

TRANSPORTATION CONVERSATIONS

PERSPECTIVES ON KIRKLAND'S TRANSPORTATION POLICY



Move People

Be
Sustainable

Be an active
partner

Link to Land
Use



City of Kirkland Transportation Commission

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This document was prepared by the City of Kirkland Transportation Commission and does not necessarily reflect the views of City staff or the City Council

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INTRODUCTION

This document began as a tool to organize thinking around Kirkland's transportation policy. Kirkland is making progress in many areas of transportation, but principles underlying the different programs have not been enunciated. The Transportation Commission felt that the alignment illustrated in Figure 1 was missing --Kirkland's transportation vision wasn't clear and funding, project priorities and programs didn't flow logically. Securing agreement on principles that guide decision making is an important factor in achieving alignment of these elements. At a retreat in the spring of 2009, the Commission first developed these four principles.

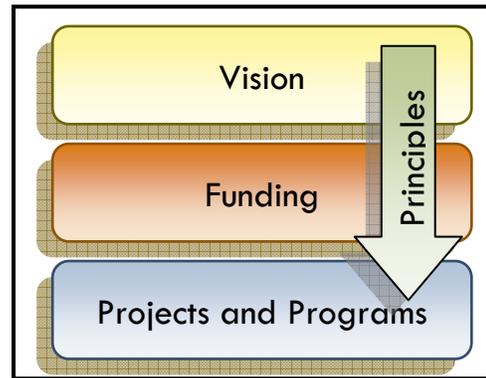


Figure 1 Consistent principles help align Vision, Funding and Projects and Programs

- Move People
- Be Sustainable
- Create Partnerships
- Link to land use

Often, the Transportation Commission is asked to recommend positions on issues for the City Council. Using the principles as a guide will help to give the Commission a uniform way of considering issues, and will also help ensure that the Commission's recommendations are grounded in principles that are supported by the Council and the Community. As the City's Comprehensive Plan undergoes a major update in 2011, revisions to the Transportation Element of the Comprehensive Plan should rest on a foundation of the principles. One example of how the Commission has used the principles previously is shown in Figure 2.

Principle → Concept ↓	Move people	Sustainable	Partnership	Link to land use
Maintain routes that perform well in one or more standard measures	Limits the amount of coverage but moves the most people per hour of bus service	Fewer higher frequency routes are cheaper and higher performance.	Serve all subareas, but don't be bound by formulas.	
Serve all subareas, but don't be bound by formulas in reductions and adds.	Formulas don't necessarily support this principle		Strict formulas lead to turf wars.	Formulas don't maximize this link.
Focus most on all day routes with a few high performing peak routes.	All day routes are necessary for true mobility	Peak hour routes cost more in general and can encourage short car trips to park and rides		All day routes support multi-use development

Figure 2 Transportation principles are used to help evaluate policy choices. This table is an example of how the Commission used the principles to consider alternatives for Metro service cuts. The matrix entries show how the concept is or is not supported by a principle.

During the first months of 2010, the Commission will be discussing the principles with the Community. Based on those discussions, the principles will be refined and then be applied to three important transportation issues. Specific recommendations for each issue, developed by the Commission, and based on the principles will be presented. These recommendations will be in the form of work items for the Commission or policy goals to be adopted by City Council. The Commission plans to develop the recommendations in early 2010 and publish a revised document that combines both the principles and the recommendations.

THE PRINCIPLES

MOVE PEOPLE

SUPPORT A TRANSPORTATION SYSTEM, AND RELATED GOVERNMENT AND PRIVATE ACTIONS, THAT PROMOTES ALL FORMS OF TRANSPORTATION.

In the past, Kirkland’s transportation system has focused on moving cars. The principle of Moving People requires development of facilities and programs that support not only cars but travel by bicycle, transit and walking to move people where they want to go. The movement of people includes people who are moving in support of commerce, moving goods, freight and providing services. Moving cars has been the organizing concept for transportation during the past 70 years, but today people are seeking alternatives.



Figure 3 Juanita Drive is a complete street, with facilities for bicycles, pedestrians and cars.

Instead of considering how people can move around Kirkland, the city’s transportation policy decisions have been based mainly on how autos will fare. The level of service standards in our Comprehensive Plan that require transportation projects to be built consider only automobiles. Fees paid by developers to mitigate the transportation impacts of their developments can be spent only on projects that provide capacity for cars. Capital project spending is not currently balanced across modes; only a small fraction directly benefits cyclists and pedestrians.

Except for a few missing segments, Kirkland’s street system is fully developed for auto travel. In order to have a complete transportation system however, the street system has to be complemented by additional facilities for bicycles and more sidewalks. Improvements that allow buses to have increased speed and on-time performance are also needed.

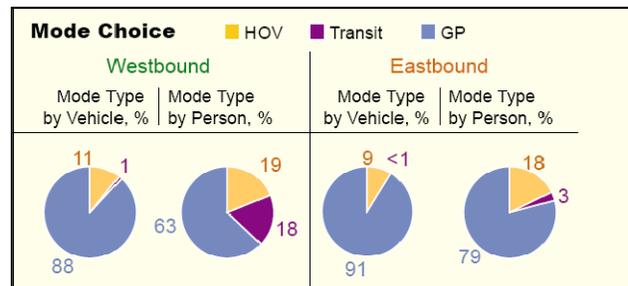


Figure 4 Mode split by vehicle trips and person trips, SR 520 bridge, AM period. In the westbound direction, transit carries 18% of the person trips in 1% of the vehicles. Source: WSDOT

BE SUSTAINABLE

SUPPORT A TRANSPORTATION SYSTEM THAT CAN BE SUSTAINED OVER THE NEXT 50 YEARS. ACT TO ASSURE THAT THE EXISTING AND FUTURE TRANSPORTATION SYSTEM:

- **WILL BE IMPLEMENTED, OPERATED AND MAINTAINED OVER THE LONG-TERM USING REASONABLY ASSURED REVENUE SOURCES.**
- **WILL BE DESIGNED TO MOVE THE OVERALL ENVIRONMENTAL IMPACT OF THE SYSTEM TOWARD ZERO.**

If the transportation system is sustainable, its condition is stable or improving over time. Kirkland faces challenges in each sustainability area. Because approximately 50% of greenhouse gasses are transportation related, (Figure 5) it will be impossible to meet the Council's adopted climate change goals without changing the way we travel. Fiscally, even if all the current capital budget were spent on pavement preservation, it's likely that current maintenance standards could not be met. This is without funding the construction of other types of projects, like development of ITS and preservation of other transportation infrastructure. New funding methods must be developed and projects must be carefully prioritized in new ways.

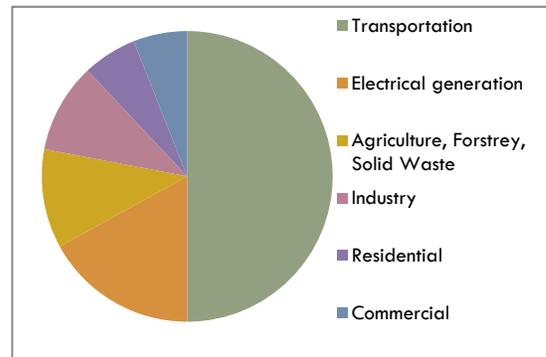


Figure 5 Relative contributions of various sources to greenhouse gas emissions, 2002. Source: Puget Sound Clean Air Agency.

BE AN ACTIVE PARTNER

ACTIVELY BUILD AND MAINTAIN PARTNERSHIPS LOCALLY, REGIONALLY AND NATIONALLY, TO FURTHER OUR TRANSPORTATION GOALS.

A shared vision is vital to accomplishing transportation goals and leveraging resources. Partnerships must be created locally –between neighborhoods, businesses and others; as well as regionally –among Kirkland, other cities and transportation agencies like Metro, Sound Transit and WSDOT.

In order to be successful, a renewed vision for transportation policy has to have support from stakeholders. At the same time, once agreement on a course of action is achieved, implementation must follow. The City of Kirkland has a sterling reputation for involving local stakeholders in decision making. However, too many times in the past plans have been adopted only to unravel during implementation when criticism from a few undermines previous resolve. Recent struggles around downtown land use decisions exemplify this problem. Traffic doesn't stop at city borders. Cars, busses, bicycles and pedestrians all travel within and between cities.

Kirkland is bisected by I-405, which is the responsibility of the Washington State Department of Transportation. Transit service is provided by King County Metro and Sound Transit both of which are governed by separate boards. Regional policy determines, to a large extent, the minimum number of trips that Kirkland must plan for. For all these reasons, working with other agencies is a requirement for achieving Kirkland's transportation goals. Kirkland must be proactive in its work with regional partners. Kirkland should come to other partners with a strong sense of our needs rather than reacting to what is offered by others.

LINK TO LAND USE

ENSURE CONSISTENCY BETWEEN LAND USE AND TRANSPORTATION PLANNING AND IMPLEMENTATION.

Transportation networks are often designed to support certain land use patterns. At the same time, transportation facilities can alter and influence land use patterns. Land use and transportation plans must be developed with consideration of effects each has on the other.

The interchange at I-405 and NE 124th Street has been reconstructed several times since it was first built. In 1936 (see Figure 6) the area was rural. A modest interchange supported the semi-rural land of the mid 1960's. However, the fact that there was an interchange at all presented an opportunity to intensify the land use. As the land use changes increased, more capacity was added to the interchange which in turn supported more land use growth.

System performance is a result of land use and transportation (Figure 7). The intersection of land use and



Figure 6 The I-405 NE 124th Street area 1936 (left) and 2007 (right). Land use and transportation changes combined to transform the area. Source: King County

transportation network takes place most fundamentally in Kirkland's Comprehensive Plan where the Land Use and Transportation Plans reside. Discussions about the implications of land use and transportation often take place during development review where the impacts of development are quantified and mitigations are proposed.



Figure 7 Transportation system performance is as much a function of land use as it is of facilities and programs.

ISSUES

The Commission has chosen three issues to examine in more detail in a future version of this report. These issues are relevant, timely and offer opportunities for progress. Taken together, they span Kirkland’s transportation spectrum and touch the life of every Kirkland citizen. Each issue will be examined in the context of the principles identified above.

Development Review. New developments cause impacts on the transportation system. Development review is the process by which city staff reviews those impacts and prescribes mitigating measures. Elements of development review include Transportation Impact Analysis, concurrency, SEPA¹ and impact fees. In 2008, the Commission proposed several ideas for improvements to concurrency but was not able to achieve adequate consensus to move forward. Several other aspects of development review are in need of improvement. Development review has important influences on both project funding and land use decisions.

Funding. Project funding and prioritization has not been comprehensively looked at for 10 years. Ensuring the adequacy of capital funding and its proper allocation is the most important challenge facing Kirkland’s transportation system.

Pollution, climate change and public health. Increasing attention is being paid to the role of transportation in climate change and in public health issues such as obesity. Automobiles are important contributors to air and water pollution. Kirkland has not yet comprehensively examined this relationship.

The following table shows how the three issues fit within the framework of the principles

TABLE 1 ISSUES AND PRINCIPLES

Issue → Principle ↓		Development Review	Funding	Climate change/public health/pollution
Move People		Analysis and mitigation currently focus on moving motor vehicles.	Clear funding levels and priorities have not been identified across the entire range of modal projects.	How people move will have determine impacts on climate change, health and pollution.
Be Sustainable	fiscal	Funds to construct projects to meet concurrency account use up a large portion of the capital budget.	Shift funds to meet sustainability goals.	Fiscal sustainability will require changing pricing mechanisms to align with this issue.
	environment	Environmental aspects of transportation are not currently addressed.	Choices of funding mechanism can impact vehicle miles of travel and green house gas production.	Environmental sustainability is directly impacted through this issue.
Create Partnerships		Changing development review practices requires acceptance from a number of internal and external stakeholders.	Funding priorities will require agreement from many groups	These issues have the potential to be polarizing. Significant changes require state and regional partners.
Link to Land Use		Development review is intended to directly relate land use choices and transportation facilities.	Determine development’s fair share of funding.	The combination of land use and transportation choices are central to working on these issues.

¹ SEPA State Environmental Protection Act

Background

Concurrency is a requirement of the Growth Management Act². It is based on the notion that any land use growth should be supported by transportation facilities available so that appropriate levels of service are preserved. If growth in development outpaces growth in new transportation facilities, development must stop. Theoretically, this will allow time for more facilities to be constructed and the level of service to improve at which time development may resume.

Impact Fees are levied on developers to help pay for capital projects necessary to meet levels of service. Impact fee rates are based on the total cost of the network necessary to provide a given future level of service divided by the number of future trips.

SEPA Analysis looks for impacts from development projects and prescribes mitigation. SEPA analysis looks at project level impacts not covered by the system wide concurrency analysis, such as how project driveways access streets or the development's impact on safety.

Traffic Impact Analysis is the report which must be submitted by a developer to the city and which shows the calculations necessary for calculation of concurrency, SEPA and impact fees. It contains certain tests to make sure that large impacts to intersections are mitigated. In practice, current procedures require improvements for only the biggest developments.

Concerns

- **The role of development review is misunderstood.** *Stopping “too much growth or “wrong projects” or even promoting good growth are not the functions of development review.* These are the roles of carefully developed and broadly supported land use and transportation plans. *Concurrency is sometimes mischaracterized as a tool for solving congestion problems.* One of the major roadblocks to improving concurrency has been the lack of a shared understanding of concurrency's role in the development process and lack of a shared transportation vision for Kirkland. *Development review's effects are often overemphasized.* Development review's power is limited because it only affects a small portion (the redeveloping portion) of a city's land use, while traffic comes from the comparatively vast areas of surrounding communities. These misunderstandings make designing and implementing development review difficult; stakeholders are disappointed in outcomes and expectations are often not met.
- **Kirkland's level of service measures only auto traffic.** Because the level of service standard directly affects concurrency and impact fees it is central to development review. The current focus on cars is a source of misalignment between development review results and the transportation principles.
- **Kirkland's current Concurrency system needs revision.** Currently, lengthy calculations are needed to know if a development project passes concurrency. It is difficult for those interested in development; developers themselves, neighbors, City Council, to know when concurrency is close to its limits. The most critical factor in designing a concurrency system is choosing the point where a moratorium is triggered. Triggering growth moratoriums cause harm and don't solve the problem concurrency is intended to solve. Recognizing this, expensive and sometimes unpopular auto capacity projects have been funded to ensure that concurrency doesn't cause a moratorium. Agreeing on concurrency's purpose will help determine where trigger points should be set.

Recommendations

- **Develop new level of service standards that align with the transportation principles.** This will mean incorporating transit, bicycling and walking into the standards. A new, less auto-centric level of service standard could reduce the requirement for construction of expensive projects to meet that standard. Because impact fees are proportional to the cost of projects needed to meet the level of service, reducing the cost of projects will reduce impact fee rates. The design of concurrency systems are heavily reliant on appropriate selection of level of service.

² Define Growth Management Act

- **Revise Concurrency.** Concurrency should be simplified and should consider transit, bicycling and walking in coordination with a new level of service. Concurrency should principally monitor the approved land use and transportation plans and insure that they are being completed in relative balance.
- **Integrate development review elements.** Create a new document/website to replace the existing Traffic Impact Analysis Guidelines. This document should serve as a “one-stop” guide for anyone interested in the development review process. It should include a section that explains how development review elements relate to each other and to the transportation principles. These relationships should be woven through methods prescribed for analysis. The calculations in the existing Guidelines should be revised to include a multimodal approach and more explicitly consider the impacts of shared use development.

TABLE 2 DEVELOPMENT REVIEW RECOMMENDATIONS

Transportation Principle →	Move People	Be sustainable		Create Partnerships	Link to Land Use
		fiscal	environment		
Development Review	Revise level of service standards to focus on transit, bicycling and walking in addition to motor vehicles.	Funds to construct projects to meet concurrency use up a large portion of the capital budget.	Environmental aspects of transportation are not currently addressed.	There are many stakeholders in the development review process. They should each feel as though they have accurate information and understanding of the review process.	Concurrency should do a better job of monitoring the balance of Land Use and transportation without

TRANSPORTATION FUNDING

Background

The City of Kirkland delivers quality projects in a timely and thrifty way. Systems are in place to prioritize sidewalk projects and projects that add capacity for cars. Other project categories have needed less precise prioritizing in the past. Council has struggled with funding the projects necessary to meet auto level of service standards while keeping other types of projects adequately funded. Some funding sources are limited in the type of projects they can pay for. This creates a lack of alignment between funding sources and fulfillment of transportation vision. Capital funding for transportation is programmed through the CIP which is usually updated in even numbered years. Changes in policy, technology and costs make it impossible to precisely determine the funding needs over the next 20 years. Instead we should focus on *priorities* for funding and for project selection.

Placeholder for graphic

Concerns

- **Funding for capital projects and replacement of transportation infrastructure is not currently adequate.** For example, based on past performance, even if all revenue were spent on pavement maintenance it would not be sufficient to maintain Kirkland's pavement at targeted levels of condition. Funding to replace transportation infrastructure is not planned for. In contrast to a water utility model where rates are set in order to account for replacement of system elements at the end of their service life, there is not a similar mechanism for funding replacement of traffic signals or other infrastructure.
- **Funding sources are not necessarily in line with our goals.** For example, gas tax revenue cannot be used for sidewalks and bicycle facilities.
- **Clear priorities need to be identified for spending.** It's not currently clear, as an example, whether capacity improvements from the concurrency system or maintenance and preservation of our pavement system, or something else, should get the first available funding. It's also not clear how funds are distributed between transportation improvements and say, park improvements or other macro project categories.
- **Investments in operational improvements have been small.** Improving signal timing, developing an Intelligent Transportation System and implementing Transportation Demand Management strategies have each been shown to have substantial benefit cost ratios.

Recommendations

- **Give first funding priority to preservation of existing investments.** Therefore, the maintenance categories should be funded with a greater fraction of available funding than the other capital projects. Cost effective projects to improve operations should also be a high priority.
- **Consider new ways of doing business and develop new and more flexible funding sources.** New funding options such as transportation benefit districts, street utilities and bond issues for specific projects may be necessary to fund a full transportation system. New funding sources should be supported with creative methods to make the most of existing resources. (Refer to STATE OF STREETS EXAMPLE) State laws govern the use of impact fees and gas tax funding to certain types of projects. Some real estate excise tax sources have restrictions as well. Kirkland should work to add flexibility to funding so that multiple funding sources are available to construct projects in line with Kirkland's transportation goals.

- Develop clear goals and prioritization systems for those project categories where it does not currently exist.** These will guide funding decisions regardless of the amount of total funding available. For example, pavement maintenance has a well developed and sophisticated project prioritization methodology, but maintenance of traffic signals does not.

TABLE 3 FUNDING RECOMMENDATIONS

Transportation Principle →	Move People	Be sustainable		Create Partnerships	Link to Land Use
		fiscal	environment		
Transportation funding	Clear funding levels and priorities have not been identified across the entire range of modal projects.	Shift funds to meet sustainability goals.	Choices of funding mechanism can impact vehicle miles of travel and green house gas production.	Funding priorities will require agreement from many groups	Determine development's fair share of funding.

TRANSPORTATION, POLLUTION, CLIMATE CHANGE AND HEALTH

Background

It is undeniable that the future of transportation will not rely on automobiles fueled by petroleum. In part because of concerns about pollution, climate change and public health, the next Federal transportation bill is likely to radically depart from previous orientations around construction of motor vehicle facilities funded by a gas tax. Regionally, the transportation plan has been criticized for not going far enough to reduce greenhouse gasses, despite aggressive plans to shift emphasis away from roads toward bicycling, walking and transit. Meeting Kirkland's own adopted climate change reduction targets will similarly require changes in transportation policy. Changes in automobile technology can be significant and helpful in the areas of pollution and climate change, but the auto fleet is so large major change may take years to accomplish. In Washington, the age-adjusted percent of adults who are obese more than doubled over the past 17 years, increasing from 10% in 1990 to 25% in 2007. Physical inactivity is a contributor to obesity and chronic disease. Transportation choices such as walking and bicycling are relatively simple ways of increasing physical activity that are available to almost everyone. Additionally, our current transportation system is a major contributor to health concerns linked with air and water pollution.

Concerns

- **Transportation policy goals have not been specifically linked to climate change, health or pollution goals.** High-level policy support is necessary to create change in a timely manner.
- **Auto dominated transportation causes a host of negative consequences.** Cars represent the largest single emitter of greenhouse gases and contributor to air pollution and water pollution in Kirkland. Public Health officials have implicated our current transportation system as a contributor to obesity and other "lifestyle" diseases.
- **Transportation and land use are closely linked in the areas of climate change, health and pollution.** When people can live close to work and other common destinations trip lengths are shortened and the health benefits of active transportation can be felt.

Recommendations

- **Make specific links in the Comprehensive Plan between transportation policy and pollution, climate change and health goals.** Because transportation plays key roles in pollution, climate change and public health, it must be linked to goals in those areas.
- **Implement actions that will begin to reduce vehicle miles of travel and emissions.** Kirkland has a strong statement supporting pricing. This support should continue in order to put driving cost signals in line with community goals. Implementing infrastructure that supports more efficient vehicles should also be encouraged. This could include easy access to energy for electric vehicles.
- **Proactively meet the goals of the Active Transportation Plan.** The plan encourages development of more facilities for walking and cycling. It has been shown in many other cities that when the number of facilities increase, walking and cycling increase. This increased level of activity can have positive health benefits.

TABLE 4 CLIMATE CHANGE AND HEALTH RECOMMENDATIONS

Transportation Principle →	Move People	Be sustainable		Create Partnerships	Link to Land Use
		fiscal	environment		
Climate change/public health/pollution	How people move will have determine impacts on climate change, health and pollution.	Fiscal sustainability will require changing pricing mechanisms to align with this issue.	Environmental sustainability is directly impacted through this issue.	These issues have the potential to be polarizing. Significant changes require state and regional partners.	The combination of land use and transportation choices are central to working on these issues.

Figure on walking to school or obesity trends

CONCLUSIONS

Every community needs principles to organize it’s transportation policy making. This reports proposes four principles tailored to Kirkland’s needs

- Move People
- Be Sustainable
- Create Partnerships
- Link to Land Use

Incorporating these principles into the Comprehensive Plan will give a consistent lens with which to view transportation decisions now and in the future.

Looking at three issues in the context of the principles illustrates how the principles can be brought to bear on existing problems to generate meaningful and coordinated recommendations. Implementing the recommendations contained in this report will require perseverance and the unified work of many interests. It is the goal of the Transportation Commission to incorporate the recommendations into its work plan in order to bring forth meaningful change in the way Kirkland plans, designs, constructs, operates and maintains its transportations projects and programs..

RECOMMENDATION SUMMARY

DEVELOPMENT REVIEW

- *Develop new level of service standards that align with the transportation principles*
- *Revise Concurrency*
- *Integrate development review elements.*

FUNDING

- *Give first funding priority to preservation of existing investments.*
- *Consider new ways of doing business and develop new and more flexible funding sources*
- *Develop clear goals and prioritization systems for those project categories where it does not currently exist.*

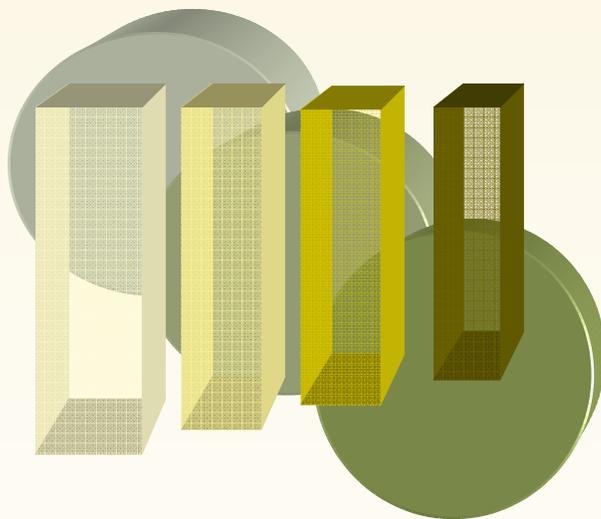
TRANSPORTATION, POLLUTION, CLIMATE CHANGE AND HEALTH

- *Make specific links in the Comprehensive Plan between transportation policy and pollution, climate change and health goals.*
- *Implement actions that will begin to reduce vehicle miles of travel and emissions.*
- *Proactively meet the goals of the Active Transportation Plan.*



TRANSPORTATION CONVERSATIONS

Perspectives on Kirkland's Transportation Policy



City of Kirkland Transportation Commission