APPENDIX H: LA LOMA FINDINGS

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by

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A Tough Route to Eastside Memorial High School: The Issue of Educational Inequality in Austin, Texas.

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Report

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Dedication

I wish to dedicate this report to my hometown of Austin and the residents of the Eastside. May this report help shed light on the inequality that has long affected the city and its residents. In addition, a special dedication is extended to my family and their constant support.

Acknowledgements

I wish to express my sincere thanks to Bjorn Sletto and Michael Oden for providing me with their vast planning expertise in the completion of this study. I would like to thank residents of the Govalle Neighborhood and students from Eastside Memorial High School for being part of the interview process which served to solidify the report's objective. Also, many thanks to Deborah S. Esquenazi for her film *La Loma* that served as inspiration for this report. Lastly, I would like to extend my gratitude to those who directly and indirectly assisted me with the completion of this report.

Abstract

A Tough Route to Eastside Memorial High School: The Issue of Educational Inequality in Austin, Texas.

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The University of Texas at Austin, 2015

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The following report examines the mobility challenges encountered by youth in the Govalle Neighborhood in East Austin, specifically focusing on the obstacles students face on their daily commutes to Eastside Memorial High School. A case study was conducted of an unofficial, unsafe route that students have developed to walk to school, revealing how children appropriate residual spaces to maintain the route and how they personally experience the route. Students who utilize the route, parents, and local residents in the Govalle Neighborhood were interviewed to gauge their perspectives on the route, and recommendations for alternative and improved routes to school are provided. The study shows that this informal route is a result of economic and spatial inequalities in Austin, which have resulted in poorly developed infrastructures in East Austin that exacerbate the challenges facing minority students of a lower socioeconomic background.

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INTRODUCTION

The city of Austin has a long history of inequality and marginalization, which has created an unequal distribution of economic resources, amenities, and infrastructure on a citywide scale. Historically, there has been a divide between the West and the East side of Austin, where the West side has been favored by city authorities and received the lion's share of public resources and private investment, leading to higher standard of living in West Austin compared to the East side. According to Busch, "Anglos lived to the west, and African Americans and Latinos resided in fairly distinct neighborhoods to the east" (2015, 90). In addition, the Eastside has dealt with a multitude of discriminatory services and racial segregation since the city's first comprehensive plan (Busch, 2015). It is home to "some of the highest poverty rates and largest concentration of public housing in the city" (Semuels, 2015). Lastly, due to the city's growing population and demand for housing and services, gentrification is also threatening the East side. According to Long, the percentage of African Americans living in Austin has shrunk by 40%, causing a 5.4% decrease in its African American population (2014). This change in African American population or "Black Flight" from the East side is associated with a number of factors, including a preference for living in newer communities on the outskirts of Austin but also due to the "lack of job opportunities, higher housing costs (including property taxes), and the social disruption of the community" (Long, 2016, 15).

Due to this history of racial segregation and its resulting spatial inequalities, some East Austin neighborhoods are faced with daily challenges of criminality, high poverty rates, and lack of infrastructure. Because of these structural inequalities between West and

East Austin, some schools on the East side are lacking resources, resulting in lower quality education for East side children. According to Semuels, local white residents on the East side do not send their children to the local schools, and current students have problems at home that they bring into the classrooms (2015). Schools on the East side are also located in low-income communities that often have poor transportation infrastructures, such as poor or lacking sidewalks, inadequate crosswalks, and poor drainage systems which have contributed to severe flood damage minority communities, in East Austin (Tretter, 2012). This combination of factors means that in some cases, students do not have safe routes to school but instead face many barriers on their daily commute to school.

The City of Austin's Safe Routes to School indicate that some of the barriers to walking or biking to school include long distances, traffic danger, adverse weather, and fear of crime (City of Austin Safe Routes to School, 2013). These factors force some students to find alternative routes to schools that may not be the most "ideal" routes. In addition, such barriers cause students to be heavily dependent on the school district's bus transportation and other forms of public or private transit. However, since the Austin Independent School District (AISD) is considered a "special district" and hence is an autonomous governing body, there is limited coordination between the City of Austin and AISD in terms of providing for safe routes to school (although in my research, I will investigate to see whether there are any joint City-AISD initiatives in this regard). As a result, many lower-income households, who are most likely to lack a car of their own or the time to bring children to school, are not provided with adequate school transportation options (McDonald, 2009).

In my research I will focus on Eastside Memorial High School. The high school is located in East Austin on Arthur Stiles Road and wedged between Highway 183 and the East Boggy Creek Greenbelt. The school has faced much turmoil due to the underperformance of its students for the past few years. It was formerly known as Albert Sidney Johnston High School, which was established in the 1960's but shut down in 2008 and reinstated as Eastside Memorial High School. The majority of students are Hispanic of African American from low-income households, some of whom face serious economic and structural challenges to attending school. To make the situation even worse, many students who live in the Govalle Neighborhood are forced to take an unsafe trail to school along the East Boggy Creek Greenbelt in order to make it to school on time.

I first heard of this trail from a film called "La Loma" directed by Debora Esquenazi, a local filmmaker. This short film is based on the story of two male Eastside Memorial High School students who are frequent users of this informal route to school, and provides an in-depth perspective of the original development of the trail and why students continue to use it. The film reveals the intersecting challenges of race, economics, criminality, and education in East Austin, and became an inspiration for my own research. The film showed how students have to cross concrete waterways filled with polluted runoff and littered with graffiti, and trek through unlit woods filled with poison ivy and homeless encampments. During the early morning walks to school, the students' pants get soaked with dew from the deep grass. As one of Govalle Neighborhood residents who originally blazed this informal trail explained, sometimes students have to climb through freight train cars. My own research shows that male students are more frequent users of the trail, but

children and youth of all ages are forced to move through this informal path developed by residents.

Ironically, the students' trail is crossed by the recent extension of the City's official Walnut Creek Hike and Bike Trail. This extension is located along Boggy Creek and cuts the students' trail perpendicularly. In a city that is growing so rapidly and gaining worldwide recognition for its sustainable development agenda (Long, 2016), it is ironic that city council allowed for the $10 million dollar extension of the Walnut Creek Hike and Bike Trail but was unable to create a safer route to school for these students (KVUE News, 2014). For many residents, this concrete, 10-foot wide trail extension takes advantage of the beauty of East Austin and provides important public benefits. However, for residents in the Govalle Neighborhood, especially the students who take the route to school, the trail offers "little in practicality for nearby residents and no solution for students in need of a sanctioned path to school" (KVUE News, 2014). The extension of the trail speaks volumes of the inherited marginalization of Eastside students and how the area has been overlooked.

The following Eastside Hazards Map shows the land use in the area and how it has created a major barrier for students. The Govalle Neighborhood, which primarily consists of single-family homes, is separated from Eastside Memorial High School by the East Boggy Creek Greenbelt, Boggy Creek, a large industrial zone, and a power plant (Figure 1). In addition, the major arterials that surround the area, including Airport Boulevard and Highway 183, also act as barriers for residents who do not have access to a car of their own.

Eastside Hazards Map

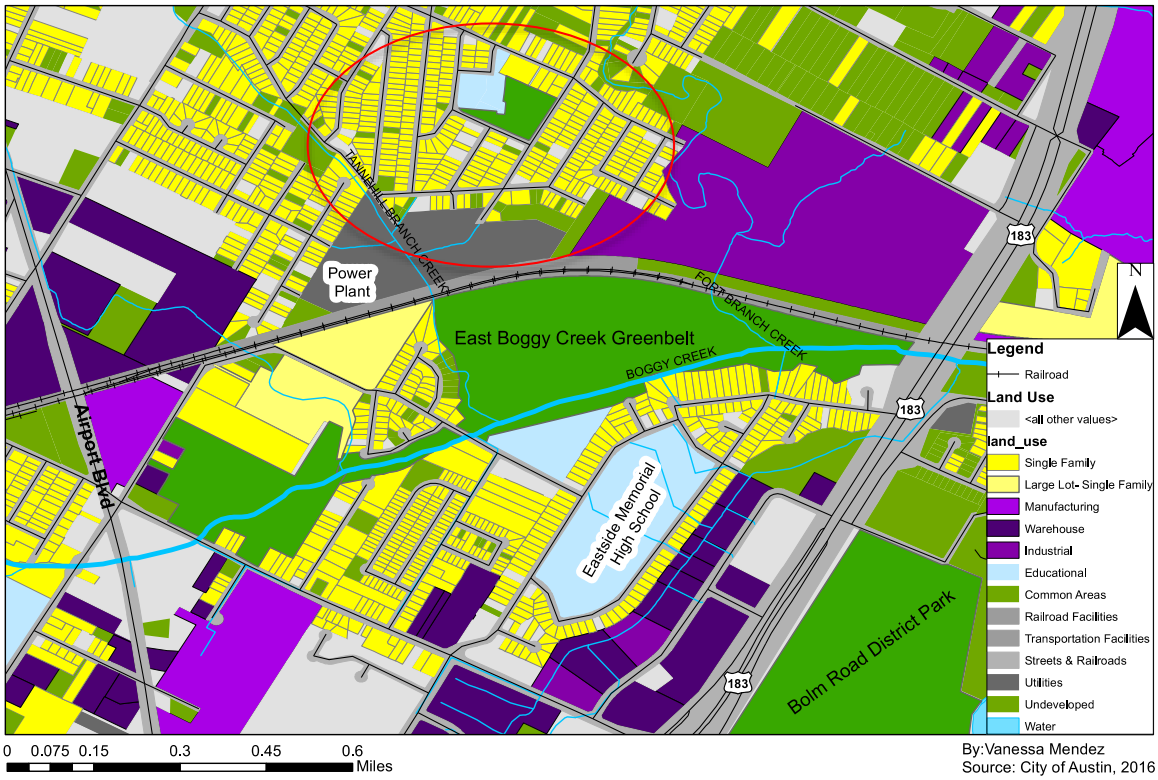

Figure 1: Hazardous conditions in the Eastside (Govalle) Neighborhood.

In my research, I focus on the everyday strategies children use to walk to school along this trail and the emotional impact of their route to school. First, to better conceptualize how children have informally appropriated public space for their own purposes of walking to and from school, I draw on the concept of "residual" and "leftover" spaces discussed in the work of Carmona (2010), Villagomez (2010), and Hou (2010). Hou defines residual spaces as those that defy conventional regulations and rules in response to the recent methodologies of management and the regulation public spaces, and which

therefore are overlooked or not considered properly "public" spaces (2010). Villagomez provides a typology of different types of residual spaces: spaces between and around, rooftops, wedges, redundant and oversized infrastructure, void spaces, and spaces below. These are spaces that are leftovers or remnants stemming from current urban and planning practices. He also notes that these types of spaces are usually found in lower-income areas where residents must make the most out of the surrounding space (2010). According to Carmona, such leftover spaces result from "under-management." In turn, he suggests that under-managed spaces can lead to the creation of a "neglected space" that is littered, covered in graffiti, unsafe, and populated at night by homeless people (2010).

To better understand the children's tactics as they appropriate such residual spaces to develop their trail, I draw on Young (2003), Van Blerk (2013) and Cloke et al. (2008). Young provides an in-depth look on how street children in Kampala, Uganda create their own niches in the marginal spaces of the city (2003). Van Blerk explores children's tactics in Cape Town, focusing on how governmental processes have pushed children to take refuge in undesirable spaces (2013). Cloke et al. focus on how the homeless inhabit marginalized spaces which are considered of little value to the mainstream city and where their "'spoiled' identities are least likely to taint the spaces and practices of 'normal' people" (2008). These authors provide me with valuable insights into the ways in which children and other vulnerable groups navigate the city through the spaces left over from formal, urban planning.

In addition, to understand the emotional impacts of such appropriation of residual spaces, I will draw on literature from authors who have studied emotional responses to

public space, in particular fear. According to Sweet and Escalante (2015), bodies are nexus of public-private space and they should be treated as a new form of geographic space in order to understand how pedestrians experience fear in public spaces. Lastly, in order to better understand the experience of children who have to make their own way to school through risky areas, I complement the work of authors in emotional geographies with literature from the fields of children's geographies of fear and safety, and children's mobility. Spencer and Wooley (1996) suggest that children and parents are victims of 'traffic environmental stress' due to dangers caused by traffic, and that children are very aware of street crimes and incivilities and adjust their use of public space accordingly (1996). Furthermore, Broomley and Stacey emphasize that teenagers in lower income urban areas are more likely to feel unsafe closer to home (2012).

In order to better understand the everyday realities facing children who have to take this trail to school and to explore alternative routes and transportation options to Eastside Memorial High School, I asked the following research questions:

1. How does Eastside Memorial High School compare with other high schools in terms of performance standards, amenities, and educational resources, and what are the factors that affect these performance levels, amenities, and resource availability?
2. What is the route to school created by children at Eastside Memorial High School, including how it was developed, where it is located, what are the characteristics, and how is influenced by new land development and the natural topography?
3. How does taking the route affect students' daily lives?

4. What are the alternative routes students can take and how feasible are these routes?

I addressed these research questions in several phases, drawing on both quantitative and qualitative methods. First, I conducted initial background analysis to understand the spatial distribution of resource inequality in Austin and I created a land use map of the study area that reflects the current zoning. Next, I conducted field mapping by walking the man-made high school route along Boggy Creek to Eastside Memorial High School. This helped me understand how students experience the trail, and also allowed me to create a map of the route by drawing a base map using GIS software. As I walked the trail I noted the current conditions and also documented my experience by taking pictures. I made sure to pay close attention to my thoughts and feelings as I conducted these field observations. I then interviewed the filmmaker, a student who regularly uses the trail, parents in the neighborhood, and residents who live closer to the high school on the other, southern side of the railroad tracks. Although residents in this area do not use the trail since, as they say, there is no need to, residents here are well aware of the trail and regularly observe students passing by their homes. Finally, I mapped alternative routes to Eastside Memorial and field-checked the routes in order to assess how long it would take students to go from home to school and back, and what obstacles they would encounter.

My PR is structured as follows: In Chapter 1, I will discuss the historical causes of Austin's resource inequality and the impacts of these inequalities for area schools and families. In Chapter 2 I present my theoretical framework, focusing on how children are affected by the built environment and how they appropriate residual spaces to move through cities. Chapter 3 will present the results of my research of Eastside Memorial High

School students and the trail they use as their main route to and from school. It will also include my personal experience when using the trial and my analysis of alternative routes. Lastly, Chapter 4 will present a final discussion of school inequalities, children's routes to school, and the implications for urban planning in Austin.

CHAPTER 1: SCHOOL INEQUALITY IN AUSTIN

INTRODUCTION

The city of Austin has a long history of inequality and marginalization, which has created an unequal distribution of economic resources, amenities, and infrastructure on a citywide scale. Historically, there has been a large divide between the West and the East side of Austin, where the West side has been favored and granted a higher standard of living. The city's first Comprehensive Plan of 1928 established a "negro district" east of West Avenue, which was the eastern most boundary of Austin that later became I-35 (City Plan of Austin, 1928, 61). Staying true to the comprehensive plan, the City of Austin adopted as official policy the goal of segregating non-White households in East Austin. The East side of Austin became home to blighted, neglected communities with poor infrastructure and resources. Then as the era of the New Deal came to Austin, in efforts to improve the housing market by regulating interest rates and mortgages, the East side of Austin became the victim of "Redlining" (Tretter, 2012, 13). This caused this area to be deemed too hazardous for investment due to the strong decline in property values, while the West side was deemed the best. These types of policies and actions were critical to shaping how the East side of Austin was developed throughout future years and help explain the current infrastructure and social conditions in this area. Because of these structural inequalities between West and East Austin, some schools on the East side are lacking resources and are also located in low-income communities that often have poor infrastructures. This combination of factors means that in some cases, students do not have

safe routes to school but instead face many barriers on their daily commute to school. For example, sidewalks are of poorer quality and less well developed in East Austin, as seen in this map of sidewalk density in Austin (Figure 2).

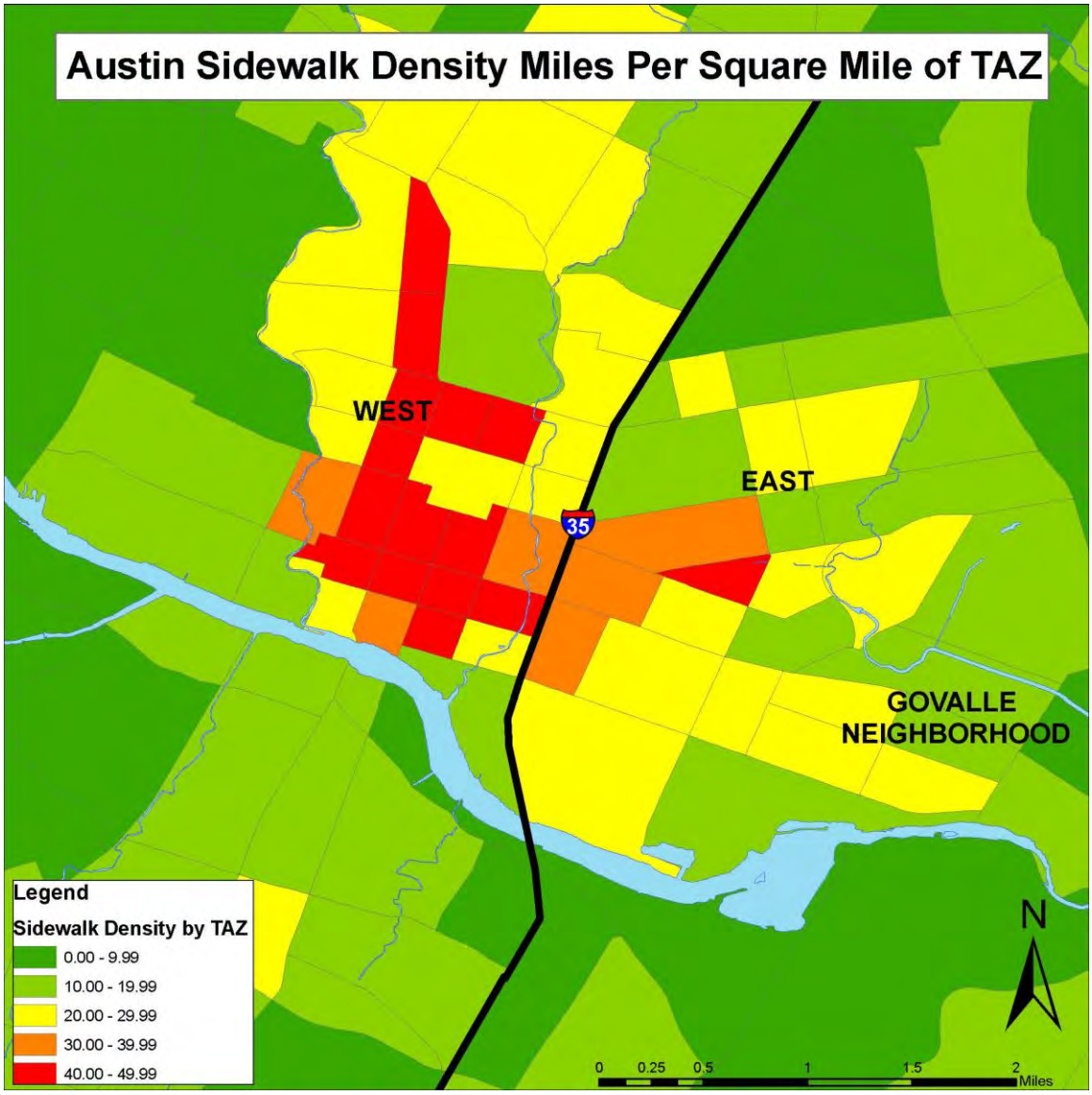

Figure 2: The Austin Sidewalk Density map shows the difference in sidewalk density between the West and East side of Austin.

HISTORY OF INEQUALITY AND RESOURCES

The city's first comprehensive plan of 1928 established city limits, improvements of streets and walkways, funding, and more infamously institutionalized racial segregation. Through the institutionalization of racial segregation Austin was able to manipulate the city's infrastructure to influence a clearly visible divide between white areas and communities of color.

At the time, the city of Austin wanted to address its issues of segregation. However, these issues could not be solved legally through any zoning laws, which led to designation of a "negro district" in the City of Austin's comprehensive plan of 1928. During this period, studies found that blacks were living in all parts of the city, but in greater concentrations east of East Avenue and south of the city cemetery. Based on these findings, the City Plan "recommended that the nearest approach to the solution of the race segregation problem will be the recommendation of the district as a negro district; and that all the facilities and conveniences be provided the negroes in this district, as an incentive to draw the negro population to this area" (City Plan of Austin 1928, 61). According to this recommendation, this would eliminate the need for the duplication of white and black schools, parks, and other facilities.

Through this recommendation the comprehensive plan specified how land was supposed to be used to institutionalize segregation. For example, Waller Creek Driveway was proposed as an avenue for traffic from the northeast to the central business district to the south portion of Colorado River Drive. However, in order to build this avenue, it required the acquisition of cheap property along the banks of Waller Creek that was

inhabited by a large black community. The plan proposed removing these unsightly and unsanitary shacks and transforming the area into a more desirable type (City Plan of Austin 1928, 29-38). The plan also noted which facilities were to be built for the proposed "negro district." A "negro" high school was to be built with an ample and adequate playground. Ultimately, the new racial barrier was reflected by East Avenue later solidified by the building of IH-35.

Staying true to the comprehensive plan, the City of Austin adopted the goal of segregating non-white households in East Austin as official policy, which was critical to shaping how the eastside of Austin was developed (Cantu, 2015). One way to promote African American relocation was by expanding the city's sewer system to the east side and denying it to African Americans residing in other parts of the city. At the same time, however, the east side of Austin remained for the most part neglected. It was home to the city dump and Boggy Creek, which was filled with sewage pipes. One resident at the time remembers picking out metal scraps and taking it to metal scrappers for money (Rivera and Rivera, 2012, 29). Also, new development displaced many non-whites in the area. For example, in 1930, residents living by the railroad tracks were forced to leave because the area was condemned to make way for the new city incinerator. For the next 20 years, the incinerator burned trash and slaughterhouse and hospital waste. Because of the prevalence of this type of development, East Austin became a predominantly industrially zoned area, which in turn prevented homeowners from obtaining home improvement loans (Rivera and Rivera, 2012, 8).

Over the years the city persisted in maintaining the racial divide. IH-35 became known as the "Inter-racial Highway," and residents in East Austin experienced a multitude of inconveniences due to the lack of adequate infrastructure or development. This racial divide also impacted businesses and other private services. For example, no pizza delivery was available in all of East Austin. If one wanted to order a pizza, "one had to place an order by telephone and arrange delivery to the closest gas station on the west side of IH-35, then meet the delivery person to pick up the pizza" (Rivera and Rivera, 2012, 15). Another limitation came through deed and covenant restrictions. Racial covenants were a particular form of deed restriction that was widely used in the "white" west side of Austin. These were used "with increased frequency to restrict [colored] movement, exclude them from occupying certain urban areas, and police the boundaries of whiteness" (Tretter, 2012, 28). The following is an example of a racial deed restriction in west Austin, as cited by Tretter (2012),

> No race or nationality other than the Caucasian race shall use or occupy any building on any lot, except that this convent shall not prevent occupancy of servant's quarters by domestic servants of difference race or nationality employed by an owner or tenant (Tretter, 2012, 40).

Ultimately, the 1928 Comprehensive Plan established a tri-racial divide between Whites, Hispanics, and African Americans. Although the plan did not clearly recommend a Hispanic district, residents of Mexican descent became segregated and discriminated against. They were not considered black, but since they were not white either, they were considered "alien" (Tretter, 2012, 35). This was enough for them to be included with the

black community in all land-use racial covenants, thus segregating them to East Austin along with the African American population.

In the late 1920s, as Austin was developing its segregationist zoning plans, the Great Depression started. In response to the nation's problem, in 1930 president Franklin D. Roosevelt and Congress passed a series of domestic programs which formed part of the New Deal. The New Deal provided many opportunities for Austinites to improve their city, including housing in East Austin. For example, the Slum Clearance Housing Project provided housing for low-income families. Austin was host to the first three projects in the nation to be built under this act, and two out of the three projects helped produce low-income housing for Mexican and African Americans in East Austin, Santa Rita Courts, which was a public housing development built for the Mexican American population, and Rosewood Court intended for the African American population (Rivera and Rivera, 2012, 28).

Although East Austin thus benefitted from the New Deal programs, other aspects of these programs served to perpetuate the marginalization of minorities. The Federal Housing Administration (FHA), which was established through the National Housing Act, was created to improve the housing market by regulating interest rates and mortgages. However, the establishment of the FHA resulted in further segregation of US cities. The agency provided financial assistance via amortizing mortgages at low interest to homeowners (Tretter, 2012, 13). Part of the mortgaging process included rating neighborhoods for their mortgage risk, resulting in the controversial practice known as "redlining". Redlining was the "practice of capriciously refusing financial services to

specific communities because of their perceived similarity to a social group" (Tretter, 2012, 13). The term came about because mortgage lenders would use a red line on a map to delineate areas where financial institutions would not invest. During the time, minority areas, usually Black and Latino, were zoned industrial, "creating environmental hazards, depreciating property values, and making improvements for property difficult" (Busch, 2015, 90). Therefore, Austin's leading financial and real estate professionals redlined the Eastside because it was deemed too hazardous for investment due to the strong decline in property values, making it too difficult for minorities to acquire loans (Busch, 2015). In addition, in order to evaluate mortgage risks, the FHA "suggested that the presence of covenants in subdivisions played an essential part in lowering the possibility of mortgage defaults and maintaining steady property values" (Tretter, 2012, 22). An FHA pamphlet from this era reads, "Protective Covenants, rigorously enforced, are an absolute necessity if good neighborhoods and stable property values are to be maintained" (Tretter, 2012, 26). In Austin, sections marked "best" held the greatest percentage of racial restrictions. Therefore, these areas had the least likelihood to be integrated. Ultimately, the FHA had "driven out financial opportunities for non-white residents in these areas, encouraged spatial segregation, and even undermined the capacity of East Austin to maintain the quality of its housing stock" (Tretter, 2012, 19). Ultimately, as a consequence of this history of racial segregation and uneven development between West and East Austin, the east side has emerged as a relatively depressed area with poorly developed infrastructure and a preponderance of lower income residents, which in turn has contributed to resource-strapped school as well as difficult routes to school for children.

SCHOOL ACCESSIBILITY, TRANSPORTATION, STANDARDS

SAFE ROUTES TO SCHOOL PROGRAM

To address the poor access to schools in Austin, and particularly in East Austin, the City of Austin maintains a Safe Routes to School (SRTS) program. The program is intended to encourage students and parents to walk or bike to school by creating more interconnected communities through the improvements on current infrastructure and regulatory conditions. It indicates that some of the barriers to walking or biking to school include long distances, traffic danger, adverse weather, and the fear of crime danger (City of Austin Safe Routes To School, 2013). Due to such barriers, students become heavily dependent on the school district's bus transportation and other forms of public or private transit, or they are forced to find alternative routes that may not be the most ideal. In the case of East Austin, the poor infrastructure is also complicated by institutional arrangements. The Austin Independent School District (AISD) is a "special district" that acts as autonomous governing body. While the SRTS program is focused on creating safer environments for students to walk to school, the actual development of pedestrian and bike infrastructure is the responsibility of the city or other governmental jurisdictions. Without the proper infrastructure, the implementation of SRTS can be very difficult. Furthermore, the institutional separation between the City of Austin and AISD complicates efforts at inter-institutional coordination and cooperation, making it difficult to address these transportation barriers facing students in lower-income households in East Austin.

Wilson et al. (2010) state that the greatest impacting factor on school travel mode is distance. When the distance is greater than 0.8 km, walking ceases to be the most common mode; at 1.6 km, walking rates decrease to near zero; and at 1.2 km, busing increases significantly (Wilson et al. 2010). Also, traffic concerns may prevent up to 40% of students from biking or walking, suggesting that urban form plays an important role in school commuting modes (Wilson et al. 2010). In addition, residents in lower-income areas rank school bus availability and school bus stop safety at their highest priority when choosing the safest form of transportation for their children. Overall, students will walk the shortest travel distances, they will use bus when the services are available, and walk and bus more when traveling from-school than to-school (Wilson et al. 2010). Also, Lee and Li suggest that more connected streets patterns can influence students to bike and walk more to school (2014). Especially considering that students from low-income schools are more likely to walk to school when compared to students in higher-income areas.

On another note, the SRTS program does not take into account the reasons why parents choose to drive their children to school in their research. In a study by McDonald and Aalborg, 75% of participating parents drove their children less than 2 miles from school due to convenience and to save time (2009). When analyzing the convenience for parents, they found that three fourths of students walked or biked to school when living one half mile from school. However, for those living within 1 mile and 1.5 miles there was a decline of 18%, which "reflects the relative time advantage of autos as trip distance increases" (McDonald, Aalborg, 2009, 335). If parents were to walk to school with their children they would usually have to travel the full distance both ways, potentially taking

twice the time. However, “for auto trips many parents save time by coordinating school drop-off with their own work trips” (McDonald, Aalborg, 2009, 335). When it comes to safety, parents living in areas with high crime rate had much greater concerns about the dangers to their children posed by strangers than traffic, with 75% of respondents not permitting their children to walk to and from school without adult supervision (McDonald, Aalborg, 2009).

McDonald and Aalborg note that minority and low-income students walk to school at rates two to three times than those of White students and suffer higher rates of pedestrian injuries (McDonald, Aalborg, 2009). Unfortunately, the majority of SRTS funds must be spent on infrastructure projects, which can make trips safer from traffic danger but “are not likely to change the behavior of parents who require adult supervision for their child or drive for convenience” (McDonald, Aalborg, 2009, 337). The authors conclude that in higher density urban areas, improving traffic safety may not be sufficient to convince families to change their school travel behavior (McDonald, Aalborg, 2009), which suggests that school districts should consider other modes of transportation for children in addition to school buses. Lastly, McDonald and Aalborg call for an increase in SRTS funds for disadvantaged areas and additional state assistance during the SRTS application process (McDonald, Aalborg, 2009).

There are some particular difficulties with the implementation of the SRTS program in Texas. In the majority of cases, communities have focused on physical infrastructure improvements, like installing traffic signs and creating new sidewalks. However, such changes require approval by TxDOT before implementation, and navigating the regulatory

process can be difficult for school districts (Attebery et al. 2016). In addition, the current application and implementation process is time-consuming and complicated, which particularly impacts low-income communities most in need. In many cases, projects have been delayed, leaving many communities to feel that they "did not have the support needed to navigate the environmental and regulatory approval process at TxDOT" (Attebery et al. 2016, 203). Therefore planners should focus on creating accessibility to schools by foot and bicycle and throughout any community through comprehensive planning and the capital improvements process. Planners can also "work more closely with school facility planners to encourage construction of schools that can be reached by foot or bicycle and to identify routes to school" (McDonald et al. 2014, 161). Ultimately, "the development of an ongoing, collaborative relationship between school and local planners could ensure that students effectively use infrastructure investments made by local communities" (McDonald et al. 2014, 161). The SRTS program is a way for residents to assess what areas need improvement and to implement appropriate improvements, for example by developing a better bus stop that meets the schools standards and also the needs of residents.

As this chapter has shown, Austin's history of inequality and years of neglect of East Austin has resulted in poor infrastructure development on the eastside. The City of Austin is responsible for creating pedestrian friendly environments, but because of the history of segregation and more resource allocation to the west side, East Austin suffers from poor pedestrian infrastructure. As Tretter points out, residents on the East side "live in the poorest houses, near the railroads, with no paved streets or sidewalks…" (2012, 33).

Although AISD is responsible for providing adequate school transportation, AISD is autonomous from the City of Austin, resulting in a lack of cooperation between the City and the school district which in turn causes a failure in providing appropriate bus stops and pedestrian friendly infrastructure. And, although the SRTS program provides funding for neighborhoods that need pedestrian improvements, residents in lower income neighborhoods such as Govalle find it difficult to navigate through the TxDOT process. This, in turn, limits the opportunities for lower income neighborhoods to take advantage of the SRTS programs and have projects implemented. Ultimately, the lack of integration between SRTS, AISD and the City of Austin planning departments perpetuates inequality and neglect in low-income areas, especially in Austin's East side, and reproduces the challenge of providing safe means for children to commute to and from school.

CHAPTER 2: STUDENTS EXPERIENCING THE BUILT ENVIRONMENT

INTRODUCTION

In my research I focus on the everyday strategies children use to walk to school along the Boggy Creek trail and the emotional impacts of their route to school. Many scholars have linked the effects of the built environment on people, and vice versa. However, for the basis of my study, I will draw on literature focused on how the built environment affects children and their tactics to appropriate residual spaces in the built environment. An important element of this study is children's experiences of their surroundings and the ways in which they respond to these experiences.

EMOTIONAL IMPACT OF APPROPRIATION

First, to better conceptualize the types of public spaces that are available for such informal appropriation, I draw principally on the work of Carmona (2010), Villagomez (2010), and Hou (2010). Hou defines residual spaces as those that defy conventional regulations and rules in response to the recent methodologies of management and the regulation public spaces. He states that citizens have the ability to play a distinct role in shaping the contemporary environment in defiance of the official rules and regulations (2010). Villagomez provides a typology of the different types of residual spaces: spaces between and around, rooftops, wedges, redundant and oversized infrastructure, void

spaces, and spaces below. These are spaces that are the remains of the city through current urban and planning practices. He also notes that these types of spaces are usually found in lower-income areas where residents must make the most out of the surrounding space (2010). Carmona analyses what he calls the "under-management" of 'leftover' spaces. He suggests that under-managed spaces can lead to the creation of a "neglected space," that is littered, covered in graffiti, unsafe, and populated at night by homeless people. In addition, failure to deal with minor signs of decay within an urban area can quickly propel an area into decline (2010).

To better understand the children's tactics as they appropriate such residual or leftover spaces to develop their trail, I draw on Young (2003), Van Blerk (2013) and Cloke, May and Johnsen (2008). Young provides an in depth look on how street children in Kampala, Uganda create their own niches in the marginal spaces of the city (2003). Children invade or reinvent spaces in response to social and economic processes that have marginalized them. Van Blerk explores children's tactics in Cape Town, focusing on how governmental processes have pushed children to take refuge in undesirable spaces (2013). Cloke et al. focus on how the homeless inhabit marginalized spaces which are considered of little value to the mainstream city and where their "'spoiled' identities are least likely to taint the spaces and practices of 'normal' people" (2008, 243). Homeless people will journey to certain spaces to meet basic survival needs, in which these 'invisible' routines of movement are associated with a practical knowledge of the micro-architectures of the city, such as the case of children from the Govalle Neighborhood who have carved a path of their own through undesirable or overlooked spaces.

In order to understand the emotional impacts of such appropriation of residual spaces, I will draw on literature from authors who have studied emotional responses to public space, in particular fear. Sweet and Escalante speak on how fear is experienced in public spaces (2015). According to them, bodies are nexus of public-private space and they should be treated as a new form of geographic space that feels and experiences fear. They specifically speak on how a visceral geography approach is used to explore the dynamisms of relationships between space and identity. They suggest that "visceral geography sees the body as the geographical space of inquiry and pays particular attention to how bodies feel internally – sensations, moods, physical states of being – in relation with surrounding spaces and environments within communities" (2015, 1827). People experience fear both in the private and public realm, and our body's responses to certain experiences are shaped by spaces in which they occur. Sweet and Escalate state that fear is experienced through both internal and external bodily processes. For example, one can internalize fear through the challenges of feeling insecure in the public. And fear can be experienced through physical tensions and ache in the body through the actual act of feeling fear, like running away from harm. Lastly, our bodies experience fear through social, cultural, sexist, racists, and nationalists processes in the public realm that can make impede one's ability to move freely in the built environment (Sweet, Escalante, 2015).

Cloke et al. (2008) also consider the emotional impact of the environment but focus more on affect. They state that homeless individuals leave emotionally constructed "traces" throughout the city which can be manifested in many forms. These traces constitute "the ongoing creation of affects, of unplanned and unaccountable outcomes of relational

encounters" (2008, 246) which in turn cause an "immanent rupture in space and subjectivity which at any moment allows change to happen" (2008, 246). They draw on the concept of performativity to understand how these traces are produced, suggesting that such unplanned engagements between individuals and their audiences reflect tactical agency and may be designed to create a particular impression (2008). This theory is useful in understanding the ways in which children's journeys to Eastside Memorial leaves memories and impressions of places and unplanned encounters along the way, including with homeless residents.

Interestingly, when Carmona defines under-managed spaces, he explains that a subset of that type of space are "exclusionary spaces," which are spaces that due to certain physical and mental barriers cause fear in its users. One type of exclusionary space is "parochial space." This is a space that is appropriated by a particular group that makes those who wander in feel like strangers, or a guest depending on how they fit in (Carmona, 2010). Therefore, "the fragmentation of the public realm has been accompanied by fear, suspicion, tension and conflict between different social groups" in which fear results "in the spatial segregation of activities in terms of class, ethnicity, race, age, type of occupation and the designation of certain locales that are only appropriate for certain persons and users" (Carmona, 2010, 129). The segregation into distinct spatial types and users creates a suspicion and fear of the stranger, meaning that some heavy users of public space are actively denied access to it, in particular teenagers and homeless. Teenagers are heavily excluded because their pastimes, sometimes regarded as anti-social, cause fear among others. Therefore, the act of prohibiting, policing, or banishing a certain pastime, like

skateboarding, leads “teenagers (to) experience problems of safety and security and feelings of exclusion, while what they desire in public space is ‘social integration, safety and freedom of movement” (Carmona, 2010, 130). Lastly, Carmona states that the fear of crime remains a major cause of people’s retreat from the public realm, because it undermines the experience and quality of a public space by causing its users to become aware of the perceived risks by avoiding such spaces, ultimately perpetuating its decline.

In addition, to better understand the experience of children who have to make their own way to school through such residual spaces, I will draw on literature in the fields of children’s geographies of fear and safety, and children’s mobility. Spencer and Wooley (1996) elaborate on the social dangers for children in cities. One factor is the idea that children and parents are victims of “traffic environmental stress” due to dangers from traffic in cities. Another is the idea that children are very aware of the street crimes and incivilities that shapes their use of places accordingly (1996). They also state that children’s overall experience of the built environment is deteriorating due to the restrictions on access to public spaces. In addition, the increased perception that cities are becoming more dangerous induces fear in parents, creating more limited carefully watched spaces that children use. Ultimately, the fear of both parents and children forces them to grapple with everyday survival issues such as ‘Will I be shot today?’ (Spencer, Wooley, 1996, 193).

Broomley and Stacey’s research focuses is children’s fear in public as a “general urban anxiety or unease” (Broomley, Stacey, 2012, 430). They argue that children experience fear through the feeling of vulnerability, which is triggered through “an individual’s ability to exercise control over their own life and the behavior and activities

of others" (Broomley, Stacey, 2012, 430). They specifically analyze the influence of the built environment or social context of an area to generate fear. Since neighborhoods of high disadvantage lead to high crime rates and fear, teenagers in lower income urban areas are more likely to feel unsafe in their home areas than teenagers who live in wealthier areas (2012). However, children and teenagers who experience more fear in their home area feel that other non-home (city center) areas are safer. From this they conclude that lower-income teenagers are more familiar with crime and therefore see the city center as a place of freedom where they can relax. Moreover, they analyzed children's explanations for feeling unsafe and found three reoccurring factors: darkness and violence, dangers from drunks, and threats from groups of young people (Broomley, Stacey, 2012). Children in lower-income areas are more prone to fears of darkness and violence, including drunks, sexual predators or someone appearing from the dark and attacking or abducting them. Also, fear of other youth is common among children and teenagers in all areas, but teenagers in lower-income areas experience this fear more in their home communities, where they are more likely to come into contact with gangs, thugs, and other threatening people.

DISCUSSION

This chapter has provided a review of relevant research in children's geographies, especially fear experienced by children as they navigate through the city, including in "residual" and other neglected spaces. This literature review has suggested that children of marginalized groups face particular challenges within the built environment. As Spencer

and Wooley (1996) suggest, children are very aware of street crimes and potential violence and this awareness shapes their use of public places. That is to say, the students of Eastside Memorial who I describe in the next chapter are aware they commit misdemeanors as they walk to school, including trespassing through power plants and crossing rail road tracks, but their need to make it to school nevertheless prompts them to appropriate such neglected spaces to maintain their trail. Still, even though the children who use this trail may be exposed to criminal activity through their daily lives as Broomley and Stacey (2012) suggest, they are likely to experience trepidation as they traverse the trail. The physical barriers they have to traverse and their encounters with other users of the trail, including the homeless, and, in some areas, residents using the trail for recreation, are likely to induce fear among the Eastside Memorial students. However, a more thorough documentation of students' use and emotional response to the trail is required to fully assess the impact of their informal route to school.

CHAPTER 3: CASE STUDY

SECTION 1: INTRODUCTION TO EASTSIDE MEMORIAL

For my research I focused on Eastside Memorial High School, located along Arthur Stiles Road between Highway 183 and the East Boggy Creek Greenbelt. The school has been faced with much turmoil due to the underperformance of its students during the last recent years. It was built in the 1960s and named Albert Sidney Johnston High School. However, it was shut down in 2008 and reinstated as Eastside Memorial High School. The Texas Education Agency shut down the troubled school after it had failed to meet state standards for five consecutive years (Millweard, Shively, 2015). The high school had high dropout rates and low test scores; some years, 50% of freshman students failed all four-core courses (English, math, science, social studies) (Burka, 2013). Upon its reinstatement as Eastside Memorial High School it "was given 3 years to meet state standards, or be shuttered by the state for one year" (KLRU).

The high school's struggle to stay open and improve its students' performance is a reflection of the ongoing challenges faced by families in the area. First, the Govalle Neighborhood is dealing with the pressures of gentrification. Because of property tax increases, many residents cannot afford to stay in the area, causing a decline in the student population. Since the school performance levels are so poor, the new, often more affluent families in the area choose to enroll their children in private schools. In addition, since school bus stops are sited depending on student population, the decline in the number of students in the area has led to a reduction in school bus routes and stops, causing some

students to be left without transportation. Lastly, the transportation infrastructure in the area is in poor condition, creating an environment that is not pedestrian friendly. Since its opening in 1960, the school has been predominantly composed of Hispanic or African American students from low-income households, who now are having an increasingly difficult time making it to school.

According to students who live in the Govalle Neighborhood, there are no bus stops in their neighborhood and no routes that allow them to utilize school buses (Van Ryzin, 2015). There are also no convenient Capital Metro routes in the area. Only one bus route has a stop by the campus, the 17 Cesar Chavez, but it does not have any stops in the Govalle Neighborhood. There are two other bus routes—300 Govalle and 350 Airport—that do stop near the neighborhood along Springdale Road and Airport Boulevard, but these buses don't pass near the Eastside Memorial campus. The 350 Airport only runs along Airport Boulevard, which means they would have to walk to the intersection of Airport Boulevard and Springdale Road and then get off at the stop of Airport and Bolm Street, which means students would have to cross the busy intersection of Airport Boulevard and walk along Bolm Street and Gardner Road to get to the campus. The Springdale route is not feasible because the stops are only along Springdale Road, which does not take them any closer to the campus, and they would still be exposed to crossing busy intersections.

If students were to choose to walk to school along city streets, they would have to walk along major arterial roads and take a long detour due to the lack of road connectivity in the area. First they would need to walk along Airport Boulevard, which lacks secure sidewalks and where cars can drive 45 mph or faster. And second, walking to school along

these major arterials would take at least 40-45 minutes. Also, since the area is predominantly low income, most students cannot rely on parents to bring them to school using private transportation. In addition, many low-income children in the area have responsibilities outside school, like babysitting family members or working part-time to augment the household income. Because of these additional responsibilities and the lack of safe options to go to school, students have to improvise shorter and faster routes to school, which has led to the creation of the often risky and uncomfortable man-made trail along Boggy Creek.

SECTION 2: IMPROVISED ROUTE TO EASTSIDE MEMORIAL

Part of my research was to experience walking the trail like students do. I created a base map of the route to use while I walked the trail (Figure 3), and then I walked the trail multiple times and at different times of the day. The first time I walked the trail I started where the dirt path intersects the Walnut Creek Hike and Bike Trail on a weekday afternoon. I wanted to familiarize myself with the trail before I explored it in more in depth. My initial experience was scarier than expected. I ended up running, not only because I wanted to gauge how much time it would take to reach the railroad tracks but also because I felt a bit scared. While running through the trail, I found myself looking behind me just in case someone was following me. In a few places, the path diverted in multiple directions. I was not sure which one to take so I chose the direction that kept me to the left. This immediately took me a dead end at a set of retaining walls covered with graffiti. I walked

along the walls to further investigate until I saw a group of young men tagging and drinking beers. Feeling nervous, I snapped some pictures and immediately returned to the trail.

Next I chose the second route, which led to a location where the path split again. One path led to the depths of a dense bamboo grove, so I chose the other path that soon led me to the railroad tracks. When I saw how high the tracks were located above ground level, I wondered how students would be able to cross them. I took more pictures and then headed back down the dirt path. I ran through the trail again, again paying close attention to my surroundings, and I made sure to time myself. Running through the dirt path took about 3 minutes.

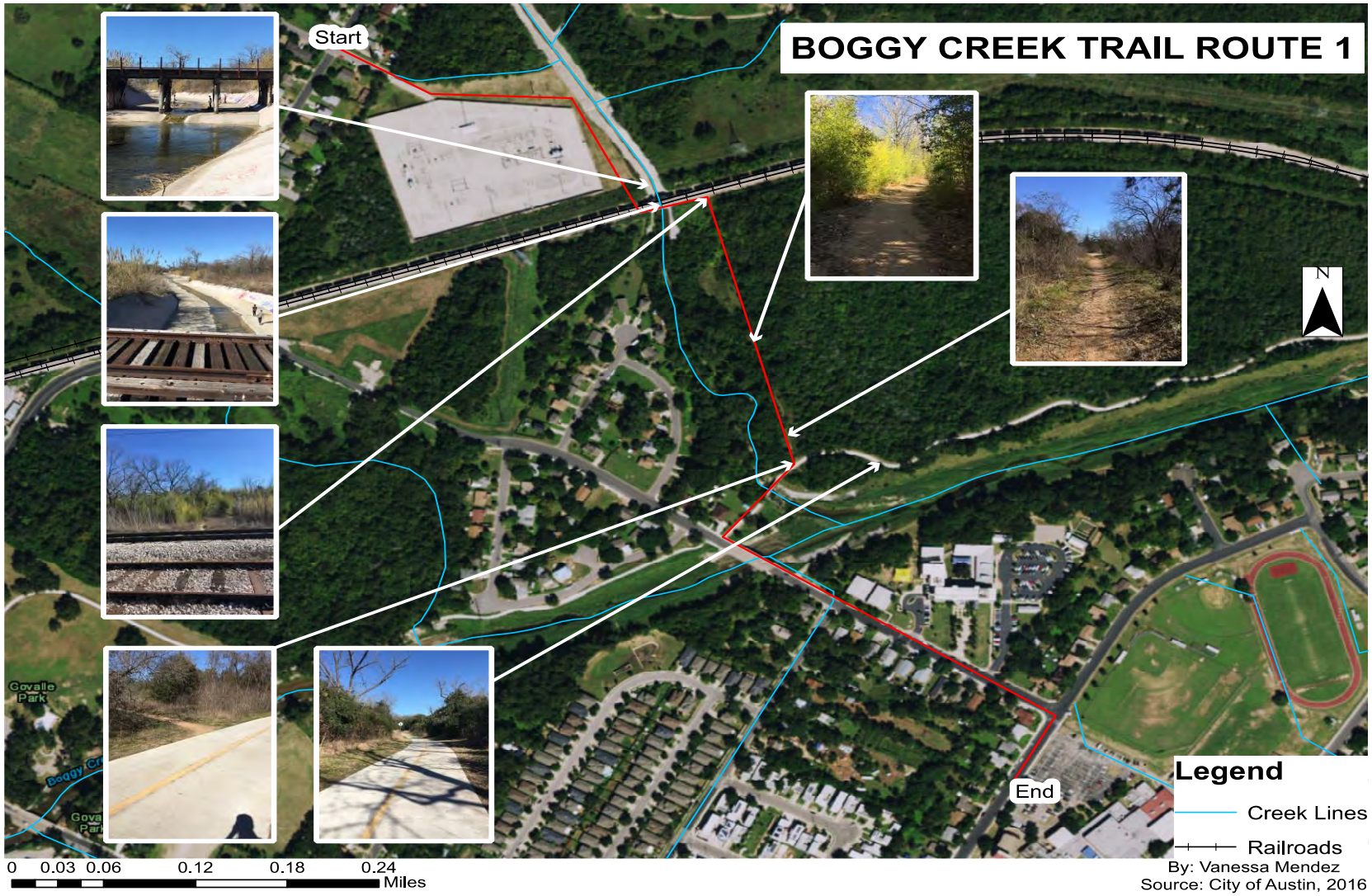

Figure 3: Boggy Creek Trail Route 1 represents the first route that I took when experiencing the route.

The second time I explored the route, I chose the part of the trail that starts at the channelized portion of Boggy Creek (Figure 5). I explored this route around the same time of day and day of the week as my first exploratory walk. I accessed the concrete channel from a gap in the fence along the Brookswood Avenue cul-de-sac that abuts the watershed. The watershed was filled with graffiti and trash, and a small stream of water was filled with green algae and had an oily sheen, which I assumed was a mixture of chemicals (Figure 4). I thought how difficult it must be to cross the channel when it is filled with water

Figure 4: The Watershed picture depicts the wastewater and algae accumulation.

I finally reached the underside of the railroad bridge and began to look for a way to reach higher ground. The sloped retaining walls were too tall, steep, and slick to climb. I could see the power plant and the transformers near me but I could not figure out a way to get out of the Boggy Creek channel. Further down I noticed the retaining walls were less steep, but here the ground next to the retaining walls was covered knee-deep in water. Next I thought I could scale the railroad bridge, but I realized that was beyond my strength and ability. Finally I noticed that some sections of the retaining walls were shorter and I realized that was my only way out, unless I wanted to go back to where I had entered the concreted portion of Boggy Creek. I mustered all my strength, ran up the walls and grabbed the top, and pulled myself up until I was finally on higher ground next to the power plant.

At that point I noticed a dirt path. I followed it through dense and tall vegetation until I emerged at the railroad tracks. I realized that this was the path that students used to go from the power plant to the railroad tracks. I then crossed through the tracks and entered the man-made Boggy Creek trail. This time I walked instead of running but still remained alert to my surroundings. I noticed homeless encampments and places with large holes where perhaps trees had been removed. There were large broken tree branches that blocked the path. It was a breezy day and the wind caused plants to move, creating strange noises that made me think someone was lurking in the woods. Walking this section of the trail took about 5 minutes, which is not a long time, but when walking it alone it feels even longer.

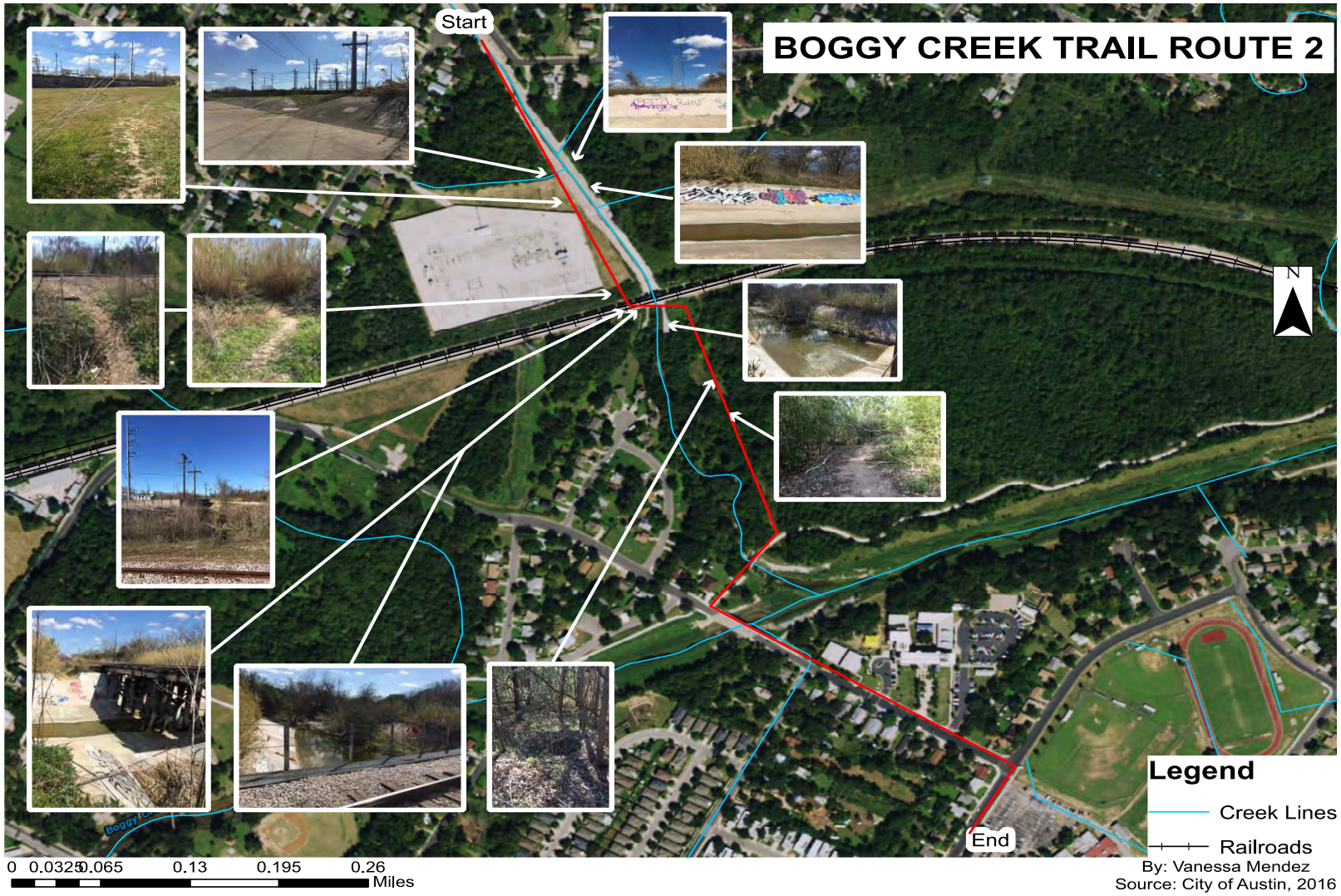

Figure 5: The Boggy Creek Trail Route 2 map is the second route I took when experiencing the route.

Walking the trail helped me understand the stress facing children through the simple act of walking to school. Having to walk through a wet area, cross a creek and pass a power plant, cross the railroad tracks, and then along a lonely trail through the woods is quite frightening. It can be even more frightening during the winter when it is darker in the morning. You are exposed to the elements so the rain and cold and hot weather makes the journey to school even more difficult. The trail is only known by those in the area, and is predominantly used by students. Area adults rarely walk the trail so encountering a stranger would seem threatening. As a female, walking the trail seemed even scarier and more dangerous. As I walked the trail I felt unsafe every step I took, even though there was plenty of daylight. You do not know who may be lurking in the woods or along the railroad tracks. No matter if you are a regular user of the trail, you are constantly exposed to the dangers of the unknown.

My experience walking the trail was quite similar to that of Debora Esquenazi, the film maker who created the short film, "La Loma." When I interviewed her, she told me that she walked the trail alone twice to capture footage, but that this was more than enough to know that this was a very unfair and shameful situation. She felt uncomfortable using the trail and thought "no parent should opt for this….this should not be the only option" (Esquenazi, 2016). When speaking about the unfairness facing the children using the trail, she said that most people do not think about time being a "privilege" for the few. That is to say, most low-income families don't have the luxury of time to walk or drive their children to school. Time is always working against them, especially for students with an after school job and parents juggling two jobs. I asked her about the students' parents and

what they thought of this situation. However, most of the film was shot by two school age boys trained by the director to represent their own perspective on using the trail, thus fostering a "sense of empowerment" among the students. Since this made it difficult for the director to speak with the parents of children using the trail, I decided to interview both children and parents to gain their perspective on the motivations, experiences and risks in using the trail.

SECTION 3: STUDENTS' EXPERIENCE OF APPROPRIATING RESIDUAL SPACES

I first reached out to the students who participated in the film and was able to conduct an email interview with one of them. I asked about the history of the trial and when he first hear about it. He responded that the trail was created when Johnston (Eastside Memorial) was built. He first heard about it from older family members who used the trail to walk to and from his grandmother's house. Most of his neighbors also knew about the trail and "many students who attended Johnston often recall taking the trail at some point in their high school life" (Student 1, 2016). The first time he used the trail was when he missed the bus to his grandparent's house, he said: "It wasn't much of a (question of) motivation, it was more of a choice I had to make. Wait 2 hours for the next bus or spend about 30 minutes walking to my grandma's" (Student 1, 2016).

He now uses the trail in the morning, usually accompanied by friend, and his commute to Eastside Memorial takes about 10-15 minutes. He often sees other students using the trail but "you never see any adults." If he sees adults he avoids them, since they

might be homeless and he is usually in a rush when using the trail. At first he was uncomfortable with the commute, calling it a "nuisance" and "annoying." When he felt uncomfortable he used to think, "I want to go home" (Student 1, 2016). But now he has grown "used to" strange encounters during his commute, he says, to the point that using the trail is "a way of life" and he "treats it the same as riding the bus" (Student 1, 2016). His encounters with strangers are the same as seeing someone on the street, even when homeless individuals surprise him and ask him for a "buck or two."

I then asked about his thoughts on the Walnut Creek Hike and Bike Trail. He responded that it was beautifully built, but he is upset because the money could have been better spent, for example to improve the infrastructure in the Govalle Neighborhood. He has only used the trail once and does not know where it begins or ends, and he feels it is not any safer than the informal trail that students use. Lastly, I asked him about what improvements he wished to see, and he suggested lighting and infrastructure.

In my conversations with parents, they expressed more concern about the safety of children than the student I interviewed. According to one interviewee, a father of two elementary school children, not only do high school students use the trail but also parents and children that are heading to Ortega Elementary School. He said he would only allow his children to use the trail if he walked with them since it was unsafe. In particular, he was concerned about other users on the trail, especially homeless individuals who camp there, and the uncontrolled vegetation, especially the prolific poison ivy along the trail. During the summer the vegetation gets really tall which makes it difficult to walk the path.

Another interviewee was a father of a student who was only Spanish speaking. To my surprise, he told me about another trail further west that people utilize. Like the other parent, his principal concern was the safety of the children. He was fearful of unknown adults, especially drunks, and was concerned about the conditions along the trail. He said "there is trash everywhere, which creates a bad environment and welcomes vagabonds, and "there is no maintenance so the vegetation grows out of control." With the change to daylight savings time, children have to walk to school when it is dark, making the route even more dangerous, and in the winter, they have to walk home after dark. This is the sad reality that residents in the area have to face and deal with, he said, while lamenting that there are no other feasible options. According to him, sidewalks are too narrow and in poor conditions, and the streets are more and more congested. Residents only have two options: walking along the congested, car dominated streets or "arroyarse," which is the Spanish slang for walking the trail.

A set of key themes emerged from my interviews and field observations. Both students and parents are concerned about safety and are fearful—both when using the trail and thinking about their children walking the trail. Parents are concerned with their children's safety, which instills fear of both individuals and the built environment: strangers lurking in woods, the vegetation growing with poisonous plants. From a student's perspective, they are very aware of their surroundings and in tune with their feelings, choosing to walk in groups and staying alert to avoid any strangers. As they become more used to the environment along the trail and accustomed to strange encounters, they become

less fearful. A second, key theme is the feeling that these families have no other choice. The reality of having no other choice makes traversing the trail a habitual process.

Ultimately, my field research and interviews revealed the harsh reality that students and residents in the area face in their daily lives. The neighborhood is under constant pressure to gentrify, leaving parents to deal with the increase in property taxes and the possibility of being displaced. As a result, the schools in the area are hurting due to the loss of students, and families face inadequate transportation options. Without feasible alternatives, children are forced to take a difficult, informal trail to school, which exposes them to dangers at an early age. This situation not only makes the commute difficult and discouraging for students but also puts them at risk of performing poorly in school. As a result, residents in the area feel that their city does not care about the well-being of their children. How are citizens supposed to feel that they can make a difference in their community when their voices are not being heard and that the future of their livelihood is at stake? In the following chapter, I provide a series of recommendations to address this issue.

CHAPTER 4: RECOMMENDATIONS

My research revealed that students created this alternative route out of necessity because of a lack of transportation options to Eastside Memorial high school. At the same time, this trail has increased connectivity in the area that is dominated by large plots of industrial type uses and major roads that are unsafe to walk. In this chapter, I provide a series of recommendations for alternative routes and infrastructure improvements to make getting to school less difficult for these underserved children. I conclude the chapter with broader reflections on school accessibility and implications from my study for research in children's and visceral geographies.

Following my research of the students' trail to Eastside Memorial, I mapped out alternative routes via biking, driving, walking, and using public transportation. In order to assess the feasibility of these routes, I conducted field tests by traveling these alternative routes, using the same modes and documenting the current infrastructure conditions through pictures. This field research and analysis would then allow me to propose infrastructure improvements. I started my route examination at the intersection of Alf Avenue and Brookswood Avenue where the youth in the movie La Loma also began their walk to school. I traveled the routes to school early in the morning around 8:15-8:30 am and from school to home around 4:15 pm.

In my walkability research, I indicated whether there were sidewalks or not. In case of "yes," I ranked the conditions from 1-3 (3 being the best and 1 being the worst), and I took photos to illustrate the problems. I also mapped the type of street I was walking on, indicating whether it was a residential or major arterial, and I noted the speed limit of the

street. I also took notes of obstacles that I encountered during my walk, such as missing sidewalks, and pedestrian signage. Lastly, I documented the length of time it took to walk to and from school. I used a similar method in my assessment of bicycling conditions, but also noted which streets had designated bike lanes and which ones felt comfortable to ride one.

For bus transit, I first searched for any bus routes that led to the high school. Only one bus route stops at the school, but this bus does not pass by my starting point, while the buses that pass through the neighborhood do not go to Eastside Memorial. Therefore I only took site observations of current bus stop conditions, noting whether there was a bench (YES/NO), if the stop was covered by a roof (YES/NO), if there was a trash can (YES/NO), and if there was sign of vandalism (YES/NO) which would suggest unsafe conditions for children waiting for the bus. I also noted the cleanliness of the stops by documenting any "traces," i.e. objects such as discarded food wrappers, bottles and other trash left behind on the ground. I complemented this documentation of traces by taking pictures.

To assess the conditions for private transportation by car, I used a street map to mark the shortest route to and from school. I conducted an initial driving test to familiarize myself with the route, and then I drove the route on a time of day when there was the least traffic to help establish a benchmark for my analysis; i.e. the shortest time possible to traverse this distance. I also recorded the length of time and time spent at different stop lights. Then I drove the same route during the morning before school and immediately after school let out to times to assess how increased traffic volumes impact driving time.

WALKING

The following walking road map illustrates the current walkability conditions (Figure 6). This route is roughly 40-45 minutes long.

ALF AVENUE

I started my commute on Alf Avenue, a small residential street with a speed limit of 25 mph. The sidewalks leading up to Springdale Road are narrow and in poor condition with cracks and vegetation growing through the concrete. Later, the sidewalk ends, forcing pedestrians to walk in the roadway since there are usually a lot of cars parked on the streets.

SPRINGDALE ROAD

I then turn left on Springdale Road, which has continuous sidewalks on both sides but vehicles are driving at speeds much higher than the posted speed limit of 30 mph. However, these sidewalks are in poor condition with cracks and weeds growing over them, and occasionally you see graffiti. Walking along the road is comfortable except when the sidewalk becomes too narrow two people to pass. There are also large curb cuts with forces pedestrians to remain attentive to incoming and outgoing vehicles.

AIRPORT BOULEVARD

This is perhaps the most difficult section of the route for especially pedestrians. The speed limit is 45 mph and it is a four-lane wide arterial. I take a left on Airport Boulevard and the sidewalk ends, forcing me to follow a path through the grass next to the street. As I approach the Airport Bridge guardrail is damaged and the area to walk is very narrow and there is thorny vegetation all around. I walk about 50 meters and then the sidewalk begins again. Although the sidewalk is elevated about a foot from the street level, it is quite narrow

and unpleasant considering the heavy traffic. Just ahead I see homeless encampments. Then the sidewalk comes to an end again and I am left walking along the edge of rapid, oncoming traffic.

BOLM STREET

I take a left on Bolm Street which is a much smaller, two-lane street with a speed limit of 30 mph, similar to Springdale Road. As I am walking southbound, I choose the sidewalk on the left hand side of the street. The sidewalk is in better condition and is wide enough for two people, but there are low-hanging power lines in the way. This street is much pleasant and traffic is moving at a slower pace.

GARDNER ROAD

I take my final left onto Gardner Road, which is a residential, two-lane street with sidewalks on both sides of the street. With a speed limit of 30 mph, this is a comfortable street with little traffic. This is the final street that leads me to the campus.

Ultimately, walking to Eastside Memorial along "official" streets takes a long time with constant exposure to the elements and intimidating traffic conditions. When comparing this route to the informal Boggy Creek trail developed by students, the latter is more appealing because it is shorter and reduces the likelihood of traffic accidents. Especially given the hot Texas summers, I understand how the much faster route is the most feasible option. In fact, as I walked along the street, I saw very few students, and only on streets close to campus like Bolm Street. Since time and safety are the major factors that students take into consideration, several safety improvements are needed in order to encourage them to walk regular streets instead of the informal trail. This would

include increasing sidewalk availability along Airport Boulevard, and especially developing sidewalks that connect Airport with both Springdale Road and Bolm Street. In addition, the width of the existing sidewalk along Airport should be widened and protected. These factors would make pedestrians feel safer while walking by a major arterial road.

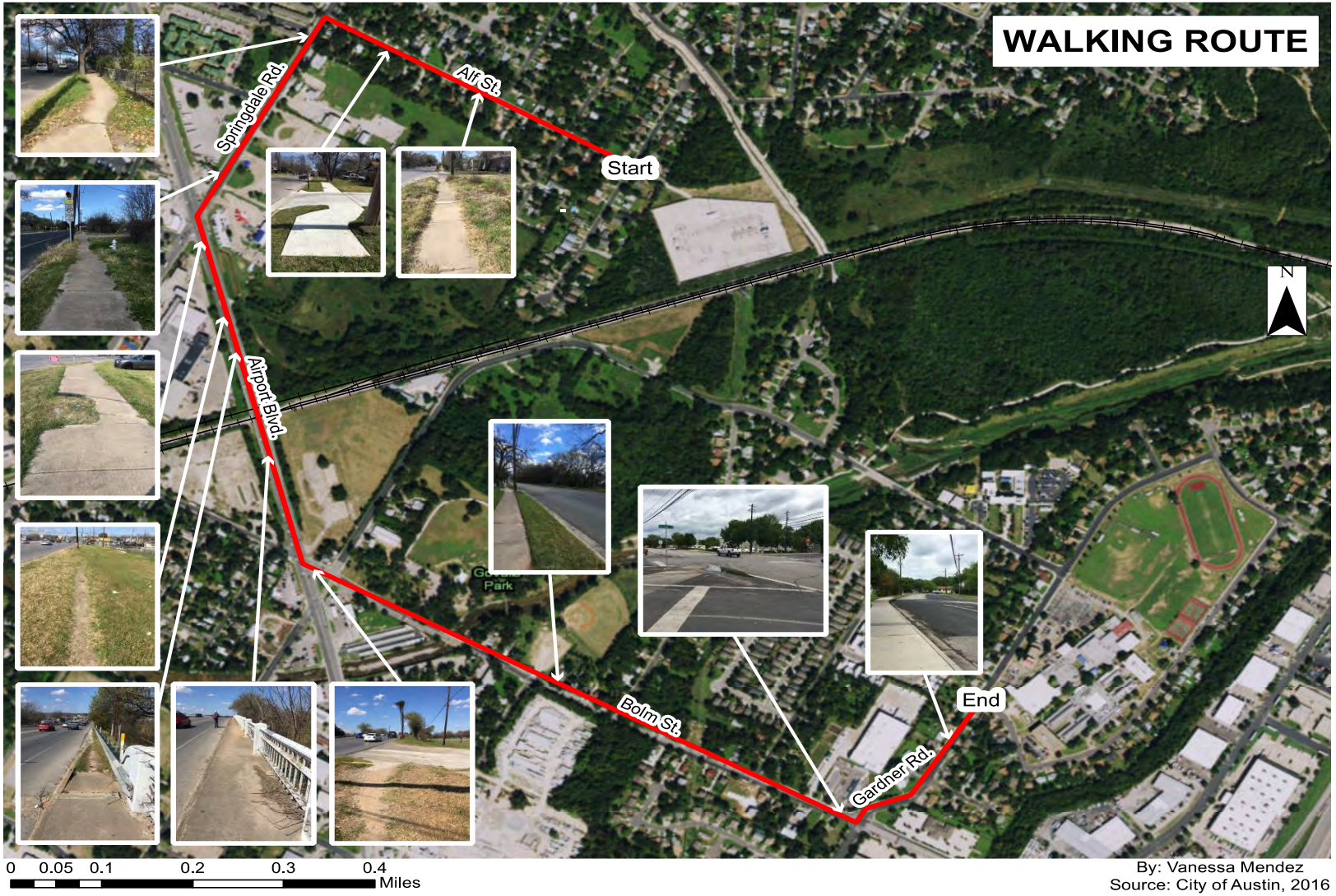

Figure 6: The Walking Route map shows the route taken when walking to school and the different obstacles encountered.

BIKING

Then I biked to the high school. Originally, I thought of biking along the same roads, but I decided to avoid Airport Boulevard because of the risk of accidents. The Bike Route map shows the route I took (Figure 7). This commute is about 15-20 minutes long.

ALF AVENUE

I start on Alf Avenue, which does not have a bike lane so cars and bikes have to share the road. A number of cars are parked on the street, creating a narrow lane for traffic which makes it uncomfortable to bike.

SPRINGDALE ROAD

The intersection of Springdale and Alf is difficult to traverse. You have to watch for oncoming traffic before you can cross, and even though Springdale has a designated bike lane, the road is congested and uncomfortable during peak traffic times. Next I arrive at the intimidating intersection at Springdale and Airport, where I have to pay attention to cars making a right-hand turn. I make it through the intersection and continue to Bolm Street.

BOLM STREET

The intersection of Bolm and Springdale is very awkward. There is a railroad crossing, no stop signs, and I have to watch for oncoming traffic from both directions of Springdale before I can turn left to Bolm Street. This street in much narrower and has a designated bike lane, so in just a few minutes I arrive at the intersection of Bolm and Airport. Once I cross Airport, Bolm Street does not have a designated bike lane, but the lanes are wide enough that both cars and bikes can share the road. I arrive at a very awkward

four-way stop intersection at Bolm and Gardner, where I wait my turn and then take a left on Gardner.

GARDNER ROAD

This road does not have a designated bike lane but the lanes are wide enough to share the road with cars. The bike ride is short and pleasant and within less than a minute I have arrived at the school.

Ultimately, this route is longer since it avoids Airport Boulevard, but my research suggests that it could be a feasible option. It takes about as long as walking the man-made trail to school. Although this option seems feasible for students to utilize, students are still not choosing to bike to school. As residents in a low-income area, it is unlikely that Eastside Memorial students own a bike and let alone the proper gear. When biking I did not see other users that looked like students. Nevertheless, bike accessibility could be improved through the SRTS program. First, funds could be sought to assist lower-income families to purchase bicycles and the proper equipment. Second, SRTS could support programs that educate students about safe biking behavior and encourage them to bike to school. These programs could include a bike to school day where parents, students, and faculty can bike the route to show students the correct route to school and how to be safe.

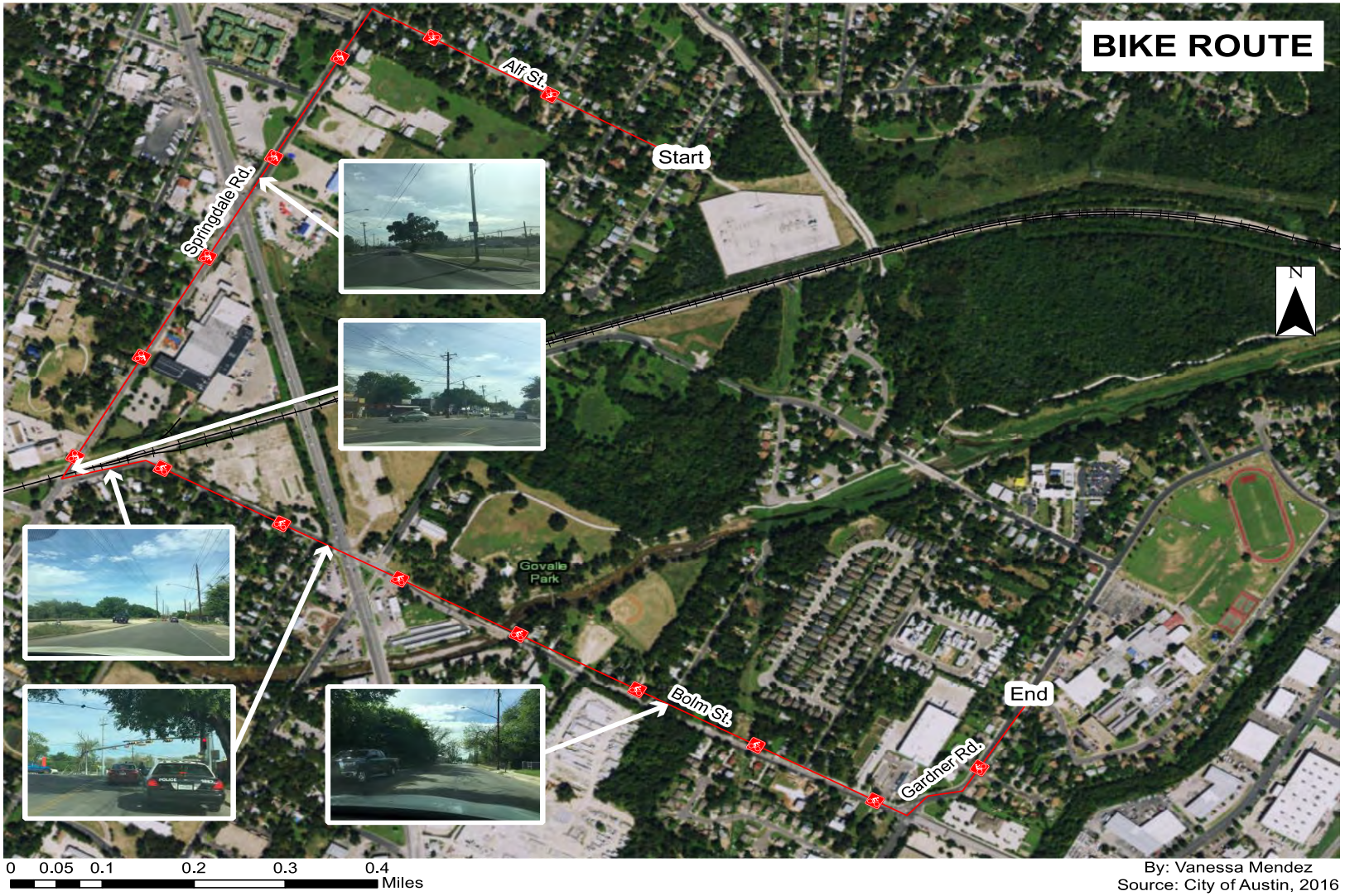

Figure 7: The Bike Route map depicts the route to school by taking designated bike lanes and the current conditions.

PUBLIC TRANSPORTATION

After searching for Capital Metro bus routes, I found only three routes that traversed my study area as shown on the Bus Routes and Stops Map (Figure 8). Only route 17 Cesar Chavez stops at the high school, but this bus does not stop near my starting point at Alf and Brookwood Avenue. Taking this route is not feasible for students. The 300 Govalle bus passes by my starting point but does not have a stop close enough to the school, while the 350 Airport Blvd route runs along part of my walking and driving route but does not have a stop either near my starting or my ending points. The nearest stop is within .9 miles of my starting point, which is considered within the AISD bus range for "accesible" bus stops for school children. However, just walking to the stop takes about the same time as walking the entire trail, making the bus an undesirable option due to an increase in travel time.

Ironically, according to AISD's route service policy, students are eligible for transportation if they reside two or more miles from their campus of regular attendance, or if they live within two miles of their home school and are "subject to hazardous traffic conditions if they were to walk to school" (AISD). The school district Hazardous Conditions Policy states the following: "A road condition is considered hazardous to student pedestrian traffic [if] students must walk along or across a freeway, an expressway, an overpass, an underpass, or bridge where no walkway is provided [and] cross an uncontrolled major traffic artery" (AISD). The policy does not consider neighborhood streets without sidewalks as hazardous to the students. When it comes to bus stop locations, the Bus Stop Policy considers the ideal Bus Stop Walk Range for a high school student to

be one mile. Lastly, the school district allows request for added stops and changes to stop locations based on the following conditions: "The student's walk to the stop is in excess of the 'stop range' policy…hazardous as defined under the 'Hazardous Conditions Policy'…[or] the stop location is in close proximity to a hazard that could compromise the safety of students" (AISD).

My research shows that there are no feasible public bus routes students in the Govalle Neighborhood can use to go to Eastside Memorial. Indeed, students from the Govalle Neighborhood face "hazardous conditions" when they walk to school, suggesting that AISD should conduct further analysis in this area to reassess the needs of students in the neighborhood, and also work with SRTS to seek funding for appropriate infrastructure improvements. AISD should adjust their current standards so they can restructure their school bus routes and establish bus stops in the area in order to meet the needs of residents and avoid placing school children at risk on a daily basis.

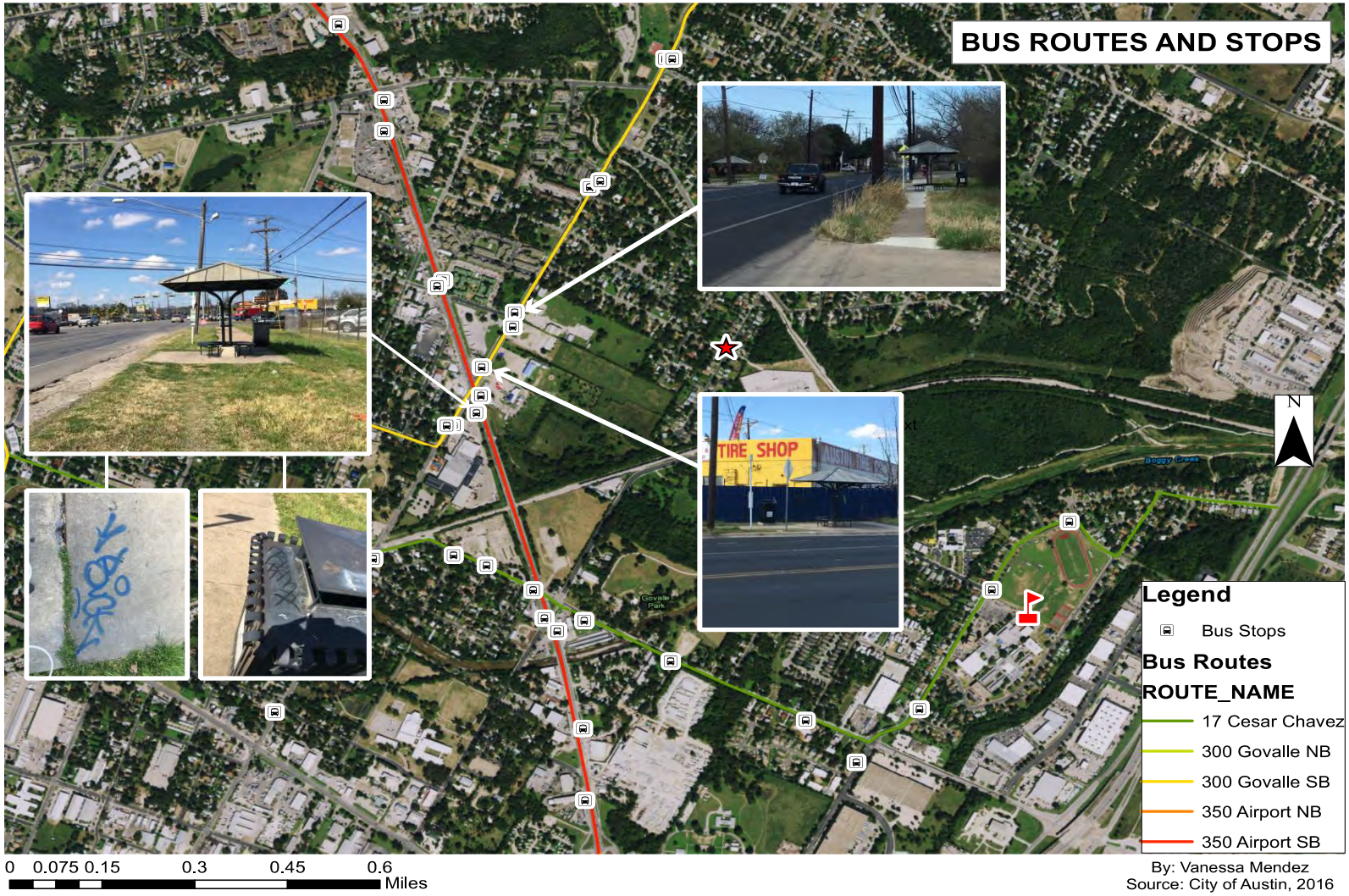

Figure 8: The Bus Routes and Stops map shows the different bus routes that either pass through my study area.

DRIVING

Taking private transportation is another alternative. The route is a quick 6-7 minute long drive, and even during peak traffic times the duration only increases a few minutes. The Driving Route map represents the route that I took (Figure 9). Neither Alf Avenue nor Springdale has a lot of traffic, expect at the intersection of Springdale and Airport where there is a wait to cross during peak hours. The intersection at Airport and Bolm requires a left turn, but Bolm Street and Garner Road have little traffic and soon I have arrived at the high school.

This research suggests that driving is the best option for students to go to school. However, low-income families usually do not have the means to afford an additional car, especially for a young teenager, which requires adults to drive them to school. Many parents work early in the morning and do not have the time to drop their children off at school. A quick 6 minute ride to school might not cause that much of a delay, but school does not start till 9 am which is when parents usually need to be at work.

Since driving students to school is the safest and fastest route to school, it would be beneficial to explore alternative driving options. For example, a car pool system could be implemented by current residents, where they could either drop students off at the nearest school bus stop or directly at school. Parents can coordinate drop off and pick up time locations and alternate carpooling duties. Another recommendation would be to initiate a walking school bus (WSB), which is a form of noninfrastructure intervention that is identified as eligible for funding under the SRTS program. A WSB consists of a group of children that is escorted by an adult to school (McDonald, 2009). McDonald states that

"WSBs range from informal agreements among neighbors to formal programs sponsored by the school or local community groups in which trained adults called *drivers* follow an assigned route and make stops at specified times" (2009, 337). This option is convenient for parents, especially for lower-income residents who may have to juggle multiple jobs or do not have access to a vehicle. Lastly, this alternative can help assure parents that their children will make it to school on time and will be safe due to the supervision of an adult the entire trip.

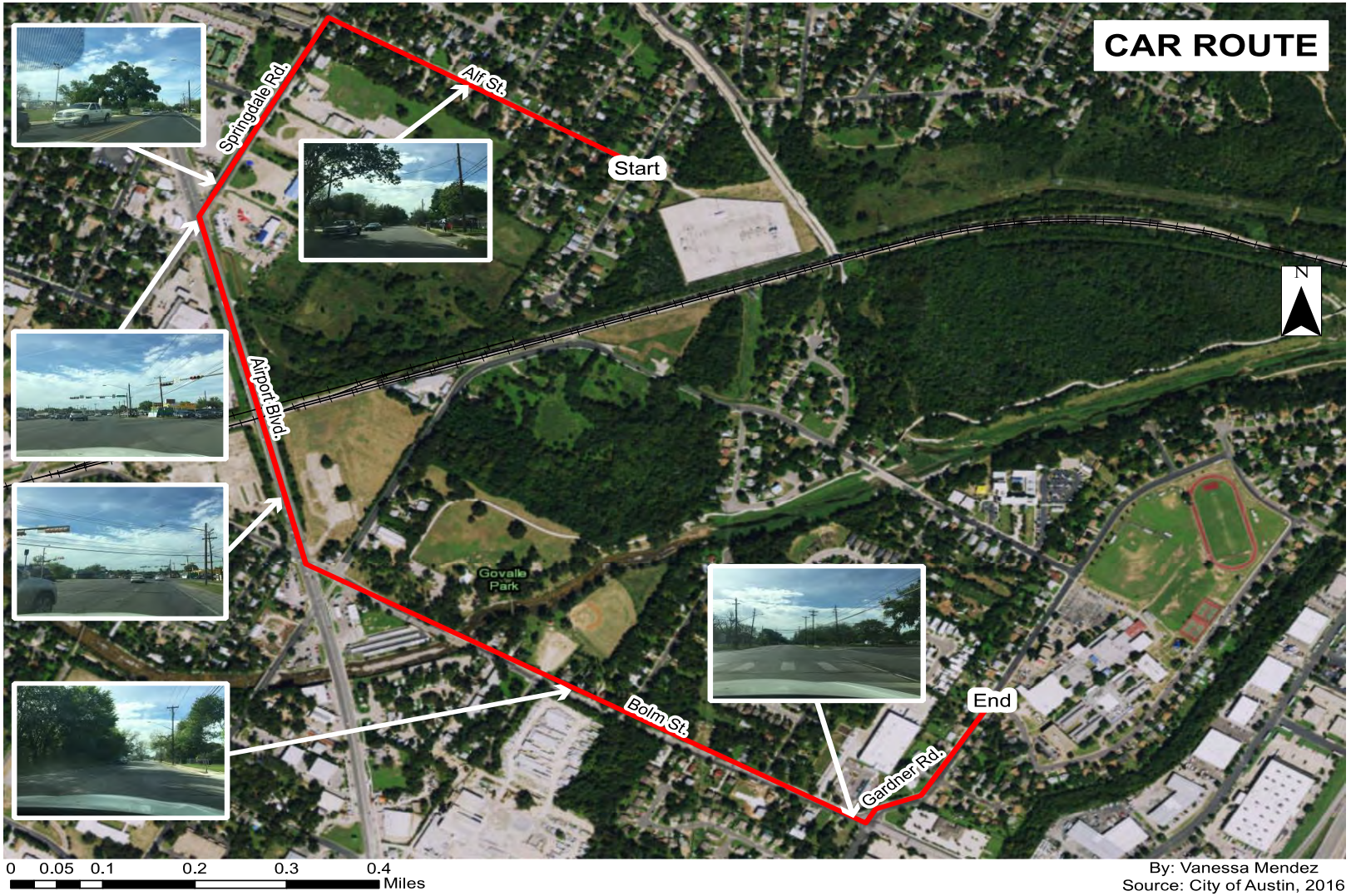

Figure 9: The Car Route map shows the shortest route to school when driving from the study area.

Ultimately, my research suggests there are few alternatives for children in the Govalle Neighborhood to get to school. Using buses is not convenient because of the distance to bus stops, walking along public streets is unsafe and takes a long time, and biking is uncomfortable, requiring the children to cross busy intersections. Biking also requires students to own a bike and gear, and it would be ideal if they were experienced bike riders. Driving is difficult, either because parents can not afford a second car or they are not free to take their children to school because of a heavy work commitment. It is therefore necessary that the City of Austin prioritize increasing connectivity within the neighborhood and creating a more pedestrian friendly environment. Second, the city should work with TxDOT to assist the neighborhood in accessing funding from the Safe Routes To School program for infrastructure improvements. Third, AISD should adjust their current standards so they can restructure their school bus routes and establish bus stops in the area in order to meet the needs of residents and avoid placing school children at risk on a daily basis. Fourth, comunication and coordination between the City of Austin should be improved so that children's needs can be properly met.

CHAPTER 5: DISCUSSION

The City of Austin has had a long history of inequality and marginalization, which has created an unequal distribution of economic resources, amenities, and infrastructure between the west and east sides of the city. Because of these structural inequalities between West and East Austin, some schools on the East side are lacking resources and are also located in low-income communities that often have poor infrastructures. Specifically, my research has examined how students enrolled at Eastside Memorial High School have created an alternative unofficial route to school due, in part, to these structural inequalities and lack of proper school transportation. I sought to document the everyday realities facing children who are forced to walk this informal trail in order to better understand the implications for youth of these disparities in infrastructure provision. I asked the following research questions:

1. How does Eastside Memorial High School compare with other high schools in terms of performance standards, amenities, and educational resources, and what are the factors that affect these performance levels, amenities, and resource availability?
2. What is the route to school created by children at Eastside Memorial High School, including how it was developed, where it is located, what are the characteristics, and how is influenced by new land development and the natural topography?
3. How does taking the route affect students' daily lives?
4. What are the alternative routes students can take and how feasible are these routes?

I answered question one by researching Eastside Memorial's educational history and the factors contributing to its current performance. The high school is under pressure to remain open by increasing student enrollment and performance. However, the high school is struggling to remain in operation due to the challenges that the surrounding neighborhoods are facing. The Govalle Neighborhood, which was the focus of this study, is under extreme gentrifying pressure, causing many long-term residents to relocate while newer and more affluent families are choosing to send their children to better performing schools.

This development has caused a large decline in the student population at Eastside, which in turn has led to cutbacks in school transportation for the remaining students. In addition, the neighborhood's history of marginalization and official neglect has produced an underserved community with poor infrastructure conditions. As I conducted my research to answer questions two and three by walking the trail and interviewing students and parents living in the Govalle Neighborhood, I learned that this decline in school transportation coupled with poor infrastructure has created a repressive environment for students. Students at Eastside Memorial are placed at a greater disadvantage when at the start of their day they must combat harsh conditions to receive a proper education, ultimately placing them at risk of dropping out and hindering their opportunities for upward mobility. How can the school district and the city expect for the school's performance to increase when their students do not have a safe route to school?

To answer research question number four, I examined the alternative routes students can take and how feasible these routes are. Students can either walk along official

streets, bike along designated bike routes, or use public or private transportation. Walking along official streets is the longest and most unsafe route for students, therefore this route is not feasible. Biking can be a healthy alternative, but the feasibility of this transportation mode is dependent on students' owning a bicycle and being experienced bike riders since they must travel through busy intersections and streets. Using the city's public transportation is impractical because the bus routes closest to the students' residence do not drop them off at school. If students wished to take the bus, they would have to both ride the bus *and* walk in order to get to school. Lastly, using private transportation is the safest and fastest alternative for students. However, this is dependent on the availability of parents to drive their children to school. The latter is especially challenging in a low-income neighborhood such as Govalle, where car ownership varies from household to household and residents' professional and personal schedules often do not permit parents to bring their children to school.

Ultimately, my research has contributed to theoretical work in public space theory, children's geographies and visceral geographies. As Hou (2010) suggests, citizens have the ability to play a distinct role in shaping the contemporary environment in defiance of official rules and regulations (2010). These students have created this alternative route, choosing to defy city rules by trespassing into private property and walking across railroad tracks. In this particular case, the children's trail illustrates Villagomez's (2010) concept of residual spaces, which he notes are usually found in lower-income areas where residents must make the most out of the surrounding space. At the same time, this trail reflect Carmona's (2010) concern for under-management, which can lead to the creation of a

"neglected spaces" that are littered, covered in graffiti, unsafe, and populated at night by homeless people, such as the trail used by children in East Austin. As to children's agency in terms of appropriating such neglected spaces, Young and Van Blerk (2013) note that children invade or reinvent spaces in response to social, economic, and governmental processes that have marginalized them and pushed them into undesirable spaces. Again, the creation of this route was in response to the continued neglect from the city, school district, and other entities.

As children navigate this trail, they are confronted with encounters and environmental risks that cause fear (Spencer and Wooley 1996). However, at the same time, Broomley and Stacey (2012) suggest that lower-income teenagers such as those who grow up in the Govalle Neighborhood are more familiar with crime. As children continually utilize the trail they become inured to the insecurities of walking the trail alone or encountering strangers. While parents continue to worry for their children, student choose to go to school no matter what the conditions are. Ultimately, my study of the informal trail to Eastside Memorial has revealed an interesting paradox. Although these students are marginalized and deprived of safe and comfortable transportation to school, this unofficial route carved through residual space constitutes an important source of empowerment.

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