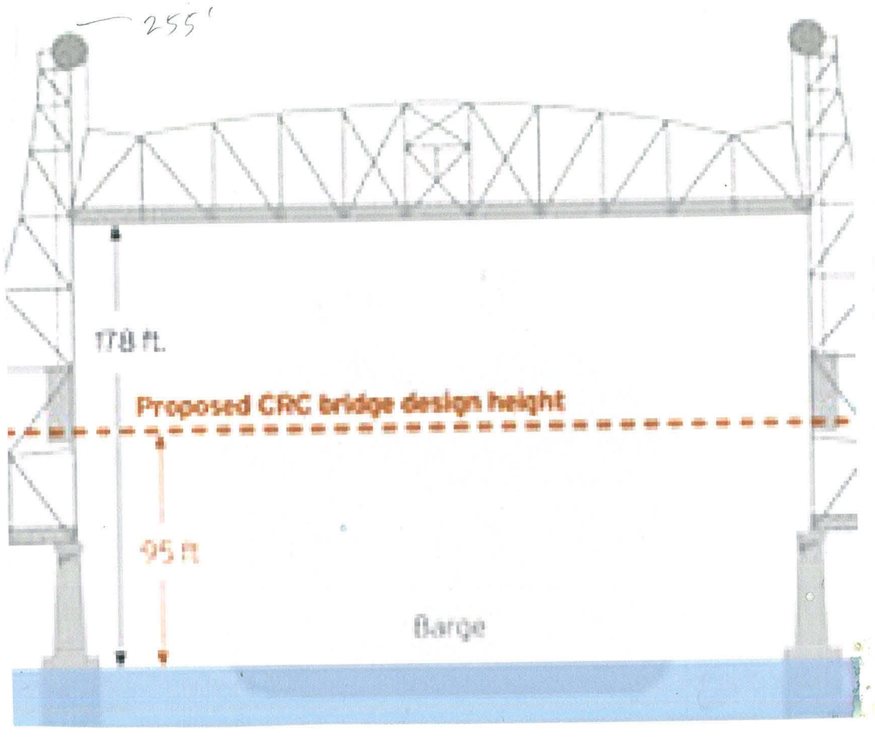

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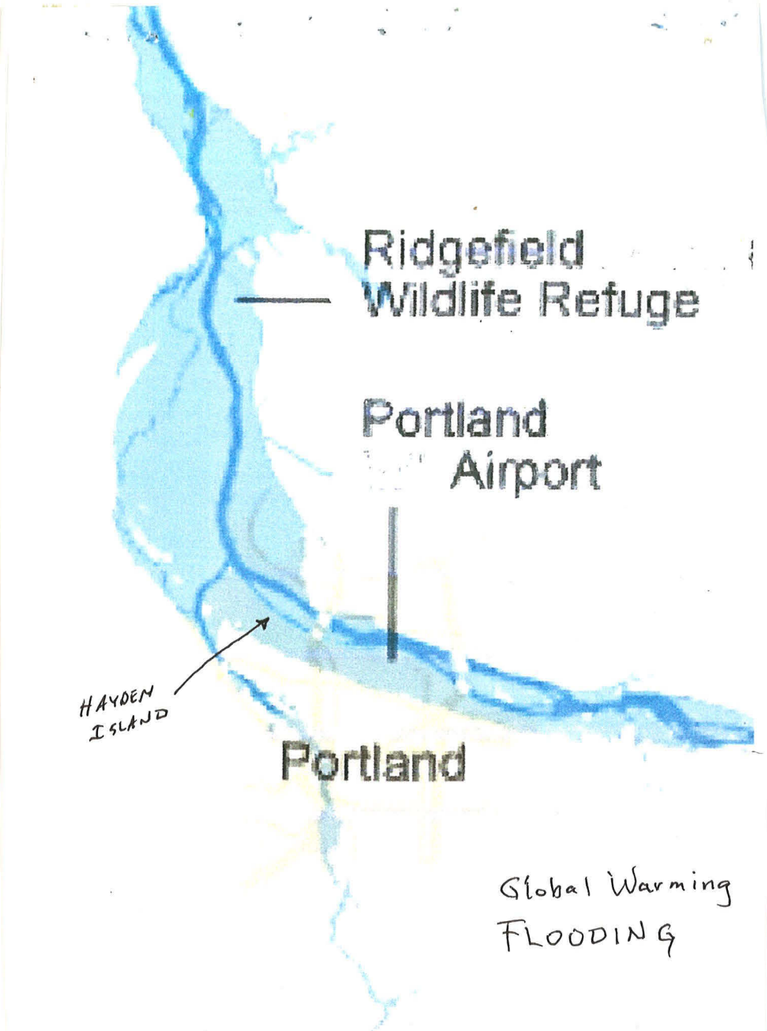
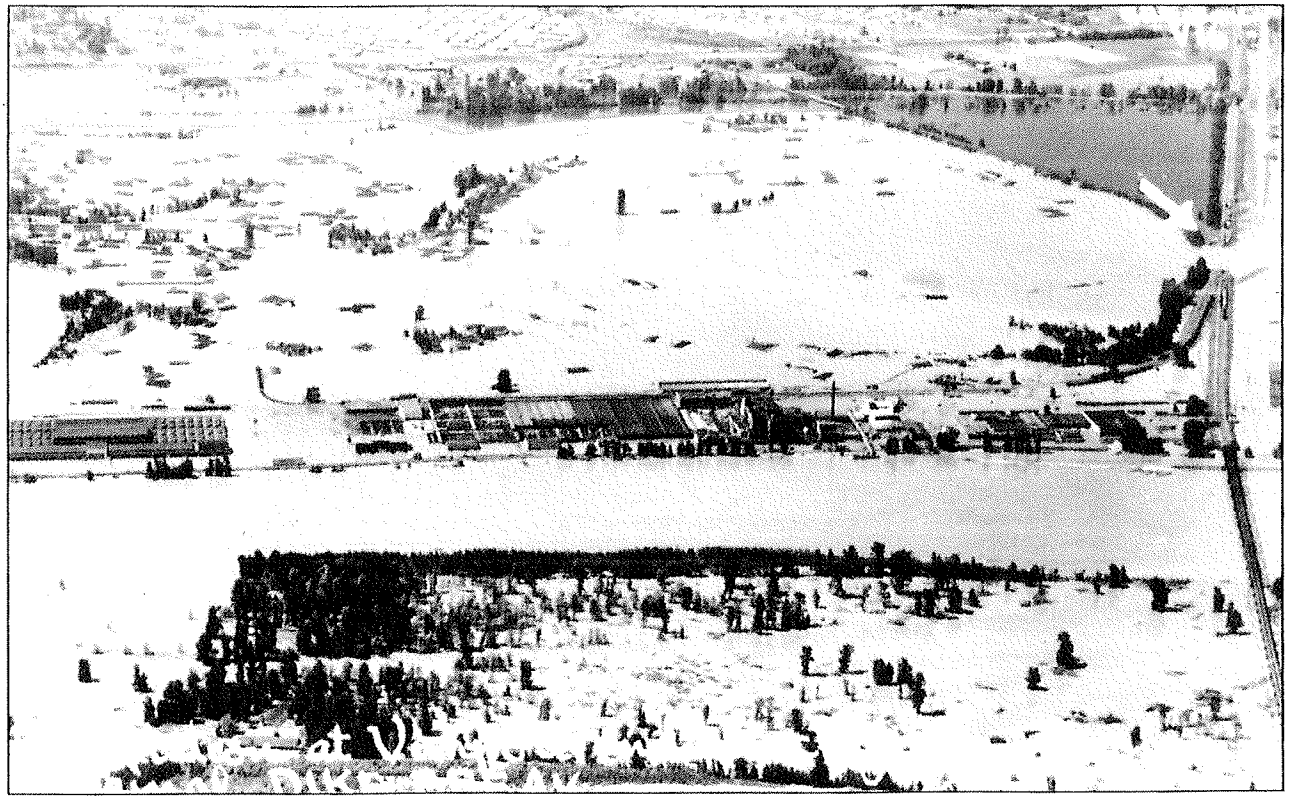
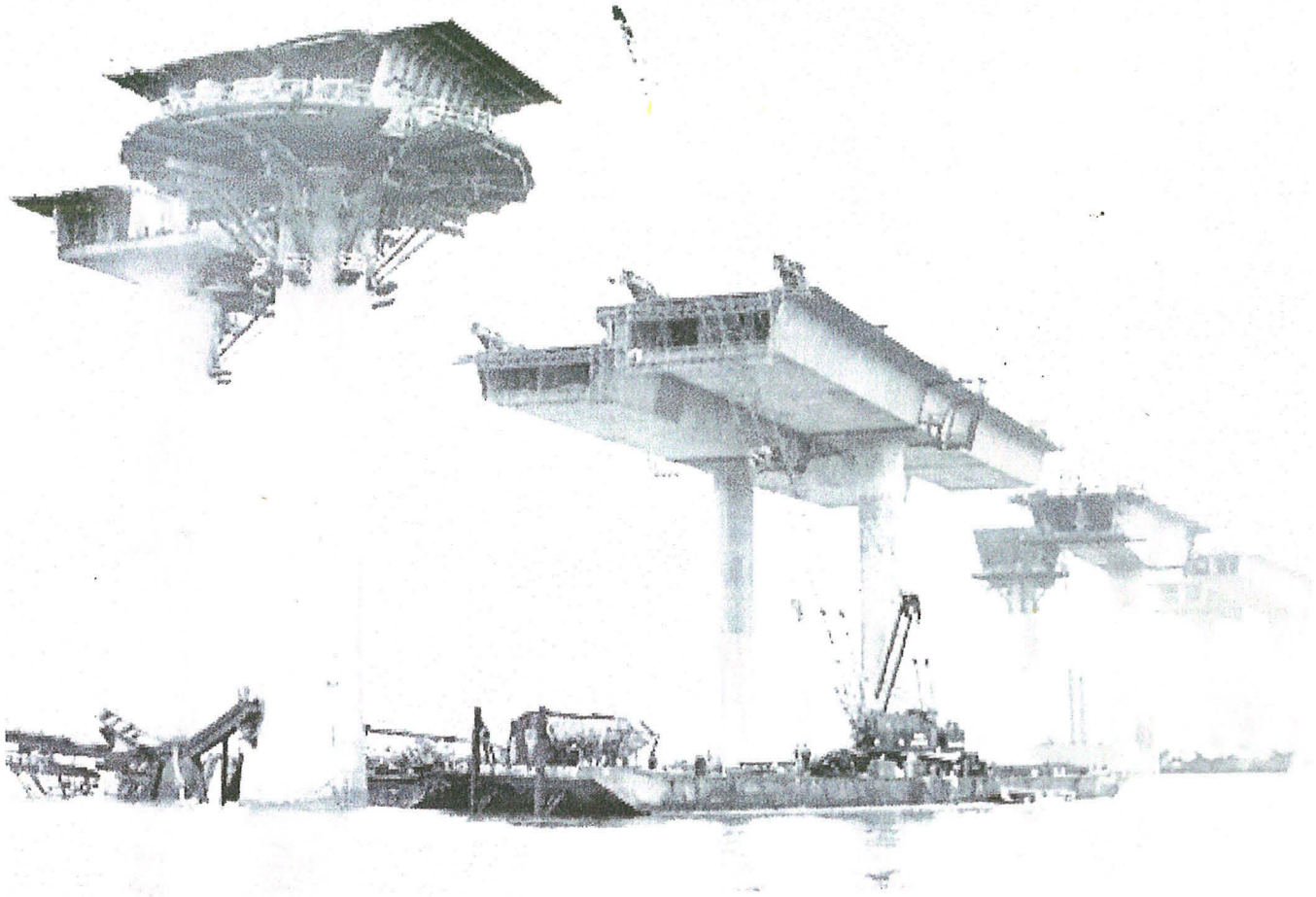


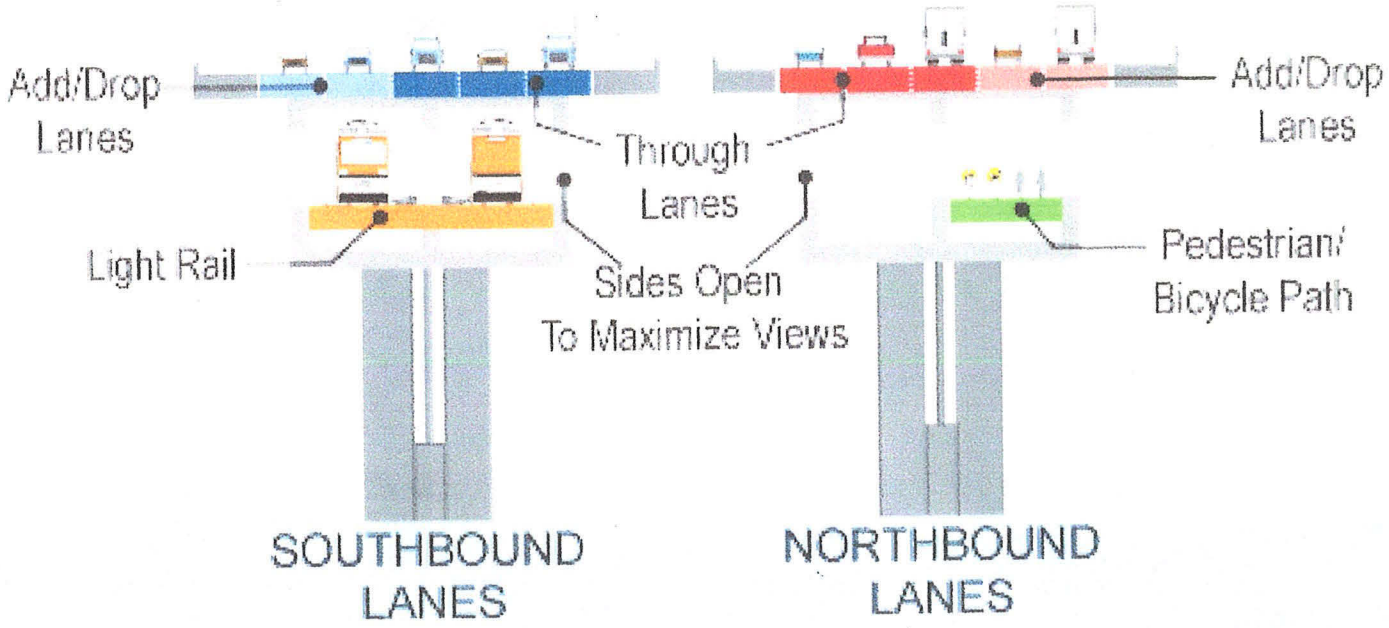
Global Warming
FLOODING



The original dike break during the 1948 Vanport flood is indicated by the arrow in this view looking south. The Oregon Slough Railroad Bridge is visible at the lower right, with the swing span near its south end. The stockyards are along the south bank of the slough, and the doomed Vanport community, once home to wartime shipyard workers, is to the south and east. (Courtesy author.)

Much of Hayden Island is submerged in this aerial photograph, taken during the 1948 Vanport flood. The Columbia River Railroad Bridge is near the top right, the Oregon Slough Railroad Bridge is at the top left, the Interstate Bridge is near the lower right, and the bridge carrying Pacific Highway over Oregon Slough is at the center left. (Courtesy author.)

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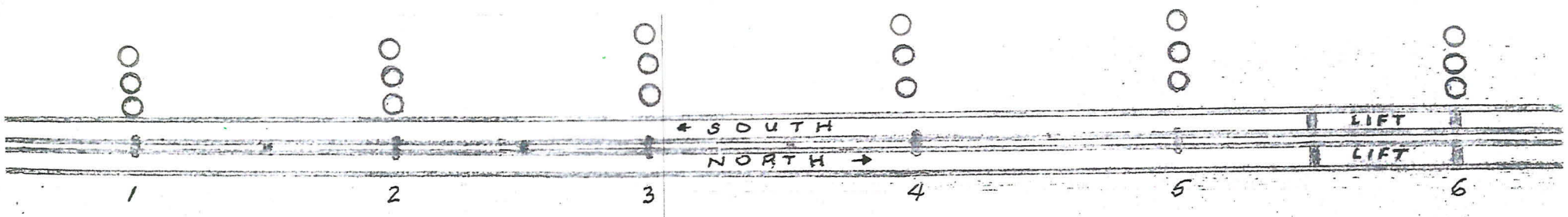
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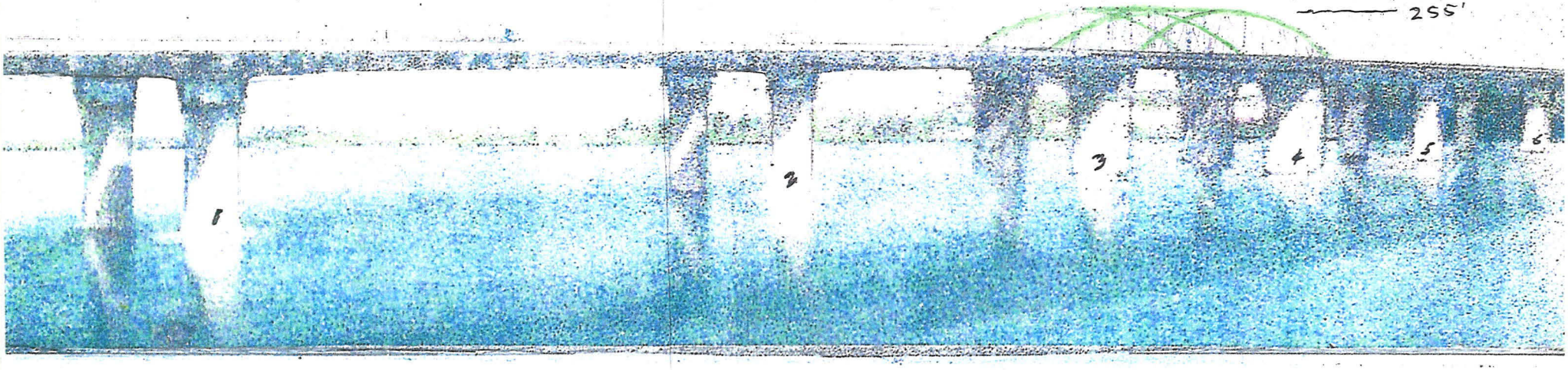
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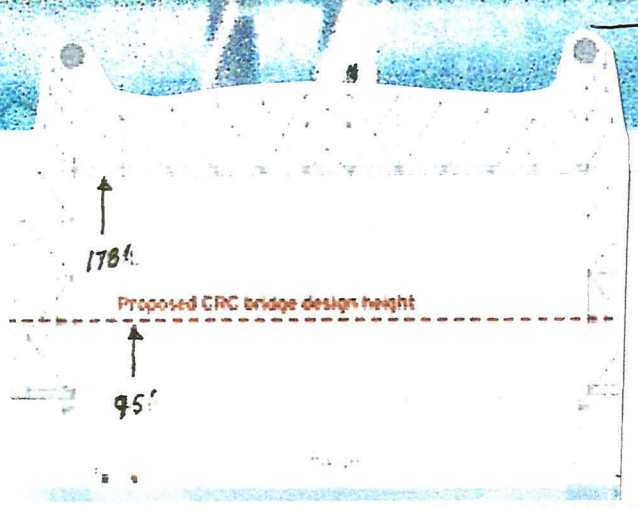
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Proposed CRC bridge design height
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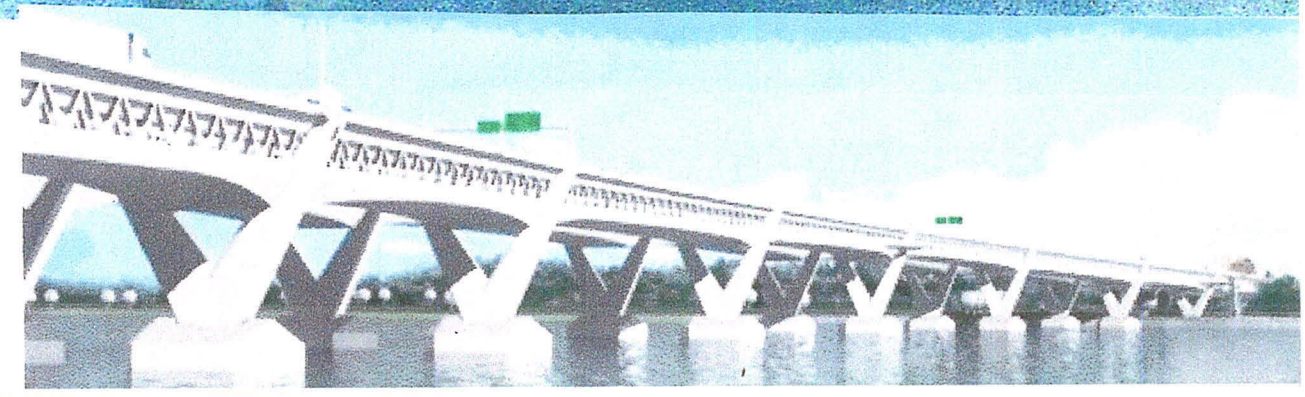

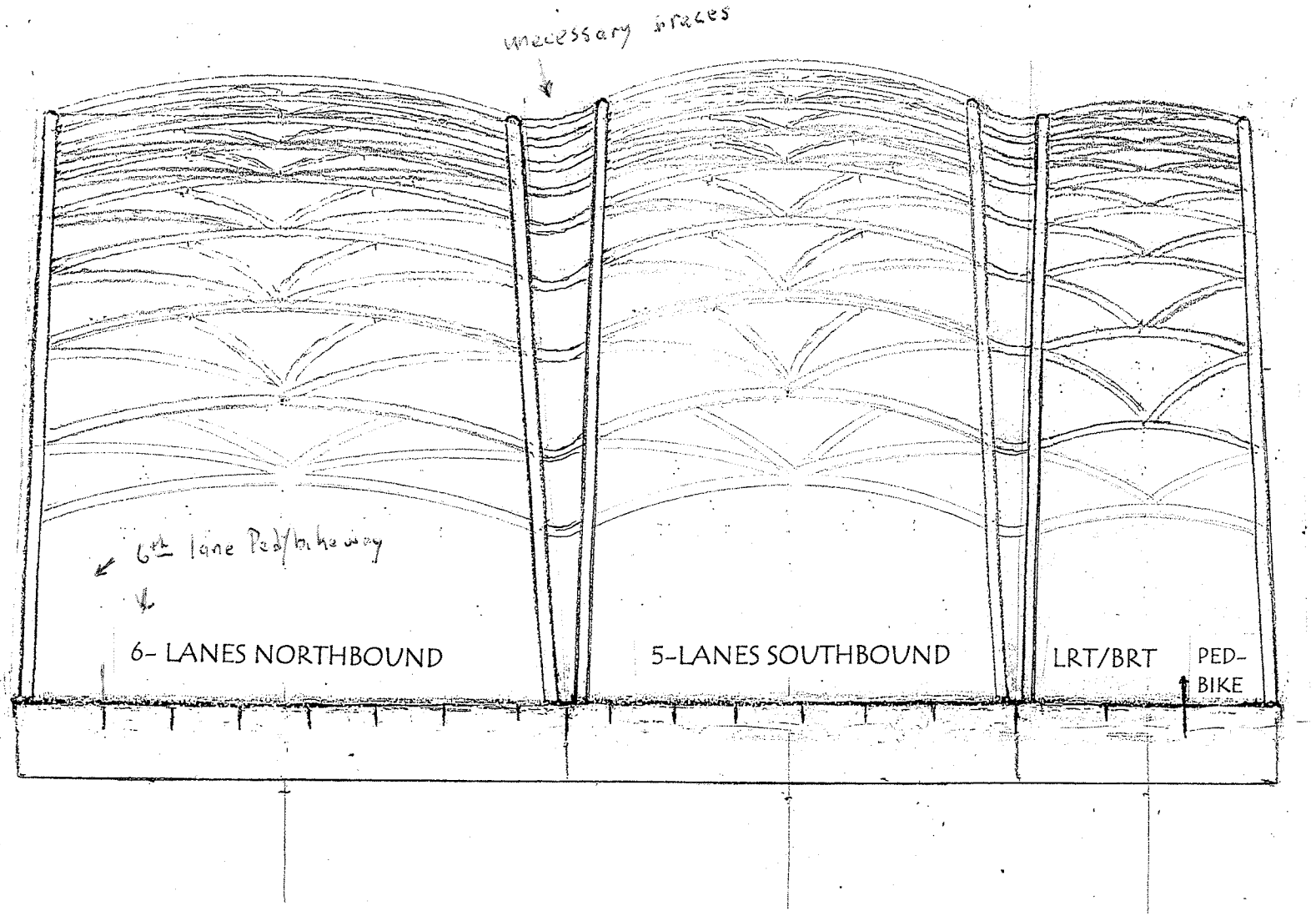
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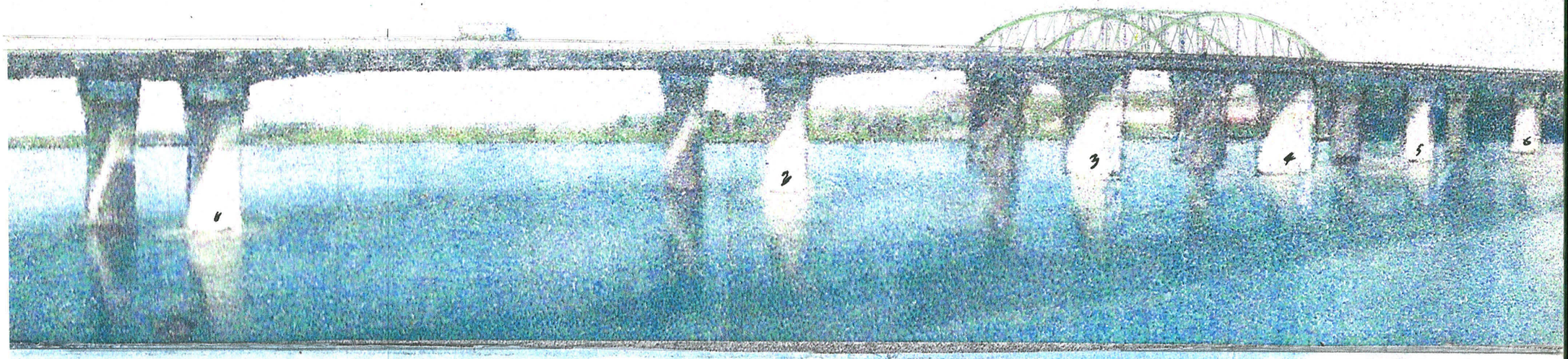
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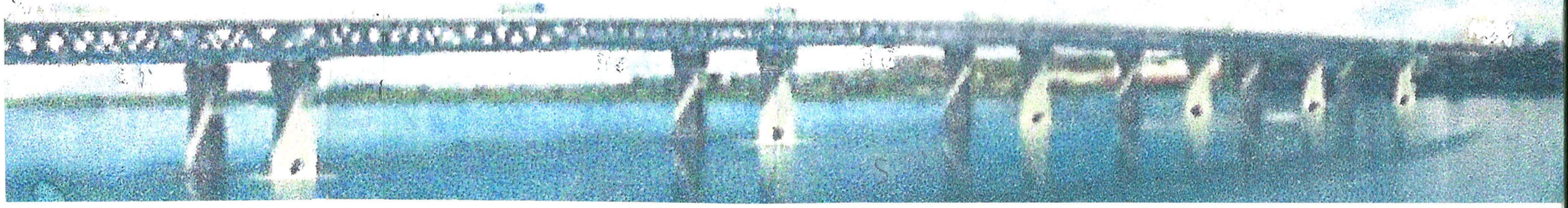

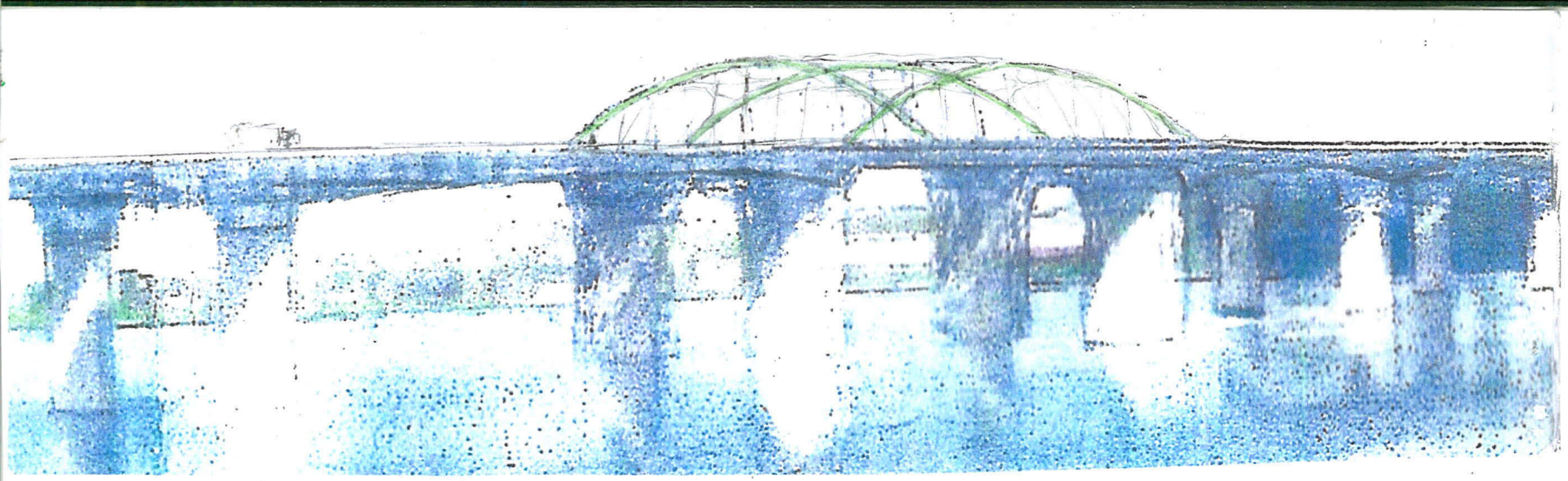

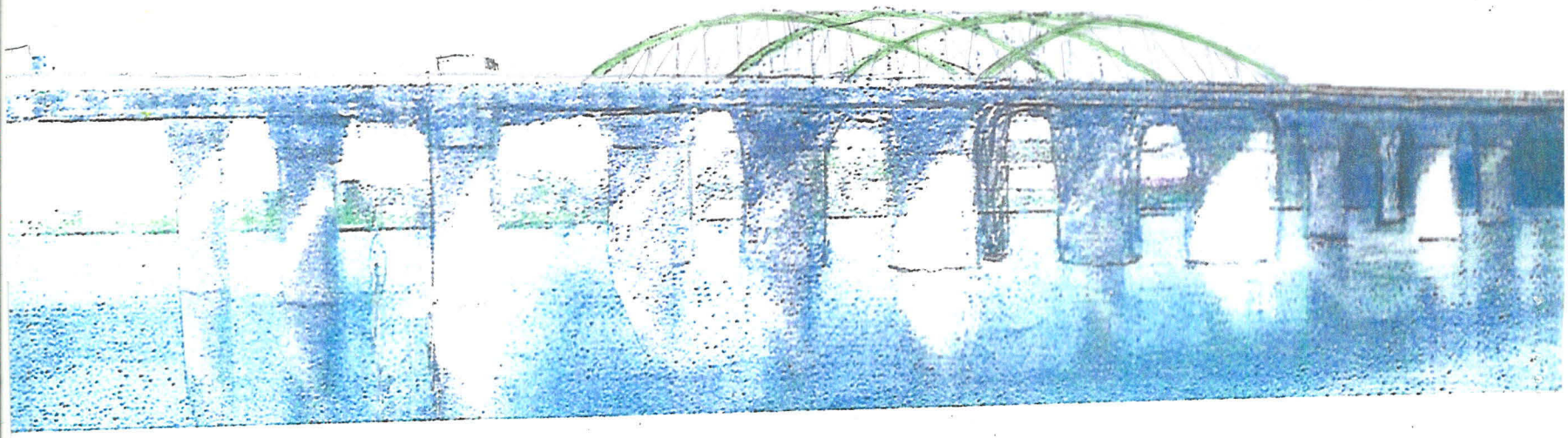

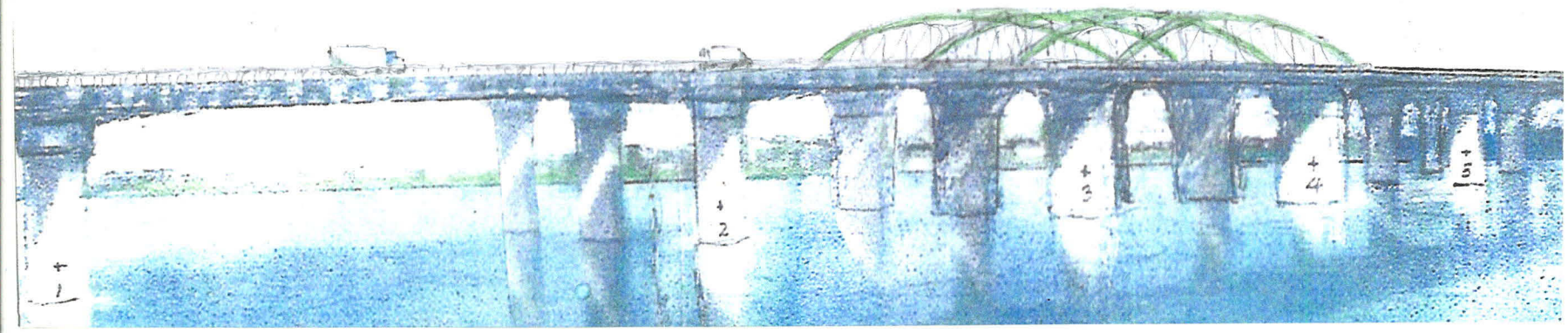
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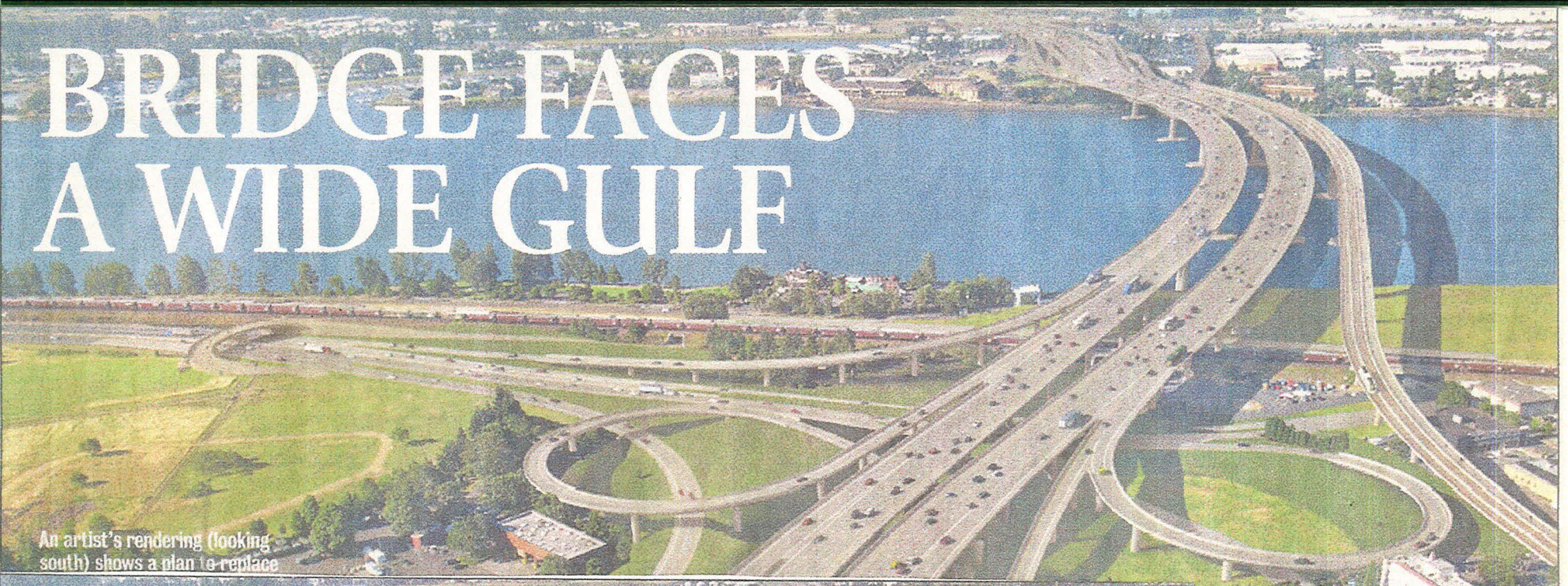
← Single-deck bridge designs
circa 2008

BRIDGE FACES A WIDE GULF



An artist's rendering (looking south) shows a plan to replace

river crossing plan

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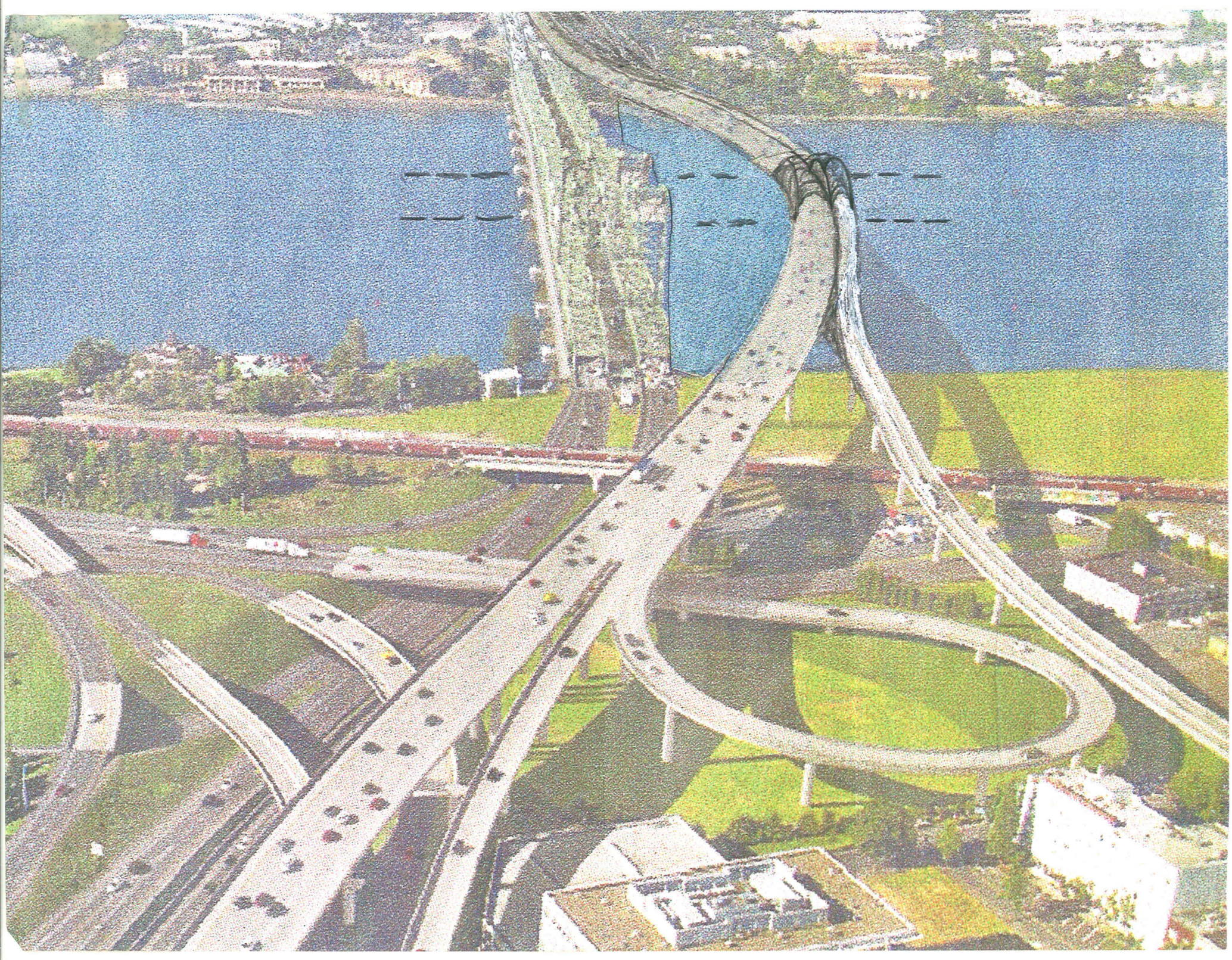
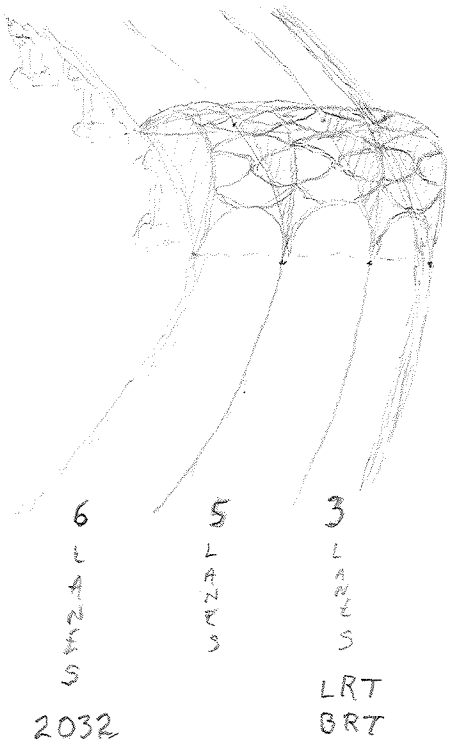
Even the Portland City Council has taken a stand, saying it will only support an option that includes a new light-rail line to Vancouver.

Rex Burkholder, a Metro Council member serving on the 39-member Columbia River Crossing Task Force that developed the five options, isn't surprised people didn't wait for the release of the study before making up their minds.

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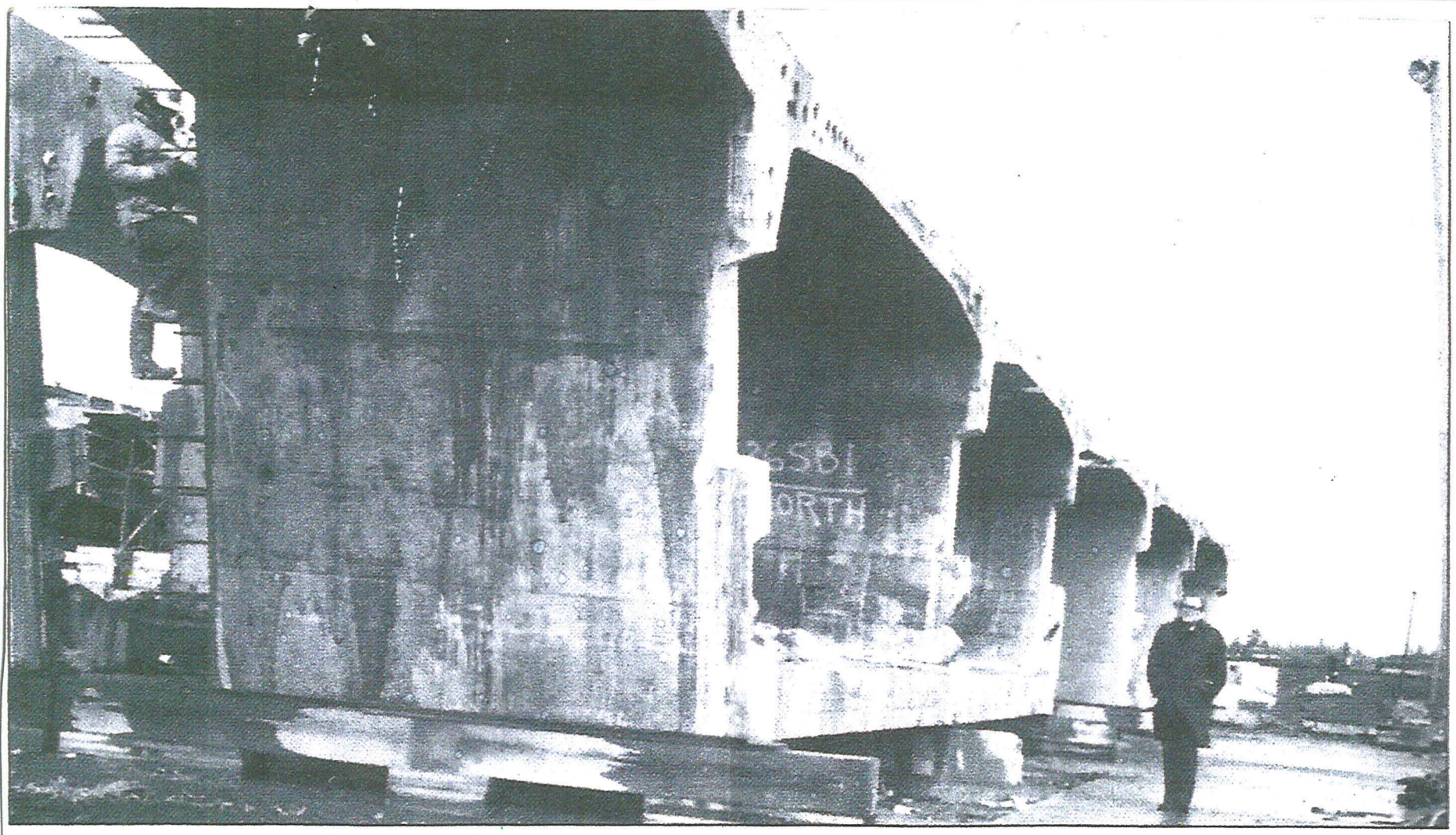
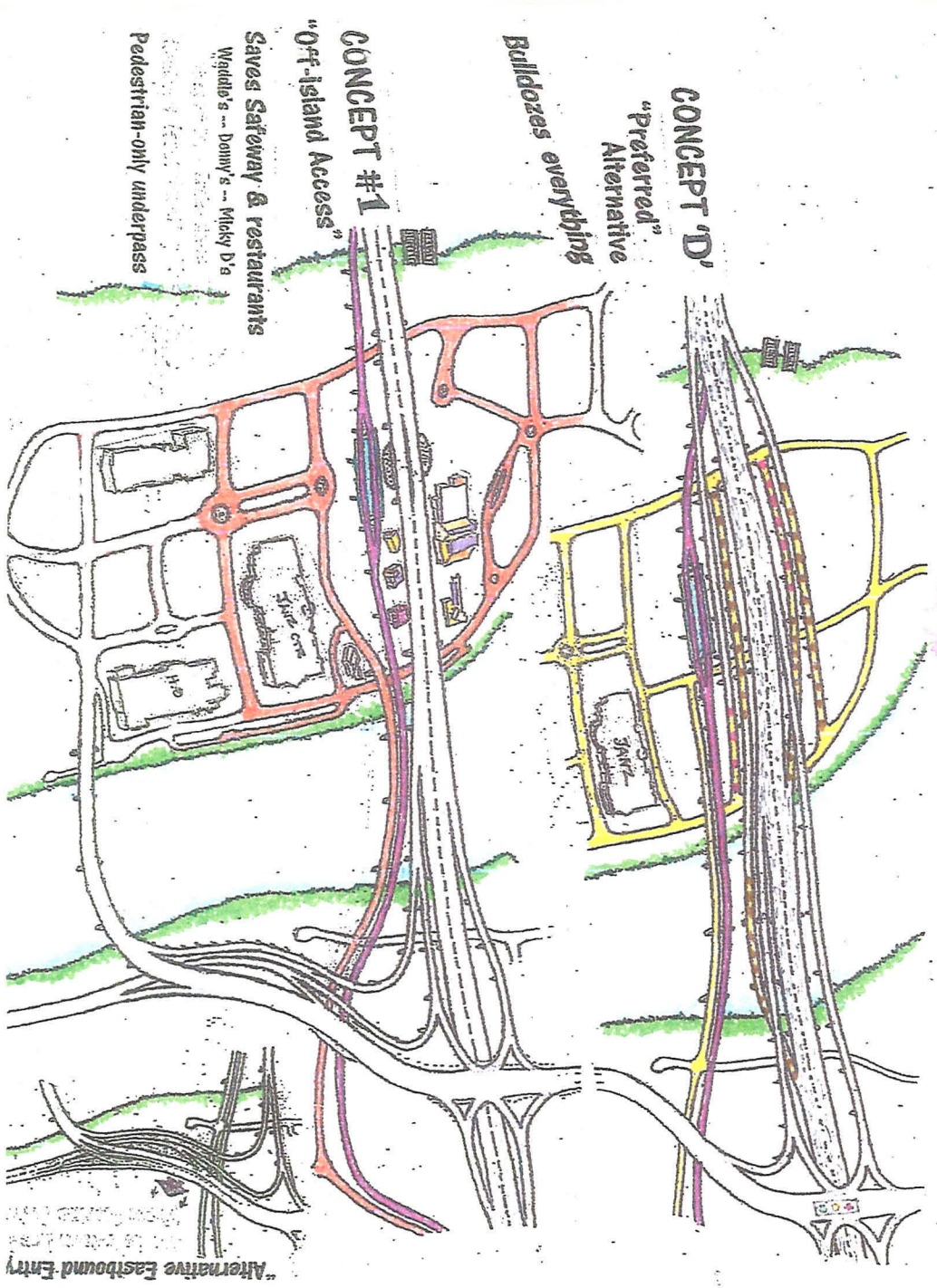
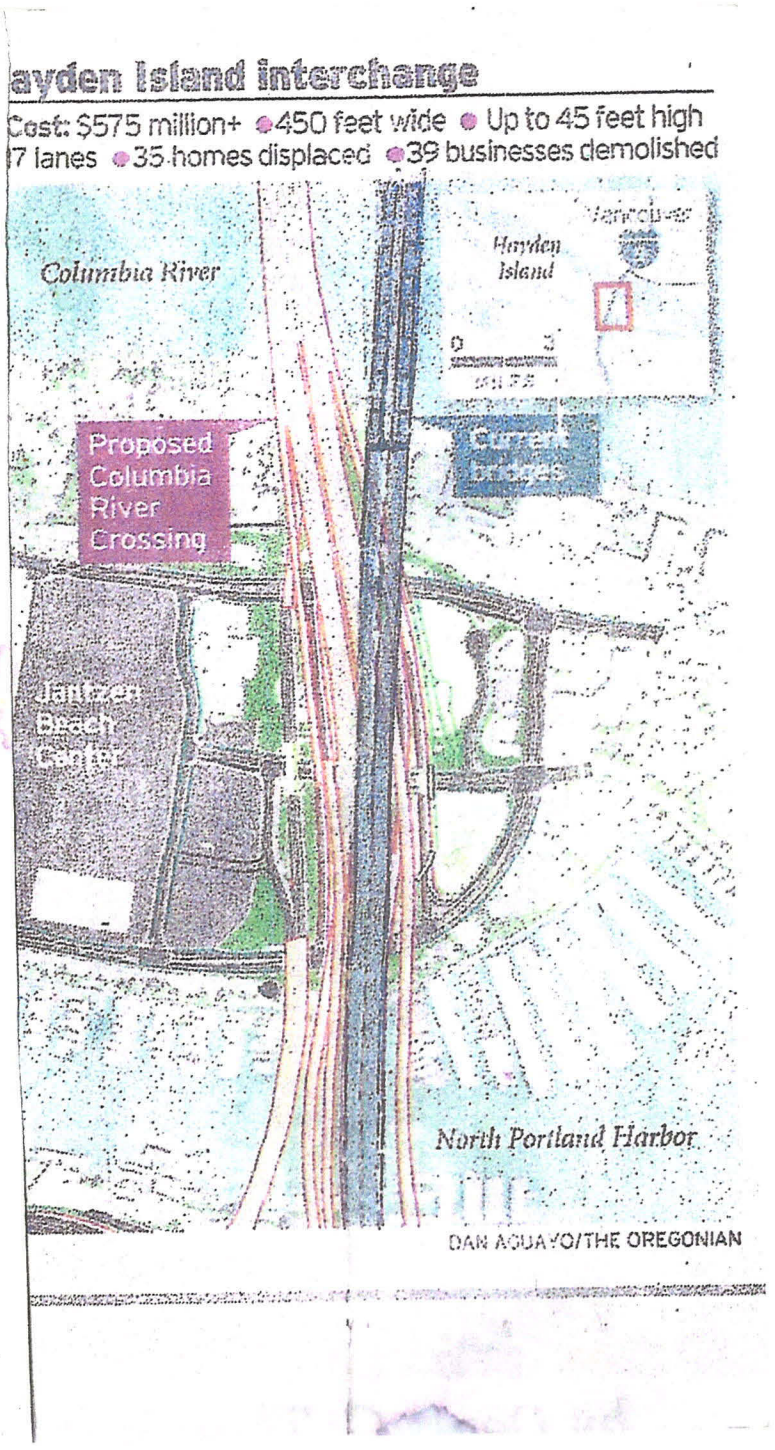
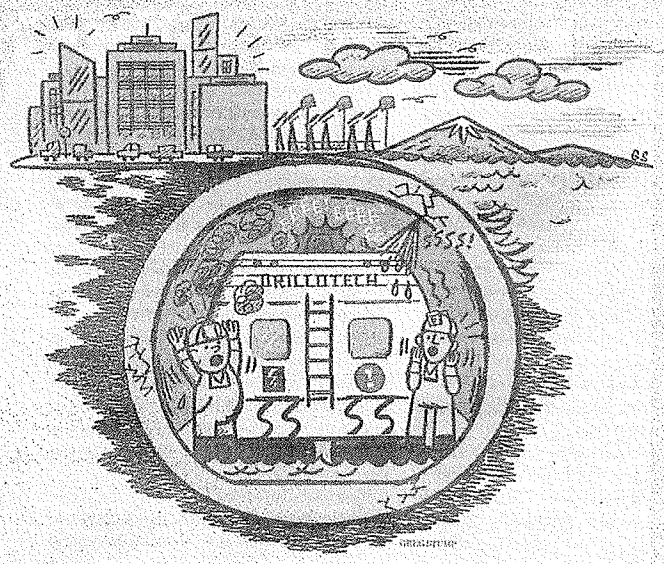


Several of 592 precast-concrete segments are shown here in the yard. The precast segments were produced in 12-foot, 15-foot, and 17-foot depths at a location four miles downstream. The segments were temporarily held in place by high-strength threaded rods. Once all segments were in place, tendons were installed in the ducts, visible near the top, and post-tensioned.





What Could Possibly Go Wrong



The Seattle City Council is about to give the state permission to dig the world's largest deep-bore tunnel under downtown Seattle. Here's what the city council doesn't want you to know before they vote.

By Dominic Holden

You're about to get fucked, Seattle.

On a Monday between now and the middle of August, the Seattle City Council is likely to approve a contract that gives the State of Washington permission to dig a 54-foot-wide tunnel under downtown Seattle. It will be the widest deep-bore tunnel attempted anywhere, ever.

It will cost an estimated $4.2 billion to replace the dilapidated Alaskan Way Viaduct on Seattle's waterfront, making this underground highway the most expensive megaproject in state history. The state has committed up to $2.8 billion, the city has pledged $937 million, and the Port of Seattle is supposed to pay $900 million. The single most expensive element, the tunnel portion itself, will cost about $1.9 billion.

A state law passed in 2009 says Seattle property owners must bear the expense of any cost overruns on the state's project. This is unprecedented. "The cost overruns on a state highway should not be borne by the citizens of Seattle," says state senator Ed Murray, whose district includes Capitol Hill and parts of downtown. "We have never done that to any other jurisdiction in the state." The law also says, unequivocally, that the state won't pay more than $2.8 billion. We simply have no plan for who will pay cost overruns. Under the current rules, if something goes wrong, Seattle taxpayers are on the hook for cost overruns.

Seattle's budget was fucked this year—facing a midyear shortfall of $12 million, the city cut a plan to hire 20 police officers, slashed millions from parks maintenance, let staff go from libraries—and next year's budget projection is even worse. Seattle is facing an estimated $56 million shortfall in 2011, which will require more painful cuts.

But those deficits are nothing compared to what will happen if the state's end of the tunnel goes over budget and Seattle has to find the money to cover the cost overruns. The city's taxpayers could face a $1 billion bill.

But Governor Chris Gregoire and most members of the city council—under city council president Richard Conlin's leadership—insist that there is nothing to worry about and that any public discussion about potential cost overruns is unnecessary. So the city council is on the verge of committing Seattle to this project despite the fact that there are no complete designs yet, despite the fact that there are no bids in from contractors, despite the fact that we don't really know how much it will cost, and despite the fact that we haven't seen the state's environmental impact study.

The governor and the city council's leadership insist there won't be errors, that there won't be cost overruns, that nothing could possibly go wrong.

They're lying to you, Seattle.

Megaprojects of this scale are historically risky and expensive, prone to massive cost analysis of 258 massive transportation projects by one of the world's foremost authorities on the subject, Bent Flyvbjerg, a Danish professor at the University of Oxford, 9 out of 10 transportation megaprojects run over their estimates. For tunnel and bridge projects, Flyvbjerg found, "actual costs are on average 34 percent higher than estimated costs."

When it comes to projects like this, things going wrong—things that lead to massive cost overruns—are the rule, not the exception.

So what could possibly go wrong? Lots.

The tunnel-boring machine gets stuck

A massive cylinder with a rotating face covered in blades that smash away rock and soil, a tunnel-boring machine (TBM) churns everything in its path to paste, which cargo cars then haul to the surface. Each machine is custom-made just for the width of the tunnel it needs to dig. Our TBM will cost around $80 million to build, and, at 56 feet in diameter, it will be the widest TBM ever constructed.

"I've been talking about a 56-foot-wide machine for a long time," says Council Member Mike O'Brien. "Then I looked at a building about five stories tall and thought, 'Holy shit, that is 56 feet. That is one big-ass fucking machine.'"

Our TBM will confront a mixture of sedimentary elements in soft soil, which are the most difficult conditions to penetrate because the loose material tends to cave in behind the machine. So as the machine grinds forward, it must simultaneously create a concrete tunnel lining behind it to hold up the earth. Those cement slabs narrow the diameter of the hole, preventing the TBM from backing up. Tunneling machines can't travel in reverse. And if the TBM's blades break, the machine can't move forward. It's stuck.

This is not only the most expensive thing that could go wrong, it's also a fairly common thing that goes wrong.

Two TBMs recently got stuck underground in King County. One was 320 feet below an elementary school in Bothell and another is still stuck at the same depth under Lake Forest Park. Both TBMs—each about 15 feet wide—hit loose, abrasive soil and clay that damaged the cutting blades and clogged the mechanisms inside while they were excavating tunnels designed to carry effluent from the Brightwater sewage-treatment facility to Puget Sound. One was immobilized for nine months, and the other hasn't budged in over a year.

"They had problems with sand and grit getting into the rotating part of the tunnel-boring machine face, and it broke down where it was very deep," says Ron Posthuma, assistant director of the King County Department of Transportation, the agency overseeing the project. The $1.8 billion Brightwater project is currently 24 percent over budget.

◀ but now have been postponed until 2013.

The soil conditions that the Brightwater TBMs encountered—the soil conditions that disabled two of the TBMs—appear to be the same soil conditions underneath downtown Seattle.

"The soils along the alignment are composed of substantial portions of abrasive minerals including quartz grains and quartz-rich rock," reads the state's geotechnical report released in June by the Washington State Department of Transportation (WSDOT). "These granular soils are abrasive and are expected to cause heavy wear on equipment during excavation. There is no tunnel-industry standard applicable to quantifying the abrasivity of a soil and its impact on excavation-equipment longevity and replacement. On other tunneling projects of smaller size TBMs in the Seattle area, substantial wear occurred to the TBMs' cutterheads."

The state foresees other troubling conditions for the biggest TBM ever constructed.

Clay: "The clays present… pose a risk of clogging equipment." Boulders: "Cobbles and boulders will be encountered in all [areas] along the alignment. Boulders within the soil deposits will slow TBM progress and contribute to wear and/or damage to TBM components."

Levent Ozdemir is the author of *North American Tunneling*, a technical book that examines, among other things, TBMs getting stuck underground due to boulders. "The tunnel boring machines were stuck… a total of 12 times in 40 cases (30 percent overall stuck rate)." Ozdemir notes that "the delay and cost consequences of getting stuck are very high" in tunnels deeper than 50 feet and in those that go beneath the water table. Seattle's tunnel will go about 120 feet deep and will go below the water table near Pioneer Square. Ozdemir cites an example of a TBM that got stuck underground near Seattle when the machine digging the Snohomish River undercrossing got stuck.

Tunnel Talk, a website that tracks tunneling projects, cites a case in the Swiss Alps. The TBM digging the Gotthard Base Tunnel got stuck in 2005 when it hit unstable, soft soils—similar to the soils under downtown Seattle—and the tunnel collapsed in front of the cutting blades.

So what happens if a TBM gets stuck under downtown Seattle? A TBM can't be backed up, and it can't be dismantled underground. It can only be dug out.

"I am envisioning this scenario where a 56-foot boring machine gets stuck under the Federal Building and you can't dig it out because it is under the building," says O'Brien.

If the TBM does stall under the Federal Building—or any one of the 390 downtown buildings it will pass under or near—a five-story-wide chasm would have to be opened in a downtown street to the depth of the stalled machine. Then a tunnel would have to be dug sideways to the stalled machine. Then the soil above this second tunnel would have to be shored up, to protect the buildings above, and only then could the broken TBM be lifted out and a new TBM lowered down into the hole—*a new machine that could also break down.*

Our plan to deal with a broken machine is inadequate

"In this worst-case scenario," state consultants say in a document assessing risk released last October, "the TBM will fail and be rendered useless, resulting in the project contractor abandoning the project and necessitating a new contractor to be found." The state requires all of the bidders to have bonds, essentially insurance, which cover costs if they abandon the job.

But the bonds on this project may not cover those costs. Until a few years ago, the rule was that companies had to be bonded to the full amount of their contract—which makes sense. In addition to the cost of dealing with an abandoned machine and finishing a project, the bond must also pay for a new contractor who will charge more to complete the job (after all, the previous business couldn't make it work for the amount of money the state was paying). However, the state legislature suspended its own bonding rules for five years in 2009—the time frame that our tunnel goes out to bid—and now only requires that a project be bonded up to $500 million. The tunneling portion of the contract examined for bonding purposes is $1.2 billion, more than double the bonding requirement.

This has a major advantage for the state: Bids come in lower because the contractors don't have to include the cost of more expensive bonds.

"I've been talking about a 56-foot-wide machine for a long time," says city council member Mike O'Brien. "Then I looked at a building about five stories tall and thought, 'Holy shit, that is 56 feet. That is one big-ass fucking machine.'"

This has a major disadvantage for the city: If the bonds don't cover the cost of the TBM's failure, there's not enough money to pay for the project.

"It's not the state's risk, because they want the city to take on cost overruns," says Mayor Mike McGinn. "They have been telling us they have been doing everything they can to reduce risk, but they're doing what they can with the bond requirement to put risk of overrun on Seattle taxpayers."

The state claims it has addressed these concerns by requiring two sets of consultants to determine what the worst-case scenario would cost and whether $500 million would cover it. And what do you know? The state says it will work out just fine. Paula Hammond, the state's secretary of transportation, wrote in a letter to the office of financial management last November that "the state's maximum exposure to loss is $467 million, so a performance bond set at $500 million is reasonable."

But not everyone is convinced that $500 million will cover it.

"All of the assumptions we picked are rosy," says O'Brien. For example, the state estimates that retrieving a stuck machine could cost up to 10 percent of the remaining project cost, and inserting a new one could cost another 10 percent (20 percent total). But then—in outlining the "worst-case scenario"—the state only figures in 3 percent cost total for both of them. O'Brien says, "We round in our favor every time."

The ground caves in

Because we're dealing with loose soil, there is a chance that the ground could cave in behind the tunneling machine. This isn't as likely as a TBM breaking down, but it can and does happen. In fact, it happened last year north of Seattle on the Brightwater project. A 30-foot-wide, 15-foot-deep sinkhole swallowed up Pauline Chihara's driveway in Kenmore. Tom and Jan Glithero, who live above another one of the Brightwater tunnels in Bothell, found cracks in the brickwork in their home, their patio, and their driveway—all attributed to settling caused by the tunnel's excavation underneath the couple's home.

In 2003, a sinkhole opened up near a tunnel being bored in London, and people had to evacuate their homes. On March 3, 2009, a tunnel collapsed in Cologne, consuming the ▶

Nothing Has Ever Gone Right

The Alaskan Way Viaduct Has a History of Cost Overruns, Complications, and Deceit

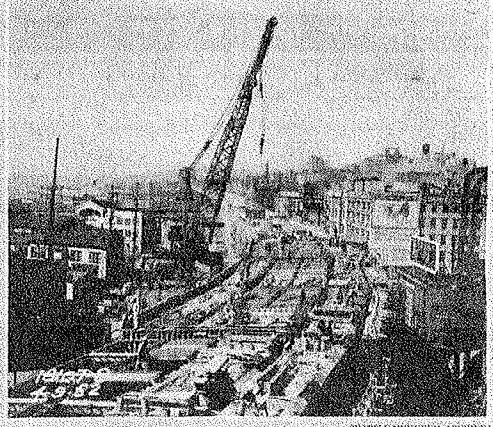
It was in 1938, when traffic snarled the downtown waterfront, that the civic-minded first began pressing for a solution. Nine years later, Mayor William F. Devin rolled out a plan for a double-decker viaduct. It would cost $5 million, he said. Within five months, he would bump up that estimate to $6.3 million. A power shovel got stuck in the muddy soil shortly after construction began in 1950 and a crane had to pull it out. Fourteen months after construction began, when the true costs came into focus, estimates rose to $10 million. The budget had doubled.

Even then, locals predicted that the four-story concrete fixture would be death to the waterfront. In 1951, the *Seattle Post-Intelligencer*'s Charles Regal warned it would be a "concrete curtain."

"The day may yet come when burly guards will be stationed at the portals of the new viaduct to examine the credentials of those who would venture into the desolate waterfront of the future," wrote Regal.

The over-budget, ugly viaduct opened on April 4, 1953, at 1:40 p.m., purportedly to unsnarl traffic. The first traffic jam occurred 18 minutes later, requiring the intervention of police officers.

Just 16 years after it opened, a Central Waterfront Study called for the city to tear the viaduct down. Twenty years after it opened, city council member John Miller called it one of the city's "worst mistakes."



SEATTLE MUNICIPAL ARCHIVES

But the death knell rang on March 1, 2001, when the Nisqually earthquake struck, the viaduct sustained damage, and Seattle realized that another seismic bump could turn the two-tiered highway into a human juicer.

Seattle didn't want to replace the viaduct with a tunnel. Voters rejected both a tunnel and a new elevated highway by wide margins in March 2007. A stakeholders group—people representing business and waterfront interests—convened to discuss what they wanted. Representatives from the city, county, and state transportation departments ruled out a tunnel. They elected for a smaller viaduct or a surface/transit option. A deep-bore tunnel was out of the question, in part because the Washington State Department of Transportation (WSDOT) said it was too expensive. At a closing meeting of the stakeholders group, WSDOT's David Dye made a speech, saying, "It is out of reach in the current state of affairs to make it happen." He added, "It would be disingenuous of me to sit here representing the state to say, 'Geez, you know, let's go build a deep-bore tunnel.'"

The state is now on the verge of building a deep-bore tunnel.

So how did we get here? Labor unions, construction lobbies, and downtown business groups (which all had an incentive to sign multibillion-dollar contracts) charmed Governor Chris Gregoire into believing a deep-bore tunnel was feasible. Gregoire responded in early 2009 by crafting a tentative agreement with former King County executive Ron Sims and former Seattle mayor Greg Nickels to build that tunnel. Under this arrangement, each party would take responsibility for its own part of the project. For instance, Seattle would rebuild the downtown seawall and take responsibility for cost overruns on its share of the work. The state would dig the tunnel and accept liability for cost overruns on its part of the project.

But the state screwed Seattle at the last minute. One month after signing the agreement, the legislature passed the law capping spending and requiring Seattle to pay for all cost overruns—including all cost overruns on the state's part of what is a state highway project.

The governor also promised that the legislature would grant King County the right to raise the motor-vehicle excise tax to pay for transit near the waterfront—transit that Seattle needs to mitigate the traffic impacts of all the drivers who don't take the tunnel to avoid tolls and because the tunnel has zero downtown exits—but when a bill came to the governor's desk to allow more taxes for transit, she vetoed it.

"Gregoire's promises aren't worth the paper they're printed on," says Martin H. Duke, editor of Seattle Transit Blog. (He notes the governor vowed to tear down the viaduct in 2012; now she's pushed the date back to 2016.)

But the governor insists Seattle needs to sign a binding contract now, and besides, what is there to worry about?

"There are things that could go wrong," says Cary Moon, director of the People's Waterfront Coalition and a member of the stakeholders group. And when things go wrong, "Seattle gets screwed every time." ■

the Stranger

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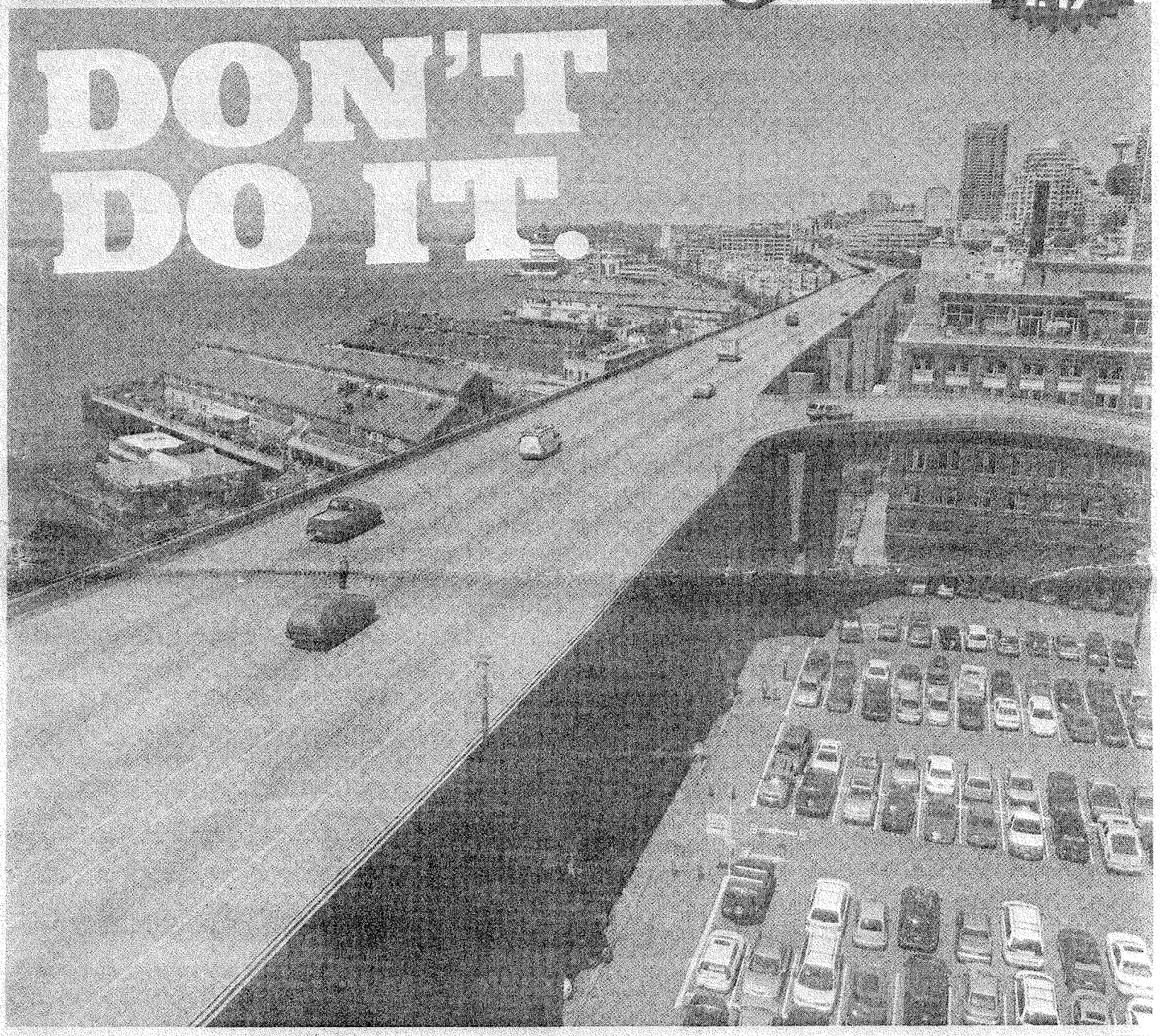
SMASHED
SEATTLE DIY'S ST. VALENTINE'S DAY MASSACRE
P. 17

DON'T DO IT.



TO THE TUNNEL TO THE REBUILD

ERICA C. BARNETT ON THE VIADUCT VOTE P. 19

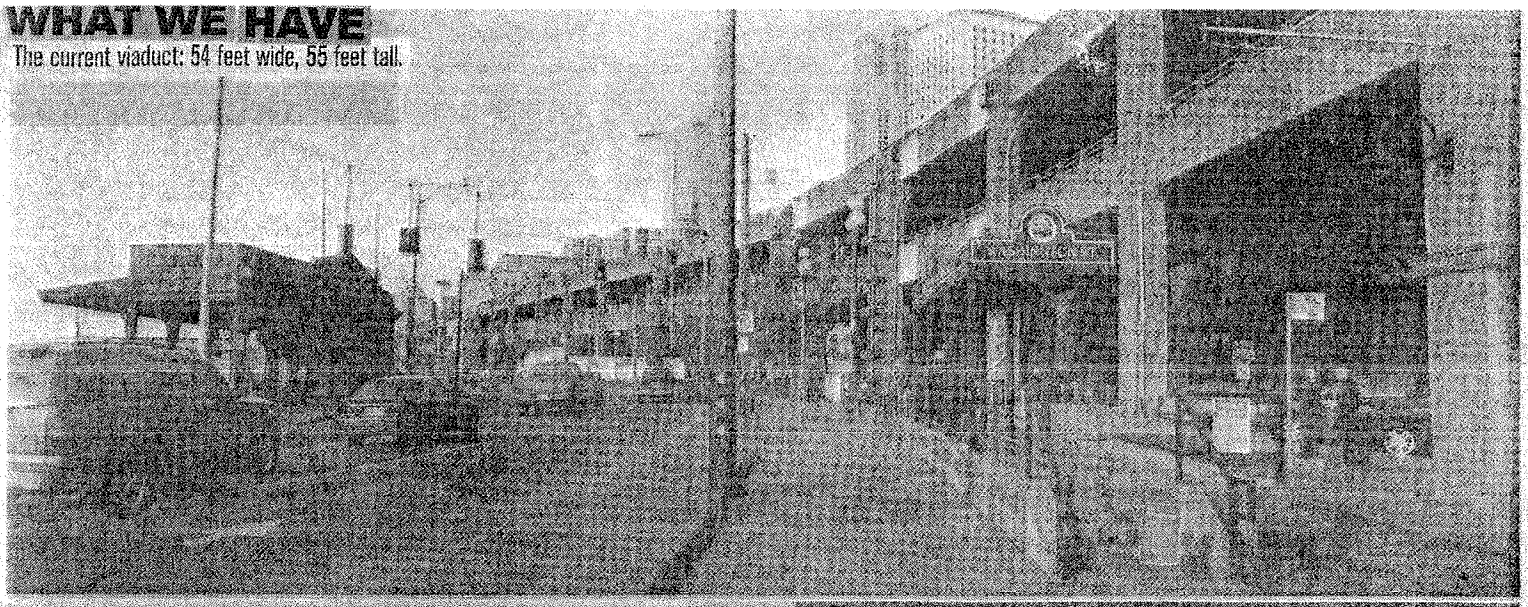
NEWS KINK PHOBIA IN

BOOKS CHRISTOPHER FRIZZELLE GOES

MUSIC ETHIOPIAN HIPHOP! VERA PROJECT

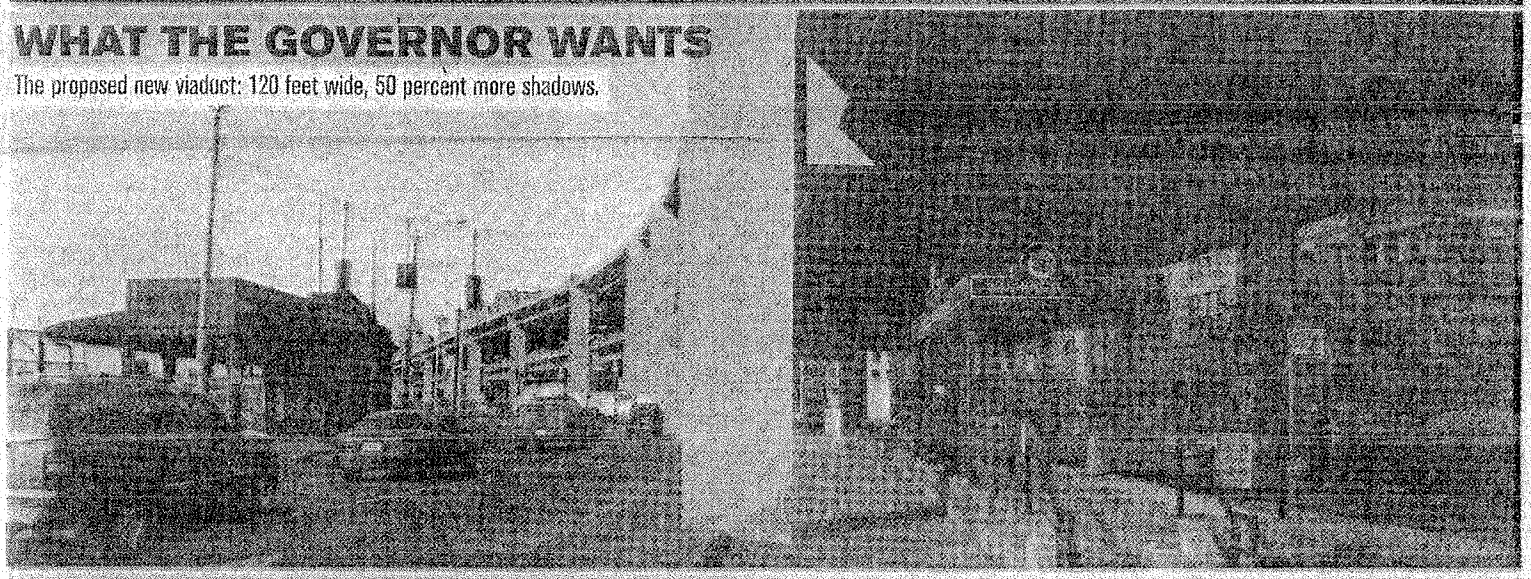
WHAT WE HAVE

The current viaduct: 54 feet wide, 55 feet tall.



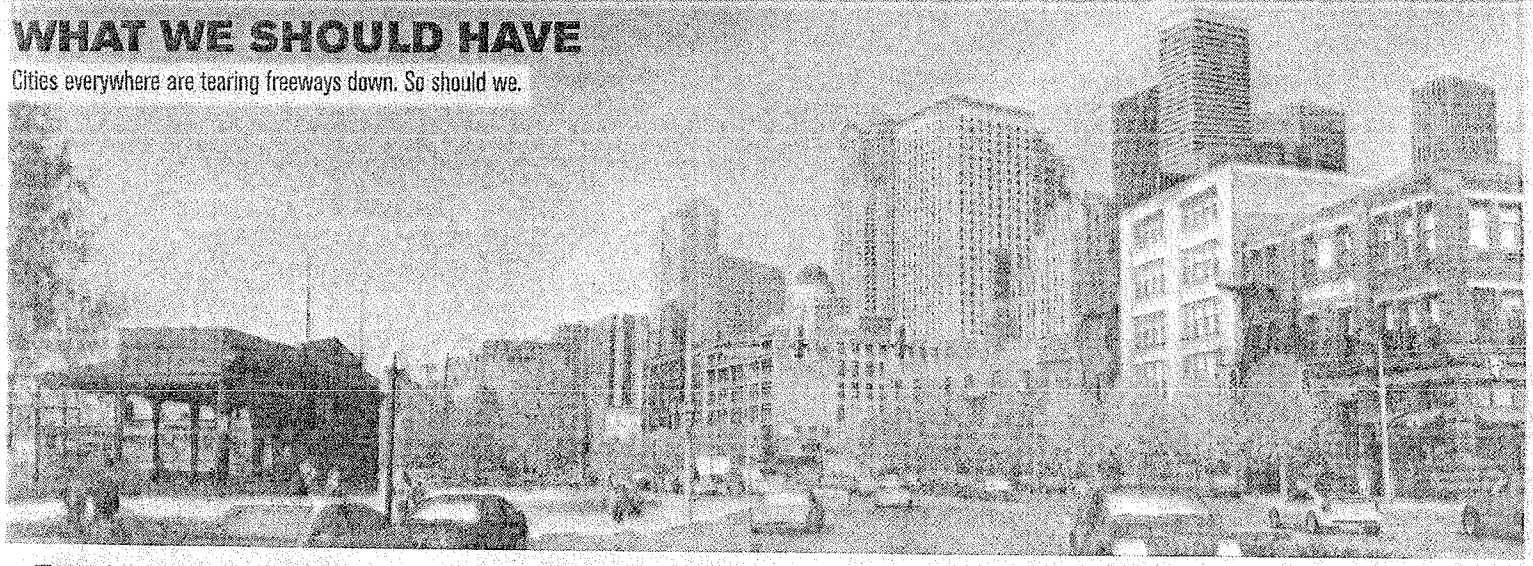
WHAT THE GOVERNOR WANTS

The proposed new viaduct: 120 feet wide, 50 percent more shadows.



WHAT WE SHOULD HAVE

Cities everywhere are tearing freeways down. So should we.



Seattle voters are being asked to vote "yes" or "no" on two new freeways on the city's waterfront—a larger elevated viaduct (the option preferred by Governor Christine Gregoire, key members of the state legislature, and the Seattle public, if opinion polls can be believed) and a scaled-down, four-lane, cut-and-cover tunnel (the option that's still preferred by Seattle Mayor Greg Nickels, despite being declared dead by the governor earlier this month). A third option, tearing down the Alaskan Way Viaduct and investing in transit and improvements to surface streets instead of a new waterfront freeway, isn't on the ballot despite being (a) cheaper, (b) less disruptive, and (c) the most environmentally responsible option.

As people on all sides of the debate have noted, the March 13 vote will be a glorified opinion poll with no binding effect, whether voters choose the new viaduct or the tunnel—or neither. (Or both.) Because the two votes will be separate, voters can check yes for a tunnel and a rebuild, yes for one and no for the other, or no for both. At the moment, the most likely outcome appears to be that both will lose. And even if one option does emerge a winner, it won't be anything resembling a mandate: Gregoire has declared any tunnel dead on arrival; Nickels has made it clear he'll fight the rebuild "by any means necessary," including fighting it in court or denying city permits. The debate has boiled down to dueling sound bites—"Big Ugly" versus "Big Dig"—and voters are understandably confused.

Our endorsement: no to the moribund tunnel and hell no to the rebuild. By voting down both waterfront freeway options, Seattle voters can send a message that they want another choice: a smart, affordable, environmentally responsible solution that takes an optimistic view of Seattle's future.

By far the worse of the two bad choices the Seattle City Council has given us is a new elevated viaduct. Contrary to what has been reported in both daily papers, the new double-decker highway would be, on average, 71 percent larger than the current viaduct, not 50 percent—in large part because modern safety standards require wider lanes. At Washington Street in Pioneer Square, ▸

All of the city's consultants and the state's engineers are—almost certainly—doing their very best. But every megaproject that ever went over budget had plenty of diligent consultants doing their very best. The issue here isn't the number of consultants picking this project apart. It's whether the city council is going to approve a contract that financially shackles Seattle taxpayers to a state project that the city won't have any control over. Right now, the city and state don't have a plan for dealing with cost overruns. And the only thing on paper right now unequivocally states Seattle taxpayers *must* pay for all cost overruns.

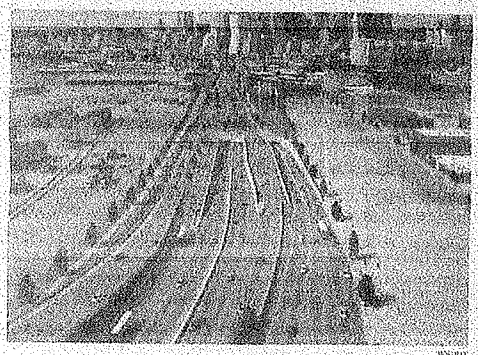
But requiring a change to that state law before approving the contract, as McGinn has suggested, "is a way of definitely killing the project," Rasmussen says.

* * *

Maybe the project deserves to die

"If we were trying to cure cancer, we could say, 'Go ahead, it's worth the money,'" says Cary Moon, director of the People's Waterfront Coalition. "But for a two-mile-long stretch of what will be a not-very-well-used road—is it worth this level of significant risk and money?"

The numbers for the tunnel—once it's completed—don't look very good. The current Alaskan Way Viaduct carries about 110,000 cars a day. Once the tunnel opens in 2015, the number of cars using Highway 99 through downtown Seattle will drop to 46,000 cars a day, according to a tolling study by the state. That means 64,000 additional vehicles a day will be forced onto downtown surface roads, along the waterfront, and onto I-5. Why? Cars that want to go downtown can't use the tunnel because it will have *no downtown exits*. And people who don't want to pay the toll won't use it. During peak hours, the trip will be $4 one way and $3.50 the other. That's $7.50 to use the tunnel. Many of the cars diverted from Highway 99 will pour into Pioneer Square instead, further clogging that neighborhood's already traffic-clogged streets.



WSDOT

SOUTHERN TUNNEL PORTAL: 13 LANES OF CEMENT
Once the tunnel opens in 2015, the number of cars using Highway 99 will drop by more than half because it will have no downtown exits.

"There is a pretty significant amount of traffic diversion" with the tunnel, admits Ron Paananen, who is overseeing the tunnel project for WSDOT.

Ironically, many tunnel supporters have insisted that the tunnel would benefit blue-collar workers going to their jobs. But blue-collar workers are the least willing and least able to pay $7.50 to use the tunnel. They will join the majority of drivers who pour onto surface streets.

And I know this sounds wonky, but the state hasn't finished something called an environmental impact statement, a document that may reveal that this project—a project that is already under way, if council president Conlin and Governor Gregoire prevail—shouldn't be built at all.

Bear with me: An environmental impact study isn't just about how many birds will die. It is the definitive analysis of the impacts of the project. That study, which will come out in draft form for public comment this fall, will compare the tunnel to rebuilding an elevated highway or a cut-and-cover-tunnel option. State law requires us to complete this study before the state commits to one option. But the state, by putting the project out to bid and entering into an agreement with Seattle, is committing to one of the options without knowing if it has any major ramifications. (Remember that lawsuit? Sounds like they may have a case, huh?)

So even if everything goes right and there aren't any cost overruns, we know the project is hugely expensive, forces more than half of the traffic now on the viaduct onto surface streets, destroys the (already battered) quality of life in Pioneer Square, and directs money that could go toward making downtown streets better for transit into building yet another freeway. And if anything should go wrong, the city could be bankrupted.

The question here shouldn't be whether the mayor has a "secret agenda" to kill the tunnel. The question should be why every elected official at City Hall doesn't also have one.

What happens next

The city council will decide the conditions of our contract with the state within the next six weeks. By approving it, the city gives the state permission to begin construction. Seattle has basically no leverage after construction begins.

Most of the city council is arguing that we don't need to fix the state law, we don't need to see bids, we don't need to see the state's environmental impact statement, we don't need to increase the bonds for the company doing the tunneling, and we don't need any provisions that allow Seattle to back out if, say, bids show the tunnel will cost too much. They also say that the time for debate has passed.

But Seattle has never debated this issue. (When Seattle voted on a slightly different tunnel in 2007, we rejected it.) There was certainly never a public debate about the terms of this contract, and Conlin has done all he can to avoid having that debate now. Conlin has also attempted—with an assist from the *Seattle Times*—to paint the mayor as an irresponsible obstructionist when, in point of fact, the mayor appears to be the only person at City Hall looking out for Seattle taxpayers.

"The bottom line for the planning process," say Thom Neff (McGinn's outside expert) and Gary Brierly in an article titled "Bullshit as Applied to Tunneling Projects" in the April issue of *TBM: Tunnel Business Magazine*, "is to let the games begin: debate, argue, make your claims and counterclaims, and do everything possible to come up with the best possible project." The authors, who are both authorities on the runaway costs of tunnels, warn that "errors in the planning effort can lead to... inadequate financing, unreasonable debt for the local citizens and agencies, and, in rare cases, *a tunnel that should never have been built*."

On June 28, the mayor gave a draft of the contract ordinance to the city council that says the city won't give permission to build a deep-bore tunnel under downtown until the state legislature removes the provision that caps state spending on the project and says Seattle must pay for cost overruns. The city council disregarded the mayor's proposal as a delay tactic. Laura Lockard, spokeswoman for the city council, says the mayor's proposal was "theater."

The council is expected to remove the mayor's provision, the mayor has vowed to veto any tunneling bill that doesn't contain a provision that protects Seattle taxpayers, and the council is expected to attempt an override the mayor's veto.

But if the city council was serious about representing the citizens of Seattle, it wouldn't just leave McGinn's provision in—it would add two more.

Council Member O'Brien is pushing an amendment that would "reserve an option to void the agreement" if the bids come in too high or the environmental impact study shows that the tunnel would have enormous ramifications.

"You want me to sign a contract that is our last leverage point and you won't tell me what it says until later?" O'Brien asks about the current version of the bill. He says committing Seattle to the tunnel before impact studies are complete would be a "mockery" of the process.

Rasmussen, chair of the council's transportation committee, says he would support O'Brien's plan to let the city opt out if bids "come in way over" the state's spending cap. But he dismisses the idea of voiding a contract simply because the impact study shows the tunnel wouldn't solve transportation problems. (Think about that: The chair of city council's transportation committee is willing to spend a billion of your tax dollars—and potentially hundreds of millions more—on a transportation project that *doesn't solve transportation problems*.)

Meanwhile, Council Member Nick Licata is pushing a provision that would reserve $290 million of the project budget for tearing down the Alaskan Way Viaduct and rebuilding the waterfront—and to complete the project regardless of cost. That sort of provision, Licata says, would give the city "critical assurance that the state won't spend our money on the tunnel when they should spend it on removing the Alaskan Way Viaduct and providing the new street on the waterfront."

All three amendments—making the state pay for overruns, letting Seattle opt out if the project will cost too much or if research in the next six months shows the project has major negative ramifications, and setting money aside for the waterfront improvements—should be approved. None of them kill the project, as some members of the city council would have you believe. They simply would protect Seattle's interests—which is the Seattle City Council's *job*.

Would the state remove the spending cap and accept responsibility for cost overruns?

"I think there is support in the senate to reform that provision," says state senator Ed Murray. "I think the mayor has a valid point. The legislature needs to get that fixed. Seattle should be treated like any other jurisdiction, it should not be required to pay cost overruns on the state highway."

Murray says he would sponsor legislation to make the city and state share the burden of cost overruns equitably. The question is whether the state house would pass it. Speaker Frank Chopp says he can't speculate. The most powerful person in the house, Chopp represents the 43rd District—comprising the central city, the same district that Murray represents—and his Seattle constituents should press him for a deal that is fair to Seattle.

While there may be support in the legislature next year to remove the language that makes Seattle pay hypothetical cost overruns, that support could disappear if we wait until cost overruns do actually occur.

That last scenario is exactly what Council Member O'Brien—a former chief financial officer at a law firm—fears most. "I think Seattle will make a legal argument that the city is not liable. But that's not to say that there aren't ways the legislature can make Seattle pay. It is easy to imagine a scenario in which cost overruns occur and the legislature wants to put it on Seattle. The legislature says, 'We passed a law that says Seattle has to pay, so now you have to pay.'"

State law specifically states that any costs beyond $2.8 billion on "shall be borne by property owners in the Seattle area who benefit from replacement of the existing viaduct with the deep bore tunnel." Council president Conlin wrote on his blog in May that state law "says nothing about the City [of Seattle], but instead makes a legally meaningless reference to property owners."

Attorney General Rob McKenna disagrees.

"Once [a law] is adopted," McKenna said on KUOW last fall, "it's our job to defend it. A law which is adopted by the legislature is presumptively constitutional."

There is a case to be made that Seattle isn't "on the hook" for cost overruns. "The legislature can't just tax a group of people in a geographic area," says City Attorney Pete Holmes. "This is a state highway, and the state is responsible for all the costs." If the state exceeds costs in any contracts, he says, "they could send us a bill. They can't make us pay it."

The legislature would have to take further action—but that's something some lawmakers say they may do—to force Seattle to pay.

"I will try my best, as will a number of other legislators, to live up to the law that we passed that held Seattle to these cost overruns—that is all I can say," says state senator Jim Kastama of the legislative district that encompasses Puyallup. "There is a track record of tunnels not coming in on budget, and it is not just me saying that [we're going to make Seattle pay], it is the general consensus of the legislature.

"That amendment is real," Kastama continues. "People who think it is window dressing, they don't understand the level of support for that amendment in the legislature."

As for city council members and state elected officials—including the governor—who insist that Seattle won't have to pay, regardless of the law as currently written, Kastama urges Seattle taxpayers not to believe them.

"The people who are giving you these promises aren't going to be here in a few years," Kastama says. "The people who are saying there will be no cost overruns won't be in office when it's time to be held accountable."

Conlin, who was just elected to his fourth term on the city council, will probably be long retired—along with Rasmussen, Bagshaw, and Gregoire—when the whole project is complete in 2018 and Seattle may have to grapple with a bill for a tunnel it didn't need.

"We have a $56 million budget shortfall right now," says O'Brien. "If we have to come up with another $50 million, $100 million, or a half billion dollars, it would be devastating to our city. I know fellow city council members don't want that outcome, but I have been frustrated that they have not been willing to engage in a more robust dialogue to prevent that outcome." ■

Comment on this story at
thestranger.com

◂ city's historical archives building and killing two people.

"I've seen overexcavations open up 300-meter tall caverns over the TBM, and all that dirt fell right on the machine," John Turner, chief engineer of TBM builder the Robbins Company, told *Machine Design* in 2001. "And the cave-in can go all the way to the surface, which is a real disaster." In the same article, Marco Giorelli, a product manager for another TBM builder, said, "Overexcavations can be particularly harmful in cities... They lead to settlement, and it doesn't take much settling to damage buildings."

The loose soil in downtown Seattle doesn't have driveways or single-family homes sitting on top of it. It has the historic buildings in Pioneer Square, new condo towers and hotels, and the tallest buildings in the state.

Not all the money will come through

Of the total project cost of $4.2 billion, about $937 million is Seattle's responsibility (to rebuild the seawall and move utilities) and $3.1 billion is the state's responsibility. Most of the state's money is coming from gas taxes. But the state is relying on two tenuous funding sources to come up with $700 million of its share: the Port of Seattle and bonds for future tolling of the tunnel.

The Port of Seattle is supposed to chip in $300 million toward the project, but the state's agreement with the port is *nonbinding*. The port passed a resolution in April that says, "*To the extent feasible* and authorized by the port commission," it will come up with the money, as long as it doesn't interfere with the port's other responsibilities. The port is partly funded by property taxes, which have plummeted as property values have dropped in the recession.

"The commission hasn't specified the source of funds for our contribution," says Port of Seattle spokeswoman Charla Skaggs. "A key component will be the tax levy, but commissioners have directed staff to limit the need for levy resources for the contribution as much as possible."

And if the port doesn't feel like coming through with the money or it's strained to meet its other obligations, it doesn't have to pay anything.

The tolling revenue, which is budgeted to generate up to $400 million, is slightly more secure. The state plans to issue bonds (based on future tolls) that Ron Paananen, who is overseeing the tunnel project, says will likely end up producing $385 million.

Although promising, the toll money raises an obvious question: Who pays the other $15 million? The state? Seattle? Nobody knows.

There isn't enough money set aside for cost overruns

The state and some city council members have repeatedly trumpeted $415 million set aside to cover cost overruns. That figure sounds good. The riskiest part of the ▸

That Was Then

Council President Richard Conlin's Megaproject Flip-Flop

"We are rushing forward with a technology that has never been tested in a dense urban environment in the United States," Richard Conlin said in a press release, "with funding so marginal that every time we raise a question, we are told that delaying a week or adding a cost will kill the project."

Another quote from Richard Conlin: "If this project is now so fragile that taking the time to make good decisions endangers its ability to go forward, then the project is doomed to failure."

And another: "There remain concerns about the project's finances and impacts as a whole."

City council president Richard Conlin could be talking about the downtown tunnel—a project that has no bids, no completed design, no completed impact study, and no source to pay for cost overruns, and which involves unreliable technology in a dense urban environment—but all those quotes are Conlin talking about the monorail project that he helped kill.

Now Conlin calls raising questions about runaway costs on the downtown tunnel "grandstanding" and criticizes the mayor for taking an "adversarial approach." But when the city council was contemplating a bill in 2004 to allow the monorail project to move forward, Conlin deployed many of the same arguments about the monorail that he's now dismissing about the deep-bore tunnel.

Now Conlin doesn't want people at City Hall to raise questions about a project with marginal funding because those arguments have "been distorted and overblown in order to kill the project," he wrote on his blog in May. "Demands that the state stop the project and address potential cost overruns are an intentional misdirection."

But in 2004, Conlin told the *Seattle Weekly* that "raising concerns and asking that they be addressed is not obstructionist."

Conlin's concerns about a runaway megaproject were justified. The Elevated Transportation Company estimated base costs for the monorail project at $2 billion. But it came out later—after the sort of intense financial scrutiny that we haven't had on the tunnel—that the project would cost $11 billion dollars with financing and take decades to pay off.

But while Conlin was for public debate, scrutiny, and getting answers when it came to building a populist mass-transit project—Conlin is opposed to public debate, scrutiny, and getting answers when it comes to building a tunnel through downtown Seattle.

"I continue to be unconvinced that the overall feasibility of this project has been demonstrated," Conlin said of the monorail six years ago. He could—and should—be saying the same things now. Maybe Conlin isn't worried. But Seattle taxpayers should be. ■

◂ viaduct-replacement project is the $1.9 billion for the tunnel. And the actual tunnel excavation itself, the riskiest part of the tunnel, represents just $350 million of the project's total cost. So the amount set aside should protect us, right?

Nope.

It turns out that more than a third of that money is actually set aside to cover the costs of inflation, leaving just $258 million to cover cost overruns. That would leave enough to cover cost overruns of about 13 percent for the price of the tunnel—far below the 34 percent average on this sort of tunneling project. But it gets worse: The state's obligation is for about $3 billion of work. So the money set aside for cost overruns represents less than 10 percent of the state's total project cost.

And it's not just the tunnel that could go over budget.

The downtown bus tunnel, completed in 1990, ran 56 percent over its initial projected budget, according to a report last November from the Sightline Institute. Posthuma, assistant director of King County's transportation department, points out that the tunnel itself—a very different sort of tunnel—came in 25 percent under the final estimates when it went out to bid. So what increased the costs of the project overall?

"It was partly the station finishes," he says, "and also the surface street finishes," among other expenses.

This project is much more than just a tunnel—one that involves a lot of "street finishes." Huge swaths of downtown Seattle and the waterfront are going to be rebuilt—and a lot could go wrong, and a lot of other parts of the project could come in over budget. WSDOT must pay for a 13-lane-wide tunnel portal on the south end, reconnecting the street grid on the north end, rebuilding part of the downtown waterfront where the Alaskan Way Viaduct now stands, as well as some utility repairs and more. Those are essentially road projects that, while less risky than tunnels, frequently come in over budget. Returning to Flyvbjerg's report, the one that examined 258 megaprojects, when it comes to road projects, "actual costs are on average 20 percent higher than estimated costs."

The top reason transportation projects run over budget is because people who have the most to gain have an incentive to lie about risks.

The light-rail tunnel under Beacon Hill also ran over budget by 30 percent (from an estimated to $238.6 million to $309 million). Many of those costs had nothing to do with the tunnel. They were attributed to station construction and elevators.

There simply isn't enough money set aside to cover "average" cost overruns, to say nothing of the catastrophic cost overruns we could face if a TBM gets stuck under downtown Seattle—or if a hole swallows a downtown office building.

Lots of other things go wrong

The ground could settle in unpredictable ways, a sewage line could break, bidders could drop out and the remaining bidders could gouge the state, there could be another earthquake, the bids could come in at a price higher than the amount the state has agreed to pay—and the project could get tied up in court. In fact, Elizabeth Campbell, a Magnolia resident and head of the group Seattle Citizens Against the Tunnel, is determined to file a lawsuit as soon as the council approves the contract.

While construction unions are backing this project, labor disputes could also get in the way. In Vancouver, BC, Bilfinger Berger won a $100 million contract to build tunnels for a water filtration system. Work began in 2004 but stopped in 2008, when falling rock injured several workers. Metro Vancouver terminated the contract in May of 2008, claiming that Bilfinger Berger had refused to resume work on the tunnel even though safety concerns had been addressed; the company claimed the stop-work order was never lifted. The upshot: A new company got the contract, but, once the tunnel opens later this year, it will cost an estimated $400 million. That's four times its bid price.

The people who say, "Nothing will go wrong" are often wrong (or they're lying)

The top reason why transportation projects run over budget is because people who have the most to gain—developers bidding on contracts, labor unions worried about jobs, state agencies with reputations on the line, politicians looking for campaign contributions, construction unions that make campaign contributions—have an incentive to lie about risks. Once the project is under way, it is hard to stop, even if costs skyrocket. The Big Dig in Boston started with an estimate of $2.8 billion, which grew to a final cost of $14.6 billion, and is expected to cost $22 billion with interest when it's finally paid off in 2038.

"The use of deception and lying as tactics in power struggles aimed at getting projects started and at making a profit appear to best explain why costs are highly and systematically underestimated in transportation infrastructure projects," say Flyvbjerg, Mette Skamris Holm, and Søren Buhl in a report from 2002. "Legislators, administrators, investors, media representatives, and members of the public who value honest numbers should not trust cost estimates and cost benefit analyses produced by project promoters."

In this case, the "project promoters" trying to muscle through the tunnel contract are Governor Gregoire and certain members of the Seattle City Council. And something else that undermines the credibility of tunnel backers: They are running from this debate. Mayor McGinn offered to debate council president Conlin about the tunnel and cost overruns, Town Hall Seattle offered to host the debate, and KING 5 was anxious to air it. Conlin refused to debate the mayor. After Conlin refused, the offer was extended to Council Member Sally Bagshaw, who made her support for the tunnel a big issue in her campaign for city council, but she also refused. Likewise, Council Member Tom Rasmussen, chair of the council's transportation committee, refused to debate the mayor.

For his part, Rasmussen says that the city has consultants who will look at various potential risks—such as those associated with relocating utility lines, soil conditions, and insurance, among other things—and make sure the city isn't exposed to undue liability.

"There will be no sugarcoating, no rose-colored glasses," Rasmussen says. "We have to know all the risks and make sure all of them are honestly portrayed and explained to us... I don't want people to think that we want this so badly that we are ignoring any red flags."

The mayor's office characterizes the work of the council's consultants largely as nipping at the edges of bigger problems while ignoring some of the project's larger inherent risks—like constructing the widest deep-bore tunnel in history. In June, McGinn hired an independent consultant, tunneling risk expert Thom Neff, to look at the risk.

"I think it is important that there is at least one expert who wasn't hired by tunnel cheerleaders," McGinn says. ▸

THEY DON'T WANT YOU TO HAVE YOUR SAY

Seattle citizens have stopped freeways we don't need before, but this time, eight members of the city council are trying to prevent you from weighing in. Don't let them.

STOP THE INSANITY

THE DEEP-BORE TUNNEL IS INSANE. NOW IS THE TIME TO STOP IT. THERE IS A BETTER OPTION.

by Dominic Holden

Richard Conlin was being heckled. The Seattle City Council president knew the crowd would be hostile and he came prepared. It was February 28 at City Hall, and the council intended to pass a bill that would commit Seattle to replacing the Alaskan Way Viaduct with a deep-bore tunnel. Even after the public comment period, when citizens in sweaters and button-up shirts spoke two to one against the project, the crowd remained vocal, many holding signs reading "Let us vote!" or "Our Project, Our Vote" or "Stop the Tunnel."

As the crowd rumbled, Conlin asked to suspend parliamentary rules to show a PowerPoint presentation. Did he seize the chance to show that the tunnel is worth $4.2 billion or that it moves traffic better than less-expensive alternatives?

No, he didn't do that. He can't do that.

Instead, Conlin projected a photo of Oakland's Cypress Street Viaduct after a 1989 earthquake. Forty-two people died on the freeway that day, crushed to death between collapsed concrete. Seattle's waterfront viaduct faces the same risk in an earthquake, and, he argued, the tunnel is our only option to avoid that risk.

"These pictures remind us that we are talking about people's lives," Conlin intoned.

The crowd groaned at this stunt.

Then the council approved the tunnel contracts with the state by an 8–1 vote (with Mike O'Brien dissenting). Now the viaduct—a human juicer in a seismically volatile region—will be left standing for at least five more years. But the council and the state don't even know if the tunnel is feasible yet, because the impact studies won't be done until this summer.

Conlin's grandstanding—his willingness to exploit tragedy to score a political point—wasn't just patronizing, it was dishonest. Building the tunnel means that the viaduct remains up longer. Demolition had been planned for next year—in 2012—but the tunnel plan delays demolition until 2016 (or later, if the project runs behind schedule, as projects like these often do).

"The city council has chosen the option that leaves the existing viaduct up the longest," says Mayor Mike McGinn.

Meanwhile, the governor, highway officials, and eight members of the city council all say that the decision to build a deep-bore tunnel is a done deal. That a tunnel is the best option for the waterfront. That the region's economy depends on a tunnel. That we have no other option.

They're lying to us.

On every metric you could use to gauge a transportation project—cost, liability, impact—the tunnel project fails. Replacing the Alaskan Way Viaduct by optimizing surface streets and transit is cheaper and more effective. Countless cities—San Francisco, Portland, New York, Seoul, and many others—have torn down urban freeways without creating economic havoc or gridlock. Seattle can and should do the same thing. In fact, Seattle voters already rejected plans to rebuild Highway 99 as a tunnel or a new viaduct in 2007. After voters shot down a cut-and-cover tunnel, the governor, the mayor at the time, and the county executive at the time got together and decided on a deep-bore tunnel without asking voters.

Now the state is trying to shut down debate on the deep-bore tunnel—highway officials and the governor literally refuse to participate in debates—because, on its merits, the tunnel is indefensible.

For instance, we've been told that the tunnel will "open up the waterfront" while a surface option would clog it with traffic. But the Washington State Department of Transportation's (WSDOT) own research found that the tunnel and a surface/transit option produce *identical* traffic flows along the waterfront: 19,000 vehicles over three hours during the peak evening rush hour. And the state's estimate was based on the assumption that the tunnel would have no tolls. But a 2009 state law requires that $400 million for the project be raised by tolls. According to a Supplemental Draft Environmental Impact Statement (SDEIS) released last October, 64,000 vehicles a day that currently use the viaduct would divert onto surface streets because the tunnel has zero exits and to avoid having to pay tolls. What does this mean for the waterfront? WSDOT reports, "The number of vehicles traveling on Alaskan Way each day is projected to increase by 6,000 to 7,000 ▸

Thurs March 24, 8 pm

Protect Seattle Now is throwing a party at HG Lodge (722 E Pike St) with the mayor and other talent. Bring 15 valid signatures to get the tunnel referendum on the ballot, and they'll waive the $15 cover. Find petitions at www.protectseattlenow.org or inserted into this week's issue of *The Stranger*.

◂ vehicles" above the levels without tolls.

So it's the *tunnel* that would clog the waterfront with traffic.

Before we spend $4.2 billion (including $930 million from Seattle and $300 million from the Port of Seattle) on a tunnel we don't need, Seattle voters deserve a chance to weigh in. We deserve a real debate, an honest debate about whether the tunnel moves enough vehicles, whether it's worth the money.

There is only one way to do that honestly: put the tunnel on the ballot. Protect Seattle Now, a campaign launched the same day the council voted to approve the tunnel, has until March 28 to gather approximately 16,500 signatures to put the tunnel contracts on the August ballot. That's a lot of signatures to gather in a short amount of time. Protect Seattle Now is going to have to pay professional signature gatherers if it wants to make the deadline, which means it needs to raise money, too—quickly. If you can help, go to www.protectseattlenow.org.

Meanwhile, here's why you should care.

The Tunnel Will Make Travel Worse

Governor Chris Gregoire insists that the only way to maintain traffic flow downtown and protect streets from a flood of cars that currently use the viaduct is by building the tunnel. "The bored tunnel preserves capacity," she argues.

But the state's own estimates contradict her. Nearly two-thirds of the 110,000 vehicles a day that currently use the viaduct won't take the tunnel. Tolls of $4 one direction and $3.50 the other direction would cause most drivers to avoid the tunnel. (The other reason drivers will avoid the 1.7-mile tunnel is the lack of exits—more on that in a minute.) Without tolls, the state simply can't pay for its share of the project; with tolls, most people won't use it. Most drivers will exit before getting to the 10-lane tunnel portal, clogging the streets of Pioneer Square.

Without tolls, the state simply can't pay for its share of the project; with tolls, most people won't use it.

"To build a giant, suburban-scale interchange next to a historic district with narrow, fragile pedestrian streets—knowing that this causes traffic mayhem, but not putting any money toward solving the problem—is absurd," says People's Waterfront Coalition director Cary Moon.

The state calls this "unworkable." The SDEIS says, "Slower vehicle times are modeled because vehicle volumes are expected to increase on these streets." (Yes, the project designed to move traffic through the city causes *slower* travel.)

Asked at a briefing in November how the state would manage the increase in traffic on city streets, Ron Paananen, project manager for the Alaskan Way Viaduct Replacement Project at the Washington State Department of Transportation, punted: "The City of Seattle has more power over city streets." Asked if the state had any money to mitigate this looming traffic disaster, Paananen answered, "No."

The state said this is the *city's problem*. So what's the city's plan to deal with the traffic pouring onto downtown streets?

City council Transportation Committee chair Tom Rasmussen hopes the state can help—the same state that says this is the city's problem.

"I think we will be working with the state, King County Metro, Port of Seattle, and any other entities that have a role in transportation to reduce the amount of traffic on those streets that could be caused by tolling," Rasmussen has said.

The city certainly doesn't have the money to mitigate the traffic diversion. Seattle is running annual deficits around $60 million and already has a $930 million commitment to the project (to pay for utility relocation, building a new seawall, and helping rebuild the waterfront). The state, county, and port will be no help: A 2000 law prohibits the state from chipping in any more money than the $2.8 billion it already committed, the Port of Seattle still hasn't found a way to pay its pledged $300 million, and King County Metro is running a budget deficit and has nothing to chip in. Not one of these entities has a way to manage downtown street traffic if the tunnel is built.

"The issues, left unaddressed, will impact accessibility to and the character of the Center City, particularly in the vicinity of Pioneer Square and the Seattle Center/South Lake Union areas," says a briefing paper presented to council members on January 25. The report, by transportation consultant Nelson\Nygaard, also finds that the uptick in traffic may result in longer travel times for transit and "will increase conflict between automobiles and vulnerable road users." (In other words, frustrated drivers confronted with clogged downtown streets and longer commutes are likely to run down more cyclists and pedestrians.)

"We are spending billions of dollars to make traffic worse and doing nothing for transit service," says Craig Benjamin, a transit advocate with the group Streets for All Seattle. The city would have to spend huge sums on improving surface streets—rerouting surface roads, adding lanes on I-5, timing lights—to mitigate this flood of traffic "or this is not going to work." But the city and state won't have the dough to do that because they will have spent it all on the tunnel.

What about freight and connecting the port to the rest of the region? Tunnel supporters argue that freight mobility is vital to a port city like Seattle. But the viaduct isn't a particularly well-used freight route. Medium to heavy trucks make up less than 4 percent of viaduct trips currently (4,000 out of 110,000 per day), according to the Urban Mobility Plan drafted for the city by Nelson\Nygaard in 2008. And three-fifths of that truck traffic begins or ends downtown. So the tunnel, which has no exits in downtown Seattle, wouldn't help with freight. It actually forces most of the freight traffic currently served by the viaduct onto city streets.

Seattle doesn't require a downtown *bypass*; it needs access *into* downtown. Consider the way we currently use Highway 99. Drivers take the viaduct—which has exits and on-ramps—to enter and exit downtown Seattle. According to WSDOT data from 2007, traffic rises sharply on the viaduct in the morning and evening commuting hours. Northbound traffic on the viaduct currently peaks 7:00 to 8:00 a.m., with 4,500 trips per hour, dropping to about 2,200 trips an hour through midday, and then rising to 3,500 during the evening rush hour. Southbound volumes reflect a similar pattern, but with less traffic overall; traffic peaks in the morning with 2,500 trips per hour and lulls midday until the evening rush hour around 5:00 p.m., diving by 7:00 p.m. This is the pattern of a morning and evening commute into the employment core of downtown Seattle.

Smart Mobility, a New England transportation engineering firm, studied traffic patterns on the viaduct and issued a report called "Alaskan Way Viaduct Analysis of No-Replacement Option." It found that 90 ▸

◂ percent of the northbound Highway 99 traffic enters from downtown on-ramps. Likewise, 77 percent of southbound traffic gets on Highway 99 downtown. The report says, "Most of the viaduct traffic during peak traffic periods gets on or off SR 99 in central Seattle, and is not through traffic." What drivers need from Highway 99—what they use it for—isn't a bypass mechanism, but a downtown delivery system.

Despite this evidence, WSDOT has insisted, "The Alaskan Way Viaduct is a major regional highway corridor carrying long-distance trips through downtown." That's a lie and WSDOT knows it. WSDOT's own data proves it.

State Lawmakers Will Make "Damn Sure" Seattle Pays for Any Cost Overruns

The project's total cost is estimated at $4.2 billion, assuming that it doesn't run over budget. But 9 out of 10 mega-projects *do* run over budget, and tunnel and bridge projects are particularly vulnerable to unexpected costs—running an average of 34 percent over budget, according to an analysis of 258 massive transportation projects by Bent Flyvbjerg, one of the world's foremost authorities on the subject.

The four-tunnel Brightwater sewage treatment facility in north King County that was supposed to be done in 2010 now won't be done until 2012 or 2013, and it's 24 percent over budget. Two of the tunnel-digging machines got stuck. If that happens to the downtown tunnel, the unsafe viaduct would be left standing until 2018, two additional years.

If Seattle's tunnel runs over budget, someone will have to pay. It's the state's project, with the city serving as a colead. But the state is facing a $5 billion biennial deficit and state lawmakers say they won't pay.

"Will Seattle voters be on the hook for [tunnel] cost overruns?" asked KIRO reporter Essex Porter at a luncheon at the Washington Athletic Club on January 7. Onstage were Senate Majority Leader Lisa Brown, Senate Minority Leader Mike Hewitt, Representative Larry Springer, and Representative Bruce Dammeier. Each of them had signs that said "Yes," "No," or "Waffle." They all laughed at Porter's question and lifted their "Yes" signs.

A state law passed in 2009 specifically states that any costs beyond $2.8 billion "shall be borne by property owners in the Seattle area who benefit from replacement of the existing viaduct with the deep-bore tunnel." The law also says, unequivocally, that the state won't pay more than $2.8 billion. If the tunnel exceeds those costs, the legislature has to act or leave the project unfinished. They can tap the state budget, which has been running multibillion-dollar deficits with no end in sight. Or they can do what they said they would do: collect from Seattle.

It actually forces most of the freight traffic currently served by the viaduct onto city streets.

"I will be among those who make damn sure that deal stands in place," state representative Larry Seaquist told Seattlepi.com. Likewise, Democrat Jim Kastama said last summer, "I will try my best, as will a number of other legislators, to live up to the law that we passed that held Seattle to these cost overruns."

Representative Judy Clibborn, who chairs the house Transportation Committee, introduced the language that puts Seattle taxpayers on the hook. Clibborn says the intent was that "people who benefited from the facility would help pay for cost overruns." But Clibborn now says the state lacks a mechanism to collect from taxpayers in a specific geography or compel a city to pay. If there are overruns, she adds, the state "will pay for the cost overruns."

It's a legal gray area. If the state legislature, traditionally hostile to Seattle, can pin the overrun costs on Seattle, our city's taxpayers will have a $1 billion bill if the state's $2.8 billion portion of the project runs the average 34 percent over budget.

Governor Gregoire has said she'd veto a bill that makes Seattle pay—but she isn't running for reelection and will be long gone in 2013, 2014, or 2015 when cost overruns crop up. It may be Republican governor Rob McKenna by then, and don't bank on him to come running to Seattle's rescue.

Even if the project somehow doesn't run over budget, parts of the funding may not come through. For instance, the $400 million from tolls assumes that drivers will actually pay to use the tunnel instead of the free surface streets. That's not always what happens. The *Australian* reported a few weeks ago that RiverCity Motorway, a private tunnel and highway builder in Brisbane, had financially collapsed after construction was done on a recent project because too many users simply refused to pay the tolls. "RiverCity's initial traffic forecasts predicted the road would carry 60,000 vehicles a day and that this could increase to 100,000 within 18 months. But traffic volumes are closer to 20,000 vehicles, despite initial moves to discount the toll by as much as 50 percent to encourage motorists," the newspaper reported.

Right now, the state and eight members of the city council all assume the tunnel will be free of cost overruns and that every driver we expect to pay a toll will pay. That is insanity.

Having Already Picked the Tunnel Before the Completion of the Environmental Impact Study Is "Flatly Illegal," an Expert Says

The state has been clear that it will dig the tunnel. "This project that we have been discussing for a decade will begin turning dirt next year," said Governor Gregoire at a press conference to announce the winning construction bidders. "Ladies and gentlemen," she added, "let's get 'er built."

Ron Judd, project outreach director for WSDOT, told the *Seattle Times*, "The debate about whether or not we're going to do a tunnel is over."

Sounds like a done deal, eh?

But the law is clear. You can't actually decide to build until an environmental review is complete. Until the state "issues a final determination of nonsignificance or final environmental impact statement, *no action concerning the proposal shall be taken by a governmental agency that would... limit the choice of reasonable alternatives*," says the Washington Administrative Code.

The environmental impact statement on the deep-bore tunnel isn't completed. It's "expected this summer," says WSDOT's Paananen. So how can the debate be over?

"The state is trampling on our state's premier environmental law," says David Bricklin, an environmental attorney who represents cases under the State Environmental Policy Act. "We are throwing away our money on a document that is not going to be used to help make a decision, but instead to justify the decision that is already made. *That is flatly illegal*. Ron Judd should know better. The governor, who ran the Department of Ecology ▸

Page 3

The pro-tunnel camp's claims prompted Seattle Transit Blog to declare that the campaign was telling "a complete lie."

◀ would account for a higher proportion of a low income individual's monthly income, this alone does not constitute a high and adverse disproportionate impact," the report finds. Why not? "The analyses of the equity of tolling concluded that the effects would not be disproportionately high and adverse because there would be viable options for avoiding the toll either through alternate routes or by switching to transit."

In other words, the impacts on the poor are acceptable because they can take another route or ride the bus.

What is acceptable for the poor is, apparently, intolerable for everyone else. When Governor Gregoire encountered a question about any surface-street-improvement-plus-transit alternative to the tunnel, she called it "social engineering to push people to get out of their cars." But "social engineering" is totally acceptable if drivers are poor. On top of that, King County Metro is about to lose 600,000 bus service hours (unless the county council or voters take the unlikely step of passing a new $20 car-tab fee this fall). So there will be even fewer alternatives available.

Disgustingly, the pro-tunnel campaign leads its website with a photo of a Metro bus and states, "The project includes more frequent bus service to and from downtown." In fact, the project includes zero transit funding. The pro-tunnel camp's claims prompted Seattle Transit Blog to declare that the campaign was telling "a complete lie."

An earlier draft version of the state's report was blunt in saying that tolling "could have the potential of a disproportionately high and adverse effect on some low-income populations, especially those without access to transit or who are dependent on their cars." But that line was removed from the final document.

The project needs scaled tolling to meet its financing obligations because "a flat toll rate"—one that isn't higher at rush hour than any other time—"would not achieve our objective in financing the project," Paananen says. However, if voters pass Tim Eyman's Initiative 1125 this fall, all tolls must be even across the board. The state lacks a financing plan if that initiative passes.

New Problems They Can't Afford to Fix

The extra "several thousand vehicles per day" on downtown streets caused by tolling are unworkable and require some mitigation. "WSDOT has acknowledged that an acceptable long-term tolling solution should be sought to minimize the amount of diverted traffic," the report says, and a chapter dedicated to mitigation lays out those strategies. They include refining the tolling scale, giving transit priority, placing a "restriction on other modes of travel," optimizing right-of-way on city streets, and, most obviously, funding "enhanced transit services and vanpools." If you've ever heard of the surface/transit proposal, that basically describes it.

Paananen was asked twice: How much would that mitigation cost? He didn't know. Where would the money come from? "We have no specific source identified for a specific mitigation project," he said.

Follow the logic here: The state is saying the traffic diversion is so great that it needs *mitigation for the project to be viable*. But mitigating it will cost money (it has no idea how much), and there's no money in the budget for that mitigation. So without the money for what is essentially surface/transit/I-5, they don't have a viable project.

One other proposal is to seek additional revenue from a source other than tolling. That, of course, seems unrealistic; the legislature in 2009 capped its spending on the project at $2.4 billion and required another $400 million from tolling. In January 2010, Governor Gregoire told a forum hosted by the Associated Press, "We have a budget and we're going to live within that budget. That's all there is, there ain't no more." So, uh, the state seems like it's sticking with that budget. Even if it clearly won't work.

Comparing the Tunnel to Surface/Transit/I-5

Nobody is actually suggesting tearing down the viaduct and doing nothing—that would be ridiculous. Accommodations must be made for the cars, the trucks, the buses, the bicycles, etc.

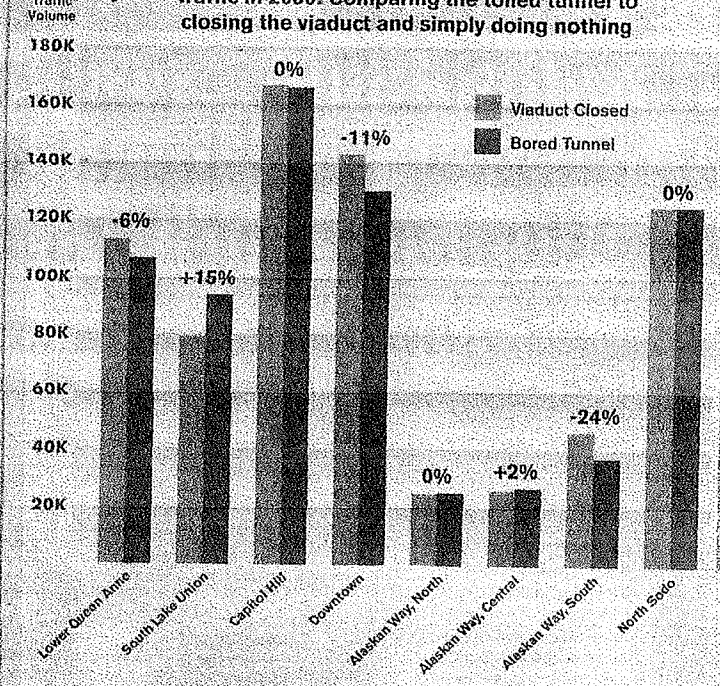
The surface/transit/I-5 option would tear down the viaduct, optimize capacity on downtown streets, add another northbound lane on I-5, and fortify transit service. The city and state studied this in 2008 and, at the city's insistence earlier this year, the state included further analysis in its latest report.

If we implemented surface/transit/I-5 (ST5), vehicles would bunch up at the north and south ends of downtown, but once they passed those points, they would flow more freely inside the city's core. The peripheral congestion would "effectively meter the volume of traffic" into the central business district, the state says. "This metering, combined with the expected redistribution of traffic outside the downtown area, yields reasonable level of service." Added vehicle capacity on Second and Fourth Avenues would also grant more capacity on downtown streets. "The analysis shows that travel times for representative trips within downtown Seattle would be similar, or in some cases shorter" with ST5 as compared to the tunnel.

Furthermore, the state studied traffic in dozens of downtown intersections and dished out grades ranging from A to F. The result was that a tunnel resulted in 25 intersections with a perfect grade, while ST5 resulted in 32 intersections with a perfect grade. Likewise, ST5 had only 16 intersections that received an F grade, while a tunnel produced 19 intersections with an F.

A report this June by Nelson\Nygaard, a transportation analysis commissioned by the city, explained that the worst intersections in the present year are near highway on- ▶

Page 2



◀ rently use the viaduct will divert to surface streets to avoid those tolls, causing "traffic to shift to I-5 and city streets."

Daily traffic along the central portion of the waterfront—north of Seneca Street—with a tunnel would be 25,700 vehicles. If we close the viaduct and do nothing, that number actually drops to 25,300 vehicles a day. Likewise, there would be 100 fewer cars per day north of Pine Street on the waterfront if we did nothing. Again, the selling point for a tunnel has long been that it will protect us from swarms of vehicles clogging the downtown waterfront. But that's clearly not what the state found. The only place along the waterfront where traffic is lighter with a tunnel is south of King Street, where traffic is 20 percent lower. But that's both south of downtown and south of the tunnel (and the tolls).

To show we're not just "picking out numbers," let's look at I-5. Governor Gregoire has insisted that failing to build a tunnel "creates literally a parking lot on I-5." But what do the state's data show? In 2030, after the tunnel has been open for 15 years, the tunnel would result in 281,000 vehicles a day on I-5 north of Seneca Street, while closing the viaduct and doing nothing would result in only 0.8 percent more traffic, or 283,200 vehicles. South of SR 520, traffic would drop by 0.04 percent if we did nothing. Just south of the I-90 interchange, traffic volumes would be higher on I-5 if we did nothing, but by only 1.8 percent. These differences demonstrate that the tunnel does not, in fact, buy us an unfettered I-5. It will be jammed regardless.

Now let's look at the tunnel's impact on surface streets in the downtown grid. If the tunnel opens on time in 2015, nearly two-thirds of the vehicles that currently use the viaduct (approximately 70,000 of the 110,000) will switch to surface streets and other routes. The state used that estimate in a preliminary report last October, but for its final report has switched to measuring effects on traffic in 2030 instead of 2015 (I'll explain why later on). How will the diverted traffic from the tunnel affect downtown? These are vehicle volumes in crossing various streets, comparing the tolled deep-bore tunnel to, again, closing the viaduct and doing nothing:

- Thomas Street in South Lake Union: 15 percent more traffic with a tunnel.
- King Street in Sodo: 0 percent difference.
- Seneca Street in Capitol Hill: 0 percent difference.
- Seneca Street downtown: 11 percent less traffic with a tunnel.

This last instance is the *only* case I found where a section of downtown bore significantly fewer vehicles with a tunnel than with closing the viaduct and doing nothing. Ten percent less traffic on Seneca Street is something, but it's only one of roughly a dozen gauge points, and it's scant improvement considering the $3.1 billion price tag.

As the state points out, the tunnel's advantage is that it facilitates an additional 38,000 to 45,000 vehicles a day under downtown (or 57,000 vehicles by 2030, if WSDOT's prediction of increasing traffic holds true, despite reports that traffic is actually declining). Bypassing downtown in the tunnel would save drivers—those who can pay the $9 rush-hour tolls—from the snarl of traffic up above. However, the tolled tunnel is among the worst-performing options of everything the state studied.

The 38,000 to 45,000 vehicles a day under downtown is roughly the same added capacity as one ordinary four-lane street. In other words, the state estimates the tunnel will carry about as many cars as 15th Avenue West, Montlake Boulevard Northeast, or Fairview Avenue North. That's not much capacity considering that $3.1 billion could, for instance, fund light rail to West Seattle and Ballard (Portland's entire light-rail network was built for $3 billion; its current 7.3-mile extension will cost $1.5 billion). Speculation aside, it shows that Governor Gregoire's repeated threats that failing to build these extra four lanes would result in complete downtown gridlock don't hold up. Now that we have hard data, the truth is that traffic on most downtown streets and on I-5 would be just as bad whether we built the tunnel or just closed the decrepit old viaduct and cut our losses, and some parts of downtown and I-5 traffic would improve without the tunnel.

Tolls: $9 Round-Trip

The tolls would be highest when people most want to take the tunnel—rush hour. The cost would peak at $4 northbound and $5 southbound. The state acknowledges that's too expensive for some drivers.

"While toll payment, by definition, ▶

It's Official: Downtown Traffic After the Multibillion-Dollar Tunnel Would Be Nearly Identical to Shutting Down the Viaduct and Doing Nothing

The Surprising News Inside the Gazillion-Page Environmental Impact Statement

By Dominic Holden

Without the deep-bore tunnel to replace the Alaskan Way Viaduct, we'd "transform the waterfront into a choked boulevard." Without the tunnel, we'd "wreak havoc on city streets." Without the tunnel, we'd have "gridlock."

These are the talking points of Let's Move Forward, the pro-tunnel campaign that's asking voters to approve a referendum on the tunnel in August.

But are they right?

Short answer: no.

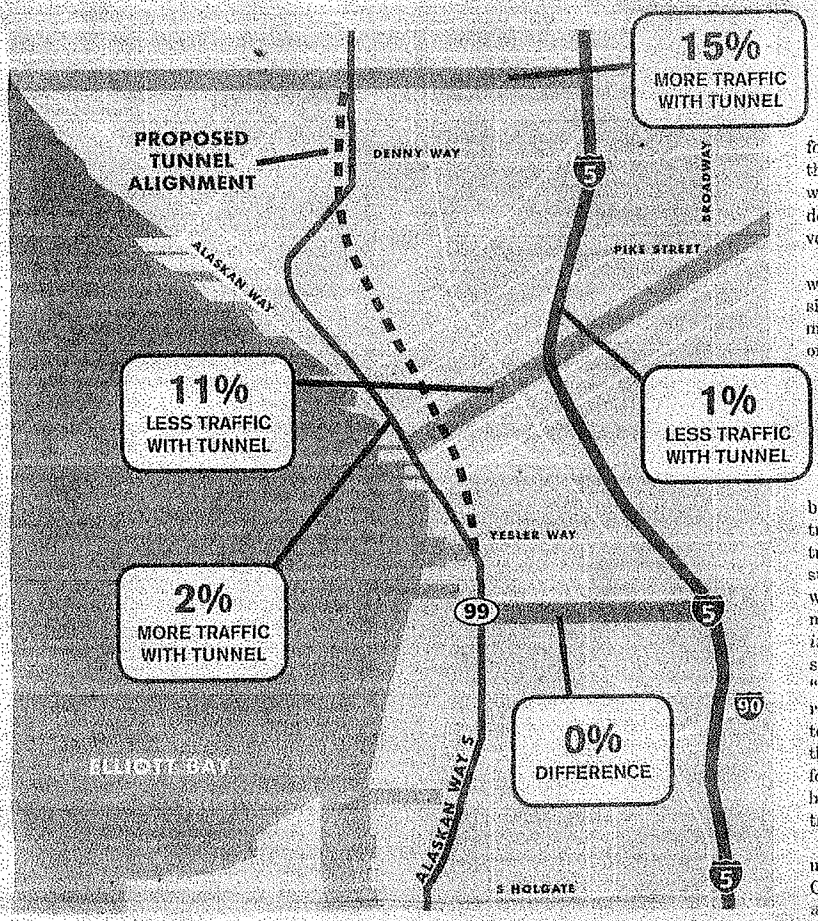
The day after the release of the final environmental impact statement on the tunnel, I'm sitting in a dull-gray conference room across from government officials. Below us is the elderly Alaskan Way Viaduct, cracked and crumbling away in a waterfront hospice. We're laboring through the same play we've all performed before: one reporter each from the *Seattle Times*, the *Daily Journal of Commerce*, *The Stranger*, and Seattlepi.com. Also in the cast: the guy from the Washington State Department of Transportation who talks a lot, the guy from the Federal Highway Administration who talks a little, and three female assistants who don't say anything unless one of The Men doesn't know the answer.

It is my job at these state-sponsored briefings to ask difficult questions—like "Is it worth the $4.2 billion price tag?"—and it's the job of Ron Paananen, director of the state's Alaskan Way Viaduct Replacement Project, to pretend he doesn't know what I'm talking about.

That $4.2 billion bill includes roughly $3.1 billion managed by the state (for the viaduct replacement) and another $930 million managed by the city (for utility relocation). To pay the state's bill, the 1.9-mile, four-lane tunnel would charge a toll—making it the only tolled roadway downtown. The tunnel would also lack downtown exits, further reducing the number of users and diverting drivers to other routes.

I ask Paananen something like, "In the final environmental impact statement [EIS] released yesterday, it indicates that downtown traffic volumes will be equally bad on the waterfront, I-5, and downtown streets regardless of whether we build a $3.1 billion tunnel or close the viaduct and do nothing. So why is the tunnel the state's preferred option?"

"I don't really believe that is what the EIS says," Paananen says. "You may be picking out numbers that suggest that."



LITTLE DIFFERENCE *Comparing the proposed tunnel to closing the viaduct and doing nothing. The state reports that traffic volumes will be similar, negligible, or identical.*

Am I just picking out numbers? Well, yes, to a degree. The report is so voluminous that you've got to pick out numbers—the numbers that *matter*.

The report has more pages than a Bible and sits on top of appendices A through X, including some appendices that come with over 250 exhibits. Printing it on paper would require the wood pulp of seven Amazon Basins. In all, the federally mandated definitive analysis of how this massive transportation project would serve our travel needs and affect everything nearby (streets, freeway lanes, historic buildings, archaeological sites, cyclists, pedestrians, poor people, cars, lungs, salmon, etc.) is thousands and thousands of pages (not even the state knows how many). The cost of researching and writing it was "in the $100 million range," Paananen says. And federal and state officials are required by law to use it, in theory, to decide whether to proceed with the $3.1 billion project.

You're the one paying the bill on this project. You deserve a sense of what you're gonna be voting on.

Nobody will have time to read the whole thing before the Federal Highway Administration formalizes its approval within a month. The media briefing was held on a Friday, so the report hit with as little impact on news cycles as possible. However, the preferred option was changed between the draft report released last year and this final report, from an untolled tunnel to a tolled tunnel, so there are additional impacts to consider. I've read as much as I can, peppered the state officials who run the project with questions, listened to their evasive answers—and now I'm here to make sense of it for you. After all, you're the one paying the bill on this project and there's a citywide vote on the tunnel in August. You deserve a sense of what you're gonna be voting on.

Let me add that I'm not impartial: I was looking for information and conclusions that the Washington State Department of Transportation *didn't* highlight or suss out. The data are there; the state just doesn't connect the dots. If you want the Pollyanna analysis, read the state's press release that declares this will "increase mobility."

I don't trust the state's rosy analysis, and neither should you: The number one revelation from this report is that traffic along the downtown waterfront, traffic on I-5, and traffic on downtown streets will be almost identical whether we construct a $3.1 billion deep-bore tunnel or close the viaduct and build *nothing*. And that's not even talking about surface/transit/I-5—also merely called "surface/transit"—a proposal to optimize roadways and provide better bus routes to improve mobility. (For what it's worth, the report shows surface/transit/I-5 performs better or is on par with the tunnel by nearly every metric—and surface/transit/I-5 is cheaper.)

The prediction that a tunnel will save us from a "stalled city," as Governor Chris Gregoire claimed, is wrong. Using a data-driven model, this report shows that a tunnel is as bad for downtown thoroughfares as simply shutting down the elevated highway and cutting our losses. The claim that surface/transit/I-5 creates "gridlock," as pro-tunnel campaign Let's Move Forward keeps prattling, is also wrong. And this report proves it.

Traffic Forecasts: Comparing the Tunnel to Doing Nothing

The stack of information starts with a digestible 36-page summary—let's start there. Traffic projections for 2030 assume all drivers using the tunnel will have to pay a toll ($9 round-trip at rush hour), because the legislature decided in 2009 that $400 million in tolling was required to pay for the project. As you can imagine, and as the report confirms, most drivers who cur- ▶

ARTICLES OF EVIDENCE

PART II "How disabled people become productive members of society."
An engineering-aspect analysis of the Columbia River Crossing I-5 Bridge Replacement Project to demonstrate similarities between it and Seattle area highway, street reconfiguration & mass transit projects.

Part II more specifically regards this bi-state bridge replacement project shortcomings as most likely the fault of Wsdot planning and practice as the CRC Commission lead agency. The CRC & Seattle DBT shortcomings may be the result of a similar planning process. The State of Washington may be pulling rank over specific CRC proposals devised by ODOT for Oregon in effect a possible "State's Rights" issue.

Testimony in words and maps to explain two CRC Commission bridge design options that were studied but questionably rejected: The 2008 proposal for a single-deck bridge in the Southbound-only direction with MAX/ped/bike lanes (historic bridges remain to serve Northbound travel), and the ODOT 2010 Concept #1 Off-island Access.

Testimony to indicate general culpability of public transportation, transit and city planning agencies, their Directors and various department heads: Wsdot, City of Seattle DOT, Seattle Metro & Sound Transit Agencies and CRC Commission members.

"How disabled people become productive members of society" PART II

On the following page the artist rendering "Bridge Faces A Wide Gulf" was published in the Portland Tribune in 2008. Why was this evidently low-cost bridge rejected? Why was its single-deck design replaced with a double-deck design when river clearance height for navigation was a concern at the time? Why was its MAX/ped/bike lanes design rejected when it offers emergency vehicle access in worst accidents?

In 2010, ODOT devised Concept #1 Off-island Access but it received little public attention nor fair review during its 3 months on display at public meetings. These two proposals together form the basis of a CRC feasibility study required but not yet conducted. Part I shows how Wsdot planning & practice produced potentially catastrophic controversy in Seattle. Part II shows how Wsdot & Port of Portland planning & practice produce similarly objectionable outcomes.

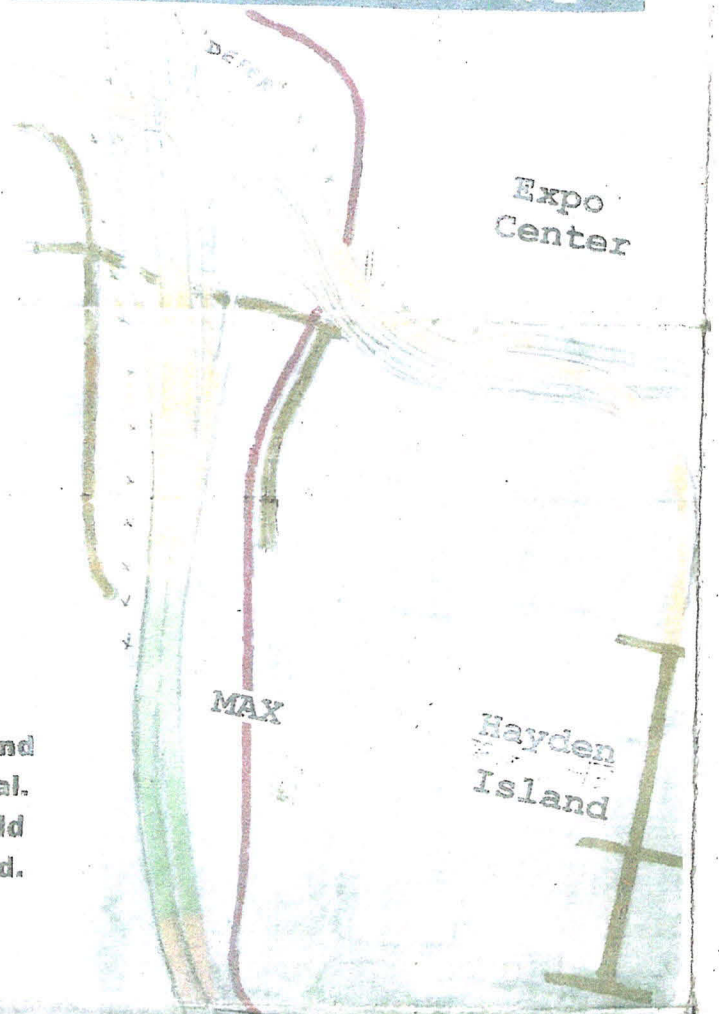
IPS CONCEPT #1

Concept #1 plus Southbound I-5 only

These are inexpensive options for the CRC project. More savings are possible if the North Portland to I-5 (north) flyover is deferred.

The State of Washington has other expensive highway projects to deal with: the Alaskan Way Viaduct and the SR520 floating bridge.

Let I-5 completely pass Hayden Island to maximize redevelopment potential. The neighborhood wish is to not build port facilities on West Hayden Island.



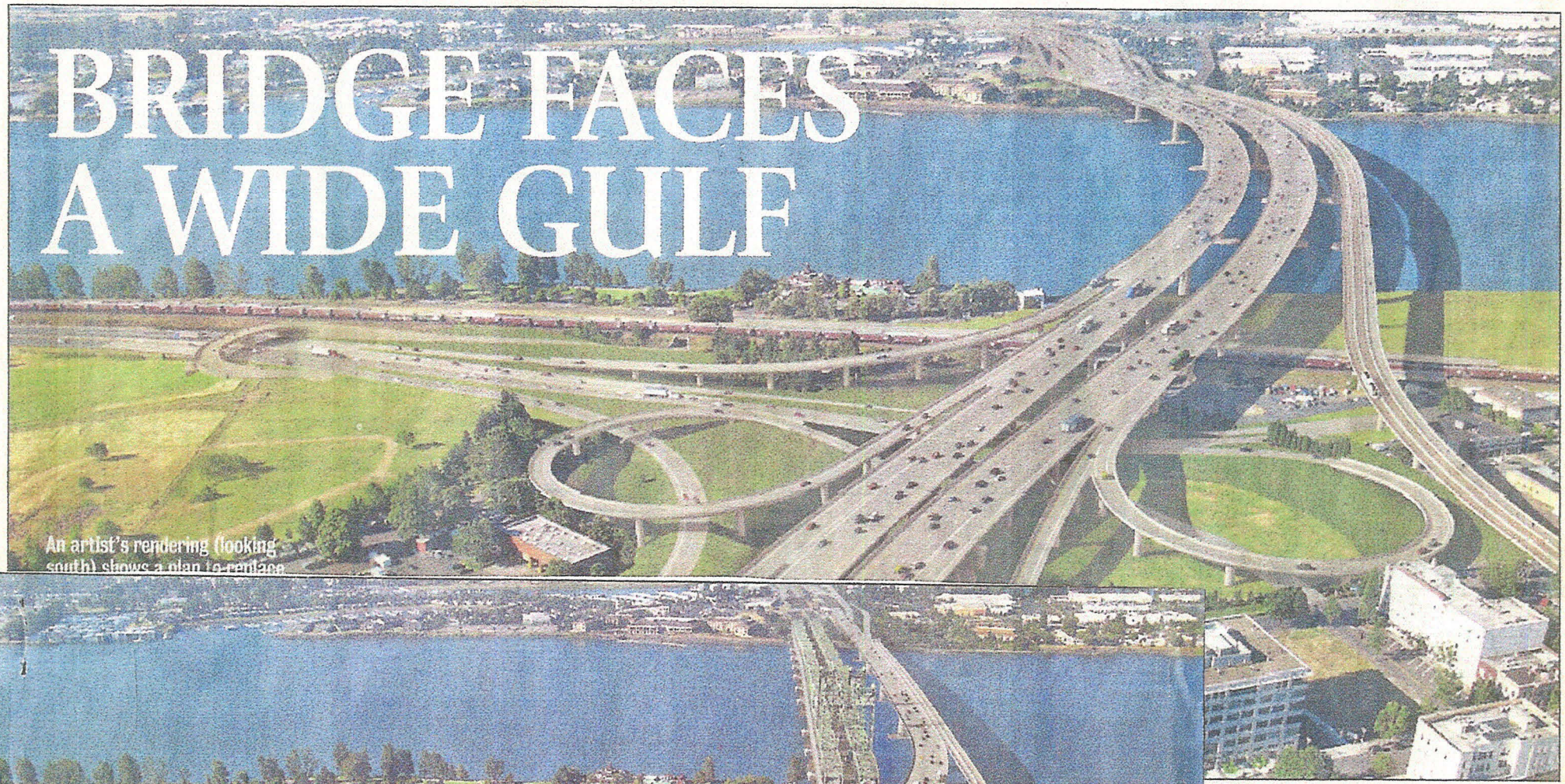
CONCEPT D

Innovations in Rail & Land-use planning

The LOTi Project

THE SEATTLE CIRCULATOR PLAN

BRIDGE FACES A WIDE GULF



An artist's rendering (looking south) shows a plan to replace

river crossing plan

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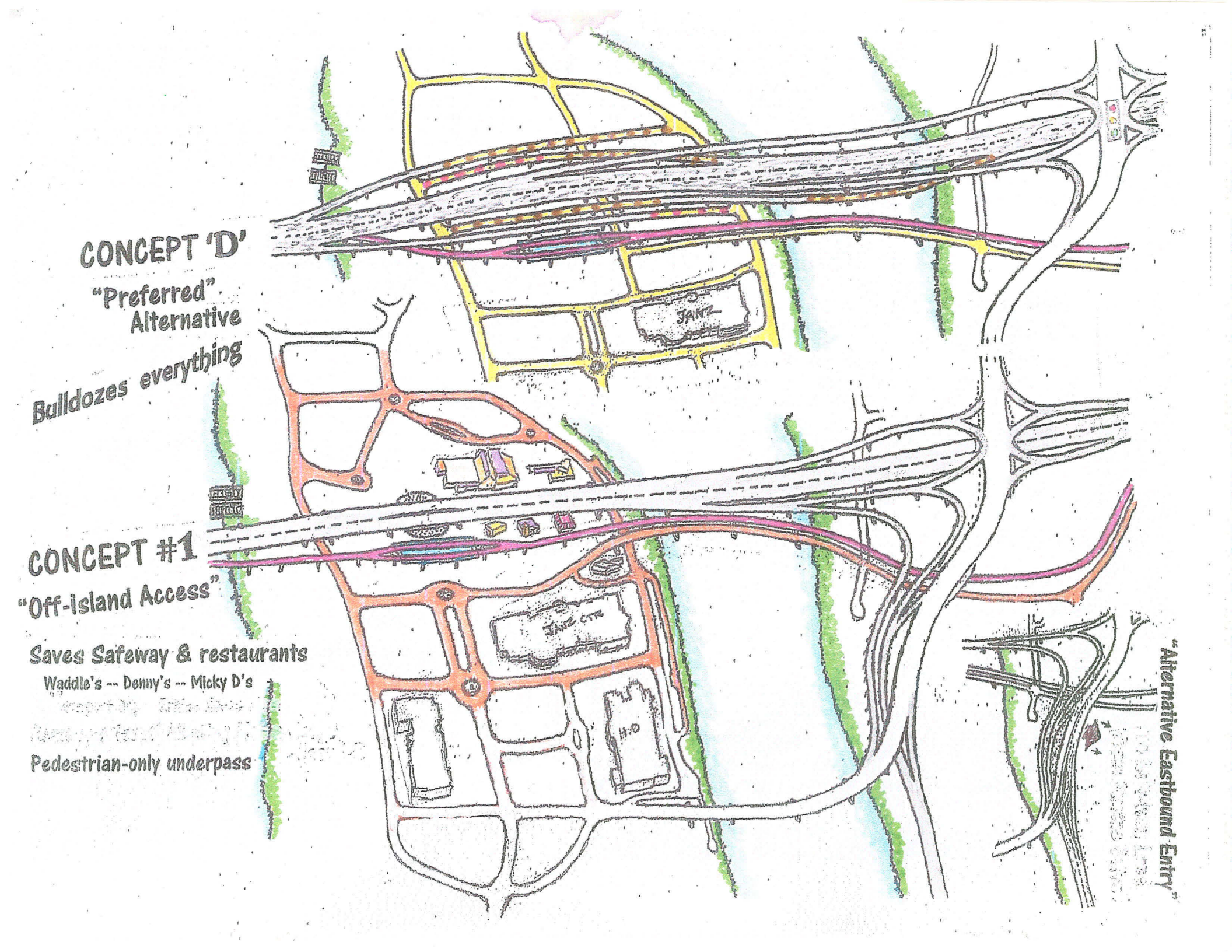
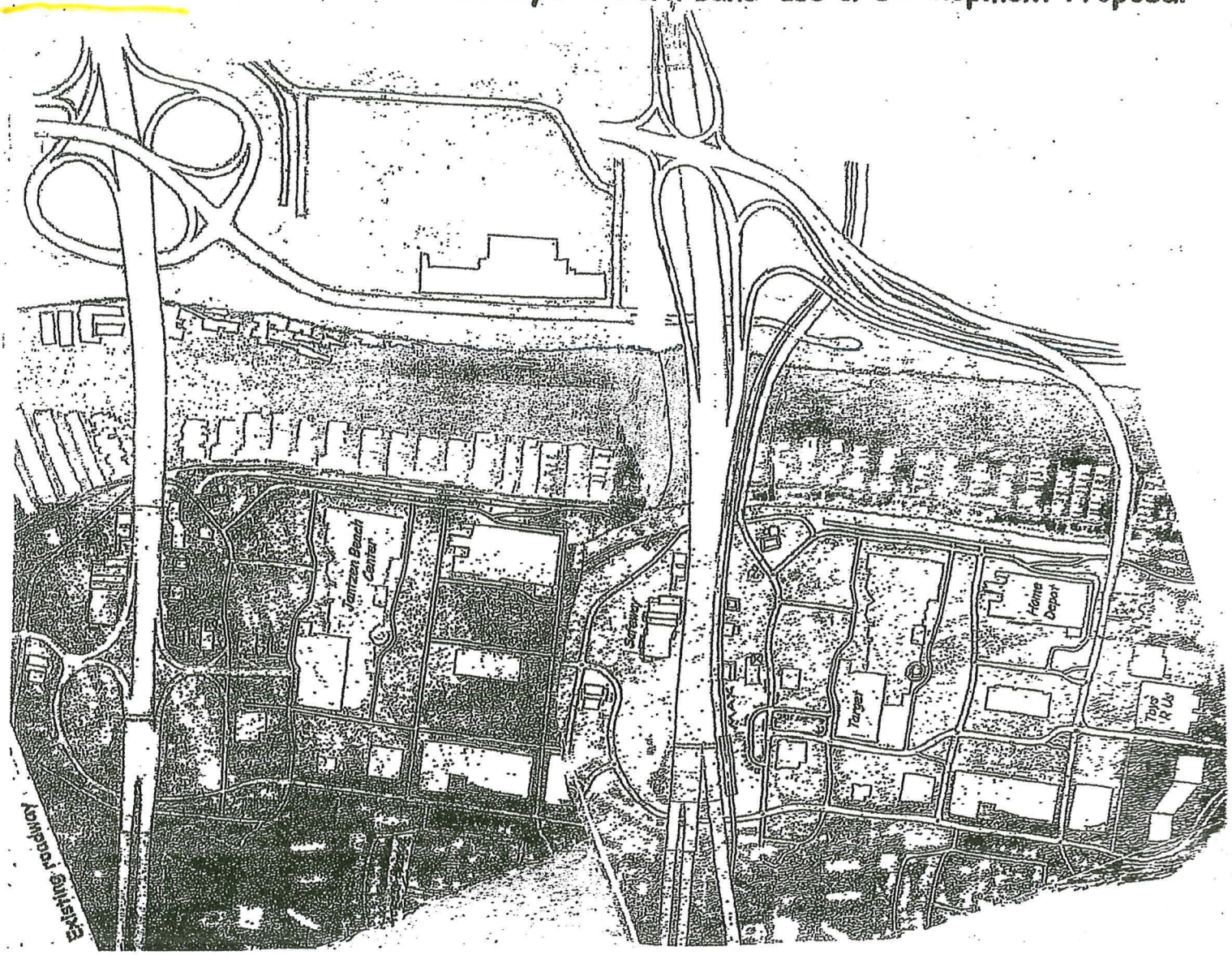
Even the Portland City Council has taken a stand, saying it will only support an option that includes a new light-rail line to Vancouver.

Rex Burkholder, a Metro Council member serving on the 39-member Columbia River Crossing Task Force that developed the five options, isn't surprised people didn't wait for the release of the study before making up their minds.

See BRIDGE / Page 2

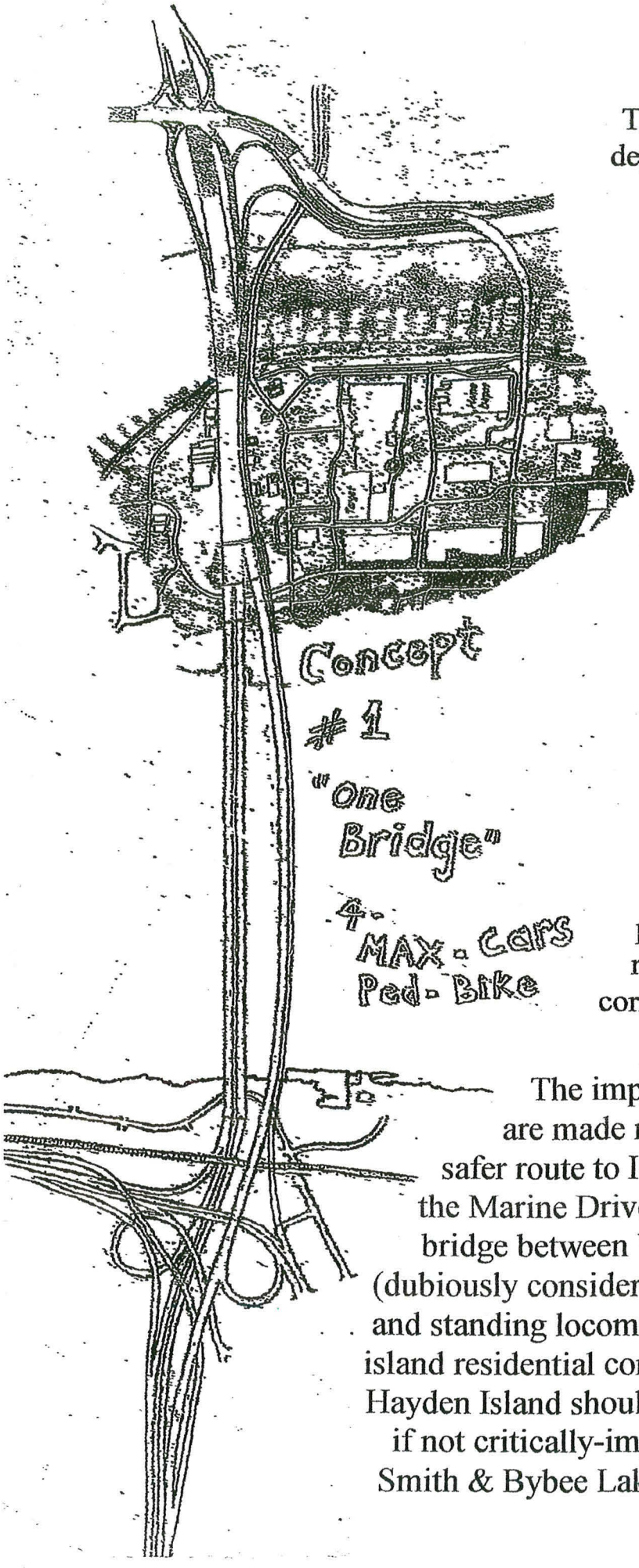

CONCEPT 'D'
"Preferred" Alternative
Bulldozes everything
CONCEPT #1
"Off-Island Access"
Saves Safeway & restaurants
Waddle's -- Denny's -- Micky D's
Pedestrian-only underpass
"Alternative Eastbound Entry"

Concept #1 Hayden Island Roadway Network Land-use & Development Proposal



Note how the current Marine Drive interchange is poorly arranged and how the new interchange is respectable as well as approved. New freeway entrances are downhill with better visibility thus safer, more energy efficient and quieter. Why delay constructing this interchange? The Concept #1 option pushes Marine Drive further south into the Expo Center parking lot which would improve shoreline habitat and industrial operations.

Two maps of North Portland show existing UPRR & BNSF Railroad track. Note how the UPRR track is extensive while BNSF track is comparatively underdeveloped. This leads to my contention that an oval-track and marine terminal facility is more ideally located on the BNSF line in North Portland east of Kelley Point Park thus the Port decision to oppose the Concept #1 Off-island Access option is in question.



These renderings show improved detail to depict dangerous exit-ramps and polluting, noisy on-ramps of Concept D and show how Concept #1 offers much safer access to Hayden Island from the new Marine Dr interchange. Also here is my rendering of a "Hayden Island Roadway and Development Proposal" combined with a Southbound-only bridge design. A close-up version is also shown alongside a depiction of current roadway conditions.

- ON NEXT PAGE -

The Port of Portland decision to oppose Concept #1 is in question. Their legitimate concern that Hayden Island traffic could overrun the new Marine Drive interchange was based on the construction of a new marine terminal dock on West Hayden Island. However, locating an oval-track there presents a severe impediment to existing rail operations on this Main Line railway corridor, especially in accident-prone turns.

The impacts of existing industrial truck traffic are made more manageable with the indirect but safer route to I-5 via the Concept #1 access bridge to the Marine Drive interchange. Even with the proposed bridge between West Hayden Island and Marine Drive (dubiously considered optional), diesel fumes from trucks and standing locomotives will daily blow east through the island residential community and commercial center. West Hayden Island should also be considered a complimentary if not critically-important habitat component to adjacent Smith & Bybee Lakes Nature Preserve in North Portland.


Columbia River
BNSF
N Marine Dr
Columbia Slough
Bybee Lake
Smith Lake
SMITH & BYBEE LAKES N.R.M.P.
UPRR
N Lombard St
Pier Park

West Hayden Island Marine Terminal & oval-track rail facility
CRC Commission member Port of Portland based their decision to support the CRC on a new marine terminal on West Hayden Island. More specifically, the Port of Portland opposes the 2010 ODOT Concept #1 (off-island access) claiming it can't handle combined Hayden Island and Marine Drive traffic.

Concept #1 is an ODOT-devised alternative publicized in 2010 where access to Hayden Island is via the new Marine Dr interchange with No ramps directly at I-5. Traffic noise and sight can be ameliorated, air pollution reduced, Island property value increased. Concept #1 is the safest access, yet the desperately needed Marine Drive interchange replacement has been deferred purportedly to cut costs.

However, our most effective investment for new rail facility is NOT on Hayden Island. An oval track railway on West Hayden will inhibit existing use of the BNSF Main Line and be severely problematic in an accident. The more ideal site for such an oval track and deep water dock is off Marine Drive east of Kelley Point Park. At this site the branch line connection is ready, automobile off-loading & storage is ready, and most interesting, North Portland railway branch lines between Marine Drive and Columbia could be connected with a short rail bridge over the Columbia Slough, liftable if necessary.

Unpublished letter to the Oregonian Sept 2011

The Sunday Oregonian's bold headline "The CRC will bring SAFER access to Hayden Island" stretches the truth. Statistical accident rate & severity is much worse. Both exits onto Hayden Island are downhill which increases stopping distance. Exiting traffic must come to a complete stop at a "T" with forced turns. Stopped traffic backs up while waiting for traffic entering the freeway to pass. Faster freeway speeds lead to faster exiting onto less visible downhill ramps with backed-up traffic and little emergency escape space.

The Hayden Island interchange design creates a pair of extremely dangerous bottlenecks. The Hayden Island interchange design is NOT SAFE for motorists nor pedestrians as air, water, noise, land-use redevelopment potential and island traffic management overall are worse than existing ramps and alternative designs.

I recommend a fair public review of the CRC Commission's own Concept #1 Off-island Access alternative (hinted in the article) plus building ONLY the Southbound Bridge while using both existing bridges for northbound lanes. The eventually built Northbound Bridge does NOT need a lower deck. Being lighter, it can be an elegant ~~cable stayed~~ above-deck design to complement the utilitarian ~~stressed truss~~ single-deck of the southbound bridge. (Letter submitted before the river height clearance issue came to public attention).

This phased approach to the CRC project sets up a traffic pattern that necessitates further study of northbound interchange designs in Washington State, most likely reducing costs, but more important, achieving higher safety standards.

Columbia River Crossing will bring safer I-5 access to Hayden Island, but at the price of displacing homes, businesses, residents and jobs

By JEFF MANNING
THE OREGONIAN

On the docks of Jantzen Beach Moorage, looking out over the silent blue-green current of North Portland Harbor, the roar of I-5 fades.

The harbor, which separates Hayden Island from the Oregon mainland, is home to one of the largest collections of floating homes on the West Coast. Drawn by the powerful pull of the water, some of these proud river rats, as they call themselves, have lived here 20, even 30 years and say they wouldn't live anywhere else.

But change is looming.

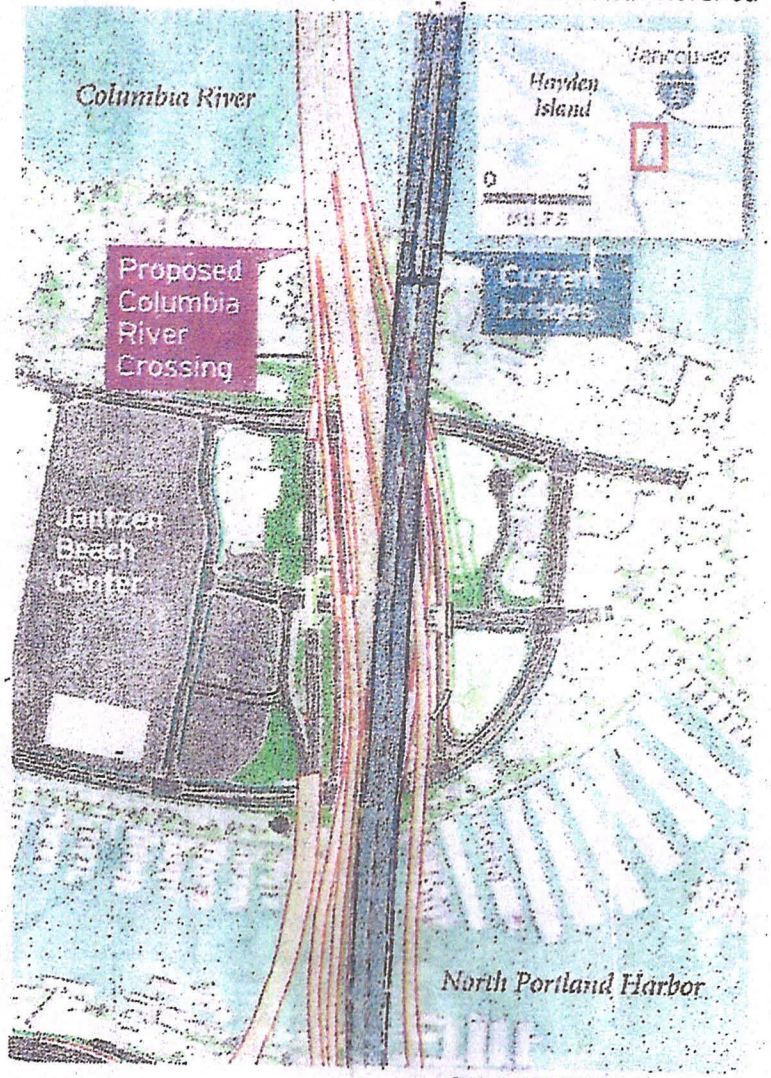
Thirty-five floating homes sit directly in the path of the Columbia River Crossing, the big bridge-freeway expansion. The CRC intends to forcibly buy out the locals as construction nears, a plan that inspires resistance, resignation and hope that the project is derailed by its considerable funding woes.

Sherry May, 65, stands to lose the home she's lived in since 1986. "I'm in the firing line," she said. "My fear is that Hayden Island will become a concrete pad; and this magical place will be gone."

For most Northwesterners, the CRC remains an abstraction, a symbol of painful progress or big government run amok, depending on their politics. To Hayden Island's 2,270 residents, it's a life-altering reality.

Hayden Island interchange

● Cost: $575 million+ ● 450 feet wide ● Up to 45 feet high
● 17 lanes ● 35 homes displaced ● 39 businesses demolished



DAN AGUAYO/THE OREGONIAN

The CRC plans one of its largest, most expensive and controversial sections across the island's midsection. The existing freeway is to be replaced by a 17-lane behemoth that will stand up to 45 feet high and 450 feet wide. The CRC estimates the Hayden Island interchange will take more than five years to build. Early estimates put the cost at between $575 million and $650 million, making it the most expensive element in the five-mile, $3.1 billion project other than the new Columbia River bridges.

In addition to the 35 floating homes in harm's way, 39 businesses, including the one full-service grocery store and pharmacy, are slated for acquisition and demolition.

The scale of the project generates high anxiety on the island that has never completely died down, despite years of negotiation and outreach and several significant and expensive concessions by the highway builders.

"We're ground zero," said Roger Staver, a longtime resident and former head of the island's neighborhood association. "If things are not put back together properly, this island will never be the same."

Please see HAYDEN, Page A17

Hitachi Zosen, Feb 15th, 2013

I believe your company must perform a 'private' hydrological study of the soil conditions through which the deep bore tunnel will pass beneath the city of Seattle Washington.

I am duty bound to inform you that significant evidence suggests Washington State Dept of Transportation (Wsdot) did not perform due diligence on numerous studies to arrive at the decision approving the bore tunnel option.

The evidence strongly suggests the soil type and condition will result in destabilization of historic and modern building foundations above if the bore tunnel is installed as planned. Damage to buildings is certain, Forced Demolition and actual Building Collapse in earthquake are probable as Seattle sits atop a major east/west earthquake fault line. Replacement buildings too face the same destabilizing affect permanently. The Seattle seawall rebuild plan also allows seawater to permeate through and upon reaching the bore tunnel compound destabilization.

The 'stacked' cut-cover tunnel/seawall in the FEIS can improve soil stability and manage traffic better than the bore tunnel. City of Seattle Dept of Transportation (Sdot) street reconfiguration plans "Mercer West" and the new Alaskan Way boulevard designs are woefully engineered.

Please forgive me for being the bearer of bad news. The Seattle deep bore tunnel will be a catastrophic failure! Matters of this nature of course must be handled tactfully but the only reasonable excuse is Criminal Incompetence on the part of Wsdot and Sdot Directors and department heads. I understand the City of Los Angeles has expressed interest in obtaining a bore tunnel of this type to install in more suitable conditions. Please regard this letter a fevered but sincere warning of dire peril and disaster. Thank you.

Arthur Lewellan
Portland Oregon
Author, "The Seattle Circulator Plan"

Dear Mr. Lewellan:

Thank you for contacting the Columbia River Crossing project with your comments and questions regarding design of the Hayden Island interchange.

The Project Sponsors Council (PSC) charged the Integrated Project Sponsors Council Staff (IPS) with developing concepts for a re-designed interchange on Hayden Island, including both a refined on-island interchange, as well as a design that would remove the interchange and provide alternative off-island access. The IPS asked a group of island stakeholders, including representatives from HiNooN, the Hayden Island Livability Project, the Portland Working Group and island businesses, to partner with staff from the City of Portland, Metro and CRC to evaluate the interchange concepts for Hayden Island. The stakeholder group met twice a week for several months to study design options. The options were evaluated using a wide range of criteria including:

- Mobility and Connectivity - Community and Design Benefits
- Land Use and Development - Schedule - Environmental Challenges - Cost

There was extensive public involvement and review in the access evaluation process. In addition to bi-weekly meetings with the community, the design options were presented at three open houses. Island residents and business interests expressed significant concern with Concept 1. They strongly felt that removing the interchange from the island did not support the vision of the Hayden Island plan and would greatly hinder redevelopment of the SuperCenter site and other island businesses.

Concept 1 also was not a low-cost solution. It was more expensive than the on-island interchange options for a variety of reasons:

- Increased property impacts to the floating home community and business interests along the south side of the harbor
- Increased new piers in North Portland Harbor (10 more than the LPA option)
- Increased structures over North Portland Harbor (1 more than the LPA option)
- A longer construction period, primarily because of additional in-water work.

After months of design and public process, there was clear support for Option D from the IPS, project sponsors, and the Hayden Island and north Portland community. The Project Sponsors Council unanimously supported moving forward with this option at their August 9 meeting.

You also asked why the project is not considering building a supplemental bridge to carry south bound I-5 traffic and transit over the Columbia River. This alternative was studied in the Draft Environmental Impact Statement and was dropped from consideration for several reasons.

Though a supplemental bridge could be built tall enough to eliminate the need for a bridge lift, northbound traffic on the existing bridges would still be subject to lifts. Bridge lifts contribute to a high collision rate on I-5. Crashes occur three to four times more often during a bridge lift as I-5 traffic unexpectedly comes to a stop. This is one of the problems the CRC is working to address, so building a bridge that only eliminates lifts for one direction of traffic would not help address the project's purpose and need.

This area of the Columbia River is already difficult for barges to navigate especially during periods of high water flow. Another bridge similar to the existing bridges would add more piers in the water, which increases the navigation complexity. In addition, the existing bridges need to be upgraded to meet current seismic standards if they remain in use. The upgrades would require the piers to be reinforced with a concrete encasement. Pier encasements would increase the diameter of each pier by 10 to 40 feet, which would reduce the space between piers for marine traffic. When traveling downstream, barge captains attempt to avoid calling for a bridge lift by traveling under the high portion of the Interstate Bridge and then turning to the right to access the lift span on the railroad bridge. An additional bridge combined with the seismic upgrades on the existing bridges would make this maneuver more difficult and, as a result, would lead to more bridge lifts.

Thank you for your continuing interest in the Columbia River Crossing project.

Sincerely,

Maurice Hines

Columbia River Crossing

Hayden Island Design Group

Memorandum

August 4, 2010

TO: Project Sponsors Council

FROM: Hayden Island Design Group

SUBJECT: Hayden Island Design Group Recommendation

Recommendation:

- **Option D is recommended to be pursued as a replacement for the current LPA** because it provides the basis for a broad community consensus, including:
  - the neighborhoods on the Island and around Bridgeton,
  - the business and commercial interests on the Island and along North Portland Harbor, and
  - the heavy freight users of the Marine Drive interchange.
- Further consideration of Options A, B, C should be deferred.
- However, there is further **due diligence** required to address outstanding design, environmental, cost and NEPA/permitting issues; some of these need to be addressed in the very near term while others will be addressed as the overall project is developed through final design.
- To address these issues, the Hayden Island Design Group proposes to stay engaged and seeks the continuation of the **collaborative design environment** accomplished over the past several months.

Option D Benefits?

- Improves freight mobility by separating local traffic between the Mainland and Hayden Island from the Marine Dr. interchange and provides an alternate local bridge for this traffic connecting Hayden Island to the Bridgeton/Expo street network where truck movements are minimal.
- Provides direct freeway access from I-5 to Hayden Island.
- Provides alternate local bridge access on/off island with local street connections to Kenton and thru Bridgeton area to Martin Luther King Blvd.
- Creates an effective connection from Bridgeton to Hayden Island services.
- Local bridge provides alternate routing for emergency vehicles to the island.
- Improves safety by eliminating the weaving from the ramps between I-5 and Hayden Island Drive to the Marine Drive ramps to/from the north.
- Helps separate local traffic from regional/interstate traffic.
- Supports short-term and long-term redevelopment proposals of the SuperCenter; sets the stage for a grid network of local streets.
- Facilitates LRT station area development opportunities consistent with the 2040 Growth Concept and Hayden Island Plan.
- Provides a decrease in total structure width (across Tomahawk Island Drive), potentially increased light penetration, and raises depth of Tomahawk Island Drive vs. Refined LPA.

360/737-2726 503/256-2726 WWW.COLUMBIARIVERCROSSING.ORG 700 WASHINGTON STREET, SUITE 300, VANCOUVER, WA 98660

- Allows for the phasing of the Marine Drive NB Flyover and SB Braided Ramp.
- Compatible with Hayden Island Plan and Marine Drive Stakeholder recommendations.

Option D Design Issues:

Overall

- Further develop design character of LRT/local street bridge (ZGF, PBAC and PWG work)
- Further define bike lane/trail/sidewalk system throughout; ensure pedestrian, scooter, wheelchair access; define connections to regional bike route, sidewalk and trail system
- Option D has more piers in the water than the LPA and more work should be done to evaluate Harbor bridge design options to reduce piers in the water.
- Option D may cost more than the LPA and more work should be done to refine designs to reduce cost.
- Review and refine specific lane configurations throughout – mainline, ramps, local streets
- Determine if LRT to Hayden Island and local bridge can be an early phase to be used for construction mitigation (CRC project design)

Hayden Island

- Consider moving Jantzen Drive slightly north to maximize future waterfront opportunities on the island's south shore
- Investigate changes to lower height of Marine Drive NB on-ramp
- Finalize access issues for street network surrounding Hayden Island Interchange, including access to Jantzen Beach Moorage and Columbia Crossings; revise Interchange Area Management Plan (IAMP) accordingly.
- Reflect the narrower loop road on Hayden Island per LPA Refinement (coordinate with IAMP process. Check in with PBAC and PWG).
- Further develop the character of Tomahawk Island Drive under I-5 (PWG).
- Define orientation of streets/sidewalks toward the waterfront on Hayden Island north and south shore.
- Further develop LRT station area, including LRT and street profile and alignment across Hayden Island (elevated vs. at-grade) and surrounding public spaces and private development concept (PWG).

Marine Drive/MLK Area

- Finalize local street configuration thru Bridgeton area, including disposition of "old Marine Drive" (review of configuration options with check in at Freight Working Group, PBAC and PWG)
- Finalize bike/trail routing (PBAC); consider trail connection from Bridgeton Trail to Hayden Island on east side of I-5

Lombino & Martino Law Firm, **Feb 9th, 2013**

Enclosed is a report regarding my case **file #607-071** in three parts:

Part I - "How disabled people become productive members of society"
An essay describing my advocacy for mass transit in Portland and Seattle.
And a critical report on the Seattle Deep Bore Tunnel (DBT) project and related street reconfigurations "Mercer West" and Alaskan Way.

Part II - "Articles of Evidence" regarding the bi-state Columbia River Crossing I-5 Bridge Replacement project which place blame for its shortcomings primarily on Wsdot and the Port of Portland.

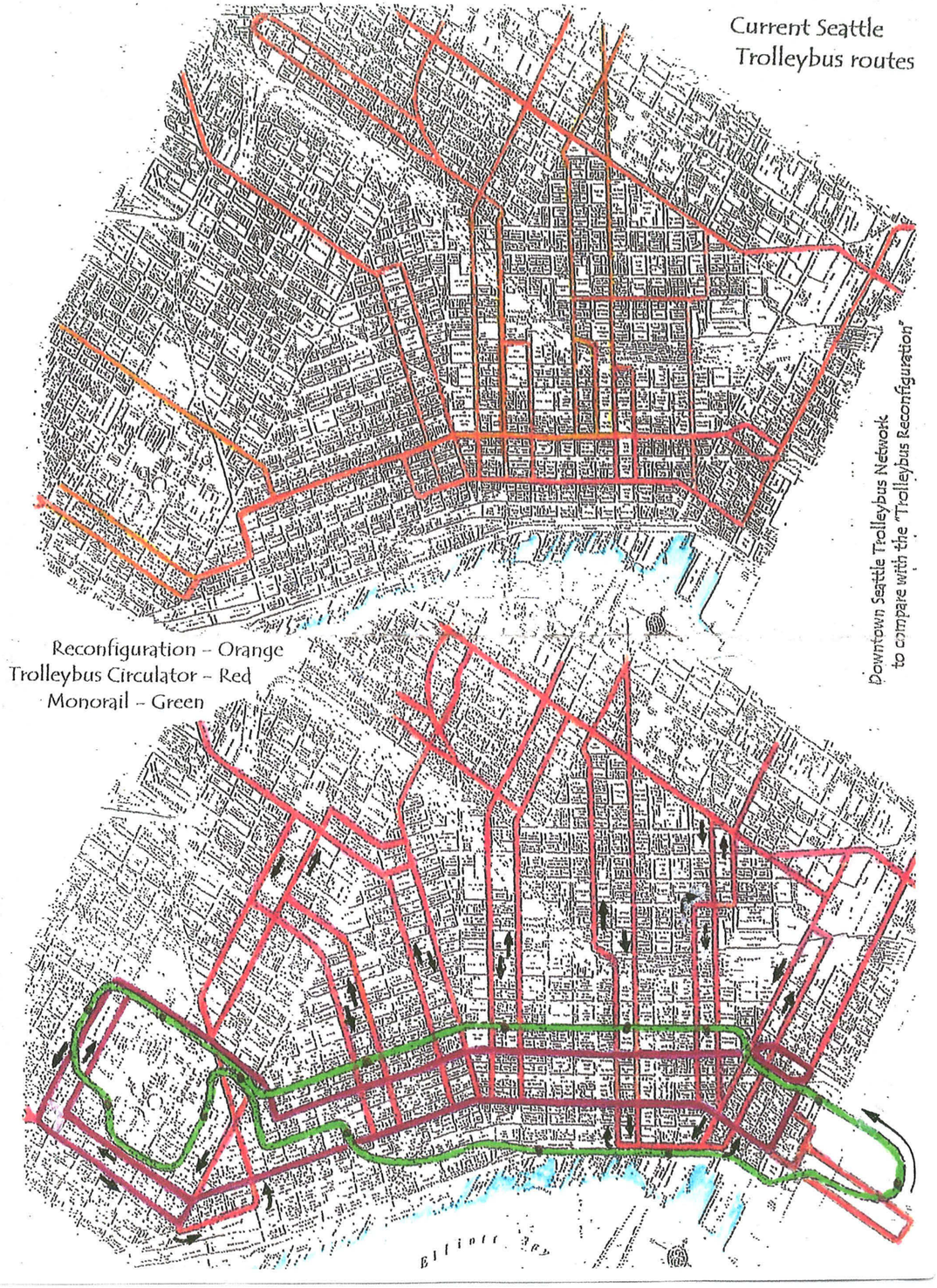
"What Could Possibly Go Wrong" - A collection of articles published in the Seattle Weekly and The Stranger regarding the Deep Bore Tunnel.

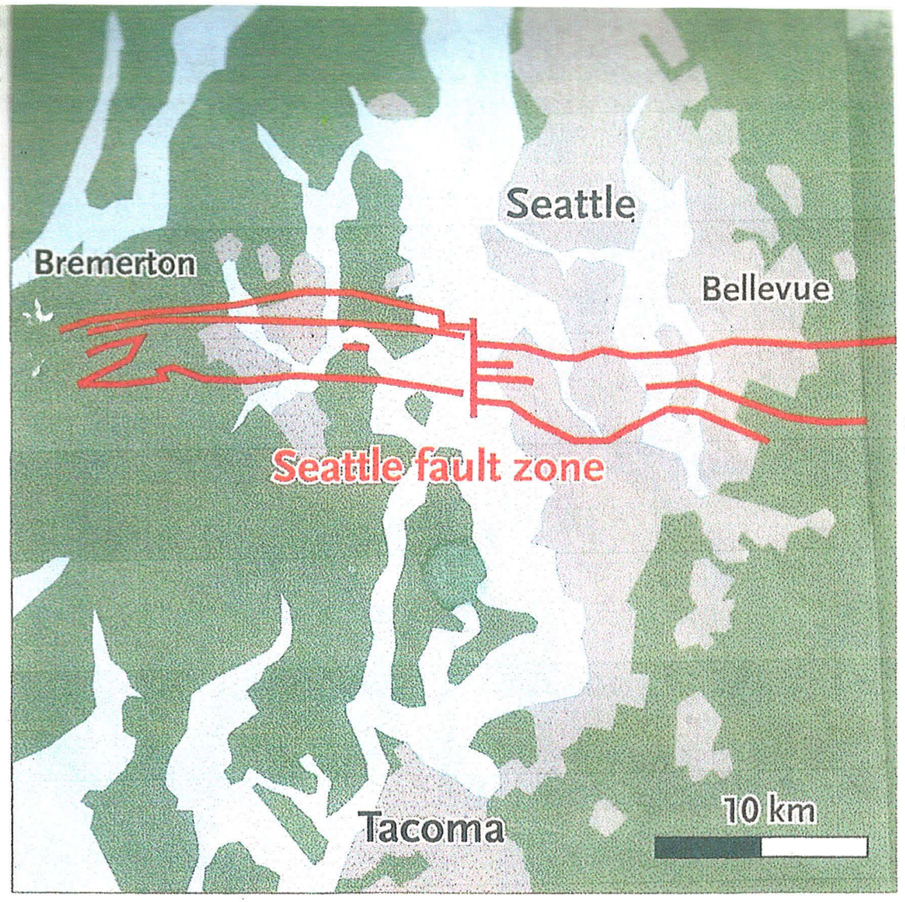
Also included - an affidavit submitted to Multnomah Circuit Court
and a letter sent to Oregon Attorney General Helen Rosenblum
and the Obama White House administration.

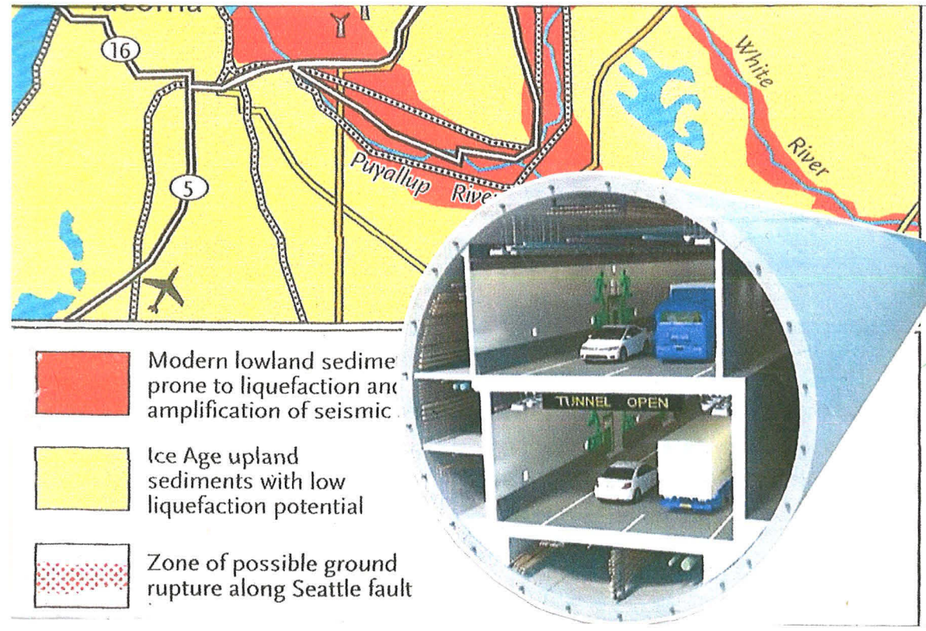
Thank you for considering this urgent request for a formal investigation of Wsdot. If the bore tunnel is constructed, it will be a catastrophic failure and the City of Seattle in dire peril forever. Once the DBT is in, it is impossible to correct its permanently destabilizing affects. I believe its related street reconfigurations unacceptably increase their accident rate and severity. I believe current and previous Wsdot and Sdot directors and department heads are aware of these predicted outcomes but have 'wrongfully' left the public and city business concerns uninformed of the terrible risk. I believe these agencies "unlawfully rigged" numerous studies against alternate Alaskan Way Viaduct replacement options. I believe the same sort of unacceptable shortcomings apparent on the Columbia River Crossing project are attributable to Wsdot as leader of the bi-state commission.

I am sure your law firm can appreciate how a threat of this nature affects everyone and no one should accept these risks casually. I would rather the matter be resolved and the DBT rejected immediately without the need for a lawsuit. The public must have some trust in government agencies no matter the outcome. Discovering that Wsdot & Sdot casually put their lives at risk would only further undermine that trust.

Arthur Lewellan


Current Seattle
Trolleybus routes
Reconfiguration – Orange
Trolleybus Circulator – Red
Monorail – Green
Downtown Seattle Trolleybus Network
to compare with the "Trolleybus Reconfiguration"


Seattle
Bremerton
Bellevue
Seattle fault zone
Tacoma
10 km


16
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White River
Puyallup River
Modern lowland sedime
prone to liquefaction an
amplification of seismic
Ice Age upland
sediments with low
liquefaction potential
Zone of possible ground
rupture along Seattle fault
TUNNEL OPEN

"How disabled people become productive members of society"

Testimony 'supporting' the claim in Art Lewellan's case that Tri-Met policy discriminates against disabled people.

Arthur Lewellan received Oregon General Assistance in 1996 and was awarded Social Security Disability in 1998, based on physical impairment and mental and emotional instability. The physical impairment was an "immobilizing dislocation" of several vertebrae in lower back and neck which ended his career in home energy conservation between 1980 and 1992. Arthur was employed these years by The Doorworks Company and Anderson Door Mechanics. He became a licensed Oregon contractor subcontracting to these same companies for 3 of the 12 years.

During the years since, Arthur devoted his time, effort and considerable monetary investment to become a knowledgeable advocate for mass transit as a logical transition from energy conservation in housing into the transportation sector, as a career direction. Arthur has consistently attended public meetings held by Metro, Portland City Council, Tri-met, other agencies and organizations to support light rail and streetcar expansion locally and nationally. From this learning experience, Arthur surveyed and drafted many alternate route and design options and submitted these to public agencies. In 1997, Arthur submitted his first proposal The LOTi Project to the City of Portland. It was given a formal review and awarded "merit". Unfortunately, being knowledgeable does not always translate into being respected.

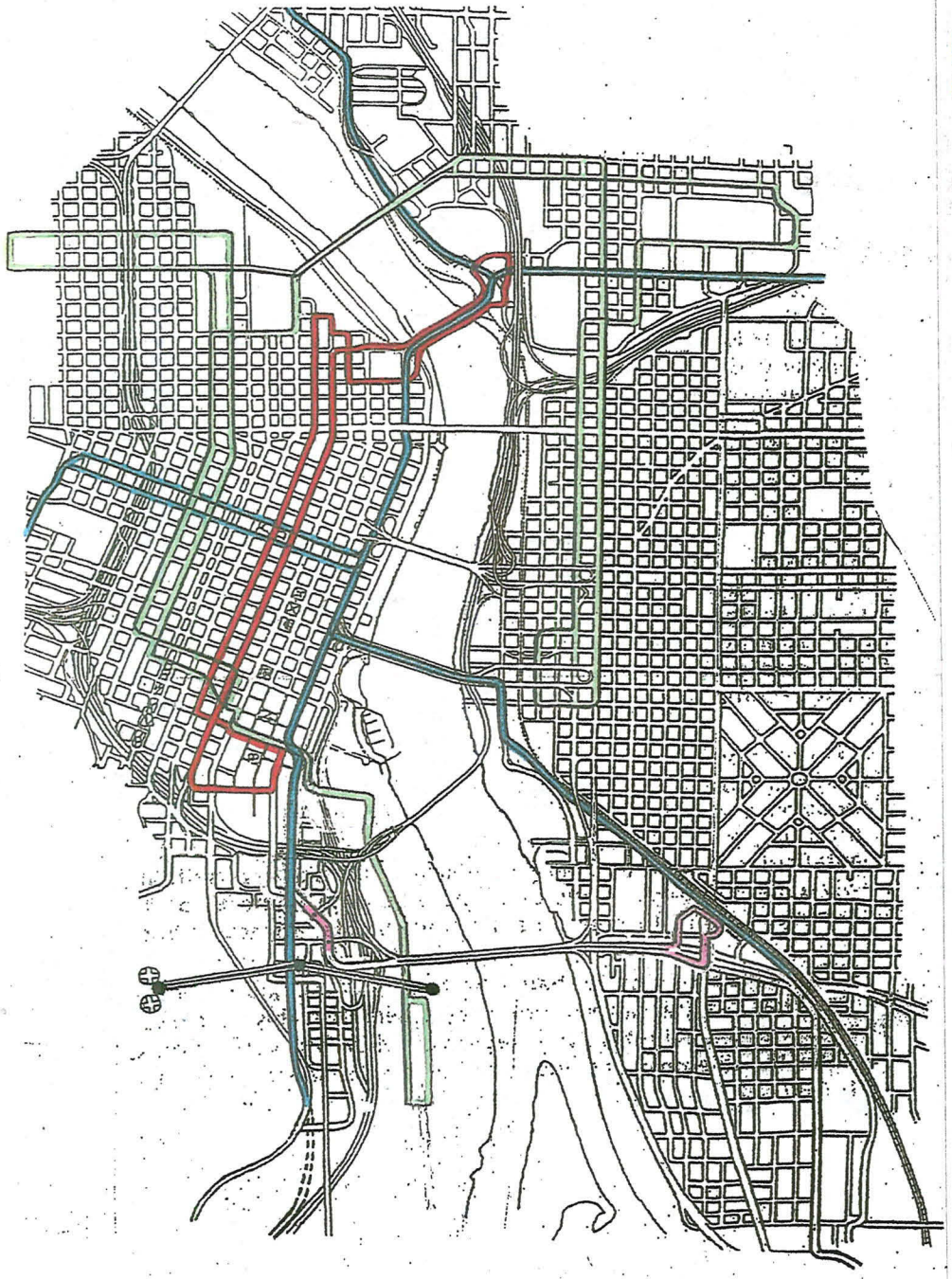
Multi-billion dollar rail mass transit public works projects are extremely political. Fierce ideological opposition to mass transit generally plus heated division between and within advocacy groups is indeed a political battlefield. Only a few individuals such as Arthur remain committed to the planning process. Most ultimately associate with organizations whose positions, pro & con, lend assurance that individual perspective is adequately supported and publicly represented. Without support, individual transit advocates face a brawl of professional participants hell-bent on getting their way, or the literal highway and defeat. Arthur remains a participant, despite his emotional vulnerability, believing he has due cause to justify the expense. What follows is a summary of Arthur's engineering perspective in design and description of a monumentally disturbing turn of events.

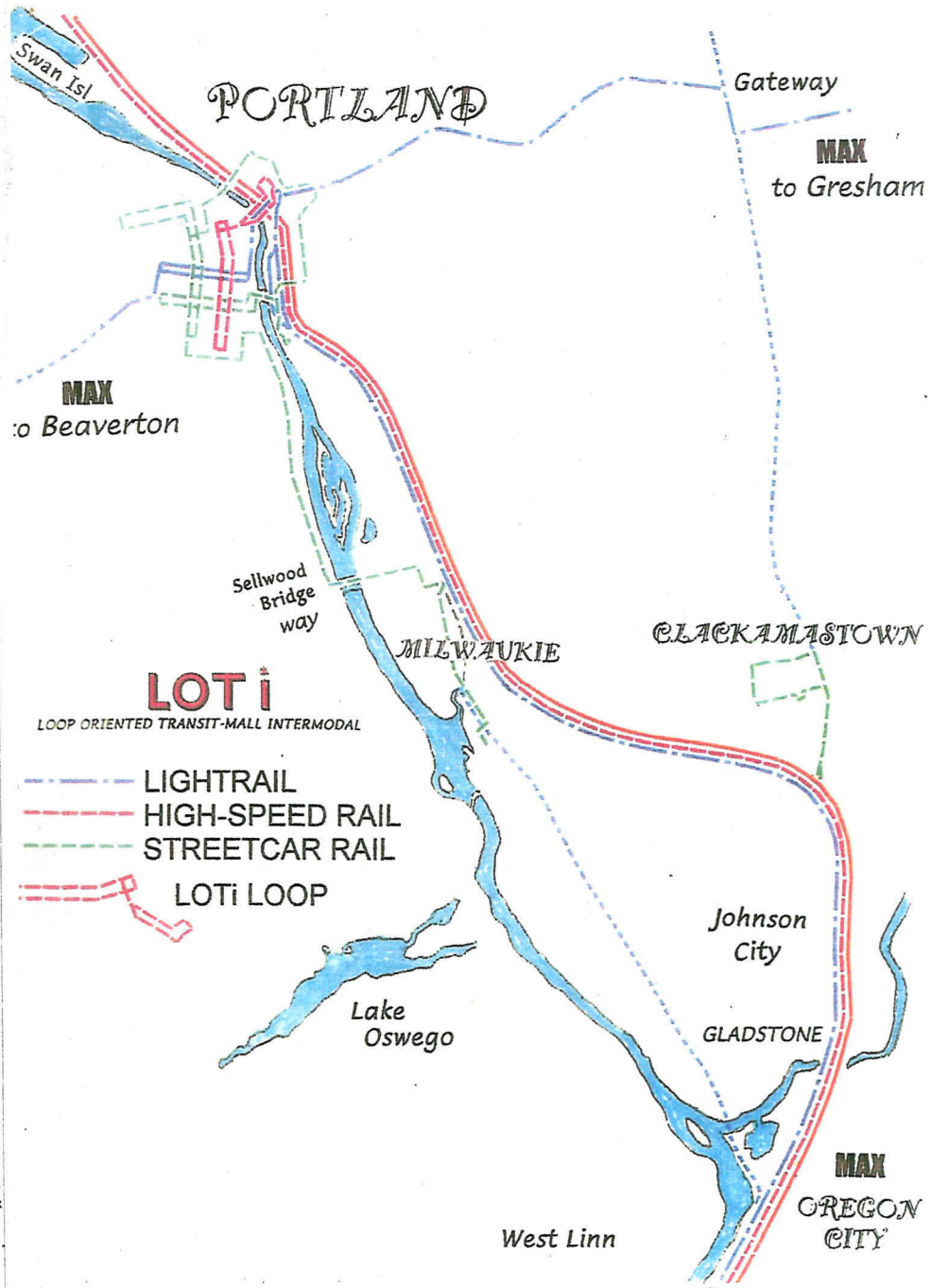
The facing page is a depiction of the LOTi proposal. It's important to note how the Loti is a complex 'design concept' rather than a simple integration of transit mode and route configuration. A design concept may have universal applications. After its review, the Loti design concept was applied to downtown Seattle and thus produced "The Seattle Circulator Plan" depicted on the following two pages.

The advantages of the Loti design concept begin with reducing costs & impacts of light rail projects. More light rail route options are feasible when integrated with connecting transit to assure a short-wait transfer to serve important districts with transit service. Short line 'circulators' require the least number of vehicles for frequent service and the convenient transfer. Light rail can be routed to cross long distances faster. Bus routes also can be streamlined to reduce time-consuming circuitous turns and duplication of service leading to light rail stations. Transit hubs can be minimized to accommodate a single circulator instead of numerous bus routes and stalls. Development potential increases at light rail transit hubs and along connecting circulator lines. Parking garages and park-n-ride lots can be reduced in size and located along circulator lines to double their service for development & transit access.

Applying Loti design concepts to downtown Seattle reveal more advantages. The Seattle Circulator Monorail proposal, a relatively inexpensive "single-track" extension of the historic line reduces physical & visual impact of overhead beams & stations, yet produces more ridership than the rejected "double-track" Greenline proposal. The 1st/3rd Trolleybus Circulator & The Trolleybus Reconfiguration (circulators) require least trolleybuses to provide 5-min service where needed most. Noted for their hill-climbing prowess, trolleybus service is increased to tackle steep downtown Seattle hills. The Trolleybus Reconfiguration overall ideally matches supply to demand. The shorter the route, the simpler to increase or reduce vehicle 'supply' to match varying 'demand' of peak & off-rush hours on specific circulator lines. Though more trolleybuses ply downtown streets, overhead wire 'clutter' is reduced. The least number of remaining diesel buses relocate to 2nd/4th Aves to operate like BRT with least number of stops.

Unlike the LOTi proposal, "The Seattle Circulator Plan" has never received a public review though submitted repeatedly to City of Seattle, King County, Washington State transit and transportation agencies, the Federal Transit Administration and Seattle print media. Arthur Lewellan believes his due cause to continue is a monumental value inherent within the Loti design concept which should receive a thorough academic review.

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HIGH-SPEED RAIL
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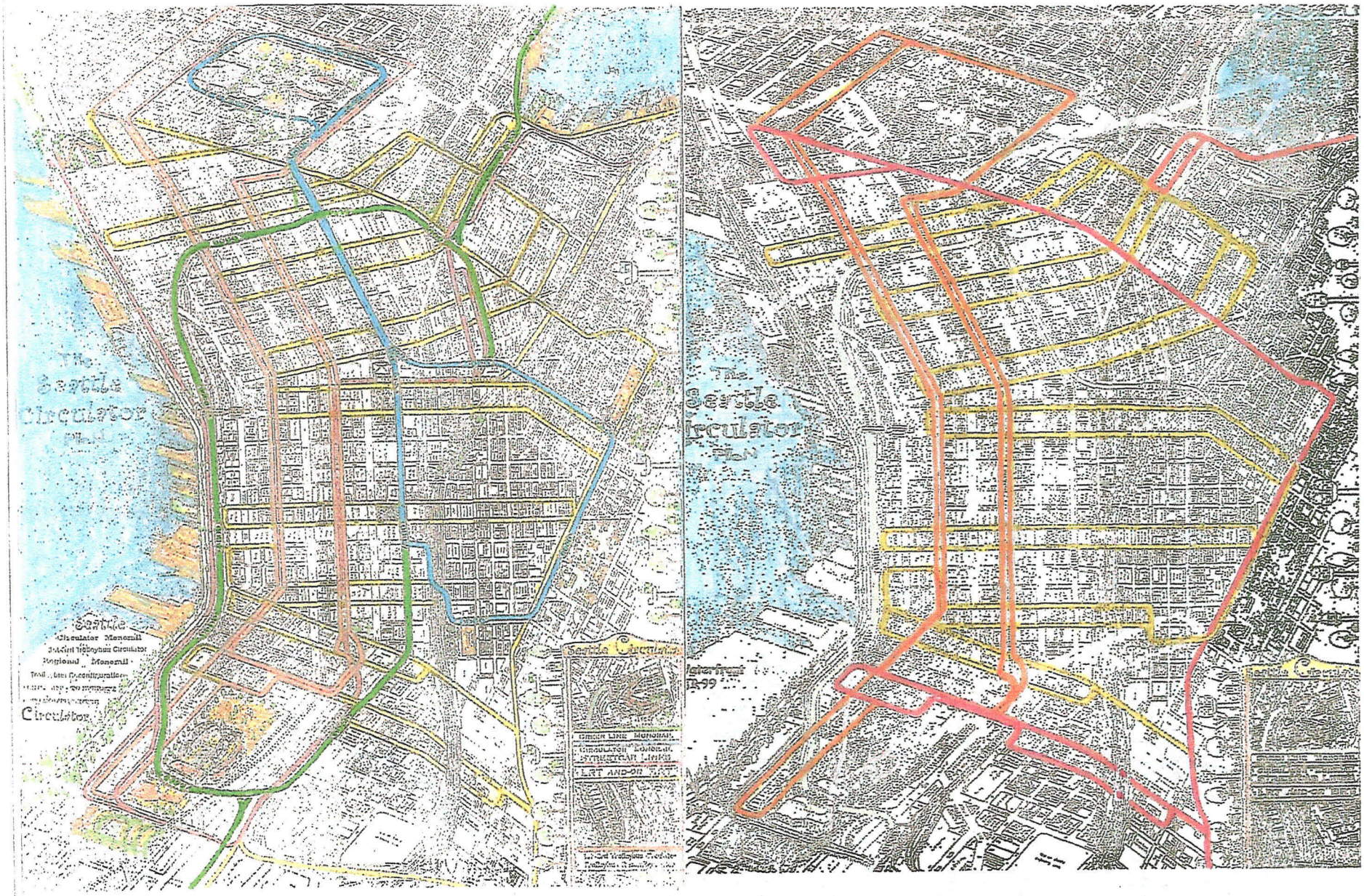
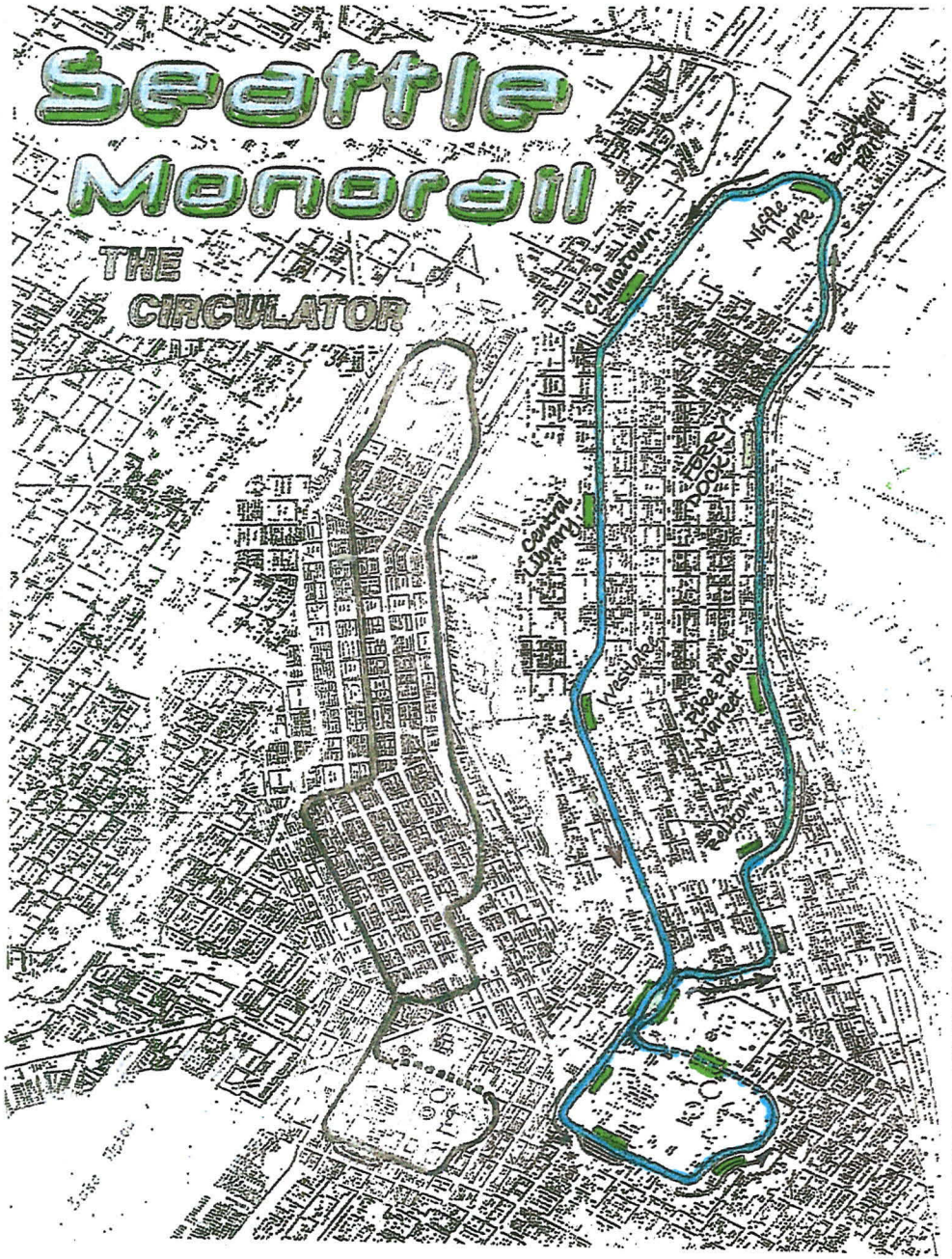
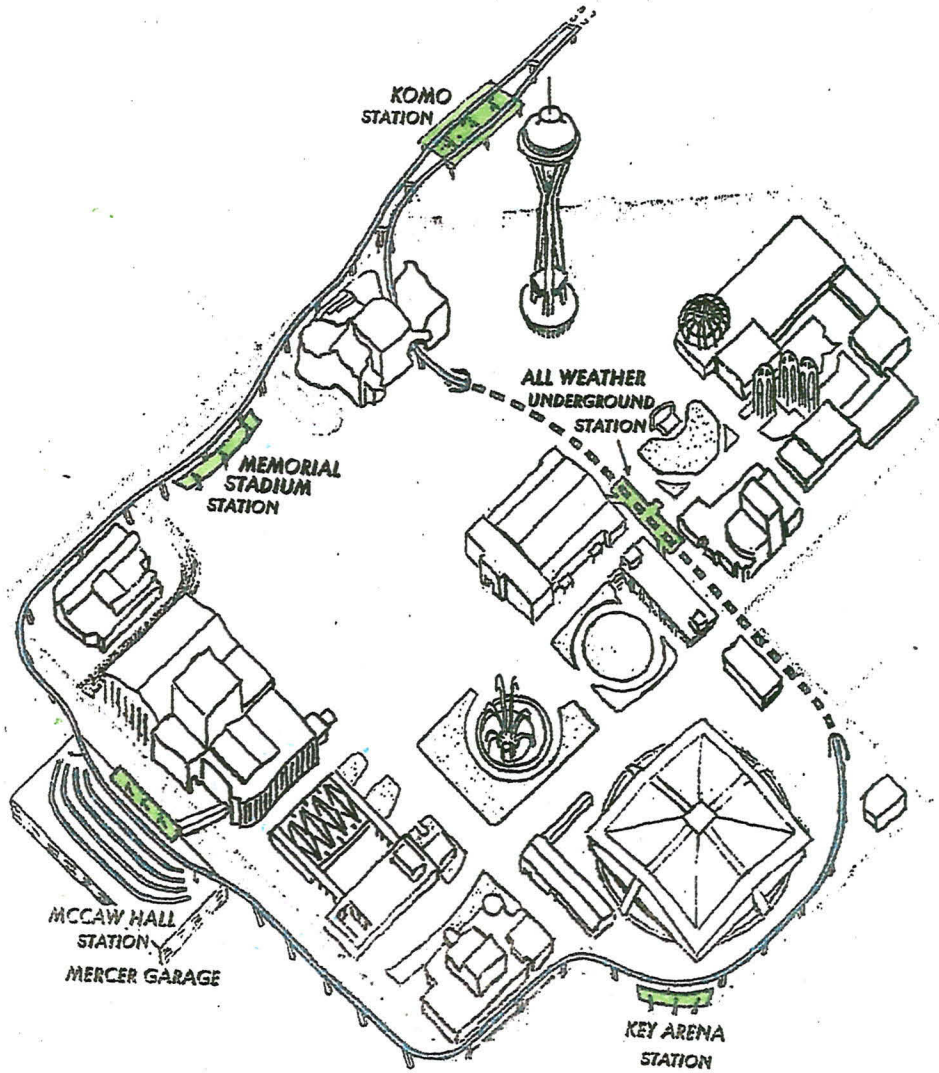
Oswego
GLADSTONE
MAX
OREGON
CITY
West Linn

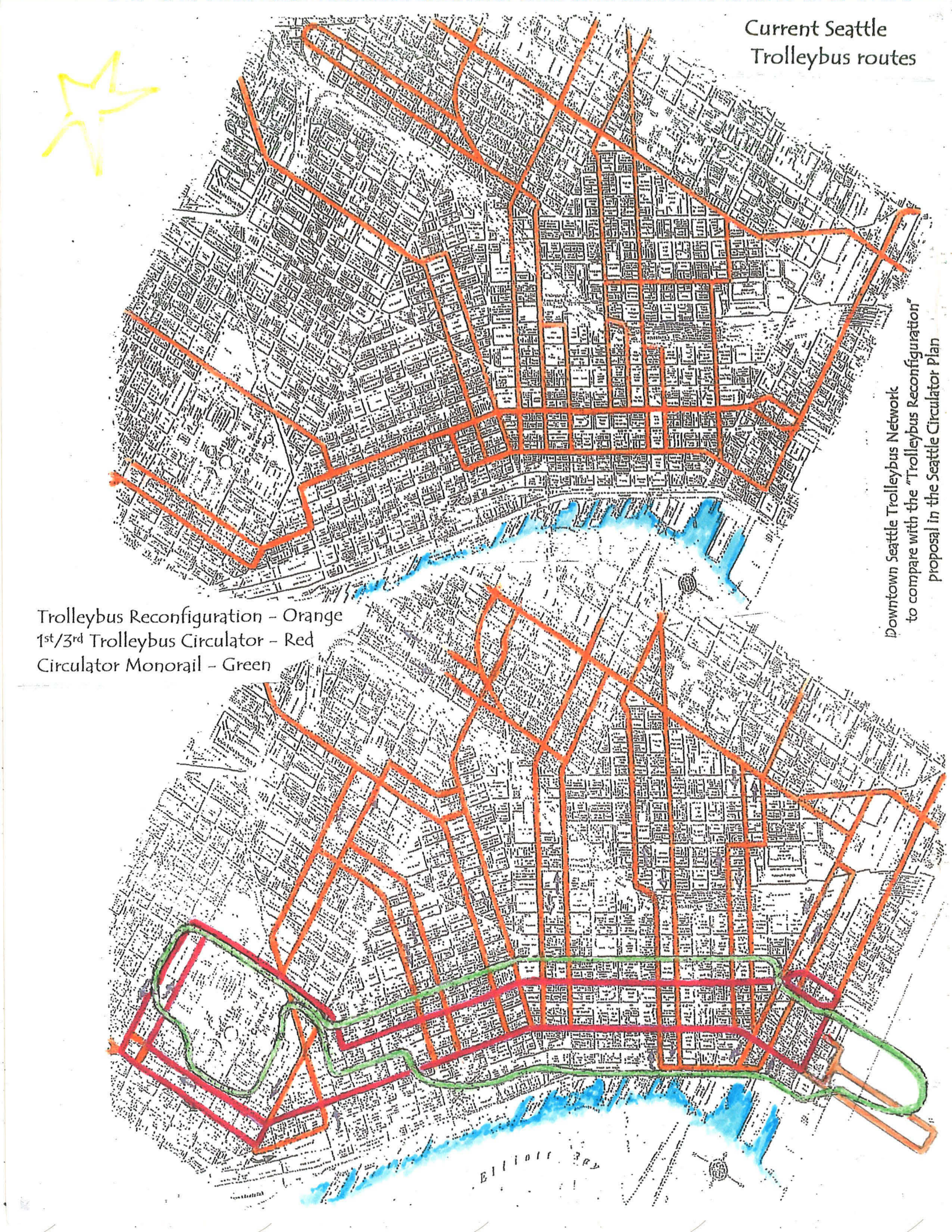

The Seattle Circulator
Seattle
Circulator Monorail
Regional Monorail
Circulator
Seattle Circulator
LRT AND ON



Design your own Seattle Center Monorail



Art Lewellan


Current Seattle
Trolleybus routes
Downtown Seattle Trolleybus Network
to compare with the "Trolleybus Reconfiguration"
proposal in the Seattle Circulator Plan
Trolleybus Reconfiguration - Orange
1st/3rd Trolleybus Circulator - Red
Circulator Monorail - Green

The 1st/3rd Trolleybus Circulator -- Red

The Trolleybus Reconfiguration -- Orange

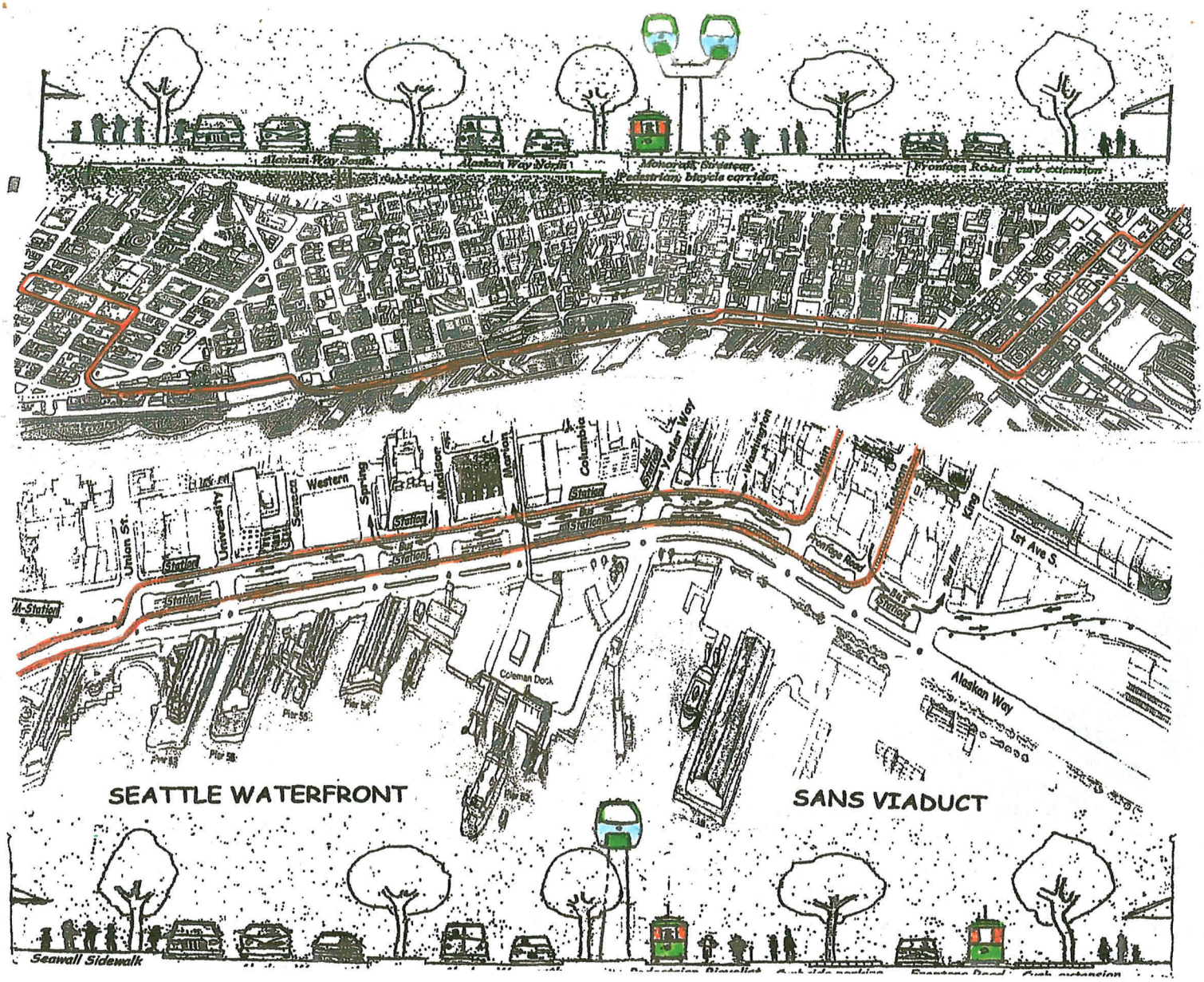
On the facing page are depictions of the Seattle Circulator Plan incorporated into Alaskan Way & Waterfront redevelopment. Two cross-section views show the Circulator Monorail evolvement from its early double-track to a single-track design. The Waterfront Streetcar line also evolved, but in reverse, from single-track to double-track, both a more ideal configuration. Both cross-section views show a "frontage road" - an incidental restoration of historic Railroad Way - as necessary to adequately manage Alaskan Way & waterfront district traffic. Without it, local traffic is forced to in Alaskan Way thru-traffic which worsens after demolishing the Alaskan Way Viaduct. The frontage road may eliminate 3 of the proposed 13 stoplights along Alaskan Way to further improve traffic conditions. The wide aerial view shows a 1-mile streetcar extension to Queen Anne via a new bridge over the BNSF railway at Broad Street.

The drawing at page bottom is of a segment of the proposed deep bore tunnel (DBT) to indicate how soil conditions beneath historic downtown buildings are absolutely inappropriate for a DBT-type tunnel. These are watery soft fill soils that liquefy in earthquakes and over time develop unseen voids and sinkholes that can completely undermine building foundations; a horrific risk.

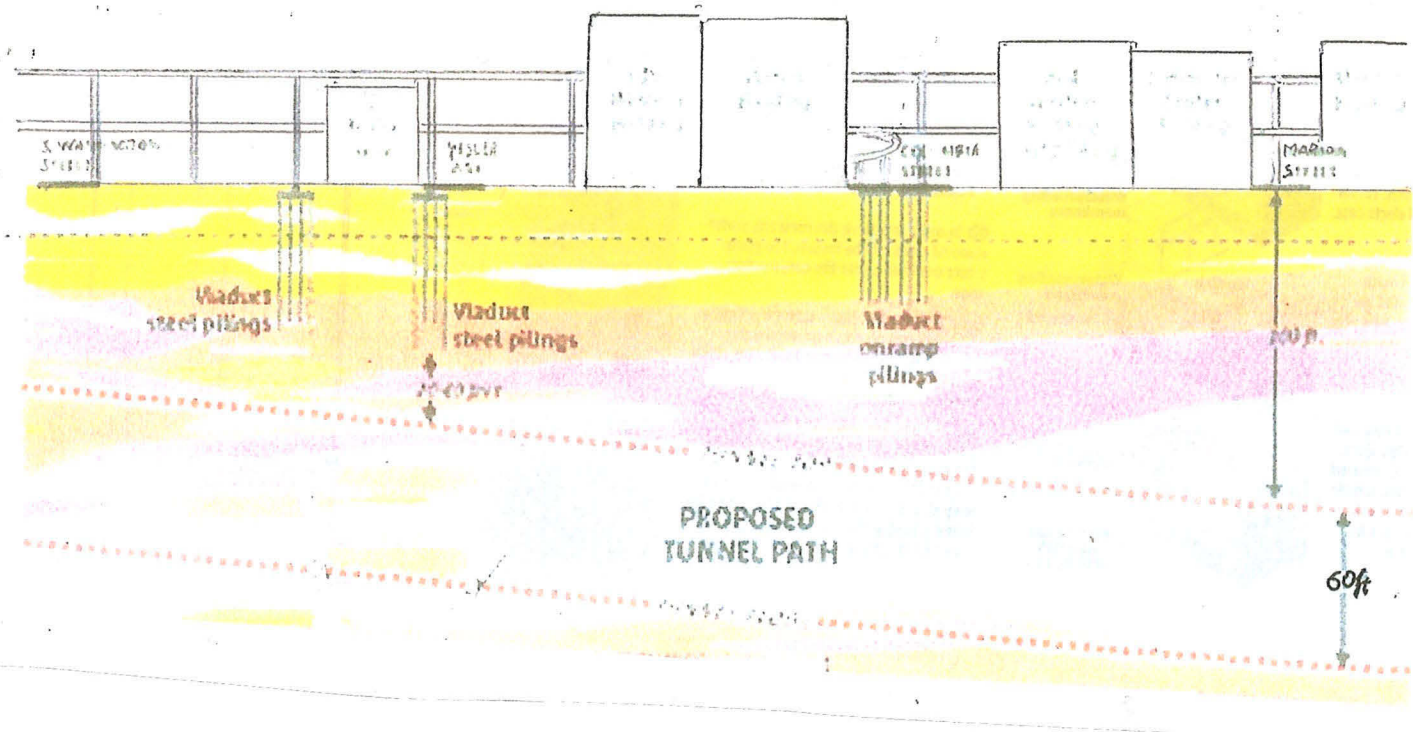
The following pages also concern the DBT and related street reconfigurations. Of the dozen Cut/cover-type tunnels studied, this one was the last version released to the public even though it is least disruptive to construct. Wsdot's complaint through the years of planning was the deaded disruption to construct a cut/cover tunnel, thus their preference for an elevated replacement monstrosity. Although this cut/cover is the least disruptive, in its 1st Phase Wsdot proposed to construct a huge 6-block trench in the middle instead of starting at the south portal and work north in short-block segments that return to use.

In 2007, a voter referendum rejection of both a cut/cover tunnel and a replacement viaduct upset Wsdot's apple cart, but didn't stop the sale of rotten apples. Wsdot then studied 2 new cut/cover tunnel options all while this least disruptive version, now in the FEIS, remained under wraps. Wsdot also studied 3 surface/transit options that incorporated 27-30 stoplight intersections, but NOT the options with as few as 9 to 13 stoplights. These planning irregularities should be considered a criminal offense.

The last page of drawings are a comparison of the DBT and cut/cover north portals, and the "Mercer East" reconfiguration of Mercer Street in Lake Union 'east' of Aurora SR/99. The cut/cover tunnel retains Battery Street Tunnel (BST) and Broad Street Underpass (BSU). The DBT closes both. The BST currently provides access between Lower Belltown and Lake Union for 5,000 vehicles daily which will be displaced to surface streets already overwhelmed with traffic. Retaining the BSU offers safer access to the BST - (1 left turn), safer than the proposed access to the DBT - (merge left with 2 left turns). Mercer East has fine potential, but "Mercer West" - as related to the DBT - makes traffic hazards much worse on Mercer, Denny Way, Elliott, Western, Alaskan Way and 1st Ave. Currently, 35,000 vehicles from the Interbay access SR/99 at Lower Belltown, the short, straight, level, least stoplights, most suitably commercial corridor. Mercer West redirects upwards of 20,000 cars and freight trucks onto the 'dangerously steep' hill of Mercer Place through residential Queen Anne and the busy Seattle Center district. The rest avoid the DBT and take Alaskan Way where new stoplights at every intersection create severe conflict between motorists passing through and those trying to park in the waterfront district. The DBT is an insanely dangerous tunnel that increases traffic hazards all through downtown Seattle, another criminal offense. Arthur Lewellan hereby requests a federal investigation of Washington State and Seattle DOTs for crimes more heinous than an inexcusable dereliction of duty.



VIEW LOOKING WEST, TOWARD ELLIOTT BAY



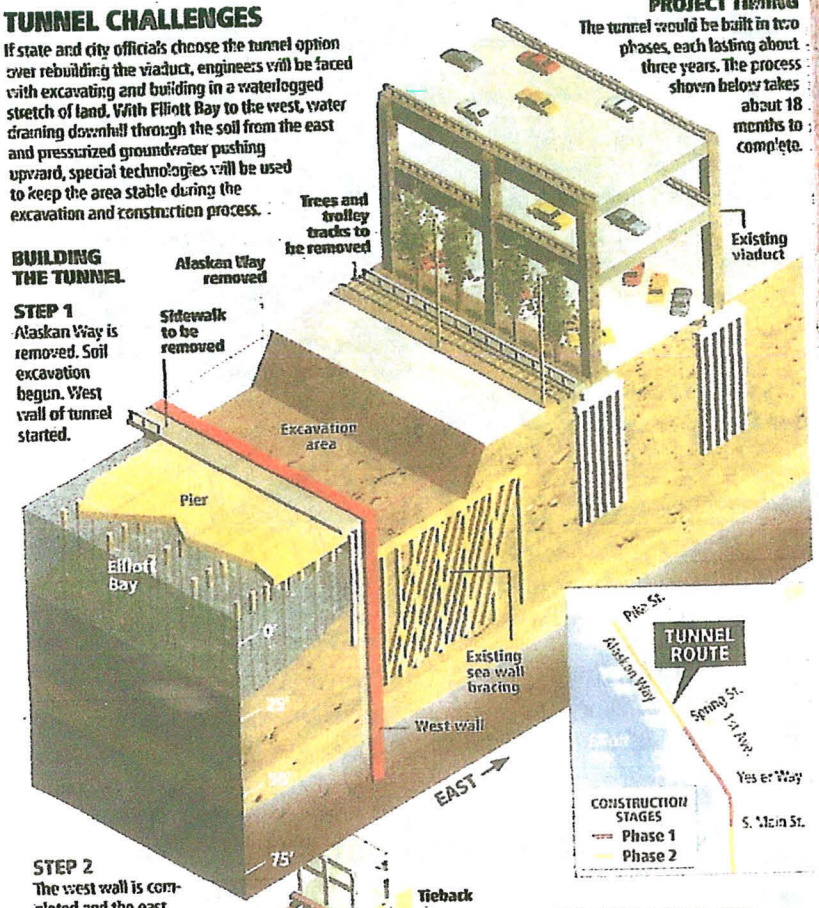
TUNNEL CHALLENGES

If state and city officials choose the tunnel option over rebuilding the viaduct, engineers will be faced with excavating and building in a waterlogged stretch of land. With Elliott Bay to the west, water draining downhill through the soil from the east and pressurized groundwater pushing upward, special technologies will be used to keep the area stable during the excavation and construction process.

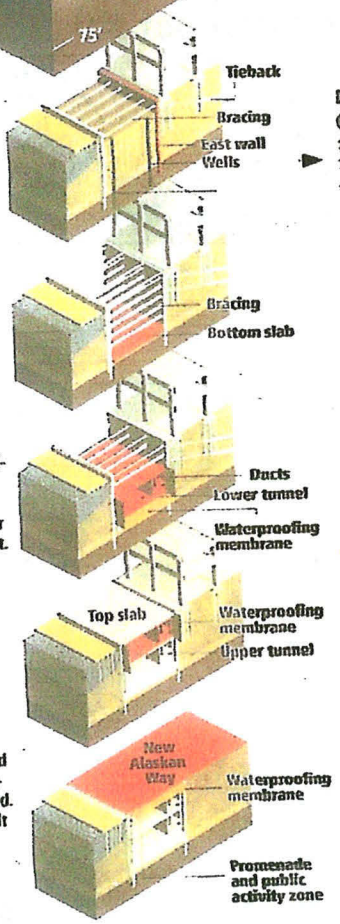
PROJECT TIMING

The tunnel would be built in two phases, each lasting about three years. The process shown below takes about 18 months to complete.

BUILDING THE TUNNEL



STEP 1
Alaskan Way is removed. Soil excavation begun. West wall of tunnel started.



STEP 2
The west wall is completed and the east wall begun. Soil is excavated across the full tunnel width. Bracing and tiebacks are installed. Water-removal wells are dug and water removal begun.

STEP 3
Soil excavation completed and bottom slab cast between walls.

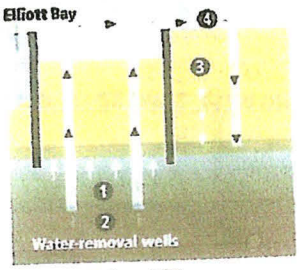
STEP 4
Lower level bracing removed. Waterproofing membrane installed on bottom slab and walls. Lower tunnel and ducts cast.

STEP 5
Waterproof membrane installed on walls. Upper tunnel and ducts cast. Top slab cast.

STEP 6
Waterproof installed over top slab. Existing viaduct removed. Alaskan Way rebuilt with promenade, trolley and public activity zone.

KEEPING THE WATER OUT

① As soil is removed during excavation, pressurized water deep in the ground may threaten to push upward and destabilize the excavation area.

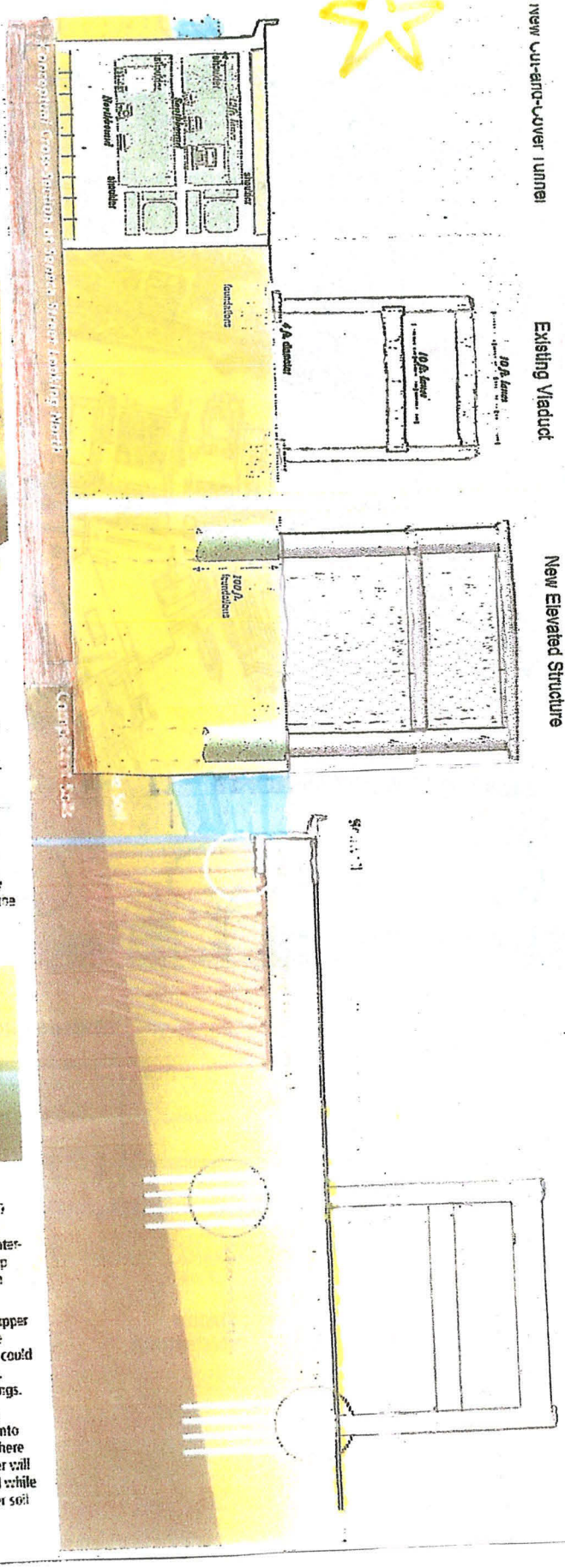


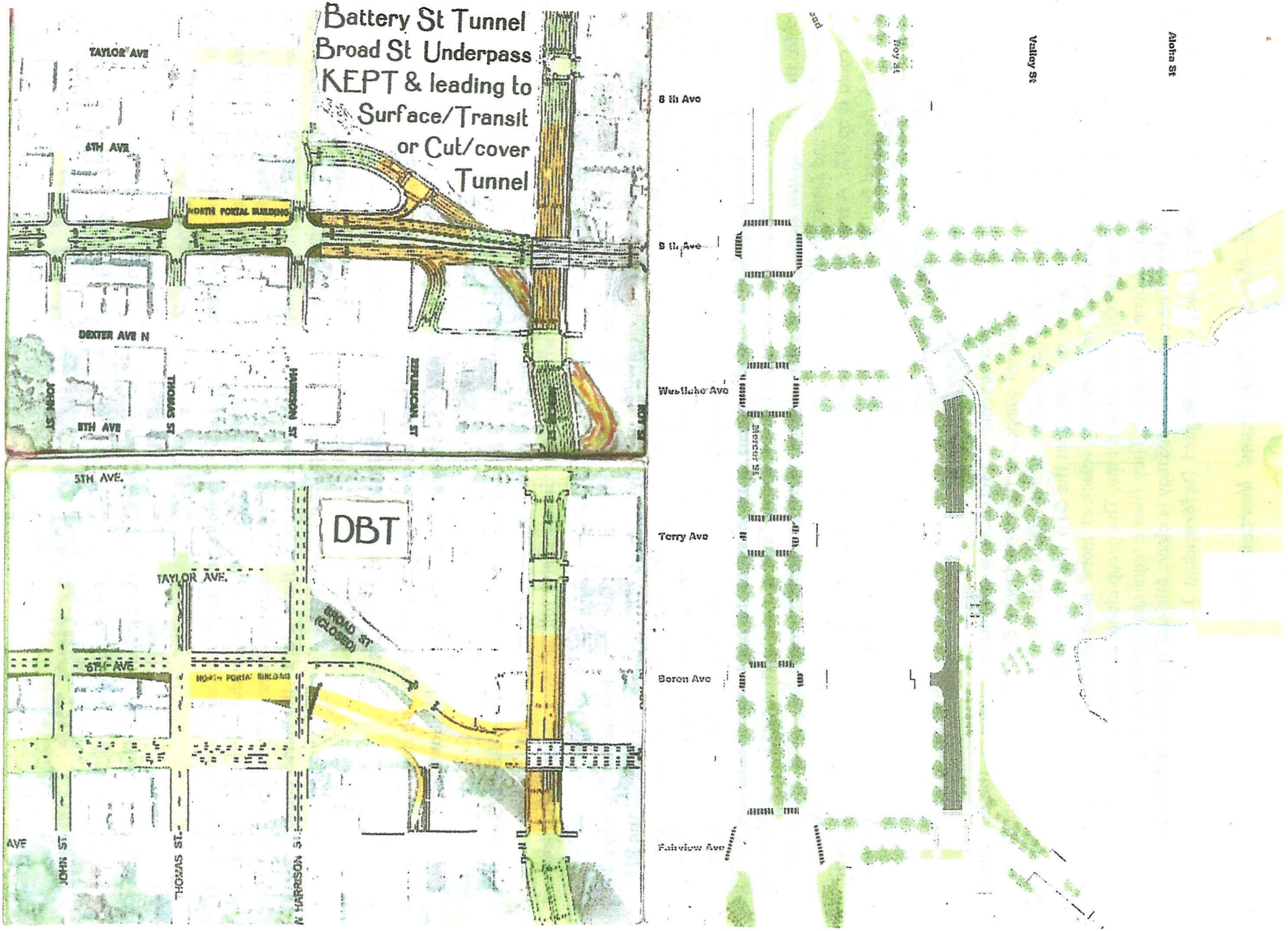
KEY TO SOILS
Recent fill
Beach deposit (Qb)
Glacial soil (Qpgc, Qpgl)

② In order to relieve the pressure, water-removal wells will be installed to pump water out from under the construction zone.

③ However, this allows water from upper soil levels to sink down to replace the water that is being pumped out. This could cause the upper layer of soil to settle, threatening damage to nearby buildings.

④ To avoid this, the water that was pumped out will be reinjected back into the ground nearby at a deep level where the soil is dense. The reinjected water will seep slowly back into the glacial soil while helping to stop the water from upper soil levels from sinking.




Battery St Tunnel
Broad St Underpass
KEPT & leading to
Surface/Transit
or Cut/cover
Tunnel
TAYLOR AVE
6TH AVE
NORTH PORTAL BUILDING
DEXTER AVE N
JOHN ST
THOMAS ST
HARRISON ST
MERCER ST
8TH AVE
5TH AVE.
DBT
TAYLOR AVE.
BROAD ST (CLOSED)
6TH AVE
NORTH PORTAL BUILDING
AVE
JOHN ST
THOMAS ST
N HARRISON ST
8 th Ave
5 th Ave
Westlake Ave
Terry Ave
Boren Ave
Fairview Ave
Roy St
Valley St
Aloha St

A Quick and Dirty Guide to Rejecting the Tunnel

You've read The Stranger screeds on what's wrong with Wsdot's Deep-Bore Tunnel.
Here's their abbreviated version for those with short attention span. ***Dominic Holden & Al Wellan***

• $7 Billion - 4 Lanes + 2 Miles = STUPID

The DBT tunnel has 4 lanes, less than 2 miles. The $4.2 billion price doesn't account interest (estimated to exceed $2 billion). Seattle City and Port haven't raised $1.2 billion of their share. Projected cost doesn't account for hidden costs. Redesigned downtown streets, required 'enhanced transit' services, all told, costs will top $7 billion, the most expensive chunk of road in the state. If the tunnel encounters cost overruns, 90% do, law prevents the state from paying overrun costs.
(note: Seattle wealthy SHOULD pay, dom)

• Downtown Traffic Would Be the Same -or- Worse:

The state's final report shows the DBT tunnel would have the same effect on downtown, waterfront and I-5 traffic as a fast AWV tear-down, did ST5 and saved billions.

• Pay $5 to go 2 Miles in your car:

The tunnel has no exits to 1st Ave and has up to $5 tolls all day. State impact studies show 2/3 vehicles currently on the viaduct would go to I-5 and city streets and create worse traffic than we have now. The tunnel would be a luxury for those who can afford the expensive toll and want to avoid downtown.

• There's a Better Option and it costs way Less: SERIOUSLY

Big cities—San Francisco, Portland, New York, Seoul & many others have torn down urban freeways and not inflamed havoc nor terrible gridlock. Traffic actually improved. In 1972, Seattle stopped the RH Thomson Expressway from being built through the Arboretum. The Seattle Times and 'thee' others insisted it was "necessary" for north-south mobility. Seattle can stop a 'Stupid Freeway' again. Instead of their "Risky" tunnel, we implement **ST5 (Streets/Transit/I-5)** that 'our city' and 'our state' have studied since long before 2008. **ST5** bolsters transit, optimizes streets, adds 1 northbound lane to I-5, (1-lane southbound '**can**' be added), costs about $3 billion, no "insane" risk to structural foundations. No traffic threat to ***Queen Anne - Lake Union - Denny Triangle***. Traffic even a little "***less worse***" for ***Pioneer Square*** and ***Lower Belltown***. **ST5** honestly 'can' reduce traffic congestion downtown. Vehicle delay could drop 9%. A trip between ***Downtown - West Seattle*** is a minute or two shorter than with the horribly designed bad joke stupid DBT Plan-shit. This is without question Wsdot's biggest mistake in uh,.. ***not*** all that long ago... The dbt-disrupted subsurface hydrology alterations risk catastrophic collapse and almost certain undermining of foundations at many vulnerable weak points. insAin?

• Tunnel Backers are Lying to you:

The pro-tunnel group Let's Move Forward has raised $380,000 to tell you to approve it. The campaign leading backers are indeed the international companies that would make $1.1 billion from the project. These particular companies have somewhat shoddy records. Their ads claim their project funds bus service but doesn't include a penny for it. They claim the **ST5** will cause gridlock. Their studies show **The DBT PLAN** produces **'more'** traffic & **'worse'** gridlock at **'more'** Main intersections, potentially 20% more street traffic 'stalled' up to 20% more of the time. The group claims Mayor McGinn colludes with initiative trickster Tim Eyman, a pure fabrication. They filed a legal complaint with City Ethics Board that was tossed out as baseless. The campaign's strategy is clear: Mislead the public all the way to election day. Don't let them get away with it. **Reject Referendum 1.**

(Parting shot: DBT-plus-Mercer West 'ruins' Mercer East)

Letters to explain specific engineering aspects which condemn the proposed Deep Bore Tunnel (DBT) beneath Seattle.

Many are terrified of the potential consequences of its failure in worst-case scenarios and regular workday traffic. An embarrassment to the engineering community, "Mercer West" and the new "Alaskan Way" are likewise terrible engineering.

The Seattle bored tunnel replacement for the derelict Alaskan Way Viaduct (AWV) is far too risky even in its physical presence beneath downtown buildings. It could probably survive an earthquake, but the huge dislocation of unstable soils (immediately & indefinitely thereafter) make them more unstable. The real threat is to the buildings above. Altering subsurface pressures predict upward 'risings' that can buckle street surfaces and sidewalks, or 'sinkings' that cause voids which can collapse. The bored tunnel is insanely dangerous.

The terrifying potential for failure in earthquake or car bomb or longevity is unavoidable. There's also the concern of redirecting traffic to the over-trafficked Mercer Mess. The Mercer West project is going to ruin the entire Mercer corridor with traffic.

The flaw in the bored tunnel is the underground hydrology through which it passes - soft fill above compacted glacial till, 'pressures' and layered water tables along a earthquake fault line. An objective 'outside' hydrologist MUST do a cursory study of potential threat posed not to the tunnel, but to the structural integrity of downtown buildings, their foundations, surface streets and sidewalks directly above and nearby. Failure of the bored tunnel a number of ways is potentially catastrophic, yet the dire threat is ignored. Please, if you would forward this concern to a qualified, trustworthy hydrologist, Seattlers must have the questions answered.

The secondary flaw in the project is Mercer West. Mercer East, now under construction, looks decent. Mercer West however adds too much additional traffic through Lake Union (AKA The Mercer Mess) and through residential Queen Anne. Mercer West converts the I-5 to Interbay Mercer corridor into a major traffic and freight thoroughfare - essentially a new surface highway through residential and pedestrian-oriented districts. The Mercer Mess made messier, predictably 'F' level service with traffic spillover onto Denny Way, also already overwhelmed with traffic.

The tertiary flaw is the proposed Alaskan Way reconfiguration. Traffic on Alaskan Way is expected to triple from 12,000 to 35,000 vehicles daily. The current design installs 13 stoplight intersections between Pike and King streets. With the one parallel side street, Western Ave running 7 blocks between Union and Yesler, this central section is restricted but the design increases conflict between vehicles passing through or trying to park but forced back into thru-traffic; also in conflict with pedestrian crossing.

The design for Alaskan Way I've supported since Summer 2001 incorporates a 2-lane frontage road, a ped/bike/transit median, and the 4-lane Alaskan Way to 'separate' the two types of traffic. The frontage road allows at least 3 double-block medians to reduce the number of stoplights from 13 to 10, especially important near Coleman Dock traffic queue, to organize pedestrian crossing, separate bikepath, streetcar line, etc etc. The proposed Alaskan Way boulevard design is inadequate yet unquestioned.

Seattle must get answers to these questions, especially about hydrological affects on the bored tunnel. The current and suspiciously LAST design for a cut/cover tunnel option, now in the EIS, has long been my preference. The Deep Bore Tunnel must NOT be built.

Letter to Congressman Inslee,

I'd like to know where you stand on Seattle's proposed deep-bore tunnel project. I am against it. Never mind the cost overrun issue. It's physical impact is extremely risky for the downtown buildings it passes beneath during construction and indefinitely thereafter because of (unstable) subsurface soils and hydrology. Its own longevity and maintenance is questionable.

Furthermore, its completed outcome will be both unproductive and incur terrible environmental impact. Street traffic will worsen on Mercer and Denny Way corridors that are residential, pedestrian-oriented and already overloaded with traffic. Alaskan Way and Elliott/Western are more suitably commercial corridors that can handle the displaced AWV traffic with a surface/transit alternative or a Cut/cover Tunnel.

The proposed Mercer West AND the design for a new Alaskan Way boulevard are as severely flawed as the deep-bore tunnel. Mayor Mcginn is correct to support the surface/transit option and should be fully exonerated.

If a tunnel must be built, Wsdot's curiously last version cut/cover tunnel (depicted in the FEIS) could be built after the surface/transit option or while rebuilding the seawall. All studies show a cut/cover tunnel manages displaced AWV traffic best. Wsdot's cut/cover tunnel proposals have all exaggerated and lengthened construction disruption and duration, including the latest version in the DEIS.

I'm writing because the upcoming race for Governor should include a credible opponent to the bored tunnel. If you plan to seek the office, a stand taken against it must be weighed even if becoming an opponent means losing. It's a terrible mistake of monumental proportions and a national disgrace.

Arthur Lewellan (Congressman Inslee did not reply to this letter)

"Botched from the Get-go"

Seattle's Deep Bore Tunnel (DBT) is nothing like the BART Transbay Tunnel which is roughly rectangular, smaller in diameter, constructed in 100' segments sunk to a dredged trench, bolted together, sealed, the trench covered. Seattle's bored tunnel is constructed in 12-segmented rings about 10' wide with over 40 miles of sealed joints that are MORE vulnerable to leakage and worse damage in an earthquake.

The greater danger is to the buildings above the DBT. Many historic Pioneer Square District buildings must be 'shored-up' to survive tunnel construction. The bored tunnel poses this danger 'indefinitely' because its presence disrupts subsurface hydrology. Think of how in-street rail forcefully works its way to the surface. Above the DBT, all building foundations are put at risk forever.

The bored tunnel is insanely risky and furthermore poorly engineered for managing traffic. Even without the toll, redirecting traffic to Mercer and through residential Queen Anne is likewise insane. Alaskan Way and Elliott/Western can handle the AWV's displaced traffic BETTER than Mercer and the 'spillover route' of Denny Way between the DBT north portal and Elliott.

Even without the toll, traffic on Alaskan Way more than triples and the current design cannot handle it. City & State DOTs do not have a workable plan for Alaskan Way nor Mercer to go with their bored tunnel atrocity. The Battery Street Tunnel (BST) should be retained and the Broad Street Underpass likewise could be admirably adapted to create BETTER access to SR99 southbound than widening Mercer. Wsdot and SDOT has botched this mega-project from get-go.

CRC & AWV Similarites:

Wsdot is lead agency of the CRC and its similarity with the Alaskan Way Viaduct (AWV) replacement project are apparent: Absolutely the worst engineering imaginable, long lists of rejected designs, controversial opposition, professional and business community covering each others backs, dangerous designs touted as safer, interminably lengthy planning process, studies overtly misdirected to reach predetermined outcomes, unaccountability, refusal to answer public concerns, etc. The tunnel boring machine won't arrive in Seattle until 2013. The bored tunnel itself is NOT under construction as its cheerleaders would have citizens wrongfully believe.

AWV-related surface street reconfigurations make traffic much worse on Alaskan Way, adjacent Western Ave, 1st Ave & side streets, much worse on steep Mercer Place & Mercer Street through Queen Anne, Lake Union and Denny Triangle. Proposed "stabilization of waterfront soils" is a woefully inadequate alternative to a sturdy rebuilt seawall to stabilize the soft fill, watery, crumbly soils beneath vulnerable downtown buildings along a major earthquake fault line. Proposed park designs are completely out of historical character and poor use for district activity and its economic vitality.

A 2008 Wsdot design for a waterfront elevated replacement viaduct resembles the current bridge design for the CRC. Both are "top heavy" standing on single support posts. The Seattle elevated was 3-lanes wide atop a golf tee. The CRC design is 6-lanes wide atop the LRT/Ped-bikeway "truss box" atop a single support post. Both designs are structurally unsound. The CRC commission will probably reintroduce the single-level bridge design of 2008 with only a Ped/bikeway lane on the westside of the Southbound bridge. Wsdot is ideologically opposed to light rail and mismanaged the planning process to waste money, create controversy, deter public participation and eliminate MAX light rail extension to Vancouver.

CCT Hydrology

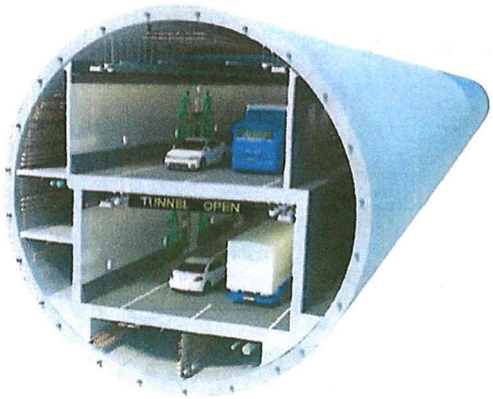
We should consider the science of hydrology. Consider: How will the 60' diameter DBT "tube" embedded in soft & watery soils affect Alaskan Way subsurface hydrology?

Answer: These subsurface waters will increase pressure and alter flow upward & downward around the tube in all directions, affecting joint & seam integrity, lifting surface soils to buckle streets & sidewalks, siphoning away silt to create dangerous voids.

The hydrological question extends to 1st Ave as far north as Pike and probably the entire DBT length to 6th & Harrison. The hydrology of a CCT (Cut/Cover Tunnel) is closer to the current hydrological conditions winning another argument in its favor.

Mayor McGinn's gut instinct favoring a Surface/Transit option is correct for many reasons and doesn't rule out an eventual cut/cover tunnel. The surface/transit option has less environmental impact than the DBT in roadway design.

However, the Mercer West proposal should go back to the drawing board to reconsider retaining the Battery Street Tunnel (BST). The Denny Triangle grid can still be reconnected at Harrison, Thomas and John streets above SR99 leading to the BST instead of the DBT. Do not accept any "Mercer West" plan until the first phase Mercer East is up and running. Retaining the Broad Street Underpass too should have a closer look.

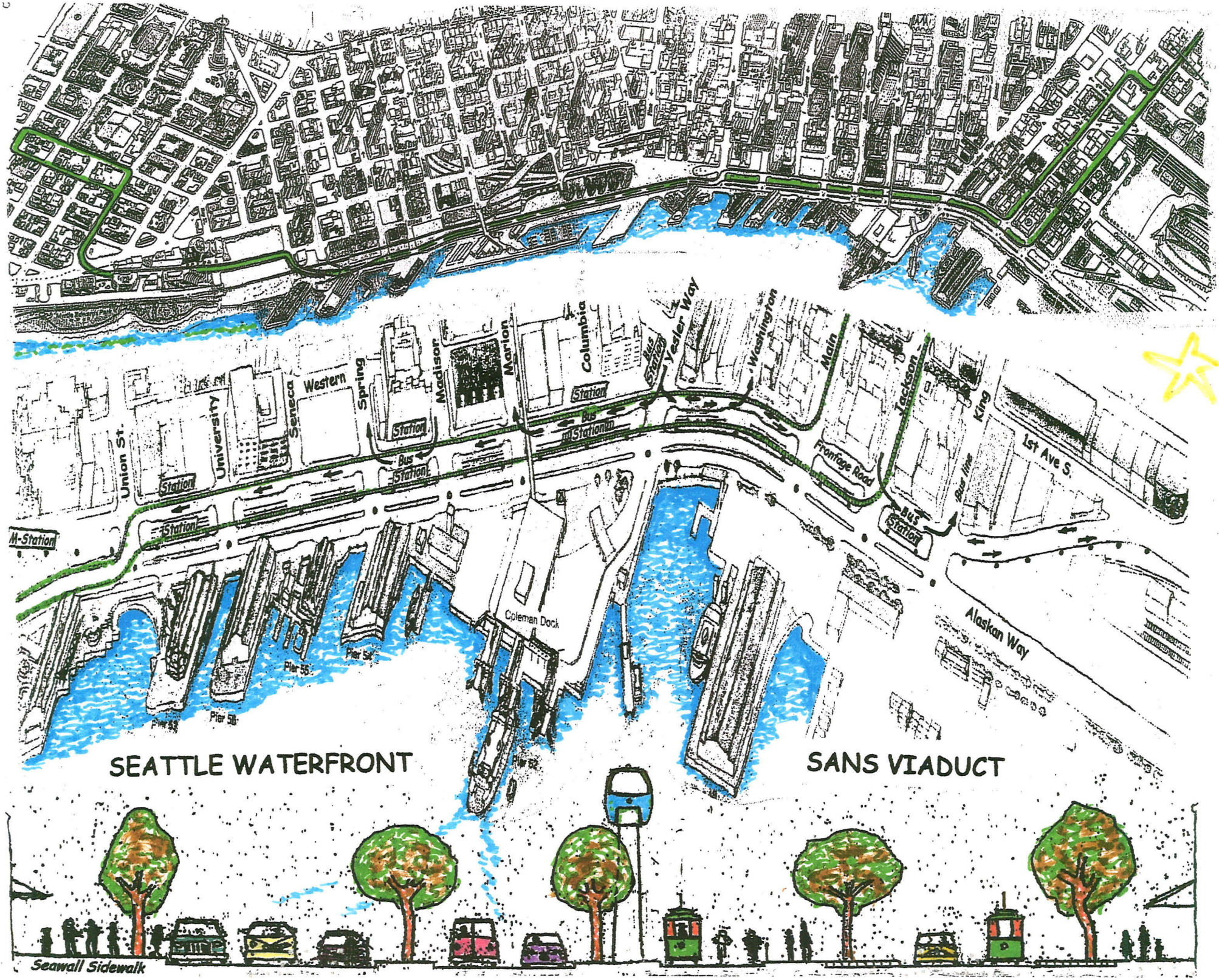


"Where transportation plans exhibit a malevolent disregard for public safety"
Seattle's proposed Mercer West project widens Mercer through high-density 'residential' Queen Anne's busy commercial center. Of the 35,000 vehicles that now access SR99 via the Elliott/Western 'commercial' corridor, approx 15,000 will reroute via the 'dangerously steep' Mercer Place hill to the DBT north portal. To avoid tolls or the hill climb or traffic congestion on Alaskan Way, some motorists will take Denny Way and increase hazards for pedestrians there as well. Do not neglect to consider how more traffic is a contributor to motorist vs pedestrian & bicyclist accidents and fatalities.

Wsdot studies of surface street options for the AWV (Alaskan Way Viaduct) were "intentionally rigged" to produce predetermined outcomes. The number of stoplights for Wsdot SR99 corridor studies were "27-29" though as few as "9" stoplights is possible; none on Aurora, none in Sodo, none in Lower Belltown, and 9 stoplights instead of 13 along Alaskan Way.

If the deep bore tunnel is built, not only will traffic be much worse downtown, the tunnel itself will undermine several dozen downtown building foundations and lead to their demolishment. In a major earthquake, buildings could collapse suddenly! Replacement buildings will still be vulnerable to structural damage as the DBT indefinitely continues to alter unstable subsurface hydrological affects that create tremendous uplifting pressures and voids.

Compare a solid-cast cut/cover tunnel to the multi-segmented DBT tube. A cut/cover will not "oscillate" in an earthquake nor separate along bolted seams. A cut/cover minimally alters subsurface hydrological affects, merely moving the seawall east 70' with remaining surface soils more stabilized. A cut/cover would build a dam-like seawall, use half the concrete and recycle more. The proposed seawall replacement technique is, simply put, cheap & dirty, and will likely fail. A cut/cover would retain the existing traffic corridor rather than displace traffic onto Seattle surface streets. Wsdot studies of cut/cover tunnel options were similarly rigged to predetermined outcomes.


Union St.
University
Seneca
Western
Spring
Madison
Marion
Columbia
Yesler Way
Washington
Main
Jackson
King
1st Ave S.
Frontage Road
Alaskan Way
Coleman Dock
Pier 53
Pier 54
Pier 55
Pier 56
Pier 57
Bus Station
Station
M-Station
SEATTLE WATERFRONT
SANS VIADUCT
Seawall Sidewalk

President Barack Obama

Oregon Attorney General Ellen Rosenblum,

Sept 12th, 2012

Enclosed is a report on Oregon and Washington highway infrastructure projects;
The Seattle Deep Bore Tunnel and the Columbia River Crossing I-5 Bridge Replacement.
Secondarily, a report on Seattle mass transit is also enclosed.

This report intends to ultimately prove that Washington State DOT has violated State & Federal laws regarding the Seattle Alaskan Way Viaduct replacement project and the Columbia River Crossing project - as the leading agency on the bi-state Commission. On both projects, other public agencies have fallen in line to support Wsdot proposals that pose a grave danger to the public, yet are casually dismissed.

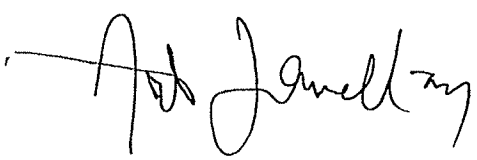
Enclosed is an affidavit submitted to Multnomah County Oregon Circuit Court that included my essay (Part 1) "How Disabled People Become Productive Members of Society" Though the District Court accepted the affidavit, it did not offer a formal response to its main question, "Are criminal wrongs that exhibit a malevolent disregard for public safety being committed by State, County and Municipal departments of transportation, transit and city planning which justify a formal official investigation?"

I will name as principle defendants: former Wsdot Director Douglas B MacDonald, current Wsdot Director Laura Hammond, former Seattle DOT Chief Grace Crunican and the Port of Portland directors who support the current design for the CRC. I believe the evidence in this report clearly indicates these agency leaders have committed heinous criminal acts which must be prosecuted so that stealthy obfuscation and deliberate distortion of our public planning process does not set a worse precedent for rank incompetence that leads to woeful tragedy. Seattle Mayor Michael McGinn, who still opposes the Deep Bore Tunnel, has stated truly the agency process results in predetermined outcomes.

I have carefully studied and scrutinized Seattle's Alaskan Way Viaduct replacement project since the Nisqually earthquake of February 2001 which hastened its long-predicted as 'unavoidable' replacement. I have likewise studied the Columbia River Crossing project since 2006. Several engineering perspective maps & drawings in this report have been kept from public attention and/or understanding though they are agency products. I have submitted the contents of this report over the years to many public agencies yet none have deigned to answer its most grievous concerns. Public safety is being jeopardized. Life, limb and property will be lost if Wsdot competence remains unchallenged.

I will thank you for taking responsibility in this matter. Many would as well be grateful but need not learn the extent of the mortal danger they would face and fear daily on completion of these dreadful highway projects.

Arthur David Lewellan
1020 NW 9th Ave #604
Portland Oregon 97209



IN THE CIRCUIT COURT OF THE STATE OF OREGON
FOR MULTNOMAH COUNTY
Multnomah County Courthouse
1021 SW 4th Avenue
Portland, OR 97204
503.988.3235

State of Oregon)
)
vs.)
Arthur David Lewellan)
Defendant.)

Citation No. ZA004983

AFFIDAVIT IN SUPPORT OF MOTION FOR RELIEF FROM DEFAULT JUDGMENT

I, Art Lewellan, depose and say that I am the defendant in the above traffic violation. Pursuant to ORS 153.080, this affidavit represents my sworn testimony concerning the above traffic violation:

This affidavit and personal statement is an explanation why I missed the court date of June 22, 2012. For several weeks prior I prepared the enclosed essay "How disabled people become productive members of society" with the intent to submit it as important to defend my plea of Not Guilty based upon evidence (in my case) that Tri-Met Policy discriminates against disabled people, not just myself. Included are newspaper articles "What Could Possibly Go Wrong?" etc, to help explain my almost deliriously anxious mental state regarding policy & practice of Transportation and Transit planning agencies.

I missed the court date inadvertently under what for me was extreme duress, mistaking the date to be the 27th instead of the 22nd. I apologize for my error and wouldn't mind being proven wrong about policy & practice even if it takes a dozen court cases to get answers to these most grievous concerns summarized in this affidavit. I believe criminal wrongs which exhibit a malevolent disregard for public safety are being committed by State, County & Municipal departments of Transportation and City Planning that warrant a formal official investigation.

I hereby declare that the above statement is true to the best of my knowledge and belief, and that I understand it is made for use as evidence in court and subject to penalty for perjury.

Date June 25th 2012

Signature

Art Lewellan
Print Name

PORTLAND CITY COUNCIL
COMMUNICATION REQUEST
Wednesday Council Meeting 9:30 AM

Council Meeting Date: 2-20-13

AUDITOR 01/23/13 PM12:45

Today's Date 1-23-13

Name ART LEWELLAN

Address 1020 NW 9th Av Apt 604

Telephone 503-227-2845 Email Lotiliro@gmail.com

Reason for the request:
CRC – Time for a "Time-out?"

(signed)

- Give your request to the Council Clerk's office by Thursday at 5:00 pm to sign up for the following Wednesday Meeting. Holiday deadline schedule is Wednesday at 5:00 pm. (See contact information below.)

- You will be placed on the Wednesday Agenda as a "Communication." Communications are the first item on the Agenda and are taken promptly at 9:30 a.m. A total of five Communications may be scheduled. Individuals must schedule their own Communication.

- You will have 3 minutes to speak and may also submit written testimony before or at the meeting.

Thank you for being an active participant in your City government.

Contact Information:

Karla Moore-Love, City Council Clerk
1221 SW 4th Ave, Room 140
Portland, OR 97204-1900
(503) 823-4086 Fax (503) 823-4571
email: **Karla.Moore-Love@portlandoregon.gov**

Sue Parsons, Council Clerk Assistant
1221 SW 4th Ave., Room 140
Portland, OR 97204-1900
(503) 823-4085 Fax (503) 823-4571
email: **Susan.Parsons@portlandoregon.gov**

Request of Art Lewellan to address Council regarding CRC - time for a time out (Communication)

FEB 20 2013

PLACED ON FILE

Filed FEB 15 2013

LaVonne Griffin-Valade
Auditor of the City of Portland

By _____

COMMISSIONERS VOTED AS FOLLOWS:		
	YEAS	NAYS
1. Fritz		
2. Fish		
3. Saltzman		
4. Novick		
Hales		