILE
Phone:
City, State, ZIP:
Email:
☐ Yes, please add me to the plan's email/mailing list.

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Southwest Corridor Plan Steering Committee & Public Forum
April 6, 2016

Name: Evan Lazer
Address: 2522B SE 35th Ave
Phone: 631 329 9480
City, State, ZIP: Portland 97202
Email:
☐ Yes, please add me to the plan's email/mailing list.

Name: Park Woodworth
Address: 7675 SW Taylors Ferry Rd
Phone: 503 680 6755
City, State, ZIP: Portland, OR 97223
Email: parkwoodworth@gmail.com
☐ Yes, please add me to the plan's email/mailing list.

Name: Doug Allen
Address: 734 SE 47th Ave
Phone:
City, State, ZIP: Portland, OR 97215
Email:
☐ Yes, please add me to the plan's email/mailing list.

Name: Patrick Hartmann
Address: 11330 S.W. 64th AVE
Phone: 503 605 1612
City, State, ZIP: PTLD
Email: hartmannmotors@aol.com
☐ Yes, please add me to the plan's email/mailing list.

Name: Drew Williamson
Address: 3409 SW Moss St Lower
Phone: (843) 754-4994
City, State, ZIP: PDX OR 97219
Email: AAW@LCLARK.EDU
☐ Yes, please add me to the plan's email/mailing list.

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Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: GERRITT ROSENTHAL Date: 4/6/2016
Affiliation (if any): N/A
Street address: 7205 SW NORWOOD RD
City: TUALATIN
Email address: gerritt@earthlink.net

I DONT NEED TO TESTIFY BUT I WONDER IF THE CAMPUS ACCESS OPTIONS INCLUDED AN ANALYSIS OF IMPACT ON STUDENTS W/ DISABILITIES? I DIDN'T SEE THIS

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: Jean Krist Date: 3-6-16
Affiliation (if any):
Street address: 5905 SW California
City: PDX
Email address: Sumo Agent@msn.com

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: JIM HOWELL Date:
Affiliation *(if any)*: AODTA
Street address:
City:
Email address:

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: John Gibbon Date: 4-5-2016
Affiliation *(if any)*: SWNI Land Use Comm.
Street address: 9822 SW Quail Post Rd
City: PDX
Email address: jtgovugun@aol.com

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: ROGER AVERBECK Date: 4/6/16
Affiliation *(if any)*: SWNI TRANSPORTATION
Street address:
City:
Email address:

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: Linda Degman Date:
Affiliation *(if any)*: PCC
Street address:
City:
Email address:

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: Marcia Leslie Date: 4/6/16
Affiliation *(if any)*: FSW NA
Street address: 5445 SW Palatine St.
City: Portland, OR
Email address: mmacleslie@yahoo.com

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: Evan Lazer Date: 4/16/16
Affiliation *(if any)*:
Street address: 2522 B SE 35th Ave
City: Portland, OR
Email address: —

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: KEN PAULSEN Date: 4-6-10
Affiliation *(if any)*:
Street address: 2638
City:
Email address:

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: Dan McFarling Date:
Affiliation *(if any)*: AORTA
Street address:
City:
Email address:

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: Gerritt Rosenthal Date: 4/07/2018
Affiliation *(if any)*: NA
Street address: 7205 SW Norwood
City: TUALATIN
Email address: gerritr@earthlink.net

Southwest Corridor Plan
Request to Comment
(Please print legibly)

Name: Paul Thiers Date:
Affiliation *(if any)*:
Street address:
City:
Email address:

Portland needs:

Tunnel Vision!

Commute to OHSU/Doernbecher, VA Hospital, Shriners, or School of Optometry?

Arrive by elevator from a MAX station in a deep light rail tunnel connecting South Waterfront to Tualatin. Trains traveling directly to Vancouver, Washington over the Tilikum Crossing (*see* ***AORTA**'s MAX 2050 Vision*). Portland's rapid transit alternative to a clogged I-5 Freeway.

The current SW Corridor Plan is bogged down on how to build it on the cheap. It will not serve OHSU/VA, South Waterfront, Hillsdale, PCC and Tualatin.

AORTA's proposal uses a six-mile tunnel through Marquam Hill and Mt. Sylvania to serve all key destinations. It would not be cheap - but it is cost-effective!

A deep tunnel lowers operating costs, avoids traffic conflicts, steep grades, adverse weather conditions and is more capable of withstanding a major earthquake.

What can YOU do?

Make it happen! Write to and call:

- TriMet
- METRO
- Hospital administration
- Spread the word! Encourage coworkers to act!

"We need better access to the hospitals! ***AORTA**'s MAX 2050 Vision* *provides fast, convenient all-weather access! No more parking problems!!"*

Mike Cresci, US Army Veteran, (1969-1974)

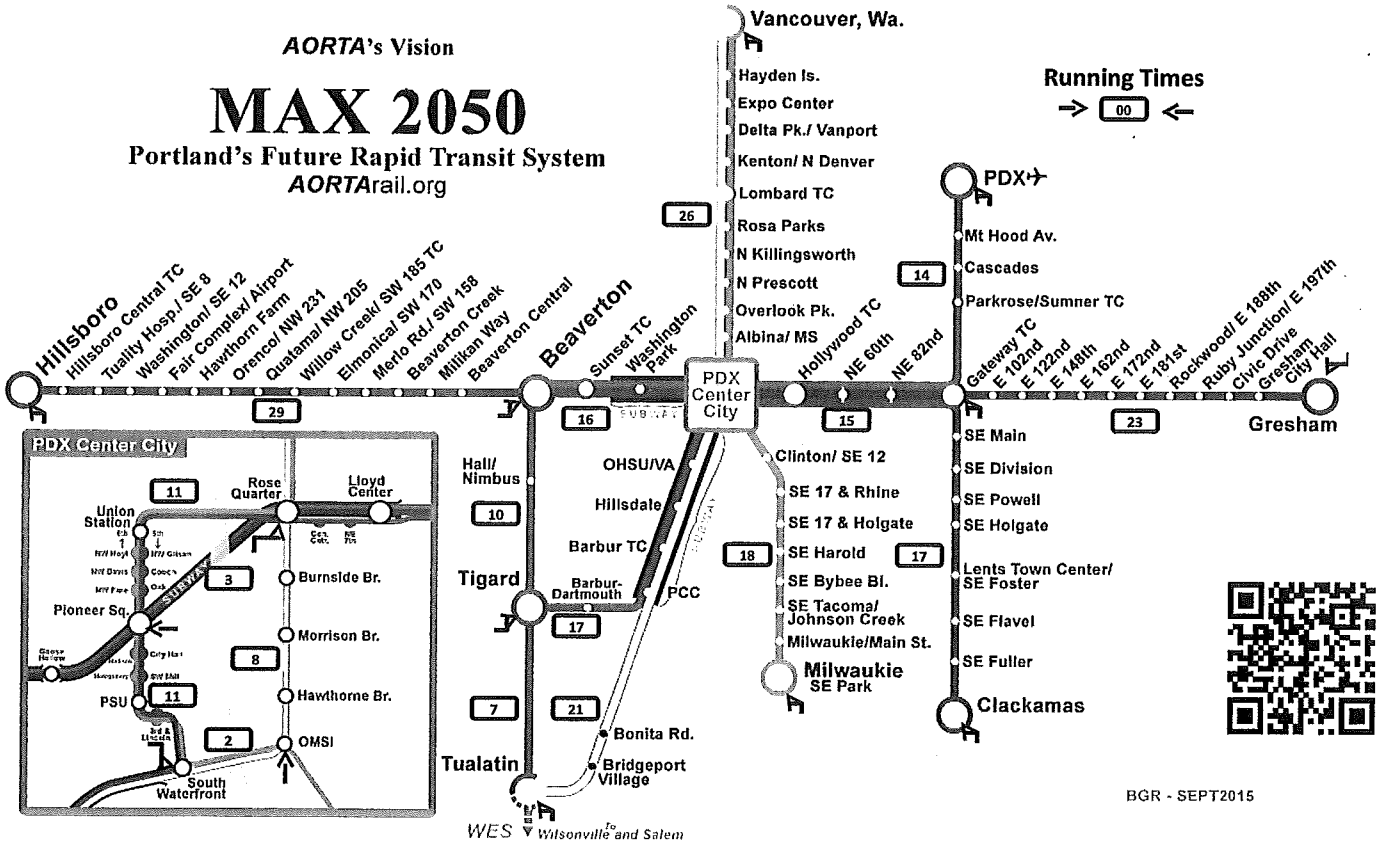
AORTA (Association of Oregon Rail and Transit Advocates) Portland Union Station, 800 NW Sixth Avenue, Suite 253, Portland, OR ***AORTA***rail.org

AORTA's Vision

MAX 2050

Portland's Future Rapid Transit System

*AORTA*rail.org



AORTA (Association of Oregon Rail and Transit Advocates) Portland Union Station, 800 NW Sixth Avenue, Suite 253, Portland, OR *AORTA*rail.org

Far Southwest Neighborhood Association

Portland, Oregon

April 6, 2016

Marcia Leslie
5445 SW Palatine St.
Portland, OR 97219

To: SWCP Steering Committee
SWCP Project Staff

First, I would like to thank the Staff for their recommendation to remove the PCC tunnel from further consideration. It was not an easy decision but a wise one, as confirmed in the review process outlined in the report. We were concerned, however, when the statement appeared on page 10 that "the steering committee will consider a separate action on whether to continue study of a light rail runnel to PCC Sylvania." Was this another bad joke like the on-again-off-again-on-again by TriMet about the tram? It doesn't appear so, for which we are relieved and very thankful.

Second, we would like to thank and commend PCC Sylvania for not trying to rush the creation of the new Master Plan for their campus in order to meet the desires of Metro and TriMet. A plan as complex and long-ranging as theirs must be cannot be adequately researched, evaluated, projected and documented in only a few months. We trust their final plan, done in a timely manner, will well serve the Sylvania campus in the years and decades to come.

We thank Sylvania, also, for their support for an alternative connection to improve service to the campus. The Far Southwest Neighborhood Association acknowledges that PCC Sylvania needs and deserves good mass transit service, as do all major educational, medical and business campuses in the corridor area, and look forward to working with them and other neighborhood associations in identifying the best solution to meet those needs.

In the March 11 "Direct and Indirect Connection Options" report, a survey by PCC Sylvania showed that 21%/22% of respondents "drive alone" because service isn't close enough/direct from their homes. This is likely true of all commuters along I-5, 99W, 217, 405. By providing enhanced bike/pedestrian/street improvements not just near Sylvania but throughout the corridor area, ALL commuters will find it easier to access mass and high capacity transit which will increase ridership throughout the corridor.

From the beginning, the SWCP was intended to design a plan that enhances land use as well as current and projected transportation needs all along the Southwest Corridor. On page 14 of the March 11 report it says about 93,000 households will have access to Sylvania within 60 minutes, and 34,000 will have a one-seat ride to Sylvania. What it doesn't say is that all of those households will WANT to access Sylvania campus. More than likely only a small percentage will. One of the corridor employers interviewed for a Metro News article said that rapid transit riders are employees wanting to get to work, students to classes, customers to restaurants or stores or appointments. To that you can add to sporting events anywhere from the Providence Park or the Moda Center to PIR or Portland Meadows or a HOPS game in Hillsboro, or performing arts theaters and auditoriums downtown, to exhibits and conferences and concerts and conventions from the Con-

vention Center to the Expo Center, or travelers heading for the airport or train station or bus depot, visitors to the World Forestry Center or Zoo or OMSI or Oaks Park and numerous other points of interest, as well as to visit friends and relatives in hospitals throughout the corridor, or receive treatment themselves. THAT is where those 93,000 households and more want to go now and in the future.

By planning and providing the enhanced walk/bike/street improvements to enable people to use high capacity transit to reach all these other places, it will also enable them to reach PCC Sylvania. It will be a WIN-WIN for the entire Southwest Corridor.

Thank you for getting this plan "back on track" (pun intended).

Sincerely,

Marcia Leslie

Marcia Leslie, Chair
Far Southwest NA

From: Peter [mailto:pkoestner@yahoo.com]
Sent: Wednesday, April 06, 2016 7:06 AM
To: Southwest Corridor Plan
Subject: Bus rapid transit

The option of bis rapid transit should still be considered. It has lower up front costs, more buses can be added to expand capacity and busses can be rerouted, light rail cant.

From: Jim Wolfe [mailto:gardenhome@gmail.com]
Sent: Tuesday, April 05, 2016 8:09 PM
To: Southwest Corridor Plan
Subject: Option other than tunnel to PCC campus

Just spitballing here but I was wondering if another option would be to have a people-mover such as at the airport for moving people from the PCC campus to the proposed light rail stop on Barbur and 53rd Ave.
Thanks for your consideration,
James Wolfe
7997 SW Alden St
Portland, Or. 97223

From: Phil Ford [mailto:phlfrd@msn.com]
Sent: Monday, April 04, 2016 6:21 PM
To: Southwest Corridor Plan
Subject: Soutwest Corridor Plan

The recommendations to use light rail and abandon the tunnel are the best long term solutions. Well Done.
Phil Ford

From: Adam Herstein [mailto:aherstein@gmail.com]
Sent: Monday, April 04, 2016 5:19 PM
To: Southwest Corridor Plan
Subject: SW Corridor

Thank you for recommending light rail! It's the most robust and forward-looking option and the right choice for southwest.

From: David Johnson [mailto:david4466@gmail.com]
Sent: Monday, April 04, 2016 10:16 PM
To: Southwest Corridor Plan
Subject: STOP REMOVING THE LIGHT RAIL TUNNEL TO PCC SYLVANIA:

PLEASE KEEP THE LIGHT RAIL TUNNEL TO PCC SYLVANIA CAMPUS!

SHOULD THE STEERING COMMITTEE CONTINUE MORE DETAILED STUDY OF THE LIGHT RAIL TUNNEL OPTIONS? = YES, MY VOTE IS ANSWERED "YES" OF MY RESPONDENT "BORED LIGHT RAIL TUNNEL"

LET ME KNOW ABOUT FINAL DECISION RELATED OF SOUTHWEST CORRIDOR AND INCLUDED PCC SYLVANIA CAMPUS STATUS! PLEASE POST ME REMINDERS ABOUT FINAL VOTES!

PLEASE MAJOR ANNOUCEMENT POSTS ON FACEBOOK, EMAIL ALERT, TV LOCAL NEWS, AND ETC.

SINCERELY, MR. DAVID JOHNSON
--
Mr. David Johnson :)

From: Marty Dollowitch [mailto:dollowit@ohsu.edu]
Sent: Thursday, April 07, 2016 10:47 AM
To: Southwest Corridor Plan
Subject: No Light Rail

To the Committee,

We just moved out of NE Portland to get away from the light rail, and
all the crime that it brought with it.
Over time it added low income housing and all that goes with it to the area.
No thank you.
Please leave SW (especially around Bridgeport) a nice, clean and low crime area for us to shop and enjoy.

Marty

From: Robert Bierma [mailto:robertbierma@gmail.com]
Sent: Sunday, April 17, 2016 2:17 PM
To: Southwest Corridor Plan
Subject: Bus Rapid Transit over Light Rail.

Dear, Steering Committee

I feel the choice to support the light rail option over bus rapid transit fails to take into consideration of the risk of its long term success from driver less vehicles. I would like to see this risk evaluated by the committee as it would seem to be one of the biggest, if not the largest, medium term factors in the value of this project. PLEASE consider this factor, and do a risk analysis before finalizing you decision on light rail over bus rapid.

Robert Bierma

From: Susan Christenson [mailto:sue2hawaii@gmail.com]
Sent: Tuesday, April 26, 2016 8:33 AM
To: Southwest Corridor Plan; Markgraf, Tom
Subject: Re: SW Corridor updates

Noelle, I just finished looking at your update and like what I see. If the shorter and new proposed alingment meets the criteria of the plan, then go for it. My specific thoughts are...

1. 70th Ave two-way: I agree
2. Proposed branch addition to Tigard: I like this and agree; hits industrial plus housing options for those traveling

One more thing..the TriMet on Tap at the Lucky Lab last week had a great informal presentation. I really, really like that change. Your formal presentations are great, but there was more info in the informal session...

1. I learned that there was a new Metro map showing blue areas that they are considering opening up for housing and industry
2. they talked more about how the jobs would be out in those areas and how we need to plan for this growth
3. they talked more about how many new jobs/people were coming, so they pushed more of that "plan ahead" thinking so people had to think about the reasons we are needing all this new service
4. maybe this is more of an eye-opener that forces people to see the services in a "wow...this isn't just about me...where are these million people going to live and work and how will I fit into the picture? Maybe I should be putting this system in so I won't be crowded out?!?"

Anyway, thanks for the chance to give you my opinion. As always...you are doing a great job!

I will be out of the country until June 1st. Glad I had time to add my two cents worth.
s

From: Venture Dynamics [mailto:info@venture-dynamics.com]
Sent: Wednesday, January 27, 2016 2:33 PM
To: Chris Ford
Subject: Southwest Corridor Plan

Hello Chris,

My wife and I sat in on the SWINI meeting last week held at the Multnomah Arts Center. While I think I got my point across that I thought it was imperative there be a light rail stop at PCC, having not been prepared to speak I don't believe I was able to state why.

It is my understanding that there is approximately 4 million dollars difference in the capitol cost between extending light rail to Washington county without stopping at PCC and a stop at PCC. If this were the only consideration, it might make sense. However, I think it is most important that by not stopping at PCC, a whole new layer of operational costs and expenses are incurred by having to establish a shuttle service and/or rerouting bus service or adding autonomous vehicles

to transport riders between PCC and the nearest off campus transit site. The initial savings of 4 million dollars would rapidly be used up and a whole new layer of expense would be ongoin g for the life of the system. Smart money would never build this light rail without a stop at PCC

As I also stated in the meeting my preference is for the long bore tunnel option. It virtually eliminates changes to the surface landscape in the neighborhood that is affected by that rail line. From an engineering standpoint, it is much easier to maintain constant grade and slope throughout the tunnel if you don't have to transition from a tunnel and then proceed over a bridge to cross I5.

I am also in favor or the I5 adjacent option for the light rail line. While I expect that light rail will help to minimize the growth of commuter traffic in the SW corridor, I don't believe it will succeed in making commuter traffic on Barbur Blvd. less in total numbers of vehicles. Therefore you would not want to reduce the number of traffic lanes that are currently in place. In short, BRT is not a viable option. BRT would be a short lived Band-Aid that will end of costing more in the long run.

Thank you for your time and consideration.

Michael & Shea Conover
5232 SW Buddington St.
Portland, OR 97219

Date: April 28, 2016
To: Southwest Corridor Plan Steering Committee
From: Jim Howell, AORTA
Subject: April 21, 2016 Metro response to AORTA's WES proposal

Following are some comments on Metro's response memo.

The memo references a proposal to upgrade WES service that was discarded by the Steering Committee in 2012. Because of the differences between the proposals, and the different context of the 2012 decision, the Metro response does not adequately address the issues raised by the AORTA proposal.

The memo correctly characterizes AORTA's proposal as upgrading WES to all-day light rail, but omits the point that AORTA's proposal directly serves downtown Portland as an extension of the existing MAX Red line.

The memo begins with three bullet points drawn from the 2012 decision.

First point (not adequately serving the corridor):

The AORTA proposal does serve demand between CBD and major SW destinations of Washington Square, Tigard and Tualatin. It does not directly serve the major intermediate destinations along the Barbur Corridor such as South Waterfront, OHSU, VA hospital, Hillsdale and PCC Sylvania – but neither does Metro's current proposal.

Second point (not serving land use goals):

Regional land use goals can only be met by reducing auto dependency. Modeling of AORTA's proposal would show it would reduce traffic demand not only on Barbur Blvd. but also on I-5, Hwy 217 and TV Highway. Modeling would also show that it would provide significantly improved transit connectivity between locations in the corridor and other locations in Washington County.

Third point (high property impact):

This statement is unsupported opinion. Co-mingling of service would minimize property impacts. With Positive Train Control technogy, safe co-mingling of freight with light rail is feasible. The FTA and the FRA may be willing to fund a proposal of this type given its potential for supporting new transit opportunities in many other cities and it probably would be eligible for CRISI funds (see Appendix A below).

AORTA's WES proposal is not intended to replace a future SW Corridor Project, but rather is intended to provide a viable alternative until a far more effective solution can be funded. The WES proposal would probably be under $200 million

whereas Metro's surface light rail alignment, which does not serve Tualatin but stops short at a shopping center, will still cost in the neighborhood of $2 billion. The long tunnel option proposed by AORTA would probably cost about $3 billion but would be far more cost effective over the long run. This would be evident if Metro would run a forecast model based on long range regional transit assumptions.

It is true AORTA's WES project would not directly connect Tualatin and Tigard to Southwest Portland but it would relieve demand on the existing Barbur Blvd. bus lines that do serve the corridor as well as relieve some of the commuter auto traffic. It is incorrect to claim that this project would not connect Tualatin and Tigard to the central city. Extending the Red Line from Beaverton to Tualatin would provide high capacity, reliable and fast service to and from the central city. Based on existing MAX and WES scheduled time, a trip between Pioneer Square and Tualitin would take 39 minutes, compared with Metro's light rail proposal that is projected to take 37 minutes between Pioneer Square and Bridgeport Village.

The memo continues with reasoning behind the 2012 decision: "The WES corridor (Beaverton to Wilsonville) ranks as a Near Term Regional Priority Corridor in Metro's High Capacity Transit System Plan. As such, the steering committee agreed that WES merits further analysis as part of a corridor study separate from the Southwest Corridor Plan."

Unfortunately, we are faced with a situation that was anticipated back in 2012. As noted in the October 2012 Steering Committee minutes: "Mr. Rogers reiterated his concerns regarding proposing a plan for the SW Corridor that cannot be funded." In a similar vein, the minutes note: "Mayor Ogden seconded the motion. However, he continued to express discomfort recommending or eliminating projects without any level of study. He also requested that an analysis of the impacts and effects of the WES line be considered in some capacity."

It seems prudent now to analyze the AORTA interim proposal, for cost and efficiency, prior to committing to a vastly more expensive project that may not pass muster with the voting public, and may be an ineffective use of transit dollars.

APPENDIX A (CRISI Program)

<u>CRISI</u> - Consolidated Rail Infrastructure and Safety Improvements

This program is part of the Dec. 2015 federal transportation bill (FAST Act).

Relevant information from the Federal Railroad Administration (FRA) web site:

The FAST Act authorizes $2.2 billion over five years for three new competitive rail development grant programs that build off of the Administration's previous $10 billion investment through the High-Speed Intercity Passenger Rail Program:

...*Consolidated Rail Infrastructure and Safety Improvements (Sec. 11301)*: Purpose is to improve the safety, efficiency, and reliability of passenger and freight rail systems. Eligible activities include a wide range of capital, regional and corridor planning, environmental analyses, research, workforce development, and training projects.

...the FAST Act contains several other provisions intended to enhance the development and delivery of passenger and freight rail services, including:

...Shared-Use Study: Requires the Secretary to conduct a comprehensive study to evaluate the operational, institutional, and legal structures that would best support passenger and freight rail services operating over shared-use infrastructure. Reassessing these parameters – many of which have been in place for decades – is necessary to ensuring the rail system is well-positioned to meet the passenger and freight mobility demands of our growing population.

Authorized funding by fiscal year:

FY16 $98 million
FY17 $190 million
FY18 $230 million
FY19 $255 million
FY20 $330 million

City of Tualatin

www.tualatinoregon.gov

April 15, 2016

Mayor Hales and
Commissioners
1221 SW 4th Avenue
Portland, OR 97204

Dear Mayor Hales and Portland Commissioners:

Thank you for your continued support for the Southwest Corridor Plan. This project will provide essential connections from Southwest Portland to Tigard and Tualatin via high capacity transit (HCT). This project will provide the last large link in the HCT network increasing access to jobs, housing, and recreation opportunities to the region. Specifically, the Southwest Corridor alignment will provide an efficient connection between Portland State University, Portland Community College, the Tigard Triangle, Downtown Tigard and Bridgeport Village.

The project also includes important bike, pedestrian and roadway improvements to provide people with commuting choices and congestion relief. Congestion impacts the region by slowing freight movement, increasing pollution, reducing quality of life and limiting access to jobs, schools and services. As the region continues to grow in population and businesses continue to expand and site in the Metro area the pressure on our roadways will continue to be strained.

The project is focused on providing transportation choices and access to key places in the project area. I appreciate your partnership and encourage your continued support of this regional project which will have a significant impact on our future residents and industries.

Respectfully,

Lou Ogden
Mayor
City of Tualatin

18880 SW Martinazzi Avenue | Tualatin, Oregon 97062-7092 | 503.692.2000

WASHINGTON COUNTY
OREGON

April 15, 2016

Mayor Hales and Commissioners
1221 SW 4th Avenue
Portland, OR 97204

Dear Mayor Hales and Portland Commissioners:

I want to encourage your continued support for the Southwest Corridor Plan. This project will benefit Portland, Washington County and the region as a whole by improving access to jobs, housing, education and essential services.

High capacity transit between the city center, Southwest Portland, Tigard and Tualatin that is integrated with important bicycle, pedestrian and roadway improvements will improve access in the corridor and connections to the regional transit system. The Southwest Corridor Plan will improve access to Oregon Health Sciences University, Portland State University, Portland Community College, Downtown Tigard, Bridgeport and other key destinations and communities in the Southwest Corridor.

Existing congestion on roads in the corridor, including I-5, 99W and parallel arterials, will increase as the region grows, adding to travel delay and reducing reliability. A multimodal approach to these problems is important to support our economic vitality and quality of life.

The SW Corridor Plan requires balancing many competing needs within the corridor. I look forward to our continued partnership and success on this effort.

Sincerely,

Andy Duyck

Andy Duyck, Chairman
Washington County Board of Commissioners

c: Andrew Singelakis, Director Land Use & Transportation

Board of County Commissioners
155 N. First Avenue, Suite 300, MS 22 Hillsboro, OR 97124-3072
Phone: (503) 846-8681 Fax: (503) 846-4545

Metro
SW Corridor Technical Evaluation
Direct and Indirect Connection Options to PCC Sylvania Campus
5 April 2016

Dear Metro:

Comments on March 11 Draft Regarding Direct and Indirect Connections

I have two levels of comment: one is about the new recommendations, and the second is about process.

On the current decisions: I applaud the decision to "bite the capital cost bullet" and recommend light rail for the SW corridor. All the technical arguments leaned in favor of that option if there is any way to pay for it. In addition, in the longer term future when fast rail is extended to connect with WES and into Sherwood, the BRT option would not have been a practical alternative. And who knows, maybe someday a ring-link system will obviate the need for a westside freeway. The investment is worth it in my opinion.

Regarding the tunnel decision I am not happy. I understand the cost, technical, and neighborhood issues of a tunnel, but I wonder whether the option of using the tunnel station to create a "campus center" complete with kiosks and service businesses was ever considered as a cost recoupment option. I am worried that the bus shuttle will be costly, inconvenient, and not very carbon friendly. It will be necessary for those with disabilities or students in a rush.

On the Process: I want to commend Metro on trying to "get it right" and dot all the i's. However, my concern is that the process is moving too slowly and Metro is planning for transportation links we needed 5 years ago. I also think Metro's laborious process shortchanges other transportation needs like better transit along the Hwy 99W corridor and better transportation throughout the southern tier…Sherwood-Tualatin-West Linn-Oregon City. My basic comment is that metro has gotten too process oriented and sometimes gets lost in its own weeds of detail.

Here are some specific comments.

1) I note that in the Project Goals (p.3) there is no mention of PCC...everything is in the jargon of transportation goals. Public outreach and involvement work better if the references are clear…a good goal would have been to "improve student access (lower time and lower costs) to PCC for education and training enhancement", not, "complete multimodal transportation networks". My recommendation is to try and put goals in terms that residents, not planners, relate to.
2) This problem persists throughout the goals…"catalyze improvements to natural resources, habitat, and parks" could would have been a lot more rider friendly as "encourage cities to improve links between parks and neighborhoods"…or similar.
3) Several of your goals were, to the general user, redundant - #'s 8 and 9 say essentially the same thing to the general transit rider.
4) Goal #10 is a particularly egregious use of planner jargon …and, more importantly, seems to put Metro in the role of "social engineering"…. and this is not really a major decision criteria. Metro transportation goals should be to move

people where they need and want to be. And if two options were equal, then of course the “active transportation mode” (whatever that really is) would be preferred.

5) Goal #12 also bothers me: As a long time environmental consultant, I really have trouble with jargon phrases such as “sensitive to the environment”. It is almost impossible for transportation projects to “improve water and air”...the best they can do is “improve on current negative impacts” or “minimize the damage”. Transportation is not, inherently, climate neutral.
6) I appreciate the technical detail that the report provides, but some of it was not really necessary to include in detail and would have been better left in an appendix. It seems nice to include all the data (such as PCC enrollment by age and ethnic identity) but in the long run the question would seem to be simpler, i.e. which link would encourage the most use or which would limit the use by students with disabilities.

Overall, the level of complexity presented in this study for public viewing was overkill for the kind of decisions that need to be made…and the repetitive nature of this tendency has made the SW corridor process much slower than needs to be. In reality there are only two major questions.

- Light rail or bus rapid
- Long or short tunnel or shuttle

And I would suggest these are already answered. Most people would prefer light rail and it is more flexible, connects better, and is more comfortable. It should be the preferred mode IF WE CAN AFFORD it. To me, the tunnel seemed A CLEAR CHOICE (tramways seem silly and shuttles are not very efficient) with the preferred option being the one that is the best engineering choice…and that would be a deeper tunnel with an underground PCC stop.

Obviously the study represents a lot of good and thoughtful work, but it should have been distilled down to a more public digestible version for debate. The role of policy makers should be to perform the first level of analysis, i.e. this document provides too much process detail and not enough clarity on real tradeoffs. If the public has deep concerns, they will let you know. Mostly, from what I see, they just want a solution “quickly” since transportation gridlock in the SW is a growing and economically crippling concern.

Sincerely

Gerritt Rosenthal
7205 SW Norwood Road
Tualatin, OR
Candidate for Metro Position #3

April 8, 2016

Metro SW Corridor Steering Committee

Two corridor studies are occurring simultaneously: the SW Corridor Plan Study directed by Metro and the Oregon Passenger Rail Study directed by the Oregon Department of Transportation (ODOT).

Our plan, Cascadia High Speed Rail (cascadiahighspeedrail.com) has been developed over an eight-year period as a viable alternative for fast, uninterrupted travel between Eugene and Vancouver B.C. A separate double-track electrified corridor within the vicinity of I-5 will have abundant capacity to service both Cascadia Commuter Express travel and Cascadia Inter-City travel. Almost limitless in its ability to move high volumes of people, it will be fast, frequent and on time.

The Cascadia High Speed Rail corridor needs to be studied seriously by Metro, ODOT and TriMet to determine whether it would be the best method to transport the public quickly for current and future needs. Our estimate is that we can transport commuters from the Bridgeport Park and Ride to the Rose Quarter Transportation Hub in eleven minutes, guaranteed, no matter what the weather or road conditions existing on I-5. Mostly in a tunnel between Bridgeport and the east bridgehead of the Ross Island Bridge, it will also service commuters at the Barbur Park and Ride and OMSI. This fast and reliable tunnel system, mostly under a straighter I-5 corridor, will better serve motorists via park and ride, bicyclists with improved bike corridors and bus riders with more frequent and extended service.

Because of the much greater speed of travel and high capacity of passenger use, a good portion of the funding will come from private investors.

We believe that ODOT will eventually understand that Union Pacific was serious when it told the Oregon Passenger Rail Leadership Council(OPRLC) that they will not allow any more capacity on their right-of-way through Portland. When this understanding occurs, slow passenger rail systems such as Amtrak and MAX should be replaced with much faster trains that are very attractive to the general public and private investors. Optimum speeds, in safe non-grade crossing corridors, provide the highest capacity for ridership and thus the greatest long-term return on investment.

In meetings with Dave Unsworth of TriMet, we both agree that Cascadia High Speed Rail's fast commuter artery in the I-5 corridor can feed the connecting veins of TriMet buses.

Government bureaucracies are often accused of working in silos and not seriously studying what public or private entities have to offer. New transportation corridors, because of their expense, should not be planned for the next 20 years as ODOT's ongoing seriously flawed Eugene to Portland passenger rail plan and Columbia River Crossing. Instead sleek unhindered new corridors should be planned for the next 100 years that are adaptable to future technologies and are incorporated with other transportation systems as Metro, PBOT, TriMet, ODOT and WSDOT should be doing instead of being stuck in planning silos.

For the benefit of the general public, take a serious look at our web: cascadiahighspeedrail.com. We would be pleased to meet with you. When billions of dollars are being considered for system development, exploring all options before major decisions are made is critical.

Sincerely,

Brad Perkins, CEO
Cascadia High Speed Rail, LLC
503-317-6455
perkinsrealty@comcast.net

cc. Matt Garrett, ODOT Director
Tom Hughes, Metro Chair
Mayor Charlie Hales
Commissioner Steve Novick
Neil McFarlane, TriMet G.M.
John Russell, OPRLC co-Chair

February 2016

Thank you board members for inviting us to speak this morning.

We all agree that the Pacific Highway or 99w has too many vehicles traveling on it daily The question is how do we fix it . Light rail is too invasive on street area and too invasive For too long to install. Busses are much cheaper and require less detouring of traffic during installation but add to the problem rather than assisting the situation adds to it. Basically this should have been done 10 years ago. I have spent several hours researching what other cities around the globe have done in similar situations and feel That monorail could possibly be the answer. As you see from the literature I passed out The "Disneyland " above ground approach could work and be faster, cheaper and much more convenient for its riders.

The Melbourne system points out those cities are going to the super capacitors is being used instead of the over head power lines (time and money saved), tied together with the overhead tram with supports as small as 36" diameter, if my math on conversion is correct, from metrics to American, with supports being spread ,in Australia, every ~~50~~ 65 to ~~99~~ 130 feet, of coarse those dimensions would change as to the available area to locate the vertical supports.

I drove the 99W a couple of days ago and see that there is NO available space on either side of the street due to homes and business, but there is a center lane with possibilities for the vertical supports and rider egress with passage way from the sidewalks.

I also found a manufacturer of this type of product , being the Bombardier Co. which builds like product, to specification, in several countries. I am sure you would be able to Find other manufacturers for competitive bidding.

PS: an added factor for the use of the monorail is the accident rate is extremely small the Sidney metro ran six trains with 7 carriages for 25 years and had only 2 minor Incidents and NO major injuries.

Thank you gor your time,

Roger Reschke 503-626-7163

6616 SW Sussex St. rogrr@msn.com

Beaverton, Oregon 97008

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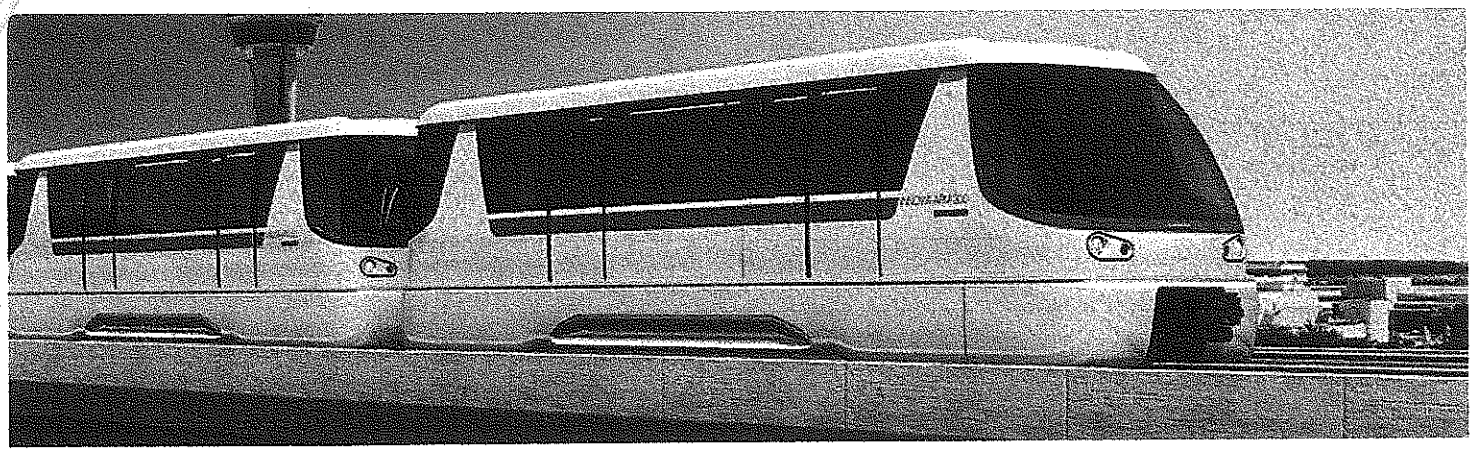

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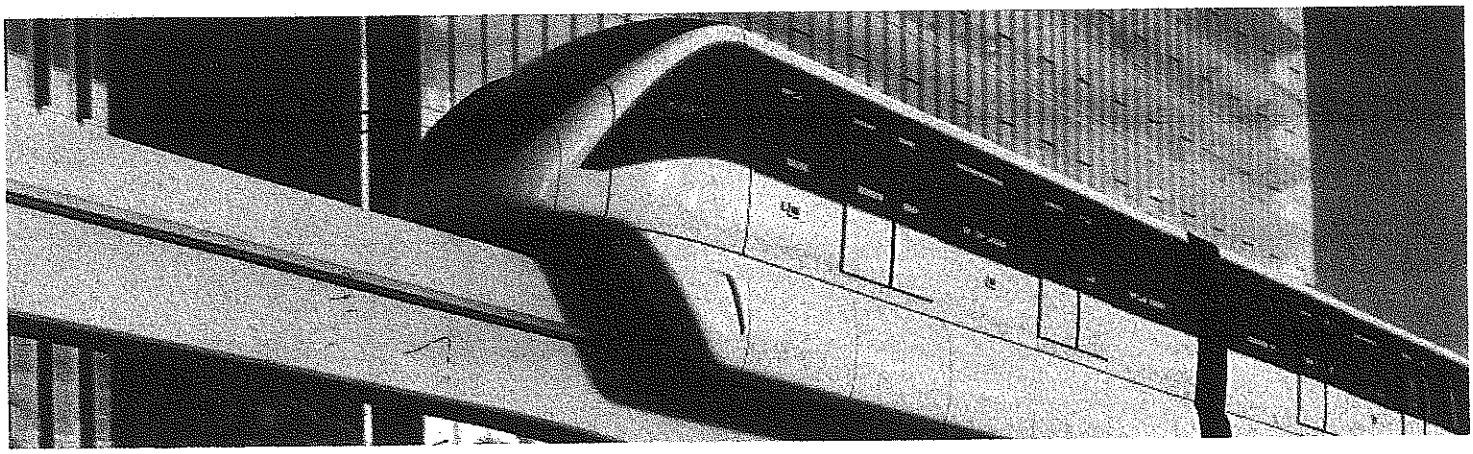

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Should Melbourne Abandon Overhead Tram Lines?

By Marc Howe

Monday, October 27th, 2014

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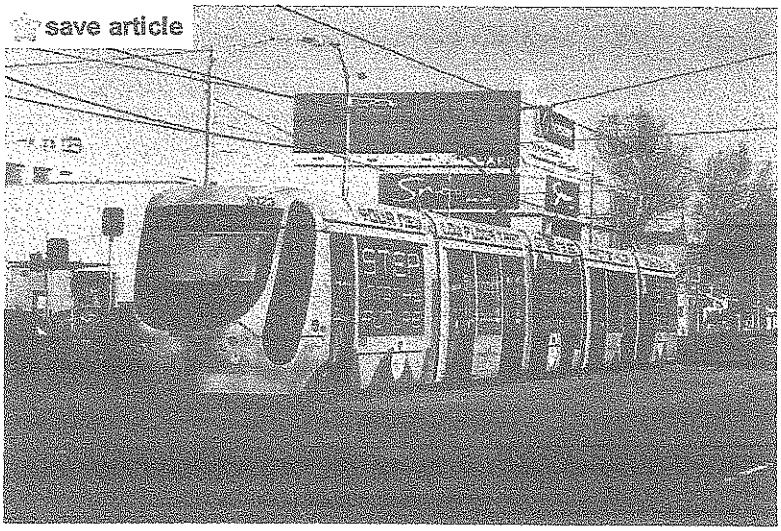

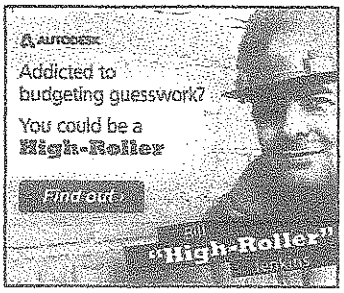

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Wireless supercapacitor trams could bring multiple benefits to the operation of Melbourne's inner-city transport network.

Leading figures in both the rail industry and the sustainability and efficiency sector have recommended that Melbourne gradually dismantle the overhead wires that supply the city's 250-kilometre tram system with power.

Bryan Nye, chief executive of the Australasian Railway Association, said the development of new power technology has made it possible to remove the overhead lines of urban tram systems, as already amply demonstrated by numerous cities around the world.

According to Nye, the removal of overhead power lines from tram system is an inevitable trend in global transportation which Melbourne would be wise to follow.

"I think eventually, within 10 years, you

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won't find anywhere that's got overhead wires," he said. "If you wanted to modernise

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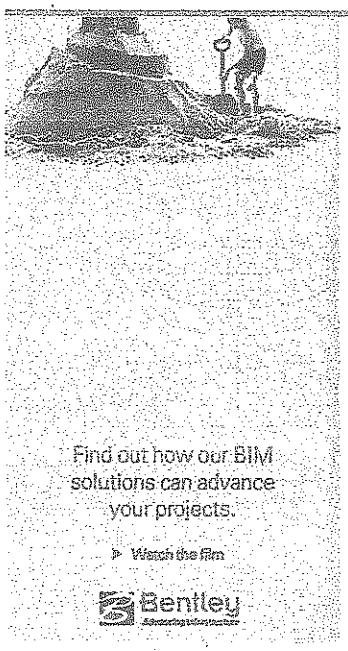

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Emissions Australia, for Melbourne's iconic tram system to go wireless.

While multiple technologies exist for building wireless tram networks, both Nye and Wright advocate the adoption of new supercapacitors as the most advantageous and cost-effective approach.

Since the turn of the century, increases in the power density of supercapacitors have revolutionised the operation and design of modern tram systems, enabling them to dispense with overhead power lines completely.

The latest supercapacitors developed in China are as small as milk cartons and can be readily installed beneath the floors or in the roofs of trams for rapid recharging at stops.

Wright points out that wireless supercapacitor-based tram systems provide multiple benefits during both the construction and operating phases.

The systems are far easier to build and incorporate into the often challenging terrain of urban environments by obviating the need for intrusive and unwieldy overhead infrastructure.

The absence of overhead infrastructure also makes wireless systems much cheaper to

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build, and facilitates the planning and approval process. Although super capacitors are comparatively expensive at present, their costs are set to decline significantly in the near future.

During the operating phase, wireless tram systems provide safer and more convenient transportation, with no possibility of larger automobiles such as trucks colliding with overhead lines, and no need for clearances to pass beneath bridges.

One of the chief advantages of wireless trams is their energy efficiency, consuming 30 per cent less power than conventional systems. They also perform better during inclement weather, and remove ongoing costs in the form of investment in cathodic protection.

Urban planners overseas are already well apprised of the advantages provided by wireless trams. France's Altsom built the first modern wireless tram system for Bordeaux in 2003, while Spain's Trainelec has built wireless tram networks in the cities of Seville and Zaragoza, both of which make use of super capacitors.

China has also implemented wireless tram networks, turning to the systems to improve the sustainability and energy efficiency of the country's densely packed urban centres.

The Jiangsu capital of Nanjing will soon be host to a tram system which is 90 per cent wire free, while the mega-cities of Beijing and Guanazhou have started to unroll wireless lines that make use of super capacitor vehicles.

Given the enthusiasm that wireless systems

currently enjoy overseas, Wright believes it's time for Australia to play catch up with international trends.

"These new trams have the potential to be a cheap solution to the congestion problems plaguing Australian cities, solving well-documented transport woes, unclogging roads, connecting disparate and ad hoc public transport and reducing local pollution," he said.

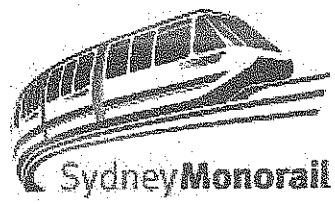
Sydney Monorail

From Wikipedia, the free encyclopedia

The **Sydney Monorail** (originally **TNT Harbourlink** and later **Metro Monorail**) was a single-loop monorail in Sydney, Australia, that connected Darling Harbour, Chinatown and the Sydney central business and shopping districts. It opened in July 1988 and closed in June 2013.[1]

There were eight stations on the 3.6 kilometre loop, with up to six trains operating simultaneously. It served major attractions and facilities such as the Powerhouse Museum, Sydney Aquarium and Sydney Convention and Exhibition Centre. The system was operated by Veolia.

Sydney Monorail

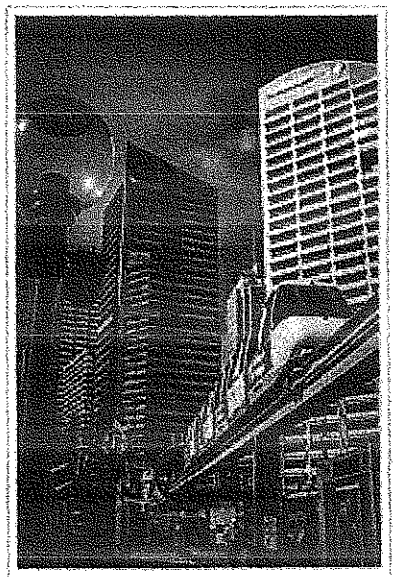


Overview	
Type	straddle-beam Monorail loop
System	T-ways
Status	Closed
Locale	Sydney
Stations	8
Operation	
Opened	July 1988
Closed	30 June 2013
Owner	Metro Transport Sydney
Operator(s)	Veolia Transport Sydney
Technical	
Line length	3.6 km (2.2 mi)

Contents

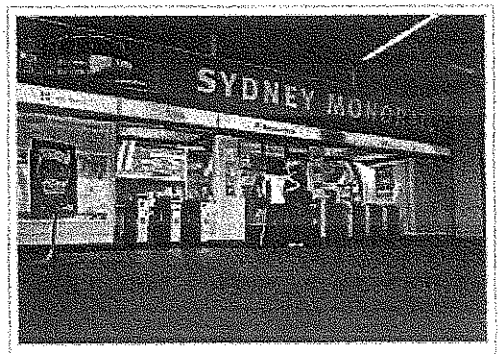
- 1 History
- 2 Technology
- 3 Rolling stock
- 4 Stations
- 5 Maintenance and control facilities
- 6 Criticism
- 7 Incidents
- 8 Removal
- 9 Preservation
- 10 Use In Film
- 11 See also
- 12 References
- 13 External links

History



Monorail travelling over Pyrmont Bridge in June 2013

Sydney Monorail was initially conceived in the late 1980s as part of the redevelopment of 50 hectares (120 acres) of land at Darling Harbour, providing a passenger link with the Sydney CBD. Initially operated by TNT Harbourlink, the monorail opened on 21 July 1988 after a construction period of 26 months.[2][3] The first test services ran in October 1987 on a 500-metre section at Darling Harbour.[4]



Entrance to Harbourside station

TNT Harbourlink was awarded a 50-year concession until 2038.[5]

The original operation hours were to be 06:00 to midnight, but after two years of operation patronage counts were half those expected, and planned stations at Market Street (to be named Casino, as part of the gaming venue planned to be built on the site) and Harbour Street (to be named Gardenside) were not built for some time.[2]

In August 1998 TNT sold the monorail to CGEA Transport Sydney, which was owned by CGEA Transport (later renamed Connex, then Veolia) (51%), Australian Infrastructure Fund (19%), Utilities Trust of Australia (19%) and Legal & General (11%).[6][7]

The Government of New South Wales bought both the monorail and the light rail service from Metro Transport Sydney on 23 March 2012 to enable it to extend the light rail system without having to negotiate with the private owners, and to remove the monorail from the area near Haymarket required for the expanded Sydney Convention and Exhibition Centre.

The monorail ceased operating on 30 June 2013 and all sections of track and some of the stations have been dismantled.[8][9] Two carriages and 10 metres of track have been preserved at the Powerhouse Museum.[10][11] Two carriages are being used as meeting rooms in Google's Pyrmont offices.[12][13]

Technology

37"

The track was a steel box girder of 94 centimetres width, raised at a minimum height of 5.5 metres from ground level on steel columns 20 to 40 metres apart. The minimum curve radius was 20 metres and the maximum gradient 4.4% uphill and 6.5% downhill.

49.2' — 98.5'

Power was supplied at 500 V AC to power the train, via a sheathed conductor below the running plate of the track. A control rail was also provided for train control, and a generator provided to clear trains from the track in emergencies. The train control and maintenance facility is located between Convention and Paddy's Market stations, where a traverser moved trains in and out of service.[2]

Each station stop took 40 seconds, including the time to decelerate, board passengers, and accelerate again. A complete circuit of the route took 12 minutes. It was originally intended for the system to operate automatically, but after a number of breakdowns soon after opening, it was decided to retain drivers, who occupied the first car of each train.[2]

Monorail on the corner of Pitt & Liverpool Streets in June 2013

Rolling stock

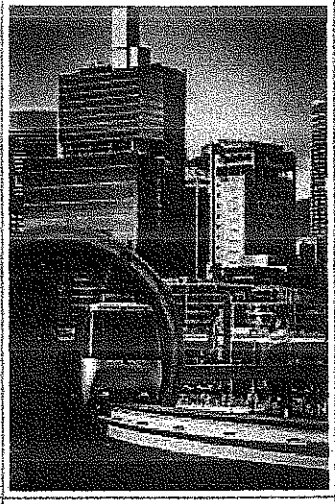
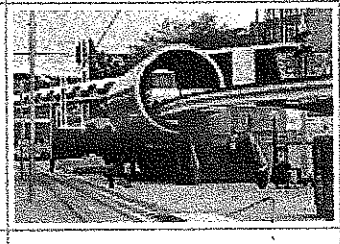
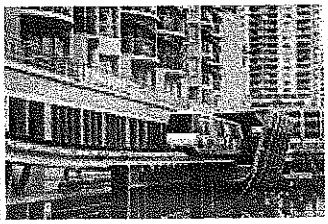
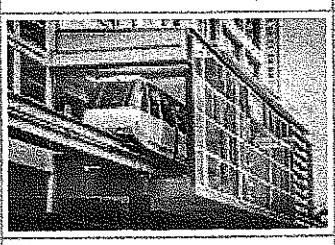
Delivered in 1987, six trains of seven carriages were built by Von Roll Holding to the Type III specification. Each seated 48 passengers, with the driver in the leading car, but were designed to seat 56, using all seven carriages.

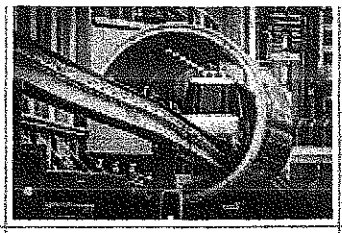
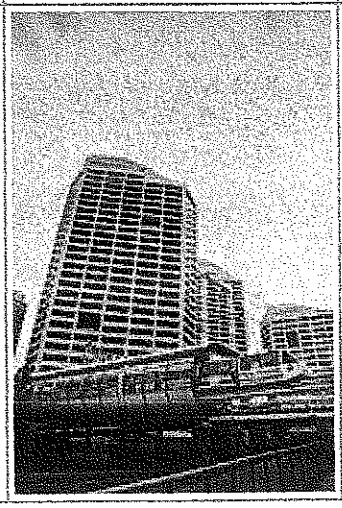
The monorail trains ran on rubber wheels, and each seven car train had six 37 kilowatts (50 hp) traction motors, permitting a normal operating speed of 33 km/h. The doors of each car were automatic, and the floor level was self-adjusting via an automatic suspension system. Each train was 32.12 metres long, 2.06 metres wide, and 2.6 metres high.[2]

Set 1 was stored following a significant collision between it and Set 4 in early 2010. The last carriage in Set 1 was removed from the set, and used to replace the damaged last carriage in Set 4. When operations ceased in June 2013, sets 2 - 6 were operational.

Stations

The monorail operated in a single counterclockwise loop with stops at the following stations (in order):[14]

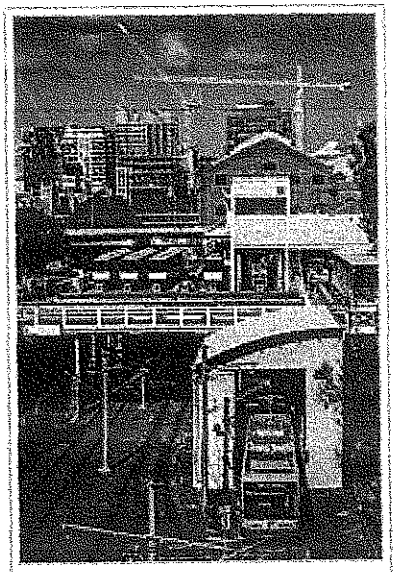
Name	Image	Notes
Harbourside		Located adjacent to the Harbourside Shopping Centre at the western end of the Pyrmont Bridge
Convention		Served the Sydney Convention and Exhibition Centre
Paddy's Markets		Formerly named Powerhouse Museum, and originally Haymarket
Chinatown		Located inside the One Dixon Street shopping centre, opened in 2001 as Garden Plaza it closed on 26 July 2004,[15] and then reopened as Chinatown station on 18 December 2006[16] By 2012 the station was unmanned and only open between 07:00 and 09:00 on weekdays only,[17] with the station entrance locked outside these hours[18]
World Square		Temporary station in operation until 2005, when the station was rebuilt and incorporated into the new adjacent building
Galeries Victoria		Originally named Park Plaza. The temporary entrance provided until 2000, when the station was incorporated into the new adjacent

		building
City Centre		A temporary station existed until mid-1989, during construction of the City Centre Shopping Arcade, the temporary station was partially suspended above Pitt Street
Darling Park		Originally planned to be named Casino, but Sydney's casino was eventually built in Pyrmont

Maintenance and control facilities

The six monorail units were maintained in a purpose-built facility in Pyrmont. A traverser allowed monorail cars to be removed from the main track for maintenance or stabling. Maintenance of track and stations was conducted at night with special vehicles, 'Buggy' and 'Mule'.

The facility also housed the Control Room (located above the maintenance area), as well as administration and staff amenities.



Traverser and Maintenance & Control Facilities with the Dulwich Hill Line passing underneath in July 2013

Criticism

The decision to build the monorail over other forms of rail (e.g. light rail) was in the eyes of many a political decision. Light rail would have been $20 million cheaper to build, service more passengers per hour and cost 40% less for a ticket, but the monorail system prevailed.[19]

Incidents

On 27 February 2010 at approximately 16:00, two monorail trains collided at the Darling Park station resulting in hospitalisation of four people.[20][21]

On 24 September 2012 just before 14:00, an Ausgrid failure in a local underground cable led to a complete shutdown of the system resulting in the need for cherry-pickers to come to rescue approximately 100 stranded passengers, a process which took several hours. It was the first time since 2000 that Fire and Rescue NSW had to be called to help people from the line.[22]

Removal

Regarding the removal, the Transport for New South Wales (http://www.transport.nsw.gov.au/projects-completed/monorail-removal) released a document called "Monorail Removal Project Interpretation Strategy" in July 2013. In Volume I part 3.5 "Decommissioning the monorail", three quotes from 'Government Buys Light Rail Company: Monorail To Be Pulled Down', the media release by The Hon Barry O'Farrell Premier of NSW on 23 March 2012 are provided.[23]

> "This is good news for Sydney - it delivers certainty for business wanting to invest in the Darling Harbour precinct and allows the efficient development of the light rail network," Mr O'Farrell said.

> "The monorail is not integrated with Sydney's wider public transport network and has never been truly embraced by the community. While it has been a controversial part of Sydney's history for more than 20 years, the monorail is reaching the end of its economic life and the NSW Government cannot justify costly upgrades like the purchase of new vehicles required to keep it running.

> "This decision paves the way for the development of a world class Sydney International Convention, Exhibition and Entertainment Precinct as the NSW Government gets on with the job of making NSW number one again."

South Portland Neighborhood Association

Representing the Lair Hill, South Waterfront, Corbett, Terwilliger, John's Landing, and Fulton communities

RECEIVED
APR 15 2016
BY:

April 10, 2016

Councilor Bob Stacey
Metro Council
600 NE Grand Avenue
Portland, OR 97232

Dear Councilor Stacey:

For several years the South Portland Neighborhood Association has actively participated in Metro's Southwest Corridor High Capacity Transit (SWC) planning. We appreciate the large amount of work expended to identify and evaluate the plan's many issues and options. Some of the alignment and station area choices will impact our Lair Hill residential neighborhood, given its location directly south of downtown Portland. We are writing to you, our Metro Councilor and Co-Chair of the SWC Steering Committee, to convey our neighborhood's preferences and concerns about those choices.

The decision that most directly impacts Lair Hill is whether Barbur Boulevard or Naito Parkway is the HCT alignment as it leaves downtown. For many months now, Metro staff's recommendation and technical memos indicate that both these alignments should be further studied in the DEIS phase. This seems reasonable. However, we doubt that more detailed analysis can alter certain fundamental facts about either alignment. We know eventually a choice will be made and feel we should express our preferences now rather than later.

So, Barbur or Naito? While the two alignments have only minor differences in terms of project ridership, travel time, and cost, there are major differences in how they impact our neighborhood. We are convinced the Barbur alignment would be much more harmful to Lair Hill. HCT on Barbur's narrow right-of-way would likely require taking of private property including parts of the South Portland National Historic District. Metro staff suggests this may not be necessary, but we remain skeptical. Even if HCT could fit within the existing right-of-way, SWC staff acknowledges that a current travel lane and a left-turn refuge lane would be eliminated. This would be sure to increase traffic congestion, already a

problem at peak times. Current plans locate an HCT station on Barbur at Gibbs, where station-area redevelopment and commercial activity would be inappropriate and fundamentally alter the character of this historic residential area. The Barbur Concept Plan developed by Portland's Bureau of Planning and Sustainability recognized this and intentionally recommended that the Lair Hill station not be on Barbur.

On the other hand, a Naito alignment has the potential to actually improve the character of Lair Hill. Metro's information on this alignment strongly implies it could include a package of improvements to remove Ross Island Bridge ramps, add bike and pedestrian facilities, and create signalized intersections reconnecting several east-west streets. This resembles the 2001 South Portland Circulation plan adopted by City Council, and represents a truly transformative "place- making" opportunity, more so than anywhere else in the corridor. Naito has sufficient right-of-way for HCT without taking any private property. In fact, Metro staff has indicated that Naito's current 6+ lanes of roadway possibly could be narrowed even with HCT, thus further reuniting the divided sections of Lair Hill.

We heard recently that you or others on the Steering Committee may believe the Naito alignment choice is favored only by the National College of Natural Medicine because it would better serve their campus area. Of course SPNA is aware of NCNM's preference, but this played little or no role in our views on what is best for our entire neighborhood. Likewise, we have discussed alignment choices with representatives of OHSU and believe their interests and ours are not in conflict.

We appreciate your time and effort in helping make decisions about SWC that are best for Portland as a whole and particularly best for southwest Portland, where most of the impacts and hopefully at least some of the benefits will occur. Jim Gardner, our Land Use Chair, has represented South Portland on SWC issues starting with the Barbur Concept Plan and throughout Metro's process. He is available to meet with you and/or staff to discuss South Portland neighborhood's views. Please contact Jim at 503-227-2096 or jimdonnachamois@msn.com to arrange a mutually convenient time to get together, or if you have any questions.

Best regards,

Ken

Ken Love, President
South Portland Neighborhood Association