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Environmental Justice Analysis of the Encompass 2035

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INTRODUCTION

In August 2005, Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was signed into law. SAFETEA-LU placed additional emphasis on environmental stewardship and the consideration of environmental issues as a part of metropolitan and statewide transportation planning. Each of these aspects strengthens the linkages between planning and environment which creates opportunities to examine the potential for environmental justice (EJ) issues early on and throughout the project delivery process.

There are three fundamental environmental justice principles:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by low-income and minority populations.

The Encompass 2035 Plan is guided by these principles. The following report documents the methodology used to review the environmental justice considerations of the Encompass 2035 Plan and analyzes the data gathered for the review. Further information on the participation of various groups in the development of the Plan is included in the [FY 2011 UPWP Report, Task 3.01\(8a\) Documentation of FY 2010 Public Involvement Activities](#). Another report, [FY 2011 UPWP Report, Task 1.01\(6\) Evaluation of Impacts of Encompass 2035](#), explores a broader array of potential Plan impacts.

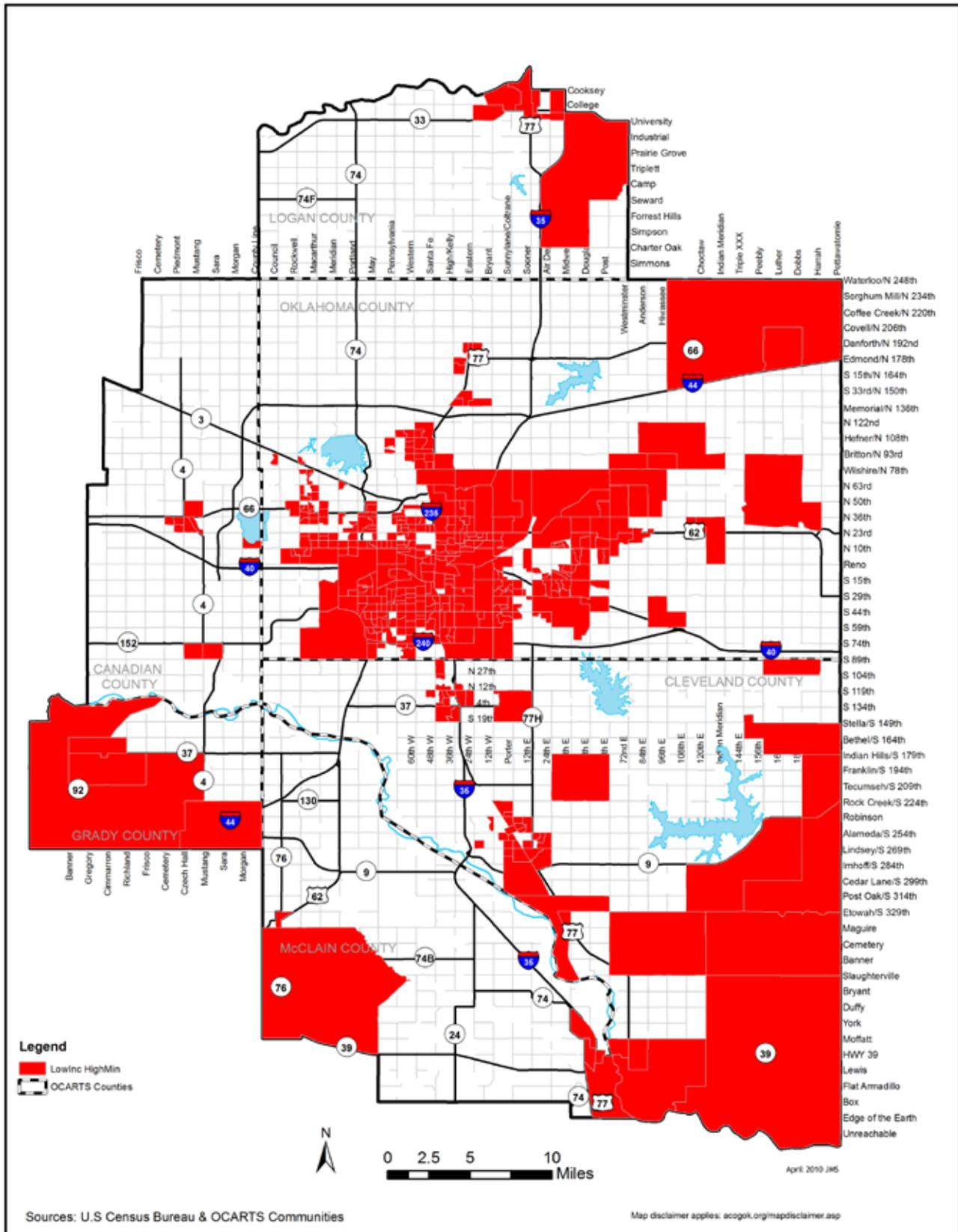
In the previous regional transportation plan (2030 OCARTS Plan), traffic analysis zones (TAZs) were used as the level of geography to analyze environmental justice issues. However, between 2000 and 2005, the number of TAZs in the region was increased from 848 to 2,450 in an effort to refine the ACOG's travel demand model. The increase in TAZs created a large discrepancy in zonal size between the downtown area (i.e. one block) and those zones on the periphery of the study area, which may be six square miles or greater. As a result, census block groups were chosen as the level of geography for the Encompass 2035 Plan EJ analysis, as they are more consistent in size and conform to something similar to a neighborhood.

In order to assess the effects of the proposed Encompass 2035 plan, staff created a map of environmental justice areas and non-environmental justice areas utilizing data gathered on traditionally underserved populations within the OCARTS region (Figure 1). Block groups were identified that had over a 50% minority population¹ and/or income 80% or less of the State Per Capita average². Staff then analyzed how the proposed Encompass 2035 transportation improvements were to be allocated throughout the OCARTS area in regards to the EJ areas and the non-EJ areas. Specifically, staff analyzed the following modal improvements: street and highway, transit, bike, and sidewalk.

¹ The census definition of minority groups includes Black, Asian, American Indian, and Other (including individuals of Hispanic origin or multi-racial groups).

² Low income data was recently used in the call for projects in the American Recovery and Reinvestment Act 2009 (ARRA). The low income (80% of the State Per Capita average) for a family of four was calculated to be \$17,029 by the US Census Bureau (2000 Census).

Figure 1:
OCARTS Environmental Justice Areas (BGs)



ENVIRONMENTAL JUSTICE (EJ) BLOCK GROUPS

There are 824 census block groups in the OCARTS area (2000 Census). When the minority/low income definitions were applied to the block groups, 424 block groups were categorized as either minority, low income, or both. Over 435,000 people, or 44% of the area's population, are located within those block groups.

Table 1:
Environmental Justice Area Population

Data	EJ Area	Non-EJ Area	Total
Population	435,298	555,266	990,564
% of Population	44%	56%	100%

STREET AND HIGHWAY

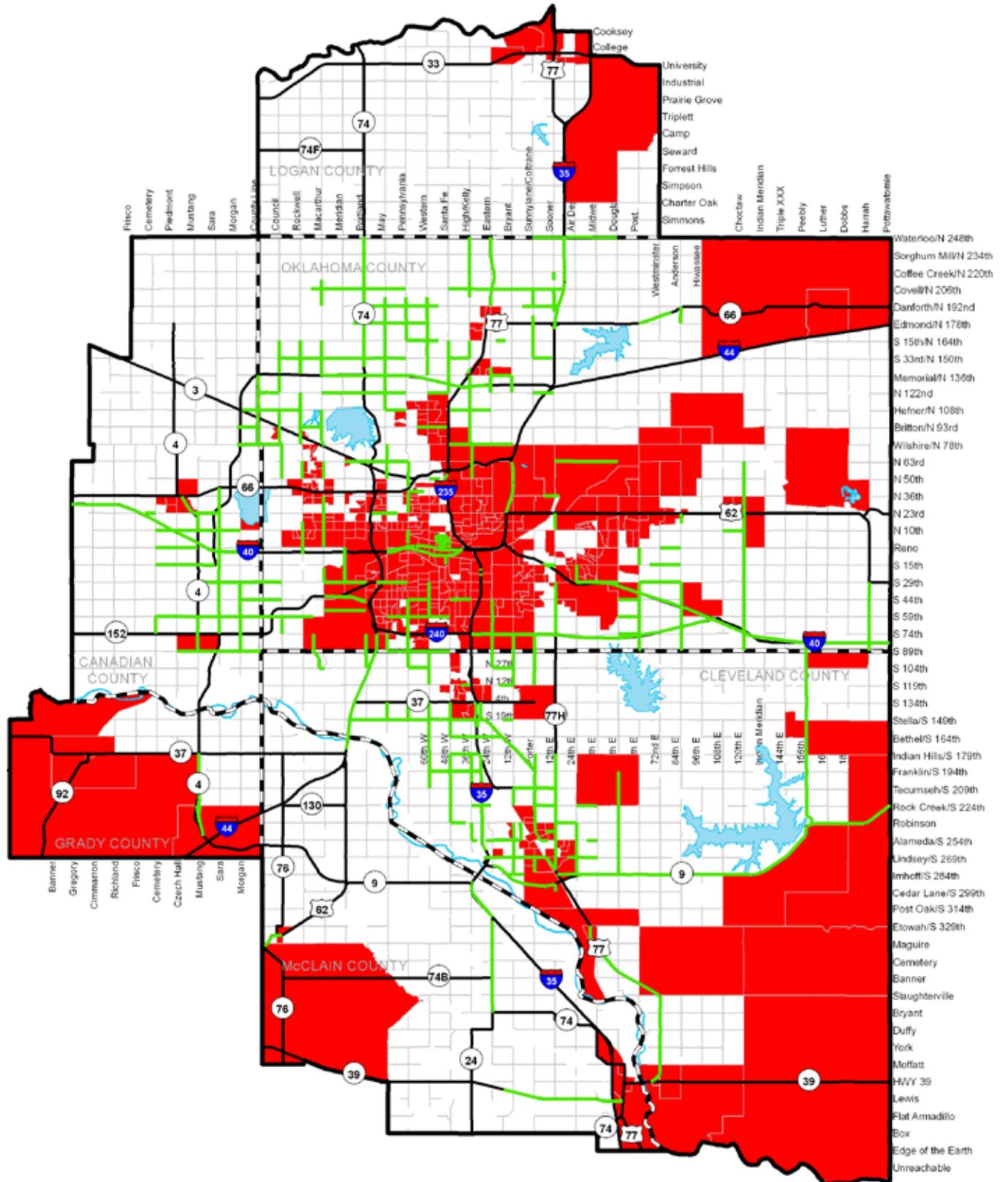
Encompass 2035 suggests that between 2005 and 2035, approximately 1,023 lane miles will be added to the region's street and highway network.

Figure 2 illustrates that while street and highway improvements will be added throughout the OCARTS area, the majority will occur in the higher growth areas in the north and southwest parts of the region. Table 2 reveals that only 35% of the lane miles will be added adjacent to or within EJ areas. This suggests that minority/low income populations within EJ areas are being underserved. However, it should be noted that a majority of the EJ population is located in the urban built environment. As a result, there is less opportunity for street improvements because most section line roads have already been widened to four lanes. Despite this fact, the Encompass 2035 Plan does assume that EJ/non-EJ areas alike will receive three cycles of maintenance over the course of the Plan (2015, 2025, and 2035).

Table 2:
Street and Highway Lane Miles Added

	EJ Area	Non-EJ Area	Total
Lane Miles	356	667	1,023
% Lane Miles	35%	65%	100%

Figure 2:
OCARTS Planned Street and Highway Improvements



TRANSIT

Determining the future transit changes for fixed routes over the 30 years of the Plan is a difficult task. Unlike street and highway improvements, transit service projects, such as future route changes are not typically submitted. The only fixed route project submitted for inclusion in the Encompass 2035 Plan was Oklahoma City's proposed downtown streetcar project included in Oklahoma City's Metropolitan Area Projects 3 (MAPS3) initiative. However, at the time of 2035 Plan's development, the alignment and technology had not been determined.

As a result, the current service routes from the region's major transit service providers: METRO Transit, CART and CityLink were used to analyze the level of service provided to the EJ areas (Figure 3). Express routes from Norman and Edmond to Oklahoma City were also included. The crosshatched box in Figure 3 depicts the service area for METRO Link, which is an on-demand service provided in the Oklahoma City area.

Overall, 250 miles or 97% of the 258 miles of existing transit routes fall within or adjacent to EJ areas. EJ areas located on the periphery of the OCARTS area receive little service, however.

Table 3:
Transit Route Miles

	EJ Area	Non-EJ Area	Total
Route Miles	250	8	258
% Route Miles	97%	3%	100%

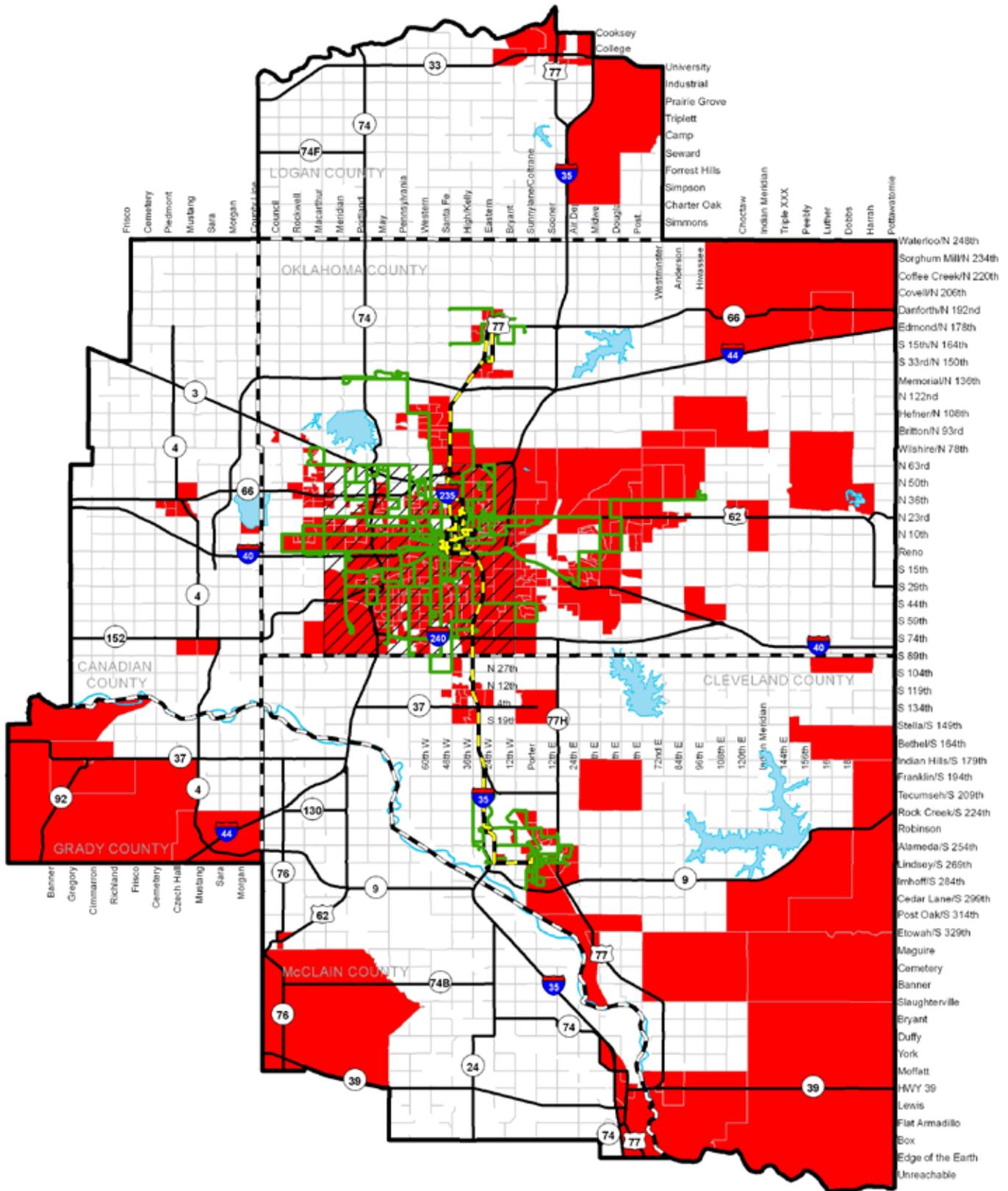
BICYCLE

The bicycle mode of travel has received greater emphasis in Central Oklahoma in recent years. That has led to communities developing bike plans and adding bike facilities. Also, the Encompass 2035 Plan gives additional consideration to street projects that include a bike element. As a result, nearly 400 miles of bicycle facilities are planned over the next 30 years. These improvements will include: bike lanes (220 miles), bike routes (123 miles), and trails (56 miles). Figure 4 depicts the 1,126 mile bike system envisioned by the year 2035. Table 4 reveals that nearly 53% of the mileage of these facilities will be located in EJ areas.

Table 4:
Total Bicycle Facilities Mileage

	EJ Area	Non-EJ Area	Total
Facility Miles	596	530	1,126
% Facility Miles	53%	47%	100%

Figure 3:
OCARTS Transit Service



SIDEWALKS

The Encompass 2035 Plan stresses the importance of sidewalks in Central Oklahoma. Indeed, improving the pedestrian environment will enhance the quality of life and will provide an important transportation option.

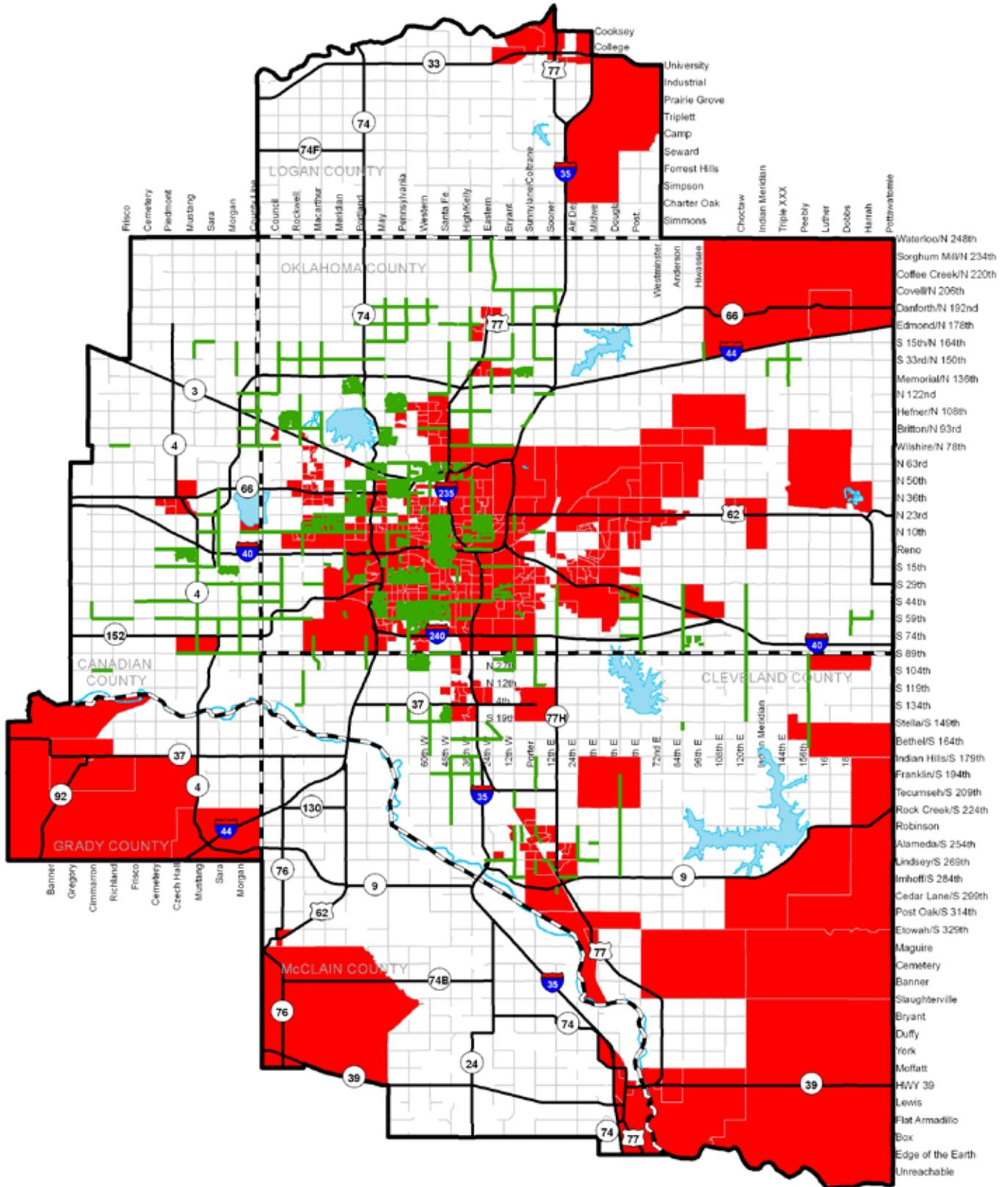
Sidewalk improvements have not been evaluated as part of the EJ analysis in past regional transportation plans primarily due to the lack of sidewalk data available from OCARTS member local governments. While a comprehensive sidewalk inventory is still not available, ACOG staff did evaluate independent sidewalk projects submitted for inclusion in the Encompass 2035 Plan, as well as street and highway projects that incorporated a pedestrian element. Figure 5 reveals the approximately 1,211 miles of sidewalk projects proposed in the Plan.

48 percent or 584 miles of new sidewalk facilities are within or adjacent to EJ areas.

Table 5:
Total Sidewalk Mileage

	EJ Area	Non-EJ Area	Total
Facility Miles	584	627	1,211
% Facility Miles	48%	52%	100%

Figure 5:
OCARTS Sidewalk Facilities



CONCLUSION

An evaluation of all improvements in the Encompass 2035 Plan reveals that only street and highway improvements may be disproportionately located outside of EJ areas. However, as explained earlier in this report, the reason for this discrepancy is due to the fact that most of the EJ population is located within the urban built environment where many of the section line roads have already been widened to four lanes. Table 6 demonstrates that transit, bike and sidewalk improvements are all within the EJ percent population threshold.

Table 6:
Comparative Table

	EJ Areas	Non-EJ Areas	Total
% Population	44%	56%	100%
Street and Highway	34.8%	65.2%	100%
Transit	96.8%	3.2%	100%
Bike	52.9%	47.1%	100%
Sidewalk	48.3%	51.7%	100%