

IH-35 South EJ Assessment

Analysis Process Description

The CTR team conducted an assessment of whether this project (high occupancy vehicle (HOV) non tolled managed lanes that are elevated, versus at grade HOV lanes) will create Environmental Justice (EJ) impacts that disproportionately impact the local community. The CTR team was provided a series of topics to review by TxDOT's Austin District. These were:

- Review whether the proposed changes create benefits.
- Assess influence on land development.
- Conduct a literature review on benefits of improved transportation options to historically disadvantaged communities.¹
- Compare impacts between the at-grade and elevated options
- Identify future opportunities for bike, pedestrian accommodation and future transit opportunities that could benefit and connect Environmental Justice communities.
- Identify if the elevated section creates a barrier, or negatively impacts community cohesion.

The assessment was to utilize the Draft Community Impact Assessment developed by TxDOT and the draft environmental assessment² that was expected to be finalized during the task's duration in February 2021.

The questions required the CTR team to focus on the impact to the local community by the Proposed Build Alternative and the at-grade schematic (Alternative 1). Questions posed by local – and former – community leaders asserted that the project might cause EJ impacts due to ‘dividing’ the community and dividing the affluent from the non-affluent, along with questions around the segmentation of the environmental process (these are summated in the next section). As part of this review the team also took into account results from other team members from Task 1: operational improvements, safety evaluation, traffic impacts on the local community and transit access, as a measurement of the impacts and benefits of the project.

Criticisms Received

Senator Kirk Watson, Representative Celia Israel and the City of Austin asked questions about the possible division of the East and West communities of I-35. Questions were posed about whether the proposed project divides the study area into low income communities versus “more affluent” ones. Questions were also asked about the income levels differing from one side of I-35 to another. Questions were also posed about “Latinx neighborhoods” and “people of color” being separated by this project from majority white neighborhoods.

¹ Note that there are different definitions of disadvantaged communities. According to Education laws 42 USC 1751-69 – free lunch is different from socially disadvantaged (Small Business Admin. laws 13 CFR 124.103 and 49 USC § 47113(a)(2) “socially and economically disadvantaged individual” has the same meaning given that term in section 8(d) of the Act (15 U.S.C. 637(d)) and relevant subcontracting regulations prescribed under section 8(d), except that women are presumed to be socially and economically disadvantaged.

² Draft EA (dated Jan. 26, 2021; reviewed by UT CTR team Feb. 1-11, 2021)

The Project

The I-35 Capital Express South project³ proposes to add two non-tolled HOV managed lanes in each direction along I-35 from SH 71/Ben White Boulevard to SH 45 Southeast (Alternative 1 (A1) refers to the IH-35 improvement schematic introducing additional two managed lanes (each direction) at grade. The Austin District conducted a Value Engineering Study (VE Study) required under federal law. In January 2020 after the VE Study assessed safety and operational enhancements the design was revised. In order to construct the project within the footprint of two projects currently under construction and planned to open to traffic in summer 2021, the design was revised with two elevated managed lanes added in each direction and is named the Proposed Build Alternative. In the Proposed Build Alternative, the managed lanes will be elevated from north of Stassney Lane to south of William Canon Drive (about 3.2 miles). The HOV managed lanes would be accessed from the existing freeway, flyovers at Ben White Boulevard interchange, and also from direct access connections from the frontage roads. The VES identified the following benefits:

- 12-foot-lane width compared to 11-foot-lane width (10 percent crash reduction),
- Desirable shoulder widths (50 percent crash reduction),
- Improved travel times to hospital and medical centers for area travelers,
- Better Incident/emergency response times,
- Mitigation of rear-end collisions from queuing or stopped traffic,
- Direct access for transit, carpoolers, and vanpools from mainlane to frontage road/SH 71 interchange without weaving across interstate through traffic
- HOV/transit trips from FM 1626, Onion Creek, and Slaughter Creek can access northbound mainlanes (NBML) without weaving across interstate through traffic or traversing additional traffic signals
- South Austin residents can avoid I-35 mainlanes for short trips by using the bypass lanes, keeping slower moving entering and exiting traffic off the mainlanes

The project will also add new turn lanes to aid mobility at Slaughter Lane and Onion Creek Parkway and also a south and north turnaround at SH 45 E. The project will also add bike and pedestrian improvements that are ADA compliant that include new sidewalks and Shared Use Pathways along the I-35 NB and SB frontage roads from SH 71 to Stassney Lane, and in both NB and SB directions of the frontage road from South Boggy Creek to SH 45SE. Figures 1 and 2 show the proposed cross section schematics of this project.

³ See <https://my35capex.com/projects/i-35-capital-express-south/>

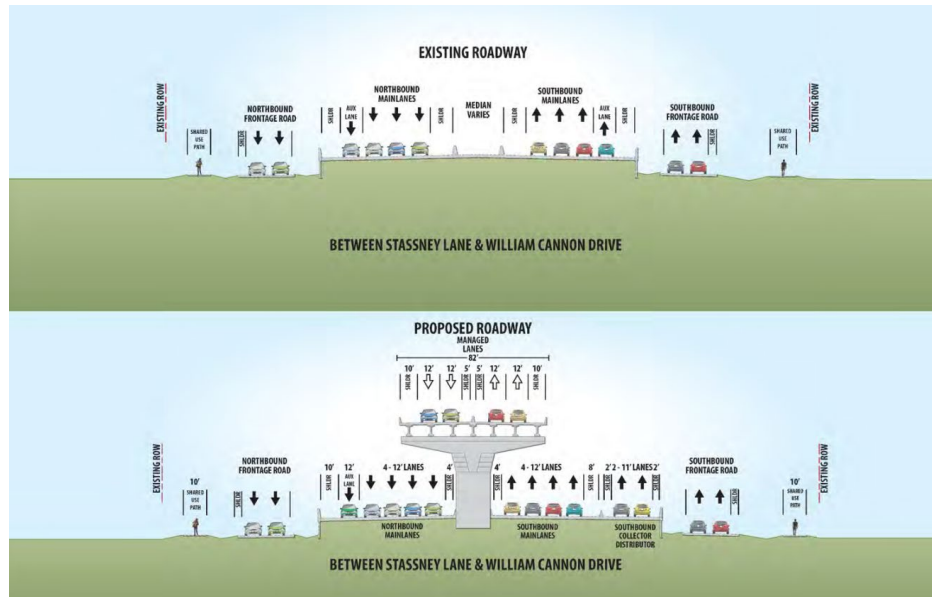


Figure 1: Proposed Build Alternative Above-Grade HOV Managed Lanes Stassney Lane to William Canon Drive
Source: TxDOT EA

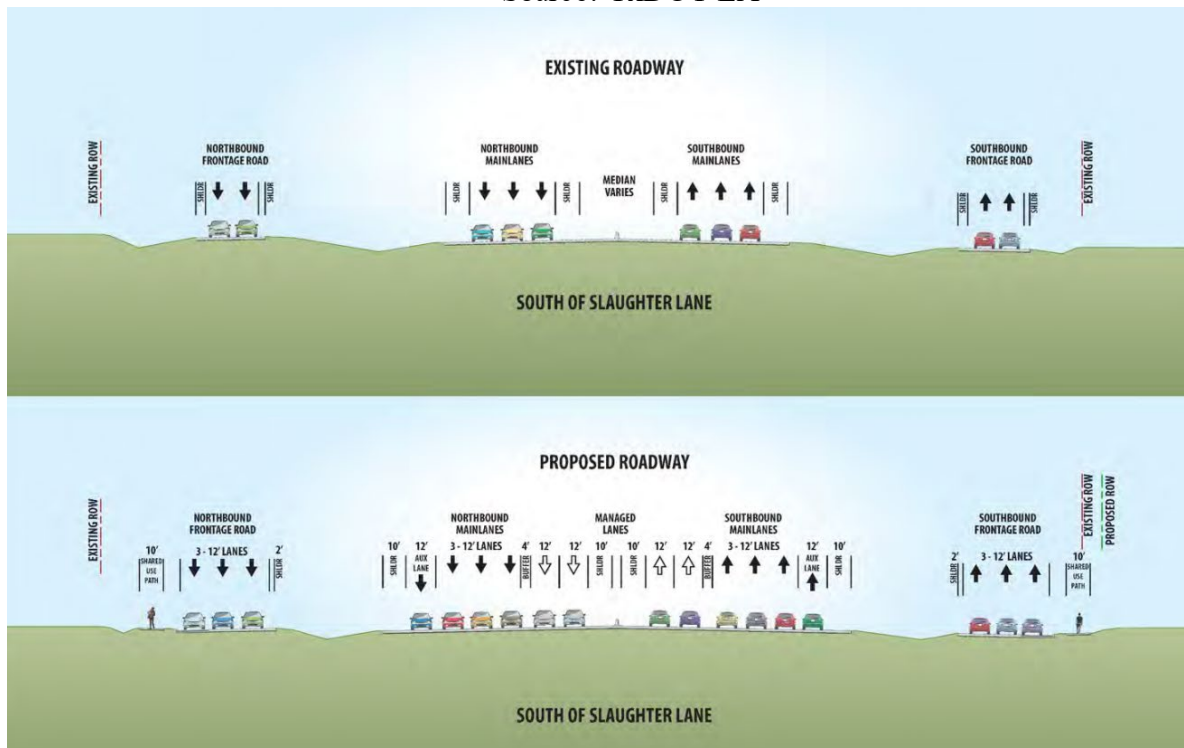


Figure 2: The Alternative 1 At-Grade HOV Managed Lanes South of Slaughter Lane.
Source Figure 1 and 2: TxDOT EA

Environmental Justice History and Overview

Environmental Justice evolved out of community action decades ago as a continuation of the Civil Rights Movement and its ideals. General awareness of racial disparities has grown since the

passage of the Civil Rights Act of 1964.⁴ The federal government has taken various actions in order to halt historic trends in which communities of color and low-income⁵ communities have borne a disproportionate risk of adverse health impacts as a result of government decision-making.

President Clinton established the federal stance on environmental justice in February 1994 through Executive Order (EO) 12898.⁶ The purpose of Executive Order 12898 was to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities.⁷

EO 12898 directs federal agencies to:

- Identify and address the “disproportionately high and adverse human health or environmental effects”⁸ of their actions on “minority populations” and “low-income populations”,⁹ to the greatest extent practicable and permitted by law.
- Develop a “strategy”¹⁰ for implementing environmental justice.
- Promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities’ access to public information and “public participation”.¹¹

Environmental Justice (EJ) combines the force of federal laws and regulations, 42 USC Sec. 1983, the Civil Rights Act of 1964, the National Environmental Policy Act (NEPA), and the constitution so that low-income communities and communities of color may be given additional consideration due to potential disparate impacts of actions by government. Title VI of the Civil Rights Act provides that “no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” There is considerable case law regarding EJ, but the Supreme Court decision in *Alexander v. Sandoval* [532 U.S. 275, 282 (2001)] limited the avenues under which an EJ community could bring suit. The Court held that plaintiffs did not have a *private right of action* under Title VI of the Civil Rights Act 1964 to enforce disparate impact regulations caused by a federal program¹²

⁴ 42 U.S.C. § 2000d(1994) (“No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”).

⁵ U.S. Environmental Protection Agency (EPA) defines low income as “A reference to populations characterized by limited economic resources”. The US Office of Management and Budget has designated the Census Bureau’s annual poverty measure as the official metric for program planning and analysis, although other definitions exist.” EPA. EJ 2020 Glossary.

<https://www.epa.gov/environmentaljustice/ej-2020-glossary>

⁶ Executive Order (E.O.) 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629; February 16, 1994; <https://www.archives.gov/federal-register/executive-orders/1994.html#12898>

⁷ EPA, <https://www.epa.gov/laws-regulations/summary-executive-order-12898-federal-actions-address-environmental-justice>

⁸ EO 12898, Sec. 1-101; this key phrase is used throughout EO 12898; <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>

⁹ EO 12898, Sec. 1-101, <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>

¹⁰ EO 12898, Sec. 1-103, <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>

¹¹ EPA, <https://www.epa.gov/laws-regulations/summary-executive-order-12898-federal-actions-address-environmental-justice>;

See also EO 12898, Sec. 1-103.

¹² The court noted that Congress did not intend to create any rights in §602 that did not exist in §601. The only right conferred by §601 was to be free of intentional discrimination and it granted a private right of action to enforce that statute. The court held that §602 does not include a private right of action to enforce disparate-impact regulations promulgated under Title VI, because it neither focuses on the individuals to be protected or on the funding recipients being regulated, but on the agencies that will do the regulating.

NEPA and Segmentation

Federal regulations (23 Code of Federal Regulations (CFR) § 771.111) allow for large projects that receive federal funds to be ‘segmented’. In order to be authorized for segmentation projects receiving federal funds must have:

- logical termini, i.e., must have rational beginning and end points,
- independent utility
- be a reasonable expenditure even if other transportation projects are not made within the area;
- provide a benefit by itself, and
- Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Therefore, under federal environmental law, the I-35 Capital Express South project is separate from two other I-35-focused projects in Austin: I-35 Capital Express Central¹³ and I-35 Capital Express North¹⁴ because it fulfills the criteria of having separate legal considerations and independent utility considerations from those two projects. Therefore, it can be evaluated on its own merits and the Environmental Assessment (EA) has been prepared to comply with the requirements of the National Environmental Policy Act (NEPA) (42 U.S. Code [U.S.C.] Sections 4321–4375).

As noted federal law requires that end points may not be created simply to avoid proper analysis of environmental impacts.¹⁵ The proposed Capital Express South improvements to I-35 from US 290 West/State Highway (SH) 71 (SH 71) to SH 45 southeast (SE) in Travis County, include a transition area extending to Main Street in Buda, Hays County. The project length is approximately 8.93-miles (mi).¹⁶

Impacts to the Area and Community Access: Task 2 Assessment Process

The CTR team received from the Austin District project schematics, Community Impact Assessment (CIA),¹⁷ the draft Environmental Assessment (EA) dated Jan. 26, 2021¹⁸ and public comments. The CTR team then reviewed other independent data to substantiate or refute the conclusions drawn in the CIA and draft EA and the assertions made that this project would further divide a community. The goal of utilizing other data was to provide other independent resources to assess if the CIA and draft EA’s analysis was correct. The CTR team specifically reviewed: census data, demographic data around the proposed project area, poverty data and metrics, Texas Education Agency data on students identified as economically disadvantaged or those who had

¹³ <http://www.my35.org/capital-project-capital-express-central.htm>

¹⁴ <https://my35capex.com/projects/i-35-capital-express-north/>

¹⁵ 23 CFR § 771.111 - Early coordination, public involvement, and project development.

(f) Any action evaluated under NEPA as a categorical exclusion (CE), environmental assessment (EA), or environmental impact statement (EIS) must: (1) Connect logical termini and be of sufficient length to address environmental matters on a broad scope; (2) Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and (3) Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

¹⁶ See p. 8 of Draft EA (dated Jan. 26, 2021; reviewed by UT CTR team Feb. 1-11, 2021), Appendix A for the Project Location Map.

¹⁷ Community Impacts Assessment Technical Report (CIA), I-35 Capital Express South, Control Section Job Number (CSJ):0016-01-113, 0015-13-077, 8/2020, Austin District, Travis County.

¹⁸ Draft EA (dated Jan. 26, 2021; reviewed by UT CTR team Feb. 1-11, 2021)

limited English proficiency, study area apartment pricing versus Austin averages, and median house prices.¹⁹ The CTR team also reviewed literature on benefits of HOV lanes, impacts of elevated freeways and HOV lanes, environmental justice literature regarding disproportionate and disparate impacts from transportation projects (historic and new build), NEPA analyses, safety benefits of HOV lanes that are separated from main lanes, HOV and bus rapid transit impacts, HOV lane impacts on emissions, evaluating land use, removal of urban freeways, elevated highways and noise. The CTR team also reviewed City of Austin land use and zoning (including proposed zoning), city annexation maps, Project Connect activities, Capital Metro Plans the City of Austin Bike Plan and the Uprooted Study on residential displacement in Austin's gentrifying neighborhoods²⁰.

Our analysis specifically focused on reviewing each question asked by the Austin District through the lens of whether identified EJ communities in the project area will suffer **disproportionately high and adverse human health or environmental impacts**. Questions that we asked included (i) will community cohesion be disrupted (ii) will the project divide affluent from non-affluent, and (iii) are the metrics assessed in the CIA and the draft EA document correct in terms of noting there are not disproportionately high and adverse human health or environmental impacts? The CIA noted that:

- *"The proposed project would not substantially increase the separation in the community study area."*²¹
- *"Current access to I-35 and the surrounding roadway network will remain the same as under existing conditions for automobiles. Access to community facilities and essential services will be maintained"*.²²
- *"While the elevated managed lanes may result in an increased visual barrier along the portion of the corridor between north of Stassney Lane to South of William Cannon Drive, the proposed project would not directly or indirectly result in separation or isolation of any geographic areas or groups of people. Additionally, sidewalks would be constructed at SH 71/US 290 and Stassney Lane. These additional sidewalks would improve pedestrian and bike access across the I-35 corridor (East/West). The sidewalks would be built to ADA accessibility standards. As such, the proposed project would have minimal impacts to community cohesion, community facilities, and vulnerable populations."*²³
- *"There are sidewalks located at various points throughout the project area, and pedestrians were observed using these facilities during the site visit."*²⁴

¹⁹ U.S. Department of Health and Human Services in a May 2014 study noted that in over one-third of households in areas of concentrated poverty, English is not the primary language spoken at home - Overview of Community Characteristics in areas with Concentrated Poverty. https://aspe.hhs.gov/system/files/pdf/40651/rb_concentratedpoverty.pdf. The Migration Policy Organization in 2013 noted that as a group, the LEP population in the U.S. is less educated and more likely to live below the federal poverty line than the overall U.S. population - Jie Zong, and Jeanne Batalova. *Limited English Proficient Population of the United States in 2013*. July 8 2015 <https://www.migrationpolicy.org/article/limited-english-proficient-population-united-states-2013>

²⁰ Uprooted Study Maps, See generally

<https://austin.maps.arcgis.com/apps/MapSeries/index.html?appid=2287ef7c16dc476ca0c7d4a10ae690ce>

²¹ See CIA, page 21

²² See CIA, page 22

²³ See CIA, page 21

²⁴ See CIA, page 10

Evaluation of demographics

The CTR team reviewed the demographic characteristics tables and figures conducted in the CIA. These were developed using 2010 census data and American Community Survey data that is gathered every five years. To ascertain if the demographic mix still holds true the team reviewed other analysis and data sources that utilize census data. The timeframe of this project meant that we could not conduct our own demographic review, so we utilized other types of analysis to assist us in answering the questions posed by Austin District. We should note that not all of these studies could be considered an “apples to apples” type of comparison. However, they do provide a window-in-time to how Austin’s demographic mixture is changing, and how poverty metrics are also changing. The Uprooted Study conducted by the University of Texas, published in 2018²⁵ for example, developed a series of maps that reviewed demographic changes, housing market changes, and susceptibility to gentrification from 2000-2016. This was created by tracking four demographic factors which can be seen in the key below (Figure 3).

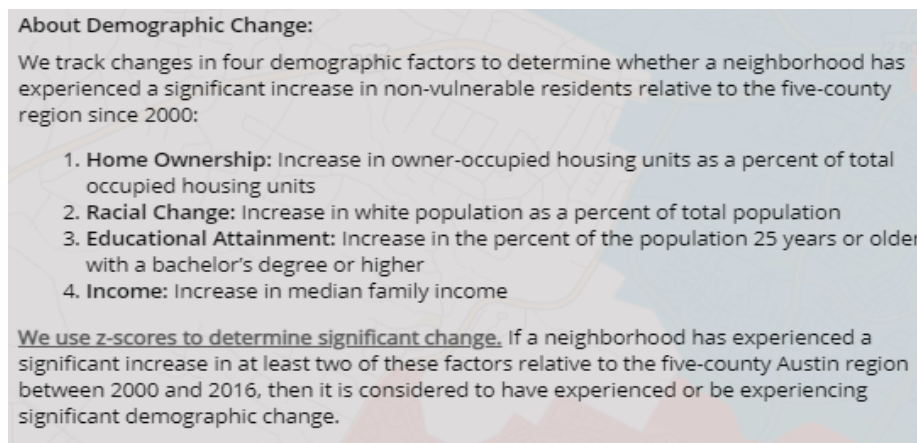


Figure 3: Defining Demographic Change

Source: Uprooted 2018

Figure 4 shows a screenshot of the Uprooted study’s analysis on demographic change, for the I-35 study area. The blue shows no significant demographic change, red shows a significant demographic change. Grey indicates no data or not in city limits.

Gentrification measurements that the Uprooted Study developed show that a percentage of the I-35S study area is *already susceptible to gentrification*. Figure 5’s map shows that the northern end of the study area south of the Ben White Interchange to just south of William Cannon drive are already gentrifying or are susceptible to gentrification. However, from south of Slaughter Lane, the area is not gentrifying (Figure 5).

²⁵See Heather Way, Elizabeth Mueller, Jake Wegmann. *Uprooted: Residential Displacement in Austin’s Gentrifying Neighborhoods and What Can Be Done About It*. 2018. The University of Texas Center for Sustainable Development & the Entrepreneurship and Community Development Clinic.

URL: <https://sites.utexas.edu/gentrificationproject/files/2019/09/UTGentrification-FullReport.pdf>



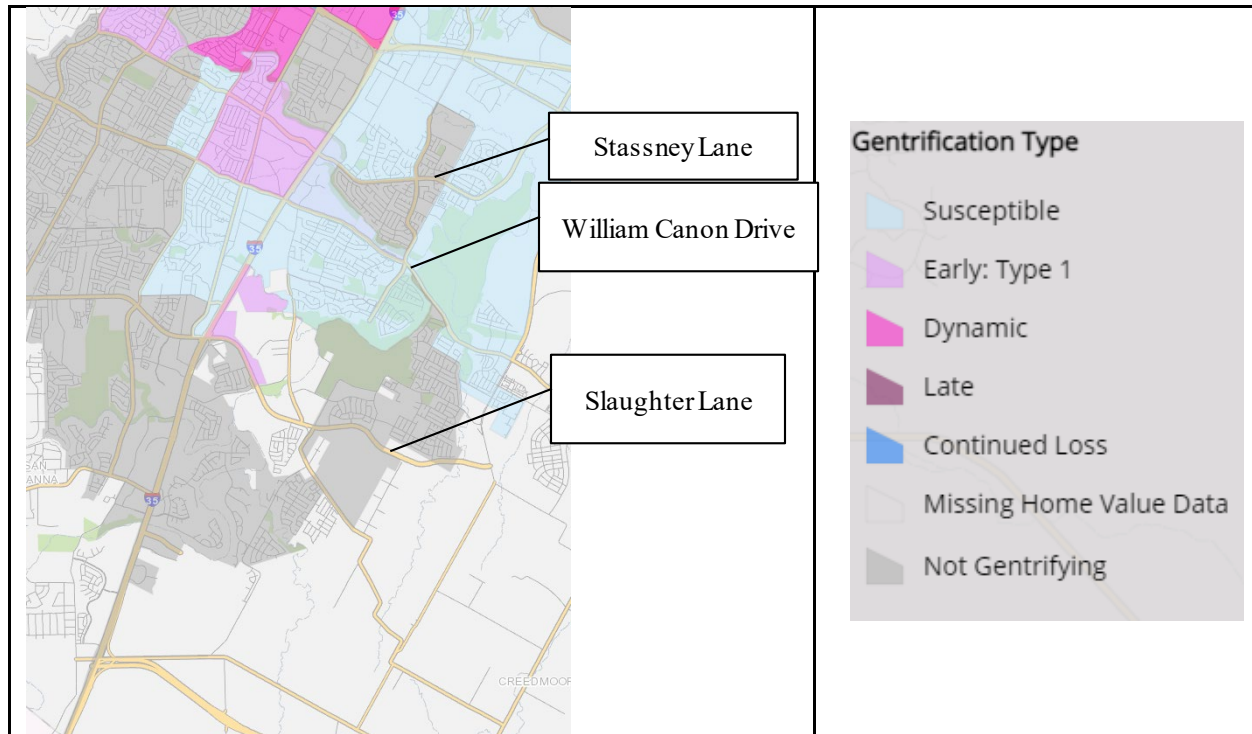


Figure 5 Gentrification Type around I-35 S Study Area

Source: Uprooted 2018

Low-Income and Minority Groups and East/ West Separation

According to the CIA and Draft EA the proposed project “would not substantially increase the separation in the community study area. I-35 is an existing physical barrier in the community.”²⁶ The community has experienced significant development in this area since 1995. Today, the communities on either side of I-35 in the study area have similar minority distributions and character. For the Proposed Build Alternative elevated option the majority of the land on the west and east sides of I-35 is already heavily developed with land use mixes including: GR (community commercial), CH (Commercial highway), multifamily, single family residential, park space, educational and a few areas that are undeveloped. The existing visual aesthetics of the area, according to the Draft EA is considered low to moderate. The EA notes that the primary visitors to the area are motorists and those visiting commercial projects in the Proposed Build Alternative’s area.²⁷

Census data show that there are EJ minority populations within the community project area and that they are distributed on both sides on I-35 (Figures 6 and 7). The CIA notes that “There are 393 blocks in the community project area ... 130 had populations over 50 percent minority in 2010.” However, this is caveated by the fact that the Census data is from 2010 and the population growth within Austin has dramatically increased in the past ten years. The CIA also noted that “Census data indicate that 15 of the 21 block groups (approximately 71 percent of the community study area) have populations that are over 50 percent minority, ranging from 53.1 percent (Census Tract 24.02 Block Group 4) to 93.3 percent (Census Tract 24.11 Block Group 2). The race/ethnic

²⁶ See CIA, page 21; Draft EA (dated Jan. 26, 2021; reviewed by UT CTR team Feb. 1-11, 2021)

²⁷ See page 20 of Draft EA (dated Jan. 26, 2021; reviewed by UT CTR team Feb. 1-11, 2021)

makeup of these 15 block groups are primarily Hispanic or Latino, ranging from 41.7 percent to 91.8 percent of the total population. The second largest race/ethnic groups in these block group is Black or African American, and third is Asian alone.”²⁸ Reviewing the Census Demographic Data figure from the CIA (Figures 6 and 7)²⁹ the following census tracts and blocks have a minority population of greater than or equal to 50% as at 2010:

- Tract 24.11, Blocks 1019, 2003 and 2002 – East of I-35
- Tract 24.03, Blocks 2006 and 4000 – West of I-35
- Tract 24.19, Blocks 2004 - East of I-35
- Tract 24.22, Blocks 2002, 2003, 2006 – West of I-35
- Tract 24.02, Blocks 4014 – West of I-35
- Tract 24.25, Blocks 1000, 1019, 2004, 2010 – East of I-35
- Tract 24.07, Blocks 1013, 1018 – West of I-35

Out of the census tracts in the study area only six had minority populations less than 50%. Census data analyzed in the CIA indicates that all the block groups except for one contain households living under the poverty level.³⁰ However, the CIA used income data from 2016 and Figures 8 and 9 show that the majority of the population in the study area have incomes higher than the poverty level. According to the CIA *“There are no census block groups in the community study area that have a median household income below the DHHS poverty level. As shown in Attachment A, median income in the community study area ranges from \$39,318 to \$103,217. However, there are households living below the poverty level in all but one of these block groups. Census Tract 24.07 Block Group 2 is the only one without any reported households living under the poverty level. The percent of households living in poverty ranges from 1.7 percent (Census Tract 24.28 Block Group 1) to 19.7 percent (Census Tract 24.9 Block Group 1 and Census Tract 23.08 Block Group 4).”*³¹ The CIA notes that the percentage of households living under the poverty level ranges from 2.3 percent to 33.9 percent.³² Information that we reviewed from the public schools in the area also indicate that there may be a higher percentage of people living below the poverty level³³ in the community project area than was reported in the U.S. Census.³⁴

There are also Limited English Proficiency (LEP) persons identified in the community project area. Fifteen Census block groups contain over 5 percent Spanish or Asian Language speakers that speak

²⁸ See CIA, page 8.

²⁹ See CIA, Figures 4 & 5.

³⁰ See CIA, p. 26.

³¹ See CIA, page 8

³² See CIA, page 26

³³ Texas Education Code, Sec. 5.001. (4) "Educationally disadvantaged" means eligible to participate in the national free or reduced-price lunch program established under 42 U.S.C. Section 1751 et seq.; See also Texas Educ. Code 48.104(c) See also Texas Educ. Code 48.104 (c) Compensatory Education Allotment. (c) For purposes of the allotment under Subsection (b), the commissioner shall establish an index for economically disadvantaged census block groups in the state that provides criteria for determining which census block groups are economically disadvantaged and categorizes economically disadvantaged census block groups in five tiers according to relative severity of economic disadvantage. In determining the severity of economic disadvantage in a census block group, the commissioner shall consider: (1) the median household income; (2) the average educational attainment of the population; (3) the percentage of single-parent households; (4) the rate of homeownership; and (5) other economic criteria the commissioner determines likely to disadvantage a student's preparedness and ability to learn.

³⁴ Note: 7 of the 14 schools listed in the TEA "economically disadvantaged" table are charter schools that can take children from across the city and thus are not a good indicator of the income levels of the study area and where area residents actually live.

English less than very well. The majority of the LEP speakers in the community project area are Spanish speakers. Census Tract 24.25 Block Group 2 reports that approximately eight (8) percent of the population are LEP Asian and Pacific Islander language speakers.³⁵

The census data do not completely support the view that there is a large disparity in incomes or minority concentrations between the east and west sides of I-35 in the study area. We should also note that we do not have access to the 2020 census data which we anticipate will reflect the rapid growth and concomitant decrease in central Austin housing availability that Austin has experienced since 2010. According to the CIA low-income groups do not fill the study area at all.³⁶ Instead, almost the entire study area (shaded yellow in Figures 6 and 7) is categorized as “higher income block groups” (2018).³⁷

What is evident from reviewing the census data is that northern area appears to vary from the southern area of the study; however, this may have more to do with available housing close to the 290/ IH-35 interchange.

Data from the Uprooted Study (using 2016 population data) showed that the white population has increased in several tracts.³⁸ In addition, other tracts had seen median income increase, and the growth of residents with a bachelor’s degree or higher. For example, in Perkins Valley, on the east side of I 35, the percent of white residents changed from 0.26 in 2010 to 0.32 by 2016. The percent of residents with a bachelor degree or higher in this tract has risen from 0.11% to 0.46%. This tract has also seen median family income rise from \$1,794 in 2010 to \$55,078 in 2016.³⁹ Conversely, the Akins tract has seen its percent of white residents change from 0.70 in 2010 to 0.54 by 2016. The percent of residents here with a bachelor’s degree or higher had risen from 0.30% to 0.40, however this tract saw median family income drop from \$97,643 in 2010 to \$79,874 in 2016. In the Slaughter Creek Tract, on the east side, a significant demographic change from 0.26 white residents in 2010 to 0.32 in 2016. The percent of residents with a bachelor’s degree or higher here has risen from 0.11% to 0.37%. This tract has also seen median family income rise from \$279 in 2010 to \$75,606 in 2016.⁴⁰

³⁵ See Draft EA (dated Jan. 26, 2021; reviewed by UTCTR team Feb. 1-11, 2021) – IH 35 Capital Express South (from US 290W/SH 71 to SH 45SE), p. 19-20.

³⁶ See CIA, Figure 4, US Census Geography Map, I-35 Capital Express South, US 290W/SH71 to SH45SE; Note: Figure 4 Census Map in CIA is identical to the Appendices to the Draft EA, p. 74-75, Figures 4, Census Maps, (this map has 2010 Census Blocks Minority data overlayed with 2018 Higher Income Block Groups data.); Draft EA (dated Jan. 26, 2021; reviewed by UTCTR team Feb. 1-11, 2021).

³⁷ See CIA, Figure 4, US Census Geography Map, I-35 Capital Express South, US 290W/SH71 to SH45SE; Note: the January 2018 poverty guidelines for HHS for a family of 4 is \$25,100: <https://aspe.hhs.gov/2018-poverty-guidelines-computations-page>.

³⁸ Uprooted Study, Austin Gentrification and Displacement Indicators, Demographic Change Map tab, <https://austin.maps.arcgis.com/apps/MapSeries/index.html?appid=2287ef7c16dc476ca0c7d4a10ae690ce>

³⁹ Ibid

⁴⁰ Ibid

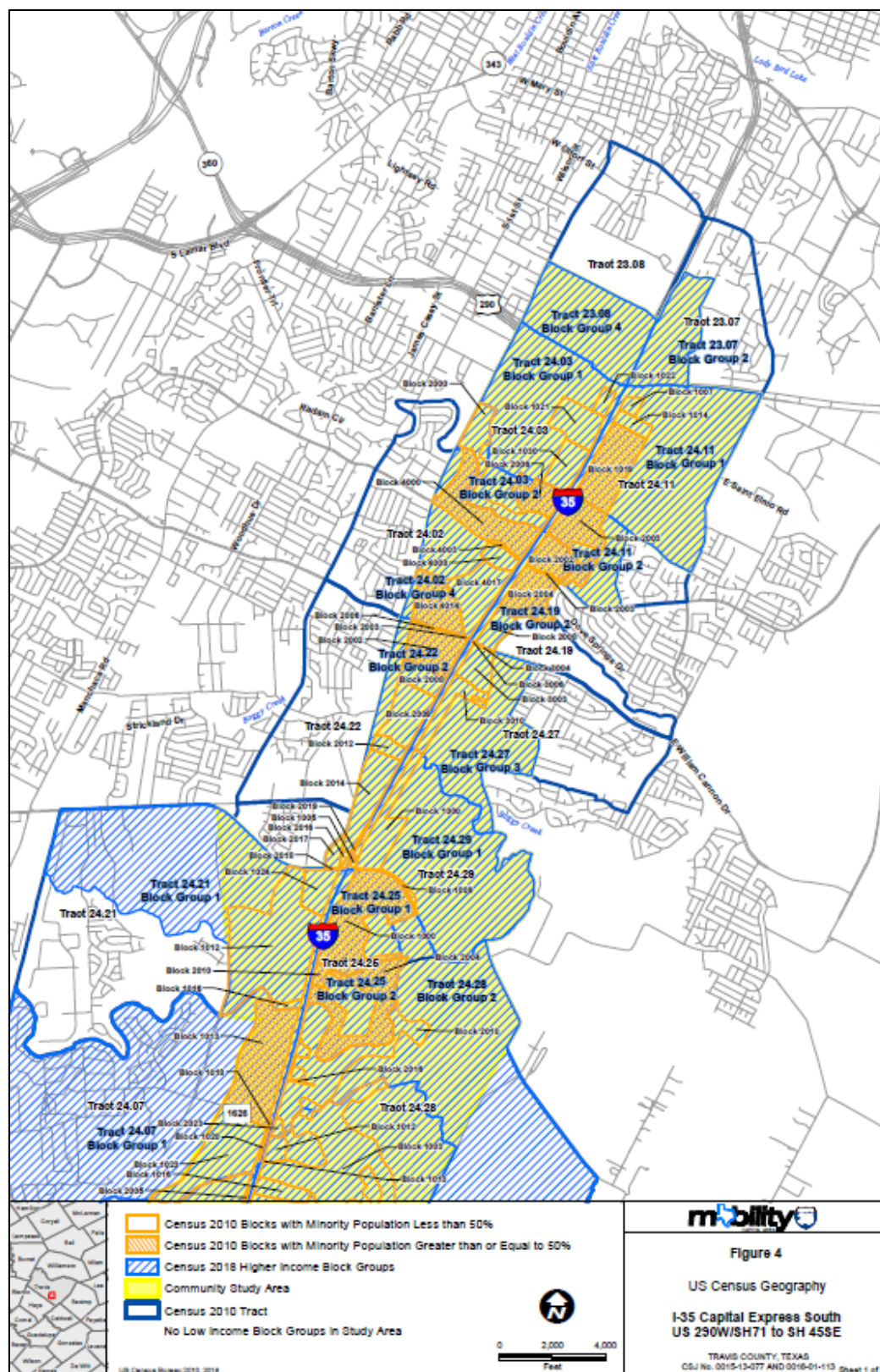


Figure 6 US Census Geography

Source: CIA, 2020

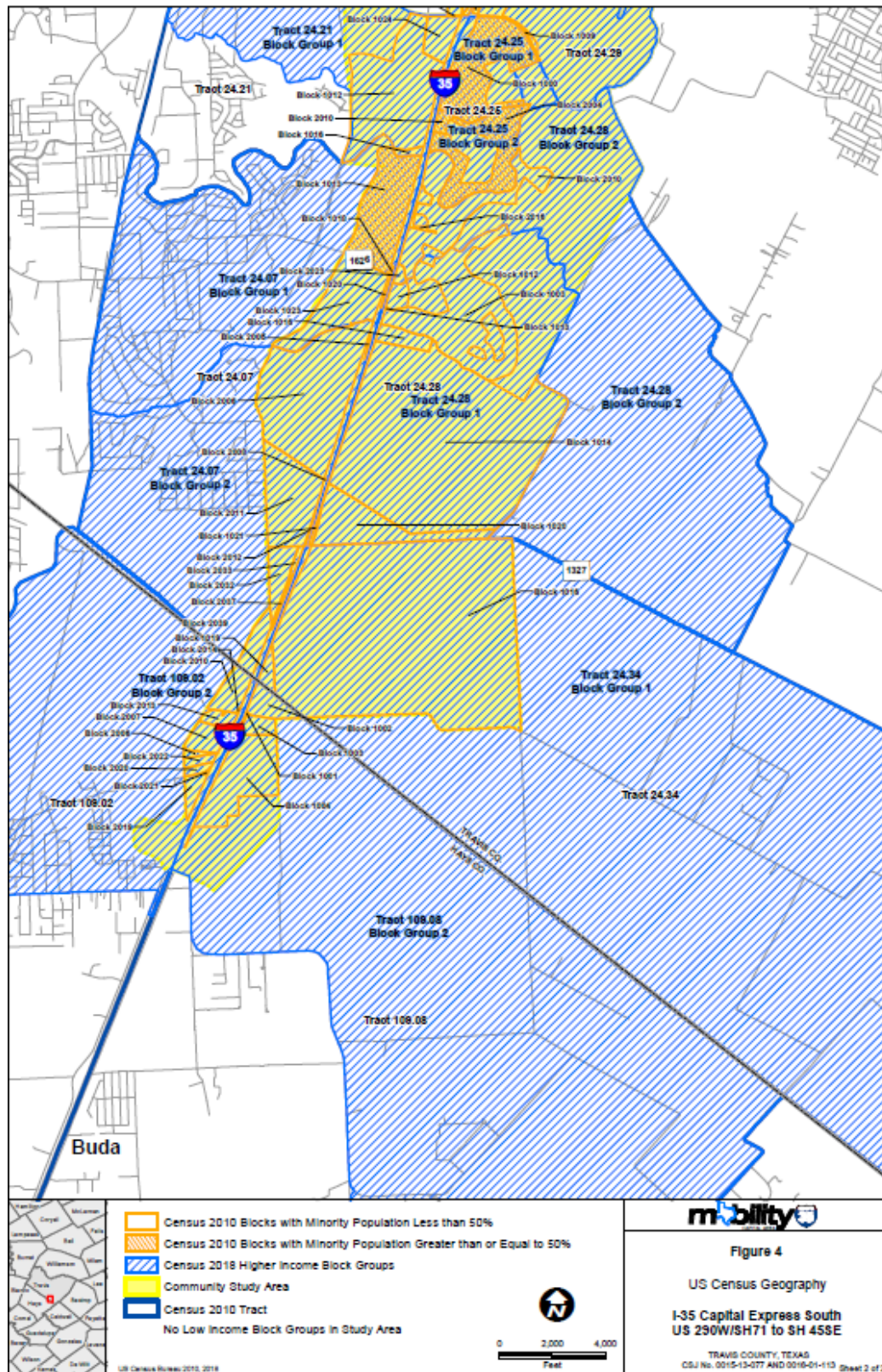


Figure 7 Census Geography
Source: CIA, 2020

We then compared the census tracts in pairs using the Uprooted study data, to further examine the east and west data.

On the west side, East Congress tract number 24.03 has a 43 % POC (people of color)⁴¹ in comparison to the east side, Franklin Park West tract 24.11 with 90 percent POC.⁴² This area is closest to commercial zoning (the motor mile with car dealerships and hotels) and is the northern part of the study area. According to 2018 census data, tract 24.03, East Congress is one of few block groups with a minority population less than 50% for the area.⁴³ Here there appears to be some imbalance in race in this area most near the central part of the city.

If we look at the next group, Sweetbriar on the west, tract 24.02 has 55% POC compared to Comal Bluff with 75% POC on the east side. Moving south, Parkridge Gardens on the west side tract 24.22 has 56% POC compared to Perkins Valley (east side) with 55% POC. These racial statistics are remarkably similar on non-white makeup. The Perkins Valley tract also has a slightly higher medium family income (\$55,078 in 2016) than the (westside) Parkridge Gardens tract (\$43,586).⁴⁴ The Perkins Valley tract also saw an uptick in white population between 2010 and 2016.

Just south of these, South Park Meadows (west side) tract 24.21 has 51% POC while Slaughter Creek has 67% POC. Again, Slaughter Creek tract (on the east side) has a slightly higher median income at \$75,606 compared to the (west side) South park Meadows tract at \$ 65,208. ⁴⁵ Interestingly, the Slaughter Creek tract also saw an uptick in white population between 2010 and 2016. Another economic indicator, homeownership, varied here. In 2016, homeownership on the west side, Southpark Meadows, was 47% compared to the corresponding east side, Slaughter Creek with 67% homeownership. This difference speaks to the economic strength of the residential communities on the east side in the Slaughter Creek tract.

Moving south, the last pair is the (west side) Akins tract 24.07, which was 54% white in 2016 versus the Onion Creek tract 24.28, which was 46% white. This differences here in racial makeup on either side of I 35 are not very large and perhaps updated 2020 census data, when it becomes available, will reveal more about this area. However, the Uprooted study, which was commissioned by the City of Austin, ended its gentrification analysis here for this southern part of the I 35 corridor. Buda, (part of this I 35 project), is a separate city just South of this area and it

⁴¹ Uprooted Study, Austin Gentrification and Displacement Indicators, Vulnerability Map tab, <https://austin.maps.arcgis.com/apps/MapSeries/index.html?appid=2287ef7c16dc476ca0c7d4a10ae690cc>, for more, see Appendix 3 to Uprooted Study , p 135. (“People of Color: Percentage of people in the tract who identify as anything other than White Non-Hispanic alone.”)

⁴² Note that the white population of Austin is 67.3% for 2018. (census data), <https://www.austinchamber.com/economic-development/austin-profile/population/population-by-race-hispanic-origin>

⁴³ Figure 5 of CIA, Minority Population by Block Group, p. 39

⁴⁴ Note: the federal poverty level for 2016 for a family of four was \$24250. <https://aspe.hhs.gov/computations-2016-poverty-guidelines>

⁴⁵ Note: this is 2016 data on median income, from Uprooted Study, Austin Gentrification and Displacement Indicators, Demographic Change Map tab, <https://austin.maps.arcgis.com/apps/MapSeries/index.html?appid=2287ef7c16dc476ca0c7d4a10ae690cc>; for more, see Uprooted Study , p 26, on median income data used from 2012-16 ACS data in the study, which assessed demographic change between 2000-2016.

has experienced population growth of 150.7% between 2008-2018.⁴⁶ Many residents are able to live here in new housing developments and commute to jobs in Austin via I 35.

While there are minority and low-income populations in the community project area, the proposed project would not result in disproportionate adverse impacts to these populations and mitigation specific to EJ is not necessary. The elevated managed lanes may result in an increased visual barrier along the portion of the corridor between north of Stassney Lane to South of William Cannon Drive, the proposed project would not directly or indirectly result in separation or isolation of any geographic areas or groups of people. Indeed, construction of additional sidewalks at SH 71/US 290 and Stassney Lane would improve upon current pedestrian and bike access across the I-35 corridor (East/West). The data and Draft EA show that the proposed project would have minimal impacts to community cohesion, community facilities, and vulnerable populations. The tracts most affected by the proximity of the elevated portion appear to be: Comal Bluff, William Cannon, Bluff Springs, Sweetbriar, and Parkridge Gardens.

HOV and Managed Lane Literature

HOV lanes were first introduced in the 1970s, and since that time there has been considerable development of the network within the U.S. and within Texas and Austin specifically. Literature on managed lanes, and HOV lanes in particular, has existed for over the past 25 years. Peer reviewed literature however does not present a cohesive body of analysis that can be utilized for apples-to-apples comparisons. It is not consistent in terms of articles per year, and we did not find any literature that directly addressed HOV lanes and EJ, nor elevated HOV lanes and EJ. Literature has found however, that HOV lanes offer higher travel time reliability than general purpose lanes⁴⁷ and can reduce accidents where there are direct access connectors. Menendez and Daganzo⁴⁸ provide an argument for the elevated HOV lane in examining the impact of HOV lanes on freeway bottlenecks. They note that lane changes in and out of the HOV lane can disrupt the flow on adjacent general purpose lanes and reduce their discharge rate. These types of bottleneck capacity reductions are undesirable as they increase vehicle hours of travel. It has also been found that emissions can be reduced on the facility with an HOV lane (estimates are in the order of 10 to 70 percent)⁴⁹ and on other urban arterials that may see less use due to HOV lanes being used by transit.⁵⁰ In 2018 NCHRP project 20 60A that reviewed successful approaches to accommodate additional modes in an existing right of way, noted that reconstruction activities and major

⁴⁶ Austin Chamber of Commerce, Community Profiles: Buda. <https://www.austinchamber.com/economic-development/community-profiles/buda>

⁴⁷ Jonathan E Hughes, Daniel Kaffine. *When should drivers be encouraged to carpool in HOV Lanes?* Economic Inquiry, January 2019 Vol 52. Issue 1. The authors note that encouraging carpooling decreases total costs when congestion relief in mainlanes outweighs increased HOV lane congestion.

⁴⁸ Monica Menendez, and Carlos F Daganzo. *The impact of HOV lanes on freeway bottlenecks* Transportation Research Part B, October 2007 Vol 41 Issue 48.

⁴⁹ Boriboonsomin K and Barth, 2007. *Evaluating air quality benefits of freeway high-occupancy vehicles lanes in southern California*. TRB Research record 2011: 137-147.

⁵⁰ Tania Fontes, Paulo Fernandes, Hugo Rodrigues, Jorge Bandeira, Sergio Pereira, Asad Khattak and Margarida Coelho. *Are HOV/Eco-lanes a sustainable option to reducing emission in a medium-sized European city?* Transportation Research Part A; Policy and Practice, May 2014 Vol 63. However, Sharon Shewmake in *can carpooling clear the road and clean the air: evidence from the literature on the impact of HOV lanes on VMT and pollution* in 2012 (Journal of Planning Literature, Nov 2012 Vol. 27 Issue 4) noted that the literature has no consensus on HOV lane impacts.

roadworks offer an opportunity to upgrade bus service and transit connectivity along corridors.⁵¹ In 2010 The Georgia Department of Transportation assessed the benefits of barrier versus buffer separated managed lanes. They found for buffer separated lanes, one disadvantage was a risk of accidents due to concurrent lane speed variations, and that as general purpose lanes became congested, slower moving vehicles could weave into the managed facility.⁵² The Federal Highway Administration in 2016 also released a technical report on the safety implications of managed lane cross sectional elements.⁵³ They found that wider HOV lanes (up to 12 ft) are associated with fewer crashes and that wider left shoulder widths help reduce crashes in the HOV lanes. The proposed elevated HOV lanes and at-grade lanes south of Slaughter Lane according the VE Study conducted by TxDOT will have a 12-foot-lane width compared to 11-foot-lane width and desirable shoulder widths. The literature, therefore shows that the Proposed Build Alternative elevated HOV lanes may remedy disruption in flows on the freeway, provide wider lanes to reduce crashes, potentially reduce emissions and provide transit options. Additionally, the Proposed Build Alternative may reduce impact on other commuter routes, such as South Congress, South First, Lamar, and Manchaca.

Jurisdictions have also begun to conduct analysis to assess the value of implementing HOV facilities with higher capacity transit utilization. The Mid-America Regional Council for example, in 2009 commissioned a study to review how a regional HOV system could assist congestion, mobility, sustainability and equity. It recommended implementing HOV facilities and implementing additional bus service on freeways in the Kansas City Metropolitan area.⁵⁴ The City of Fort Collins, Colorado in the development of its 2011 master plan and alternative analysis, identified a series of bus rapid transit routes and arterial improvements that would be combined with an HOV lane.⁵⁵ Caltrans District 11 in San Diego, has recently completed over ten miles of four managed lanes on I-805 from SR 52 to La Jolla Village. Two HOV lanes also run from La Jolla Village to Mira Mesa Boulevard. As part of this project two new transit stations, a new park and ride and direct access ramps formed part of the package.⁵⁶ Thus, the provision of the I-35 HOV lane, that is elevated and has direct access connections from the frontage road, provides a future route that could be utilized by Capital Metro as it continues to enhance its route options.

Operational Analysis Findings

The CTR team carried out a traffic operational analysis of the No Build Alternative and two alternative improvement schemes for the I-35 section from south of the William Cannon intersection to the Ben White interchange (about 3.2 miles) – Alternative A1 (A1) refers to the IH-35 improvement schematic introducing additional two (HOV) managed lanes (each direction) at grade and the Proposed Build Alternative refers to the improvement schematic with two (HOV) elevated managed lanes in each direction. The analysis showed that total system travel time was improved under the Proposed Build Alternative (See the Operational Analysis segment conducted under Task 1 of this study for further details). Figure 8 for example, shows the Total System Travel

⁵¹ Arora and Associates P.C. Scan 70-02 Successful Approaches to Accommodate Additional Modes and Services in Exiting Right of Way. TRB- NCHRP. October 2018.

⁵² Georgia DOT (report prepared by HNTB). Barrier versus Buffer Separated Managed Lanes. January 2010.

⁵³ Kay Fitzpatrick and Raul Avelar. Safety Implications Of Managed Lane cross Sectional Elements. December 2016. FHWA-HOP-16-076.

⁵⁴ Mid-Atlantic Regional Council. *Regional HOV Study; Kansas City Metropolitan Area*. May 2009.

⁵⁵ See <https://www.fcgov.com/fcmoves/tmp>.

⁵⁶ See <https://www.keepsandiegomoving.com/I-805-Corridor/I-805-intro.aspx>

Time comparison for the AM peak analysis. The CTR team found that the Proposed Build Alternative implementation could save 15,980 hours per day. Comparing A1 and the Proposed Build Alternative in terms of TSTT yields a daily savings of 2,326 hours more for the elevated Proposed Build Alternative versus A1.

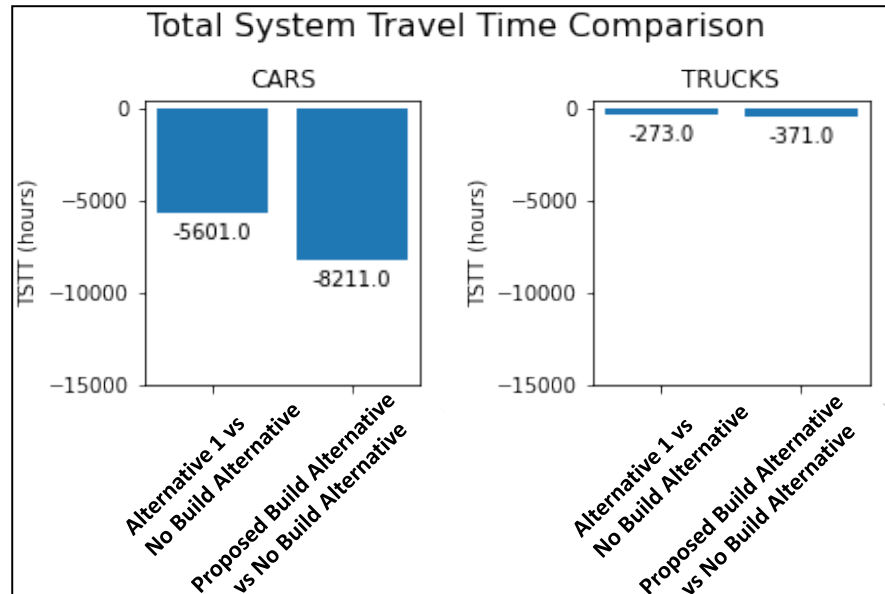


Figure 8. Comparison of Alternative using Total System Travel Time AM Peak

Economic Benefits

The operational analysis conducted by the team also noted, that, the Proposed Build Alternative could reduce Total System Travel Time by 15,980 hours daily, compared to the Existing I-35 configuration (sum of AM and PM Peak TSTT). Valuing user travel time at \$30.12 per hour (TxDOT current estimate), the saved travel time for each day would have a value of \$481,318. If one assumes 20 working days per month, the monthly sum would be \$9,626,360 and the annual value \$115,516,320. If the Proposed Build Alternative improvements cost \$350 million, the savings in travel time would equal the construction cost in slightly less than 3 years. This is a conservative estimate since it only includes AM and PM peak times. Other times of day would likely contribute to the savings, and this calculation only includes working days (20 days per month). However, one must remember that the assumption of the ultimate IH-35 cross section consisting of two additional lanes each direction from Ben White to US 183 facilitates the performance of both Alternatives.

Safety Analysis

The safety analysis that was conducted by the team also looked at the No Build Alternative and the two alternative improvement schemes (See the Safety Analysis segment conducted under Task 1 of this study for further details). They found that when compared to the No Build Alternative, A1 results in a reduction of 27 total crashes (8.2%) per year, and the Proposed Build Alternative results in a reduction of 93 total crashes (28.2%) per year. This indicates that about 80 persons will benefit from A1 compared with the No Build Alternative, including 36 Hispanic, 30 White, 7 Black, 3 Asian, and 4 unknown. When comparing the No Build Alternative to the Proposed Build

Alternative, 275 individuals will be prevented from being involved in a crash, including 124 Hispanic, 105 White, 24 Black, 9 Asian, and 13 unknown. In addition, comparing the Proposed Build Alternative to A1, there is a reduction of 66 total crashes (21.8%).

The team also assessed how many severe crashes would be expected to be prevented (the No Build Alternative) proportion of severe crashes is 24.4% or approximately 80 crashes per year. Comparing A1 and the No Build Alternative, a reduction of 27 total crashes leads to a reduction of 7 severe crashes. Comparing the Proposed Build Alternative and the No Build Alternative, a reduction of 93 total crashes leads to a reduction of 23 severe crashes. According to Table 5, this indicates that about 23 persons will be prevented from being involved in a severe crash (A1 compared with the No Build Alternative), including 11 Hispanic, 8 White, 2 Black, 1 Asian, and 1 unknown. When comparing the No Build Alternative to the Proposed Build Alternative, 75 individuals will be prevented from being involved in a severe crash, including 35 Hispanic, 25 White, 8 Black, 4 Asian, and 3 unknown. In addition, comparing the Proposed Build Alternative with A1, there is a reduction of 16 severe crashes (228.6%) for the Proposed Build Alternative.

Overall, based on the crash prediction and converted Annual Average Daily Traffic (AADT) volume, the annual crash rate of the No Build Alternative, A1, and the Proposed Build Alternative is calculated as 182.1, 124.3, and 94.1 crashes per 100 million VMT, respectively. The No Build Alternative, A1 and the Proposed Build Alternative have a reduction of 31.7% and 48.3% in crash rate, respectively.

Therefore, compared with the No Build Alternative, A1 could help save about \$5.7 million (\$812,605 x 7) per year, and the Proposed Build Alternative could lead to a savings of approximately \$18.7 million (\$812,605 x 23) in crash costs per year. Compared with A1, the Proposed Build Alternative saves 228.1% more in severe crash costs per year. Compared to A1, the Proposed Build Alternative saves 232.3% more in all types of crash costs per year (unknown injury crashes are not considered). There are also savings for other types of crashes, such as possible injury crashes and property damage only crashes however these savings are not included in these cost totals. Using the crash rate calculations the team concluded that the annual crash value per 100 million VMT for the No Build Alternative, A1, and the Proposed Build Alternative is estimated to be \$40.6 million, \$27.7 million, and \$21.0 million, respectively. Compared with the No Build Alternative, A1 could help save \$12.9 million (31.8%) in crash costs per 100 million VMT per year, and the Proposed Build Alternative could lead to a saving of \$19.6 million (48.3%) in crash costs per 100 million VMT per year. Compared with A1, the Proposed Build Alternative saves 24.2% more in crash costs per 100 million VMT per year.

HOV Safety Literature

HOV literature has noted different components associated with safety. For example, several researchers have examined how an HOV lane that is buffer-separated impacts freeway safety. These changing freeway characteristics, they note, are not due to the presence of the HOV lane itself, but rather due to the congestion pattern shift along the corridor.⁵⁷ HOV literature has also

⁵⁷ Cooner S.A. & Ranft S.E. (2006) *Safety evaluation of buffer-separated HOV lanes in Texas*. Transportation Research Record 1959 168-177 and Golob, T., Recker, W.W., and Levine, D.W. (1989) *Safety of HOV lanes without physical separation*. Journal of Transportation Engineering, 115, 591-607.

found that crash rate distribution of the weaving segments depend not only on the highway class, but also where the access point is present, as well as the types of buffer utilized. Kwangho⁵⁸ noted for example, that this was found for both model based analysis and in descriptive analysis. Weaving segments with an access point tend to show lower crash-rates than counterpoints without one. Chen et al,⁵⁹ found that HOV lanes have a higher travel time reliability than general purpose lanes under similar incident types (shoulder, single lane and multiple lane incidents).

Bike, Pedestrian and Transit Amenities and Opportunities

We also reviewed how the I-35 Capital Express South project intersected with current plans of the City of Austin for bike and pedestrian activity, current operating routes of Capital Metro buses and opportunities for transit provision. According to the City's Bicycle Plan in 2014, recommended bicycle facilities within Alternative 1 and 2's areas include (Shared Use Paths) SUPs on this segment of I-35 northbound, "cycle tracks" (that are on street and protected) that will intersect with the SUP, and wide shoulders along SH 45 East of I-35.⁶⁰ Figure 9 shows in red where the City of Austin has identified SUPs as recommended bicycle facilities, and the items in green are cycle tracks (on street protected) that link to the SUPs. Reviewing the schematics for IH35-S within the EA⁶¹, the proposed improvements for SUP south of Ben White Boulevard highlighted in red, green, blue and orange, correspond to the identified items within the City's 2014 plan. This also ties into the online city bike map (Figure10)⁶² that shows this area currently has bike routes with lower comfort types (colored teal and yellow). The enhanced additions of SUPs being developed with this project may provide opportunities to further link the city bike network, and to upgrade the 'comfort types' for users.

⁵⁸ Kim Kwangho. *Safety features of freeway weaving segments with a buffer separated HOV lane*. International Journal of Injury Control and Safety Promotion. September 2018 Volume 25 Issue 3.

⁵⁹ Xianzhe Chen, Yajie Zou, Jinjun Tang, Yichuan Peng, Lingtao Wu and Yuming Jiang. *Analyzing the impact of traffic incidents on the travel time reliability of freeway HOV lanes*. Discrete Dynamics in nature & Society. 8/5/2018/

⁶⁰ City of Austin Bicycle Plan 2014 pg 89. <http://austintexas.gov/page/austin-bicycle-plan>

⁶¹ Draft EA (dated Jan. 26, 2021; reviewed by UTCTR team Feb. 1-11, 2021)

⁶² City of Austin maps. URL:

<https://austin.maps.arcgis.com/apps/webappviewer/index.html?id=c7fecf32a2d946fabdf062285d58d40c&extent=3052120.7123%2C10036958.1486%2C3179054.0456%2C10097891.4819%2C102739>

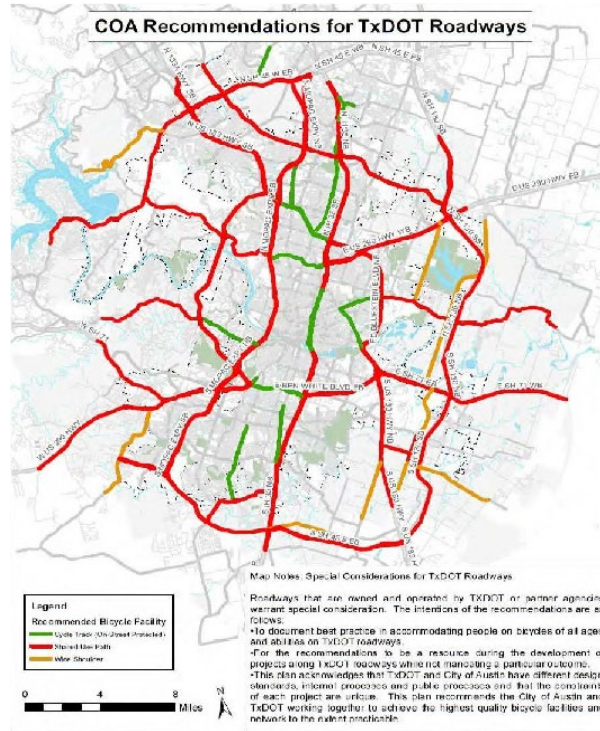


Figure 9: City of Austin 2014 Bicycle Plan
Source: City of Austin 2014

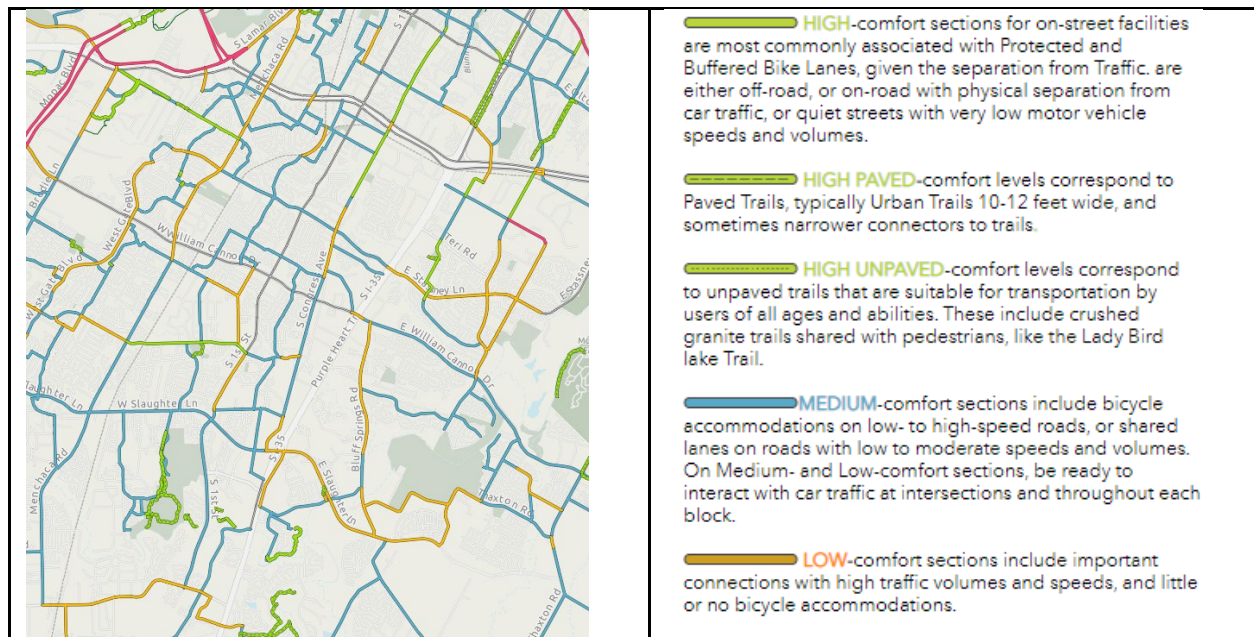


Figure 10: City of Austin Online Bike Map

The City of Austin and Capital Metro conducted a Transit Need Study using 2018 census data that showed Census Tracts that had high transit needs.⁶³ This study also developed a transit need score

⁶³ This study was provided by TxDOT Austin District to the study team

by demographic make-up (Figures 11 through 14). Tracts within the study area have transit need, as the maps show. The Proposed Build Alternative affords opportunities to provide future transit options for these transit-need and transit-dependent populations in the future.

Currently, Capital Metro has one Bus Rapid Transit (801) that serves South Park Meadows. Other routes within the study areas vicinity are metro bus local that operate at headways of 15 minutes (Routes 7, 10, 311, 333) three of these operate as east and west routes. Metro bus local that operate regular routes, that have time and service levels that vary (Routes 1, 201, 310, 318) also provide east and west connectivity across 1-35. Thus, there are significant opportunities to develop newer and faster Metro routes that will take advantage of the Proposed Build Alternative. In addition, the SUPs and bikeways may provide north and south connectivity to current transit options.

We would recommend that the district works with Capital Metro to develop opportunities for transit options in the future, including development of new park and ride facilities.

Possible Scores Range from 5 to 30					
Equity Indicators	1 point	2 points	3 points	4 points	5 points
Percent Black Population	≤3%	≤7%	≤12%	≤23%	≤43%
Median Household Income (MHI)	≤\$217,969	≤\$143,182	≤\$100,326	≤\$72,266	≤\$49,866
Rent Burden (Median Gross Rent / (MHI / 12))	≤.165	≤.224	≤.290	≤.73	≤1.7
Percent of Households with No Vehicle Available	≤2.4%	≤5.6%	≤10.3%	≤16.8%	≤28%
Percent of Population whose income in the past 12 months is below poverty level	≤6.2%	≤12.5%	≤22.7%	≤50.6%	≤87.1%
Population Density (Pop./Sq. Mi.)	≤2,284	≤4,890	≤8,040	≤16,467	≤28,857

Note: Ranges reflect natural breaks in data.

Figure 11: Transit Need Score: Black Population Data

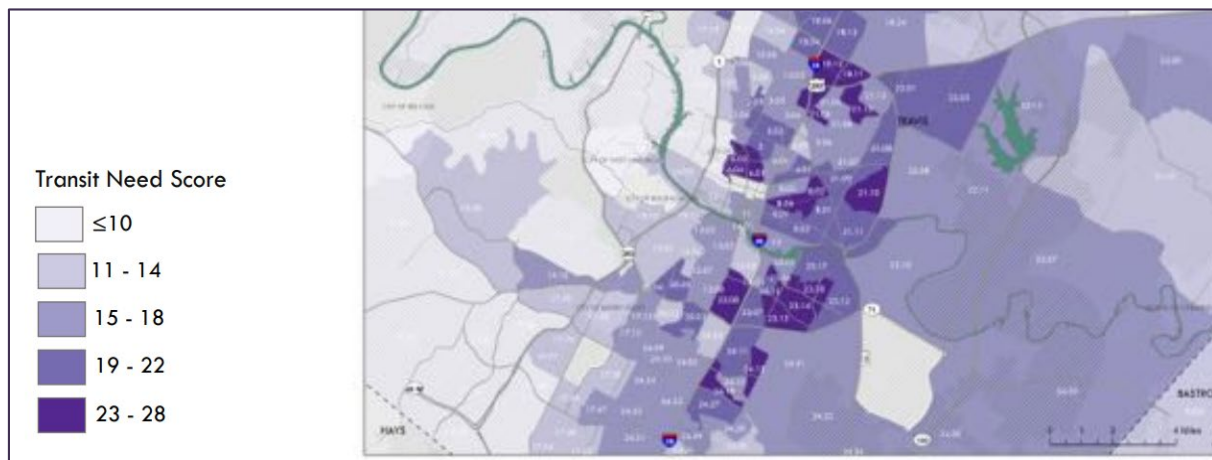


Figure 12: Transit Need Score: Black Population Map

Transit Need Score:
Latinx Population

Possible Scores Range from 5 to 25

Equity Indicators	1 point	2 points	3 points	4 points	5 points
Percent Latinx Population	≤16%	≤26%	≤42%	≤60%	≤86%
Median Household Income (MHI)	≤\$217,969	≤\$143,182	≤\$100,326	≤\$72,266	≤\$49,866
Rent Burden (Median Gross Rent / MHI / 12)	≤.165	≤.224	≤.290	≤.73	≤1.7
Percent of Households with No Vehicle Available	≤2.4%	≤5.6%	≤10.3%	≤16.8%	≤28%
Percent of Population whose income in the past 12 months is below poverty level	≤6.2%	≤12.5%	≤22.7%	≤50.6%	≤87.1%
Population Density (Pop./Sq. Mi.)	≤2,284	≤4,890	≤8,040	≤16,467	≤28,857

Note: Ranges reflect natural breaks in data.

Figure 13: Transit Need Score: Latinx Population Data

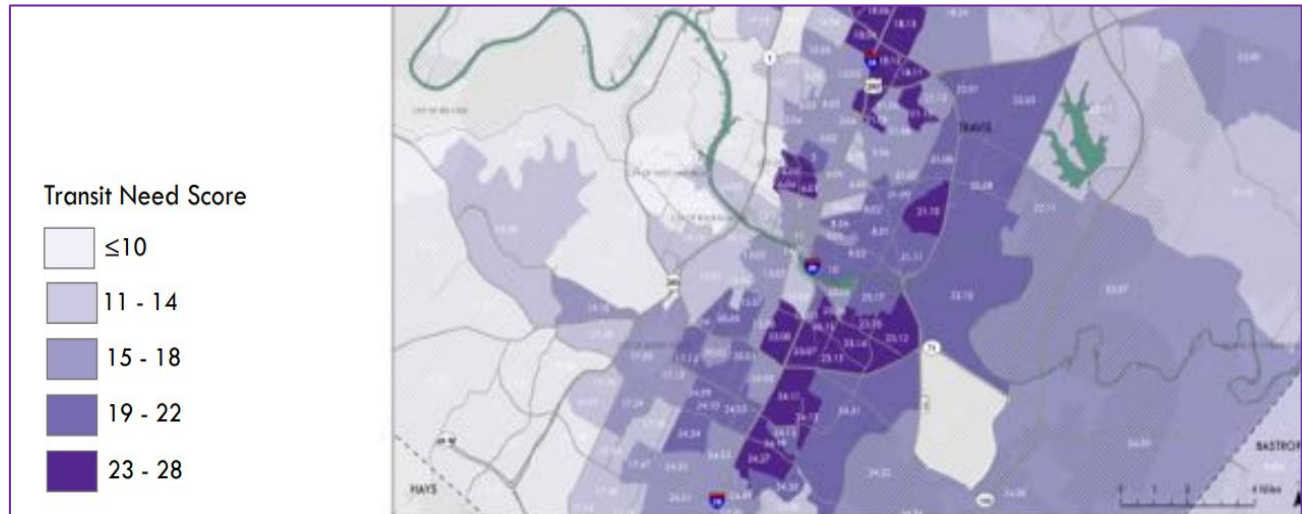


Figure 14: Transit Need Score: Latinx Population Map

Economic Impact, Zoning and Land Use

Future land use in Austin is somewhat unpredictable, Austin city officials have been working on a rewrite of Austin's land-development code since October of 2019.⁶⁴ The council has called on city planners to craft a code that potentially would allow for 405,000 new homes in Austin, with a goal of 135,000 new homes in the next decade.⁶⁵ The proposal and maps with changes for residential and commercial zoning throughout the community is available on the City website.⁶⁶ Proposed zoning maps may be compared with current zoning maps through the city's online

⁶⁴ Spectrum 1 News. *City of Austin updates First Draft of Land Development Code Updates*. October 4, 2019. URL: <https://spectrumlocalnews.com/tx/austin/news/2019/10/04/city-of-austin-releases-first-draft-of-land-development-code-updates>

⁶⁵ Philip Jankowski. *City braces for new draft on land development rules — and the pushback to come*. October 1, 2019. URL: <https://www.statesman.com/news/20191001/city-braces-for-new-draft-on-land-development-rules---and-pushback-to-come>

⁶⁶ City of Austin Land Development Department. *Draft Code Map*. URL: <http://www.austintexas.gov/departments/land-development-draft-code-map>

portal.⁶⁷ On Jan. 31, 2020, City staff released the second reading draft of the “Code Next” text that includes amendments and four accompanying reports. These documents envisage Mixed Use (MU) and Main Street (MS) zoning and mapping along corridors, particularly along major transit corridors and, those being upgraded with significant multi-modal transportation bond improvements.⁶⁸ The revised mapping criteria includes zoning to introduce options for new transit-supportive housing types throughout the City, but in a more incremental and context-sensitive fashion.⁶⁹ Certain neighborhoods in the I-35 S study area have already filed future land use maps with the City:⁷⁰

As noted earlier this area has seen significant development, and has already seen gentrification impact the demographic make-up. As an example, Community Impact Newspaper Southwest Austin⁷¹ shows that the percentage change in median house prices (2019-2020) of property in 3 zip codes Zip codes – 78745, 78747 and 78748 – within the study area have increased across both sides of I-35 (Figure 15).⁷²

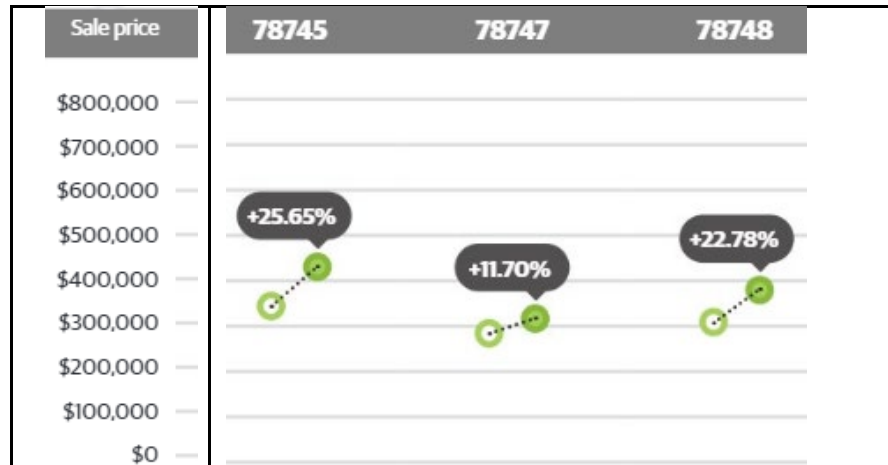


Figure 15: Excerpt from Community Impact Newspaper on 2019-2020 Median House Price Percentage Increase.

⁶⁷ City of Austin maps. URL:

https://austin.maps.arcgis.com/apps/Compare/index.html?appid=32713bd8d31f4f858b5247e47d917c5b&fbclid=IwAR201yXblOhB7cM6TWYAJUpFsTMuY0wuKp9PpnIVdiQsH8iBv_g9zYSruk.

⁶⁸ City of Austin Third Supplemental Staff Report, A Guide to Map & Text Revisions, Proposed for 2nd Reading, January 31, 2020,

www.austintexas.gov/sites/default/files/files/LandDevCodeRev/LDC_Revision_Third_Supplemental_Staff_Report_1.31.20_v2.pdf?fbclid=IwAR2ngJM8DuKoBIoH3is0gJJ0Usxm3uvMg8Ldl4fzXOnw-fNU5MZk3pjOrho.

⁶⁹ City of Austin Third Supplemental Staff Report, A Guide to Map & Text Revisions, Proposed for 2nd Reading, January 31, 2020,

www.austintexas.gov/sites/default/files/files/LandDevCodeRev/LDC_Revision_Third_Supplemental_Staff_Report_1.31.20_v2.pdf?fbclid=IwAR2ngJM8DuKoBIoH3is0gJJ0Usxm3uvMg8Ldl4fzXOnw-fNU5MZk3pjOrho

⁷⁰ City of Austin. Future Land Use Maps Online. URL: https://data.austintexas.gov/Locations-and-Maps/Future-Land-Use/4etbjk4d?category=Locations-and-Maps&view_name=Future-Land-Use.

⁷¹ Who use data from the Austin Board of Realtors

⁷² Community Impact Newspaper – South West Edition. January 2021 Online Edition. URL: <https://editions.communityimpact.com/view/298052/30/>

The CTR team also looked at apartment rental costs in properties located within the study area (average size 865 square feet) as compared to the average apartment rents in the Austin metro area. The average rent of this size of apartment in the Austin metro area in February 2021 according to RentCafe.com is \$1,378 per month.⁷³ We reviewed six apartments that were identified as a receiver in the noise analysis conducted in the Draft EA (Table 1).⁷⁴ While the apartments were under the average rental costs for Austin metro area, as table 1 shows, Lenox Springs apartments at the high end of their rent range are close to the city's rental average.

Table 1: Apartment Rent Ranges Example

Apartment Name	Rent Ranges \$
Stassney Woods	\$898 - \$1,048
Ethos Apartments	\$1,025 - \$1,282
Southpark Crossing Apartments	\$1,005 - \$1,075
Lenox Springs	\$1,099 - \$1,335
Colonia Grand at Onion Creek	\$968 - \$1,088
Estancia Villas Apartment Balconies	\$957 - \$1,164

We took a look back at land use around the highway. We downloaded USDA aerial maps from the Texas Natural Resource Information System for 1964 and 1973.⁷⁵ As Figure 16 shows, land in this project area of the I-35 corridor was mostly undeveloped, especially east of I-35 and the area mostly south of E. Ben White. However, the CIA notes that *“construction of I-35 resulted in displacements and introduced a substantial barrier and separated the community into west and east sides,”*⁷⁶ this statement lacks historical documentation to prove this assertion.

Although older documents are difficult to find, there are some aerial maps from this era. In examining the aerial maps from 1964 (Figure 16) and 1973 (Figure 17), land use on the west and east sides of I-35 was changing, with minor activity, but one could not assert that an established urban residential community was divided by I-35 when it opened in 1962. Instead, I-35 may have been a factor spurring commercial growth and new residential subdivision building on what was previously sparsely populated farm and ranchland.⁷⁷ Therefore, any assumptions that a residential community was divided by the 1962 opening of I-35 for this southern segmented project should be well-supported by historical documentation and facts. If there were any 1964 occupants in the vicinity of I-35 in this project area, they would likely have been more concentrated in the northern tip of the project area – the intersection of I-35 and Ben White – as it was closer to the Austin city limits. In the 1964 aerial maps, one can see many empty fields on either side of I-35, with likely some agricultural activity. This 1964 photo is close to the time that I-35 opened (1962). If one observes the annexation map of Austin, (Figure 18) one can see how the city grew outwards in population and size in a southerly direction from the top portion of the project area. Two existing landmarks to note on the map are the Assumption Cemetery (formerly St. Edward's Cemetery) on

⁷³ It should be noted that data reviewed in January 2021 for rental prices has been severely impacted by the Covid-19 pandemic.

⁷⁴ Draft EA (dated Jan. 26, 2021; reviewed by UT CTR team Feb. 1-11, 2021) see pages 33-43.

⁷⁵ Texas Natural Resources Information System. Data and Map Collection. Accessed at <https://data.tnris.org/collection/db617511-649c-44bc-9440-cb2c26de5f04>

⁷⁶ See CIA, page 24

⁷⁷ Compare the aerial photos from 1964 to 1973. Open fields with few, if any, buildings may be seen on either side of I35 in 1964. The northern portion of this project area is near the large number “15” handwritten on the photo.

the northwest corner of the project area, north of Ben White and west of I-35, and Teri Lane, which appears to be a rural road in 1964.

Any “community” existing in 1962 in the project area was most likely on sparsely populated plots with farms and/or ranching activity – not densely populated residential communities that one may traditionally associate with today’s idea of an urban, cohesive “community”. The aerial maps from 1964 and 1973 reflect this assumption. We also reviewed the Texas freeway.com website and Figure 19 further shows the extent of city limits, and a recommended expressway system and arterial system that extends down to Stassney Lane (which was proposed as a new arterial) that was developed by City Planners in the Austin Transportation Plan 1962-1982.⁷⁸

Since much of the study area was within county jurisdiction prior to the mid -1980’s⁷⁹ there were also no zoning or land use controls, as nearly all counties in Texas are not provided this authority.⁸⁰ Thus, the development that did occur would not have been centered on any specific zoning regulations. The city annexation map reflects that as development occurred around the freeway, the city boundary grew as a consequence of this growth. As annexation occurred, city zoning was put in place and directed growth, using typical new urban development considerations, such as placing commercial zoning closest to the highways and avoiding any predominance of the mixing of incompatible land uses. We would suggest changing future project documents to reflect that the freeway did not ‘divide’ a community when it was built and to note that much of the development occurred post 1995 according to aerial photography, and the cities annexation of areas within the study area

⁷⁸ See http://www.texasfreeway.com/Austin/historic/freeway_planning_maps/images/austin_1962.jpg

⁷⁹ Accessed from https://www.reddit.com/r/Austin/comments/2asmct/austin_annexations_by_decade_map/ Reddit links to http://austintexas.gov/sites/default/files/files/Planning/Annexation/Annexations_by_Decade.pdf - this link is no longer active.

⁸⁰ 13 counties have special authority to establish zoning ordinances in Texas. This authority was granted by the state legislature to promote orderly development and use of property near certain bodies of water. The local government code (Title 7 of the Texas Administrative Code, Subt. B, Ch. 231) states that this zoning authority is granted in order to promote public health, safety, peace, morals and general welfare while encouraging recreation.

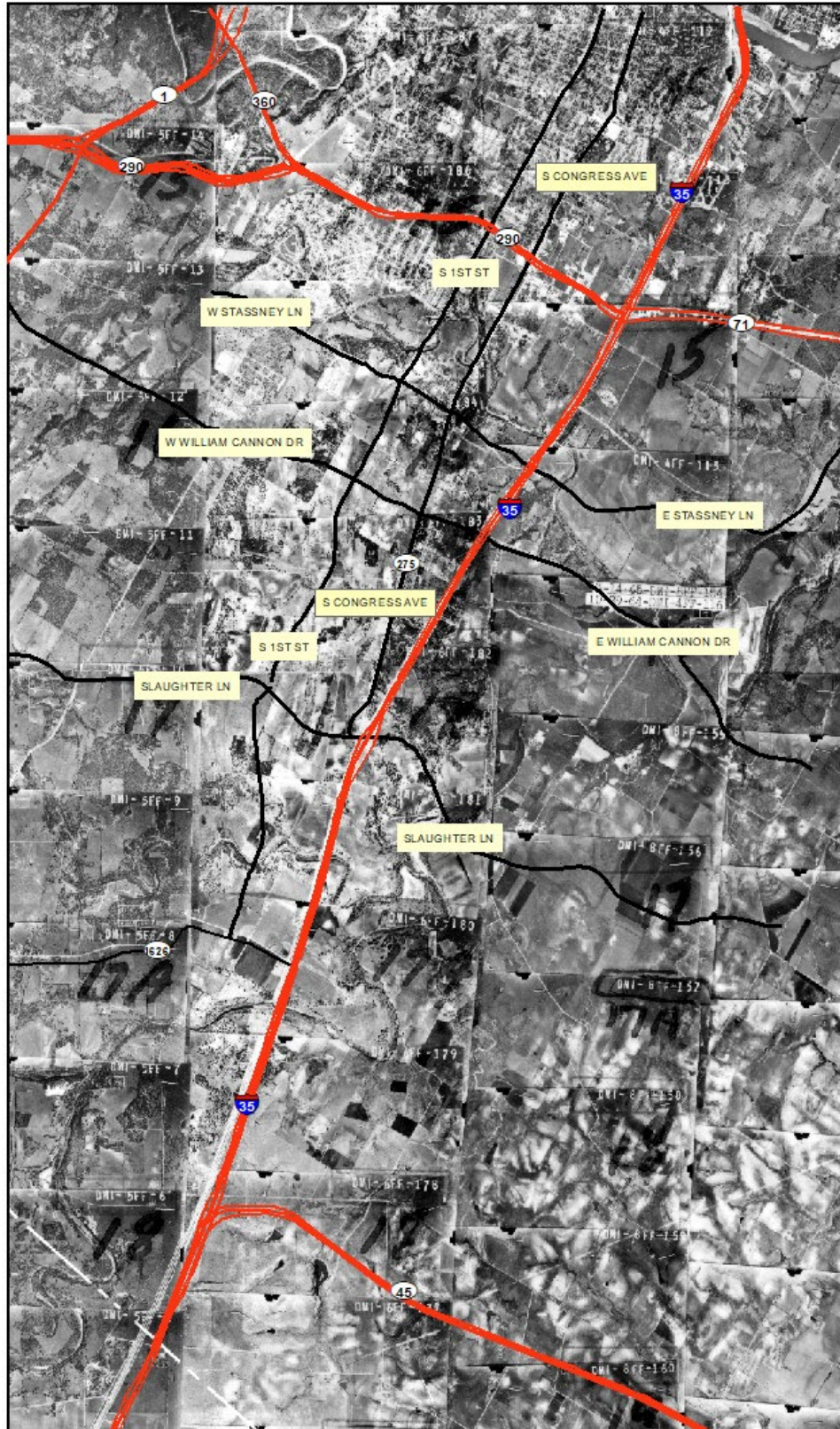


Figure 16: Aerial Photograph of Study Area in 1964.
Source: USDA Historical Imagery, from [www. Data.tnris.org](http://www.Data.tnris.org)

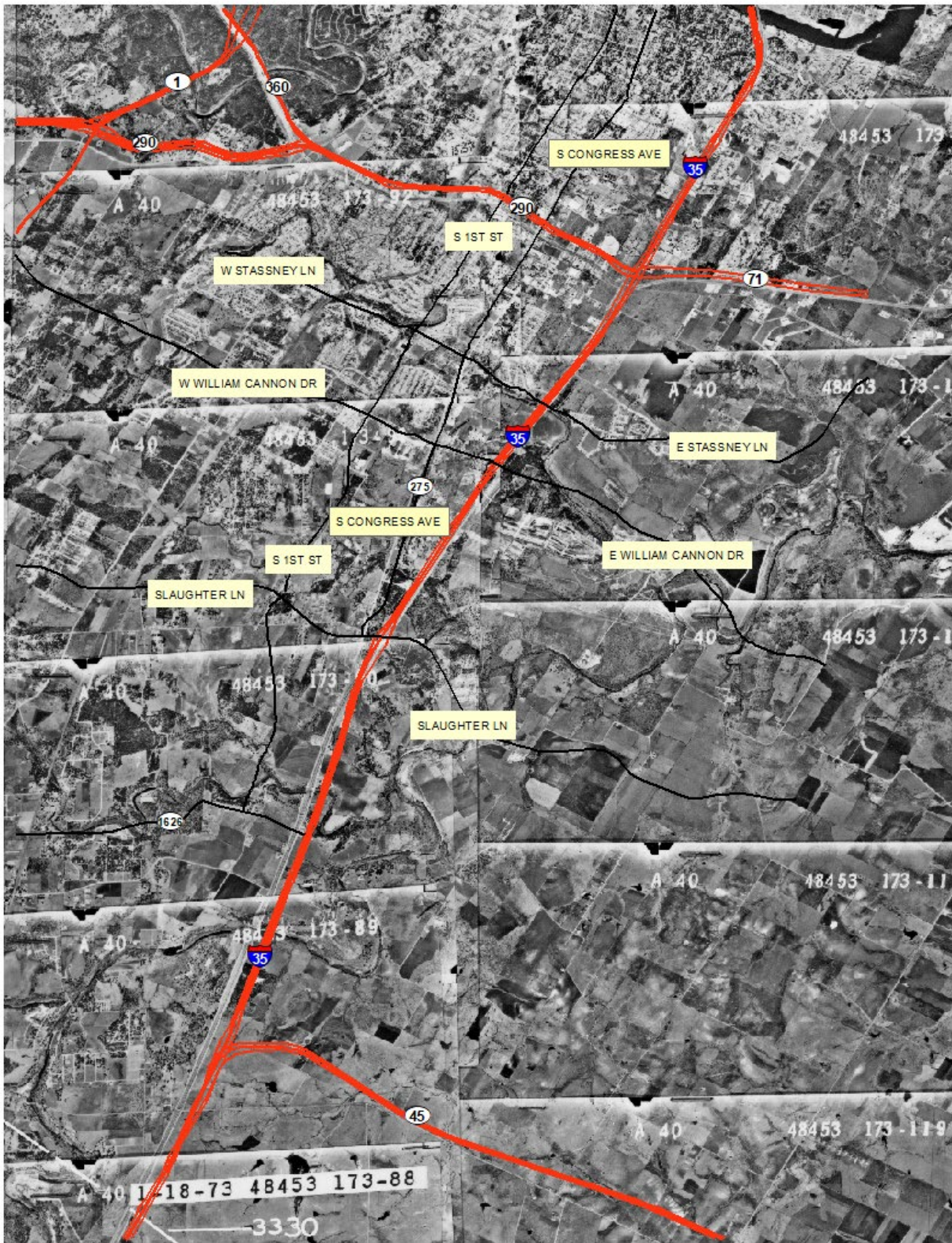


Figure 17: Aerial Photograph of Study Area in 1973.
Source: USDA Historical Imagery, from www.Data.tnris.org

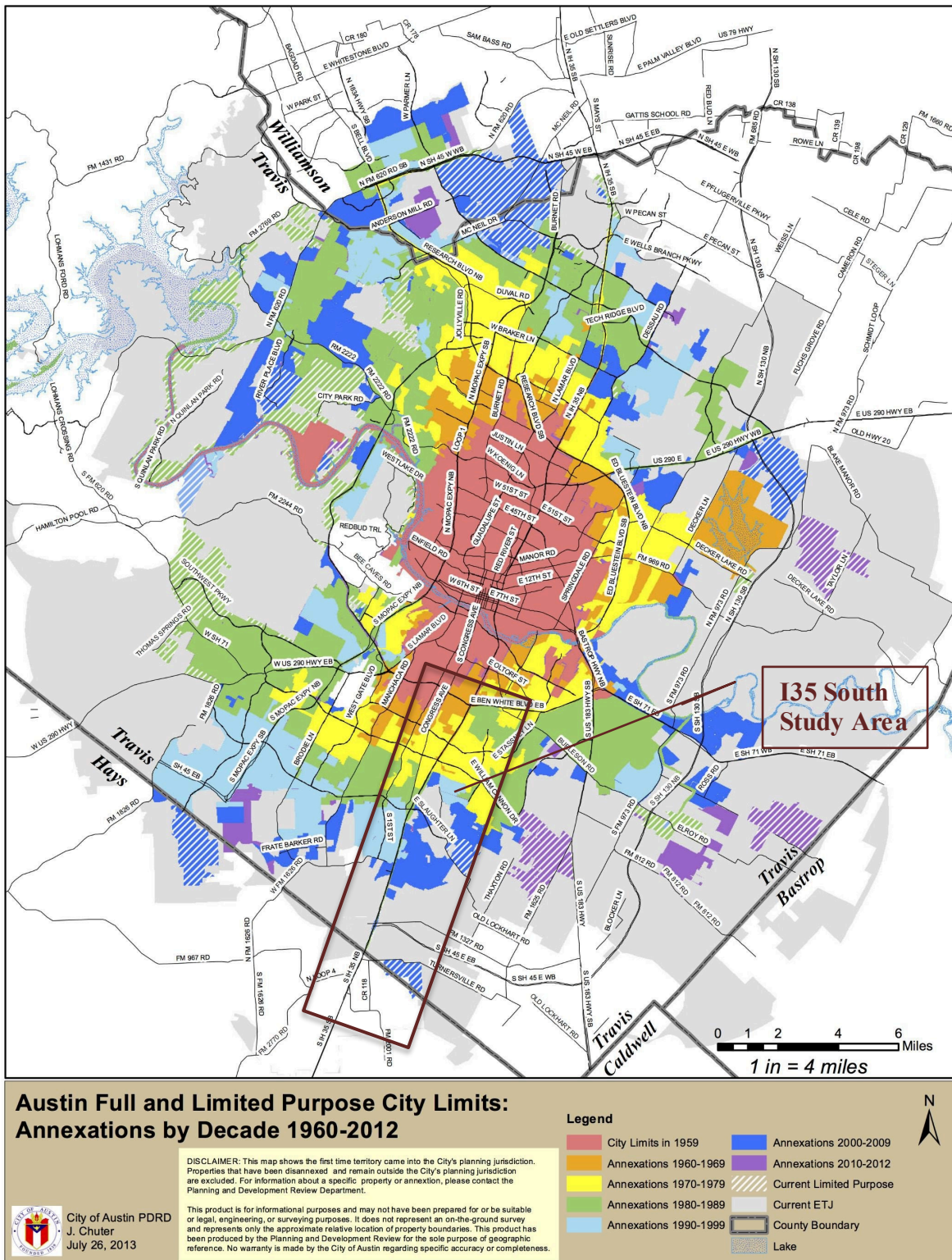


Figure 18: City Annexations by Decade 1959 to 2012
Source: Accessed through Reddit.com

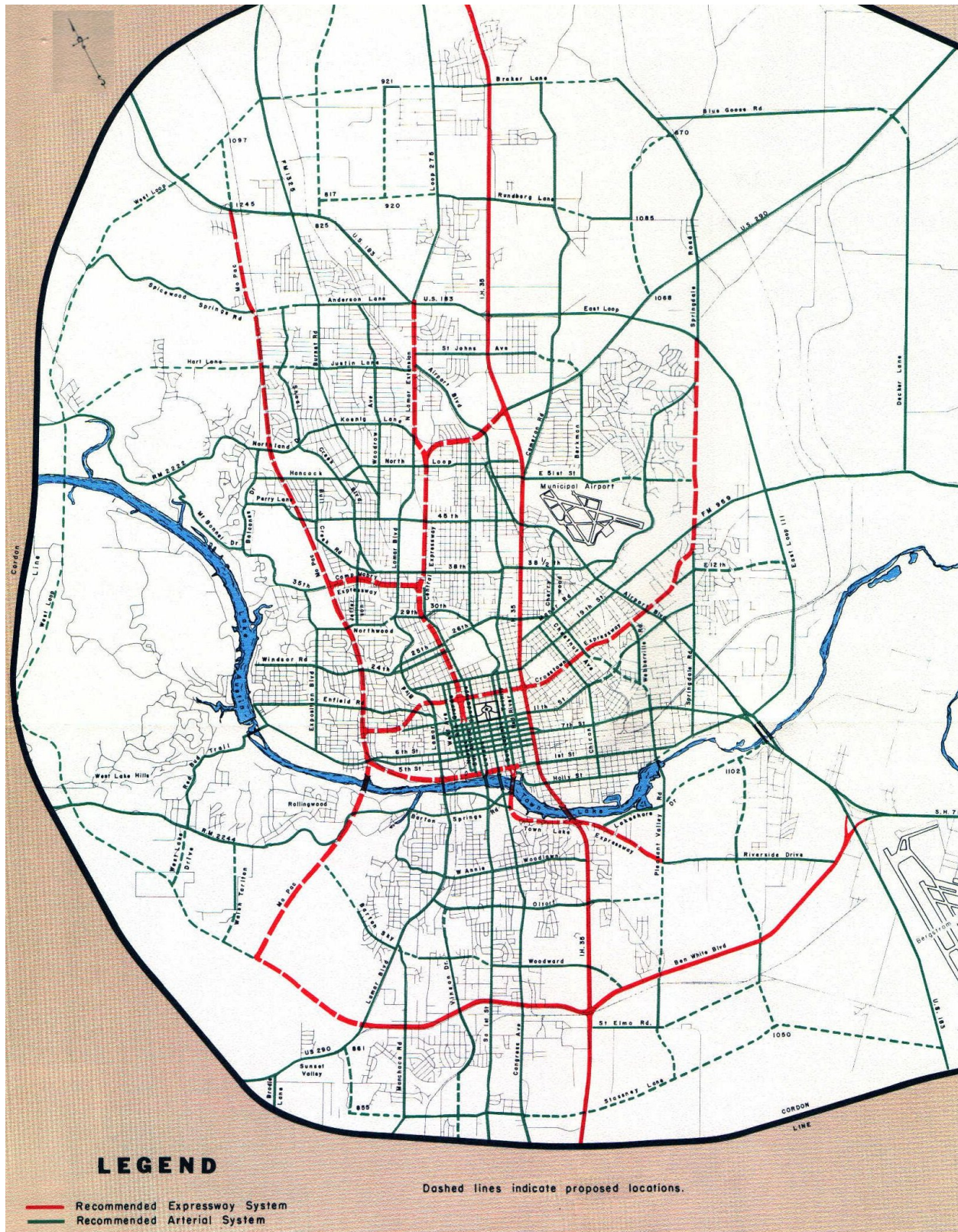


Figure 19: City of Austin Transportation Plan 1962-1982

Source: Accessed from www.texasfreeway.com

Conclusions

Based on materials reviewed, including census data that indicated the location of low income and communities of color who live along this segment of I-35 is on both sides of the highway, we concluded that the community will not be divided, displaced, or have reduced access to services as consequence of constructing the Proposed Build Alternative. Therefore, there will not be a *disproportionately high and adverse human health or environmental effect* of the proposed alternative(s) on minority or low-income populations.

Our assessment is that the project will, provide mobility benefits, new connectivity and safety enhancements for Alternative 1 through the development of:

- Shared use pathways for bike and pedestrian access that are ADA compliant,
- New turnarounds to access the other side of the interstate way without having to stop at a traffic signal.
- Safety benefits due to a reduction of fatal and severe crashes per year. A reduction of 41 total crashes and 10 severe crashes. 33 persons will benefit from not being hurt in a severe crash (broken down by demographics as 15 Hispanic, 11 White, 3 Black, 2 Asian, and 2 unknown).
- Safety economic benefits in comparing with the No Build Alternative, of \$8.1 million ($\$3.6 + \0.5×9),

The Proposed Build Alternative however provides even further benefits, including potential future benefits of:

- Safety benefits due to a reduction of fatal and severe crashes per year (18 crashes prevented under the Proposed Build Alternative versus 10 for alternative 1) and a total reduction of 72 crashes (broken down by demographics as 28 Hispanic, 20 White, 6 Black, 3 Asian, and 2 unknown).
- Comparing the Proposed Build Alternative with Alternative 1, there is a further reduction of 8 severe crashes (80%) for the Proposed Build Alternative.
- Safety economic benefits in comparing with the No Build Alternative of \$15.2 million ($\$3.6 \times 2 + \0.5×16) in crash values. Compared to A1, the Proposed Build Alternative saves 87.7% in severe crash values.
- Traffic operational improvements of 15,980 hours of travel time saved per day.
- Future opportunities to partner with Capital Metro to improve transit access in an area of Austin that has been identified as having a high transit need score.

Therefore, we concluded that the Proposed Build Alternative will not cause *disproportionately high and adverse human health or environmental effects on the communities* that have been identified with a greater than 50% minority population mix, and/or are low income.