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Metro | *Agenda*

Meeting: Metro Technical Advisory Committee

Date: Wednesday, June 1st, 2011

Time: 10 a.m. – 12:00 p.m.

Place: **Metro Regional Center, Council Chambers**

Time	Agenda Item	Action Requested	Presenter(s)	Materials
10:00 a.m.	**CALL TO ORDER AND INTRODUCTIONS**		Robin McArthur, Chair	
10:10 a.m.	**1. High Capacity Transit System Expansion Policy** *Objective: Recommendation to MPAC for adoption of the HCT System Expansion Policy Implementation Guidance*	**Recommendation**	Josh Naramore	In packet
10:30 a.m.	**2. Climate Smart Communities Scenarios** *Objective: Final review and comments on Phase 1 scenario evaluation framework and recommendation to MPAC on moving forward with the analysis*	**Recommendation**	Kim Ellis	
11:00 a.m.	**3. Habitat-Friendly Development Practices (HFDP)** *Objective: To get input on implementing HFDPs in centers, redevelopment sites and rights-of-way*	Discussion	Gail Shaloum and GreenWorks, PC	In packet
Noon	**ADJOURN**			

MTAC meets on the 1st & 3rd Wednesday of the month. The next meeting is scheduled for June 15, 2011.

For agenda and schedule information, call Alexandra Roberts Eldridge at 503-797-1839, email: Alexandra.Eldridge@oregonmetro.gov. To check on closure or cancellations during inclement weather, please call 503-797-1700#.

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ADOPTING THE REGIONAL HIGH CAPACITY TRANSIT SYSTEM EXPANSION POLICY IMPLEMENTATION GUIDANCE	))))	RESOLUTION NO. 11-4265 Introduced by Councilor Carlotta Collette

WHEREAS, the Metro Council accepted elements of the Regional High Capacity Transit System Plan by 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) on July 9, 2009, for addition to the 2035 Regional Transportation Plan; and

WHEREAS, the regional high capacity transit system plan was incorporated into the 2035 Regional Transportation Plan.

WHEREAS, the Metro Council adopted the 2035 Regional Transportation Plan ("RTP") and related elements by 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) on June 10, 2010; and

WHEREAS, Chapter 6 of the 2035 RTP lists a number of implementation activities to completed post-adoption of the 2035, including developing guidance for implementing the high capacity transit system expansion policy and bringing it forward to the Joint Policy Advisory Committee on Transportation (JPACT), Metro Policy Advisory Committee (MPAC) and the Metro Council; and

WHEREAS, the high capacity transit system expansion policy and the implementation guidance will be revisited as part of each update to the RTP; and

WHEREAS, any changes to the high capacity transit system expansion policy and the implementation guidance between RTP updates will need to be brought forward to JPACT, MPAC and the Metro Council; now therefore

BE IT RESOLVED that the Metro Council hereby adopts the high capacity transit system expansion policy implementation guidance attached hereto as Exhibit A.

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

Tom Hughes, Council President

Approved as to Form:

Alison Kean-Campbell, Metro Attorney

Exhibit A

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High Capacity Transit System Expansion Policy

Implementation Guidance

for the Portland metropolitan region

A guidebook for local implementation

May 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 policy[1]. 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 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.

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.

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

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	Corridors
Near-term regional priority corridors	10 – Portland Central City to Gresham (in general Powell Boulevard corridor) 11 – SW Corridor 34 - Beaverton to Wilsonville (in general WES commuter rail corridor)
Emerging 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

Table 1 – HCT System Plan Corridors	
Tier	**Corridors**
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

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 five sections:

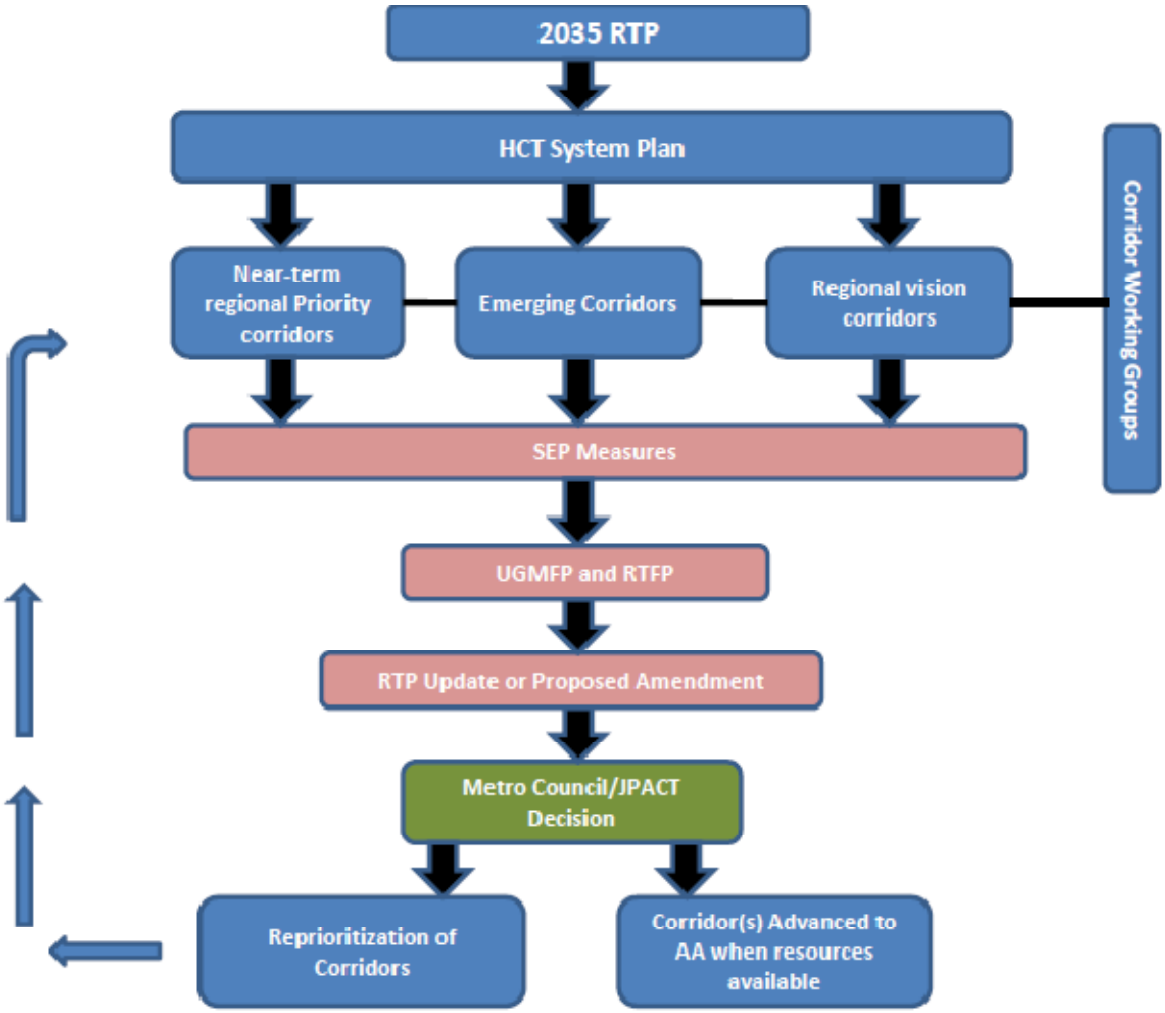
1. SEP Decision-making framework
2. Corridor Working Groups
3. Evaluating performance
4. Updating the 2035 RTP

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 (RTFP) 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. Needs to include all of the local jurisdictions in the HCT corridor as defined in the 2035 RTP and HCT System Plan.
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.

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 website[2].

[2] 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 (*discussed later in this report*)
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 (*discussed later in this report*)
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 the2040 Context Tool measures.

Table 2 – SEP 2040 Context Tool Measures

Measure	Description (within distance of HCT Corridor)
Density of People	Current households and jobs per net acre within ½ mile
Density of ULI Businesses	Number of ULI Businesses within ½ mile
Transit Oriented Zoning	Assigning values to regional zoning classifications within ½ mile
Average Block Size	Density of acres of blocks within ½ mile
Sidewalk Coverage	Completeness of sidewalk infrastructure within ½ mile
Bicycle Facility Coverage	Access to bicycle infrastructure measured as distance to nearest existing bicycle facility within ½ mile
Transit Frequency	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*.[3] 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. The methodology behind each quantitative measure and the 2040 Context Tool can be found in Attachment X [under development].

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
Housing & Transportation Affordability	Demonstrating that potential transit investment will serve communities with high rate of cost burdened households
Parking Requirements	Implement parking requirements in corridor that meet or exceeds Title 4 of the RTFP.
Local Funding Mechanisms	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.
Equity	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

[3] 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.

currently underway to better define how to measure equity and affordability. 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.

Exhibit A

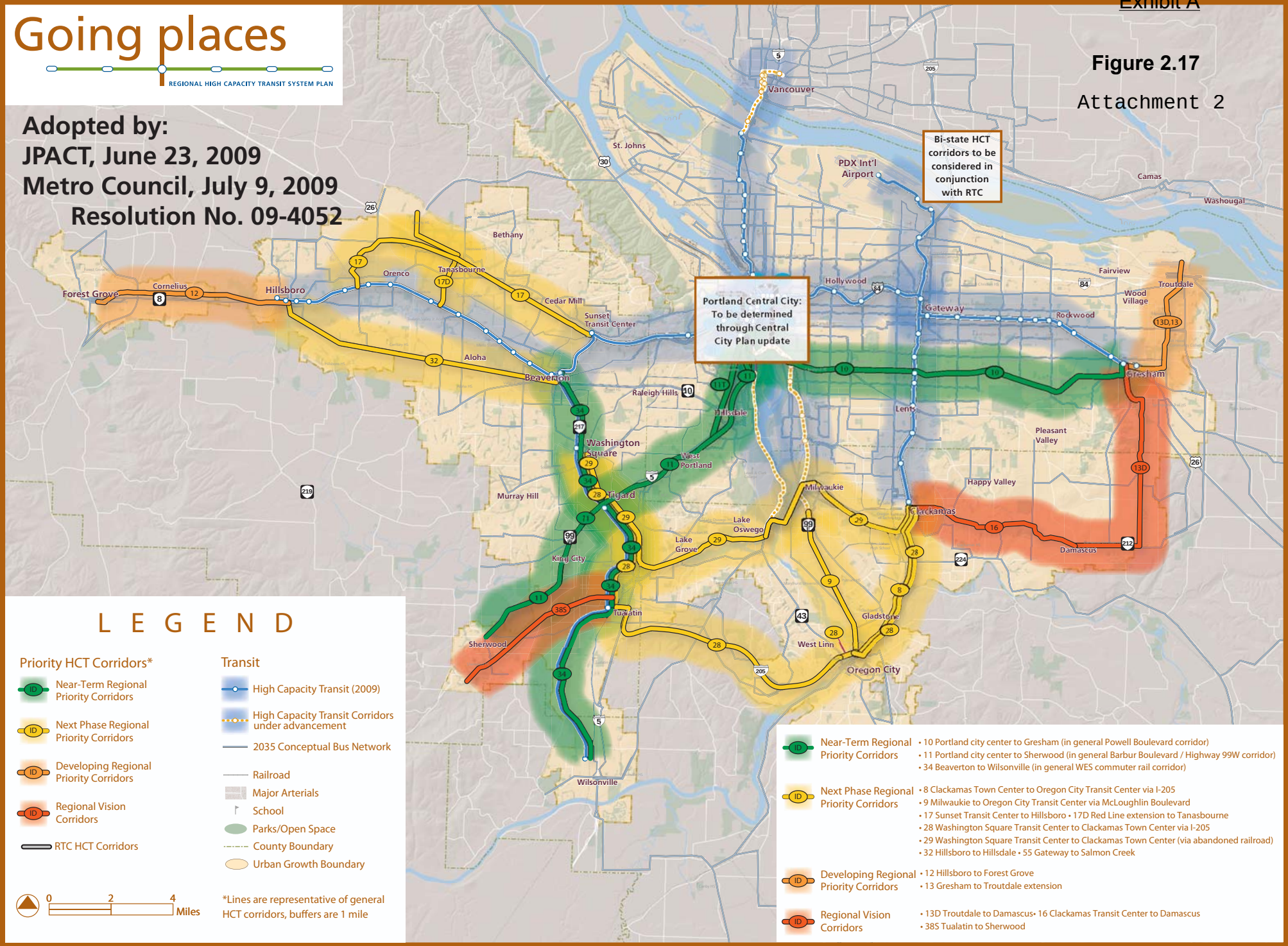
Going places

REGIONAL HIGH CAPACITY TRANSIT SYSTEM PLAN

Figure 2.17

Attachment 2

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



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

0 2 4 Miles

*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
- 38S Tualatin to Sherwood

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: May 19, 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 l.

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 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.

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.

METRO'S LOW IMPACT DEVELOPMENT SURVEY

DATE: May 24, 2011

PROJECT: Metro Habitat Friendly Development Survey

RE: Survey Process Summary

The Metro Council adopted the Nature in Neighborhoods ordinance in 2005 as part of a commitment to making a great region where people have access and take responsibility for the stewardship of our natural resources such as clean air and water and wildlife habitat. A cornerstone of this legislation was a commitment to work with developers, builders, local governments and other organizations and individuals to promote the use of habitat-friendly or low impact development (LID) practices as an alternative to a more prescriptive regulatory approach to be implemented by local governments.

In early March, Metro asked GreenWorks to assist them in conducting a survey of 28 local jurisdictions to establish the current level of use of and policies related to low impact development practices by local governments and permitting agencies around the region and to track the use of these practices over time with a look back at what the standards were at the time of the Metro Council's adoption (2005) up until today (end of 2010). The intent is to identify those areas where remaining barriers exist and identify opportunities for removing those barriers based on the collection of this information.

Information on the use of the Habitat-Friendly Development Practices among the 28 jurisdictions is being collected in three key ways.

GREENWORKS

1. A background review of stormwater ordinances, development code, and public works engineering standards of the various jurisdictions has been done to evaluate the various ways habitat-friendly development practices have been incorporated. This work was completed in April.

2. A broad-based online survey was developed and distributed via email to all the various 28 jurisdictions. This survey was sent out in early May and was designed to help agency representatives quickly respond to survey with minimal intrusion into their workload. The survey was completed by 39 total individuals representing public agencies. The results of the online survey are included with this memo.

3. Follow-up interviews are being conducted with key representatives and /or committees from local jurisdictions. These follow-up interviews will provide a more thorough analysis of the use of habitat-friendly development practices, implementation, obstacles, and model efforts among the various jurisdictions. This work is scheduled to be completed near the end of May.

The information collected during this process will then be summarized in a report to be completed by the end of June. This report will help provide a snapshot that helps inform the Council's evaluation and identify trends and opportunities to support changes in the region's development practices over time.

Metro Habitat Friendly Development Survey

SurveyMonkey

1. Please choose the one category that best describes your role in your organization.

	Response Percent	Response Count
Planning	**50.0%**	**19**
Development Review	21.1%	8
Inspection or Maintenance	0.0%	0
Stormwater Management	23.7%	9
Natural Resources Management	2.6%	1
Transportation Engineering	2.6%	1
Transportation Plannning	0.0%	0
Building Permits	0.0%	0
Other (please specify)		4
answered question		**38**
skipped question		**1**

2. Please select any manuals you are familiar with or require / allow the use of in your jurisdiction. (Select all that apply)

		Response Percent	Response Count
CWS Low Impact Development Approaches (LIDA) Handbook		72.2%	26
City of Beaverton Habitat Friendly Development Manual		19.4%	7
City of Portland Stormwater Management Manual and Green Street Standards		61.1%	22
City of Gresham Green Development Practices Guide and Green Street Standards		33.3%	12
Stormwater Management Manual for Western Washington		30.6%	11
LID Technical Guidance Manual for Puget Sound		22.2%	8
Metro Green Streets Handbook		**75.0%**	**27**
		Other (please specify)	1
		answered question	**36**
		skipped question	**3**

3. The following are habitat-friendly development practices that relate to stormwater management. Please rate the use of each practice on all development sites in your jurisdiction.

	Encourage	Allow	Don't Like	Need More Info	Response Count
Amend disturbed soils to increase infiltration/storage capacity	25.7% (9)	**71.4% (25)**	0.0% (0)	14.3% (5)	35
Use pervious paving for driveways, parking lots, walkways & center of cul-de-sacs	36.8% (14)	**57.9% (22)**	7.9% (3)	2.6% (1)	38
Incorporate stormwater management in road rights of way (“green streets”)	41.7% (15)	**50.0% (18)**	11.1% (4)	5.6% (2)	36
Landscape with rain gardens	**64.1% (25)**	48.7% (19)	0.0% (0)	5.1% (2)	39
Green Roofs	28.9% (11)	**65.8% (25)**	7.9% (3)	7.9% (3)	38
Disconnect down spouts and direct flow to vegetated areas	29.7% (11)	**48.6% (18)**	13.5% (5)	18.9% (7)	37
Rain barrels	13.5% (5)	**62.2% (23)**	16.2% (6)	16.2% (6)	37
Use multi-functional open drainage systems in lieu of curb & gutter	16.2% (6)	**51.4% (19)**	13.5% (5)	21.6% (8)	37
Bio-retention/rain gardens in landscaped parking lot islands	**57.9% (22)**	50.0% (19)	2.6% (1)	5.3% (2)	38
Apply a treatment train approach to provide multiple on-site stormwater measures and reduce possibility of system failure	24.3% (9)	**59.5% (22)**	2.7% (1)	24.3% (9)	37
				answered question	**39**
				skipped question	**0**

4. The following are habitat-friendly development practices that relate to impervious area reduction. Please rate the use of these practices on all development sites in your jurisdiction.

	Encourage	Allow	Don't Like	Need More Info	Response Count
Reduce sidewalk width; drain to front yard or vegetated retention area	5.6% (2)	27.8% (10)	**44.4% (16)**	25.0% (9)	36
Narrow driveways	8.6% (3)	**45.7% (16)**	34.3% (12)	17.1% (6)	35
Shared driveways	23.7% (9)	**71.1% (27)**	2.6% (1)	10.5% (4)	38
Reduced width residential streets (skinny streets)	5.9% (2)	**58.8% (20)**	32.4% (11)	11.8% (4)	34
Reduced street length through alternative site and street layouts (clustering, curvilinear)	5.7% (2)	**60.0% (21)**	8.6% (3)	31.4% (11)	35
Reduced cul-de-sac radii and pervious center islands	5.7% (2)	28.6% (10)	31.4% (11)	**34.3% (12)**	35
Eliminate redundant, non-ADA sidewalks within sites	5.7% (2)	**40.0% (14)**	25.7% (9)	28.6% (10)	35
Minimize number and size of parking stalls, shared parking, structured parking	13.9% (5)	**61.1% (22)**	8.3% (3)	19.4% (7)	36
				answered question	**38**
				skipped question	**1**

5. The following are habitat-friendly development practices that relate to habitat corridors. Please rate the use of each practice on all development sites in your jurisdiction.

	Encourage	Allow	Don't Allow	Need More Info	Response Count
Minimize stream crossings, and orient perpendicular to stream if possible	**64.9% (24)**	29.7% (11)	0.0% (0)	5.4% (2)	37
Allow narrow street right of way through stream corridors	22.2% (8)	**47.2% (17)**	2.8% (1)	27.8% (10)	36
Integrate fencing into landscape to guide animals toward, over, or under transportation corridors	11.4% (4)	**62.9% (22)**	0.0% (0)	25.7% (9)	35
Use bridge crossings rather than culverts	43.2% (16)	**51.4% (19)**	2.7% (1)	2.7% (1)	37
If culverts used, install bottomless designs to mimic stream bottom habitat	**48.6% (18)**	37.8% (14)	0.0% (0)	13.5% (5)	37
Design stream crossings with shelves for fish passage and other features for wildlife passage	33.3% (12)	**55.6% (20)**	0.0% (0)	11.1% (4)	36
Extend vegetative cover through the wildlife crossing in migratory route	27.8% (10)	**50.0% (18)**	0.0% (0)	22.2% (8)	36
				answered question	**38**
				skipped question	**1**

6. The following is a list of miscellaneous habitat-friendly development practices. Please rate the use of each practice on all development sites in your jurisdiction.

	Encourage	Allow	Don't Allow	Need More Info	Response Count
Use native plants throughout the development (not just the HCA)	**60.5% (23)**	34.2% (13)	2.6% (1)	2.6% (1)	38
Locate required site landscaping adjacent to the HCA	40.5% (15)	**45.9% (17)**	2.7% (1)	10.8% (4)	37
Reduce light spill-off into HCA's	**45.7% (16)**	31.4% (11)	2.9% (1)	20.0% (7)	35
Preserve/maintain existing trees and plant trees	**76.3% (29)**	18.4% (7)	2.6% (1)	2.6% (1)	38
				answered question	**39**
				skipped question	**0**

7. Who are the strongest advocates for habitat-friendly development practices in your jurisdiction? (Select all that apply)

	Response Percent	Response Count
Local Politicians	22.2%	8
Citizens	36.1%	13
Internal Staff	**86.1%**	**31**
Non-profit Organizations	41.7%	15
Staff from Other Departments	41.7%	15
Local Service District	50.0%	18
State and Federal Agencies	25.0%	9
Other (please specify)		7
answered question		**36**
skipped question		**3**

8. How often are habitat-friendly development practices discussed with applicants when submitting permit applications?

	Response Percent	Response Count
Every Time	10.3%	4
Most of the Time	**46.2%**	**18**
Sometimes	30.8%	12
Never	0.0%	0
Don't Know	12.8%	5
	Comments:	5
	answered question	**39**
	skipped question	**0**

9. How comfortable are staff in your jurisdiction with approving and / or using habitat friendly development practices?

	Response Percent	Response Count
Very Comfortable	23.1%	9
Moderately Comfortable	**46.2%**	**18**
Slightly Comfortable	20.5%	8
Not Comfortable	7.7%	3
Don't Know	2.6%	1
	Comments:	3
	answered question	**39**
	skipped question	**0**

10. How often do public projects in your jurisdiction attempt to incorporate habitat friendly development practices?

	Every time	Most of the time	Sometimes	Never	Response Count
Stormwater	35.1% (13)	**43.2% (16)**	21.6% (8)	0.0% (0)	37
Streets	13.9% (5)	**41.7% (15)**	**41.7% (15)**	2.8% (1)	36
Sanitary	14.3% (5)	25.7% (9)	**48.6% (17)**	11.4% (4)	35
Water	11.4% (4)	28.6% (10)	**51.4% (18)**	8.6% (3)	35
Parks	22.9% (8)	**57.1% (20)**	20.0% (7)	0.0% (0)	35
Public Buildings	13.5% (5)	**51.4% (19)**	32.4% (12)	2.7% (1)	37
				Comments:	4

answered question	**37**
skipped question	**2**

11. Does your jurisdiction provide outreach and training on habitat-friendly development practices to your own staff, design community, or citizens?

		Response Percent	Response Count
Yes		**51.3%**	**20**
No		48.7%	19
	If yes, can you please provide examples?		10

answered question	**39**
skipped question	**0**

12. What do you feel are the benefits of habitat-friendly development practices?

	Big Benefit	Moderate Benefit	Low Benefit	Response Count
Reduce infrastructure cost	27.0% (10)	**45.9% (17)**	27.0% (10)	37
Increase property values	18.4% (7)	**73.7% (28)**	7.9% (3)	38
Reduce pollution	**55.3% (21)**	44.7% (17)	0.0% (0)	38
Protect against floods	44.7% (17)	**47.4% (18)**	7.9% (3)	38
Help meet regulatory requirements	**55.3% (21)**	39.5% (15)	5.3% (2)	38
Improve aesthetics	**55.3% (21)**	44.7% (17)	0.0% (0)	38
Enhance community livability	**60.5% (23)**	36.8% (14)	2.6% (1)	38
Increase tree canopy	**57.9% (22)**	39.5% (15)	2.6% (1)	38
Protect habitat	**76.3% (29)**	21.1% (8)	2.6% (1)	38
Reduce runoff	**70.3% (26)**	29.7% (11)	0.0% (0)	37
			answered question	**38**
			skipped question	**1**

13. Local governments were required by METRO to identify and remove code barriers to the use of HFDPs. However, additional obstacles may still exist. Please rank the following list as it applies to your jurisdiction.

	Big Obstacle	Moderate Obstacle	Not an Obstacle	Response Count
Other Overlaying Jurisdiction	11.8% (4)	**44.1% (15)**	**44.1% (15)**	34
Design & Construction Standards	19.4% (7)	**55.6% (20)**	25.0% (9)	36
Development Code	11.4% (4)	**45.7% (16)**	42.9% (15)	35
Land Use Review Process	8.6% (3)	**45.7% (16)**	**45.7% (16)**	35
Design Consultants Reluctance or Lack of Knowledge	41.7% (15)	**44.4% (16)**	13.9% (5)	36
Construction Costs	**47.2% (17)**	**47.2% (17)**	5.6% (2)	36
Maintenance of Facilities	**51.4% (19)**	48.6% (18)	0.0% (0)	37
Ability to Finance	41.2% (14)	**52.9% (18)**	5.9% (2)	34
Concerns about Effectiveness	29.7% (11)	**62.2% (23)**	8.1% (3)	37
Liability	11.4% (4)	**62.9% (22)**	25.7% (9)	35
Conflict with Density / Development Goals	20.0% (7)	**65.7% (23)**	14.3% (5)	35
Required Facility Sizing	16.7% (6)	**61.1% (22)**	22.2% (8)	36
			answered question	**37**
			skipped question	**2**

14. What incentives are provided by your jurisdiction for habitat-friendly development practices?

	Response Percent	Response Count
Reduced Stormwater System Development Charge (SDC)	21.2%	7
Reduced permit fees	3.0%	1
Streamlined or expedited permitting process	6.1%	2
Reduced monthly stormwater fees	15.2%	5
Technical assistance	42.4%	14
Options to combine landscape & storm requirements	**72.7%**	**24**
Reduced landscaping/storm requirements w/ tree/habitat preservation	39.4%	13
Height, floor-area, density bonus and/or similar design adjustments	27.3%	9
Allow combined public / private stormwater facilities	18.2%	6
Site density flexibility/clustering/lot size adjustments	51.5%	17
Setback reductions	51.5%	17
Reduced parking requirements	24.2%	8
Density transfer	63.6%	21
Partial funding toward the construction of habitat-friendly development practices	6.1%	2
Other Incentives (please specify)	15.2%	5
	answered question	**33**
	skipped question	**6**

15. What are the best ways jurisdictions can ensure habitat-friendly development projects are protected and maintained? (pick top three)

	Response Percent	Response Count
Deed restrictions	52.6%	20
Requiring Operation & Maintenance Plans	**63.2%**	**24**
Bonding, Maintenance Warranty Period	47.4%	18
Annual Owner Maintenance Reports	23.7%	9
Regular inspections of private sites by local government staff	44.7%	17
Complaint Response	23.7%	9
Require permits for site alterations (parking lots, landscaping, roofs)	26.3%	10
Stringent tree protection codes	15.8%	6
Signage or other visible delineation	39.5%	15
Education of Homeowners, Landscape Contractors, and Local Jurisdiction Staff	52.6%	20
Partnerships with adjacent property owners	21.1%	8
Public maintenance of subdivision level facilities	50.0%	19
Other (please specify)		2
answered question		**38**
skipped question		**1**

16. What would be most helpful to your organization for implementing habitat-friendly development practices?

	Very Helpful	Somewhat Helpful	Not Helpful	Response Count
Better knowledge of construction costs	38.9% (14)	**58.3% (21)**	2.8% (1)	36
Information on maintenance costs	**71.1% (27)**	28.9% (11)	0.0% (0)	38
Facility designs for urban areas	**50.0% (18)**	44.4% (16)	5.6% (2)	36
Facility designs for rural areas	8.8% (3)	20.6% (7)	**70.6% (24)**	34
Examples of successful design manuals	**52.8% (19)**	36.1% (13)	11.1% (4)	36
Data on effectiveness of facility types	**69.4% (25)**	30.6% (11)	0.0% (0)	36
Training for staff involved in planning, permitting, installing, or maintaining HFPDs	**55.3% (21)**	36.8% (14)	7.9% (3)	38
Assistance in developing operations and maintenance plan	25.0% (9)	**61.1% (22)**	13.9% (5)	36
Funding for demonstration projects	**65.7% (23)**	34.3% (12)	0.0% (0)	35
Examples of successfully functioning HFPDs	**61.1% (22)**	33.3% (12)	5.6% (2)	36
Recognition for the good work we are already doing	**43.2% (16)**	40.5% (15)	16.2% (6)	37
Political leadership and support from public to encourage use of HFPDs	**78.9% (30)**	21.1% (8)	0.0% (0)	38
			Other (please specify)	5
			answered question	**38**
			skipped question	**1**

17. In your opinion, how should HFDPs be applied across your jurisdiction?

	Require	Encourage	Allow	Do Not Allow	Response Count
Street Right-of-ways	**55.3% (21)**	28.9% (11)	13.2% (5)	2.6% (1)	38
Single Lots	15.4% (6)	**64.1% (25)**	17.9% (7)	2.6% (1)	39
Subdivisions	**51.3% (20)**	38.5% (15)	10.3% (4)	0.0% (0)	39
Commercial Developments	**61.5% (24)**	33.3% (13)	5.1% (2)	0.0% (0)	39
Industrial Developments	**57.9% (22)**	36.8% (14)	5.3% (2)	0.0% (0)	38
Redevelopment	41.0% (16)	**43.6% (17)**	15.4% (6)	0.0% (0)	39
Urban Centers	**50.0% (19)**	36.8% (14)	13.2% (5)	0.0% (0)	38
Institutional and Public Properties	**61.5% (24)**	30.8% (12)	7.7% (3)	0.0% (0)	39
Public Works Projects	**53.8% (21)**	38.5% (15)	7.7% (3)	0.0% (0)	39
				answered question	**39**
				skipped question	**0**