

## INSTRUCTIONS FOR THE THREE TEAMS

Design teams are not trying to produce a singular master plan for the site. Rather, they will be producing a set of community design best practices and urban design prototypes, according to the three general focus areas of transportation, community design, and green infrastructure. These will be the tools or the “kit of parts” for meeting the performance objectives of the brief.

Each team will have two charges:

1. ***To incorporate into their design for the entire 15,300 acre (24 square mile) area all of the Design Principles, Design Objectives, and sub-objectives listed in the design brief, and to coordinate this activity with the other two teams at designated times.***

### **A VISION MORE THAN A PLAN**

Typically, planning and development decisions proceed incrementally, as resources and opportunities arise. At best, community development plans are made within the relatively short time horizons of ten years or less. Transforming the Damascus region (or some other region should Metro decide not to expand into Damascus) in conformance with Metro and State policy will take much longer than that. This workshop provides an ideal and timely opportunity for painting the picture of what such a transformed urban region could look like were it designed to meet regional, state, and federal mandates for efficient and equitable growth. With this future vision in place, individual development decisions might be seen as a means to an end rather than an end unto themselves.

### **WORK AT BOTH ENDS OF THE SCALE**

Time and resources limit your capacity to go into great detail for every acre, or square quarter mile, of the Damascus area. Therefore we suggest that you focus at either end of the scale spectrum. At the full site scale will be development frameworks, be they ecological, civic, or transportation focused. At the other end of the scale – call it the city block scale – will be specific designs for homes, yards, stores, greenways, protected riparian areas, and transit corridors. Each team is challenged to operate at both ends of this scale spectrum and to provide a large scale and small-scale vision of how the various principles and objectives of the brief might be met.

2. ***To provide particular community design best practices and compatible urban design prototypes for one of three focus areas, identified loosely as transportation, community design, and green infrastructure. Each of these focus areas is assigned to a team. The three teams are given the shorthand labels of “Go Team”, “Home Team”, and “Green Team”.***

## **“GO” TEAM**

### **OH MAN, WHAT A HOT POTATO!**

Of all the issues that confound the question of expanding urbanization into the Damascus area, transportation is probably the most problematic. The Sunrise Corridor Proposal has provoked passion and anxiety for over twenty years now and is still not resolved. This is only one of the contentious questions surrounding transportation. The Damascus Concept Planning Study (Damascus Study) anticipates a need for over 10 miles of new 5-lane suburban arterial roads to serve the 30,000 new residents of the study area. This falls far short of the minimum 100,000 residents this workshop is allowing for! Would 30 miles of 5-lane road be required for this number of residents? Certainly, this workshop will not put an end to the many questions associated with road design and construction. What the workshop *can* do is provide an opinion about how to best coalesce objectives for moving in and through the region into a livable, affordable, and ecologically sensitive urban design framework. To cite just one example, the Metro Council has recently adopted a 530-foot maximum road interconnectivity standard. However, the Damascus Concept

Planning Study (Damascus Study) assumes that such a standard cannot be achieved in this zone due to fractured ownership and topographical barriers. Does the team agree with this position? An alternative vision would make dramatic changes to the trip numbers used to generate conclusions about the number, lanes, and length of major suburban arterial roadways. The Damascus Study also assumes that all east/west traffic must be carried on a much-enhanced Sunrise corridor running parallel with 212. Does the team agree that there are no other possible options for east/west travel? This team can and must offer an opinion in the form of a street network diagram similar to the one shown on page 56 of the Damascus Study. This is a significant charge for this team.

### **LIVABLE STREETS**

This workshop provides the first large-scale opportunity to test out the principles embodied in the Metro's *Creating Livable Streets, Street Design Guidelines for 2040*. Generally, this initiative is an attempt to combine post war models for engineering roads for cars with more recent impulses to include other possible benefits and values of transportation infrastructure in this calculus. This team should test this new street taxonomy and examine the value of these new cross sections, demonstrating applications at the district and block scale of development.

### **GREEN STREETS**

Metro has also recently produced *Green Streets: Innovative Solutions for Stormwater and Stream Crossings*. The guidelines contained in this publication are intended to provide a means for reducing the effective impervious area (EIA) of street infrastructure and the per square foot impacts of paved surfaces. Strategies like those in *Green Streets* (or other similar guidelines) would need to be used to meet the performance target of at least 80% reduction in runoff from paved surfaces as defined in the design brief. Proposals should show how these streets are incorporated into a logical plan for the district.

### **GREENWAYS/STREAMWAYS**

Greenways are not quite streets and not quite natural areas. They are something in between. They provide an ideal opportunity to explore how to combine riparian protection, stream enhancement, recreation, and multi-modal transportation in one piece of infrastructure. The greenway system and its interface with the riparian system (a concern largely of the "green" team, but that overlaps with yours) should be depicted as an element of your regional street plan, and illustrated at the corridor level through perspective drawings and sections. The *Livable Streets* and *Green Streets* publications provide good points of departure for this.

### **12 TRIPS A DAY? 6? HOW FAR?**

Central to any transportation concept is the interface between land use and transportation. Travel demand varies by over 50% in U.S. cities based on the degree of integration between these two elements. Current transportation models, including those used regionally, make conservative assumptions about the possible benefits of land use/transportation integration. The 2040 Concept suggests a conservative 20% reduction is possible. This conservatism is merited, as examples of new communities which have substantially lower trip generation than average are rare.

### **DENDRITIC SYSTEM VS. INTERCONNECTED GRID SYSTEM?**

A key choice for this team is whether to employ a grid or dendritic street system. Most transportation planning and design assumptions made in projects similar to ours have been influenced by the "functional designation of streets" system, in which streets are classified based on function – from Regional Highways at the highest end through to Cul-de-sacs at the lowest end of the hierarchy. Use of this system leads inevitably to a dendritic "tree like" street system, which is clearly illustrated in Section 3, Appendix A ("May Workshops") of the Damascus Planning Concept Study. Metro's interconnectivity standard of 530 feet on local streets, and 330 in higher-density areas, presumes an alternative concept. While not completely without hierarchy, a fully interconnected system is one where all roads do not lead gradually via ever wider streets to the main highways, but rather are connected to all the other roads in a more evenly sized system by a

variety of routes. The Damascus Study presumes that this high degree of interconnectivity would be impeded by ownership and by natural barriers like landform and streams. This team should examine this question and render an opinion in the form of a road network system diagram, which illustrates their conclusions graphically on the site.

### **SUNSHINE CORRIDOR ALTERNATIVES**

It would be a lost opportunity for the Go Team to be caught up in the intractable debates surrounding this topic. Two decades and many thousands of dollars spent on planning and engineering studies have not settled the issue. However, time and energy allowing, it could be very useful for this team to examine the Sunshine Corridor question, not from a “yes” or “no” standpoint but perhaps from a “both/and” position. The specific question is: in some sections, is it possible to accommodate the anticipated 6,000 east/west trips per hour by means other than a single road? (source: Damascus Study, Appendix A, Section 3). If it is a single road (or if these trips are primarily handled along the south edge of the site via parallel roads), must it be done with a limited access freeway? Are other roadway models available for handling these large volumes that might be more easily integrated with complete community design, economic development and transit? It is unclear whether these other basic alternative approaches have been considered. Alternative scenarios for this corridor should be depicted in the form of roadway sections and plans. Regional network diagrams and plans should also suggest how such a system would operate. Reference to transit and other modes of travel should also be incorporated into these illustrations.

## **2 “HOME TEAM”**

### **A COMPLETE COMMUNITY**

The “Home Team” has the responsibility for designing prototype complete communities that meet the principles and objectives of the design brief. These objectives include providing housing choices for all income levels, providing sufficient employment opportunities within easy access of homes, ensuring that there is a high degree of interconnection in the community to allow for easy mobility, multiple route choices, and easy access to transit.

### **A DESIGN FOR DAMASCUS CENTER**

The Home Team will likely focus carefully on the area in and around Damascus center. This area is a logical node for future urban expansion with many of the pieces already in place (i.e., land use, roads, infrastructure, identity, etc). The team will also likely look for appropriate locations for other high intensity community service centers, as Damascus is likely too small and too remote to service all of the needs for over 100,000 new residents. A good point of departure for these explorations is the preliminary investigations illustrated in the 2040 Growth Concept for this same area (page 46). Note that the 2040 Concept shows four sub centers with Damascus being the major center. Also note that the population assumption for the Concept was for an additional 36,000 persons – far below our own. Remember that the higher density assumption for this workshop rests on the premise that this area would supply sufficient lands for 20 years of urban expansion and would eventually be at a density that is serviceable by transit and reduces auto dependence.

### **CAN YOU FIT ALL THESE HOMES IN?**

This team will need to pay very close attention to urban land yield, particularly to pages 8, 9, and 10 of the design brief, which pertain to land use, housing mix, and density targets. Essentially, Principle 1 – *Complete Communities*, and Principle 2 – *Preserve Present Homes and Introduce New Ones*, are entirely up to the Home Team to solve. Solutions should take the form of district plans, aerial perspective views, block plans, parcel plans, and analytic diagrams suggesting how these interrelated issues are resolved at the district, block, and parcel scales of urban design.

### **CAN YOU ACHIEVE THE ABOVE AND ALSO PROTECT THE ENVIRONMENT?**

This team also has a particularly important environmental task. Solutions to reduce the environmental impact of urbanization on sensitive stream systems must necessarily be incorporated at district, block and even the parcel scales to be effective. To this end, instructions embedded in Principles 4 – *Establish Green Infrastructure Systems to Bound, Protect and Reinforce all Neighborhoods*, and 5 – *Shift to Lighter, Greener, Cheaper Infrastructure*, that address the scales of the district, block, corridor, and parcel are also crucial. As this area of concern overlaps with that of the Green Team, liaising with that team to co-ordinate solutions will be an important project for at least one member of your team.

### **JOBS, JOBS, JOBS**

The Home Team will be responsible for incorporating jobs into the fabric of the community as described under Principle 6 – *Build a Healthy Economy*. The team should show how jobs are integrated into the fabric of districts, corridors, blocks and parcels in a way that maximizes employment options and increases the marketability of the area for jobs. Note that there is a considerable gap between how regional policy sees job integration in the 2040 Concept and what the market seems to expect. Office parks and “suburban style” light and high tech manufacturing are still the norm. However, these types are often difficult to serve by transit and lack integration into the ordinary fabric of communities. The 2040 Concept contains numerous examples where office and industrial uses are knit tightly into transit-oriented districts (pages 46, 44, 70, 68, 58, 56). The design brief supports this presumption. An urban design strategy that resolves this issue and can work in the current marketplace will be a central product for this team.

## **3 “GREEN TEAM”**

The Green Team will be responsible for applying Principle 3 – *Provide a linked System of Streets, Parkways, Greenways, and Spaces for Growing Food*, Principle 4 – *Green Infrastructure to Bound and protect Neighborhoods*, and Principle 5 – *Shift to lighter, Greener, Cheaper Infrastructure*, to the site.

### **LINKED SYSTEMS**

The Streams and Riparian Areas map shown on line at [http://www.sustainable-communities.agsci.ubc.ca/Damascus/aerial\\_analysis\\_riparian\\_small.jpg](http://www.sustainable-communities.agsci.ubc.ca/Damascus/aerial_analysis_riparian_small.jpg) makes it clear that whatever happens, there WILL be a linked system of streams and riparian areas. Current policy requires the preservation of the stream corridors shown on this map and require extra diligence to the protection of butte tops. The urban design challenge is to turn these requirements into a market opportunity by increasing ecological function while enhancing real estate and community value. Illustrate the linked riparian and stream protection network as a “green framework” for the urban design of the region.

### **A GREEN INFRASTRUCTURE FRAMEWORK**

The green framework referred to above would have the streams as its most important component. Streams and riparian corridors will provide fixed boundaries between community districts. Draw plans showing where these boundaries occur and provide more detailed plans for incorporating other transportation and recreational functions in close association with these green boundaries, increasing synergy for humans and other living things while minimizing damage to the environment. Suggest how green systems and green infrastructure might permeate each community down to the block scale for residential, commercial, and jobs locations, and how this can enhance value and prestige while reducing costs.

### **PARKS**

Parks and schools, as described in the brief, should be designed for a variety of recreational, educational, food production, and ecological functions. Show at least one example of how this might be accomplished, paying special attention to how these recurring community landscapes

can become potential “green hearts” for districts, and can thus serve a variety of ecological and human needs/objectives.

#### **ROADS**

Along with the Go Team, this team shares the responsibility for demonstrating the relationship between road design and healthy stream hydrology. Indicate the relationship between “green street” design (as per Metro guidelines on this subject) protection, enhancement, and capitalization of riparian zones.

#### **YARDS AND PARCELS**

Individual parcels can play a significant role in ensuring that the 10% effective impervious area requirement of the design brief is met. Failing to do so would put additional stresses and costs on the road system and regional stormwater detention, which are very costly and marginally effective for maintaining stream health. Show practices for managing storm water “on-site” and “at the source.”