

City of Alexandria, Virginia

Old Town North Small Area Plan Transportation / Environmental Subcommittee Meeting #1



Wednesday, February 10, 2016

4:00 – 6:00 PM

City Hall – Room 2000



City of Alexandria, Virginia

TRANSPORTATION



Draft Principles / Objectives (Transportation)



- Guiding Principle: Further encourage an integrated multimodal transportation network using the existing street grid, and grid extensions where necessary, to promote a healthy, auto-independent lifestyle (walkability and accessibility)

Charrette Overview – Transportation Citizen Feedback



■ Opportunities:

- Promote accessibility
- Promote public transit
- Promote walkability
- Improve Fairfax Street
- Connectivity between Marina Towers, Parkway, Old Town
- Strengthen ped/bike/transit links to Metro
- Historic trolley using rail tracks – connect to Potomac Yard, Braddock, Old Town
- Promote / protect Washington Street as gateway

Charrette Overview – Transportation Citizen Feedback



- **Comments / Challenges:**
 - Traffic study needed prior to changing one-way streets
 - Public input needed with discussion of extending streets
 - Study railroad easements on private property
 - Slater's Lane grade crossing – Use for vehicles, bike, trolley
 - Complete Streets – separate bikes from pedestrians
 - Reconsider parking reductions
 - Visitor friendly parking policies
 - Future transit hub – trolley, shuttle, motorcoaches

Current Transportation Strategies



- Capital Improvement Program
- Pedestrian and Bicycle Master Plan Update
- Complete Streets program / Resurfacing
- Transit Studies / Comprehensive Operations Analysis
- Transportation Long Range Plan
- Parking Program
- Development Review process

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SUBCOMMITTEE TRANSPORTATION RELATED DISCUSSION ITEMS



Near Term Transportation Analysis

Present – Spring 2016



- Based on “What we know”
- Railbanking process
- Streetscape improvements
 - Lighting, sidewalk enhancements, etc.
- Considerations in Madison/Montgomery two-way street conversion analysis prior to detailed analysis



Mid Term Transportation Analysis

Spring – Summer 2016

- Development Projects
- Parking data / analysis
 - On-street
 - Garages

Longer Term Transportation Analysis

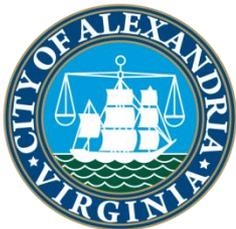


Summer – Winter 2016

- Broader transportation analysis
 - Uses input from development review analysis
 - Adds NRG land use assumptions developed through the small area planning process
 - Analyze connectivity
 - Traffic analysis
 - Analysis of converting Montgomery Street to two-way traffic
 - Non-motorized, bicycle and pedestrian planning
 - Transit concepts
 - Identify mitigation

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INFRASTRUCTURE AND ENVIRONMENTAL SUSTAINABILITY



Draft Principles / Objectives (Infrastructure / Environmental Sustainability)



- Guiding Principle: Create an eco-district model with sustainable environmental solutions that support sewer and stormwater management (including mitigation and recovery), efficient energy use including renewable energy, and clean air and soil.

Draft Principles / Objectives (Infrastructure / Environmental Sustainability)



- Objectives:
 - Design Principles / Guidelines
 - Renewable energy
 - Combined sewer
 - Green infrastructure
 - Open space

Charrette Overview - Infrastructure and Environmental Sustainability

Citizen Feedback



Opportunities

- Include an Eco-District and Measures
- Expand tree canopy and use permeable materials for better stormwater management
- Explore research and development of new methodologies related to the environment

Charrette Overview - Infrastructure and Environmental Sustainability Citizen Feedback



Comments/Challenges

- Bury electrical views
- Consider concern about electromagnetic fields from lines
- Consider existing substation and future expansion and possibility of substation needs shrinking overtime
- Look at environmental impacts from new construction such as debris, dust and traffic
- Ensure appropriate infrastructure is in place before new developments are built
- Consider low carbon and alternative fuel; vehicles and infrastructure

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**SUBCOMMITTEE
INFRASTRUCTURE AND
ENVIRONMENTAL
SUSTAINABILITY RELATED
DISCUSSION ITEMS**



Eco-District Concept



What is an Eco-District?

- An Eco-District employs a range of holistic environmental objectives to reduce the ecological footprint of the community.



ECO DISTRICT CONCEPT

Implementing Eco-City Alexandria and sustainability through the Small Area Plan Process



DIVERSITY & MIXED USE

- Achieve a variety of building types, heights, and densities that support a diverse population and allows for aging in place.
- Prioritize the provision of on-site affordable housing.
- Achieve, sustain, and utilize a balanced land use mix including key features to create a complete neighborhood to meet the community's social and economic needs.
- Explore innovative housing solutions such as micro-units and existing building conversions as feasible.
- Use open spaces to connect neighborhoods to viewsheds and public amenities such as, parks, and the Water front.

MULTI-MODAL TRANSPORTATION

- Provide a mix of land uses with an interconnected network that emphasizes walking, biking, and public transit to reduce vehicle trips.
- Prioritize public transport, biking, and walking as an economic, environmental and public health tool.
- Enable adoption of low-emission & electric vehicles through charging and clean fuel infrastructure.

ENERGY AND GREEN BUILDING

- Prioritize energy efficiency and high performance and enhanced green building.
- Emphasize on site renewable and district-scale energy systems
 - o solar
 - o microgrid
 - o ground source heat pumps
 - o storage

CARBON FOOTPRINT REDUCTION

- Prioritize clean, renewable and low-carbon energy sources locally and from external utility distribution.
- Promote 'Smart Cities' technologies.

WATER QUALITY

- Address impact of combined sewer overflows (CSOs).
- Implement stormwater management through green infrastructure and low-impact development.
- Increase tree canopy and enhance green space through appropriate planting, native trees and green roofs.
- Conserve water through re-use and use of low-flow fixtures.

MEASURES

- Energy and Greenhouse gas emissions per capita.
- Increase in open space.
- Percent of energy supply from renewable resources.
- Number of green / roofs, light colored pavements and increase in tree canopy coverage.
- Number of green infrastructure projects.
- Number of acres with separated sewer system.
- Increase in transit ridership / service.
- Increase in number of bike / pedestrian trips.

OTN ECO-DISTRICT OVERARCHING STRATEGY



Consistent with the Eco-City Charter, overarching strategy emphasizes application of sustainable techniques that are above and beyond existing requirements and building codes, such as the following:

- City's stormwater requirements, CSO policy
- City's current Green Building Policy
- Energy efficiency under 2010 Virginia Building Code

OTN ECO-DISTRICT OVERARCHING STRATEGY



Overall - Incorporate specific goals in the Environmental Action Plan regarding transportation, open space, tree canopy, energy and climate change, etc.

Diversity & Mixed Use

- Increase open space and tree canopy

Water Quality

- Assess present and future infrastructure (stormwater, CSO) requirements for this SAP and apply green Infrastructure where feasible and cost effective

Energy and Green Building

- High-performance energy efficient new building designs
- Roofs are to have more than one use such as open space, a green roof, power generation

OTN ECO-DISTRICT OVERARCHING STRATEGY



Carbon Footprint Reduction

- Apply innovative clean and renewable energy technologies including solar energy and/or natural gas
- Energy-efficient exterior and street lighting
- Facilitate increased use of electric vehicles

Challenge: Strategy for existing buildings and developments aimed at

- Increasing energy efficiency and reducing carbon footprint
- Reducing water usage and stormwater discharge

Subcommittee Discussion



- Draft Goals for Eco-District implementation
- Draft Timeline for Eco-District implementation
- Are they complete?
- What should change?

OTN Eco-District: Potential Goals for Discussion



Short-term

- Acres treated by green infrastructure for stormwater management
- Percent tree canopy
- Acres of open space per 1,000 population
- Voluntary annual energy reporting
- Percent existing buildings having energy audit

Medium-term

- New building specific energy consumption
- Facilities that accommodate electric vehicle use
- City's greenhouse gas reduction targets

OTN Eco-District: Potential Goals for Discussion



Long-term

- Per capita carbon dioxide emission
- City's greenhouse gas reduction targets

NEXT STEPS



- **ADVISORY GROUP MEETING #5 -
SUBCOMMITTEE REPORT OUT TO ADVISORY
GROUP (Date To Be Determined)**
- **MARCH – STUDY/TESTING**
- **APRIL – NEXT SUBCOMMITTEE MEETING**

OTN SAP UPDATE



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