



CROSSING THE NARROWS

A land use issue

*Relationships between
traffic congestion on the
Tacoma Narrows Bridge
and Gig Harbor Peninsula
growth and development*

A CITY CLUB of Tacoma
Community Studies Report

CITY CLUB
of  **Tacoma**

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Letter of Transmittal

This report, *Crossing the Narrows, A land use issue*, is another in a series of CITY CLUB Community Studies Reports about matters of concern to Tacoma, Pierce County and nearby areas. When starting work 18 months ago, the study team found a great wealth of technical reports on Narrows Bridge traffic congestion. We asked ourselves, "Do we really need another study of the bridge?" We decided we did; studies completed in the last ten years had failed to resolve a worsening problem of traffic congestion on the span.

Surprisingly, the experts who produced the studies did not give much attention to the issue that greatly concerned affected residents and the Peninsula Neighborhood Association which spoke for them, the impact on land use regulation of the proposed improvement. They believe more lanes across the Narrows will generate increased traffic, encourage unwanted additional growth and development, and severely damage a prized life style, the magnet that had prompted many of them to settle west of the Narrows Bridge in the Gig Harbor area.

Accordingly, our study was broadened to examine "growth management, regionalization, environmental concerns, public input and economic development." Land use issues, of course, cannot be isolated from transportation solutions, many of which carry important land use implications, but we focused on finding land use strategies which would address identified transportation problems without opening the area to uncontrolled growth and development.

We conclude that Pierce County and the State of Washington must maintain the growth and development controls built into the Growth Management Act and the County's Comprehensive Plan. Our report states that the "land use growth and development concerns of residents of the Gig Harbor Peninsula must be addressed explicitly and forthrightly as a key part of any decision about Narrows Bridge congestion." We also suggest that bonds to pay for increased bridge capacity incorporate "reliable and enforceable guarantees that existing land use statutes, ordinances and regulations limiting growth will remain fully honored."

On May 16, 1997, the stakeholders representing affected agencies and communities selected three options for detailed scrutiny in the required Environmental Impact Statement (EIS). They are a parallel span, a second deck on the existing bridge, and no action, except for traffic flow improvements and seismic work on the existing bridge. One of the "build" alternatives including added lanes on portions of SR-16 is expected to emerge as "preferred" in 1999.

The report includes a digest of the land use panel discussion at the April 2 dinner meeting of the CITY CLUB. We extend special thanks to the panel, to the University of Washington, Tacoma, student unit led by Professor Ron Butchart, to Ben Gilbert for writing, editing and formatting the report, and to Jean Cooper for generous assistance in final editing. The study team:

Ron Butchart	Jean Cooper	Dave Johnson	Joe Quaintance
Rick Carr	Ben Gilbert	Carmela Micheli	Dan Smith

Also contributing were Karl Anderson, Shirley Bushnell and Casey Cochrane.

While the club's Community Studies Committee has approved the report, it may not represent the views of all club members. They will receive ballots to vote on it with their copies.

Sincerely,



Liz Heath, Chair

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CROSSING THE NARROWS

A land use issue

Background and current status

Anyone who has made a rush hour automobile run across the Narrows Bridge between Tacoma and the Gig Harbor Peninsula knows that there is a traffic capacity problem on the graceful span. Engineering and transportation studies lead to one conclusion: a bad situation can only get worse with crossing the Narrows becoming as frustrating as navigating the crowded crosstown streets of New York's Manhattan Island.

Most of the congestion and traffic backups tend to occur during the two rush hour periods as thousands of commuters make the trip between home and work. It is particularly stressful in evenings, but frequent tie-ups also take place mornings. An accident can back up traffic on SR-16 connections at any time. Transportation experts expect congestion to become all-day events unless additional bridge capacity is provided.

The United Infrastructures Company, consultants retained by the State Department of Transportation to study the many alternatives suggested, reduced the list of choices to three, two for building additional bridge capacity and a "no action" alternative which would not expand Narrows crossing capacity, but would provide for improved traffic flow management and seismic retrofitting of the bridge. Both "build" alternatives, construction of a parallel span or double-decking the existing bridge, provide three lanes in each direction, widening of SR-16 from Cedar St. in Tacoma to Purdy on the Peninsula and seismic retrofitting. Stakeholders approved the three options on May 16, 1997 clearing the way for a "detailed environmental, economic and societal analysis" with a full-dress Environmental Impact Statement (EIS).

The Federally mandated EIS must examine "environmental elements" including land use, zoning, displacements, hazardous materials, and water resources. It will study such quality of life issues as noise, air quality, wildlife, fisheries, vegetation, and geology which also have land use implications. Because related roadway improvements qualify for Federal assistance, the EIS will also look at historical, cultural and archeological impacts and, given the graceful beauty of the Narrows Bridge, its visual quality.

A revised EIS will be issued in 1999 following a public advisory vote on tolls to pay for the project. Balloting will be limited to Washington residents who cross the bridge or are otherwise affected economically by it. The State government, not the voters, will select the "preferred" alternative. Costs of either a new bridge or second deck on the existing span are about the same, ranging up to \$390 million for the basic construction and approaches, but rising up to \$475 million to provide recommended widening of SR-16 between Purdy and Cedar St. in Tacoma. The selected bridge building proposal would be paid for through capital borrowing with user tolls amortizing the bonds. The SR-16 improvements would qualify for Federal funds, but may be affected by the deficit reduction agreement between the President and Congress.

Land use, key to consensus

A CITY CLUB studies group which began to tackle the problem eighteen months ago discovered that the issues which superficially seemed to be ones for determination by transportation planners and bridge construction engineers were generating a great deal of political controversy. It appeared that land use issues, rather than the debates about bridge design that bridge building proposals often stimulate, were fueling vocal opposition to an additional Narrows crossing. The club's community studies team decided to address "not only transportation, but also growth management, regionalization, environmental concerns, public input and economic development." As team members familiarized themselves with studies about ways to add capacity to the crossing and the viewpoints of affected residents on both sides of the bridge, they concluded that prospective land use impacts in areas adjacent to the bridge, but most particularly in the Gig Harbor area, required special attention if a "consensus" solution acceptable to Peninsula residents, the rest of affected Pierce County and Washington State is to be achieved.

Bridge studies have concentrated on construction and cost issues and given only passing attention to land use questions. An April 2 CITY CLUB panel program brought together a panel of knowledgeable experts who homed in on land use issues and the impact of transportation decisions on economic development and growth. Land use questions stir interest in Kitsap and Mason Counties and Bremerton too, but they do not generate the public resistance to future growth in those locations that characterizes much of the Gig Harbor reaction. That difference should not evoke surprise since Gig Harbor area residents live close to the span and are likely to be more sensitive to the proposed new crossing's impacts.

The Puget Sound Regional Council's Transportation Policy Board recently urged that "significantly greater weight or priority" be given to growth and transportation strategies, particularly the role played by the state Growth Management Act (GMA) in balancing transportation and development goals. In linking transportation to growth, the regional planning body pointed out that transportation improvements may stimulate economic growth while changes in development guidelines may alter transportation requirements.

The Growth Management Act and Pierce County's Comprehensive Plan require the withholding of development permits where support facilities including transportation are lacking. Presumably, the additional cross-Narrows capacity is being designed to relieve existing and projected congestion on the span, not to facilitate unwanted growth and development. Once more crossing lanes are built, however, the study team asks: Will the improved crossing open the way to accelerated growth and development in the Gig Harbor Peninsula and beyond? Or, to rephrase the question in economic and political terms: Will the growth and development controls put in place by the GMA and the County's Comprehensive Plan continue to hold? Governor Locke has vetoed two measures weakening the GMA but indicated he will accept minor changes recommended by the state's Land Use Study Commission.

As the Transportation Policy Board pointed out, land use and transportation decisions are closely intertwined. Strategies to decrease the number of single occupancy vehicles on SR-16, thereby making the highway operate more efficiently, also have land use implications in terms of air pollution, backups on approach roads, etc. Other transportation induced land use impacts include proposed changes to on-off ramp locations. Acquisition of right-of-way to widen SR-16 is an evident land use matter. A total of six rental residences, three commercial businesses and Tacoma's Living War Memorial Park at the bridge would be displaced by both "build"

proposals. Double decking the existing bridge carries with it the need to solve an “approach geometry” problem, a land use issue which the experts consider minor.

One alternative that was considered and discarded was the \$1.5 billion northern crossing linking the up-peninsula area more directly with Seattle over or across Vashon Island. Gig Harbor residents backed it to reduce cross-Narrows traffic, but it drew strong opposition from residents of Vashon who opposed it on land use and life style grounds not dissimilar to objections voiced by Gig Harbor residents to Narrows crossing solutions. It was scrapped when origin and destination figures showed this expensive solution would not do the job.

An “origin and destination” study last June by United Infrastructure established that 61 percent of eastbound bridge users leave Gig Harbor area each morning while 29 percent come from Bremerton and South Kitsap. Just 45 percent of the total have Tacoma as a destination while 24 percent head to other Pierce County locations. The remainder travel largely to King County including 7 percent to Seattle. Evening westbound trip percentages across the bridge were mirror images of the morning figures. The study report “confirmed earlier findings that during the week most bridge traffic is local,” United Infrastructure stated. Just four in ten weekday trips are by commuters to and from work while three of five cars have only one occupant. Ferries, the study concluded, would not be popular with bridge users.

The highly visible public discussion of the search for a solution has produced many articles in Tacoma and Gig Harbor newspapers and other publications, sometimes with follow-up editorials, a continuing flurry of letters to the editor and heated talk show debates. “Narrows Bridge traffic” made the list of important Pierce County issues at an April 18 Deming (quality management) workshop on “Tools and Connections for Community Building.”

On March 9, 1997, the News Tribune placed a story about bridge congestion in the right-hand column of Page One, moving the debate from the back pages. It carried this headline:

Up to 7 hours of congestion daily predicted for Narrows

Massive snarls seen in 2020 if
new bridge or deck and more
lanes aren't added

Additional “standard” auto lanes

Engineering studies have focused on providing additional and safer automobile lanes to move the traffic across the Narrows. Both bridge construction alternatives would expand the present constricted and accident vulnerable substandard four 10.5 foot lanes to six standard 12 foot lanes, three in each direction. There is an evident need to widen SR-16 to forestall tie-ups at the bridge approaches. How the improvements will affect the connections with I-5 is an unanswered question likely to get EIS attention

Measures to increase the operating efficiency of the improved facilities by using System Management and Demand Management strategies which emphasize moving people rather than vehicles are on the table. They would have important land use implications, conceivably adding years to the useful life of the expanded crossing. Strategies would include toll free priority lanes for mass transit and cars with at least two occupants, spreading rush hour traffic peaks by staggering work hours and promoting car pooling. Priority lanes would be toll free for multiple occupancy vehicles with cars carrying a sole occupant, the driver, paying a \$1 premium to use priority lanes. Strategies which are available for possible later use include reversible lanes during rush hours and differential pricing to make it more expensive to drive alone at peak times. Projections show traffic continuing to increase over time, even if effective land use controls and transportation strategies successfully moderate the flow of automobiles using the crossing.

Spotlighting the GMA

In spotlighting the GMA, the state's primary urban growth regulatory mechanism, CITY CLUB's study team took account of the way land use has figured in both planning and political debates. Highly regarded in the Gig Harbor area are the protective land use controls which generally limit residential construction within the designated Gig Harbor Urban Growth Area (UGA) to four units an acre and to one unit for five and ten acres in areas reserved for future growth immediately outside the UGA. Similar urban growth boundary lines surround other Pierce County urbanized areas.

Gig Harbor has had some successes in its continuing fight against development-induced urban congestion, including enactment of a community development plan two decades before Pierce County adopted the now controlling County-wide Comprehensive Plan. The County plan carries out the GMA directive to channel future growth into the cities and their vicinities where "infrastructure" facilities, such as water, sewers, schools, roads and police protection, already exists. Gig Harbor demonstrated its political clout in successfully opposing the building of a Walmart superstore, contending that the mega-store was out of scale with the existing community. The County Council, during its required periodic reviews of the comprehensive plan, undoubtedly will be called upon in future years to resolve differences between residents of settled areas such as Gig Harbor and large landowners and developers who are likely to press for easing restrictions and the vaulting of the county's urban growth control boundaries.

Many residents of Gig Harbor who cross the Narrows each day to reach their jobs appear reconciled to continuing traffic congestion, possibly seeing it as a trade-off for the more relaxed sometimes water-related life style that prompted them to move to Gig Harbor in the first place. Organized as the Peninsula Neighborhood Association (PNA) to monitor the way the Growth Management Act is carried out, they have used governmental and political processes aggressively to make themselves heard and felt. PNA took the lead in opposing bridge expansion proposals, essentially because they failed to address land use issues affecting the Gig Harbor area. Understandably, Gig Harbor area residents fear that increased cross-Narrows capacity will generate development pressures strong enough to push aside local and County land use controls PNA has fought for over a quarter of a century.

In the study team's view, it is unrealistic to attempt to resolve the very real transportation congestion problems on SR-16 without putting in place companion controls on land use to prevent added travel capacity from undermining the Growth Management Act in the areas affected. Although technical studies have not directly addressed land use issues, a platform on which to build a consensus achieving solution could be provided by the EIS which has land use on

its agenda. Moreover, recent public discussions including the panel program sponsored by the CITY CLUB have heightened the visibility of the issue. Ultimately, action through the political process and the courts can be expected from both concerned residents and prospective developers.

A range of viewpoints on land use

To provide a coherent picture of this underlying issue, the CITY CLUB assembled a panel of four experts on land use, representing a broad spectrum of viewpoints including a Gig Harbor neighborhood activist, a senior County planner, a leading developer, and a public official from Bremerton. Michael Davolio, planner and president of the Washington State chapter of the American Planning Association, conducted the meeting as panel moderator. He presented two questions to the speakers: Within the framework of the GMA, "what changes to current land use patterns would be most effective in resolving transportation congestion," and "what would be the impact on both sides of the bridge of an Intel-like development in the Gig Harbor area, and would this be a desirable objective?"

The panel included Chip Vincent, principal planner for Pierce County's Planning and Land Services Department, who explained the mapped controls on growth and development established under the Growth Management Act; Rick Yasger, a founding member of the Peninsula Neighborhood Association, who highlighted concerns of PNA's constituents on the Gig Harbor Peninsula; Richard Brandenburg, executive director of the Port of Bremerton, who has strived to increase business activity at the port, and David Cunningham, community relations vice president for Pope Resources, who presented the viewpoint of the development and land management firm which has potential development holdings generally north and west of the City of Gig Harbor.

Planner Vincent stated that the GMA would allow a moderate amount of population growth in Gig Harbor, by 3,000 persons to 7,000 within the next two decades. Areas outside the Urban Growth Boundary, held in reserve for possible future growth, could accommodate another 6,000 persons. An Intel-like development would run into high housing costs and would not relieve transportation pressures unless prospective employees lived in the vicinity, a doubtful outcome, Vincent said. (*See map.*)

Community activist Yasger said that serious attention to GMA's anti-sprawl mandate will ultimately make greater residential densities [within already urbanized areas] more attractive. Growth, he asserted, "does not pay its way," because of hidden environmental, economic and social costs which are not charged to developers when they apply for permits. An Intel-like development would be out of scale as was the Walmart superstore, he said.

Bremerton Port Director Brandenburg felt that traffic pressures would only be relieved if residents lived near their work places. Logic suggests that higher densities in some outlying areas make sense, he said. An Intel-like development, even in the Bremerton area where land may be available, would be stymied by limitations on both water and sewer capacities. Companies like Intel are large users of water which they, of course, discharge as waste or may recycle.

Developer Cunningham, agreeing about the value of living near work, pointed to a need for "more industrial land with adjacent opportunities for residential development, for mixed used projects and master planned communities," but probably not huge ones. The scale of Intel would be beyond properties he is familiar with, but smaller ones would work, he suggested. Moderator Davolio, in a midway pulling together of the discussion threads, pointed out that most of the land on the Peninsula has been developed for residential purposes while most of the jobs are on the mainland across the bridge.

Audience questions focused on water supply problems, issues relating to living close to one's work, and the need for more community involvement in decision-making. One speaker proposed that infrastructure, including electronic connections, be provided for the entire Puget Sound area as a basic problem-solving strategy so that homes and work places could be constructed where desired. On community involvement, Davolio stated that the goal should be to make sure "that the community had enough good information to make an informed decision." (*See Appendix A for a digest of the 90 minute program.*)

Initially, the CITY CLUB team reviewed the more than a score of engineering and other technical studies on the bridge completed in the past decade. Ron Butchart, a study team member on the faculty of the University of Washington, Tacoma, assembled a 16 person team of student writers and editors to review and summarize the studies for the study group. These studies, taken together, clearly assumed continued reliance on the automobile as the primary means of cross-Narrows transportation, a fact which panelist Yasger cited as part of the problem. Several alternatives were offered by the 19 studies deemed relevant to the CITY CLUB team's task. (*Appendix B contains a summary of that work. The full document may be consulted at CITY CLUB's office and the Tacoma and Gig Harbor Public Libraries.*)

Conclusions and recommendations

Principal conclusions and recommendations of the CITY CLUB study team's review of public discussions, community views, and technical reports on Narrows Bridge congestion, and its examination of related land use issues:

- Land use growth and development concerns of residents of the Gig Harbor Peninsula must be dealt with explicitly and forthrightly as a key part of any decision about Narrows Bridge congestion.
- Both solutions offered, a parallel span or a second deck on the existing bridge, are acceptable provided suitable steps are taken to prevent unwanted runaway growth on the Gig Harbor Peninsula.
- Bonds to pay for increased bridge capacity should incorporate reliable and enforceable guarantees that existing land use statutes, ordinances and regulations limiting Gig Harbor Peninsula growth will remain fully honored. Those guarantees should be written into the ballot question to authorize levying of bridge tolls.
- Enabling legislation to authorize and pay for proposed Narrows crossing improvements should clearly state that the additional capacity is NOT being provided to promote unwanted growth and development.
- The State's Governor and its Legislature and the Pierce County Council should reject efforts to dilute relevant land use provisions of the State Growth Management Act and the Pierce County Comprehensive Plan.
- Strategies to use the new transportation facility more efficiently should be put into effect to minimize future adverse land use impacts, protect the environment and extend the useful life of the crossing.
- Kitsap and Mason Counties should complete their Comprehensive Plans as soon as possible to assure that construction of additional bridge capacity will not be allowed to stimulate uncontrolled growth.
- The PNA and other community organizations are encouraged to monitor land use and other impacts of the new facility to identify and address potential adverse effects promptly.

Appendix A - Digest of April 2, 1997 Panel Discussion

Following is a digest of the April 2, 1997, CITY CLUB panel discussion of land use issues swirling around proposals to resolve growing traffic congestion problems on the Tacoma Narrows Bridge. Michael Davolio, planner and president-elect of the Washington State chapter of the American Planning Association, moderated the discussion.

Michael Davolio, moderator: In little more than a generation, traffic in the SR-16 corridor has increased sixfold. Today 86,000 vehicles per day travel along that corridor. At the same time, the populations of Kitsap County and the Pierce County Peninsula area have increased by little less than two and a half times to 230,000 people. We ask how we allowed this congestion to get so far out of control, as we wonder what we can do to solve the problem.

More than a population problem

We have viewed this issue, primarily, as a traffic problem, and we've looked to transportation planners and traffic engineers to help solve it. We know it is more than a population problem. We also know that it involves more than too many vehicles on the road. It involves an accumulation of past and present land use decisions and policies. Today's situation is a result of the cumulative impact of those decisions and policies. Tonight we'll look at land use policies of the past and the present to see whether any possible answers lie in that direction.

A resource that we have is the state's Growth Management Act. This has been the single greatest change in the state's land use policy in recent history. First implemented in 1991, the GMA has forced cities and counties to rethink past land use policies. Cities and counties started linking land use policies to the need for public facilities and infra-structure. The Growth Management Act requires cities and counties to work together to identify appropriate areas for growth and to

protect rural areas and natural resources from the effects of that growth. We need to focus on the resources that may be available through GMA or otherwise to improve traffic conditions in the SR-16 corridor.

Speakers asked two questions

Tonight's speakers have been asked two questions. First: Given the Growth Management Act as the tool to manage growth, what changes to current land use patterns would be most effective in resolving transportation congestion? Second, and this is hypothetical: What would be the impact on both sides of the bridge of an Intel-like development in the Gig Harbor area, and why would this be or not be desirable? Intel is not looking in Gig Harbor.

First to speak is **Chip Vincent**, principal planner for Pierce County's Planning and Land Services Department. For six years Chip has been responsible for the development and implementation of the Pierce County Comprehensive Plan as head of advanced planning. Chip.

Chip Vincent: The first question, what kind of land use configuration would be most appropriate, is not easy to answer. To provide an understanding of what has occurred in Pierce County over the last six years, I'll go through this map showing current land use configurations in Pierce County. The major portions of the county that contribute to the Narrows Bridge are on the Key Peninsula and the Gig Harbor Peninsula. Tacoma and Gig Harbor are incorporated. The unincorporated areas of the county are where most of the growth contributing to Narrows Bridge traffic has been occurring. Starting on the Key Peninsula and working our way in, the Key Peninsula is a residential area that's rural, basically a density of one dwelling unit per ten acres. We provide some bonus densities to cluster in that area. If you have ten acres and are willing to put fifty percent of the land, or five acres, into permanent

open space you can get two dwelling units on the remaining five acres. That's one of the bonus density incentives to provide some economic benefits for the people who own the land, as well as maintain the rural character and openness associated with the Key Peninsula. So the Key Peninsula has significantly been reduced in the terms of the amount of development potential that was in effect before 1990. Then, the County had general use zoning allowing urban densities, as high as five dwelling units per acre on the Key Peninsula.

Gig Harbor growth magnet

It is to the east, across the Purdy Bridge to the Gig Harbor Peninsula, where most of the growth and development has been occurring. I'll identify Fox Island, and the areas on the western side of Gig Harbor Peninsula that are R-10, a base density of one dwelling unit per ten acres. Then there are Reserve 5 areas, a rural designation of one dwelling unit per five acres, an area established if it becomes time to expand the urban growth boundary out to accommodate new urban growth and development in an orderly fashion. It's a significant reduction over development densities that were provided prior to 1995.

Now, I'll point out the Urban Growth Boundary for the City of Gig Harbor. The area that's defined by this boundary is where most of the growth and development is to occur on the Gig Harbor Peninsula and within the City of Gig Harbor, a very sharp contrast between what is rural and what is urban. Within the urban growth boundary are moderate density single-family districts, and within the Gig Harbor city limits, provision for an average density of four dwelling units per acre. Other areas are commercial shopping and services nodes that provide the service needs and commercial needs for the people who live on the Gig Harbor Peninsula. We also have employment areas that provide a manufacturing and employment potent-

ial in the Gig Harbor Peninsula. Finally, there is Gig Harbor North, an employment based planned community and a master planned community. A lot of changes since the comprehensive plan was adopted refocus and reshape the Gig Harbor and Key Peninsula; the growth that's going to occur is largely within Gig Harbor and the Urban Growth Boundary.

Areas reserved for growth

That's not to say that growth isn't going to occur in rural areas. As an example, the R-10 and Reserve 5 areas can still accommodate another 6,000 people. Gig Harbor, a city of a little over 4,000 people right now, is planning to grow by 3,000 people to the year 2017. So we're going to have more population growth in the Gig Harbor Peninsula and Key Peninsula areas, but significantly reshaped in terms of the development potential provided. Pierce County has taken great strides to deal with this issue. A recent study done by the Department of Transportation indicates that about sixty percent of the a.m. peak trips coming across the bridge come from within Pierce County. Mason County and Kitsap County also contribute to the congestion. Unfortunately, these two counties have had great difficulty meeting the requirements of the Growth Management Act. Both Mason County and Kitsap County are yet to adopt comprehensive land use plans. Bridge and land use issues go beyond the borders of Pierce County.

The second question was about the implications of an Intel-like development on the Gig Harbor Peninsula. If you have an Intel-like development, it won't deal with the issue unless the people who work there live there, but the Gig Harbor Peninsula has some of the highest housing costs in Pierce County. In addition, people like to be mobile. They like to choose certain school districts and to afford certain housing types. The second problem is manufacturing freight movement. Where will the freight trucks go? An Intel out there would simply exacerbate the existing situation.

Gig Harbor's relaxed life style

In the Gig Harbor Peninsula a lot of the people choose a life style that's not intensive, not a lot of multifamily, low densities, not more than four units per acre. Where I live in north Tacoma, we have an average density of eight dwelling units per acre. To accommodate more housing might mean higher densities than citizens would accept. Infrastructure needs are obvious. We're talking about roads tonight, but existing sewer and water systems are inadequate to deal with a lot of growth and development. A positive from an Intel-like development would be the new business spin-offs that would provide employment opportunities for some people who live there, possibly at higher incomes and higher wages. The business might provide for commuter trip reduction programs, such as telecommuting, flex hours, carpool lane, bus vans, and busses. It could increase the tax base to deal with some infrastructure issues. Intel-type development would provide a diversified economic base.

Davolio: Our next speaker is **Rick Yasger**. Rick is a founding member of the Peninsula Neighborhood Association [PNA], has been its president and has held about every office over there. Rick is a software engineer for Boeing.

Rick Yasger: I would offer an analogy. A woman looks for a ring in a city park in the parking lot at night. She was asked, "Where do you think you lost it?" She responded, "Over there in the bushes." "Why then, are you looking here?" She replied: "The light's much better over here." That's kind of what I sense with the Narrows' problem. We're good at counting things, but we don't really look at things that count. This is something that's been haunting me all the time I've been in PNA. We just don't ask the right questions. We've been asked two questions about how the GMA addresses the problem. Growth Management is something that PNA has really pushed. In some ways, perhaps, Pierce County was the poster child that made the Growth Management Act happen. PNA has gotten used to trying to enforce compliance

with GMA, and we're paying off a substantial legal fee for that. We've been beat up by people accusing us of wanting to blow up the bridge because we've got ours. We've been called anti-growth, anti-business, but the fact is we try to speak from the heart. We also try to understand the technical issues that are behind the problems of land use; we don't have a transportation problem, we have a land use attitude problem.

Hidden costs of growth

The idea of the Growth Management Act is to funnel growth into more compact areas known as urban growth areas where infrastructure already exists. By placing growth where the roads, sewers, utilities, and schools exist, it is more cost effective. People don't always understand the value of the forest ecosystem, or aquifer recharge area, or habitat conservation area, but they sure understand money. Pushing growth where infrastructure exists reduces the cost of growth in the form of increasing property taxes, higher insurance rates, higher crime, and more time spent on such things as backups on State Route 16. These are costs that, in the past, developers and officials have expected communities to pay. There are also costs that you spend on health care, on a cold remedy because of air pollution, the cost of an extra car, on putting an extra member of the family to work to pay for housing and things going up in value, the time away from your children because you're sitting in backups or having to take a second job, the money you spend on day care because you can't be at home taking care of your children like it used to be possible.

If we implement Growth Management and are serious about it, that will make density more attractive. Right now most people think of density as living in a cell block apartment complex. I wouldn't blame anyone for not wanting to live there. But take a trip to a European city, take a trip to Georgetown in Washington, DC, downtown Gig Harbor, downtown Portland, why do you like going to those places? Because it's a place

where you feel a sense of arrival. It's a place worth caring about. It's a place where the human being is considered the primary focus, not the automobile. It spares natural areas that provide ecological services that we currently take for granted, not only as individuals but within our accounting system. Now, we're starting to get better at quantifying just how valuable a wetland is or a forest area. Anyone who has lost a house to a mud slide can attest to that. I heard a figure of \$17,000 per acre a wetland provides in terms of flood control. With 50 years of automobile oriented land use policy, we're now starting to see the bill come due. There is a great deal of denial about this problem that we need to address. Until we overcome that denial, forums like this are great vehicles we can use. But there's a lot of resistance to change. We've been hammered by the property rights movement, we've seen it expressed at the state level. There are currently many efforts to dismantle the Growth Management Act.

Price of automobile addiction

This is a national attitude problem we can't solve here, people who value privacy of their own home over what they see as the public realm, their streets, neighborhoods, entire communities. We also have a lot of resistance from the concrete, automobile, and petroleum lobbies who have a vested interest in maintaining our automobile addiction. Growth does not pay its way. We are expected to pay for roads through subsidization of infrastructure, and you're starting to see more and more resistance to this subsidy. The fact that school levies are now being voted down more often shows people simply cannot handle the increasing tax burden. I've seen the price of that automobile addiction coming due at a time when our economy is being faced with global competition. We need meaningful impact fees that put environmental, social, and financial costs of automobiles and other wasteful practices onto the balance sheet.

An Intel development would be out of scale with other developments in

Gig Harbor. We fought Walmart because it was out of scale, not because of what it did, but because it threatened what was already there in terms of scale. People make choices based on options. If you try to bring in an employer with the idea of altering transportation choice, it will probably backfire. Communities just don't evolve in that fashion. They're more organic. Trying to match up the people that already live in Gig Harbor with jobs sounds like a great idea, but in reality if you look at the Dupont development, there are a substantial number working there brought in from out of state. It would be nice to see the high-wage jobs. I currently work for a high-wage employer, a major aerospace company struggling with these issues Puget Sound wide; they are under a great deal of competitive pressure. Without taking that into account, it's very difficult for a community, even one the size of Tacoma, to take on these issues. I would like to see them brought into the forums, as long as we don't concentrate on the technicalities. The commute is too long, too many cars, but take the big picture into account.

Davolio: The first two speakers spoke very eloquently about what we're paying for the historic development pattern that we've experienced in this area. Obviously on the Peninsula side, the majority of the land has been developed for residential purposes and the majority of the jobs are on the mainland. And since there's only really one way to get back and forth we're paying the price for that now.

Another perspective

The next two speakers are going to speak from a different perspective, the ability to create jobs in the Peninsula in a way that will fit in with the communities. Next is **Richard Brandenburg**, a Bremerton native who has spent 25 years in commercial real estate in Puget Sound. He's developed industrial sites and retail centers in Kitsap County; since last July, he's been the executive director of the Port of Bremerton. Dick.

Dick Brandenburg: This will be a little different perspective. Visualize looking at a 180 degree view of the Olympic mountains out your window. Visualize getting to that view by driving through a forest lane. After lunch you'll walk through a nature path. I'm talking about property in the Port of Bremerton. I'm talking about property that we will be able to lease at about \$6,000 per acre, per year.

I'd like to ask how long do you think it takes to drive from the Port of Bremerton offices at Bremerton National Airport to this meeting tonight? Just a guess. How long do you think it would take?

Audience: Forty minutes.

Brandenberg: Forty minutes is correct. When we leave Bremerton to come to Tacoma in the evening, or going back to Bremerton in the morning, we're in a reverse commute. So we don't have the pressure that Rick was talking about with his commute to Auburn. We see it, and now when we go to Olympia every morning we go through Shelton, rather than sit at Purdy bumper to bumper.

A little different pain

We in Kitsap County have a little different pain. I know Kitsap County does not have an approved GMA, but the Port of Bremerton does have an urban growth area. We are able to bring new business to the port, 1700 acres, as fast as possible. The first question is, how can the Growth Management Act help in alleviating the transportation problem? It's as simple as saying work where you live. And any of you who have traveled and have had the pleasure of going to Wurttemberg, Germany, there's an ideal situation. It is certainly congested, but it is a wonderful environment with very happy people that live in that walled city, walk to work, walk outside of the walled city to where they park their car and go on adventures from Wurttemberg. Now, that is an extreme example of working where you live.

I would think that the best combination of circumstances would be for the planners, like Chip, and the

voters, and the users of the land, like Rick, and probably most of you, to be able to put together your thoughts in a rational manner and be able to say, okay, I recognize that people are going to have to live in an area where they work, compared to having any density over one house per every 20 acres which will be ruinous. That logical, clear thinking is what is going to make the circumstances livable for everybody.

Personal interest demands

What galls me are folks that selfishly demand their personal interests. I lived on Bainbridge Island from 1963 to 1985. Both my wife and I worked and needed our cars to go to Seattle. We became so involved with the community that it was driving us to the point where we were just not comfortable living there. With having a union controlled bureaucracy, the State Ferry System, deciding our comings and goings, we moved to Seattle. It's a delight to be back in the Bremerton environment where, when the Growth Management Act finally gets into Kitsap County, hopefully this fall, there will be some logical conclusions rather than the irrational, selfish thinking that has stalled it.

Regarding the second part of the question, about Intel, I have a different answer than most people would ever come up with. The Port of Bremerton did look at Micron, which is similar to Intel. There was a very good reason that Micron did not come to Kitsap County. It will not come in my lifetime because of sewage. A company like Intel requires about a million gallons a day, and Kitsap's infrastructure is not set for that. Bremerton National Airport is the site of industrial parks in the Port of Bremerton. We can go either to Port Orchard or Bremerton for sewage treatment; neither one combined can take care of something like Intel. So from a professional, selfish point of view, an Intel would not change us because they've already said that they couldn't be there. It's really not an issue for the Kitsap County. Thank you.

Davolio: Our final speaker is going to talk about developing property in the Peninsula area. **David Cunningham** is vice-president of public affairs and government relations for Pope Resources. David spent his childhood in Tacoma; he worked five years for Whatcom County Planning. He served for five years as the youngest planning director in this state for Port Townsend and Jefferson County. He has spent nineteen years with Pope Resources. Currently, he advises the company on such issues as growth management, environmental and associated regulatory matters. He maintains relationships with government agencies, and with special interest groups and Indian tribes. David also serves on the board of the Kitsap Economic Development Council and the Forest Protection Association. David.

David Cunningham: Thanks Mike. Thanks to Liz and the City Club for providing this forum. I was late because I got stuck on the bridge. This whole issue of bridge and land use can be viewed as a cause and effect situation. The cause is the population growth and the land use patterns that have emerged; the effect is infrastructure capacity gets short, and bridges and roads need to be larger to handle it. Each side of that, the cause and effect, has an easy part and a hard part. Looking at the infrastructure side of it, design capacity, and to some extent, financing, they can be built. Now, when you look at the land use side, it comes in those same two parts. Land planners can do marketing studies and environmental impact analysis and for all land use plans, that's very rational. That's relatively easy. The hard part is deciding what to do. This decision process is causing some of the difficulties.

So when asked to point to changes in current land use patterns that would be most effective in resolving transportation congestion, I think there is a need for more industrial land with adjacent opportunities for residential development, for mixed use projects and master planned communities. They don't have to be huge; they can come in different scales and different

locations. We should allow for decentralization. Too many people, I think, have taken the Growth Management Act's notion of urban concentration a bit far. I'm not so sure that the urban communities in the Puget Sound area in Western Washington, frankly, do have all the infrastructure capacity. I'm not sure those folks there are willing to pay for it for newcomers, and I'm not quite sure that those communities have the political will to simply let their neighborhoods grow and grow. The difficult answer in all this, again, is the process, how to decide? There needs to be some real collaboration between three sectors, the public sector, private sector, and what some call the protest sector. We really need to learn to set goals and plan together, make commitments together, and follow through on them.

Issues stir acrimony

In Kitsap County, and to a greater extent Jefferson County, some acrimony has emerged among the people in the community over land use issues. I lived in Port Townsend eleven years; there are people there whose families were together for four generations and no longer speak to each other. It's all over GMA planning. We need political leadership, folks to make some decisions and stick with them and defend them in court.

The second question is about an Intel-like development on the west side of the bridge. Let me just tell about our company, historically. We probably did the first industrial area in the State of Washington in Port Gamble in 1853. We built a port and an industrial area. That same year we did the first master planned community in the state, Port Gamble. The company also built housing, built schools, barber shop, had a morgue, and library. People who lived there, worked there. There were no traffic problems, and the infrastructure was quite adequate. Our company had three mills: one at Port Ludlow, one at Port Gamble, and one at the north end of Camano Island. We owned a great deal of Whidbey Island, Camano Island, Everett, Mukilteo, Edmonds, Mountlake

Terrace. Mid 1900's we were along side of Lake Washington. We developed Broadmoor and Washington Park and dedicated the Arboretum at the University of Washington. Today we have 76,000 acres in West Puget Sound between Gig Harbor and Port Townsend, Kitsap County, North Mason. Most of it is commercial forest land, but we also have some residential properties.

So, what about an Intel-type project on the west side of the Sound? That's not too hypothetical in terms of that kind of project, but it certainly has a scale that's far beyond anything that we might do. We have two key development properties that are employment centers in the West Sound, container employment centers. In Bremerton we have 270 acres, 65 for employment centers, with water and sewer, close to a freeway interchange. Kitsap discovered in its planning process that it needs 2,000 acres of employment center land over the next twenty years, and today it has only ten. The other one, Gig Harbor North, has 320 acres in Gig Harbor between Peacock Hill and the interchange. It blends residential and commercial with a 90 acre employment center, not big enough for Intel, but it could accommodate a planned community.

More questions than answers

Davolio: As you can see from what you've heard tonight, there are a lot more questions than answers, and, certainly, we haven't been able to answer nearly all the questions tonight. The panel is available to answer what questions you may have.

Question: What about the problems that the solutions create? I keep hearing about water problems that the Peninsula faces if there is an Intel-like community that is created. Is there enough water to handle the new residents and the employment center?

Vincent: That was an issue I identified when talking about Intel, and as Dick brought up in Bremerton, just dealing with the sewage issue. Water is probably the biggest problem on the Gig Harbor Peninsula. Simply, there isn't enough water. That has caused

significant environmental health problems. First, there is saltwater intrusion from a number of wells. Second, the groundwater table has been dropping as more people tap into the wells and draw down the aquifer. So a lot of people who have homes in homeowner associations find that in the summer they aren't able to draw the amount of water that they historically did. There also are sewage issues. On the Gig Harbor Peninsula, there is a significant issue about where to discharge sewage into Puget Sound. Right now, Gig Harbor has only a limited ability to discharge any more than the current flow into the harbor. And I'm not touching on the transportation side.

Brandenberg: The city of Bremerton, presently, has a 2 million gallon a day capacity for water. They also have three wells that can provide 50,000 gallons an hour each. We don't have a water problem. The Port of Bremerton buys its water from the city. We also have our own sewage treatment, so we probably can have a 500 acre development without any infrastructure problem.

Cunningham: Let me agree that water and sewer capacity is an absolute limitation. In Gig Harbor, users of the employment part of our property will be limited by those two factors.

Vincent: I read that in the Intel development at Dupont, the sewage issue is really about hazardous waste. Manufacturing chips involves caustic organic chemicals which are difficult to deal with. When you solve one problem, you may create another one. For example, when the last light between Gig Harbor and Mexico at 19th Street was removed, the backup shifted to Jackson Street.

Question: I'm interested in the concept of communities trying to decide what they want to be. It seems we have a lot of answers to technical issues that we bring to bear expertise from the public, private, and protest sectors. What do you see as your individual responsibilities and roles in helping communities decide what they want to be?

Davolio: If I could take just a second as a planner, my goal in that

type of involvement would simply be to make sure that the community had enough good information to make an informed decision.

Vincent: It's interesting you should ask that question in regards to the Gig Harbor and Key Peninsulas, because Gig Harbor is where the community planning process really started for Pierce County. We developed our first community plan for the Gig Harbor Peninsula in 1975. It was in place until the comprehensive plan was adopted. As part of that planning process, the community created the Peninsula Advisory Committee to review specific land use actions. Now that the County has a comprehensive plan, the Council is considering reevaluating and updating existing community plans. The comprehensive plan does a great job with county-wide issues but doesn't do a very good job with community characteristics, neighborhood environmental questions and an area's design features, issues better left to community plans.

Davolio: We need to keep the answers as short as we can.

Brandenberg: The Port of Bremerton has 1700 acres. McCormick Woods with an 18 hole golf course and magnificent home sites is already underway. A site that will be coming along in the next few years, one that Peter Overton owns, will be residential. And we have Christmas tree farms. We work closely with our neighbors to make sure that our planning connects with their planning.

Cunningham: It's a question that also pertains to discussions or debates over resource issues, about trees, or water, wildlife, or fish. When you come into such discussions, you obviously advocate but you also have a responsibility to listen and learn. In our community discussions, we endeavor to treat the others with dignity and respect. Frankly, in a lot of the GMA discussions, that's been sorely lacking in some places.

Yasger: My goal as a PNA board member is to work myself out of a job, and I haven't done too well with that. We tend to attract more support and interest when there's something to

protest. People group around things that they are against, better than what they are for. One of the things we did with Pierce County several years ago is sit down with them and help craft the comprehensive plan through the focus groups. It meant a lot of long hours, a lot of things to plod through. We kept trying to sell the idea: If you want to get out of the fire fighting business someday, you need to attend these meetings. It's been a very difficult sell, and I'm really open to some suggestions on that.

Davolio: We have time for a couple more questions.

Question: I'd be interested in hearing your insights on how you balance conflicts between restricting individual actions and rights versus providing for the apparent needs that are growing out of the community's direction of growth. In particular, I've heard comments about the need to live where you work. And Rick, you indicated the need to sacrifice individual needs for the greater good of the community, and yet you live in Gig Harbor and work and commute to Auburn. At what point, if the community was to come forward and say,

you must live within a certain radius of your work, at what point are we crossing a line and requiring too much in terms of meeting the needs that the public is actually asking for?

Facing a paradox

Yasger: Well, I've had that bullet fired many times. How do I accommodate a paradox in my life, a duality between a perfect world and the world I live in? At one time I did live where I worked, in Gig Harbor. Unfortunately, as jobs tend to do, it moved away from me. In fact, it's moved three times since I've lived in Gig Harbor. Most people either stay put and allow their commute to rise and shrink, or they chase their job and move. I did that for 27 years, and I realize that carries a price. A paradox is, capital is much more mobile than people. Witness anybody that works for a company that has relocated offshore in another country; mobility is considered a sacred virtue in America. And when you talk about balancing individual rights with what does the public good, individual rights are already being sacrificed through these

hidden costs that I've talked about.

Davolio: We have time for one more.

An infrastructure proposal

Question: I would like to make a proposal that might resolve something. I don't see any reason why we couldn't have an infrastructure that surrounds the entire Puget Sound. For transportation, it would be a heavy rail system with containerized freights, no trucks, and then light rail for moving people. In other words, people movers and goods movers. And localize them, let's say, in large loops, concentric to one another within a small area. Well, if you wanted to build a high density urban development, all you would have to do is come right over the top of it, build your structure, a highly organized structure, you'd have your transportation system, you'd have your sewer, you'd have your electricity, you'd have the fiber optic cables for the internet, telephones, and videos, and so forth. It seems to me that would solve some of the problems that have been presented here before the group.

Davolio: That that's all the time we have. Thank you for coming.

Origin and destination study results United Infrastructure survey of Narrows Bridge users.

Note, figures for westbound trips are essentially the same as those for eastbound trips. Most bridge traffic originate near the span. Table reads down for each column.

Eastbound am origins	Eastbound am destination	Westbound pm origins	Westbound pm destination
61% from Gig Harbor	45% to Tacoma	45% from Tacoma	61% to Gig Harbor
29% from Bremerton, and South Kitsap	16% to So. Pierce County	16% from So. Pierce Cty.	29% to Bremerton and South Kitsap
4% from Mason County	8% to E. Pierce County	8% from E. Pierce County	4% to Mason County
3% from N. Olympic	8% to So. King County	8% from So. King County	3% to N. Olympicty
3% from Kingston, Bainbridge Island	8% to Central King Cty.	8% from Central King	3% to Kingsont, Bainbridge Island
	7% to Seattle area	7% from Seattle area	

Two-thirds of ferry trips are to or from Seattle. 62% percent of all bridge users rode in single occupancy vehicles while 60% of weekday ferry riders car pooled. 41% percent of weekday bridge trips were by commuters, 26% for social, shopping and other reasons. Much of the balance involved commerical or business trips.

Appendix B: Summary of Narrows Studies

Text of the Executive Summary of the analysis of reports and studies of traffic on the Narrows Bridge by a University of Washington, Tacoma student study group follows:

The Task: To assist the City Club of Tacoma with the process of exploring the problem of cross-Sound transportation in the South Sound region, a team of writers and editors from the University of Washington, Tacoma, accepted the challenge of digesting all available recent technical studies, reports, and policy documents regarding the problem. The specific objective was to identify the documents that dealt most directly with policies impinging upon, and feasibility studies dealing with, cross-Sound transportation that would result in alleviating traffic congestion in the Tacoma Narrows corridor, and to summarize those documents concisely and accurately as a resource for citizens interested in better understanding the technical, political, economic and social issues involved in solving the problem.

The University study group identified nineteen relevant documents (see Bibliography). After extensive study and discussion, ten documents were identified as most central to the issue, and three were selected as crucial. All ten documents were studied and summarized by multiple members of the group, and summaries were prepared in collaborative teams to assure accuracy and brevity. The varying lengths of the resulting digests reflect the study group's general sense of the relative importance to the issue of each of the final ten documents.

Each summary provided below follows a similar format. Each summary includes the title, author, date, and organization that commissioned the study or report. Each is identified according to document type, whether a non-technical policy statement by a governmental agency, a feasibility study by consultants, a technical document by engineers, or other sort of document. To assist readers in drawing more accurate conclusions,

each summary also notes the sort of methodology employed by the authors. Each document is briefly evaluated in terms of its degree of relevance to the specific issue of the Tacoma Narrows Bridge.

The body of the summary is the "findings," the actual summary of the document. For the most crucial studies, the "findings" are relatively lengthy, providing specific data as well as conclusions. For other documents that provide contexts for decision-making, or that deal with the problems of the Tacoma Narrows corridor as a smaller part of the larger problem of transportation policy in the larger Puget Sound region, the "findings" are briefer, focused on conclusions or policy statements that appeared most relevant to the question of the Tacoma Narrows corridor.

Summary: These studies, dating from 1988 to 1996, explore a limited range of alternative options, virtually all of which assume the inevitability of continued reliance on individually-operated internal combustion-powered vehicles. Limited increases in intermodality and incentives to increase the use of intermodality appear in the documents less frequently. In other words, the primary theme throughout the documents is on increasing the carrying capacity of highways and bridges for the use of automobiles and trucks.

The two to three dozen interventions or combination of interventions explored in the documents can be summarized as three basic options: relatively modest changes to the existing Tacoma Narrows Bridge and State Route 16 to move traffic more quickly and smoothly; more significant changes at the Tacoma Narrows to substantially increase cross-Narrows capacity, either by adding lanes to the existing bridge or adding a second, parallel bridge; or funneling traffic away from the Narrows entirely by building a second bridge further north across Vashon Island and/or substantially increasing ferry crossings on

existing ferry routes. Other alternatives -- new ferry routes, particularly in the South Sound area, new transit modalities, improved access to points south of Pierce County on highways west of the Sound -- are mentioned but generally are not explored seriously.

Modest change interventions:

Among these changes are adding high-occupancy vehicle (HOV) lanes to SR 16, usually from the Purdy exit on the west side to the I-5 interchange on the east side; introducing reversible lanes on the bridge itself, usually in combination with HOV lanes; metering the ramps or the mainline in the corridor; limiting access to certain ramps to HOV traffic only during peak hours; and/or adding either general tolls or congestion-pricing tolls to encourage car-pooling and greater reliance on mass transit options. These are generally conceded to be short-term solutions that will not meet future need.

Interventions at Tacoma Narrows:

Two types of interventions have been investigated -- adding capacity to the existing Tacoma Narrows Bridge, or building a second bridge parallel to the existing bridge. Added capacity might take the form of a second deck, either above or below the existing roadway, or adding lanes outside the cables at the level of the existing roadway. New decks would allow for three lanes of traffic in each direction. Those options would all require extensive strengthening of the existing structure at costs not far below the cost of a second bridge. A second bridge would open the possibility of adding light rail capacity. An alternative scenario calls for a second bridge limited to HOV and light rail.

Interventions at a distance:

By adding capacity at other crossings than the Tacoma Narrows, some pressure might be taken from the Tacoma Narrows Bridge. Interventions that have been investigated include expanded ferry service at existing crossings, and/or a new bridge, or bridge and "sunken tube" combination, linking the Peninsula to

the east side of the Sound by crossing Vashon Island. Vashon Island bridge options have included a multi-lane, multi-purpose bridge, or a transit-only bridge. A floating bridge or "sunken tube" would link an area in Burien or Seahurst to the island, while a high bridge would connect the island to the Peninsula. All water-borne shipping would be routed under the high bridge and through the Colvos Passage.

Traffic pattern studies, conducted independently of the report (Booz-Allen and Hamilton) studying the latter interventions indicate that most Tacoma Narrows Bridge traffic would be unaffected by such interventions. The majority of bridge users -- 80% to 90% -- are traveling between the southern end of the Peninsula (the Gig Harbor area) and Tacoma, Lakewood, eastern Pierce County, areas south of

Pierce County and the far southern areas of King County.

In the context of the entire range of reports and studies, two conclusions must be emphasized. First, while many options are explained and their feasibility explored, *none of these documents specifically advocates any particular option*. Every report that deals with feasibility questions emphasizes the benefits and the liabilities of the options; all stress that there are trade-offs between cost, environmental impact, and long-term impacts on the traffic problem, and all are careful not to advocate particular options over others. Second, the documents deal only with *technical feasibility*, from the perspectives of engineering, cost, and, in a few cases, environmental impact (largely excluding questions of aesthetic and life-style

environmental questions). As documents that avoid political and social questions, they do not attempt to address questions of desirability, land use, community impact, and so on. Ultimately, the decisions that must be made are not primarily technical decisions.

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Grethe Mahan	Todd McDougall
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Nancy Smith	Beth Wilson
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The full document may be consulted at the Tacoma and Gig Harbor Public Libraries or the CITY CLUB.



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- Numerous current newspaper articles and editorials from local and regional newspapers, most particularly the Peninsula Gateway and the News Tribune of Tacoma.
- Solve 16 and other publicly issued releases by United Infrastructure Company in connection with Major Investment Study for the State Department of Transportation to meet Federal requirements.

PIERCE COUNTY LAND USE MAP

Panel member and County planner **Chip Vincent** used a land use map to show how growth is controlled in the Gig Harbor area under the county's Comprehensive Plan.

Legend: **UGB** points to **Urban Growth Boundary** (dashed line) around Gig Harbor.

"G" marks Gig Harbor growth areas. **R"** marks areas reserved for future growth.

SR 16 marks State Road 16 which links Tacoma and Gig Harbor via Narrows Bridge.

