

MEMPHIS AREA TRANSIT AUTHORITY

Midtown

Alternatives Analysis

TECHNICAL MEMORANDUM: **12**
Assessment of Development Potential



April 2016

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Section 1|

Executive Summary

In April 2014, the Memphis Area Transit Authority (MATA) initiated the Midtown Alternatives Analysis (AA) study. The grant for the study was provided by the Federal Transit Administration (FTA) under federal legislation which stresses the importance of the linkage between metropolitan planning and environmental processes. The legislation also places a strong emphasis on the local planning process influencing the ultimate selection of a mode of transit along a preferred corridor. Conducting an AA provides essential information to make the case to local decision-makers addressing the needs, benefits, issues, and costs of a given corridor of a local high capacity or fixed guideway transit project.

The Study's primary purpose is **to examine transit needs and the potential for providing a higher quality transit service within Midtown Memphis and surrounding neighborhoods**. The following study goals and objectives were developed:

- ENHANCE:** Make transit service more compelling
- CONNECT:** Connect neighborhoods/improve local circulation
- DEVELOP:** Support local and regional economic development goals
- THRIVE:** Strengthen neighborhoods and business areas
- SUSTAIN:** Create a long-term sustainable environment

The Federal Transit Administration (FTA) AA process requires that a Locally Preferred Alternative (LPA) is identified. The LPA reflects the outcomes of technical analyses and input heard from community participants, and is responsive to the five goals defined above.

Investing in premium transit can also attract residential and commercial growth by spurring development of underutilized areas. The project team analyzed the potential for each corridor to spur residential and commercial growth by assessing the amount of undeveloped and underdeveloped land that would be served by, and that are good potentials for development within a half-mile of each corridor. As the following analysis shows, each corridor has varying potentials. Subsequent detailed evaluation of specific corridors in the future will demonstrate their capacities for development.

Section 2|

Evaluation of Underutilized Parcels

Introduction

The Alternatives Analysis (AA) evaluation process consists of a three-step process of screening potential corridors for the High Capacity Transit (HCT) service. These three steps are: Pre-screening, Tier 1, and Tier 2 Screening. Initially, based on specific considerations, a range of route options (26) were evaluated for their ability to meet the study's goals.

These considerations include:

- Input from the public and an established Technical Advisory Committee
- Ridership on existing routes
- Population and employment densities along corridors
- Service to major activity centers/planned developments
- Streets that would be suitable for High Capacity Transit (HCT) service

During the pre-screening process, these initial options were evaluated against three criteria:

- Does the corridor have adequate terminal anchors?
- Does it meet MATA's service design guidelines?
- Does it have adequate population/ employment density to generate demand for High Capacity Transit service?

This process reduced the initial options from 26 to 16 alignments which were then advanced into Tier 1 screening. These 16 alignments were then screened using a set of 15 criteria, and advanced into Tier 2 for further screening. Out of these evaluations came seven corridor alternatives which were further analyzed. These corridors and characteristics include are detailed in **Table 1**.

Table 1: High Capacity Transit Corridors and Characteristics

Alternative	Corridor Description	Mode of Travel	Corridor Length (Miles)
6	Airport via Poplar & Airways	BRT	11.75
7	Germantown via Poplar	BRT	7.81
8	University of Memphis via Poplar, Cooper & Union	BRT	8.63
9	Extension of Madison Ave Streetcar to Fairground	Streetcar	2.82
11	University of Memphis via Union & Poplar	BRT	8.59
23	Elvis Presley, Cleveland, Watkins Crosstown	BRT	11.04
26	University of Memphis via Union & Central	BRT	9.1

The purpose of this evaluation was to compare the amount of land that was available for redevelopment and/or development for each of these seven alternatives. The following provides an overview of the methodology for completing the evaluation and a summary of the results.

Methodology

To understand the potential redevelopment and development along each of the seven alternatives identified for High Capacity Transit service operations, an assessment of the availability of land was completed. This was completed by using existing parcel data from Shelby County, and property assessment data from the Shelby County Assessor's Office. Two pieces of information were critical to assess whether a parcel is underutilized or not – Total Land Value and Building Value. The Building Value is necessary to determine the value of the building compared to the land that it sits on. If the land is valued more than the building, then there could be a better use for that particular piece of property, purely from a property valuation point of view. This ratio is known as Underutilized Ratio, and to determine this ratio, the Building Value is divided by the Land Value. If the ratio is less than 30 percent, then that parcel is considered to be underutilized.

BUILDING VALUE / LAND VALUE = UNDERUTILIZED RATIO

To determine the amount of underutilized land along each of these alternatives, parcels within a half-mile of each corridor were selected. The total acreage of underutilized land was calculated and is summarized in **Table 2**. **Figure 1** provides some samples of the underutilized and vacant land along the various alignments. **Figure 2** illustrates all of the underutilized parcels along these corridors.

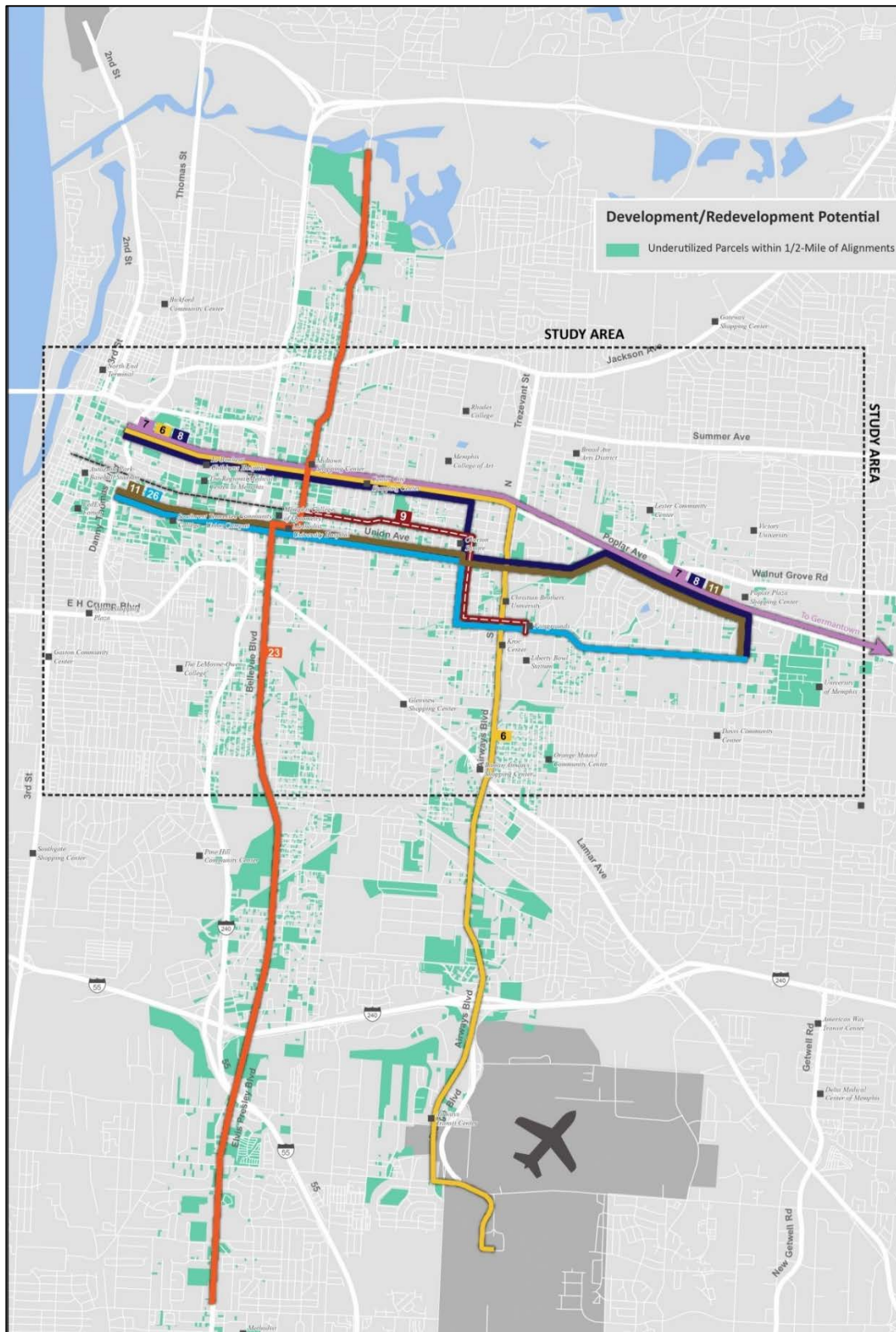
Table 2: Total Acres of Underutilized Land by Alignment

Category	Tier 2 Alignments						
	6	7	8	9	11	23	26
Total acres within ½-mile of alignment	5,692	8,880	4,139	2,171	4,173	6,228	3,912
Underutilized acres within ½-mile of alignment	1,272	1,507	744	291	803	1,396	800
% Underutilized	22%	17%	18%	13%	19%	22%	20%

Figure 1: Samples of Underutilized or Vacant Land along the Alignments



Figure 2: Map of Underutilized Parcels within 1/2-Mile of Tier 2 Alignments



Conclusion

As discussed earlier, the FTA AA process requires that a Locally Preferred Alternative (LPA) is identified. Alternative 11, which connects Downtown Memphis with University of Memphis via Union and Poplar Avenues, has been identified as the LPA. This improved service level will accommodate increasing demand from existing riders, businesses along the corridor, and college students, and also encourage local residents to consider transit as an attractive daily alternative to driving.