



GUIDING PRINCIPLES

MPO TRANSIT STUDY



TECHNICAL MEMORANDUM

MAY 17, 2007

Hillsborough County
Metropolitan Planning Organization
County Center, 18th Floor
Tampa, Florida 33602
813-272-5940
www.hillsboroughmpo.org

TABLE OF CONTENTS

Preface	3
Values	3
Vision	3
Guiding Principles	4
Introduction	5
Development of Value Themes in Hillsborough County	5
Value Themes	6
Allocation of Value Themes to Land Use, Mobility, Environment and Economic Vitality	6
Mobility	6
Land Use	7
Environment	8
Economic Vitality	9
Value Themes Expanded	10

VALUES, VISION AND GUIDING PRINCIPLES

HILLSBOROUGH MPO TRANSIT STUDY

PREFACE

Values

Values are community driven. In many cases, such as protection of life and property, values become law. Some values are inherently accepted, without benefit of code or law, such as respect for the flag or sympathy for one who has experienced a death in the family.

Many values are unilaterally accepted by a cross section of the community. Using clean air as an example, most everyone in the community will value clean air, though there may be considerable disagreement on how to achieve it. Values usually represent the core of our belief structure and they are strongly defended by the community.



Vision

A vision articulates an approach to fuller realization of the value. Vision is a path to achieving and sustaining one or more values. For example, if more transit choices are available, one is less likely to rely upon the automobile, hence air pollutants, logically, should be reduced. Transit choice becomes a vision for achieving the value of clean air.



Vision expresses an alternative that more fully realizes the value. If more transit choices are available, one is less likely to rely solely upon the automobile. The vision is not all things to all people. Not all transportation users can or will utilize transit. To be effective, the transit vision should attempt to serve the transit dependent population, provide a competitive alternative for the commuter population and offer an attractive choice to other transportation users. To be successful, the transit vision should occur in a safe, cost effective and convenient manner.

Guiding Principles

A guiding principle captures multiple values. Generally, a guiding principle addresses a family of related values. For transportation, Mobility is a guiding principle. Everyone wants to access their homes, workplaces, entertainment centers and shopping malls in a direct, efficient and timely manner. Mobility captures many values including the value of time, convenience, safety and efficiency. Guiding Principles are very much like values in that most in the community accept, if not embrace them. Likewise, the Environment is a guiding principle. Evoking our clean air example, one can readily accept that clean air is one value component of many when describing a healthy Environment. In the context of transportation, a healthy Environment includes a cluster of values such as clean air, clean water, reduced noise levels, less visual clutter along the travel way.



Values and vision start at the basic neighborhood and community level and can be discerned through a public participation process including charrette, workshops and open meetings. The vision can be sharpened through focus meetings with larger, institutional groups such as major employers, colleges and universities, and other transportation providers such as state/local DOT's, public transportation providers, airports, marine ports, freight rail and truck rail shippers.

INTRODUCTION

Development of Value Themes in Hillsborough County

During November and December 2006, eight focus group public workshops were held within communities across Hillsborough County as the kick-off to the MPO Transit Study. The goal of this initial series of public meetings was to explore deeply-held and internalize values of Hillsborough residents and stakeholders as they related to the broader quality of life issues of community in



which they lived. The values that emerged from this process were not intended to be targeted directly to transportation, urban growth and transit, yet surprisingly these themes dominated the field when scored and ranked. The workshop participants in locations across the county provided a diverse set of core values and key issues.

The following common value themes emerged from the workshop series:

- I want more quality time spent with my family and friends, and less time in traffic.
- Give me more reliable travel times.
- I like a growing economy, but if traffic grows with it, will gridlock choke the economy?
- Let's grow our small towns and save some open space rather than sprawling everywhere.
- Traffic cuts through my community. I want to feel safe on my street, and I want my child or elderly parent to be safe, too.
- I want goods, services, and jobs to be more accessible, especially if I don't or can't drive.

VALUE THEMES

Allocation of Value Themes to Land Use, Mobility, Environment and Economic Vitality

The value themes derived from the Hillsborough public workshop process can be translated and allocated to transportation and community related principles such as **Land Use, Mobility, Environment** and **Economic Vitality**. These principles can be measured both quantitatively and qualitatively. The results yield measures of effectiveness (MOEs) for the various transportation alternatives which reflect the value themes of the Hillsborough community.



The six value themes (A through F) are allocated to the four transportation and community principles to illustrate how community values align with the guiding principles of land use, mobility, environment and economic vitality. Accompanying the value themes and guiding principles are measures of effectiveness which can be applied to evaluate the various transit

opportunities under consideration.

The following discussion provides the core Guiding Principles (**Mobility, Land Use, Environment and Economic Vitality**). The value themes which support the Guiding Principles are presented along with measures of effectiveness. Measures of effectiveness evaluate how various transportation opportunities respond to the need. The measures of effectiveness will continue to be refined as the Transit System Plan advances through project development stages.

Mobility

What have we heard?

- I want more quality time spent with my family and friends, and less time in traffic.
- Give me more reliable travel times.



- I want goods, services, and jobs to be more accessible, especially if I don't or can't drive.
- Traffic cuts through my community. I want to feel safe on my street, and I want my child or elderly parent to be safe, too.

How can we measure mobility?

- Level of Service – measure of capacity & congestion for streets and intersections
- Travel Time – time spent in travel during peak or off peak hours
- Travel Speed – average speed on a specific link in the peak or off peak hours, can also be expressed as average speed for all users on the transportation system in a 24 hour period
- Travel Delay – time spent in travel when Level Of Service is deficient
- Cost of Delay – value of lost labor and freight during delay conditions
- Headways for transit vehicles – time between bus/train arrivals
- Proximity of bike facilities at transit stops



Land Use

What have we heard?

- I want goods, services, and jobs to be more accessible, especially if I don't or can't drive.
- Let's grow our small towns and save some open space rather than sprawling everywhere.
- I like a growing economy, but if traffic grows with it, will gridlock choke the economy?



How can we measure land use?

- Density of residential units and employment within 1 mile of transit stations/stops.
- Number of residents served within 1 mile of transit stations/stops.
- Number of workers served within 1 mile of transit stations/stops.
- Transit dependent (low income, elderly) population served within 1 mile of transit stations/stops.
- Availability and number of community facilities within 10 minute walk from stations.
- Acreage of public space/parks within 1 mile of transit stations/stops.
- Assessed value comparisons base year vs. future years.
- Existence of transit oriented development (TOD) zoning in station areas.

Environment

What have we heard?

- I like a growing economy, but if traffic grows with it, will gridlock choke the economy?
- Let's grow our small towns and save some open space rather than sprawling everywhere.
- Traffic cuts through my community. I want to feel safe on my street, and I want my child or elderly parent to be safe, too.



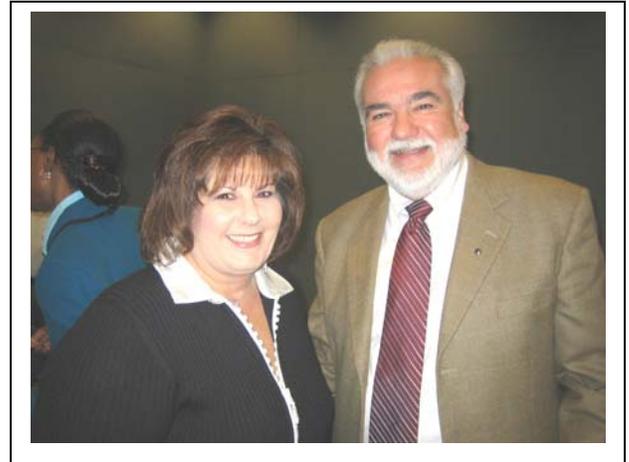
How can we measure the environment?

- Monitor air quality components/emissions (ozone, carbon monoxide, oxides of nitrogen and sulfur).
- Reductions in regional fuel consumption.
- Reductions in wetland and forested habitat impacts through transit oriented development.
- Auto crash reductions through increased use of transit.
- Increased acreage in open space due to amenities of TOD.
- Reduced acreage in auto dependent residential and commercial development.

Economic Vitality

What have we heard?

- I like a growing economy, but if traffic grows with it, will gridlock choke the economy?
- I want goods, services, and jobs to be more accessible, especially if I don't or can't drive.



How can we measure economic vitality?

- Cost of Delay – value of lost labor and freight during delay conditions.
- Assessed value comparisons base year vs. future years.
- Job growth in TOD station areas, base year vs. future years.
- Tax growth in TOD station areas, base year vs. future years.
- Value of public services allocated over a smaller geography vs. auto dependent residential/retail land uses.

VALUE THEMES EXPANDED

Broadening the discussion of Guiding Principles to institutional and stakeholder groups, the application of values to the discussion takes on a more business like and financial feasibility tone. The institutional and stakeholder groups understand the values and principles which drive a healthy transportation system. More specifically, these constituents are looking for funding and a means of achieving the vision in a cost effective and capital efficient manner. In a complex society where resources are constrained, maximizing the effectiveness of public investment is as keen a practice as private investment.

It is prudent at this point to broaden the discussion of Guiding Principles to address the realities of the public and private marketplace for capital. Construction costs and the ongoing operation and maintenance of complex transit systems demand more and more of scarce public dollars. In order to secure the funds necessary to construct and maintain these systems a rigorous, transparent and defensible screening of benefits and costs is necessary to justify the significant investment of public dollars these projects require. Prioritization and allocation of capital funds will need to be adopted and adhered to. A realistic schedule over and beyond the planning horizon of the typical long range transportation plan must be recognized in the adoption of an ambitious transit system plan. Regular updates to this plan will be required to reflect the realities of the economy as well as growth and ridership potential in the service areas. Fortunately, the Hillsborough community workshops and derivative common value themes address just these issues. Value theme B speaks to system reliability and efficiency. Value theme C addresses the cost effectiveness of public investment to assure that economic vitality can be sustained in the community.



For most transit development today, the common wisdom anticipates FTA, through the New Starts program will pick up 50% of the capital cost while state and local funding provide a split of the remaining. Unfortunately, successful New Starts Full Funding Grant Agreements and the subsequent remaining state and local share are the exception and not the rule. The New Starts program is rigorous, requires at risk seed money from the locality or transit provider up front and the FTA guidelines and assumptions that a transit agency starts a project with will unlikely remain in force for the length of the project. FTA support requires full NEPA compliance in the environmental documentation, a robust and regional mode split

travel demand model and a community wide willingness to support and preserve transit supportive land use.



In order to maneuver in these waters, it is essential that all, if not most, of the transportation agencies with a stake in the transportation system participate and support the transit component. To do otherwise, results in redundant infrastructure and inefficiency in public expenditure. Agencies with significant roles in the transit component of the long range transportation plan for Hillsborough include the MPO, FDOT, HART, the Airport, the Port and the new Regional Transit Authority (RTA).

On the next two pages, the following flowchart and table recognizes the public and institutional concerns regarding the financial and system wide operational issues which will face the transit provider. In order to achieve the overall vision, Guiding Principles should acknowledge the fiscal and system wide thresholds necessary to achieve an integrated transit network. The flowchart illustrates the process and evaluation efforts, combining corridor level and system wide concerns from multiple institutions to arrive at a set of Guiding Principles and Measures of Effectiveness. The Guiding Principles at this stage integrate economic vitality into the land use principle and introduce the financial and system development principle necessary for successful funding and institutional concerns on a regional basis.

The table on the last page provides a framework illustrating how Guiding Principles influence not only system wide planning and integration, but also the alternatives process on a project level.

Figure 1. Developing Guiding Principles from Vision and Vision from Values (Measures of Effectiveness as Evaluation Criteria)

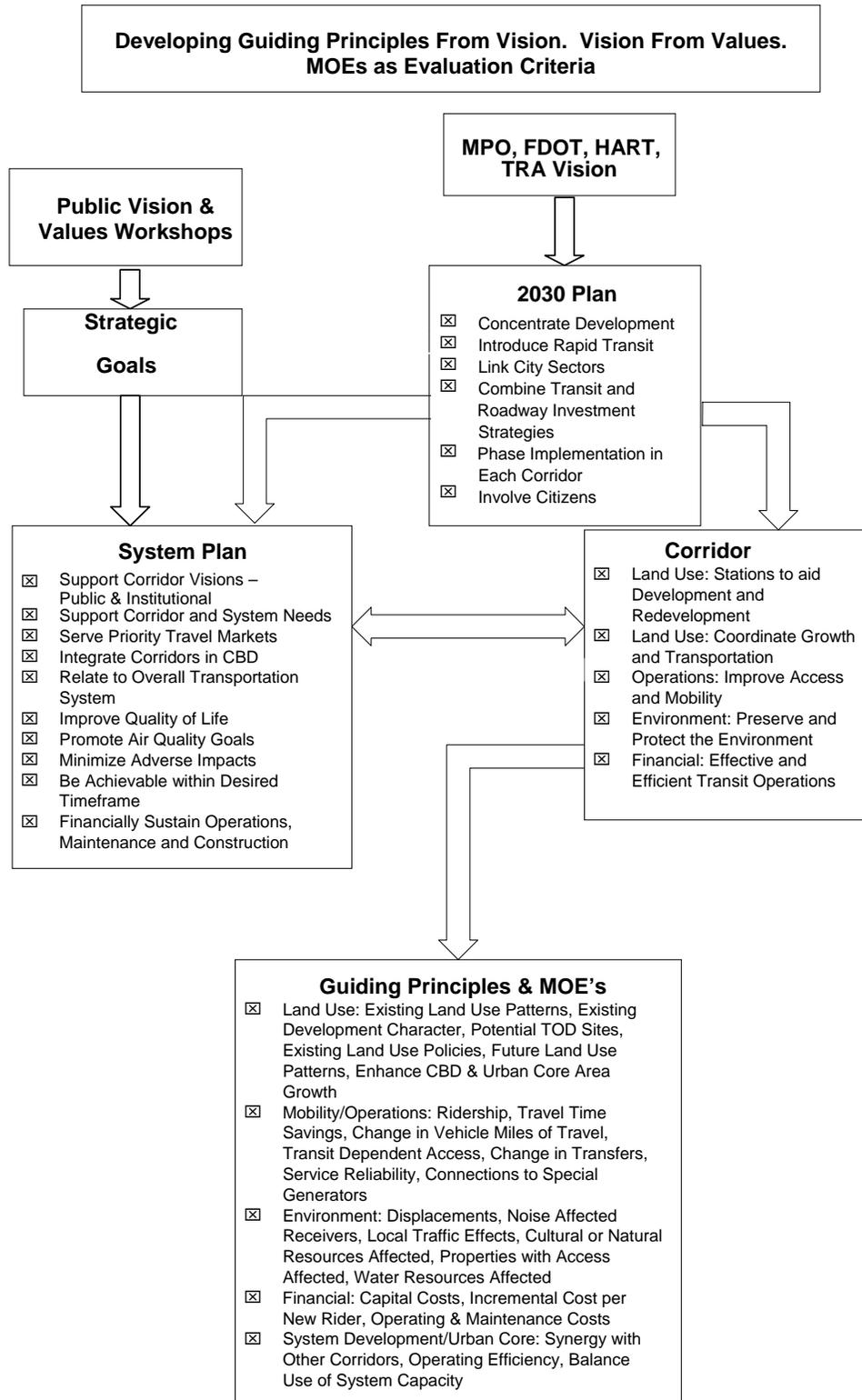


Figure 2. Alternatives Influenced by Guiding Principles and Evaluation Criteria (Measures of Effectiveness)

<i>Objective</i>	Locally Preferred Alternative Selection	Overall System Optimization	Implementation Phasing
Land Use	<ul style="list-style-type: none"> Existing corridor & station area land use patterns Existing corridor & station area development character Potential Transit-Oriented Development (TOD) sites Existing land use policies & tools for station area & corridor Future corridor & station area land use patterns Enhance CBD & core growth areas 	<ul style="list-style-type: none"> Maximizes opportunity to meet Values Workshop, Dec 2006 Fulfill other institutional and regional goals – FDOT, HART, TRA and others 	<ul style="list-style-type: none"> Near-term opportunities to shape emerging growth/redevelopment Land use policies in place
Mobility/ Operations	<ul style="list-style-type: none"> Ridership – total and new Travel time savings Change in vehicle miles of travel Transit dependent access Change in transfers Service reliability Connections to activity centers, special event & cultural sites 	<ul style="list-style-type: none"> Ridership – total and new Ability to attract desired travel markets Travel time savings 	<ul style="list-style-type: none"> Immediate need to improve access to employment (CBD, core growth areas & reverse commute locations) Immediate need for congestion relief Opportunity to implement interim (TSM-type) service improvement
Environment	<ul style="list-style-type: none"> Displacements Noise affected receivers Local traffic effects Cultural or natural resources affected Properties with access affected Water resources affected 	<ul style="list-style-type: none"> Minimize disruptions (communities, natural areas, cultural resources, etc.) Air quality improvements (mobile source emission reductions, Long Range Plan & TIP conformity) Environmental Justice (equity in distribution of benefits and costs, past investments relative to EJ populations) 	<ul style="list-style-type: none"> Minimize disruptions (communities, natural areas, cultural resources, etc.) Air quality improvements (mobile source emission reductions, Long Range Plan & TIP conformity) Environmental Justice (equity in distribution of benefits and costs, past investments relative to EJ populations)
Financial	<ul style="list-style-type: none"> Capital costs Incremental cost per new rider Operating & maintenance costs 	<ul style="list-style-type: none"> Total system cost relative to funding capacity (capital cost, operating & maintenance subsidy) Ability to attract federal and state funds Opportunities to leverage other sources 	<ul style="list-style-type: none"> Interim system cost relative to funding capacity (capital cost, operating & maintenance subsidy) Ability to attract federal and state funds Opportunities to leverage other sources
System Development	<ul style="list-style-type: none"> Synergy with other corridors (through-service and connections) Operating efficiency Balance use of system capacity 	<ul style="list-style-type: none"> Passenger distribution in CBD and core growth/activity centers Balance use of system capacity Responsiveness to urban design & economic development principles System expansion capacity and capability 	<ul style="list-style-type: none"> Synergy with other corridors (provide service connections) Need to phase system implementation Corridor readiness for program implementation (relative availability of right-of-way and station area land, land use policies in place, public acceptance)