Ghyabi & Associates

2040 Long Range Transportation Plan

for Volusia Transportation Planning Organization

April 23, 2014

LRTP Subcommittee Recommended Approval

(Drafts April 11, 2014)

A. Vision Statement for the 2040 LRTP

B. Goals, Objectives and Performance Measures

C. Constrained Trend Socioeconomic Data Forecast Methodology

Vision Statement For 2040 LRTP

Our transportation system will provide a safe and accessible range of options that enhances existing urban areas while providing mobility in a fiscally responsible, energy efficient, and environmentally compatible manner. This integrated system will support economic development, allowing for the effective movement of all people, goods, and services necessary to maintain and enhance our quality of life.

Goals, Objectives & Performance Measures

Goals, Objectives & Performance Measures

- Goals represent the desired end result
- Objectives are the criteria to achieve each Goal
- Performance Measures are the specific measurements by which the Plan is evaluated

Six Goals For 2040 LRTP

Goal 1 Provide a Balanced and Efficient Multimodal Transportation System	**Goal 2** Support Economic Development
Goal 3 Enhance Connectivity and Transportation Choices	**Goal 4** Improve Safety and Security
Goal 5 Continue to Provide and Create New Quality Places	**Goal 6** Provide Transportation Equity and Encourage Public Participation

Federal, State & Regional Guidance

Federal

- MAP-21 Implementation Schedule
  - Rulemaking for Performance Measures to be completed Spring 2015
- SAFETEA-LU Planning Factors

State

- Florida Transportation Plan – "Horizon 2060"
- Florida Strategic Highway Safety Plan

Regional

- Strategic Regional Policy Plans (SRPP)
  - East Central Florida Regional Planning Council - "East Central Florida 2060 Plan"
- Expanded TPO Planning Area
  - Northeast Florida Regional Council - "Strategic Directions"

Suggested Goals

- Clear & Succinct Goal Statements
- New Goal Emphasizing Safety and Security
- Federal and State Emphasis on Highway Safety and Transit Safety

Goal 1: Provide a Balanced and Efficient Multimodal Transportation System

Objective	Performance Measure
1.1 - Balanced Multimodal System	The Plan incorporates multimodal projects that increase the mobility to economic centers for all users, including pedestrian, bicycle, transit and automobile
1.2 - Roadway Efficiency	Percent of lane miles with V/C ratio greater than 1.0
	Total daily vehicle hours of delay
	Average Trip Length
	The Plan includes Transportation Systems Management (TSM), Intelligent Transportation Systems (ITS) and Transportation Demand Management (TDM) projects and programs
1.3 - Transit Efficiency	Total transit trips per capita
	Total passengers per hour
1.4 - Financial Efficiency	The Plan includes existing and alternative federal, state and local revenue sources, user fees and private contributions
	The Plan is financially feasible
1.5 - Cost Effectiveness	The Plan includes a prioritization process that incorporates cost/benefit considerations

Goal 2: Support Economic Development

Objective	Performance Measure
2.1 - Economic Benefit	Jobs created resulting from transportation investments
2.2 - Freight Movement	Average V/C on designated truck routes
2.3 - Access to Intermodal Facilities	Number of lane miles on roads connecting rail, port and airport facilities
2.4 - Transit Access to Employment	Percent of total employment within ¼ mile of transit service

Goal 3: Enhance Connectivity and Transportation Choices

Objective	Performance Measure
3.1 - Multimodal Transportation Options	Percent of roadway lane miles with sidewalks
	Percent of roadway lane miles with bicycle facilities
	Percent of roadway lane miles with transit routes
	Total miles of multi-use paths and trails
3.1 - Interconnectivity Between Modes	The Plan includes projects that provide interconnectivity between modes
3.2 - Connectivity Between Activity Centers	The Plan includes transportation corridors connecting designated Activity Centers
3.3 - Connectivity Between Jurisdictions	Roadway corridors crossing political jurisdictions have same functional classification and number of lanes
	Number of transit routes connecting different jurisdictions

Goal 4: Improve Safety and Security

Objective	Performance Measure
4.1 - Roadway System Safety	Crash rates per million VMT
	Total number of fatalities/severe injuries
4.2 - Bicycle and Pedestrian Safety	Total number of pedestrian and bicycle crashes
4.2 - Transit System Security & Safety	Certification of Responsible Agencies
4.3 - Emergency Evacuation	Average V/C of evacuation routes

Goal 5: Continue to Provide and Create New Quality Places

Objective	Performance Measure
5.1 - Land Use Efficiency	The Plan prioritizes projects that promote TOD or Smart Growth principles, including Complete Streets
	The Plan promotes compact, walkable, mixed use development and redevelopment
5.2 - Protect and Enhance Existing Communities	The Plan incorporates provisions to ensure projects preserve and enhance existing communities
5.2 - Comprehensive Planning	The Plan is consistent with local government comprehensive plans
5.3 - Natural Resource Protection	The Plan minimizes impacts to environmentally sensitive areas and protects natural resources
	Transportation projects recommended for inclusion in the 5-Year Work Plan should be screened through the Efficient Transportation Decision Making (ETDM) process
5.4 - Air & Water Quality Protection	The Plan maintains or reduces per capita greenhouse gas emissions
	Transportation projects in the Plan include provisions for stormwater management

Goal 6: Provide Transportation Equity and Encourage Public Participation

Objective	Performance Measure
6.1 - Public Involvement	The Plan includes public notice and access to public workshops and meetings to all jurisdictions of the TPO
	A Public Involvement Plan has been adopted that includes outreach to the traditionally under-served and under-represented
6.2 - Transportation Equity	The Plan avoids, minimizes, or mitigates adverse impacts to low income and minority populations
6.3 - Transit Access to Low Income and Transit Dependent Populations	Percent of households below poverty level or no auto ownership within ¼ mile of transit service

Population & Employment Forecast

Why Forecast?

- Necessary input to the transportation model
- Highlight the connection between land use planning and transportation outcomes
- Increase awareness of neighboring jurisdictions' plans
- Investigate how changes to the land use approach might affect the transportation system

Analyzing Forecast Scenarios

Constrained Trend Socioeconomic Data

- Development is similar in type to the last 30 years
- Up to date and consistent with Comp Plans
- Committees supply a check for local accuracy

Land Use Alternative

- Builds on the Trend Forecast
- Optimizes land use efficiency
- Collaborative process to test opportunities

Forecast Inputs

- Socioeconomic (SE) Data for uses that generate traffic
- SE Data by each Traffic Analysis Zone (TAZ)
  - ZDATA1 Population Data
    - Multi-family
    - Single Family
  - ZDATA2 Employment & School Data
    - Service
    - Commercial
    - Industrial
    - School Enrollment

Constrained Trend Methodology

- Start with Volusia County data from the 2035 LRTP Update
- Use new data to update the previous projections
- Input and review from LRTP Subcommittee and TCC
- Flagler County data is being developed by FDOT

Review 2035 LRTP Dataset and Analyze SE Datasets Based on Changes Existing and Projected

- 2010 Base Year Data Approved
  - What didn't get built that was expected?
  - What got built that wasn't expected?
- New Control Totals for Volusia County
  - Projected population growth through 2040
  - From UF Bureau of Economic and Business Research (BEBR)

Review of Forecasted Population Data

- New 2010 Base Year
  - What didn't get built that was expected?
  - What got built that wasn't expected?
- New Control Totals for Volusia County

2035 LRTP	Population
2000 *Actual*:	443,575
2005 *Actual:*	494,631
2035 *Forecasted*:	692,763

2040 LRTP	Population
2010 Actual:	494,593
2013 Actual:	498,978
2040 *BEBR forecast:	592,700 (med.)

*Bureau of Economic Business & Research (BEBR)

Overview of Analysis and Review

- Comparing 2010 actuals to previous 2015 projections
  - Despite overall growth being lower than expected, some growth did occur in unexpected places
- Sent 2035 ZDATA2 (employment) to LRTP & TCC for review and requested input re: large development projects (new existing & projected)
  - Received input from Volusia County Regarding **Farmton DRI**
- Consultant reconciling 2035 growth data to 2040 model TAZ structure

Detailed look at BEBR Forecasts

- 2040 BEBR Projections for **Volusia County**

	BEBR Med.	Change	2035 Plan	Change
(a) 2005	494,631		494,631	
(a) 2010	494,593	*-38*		
(a) 2013	498,978	*4,385*		
2015	507,700	*8,722*	529,492	*30,514*
2020	530,500	*22,800*	**579,445**	*49,953*
2025	550,500	*20,000*	**630,685**	*51,240*
2030	567,200	*16,700*	662,705	*32,020*
2035	**580,900**	*13,700*	692,763	*30,058*
2040	**592,700**	*11,800*		

IMPACT of NEW DRI's

	New BEBR	*Growth*	2035 Plan	*Growth*	Farmton	*Farmton Growth*	*% of BEBR*
(a) 2005	494,631		494,631				
(a) 2010	494,593	*-38*					
(a) *2013*	*498,978*	*(4,385)*					
2015	507,700	*13,107*	529,492	*30,514*	2,491	*2,491*	19%
2020	530,500	*22,800*	**579,445**	*49,953*	7,091	*4,600*	20%
2025	550,500	*20,000*	**630,685**	*51,240*	11,691	*4,600*	23%
2030	567,200	*16,700*	662,705	*32,020*	16,291	*4,600*	28%
2035	**580,900**	*13,700*	692,763	*30,058*	**20,891***	*4,600*	34%
2040	**592,700**	*11,800*			25,491	*4,600*	39%
2045					30,091	*4,600*	
2050					34,691	*4,600*	
2055					39,291	*4,600*	
2060					**43,890***	*4,600*	

* Based on 10,995 units by 2035 and 23,100 units by 2060
* Farmton projection for 2040 is equal to 26% of the overall BEBR growth projected from 2010-2040
- (a) Actual

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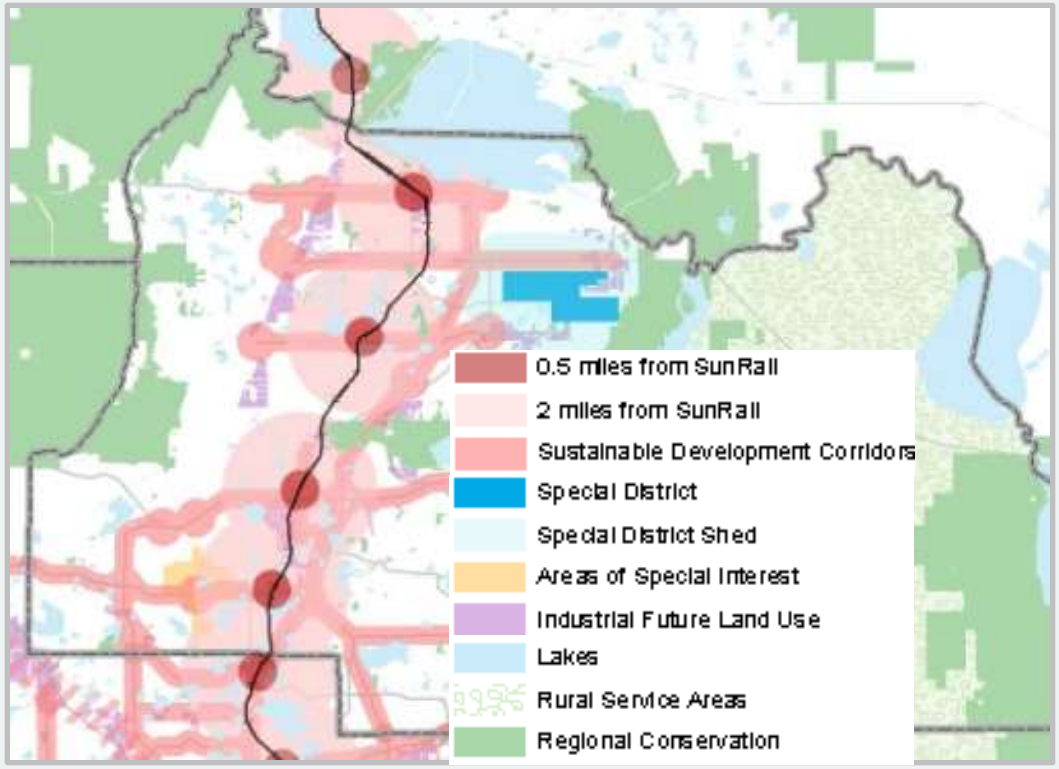
Alternative Scenario Considerations

- Highlight areas where compact, walkable development has the most impact
- Increase jobs/housing balance
- Support multiple modes (transit, walking)
- Reduce reliance on regional highway system for everyday trips



Example of Walkability Measures

- An *Atlanta Study* measured:
  - Land Use Mix
  - Density
  - Connectivity
  - Correlated to:
    - Lower VMT
    - More walk/bike trips
    - Lower emissions

"This pattern holds true regardless of many other factors … age, whether they had a driver's license, their household income, vehicles per household, household size, transit accessibility and regional location" - SMARTRAQ report

THANK YOU