DAMASCUS COMMUNITY DESIGN WORKSHOP DESIGN PACKAGE

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GOAL AND OBJECTIVES

GOAL

The greater Damascus Area Community Design Workshop is an effort to create a regional model for the potential urban growth boundary expansion area that is environmentally sound, that provides a variety of housing and job choices for current and future residents, and fairly distributes the benefits and burdens of development among current and future residents of all incomes and backgrounds. This effort involves residents of the local area and region with a variety of interests and perspectives.

The goal is to apply design principles for urbanization that respect the unique visual quality and rural history of the area; use land efficiently; protect and restore natural areas and ecological processes important to people, fish and wildlife; preserve clean and natural flow in area streams; improve air quality; protect and create opportunities to grow food; provide for a fair share of the region's new jobs; include ample housing, schools, public infrastructure and facilities and transportation choices in every neighborhood; and preserve and create cultural opportunities throughout the community.

BACKGROUND

The greater Damascus Area Community Design Workshop (Design Workshop) is a response to requirements of a 1995 state law. That law requires the Portland metropolitan regional government, Metro, (http://www.metro-region.org/) to determine whether an expansion of the regional urban growth boundary ("UGB") is required in order to increase the regional supply of housing. State planning criteria identify lands already zoned and used for low-density rural residential or commercial uses, rather than lands zoned and used for farming or forestry, as the first priority for addition to the UGB. (Other state and regional laws, goals and objectives require planning for affordable housing, increasing transportation options, providing land for employment, the protection of natural resources and the efficient and orderly extension of public facilities and services. See e.g. statewide planning goals at (http://www.lcd.state.or.us/goalhtml/goals.html.)

Metro has previously identified portions of the 15,000 acres around the unincorporated communities of Boring and Damascus, at the southeastern portion of the UGB as the most logical location for a regional UGB expansion that reflects state UGB expansion priorities. Various local officials and interests are advocating for a major UGB expansion onto farmland in a high growth area at the western edge of the regional UGB, rather than into the Damascus-Boring area. Metro will decide whether, when and how much to expand the regional UGB during the second half of 2002. It is unlikely that Metro would add more than a few thousand acres at that time, but it may indicate the direction and priority for future expansions.

The design workshop study area around Damascus and Boring is characterized by volcanic buttes and hills with second-growth fir forests. The valleys are dissected by perennial streams that support or help support salmon and trout. Much but not all of the area has been broken up into large-lot rural home sites, interspersed by occasional commercial farming operations, including nurseries. The entire study area has a population of about 5,000 today. The study area includes some lands, which are not designated for UGB expansion because they are blocks of valuable farmland.

The Workshop was organized and sponsored by 1000 Friends of Oregon (http://www.friends.org/) and the Coalition for a Livable Future (http://www.clfuture.org/) as an experiment in turning the state and regional mandates into an opportunity to visualize a new and better kind of urban development in the potential UGB expansion area.

The design workshop addresses two particular obstacles to smarter community development.

1. The absence of fully-conceived, large scale models for new community development that incorporate fair access to homes for people of all incomes as well as environmental stewardship into complete community design; and

2. The preference for "greenfields" (farm and forest lands) as the site of new urban development. This project will demonstrate how complete and fair community design principles can be applied in an area of smaller, fragmented parcels.

One especially important outcome of the design workshop will be to demonstrate urban design strategies that, if implemented, can actually lead to the gradual improvement of salmon-bearing streams and their associated wildlife habitat. Rather than a piecemeal approach to mitigating the natural resource impacts of urban growth boundary expansion, the model will look toward long-term and permanent forms of protection for our natural resources.

The design workshop will provide one of the first large-scale attempts to integrate best practices for 'smart' development that is also grounded in adopted state, regional, and local policies.

The participants in the project will include residents of the study area, residents from communities near to the study area, and experts and stakeholders from the area and from around the metropolitan region. The participants will bring a variety of expertise and experience together for collaboration on the project.

In the first part of the workshop, the participants will refine statements of land use planning policy already adopted by local, regional and state governments and translate them into design principles. These principles will, in turn be used to guide the work of design teams in the development of model designs for urban development in the potential UGB expansion area.

The principles and designs are meant to describe a model for urban development that:

- Uses land efficiently (in order to conserve other farm and forest lands),
- Protects and restores natural areas important to threatened salmon and other fish and wildlife, preserves clean and natural flow in area streams,
- Protects opportunities to grow food, inside and outside the UGB expansion area,
- Provides for a fair share of the region's new jobs
- Includes ample greenspaces accessible from every neighborhood
- Provides many choices among types of housing and ways to travel in every neighborhood
- Preserves and creates cultural opportunities,
- Creates neighborhoods where families of all incomes can choose to live;
- Is fair in the way it distributes the regional burdens (taxes for new roads and other improvements) and benefits (e.g. jobs, parks and schools) of growth.

The results of the project are intended to be useful to local and regional residents, local governments and Metro as they decide whether, when and how to expand the regional UGB.

PROCESS OBJECTIVES

1. To provide an independent, community-based design and planning process to inform UGB expansion deliberations and provide a positive model for growth for other parts of the region, the state, and the west.
2. To illustrate the results of applying community design best practices that satisfy local, regional, state and national policies and laws intended to protect land, water, species at risk and air resources.
3. To ensure the incorporation of local knowledge into design proposals.
4. To use the integrated process of a design workshop to maximize interaction and communication between government, citizens, and community design professionals, and other interested groups.
5. To create opportunities for interchange between Portland area community advocates and design professionals, and their peers from across the west and from other parts of North America.
6. To disseminate the results of the design workshop to as wide as an audience as possible.

DESIGN OBJECTIVES

The following design objectives are derived from existing local and regional, state, and national planning and policy documents. Deriving design objectives from this previously adjudicated policy base insures that the products emerging form the workshop will conform to the public will. We have organized these objectives into four linked categories: transportation, community design, natural systems restoration, and economic development.

TRANSPORTATION

1. Provide transportation choices for residents, including transit, bike, foot, and auto – choices for those who own a car and for those who don't.[1]
2. Integrate land use and transportation design in order to decrease average trip length and vehicle miles traveled.[2]
3. Ensure that job sites, schools, shopping, recreation, have efficient connections to the new communities as well as to the rest of the region.[3]
4. Develop an interconnected local street and pathway system that makes it easy to get around but respects the character, identity and landscape of the Damasus area.
5. Design a regional transportation system that accommodates freight and recreational traffic and that respects the visual/aural quality and ecological integrity of the Damascus area. .[4]
6. Ensure that the transportation system is compatible with and/or strengthens local and regional economic development and other design objectives.

COMMUNITY DESIGN

7. Ensure that every neighborhood includes well-designed, energy efficient homes for people of all income levels, meeting or exceeding Damascus area target for affordable housing. Suggest ways to insure that those communities remain mixed-income over the long term.[5]
8. Preserve, to the maximum extent possible, at least an equal number of housing types and tenures to those presently existing, particularly affordable homes, seeking ways to grow the new community incrementally.
9. Ensure that there is a balance of jobs to housing in the area such that sufficient housing opportunities are available to households of all income levels that have a family member working in the area.[6]
10. Ensure that housing units at each range of cost are integrated into all neighborhoods in the area (to minimize exaggerated concentrations of poverty and wealth).[7]
11. Create designs that lend themselves to ownership and financing strategies that will protect the affordability of the housing created for low and moderate-income people in perpetuity, ensuring that the area will include a full range of housing choices over the long term. Suggest policy tools to insure this.[8]
12. Create complete communities where homes, businesses, industries, schools, public facilities, agricultural and natural areas are designed together to magnify and reinforce community quality, identity, and value.[9]

[1] OHP, Policy 1B (Action 1B.1, 1B.6, 1B.7, 1B.14), Policy 4B (Action 4B.1-6); RFP, 2.11- 2.15; RTP 3.a.b.c, 9.a; UGMFP Title 6, 3.07.620, 630, A.1a, 1b, 2.a. – h.
[2] RFP, 2.6.4, 2.18.2; RTP, 3.a.d.e.
[3] OHP, Policy 1F (Action 1F.3, 1F.5); RFP, 2.18; RTP, 3.d.e, 4.0; SPG # 9.
[4] OHP, Policy 5A (5A.1, 2, 4, 5, 7, 9, 10, 12, 15, 17); RFP, 2.24; SPG #6, #10; RTP, 7.0, 8.0; UGMFP Title 3, Title 6.
[5] SPG #9, #10; RFP, UGMFP Title 1, 3.07.120, Title 7, 3.07.710, 3.07.730.
[6] (UGMFP 3.07.210, RFP 1.3)
[7] (UGMFP 3.07.710; RFP 1.10, CLF principles)
[8] (RFP 1.10)
[9] SPG #5, #6; #9, #10.

13. Incorporate recreation, stormwater management, and environmental and cultural education into public spaces.
14. Layer multiple public uses into community spaces and facilities (such as schools).
15. Foster local economic development and community activities that regenerate and support natural systems, strengthen the local economy, enrich neighborhood development patterns, prevent residential displacement, support the regional food system, and ensure access by all community members.
16. Identify, preserve and celebrate local historical, cultural and archeological heritage.
17. Provide an efficient distribution of services throughout the area.
18. Devise regionally fair and realistic funding approaches to providing and maintaining parks, schools, affordable housing, roads and other public facilities.

NATURAL SYSTEMS RESTORATION

19. Identify and ensure that natural areas and fish and wildlife habitat are protected, restored, and enhanced.[10]
20. Support biological diversity by protecting and restoring ecological processes and functions that sustain them.
21. Preserve, create, maintain, and link the publicly owned parks, natural areas, farmland and open spaces that are recreational assets and natural resource treasures.[11]
22. Preserve and restore natural stream systems to achieve clean water, natural flows and healthy watershed function.
23. Conserve a network of natural patches and corridors, and suggest sustainable development and land management strategies for these areas that will support and enhance native fish, wildlife, and plant communities over time.
24. Provide ecological links for habitat and recreation movement both within the Damascus area and between the Damascus area and the wider region.
25. Restrict urban development on all natural hazard areas (for example, earthquake, floodplain, steep slopes and debris flow).[12]
26. Suggest acquisition and long-term maintenance strategies that use an integrated "systems" approach to achieve fairness among landowners.
27. Use the best available science for sustainable development; suggest strategies for environmental monitoring to advance our understanding of best sustainable development practices and adaptive management strategies for the Damascus area and elsewhere.
28. Restore urban forests in developed areas.
29. Protect important views, trees and key cultural heritage resources.
30. Design natural areas to promote environmental education.
31. Promote taking action today to preserve opportunities to meet the above objectives now and into the future.

ECONOMIC DEVELOPMENT

32. Ensure that plans and designs are feasible, marketable, and that public investments and amenities also lead or encourage market development of the type desired by the community.
33. Explore ways of reducing the immediate and life-cycle costs of roads and other infrastructure improvements.
34. Encourage compact growth through appropriate financing strategies, ensuring that this development pattern supports small, local business.
35. Provide the area with its fair share of living wage jobs balanced to affordable housing stock.[13]
36. Encourage a land ownership pattern that maximizes opportunities for small scale and locally owned enterprise, including agriculture.
37. Ensure a range of parcel sizes is available with sufficient transportation access to accommodate a wider range of medium and large employers and job-producing land uses such as business parks and office complexes.
38. Provide the needed infrastructure at sufficient capacities to accommodate a wide range of business types and sizes including roads, sewer, water, natural gas, power, and broadband telecommunications infrastructure.

[10] RFP 2.24.1, 2.24.2, 2.24.3, 3.1, 3.2, 3.5, 4; SPG #5, #6, #14; UGMFP Title 3.
[11] UGMFP Title 5, 3.07.520.
[12] FV P-3, RFP, 4.13-4.18; UGMFP Title 3.
[13] RFP, 1.2, 1.4, 1.5; RTP, 4.0; SPG # 9, #14.

DESIGN BRIEF PRINCIPLES

1 DESIGN COMPLETE COMMUNITIES

Complete communities are self-reliant, inclusive, and stable. Design a complete Damascus area with a fine-grained and diverse mix of housing, jobs, services, schools, parks, community facilities and natural areas – all within walking, biking, or very short driving distance from each other. Design a complete Damascus area so that people of diverse economic, social, and cultural backgrounds can live, work, shop, and play comfortably. Design a complete Damascus area in which involuntary displacement from family and friends is not the inevitable result of decreases in income.

2 PRESERVE PRESENT HOMES. INTRODUCE NEW ONES

Preserving a sense of home for present residents, while providing satisfying, affordable homes in mixed-income communities for future residents, means protecting those elements people cherish while allowing for gradual change. Produce a design vision that respects important view sheds, historical and cultural heritage, and local knowledge. Look to distinctive natural features, visual quality, climate, and existing pattern of residential development in the Damascus area to guide the introduction of new homes, job sites, and stores.

3 PROVIDE A LINKED SYSTEM OF STREETS, PARKWAYS, GREENWAYS, AND SPACES FOR GROWING FOOD

Linked systems, whether they are transportation systems or ecological associations, tend to be more efficient and healthy. Provide the Damascus area with an attractive, interconnected, and barrier-free system of public spaces, parkways, greenways, pathways, and streets that will disperse traffic, accommodate natural storm water and stream flows, lend itself to transportation choice, improve air quality, protect and restore habitat and protect and enhance opportunities to grow food locally.

4 ESTABLISH GREEN INFRASTRUCTURE SYSTEMS TO BOUND, PROTECT AND REINFORCE ALL NEIGHBORHOODS

Green infrastructure integrates natural systems into the structure of a community – to reduce cost, protect stream flows, restore habitat, enhance commercial and residential development, and to make a place a home. Provide a green infrastructure vision for Damascus that protects those areas important to maintaining streams and habitat – including forested and steep slopes, ridgelines, riparian areas, floodplains and large natural areas and wetlands – while bounding and enclosing new and existing communities.

5 SHIFT TO LIGHTER, GREENER, CHEAPER, SMARTER INFRASTRUCTURE

Lighter, greener, cheaper, smarter infrastructure works with the rural landscape not against it, resulting in lower costs and a community more in keeping with its setting. For the Damascus area, this means designing safer and more neighborly “rural style” streets with less pavement and more green, all while insuring that residential areas use land efficiently.

6 BUILD A HEALTHY ECONOMY

A healthy economy makes wealth from the natural and human capital at hand while preserving it for the future. Design places where people of all incomes can work and live in their own community both now and in the future; where people, jobs and goods are close at hand; where movement within the community and through the community are in balance; where both locally owned and branch facilities can thrive; and where both emerging and traditional economic activities can be pursued. Visualize places where economic vitality is unimpeded by inefficient land use or by overextended, expensive and difficult to maintain infrastructure. Design places where development provides a fair return on investment over the short term while protecting value for owners and communities over the long term, maximizing the circulation of dollars within the local and regional economy.

PERFORMANCE TARGETS

1 DESIGN COMPLETE COMMUNITIES

DENSITY, LOCATION AND LAND USE MIX

Designs for the area should include a hierarchy of community configurations that reduce automobile use, focus development around commercial and transit service, protect the open space network, maximize housing choice, and protect land for growing food.

- Blend and balance uses in each community to ensure a vibrant community core while keeping people close to what they need. All residential units in all but the lowest density zones (less than 4 DU per acre net) should be within a 5-minute walk (1/4 mile) of commercial services.
- Designs must accommodate a minimum gross residential density of 10 DU per acre in all community nodes and along designated transit corridors. The design types and related density targets (derived from the 2040 Growth Concept, and contained in the RFP) shown in Table 1 can be seen a "kit of parts" for focusing development in a variety of ways, be it in linked nodes, separated nodes, or along high-capacity transit friendly corridors, or a combination of these.[1]

Table 1
Design Types and Density Targets

Design Type	People/acre	DU/ gross acre (2.5 people/DU)
Town Centers Local retail and services, compact development and accessible to transit.	40 – 70 [2]	28
Main Streets Neighborhood serving retail and services, accessible to transit.	20 - 70	8-28
Corridors + Nodes Along good quality transit lines, feature high-quality pedestrian environment, convenient access to transit, and higher densities.	40 - 70	16-28
Employment Areas Various types of employment; some residential with limited commercial uses.	5 - 20 (employees/acre)[3]	
Industrial Areas Primarily industrial activities with limited supporting uses.	9[4]	
Inner Neighborhoods Accessible to jobs and neighborhood businesses.	14-25[5]	5.6 - 10
Outer Neighborhoods Farther away from large employment centers with larger lots and lower densities than inner neighborhoods.	13-15[6]	5.2 - 6
Rural (not included in RFP)	2 - 8	.5 - 3

JOBS

Concentrate jobs and services around mixed-use transit corridors and mixed-use community nodes. Ensure housing choice exists for workers earning "living wages".[7]

CIVIC AND PUBLIC SPACE

Assume approximately 4% of all buildable land for civic uses (library, community center, health centers/hospitals, churches, police, fire, cultural and arts activities etc.),[8] and develop combined civic and public space facilities.

Public facilities and spaces should address the needs of all members of the community, including those of modest means, and be accessible by transit or by foot.

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1 2040 GC; RFP.
2 While the Regional Framework Plan provides targets of 40, 39, and 25 people per acre for Town Center, Main Street, and Corridor types, the 2040 GC suggests a possible range of densities, as shown. For the purposes of this charrette, the entire range can be contemplated.
3 UGMFP 3.07.170, "Design Type Density Recommendations."
4 Ibid.
5 The UGMFP "Design Type Density Recommendations" recommend a density of 14 and 13 persons/acre (or 5.6 and 5.2 DU/acre net) for Inner and Outer Neighborhoods, respectively. However, in order to meet area-wide density targets, and using general parameters for neighborhood development outlined in the 2040 GC, this standard is increased to include up to 25 people/acre in inner neighborhoods, and up to 15 people/acre in outer neighborhoods.
6 See above.
7 According to the new Job Gap study, a living wage for a single adult living in Portland Metro area is $10.36/hr and $17.13/hr for a single adult with two children.
8 DCPS.

OPEN SPACE NETWORK

Design a continuous and comprehensive system of parks, natural and environmentally sensitive areas, and greenways that meets multiple needs while providing the space necessary to protect riparian zones, upland wildlife corridors, and other important habitat.[9]

Provide at least 4.5 acres of municipal park space per 1000 persons.[10]
Design all streets, public parks, schoolyards, squares, greenways, urban farms and community gardens as part of the open space network in order to protect, enhance and restore hydrologic and ecological function of the watershed as specified under Principle #4.

SCHOOLS

Schools are to be located away from major transportation corridors railroads, and industrial areas and within 10 minute walking distance (1/2 mile) of 90% of all homes within catchments of approximately 1500 persons (600 DU).[11] School siting and design should reflect other neighborhood design objectives, particularly those that focus on reducing automobile dependence and increasing travel choice.[12]

- Provide access to 8 acres (3.25 ha) of outdoor recreation and education space for all schools.[13] Four acres should be contiguous with the school and be comprised of active sports, play areas and educational gardens.
- Remaining areas can be naturalized and may be part of a stream corridor or riparian connection to linked green space system. Access to open space should be creatively conceived to ensure that ecological, functional, and recreational uses of the site are integrated. (For example, a school ground soccer field could conceivably double as a shallow retention basin for holding water from the 100-year storm). The remaining area allocated for parks should be designed to support community recreation needs/goals.

LOCAL FARMERS MARKETS

Provide space for marketing locally grown food (i.e., farmers markets, co-operative produce stands) in key commercial district(s) and/or neighborhood centers.

HOUSING CHOICE

Integrate land uses, income groups, housing types and tenures and balance the distribution of various types of housing units among other unit-types throughout each community, avoiding homogeneous concentrations of any one unit-type in one area. Designers should suggest alternative zoning, financing and acquisition strategies to ensure this over the long term.

- Provide block and parcel arrangements (and sizes) that ensure a mix of housing types in each neighborhood, and potentially, on each block.
- At least 50% of new residential units are to be attached single-family or multi-family units,[14] all of which should be in pedestrian friendly neighborhoods within a five minute walk (1/4 mile) of commercial services (see Density, Location, and Land Use Mix above).
- Provide housing choices that reduce or eliminate income, class and cultural divisions. For example, attached townhouses provide affordable living for those who cannot afford (or who do not want) a detached home, in a form that can be easily and seamlessly integrated into any residential context. Patterns of housing that maximize homeownership at all density levels are encouraged, and opportunities for synergy between renters and homeowners (such as "mortgage helpers" provided by the inclusion of a rental unit in detached homes) should be maximized.[15]

A portion of all dwelling units should be "affordable" relative to the income distribution and family size of households region-wide.

- At least 30% of all housing should be targeted for households earning between 50% and 100% of the region's median annual income (i.e., individuals earning between $20,000 [such as a full time data enterer, hairdresser, receptionist] and $40,000 [such as a full time computer programmer, corrections officer] and a household of three earning between $25,750 [which might include a full time dental

[9] UGMFP Title 3.
[10] Does not include regional parks.
[11] Clackamas Zoning Ordinance 805: "Public Schools".
[12] In keeping with standards in more pedestrian oriented and transit friendly districts such as the one presumed in this charrette, this formula will result in smaller more frequent schools than are usually provided in suburban and rural areas. Please see "Sizing Things Up: What parents, teachers and students think about large and small high schools," (Public Agenda, 2002, Bill and Melinda Gates Foundation) for more discussion on the implications of large versus small schools.
[13] Up to 3.5 acres of this can be used to fulfill municipal park requirement.
[14] MHR 660-007-0030.
[15] According to the 1990 Census of Housing, of total housing units in the Clackamas County, 28.3% were renter occupied.

assistant with 2 children, or a fast food server and a service station attendant with 1 child] and $51,500 [which might include a full time electrical engineer or health services manager with 2 children or a dental assistant and a maintenance worker with 1 child].

- At least 20% of all housing should be targeted for households earning at or below 50% of the region's median annual income[16] (i.e., individuals earning below $20,000 annually and three-person households earning below $25,750 annually).[17] Half of this target (or 10% of all housing)[18] should be provided for those whose earnings are at or below 30% of the region's median annual income (i.e., individuals whose annual income is below $12,000 and a household of three whose income is below $15,450.[19] In the Damascus area much of this lower category is presently served in manufactured home parks.[20]
- In order to meet affordability objectives, to meet a variety of housing needs, and to support the capacity for home ownership, designers should incorporate options for secondary rental suites.[21] Alternative housing options, such as co-operative and co-housing arrangements, community land trusts, co-operative ownership of mobile home parks should also be considered.

HOUSING CHOICES FOR CITIZENS WITH DISABILITIES OR OTHER SPECIAL CIRCUMSTANCES

Integrate 20 units of special needs housing per thousand residential units (seniors, disabled, youth, mentally handicapped, family crisis victims etc.).

2 PRESERVE PRESENT HOMES; INTRODUCE NEW ONES

SENSE OF PLACE

Build strong identity for Damascus by creating public spaces that build on cultural, historical, archeological tradition and that translate this tradition in way that is accessible to diverse groups. Integrate design elements in appropriate locales (at nodes, where adequate density levels exist, in schools) that support people gathering in public places (e.g. gateways, cultural markers, etc.).

INCREMENTAL GROWTH

Provide strategies for growth to occur over time and in ways that use local infrastructure and resources effectively.[22] Propose ways to ensure jobs and infrastructure are secured concurrent with or before the development of new housing.

Suggest block and parcel models that allow for change to occur slowly and permit land use flexibility.[23] Provide a strategy for organic growth in the community, whereby new and more intensive uses can co-exist for the short term and possibly with the long term with existing uses.

Suggest ownership and financing strategies that will protect the affordability of the housing created for low and moderate-income people in the long term.[24] Incorporate urban design and architectural strategies that enhance permanent affordability and prevent housing displacement for lower income residents.

ENVIRONMENTAL DESIGN

Protect important views, ridgelines, forest blocks, significant trees and sites of ecological significance. Identify, preserve and celebrate local historical, cultural and archeological heritage. [25]

Consideration of slope and vegetation should figure prominently in the placement of buildings and should inform the preservation of important views both into and out of the site. Use topography, landform, historic settlement features to establish boundaries and transition zones between developed areas.

[16] 20% figure based on regionwide benchmark need of 90,479 units for households 50% MHI and below. (RAHS).
[17] Occupations earning at or just below 50% of the median annual income include cooks, security guards, nursing aides (Sources: City of Portland Bureau of Housing and Community Development, Network, Metro, 1999; Portland-Salem, OR-WA, National Compensation Survey, 2000).
[18] 11.5% of the region's population lives at or below 30% of MHI (median household income). 73% of the total affordable housing need in the region is for homes affordable to people in this income range.
[19] Occupations earning at or below 30% of the median annual income include child monitor, service station attendant, part-time fast food worker (Sources: City of Portland Bureau of Housing and Community Development, Network, Metro, 1999; Portland-Salem, OR-WA, National Compensation Survey, 2000).
[20] Clackamas County has the largest mobile home inventory in the region, comprising 10% of the total housing stock.
[21] UGMFP Title 1; RFP "Affordable Housing," 1.3.6.1.
[22] CCCP Goals
[23] UGMFP Title 1, 3.07.120 "Methods to Increase Calculated Capacity Required for All Cities and Counties."
[24] RFP 1.10 "Urban Design."
[25] RFP 1.7 "Urban/Rural Transition."

3 PROVIDE A LINKED SYSTEM OF STREETS, PARKWAYS, GREENWAYS, AND SPACES FOR GROWING FOOD

TRAVEL CHOICE

Designers should propose measures to increase travel choice. Destinations must be close and convenient before walking and biking can be viable alternative to the car. Participants must produce designs that will connect people with their destinations so that the car is not the only option.[26]

STREETS THAT ALLOW FOR TRAVEL CHOICE

Design a hierarchy of streets and trails that accommodates all types of traffic, including freight, transit, automobile, pedestrian and bicycles. Link land use to transportation to support frequent transit service, to reduce trip length and congestion, and to achieve a target of reducing miles spent driving of at least 20% on average per person embodied in the 2040 Growth Concept.[27]

STREET TYPES

Designers should use the following 2040 Growth Concept street design classification system[28] to guide development in ways that balance all modes of travel and address the function and character of surrounding land uses.

Table 2
Street Classification

Street Type	Description	Compatible Community Design Type
Throughways	Emphasize motor vehicle travel and connect major activity centers, industrial areas and transit facilities.	(includes freeway and limited access highways; therefore doesn't directly reflect adjacent land use).
Boulevards	Serve major centers of urban activity, emphasizing transit, cycling, and walking.	Town Centers; Main Street
Streets	Transit, main street and neighborhood commercial; balance many modes of travel and provide easy pedestrian, bicycle, and public transit.	Town Centers; Main Streets
Roads	Traffic oriented – primarily serves autos.	Industrial Areas; Employment Areas
Local Streets	Complement regional road system; carry primary local traffic.	Inner Neighborhood; Outer neighborhood

LIVABLE STREETS AND PARKWAYS

In recognition of the above street types, design a network of suburban arterials integrated with local streets and commercial pedestrian oriented districts as a major mover of traffic of all kinds.

Design streets as a key component of the public realm. Incorporate alternative street standards (such as a "rural" street section with a soft, permeable shoulder) to reduce cost and reduce impact on the environment. Employ urban design strategies and traffic calming devices to ensure pedestrian safety and prioritize walking and cycling over automobile travel. Refer to Metro's *Creating Livable Streets: Street Design Guidelines for 2040* and *Green Streets: Innovative Solutions for Stormwater and Stream Crossings* for recommended widths and design standards for local streets.

- Design the local street network to accommodate local traffic and ensure that streets intersect at an interval no greater than 530 feet[29]; in higher-density areas (i.e., town centers), street connections can be at intervals of 330 feet.[30]
- Incorporate traffic calming measures to slow car speeds and ensure a safe and comfortable environment for pedestrians and cyclists.
- On all streets, roads and boulevards, accommodate space for large native trees, bikes and walking in the ROW. Accommodate various modes of transit uses within the ROW, both in the short and the long term. In areas of steep terrain, provide sidewalks on at least one side of the street.
- Accommodate the transportation demands generated by new development while connecting them to the larger region.[31]

[26] OHP, Policy 1B (Action 1B.1, 1B.6, 1B.7, 1B.14), Policy 4B (Action 4B.1–6); RFP, 2.11– 2.15; RTP 3.a.b.c, 9.a; UGMFP Title 6, 3.07.620, 630, A.1a, 1b, 2.a-h.; CCTSP, Transit: 2.0; 3.0; 4.0; 5.0; 6.0; 7.0; RTP, Regional Transportation Policies: 5.0; 5.1; 5.2; 16.0; 16.1; 17.0; 17.1;18.0.
[27] 2040 GC.
[28] RTP 11.0 "Regional Street Design."
[29] RTP 12.0 "Local Street System Design Criteria."
[30] UGMFP 3.07.630 "Design Standards for Street Connectivity."
[31] OHP, Policy 1F (Action 1F.3, 1F.5); RFP, 2.18; RTP, 3.d.e, 4.0; SPG # 9; CCTSP, Transit: 3.0; 4.0; 7.0; 14.0.

- Design a variety of bicycle and pedestrian linkages, including multi-modal linkages to and within mixed-use and employment centers.
- Incorporate narrow local street designs. For example, the UGMFP recommends that local streets have a maximum total right-of-way of 46 feet, including pavement widths of no more than 28 feet, and sidewalk widths of at least 5 feet. [32] Streets should also include landscaped buffers that include street trees including fruit and nut bearing plants when appropriate.
- Devise options for combining local and regional transportation capacity objectives with those of creating vibrant, mixed use centers. Seek ways to maintain traffic capacity without resorting necessarily to grade separation and space consuming and expensive limited access freeway interchanges.

PARKING

Design teams should suggest parking standards that complement performance objectives to increase travel choice, provide mixed-use opportunities, reduce development costs, and achieve reductions in effective impervious area.

- Provide an average of 1.5 spaces per dwelling unit (either on-site or on the street); provide 0.25 spaces per seniors and special needs units.[33]
- In the case of secondary units (i.e., rental suites), designs should explore alternatives to this one space per unit standard, so that, for example, parking allocation would be based on total unit area (e.g., 1 space per every 1,000 sq. ft. of rented floor area, etc).
- Provide 3 spaces per 1000 square feet of commercial use.[34]
- In mixed-use areas, suggest strategies for shared parking between adjacent uses that have non-competing schedules.[35]
- Minimize the amount of surface area consumed by parking lots. Give preference to on street parking over off street parking (including diagonal parking) for all commercial zones, neighborhood commercial zones in particular. Explore structured parking or parking under buildings.
- Reduce the effective impervious area of parking lots.

GREENWAYS AND TRAILS

Link green systems (including wildlife corridors and/or greenways) into and across urban and rural, human and wildlife communities using regional trails where appropriate. Incorporate bioremediation into greenways and link them to nature trails and riparian zones.[36]

NEIGHBORHOOD AND LARGER-SCALE FOOD AND AGRICULTURAL PRODUCTION

Provide at least 2 acres per 1000 residential units for local food growing opportunities. Identify and protect key agricultural parcels to support community design and local economic development.

4 ESTABLISH GREEN INFRASTRUCTURE SYSTEMS TO BOUND, PROTECT AND REINFORCE ALL NEIGHBORHOODS

STREAM HEALTH AND HABITAT PROTECTION

Use watershed function (i.e., fish and wildlife habitat, flood retention and reduction, open space, water quality, and other attributes of a healthy stream ecology) and structure (i.e., large trees, allowing for the way a stream naturally meanders in its channel, the type of gravel and other stream bottom that supports healthy aquatic life, and similar physical aspects of the stream) as points of departure for design. Designs should seek to restore and work with the inherent capacities and characteristics of the watershed/stream system and should promote taking action today to preserve opportunities to meet green infrastructure goals in the future.

Suggest science based management strategies to establish and maintain green systems.[37]

- Ensure that at least 80 - 90% of all water that falls on developed areas during an average year is absorbed and infiltrated by the soil.
- Ensure that urban development does not encroach on streamside riparian zones.

[32] UGMFP 3.07.630 “Design Standards for Street Connectivity.”
[33] UGMFP requires 1 parking space per for s/f units up to 1.75/unit for a three bedroom multi-family townhouse. Given the "walking distance to services and transit" assumption underlying this charrette, the s/f off street parking standard is suggested for all unit types.
[34] CCTSP; UGMFP 3.07.220 (A) (1) Regional Parking Ratios set minimum commercial parking rates at 4.1/1000 sq. ft. However, this standard has been reduced given the "walking distance to services and transit" assumption underlying this charrette.
[35] RTP 19.1.
[36] UGMFP Title 5, 3.07.520.
[37] CCS “Water Concurrency: Policy Recommendations”; CCCP “Storm Drainage Policies.”

- Integrate passive recreation with streams in ways that protects the resource while delighting the user.
- Ensure recreational trails and other facilities avoid, minimize and mitigate any negative environmental impacts.
- Identify and preserve high infiltration soils and areas; consider street design as part of this objective.

URBAN FORESTRY

Devise an urban forest strategy that provides habitat, mitigates storm water impacts, shades streets, parking lots, and creates visual and ecological connections into surrounding forests. Seek productive ways to incorporate fruit and nut production into urban forests.[38] Restore populations of native and indigenous species such as ponderosa pine, pacific dogwood, Western hemlock, and Oregon white oak throughout designs.

MULTIPLE USE

Maximize the benefits of infrastructure expenditures by incorporating multi-use opportunities, such as recreation, multi-modal transportation, ecological enhancement, and bioremediation functions (i.e., use plants to treat and clean stormwater) into public space and infrastructure in ways that cost less than conventional single function infrastructure.

Use green infrastructure to bound neighborhoods and protect and enhance a sense of place; use ecology, topography and climate as key points of departure in all designs. Design green spaces to delight, educate and inspire.

ACQUISITION AND FINANCING

Suggest strategies to equitably acquire and/or protect green infrastructure and sensitive lands. [39] Suggest strategies to equitably acquire and maintain parks, schools, affordable housing, roads and other public facilities over the long term.

5 SHIFT TO LIGHTER, GREENER, CHEAPER INFRASTRUCTURE

GREEN STREETS

Design streets, parks, and greenways to accommodate continuous and healthy flow of people, fish, wildlife and water.

- Design green streets and parcels to be compatible with stream and watershed system health.[40]
- Ensure that designs maintain and enhance the quality of drinking water throughout the watershed.
- Minimize effective imperviousness (EIA); achieve an effective imperviousness percentage of 15% or less in all developed area. Achieve an EIA of less than 10% throughout all sub watersheds.[41]
- Design streets to minimum width and impermeability standards without compromising safety reducing rather than raising infrastructure costs in the process.[42]
- Using design guidelines from Metro's *Green Streets* publication, NMFS and other applicable sources, ensure that stream crossings are used sparingly (while not unduly compromising equally important interconnectivity standards) and employ low impact stream crossing design), thereby protecting the integrity of riparian management areas, wetlands and flooding areas. Consider one-lane bridges in low traffic areas to reduce riparian impacts.

ALTERNATIVE ENERGY AND LIFE-CYCLE COSTING

Propose ways of reducing energy consumption and the pollution this consumption causes.

- Reduce building energy requirements and maximize the use of renewable energy by anticipating optimal solar orientation for passive and active systems. Anticipate future possibilities such as district heating when configuring blocks and parcels.
- Integrate green building/design techniques into a proportion of new structures so that total energy use is reduced.
- Use utility infrastructure efficiently and consider utility design as part of the community design.
- Explore the use of district-scale heating, water recycling, and sewage treatment in future years.

[38] GN 3.1, 3.2, 5.2; GS VI-13 – VI-23.
[39] RTP - 20.0, Transportation Funding.
[40] GN 5.1, 5.2. GS VI-5, 6.
[41] Center for Watershed Protection,
[42] GS VII.

6 BUILD A HEALTHY ECONOMY

EMPLOYMENT DENSITY

Provide space for a minimum of 43,000 and a maximum of 64,000 jobs.[43]

Designers must determine the most appropriate balance of jobs throughout various sectors to ensure that employment opportunities respond to local need and that they are fairly distributed throughout each community.[44]

- In mixed-use areas, ensure an employment density of 20 people per acre.[45]
- In industrial areas, ensure an employment density of 15 people per acre.[46]
- For retained agricultural areas (i.e., nursery and vineyards), roughly one job per 2.5 acres should be assumed.[47]

Tables 3 through6 provide a snap shot of employment trends and forecasts by industrial sectors for the Portland-Vancouver PMSA, which should be used to determine the appropriate balance between job sites and residential uses. Agricultural uses are not shown in this table but should be considered when computing job totals for the area.

Table 3
Employment trends and growth rates for Portland – Vancouver PMSA 1990 – 2020

	Employment			Annual Growth Rate	
	1990	**1998**	**2020**	**1990-1998**	**1998-2020**
Construction/Mining	50,176	76,559	102,980	5.4%	1.4%
Manufacturing	130,893	150,225	190,665	1.7%	1.1%
Transportation, communication and public utilities	47,502	61,718	80,537	3.3%	1.2%
Wholesale Trade	61,183	80,097	101,948	3.4%	1.1%
Retail Trade	150,254	188677	268,862	2.9%	1.6%
Finance, Insurance and Real Estate	72,063	88,846	127,151	2.7%	1.6%
Services	263,906	366,729	601,074	4.2%	2.3%
Government/Other	118,947	137,248	174,187	1.8%	1.1%
Total Employment	**89,4924**	**1,150,098**	**1,647,403**	**3.2%**	**1.6%**

(Source: Metro Data Resource Center, in "Regional Industrial Land Study, Portland – Vancouver Area," 1999)

Table 4
Land use and employment distribution. (agriculture jobs not shown)

2040 Growth Concept		Damascus Concept Planning Study	
Land use type	**& of total buildable area**	**Land use type**	**% of total jobs**
Industrial	10 – 14%	**Industrial**	22%
Mixed-use [48]	24-30%	**Light Industrial/Office**	45%
Commercial[49]	1%	**Office**	18%
		Retail	6%

Table 5
Existing Employment Densities (by job type) in the Greater Portland Area, 1998.

	Industrial Employment	**Occupied Sq. Ft.**	**Occupied Sq. Ft./Employee**
Warehouse/Distribution[50]	99,298	98,624,832	993
General Industrial	137,867	58,091,465	421
Tech Flex	67,052	33,190,317	495
Total/Average	**304,217**	**189,906,614**	**624**

(Source: Regional Industrial Land Study, p.30.)

[43] Assumes minimum 1 job and maximum 1.5 jobs per household.
[44] Leading job growth in the industrial manufacturing sector over the past few years are machinery, electronics and electronic equipment manufacturing. Leading employment sectors in non-manufacturing are construction; retail trade, especially eating and drinking establishments; and health and business services. Temporary help and software/data processing services have been among the most rapidly growing business service sectors. (Source: Otak Inc., "The Regional Industrial Lands Supply Study: Portland – Vancouver Area", 1999, p. 12).
[45] 2040 GC; UGMFP 3.07.170 "Design Type Density Recommendations."
[46] UGMFP 3.07.170 "Design Type Density Recommendations" indicates a target of 9 persons/acre. A slightly higher industrial employment density is suggested (approx. 11 jobs/acre) by the Damascus Concept Planning Study. (DCPS, Table 4, Land Use – Major Findings/Conclusions) while the Industrial Lands Study suggests an industrial employment density of roughly 13.25 employees per acre, based on a projected need of 1732 acres of industrial land in Clackamas County, see Table 6 of this brief.
[47] Don King, manager, Okanagan vineyard, personal correspondence, May 13, 2002.
[48] Assumes commercial and service/office are aggregated under the category of "mixed-use".
[49] It is assumed that a lion's share of commercial development will be provided in mixed-use arrangements; however, there will still exist the need to accommodate a small percentage of dedicated commercial/office space, taking into consideration integration into the surrounding context (as per 2040 plan assumptions).
[50] Land dedicated to warehouse uses should not exceed numbers indicated in the Damascus Concept Planning Study or the Clackamas Industrial Land Supply Update.

Table 6
Projected Employment Densities (jobs/net acre) for Clackamas County by job type (2000 – 2020)

	Warehouse/ Distribution	General Industrial	Tech/Flex	Non-industrial	Total
Employees	9,090	9,051	4819		22,960
Area (sq. ft.)	10,637,253	5,295,921	2,306,959		18,240,133
Acres	740	405	241	346	1732
Total jobs per acre (22,960/1,732)					**13.25**

(Source: Regional Industrial Land Study (Table 13: Additional industrial Workers by Building Type, 2000 – 2020; Table 18: Additional Square Feet of Building Space Required for PMSA, 2000 – 2020; and Table 21: Expected Industrial land Absorption (in net acres), PMSA, 2000 – 2020).

EMPLOYMENT LOCATION

Establish a relationship between employment centers, services and residences in order to reduce trip length and reduce VMT by 20% - 40%.[51]

- Designers should seek ways of increasing the viability of transit by maximizing the amount of industrial office, office, and retail uses in mixed-use developments.
- Locate industrial uses such that they are accessible to homes by means other than the car.
- Locate mixed-use neighborhood commercial centers within a quarter-mile radius of at 90% of all residences.

BUILDING AND PARCEL DESIGN/CONFIGURATION

Suggest building and parcel types that accommodate a range of industries, including a balance between large-scale industrial manufacturing, distribution, and warehouse uses; campus/high-tech research and development (still integrated with community design but in defined locations), smaller light industrial/office sites; and space within office and mixed-use developments.[52] At least 3 sites should be over 50 acres in size to provide maximum flexibility.

Suggest ways of blending live/work into residential areas and mixed-use areas as a way of providing a portion of workshop/office jobs and as a way of supporting home-based work.

Industrial jobs play an important role within the local and regional economy. Accordingly, designs should suggest strategies for protecting industrial land from being converted to commercially zoned land.[53]

As the majority of jobs will be served in light industrial and mixed-use centers, emphasis should be on providing high quality, pedestrian-oriented and enriching spaces in these areas.

Designs should address and resolve the relationship between different work arrangements and residential uses. For example, designs should reveal the character of neighborhoods that include home-based work options and commercial mixed use centers. Similarly, they should show the relationships between combinations of commercial, industrial and residential uses.

Encourage land ownership and development patterns that maximize opportunities for small scale and locally owned enterprise, including agriculture.

- Locate and suggest building, parcel and block types to accommodate employment activity in ways that foster economies of scale and local business opportunities (including live work).
- Suggest block and parcel configurations that allow a wide variety of small-scale, local industrial uses and incubator business types. In some cases this could be accomplished, for example, within a second story component of mixed-use buildings.
- Provide for various types of small-scale business/office space within housing units as a means of increasing complexity and economic sustainability of the community. The inclusion of a “choice of use” zoning within neighborhoods could be one way of achieving this.
- Commercial building floor plates in excess of 60,000 sq. ft. are prohibited in mixed-use, industrial, and employment areas.[54]

[51] 2040 GC is predicated on reaching a target of 20% VMT reduction. However, research shows that an up to 40% reduction can be realized with sufficient residential and employment densities, integrated land uses, and interconnected street systems.
[52] 2040 GC; DCPS p.16. The Regional Industrial Lands Supply forecasts that increased demand in Industrial lands will require approximately 6310 net buildable acres of industrial-zoned land regionwide. It also indicates that sufficient industrial zoned land exists within the PMSA to meet this need, but the majority may not yet be fully served by infrastructure. At a more local level, the targeted industrial land needs target for Clackamas County is 2,600 acres (which includes 1732 acres plus an additional amount of land to provide a “market factor” that allows for an adequate distribution of parcel size and locational attributes). Given the shortage of Tier A lands (i.e., readily developable without major constraints) within the county, approximately 40% of land required to fill the target is located within Urban Reserve areas. (Source:Otak inc., “Clackamas County industrial Land Supply Update,” 2000, pp 1-2).
[53] CILSU “Recommended Next Steps.” p. 28.
[54] UGMFP Title 4, 3.07.420.

AGRICULTURE

Protect and develop opportunities for agriculture at a variety of scales.[55] Develop land use typologies that accommodate various scales of food production (i.e., backyard garden; community garden; nursery; vineyards; croplands if appropriate).

[55] RFP 3.07.420 "Rural Reserves and Green Corridors."

NUMERIC TARGETS

APPROXIMATE SITE AREA	**Acres**
Workshop Site Area Within the Damascus Concept Planning Study Area	4,300
Workshop Site Area Outside of the Damascus Concept Planning Study Area	11,000
Total Workshop Site Area	**15,300**
Total Developable Area [1]	**10,800**

RESIDENTIAL POPULATION	**Minimum**	**Maximum**
Total Proposed Population [2]	108,000	162,000
Total Proposed Dwelling Units [3]	43,200	64,800
Net Residential Density [4, 5]	6	10
Gross Residential Density (DU/acre) [6]	4	6
People per gross acre	10	15

RESIDENTIAL PARKING [7]	1 space per dwelling unit.
PARKS, OPEN SPACE, GREENWAYS	8.5 acres/1000 people 8.5 acres divided as appropriate between active recreation sites provided both at the neighborhood (including school/park sites and the community scale, and naturalized areas). Naturalized areas can be part of neighborhood greenways or constructed naturalized marshes and/or streamways.
PUBLIC TRANSIT [8]	Bus service within five minute walking distance (1/4mile) of 90% of all homes. High-capacity transit service connecting major employment centers (located within 3/4 mile [15 min. walk] of 90% of all homes).

	Low Target	**High Target**
JOBS [9]	43,000	64,000

COMMERCIAL	
Commercial Space [10]	30,000 sq. ft./1,000 population
Commercial Parking Standard [11]	750 sq. ft. or 70 sq. mtr. (3 spaces) per 1000 sq. ft. retail. On street, enclosed, or off street parking.

INDUSTRIAL & INDUSTRIAL/OFFICE	
Industrial Space [12]	32,200sq. ft./1000 population
Industrial/Office Space [13]	27,000 sq. ft./1000 population. Assume a proportion (50%) of light-industry/office space is served within mixed-use arrangements, which could include live-work units.

PUBLIC BUILDINGS	
Schools [14]	One elementary school for a maximum 500 pupils within a catchment of approx. 1500 residents (600 DU); one high school for a maximum of 800 students within a catchment area of approx. 3000 residents (1200 DU). Access to min. 5 acres of outdoor recreation space. (Note that active recreation space may be used towards total open space requirement of 8.5 acres/1000 population). On-street or off-street parking for 25 cars for elementary schools, and 0.2 on street or off street spaces times # of students + staff for high schools with on street parking solutions encouraged.[14]

Child Care Facilities/preschools [15]	Approx. 2,560 sq. ft. interior space and 4,800 sq. ft. exterior play space per 1,000 dwelling units.
Community Centers and Libraries [16]	One 36,000 sq. ft. facility per 25,000 persons.
Hospitals/Community Health Care Facilities [17]	One health care facility per 5,000 to 20,000 persons (average one per 10,000 persons). Access to be provided from major transit street.
Fire/Police [18]	One each at 11,000 sq. meters per 40,000 persons.
Municipal Hall/Public offices [19]	Approx. 1,000 sq. ft. per 1,200 persons.
Churches/multi-faith centers [20]	One 20,000 sq. ft. church per 2,000 persons. On street or off street parking for 60 cars. Parking can be shared with non-competing uses.

1 The total buildable land = gross minus areas identified as environmentally sensitive (including wetlands, streams, floodplains, slopes in excess 20%). **Note:** net developable land area will fluctuate based on road and natural resource/park design solutions and decisions about street right-of-way width.

2 Assumes 2.5 people per dwelling unit.

3 Total dwelling units was derived by dividing the gross residential density by total buildable area inclusive of roads, public utilities, neighborhood school/parks sites, etc.

4 The 2040 Growth Concept establishes a target average net residential density of 10 DU/acre. Recognizing the need to accommodate lower density housing at "rural densities", designers should plan for a maximum of 7% housing at the low density (.5 to 2 du/acre).

6 Assumes development area inclusive of roads, utilities, public parks, schools, etc.

7 UGMFP Regional Parking standards requires 1 space per s/f residential unit, with this standard increasing to 1.75 for 3 bedroom multi-family units. Given the 'walking distance' to transit and shops objectives of this charrette, 1 is the standard for all residential units. Parking standards usually assume this parking is off street.

8 Regional transportation policy is aimed at achieving transit service within 1/4 mile of most homes and businesses.

9 Minimum assumes 1 job/household; maximum assumes 1.5/household.

10 Assume the majority of commercial is in areas with a mixture of uses within easy walking distance. Mixed use may be vertical mixed use, or mixed uses horizontally on the same or adjacent blocks.

11 UGMFP 3.07.220 (A) (1) regional parking standards requires 4.1 parking spaces/1000 sq. ft.; however, this standard has been reduced given the 'walking distance to transit and services' assumption of this workshop.

12 This figure is generated as follows: assume min. one job per household and 2.5 persons/household. The number of jobs for the entire district should be 400 jobs per 1,000. Assume approx. 23% of jobs are in industrial manufacturing/light industry. .23% X 400 = 92 jobs. 92 jobs X average 300 sq. ft. per job = 32,000.

13 45% (approx. proportion of total jobs in this sector) of 400 workers/1000 population = 181 persons @ average 300 Sq. ft. per person = 54,000 sq. ft./1000 population. Assuming approx. half of this would be provided in mixed-use commercial uses, the total is 54,000/2 = 27,000 sq. ft. office space in mixed use commercial areas.

14 Clackamas Zoning Ordinance 805: Public Schools requires a minimum 5 acres for school sites.

15 Sustainable Urban Landscapes: The Surrey Design Charrette

16 There are a total of 56 public libraries regionwide, translating into about 1 facility per 24,000 persons.

17 Clackamas Zoning Ordinance subsection 809.01.There are a total of 119 health care facilities (including hospitals and clinics) regionwide, translating into about 1 per 10,500 persons.

18 There are a total of 27 fire departments (police is aggregated into municipal halls) regionwide, translating into 1 per approx. 47,000 population.

19 There are a total of 45 municipal halls regionwide (including Police).

20 There are approximately 1250 churches in metro region, translating into 1 church per 1,000 people. This ratio is modified to 1/2000 people based on surrey ratio and the current ratio in metro. Parking standard source: Clackamas Zoning Ordinance subsection 804.01.

REFERENCES

The design package was guided by the following local and regional policy and planning documents.

2040 GC
2040 Growth Concept*
CCC
Clackamas Complete Communities**
CCCP
Clackamas County Comprehensive Plan *
CCS
Clackamas Concurrency Study**
CCHNM
Clackamas County Housing Needs and Market Analysis
CILSU
Clackamas Industrial Land Supply Update**
CLF
Coalition for a Livable Future Mission and Objectives
CTSP
Clackamas TSP / STIP / DLCD Div. 12
DCPS
Damascus Concept Planning Study ** (approved as final product of TGM strategy)
FV
Future Vision Commission Report: Metro **
GN
Green Neighborhoods **
GS
Green Streets **
HNA
Housing Needs Analysis: 1997, Metro
MG
Metropolitan Greenspaces, A Master Plan Study: Metro
OHP
Oregon Highway Plan*
RAHS
Regional Affordable Housing Strategy: Metro*
RFP
Regional Framework Plan: Metro*
RILS
Regional Industrial Land Study: Portland-Vancouver**
RTP
Regional Transportation Plan*
SPG
Statewide Planning Goals*
UGMFP
Urban Growth Management Functional Plan*

Adopted
* Legally binding
** Not legally binding