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High Capacity Transit System Expansion Policy

Implementation Guidance

for the Portland metropolitan region

A guidebook for local implementation

July 2011



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HIGH CAPACITY TRANSIT SYSTEM EXPANSION POLICY GUIDELINES

In June 2010, the Portland Metropolitan region adopted the 2035 Regional Transportation Plan (RTP) that included an outline for developing a high capacity transit (HCT) system expansion policy. The system expansion policy emphasizes fiscal responsibility by ensuring that limited resources for new HCT are spent where local jurisdictions have committed supportive land uses, high quality pedestrian and bicycle access, management of parking resources and demonstrated broad based financial and political support.

One of the first post-adoption implementation steps included in Chapter 6 of the RTP called for developing regional guidance for the system expansion policy¹. With adoption of the 2035 RTP, Metro committed to developing guidance and bringing it forward for discussion to MPAC, JPACT and Metro Council. The purpose of the system expansion policy implementation guidance is to:

- 1) Clearly articulate the decision-making process by which future HCT corridors will be advanced for regional investment.
- 2) Establish minimum requirements for HCT corridor working groups to inform local jurisdictions as they work to advance their priorities for future HCT.
- 3) Define quantitative and qualitative performance measures to guide local land use and transportation planning and investment decisions.
- 4) Outlines the process for updating the 2035 RTP, including potential future RTP amendments, for future HCT investment decisions.

Following the system expansion policy guidelines will enhance support for transit investments, but does not guarantee a regional investment in HCT. The ultimate decision rests with JPACT and the Metro Council. The purpose of this document is to help local jurisdictions and consultants understand and implement recent regional policy and regulatory changes with adoption of the 2035 Regional Transportation Plan, Regional Transportation Functional Plan (RTFP), and amendments to the Urban Growth Management Functional Plan (UGMFP). Additional implementation guidelines have been developed for the changes in the RTFP and UGMFP.

1.0 INTRODUCTION

Transit is necessary to implement the 2040 Growth Concept, which calls for focusing future growth in regional and town centers, station communities, main streets, and 2040 corridors. Investments in transit, particularly high capacity transit (HCT) help the region concentrate development and growth in centers and corridors, achieve local aspirations and serve as the region's most powerful tools for community building. The 2035 Regional Transportation Plan (RTP) lays out the region's transportation concepts and policies that will result in a complete and interconnected transportation system that supports all modes of travel and implementation of the 2040 Growth

¹ Section 6.7.3 of the 2035 RTP, Page 6-29 and is listed in Attachment 1.

Concept. Chapter 2 of the RTP details the policies for the regional transit system aiming to optimize the existing system, attract future riders and ensure transit-supportive land uses are implemented to leverage the region’s current and future transit investments.

In 2008 the Metro Council, with guidance from the Metro Policy Advisory Committee (MPAC), agreed that our planning efforts should start with defining the desired outcomes that the residents of this region have consistently expressed when asked. To that end, the Metro Council and our regional partners adopted six desired outcomes to guide regional planning for the future. The 2035 RTP establishes an outcomes-based planning and decision-making framework to ensure transportation decisions support the six desired outcomes.

The ability of this region to grow toward the 2040 Growth Concept vision hinges upon the ability to develop and sustain high capacity transit. However, the number of additional high capacity transit corridors that can be implemented in this region are limited by several factors, including:

- Local funding and community support.
- Competition with other regions for scarce federal funding.
- Institutional and financial capacity to develop, build and operate additional high capacity transit corridors.

Because this region cannot implement all of the desired high capacity transit corridors in the near term and we want to ensure we invest limited resources in the best way possible, it is necessary to prioritize which corridors are completed first. The High Capacity Transit System plan and system expansion policy provide a framework for the region to understand how transit can best deliver on the six outcomes for a successful region and the outcomes-based framework of the 2035 RTP.

1.1 HIGH CAPACITY TRANSIT SYSTEM PLAN

As part of the RTP, the region undertook a comprehensive assessment of the existing and potential future high capacity transit network. In July 2009, the Metro Council adopted the Regional High

WHAT OUTCOMES ARE WE TRYING TO ACCOMPLISH?

VIBRANT COMMUNITIES – People live, work and play in vibrant communities where their everyday needs are easily accessible.

ECONOMIC PROSPERITY – Current and future residents benefit from the region’s sustained economic competitiveness and prosperity.

SAFE AND RELIABLE TRANSPORTATION – People have safe and reliable transportation choices that enhance their quality of life.

LEADERSHIP ON CLIMATE CHANGE – The region is a leader in minimizing contributions to global warming.

CLEAN AIR AND WATER – Current and future generations enjoy clean air, clean water and healthy ecosystems.

EQUITY – The benefits and burdens of growth and change are distributed equitably.

As adopted by the Metro Council and MPAC.

Capacity Transit (HCT) System Plan. The HCT Plan identifies corridors where new HCT is desired over the next 30 years. It prioritizes corridors for implementation, based on a set of evaluation criteria, and sets a framework to advance future corridors, consistent with the goals of the RTP and the region's 2040 Growth Concept. The HCT system plan provides the framework for transit investments to be implemented as part of a broad corridor strategy that includes supportive land use and transit-oriented development (TOD), comprehensive parking programs, access systems for pedestrians and cyclists, park and rides and feeder bus networks. It assigned near- and long-term regional HCT priorities one of four priority tiers:

- Near-term regional priority corridors: Corridors most viable for Federal Transit Administration (FTA) alternatives analysis in the next four years (2010-2014).
- Next phase regional priority corridors: Corridors where future HCT investment may be viable if recommended planning and policy actions are implemented.
- Developing regional priority corridors: Corridors where projected 2035 land use and commensurate ridership potential are not supportive of HCT implementation, but which have long-term potential based on political aspirations to create HCT supportive land uses.
- Regional vision corridors: Corridors where projected 2035 land use and commensurate ridership potential are not supportive of HCT implementation.

To help simplify future analyses, the *next phase regional priority corridors* and *developing regional priority corridors* have been consolidated into *Emerging Corridors*. The HCT System Plan corridors are shown in **Table 1** and on the map in **Attachment 2**.

Table 1 – HCT System Plan Corridors	
Tier	Corridors²
Near-term regional priority corridors	10 – Portland Central City to Gresham (in general Powell Boulevard corridor) 11 – SW Corridor (advanced toward implementation per Resolution 10-4118) 34 - Beaverton to Wilsonville (in general WES commuter rail corridor) ³
Emerging Corridors (Next Phase and Developing Regional Priority Corridors)	8 - Clackamas Town Center to Oregon City Transit Center via I-205 9 - Milwaukie to Oregon City TC via McLoughlin Boulevard 12 - Hillsboro to Forest Grove 13 - Gresham to Troutdale extension 17 – Sunset Transit Center to Hillsboro 17D - Red Line extension to Tanasbourne 28 - Washington Square Transit Center to Clackamas Town Center (via I- 205) 29 - Washington Square Transit Center to Clackamas Town Center (via abandoned railroad) 32 - Hillsboro to Hillsdale
Regional vision corridors	13D - Troutdale to Damascus 16 - Clackamas TC to Damascus 38S - Tualatin to Sherwood

1.2 SYSTEM EXPANSION POLICY OVERVIEW

The System Expansion Policy (SEP) provides the framework to advance future regional HCT corridors by establishing performance measures and defining regional and local actions that will guide the selection and advancement of those projects. The SEP framework is designed to provide a transparent process to advance high capacity transit projects and the key objectives are to:

- Promote transit supportive land uses in future HCT corridors
- Promote local policies that increase value of future HCT investments (i.e., parking management, street design and connectivity, Transportation Demand Management, etc)
- Provide local jurisdictions with a fair and measurable process for developing future HCT corridors
- Provide Metro with a tool to allocate limited planning resources to the most supportive, prepared communities
- Ensure that transit serves cost-burdened households

² Corridors presented in each tier are sorted by numeric order only; corridor numbers refer to identifications used in the HCT System Plan technical evaluation processes.

³ Corridor 34: WES frequency improvements to 15-minute all day service are included in the 2035 RTP list of projects. The project as included in the 2035 RTP represents this level of improvement phased in over time, not construction as light rail as evaluated in the HCT System Plan technical evaluation processes.

The SEP is designed to provide clear guidance to local jurisdictions and community partners in identified HCT corridors about the key elements that support high capacity transit system investments. It is designed to protect public investments and ensure limited resources are used to maximize adopted regional transportation and land use outcomes. The SEP is designed to provide:

- *Flexibility* (responsive to local aspirations) – no two communities or corridors in the region face the same set of land use and transportation planning conditions. Nor do any two communities have the same aspirations for future community form and land development. The SEP is flexible and allows communities and corridors an opportunity to promote transit development within the context of local priorities.
- *Local control* – the SEP process provides a framework for local jurisdictions in a corridor to initiate a corridor working group. While no jurisdiction is required to participate, those desiring HCT investments will need to work with local partners to establish a working group and to develop a corridor purpose and needs statement. The SEP creates a new level of transparency in decision making, which provides local jurisdictions a clearer path to project advancement that has been available in the past.
- *Corridor level cooperation* – since most HCT projects cross jurisdictional boundaries and since both HCT itself and HCT-supportive land uses potentially affect State facilities, the SEP requires cooperation between local jurisdictions, TriMet, ODOT and Metro by establishing a Corridor Working Group. By requiring local jurisdictions to work together to meet SEP targets, the policy helps guide local jurisdictions to set joint priorities and balance tradeoffs associated with meeting land use and financial targets. Through the Corridor Working Group, local jurisdictions can take the lead in identifying the extent of a future HCT corridor, identifying possible future stations areas, and revising zoning policies.
- *Simplicity* – the SEP is straightforward and uncomplicated to enable local jurisdictions to work through the process easily.

The SEP is not intended to dramatically increase administrative requirements; rather it provides a fair and flexible process for corridor advancement and prioritization.

1.3 USING THE TRANSIT SEP HANDBOOK

The purpose of this handbook is to provide local jurisdictions that are located within one of the 18 corridors included in the 2009 HCT System Plan (**Figure 1** and **Attachment 2**) a path to move their HCT corridor toward a regionally supported project development and funding process. The handbook is divided into four sections:

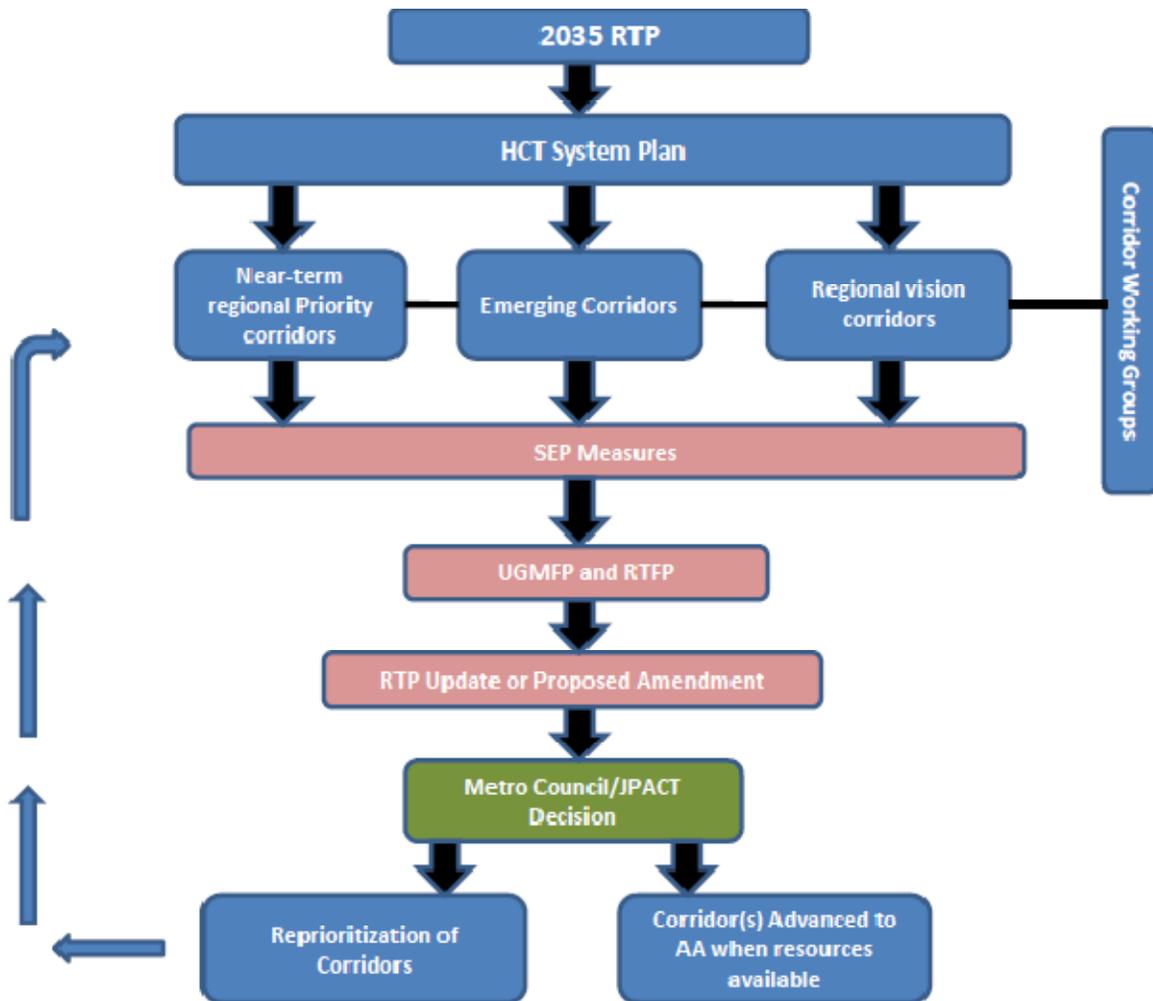
1. SEP Decision-making framework
2. Corridor Working Groups
3. Evaluating performance
4. Updating the 2035 RTP

The handbook also serves as a tool to educate local jurisdiction staff and policymakers about the investments needed to support transit.

1.3.1 SEP Decision-Making Framework

At the foundation of the SEP is a clear and transparent decision-making process for both local land use and transportation planning, and for future RTP amendments. As depicted in **Figure 1** below, the 2035 RTP serves as the umbrella for the HCT System plan and the SEP.

Figure 1 – SEP Decision-Making Framework



All of the HCT corridors will be evaluated using the measures in section 1.3.3 as well as requirements from the Urban Growth Management Functional Plan (UGMFP) and Regional Transportation Functional Plan (RTPFP) applied to them as part of the SEP. Every four years as part of RTP updates, Metro will run the multiple account evaluation (MAE) technical analysis that was as part of the HCT System Plan for all of the HCT Corridors. The results of the analysis will be used to inform Metro Council and JPACT’s decision on prioritizing and advancing corridors to the FTA

alternatives analysis (AA) process based on available resources. Section 1.3.3 discussed the details of the MAE analysis.

Should additional resources for HCT investment become available between RTP updates, the MAE analysis will be conducted to inform potential RTP amendments. Section 1.3.4 details the process for local governments to propose amendments to the RTP. Corridors that are not selected for advancement will be reprioritized and will continue to work through the SEP for future RTP updates or amendments.

1.3.2 Corridor Working Groups

Corridor Working Groups (CWG) are the core organizational body that will be working to implement the SEP and develop HCT corridors. All local jurisdictions seeking to advance HCT priorities must utilize the following minimum requirements for CWGs:

Formation of a Corridor Working Group

1. All of the local jurisdictions in the HCT corridor as defined in the 2035 RTP and HCT System Plan must be invited to participate in the CWG. Participation of all local jurisdictions is not mandatory.
2. Assembled using the Mobility Corridors framework identified in Chapter 4 of the 2035 RTP. All of the HCT corridors are part of a larger Mobility Corridor and should coordinate with work underway as part of Metro's Congestion Management Process and any Mobility Corridor Refinement Plans.
3. Initiated by the local jurisdictions but must coordinate with staff from Metro, Tri Met and ODOT. This coordination includes, but is not limited to, inclusion on meeting notices and correspondence. The responsibility for organizing, staffing and coordinating CWGs rests with local jurisdictions. Once corridors are selected by Metro Council and JPACT for advancement for a regional investment, Metro will assume staffing and coordination responsibilities. The Southwest Corridor is the most recent example of when Metro will assume staffing responsibility for developing the HCT Corridor.

The following are minimum activities expected to be carried out by CWGs.

- A) *Develop HCT Corridor Purpose & Needs Statement* – The CWG is responsible for developing a purpose and needs statement that establishes the purpose and need for the proposed high capacity transit investment (i.e., congestion mitigation, economic development, etc.). It assesses the role of the project in addressing other regional land use and transportation priorities and identifies opportunities for integration with other transportation system improvements in the corridor. It will need to reference how the HCT corridor investment would help the region address multiple desired outcomes.
- B) *Develop an IGA or MOU* - This to get agreement on scope of work for the HCT-supportive corridor plan and the necessary state, regional and local actions needed to

advance the HCT corridor. The IGA or MOU would be between the local jurisdictions participating in the CWG.

- C) *Recognition from JPACT & Metro Council* – Once local jurisdictions have completed steps A and B of the CWG process, they will need to have their designated elected officials make a presentation to JPACT and Metro Council to discuss their aspirations to develop and advance their HCT Corridor as a regional priority. This will not require a formal resolution, but will allow the CWG to receive regional recognition and acknowledgement of local jurisdiction(s) intent to advance their HCT Corridor.
- D) *Identification of High Capacity Transit Focus Areas*. Defining focus areas is important to conduct evaluation against the measures, but also helps local jurisdictions to begin planning for future areas that are highly supportive of a transit investment. It should be recognized that these “focus areas” do not represent a formal decision to site a HCT station, a decision that would be made at a later phase of planning. A basic principle should be to plan for one to two focus areas per mile on average along the corridor.

The CWG structure would carry forward as corridors move into the FTA alternatives analysis process.

1.3.3 Evaluating Corridor Performance

The 2035 RTP emphasizes measurable performance and linking investments in land use and transportation to support local community aspirations. Because of a combination of limiting factors, this region cannot implement all of the desired transit expansion in a short time. The SEP establishes a set of measures for evaluating performance. This analysis will assist in the prioritization of corridors for future high capacity transit expansion by Metro Council and JPACT.

There are two different kinds of performance measures to evaluate the performance of HCT Corridors. The first set of measures was developed as part of the HCT System Plan and will be used to evaluate HCT Corridors as part of each RTP update and with potential RTP amendments. The second set of measures focus more on existing conditions and are intended to help guide local jurisdiction planning and investment decisions to become more transit supportive in the future. The following provides details on both these sets of quantitative and qualitative performance measures.

HCT System Plan and the Multiple Account Evaluation (MAE) Analysis

For the Regional HCT System Plan, Metro and its agency and jurisdictional partners used a Multiple Account Evaluation (MAE) approach to evaluating project potential to deliver desired regional outcomes. Twenty-five evaluation criteria were developed to measure potential HCT corridor attainment across four outcome categories: Community, Environment, Economy and Deliverability. Intensive involvement by regional stakeholders, including local jurisdictions and agencies, was

used to develop the evaluation framework and to guide the evaluation of corridors against the multiple criteria.

The MAE approach was adopted and refined from a standardized methodology employed in the United Kingdom for evaluation of major transportation projects. The approach was chosen for the HCT System Plan because of its ability to provide decision makers with data in a number of key areas, allowing them to assess the cost and benefits of proposed HCT investments. **Figure 2** shows how the MAE process aligns closely with the RTP policy framework.

Figure 2: 2035 RTP evaluation approach and deliverability



Figure 3 summarizes the specific criteria under each account: community, environment, economy and deliverability. More detailed description of all of these criteria are available as part of the HCT System Plan available on Metro’s website⁴.

⁴ <http://www.oregonmetro.gov/index.cfm/go/by.web/id=25038>

Figure 3: Adopted evaluation accounts and criteria

Community	
C1	Supportiveness of Existing Land Uses
C2	Local Aspirations
C3	Placemaking and Urban Form
C4	Ridership Generators
C5	Support of regional 2040 Growth Concept
C6	Integration with Regional Transit System
C7	Integration with Other Road Uses*
C8	Congestion Avoidance Benefit (M)
C9	Equity Benefit
C10	Health (Promotion of Physical Activity) (M)
C11	Safety and Security (<i>discussed later in this report</i>)
C12	Housing + Transportation Affordability Benefit
C13	Transportation Efficiency or Travel Time Benefit to Individual User (M)
C14	Transportation Efficiency or Travel Time Benefit to All Corridor Users (M)
Environment	
EN1	Reduction in Emissions and Disturbance (M)
EN2	Risk of Natural Resource Disturbance
EN3	Risk of 4(f) Resource Disturbance (<i>discussed later in this report</i>)
Economy	
EC1	Transportation Efficiency (Operator) (M)
EC2	Transportation Efficiency (User) (M)
EC3	Economic Competitiveness
EC4	Rebuilding/ Redevelopment Opportunity
Deliverability	
D1	Total Project Capital Cost (Exclusive & Non-Exclusive ROW Options)
D2	Capital Cost Per Mile (Exclusive & Non-Exclusive ROW Options)
D3	Operating & Maintenance Cost (M)
D4	Ridership (M)
D5	Funding Potential (M)

(M) Denotes criteria which are evaluated, at least in part, using Regional Travel Demand outputs

* Addressed through the Mobility Corridor work in Coordination with ODOT

The MAE measures listed in **Figure 3** will analyzed as part of each RTP update to inform JPACT and Metro Council HCT investment decisions. Additionally, if additional HCT resources become available in between RTP updates, these measures will be used to inform JPACT and Metro Council decisions on potential HCT-related RTP amendments.

2040 Context Tool

The MAE analysis conducted as part of the HCT plan was an expensive and resource-intensive process and is currently not easily replicable for evaluating corridor performance over time. As Metro staff started the process of creating this guidance, it was clear that a simpler method was needed to supplement the MAE measures to better inform local jurisdictions planning and investment decisions between RTP cycles. Building on the HCT plan analysis framework, Metro has been exploring new tools to measure *existing conditions* that contribute towards a transit supportive environment. Using Metro's Regional Land Information System (RLIS), Metro's Data Resource Center staff have developed an innovative GIS based analysis tool that measures specific aspects of the built and natural environment to help illustrate the character of a place.

Known as the 2040 Context Tool, the idea came about as Metro staff thought of new ways to engage policy makers, community groups, and others to better understand how to achieve their aspirations using objective measures to evaluate elements that can be controlled with policy. The 2040 Context Tool can be used to measure existing conditions, perform diagnostics on a given area and track change over time. Even more importantly, the RLIS Data used by the 2040 Context Tool is updated region-wide, on a quarterly basis by all subscribers, allowing for the best data to be used in any analysis.

Specifically, the 2040 Context Tool is a walk accessibility model where a one minute walk time is the spatial resolution of the data. This is a simple additive model where each location knows its distance from individual land use, transportation and environmental variables. Taken together, the model gives a quantitative measure of the characteristics of a place based on a defined outcome. This analysis was developed as part of the TOD Strategic Plan to help prioritize station areas for future TOD investment that can best leverage additional private investment to increase land use efficiency and increase transit ridership. **Table 2** below shows the 2040 Context Tool measures.

Table 2 – SEP 2040 Context Tool Measures

Measure	Description (within distance of HCT Corridor)
<i>Density of People</i>	Current households and jobs per net acre within ½ mile
<i>Density of ULI Businesses</i>	Number of ULI Businesses within ½ mile
<i>Transit Oriented Zoning</i>	Assigning values to regional zoning classifications within ½ mile
<i>Average Block Size</i>	Density of acres of blocks within ½ mile
<i>Sidewalk Coverage</i>	Completeness of sidewalk infrastructure within ½ mile
<i>Bicycle Facility Coverage</i>	Access to bicycle infrastructure measured as distance to nearest existing bicycle facility within ½ mile
<i>Transit Frequency</i>	Transit frequency within ½ mile of corridor

Household and employment density is a primary determinant of transit ridership and have been combined as *density of people*.⁵ As demonstrated in Metro’s State of the Centers Report, there is a basic relationship between the number of people living and working in a district and the number of urban amenities. The Urban Living Infrastructure (ULI) amenities are a set of land use amenities that together comprise an active urban environment and are captured in *density of ULI businesses*. To measure the transit supportive land use that is currently adopted by local governments, Metro’s TOD group developed a *transit-oriented zoning* measure. A summary of the methodology behind each quantitative measure and the 2040 Context Tool can be found in Attachment 3.

As part of the UGMFP and RTFP there are also a number of qualitative measures that will need to be considered as part of the development of HCT Corridors. A list of qualitative measures is provided in **Table 3**.

Table 3 – Qualitative SEP Measures

Measure	Description
<i>Housing & Transportation Affordability</i>	Demonstrating that potential transit investment will serve communities with high rate of cost burdened households
<i>Parking Requirements</i>	Implement parking requirements in corridor that meet or exceeds Title 4 of the RTFP.
<i>Local Funding Mechanisms</i>	Implement funding mechanisms in corridor communities that could help fund capital or operations to support transit investment and station area development, including urban renewal, tax increment financing, local improvement district, parking fees, or other proven funding mechanisms.
<i>Equity</i>	Improving options for serving low-income, minority, senior and disabled populations within corridor.

The measures in **Table 3** are of equal importance to the quantitative measures in **Table 2**. However, at this time, the region does not have a documented process for evaluating these measures. Work is currently underway to better define how to measure equity and affordability.

⁵ Here in the Portland region, a 1995 study by Nelson\Nygaard Consulting Associates found that 93 percent of the variation of transit demand is explained by employment and housing density. These findings were the result of a regression analysis that controlled for 40 land use and socio-demographic variables. A study of 129 San Francisco Bay Area rail stations found that the commute mode split was 24.3 percent in neighborhoods with densities of 10 housing units per gross acre. This figure jumps to 43.4 percent and 66.6 percent, respectively, in station areas with densities of 20 and 40 housing units per gross acre.

Once this work is completed, the SEP guidance will need to be updated to reflect these changes. CWGs will need to document changes to each of these measures and work with Metro, ODOT, and TriMet to track changes over time.

The intent of this group of quantitative and qualitative measures is to ensure that a minimum level of density, pedestrian and bicycle connectivity, urban form, zoning and urban living infrastructure is in place or planned for proposed corridors/station areas. The measures from the 2040 Context Tool are to be used as a regional yardstick for a relative comparison of all of the HCT corridors. Local governments can use the results of each measure to prioritize different elements requiring local investment. Improving the 2040 Context Tool measures is likely to improve a corridor's MAE score because they are strongly linked with the MAE outcome categories of Community, Environment, and Economy.

1.3.4 RTP Updates and Initiating an RTP Amendment

The RTP establishes a comprehensive policy direction for the regional transportation system and recommends a balanced program of transportation investments to implement that policy direction. However, the recommended investments do not solve all transportation problems and are not intended to be the definitive capital improvement program on the local transportation system for the next 20 years.

Rather, the RTP identifies the projects, programs, refinement plans, and project development activities required to adequately meet regional transportation system needs during the planning period based on known available funding levels. The RTP is updated every four years to comply with federal and state regulations. As part of each RTP update all of the HCT corridors will be evaluated using the MAE performance measures. The analysis will be considered for potential action by Metro Council and JPACT as part of the RTP update.

If between RTP updates additional HCT resources become available or a CWG wishes to advance a HCT corridor it can request an RTP amendment. The CWG will need to draft a written application to Metro that demonstrates a set of actions adopted and work performed that would improve performance against both the MAE and 2040 Context Tool evaluation measures.

Metro staff would conduct a reevaluation of the HCT corridor using the MAE evaluation measures, as well as schedule consideration of the proposed amendment by resolution using the Metro advisory committee process. A Metro staff report would be prepared including a ridership forecast, land use forecast and input from TriMet. Metro Council and JPACT would then decide whether or not to take action and reprioritize and/or advance the corridor for alternatives analysis. Requests for RTP amendments and reevaluation using the SEP may be done no more than once a year or during an RTP update.

The following is excerpted from Chapter 6 of the 2035 RTP that was adopted in June 2010. This language can be found on pages 6-29 and 6-30 of the RTP.

6.7.3 High Capacity Transit System Expansion Policy (SEP) Guidebook

In June and July 2009, the Joint Policy Advisory Committee on Transportation and the Metro Council adopted the Regional High Capacity Transit (HCT) System Plan. The HCT Plan identifies corridors where new HCT is desired over the next 30 years. It prioritizes corridors for implementation, based on a set of evaluation criteria, and sets a system expansion policy (SEP) framework to advance future corridors by setting targets and defining regional and local actions, consistent with the goals of the Regional Transportation Plan (RTP) and the region's 2040 Growth Concept.

More work is needed to define how the SEP policy will be implemented. This work is underway and will be brought forward for future policy discussion by JPACT, MPAC and the Metro Council.

The SEP is intended to provide policy direction on the range of factors that should be considered when determining the next high capacity transit corridor to pursue, including:

- Community factors that center on local land use aspirations, transit-supportive land uses, building-orientation and block sizes, transportation infrastructure (e.g., sidewalks, bicycle facilities and street connectivity) parking and demand management policies, and design factors that will leverage HCT investments and increase ridership potential within a particular corridor. Generally, these factors are under the control of local governments and are implemented through local land use and transportation plans. If successfully implemented, these factors would bring a given HCT corridor and the communities connected by that corridor closer to the 2040 Growth Concept vision.
- Readiness factors such as political commitment, community support and partnerships needed to pursue the long and sometimes difficult process that even the most popular transportation investments must work through.
- Regional factors such as financial capacity and regional consensus on the appropriate next corridor.

To aid this decision-making, the HCT Plan focuses on technical factors. It will be updated with each RTP update, though the specific measures and methodologies are expected to evolve over time through a collaborative regional decision-making process. Potential HCT corridors can move closer to implementation, advancing from one tier to the next through a set of coordinated TriMet, Metro, ODOT and local jurisdiction actions that address the remaining factors.

More work is needed to define how the SEP policy will be implemented. This work is underway and will be brought forward for future policy discussion by JPACT, MPAC and the Metro Council. This section and the Regional Transportation Functional Plan will include guidance to help local jurisdictions, Metro and TriMet work together to achieve the community, readiness and regional factors listed above. This can include Memorandum of Understandings (MOUs) and eventually Intergovernmental Agreements (IGAs) that harness the synergy between community aspirations, the ability to develop high capacity transit to further those aspirations and other needed local, regional and state actions. It will also include specific targets to measure corridor readiness and contribution to regional goals.

The factors are complex and stem from the interactions of private individuals and businesses, local jurisdictions, and regional agencies. The intention of the guidance is that those jurisdictions which are achieving positive outcomes in these factors and/or have the aspiration to create the most improvement on these factors are simultaneously improving their own communities, creating more transit-friendly environments, and also may be able to pursue a near-term high capacity transit project along with the other jurisdictions in the corridor.

Going places

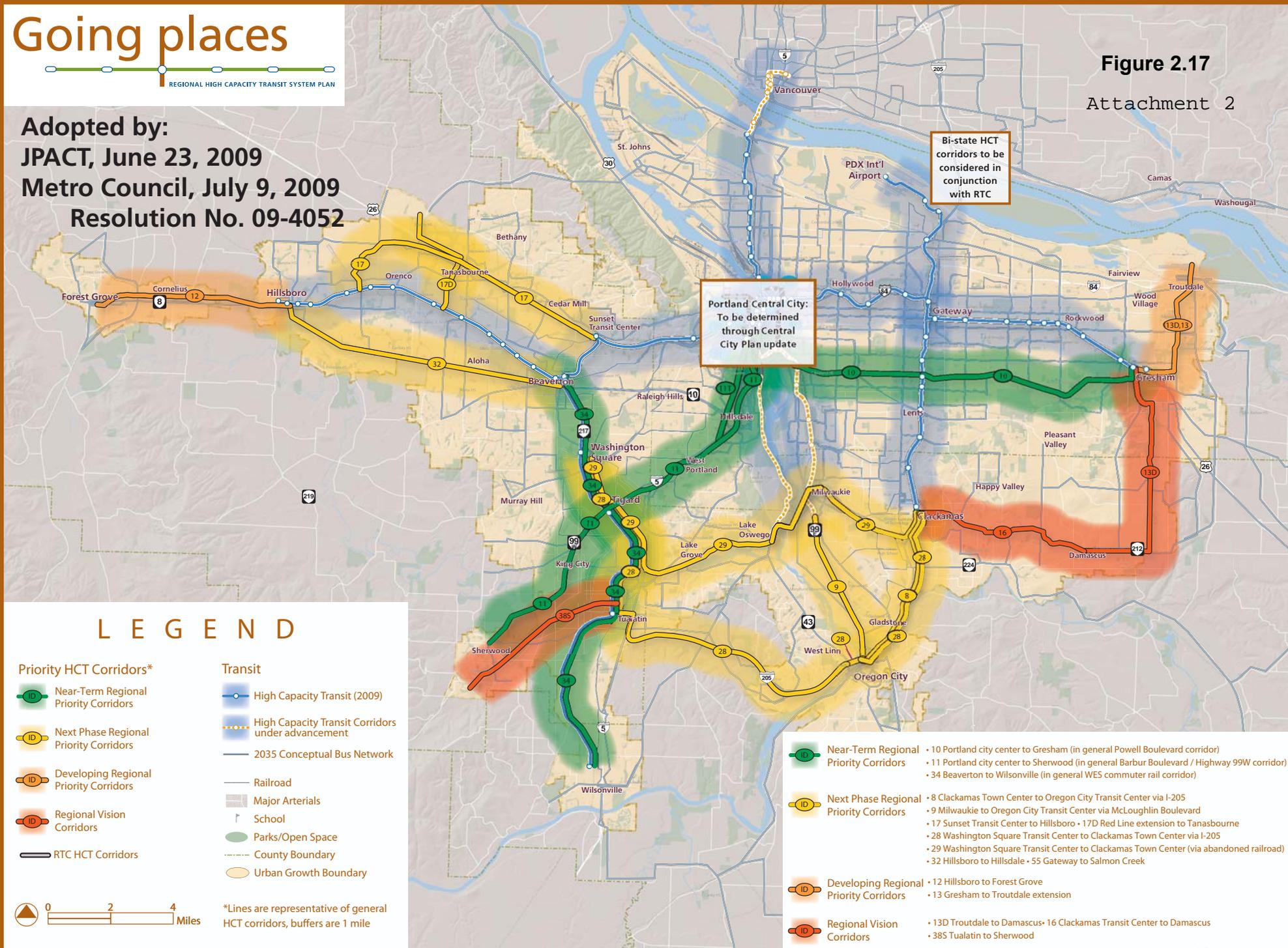


REGIONAL HIGH CAPACITY TRANSIT SYSTEM PLAN

Adopted by:
JPACT, June 23, 2009
Metro Council, July 9, 2009
Resolution No. 09-4052

Figure 2.17

Attachment 2



LEGEND

Priority HCT Corridors*

- Near-Term Regional Priority Corridors
- Next Phase Regional Priority Corridors
- Developing Regional Priority Corridors
- Regional Vision Corridors
- RTC HCT Corridors

Transit

- High Capacity Transit (2009)
- High Capacity Transit Corridors under advancement
- 2035 Conceptual Bus Network
- Railroad
- Major Arterials
- School
- Parks/Open Space
- County Boundary
- Urban Growth Boundary



*Lines are representative of general HCT corridors, buffers are 1 mile

- Near-Term Regional Priority Corridors
 - 10 Portland city center to Gresham (in general Powell Boulevard corridor)
 - 11 Portland city center to Sherwood (in general Barbur Boulevard / Highway 99W corridor)
 - 34 Beaverton to Wilsonville (in general WES commuter rail corridor)
- Next Phase Regional Priority Corridors
 - 8 Clackamas Town Center to Oregon City Transit Center via I-205
 - 9 Milwaukie to Oregon City Transit Center via McLoughlin Boulevard
 - 17 Sunset Transit Center to Hillsboro • 17D Red Line extension to Tanasbourne
 - 28 Washington Square Transit Center to Clackamas Town Center via I-205
 - 29 Washington Square Transit Center to Clackamas Town Center (via abandoned railroad)
 - 32 Hillsboro to Hillsdale • 55 Gateway to Salmon Creek
- Developing Regional Priority Corridors
 - 12 Hillsboro to Forest Grove
 - 13 Gresham to Troutdale extension
- Regional Vision Corridors
 - 13D Troutdale to Damascus • 16 Clackamas Transit Center to Damascus
 - 385 Tualatin to Sherwood

Sample user indicators



People per acre

A measure of the density of people within a ¼ mile distance. The indicator counts both residents and employees and is a measure of the relative activity of an area.



Urban Living Infrastructure

A measure of the density of certain types of urban amenities that contribute to the livability of an area.¹



Access to Parks

A measure of the linear distance to parks as measured by a pedestrian network.



Transit Access

A measure of the density of transit within a ¼ mile. The indicator looks at the frequency of trip options at a given stop. This indicator provides a means of comparing trip options as well as frequency.



Bicycle Access

A measure of the relative “bikeability” of an area using the bike lane classifications in Metro’s “Bike There!” map - based on the density of bike routes within one mile of a designated area.



Sidewalk Density

A measure of the density of sidewalks within ¼ mile of a location. The indicator provides a means of assessing the accessibility of safe walking paths.



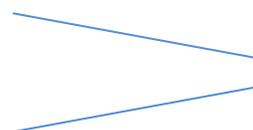
Block Size

A measure of the block sizes within ¼ mile distance. Block size is an indication of the relative walkability of an area with smaller blocks being more walkable than larger blocks.

The Context Tool is a web-based visualization tool that maps various physical characteristics to describe the built environment that, in combination with each other, can illustrate the character of a place. This simple, but innovative tool can be used to help partners, community groups and others to provide a sense of scale for how an area performs compared to a goal or expected outcome; provide a foundation or baseline to evaluate change over time; and to diagnose current conditions. The Context Tool is an adaptive evaluation tool with numerous applications, such as identifying high performing or underserved areas and evaluating the effectiveness of various design and investment strategies relative to the user’s objectives.

Users first select the indicators and geographies they need (see sample indicators at left). The Context Tool then calculates an average relative score for each indicator. By computing average values for each indicator, the Context Tool provides perspective on the relationship of existing conditions for a given geographic area. The averages range from 1 to 5, with 5 representing the highest performance level, as determined by the user.

A key feature of the Context Tool is that all maps are scaled to a unit of 264 feet, which is the approximate distance a person can walk in one minute. Each unit of the map displays the average value of an indicator for the surrounding area – usually within a five minute walk (¼ mile). In addition, this means users can visually compare local averages to regional averages for each of the indicators.



¹ Values defined by Johnson Gardner (2007), *An assessment of the marginal impact of urban amenities on residential pricing*

Three easy steps to running the Context Tool

1. **Determine what geography you want to analyze.**
Users can choose from a series of default geographies (station areas, corridors, centers, census tracts and voter districts). Or, users can upload a unique geography if needed. Once the geographic unit is defined, a map will open displaying the entire region at the specified geography (e.g. all regional centers). The default map setting is a composite of all user defined indicators.
2. **Choose which of the indicators are relevant to your analysis.** Any combination of the defined indicators can be selected at any time.
3. **Adjust the value, or weight, of the indicators** that are most important to your analysis. Each indicator can be manually adjusted to represent various weighting or priority schemes depending on user needs. After adjusting the weights, the Context Tool can be re-run easily with a single click.

Analysis features

A number of features help to make analyses and comparisons quick and intuitive.

- The Context Tool provides the option to sort and zoom to specific features or geographic locations, such as a specific regional center.
- The Context Tool offers a variety of chart types so you can choose the most effective display of how your geography compares to the regional average (see sidebar).
- All maps, graphs and attribute tables can be exported and used to conduct additional analysis.

Indicator values generated by the Context Tool should not be treated as precise scores. Instead, they provide a sense of scale for quick comparisons across the region.

For additional details, contact Clint Chiavarini at clinton.chiavarini@oregonmetro.gov.

Chart illustrations

The charts below illustrate how the Context Tool provides a “sense of scale” snapshot of how a specific geography performs with respect to other indicators and geographies. (The beige or gray areas below represent regional averages.)

The charts can also be used to pinpoint areas that need more detailed analysis.

Examples

Low performing area



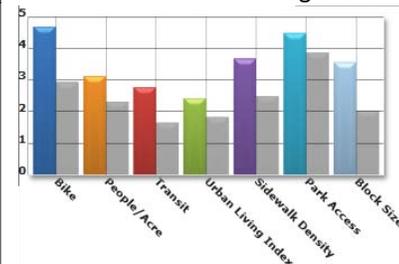
* Beige line area represents regional averages

High performing area



* Beige line area represents regional averages

Performance relative to regional averages



* Grey bars represent regional averages

Conception, design and workflow

Mark Bosworth
Clint Chiavarini

Application development

Ben Sainsbury

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 11-4265 FOR THE PURPOSE OF ADOPTING THE REGIONAL HIGH CAPACITY TRANSIT SYSTEM EXPANSION POLICY IMPLEMENTATION GUIDANCE.

Date: July 6, 2011

Prepared by: Josh Naramore 503-797-1825

BACKGROUND

The Regional High Capacity Transit (HCT) System Plan was developed as a component of the 2035 Regional Transportation Plan (RTP) and serves as the foundation for prioritizing future HCT investments. The Regional HCT System Plan identifies the best locations for major transit capital investments based on evaluation criteria derived from the 2035 RTP. These adopted evaluation criteria will provide the basis to inform MPAC, JPACT and Metro Council's regional decisions on HCT investments as part of future RTP updates.

The 2035 RTP adopted in June 2010 included an outline for developing a HCT system expansion policy (SEP). The SEP emphasizes fiscal responsibility by ensuring that limited resources for new HCT are spent where local jurisdictions have committed supportive land uses, high quality pedestrian and bicycle access, management of parking resources and demonstrated broad-based financial and political support. Chapter 6 of the RTP calls for developing regional guidance for the system expansion policy. With adoption of the 2035 RTP, Metro committed to developing guidance and bringing it forward for discussion to JPACT, MPAC and the Metro Council.

This resolution adopts the HCT SEP Implementation Guidance in Exhibit A and is the first post-adoption 2035 RTP implementation activity to be completed. It builds upon the SEP policy framework that was adopted as part of the 2035 RTP by:

- 1) Clearly articulating the decision-making process by which future HCT corridors will be advanced for regional investment;
- 2) Establishing minimum requirements for HCT corridor working groups to inform local jurisdictions as they work to advance their priorities for future HCT;
- 3) Defining quantitative and qualitative performance measures to guide local land use and transportation planning and investment decisions; and
- 4) Outlining the process for updating the 2035 RTP, including potential future RTP amendments, for future HCT investment decisions.

Following the SEP guidelines will enhance support for transit investments, but does not guarantee a regional investment in HCT. The ultimate decision rests with JPACT and the Metro Council, both as part of RTP updates, or with potential RTP amendments should additional HCT resources become available in the interim. The implementation guidance is intended to help local jurisdictions understand and implement recent regional policy and regulatory changes with adoption of the 2035 Regional Transportation Plan, Regional Transportation Functional Plan (RTFP), and amendments to the Urban Growth Management Functional Plan (UGMFP). It also provides new analytical tools to help inform local jurisdiction planning and investment decisions to become more transit-supportive.

Any changes to the HCT SEP implementation guidance will be addressed as part of each RTP update. With adoption of this resolution, changes to the HCT SEP implementation that arise between RTP updates will need to come before MPAC, JPACT and Metro Council.

TPAC recommended approval of this resolution to JPACT at its May 27 meeting. Similarly, MTAC recommended approval of this resolution at its June 1 meeting. Both TPAC and MTAC approved the guidebook with a few changes. The changes included adding language to clarify that participation of all local governments in a corridor working group is not mandatory, but all the jurisdictions must be invited to participate. The HCT SEP implementation guidance included in Exhibit A reflects both the TPAC and MTAC changes.

MPAC members raised concerns about the multiple account evaluation framework that was adopted as part of the HCT System Plan. Metro staff will work with local jurisdictions to address these concerns as part of the next RTP update. MPAC recommended Metro Council adoption of the HCT SEP implementation guidance at the June 8 meeting. It is scheduled for adoption at the July 14 JPACT and Metro Council meetings.

ANALYSIS/INFORMATION

1. **Known Opposition** – No known opposition
2. **Legal Antecedents** –

Metro Council Ordinance No. 10-1241B FOR THE PURPOSE OF AMENDING THE 2035 REGIONAL TRANSPORTATION PLAN (FEDERAL COMPONENT) AND THE 2004 REGIONAL TRANSPORTATION PLAN TO COMPLY WITH FEDERAL AND STATE LAW; TO ADD THE REGIONAL TRANSPORTATION SYSTEM MANAGEMENT AND OPERATIONS ACTION PLAN, THE REGIONAL FREIGHT PLAN AND THE HIGH CAPACITY TRANSIT SYSTEM PLAN; TO AMEND THE REGIONAL TRANSPORTATION FUNCTIONAL PLAN AND ADD IT TO THE METRO CODE; TO AMEND THE REGIONAL FRAMEWORK PLAN; AND TO AMEND THE URBAN GROWTH MANAGEMENT FUNCTIONAL PLAN, adopted by the Metro Council June 10, 2010.

Metro Council Resolution No. 09-4052 FOR THE PURPOSE OF ACCEPTING THE REGIONAL HIGH CAPACITY TRANSIT SYSTEM TIERS AND CORRIDORS, SYSTEM EXPANSION POLICY FRAMEWORK AND POLICY AMENDMENTS, adopted by the Metro Council July 9, 2009.

3. **Anticipated Effects** – None Anticipated.
4. **Budget Impacts** – None Anticipated.

RECOMMENDED ACTION

Approve Resolution No. 11-4265 and adopt the High Capacity Transit System Expansion Policy Implementation Guidance.

Agenda Item Number 4.2

Resolution No. 11-4279, For the Purpose of Authorizing the
Metro Chief Operating Officer to Execute an Agreement with the
Oregon Zoo Foundation.

Metro Council Meeting
Thursday, July 14, 2011
Metro Council Chamber

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AUTHORIZING)	RESOLUTION NO. 11-4279
THE METRO CHIEF OPERATING OFFICER)	
TO EXECUTE AN AGREEMENT WITH THE)	Introduced by Acting Chief Operating Officer
OREGON ZOO FOUNDATION)	Daniel B. Cooper with the Concurrence of
)	Council President Thomas Hughes

WHEREAS, The Oregon Zoo Foundation is a tax-exempt non-profit Oregon corporation organized and operated exclusively for charitable, scientific, and educational purposes permitted by Section 501(c)(3) of the Internal Revenue Code (“OZF”); and

WHEREAS, the exclusive purpose of OZF is to support and benefit the Oregon Zoo, a Metro-owned and operated facility; and

WHEREAS, on May 9, 2002, the Metro Council approved and adopted Resolution No. 02-3190, “For the Purpose of Authorizing the Executive Officer to Execute an Amended and Fully Restated Agreement with the Oregon Zoo Foundation”; and

WHEREAS, while the Amended and Fully Restated Agreement with the Oregon Zoo Foundation “Agreement” has served its primary purpose of linking the mission of the two organizations in support of building a great Oregon Zoo, OZF board members, Metro Councilors, and Metro staff have identified a need to create more autonomy, transparency and accountability between the two entities; and

WHEREAS, after a top-to-bottom review of the entities’ working relationship, Metro staff and OZF board members jointly crafted a new agreement that retains the essential linkage of the two organizations’ missions, while correcting weaknesses in five key areas of the Agreement through the following improvements: clearly articulating the parties’ roles and responsibilities; reestablishing OZF autonomy; redefining the fiscal relationship, increasing transparency; and improving accountability to the Metro Council; and

WHEREAS, Metro desires to enter into a new agreement with OZF, reestablishing and recognizing the mutual roles and responsibilities of each other and mutual benefit of the OZF – Metro relationship to the Oregon Zoo; now therefore

BE IT RESOLVED that the Metro Council authorizes the Metro Chief Operating Officer to execute the Metro – Oregon Zoo Foundation Agreement, attached as Exhibit A.

ADOPTED by the Metro Council this _____ day of July 2011.

Thomas Hughes, Council President

Approved as to Form:

Alison Kean Campbell, Acting Metro Attorney

**Exhibit A to Resolution No. 11-4279
Metro – Oregon Zoo Foundation Agreement**

[Placeholder]

METRO – OREGON ZOO FOUNDATION AGREEMENT

This Metro-Oregon Zoo Foundation Agreement (“Agreement”), effective _____, 2011 (the “Effective Date”) is entered into by and between Metro, a municipal corporation and political subdivision of the state of Oregon, organized in accord with state law and the Metro Charter (“Metro”), and the Oregon Zoo Foundation, an independent Oregon non-profit public benefit corporation, recognized as tax exempt under Section 501(c)(3) of the Internal Revenue Code (“OZF”), also collectively referred to herein as (“Party” or “Parties”).

PURPOSE OF AGREEMENT

The purpose of this Agreement is to formalize the working relationship between the Oregon Zoo Foundation and Metro. Metro desires to continue to receive the support of the foundation, its board members, members and employees. The OZF and Metro wish to assure the continued success and prosperous growth of the Oregon Zoo in the future.

RECITALS

- A. Metro, a municipal corporation, owns and operates The Oregon Zoo (also, the “Zoo”), pursuant to Oregon law and Metro Charter. The terms “Metro” and “Zoo” are used interchangeably herein.
- B. OZF is an independent tax-exempt Oregon nonprofit public benefit corporation organized to support the Zoo via fundraising, advocacy and community relations in consultation and collaboration with Metro.
- C. Metro and OZF are committed to working collaboratively to achieve the shared goal of making the Zoo a world-class institution and a world-wide leader in best practices for animal welfare, guest services, conservation action and education.
- D. Metro acknowledges that OZF is an invaluable asset to the Zoo, and OZF’s historic fund-raising and support has made it an essential on-going partner in sustaining the Zoo and its mission. OZF’s independent 501(c)(3) status provides the Zoo with the opportunity to benefit from charitable giving that Metro would otherwise not receive, and the flexibility of this funding, applied to facilitate work that Metro could not otherwise perform, has provided much needed assistance to the Zoo.
- E. Both Metro and OZF wish to restate and replace that certain agreement between the OZF and Metro dated March 29, 1985, amended as of November 28, 1989 and April 2, 1997, further amended and fully restated as of May 9, 2002, and entitled “Amended and Fully Restated Agreement.”
- F. The purpose of this Agreement is to establish the roles and responsibilities of Metro and OZF with respect to each other and their shared goals.

NOW, THEREFORE:

AGREEMENT

Metro and OZF, in reliance on the above recitals and in consideration of the mutual covenants and agreements set forth herein, and for other valuable consideration, the receipt and adequacy of which are hereby acknowledged, agree to the following terms:

1. Metro – OZF Relationship

- 1.1 Metro and OZF agree that, during the term hereof, each party shall act in its individual capacity and not as agents, employees, partners, joint ventures or associates of one another, and that nothing in this Agreement, nor the Parties' acts or failures to act hereunder, shall constitute or be construed by the parties, or by any third person, to create an employment, partnership, joint venture, association or joint employer relationship between them. Metro and OZF agree that, as independent and separate entities, each shall maintain a staff and management structure independent of the other during the term hereof.
- 1.2 Metro is subject to Governmental Accounting Standards Board (GASB) rule and regulation. OZF, by GASB definition, is a component unit of Metro and has been reported as such since 2003. OZF agrees to provide to Metro audited financial statements in a timely manner to allow Metro to continue to meet the GASB requirements. OZF agrees that, if GASB rules change during the term of this Agreement, OZF will provide Metro with any and all financial information and reporting needed by Metro to allow Metro to fully comply with GASB requirements.

2. OZF Duties and Responsibilities. OZF shall:

- 2.1 Purpose. OZF shall maintain articles of incorporation establishing that the sole and exclusive purpose of the OZF is to support and benefit the Oregon Zoo.
- 2.2 Development Plan. Create a Development Plan to raise funds for the Zoo in consultation and collaboration with the Zoo Director, recruit a broad based membership, and develop community support for the Zoo. OZF will review the Development Plan on an annual basis with Metro.
- 2.3 Ensure that all funds raised, donated or contributed to OZF are disbursed in support of the Zoo vision, strategy and Master Plan. In the event OZF wishes to pursue fundraising for a capital project that is not included in the Master Plan, the OZF must enter into a project agreement with the Zoo.
- 2.4 Advocacy. Advocate in support of the Zoo in accord with the Model Advocacy Process attached as Attachment A hereto.
- 2.5 OZF Membership Services. Provide Membership Services, which shall be defined as including, but not limited to: personnel and general administrative costs to service members, materials, mailings, social media efforts, acquisition and renewal costs for members, and costs for member events.
- 2.6 Perform such other services to benefit the Zoo as agreed to by the Parties, provided that all OZF services and activities will be consistent with maintaining its status as a tax-exempt, non-profit corporation.

- 2.7 Undertake the activities set forth in this Section 2 at OZF's expense except as provided in this Agreement or as otherwise agreed to by the Parties.
- 2.8 Operate in compliance with Metro policies and code provisions governing Metro Facilities, including those policies and provisions pertaining to naming rights and sponsorships set forth in Metro Code, Chapter 2.16, "Naming of Facilities," and Metro Code, Chapter 2.04, Section 2.04.054(b)(16).
- 2.9 Duties on Dissolution. Upon dissolution of OZF, after payment or provision for payment of all OZF liabilities, assets of OZF shall be distributed to Metro, or the tax-exempt successor operating the Oregon Zoo, to be used for zoological purposes at the Oregon Zoo that qualify as exclusively public purposes.
- 2.10 Changes to Articles and Bylaws. OZF shall promptly provide Metro with written notice and an updated copy of its articles of incorporation and corporate bylaws any time they are amended, restated or otherwise changed.
- 2.11 OZF Annual Operating Budget. Maintain all fiscal records relating to its activities in accordance with generally accepted accounting principles. The OZF shall adopt and publish an annual operating budget on or before June 7 of each fiscal year.
- 2.12 Upon termination of this Agreement, cease using the Oregon Zoo name, and cease representing the Zoo in fundraising activity.
- 2.13 The OZF shall purchase and maintain at OZF's expense, the types of insurance listed below covering OZF, its employees and agents. The OZF shall provide Metro with a certificate of insurance complying with this Agreement within thirty (30) days of executing this Agreement. Notice of any material change or policy cancellation shall be provided to Metro thirty (30) days prior to any change.
- 2.13.1 The most recently approved ISO (Insurance Services Offices) Commercial General Liability policy, or its equivalent, written on an occurrence basis, with limits of not less than \$1,000,000 per occurrence and \$1,000,000 in the aggregate, providing coverage against claims for bodily injury, death, personal injury, property damage, contractual liability, premises and products /completed operations. Said Commercial General Liability policy shall name Metro, its elected officials, officers, employees and agents as additional insureds. OZF's coverage will be primary as respects Metro.
- 2.13.2 Workers' Compensation insurance providing coverage for Oregon statutory requirements, including Employer's Liability Insurance with limits not less than \$500,000 each accident.
- 2.13.3 Automobile Liability Insurance with limits not less than \$1,000,000 each occurrence, combined single limit for bodily injury and property damage including coverage for owned, non-owned, and hired vehicles, including loading and unloading operations. If coverage is written with an aggregate limit, the aggregate limit shall not be less than \$1,000,000. Said Automobile Liability Insurance policy shall name Metro, its elected officials, officers, employees and agents as additional insureds.

- 2.13.4 Non-Profit Directors and Officers Insurance to protect the directors, officers and board members (past, present, and future) of the OZF. Coverage shall include employment practices liability coverage, which must also include employees as insureds, with limits not less than \$1,000,000.
- 2.13.5 Crime and employee dishonesty insurance covering all OZF officers and employees, with limits of not less than \$1,000,000, with a deductible of no more than \$10,000.

3. Metro Duties and Responsibilities. Metro shall:

- 3.1 Operate the Zoo, including the volunteer, education and conservation programs, and, through the Zoo Director, manage the Zoo operations, staff and volunteers.
- 3.2 Through the Zoo Director and in collaboration with the OZF, establish the vision, strategy and Master Plan for the Zoo, as approved by the Metro Chief Operating Officer and the Metro Council.
- 3.3 Through the Zoo Director, manage the implementation of the Zoo vision, strategy and Master Plan.
- 3.4 Through the Zoo Director, consult and collaborate with OZF to support the Development Plan and actively engage in the solicitation and cultivation of donors to the OZF.
- 3.5 Through the Zoo Director, undertake the lead role in external public relations for the Zoo, engaging the public in support of the Zoo vision, strategy and Master Plan. The Zoo Director shall serve as the official public spokesperson for the Zoo.
- 3.6 Grant permission to OZF to use its name, "The Oregon Zoo" in OZF's name and fund raising materials with membership drives, newsletters, annual reports and such other matters as the Parties shall agree. Other OZF uses for "The Oregon Zoo" shall be mutually pre-approved by the Zoo Director and the OZF Director prior to use.
- 3.7 Provide OZF, under this Agreement, the following services in accord with section 5:
 - 3.7.1 OZF staff office space, OZF meeting space, and other indoor or outdoor space as agreed by the Parties, telephone service and internet services, utilities, and any other needed services associated with using the office space provided.
 - 3.7.2 Membership services assistance, including general administrative services and supplies, media relations and public relations services, photography and graphic design services, internet and information technology support services.
 - 3.7.3 Event planning and catering services excluding the cost of food and beverages.
- 3.8 Provide reciprocal Zoo admission for members of recognized societies formed under the auspices of national and/or international zoos, provided that said reciprocal admission shall be reviewed annually by the Zoo Director and OZF Director and may be limited or terminated by mutual agreement.

- 3.9 Provide space for special events and member events aligned with the Development Plan to the OZF free of charge. The nature and dates of these events shall be determined by the Parties' mutual agreement and in coordination with the Zoo Director and staff.
 - 3.10 OZF participation in Metro benefit plans, with the exception of Flexible Spending Accounts, shall fully and finally terminate July 30, 2011. Flexible Spending Accounts benefits shall terminate December 31, 2011, subject to the reimbursement rights of OZF employees for a further 90 days. The OZF acknowledges that the Metro group health plan is a governmental plan not subject to the Employee Retirement Income Security Act (ERISA), as amended. This clause shall not be interpreted to preclude OZF participation in Metro benefit plans in the future, if a mutually satisfactory arrangement can be agreed upon.
 - 3.11 If Metro receives OZF assets as a result of termination or dissolution, Metro shall maintain and distribute such funds as restricted funds for the exclusive benefit of the Zoo, and subject to any additional restrictions placed on those funds by donors.
4. Coordination Between Metro and OZF. Metro and OZF will coordinate their efforts to accomplish their goals and purposes as effectively as possible, recognizing that transparency and extensive and consistent communication between the two organizations is essential to the strength of the relationship. Specifically:
 - 4.1 The Zoo Director and two Metro Councilors, appointed by the Metro Council President, shall serve as non-voting ex-officio members of the OZF Board. The Councilors shall not be counted for purposes of calculating OZF Board quorum and voting requirements. Metro and the OZF shall ensure that each are fully informed of all relevant developments occurring at their respective institutions, through one-on-one meetings between the OZF Director and the Zoo Director, and mutual participation in all relevant operational meetings of the Parties.
 - 4.2 An Annual Report will be jointly published by OZF and the Oregon Zoo.
 - 4.3 The OZF Board and the Metro Council shall meet semi-annually, to share information about both organizations and review accomplishments and goals. One such annual meeting shall be held for the purpose of presenting and discussing the Annual Report.
 - 4.4 The OZF Director shall ensure that public information materials routinely identify the Zoo's affiliation with Metro in a manner which is consistent with Metro's communication standards.
5. OZF Memberships, Allocation of Membership Revenues, Donations, and Contributions.
 - 5.1 OZF shall establish the fees charged and, the benefits extended to members at the various OZF membership levels, upon consultation with Metro, subject to the provisions of this section and section 10.2. At the inception of this Agreement, the cost of an OZF "Family" membership shall be established based on the cost of admission on the Effective Date for a family of two adults and two children multiplied by 2.5, which is the AZA acknowledged national average ratio of the price of a zoo membership to the price of admission on the date hereof. The price of a "Family" membership thus established shall be reviewed annually during the budgeting process. Unless otherwise agreed

between the Parties, if the Metro Council elects to increase rates for general admission to the Zoo, the price for new/renewed memberships sold after the rate increase shall be increased such that the cost of membership keeps pace with the AZA acknowledged national average ratio. If OZF determines, upon consultation with Metro that the optimal relative ratio of the price of OZF memberships to the cost of general admission for the Oregon Zoo is higher than the National Average Ratio, Metro and OZF may coordinate increases in admission and membership fees to establish and maintain said higher relative ratio.

- 5.2 Revenues from the sale of memberships at the current “Patron,” “Sponsor” and “Benefactor” level or above, or their future equivalents, shall be directed to the OZF.
 - 5.3 Revenues from the sale of memberships below the “Patron” level, currently the “Family Plus” level and below, or its future equivalent, shall be directed to designated accounts held by the OZF for the benefit of the Oregon Zoo. The allocation of revenues to said designated accounts will be based on a “Funding Formula” that shall direct the expenditure of such funds in support of new and existing operations. The Funding Formula will be mutually agreed upon by Metro and OZF, and must be approved by the OZF Board and the Metro Council. The purpose of each designated account, and the Funding Formula for all such accounts, will be identified and set forth in a “Five-year Proforma,” which shall be updated annually as an addendum attached hereto as Attachment B.
 - 5.4 The OZF agrees to promptly deposit all funds it receives from any source, unless otherwise directed by the donor, to bank accounts controlled by the OZF Board. The OZF Board will direct the future investment and disposition of these funds consistent with the terms and objectives of this Agreement, the Development Plan and according to OZF’s approved investment policies.
6. Term of Agreement. This Agreement shall become effective when signed by both Parties. The term shall be five years, and shall automatically renew annually for successive five year terms, unless terminated in accord with section 7.
 7. Termination. This Agreement may be terminated by either Party for cause or convenience, subject to the requirements set forth in this section. Notices of termination must be issued in one of the two forms set forth below:
 - 7.1 Termination for Cause. If either party determines that a material breach of the terms of this Agreement has occurred, the aggrieved party shall promptly provide written notice of such breach, reasonably documenting said breach and demanding that the breach be cured. The breaching party shall thereafter cure said breach within 10 days of receipt of said notice. If the breaching party fails to so cure, or under circumstances where the breach cannot reasonably be cured within a 10-day period, fails to begin curing such violation within the 10-day period, or after 10-days has expired fails to continue diligently to cure the breach until finally cured, the aggrieved party may, at its sole discretion, immediately terminate this Agreement. The exercise of this termination right shall not extinguish or prejudice the terminating party’s right to seek damages and enforcement of the terms of this Agreement in a court of competent jurisdiction with respect to any breach that has not been cured.

- 7.2 Termination for Convenience. The party wishing to terminate for convenience shall promptly notify the other party in writing of the decision to terminate. The parties shall begin the process of non-binding mediation on the matter within 14 days, and attempt to negotiate in good faith the continuation of the relationship on the same, similar or different terms. The mediation between the parties shall be conducted by one mediator. The mediator and the ground rules for mediation shall be determined by mutual agreement, and the cost of the mediator's services shall be shared equally between the parties. If the parties are unable to agree upon the continuation of the relationship within 120 days of the date of the notice of termination, the terminating party shall notify the other party of this failure and the Agreement shall immediately terminate. The rights and obligations of the parties set forth in sections 2.11, 3.11 and 9 shall survive and not be limited by any termination of this Agreement.
8. Amendments. This Agreement may be amended at any time by a written agreement signed by both Parties.
9. Indemnification.
- 9.1 OZF agrees to defend, indemnify and hold harmless Metro, its elected officials, officers, agents and employees, against all loss, damage, expenses, and liability, whether arising in tort, contract or by operation of any statute or common law, relating to or arising out of any claims, demands, judgments or other determination that OZF is not an independent contractor as set forth in Section 1.1.
- 9.2 OZF shall defend, indemnify and hold harmless Metro, its elected officials, officers, agents and employees, against all loss, damage, expenses, judgments, claims and liability, whether arising in tort, contract or by operation of any statute or common law, arising out of OZF's performance of, or failure to perform, this Agreement.
- 9.3 Metro shall defend, indemnify and hold harmless OZF and its officers, agents and employees, against all loss, damage, expenses, judgments, claims and liability, whether arising in tort, contract or by operation of any statute or common law, arising out of or in any way connected to Metro's performance of, or failure to perform, this Agreement, subject to the limitations and conditions of the Oregon Constitution and the Oregon Tort Claims Act, ORS Chapter 30.
- 9.4 The foregoing indemnification, defense, and hold harmless provisions are for the sole and exclusive benefit of OZF, Metro, and their respective elected officials, officers, employees, and agents, and are not intended, nor shall they be construed, to confer any rights on or liabilities to any person or persons other than Metro, OZF and their respective elected officials, officers, employees and agents.
- 9.5 Each Party hereby waives any and every claim during the term of this Agreement or any extension or renewal thereof for any loss or damage covered by an insurance policy to the extent that such loss or damage is recovered under said insurance policy. Inasmuch as the waiver will preclude the assignment of any aforesaid claim by way of subrogation (or otherwise) to an insurance company (or any other person) the Parties are advised to give each insurance company written notice of terms of such waiver, and to have insurance policies properly endorsed, if necessary.

10. Miscellaneous Provisions.

10.1 Entire Agreement. This Agreement constitutes the entire agreement between the Parties on the matter addressed herein, and supersedes all prior or contemporaneous oral or written communications, agreements or representations relating to its subject matter, including, but not limited to, that certain agreement between Metro and the Friends of the Washington Parks Zoo, dated March 29, 1985, amended as of November 28, 1989 and April 2, 1997, and amended and fully restated as of May 9, 2002. No waiver, consent, modification or change of terms of this Agreement shall bind either Party unless in writing and signed by both Parties. The failure of a Party to enforce any provision of this Agreement shall not constitute a waiver by any Party of that or any other provision.

10.2 Agreement Subject to Regulatory Requirements. Metro and OZF agree that the terms of this Agreement and the Parties' duties hereunder are subject to federal, state and local regulatory requirements, including but not limited to requirements imposed by the City of Portland as conditions of land use approval.

10.3 Notices. Notices will be deemed received upon personal service or upon deposit in the United States Mail, certified mail, postage prepaid, return receipt requested addressed as follows:

To OZF: Oregon Zoo Foundation
OZF Director
4001 SW Canyon Road
Portland, Oregon 97221
Fax No. (503) 223-9323
Phone No. (503) 220-5747

To Metro: Metro
Office of Metro Attorney
600 NE Grand Avenue
Portland, Oregon 97232-2736
Fax No. (503) 797-1792
Phone No. (503) 797-1534

Copy to: Oregon Zoo
Oregon Zoo Director
4001 SW Canyon Road
Portland, Oregon 97221
Fax No. (503) 226-6836
Phone No. (503) 220-2450

The foregoing addresses may be changed by written notice, given in the same manner. Notice given in any manner other than the manner set forth above shall be effective when received by the Party for whom it is intended. Telephone and fax numbers are for information only.

10.4 No Benefit to Third Parties. Metro and the OZF are the only Parties to this Agreement and as such are the only Parties entitled to enforce its terms. Nothing in this Agreement gives or shall be construed to give or provide any benefit, direct, indirect, or otherwise to

third parties unless third persons are expressly described as intended to be beneficiaries of its terms.

- 10.5 Headings/Construction. Titles of the sections of this Agreement are inserted for convenience of reference only and shall be disregarded in construing or interpreting any of its provisions. In construing this Agreement, singular pronouns shall be taken to mean and include the plural and the masculine pronoun shall be taken to mean and include the feminine and the neuter, as the context may require.
- 10.6 Waivers. No waiver made by either Party with respect to the performance, or manner or time thereof, of any obligation of the other Party or any condition inuring to either Party's benefit under this Agreement shall be considered a waiver of any other rights of that Party. No waiver by either Party of any provision of this Agreement or any breach thereof, shall be of any force or effect unless in writing; and no such waiver shall be construed to be a continuing waiver.
- 10.7 Choice of Law/Place of Enforcement. This Agreement shall be construed, governed and enforced in accord with the laws of Oregon. Any action or suit to enforce or construe any provision of this Agreement by any Party shall be brought in the Circuit Court of the State of Oregon for Multnomah County, or the United States District Court for the District of Oregon in Portland, Oregon.
- 10.8 Severability. In the event that any one or more of the provisions of this Agreement shall for any reason be held to be invalid, illegal or unenforceable, in whole or in part, or in any other respect, then such provision or provisions shall be deemed null and void and shall not affect the validity of the remainder of the Agreement, which shall remain operative and in full force and effect to the fullest extent permitted by law.
- 10.9 Entire Agreement. This Agreement and the Exhibits hereto constitute the entire agreement between the Parties, and except as otherwise set forth herein, supersede any and all other implied or express, oral or written agreements between the Parties with regard to this subject matter.
- 10.10 Successors and Assigns. Subject to and except as otherwise set forth herein, the benefits conferred by this Agreement, and the obligations assumed hereunder, shall inure to the benefit of and bind the successors and assigns of the Parties.
- 10.11 The signature of the OZF Chair below has been duly authorized by OZF Board of Directors.

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METRO

OREGON ZOO FOUNDATION

By: _____
Daniel B. Cooper
Acting Chief Operating Officer

By: _____
Daniel Jarman
Chair, OZF Board of Trustees

Date: _____

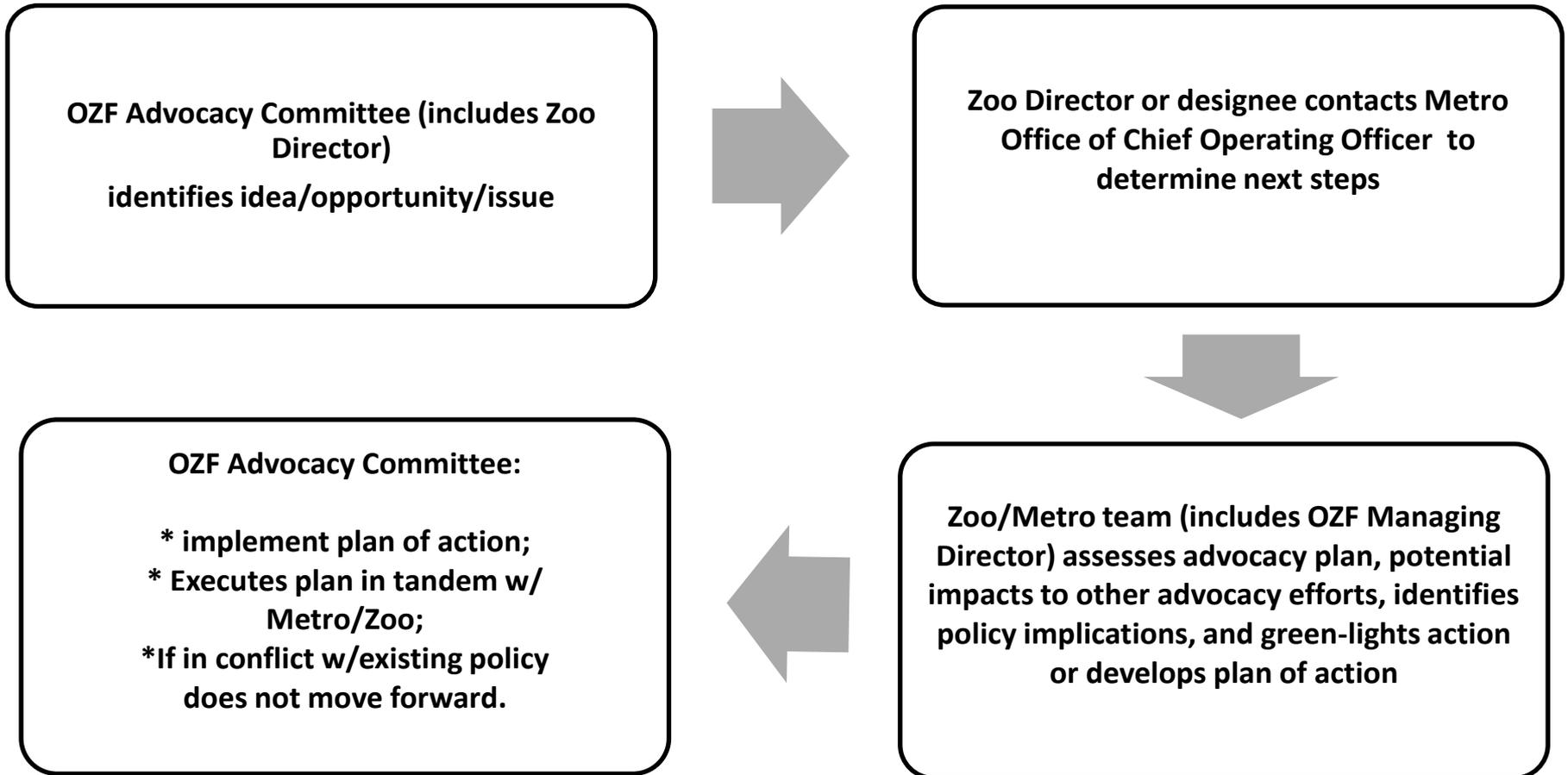
Date: _____

Attachments:

- A. OZF Advocacy Process
- B. Addendum: 5-Year Proforma

Oregon Zoo Foundation Advocacy Process

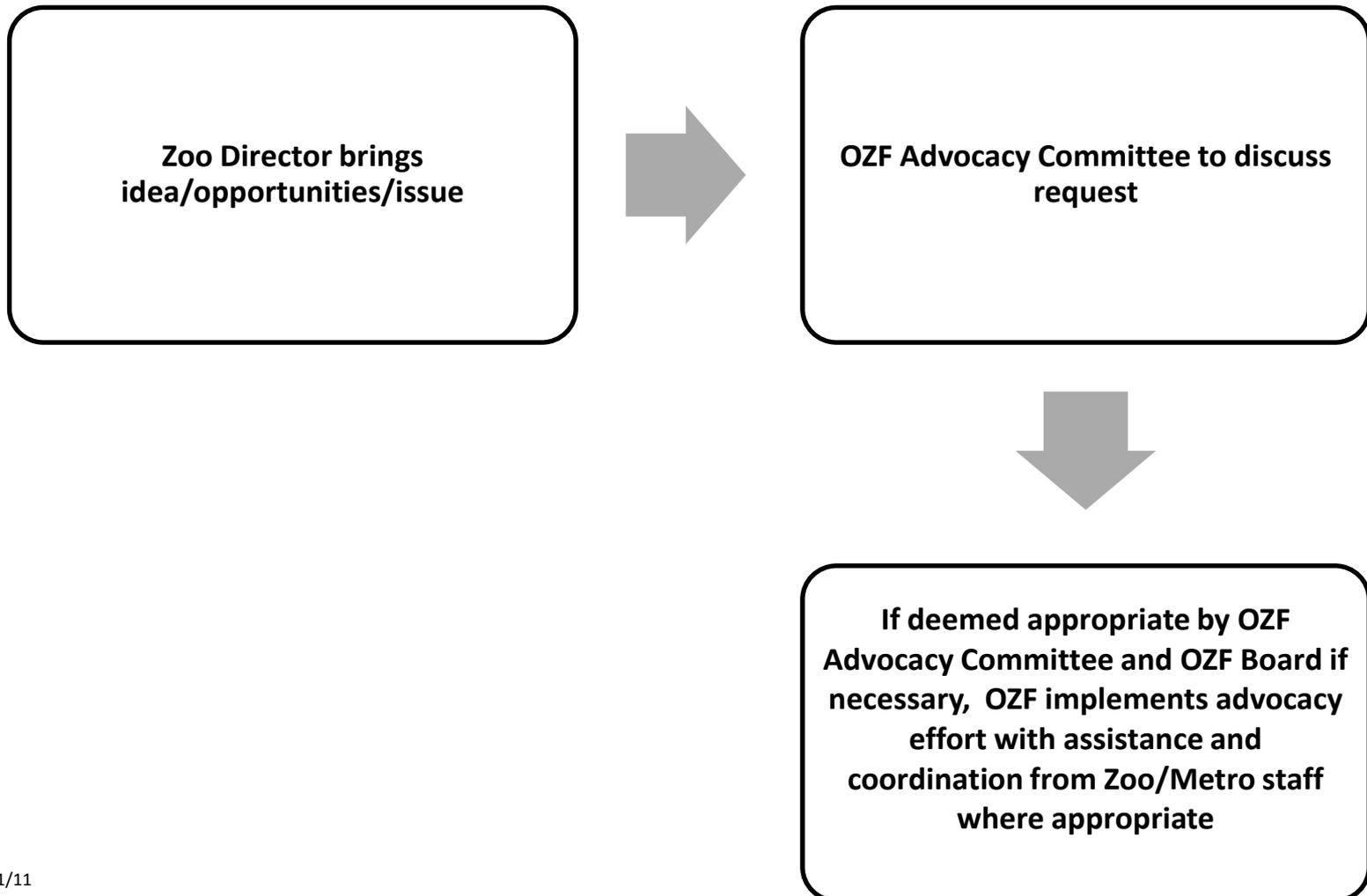
Foundation Originated Advocacy Request



For the purposes of this discussion, “advocacy” is defined as contacting federal, state or local elected officials, boards and commissions appointed as policy making bodies, and business associations, community organizations, industry trade groups and individuals that are not directly related to the mission of the Oregon Zoo.

Oregon Zoo Foundation Advocacy Process

Zoo/Metro Originated Advocacy Request



THE OREGON ZOO FOUNDATION	5 YEAR FUNDING PROFORMA USING PROPOSED MOU FORMULA							
	2010-11 Current Basis	2011-12 Current Basis	2011-12 New Basis	2012-13 Pro Forma	2013-14 Pro Forma	2014-15 Pro Forma	2015-16 Proforma	
Revenues								
Memberships through Family Plus	\$3,022,700	\$3,200,000	\$3,200,000	\$3,360,000	\$3,528,000	\$3,704,400	\$3,889,600	
Patron through Sponsor	\$1,002,300	\$1,103,300	\$1,103,300	\$1,125,400	\$1,147,900	\$1,170,800	\$1,194,200	
Conservation Circle, Corporate Partners, etc.	\$267,800	\$260,100	\$260,100	\$264,800	\$270,100	\$275,500	\$281,000	
Events	\$526,000	\$671,100	\$671,100	\$684,500	\$698,200	\$712,200	\$726,400	
Distributions from Invested Funds	\$0	\$30,600	\$30,600	\$40,000	\$42,000	\$44,100	\$46,300	
Earnings from Invested Funds	\$0	\$0	\$69,900	\$89,600	\$100,000	\$100,000	\$100,000	
Total Revenues Available to Support Foundation	\$4,818,800	\$5,265,100	\$5,335,000	\$5,564,300	\$5,786,200	\$6,007,000	\$6,237,500	
Planned Giving	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Earnings on invested funds (retained in invested funds)	\$17,000	\$285,400	\$215,500	\$10,400	\$0	\$0	\$0	
Gifts Solicited by the Foundation for the Zoo (capital, sponsorships, etc.)	\$1,285,300	\$2,320,000	\$2,320,000	\$5,187,600	\$5,195,200	\$5,203,200	\$5,211,300	
Grand Total All Revenue	\$6,121,100	\$7,870,500	\$7,870,500	\$10,762,300	\$10,981,400	\$11,210,200	\$11,448,800	
Foundation Operating Costs								
Membership Costs	\$1,068,804	\$1,313,600	\$1,313,600	\$1,353,000	\$1,393,600	\$1,435,400	\$1,478,500	
Fund Raising Costs	\$1,418,596	\$1,785,700	\$1,785,700	\$1,874,000	\$1,930,200	\$1,988,100	\$2,047,700	
Foundation Operating Costs	\$2,487,400	\$3,099,300	\$3,099,300	\$3,227,000	\$3,323,800	\$3,423,500	\$3,526,200	
Full Time Equivalent Employees (FTEs)	15.08	18.20	18.20	18.70	18.70	18.70	18.70	
Zoo Support from Foundation Funds								
Member Admission Support 2.5 times gate adult admission	\$1,140,100	\$1,221,500	\$0	\$0	\$0	\$0	\$0	
Continuing Operations Support	\$500,000	\$500,000	\$0	\$0	\$0	\$0	\$0	
Member Admission Support (Individ - Fam Plus less OZF member costs)	\$0	\$0	\$1,886,400	\$2,007,000	\$2,134,400	\$2,269,000	\$2,411,100	
Net Proceeds from Events	\$259,300	\$383,100	\$316,700	\$328,200	\$334,800	\$341,400	\$348,200	
Predators Exhibit Support	\$0	\$30,600	\$30,600	\$40,000	\$42,000	\$44,100	\$46,300	
Other	\$5,000	\$2,000	\$2,000	\$2,100	\$2,100	\$2,200	\$2,300	
Zoo Operations Support from OZF	\$1,904,400	\$2,137,200	\$2,235,700	\$2,377,300	\$2,513,300	\$2,656,700	\$2,807,900	
Total Foundation Costs	\$4,391,800	\$5,236,500	\$5,335,000	\$5,604,300	\$5,837,100	\$6,080,200	\$6,334,100	
SURPLUS (LOSS) from revenues available to support the foundation	\$427,000	\$28,600	\$0	(\$40,000)	(\$50,900)	(\$73,200)	(\$96,600)	
Support for Zoo from OZF funds - operations	\$1,640,100	\$1,721,500	\$1,721,500	\$1,773,100	\$1,826,300	\$1,881,100	\$1,937,600	
Support for Zoo from OZF funds - available for other use	\$0	\$0	\$164,900	\$233,900	\$308,100	\$387,900	\$473,500	
Support for Zoo from OZF events - available for other use	\$259,300	\$383,100	\$316,700	\$328,200	\$334,800	\$341,400	\$348,200	
Support for Predators Exhibit operations	\$0	\$30,600	\$30,600	\$40,000	\$42,000	\$44,100	\$46,300	
Gifts for Zoo Raised by Foundation	\$1,447,100	\$2,320,000	\$2,322,000	\$5,189,700	\$5,197,300	\$5,205,400	\$5,213,600	
Total Zoo Support through Foundation Activities	\$3,346,500	\$4,455,200	\$4,555,700	\$7,564,900	\$7,708,500	\$7,859,900	\$8,019,200	

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO.11- 4279 FOR THE PURPOSE OF AUTHORIZING THE METRO CHIEF OPERATING OFFICER TO EXECUTE AN AGREEMENT WITH THE OREGON ZOO FOUNDATION

Date: July 14, 2011

Prepared by: Kim Smith
Teri Dresler

BACKGROUND

The Oregon Zoo and Oregon Zoo Foundation (OZF) have enjoyed a long and productive relationship that has served as one of the many important ingredients to the success of the Oregon Zoo. The relationship between the Oregon Zoo and the OZF has been guided by an agreement originally executed March 29, 1985, subsequently amended in November 28, 1989 and again on April 2, 1997 and further amended and fully restated as of May 9, 2002.

While the agreement has served its primary purpose of linking the missions of the two organizations in support of building a great Oregon Zoo, the agreement has become outdated.

In January of 2010 a group of Oregon Zoo Foundation (OZF) members, Metro Councilors, and Metro staff met to discuss the structure of the on-going relationship between the Oregon Zoo Foundation and the Oregon Zoo, a service of Metro. These discussions led to an identified need to create more autonomy, transparency and accountability between the two operations. The initial discussions led to a follow-on meeting of Councilors and OZF board members in August of 2010 which identified a set of "Framing Principles for a New Working Agreement", which were used to guide the work effort of a joint work group made up of Metro staff and OZF board members and staff who were tasked with a complete top to bottom review and re-write of the agreement. The result of this work effort is comprised in the agreement which is before you today.

The proposed agreement retains the essential linkage of the two organizations' missions, while improving on five key areas of weakness in the previous agreement.

Roles and Responsibilities

The agreement clearly articulates the role of Metro and the Oregon Zoo in visioning and operating the Oregon Zoo and its conservation education programming. The OZF's role in supporting the Oregon Zoo is clearly tied to its primary responsibility for fundraising, executing the Development Plan with support from Metro. The OZF also retains an advocacy role as it relates to promoting the Oregon Zoo in alignment with the Oregon Zoo's strategic vision, 20 year master plan and Metro Council policy.

Autonomy

The new agreement creates an appropriate level of autonomy by ensuring that the OZF (a separate 501c3) is run by an independent director serving at the pleasure of the independent OZF board. The Oregon Zoo director and Metro Council retain a non-voting presence on the OZF board. The change eliminates the role of the Oregon Zoo Director as Executive Director of the OZF.

Fiscal relationship

The agreement clarifies the allocation of membership revenues creating transparency in source and use of funds. Membership revenues are delineated into one of two categories, supporting either zoo operational enhancements or supporting OZF operations. The new allocation provides enhanced funding to the zoo to support enhanced operations. In addition, under the allocation, the OZF has an increased incentive to be fiscally sustainable.

The agreement also requires the annual development of a five year pro forma reflecting the intended sources and uses of funds collected through the OZF. Separately, the agreement provides a clearly defined mechanism to ensure the regular review and management of both regular gate admissions and membership pricing in a manner that reflects American Zoo and Aquarium Association best practices.

Transparency

The request for and use of funds is generated from the Oregon Zoo who creates the vision, strategy, and Master plan in consultation with OZF. OZF creates a Development Plan in consultation with Metro. The Development Plan is shared with Metro Council in advance of fundraising. Subsequently, all funds used by the Oregon Zoo are approved by Metro Council through the budgeting process. All requests for and use of funds are submitted through a five year pro forma that is updated annually for Council review.

Accountability

The Metro Council and OZF will meet on a formal basis semi-annually to review the direction and results of the relationship. Annually the Council will recognize the pro forma submitted as part of the budgeting process and separately, the council will receive an annual report on the activities and results of the Oregon Zoo and OZF.

The working group addressed a rich and complex history in their work to arrive at language that would provide for future growth and development of both organizations while clearly defining roles and responsibilities. The working group grappled with revisions to current business practices successfully achieving mutually acceptable language to define new business practices. Overall, the transparency of daily operations of both organizations has been better defined and afforded more structure that will lead to an on-going positive working relationship. The working group developed a strong bond over a renewed commitment to maintain a spirit of aligned autonomy that continues the Oregon Zoo on the trajectory towards being one of the world's greatest zoos.

In June of 2011, the OZF board unanimously approved the Agreement that is before you today for approval.

ANALYSIS/INFORMATION

- 1. Known Opposition - None**
- 2. Legal Antecedents -** The legal relationship between Metro and the Oregon Zoo Foundation is currently governed by the Amended and Fully Restated Agreement between the parties, dated May 9, 2002.
- 3. Anticipated Effects – Anticipated Effects –** The anticipated effects of this new agreement are increased transparency and awareness on the part of both parties; clearer operating guidelines and principles; and better defined roles and responsibilities. In addition, it is understood by both parties that revenue from membership dues will support operations and fund a new reserve account for

mutually agreed upon projects or program support. All of this groundwork should lead to an increased level of success in fundraising and fulfillment of the vision of both groups to achieve a world-class zoo.

- 4. Budget Impacts** – Please refer to the attached 5-year ProForma which shows increased annual operating revenues for the zoo.

RECOMMENDED ACTION

Staff recommends, with the Acting Chief Operating Officers' support, approval of Resolution No. 11-4279.

Materials following this page were distributed at the meeting.

Advantages of Concept #1

- * Creates the SAFEST entrance to and exit from Hayden Island.

- * Justifies reducing number of Main Span Bridge lanes
(From 6 lanes to 5 lanes, saving \$100's of millions.)

- * Justifies building the Southbound Bridge ONLY.
(Northbound traffic would use both old bridges. Build both MAX and wide walkway on lower level of Southbound bridge. In 10-20 years, the matching northbound bridge need only build the roadway level.)

- * Makes 4th lane on Hayden Island more readily possible.

- * Allows I-5 to remain at current level across Hayden Island.

- * Eliminates need for central street under I-5.

- * Preserves the most buildings adjacent to I-5.

(Safeway - Waddles - Micky D's - Denny's - Newport Bay - Engine House Pizza. Paul's Smoke Shop, Lotto Row & BJ's Restaurant probably can't be saved).

- * Creates ideal development potential.

- * Allows MAX station at surface rather than elevated.

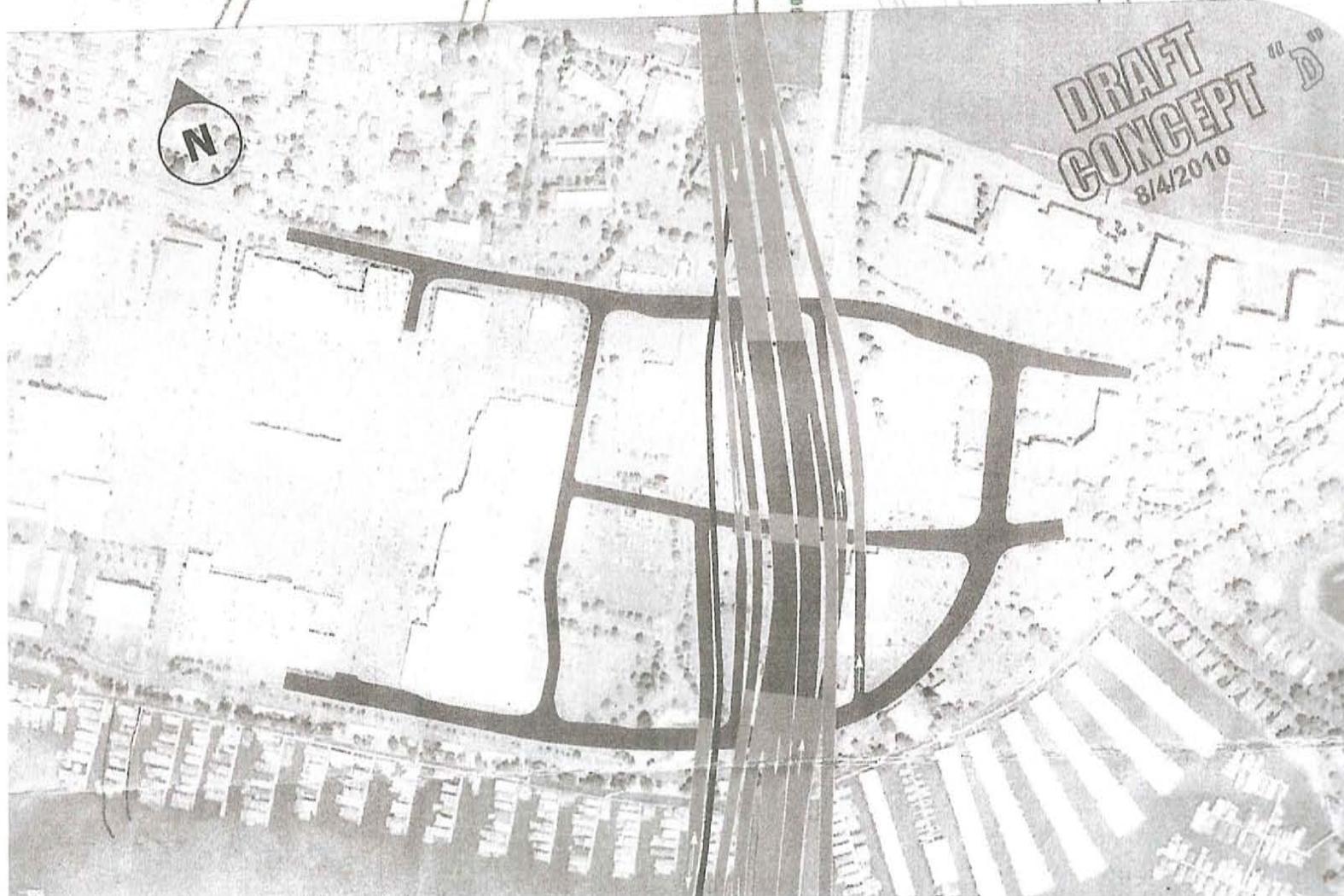
- * Leads to restoration of riverbank habitat in North Portland.

Innovations in Rail & Land-use planning

THE **LOTi** PROJECT
THE SEATTLE CIRCULATOR PLAN

Art Lewellan
PORTLAND

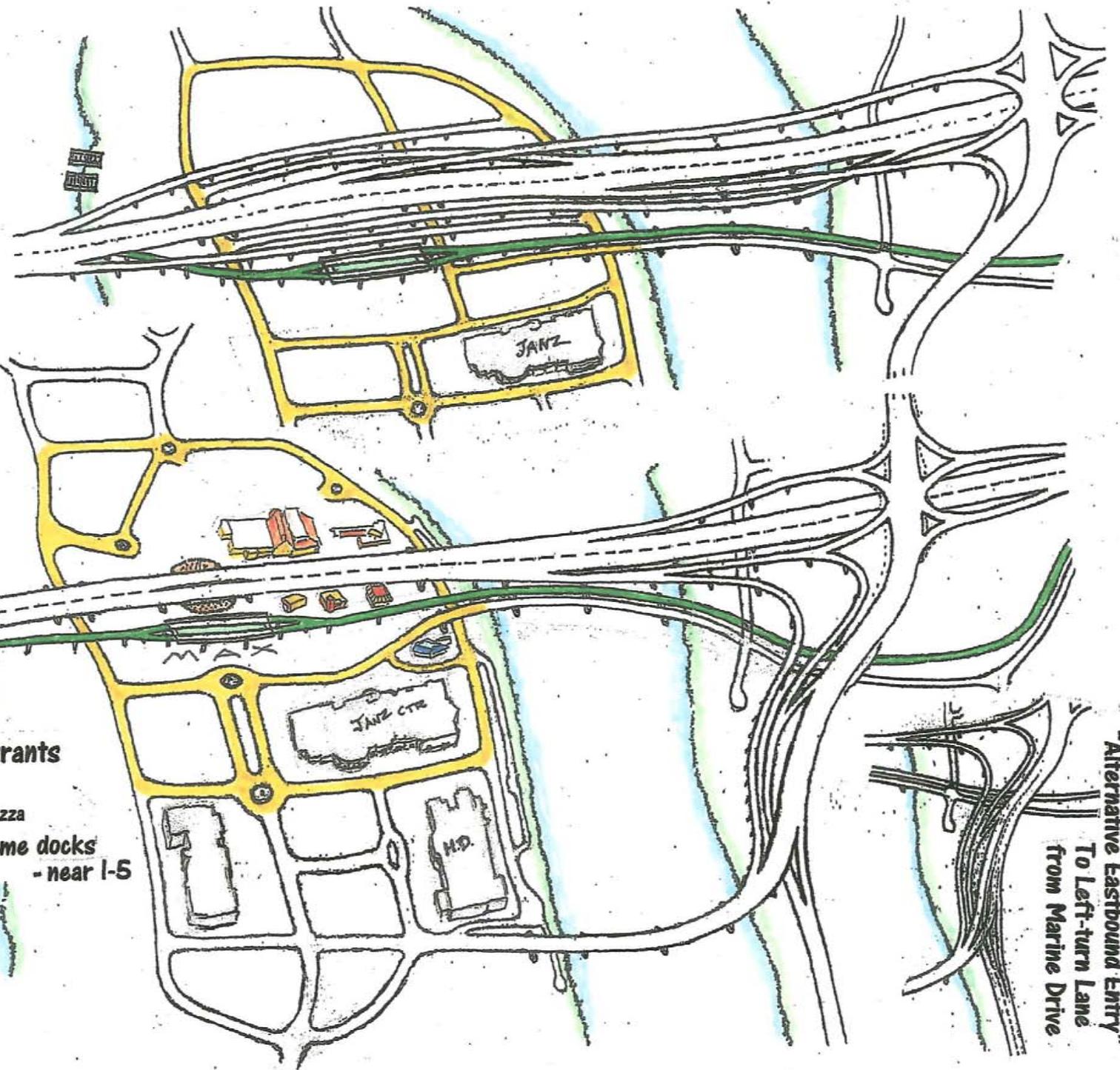
Lotilivo@gmail.com
503-227-2845



CONCEPT 'D'
"Preferred"
Alternative
Bulldozes everything

CONCEPT #1
"Off-island Access"

Saves Safeway & restaurants
Waddle's -- Denny's -- Micky D's
Newport Bay -- Engine House Pizza
Removes 'least' Floating Home docks
Pedestrian-only underpass - near I-5



"Alternative Eastbound Entry"
To Left-turn Lane
from Marine Drive



Testimony of John A. Charles, Jr.
Regarding Metro Resolution No. 11-4265
“Regional High Capacity Transit System Expansion Policy Implementation Guidance”
July 14, 2011

My name is John Charles. I am President & CEO of Cascade Policy Institute, a non-profit policy research organization promoting free-market solutions to policy problems.

I have been conducting research related to transit-oriented development in the Portland region for the past decade. Based on that research, I would like to make the following points regarding so-called “high capacity transit:”

High capacity transit should only be planned when there is sufficient consumer demand.

On page one of the staff report, the author asserts that, *“The SEP emphasizes fiscal responsibility by ensuring that limited resources for new HCT are spent where local jurisdictions have committed supportive land uses, high quality pedestrian and bicycle access, management of parking resources and demonstrated broad-based financial and political support.”* Nowhere in this statement is there any concern expressed about actual travel patterns. If there are many people traveling from one region to another, high capacity transit might be warranted. But that is rarely the case in the Portland region. We have relatively low density, trip originations and destinations are scattered, and for most of the day our problem is that we have hundreds of transit vehicles moving about with *excess* seating capacity.

In those rare instances when HCT might be desirable, Metro’s definition of the HCT solution is demonstrably wrong.

Local transit planners are obsessed with light rail and streetcars; neither mode qualifies as HCT in either relative or absolute terms. In fact, both should be described as “low capacity transit” due to inherent limitations on headways, car capacity, and regional coverage of the travel market.

Recently I published a report (attached) examining five potential uses for HCT during 2010. I did actual observations of transit use for a Blazer playoff game, opening night at the Cirque du Soleil in the South Waterfront District, “Black Friday” shopping at Cascade Station, the “Green Expo” home show in North Portland, and a prime shopping/commute day at Gresham Station TOD just after the new LRT station opened there in December. In general, rail transit was either under-utilized, or not up to the task when large numbers of people really needed it (i.e., the Blazer game).



The actual HCT system in Portland is *rubber-tired transit* using the ubiquitous road system. That is what transports the handicapped on a door-to-door basis (which rail will never do), and it is what moves 67% of all TriMet trips. And within that group, the subset of 16 bus routes known as “Frequent Service” carries more than 50% of all trips.

Unfortunately, this HCT service is slowly being dismantled due to TriMet’s out-of-control spending on fringe benefits and capital projects, but future emphasis should be on re-building and expanding bus service.

The Metro belief that planning, zoning and subsidizing TOD will generate ridership for HCT is not supported by the evidence.

We have conducted hundreds of hours of field observations at TODs throughout the region over the past decade. We know of no instance where TOD generates significant transit ridership as a percent of all trips.

The experience of the 25-year old Blue Line to Gresham is instructive on this point. One of the most heavily planned and subsidized TODs is the Russellville Commons site at Burnside and 102nd Street. Through public ownership of an 11-acre site, PDC managed to build a 3-phased project over a 15-year period that is built out to a density of 52 units per acre (see attached photo). Yet the MAX ridership during the morning peak is only 13% of all trips, as displayed below.

**Transit Use at AM Peak Period, 6:15 a.m. – 8:30 a.m.
Russellville Commons TOD
Density: 52 units p/acre
Observations done June 28, 2011**

Observation points	Auto Passenger-trips	MAX	Pedestrian	Bike
102 nd & Ankeny	89	27	2	1
102 nd & Pine	67	5	9	0
105 & Stark	120	0	7	2
105 th & Burnside	55	23	7	4
TOTAL:	331	55	25	7
Mode split in %	79%	13%	6%	1%

Note that the intersection where the most pedestrians were observed walking to MAX (102nd and Ankeny) also generated the highest auto use. That is always the problem with increasing density.

By a quirk of fate, a similarly-sized parcel of land north of Burnside between 102nd and 105th escaped the redevelopment plans of PDC/TriMet/Metro/Multnomah County. The grid system

there is such that all auto trips in/out can be observed at two points, and all ped/bike trips to MAX are funneled through one sidewalk from NE Davis to NE 102nd (see attached map). We did observations there at roughly the same time we observed the Russellville project. What we found is that the TOD generated 100% higher transit mode split, but the density of the TOD is 10 times higher than the density of the NE Glisan neighborhood.

**Transit use at peak commuter period, 6:15 a.m. – 8:30 a.m.
 “Old Glisan” Neighborhood
 June 29, 2011
 Density: 5 units p/acre**

Observation points	Auto Passenger-trips	MAX	Pedestrian	Bike
104 th /103 rd & Glisan	31	0	2	0
105 th /106 th & Glisan	27	0	0	1
102 nd /Davis St path	0	5	0	2
TOTAL:	58			
Mode split in %	85%	7%	3%	4%

Given the amount of time, effort, and public resources spent to create Russellville Commons, an increase from 7% (control group) to 14% is not impressive.

A graduate student at PSU named Michael Lapham did similar field work 10 years ago on Russellville Commons and other local TODs (see attached summary). His observations showed 14% transit share, and that was before the highest-density phase was built right up to the curb at Burnside next to the LRT station. The fact that our research reaches very similar conclusions suggests that transit use has likely leveled off, and that 15% mode share is about the best you can hope for from TOD.

Note that Mr. Lapham also did PM peak counts, which we did not. The afternoon results were far weaker for transit, with only 6% total mode share.

It is clear that simply densifying neighborhoods is not a winning strategy, in any sense of the word. Aside from the quality-of-life concerns about lack of open space, parking shortages, and crime, the relationship between density and transit use is not 1-to-1. And the subsidies necessary for high-density development are financially unsustainable.

Local planners seem unfamiliar with this evidence. In Exhibit A, page 14 of the staff report, footnote 5 references a 1995 study in Portland done by Nelson/Nygaard Consulting Associates and a San Francisco study of Bay Area rail stations. The Nelson/Nygaard is not directly on point to the issue at hand, and the SF study suggests that we can achieve MAX mode split for commuters of over 60% with 40 units of housing or more per gross acre.

Those studies are a distraction. Where in Portland is the densification strategy actually working? Even in the South Waterfront district, perhaps the most Utopian planning effort ever undertaken in Oregon with regard to high-density TOD, nearly 80% of all passenger-trips to/from the district are via automobile or truck during the period of 6:00 a.m. to 10:00 p.m. on a typical weekday (see attached summary).

Conclusion: The background material prepared for this resolution is filled with bureaucratic jibberish that is utterly divorced from reality. I suggest that you place it in the appropriate recycling bin, take no action on this resolution, and tell your planners to step away from their computer terminals and start learning how Portland TODs really function by going out in the field.

Furthermore, you should vote to terminate all future passenger rail projects, including the egregiously wasteful Milwaukie project, because they are not HCT, they are *high-cost*, which makes them unsustainable. To the extent that we need HCT at all, it is episodic (such as events at Jeld-Wen Field or the Rose Garden) and much better served by increased bus transit. TriMet can provide that independently without going through the MPAC/TPAC/JPACT gauntlet, and you should encourage them to do just that.



LIGHTRAIL, STREETCARS, &
THE MYTH
OF “HIGH CAPACITY TRANSIT”

By John A. Charles, Jr. | May 2011

LIGHTRAIL, STREETCARS, & **THE MYTH** OF “HIGH CAPACITY TRANSIT”

John A. Charles, Jr. | May 2011

For the past several decades, TriMet has promoted passenger rail as “High Capacity Transit (HCT).” In planning documents, the agency defines HCT as a mode “characterized by using larger vehicles and/or more frequent service to provide faster, more convenient and more reliable service for a larger number of passengers than a standard fixed-route bus line.”

The specific services that TriMet offers within the alleged HCT category include light rail, commuter rail and the Portland streetcar.

HCT is desirable when there are large numbers of people moving to geographically constrained destinations within a short period of time – such as commuters traveling to downtown San Francisco or midtown Manhattan. It is questionable whether the Portland region has a need for such services, due to low regional population densities and the dispersed nature of regional employment. Many people live in the suburbs or beyond, and many employment centers are also located in those same areas, so travel patterns are scattered and complex.

However, there are “special events” each year where HCT might be valuable, and those events were the focus of this research. During 2010, five different events were chosen to see if the light rail/streetcar system actually provides the high-capacity service needed to move large numbers of passengers. Those events were:

- The Green Building Home Show at the Multnomah County Expo Center in March;
- Opening night at the Cirque du Soleil in April;
- The final playoff game of the season for the Portland Trail Blazers in May;
- The day after Thanksgiving (“Black Friday”) at Cascade Station shopping mall near Portland International Airport; and
- December 22 at the Gresham Civic Center retail/residential complex, focused around the newest TriMet light rail station, which opened on December 1.

By spreading the investigation throughout the year, and choosing different locations, the research team was able to examine travel patterns in various weather conditions and time periods. All events were served by auto access as well as rail. In some cases parking was free; in other cases it was quite expensive.

With a strong mix of travel options, each event offered a good opportunity to study the choices people make in real time. This is important because transportation planners at Metro, TriMet, ODOT and other agencies routinely make multi-billion-dollar decisions based on travel surveys, computer models or simply their own personal beliefs about how people *should* travel. They rarely have any direct knowledge of how people *actually* travel under specific conditions of time, mode availability, parking pricing and geographic constraints.

The goal of this research was to compare the dominant planning assumptions in Portland with observed travel behavior in specific event settings.

GREEN BUILDING HOME SHOW, EXPO CENTER

This trade show was chosen for study because it focused on so-called “Green Building,” thus it was presumed that the participants would have an above-average willingness to travel by some mode other than private automobile. The geographic focus was the terminus of the Yellow MAX line, on the east edge of the parking lot at the Expo Center. This is also the location for the parking entrance, which is controlled by gate access.

Parking is expensive at the Expo Center – \$7 per car, or \$6 for carpools of 3 or more. There is no easily available on-street parking that people can use for free anywhere in the vicinity of the Expo Center. This controlled access for both transit and auto use makes the Expo Center an ideal location to study travel choices by conventioners.

Researchers manually counted all passengers exiting the MAX and walking towards the Expo Center. These were recorded as “trips.” Occasionally, people left the MAX and walked north to unknown destinations. Those trips were not recorded.

Researchers also counted the number of passengers in vehicles paying to park. Based on the observations, average vehicle occupancy was calculated and used to determine the total number of “passenger-trips” by automobile (number of vehicles x the average vehicle occupancy). The number of passenger-trips is used to determine the “market share” of each mode – MAX and automobile – in percentage terms.

SUMMARY OF OBSERVATION

SATURDAY, MARCH 27, 2010

	NUMBER OF TRIPS (TO EXPO CENTER)	AVERAGE VEHICLE OCUPANCY	TOTAL PASSENGER TRIPS	MODE SHARE
LIGHTRAIL	251	N/A	251	21%
AUTOMOBILE	516	1.8	929	79%
TOTAL	767	N/A	1180	100%

WEATHER: Blue sky and sunny
 TIME OF OBSERVATION: 11:25am-1:25pm

SUNDAY, MARCH 28, 2010

	NUMBER OF TRIPS (TO EXPO CENTER)	AVERAGE VEHICLE OCUPANCY	TOTAL PASSENGER TRIPS	MODE SHARE
LIGHTRAIL	265	N/A	265	18%
AUTOMOBILE	654	1.8	1177	82%
TOTAL	919	N/A	1442	100%

WEATHER: Blue sky and sunny
 TIME OF OBSERVATION: 12:25am-2:45pm

DISCUSSION: The results showed that MAX was not the primary means of travel on either day, though rail use was respectable at roughly 20% of all passenger-trips. However, given that this was a "Green" home show, and on-site parking was highly controlled and expensive, some rail advocates might find 20% market share to be disappointing.

CIRQUE DU SOLEIL

This popular circus show appears in Portland about every two years and has traditionally set up in the large vacant lot in the South Waterfront district just south of the Marquam Bridge on Moody Avenue. Since access to the site is constrained and the area is served by the streetcar, a two-lane road (Moody) and even the aerial tram, it offers an unusual opportunity to study travel patterns.

The streetcar observer was positioned at the stop on SW River Parkway about 300 yards north of the circus entrance, on the assumption that most people arriving from the city center would get off there rather than ride past the circus to the next stop at the OHSU Health and Healing building. The researcher observed all trips to and from the streetcar and counted only those where the passenger came from or headed to the south (the direction of the circus tent). Any trips to or from the north were considered non-event trips.



The SW Moody Street stop is about 300 yards north of the circus tent.

The auto counter was positioned at the entrance to the paid parking lot (\$10 per car fee required) adjacent to the circus tent. He manually counted all vehicles and occupants entering the lot.

After the show started, parked cars were also counted at two paid lots on Moody Avenue to the south (\$7 per car). A scan was also conducted of cars parked on nearby streets, including SW Sheridan, Arthur Street and Water Avenue. There is a structured parking facility about 200 yards to the north of the circus on Moody, but that lot was not monitored. Thus, the auto counts below are somewhat understated.



Auto use was the preferred mode of travel for most circus patrons on opening night in 2010.

SUMMARY OF OBSERVATION

FRIDAY, APRIL 29, 2010				
Opening Night, 8:00 p.m. Show				
	NUMBER OF TRIPS (INBOUND TO CIRCUS)	AVERAGE VEHICLE OCUPANCY	TOTAL PASSENGER TRIPS	MODE SHARE
STREETCAR	110	N/A	110	8%
AUTOMOBILE		2.2	1245	92%
AUTO @ \$10	408			
AUTO @ \$7	98			
AUTO ON STREET	60			
TOTAL	676	N/A	1355	100%

Weather: Cool and Clear
Time of Observation: 6:20 p.m. – 8:10 p.m.

DISCUSSION: The results show that the streetcar is essentially irrelevant to a major event in the South Waterfront district, even when the cost of parking is high (while the streetcar is free). The streetcar is simply too slow and inconvenient and has such little carrying capacity that it would not be able to serve a high-volume event even if consumer demand existed.

The research team also investigated the possibility that some people might arrive by aerial tram, since TriMet actually considers the tram to be part of Portland's formal transit system. However, the operating hours of the tram on April 29th were such that anyone arriving by tram would be unable to take back up the hill after the show, so it seemed unlikely that anyone would use it. A short amount of time (roughly 15 minutes) was taken to sit by the tram and observe, but no one got off who was headed to the circus. At the end of that period the researcher got on the streetcar (30 minutes before show time), and he was the only passenger who took the train north to the vicinity of the circus.

PORTLAND TRAIL BLAZER PLAYOFF GAME AGAINST THE PHOENIX SUNS

This was an excellent event to monitor rail travel because all four MAX lines have stops right at the Rose Garden, and this was a playoff game on a Saturday afternoon when presumably people would have extra time to travel by transit. However, the research site did have a few drawbacks. While it was easy to count all off-bound trips on the Yellow Line, the large number of people getting on and off some of the east-west trains made it impossible to accurately count every trip to the game, especially for trains arriving in the final 30 minutes before tipoff. In those cases, best estimates were made.

Also, since auto access to the Rose Garden is not controlled and there are hundreds of possible nearby locations for people to park, no attempt was made to count auto trips. It was decided that the primary focus of this observation would be on MAX utilization, and mode share would be calculated by dividing rail use against total estimated attendance.

For east-west trains, 40 trains were observed bi-directionally during the research period, and a total of 78 individual train cars were observed. Each car discharged an average of 48 passengers, though on 5-6 instances the trains were filled to capacity.

On the Yellow Line, there were 12 bi-directional trains and 24 train cars; the average number of passengers exiting was 20 per train-car. At no time did the Yellow Line take on or discharge a full load of passengers.

SUMMARY OF OBSERVATION

SATURDAY, MAY 1, 2010			
Sellout crowd of at least 20,500 • Game starting time: 1:30 p.m.			
	ALL INBOUND TRIPS	ESTIMATED TOTAL ATTENDANCE	MODE SHARE
YELLOW LINE	491		
RED/GREEN/BLUE	3,747		
TOTAL	4,238	20,500	20.6%

Weather: Sunny and Mild, Occasional Sprinkles
 Time of Observation: Noon-1:45 p.m.
 Location of observers: MAX Yellow Line station, MAX Blue/Red/Green Line station

DISCUSSION: This event showed the most robust use of rail transit, which was not a surprise. However, it also showed the limitations of the light rail system. The 20% market share was achieved over a nearly two-hour period before the game.

The problem at this or any similar event would be at the back end. When 20,500 people all leave the building at the same time, the light rail system would be swamped. Many people forget that due to the MAX alignment on downtown surface streets, where we have short blocks, there is a maximum of only two cars per train on Portland light rail, and trains traveling in the same direction must be spaced at least two minutes apart due to safety and operational requirements.

This makes light rail a low-capacity system, relative to other transit options. Even if people were Velcroed to the outside of the train cars, MAX is simply not capable of moving very many people in a short period.

A real HCT system, such as BART in San Francisco or the subways in New York and Washington, can have up to nine rail cars per train, and those cars are larger than light rail cars. They also have their own right-of-way, allowing them to travel much faster than light rail does.

Since at least 5-6 trains arrived at the Rose Garden in the 30 minutes preceding the game with “crush-loads” (meaning every square inch of seated and standing capacity was occupied), it would be impossible for the 3,727 passengers who arrived via the Blue/Green/Red Lines during the pre-game period to all get on the train immediately after the game. While most fans don’t mind arriving quite early,

and many do so deliberately to eat and drink on-site (the basketball version of “tailgating”), at the end of the game no one wants to spend another 90 minutes waiting for a train.

Rubber-tired vehicles have a much better chance of dispersing large crowds because they can be used in all locations surrounding the Rose Garden and can travel to an infinite number of potential destinations. Rail is limited to one fixed route going north (which was not heavily used) and one fixed route going east-west.

CASCADE STATION SHOPPING CENTER

Cascade Station is a new shopping mall built just to the east of the Portland International Airport on the south side of Airport Way. It was originally envisioned as a so-called “transit-oriented development” (TOD) centered around the Red MAX line. In fact, TOD was put forward by planners at the time as the primary justification for building MAX.

Cascade Station was considered an ideal site for TOD because it was flat, easily served by infrastructure and completely vacant. Total acreage of the site is 120 acres, and more than half of that has been built out since the Red Line opened in September 2001.

The observations for this study were limited to the east end of Cascade Station, which is clearly delineated by a traffic light at the entrance to the project near the Airport Way overpass. The east end is substantially built out, it has its own dedicated light rail station and it is dominated by retail stores that would be of interest to shoppers on Black Friday. Also, the access is entirely controlled; there are only two entrances for automobiles/cyclists/pedestrians, and one light rail station. Thus, every trip in and out of the project can be easily observed.

In contrast, the west end of Cascade Station is relatively underdeveloped, and the development that does exist is primarily office space with one hotel, a few small stores and a college classroom building. Thus, travel patterns on this end would be very different than on the east end—much more oriented to peak-hour travel on weekdays for office workers, rather than all-day shoppers.

SUMMARY OF OBSERVATION

FRIDAY, NOVEMBER 26, 2010

"Black Friday"

	ALL TRIPS, IN AND OUT	AVERAGE VEHICLE OCUPANCY	TOTAL PASSENGER TRIPS	MODE SHARE
LIGHTRAIL	120	N/A	120	2.2%
AUTOMOBILE	4,803	1.725	8,286	98.5%
BICYCLE	2	N/A	2	0.2%
PEDESTRIAN	2	N/A	2	0.2%
TOTAL	4,927	N/A	8,410	100%

TIME OF OBSERVATION: 2:45 p.m.-4:45 p.m.

SATURDAY, NOVEMBER 27, 2010

	ALL TRIPS, IN AND OUT	AVERAGE VEHICLE OCUPANCY	TOTAL PASSENGER TRIPS	MODE SHARE
LIGHTRAIL	213	N/A	213	2.2%
AUTOMOBILE	5,087	1.825	9,284	97.7%
BICYCLE	1	N/A	1	0.01%
PEDESTRIAN	0	N/A	0	0%
TOTAL	5,300	N/A	9,497	100%

TIME OF OBSERVATION: 2:00 p.m.-4:00 p.m.

DISCUSSION: The observations show that travel patterns at Cascade Station are entirely dominated by the private automobile. Notwithstanding the availability of light rail, the travel patterns at this site are indistinguishable from those at any suburban mall such as Washington Square.

In fact, the history of development at Cascade Station reveals how difficult it is to create the ideal TOD conditions desired by Portland planners. The original design imposed by city planners at Cascade Station included a prohibition on stores greater than 60,000 SF in size. As a result, no development occurred for more than four years after the Red Line opened. In February 2005, the Portland Development Commission conceded defeat and began the process of relaxing the zoning ordinances, allowing one store with a footprint greater than 200,000 SF and two other large-format stores.

The anchor turned out to be Swedish retailer IKEA, with a 280,000 SF store, while other large stores include Target and Best Buy. These stores and the dozens of other chain retailers are serviced by vast amounts of free parking built directly across the street from the light rail station.



MAX was supposed to be a “catalyst for transit-oriented development” at Cascade Station near the airport, but all the stores are built away from the MAX stop and serviced by large parking lots.

GRESHAM CIVIC STATION

Gresham Civic Station was chosen as a site for a number of reasons. One is that it is the only suburban location. Another is that the area has been intensively planned for more than 25 years, with expectations that this would be a showcase for suburban TOD. The entire area was bare dirt when the Blue MAX line opened in 1986 and offered the possibility of a “blank slate” for planners to create high-density, mixed-use developments focused around light rail. Unfortunately, the land was sold several times, and various development concepts were conceived but never built into the 1990s. A major north-south road, Civic Drive, was built to link Burnside Avenue with Division Street, but for several years no other construction took place.

Eventually, much of the site was built-out, featuring a shopping center, an LA Fitness Center, a medical complex and several hundred units of housing. Initially, the neighborhood did not have its own dedicated light rail station, so anyone who wanted to get to the site had to walk a short distance east to the Gresham City Hall station. However, on December 1 TriMet celebrated the opening of the Gresham Civic light rail station.

Since this was the most complex of the sites we monitored, counting was done for two different peak periods. For work commuting, we counted from 7:00 a.m. to 9:00 a.m., focusing especially on the four east portals from which many of the on-site residents would leave. For the shopping peak period, we monitored from 10:30 a.m. to 12:30 p.m., focusing more on the five Division Street portals and the Civic Drive connection with Burnside.



Although there are hundreds of apartments close to the newest MAX station at Gresham Civic Center, few of the tenants use light rail.

SUMMARY OF OBSERVATION

WEDNESDAY, DECEMBER 22, 2010

Commute Trips

	ALL TRIPS, IN AND OUT	AVERAGE VEHICLE OCUPANCY	TOTAL PASSENGER TRIPS	MODE SHARE
LIGHTRAIL	24	N/A	24	2.2%
AUTOMOBILE	953	1.12	1,070	96.3%
BICYCLE	2	N/A	2	0.18%
PEDESTRIAN	15	1	15	1.4%
TOTAL	994	N/A	1,111	100%

TIME OF OBSERVATION: 7:00 a.m.-9:00 a.m.

WEDNESDAY, DECEMBER 22, 2010

Shopping Trips

	ALL TRIPS, IN AND OUT	AVERAGE VEHICLE OCUPANCY	TOTAL PASSENGER TRIPS	MODE SHARE
LIGHTRAIL	96	N/A	96	2.30%
AUTOMOBILE	3,181	1.27	4,031	96.8%
BICYCLE	37	N/A	37	0.9%
PEDESTRIAN	1	1	1	0.02%
TOTAL	3,315	N/A	4,165	100%

TIME OF OBSERVATION: 10:30 a.m.-12:30 a.m.

DISCUSSION: As a TOD, Gresham Civic Center offers all the amenities that TriMet/Metro planners originally hoped for: a mixture of high-density housing products (apartments, condos, townhomes and single family houses), numerous retail shopping choices and office space. The site also offers a mixture of transportation modes. However, in an obvious bow to market forces, parking is reasonably available in all areas; and for some of the housing projects there are even gated parking lots. Predictably, private auto use is the dominant mode choice for most trips to and from the site. The TOD probably has a higher than normal percentage of people walking from their homes to retail sites (intra-site trips as opposed to the inter-site trips we were monitoring) at certain times and days, but overall more than 96% of passenger-trips are taken via the private automobile.

The new light rail station is one of the least-used on the entire TriMet system, and given the multi-million price tag, it is questionable that it was justified. The Gresham City Hall station is less than 100 yards from the east edge of the Civic Station property, and it is likely that regular MAX patrons would use the train with or without a new station.

ANALYSIS OF OBSERVATIONS

Each of the five events provided different insights into travel behavior, but overall it's clear that Portland area residents prefer driving, even when the cost of parking is quite high. The Cirque du Soleil event was the greatest example of this: The free streetcar had minimal ridership, while the most expensive parking (\$10 p/car) was in such great demand that a Portland police officer was needed for the entire period to direct traffic; and lines waiting to get in backed up with 20 or more cars on Moody Street, which is a narrow, two-lane road.

The reasons for this mismatch are simple: The streetcar only has 30 seats, one car per train, arrives only 4-5 times per hour and travels at roughly 5 MPH. It also serves only a tiny fraction of the potential market for circus tickets. In other words, the streetcar is not "mass" transit, it is not "rapid" transit, and in fact doesn't even qualify as transit because it has such poor coverage of the region. For the purpose of serving any kind of high-volume event, the streetcar is uniquely unsuited to the task.

The experience at the Green Home Show also showed a strong preference for auto use, even under conditions of expensive parking and a "progressive" audience. For a show catering to the most environmentally-minded consumers in the region, 18-21% mode share is not impressive, and even that overstates the importance of rail because most people who arrived by train undoubtedly needed a car to first reach the train.

In fact, many conventioners were induced to drive by the availability of free TriMet parking at the rail stop immediately south of the Expo Center (Portland International Raceway). The author, who travelled partially by light rail to do the research (parking first near the Killingsworth Avenue station), observed a significant number of people boarding the train at the Raceway stop and subsequently getting off there after leaving the Expo Center.

Relatively few people likely would be able to leave their house, board the Yellow Line (or any MAX line) to the Expo Center and never use a car, especially since many people made purchases at the trade show that would be difficult to carry on transit.

The two-day observations at Cascade Station were perhaps the most revealing in terms of assessing the oft-made claim that light rail is a “catalyst for development.” Light rail is not only irrelevant to the commercial success of Cascade Station, it is a barrier to continued development due to density requirements near rail stations.

Currently, the successful stores such as IKEA are located as far as possible from the light rail station and buffered by a large parking lot. This is not an accident. Large-scale property development investors have a formula for commercial success, and close rail access is not part of the formula.

CONCLUSION

TriMet, Metro, the city of Portland and other institutional advocates of rail transit all have promoted the myth that light rail, the streetcar, the commuter train in Washington County and the aerial tram are part of a successful “high-capacity” transit system that carries large volumes of passengers quickly and efficiently to their destinations. This is simply not the case. Residences and employers are so dispersed in the Portland region that there are relatively few occasions when HCT is even necessary, and on those occasions, the Portland rail system is inadequate because it is not truly a high-capacity system.

For comparison, the highest-throughput mass transit facility in America is a simple busway managed by the Port Authority of New York-New Jersey (PANYNJ). On weekdays between 6:00 a.m.-10:00 a.m., PANYNJ operates a 2.5 mi eastbound contra-flow Exclusive Bus Lane (XBL) along westbound Route 495 to Lincoln Tunnel from the New Jersey Turnpike. The XBL carries 1,700 buses and 62,000 passengers each morning, on average, saving about 15-20 minutes in travel time. This averages about 1 bus every 8 seconds for a 4-hour period, with roughly 37 seated passengers per bus.

The highest-throughput location on the Portland MAX system is at the Steel Bridge, where four light rail lines must cross. Currently there are 74 in-bound

trains between 6-10 a.m., on weekdays, or one train every 3.24 minutes. Based on the theoretical maximum number of seats, we could expect roughly 10,404 passengers at most.

The Lincoln Tunnel XBL throughput is 5.9 times higher, and that's not even the theoretical maximum, that's the observed daily usage. The average weekday use of MAX crossing the Steel Bridge at the peak period is likely far lower than 10,404 because most trains are not full except for a brief, two-hour window.

Role of the streetcar. The 92% market share for auto use at the circus punctures the myth that fixed-guideway transit is critical to the development of the South Waterfront District. In fact, at those few hours when large numbers of people need to be moved, the private automobile does the heavy lifting. Moreover, forthcoming research by the author demonstrates that on a daily basis, when accounting for all trips in and out of the South Waterfront district by all modes, the streetcar carries only 9% of passenger-trips, while autos and trucks account for 79% of passenger-trips and 100% of freight tonnage. The district is highly auto-dependent and will remain so regardless of planner fantasies.

This does not portend well for the new \$160 million transit bridge being planned for the exact location where the circus tent was erected. This new bridge is expected to serve both the streetcar and the \$1.5 billion light rail extension to Milwaukie. Since auto access is highly constrained and many new development projects are planned for the district, levels of traffic congestion in and around HWY 43 will get much worse as financial resources are diverted for rail transit.

As the central city continues to decline as an employment center (which it will in percentage terms), the need for HCT will decline as well. Local policymakers would do well to learn from this study and begin planning for smaller, more nimble transit vehicles such as shuttles, jitneys and mini-buses, which can serve many dispersed locations at lower per-trip cost than fixed-guideway transit.

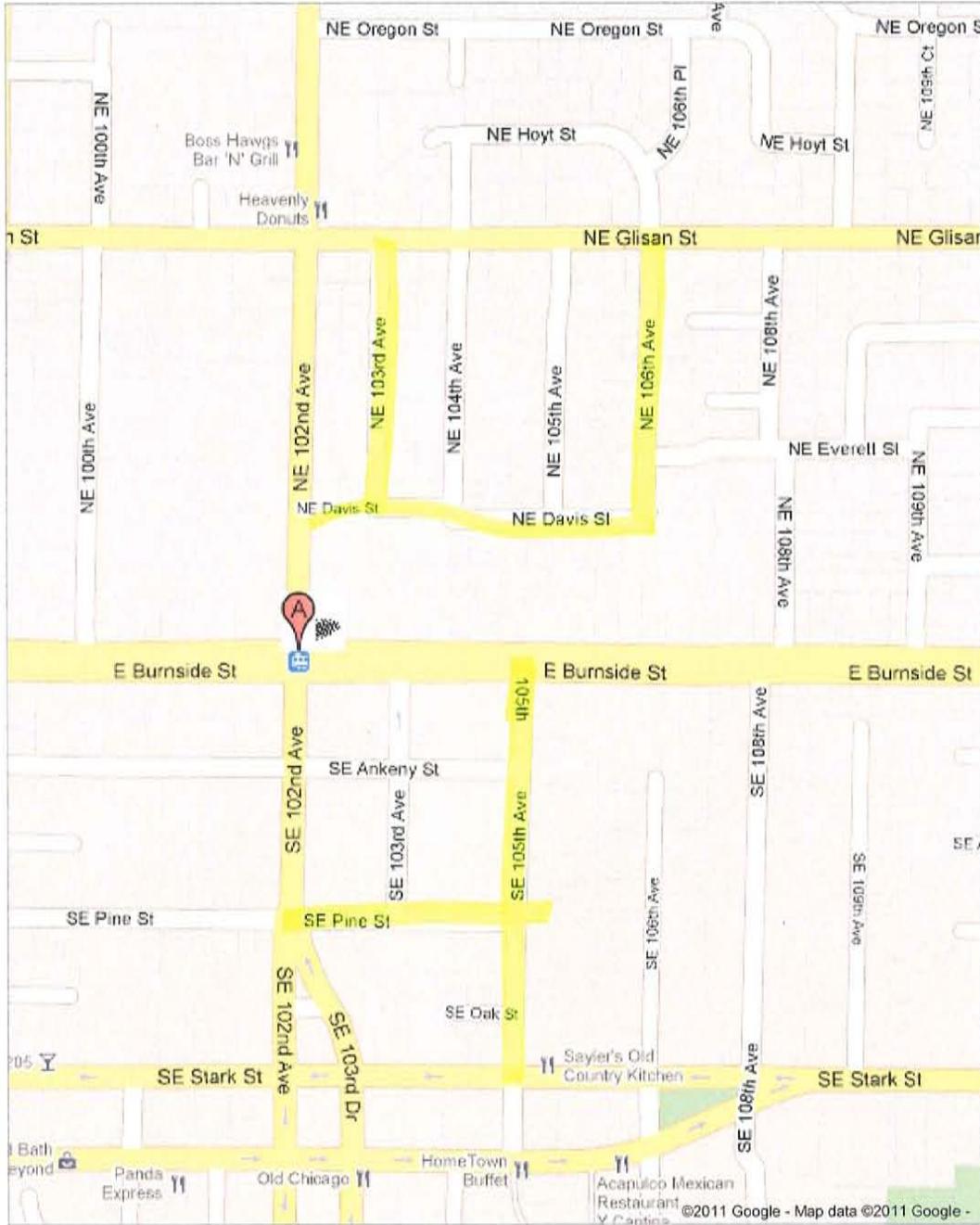
For large, special events, bus transit (both public and private) will be the best way of moving large volumes of people into and out of constrained areas. The more that local elected officials commit vast sums of public dollars to rail, the more difficult it will become to provide these important transit services.

The author wishes to thank Deanne Kastine, Nancy Wheaton, Jason Keisling, Kyle Acree and Forrest Mendoza for their research assistance.



Chapter Four

Eastside



Russellville Commons Apartments

PM Peak Period (4 - 6 PM), Wednesday, April 19, 2000

Weather: partly cloudy, 60 degrees

Travel Counts

<i>From Apartment</i>		<i>To Apartment</i>		Total	
Auto	76	Auto	116	Auto	192
To MAX	0	From MAX	13	MAX	13
Walk/ Bike	9	Walk/ Bike	13	Walk/ Bike	22
Total	85	Total	142	Total	227

Per Unit Travel Counts, 215 units

<i>From Apartment</i>		<i>To Apartment</i>		Total	
Auto	0.35	Auto	0.54	Auto	0.89
To MAX	0.00	From MAX	0.06	MAX	0.06
Walk/ Bike	0.04	Walk/ Bike	0.06	Walk/ Bike	0.10
Total	0.40	Total	0.66	Total	1.06

Mode Split

<i>From Apartment</i>		<i>To Apartment</i>		Total	
Auto	89%	Auto	82%	Auto	84%
Light Rail	0%	Light Rail	9%	Light Rail	6%
Walk/ Bike	11%	Walk/ Bike	9%	Walk/ Bike	10%

Average Total AM Average Trips/Hour/Unit = **0.53**
 Average Vehicle AM Trips/Hour/Unit = **0.45**

ITE Apartment, Land Use #220
 Average AM Vehicle Trips/Hour/Unit = **0.62**

Russellville Commons Apartments

AM Peak Period (7 - 9 AM), Thursday, April 13, 2000

Weather: sunny, 60 degrees

Travel Counts

<u>From Apartment</u>		<u>To Apartment</u>		<u>Total</u>	
Auto	108	Auto	21	Auto	129
To MAX	23	From MAX	0	MAX	23
Walk/ Bike	4	Walk/ Bike	4	Walk/ Bike	8
Total	135	Total	25	Total	160

Per Unit Travel Counts, 215 units

<u>From Apartment</u>		<u>To Apartment</u>		<u>Total</u>	
Auto	0.50	Auto	0.10	Auto	0.60
To MAX	0.11	From MAX	0.00	MAX	0.11
Walk/ Bike	0.02	Walk/ Bike	0.02	Walk/ Bike	0.04
Total	0.63	Total	0.12	Total	0.74

Mode Split

<u>From Apartment</u>		<u>To Apartment</u>		<u>Total</u>	
Auto	80%	Auto	84%	Auto	81%
Light Rail	17%	Light Rail	0%	Light Rail	14%
Walk/ Bike	3%	Walk/ Bike	16%	Walk/ Bike	5%

Average Total AM Average Trips/Hour/Unit = 0.37
 Average Vehicle AM Trips/Hour/Unit = 0.30

ITE Apartment, Land Use #220
 Average AM Vehicle Trips/Hour/Unit = 0.51

**Trip Counts for the South Waterfront District
Average Weekday, 6:00 a.m. – 10:00 p.m.**

	All passenger-trips	Market share of trips by mode
Auto/truck	17,023	79%
Streetcar	1,832	9%
Bicycle	1,076	5%
Bus	926	4%
Pedestrian	642	3%

Note: Research was conducted on various good-weather weekdays during the months of May-January, 2010-2011.

**Summary Operating Statistics for Streetcar Operations
2005-2010**

	Annual boardings	Total annual fares	Total operating cost	Cost per/boarding	Revenue per/boarding
FY 05-06	2.59 million	\$100,605	\$3,727,014	\$ 1.44	\$.04
FY 07-08	3.55 million	\$ 145,817	\$ 4,891,560	\$1.28	\$.04
FY 08-09	4.00 million	\$ 120,000	\$ 5,417,947	\$ 1.34	\$.03
FY 09-10	3.91 million	\$ 211,914	\$5,306,451	\$ 1.36	\$.05

Summary Operating Statistics for #35 Bus Line Serving the South Waterfront District

	Average weekday boardings	Estimated total daily fares	Daily operating cost	Cost per/boarding	Revenue per/boarding
Fall 2010	3,790	\$5,040	\$13,492	\$3.56	\$1.33